



CITY *of* CLOVIS

AGENDA • PLANNING COMMISSION

Council Chamber, 1033 Fifth Street, Clovis, CA 93612 (559) 324-2060
www.cityofclovis.com

October 24, 2024

6:00 PM

Council Chamber

In compliance with the Americans with Disabilities Act, if you need special assistance to access the Planning Commission Chamber to participate at this meeting, please contact the City Clerk or General Services Director at (559) 324-2060 (TTY – 711). Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to the Council Chamber.

The Clovis Planning Commission meetings are open to the public at the physical address listed above. There are numerous ways to participate in the Planning Commission meetings: you are able to attend in person; you may submit written comments as described below; and you may view the meeting which is webcast and accessed at www.cityofclovis.com/agendas.

Written Comments

- Members of the public are encouraged to submit written comments at: www.cityofclovis.com/agendas at least two (2) hours before the meeting (4:00 p.m.). You will be prompted to provide:

- Planning Commission Meeting Date
- Item Number
- Name
- Email
- Comment



- Please submit a separate form for each item you are commenting on.
- A copy of your written comment will be provided to the Planning Commission noting the item number. If you wish to make a verbal comment, please see instructions below.
- Please be aware that any written comments received that do not specify a particular agenda item will be marked for the general public comment portion of the agenda.
- If a written comment is received after 4:00 p.m. on the day of the meeting, efforts will be made to provide the comment to the Planning Commission during the meeting. However, staff cannot guarantee that written comments received after 4:00 p.m. will be provided to Planning Commission during the meeting. All written comments received prior to the end of the meeting will be made part of the record of proceedings.

CAMPAIGN CONTRIBUTION PROHIBITIONS AND MANDATORY DISCLOSURE - Pursuant to Government Code section 84308, a Councilmember shall not accept, solicit, or direct a campaign contribution of more than \$250 from any party or their agent, or from any participant or their agent, while a proceeding involving a license, permit, contract, or other entitlement for use is pending before the City or for 12 months after a final decision is rendered in that proceeding. Any Councilmember who has received a campaign contribution of more than \$250 within the preceding 12 months from a party or their agent, or from a participant or their agent, must disclose that fact on the record of the proceeding and shall not make, participate in making, or in any way attempt to use their official position to influence the decision.

Pursuant to Government Code section 84308(e), any party to a covered proceeding before the City Council is required to disclose on the record of the proceeding any campaign contribution, including aggregated contributions, of more than \$250 made within the preceding 12 months by the party or their agent to any Councilmember. The disclosure shall be made as required by Government Code Section 84308(e)(1) and 2 CCR Section 18438.8. No party or their agent, and no participant or their agent, shall make a campaign contribution of more than \$250 to any Councilmember during the covered proceeding or for 12 months after a final decision is made in that proceeding. The foregoing statements do not constitute legal advice, and parties and participants are urged to consult with their own legal counsel regarding the applicable requirements of the law.

CALL TO ORDER

FLAG SALUTE

ROLL CALL

APPROVAL OF MINUTES

1. Planning Commission Minutes for the Special Meeting of October 4, 2024.

COMMISSION SECRETARY COMMENTS

PLANNING COMMISSION MEMBER COMMENTS

PUBLIC COMMENTS - This is an opportunity for the members of the public to address the Planning Commission on any matter within the Planning Commission's jurisdiction that is not listed on the Agenda. In order for everyone to be heard, please limit your comments to 3 minutes or less, or 10 minutes per topic. Anyone wishing to be placed on the Agenda for a specific topic should contact the Planning Division and submit correspondence at least 10 days before the desired date of appearance.

PUBLIC HEARINGS - A public hearing is an open consideration within a regular or special meeting of the Planning Commission, for which special notice has been given and may be required. When a public hearing is continued, noticing of the adjourned item is required as per Government Code 54955.1.

2. Consider Approval - Res. 24-____, CUP2024-006, Adopting a Class 32 Categorical Exemption from further environmental review under CEQA and a request to approve a conditional use permit to amend the Mountain View Shopping Center Planned Commercial Center Use Schedule to allow office uses at 1860 - 1880 Shaw Avenue. Cristen Martin, applicant; Thomas Richards, owner.

Staff: Marissa Jensen, Assistant Planner

Recommendation: Approve

3. Consider Approval - Res. 24-____, CUP2024-010, Adopting a Class 32 Categorical Exemption from further environmental review under CEQA and to approve a conditional use permit to allow the operation of an adult daycare center within an existing building at 100 W. Ashlan Avenue. Jami De La Cerda, applicant and owner.

Staff: Marissa Jensen, Assistant Planner

Recommendation: Approve

4. Consider Approval - Res. 24-____, CUP2024-007, Adopting a Class 1 Categorical Exemption from further environmental review under CEQA and to approve a conditional use permit to allow operation of a tattoo parlor (body art establishment) within an existing commercial center at 711 W. Shaw Avenue, Suite 111. Lotus Body Art, applicant; Western Village Inc., owner.

Staff: Liz Salazar, Assistant Planner

Recommendation: Approve

5. Consider items associated with approximately 18 acres of land located at the northeast corner of N. Baron and Perrin Avenues. Frances Ricchiuti and Patrick V. Ricchiuti, owners; Lennar Homes, applicant; Yamabe & Horn Engineering Inc., representative.
Consider Approval, Res. 24-____, A resolution recommending the City Council adopt an environmental finding of a Mitigated Negative Declaration and a Mitigation Monitoring and Reporting Program for Vesting Tentative Tract Map 6452 and Planned Development Permit 2023-001.

Consider Approval, Res. 24-____, TM6452, A resolution recommending the City Council approve of a vesting tentative tract map for a 153-lot single-family planned residential development on approximately 18 acres of land.

Consider Approval, Res. 24-____, PDP2023-001, A resolution recommending that the City Council approve a request to approve a planned development permit for a 153-lot single-family residential development.

Staff: Liz Salazar, Assistant Planner

Recommendation: Approve

6. Consider items associated with approximately 33 acres of land located at the northwest corner of Sierra and N. Clovis Avenues. Blanchimont Corner LLC et al., owners; Legacy Realty and Development, applicant; Roger Hurtado, representative.

a) Consider Adoption, Res. 24-____, A resolution recommending that the City Council adopt an environmental finding of a Mitigated Negative Declaration and a Mitigation Monitoring and Reporting Program for P-C-C Amendment R2024-004.

b) Consider Approval Res. 24-____, R2024-004, A resolution recommending that the City Council approve P-C-C Amendment R2024-004, amending the development standard and preliminary development plan for the Tuscan Village Planned Commercial Center.

Staff: Lily Cha, Senior Planner

Recommendation: Approve

ADMINISTRATIVE ITEMS - Administrative Items are matters on the regular Planning Commission Agenda other than Public Hearings.

ADJOURNMENT

MEETINGS & KEY ISSUES

Regular Planning Commission Meetings are held at 6 P.M. in the Council Chamber. The following are future meeting dates:

November 21

December 19

CLOVIS PLANNING COMMISSION MINUTES

October 03, 2024

A special meeting of the Clovis Planning Commission was called to order at 4:00 p.m. by Commissioner Bedsted in the Clovis Council Chamber.

Flag salute led by Commissioner Hinkle

Present: Commissioners Bedsted, Hinkle, Hatcher

Absent: Commissioner Hebert, Chair Antuna

Staff: Renee Mathis, PDS Director
 Dave Merchen, City Planner
 George Gonzalez, Senior Planner
 Lily Cha-Haydostian, Senior Planner
 Joyce Roach, Planning Technician II
 Eric Garcia, Planning Technician I
 Sarai Yanovsky, Civil Engineer
 Aaron La Mattina, Staff Analyst
 Chad McCollum, Economic Development Housing & Communications Director
 Claudia Cazares, Housing Program Manager
 Holly Greathouse, Staff Analyst
 Matt Lear, City Attorney
 Chelsey Payne, Ascent Environmental

MINUTES – 4:01

ITEM 1 – APPROVED.

Motion by Commissioner Hinkle, seconded by Commissioner Hatcher to approve the August 22, 2024, minutes. Motion carried 3-0-2 with Commissioner Hebert and Chair Antuna absent.

COMMISSION SECRETARY – 4:02

None.

PLANNING COMMISSION MEMBERS COMMENTS – 4:02

None.

PUBLIC COMMENTS – 4:02

None.

PUBLIC HEARINGS

ITEM 1 - 4:03 – APPROVED – **RES. 24-27, GPA2024-005**, A RESOLUTION RECOMMENDING THAT THE CITY COUNCIL CONSIDER AN ADDENDUM TO THE CITY'S GENERAL PLAN ENVIRONMENTAL IMPACT REPORT, APPROVE GENERAL PLAN AMENDMENT 2024-005 FOR THE ADOPTION OF THE CITY OF CLOVIS SIXTH CYCLE HOUSING ELEMENT, AND AUTHORIZE STAFF TO SUBMIT THE HOUSING ELEMENT TO THE CALIFORNIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT.

Motion by Commissioner Hatcher, seconded by Commissioner Hinkle, for the Planning Commission to approve **Resolution 24-27**, a resolution recommending that the City Council consider an addendum to the City's General Plan Environmental Impact Report, approve General Plan Amendment 2024-005 for the adoption of the City of Clovis Sixth Cycle Housing Element, and authorize staff to submit the Housing Element to the California Department of Housing and Community Development. Motion carried 3-0-2 with Commissioner Hebert and Chair Antuna absent.

ADJOURNMENT AT 4:32 P.M. UNTIL the Planning Commission meeting on October 24, 2024.

Alma Antuna, Chairperson



CITY of CLOVIS

REPORT TO THE PLANNING COMMISSION

TO: Clovis Planning Commission

FROM: Planning and Development Services

DATE: October 24, 2024

SUBJECT: Consider Approval - Res. 24-____, CUP2024-006, Adopting a Class 32 Categorical Exemption from further environmental review under CEQA and a request to approve a conditional use permit to amend the Mountain View Shopping Center Planned Commercial Center Use Schedule to allow office uses at 1860 - 1880 Shaw Avenue. Cristen Martin, applicant; Thomas Richards, owner.

Staff: Marissa Jensen, Assistant Planner

Recommendation: Approve

ATTACHMENTS:

1. Res. 24-____, CUP2024-006
2. Conceptual Site Plan, Floor Plans & Elevations
3. Applicant's Operational Statement
4. P-C-C Use Schedule & Sign Program
5. Correspondence from Commenting Agencies

RECOMMENDATION

Staff recommends that the Planning Commission adopt a resolution exempting the project from further environmental review pursuant to California Environmental Quality Act ("CEQA") Guidelines section 15332, a Class 32 Categorical Exemption, and approving Conditional Use Permit (CUP) 2024-006.

EXECUTIVE SUMMARY

As shown in **Figure 1** below, the applicant is requesting approval of CUP2024-006 to amend the Mountain View Shopping Center Planned Commercial Center (P-C-C) use schedule to allow office uses at 1860-1880 Shaw Avenue ("Project"). Approval of this request would allow the applicant to proceed with a site plan review (SPR) for the development of four (4) multi-suite office buildings. Although the SPR process is reviewed administratively at the staff level, a conceptual site plan has been provided in **Attachment 2** for informational purposes.

FIGURE 1 Project Location



BACKGROUND

- General Plan Designation: G-C (General Commercial)
- Existing Zoning: P-C-C (Community Commercial)
- Lot Size: ±3.19 acres
- Current Land Use: Vacant
- Adjacent Land Uses:
 - North: Commercial
 - South: Single-Family Residential
 - East: Multi-Family Residential
 - West: Commercial
- Previous Entitlements: GPA94-04
Rezone 89-19, A - A5;
SPR94-14, A

The Mountain View Shopping Center was originally developed in the early 1990s as a Planned Commercial Center (P-C-C) development project. The P-C-C allows a developer to restrict uses and modify development standards, if approved by the City Council. As established with the P-C-C, any amendments to the use schedule require approval by the Planning Commission. (CMC § 9.76.010, subd. (E).) In this instance, the applicant is requesting to modify the use schedule to allow office uses for the subject portion of the overall center (**Attachment 4**).

Although the center has existed for over thirty (30) years, the project site has never developed and remained vacant. Per the current use schedule for the P-C-C, this portion of the center allows for a major retail building and two (2) smaller retail shops.

PROPOSAL AND ANALYSIS

The applicant is requesting approval of this CUP to amend the Mountain View Shopping Center P-C-C use schedule to allow office uses. The applicant is seeking this change to the use schedule for the development of office buildings at the subject location. A conceptual layout including four (4) multi-suite office buildings is provided in **Attachment 2**. The established use schedule (**Attachment 4**) for the Mountain View Shopping Center P-C-C does not permit office uses at the proposed location. Therefore, the use schedule must be modified for this Project to move forward. If approved, CUP2024-006 will add office uses to the use schedule for Mountain View Shopping Center, in the subject area.

Existing Site and Surrounding Area

The Project site is ±3.19 acres located at the southeast corner of the mostly developed Mountain View Shopping Center, which is located at the southeast corner of Shaw and Fowler Avenues. The Project site is surrounded by commercial uses to the north, and west, and single-family residences are located to the south of the project site. To the east of the site, multi-family residences exist. The development will be designed to reflect the architectural character prescribed for the Mountain View Shopping Center through the P-C-C development standards by utilizing typical materials, colors, and building forms consistent with the existing center.

Project Operations

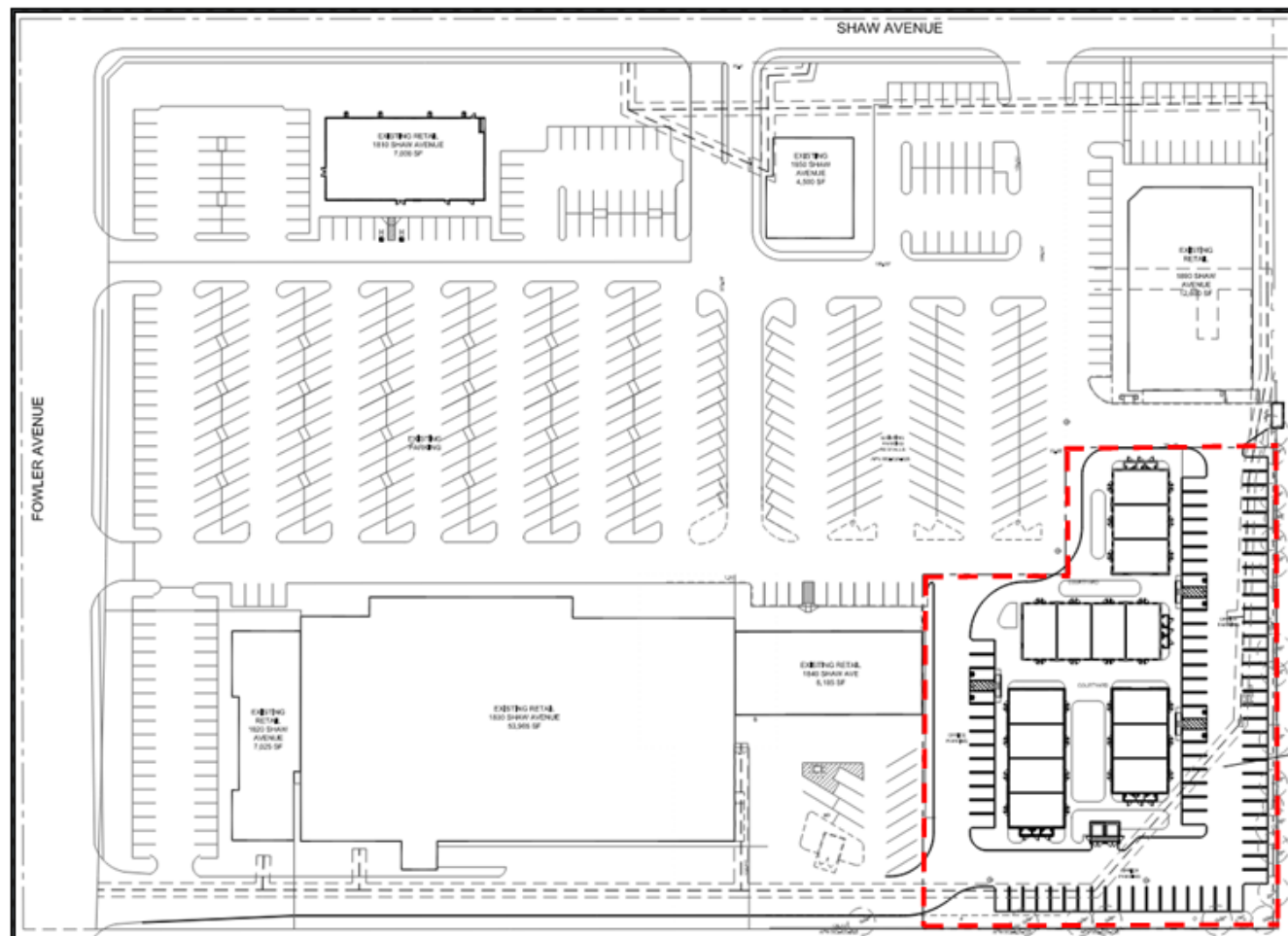
Per the applicant's operational statement (see **Attachment 3**), the buildings will consist of suites ranging from 250 square feet to 1,000 square feet or more. The proposed flex offices are intended for business professionals in need of office space through lease. Specific users within the office buildings must be also in compliance with the Mountain View Shopping Center P-C-C use schedule. As listed in the P-C-C use schedule, permitted uses for the office phase may be administrative, business, general, medical, and professional offices. Small retail uses may be allowed. The applicant anticipates the hours of operation to be 7 a.m. to 7 p.m., with a maximum of 14 suites.

Proposed Site Layout

Figure 2 showcases the proposed site layout, which includes the four (4) multi-suite office buildings and associated site improvements. The applicant is proposing four buildings in the southeastern area of the center that will range in size from ±3,335 to ±4,370 square feet. Each building will have multiple suites with sizes ranging from 250 to 1,000 or more square feet. Additional site improvements proposed are typical of commercial centers, including, but not limited to, drive aisles, parking stalls, landscaping, and a trash enclosure. The site layout

demonstrates access, circulation, and parking. Additional details regarding these items are provided below.

FIGURE 2 Proposed Site Layout



 Project Location



Access, Circulation & Parking

The center has adequate existing circulation and parking. The site is accessible via multiple driveways, with the nearest point of access from Shaw Avenue to the proposed office buildings. There are a total of five (5) access driveways into the center, two (2) from Shaw Avenue, and three from Fowler Avenue.

Parking is calculated cumulatively within the Mountain View Shopping Center with a required parking ratio of 4.7 vehicle stalls per 1,000 square feet. The center currently requires 480 parking stalls and provides 552 parking stalls. With the proposed office buildings, the center will require a total of 510 parking stalls, the applicant is providing 81 additional parking stalls resulting in a total of 633 parking stalls, exceeding the required number of stalls. The proposed development will be reviewed during the SPR process.

Architecture and Signage

At the time of establishment, the P-C-C did not provide architectural guidelines. The architecture of the proposed office buildings should be consistent with the existing buildings within the Mountain View Shopping Center P-C-C. The development should reflect the developed architectural pattern and design of the P-C-C. This design generally comprises of a western style, and features wood siding and stone. The exact nature of building façade, form, and color will be identified during the SPR process.

In 2017, Rezone 89-19A5 was approved by the Council to update the sign program for the P-C-C. All signs for the proposed office buildings must be in compliance with the guidelines prescribed in the sign program (**Attachment 4**). Signage will be reviewed separately through the City's sign review process.

Compatibility With Surrounding Uses

As mentioned above, the project site was originally developed in the early 1990s. At the time the P-C-C was established, the uses designated for the center were primarily commercial and retail. In the subject site, the P-C-C allowed for a major retail building and two (2) smaller retail shops, totaling ±28,000 square feet. The applicant is proposing a modification to the P-C-C to allow office use in this area. The applicant's proposal consists of ±15,410 square feet of office space. Although most of this center currently consists of commercial and retail, office uses are common along the Shaw Avenue Corridor. Office uses are permitted by right and commonly found in the C-2 (Community Commercial) Zone District. The proposed office uses will be small-scale and have the potential to be less intrusive to the surrounding residential uses, as offices typically attract less vehicle traffic than major retail establishments.

Mountain View Shopping Center Planned Commercial Center

The proposed modification does not substantially differ from the established P-C-C Preliminary Development Plan in regard to site layout and building area. Furthermore, the proposed modifications are not amending the master site plan or the overall site configuration for the shopping center. Office uses are permitted by right in all traditional commercial zone districts and are commonly found in other P-C-Cs within the City. The original building area for the subject site was ±28,000 square feet, and the proposed building area for the office area is ±15,410 square feet. Reducing building area is not considered a major amendment. Additionally, the proposed Project is not altering circulation, thereby remaining consistent with the original site layout.

The P-C-C Use Schedule has been updated to reflect the proposed modifications (**Attachment 4**). As mentioned previously, the Project site was originally designated for a major retail building and two smaller retail shops. The updates include clarification that, if approved, Major Retail Building B will be replaced with the proposed Project. The site layout was also modified to include identification of the buildings in the use schedule. Additionally, minor changes were made throughout the document for clarification purposes.

Review and Comments by Agencies

The Project was distributed to all City Divisions as well as outside agencies, including Caltrans, Clovis Unified School District, Fresno Irrigation District, Fresno Metropolitan Flood Control District, AT&T, PG&E, and the San Joaquin Valley Air Pollution Control District.

Comments received are attached (**Attachment 5**) only if the agency has provided concerns, conditions, or mitigation measures. Routine responses and comment letters are placed in the administrative record and provided to the applicant for their records.

Public Comments

The City published notice of this public hearing in *The Business Journal* on Wednesday, October 9, 2024. A public notice was also sent to property owners within a minimum of 300 feet of the Project site boundaries. Staff have not received any inquiries prior to the finalization of the staff report.

California Environmental Quality Act (CEQA)

The City has determined that this Project is exempt from CEQA pursuant to CEQA Guidelines section 15332 (Class 32 – In-Fill Development Projects) and that the exceptions identified under Section 15300.2 of the CEQA Guidelines would not be triggered as a result of the Project.

The Class 32 categorical exemption exempts in-fill development projects that: (a) are consistent with the applicable land use designation, General Plan policies, and zoning; (b) are within city limits on a project site of no more than five (5) acres substantially surrounded by urban uses; (c) are located on sites with no value as habitat for endangered, rare, or threatened species; (d) would not result in significant effects relating to traffic, noise, air quality, and water quality; and (e) is located on a site that can be adequately served by all utilities. Based on staff's review of the Project, the Project meets the parameters for a Class 32 categorical exemption. (Cal. Code Regs., Tit. 14, § 15332.)

The exceptions identified in Section 15300.2 identify further review of a categorical exemption by the Project's potential to result in a cumulative impact, significant effect, or proximity to a scenic highway, location on or within the vicinity of a hazardous waste site, and/or the potential to negatively impact a historical resource. Based on staff's review, these exceptions would not be triggered by the proposed Project. Therefore, a Notice of Exemption has been prepared and Staff will file the notice with the County Clerk if the Project is approved.

REASON FOR RECOMMENDATION

The Project is consistent with the goals and policies of the General Plan, and the Clovis Municipal Code. Based on the following findings, staff is recommending that the Planning Commission adopt a resolution approving CUP2024-006 to amend the Mountain View Shopping Center P-C-C Use Schedule to add office uses as an allowed use in the proposed location.

Conditional Use Permit 2024-006

The findings required to approve a CUP application are as follows (CMC § 9.64.050, subd. (C):

1. The proposed use is conditionally allowed within, and would not impair the integrity and character of, the subject zoning district and is in compliance with all of the applicable provisions of the Development Code.

The proposed office use is currently not allowed within the Mountain View Shopping Center, however, this CUP proposes to modify the P-C-C use schedule to add office uses. Office uses are allowed within traditional commercial zone districts. Therefore, the inclusion of office uses to the P-C-C will not impair the integrity of the center. The Project will be in compliance with applicable provisions and development standards of the Zone District and will be subject to the conditions of approval. As the Project is located within the Mountain View Shopping Center, the applicant will be required to emulate the architecture and form of the existing buildings within the center with the proposed elevations. Staff will work with the applicant to establish a design that meets the characteristics and design of the P-C-C. Therefore, the addition of this Project would not impair the characteristics of the center. This Project will undergo site plan review (SPR) to further ensure that the site layout and development standards are met. During the SPR review, the height, setbacks, parking standards, and aesthetics will be reviewed to ensure that applicable standards are met.

2. The proposed use is consistent with the General Plan and any applicable Specific Plan.

This Project is consistent with the 2014 Clovis General Plan. The underlying General Plan land use designation of General Commercial would remain unchanged, and the proposed use is acceptable within the underlying General Plan land use designation of General Commercial, according to the 2014 Clovis General Plan.

3. The design, location, size, and operating characteristics of the proposed use are compatible with the existing and future land uses and would not create significant noise, traffic, or other conditions or situations that may be objectionable or detrimental to other allowed uses operating nearby or adverse to the public interest, health, safety, convenience, or welfare of the City.

The Project is compatible with the existing uses and will complement the surrounding commercial and office uses within the general vicinity. The Project will provide flex office space available via short-term lease. The office use is compatible with the existing commercial and office nature of the center and surrounding area. Further, the Project will maintain the general circulation pattern existing for the site by retaining primary ingress/egress from Shaw and Fowler Avenues.

4. The subject parcel is physically suitable in size and shape for the type and density/intensity of use being proposed.

The proposed development has undergone scrutiny through the City's preliminary application process (Development Review Committee), confirming the site's physical suitability for accommodating the proposed project. More formally, a thorough review and routing of the application, determined the Project will occupy and operate within the existing site that is physically suitable in size, and has the infrastructure in place to support it. The Project will be required to comply with all conditions from Public Utilities and Engineering, which will further ensure the site is suitable for the proposed use. Site-specific details will be evaluated through the SPR process.

5. There are adequate provisions for public access, water, sanitation, and public utilities and services to ensure that the proposed use would not be detrimental to public health and safety.

*As mentioned above, the Project has been reviewed twice, once preliminarily through the Development Review Committee, and again through the formal routing and review of the project, which confirmed that there are adequate provisions in place to serve the property that would not be detrimental to public health or safety. **Attachment 2** presents a conceptual depiction of the proposed development. Further evaluation will occur through the SPR process to ensure compliance with all development standards. While minor adjustments to the site plan and elevations may be necessary during this review, they are not anticipated to impede the developability of the site itself.*

6. The proposed Project has been reviewed in compliance with the provisions of the California Environmental Quality Act (CEQA) and there would be no potential significant negative effects upon environmental quality and natural resources that would not be properly mitigated and monitored, unless findings are made in compliance with CEQA.

As identified above under the California Environmental Quality Act heading of this staff report, the Project was determined to be exempt from further environmental review pursuant to CEQA Guidelines section 15332. Therefore, the Project has been reviewed in compliance with CEQA.

ACTIONS FOLLOWING APPROVAL

If approved, the Project will continue with a SPR, and staff will file a Notice of Exemption with the County Clerk.

NOTICE OF HEARING

Property owners within 300 feet notified: 32

CONFLICT OF INTEREST

None.

Prepared by: Marissa Jensen, Assistant Planner

Reviewed by: Interim Deputy City Planner, George González

A handwritten signature in blue ink, appearing to be "G. Gonzalez", is placed over the name of the reviewer.

RESOLUTION 24-_____

**RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS ADOPTING A
CLASS 32 CATEGORICAL EXEMPTION FROM FURTHER ENVIRONMENTAL REVIEW
UNDER CEQA, AND APPROVING CONDITIONAL USE PERMIT 2024-006 TO AMEND THE
MOUNTAIN VIEW SHOPPING CENTER PLANNED COMMERCIAL CENTER USE
SCHEDULE TO ALLOW OFFICE USES AT 1860-1880 SHAW AVENUE**

WHEREAS, Cristen Martin, (“Applicant”), 3911 North Blattella Lane, Fresno, CA, 93727, applied for Conditional Use Permit (CUP) 2024-006 to amend the Mountain View Shopping Center P-C-C use schedule to allow office uses at 1860-1880 Shaw Avenue in the City of Clovis (“Project”); and

WHEREAS, the City published notice of the public hearing in the Fresno Business Journal on Wednesday, October 9, 2024, mailed public notices to property owners within 300 feet of the Project site more than ten (10) days prior to the Planning Commission hearing, and otherwise posted notice of the public hearing according to applicable law; and

WHEREAS, a duly noticed public hearing was held on October 24, 2024; and

WHEREAS, the Planning Commission considered the California Environmental Quality Act (“CEQA”) analysis outlined in the staff report and elsewhere in the Administrative Record which determined the Project meets the requirements of a Class 32 (In-Fill Development Projects) Categorical Exemption pursuant to CEQA Guidelines section 15332; and

WHEREAS, the Planning Commission has had an opportunity to review and consider the entire administrative record relating to the Project, which is on file with the Department, and reviewed and considered those portions of the administrative record determined to be necessary to make an informed decision, including, but not necessarily limited to, the staff report, the written materials submitted with the request, and the verbal and written testimony and other evidence presented during the public hearing, and the conditions of approval attached hereto as **Attachment A** to this Resolution, which are incorporated herein by this reference (“Administrative Record”).

**NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS,
THE PLANNING COMMISSION RESOLVES AND FINDS AS FOLLOWS:**

1. The Planning Commission finds that the Project is categorically exempt from further environmental review under CEQA pursuant to CEQA Guidelines section 15332, and hereby adopts a Class 32 (In-Fill Development Projects) Categorical Exemption.
2. The Project satisfies the required findings for approval of a CUP, as follows:
 - a. The proposed use is conditionally allowed within, and would not impair the integrity and character of, the subject zoning district and is in compliance with all of the applicable provisions of the City’s Development Code.
 - b. The proposed use is consistent with the General Plan and any applicable specific plan.

- c. The design, location, size, and operating characteristics of the proposed use are compatible with the existing and future land uses and would not create significant noise, traffic, or other conditions or situations that may be objectionable or detrimental to other allowed uses operating nearby or adverse to the public interest, health, safety, convenience, or welfare of the City.
 - d. There are adequate provisions for public access, water, sanitation, and public utilities and services to ensure that the proposed use would not be detrimental to public health and safety.
 - e. The subject parcel is physically suitable in size and shape for the type and density/intensity of use being proposed.
 - f. The proposed Project has been reviewed in compliance with the provisions of the CEQA.
3. The Planning Commission could not make the findings necessary for approval of CUP2024-006 without the conditions of approval set forth in **Attachment A** to this Resolution.
 4. The bases for the findings are detailed in the October 24, 2024, staff report, the entire Administrative Record, as well as the evidence and comments presented during the public hearing which are hereby incorporated by reference.
 5. CUP2024-006 is hereby approved with incorporation of the conditions of approval (**Attachment A** to this Resolution).

* * * * *

The foregoing resolution was adopted by the Clovis Planning Commission at its regular meeting on October 24, 2024, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

PLANNING COMMISSION RESOLUTION NO. 24-____
DATED: October 24, 2024

Alma Antuna, Chair

ATTEST: _____
Renee Mathis, Secretary

**CONDITIONS OF APPROVAL
CUP2024-006**

**PLANNING DIVISION CONDITIONS
(Marissa Jensen, Division Representative – (559) 324-2338)**

1. This conditional use permit approval allows the applicant to amend the Mountain View Shopping Center Planned Commercial Center Use Schedule to allow office uses at 1860 -1880 Shaw Avenue.
2. A separate site plan review (SPR) and approval shall be required prior to the construction of any structures and/or prior to any site modifications and shall comply with development standards prescribed for the G-C (General Commercial) land use designation, Mountain View Planned Commercial Center (P-C-C) zone district, and other applicable standards as determined by the Planning Division during the SPR review process.
3. The site and its exterior shall remain maintained and free from debris and trash. This includes no outdoor stacking of empty crates, boxes, and/or pallets along the exterior of the structures.
4. There shall be no outside storage of materials, supplies, or equipment in any area of the site except inside a closed building or behind a six (6'-0") foot visual barrier intended to screen such area from view of adjoining properties and from the street.
5. All lighting associated with this use shall be screened from direct view from the public right-of-way and adjacent residential properties.
6. The applicant shall make provisions for refuse service in an approved refuse container(s) on the subject property.
7. The applicant shall operate in a manner that complies with the Clovis Municipal Code so that it does not generate noise, odor, or vibration that adversely affects any adjacent properties.
8. Operational noise from the Project shall conform with the Clovis General Plan noise standards and not be in excess of 65 decibels to the outside of any residential structure nor 45 decibels to the interior of any structure.
9. There shall be no public address (PA) system, phone ringing, or music system used that may be heard on the exterior of the building/ facility.
10. The applicant shall consult with the City of Clovis Building Division on any building code requirements. All conditions of this Conditional Use Permit shall be addressed prior to operation of the facility.
11. All parking of employees shall occur on-site.

12. Parking was established for this center at a rate of 4.7 stalls per 1,000 sq. ft. of gross floor area. Future development shall meet the established parking requirements.
13. The center must provide irrevocable offers for reciprocal access and parking for all parcels within the center as defined above and shall record the agreements per Engineering Division's requirements.
14. Businesses must have on file a current City of Clovis Business License prior to conducting business.

POLICE DEPARTMENT COMMENTS

(Michael Sweeten, Police Department Representative – (559) 324-3494)
(Sean O'Brien, Police Department Representative – (559) 324-3468)

15. Security cameras shall be installed to cover at a minimum the lobby, common areas, entrance and exits, and parking lots. The video shall be retained for a minimum period of 30 days. Video shall be made available to Clovis PD upon request in conjunction with a criminal investigation.
16. The sidewalks and parking lots shall be reasonably illuminated to enhance public safety and deter criminal activity. The lighting shall be shielded in a manner to that it does not create a nuisance for neighboring properties.
17. The property must be maintained and cared for in a manner that increases public safety and complies with the Clovis Municipal Code and all other applicable City codes. All lighting, gates and fences shall be maintained and in working order, and landscaping shall be kept clean and free of debris and other hazards.
18. The name and telephone number of a 24-hour emergency contact person(s) shall be provided to Clovis PD and shall be updated regularly.
19. If the property is alarmed, 24-hour contact information for the responsible party shall be maintained with the Clovis Police Department Dispatch Center.
20. The site owner shall maintain all structures and adjoining fences/walls and keep them free of graffiti. All forms of graffiti shall be removed within 48 hours.
21. The property shall keep the noise and vibration levels emitting from the property in compliance with Clovis Municipal Codes 5.27.605 (decibel standards), 9.22.080 (noise standards), and 9.22.100 (vibrations), as to not cause a nuisance for neighboring residences, businesses, or patrons.

COUNTY OF FRESNO HEALTH DEPARTMENT

(Kevin Tsuda, County of Fresno Health Representative – (559) 600-3271)

22. The applicant shall refer to the attached Fresno County Health Department correspondence. If the list is not attached, please contact the agency for the list of requirements.

FRESNO METROPOLITAN FLOOD CONTROL DISTRICT

(Antony Zaragoza, FMFCD Department Representative – (559) 456-3292)

23. The applicant shall refer to the attached Fresno Metropolitan Flood Control District correspondence. If the list is not attached, please contact the District for the list of requirements.

FRESNO IRRIGATION DISTRICT

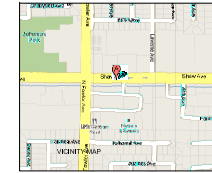
(Chris Lundeen, FID Department Representative – (559) 233-7161)

24. The applicant shall refer to the attached Fresno Irrigation District correspondence. If the list is not attached, please contact the District for the list of requirements.

SAN JOAQUIN AIR POLLUTION CONTROL DISTRICT

(Ryan Grossman, SJVAPCD Department Representative – (559) 230-6569)

25. The applicant shall refer to the attached SJVAPCD correspondence. If the list is not attached, please contact the District for the list of requirements.



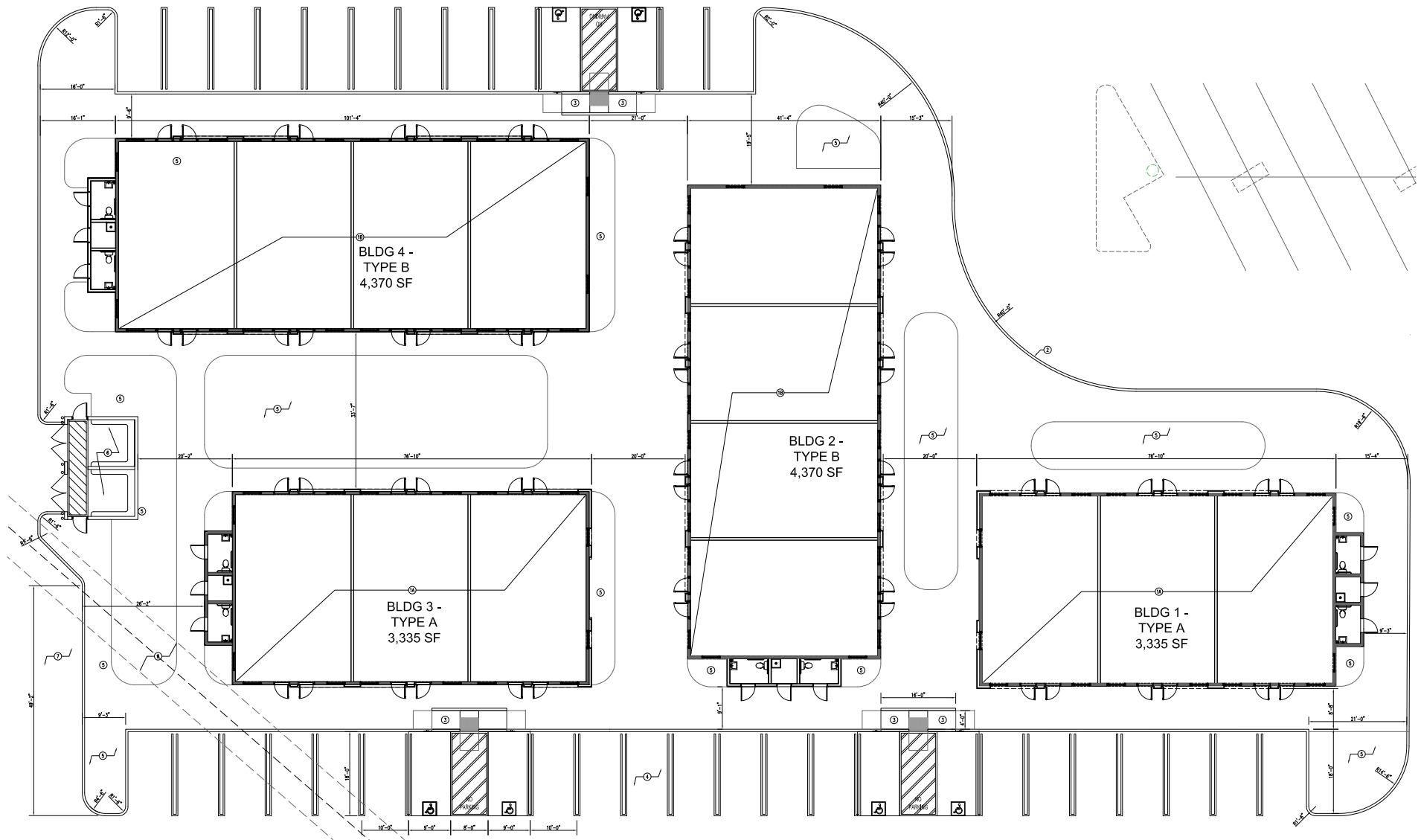
VICINITY MAP

EXISTING BUILDINGS G.L.A.
 1810 SHAW AVENUE: 7,000 SF
 1820 SHAW AVENUE: 7,000 SF
 1830 SHAW AVENUE: 53,900 SF
 1840 SHAW AVENUE: 8,100 SF
 1850 SHAW AVENUE: 4,500 SF
 1860 SHAW AVENUE: 7,000 SF
 SUBTOTAL: 93,275 SF

PROPOSED 1870 SHAW AVENUE
 2 X OFFICE BLDGS AT 4,375 GSF
 2 X OFFICE BLDGS AT 4,375 GSF
 TOTAL BLDG AREA = 15,410 GSF
 TOTAL SITE AREA = 76,760 GSF
 SITE COVERAGE = 19.3%
 TOTAL PARKING = 88 STALLS
 PARKING RATIO = 5.7/1000 SF

PROJECT SITE, SEE A-1.1 FOR MORE INFORMATION



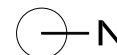


KEY NOTES

- ① (N) FLEX BUILDING
- ② BUILDING TYPE A (SEE A-2.1 FOR MORE INFO)
- ③ BUILDING TYPE B (SEE A-2.2 FOR MORE INFO)
- ④ (N) 6" CURB (TYP.)
- ⑤ (N) ACCESSIBLE RAMP
- ⑥ (N) PARKING SPACE (TYP.)
- ⑦ (N) LANDSCAPING
- ⑧ (N) TRUCK ENCLOSURE
- ⑨ (N) LOADING ZONE
- ⑩ (N) PDE EXEMPT

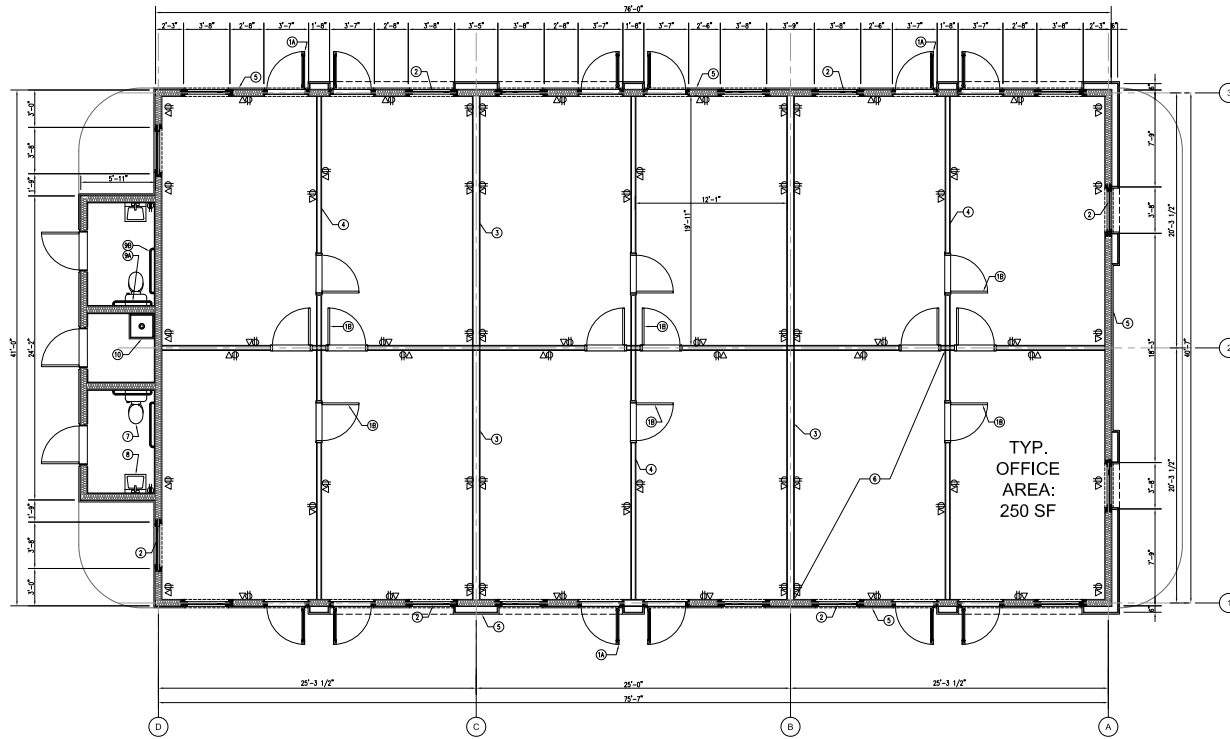
SCHEMATIC PACKAGE
FLEX BUSINESS BUILDINGS
 1870 SHAW AVENUE CLOVIS, CA

SITE PLAN
 7-17-2024 SCALE 1/8"=1'



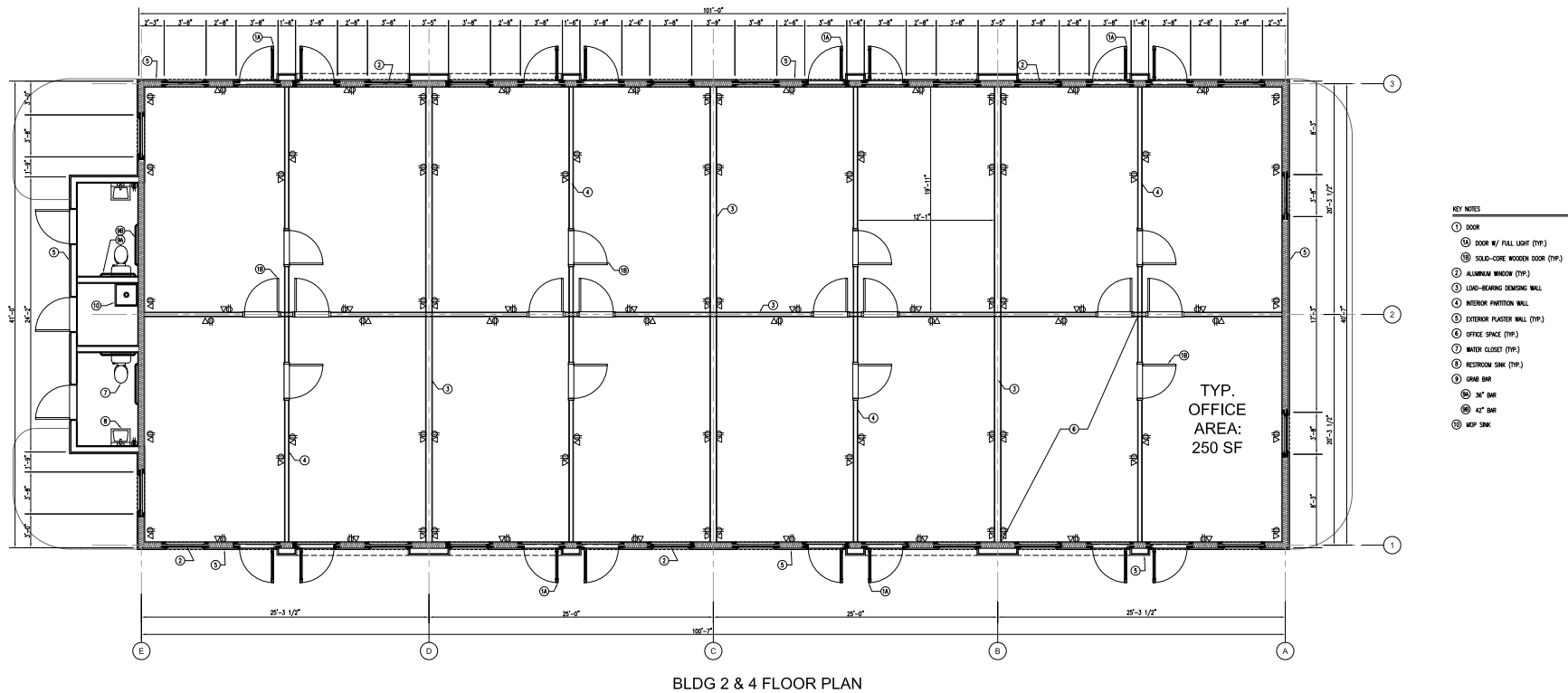
SCOTT BECK ARCHITECT
 10474 SANTA MONICA BOULEVARD SUITE 300
 LOS ANGELES, CA 90025 (424) 273-4545

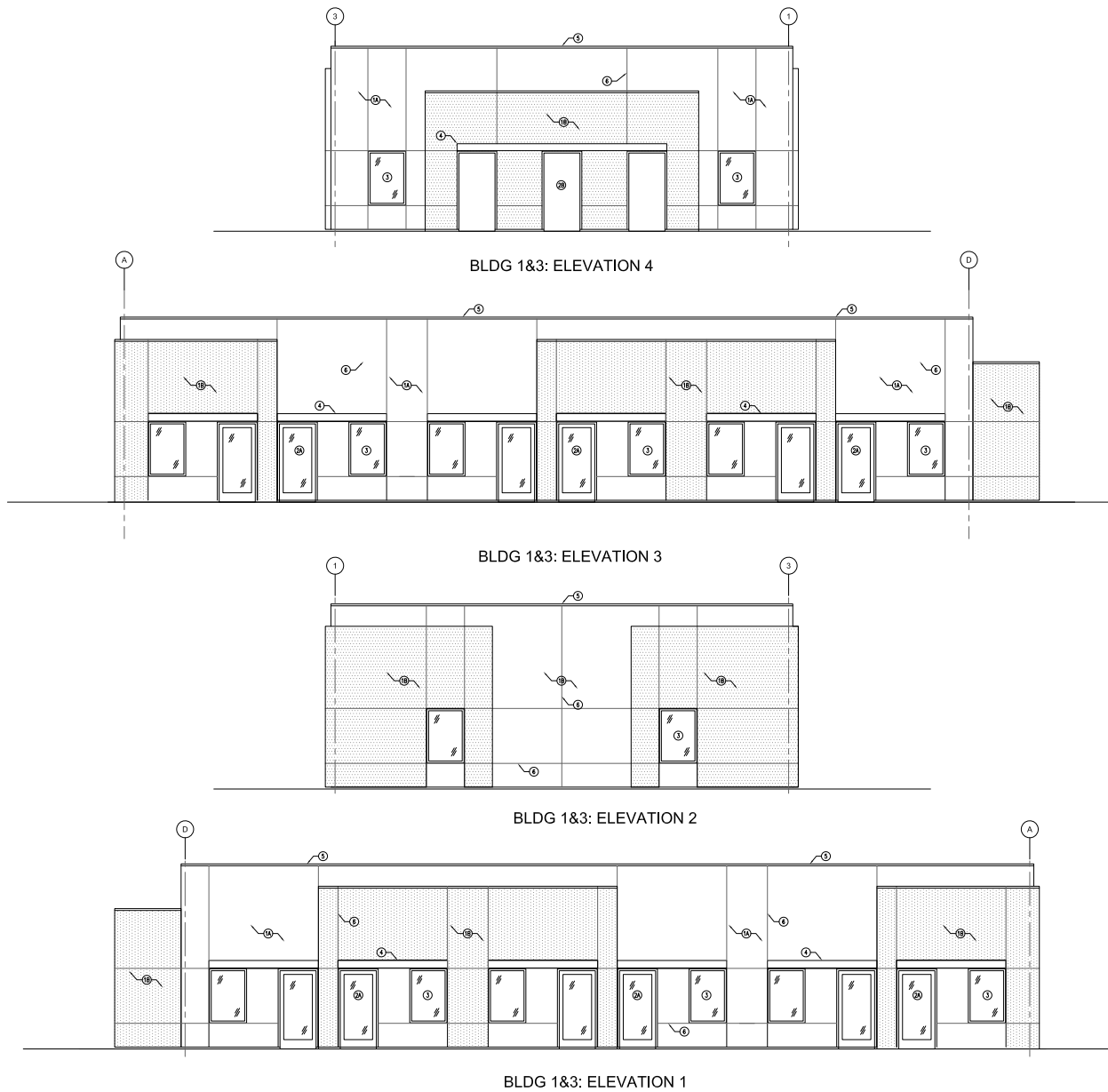
A-1.1 22



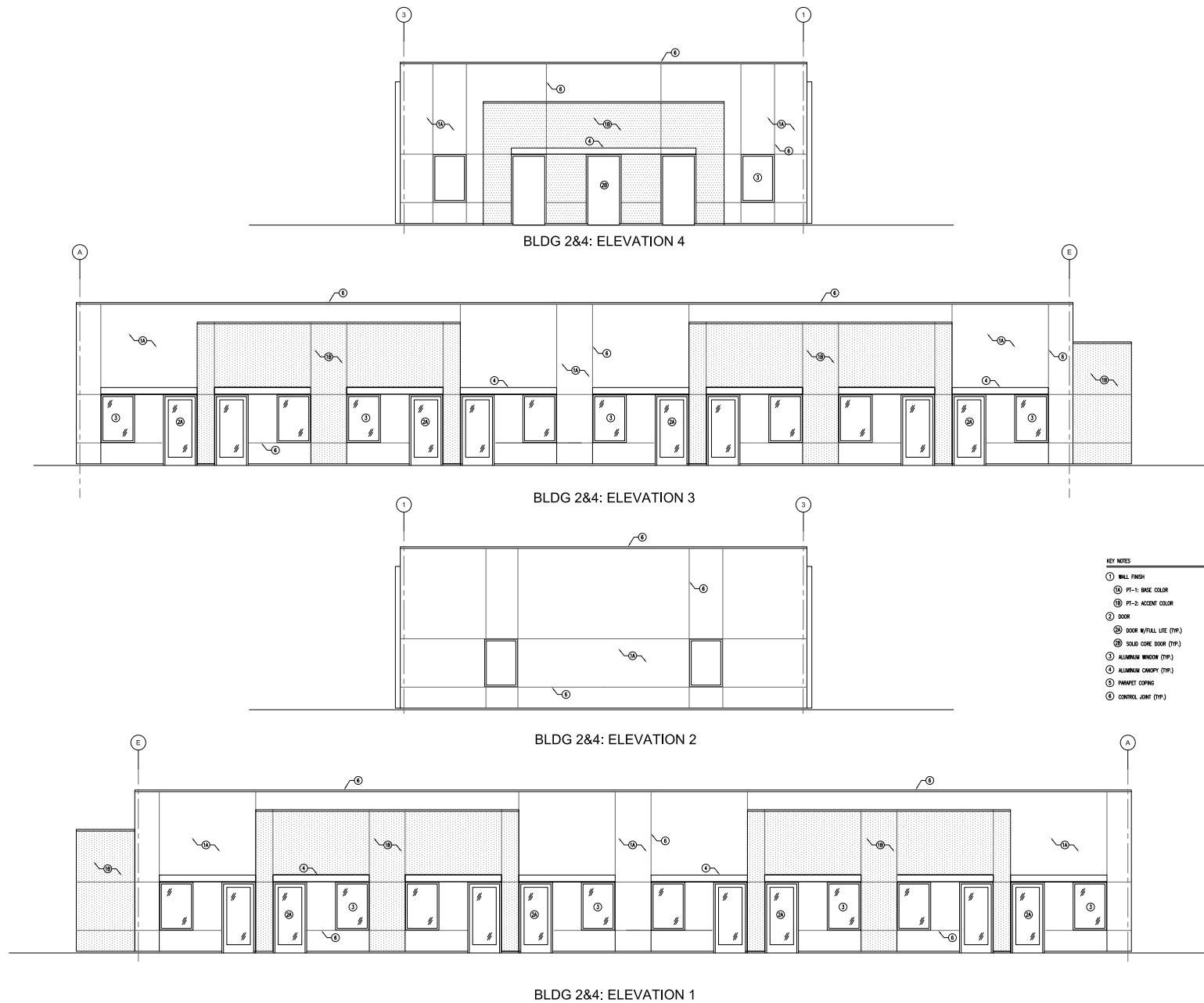
BLDG 1 & 3 FLOOR PLAN

- KEY NOTES
- ① DOOR
 - ② DOOR W/ FULL LIGHT (TYP.)
 - ③ SOLID-CORE WOODEN DOOR (TYP.)
 - ④ ALUMINUM WINDOW (TYP.)
 - ⑤ LOAD-BEARING EXTERIOR WALL
 - ⑥ INTERIOR PARTITION WALL
 - ⑦ EXTERIOR PLASTER WALL (TYP.)
 - ⑧ OFFICE SPACE (TYP.)
 - ⑨ WATER CLOSET (TYP.)
 - ⑩ RESTROOM SINK (TYP.)
 - ⑪ GRAB BAR
 - ⑫ 36" BAR
 - ⑬ 42" BAR
 - ⑭ WIP SINK





- KEY NOTES
- ① STUCCO FINISH
 - ② PT-1: BASE COLOR
 - ③ PT-2: ACCENT COLOR
 - ④ DOOR
 - ⑤ DOOR W/ FULL LITE (TYP.)
 - ⑥ SOLID CORE DOOR (TYP.)
 - ⑦ ALUMINUM WINDOW (TYP.)
 - ⑧ ALUMINUM CANOPY (TYP.)
 - ⑨ PARAPET COPING
 - ⑩ CONTROL JOINT (TYP.)





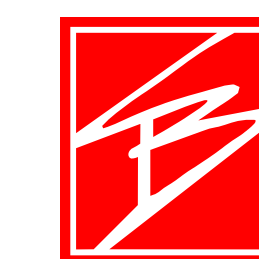
SHAW+FOWLER FLEX BUILDINGS

1870 SHAW AVE

CLOVIS, CA

STREET VIEW #1

07-17-2024



SCOTT BECK ARCHITECT

10474 SANTA MONICA BOULEVARD
LOS ANGELES, CA 90025

SUITE 306
(424) 273 - 4545



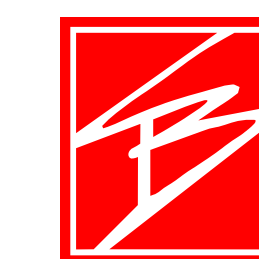
SHAW+FOWLER FLEX BUILDINGS

1870 SHAW AVE

CLOVIS, CA

AERIAL VIEW #1

07-17-2024



SCOTT BECK ARCHITECT

10474 SANTA MONICA BOULEVARD
LOS ANGELES, CA 90025

SUITE 306
(424) 273 - 4545



DATE: 8-07-2024

RE: OPERATIONAL STATEMENT / PROJECT NARRATIVE

Shaw & Fowler – Flex Buildings
Mountain View Center
1870 Shaw Avenue, Clovis, CA 93611
APN# 552-020-22S & 13S

TO: City of Clovis Planning Department

FROM: Scott Beck AIA

CC: Cristen Ciavaglia-Martin

Project Description: Shaw & Fowler Flex

Current use:

This project consists of approximately 3.19 acres of under-utilized property located in the south east corner of the existing Mountain view Shopping Center. The property is two parcels, currently zoned P-C-C. It is used as an open pad with some surface A.C. parking.

Proposed Use/Operations:

- 1) The proposed use classification per the City of Clovis Municipal Code is “Office” to include multiple small businesses for uses that are allowed by zoning standards.
- 2) There will be four single-story free-standing buildings totaling 15,410 sf of the following sizes:
 - a. 3,335 sf
 - b. 4,370 sf
 - c. 3,335 sf
 - d. 4,370 sf
- 3) The structures are intended to be wood framed, with plaster enclosures.
- 4) The project will maintain the overall general automobile circulation of the center.
- 5) The project will include on-grade parking, trash enclosure, site accessories, etc. per City of Clovis Development standards.
- 6) There will be enhanced landscape areas in and around the office parcels.
- 7) The proposed hours of operation will be general business hours; typically, 7 AM through 7PM. 7 days per week.
- 8) There are estimated to be a maximum of 40 employees plus 40 customers on-site at any given time.
- 9) Noise levels are not anticipated to be high after construction is completed.
- 10) Hazardous materials are not anticipated to be stored or produced on site.

Project Narrative:

This Shaw & Fowler Flex Development is intended to be a thriving incubator for small businesses. There will be four buildings, each subdivided into flexible suites, that can accommodate users ranging from 250 sf to 1,000 sf or more. These Flex users are defined as professional office, service-related retail and/or healthcare businesses that need short term lease opportunities. They will provide needed services for the community and complement the customer base of the existing center. The Center in turn, will improve its status as a vital part of the region that includes single & multi-family residences, offices, shopping and recreational uses.

Mountain View Planned Commercial Center
Use Schedule – Revised under CUP2024-006

Permitted Uses

Major:

- Supermarket

Pad A (7,000 square feet):

- Antique Shop
- Appliance Store (General)
- Art Gallery/Frame Shop
- Automobile Parts & Accessories
- Barber Shop
- Beauty Shop
- Bicycle Shop
- Book Store (excludes Adult Book Store)
- Carpet Sales (retail only)
- Clothing Store – Children's
- Clothing Store – Men's
- Clothing Store – Women's
- Confectionaries
- Copy Centers
- Dry Goods
- Financial Institution Bank, Bank/Savings and Loan
- Florist Shop
- Furniture Store
- Garden Supply Store
- Gift Shop
- Hardware Store
- Health Food Store
- Hobby Shop
- Home Furnishings
- Jewelry Store
- Laundry and Dry-Cleaning Pick-up Shop
- Leather Goods and Luggage Store
- Medical Clinical
- Millinery Store (Women's Hats)
- Musical Instruments
- Offices – Business/Medical/Professional
- Pet Shop
- Photography Studio
- Photography Supply Store
- Post Office
- Print Shop

- Radio and Television Sales and Service
- Restaurants (Sit Down) Use
- Shoe Repair Shop
- Shoe Store
- Sporting Good Store
- Stationery, Office Supply Store
- Toy Store
- Variety and Notions
- Video Store
- Western Wear and Riding Equipment

Pad B (4,500 square feet):

- Automotive Parts & Accessories
- Restaurants (Sit Down) Use
- Uses Per Retail Building, except Eating Establishments

Pad C (12,600 square feet):

- Drug Store/General Retail

Uses Requiring a Conditional Use Permit:

For the Shaw Avenue Pads A, B, and C Only:

- Restaurants
- Financial Institutions
 - Banks
 - Savings & Loans

Retail Buildings:

- Antique Shop
- Appliance Store (General)
- Art Gallery/Frame Shop
- Bakery, Retail
- Barber Shop
- Beauty Shop
- Bicycle Shop
- Book Store (excludes Adult Book Store)
- Carpet Sales (retail only)
- Clothing Store – Children's
- Clothing Store – Men's
- Clothing Store – Women's
- Confectionaries
- Copy Centers
- Delicatessen
- Dry Goods
- Eating Establishments comprising 25% or less of the total minor retail in-line buildings.

- Financial Institution Bank
- Fish Market (retail only)
- Florist Shop
- Furniture Shop
- Furniture Store
- Garden Supply Store
- Gift Shop
- Hardware Store
- Health Food Store
- Hobby Shop
- Home Furnishings
- Ice Cream Sales/Yogurt Shop
- Jewelry Store
- Laundry and Dry-Cleaning Pick-up Shop
- Laundry and Dry-Cleaning, Self Service
- Leather Goods and Luggage Store
- Millinery Store (Women's Hats)
- Musical Instruments
- Music Studio
- Offices – Business/Medical/Professional
- Pet Shop
- Photography Studio
- Photography Supply Store
- Post Office
- Print Shop
- Radio and Television Sales and Service
- Shoe Repair Shop
- Shoe Store
- Sporting Good Store
- Stationery, Office Supply Store
- Toy Store
- Variety and Notions
- Video Store
- Western Wear and Riding Equipment
- Uses determined by Planning Commission to be similar to permitted uses listed above
- Weekend Craft Fairs

Uses Subject to Director Review and Approval:

- Any outside sales other than weekend Craft Fairs
- Roof-mounted Antennas or Satellite Dishes

Uses Requiring a Conditional Use Permit:

- Eating Establishments (comprising 25% of the total minor retail in-line buildings.)
- Restaurants except as permitted in Pad Buildings “A” and “B”.

- Eating Establishments in Pad Buildings “A” and “B”, where the use is 1,500 square feet or less, does not include a drive-up window and does not have on-site food/beverage consumption.
- Liquor Stores
- Drive-up windows not approved with the original master plan
- Automobile parts and accessories
- Any change in use from the approved preliminary development plan
- Convenience store with no alcohol sales and an automobile fueling facility

Prohibited Uses:

- Eating establishments in the Pad Buildings along Shaw Avenue, except as provided for under “Uses Requiring a Conditional Use Permit”
- Industrial, Manufacturing, Wholesaling (except as necessary and incidental to an otherwise permitted use)
- Residential
- Entertainment or recreational uses which shall include, without limitation:
 - Bowling Alley
 - Skating Rink
 - Health Studio or Gym
 - Billiard Room
 - Game Arcade or Amusement Center
 - Theater
 - Bar or Tavern (except where incidental to the operation of a restaurant, eating establishment or delicatessen).
 - Massage Parlor
 - Adult Book Store or Adult Only Stores

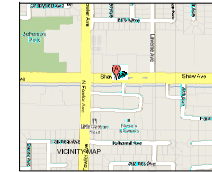
Offices (CUP2024-006):

Permitted Uses:

- Offices, excluding storage of stock-in-trade, and storage of equipment not used exclusively in such offices:
 - Administrative
 - Business
 - General
 - Medical
 - Professional; and
 - Small retail uses

Prohibited Uses:

- All uses listed as prohibited under the Commercial Phase



VICINITY MAP

EXISTING BUILDINGS G.L.A.
 1810 SHAW AVENUE: 7,000 SF
 1805 SHAW AVENUE: 4,500 SF
 1800 SHAW AVENUE: 7,500 SF
 1840 SHAW AVENUE: 8,165 SF
 1802 SHAW AVENUE: 7,025 SF
 1830 SHAW AVENUE: 53,900 SF
 SUBTOTAL: 93,275 SF

PROPOSED 1870 SHAW AVENUE
 2 X OFFICE BLDGS AT 4,375 GSF
 2 X OFFICE BLDGS AT 4,375 GSF
 TOTAL BLDG AREA = 17,125 GSF
 TOTAL SITE AREA = 76,150 GSF
 SITE COVERAGE = 15.3%
 TOTAL PARKING = 88 STALLS
 PARKING RATIO = 0.5/1000 SF

PROJECT SITE, SEE A-1.1 FOR MORE INFORMATION



EXHIBIT "B"

RECOMMENDED EXTERIOR SIGN CRITERIA

These criteria have been established for the purpose of assuring an outstanding shopping center and for the mutual benefit of all Tenants. Conformance will be strictly enforced; and any installed nonconforming or unapproved signs must be brought into conformance at the expense of the Tenant.

A. GENERAL REQUIREMENTS

1. Tenant shall submit or cause to be submitted to the Project Architect for approval before fabrication one (1) set of detailed drawings indicating the location, size, layout, design and color of the proposed signs, including all lettering and/ or graphics, and the method of illumination and mounting, including all hardware to be used. In addition, material samples(s) indicating color(s) and finish(es) of exposed sign components shall be submitted at the Project Architect's request.

2. All permits for sign and their installation shall be obtained by Tenant or its representative.

3. All signs shall be constructed and installed at the Tenant's expense.

4. Tenants shall be responsible for the fulfillment of all requirements of these criteria, and shall submit samples of sign materials as requested by the Project Architect.

5. The tenant shall submit to the City of Clovis a sign drawing approved by the Owner and/ or Project Architect for all exterior signs which shall be subject to Sign Review Approval by the City of Clovis. Such approval shall be received prior to the start of any sign construction or fabrication.

B. GENERAL SPECIFICATIONS

1. No animated, flashing or audible signs will be permitted.

2. All signs shall bear the UL label, and their installation shall comply with all local and electrical codes.

3. No exposed raceways, crossovers or conduits will be permitted.

4. All cabinets, conductors, transformers and other equipment shall be concealed. Visible fasteners will be permitted, subject to the Project Architect's approval.

5. Electrical services to all signs shall be on the Tenant's meter.

6. Painted lettering directly onto building surfaces will not be permitted, except as specified under paragraph 1.1.

7. No signs otherwise prohibited under the sign regulations of the City of Clovis shall be permitted, unless specifically provided for as part of this sign program.

C. CONSTRUCTION REQUIREMENTS

1. All exterior signs, bolts fastenings and clips shall be of enameling iron with porcelain enamel finish, stainless steel aluminum, brass or bronze. No unfinished iron materials of any type will be permitted.

2. All exterior letters or signs exposed to the weather shall be mounted at least $\frac{3}{4}$ " from the building wall to permit proper dirt and water drainage.

3. All letters shall be fabricated using full-welded construction.

4. Location of all openings for conduit and sleeves in sign panels of building walls shall be indicated by the sign contractor on drawings submitted to the Project Architect.

5. All penetrations of the building structure required for sign installation shall be neatly sealed in a watertight manner.

6. No labels will be permitted on the exposed surface of signs except those required by local ordinance which shall be applied in an inconspicuous location.

7. Tenant's sign contractor shall repair any damage to any work caused by his work.

8. Tenant shall be fully responsible for the operations of the Tenant's sign contractors.

9. Threaded rods or anchor bolts shall be used to mount sign letters which are spaced out from background panel. Angle clip attached to letter sides will not be permitted.

D. DESIGN REQUIREMENTS

1. Primary Signage shall consist of typical internally illuminated Individual Channel Letters.

2. The face of the individual letter and logos shall be constructed of acrylic plastic (3/6" thick minimum) and fastened to the individual channelized metal letter in any and approved manner. All surrounds or trim in a single sign shall be a single color with matte finish.

3. All Tenant store identification designs shall be subject to the approval of the Project Architect. Imaginative designs will be encouraged.

4. Wording of signs for minor Tenants shall not include the project sold except as part of the Tenant's trade name or insignia. Major Tenants shall be permitted up to two supplemental signs indicating the type, but not the brand name or logo, of product(s) sold. (Total sign area is not to exceed the maximum area allowed for on-building signs).

5. Brand names or symbols of products sold or services offered shall not be permitted except those which are the Tenant's trade name or insignia.

E. COMMERCIAL PHASE

1. Each major Tenant shall be permitted one wall-mounted identification sign, two supplemental wall-mounted signs indicating the type of products sold, one under canopy sign and one window sign. In addition, major Tenants at a corner located may be permitted a second identification sign mounted on a separate wall perpendicular to the main sign panel. (Total sign area of identification sign, supplemental signs and window signs shall not exceed the maximum area allowed for on-building signs).

2. Each minor Tenant shall be permitted up to one wall-mounted identification sign, one under-canopy sign and one window sign. (Total sign area of identification sign and window sign shall not exceed the maximum area allowed for on-building signs).

3. An architecturally integrated project name sign shall be allowed at the two Shaw Avenue corners (Fowler and Ash) with the following restrictions; not more than three feet six inches in height, incorporated into a landscaped earth berm, externally or halo illuminated and not exceeding 20 square ft. Specific design to be approved by the Director of Planning.

4. Two monument signs identifying the center and or major tenants shall be allowed. One, located on Shaw Avenue and the second at the middle drive on Fowler Avenue, the specific location to be approved with the final development plan. Maximum area to be 100 square feet and maximum height to be 8 feet. The Shaw Avenue sign may be used to identify the Pad B building if it is a single use.

5. Wall-mounted signs shall be located in the designated sign panel area.

6. Under-canopy signs shall be mounted on and perpendicular to the building storefront or the inside face of the canopy support with a minimum vertical clearance of seven (7) feet. The sign shall be placed at the storefront or office entry.

7. Window signs shall be placed no higher than six (6) feet above the height of the adjacent sidewalk. Window signs, other than temporary, shall be counted against the permanent sign area.

F. ALLOWABLE SIGN AREA AND SIZE

1. Each business frontage having a public entrance shall be permitted on-building identification signs with the allowable area computed as follows:

| Structure Entrance Setback (from street frontage property line) | Allowable Sign Area Formula | Minor Tenants Maximum Allowable Sign Area | Major Tenants Maximum Allowable Sign Area* |
|--|---|--|---|
| 150 feet or less to the intended service street property line. | One sq. ft. per each linear foot of lease space. | 50 sq. ft. | 100 sq. ft. |
| More than 150 feet to the intended service street property line. | One and one-half sq. ft. per each linear foot of lease space. | 75 sq. ft. | 150 sq. ft. |

2. Each business occupying the end of a building, having a street frontage without a public entrance, shall be permitted one-half (1/2) square foot of sign area for each one foot of leased building frontage. The maximum area shall be limited to twenty-five (25) square feet.

3. Wall-mounted identification signs for major Tenants shall have a maximum height of six (6) feet. Supplemental wall-mounted (product type) signs shall not exceed 42 inches in height.

4. Wall-mounted identification signs for minor Tenants shall have a maximum height of 30 inches.

5. Under-canopy signs shall not exceed six (6) square feet in area.

G. OFFICE PHASE

1. One freestanding identification sign limited to the name and or address of the Office Development shall be allowed at the Shaw Avenue drive entrance not to exceed 6 feet in height and 25 square feet in area.

2. The Shaw avenue Pad Buildings if developed with a restaurant, bank or savings and loan use shall be allowed on-building sign area per the commercial uses listed above. If developed as an office use on-building signs for each business frontage having a public entrance shall be allowed an area of one-half (1/2) square foot per front of building, up to fifty (50) square feet of maximum area.

3. Buildings A, B, C, and D will be allowed additional internal directory signs (Not intended to be seen from the street). On-building identification signs will be allowed for each business frontage having a public entrance at an area of one-half (1/2) square foot per front foot

of building, up to fifty (50) square feet of maximum area. Location of signs shall be as shown in the elevations (Exhibit B) of the Preliminary Development approval.

*4. An additional freestanding monument style identification sign is permitted for Pad 1 (located at 1900 Shaw) of the office phase. The sign shall not exceed 8 feet in height and 68 square feet in area.

H. PAD BUILDINGS

1. Pad buildings A, B, and C shall be allowed sign area per sections E and F above.

I. MISCELLANEOUS PROVISIONS

1. If Tenant has a non-customer door for receiving merchandise, it may have uniformly applied on said door in location as directed by the Project Architect, in two inch (2") high block letter, the Tenant's name and address. Where more than one (1) Tenant uses the same door, each name and address shall be applied. Color of letter will be selected by the Project Architect.

2. Temporary Signs: Temporary signs shall be limited to banner, poster, or pennants. Such signs may be used in conjunction with any event or sale and shall be displayed for fourteen (14) days maximum and shall be limited to one (1) such display four (4) times a year, and shall not list individual project prices, with written notification given to the Director of Planning and the center management.

3. Grand opening signs: A-frame signs, I-frame signs and portable changeable copy signs shall be limited to only one (1) grand opening and a maximum display time of fourteen (14) days per business, with written notification given to the Director in Planning and the center management.

4. Except as provided herein, no advertising placards, banners, pennants, names insignia, trademarks, or other descriptive material shall be affixed or maintained upon the glass panes and supports of the show windows and doors, or upon the exterior walls of the building or storefront.

5. Decorative banners and pennants which may be supplied by the center management shall be permitted in locations specifically designated for them.

6. Major Tenant: A major Tenant is defined as one which occupies a minimum of 7,000 square feet of contiguous floor space.

7. Minor Tenant: A minor Tenant is defined as one which occupies less than 7,000 square feet of contiguous floor space.



2907 S. Maple Avenue
Fresno, California 93725-2208
Telephone: (559) 233-7161
Fax: (559) 233-8227

CONVEYANCE. COMMITMENT. CUSTOMER SERVICE.

September 20, 2024

Marissa Jensen
Planning and Development Services Department
City of Clovis
1033 Fifth Street
Clovis, CA 93612

RE: Conditional Use Permit 2024-006, Site Plan Review 2024-027, and Parcel Map
2024-005
S/E Shaw and Fowler avenues
FID's Dawson No. 114

Dear Ms. Jensen:

The Fresno Irrigation District (FID) has reviewed Conditional Use Permit 2024-006, Site Plan Review 2024-027, and Parcel Map 2024-005 for which the applicant proposes additional office buildings and the creation of 5 new commercial parcels from 2 existing commercial parcels, APNs: 552-020-13s, 22s. FID has the following comments:

1. FID previously reviewed and commented on the subject property on December 5, 2023, as Development Review Committee Application No. 2023-047. Those comments and conditions still apply, and a copy has been attached for your reference.

Thank you for submitting the proposed project for our review. We appreciate the opportunity to review and comment on the subject documents for this project. If you have any questions, please feel free to contact Chris Lundeen at (559) 233-7161 extension 7410 or clundeen@fresnoirrigation.com.

Sincerely,

Laurence Kimura, P.E.
Chief Engineer

Attachment

1

G:\Agencies\Clovis\Conditional Use Permit\CUP2024-006, SPR2024-027, PM2024-005\CUP2024-006, SPR2024-027, PM2024-005 FID
Comments.doc



2907 S. Maple Avenue
Fresno, California 93725-2208
Telephone: (559) 233-7161
Fax: (559) 233-8227

CONVEYANCE. COMMITMENT. CUSTOMER SERVICE.

December 5, 2023

Lily Cha-Haydostian
City of Clovis
Planning Division
1033 Fifth Street
Clovis, CA 93612

RE: Development Review Committee Application No. DRC2023-047
S/E Shaw and Fowler avenues
FID's Dawson No. 114

Dear Mrs. Cha-Haydostian:

The Fresno Irrigation District (FID) has reviewed the Development Review Committee Application No. 2023-047 for which the applicant proposes flex business buildings, APNs: 552-020-22S, 13S. FID has the following comments:

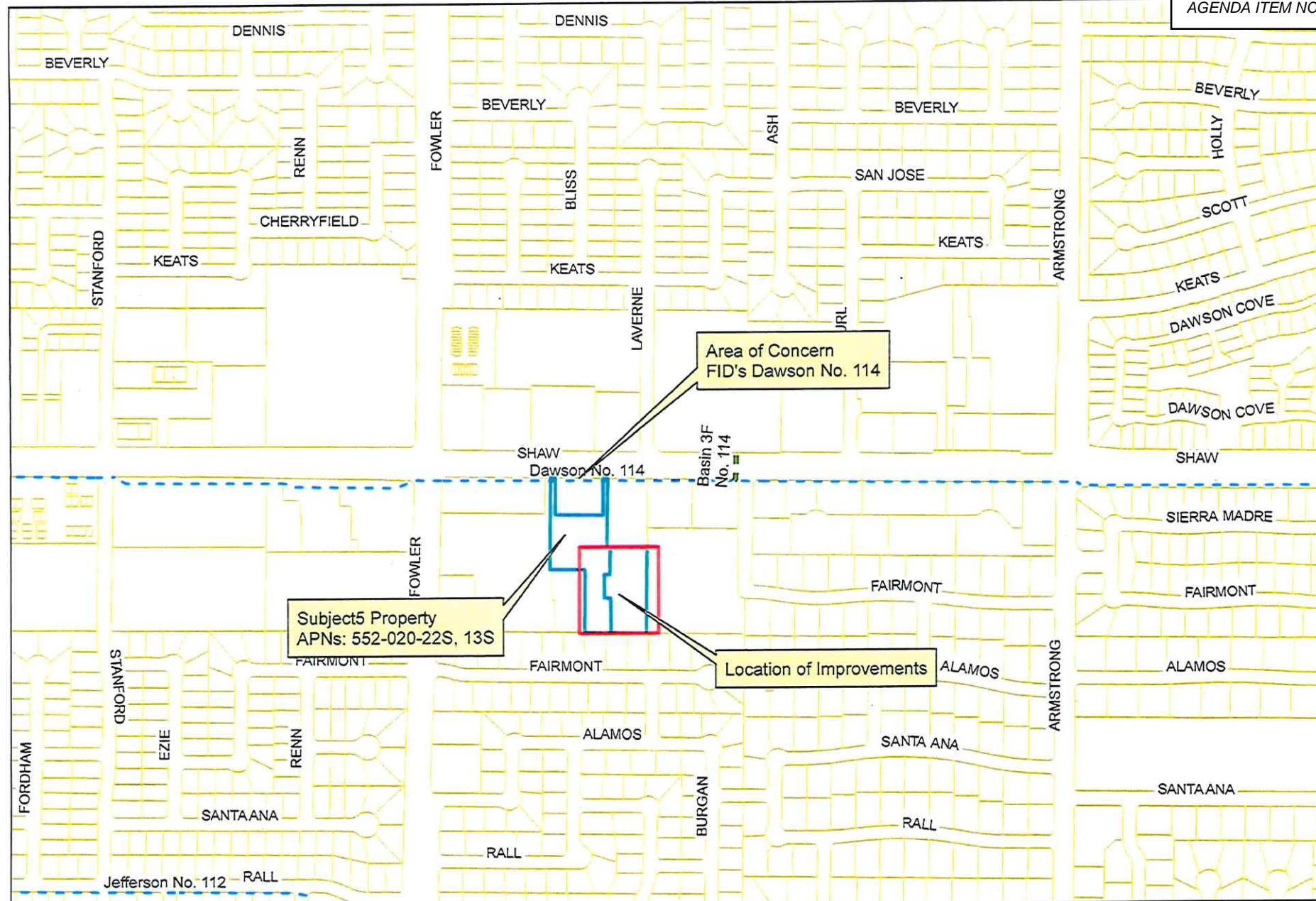
1. FID's active Dawson No. 114 runs westerly along the south side of Shaw Avenue and traverses the subject property and crosses Fowler Avenue approximately 457 feet west of the subject property, as shown on the attached FID exhibit but does not appear to be impacted by the proposed improvements. However, should this project include any street and/or utility improvements along Shaw Avenue, crossing the FID pipeline, or in the vicinity of this facility, FID requires it review and approve all plans. All utility crossing must be permitted by District.

Thank you for submitting this for our review. We appreciate the opportunity to review and comment on the subject documents for the proposed project. If you have any questions, please feel free to contact Chris Lundeen at (559) 233-7161 extension 7410 or clundeen@fresnoirrigation.com.

Sincerely,

Laurence Kimura, P.E.
Chief Engineer

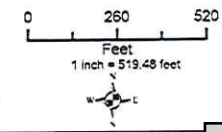
Attachment



- Legend**
- | | | | | |
|-----------------|--------------------|-------------------|----------------|-----------------------|
| FID Canal | FID Pipeline | Stream Group | FID Boundary | Parcel |
| Private Canal | Private Pipeline | Other-Creek/River | Railroad | FMFCD Acquired Basins |
| Abandoned Canal | Abandoned Pipeline | Other-Pipeline | Streets & Hwys | FMFCD Proposed Basins |

This map was produced by the Fresno Irrigation District and is provided for reference and informational purposes only and is not intended to show map scale accuracy or all inclusive map features, nor for legal purposes. FID makes no statements regarding the accuracy of this map as the features shown are in their approximate location. Please contact the FID Engineering Dept. at (559) 233-7151 for further information on FID facilities.

Path: G:\Fidgis\20230727 FID Compact.mxd
Spatial Reference
Name: NAD 1983 StatePlane California IV FIPS 5404





September 18, 2024

Marissa Jensen
City of Clovis
Planning and Development Services
1033 Fifth Street
Clovis, CA 93612

Project: Parcel Map PM2024-005, Conditional Use Permit CUP2024-006, Site Plan Review SPR2024-027, Shaw and Fowler Flex

District CEQA Reference No: 20240997

Dear Ms. Jensen,

The San Joaquin Valley Air Pollution Control District (District) has reviewed the Parcel Map, Conditional Use Permit, and Site Plan Review from the City of Clovis (City). Per the documents provided, the project consists of four (4) single-story free-standing buildings totaling 15,410 square feet (Project). The Project is located at 1870 Shaw Avenue, in Clovis, CA.

The District offers the following comments at this time regarding the Project:

1) **Project Related Emissions**

At the federal level under the National Ambient Air Quality Standards (NAAQS), the District is designated as extreme nonattainment for the 8-hour ozone standards and serious nonattainment for the particulate matter less than 2.5 microns in size (PM2.5) standards. At the state level under California Ambient Air Quality Standards (CAAQS), the District is designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 standards.

Based on information provided to the District, Project specific annual criteria pollutant emissions from construction and operation are not expected to exceed any of the significance thresholds as identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI):

<https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf>.

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

1a) Construction Emissions

The District recommends, to reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment.

2) Health Risk Screening/Assessment

The City should evaluate the risk associated with the Project for sensitive receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) in the area and mitigate any potentially significant risk to help limit exposure of sensitive receptors to emissions.

To determine potential health impacts on surrounding receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) a Prioritization and/or a Health Risk Assessment (HRA) should be performed for the Project. These health risk determinations should quantify and characterize potential Toxic Air Contaminants (TACs) identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) that pose a present or potential hazard to human health.

Health risk analyses should include all potential air emissions from the project, which include emissions from construction of the project, including multi-year construction, as well as ongoing operational activities of the project. Note, two common sources of TACs can be attributed to diesel exhaust emitted from heavy-duty off-road earth moving equipment during construction, and from ongoing operation of heavy-duty on-road trucks.

Prioritization (Screening Health Risk Assessment):

A “Prioritization” is the recommended method for a conservative screening-level health risk assessment. The Prioritization should be performed using the California Air Pollution Control Officers Association’s (CAPCOA) methodology. Please contact the District for assistance with performing a Prioritization analysis.

The District recommends that a more refined analysis, in the form of an HRA, be performed for any project resulting in a Prioritization score of 10 or greater. This is because the prioritization results are a conservative health risk representation, while the detailed HRA provides a more accurate health risk evaluation.

Health Risk Assessment:

Prior to performing an HRA, it is strongly recommended that land use agencies/ project proponents develop and submit for District review a health risk modeling protocol that outlines the sources and methodologies that will be used to perform the HRA.

A development project would be considered to have a potentially significant health risk if the HRA demonstrates that the health impacts would exceed the District's established risk thresholds, which can be found here:

<https://ww2.valleyair.org/permitting/ceqa/>.

A project with a significant health risk would trigger all feasible mitigation measures. The District strongly recommends that development projects that result in a significant health risk not be approved by the land use agency.

The District is available to review HRA protocols and analyses. For HRA submittals please provide the following information electronically to the District for review:

- HRA (AERMOD) modeling files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodologies.

For assistance, please contact the District's Technical Services Department by:

- E-Mailing inquiries to: hramodeler@valleyair.org
- Calling (559) 230-5900

Recommended Measure: Development projects resulting in TAC emissions should be located an adequate distance from residential areas and other sensitive receptors to prevent the creation of a significant health risk in accordance to CARB's Air Quality and Land Use Handbook: A Community Health Perspective located at <https://ww2.arb.ca.gov/our-work/programs/resource-center/strategy-development/land-use-resources>.

3) Ambient Air Quality Analysis

An Ambient Air Quality Analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of State or National Ambient Air Quality Standards. The District recommends an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

An AAQA uses air dispersion modeling to determine if emission increase from a project will cause or contribute to a violation of State or National Ambient Air Quality Standards. An acceptable analysis would include emissions from both project-specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis.

Specific information for assessing significance, including screening tools and modeling guidance, is available online at the District's website:
<https://ww2.valleyair.org/permitting/ceqa/>.

4) Vegetative Barriers and Urban Greening

There are residential units located near the Project. The District suggests the City consider the feasibility of incorporating vegetative barriers and urban greening as a measure to further reduce air pollution exposure on sensitive receptors (e.g., residential units).

While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, vegetative barriers have been shown to be an additional measure to potentially reduce a population's exposure to air pollution through the interception of airborne particles and the uptake of gaseous pollutants. Examples of vegetative barriers include, but are not limited to the following: trees, bushes, shrubs, or a mix of these. Generally, a higher and thicker vegetative barrier with full coverage will result in greater reductions in downwind pollutant concentrations. In the same manner, urban greening is also a way to help improve air quality and public health in addition to enhancing the overall beautification of a community with drought tolerant, low-maintenance greenery.

5) Clean Lawn and Garden Equipment in the Community

Since the Project consists of commercial development, gas-powered commercial lawn and garden equipment have the potential to result in an increase of NO_x and PM_{2.5} emissions. Utilizing electric lawn care equipment can provide residents with immediate economic, environmental, and health benefits. The District recommends the Project proponent consider the District's Clean Green Yard Machines (CGYM) program which provides incentive funding for replacement of existing gas powered lawn and garden equipment. More information on the District CGYM program and funding can be found at: <https://ww2.valleyair.org/grants/zero-emission-landscaping-equipment-voucher-program/>.

6) On-Site Solar Deployment

It is the policy of the State of California that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045. While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, the production of solar energy is contributing to improving air quality and public health. The District suggests that the City consider incorporating solar power systems as an emission reduction strategy for the Project.

7) Electric Infrastructure

To support and accelerate the installation of electric vehicle charging equipment and development of required infrastructure, the District offers incentives to public agencies, businesses, and property owners of multi-unit dwellings to install electric charging infrastructure (Level 2 and 3 chargers). The purpose of the District's Charge Up! Incentive program is to promote clean air alternative-fuel technologies and the use of low or zero-emission vehicles. The District recommends that the City and project proponents install electric vehicle chargers at project sites, and at strategic locations.

Please visit <https://ww2.valleyair.org/grants/charge-up> for more information.

8) District Rules and Regulations

The District issues permits for many types of air pollution sources, and regulates some activities that do not require permits. A project subject to District rules and regulations would reduce its impacts on air quality through compliance with the District's regulatory framework. In general, a regulation is a collection of individual rules, each of which deals with a specific topic. As an example, Regulation II (Permits) includes District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits), and several other rules pertaining to District permitting requirements and processes.

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: <https://ww2.valleyair.org/rules-and-planning/current-district-rules-and-regulations>. To identify other District rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888.

8a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources

Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 (Permits Required) requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201 (New and Modified Stationary Source Review) requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology (BACT).

This Project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District permits. Prior to construction, the Project proponent should submit to the District an application for an ATC. For further information or assistance, the project proponent may contact the District's SBA Office at (559) 230-5888.

8b) District Rule 9510 - Indirect Source Review (ISR)

The Project is subject to District Rule 9510 because it will receive a project-level discretionary approval from a public agency and will equal or exceed 2,000 square feet of commercial space.

The purpose of District Rule 9510 is to reduce the growth in both NO_x and PM emissions associated with development and transportation projects from mobile and area sources; specifically, the emissions associated with the construction and subsequent operation of development projects. The ISR Rule requires developers to mitigate their NO_x and PM emissions by incorporating clean air design elements into their projects. Should the proposed development project clean air design elements be insufficient to meet the required emission reductions, developers must pay a fee that ultimately funds incentive projects to achieve off-site emissions reductions.

Per Section 5.0 of the ISR Rule, an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency. As of the date of this letter, the District has not received an AIA application for this Project. Please inform the project proponent to immediately submit an AIA application to the District to comply with District Rule 9510 so that proper mitigation and clean air design under ISR can be incorporated into the Project's design.

Information about how to comply with District Rule 9510 can be found online at: <https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview>

The AIA application form can be found online at: <https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview/forms-and-applications/>

District staff is available to provide assistance and can be reached by phone at (559) 230-5900 or by email at ISR@valleyair.org.

8c) District Rule 4601 (Architectural Coatings)

The Project may be subject to District Rule 4601 since it is expected to utilize architectural coatings. Architectural coatings are paints, varnishes, sealers, or stains that are applied to structures, portable buildings, pavements or curbs.

The purpose of this rule is to limit VOC emissions from architectural coatings. In addition, this rule specifies architectural coatings storage, cleanup and labeling requirements. Additional information on how to comply with District Rule 4601 requirements can be found online at:
<https://ww2.valleyair.org/media/tkgjeusd/rule-4601.pdf>

8d) District Regulation VIII (Fugitive PM10 Prohibitions)

The project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities*.

Should the project result in at least 1-acre in size, the project proponent shall provide written notification to the District at least 48 hours prior to the project proponents intent to commence any earthmoving activities pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). Also, should the project result in the disturbance of 5-acres or more, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials, the project proponent shall submit to the District a Dust Control Plan pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). For additional information regarding the written notification or Dust Control Plan requirements, please contact District Compliance staff at (559) 230-5950.

The application for both the Construction Notification and Dust Control Plan can be found online at: <https://ww2.valleyair.org/media/fm3jrbsq/dcp-form.docx>

Information about District Regulation VIII can be found online at:
<https://ww2.valleyair.org/dustcontrol>

8e) Other District Rules and Regulations

The Project may also be subject to the following District rules: Rule 4102 (Nuisance) and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

9) District Comment Letter

The District recommends that a copy of the District's comments be provided to the Project proponent.

If you have any questions or require further information, please contact Ryan Grossman by e-mail at Ryan.grossman@valleyair.org or by phone at (559) 230-6569.

Sincerely,

Tom Jordan
Director of Policy and Government Affairs



For: Mark Montelongo
Program Manager



CITY of CLOVIS

REPORT TO THE PLANNING COMMISSION

TO: Clovis Planning Commission

FROM: Planning and Development Services

DATE: October 24, 2024

SUBJECT: Consider Approval - Res. 24-____, CUP2024-010, Adopting a Class 32 Categorical Exemption from further environmental review under CEQA and to approve a conditional use permit to allow the operation of an adult daycare center within an existing building at 100 W. Ashlan Avenue. Jami De La Cerda, applicant and owner.

Staff: Marissa Jensen, Assistant Planner

Recommendation: Approve

ATTACHMENTS:

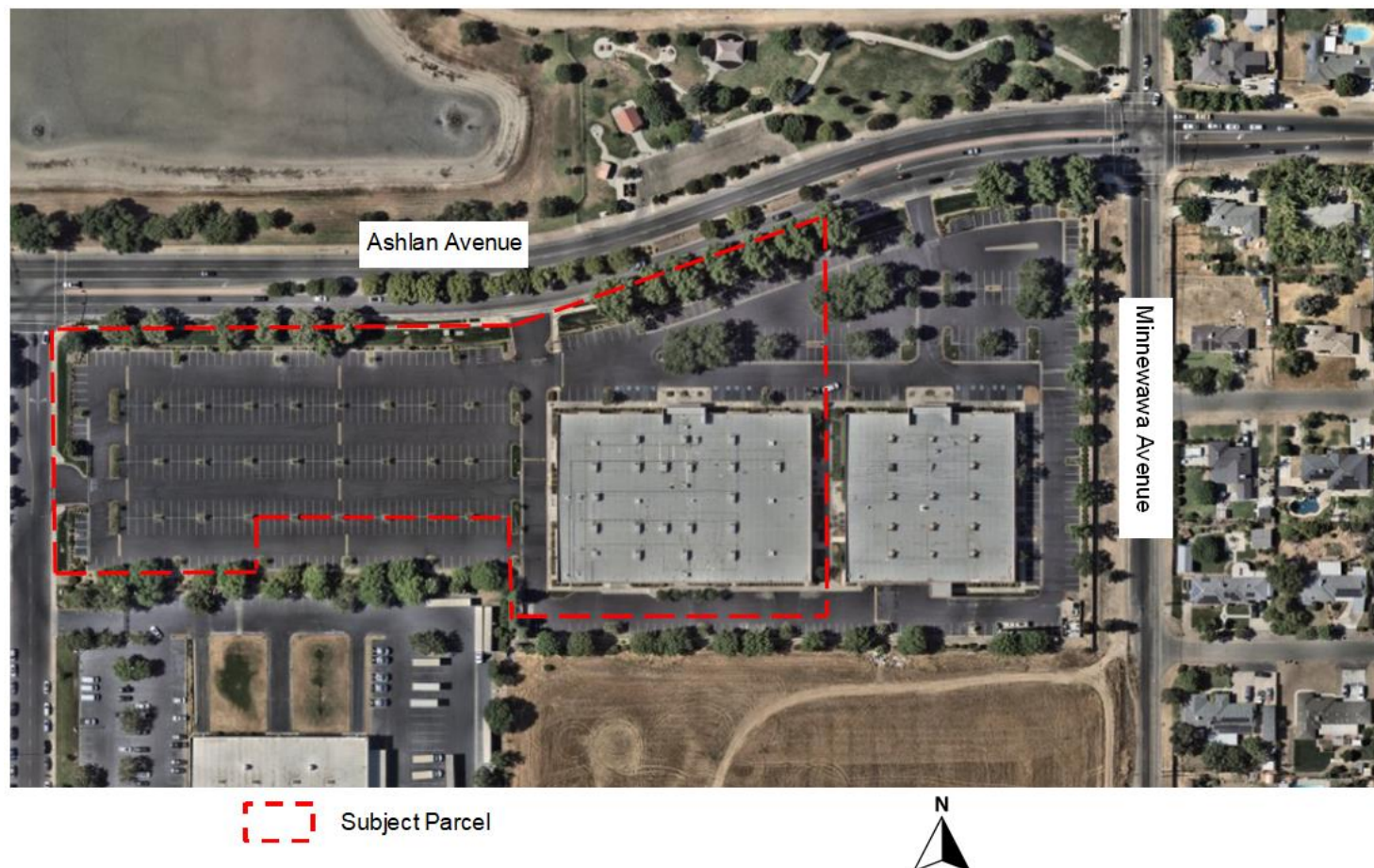
1. Res. 24-____, CUP2024-010
2. Conceptual Site Plan, Floor Plan & Outdoor Recreation Details
3. Applicant's Operational Statement
4. Correspondence from Commenting Agencies

RECOMMENDATION

Staff recommends that the Planning Commission adopt a resolution exempting the project from further environmental review pursuant to California Environmental Quality Act ("CEQA") Guidelines section 15332, a Class 32 Categorical Exemption, and approving Conditional Use Permit (CUP) 2024-010.

EXECUTIVE SUMMARY

As shown in **Figure 1** below, Jami De La Cerda of Bella May Development, LLC ("Applicant") is requesting approval of CUP2024-010 to allow the operation of an adult daycare center within an existing building at 100 W. Ashlan Avenue ("Project"). Pursuant to Section 9.12.020 of the Clovis Municipal Code ("CMC"), the proposed use is permitted with approval of a CUP in the C-M Zone District. Approval of this request would allow the applicant to proceed with a site plan review (SPR) for the addition of a ±14,000 sq. ft. outdoor recreation space. Although the SPR process is reviewed administratively at the staff level, a conceptual site plan has been provided in **Attachment 2** for informational purposes.

FIGURE 1 Project Location**BACKGROUND**

- General Plan Designation: I (Industrial)
- Existing Zoning: C-M (Commercial and Light Manufacturing)
- Lot Size: ± 6.36 acres
- Current Land Use: Industrial
- Adjacent Land Uses:
 - North: Park
 - South: Industrial /Vacant
 - East: Industrial
 - West: Commercial
- Previous Entitlements:
 - R81-14
 - CUP2009-14
 - SPR99-32, A-A7

The subject site was originally approved in spring of 2000, through SPR99-32. The SPR allowed for the construction of a 60,000 square foot office building for a call center (subject building) and a 40,000 square foot office building to the east. After some time, the call center ceased operation. In 2010, CUP2009-14 was approved by the Planning Commission to allow Celebration Church to occupy the vacant building with its administrative offices and church services. Celebration

Church recently relocated at the end of 2023, and Diamond Learning Center (DLC) has purchased the property.

PROPOSAL AND ANALYSIS

The Applicant requests approval of this CUP to allow the operation of an adult daycare center within an existing building at 100 W. Ashlan Avenue. DLC proposes occupying most of the 60,000-square-foot office building, approximately 39,828 square feet. The remaining portion of the building will be available by lease to a separate tenant (unknown at this time). Additionally, the Applicant is proposing a ±14,000 square foot outdoor recreation space and modifications to the existing parking lot, further details are provided below. A conceptual site layout displaying the proposed improvements is provided in **Attachment 2**.

Existing Site and Surrounding Area

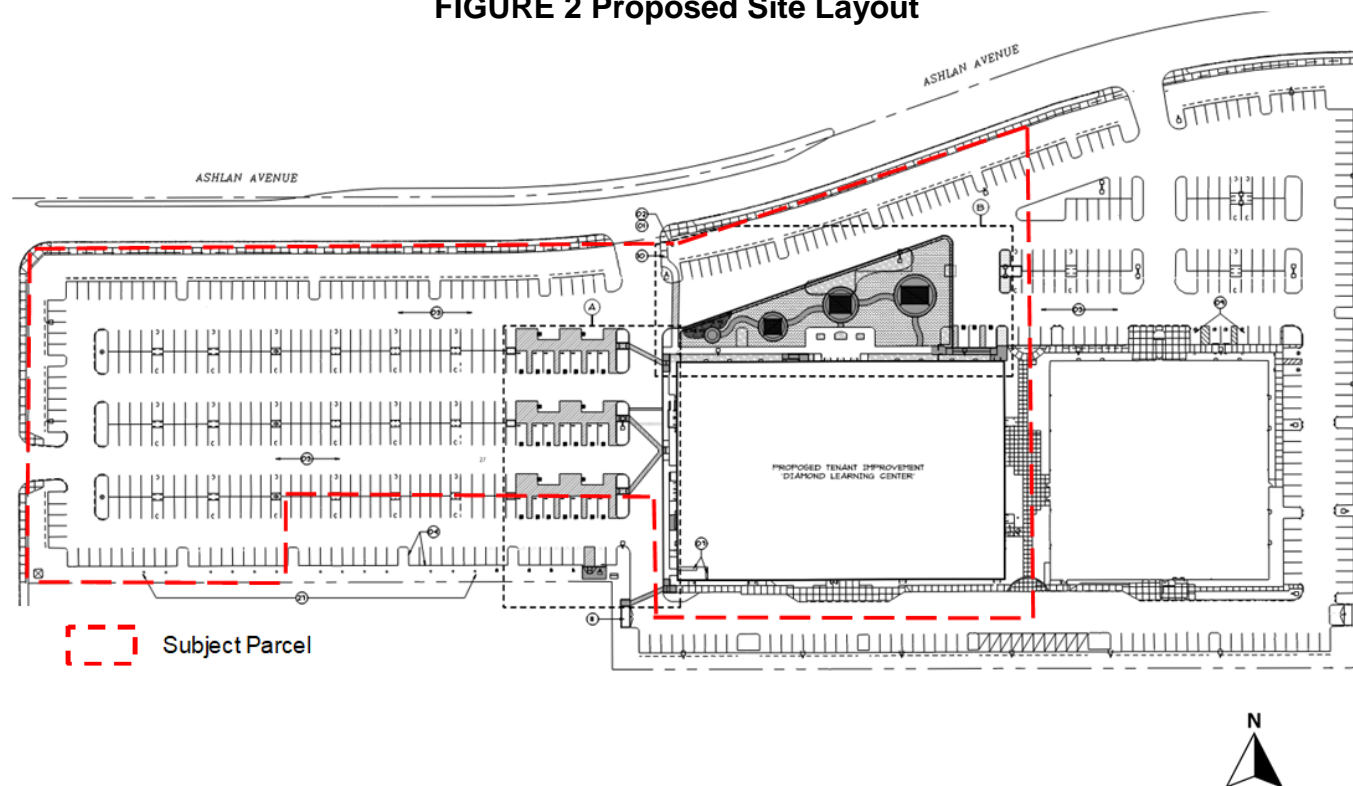
The Project is located on a ±6.36-acre site at the southwest corner of Ashlan and Minnewawa Avenues. The site is part of a larger development that includes two (2) buildings and a shared parking field. The Project site is located on the western portion of the larger development. Directly to the east of the Project site, a ±40,000 square foot office building is currently vacant, but previously consisted of office uses. The Helm Ranch Park is located on the north side of Ashlan Avenue. To the south of the site, there is a significant amount of vacant/undeveloped land, and a FedEx Shipping Center along Villa Avenue. To the west of the Project site, there's an existing commercial center consisting of commercial, retail and office uses. Single-family residences exist to the east of the site, within the County of Fresno's jurisdiction. The proposed adult daycare facility is allowed with an approved CUP in the C-M Zone District.

Project Operations

DLC is an adult daycare facility for individuals with developmental disabilities. Per the Applicant's operational statement (see **Attachment 3**), DLC proposes to relocate its adult daycare operations from its current location, 20 N. Dewitt Avenue. The daycare will operate Monday through Friday, 6 a.m. to 4:30 p.m. All students are required to be 18 years or older. Currently, the enrollment is ±185 students, however, DLC plans to increase enrollment by an additional 450 students over the next five (5) years, with a goal of 635 students enrolled by 2030. DLC expressed that a 3:1 student-to-staff ratio is provided with the maximum number of occupants consisting of 360 students at one time. The Applicant is not proposing to install any cooking equipment or kitchens within the building.

Proposed Site Layout

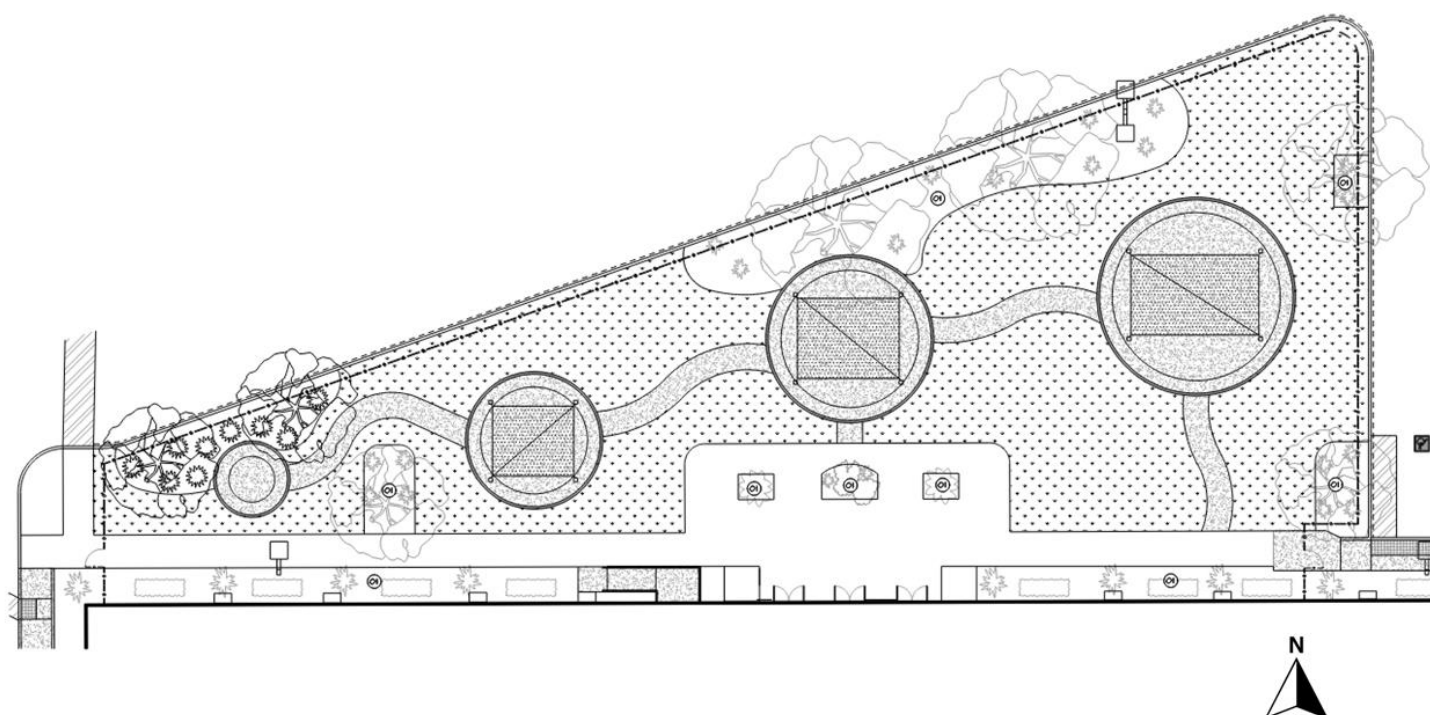
The Applicant is not proposing any modifications for the exterior of the existing building elevations. A tenant improvement will be completed to bring the interior of the building in compliance with State requirements for adult daycare facilities. Although no modifications are proposed for the exterior of the building, the Applicant is requesting modifications to the existing parking lot. **Figure 2** showcases the proposed site layout, which includes the addition of the outdoor recreation space.

FIGURE 2 Proposed Site Layout

As discussed in the Applicant's operational statement (see **Attachment 3**), DLC is required to provide an outdoor recreation area by State law. **Figure 3** demonstrates a more detailed exhibit of the design of the outdoor recreation space. The outdoor space is approximately $\pm 14,000$ square feet in size and provides shaded concrete and grass areas, benches, trees, and lighting. The outdoor area will be surrounded by a 6-foot wrought-iron fence with access gates on both ends. The details of the outdoor recreation space will be reviewed for compliance with the CMC, during the SPR process.

In addition to the outdoor recreation area, the Applicant is proposing modifications to the current parking lot. DLC provides transportation for students upon request. Twenty-four (24) vans are in operation and will be parked on-site. Two (2) trips are provided each day to and from the facility for students. Due to the number of vans, the applicant wishes to modify the parking lot to include more parking spaces to comply with the Americans with Disabilities Act (ADA). The details of the modified parking lot proposal will be reviewed for compliance with the CMC, during the SPR process.

FIGURE 3 Outdoor Recreation Area



Access, Circulation & Parking

The Project will maintain the general circulation pattern existing for the site by retaining ingress/egress from Ashlan Avenue. The proposed use requires a parking ratio of one (1) space for every six (6) students, plus a permanent drop-off area per CMC section 9.32.040. If enrollment is increased to 635 students, 106 parking stalls are required. With the modifications discussed above, the overall center will provide 588 parking spaces, significantly exceeding the requirement of the CMC. Per comments from the Engineering Division, the applicant will be required to obtain reciprocal access and parking agreements with the property to the east (90 W. Ashlan Avenue). Doing so will ensure access, circulation, and parking are maintained per the existing pattern for the site.

Review and Comments by Agencies

The Project was distributed to all City Divisions as well as outside agencies, including Caltrans, Clovis Unified School District, Fresno Irrigation District, Fresno Metropolitan Flood Control District, AT&T, PG&E, and the San Joaquin Valley Air Pollution Control District.

Comments received are attached (**Attachment 4**) only if the agency has provided concerns, conditions, or mitigation measures. Routine responses and comment letters are placed in the administrative record and provided to the applicant for their records.

Public Comments

The City published notice of this public hearing in *The Business Journal* on Wednesday, October 9, 2024. A public notice was also sent to property owners within a minimum of 500 feet of the Project site boundaries. Staff has not received any inquiries prior to the finalization of the staff report.

California Environmental Quality Act (CEQA)

The City has determined that this Project is exempt from CEQA pursuant to CEQA Guidelines section 15332 (Class 32 – In-Fill Development Projects) and that the exceptions identified under Section 15300.2 of the CEQA Guidelines would not be triggered as a result of the Project.

The Class 32 categorical exemption exempts in-fill projects that: (a) are consistent with the applicable land use designation, General Plan policies, and zoning; (b) are within city limits on a project site of no more than five (5) acres substantially surrounded by urban uses; (c) are located on sites with no value as habitat for endangered, rare, or threatened species; (d) would not result in significant effects relating to traffic, noise, air quality, and water quality; and (e) is located on a site that can be adequately served by all utilities. Based on staff's review of the Project, the Project meets the parameters for a Class 32 categorical exemption. (Cal. Code Regs., Tit. 14, § 15332.)

The exceptions identified in Section 15300.2 identify further review of a categorical exemption by the Project's potential to result in a cumulative impact, significant effect, or proximity to a scenic highway, location on or within the vicinity of a hazardous waste site, and/or the potential to negatively impact a historical resource. Based on staff's review, these exceptions would not be triggered by the proposed Project. Therefore, a Notice of Exemption has been prepared and staff will file the notice with the County Clerk if the Project is approved.

REASON FOR RECOMMENDATION

The Project is consistent with the goals and policies of the General Plan, and the CMC. Based on the following findings, staff is recommending that the Planning Commission adopt a resolution approving CUP2024-010 to allow the operation of an adult daycare center within an existing building at 100 W. Ashlan Avenue.

Conditional Use Permit 2024-010

The findings required to approve a CUP application are as follows (CMC § 9.64.050, subd. (C):

1. The proposed use is conditionally allowed within, and would not impair the integrity and character of, the subject zoning district and is in compliance with all of the applicable provisions of the Development Code.

The Project is allowed within the C-M Zone District with an approved CUP. The Project will be in compliance with applicable provisions and development standards of the Zone District and will be subject to the conditions of approval. The applicant is not proposing any exterior modifications to the existing building. The addition of the outdoor recreation area is proposed to the north of the building, ±85 feet from Ashlan Avenue at its closest point, and ±500 feet from the residences to the east. Therefore, this Project would not impair the characteristics of the center. This Project will undergo SPR to further ensure that the site layout and development standards are met. During the SPR review, the setbacks, aesthetics, and details of the parking modifications will be reviewed to ensure that applicable standards are met.

2. The proposed use is consistent with the General Plan and any applicable Specific Plan.

This Project is consistent with the 2014 Clovis General Plan. The underlying General Plan land use designation of Industrial would remain unchanged, and the proposed use is acceptable within the underlying General Plan land use designation of Industrial, according to the 2014 Clovis General Plan.

3. The design, location, size, and operating characteristics of the proposed use are compatible with the existing and future land uses and would not create significant noise, traffic, or other conditions or situations that may be objectionable or detrimental to other allowed uses operating nearby or adverse to the public interest, health, safety, convenience, or welfare of the City.

The Project is compatible with and will complement the surrounding office and industrial uses. The Project will continue to provide adult daycare services for the Clovis community and will be able to serve more individuals with this relocation. The subject parcel provides a significant amount of separation from other users and exceeds parking requirements, therefore, not creating any adverse effects. Further, the Project will maintain the general circulation pattern existing for the site by retaining primary ingress/egress from Ashlan and Villa Avenues.

4. The subject parcel is physically suitable in size and shape for the type and density/intensity of use being proposed.

The proposed development has undergone scrutiny through the City's preliminary application process (Development Review Committee), confirming the site's physical suitability for accommodating the proposed Project. More formally, a thorough review and routing of the application, determined the Project will occupy and operate within the existing site that is physically suitable in size, compatible with surrounding uses, and has the infrastructure in place to support it. The Project will be required to comply with all conditions from Public Utilities and Engineering, which will further ensure the site is suitable for the proposed use. Site specific details will be evaluated through the SPR process.

5. There are adequate provisions for public access, water, sanitation, and public utilities and services to ensure that the proposed use would not be detrimental to public health and safety.

*As mentioned above, the project has been reviewed twice, once preliminarily through the Development Review Committee, and again through the formal routing and review of the Project, which confirmed that there are adequate provisions in place to serve the property that would not be detrimental to public health or safety. **Attachment 2** presents a conceptual depiction of the proposed development. Further evaluation will occur through the SPR process to ensure compliance with all development standards. While minor adjustments to the site plan and elevations may be necessary during this review, they are not anticipated to impede the developability of the site itself.*

6. The proposed Project has been reviewed in compliance with the provisions of the California Environmental Quality Act (CEQA) and there would be no potential significant negative effects upon environmental quality and natural resources that would not be properly mitigated and monitored, unless findings are made in compliance with CEQA.

As identified above under the California Environmental Quality Act heading of this staff report, the Project was determined to be exempt from further environmental review pursuant to CEQA Guidelines section 15332. Therefore, the Project has been reviewed in compliance with CEQA.

ACTIONS FOLLOWING APPROVAL

If approved, the Project will continue with a SPR and staff will file a Notice of Exemption with the County Clerk.

NOTICE OF HEARING

Property owners within 500 feet notified: 28

CONFLICT OF INTEREST

None.

Prepared by: Marissa Jensen, Assistant Planner

Reviewed by: Interim Deputy City Planner, George González



RESOLUTION 24-_____

RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS ADOPTING A CLASS 32 CATEGORICAL EXEMPTION FROM FURTHER ENVIRONMENTAL REVIEW UNDER CEQA, AND APPROVING CONDITIONAL USE PERMIT 2024-010 TO ALLOW THE OPERATION OF AN ADULT DAYCARE CENTER WITHIN AN EXISTING BUILDING AT 100 W. ASHLAN AVENUE

WHEREAS, Jami De La Cerda of Bella May Development, LLC, (“Applicant”), 20 N. DeWitt Avenue, Clovis, CA, 93612, applied for Conditional Use Permit (“CUP”) 2024-010 to allow the operation of an adult daycare center within an existing building at 100 W. Ashlan Avenue in the City of Clovis (“Project”); and

WHEREAS, the City published notice of the public hearing in the Fresno Business Journal on Wednesday, October 9, 2024, mailed public notices to property owners within 500 feet of the Project site more than ten (10) days prior to the Planning Commission hearing, and otherwise posted notice of the public hearing according to applicable law; and

WHEREAS, a duly noticed public hearing was held on October 24, 2024; and

WHEREAS, the Planning Commission considered the California Environmental Quality Act (“CEQA”) analysis outlined in the staff report and elsewhere in the Administrative Record which determined the Project meets the requirements of a Class 32 (In-Fill Development Projects) Categorical Exemption pursuant to CEQA Guidelines section 15332; and

WHEREAS, the Planning Commission has had an opportunity to review and consider the entire administrative record relating to the Project, which is on file with the Department, and reviewed and considered those portions of the administrative record determined to be necessary to make an informed decision, including, but not necessarily limited to, the staff report, the written materials submitted with the request, and the verbal and written testimony and other evidence presented during the public hearing, and the conditions of approval attached hereto as **Attachment A** to this Resolution, which are incorporated herein by this reference (“Administrative Record”).

NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS, THE PLANNING COMMISSION RESOLVES AND FINDS AS FOLLOWS:

1. The Planning Commission finds that the Project is categorically exempt from further environmental review under CEQA pursuant to CEQA Guidelines section 15332, and hereby adopts a Class 32 (In-Fill Development Projects) Categorical Exemption.
2. The Project satisfies the required findings for approval of a CUP, as follows:
 - a. The proposed use is conditionally allowed within, and would not impair the integrity and character of, the subject zoning district and is in compliance with all of the applicable provisions of the City’s Development Code.
 - b. The proposed use is consistent with the General Plan and any applicable specific plan.

- c. The design, location, size, and operating characteristics of the proposed use are compatible with the existing and future land uses and would not create significant noise, traffic, or other conditions or situations that may be objectionable or detrimental to other allowed uses operating nearby or adverse to the public interest, health, safety, convenience, or welfare of the City.
 - d. There are adequate provisions for public access, water, sanitation, and public utilities and services to ensure that the proposed use would not be detrimental to public health and safety.
 - e. The subject parcel is physically suitable in size and shape for the type and density/intensity of use being proposed.
 - f. The proposed Project has been reviewed in compliance with the provisions of the CEQA.
3. The Planning Commission could not make the findings necessary for approval of CUP2024-010 without the conditions of approval set forth in **Attachment A** to this Resolution.
 4. The bases for the findings are detailed in the October 24, 2024, staff report, the entire Administrative Record, as well as the evidence and comments presented during the public hearing which are hereby incorporated by reference.
 5. CUP2024-010 is hereby approved with incorporation of the conditions of approval (**Attachment A** to this Resolution).

* * * * *

The foregoing resolution was adopted by the Clovis Planning Commission at its regular meeting on October 24, 2024, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:
 NOES:
 ABSENT:
 ABSTAIN:

PLANNING COMMISSION RESOLUTION NO. 24-____
 DATED: October 24, 2024

 Alma Antuna, Chair

ATTEST: _____
 Renee Mathis, Secretary

CONDITIONS OF APPROVAL **CUP2024-010**

PLANNING DIVISION CONDITIONS **(Marissa Jensen, Division Representative – (559) 324-2338)**

1. This conditional use permit approval allows the applicant to operate an adult daycare center within an existing building at 100 W. Ashlan Avenue.
2. This conditional use permit is not transferable to another location.
3. This conditional use permit does not permit or otherwise allow for the operation of the site and/or uses other than explicitly described in the accompanying staff report.
4. A separate site plan review (SPR) and approval shall be required prior to the construction of any structures and/or prior to any site modifications and shall comply with development standards prescribed for the I (Industrial) land use designation, C-M (Commercial and Light Manufacturing) zone district, and other applicable standards as determined by the Planning Division during the SPR review process.
5. The site and its exterior shall remain maintained and free from debris and trash. This includes no outdoor stacking of empty crates, boxes, and/or pallets along the exterior of the structures.
6. There shall be no outside storage of materials, supplies, or equipment in any area of the site except inside a closed building or behind a six (6'-0") foot visual barrier intended to screen such area from view of adjoining properties and from the street.
7. All lighting associated with this use shall be screened from direct view from the public right-of-way and adjacent residential properties.
8. The applicant shall make provisions for refuse service in an approved refuse container(s) on the subject property.
9. The applicant shall operate in a manner that complies with the Clovis Municipal Code so that it does not generate noise, odor, or vibration that adversely affects any adjacent properties.
10. There shall be no public address (PA) system, phone ringing, or music system used that may be heard on the exterior of the building/ facility.
11. The applicant shall consult with the City of Clovis Building Division on any building code requirements. All conditions of this Conditional Use Permit shall be addressed prior to operation of the facility.
12. Any future request to expand and/or modify the use shall be subject to an amendment to the CUP.

13. An abandonment or cessation of this use for a period exceeding 90 days shall cause this approval to be scheduled for revocation.
14. All parking of employees shall occur on-site.
15. The day care center requires a parking ratio of 1 vehicle stalls per 6 students, plus permanent drop-off area, per CMC 9.32.040:
 - a. Maximum number of students: 635
 - b. Required Parking Stalls: 106
 - c. Provided Parking Stalls (with reciprocal access): 588
16. The center must provide irrevocable offers for reciprocal access and parking for all parcels within the center as defined above and shall record the agreements per Engineering Division's requirements.
17. Applicant must have on file a current City of Clovis Business License prior to conducting business.
18. CUP2024-010 may be reviewed at any time for compliance with the conditions of approval. Clovis Planning staff may conduct a review of the use in regard to conditions of approval and may present findings of this review to the Planning Commission.

POLICE DEPARTMENT COMMENTS

(Jordan Hunter, Police Department Representative – (559) 324-3477)
 (Sean O'Brien, Police Department Representative – (559) 324-3468)

19. The applicant shall require compliance with all criminal and administrative state, county, and city laws by the applicant and its employees within the use and within 100 feet of the use. The applicant shall make reasonable efforts to report to law enforcement known violations of criminal laws by its patrons within the use and within 100 feet of the use.
20. Emergency phone numbers for responsible parties shall be kept current at all times, including during the building phase of the project, and provided to the Clovis Police Department Dispatch Center.
21. Security video cameras shall be installed to cover at a minimum, at all entrances and exits of the building. A single camera may cover multiple entrances and exits as long as the camera reasonably captures the ingress and or egress. The main entrances/exits shall be covered with individual cameras to capture higher quality imagery. Video shall be made available to Clovis PD upon request in conjunction with a criminal investigation and be retained for a minimum of 30 days.
22. All parking areas and sidewalks on the property shall be lighted. The lighting shall be shielded and contained within the property as to not affect surrounding properties. This includes any logos or numbers attached to the exterior of the building and any signage contained within the property.

23. The property must be maintained and cared for in a manner that increases public safety and is in compliance with the Clovis Municipal Code and all other applicable City codes. Including, but not limited to, all lighting, gates and fences shall be maintained and in working order, and landscaping shall be kept clean and free of debris and other hazards.
24. The site owner shall maintain all structures and adjoining fences/walls and keep them free of graffiti. All forms of graffiti shall be removed within 48 hours.
25. A manager/assistant manager or other responsible party of the property must be available at the property 24 hours a day, 7 days a week to provide access to emergency personnel in case of an emergency. Emergency phone numbers for managers/assistant managers or responsible persons shall be provided to the Clovis Police Department Dispatch Center and other public safety departments. Emergency phone numbers shall always be kept current.
26. If the property/building is alarmed, a 24-hour responsible party should be on file with the Clovis Police Department. A responsible party with name and contact information shall be maintained with the Clovis Police Department.

COUNTY OF FRESNO HEALTH DEPARTMENT

(Kevin Tsuda, County of Fresno Health Representative – (559) 600-3271)

27. The applicant shall refer to the attached Fresno County Health Department correspondence. If the list is not attached, please contact the agency for the list of requirements.

FRESNO METROPOLITAN FLOOD CONTROL DISTRICT

(Antony Zaragoza, FMFCD Department Representative – (559) 456-3292)

28. The applicant shall refer to the attached Fresno Metropolitan Flood Control District correspondence. If the list is not attached, please contact the District for the list of requirements.

FRESNO IRRIGATION DISTRICT

(Chris Lundeen, FID Department Representative – (559) 233-7161)

29. The applicant shall refer to the attached Fresno Irrigation District correspondence. If the list is not attached, please contact the District for the list of requirements.

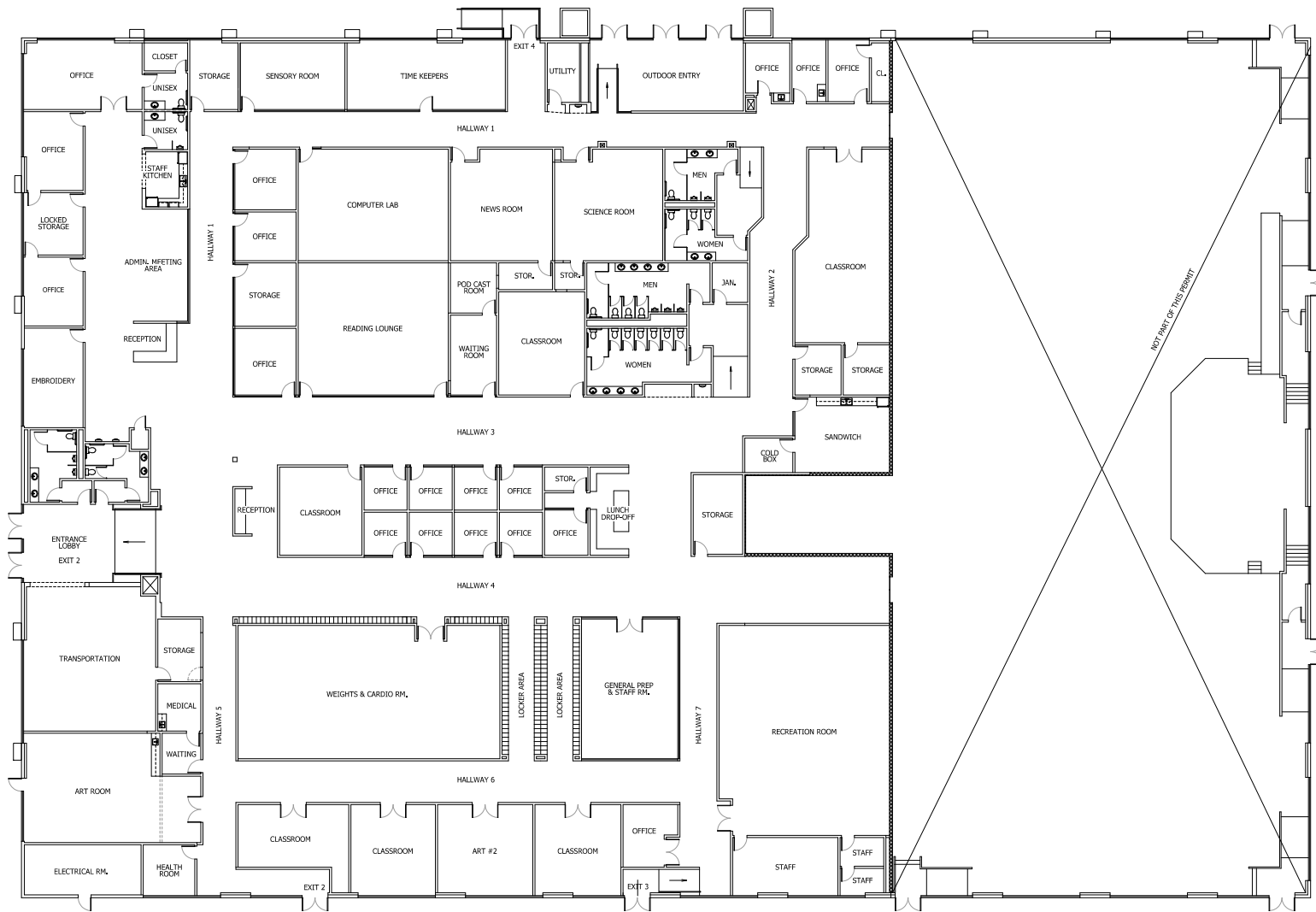
SAN JOAQUIN AIR POLLUTION CONTROL DISTRICT

(Ryan Grossman, SJVAPCD Department Representative – (559) 230-6569)

30. The applicant shall refer to the attached SJVAPCD correspondence. If the list is not attached, please contact the District for the list of requirements.

CALIFORNIA STATE DEPARTMENT OF SOCIAL SERVICES
(Community Care Licensing – (559) 243-8080)

31. The applicant shall refer to the attached CSDSS correspondence. If the list is not attached, please contact the agency for the list of requirements.



39,828 SQ.FT.
PROPOSED FLOOR PLAN
SCALE: 1" = 10'-0"

FLOOR PLAN KEYNOTES

AGENDA ITEM NO. 3.

Phone: (559) 790-6771



All drawings and written material appearing herein constitute original and unpublished work of the Architect and may not be duplicated without written consent of the Architect.

Project Number:
C24021

Plot Date: 8/22/2024

REVISIONS

| Symbol | Date | Comments | By |
|--------|------|----------|----|
| ▲ | | | |
| ▲ | | | |
| ▲ | | | |

DIAMOND LEANING CENTER

WALL TYPE LEGEND

- NEW 4" WALL
- NEW 2HR DEMISING WALL
- NEW ALUMINUM STOREFRONT
- EXISTING WALLS TO REMAIN

METAL STUD SCHEDULE

| NO. | STUD SPECIFICATION | HEIGHT |
|-----|---------------------------|-------------|
| ① | DIETRICH - CBN 3-1/2", 20 | UP TO 8'-0" |
| ② | DIETRICH - CBN 3-1/2", 20 | UP TO 8'-0" |

ROOM/ WINDOW/ DOOR LEGEND

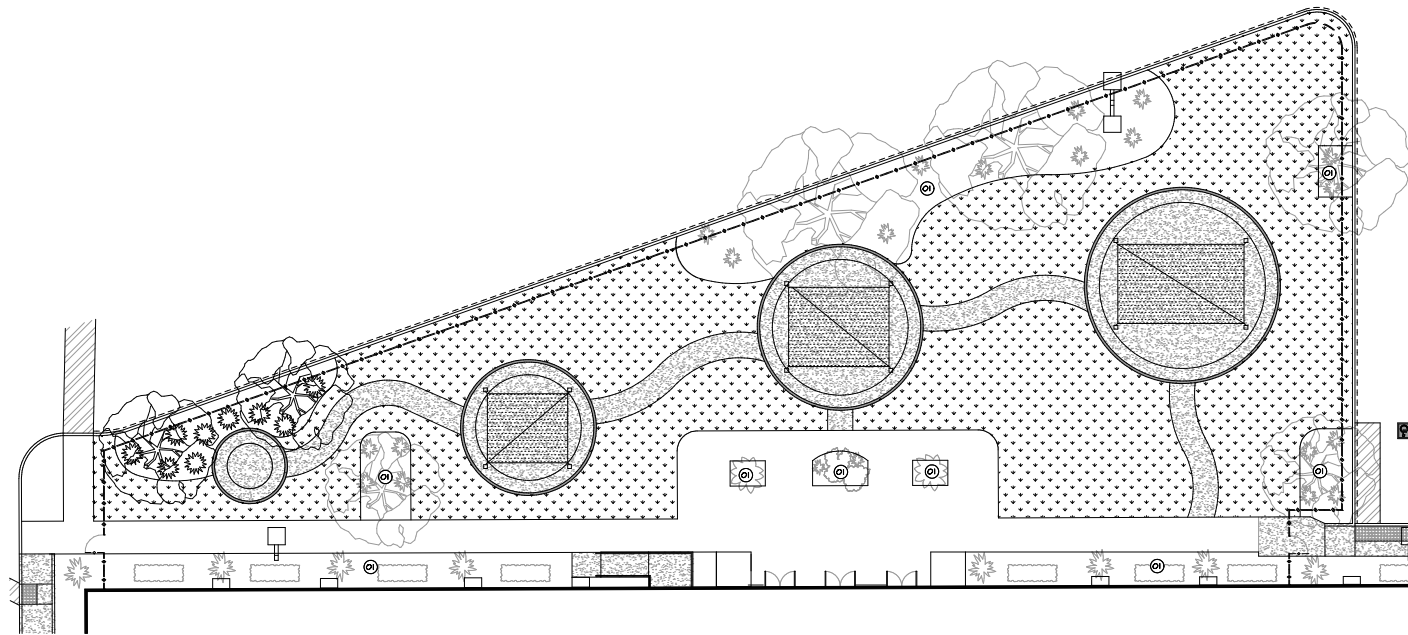
- ROOM NUMBER, SEE SHEET A4-1 FOR SCHEDULE
- WINDOW NUMBER, SEE SHEET A4-1 FOR SCHEDULE
- DOOR NUMBER, SEE SHEET A4-1 FOR SCHEDULE

GENERAL NOTES

- CONTRACTOR TO VERIFY ALL DIMENSIONS AND LOCATIONS OF ALL EXISTING WALLS, DOORS, WINDOWS, AND OTHER FEATURES PRIOR TO CONSTRUCTION.
- ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN FEET AND INCHES.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND ALL APPLICABLE REGULATIONS.
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A1-2

Sheet Number



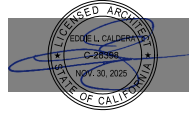
PRELIMINARY LANDSCAPE PLAN
SCALE: 1" = 10'-0"

LANDSCAPE KEYNOTES

OF EXISTING TREES AND PLANTING TO REMAIN

AGENDA ITEM NO. 3.

Phone: (559) 790-6771



All drawings and written material appearing herein constitute original and unpublished work of the Architect and may not be duplicated without written consent of the Architect.

Project Number:

C24021

Plot Date:

8/29/2024

REVISIONS

| Symbol | Date | Comments | By |
|--------|------|----------|----|
| ▲ | | | |
| ▲ | | | |
| ▲ | | | |
| ▲ | | | |

LANDSCAPE SCHEDULE



8-GALLON GOLDENRAIN TREE
COLLECTING PARCEL 1A

SHRUBS & GROUND COVER



LOW GROWING PLANTS & ANNUALS
SEE OWNER FOR PREFERENCES



SYNTHETIC LAWN

DIAMOND LEANING CENTER

SUBMIT / REVIEW / APPROVED STAMPS

L1-1

Sheet Number

Eddie L. Caldera Architect

AGENDA ITEM NO. 3.

OPERATIONAL STATEMENT

August 22, 2024

Planning & Development Dept.
1033 Fifth Street
Clovis, CA 93612
RE: APN 493-070-49

Subject: 100 West Ashlan Ave.

To whom it may concern,

I am working with the Diamond Learning Center, Inc. (DLC) who are proposing a new 39,828 square foot tenant improvement at 100 W. Ashlan, in the old Celebration Church building. The property is zoned C-M (Commercial Light Manuf.) and will have an I-4 occupancy. The lot size is 6.3 acres, and the building shares the site with an additional building approximately forty feet to the east (on a separate parcel). The property is bordered by roads on the West, North, & East sides - with Commercial, a park, and residential being placed respectively. There is an undeveloped lot on the South side of the property. The existing building is 60,000 square feet. The DLC will provide improvements to 39,828sf leaving the remainder of the space as a separate tenant. There will be a 2hr demising wall separating the two spaces.

The Diamond Learning Center is a specialized education center that provides educational, vocational training and employment opportunities for adults with intellectual and developmental disabilities. DLC provides individualized, interest based and level-based services for adults. They serve a wide range of adults who have a broad range of intellectual, developmental, and behavioral challenges with the goal of acquiring the skills needed to be successful in their communities. DLC has a specialized curriculum that includes Community Mobility, Vocational Training, Parenting and Child Development, Social Skills, and Art & Music. DLC's long standing mission is to empower lifelong learning that enables a person with these disabilities to maximize independence, self-determination and lead productive and fulfilling lives.

The hours of operation are Monday through Friday 6am to 4:30pm. The program will operate 52 weeks per year, with nine recognized holidays. All attendees are required to be 18 years and over. Exception: CVRC or public Scholl (ATP) have no other appropriate placement within the community and the referring agency guarantees funding. Current student enrollment is approximately 185 with plans to increase enrollment an additional 450 students over the next 5 years. Bringing DLCs goal of 635 students by 2030. There is a 3:1 student to staff ratio with the maximum number of occupants at one time near 360 people. The center offers transportation on request and operates with twenty-four vans parked on site. There are two trips provided per day to and from the facility. There will be no cooking equipment on site, but rather a cold box, and sandwich making station to serve students and staff.

Eddie L. Caldera

Architect

AGENDA ITEM NO. 3.

There will be no changes to the exterior of the existing structure. All building improvements will be interior only. DLC will be making two adjustments to the existing site. Additional accessible parking stalls will be constructed on the west side of the building to aid students to the west entrance. Along with this there will be EV charging stations added on the south side of the parking lot to meet the requirements of the 2022 CGC. Finally, DLC will be adding an outdoor area north of the existing building. An outdoor area is required by state law and will provide an enjoyable experience for students. This area includes; shaded concrete and grass areas, hooded site lighting, benches, trees and other varies types of landscaping. The outdoor area will be surrounded by 6'-0" tall wrought-iron fencing with access gates on either end.

This center will provide a valuable necessity to the City of Clovis. Allowing all people to successfully be a part of society should be an important goal for all communities. The Diamond Leaning Center provides this service in great lengths and does it while creating a wonderful experience for all students.

For further information, please feel free to contact this office at (559) 790-6771.

Respectfully Submitted,
Eddie L. Caldera



County of Fresno
DEPARTMENT OF PUBLIC HEALTH
Environmental Health Division

October 4, 2024

LU0022792
2604

Marissa Jensen, Assistant Planner
City of Clovis
Planning and Development Services Department
1033 Fifth Street
Clovis, CA 93612

Dear Ms. Jensen:

PROJECT NUMBER: **CUP2024-010, SPR2024-030**

CUP2024-010; a conditional use permit request to allow the operation of an adult day care center within the C-M zone district at 100 W. Ashlan Avenue. **SPR2024-030**; a site plan review amendment for site changes in association with a proposed adult daycare center at 100 W. Ashlan Avenue. The proposed changes include the conversion of a portion of the parking field to an outdoor area and 30 accessible parking stalls.

APN: 493-070-49 ZONING: C-M ADDRESS: 100 W. Ashlan Avenue

Recommended Conditions of Approval:

- Section 113789 of the California Health and Safety Code (California Retail Food Code) exempts child day care facilities, community care facilities, residential care facilities for the elderly, and residential care facilities for the chronically ill, which has the same meaning as a residential care facility, as defined in Health & Safety Code Section 1568.01. These facilities are not deemed to be FOOD FACILITIES, and, therefore, are exempt from this part. As such, this Division has no regulatory jurisdiction on the daycare facility. Section 114437 delegates the authority to the State Department of Social Services.

The project should be routed to the following agency for comment:

California State Department of Social Services
Community Care Licensing
770 E. Shaw Ave., Suite 330
Fresno, CA 93710-7708
(559) 243-8080

- The proposed project has the potential to expose nearby residents to elevated noise levels. Consideration should be given to your City’s municipal code.

- Facilities that use and/or store hazardous materials and/or hazardous wastes shall meet the requirements set forth in the California Health and Safety Code (HSC), Division 20, Chapter 6.95, and the California Code of Regulations (CCR), Title 22, Division 4.5. Your proposed business will handle hazardous materials and/or hazardous waste and will be required to submit a Hazardous Materials Business Plan pursuant to the HSC, Division 20, Chapter 6.95 (<http://cers.calepa.ca.gov/>). Contact the Fresno County Hazmat Compliance Program at (559) 600-3271 for more information.

REVIEWED BY:



Kevin Tsuda, R.E.H.S.
Environmental Health Specialist II

(559) 600-33271

cc: Rogers, Moreno, C. Yang & Morgan- Environmental Health Division (CT. 31.04)
Jami De La Cerda- Applicant (jami@dlclife.org)



CITY of CLOVIS

REPORT TO THE PLANNING COMMISSION

TO: Clovis Planning Commission

FROM: Planning and Development Services

DATE: October 24, 2024

SUBJECT: Consider Approval - Res. 24-___, CUP2024-007, Adopting a Class 1 Categorical Exemption from further environmental review under CEQA and to approve a conditional use permit to allow operation of a tattoo parlor (body art establishment) within an existing commercial center at 711 W. Shaw Avenue, Suite 111. Lotus Body Art, applicant; Western Village Inc., owner.

Staff: Liz Salazar, Assistant Planner

Recommendation: Approve

ATTACHMENTS:

1. Resolution 24-___, CUP2024-007
2. Applicant's Operational Statement
3. Site and Floor Plan
4. Correspondence from Commenting Agencies

RECOMMENDATION

Staff recommends that the Planning Commission adopt the categorical exemption and approve the conditional use permit for operation of a tattoo parlor (body art establishment), subject to the conditions of approval listed as **Attachment 1A**.

EXECUTIVE SUMMARY

Conditional Use Permit (CUP) 2024-007 is a request to allow the operation of a tattoo parlor ("Project") in a C-2 (Community Commercial) Zone District within an existing commercial center located on the northeast corner of W. Shaw and Willow Avenues, as shown in **Figure 1** below. Approval of the request would allow the Lotus Body Art ("Applicant") to proceed with obtaining a business license and proceed with building permits, as needed, for improvements to the interior of the building.

FIGURE 1
Project Location



BACKGROUND

- General Plan Designation: G-C (General Commercial)
- Existing Zoning: C-2 (Community Commercial)
- Lot Size: ±13.6 acres (parcel) / ±1,257 square feet (tenant suite)
- Current Land Use: Commercial center
- Adjacent Land Uses:
 - North: Big Dry Creek Canal & Multi-family residential
 - East: Ponding basin and commercial
 - South: Commercial center
 - West: Commercial center

On October 16, 2006, the City Council approved Ordinance Amendment OA2006-11, establishing the definition of a Body Art Establishment and providing for this use within the C-2 (Community Commercial) and C-M (Commercial and Light Manufacturing) Zone Districts with an approved conditional use permit. The Clovis Municipal Code (CMC) defines Body Art Establishments as any permanent premises, business, location, facility, room, or any portion thereof, used or operated as a body piercing parlor, as a permanent cosmetics parlor, or as a tattoo parlor. (CMC § 9.120.020, subd. (B).)

PROPOSAL AND ANALYSIS

The Project is located on the northeast corner of W. Shaw and Willow Avenues within the Western Village Shopping Center, amongst a block of retail tenant spaces. The Applicant is proposing to operate a tattoo parlor in a ±1,257 square foot suite at 711 W. Shaw Avenue, Suite 111. The Applicant proposes tattoo services and the sale of artwork on various items, such as canvases, vinyl decals, and clothing items. No piercing services are proposed. The tattoo parlor will be known as “Lotus Body Art.” All artists would be appropriately licensed with the Fresno County Department of Public Health. The hours of operation are proposed to be 10:00 a.m. to 9:00 p.m., Tuesday through Sunday. The Applicant has included an operational statement included as **Attachment 2**.

The tenant space is currently vacant, and approval of the Project would help to occupy this space. Based on the location with direct view and access from W. Shaw and Willow Avenues and being within an existing commercial center with sufficient parking, the proposed use would be appropriate for the site. During consultation with the Police Department regarding the Project’s proposal in the commercial center, no objections or unique concerns were identified.

Parking and Vehicular Access

The commercial center’s parking and off-site improvements were constructed as part of the overall development of the center. This CUP will not increase the existing square footage of the tenant space and does not propose changes to the parking lot or circulation patterns. The proposed tattoo parlor is compatible with the existing uses in the commercial center; therefore, the existing parking spaces are sufficient for the proposed use. No changes to the parking lot or circulation patterns in the Western Village Shopping Center are proposed. The Project site may utilize the four (4) existing access points from W. Shaw and Willow Avenues.

Review and Comments by Agencies

The Project was distributed to all City Departments as well as applicable outside agencies, including Fresno County Department of Public Health.

The proposed tattoo parlor will be required to comply with licensing requirements of the Fresno County Department of Public Health, which requires submittal of complete body art facility plans and specifications to the Department’s review and approval.

Outside agency comments received are attached (see **Attachment 4**) only if the agency has provided concerns, conditions, or mitigation measures. Routine responses and comment letters are placed in the administrative record and provided to the Applicant for their records.

Public Comments

A public notice was sent to property owners within 300 feet of the property boundaries. Staff has not received any inquiries prior to the finalization of the staff report.

California Environmental Quality Act (CEQA)

The City has determined that this Project is exempt from CEQA, pursuant to CEQA Guideline Section 15301 (Class 1 – Existing Facilities) and the Project would not trigger any of the exceptions identified under CEQA Guidelines Section 15300.2.

The Class 1 categorical exemption exempts projects that consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use. Here, the Project would occupy an existing facility and will operate as a comparable general commercial use; therefore, the Project has been determined to have negligible differences from the former use and qualifies for the Class 1 Categorical Exemption. (Cal. Code Regs., Tit. 14, § 15301, subd. (a).)

The exceptions identified in CEQA Guidelines Section 15300.2 identify further review of a categorical exemption by the project's potential to result in a cumulative impact, significant effect, or proximity to a scenic highway, location on or within the vicinity of a hazardous waste site, and/or the potential to negatively impact a historical resource. Based on staff's review, these exceptions would not be triggered by the proposed Project. Therefore, a Notice of Exemption has been prepared and staff will file the notice with the County Clerk if the Commission adopts the categorical exemption and approves the Project.

The City published notice of this public hearing in *The Business Journal* on Wednesday, October 9, 2024.

Consistency with General Plan Goals and Policies

Staff has evaluated the Project in light of the General Plan Economic Development goals and policies. The following goal and policy reflect the City's desire of commitment to growth and fostering economic opportunities that support jobs in the area.

Economic Development Element:

- | | |
|------------|--|
| Goal 3: | Distinctive commercial destinations, corridors, and centers that provide a wide variety of unique shopping, dining, and entertainment opportunities for residents and visitors. |
| Policy 3.2 | Convenience goods and services. Encourage businesses providing convenience goods and services to locate in retail centers in neighborhoods and communities throughout the city. |

REASON FOR RECOMMENDATION

CUP2024-007 is consistent with the goals and policies of the General Plan, Clovis Municipal Code, and the C-2 (Community Commercial) Zone District. Additionally, the Project will not substantially impact traffic, sewer, water, or other public services. Based on the findings, staff is recommending that the Planning Commission adopt the categorical exemption and approve CUP2024-007, subject to the conditions of approval listed as **Attachment 1A**.

The findings required to approve a CUP application include (CMC § 9.64.050, subd. (C):

1. The proposed use is conditionally allowed within and would not impair the integrity and character of, the subject zoning district and is in compliance with all of the applicable provisions of this Development Code.

*The subject Project is an allowed use within the C-2 Zone District with an approved conditional use permit. The Project will be in compliance with applicable provisions and development standards identified in the CMC and will be subject to the conditions of approval provided in **Attachment A** to the Resolution attached hereto as **Attachment 1**.*

2. The proposed use is consistent with the General Plan and any applicable Specific Plan.

This Project is consistent with the 2014 Clovis General Plan. The underlying General Plan land use designation of General Commercial would remain unchanged, and the proposed use is acceptable within this underlying land use designation, according to the 2014 Clovis General Plan.

3. The design, location, size, and operating characteristics of the proposed use are compatible with the existing and future land uses and would not create significant noise, traffic, or other conditions or situations that may be objectionable or detrimental to other allowed uses operating nearby or adverse to the public interest, health, safety, convenience, or welfare of the City.

The Project is compatible with the existing uses and would complement the other commercial establishments in the vicinity. The site is located along a busy corridor that hosts a variety of commercial, retail, service, and restaurant uses. The Project complements these uses and would not be out of the ordinary as it relates to the character of the surrounding area. Further, the Project would maintain the existing circulation pattern existing at the site.

4. The subject parcel is physically suitable in size and shape for the type and density/intensity of use being proposed.

The Project will occupy and operate within the existing site that is physically suitable in size and shape and has the infrastructure in place to support it. No site changes are proposed with the Project.

5. There are adequate provisions for public access, water, sanitation, and public utilities and services to ensure that the proposed use would not be detrimental to public health and safety.

The Project will comply with all applicable public health standards. Further, as an occupant of a site that was previously developed with commercial and service-related uses, the adequate provisions (i.e. water, sanitation, utilities, etc.) are readily available and accessible to the proposed use. Existing infrastructure is in place to adequately serve the proposed use at the proposed site.

6. The proposed project has been reviewed in compliance with the provisions of the California Environmental Quality Act (CEQA) and there would be no potential significant negative effects upon environmental quality and natural resources that would not be properly mitigated and monitored, unless findings are made in compliance with CEQA.

As identified above under the "California Environmental Quality Act (CEQA)" section of this staff report, the Project was determined to qualify for a Class 1 Categorical Exemption from further environmental review. Therefore, the Project has been reviewed in compliance with CEQA.

ACTIONS FOLLOWING APPROVAL

If approved, the Project will continue with obtaining a business license and proceed with building permits, as needed, for improvements to the interior of the building, and staff will file the Notice of Exemption with the County Clerk.

NOTICE OF HEARING

Property owners within 300 feet notified: 50

CONFLICT OF INTEREST

None.

Prepared by: Liz Salazar, Assistant Planner

Reviewed by: Interim Deputy City Planner, George González



RESOLUTION 24-____

**RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS ADOPTING A
CLASS 1 CATEGORICAL EXEMPTION FROM FURTHER ENVIRONMENTAL REVIEW
UNDER CEQA AND APPROVING CONDITIONAL USE PERMIT 2024-007 TO ALLOW A
TATTOO PARLOR (BODY ART ESTABLISHMENT) TO BE LOCATED AT 711 W. SHAW
AVENUE, SUITE 111**

WHEREAS, Lotus Body Art (Applicant), 2701 Holland Avenue, Clovis, CA 93611, applied for Conditional Use Permit (CUP) 2024-007 to allow a tattoo parlor (body art establishment) to be located at 711 W. Shaw Avenue, Suite 111 (northeast corner of W. Shaw and Willow Avenues) in the City of Clovis ("Property") ("Project"); and

WHEREAS, a duly noticed public hearing was held on October 24, 2024; and

WHEREAS, the City published notice of the public hearing in *The Business Journal* on Wednesday, October 9, 2024, and mailed public notices to property owners within 300 feet of the Property area, more than ten (10) days prior to said hearing; and

WHEREAS, the Planning Commission considered the California Environmental Quality Act (CEQA) analysis outlined in the staff report and elsewhere in the administrative record, which determined the Project meets the requirements of the Class 1 (Existing Facilities) Categorical Exemption pursuant to CEQA Guidelines section 15301; and

WHEREAS, the Planning Commission has had an opportunity to review and consider the entire administrative record relating to the Project, which is on file with the Department, and reviewed and considered those portions of the administrative record determined to be necessary to make an informed decision, including, but not necessarily limited to, the staff report, the written materials submitted with the request, and the verbal and written testimony and other evidence presented during the public hearing, and the conditions of approval attached as **Attachment A** to this Resolution, which are incorporated herein by this reference ("Administrative Record").

**NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS,
THE PLANNING COMMISSION RESOLVES AND FINDS AS FOLLOWS:**

1. The Planning Commission finds that the Project is categorically exempt from further environmental review under CEQA pursuant to CEQA Guidelines section 15301, and hereby adopts said Class 1 (Existing Facilities) Categorical Exemption.
2. The Project satisfies the required findings for approval of a conditional use permit, as follows:
 - a. The proposed use is conditionally allowed within, and would not impair the integrity and character of, the subject zoning district and is in compliance with all of the applicable provisions of the City's Development Code.
 - b. The proposed use is consistent with the General Plan and any applicable specific plan.

- c. The design, location, size, and operating characteristics of the proposed use are compatible with the existing and future land uses and would not create significant noise, traffic, or other conditions or situations that may be objectionable or detrimental to other allowed uses operating nearby or adverse to the public interest, health, safety, convenience, or welfare of the City.
 - d. There are adequate provisions for public access, water, sanitation, and public utilities and services to ensure that the proposed use would not be detrimental to public health and safety.
 - e. The subject parcel is physically suitable in size and shape for the type and density/intensity of use being proposed.
 - f. The proposed project has been reviewed in compliance with the provisions of the CEQA, and the Commission has adopted a Class 1 Categorical Exemption from further environmental review.
3. The Planning Commission could not make the findings necessary for approval of CUP2024-007 without the conditions of approval set forth in **Attachment A** to this Resolution.
 4. The bases for the findings are detailed in the October 24, 2024, staff report, the entire Administrative Record, as well as the evidence and comments presented during the public hearing which are hereby incorporated by reference.
 5. CUP2024-007 is hereby approved with incorporation of the conditions of approval (**Attachment A** to this Resolution).

* * * * *

The foregoing resolution was adopted by the Clovis Planning Commission at its regular meeting on October 24, 2024, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

PLANNING COMMISSION RESOLUTION NO. 24-____
DATED: October 24, 2024

Alma Antuna, Chair

ATTEST: _____
Renee Mathis, Secretary

CONDITIONS OF APPROVAL CUP2024-007

PLANNING DIVISION CONDITIONS **(Liz Salazar, Division Representative – (559) 324-2305)**

1. This conditional use permit (CUP) approval is to allow a tattoo parlor (body art establishment) at 711 W. Shaw Avenue, Suite 111 ("Project" or "CUP2024-007").
2. This CUP does not permit or otherwise allow for the operation of the site and/or uses other than those explicitly described in the accompanying staff report from the October 24, 2024, Planning Commission hearing.
3. This CUP is not transferable to another location.
4. If site modifications are proposed, a separate site plan review (SPR) and approval shall be required prior to any site modifications and shall comply with development standards prescribed for the General Commercial land use designation, C-2 (Community Commercial) Zone District, and other applicable standards as determined by the Planning Division during the SPR review process.
5. The hours of operation shall be between 10:00 a.m. and 9:00 p.m. daily.
6. All parking shall be accommodated on site.
7. The Project is required to manage the parking lot at all times to ensure that the lot is kept clean and free of debris and other hazards.
8. All exterior lighting shall be directed away from residential properties and not interfere with the driving safety of vehicular traffic and comply with all lighting standards in the Clovis Municipal Code (CMC).
9. The applicant shall operate in a manner that complies with the CMC so that it does not generate noise, odor, or vibration that adversely affects any adjacent properties.
10. Any future request to expand and/or modify the use shall be subject to an amendment to the CUP.
11. There shall be no outdoor sales, displays or events associated with this use unless specifically approved through the appropriate process and obtain necessary approvals.
12. An abandonment or cessation of this use for a period exceeding ninety (90) days shall cause this approval to be scheduled for revocation.
13. CUP2024-007 may be reviewed at any time for compliance with the conditions of approval and present findings of this review to the City Planner or the Planning Commission.

CLOVIS POLICE DEPARTMENT
(Jordan Hunter, Police Corporal (559) 324-3477)
(Sean Obrien, Police Corporal (559) 324-3468)

14. Security cameras shall be installed to cover at a minimum the lobby, entrance and exits, and parking lot views. The video shall be retained for a minimum period of thirty (30) days. Video shall be made available to the Clovis Police Department ("Clovis PD") upon request in conjunction with a criminal investigation.
15. The sidewalks and parking lots shall be reasonable illuminated to enhance public safety and deter criminal activity. The lighting shall be shielded in a manner to that it does not create a nuisance for neighboring properties.
16. The property must be maintained and cared for in a manner that increases public safety and complies with the CMC and all other applicable City codes. All lighting, gates and fences shall be maintained and in working order, and landscaping shall be kept clean and free of debris and other hazards.
17. The site owner shall maintain all structures and adjoining fences/walls and keep them free of graffiti. All forms of graffiti shall be removed within 48 hours.
18. If the property maintains an alarm system, 24-hour contact information for the responsible party shall be maintained with the Clovis Police Department Dispatch Center.
19. The property shall keep the noise and vibration levels emitting from the property in compliance with CMC sections 5.27.605 (decibel standards), 9.22.080 (noise standards), and 9.22.100 (vibrations), as to not cause a nuisance for neighboring businesses or patrons. No amplified music will be allowed.
20. Hours of operation shall not exceed from 10:00 a.m. to 9:00 p.m. daily.
21. All employees administering tattoos/piercings shall be licensed in accordance with State and County law.

CLOVIS BUILDING DEPARTMENT
(Brad Fowler, Department Representative (559) 324-2311)

General

22. Obtain a building permit for grade work being performed for this project.
23. All sheets of the plans and the cover sheet of any calculations must bear the stamp and wet signature of a California-licensed engineer or architect licensed to practice in the State of California. – Cal Bus & Prof. Code section 5537. All documents must be signed by the person responsible for preparing them.
24. Prior to permit issuance, provide the builder's name, address, zip code, phone number, and State of California contractor's license number.

Architectural

- 25. Provide an accurate and complete sheet index that identifies and corresponds with all sheets within the set.
- 26. Provide a site plan.
- 27. Provide a “vicinity map” to accurately reflect the location.
- 28. Provide note on plans indicating the occupancy group(s).
- 29. Provide note on plans indicating the square footage.
- 30. Provide note(s) and calculation(s) on the plans indicating the occupant load.

Accessibility

- 31. An amount equal to 20% of the remodel cost is to be spent for improvement of accessibility for the physically disabled. Provide documentation showing what items are being upgraded and the cost of these items. Provide plans and details of the improvements as needed. 2022 California Building Code (“CBC”) section 11B-202.4, Exception #8.
- 32. The proposed work is not exempt from the requirements of section 11B-202.4 of the 2022 CBC, as identified by exceptions 1-10. When permit applications are submitted to the City of Clovis for alterations, additions, and/or structural repairs, not specifically exempted by 11B-202.4, exceptions 1-10, the City is required to enforce disabled access to the “area of work” covered by the permit(s). Access includes both pedestrian and vehicular. Every tenant improvement permit provides the inclusion to upgrade accessibility features serving the tenant space as needed with no additional cost added to the permit, however plans must identify, with sufficient details, necessary information to alter and to inspect, both the accessible parking and the pedestrian route(s) prior to final occupancy.

Electrical

- 33. All plans and electrical calculations are to be designed by a licensed professional; provide wet stamp with signature and expiration date on all electrical sheets. Or provide signature of licensed design building electrical contractor.

Mechanical

- 34. All plans and mechanical calculations are to be designed by a licensed professional. Provide wet stamp with signature and expiration date or provide signature of licensed design building mechanical contractor. All sheets must be signed by the person responsible for preparing them.

Plumbing

35. All plans and plumbing calculations are to be designed by a licensed professional. Provide wet stamp with signature and expiration date or provide signature of licensed design build plumbing contractor. The plumbing sheets must be signed by the person responsible for preparing them.

COUNTY OF FRESNO HEALTH DEPARTMENT

(Kevin Tsuda, County of Fresno Health Representative – (559) 600-3271)

36. The applicant shall refer to the attached Fresno County Health Department correspondence. If the list is not attached, please contact the agency for the list of requirements.

Lotus Body Art

Operational Statement

To: City of Clovis Planning Commission.

Lotus Body Art formally requests your consideration in the approval of a Conditional Use Permit to operate a tattoo facility in the city of Clovis.

Location: 711 W. Shaw ave. #111, Clovis, Ca. 93611. Within the Western Village Shopping Center located on the Northeast corner of Shaw and Willow. The existing space is approximately 1400sqft, and has a large parking lot that greatly exceeds our employee and customer's needs.

Business Model: Lotus Body Art will provide tattoo services to customers over 18 years of age and conduct sales of artwork designed by our artists in the form of prints on canvas, vinyl decals, and tee shirts. We specialize in art and tattooing only and will not perform any additional services such as Piercings or branding and will not conduct sales of any other merchandise that is not our artwork.

Occupancy: Our expected occupancy at any given time would be an average of 4 persons (two artists and two Clients), and up to 10 persons if a group of shoppers walk in to request a consultation appointment.

Hours of operation: Tuesday through Sunday, 10:00am to: 9:00pm

Security: The owner provides 2 overnight patrolling security guards and there are additional security guards provided by the 500 club casino & Restaurant which is directly in front of this location. Our Facility will also have security cameras installed on the interior and exterior of the premises and a monitored audible alarm system.

Signage: Permits are required for all signage and to be approved by the City of Clovis. Temporary signs are not allowed by the property owner.

Property maintenance: Owner/Landlord provides all trash removal, graffiti removal, landscaping, lot clean up and street sweeping.

Please feel free to contact us with any questions or concerns.

Gabriel Melton. (559) 916-7010 gabriel.melton@scccd.edu

Michael Yelinek (559) 250-1481 mike.yelinek@scccd.edu



WILLOW AVENUE



711 W Shaw Ave. #111
Clovis, Ca. 93612



AGENDA ITEM NO. 4.



Note:

***both exterior doors open outwards (not shown correctly in drawing).**



County of Fresno
DEPARTMENT OF PUBLIC HEALTH
Environmental Health Division

September 23, 2024

LU0022791
2604

Liz Salazar, Assistant Planner
City of Clovis
Planning and Development Services Department
1033 Fifth Street
Clovis, CA 93612

Dear Ms. Salazar:

PROJECT NUMBER: **CUP2024-007**

CUP2024-007; Proposal for a body art/tattoo studio.

APN: 420-040-86 ZONING: C-2 ADDRESS: 711 W. Shaw Avenue

Recommended Conditions of Approval:

- For a body art facility (i.e. tattoo, piercing, branding or permanent cosmetics facility), prior to issuance of building permits, the tenant shall submit complete body art facility plans and specifications to the Fresno County Department of Public Health, Environmental Health Division, for review and approval. The body art practitioner should be permitted through the Fresno County Environmental Health Department. Contact the Body Art Program at (559) 600-3357 for more information.
- The proposed project has the potential to expose nearby residents to elevated noise levels. Consideration should be given to the City of Clovis Municipal Code.

REVIEWED BY:

Kevin Tsuda, R.E.H.S.
Environmental Health Specialist II

(559) 600-33271

KT

cc: Armstrong & Bravo- Environmental Health Division (CT. 56.08)

Attachment 4

Promotion, preservation and protection of the community's health

1221 Fulton Street /P. O. Box 11867, Fresno, CA 93775

(559) 600-3357 • FAX (559) 455-4646

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CITY of CLOVIS

REPORT TO THE PLANNING COMMISSION

TO: Clovis Planning Commission

FROM: Planning and Development Services

DATE: October 24, 2024

SUBJECT: Consider items associated with approximately 18 acres of land located at the northeast corner of N. Baron and Perrin Avenues. Frances Ricchiuti and Patrick V. Ricchiuti, owners; Lennar Homes, applicant; Yamabe & Horn Engineering Inc., representative.

- a) Consider Approval, Res. 24-___, A resolution recommending the City Council adopt an environmental finding of a Mitigated Negative Declaration and a Mitigation Monitoring and Reporting Program for Vesting Tentative Tract Map 6452 and Planned Development Permit 2023-001.
- b) Consider Approval, Res. 24-___, TM6452, A resolution recommending the City Council approve of a vesting tentative tract map for a 153-lot single-family planned residential development on approximately 18 acres of land.
- c) Consider Approval, Res. 24-___, PDP2023-001, A resolution recommending that the City Council approve a request to approve a planned development permit for a 153-lot single-family residential development.

Staff: Liz Salazar, Assistant Planner

Recommendation: Approve

ATTACHMENTS:

- 1. Draft Resolution CEQA
- 2. Draft Resolution TM6452
- 3. Draft Resolution PDP2023-001
- 4. Proposed Development Standards for PDP2023-001
- 5. Proposed PDP2023-001 Park Amenity
- 6. Elevations and Floor Plans
- 7. Initial Study Mitigated Negative Declaration and MMRP
- 8. Correspondence from Commenting Agencies

RECOMMENDATION

Staff recommends that the Planning Commission:

- Adopt a resolution recommending that the City Council adopt the Mitigated Negative Declaration and a Mitigation Monitoring and Reporting Program for Vesting Tentative Tract Map 6452 and Planned Development Permit 2023-001. (See **Attachments 1** and **7.**)
- Adopt a resolution recommending that the City Council approve Vesting Tentative Tract Map 6452, subject to the recommended conditions of approval (**Attachment 2B**).
- Adopt a resolution recommending that the City Council approve Planned Development Permit 2023-001, subject to the recommended conditions of approval (**Attachment 3A**).

EXECUTIVE SUMMARY

Lennar Homes (“Applicant”) is requesting approval for Vesting Tentative Tract Map 6452 (TM6452), hereinafter referred to as the “Project.” This Project is designed as a 153-lot planned single-family development on approximately 18 acres of land within the City’s Heritage Grove planned growth area. Approval of this Project would allow the developer to continue processing a residential site plan review (RSPR) entitlement and development drawings.

a

BACKGROUND

- General Plan Designation: Very Low Density Residential (0.6 – 2 DU/Ac)
Medium Density Residential (4.1 – 7.0 DU/Ac)
- Master Plan Designation: Heritage Grove Master Plan
- Existing Zoning: R-1-PRD (Single-Family Planned Residential Development)
- Parcel Size: ±22 acres
- Project Size: ±18 acres
- Current Land Use: Vacant
- Adjacent Land Uses:
 - North: FMFCD Basin BY2
 - South: Single-Family Residential (in construction) & PG&E Substation
 - East: Rural Residential
 - West: Vacant
- Previous Entitlements: R2021-006 & RO305

The Project parcel was included in Tract Map 6343 annexation’s boundary and associated Rezone (R) 2021-006, which were approved by City Council on May 20, 2024. R2021-006 approved the Project site’s zoning as R-1-PRD.

The Project site has two (2) existing General Plan Land Use designations of Very Low Density Residential, which allows for a density range of 0.6 to 2.0 dwelling units per acre (DU/Ac) and Medium Density Residential, which allows for a density range of 4.1 to 7.0 DU/Ac. The Project site is approximately split in half in regard to land use designations. Therefore, these designations would allow for development of a minimum of 42 dwelling units and a maximum of 80 dwelling units.

As noted in the Project description, 153 lots are proposed in conjunction with TM6452, which is more than the 80 units that would be allowed based on the existing land use designations. Prior to submitting any applications, the applicant met with staff and proposed the use of a blended product calculation in conjunction with the adjacent tract map, the previously approved TM6200. The property owner and the developer of the current Project are the same parties that were involved with TM6200, and the two properties are contiguous to one another. Based on these very limited circumstances, staff determined that a blended density calculation was reasonable. The resulting calculation is as follows:

| | |
|--|------------|
| Max Density on TM 6200 Property | 871 Lots |
| Max Density on TM 6452 Property | 80 Lots |
| Combined (Blended) Max Number of Lots | 951 Lots |
| Actual Number of Lots As Approved by TM 6200 | (588 Lots) |
| Remaining Lots Available for TM 6452 | 363 Lots |
| Actual Lots Proposed by TM 6462 | 153 Lots |

In summary, TM 6200 was approved with a number of lots that was well under the maximum density, and TM6452 proposes to utilize some of the “excess capacity” to increase its allowable yield.

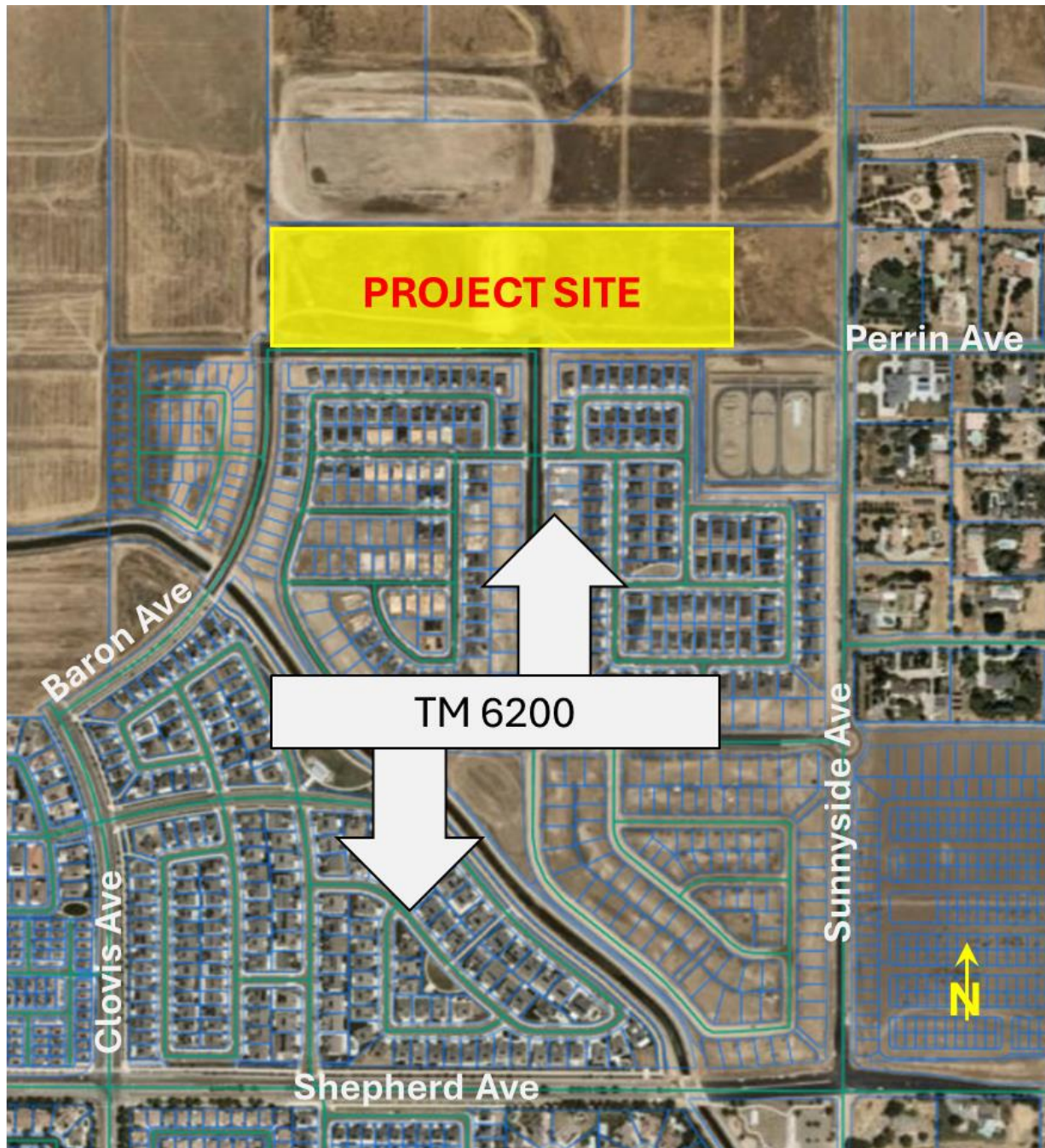
PROPOSAL AND ANALYSIS

The Project proposes a 153-lot, non-gated planned single-family development on an ±18-acre portion of the larger ±22-acre parcel. The remaining ±4 acres are planned for a future City public facility site and is not included as part of this Project. As depicted in **Figure 1** below, the Project site is located on the northeast corner of N. Baron and Perrin Avenues. The Project would include construction of public and private streets, sidewalks, landscaped areas, and a pocket park with related amenities. The Project will include a Homeowner’s Association (HOA).

Planned Development Permit

The Project site was included in the recently approved TM6343 annexation and pre-zoning applications and designated as R-1-PRD (Single-Family Planned Residential Development) Zone District. The R-1-PRD Zone District is appropriate for single-family small lot uses, including attached and detached single-family structures on small lots. Planned development permits (PDPs) are required for all planned residential developments, including the proposed Project. (CMC § 9.10.010, subd. (B)(6).) PDPs facilitate design flexibility and encourage innovative and superior site planning, culminating in a comprehensive development of high quality. Further details regarding the PDP are outlined below.

Figure 1



Development Standards

The PDP has the authority to adjust or modify development standards, such as building coverage, height, setbacks, fence and wall heights, landscaping, open space, and street layout, where necessary and justifiable. The Applicant is requesting approval of a non-gated detached single-family PDP with reduced parcel size, reduced setbacks, and increased lot coverage. The table below outlines the proposed development standards for the Project. There are three housing project types that are distinguishable by their elevation and floor plans. While the Applicant has provided models for each of their products, they will be assessed against the established development standards and formalized through the RSPR process, which has been included as a condition of approval for the tract map and PDP. The proposed development standards for TM6452 are outlined below in Table 1.

| Table 1 | |
|---|---|
| Development Feature | TM6452 PRD Development Standards |
| Minimum Lot Size | 2,184 sq. ft. |
| Maximum Lot Size | 5,818 sq. ft. |
| Front Setback (garage side) | 4 ft. |
| Front Setback | 10 ft. |
| Corner Street Sides Setbacks | 3 ft. |
| Interior Side Yard Setback (uncovered patio side) | 7 ft. |
| Interior Side Yard Setback (garage side) | 0 ft. (Lots 44-48, 101-107, 111-114, 116-119) 3 ft. (all other lots) |
| Rear Setback (opposite of garage) | 10 ft. |
| Rear Setback | 4 ft. |
| Lot Coverage | 62% |
| Maximum Height | 26 ft. 7 in. |
| Minimum Parcel Width | 39 ft. |
| Minimum Corner Parcel Width | 45 ft. |
| Minimum Parcel Depth | 56 ft. |
| Garages | 20'x20' interior dimension (2-car) |

Table 1 above delineates alterations to the customary development criteria associated with the R-1 (Single-Family Residential) Zone District. The requested deviations specifically include a reduction in lot size, parcel width and depth, setbacks, height, and an increase in parcel coverage. Staff has reviewed the proposed development standards mentioned above for the proposed single-family residential development and found them to be compatible with similar projects recently approved through the PDP process. The Project proposes a narrow side-yard on the garage-side (typically between 0 and 3 feet), with a minimum of a seven (7) foot setback on the opposite from the garage. The side with a seven (7) foot minimum setback will include a fenced uncovered patio area that will also accommodate toters. A condition of approval is recommended requiring a paved path leading from the street to a gate for each uncovered patio area.

For parcels identified with a zero (0) foot interior setback, staff recommends a condition of approval requiring acceptable covenant and deed restrictions allowing access to the abutting properties for repair and maintenance purposes.

Residential Site Plan Review

The Applicant will be required to submit an RSPR in order to allow staff to review lot-specific development standards. Specific color and materials of the models, walls, amenities, landscaping, and fencing will be evaluated through the civil plans.

Parking and Driveways

Per planned residential development standards, the minimum parking requirement is two (2) covered spaces, plus one (1) covered or uncovered guest space for each dwelling unit; therefore, the Project shall provide a minimum of 306 covered spaces and 153 guest spaces. The Applicant is proposing a two-car garage for each unit and 182 uncovered street parking stalls, thus meeting the minimum parking requirements. Each two-car garage shall provide a minimum size of twenty (20) feet by twenty (20) feet interior dimension, which will be reviewed with the residential site plan review. The Project proposes internal private streets that will be used to access garages. Each garage driveway shall provide a minimum of twenty-six (26) foot back-up distance from the back of the garage to the curb.

Homeowners Association

Although the Project is non-gated, an HOA is required for the purpose of maintaining open spaces and common areas, ensuring they remain well-kept and functional as well as enforcing the covenants, conditions and restrictions. This requirement is designed to uphold community standards and elevate the quality of life for residents within the Project's jurisdiction.

Proposed Amenities

Chapter 9.66 of the Clovis Municipal Code (Planned Development Permits) provides for flexibility in development standards to accommodate various development types that may not conform to standard regulations. Within this context, planned residential developments are mandated to provide a program of amenities proportional to the deviations being sought.

In exchange for the requested development standard deviations described in **Table 1** of the report, the Applicant is proposing a combination of an on-site amenity that is targeted towards homeowners and an off-site amenity that will provide a general public benefit. An 8,990 square foot pocket park with a BBQ station, picnic tables, seat walls, grass area, a 250 square foot shade structure, and a children's play structure is proposed as the on-site amenity. A conceptual illustration of the proposed park is shown in **Figure 2** below.

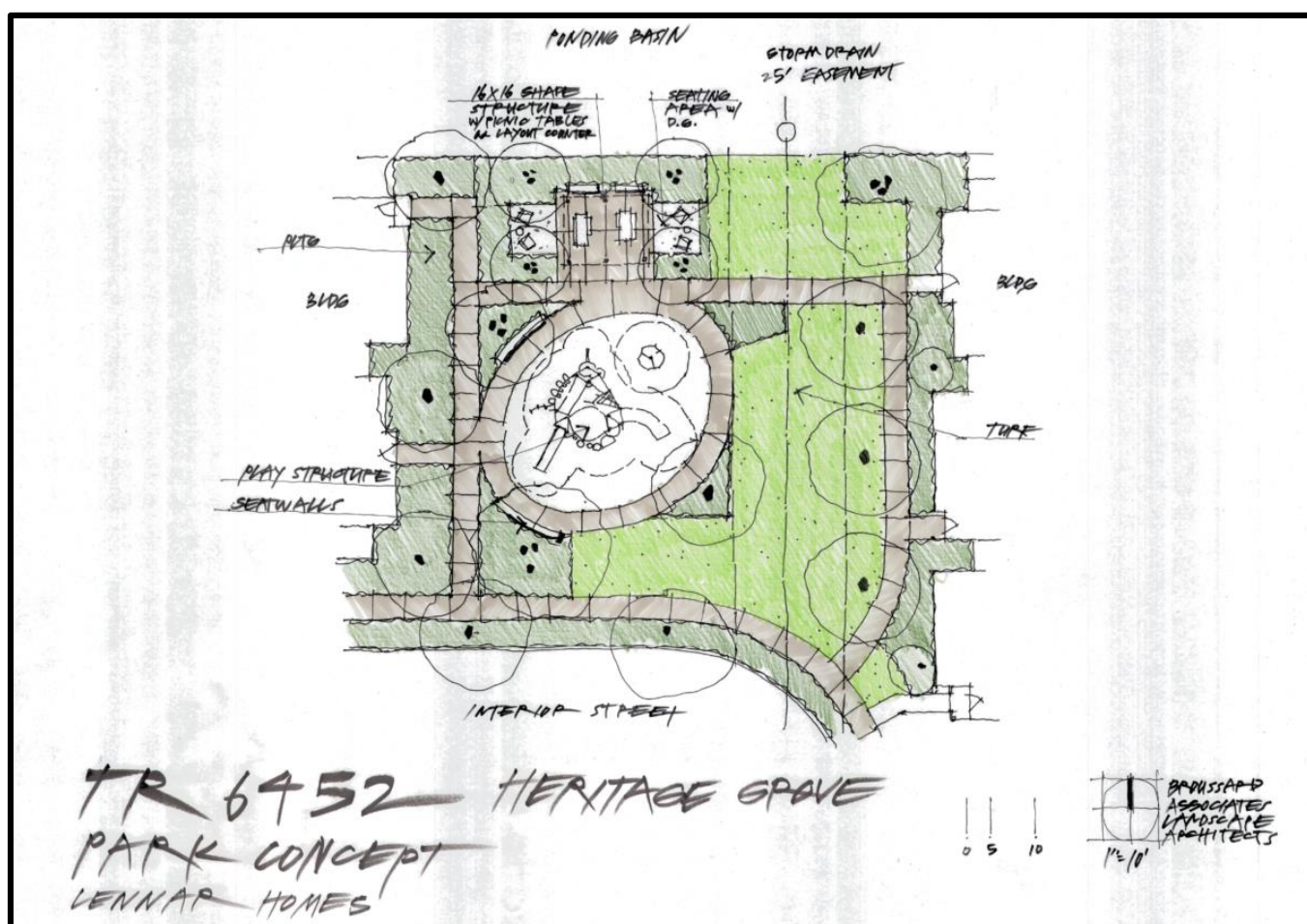
When assessing and determining an adequate amenity that would provide a general public benefit, staff evaluated opportunities for open space and other public improvements within and near the proposed tract map. The feasibility of incorporating a trail adjacent to the Project along Perrin Avenue that would be consistent with the future amenity trail located to the west within TM6343 was preliminarily identified as an appropriate alternative. However, the amenity trail along Perrin Avenue within TM6343 is planned with a fifty (50) feet wide design and would not be feasible for the subject Project. Staff then assessed other public benefit amenity options within proximity to the Project site and identified construction of the planned trail along N. Sunnyside

Avenue adjacent to the existing PG&E substation. However, due to the overall cost and need to obtain the right of way, this option proved not to be proportionate to the Project.

In the absence of a physical improvement to serve as an amenity, the applicant has agreed to contribute a dollar amount totaling approximately \$38,000, based on value of amenities provided in conjunction with other projects. This monetary amount will be reserved for utilization towards the portion of the trail along N. Sunnyside Avenue adjacent to the PG&E substation. Ultimately, if development of this portion of the trail is infeasible, the funds could be used for alternative public benefit improvements that have previously been identified outside of the Project vicinity, such as:

- Restoration of the San Gabriel Restroom Facility within the San Gabriel Park located at the southeast corner of Willow and San Gabriel Avenues.
- Construction of a community trail along the Gould Canal in the southern part of Clovis.
- Installation of playground equipment, shade structure over playground equipment and playground soft foam flooring at an existing neighborhood park located within the Helm Ranch Community Area or Old Town Area.

Figure 2



It is important to highlight that, in addition to the requirement for proportional amenities, approval of a PDP necessitates the demonstration of superior development quality compared to what could be achieved through conventional development practices on the site. The Project proposes three (3) landscaped direct pedestrian connections from the subdivision to Perrin Avenue. The Project also proposes that each home have a paved pedestrian walkway connecting to a sidewalk. Additional enhanced architectural and landscaping features are subject to review and approval during the residential site plan evaluation for individual lots and the civil plan review.

Findings for Planned Development Permits

The required findings for the approval of a PDP application, and staff's response to each of those findings are listed below. (CMC § 9.66.060.)

1. The PDP would:

- a. Be allowed within the subject base zoning district.

The proposed PDP is permissible within the R-1-PRD Zone District, which was zoned with the approval of R2021-006.

- b. Be consistent with the purpose, intent, goals, policies, actions, and land use designations of the General Plan and any applicable specific plan.

The Project proposes a single-family residential use, which is consistent with the established land uses of the General Plan. Policy 3.6 of the Land Use Element of the General Plan encourages a mix of housing types, unit sizes, and densities. The Project as a blended density product and being of a similar development type and density as surrounding development to the south and west (in entitlement processing), would serve as a transition from the rural residential neighborhood to the east. The Project would comply with Policy 3.6 by resulting in a housing product that adds to the variety of housing stock within the City.

- c. Be generally in compliance with all of the applicable provisions of this Development Code relating to both on- and off-site improvements that are necessary to accommodate flexibility in site planning and property development and to carry out the purpose, intent, and requirements of this chapter and the subject base zoning district, including prescribed development standards and applicable design guidelines.

*Although the Project requests deviations from development standards, the requested PDP is in compliance with the prescribed development standards attached as **Attachment 4**. The Project proposes to construct both on-site and off-site improvements as required and directed by the City Engineer to ensure compliance with the City's Development Code.*

- d. Ensure compatibility of property uses within the zoning district and general neighborhood of the proposed development.

The Project shares a comparable density and development type with the existing surrounding development to the south and future development to the west (in entitlement processing), thus ensuring compatibility within the area.

2. The proposed Project would produce a comprehensive development of superior quality (e.g., appropriate variety of structure placement and orientation opportunities, appropriate mix of structure sizes, high-quality architectural design, increased amounts of landscaping and open space, improved solutions to the design and placement of parking facilities, incorporation of a program of enhanced amenities, etc.) than which might otherwise occur from more traditional development applications.

The Project will provide an amenity program associated with the PDP as described in the Proposed Amenities section of this report. The architectural design of the homes will undergo thorough evaluation during the RSPR process to ensure high quality. Furthermore, enhanced landscaping will be required within the N. Marion Avenue entrance as part of the Project's aesthetic improvements.

3. Proper standards and conditions have been imposed to ensure the protection of the public health, safety, and welfare.

The proposed PDP will comply the Development Code, with Fire Department standards, and Building Code regulations to ensure adherence to public health and safety requirements.

4. Proper on-site traffic circulation and control is designed into the development to ensure protection for fire suppression and police surveillance equal to or better than what would normally be created by compliance with the minimum setback and parcel width standards identified in Division 2 of this title (Zoning Districts, Allowable Land Uses, and Zone-Specific Standards).

The proposed PDP will adhere to the standards set by the Fire Department and the requirements of the City Engineer concerning fire suppression measures and enhancements to traffic flow related to TM6452, respectively.

5. The subject parcel is adequate in terms of size, shape, topography, and circumstances to accommodate the proposed development.

The proposed TM6452 associated with the requested PDP affects ±18 acres of land with the average lot size of 2,634 square feet; therefore, the site is physically suitable to accommodate the proposed Project.

6. The design, location, operating characteristics, and size of the proposed development would be compatible with the existing and future land uses in the vicinity, in terms of aesthetic values, character, scale, and view protection.

As indicated above, the proposed PDP is compatible with the existing and planned adjacent land uses. In regard to view protection, the PDP proposes a reduced maximum height limit than that prescribed under the comparable R-1 Zone District. The proposed development will process a RSPR application where aesthetics and design will be evaluation in compliance with the Development Code.

Vesting Tentative Tract Map 6452

As shown in **Attachment 2A**, the Applicant is requesting approval of TM6452 for 153 lots with various outlots for the purposes of private streets and open space. The proposed TM6452 features a range of lot sizes from 2,184 square feet to 5,818 square feet, with an average size of about 2,634 square feet. Further specifics regarding the vesting tentative tract map are detailed below.

Circulation

The Project proposes two points of access, one along N. Baron Avenue and one along Perrin Avenue. The Project is designed with one main internal street that ends with a cul-de-sac. The Project includes several private streets that lead to garages of the single-family homes. Perrin Avenue will end at the N. Marion Avenue intersection and will not continue east to connect to N. Sunnyside Avenue. The Project includes sidewalks along N. Baron and Perrin Avenues, along with sidewalks on both sides the internal street and internal pedestrian pathways within each residential block.

Heritage Grove Thematic Elements

The City's 2014 General Plan directed the preparation and adoption of a comprehensive design document for the Heritage Grove area. As a result, the Heritage Grove Design Guidelines was developed and adopted on December 5, 2016. The document is intended to accommodate growth in a manner that is of high quality, fiscally sustainable, and balanced. The design document establishes an overall agricultural theme and quality for Heritage Grove. It illustrates and directs the intended architectural, landscape, and site elements to reinforce the theme and quality. The proposed Project is required to adhere to design standards outlined in the Heritage Grove Design Guidelines.

The Project will develop N. Baron and Perrin Avenues as neighborhood boulevards as designated by the Heritage Grove Design Guidelines. The neighborhood boulevard design requires a twenty (20) foot parkway between the right-of-way and private parcels. The Project will design the northeast corner of N. Baron and Perrin Avenues with a community corner paseo, incorporating a stone wall, a corner paseo tree, and a pedestrian pathway link into the subdivision. Staff will work with the developer to establish a design that meets the intent provided in the Heritage Grove Design Guidelines.

Findings for Vesting Tentative Tract Map

The following are findings required to approve a vesting tentative tract map. (CMC §§ 9.102.060, subd. (A), and 9.102.110, subd. (C).) It is essential to note that some of these findings overlap with those detailed in the previous Findings for Planned Development Permit section of this report and will reference the information provided therein.

1. The proposed map, subdivision design, and improvements are consistent with the General Plan and any applicable specific plan.

The proposed map design maintains consistency with both the General Plan and the proposed PDP. The Project meets various goals and policies of the General Plan as stated in the Consistency with General Plan Goals and Policies section of this report. All improvements will adhere to the conditions of approvals and City standards. The specifics of these improvements will undergo scrutiny during the City's civil plan review process to ensure compliance with standards.

2. The site is physically suitable for the type and proposed density of development.

Refer to number 5 of the Findings for Planned Development Permit section.

3. The design of the subdivision and the proposed improvements are not likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

*As described in the Initial Study/Mitigated Negative Declaration prepared for the Project (**Attachment 7**), environmental impacts were determined to be less than significant with implementation of mitigation measures. Consequently, the Project is not anticipated to inflict substantial environmental harm or endanger fish and wildlife.*

4. The design of the subdivision or type of improvements is not likely to cause serious public health or safety problems.

The design of the Project will comply with the Development Code, Fire Department standards, and Building Code regulations to ensure adherence to public health and safety requirements. Furthermore, during review of the Project, agencies and City departments had the opportunity to review the Project to ensure consistency with City codes and regulations and no serious public health or safety concerns were identified. Therefore, the Project was determined not to be detrimental to the public interest, health, safety, or general welfare of the City.

5. The design of the subdivision or the type of improvements will not conflict with easements acquired by the public at large for access through or use of property within the proposed subdivision. This finding may also be made if the review authority finds that alternate easements for access or use will be provided, and that they will be substantially equivalent to ones previously acquired by the public. This finding shall apply only to easements of record, or to easements established by judgment of a court of competent jurisdiction, and no authority is hereby granted to the review authority to determine that the public at large has acquired easements of access through or use of property within the proposed subdivision.

During the final map review process conducted by the City's Engineering Division, all easements will be identified. Additionally, during the final map review, the City Engineer and other outside agencies will ensure that no conflicts with easements would occur as a

result of the Project. As needed, alternate easements will be found that will be substantially equivalent to those previously required in TM6452.

6. The discharge of sewage from the proposed subdivision into the community sewer system will not result in violation of existing requirements prescribed by the California Regional Water Quality Control Board.

The City Engineer has determined that the City has the capacity to accommodate the proposed Project. Installation of sewer lines within the proposed subdivision and beyond its borders will adhere to the regulations set forth by the California Regional Water Quality Control Board.

7. The design of the subdivision provides, to the extent feasible, passive or natural heating and cooling opportunities.

The proposed subdivision will comply with the Development Code and California Building Code requirements as it relates to heating and cooling opportunities within TM6452.

8. The proposed subdivision, its design, density, and type of development and improvements conform to the regulations of this Development Code and the regulations of any public agency having jurisdiction by law.

The proposed subdivision comprises of single-family housing, consistent with the prescribed land uses outlined in the General Plan. The existing R-1-PRD Zone District allows for the proposed use and PDP development standards. The proposed development will process an RSPR application, where aesthetics and design will be evaluated in compliance with the Development Code and established PDP development standards.

Consistency with General Plan Goals and Policies

Staff has evaluated the Project in light of the goals and policies of the General Plan. The following goals and policies reflect Clovis' desire to maintain Clovis' tradition of responsible planning and well-managed growth to preserve the quality of life in existing neighborhoods and ensure the development of new neighborhoods with an equal quality of life. These goals and policies seek to foster more compact development patterns that can reduce the number, length, and duration of auto trips.

Goal 3: Orderly and sustainable outward growth into three Urban Centers with neighborhoods that provide a balanced mix of land uses and development types to support a community lifestyle and small-town character.

Policy 3.5 Fiscal sustainability. The City shall require establishment of community facility districts, lighting and landscaping maintenance districts, special districts, and other special funding or financing tools in conjunction with or as a condition of development, building or permit approval, or annexation or sphere of influence amendments when necessary to ensure that new development is fiscally neutral or beneficial.

Policy 3.6 Mix of housing types and sizes. Development is encouraged to provide a mix of housing types, unit sizes, and densities at the block level. To accomplish this, individual projects five acres or larger may be developed at densities equivalent to one designation higher or lower than the assigned designation, provided that the density across an individual project remains consistent with the General Plan.

Goal 5: A city with housing, employment, and lifestyle opportunities for all ages and incomes of residents.

Policy 5.1: Housing variety in developments. The Clovis General Plan has been planned to provide a variety of housing product types suitable to each stage of a person's life. Each development should contribute to a diversity of housing sizes and types within the standards appropriate to the land use designation. This policy does not apply to projects smaller than five acres.

Policy 5.2 Ownership and rental. Encourage a mixture of both ownership and rental options to meet varied preferences and income affordability needs.

Public Comments

A public hearing notice was sent to area residents within 1,000 feet of the property boundaries for the October 24, 2024, Planning Commission hearing. As of the completion of this staff report, staff has not received any comments from the public.

Review and Comments from Agencies

The Project was distributed to all City divisions as well as outside agencies, including Caltrans, Clovis Unified School District, Fresno Irrigation District, Fresno Metropolitan Flood Control District, AT&T, PG&E, San Joaquin Valley Air Pollution Control District, State Department of Fish and Wildlife, and the County of Fresno.

Comments received are attached (**Attachment 8**) only if the agency has provided concerns, conditions, or mitigation measures. Routine responses and comment letters are placed in the administrative record and provided to the Applicant for their records.

California Environmental Quality Act (CEQA)

The City of Clovis has completed an Initial Study (see **Attachment 7**) assessing the project's impact on natural and manmade environments, as required by the State of California. Staff is recommending approval of a mitigated negative declaration ("MND"). An MND is a written statement announcing that this project will not have a significant effect on the environment with the implementation of mitigation measures. The complete Initial Study/Mitigated Negative Declaration can be found on the City's website at: <https://cityofclovis.com/planning-and-development/ceqa>.

In summary, environmental impacts were determined to be less than significant with implementation of mitigation measures for greenhouse gas emissions, biological resources, cultural resources, geological resources, noise, and tribal cultural resources. (See the Mitigation and Monitoring Program attached hereto as **Attachment 7**.) The Notice of Intent to adopt an MND was posted to the City's website at the web address listed above. (14 CCR § 15072, subd.

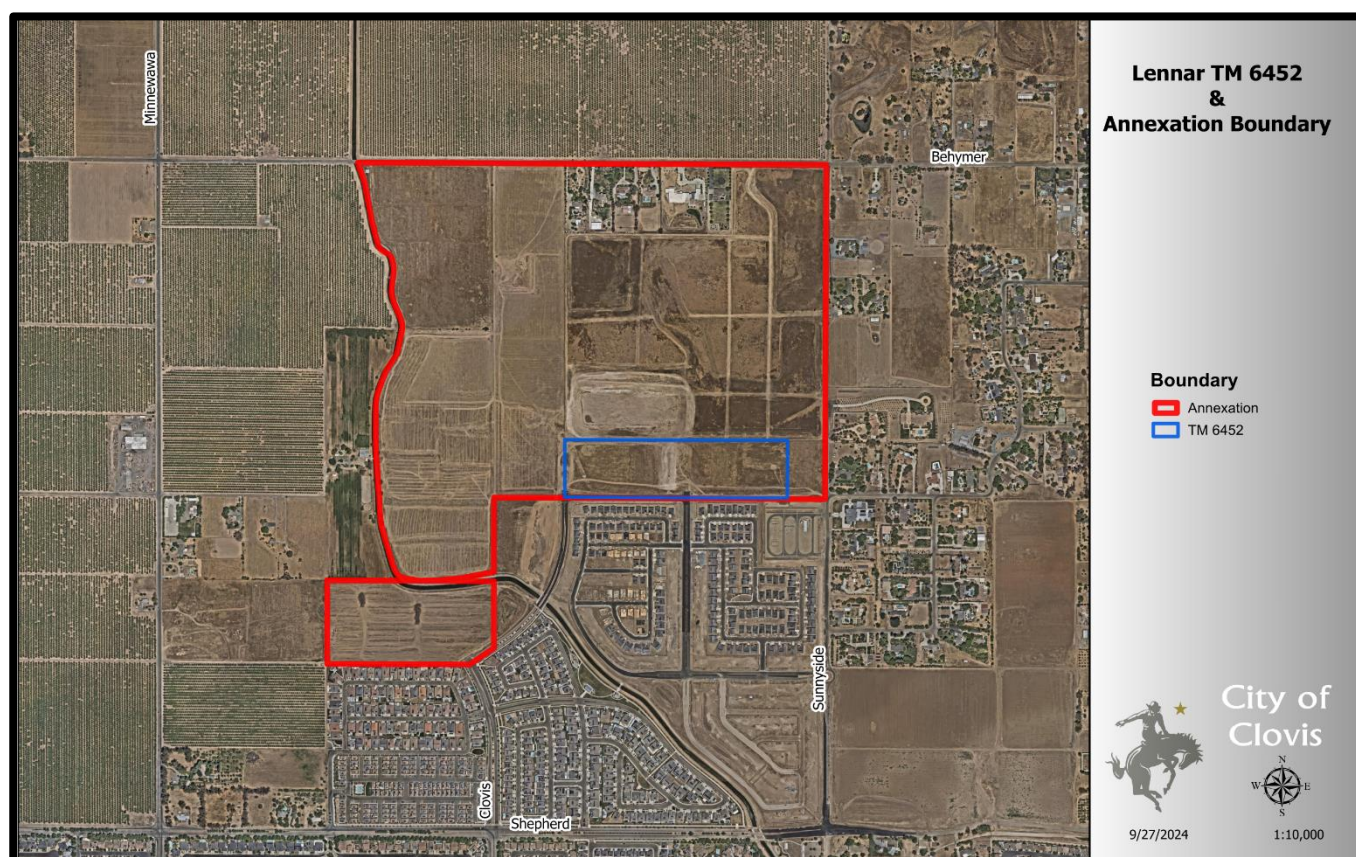
(b)(2).) The proposed MND was made available for public comment and review at the City's Planning and Development Services Department from September 30, 2024, to October 24, 2024. (15 CCR § 15073, subd. (a).)

The City published a notice of this public hearing in *The Business Journal* on September 30, 2024.

Annexation

As indicated earlier in this report, the Project site was part of a larger 246-acre annexation area (see **Figure 3** below), which was processed in conjunction with Wilson's TM6343. The annexation area, titled RO305, Behymer-Sunnyside Southwest Reorganization, was approved by the City Council on May 20, 2024, and the Fresno LAFCo Commission on September 11, 2024. Development of the Project site cannot occur without the completion of the annexation process, which is currently tentatively scheduled for recordation and official annexation into the City on or after Monday, October 14, 2024.

Figure 3



REASON FOR RECOMMENDATION

The proposed Project will provide a diversity in housing types, contribute a quality residential product, and further advance growth within the Heritage Grove growth area as envisioned by the

General Plan. The Project does not substantially impact sewer, water and other public services and will contribute to their proportionate share of infrastructure and open space. The Project is consistent with the goals and policies of the General Plan and Development Code and each component of the Project meets the findings that must be considered when making a decision on a project, as outlined in sections above. Staff therefore recommend that the Planning Commission approve resolutions recommending that the City Council adopt an MND and mitigation monitoring program in accordance with CEQA, and approve TM6452 and PDP2023-001, subject to the conditions of approval provided in **Attachments 2B and 3A**.

ACTIONS FOLLOWING APPROVAL

This Project will continue on to the City Council for final consideration.

NOTICE OF HEARING

Property owners within 1,000 feet notified: 27

CONFLICT OF INTEREST

None.

Prepared by: Liz Salazar, Assistant Planner

Reviewed by: Interim Deputy City Planner, George González



RESOLUTION 24-____

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS
RECOMMENDING THE CITY COUNCIL ADOPT A MITIGATED NEGATIVE DECLARATION
FOR VESTING TENTATIVE TRACT MAP 6452 AND PLANNED DEVELOPMENT PERMIT
2023-001, PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT
GUIDELINES**

WHEREAS, Lennar Homes of California, LLC. 8080 N. Palm Avenue Suite 110, Fresno, CA 93711, has submitted various applications including a Vesting Tentative Tract Map 6452 (TM6452) and Planned Development Permit (PDP) 2023-001 (Project) for property located on the northeast corner of N. Baron and Perrin Avenues; and

WHEREAS, the City of Clovis caused to be prepared an initial study (hereinafter incorporated by reference) to evaluate potential environmental impacts from the Project, and on the basis of that study, it was determined that no significant environmental impacts would result from this Project with the adoption of mitigation measures; and

WHEREAS, the City adopted a Supplemental Environmental Impact Report (SEIR) for the 2014 General Plan Circulation Element Update on October 17, 2022. The SEIR evaluated potential land uses consistent with the General Plan and their associated VMT impacts. The SEIR finds that implementation of the 2014 General Plan may result in VMT metrics that are greater than the applicable thresholds. Mitigation measures include policies to reduce VMT. Because the City cannot demonstrate that the implementation of these policies would achieve VMT reductions to meet the VMT thresholds, the impacts would remain significant and unavoidable. Therefore, following approval of the SEIR, individual land use development projects that are consistent with the 2014 General Plan have the opportunity to tier their environmental review from the General Plan SEIR. The SEIR has disclosed the VMT impacts of land use development consistent with the General Plan. Therefore, significant and unavoidable VMT impacts associated with the General Plan have already been disclosed. Because the proposed Project is consistent with the 2014 General Plan, the Project's significant transportation impact does not require a project specific EIR. Overall, the Project, as determined to be consistent with the 2014 General Plan, would result in a Significant and Unavoidable impact.

WHEREAS, on the basis of this initial study, a proposed mitigated negative declaration has been prepared, circulated, and made available for public comment pursuant to the California Environmental Quality Act (CEQA), Public Resources Code, section 21000, et seq., and Guidelines for implementation of CEQA, 14 California Code of Regulations, sections 15000, et seq.; and

WHEREAS, the notice of intent to adopt a mitigated negative declaration was posted to City's website in accordance with CEQA Guidelines section 15072, subdivision (b)(2), and notice of the public hearing for this item was published with the *Fresno Business Journal* on October 2, 2024; and

WHEREAS, the Planning Commission has independently reviewed, evaluated, and considered the CEQA analysis outlined in the staff report, initial study, mitigated negative declaration and all comments, written and oral, received from persons who reviewed the mitigated negative declaration, or otherwise commented on the Project (Administrative Record).

NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS, THE PLANNING COMMISSION RESOLVES AND RECOMMENDS THAT THE CITY COUNCIL FOR THE CITY OF CLOVIS AND FINDS AS FOLLOWS:

1. The foregoing recitals as true and correct.
2. The initial study and mitigated negative declaration for the Project are adequate, reflect the City's independent judgment and analysis, and have been completed in compliance with CEQA and the CEQA Guidelines.
3. That the initial study and mitigated negative declaration were presented to the Planning Commission and the Planning Commission has independently reviewed, evaluated, and considered the initial study, mitigated negative declaration and all comments, written and oral, received from persons who reviewed the initial study and mitigated negative declaration, or otherwise commented on the Project (Administrative Record) prior to approving the Project.
4. On the basis of the whole record, that there is no substantial evidence that the Project will have a significant effect on the environment with the adoption of the mitigation measures identified in **Attachment A**.
5. The mitigated negative declaration and the mitigation monitoring program set forth in **Attachment A**, including the mitigation measures identified therein and as described in the mitigated negative declaration itself are hereby adopted.
6. Directs that the record of these proceedings shall be contained in the Department of Planning and Development Services located at 1033 Fifth Street, Clovis, CA 93612, and the custodian of the record shall be the City Planner or other person designated by the Planning and Development Services Director.
7. The Planning and Development Services Director, or his/her designee, is authorized to file a notice of determination for the Project in accordance with CEQA and to pay any fees required for such filing.
8. The basis for the findings is detailed in the October 24, 2024, staff report, which is hereby incorporated by reference in its entirety, the entire Administrative Record, as well as evidence and comments presented in connection with the mitigated negative declaration.

* * * * *

The foregoing resolution was approved by the Clovis Planning Commission at its regular meeting on October 24, 2024, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:

NOES:

ABSENT:

ABSTAIN:

CLOVIS PLANNING COMMISSION RESOLUTION NO. 24-____

Date: October 24, 2024

Alma Antuna, Chair

Renee Mathis, Secretary

**ATTACHMENT A:
Mitigation Monitoring Program
TM6452 and PDP2023-001**

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|-----------------------------|---|---------------------------|---|----------------------------------|
| Biological Resources | | | | |
| BIO-1 | Swainson's Hawk. If possible, construction activities should occur outside of the avian nesting season, typically defined as February 1 – August 31. If that is not feasible, pre-construction surveys shall occur if construction must occur between February 1 – August 31. A qualified biologist shall conduct surveys for active bird nests within seven (7) days prior to the start of work during this period. The survey area shall encompass the Project site and accessible surrounding lands within ¼ mile for nesting Swainson's hawk, 500 feet for other nesting raptors, and 250 feet for nesting birds. Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction free buffer around the nest. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged are capable of foraging independently. | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |
| Cultural Resources | | | | |
| CULT-1 | If archaeological or tribal resources or materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------|--|---------------------------|---|----------------------------------|
| | <p>ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.</p> <p>If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.</p> <p>If a potentially-eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.</p> | | | |
| CULT-2 | <p>If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code and Project shall follow the procedures and protocols set for un CEQA Guidelines Section 15064.4(e)(1). If human remains are identified to be those of Native American, California Health and Safety Code 7050.5 requires the County coroner notify the NAHC within 24 hours of discovery. All reports, correspondence, and determinations regarding the discovery of human</p> | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|-----------------------------|--|---------------------------|---|----------------------------------|
| | remains on the project site shall be submitted to the Lead Agency. | | | |
| Geological Resources | | | | |
| GEO-1 | <p>If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist and/or paleontologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.</p> <p>If the qualified professional determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.</p> <p>If a potentially-eligible resource is encountered, then the qualified professional archaeologist and/or paleontologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as</p> | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|----------------------------------|--|---------------------------|---|----------------------------------|
| | verification that the provisions for managing unanticipated discoveries have been met. | | | |
| Greenhouse Gas Emissions | | | | |
| GHG-1 | In order to meet the 2022 Scoping Plan GHG requirements, consistent with State GHG reduction and equity prioritization goals, each residential unit shall provide electric vehicle charging capabilities as part of the final project designs. | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |
| Noise | | | | |
| NOISE-1 | Interior Noise. Mechanical ventilation or air conditioning shall be provided for all homes to enable windows and doors to remain closed for sound insulation purposes. | City of Clovis Planning | <i>During Construction and Prior to Occupancy</i> | |
| Tribal Cultural Resources | | | | |
| TCR-1 | <p>If archaeological or tribal resources or materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.</p> <p>If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These</p> | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------|--|---------------------------|---|----------------------------------|
| | <p>additional studies may include avoidance, testing, and evaluation or data recovery excavation.</p> <p>If a potentially-eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.</p> | | | |
| TCR-2 | <p>If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code and Project shall follow the procedures and protocols set for un CEQA Guidelines Section 15064.4(e)(1). If human remains are identified to be those of Native American, California Health and Safety Code 7050.5 requires the County coroner notify the NAHC within 24 hours of discovery. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency.</p> | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

RESOLUTION 24-__

**RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS
RECOMMENDING THAT THE CITY COUNCIL APPROVE VESTING TENTATIVE
TRACT MAP 6452 FOR A 153-LOT SINGLE-FAMILY SUBDIVISION ON
APPROXIMATELY 18 ACRES OF PROPERTY LOCATED ON THE NORTHEAST
CORNER OF NORTH BARON AND PERRIN AVENUES**

WHEREAS, Lennar Homes of California, LLC (“Applicant”), 8080 N. Palm Avenue Suite 110, Fresno, CA 93711, submitted an application for Vesting Tentative Tract Map 6452 (“TM6452”) for a 153-lot single-family subdivision on approximately 18 acres of property (“Project”) located on the northeast corner of North Baron and Perrin Avenues (“Property”); and

WHEREAS, the City of Clovis published notice of the public hearing in the Fresno Business Journal on September 30, 2024 mailed public notices to property owners within 1,000 feet of the Property, twenty-one (21) days prior to said Planning Commission hearing, and otherwise posted notice of the Public Hearing in accordance with applicable law; and

WHEREAS, a duly noticed public hearing was held on October 24, 2024; and

WHEREAS, the proposed TM6452 was presented to the Planning Commission for approval in accordance with the Subdivision Map Act and Chapter 102 of Title 9 of the Clovis Municipal Code (Development Code); and

WHEREAS, the Planning Commission considered the California Environmental Quality Act (CEQA) analysis outlined in the staff report and elsewhere in the Administrative Record which determines that TM6452 meets the requirements pursuant to CEQA Guidelines and recommends that the City Council adopt of an environmental finding of a Mitigated Negative Declaration and a Mitigation Monitoring and Reporting Program; and

WHEREAS, the Planning Commission has had an opportunity to review and consider the entire Administrative Record relating to TM6452, which is on file with the City of Clovis Department of Planning and Development Services, and reviewed and considered those portions of the Administrative Record determined to be necessary to make an informed decision, including, but not limited to, the staff report, the written materials submitted with the request, and the verbal and written testimony and other evidence presented during the public hearing, and the conditions of approval attached as **Attachment B** to this Resolution, which are incorporated herein by this reference (“Administrative Record”).

NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS, THE PLANNING COMMISSION RESOLVES AND FINDS AS FOLLOWS:

1. TM6452 satisfies the required findings for approval of a Vesting Tentative Tract Map, as follows:
 - a. The proposed map, subdivision design, and improvements are consistent with the General Plan and any applicable specific plan;
 - b. The Project site is physically suitable for the type and proposed density of development;
 - c. The design of the subdivision and the proposed improvements are not likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat;
 - d. The design of the subdivision or type of improvements is not likely to cause serious public health or safety problems;
 - e. The design of the subdivision or the type of improvements will not conflict with easements acquired by the public at large for access through or use of property within the proposed subdivision;
 - f. The discharge of sewage from the proposed subdivision into the community sewer system will not result in violation of existing requirements prescribed by the California Regional Water Quality Control Board;
 - g. The design of the subdivision provides, to the extent feasible, passive or natural heating and cooling opportunities; and
 - h. The proposed subdivision, its design, density, and type of development and improvements conform to the regulations of the Development Code and the regulations of any public agency having jurisdiction by law.
2. The Planning Commission could not make the findings necessary for approval of TM6452 without the conditions of approval set forth in **Attachment B** to this Resolution.
3. The Planning Commission hereby recommends that the City Council approve TM6452 as depicted in **Attachment A**, and subject to the conditions of approval set forth in **Attachment B** to this Resolution.
4. The bases for the findings are detailed in the October 24, 2024, staff report, which is hereby incorporated by reference, the entire Administrative Record, as well as the evidence and comments presented during the public hearing.

* * * * *

The foregoing resolution was approved by the Clovis Planning Commission at its regular meeting on October 24, 2024, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:

NOES:

ABSENT:

ABSTAIN:

PLANNING COMMISSION RESOLUTION NO. 24-__

DATED: October 24, 2024

Alma Antuna, Chair

ATTEST:

Renee Mathis, Secretary

Structure placement is not approved through this exhibit. A RSPR is required to assess the established development standards.

VESTING
TENTATIVE SUBDIVISION MAP
OF
TRACT NO. 6452
(A PLANNED DEVELOPMENT)
IN THE CITY OF CLOVIS
FRESNO COUNTY, CALIFORNIA
SHEET 1 OF 5
BOUNDARY ANALYSIS

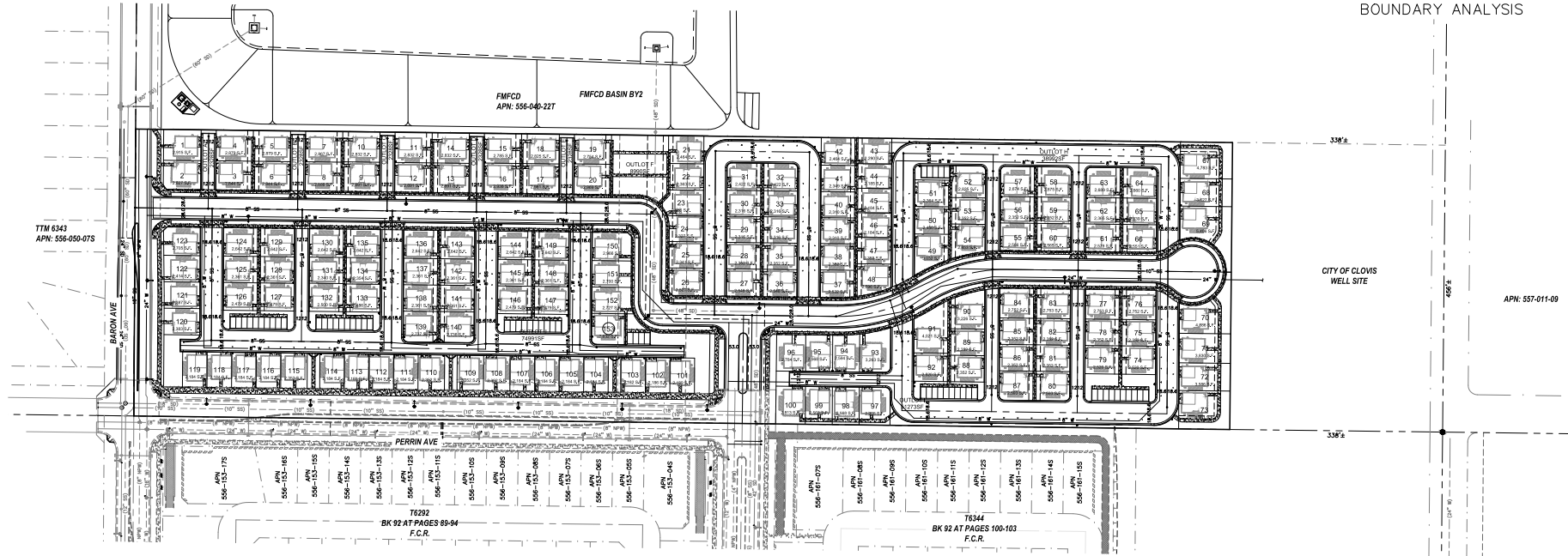
Ref. & Rev.

Engineering, Inc.
FOUNDERS & PARTNERS
CIVIL ENGINEERS • LAND SURVEYORS

2985 N. BURL AVENUE SUITE 101 FRESNO, CA 93727
TEL: (559) 244-3123 WEBSITE: YANHENGR.COM

LENNAR HOMES OF CALIFORNIA, LLC
NORTHWEST CORNER OF PERRIN ROAD AND SUNNYY
TRACT 6452

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EXISTING TREES
NONE (ON AREA FOR DEVELOPMENT)
EXISTING BUILDINGS
NONE (ON AREA FOR DEVELOPMENT)
EXISTING USE
VACANT LAND
EXISTING GENERAL PLAN LAND USE
M-MEDIUM DENSITY RESIDENTIAL (4.1-7.0DU/AC)
EXISTING ZONING
R-1 (SINGLE FAMILY RESIDENTIAL)
PROPOSED USE
SINGLE FAMILY RESIDENTIAL
PROPOSED GENERAL PLAN LAND USE
M-MEDIUM DENSITY RESIDENTIAL (4.1-7.0DU/AC)
PROPOSED ZONING

PARKING LOT INFO:
STANDARD PARKING STALLS: 59
SIDE STREET PARKING: 123
TOTAL PARKING: 182
GARAGE PARKING (2 CARS PER GARAGE): 153

OWNER:
RICCHIUTI PATRICK V TRUSTEE
2917 EAST SHEPHERD AVENUE
CLOVIS, CA 93619

SUBDIVIDER:
LENNAR HOMES OF CALIFORNIA
8080 N. PALM AVE, SUITE 101
FRESNO, CA 93711
PH. (559)437-4600

PREPARED BY:
YAMABE & HORN ENGINEERING, INC.
2985 N. BURL AVE, SUITE 101
FRESNO, CALIFORNIA 93727
PH. (559) 244-3123

NOTES:

1. EXISTING ABOVE GROUND LINES OR STRUCTURES SUCH AS BUILDING, 5. ALL STREETS ADJACENT TO THE BOUNDARIES OF THIS SUBDIVISION 10
EXISTING UNDERGROUND UTILITIES, ETC., WITHIN THE PROPOSED 11 SHALL REMAIN IN PLACE AND BE PROTECTED. 12
SUBDIVISION IS TO BE REMOVED. 13
14
2. THIS AREA IS NOT SUBJECT TO FLOOD INUNDATION. 15
16
3. EXISTING UNDERGROUND UTILITIES SUCH AS GAS, CESSPOOLS, 17
SEWER, WATER, TELEPHONE, CABLE, AND OTHER LINES SHALL 18
BE PROTECTED AND REMOVED OR RELOCATED TO THE SOUTH OF 19
THE DESIGN OF THE PROPOSED SUBDIVISION SHALL PROVIDE TO 20
THE EXTENT FEASIBLE FOR FUTURE PASSIVE OR NATURAL HEATING OR 21
COOLING TO BE INCORPORATED INTO THE PROPOSED DESIGN. 22
NONRENEWABLE ENERGY RESOURCES. THIS SUBDIVISION HAS BEEN 23
DESIGNED TO TAKE ADVANTAGE OF NATURAL HEATING AND 24
COOLING OPPORTUNITIES. 25
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LEGAL DESCRIPTION:

THE LAND REFERRED TO IS SITUATED IN THE UNINCORPORATED AREA OF THE COUNTY OF FRESNO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:
PARCEL 4 OF PARCEL NAP NO. 1772, ACCORDING TO THE NAP THEREOF RECORDED IN BOOK 11, PAGE 53 OF PARCEL MAPS, FRESNO COUNTY RECORDS;

EXCEPTING THEREFROM AN UNDIVIDED ONE-HALF INTEREST IN AND TO ALL OIL, GAS AND/OR MINERALS THEREIN AND THEREUNDER, TOGETHER WITH THE RIGHT AT ALL TIMES TO ENTER ON THE ABOVE DESCRIBED LANDS AND TAKE ALL THE USUAL, NECESSARY OR CONVENIENT MEANS TO BORE WELLS, MAKE EXCAVATIONS AND TO REMOVE ALL THE OIL, GAS AND/OR MINERALS THEREIN RESERVED, AND FOUND THEREON, AS EXCEPTED AND RESERVED IN THE DEED FROM BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOCIATION, TO T.L. HARPER, DATED FEBRUARY 6, 1936, RECORDED FEBRUARY 20, 1936 IN BOOK 1473, PAGE 243 OF OFFICIAL RECORDS, DOCUMENT NO. 4809;

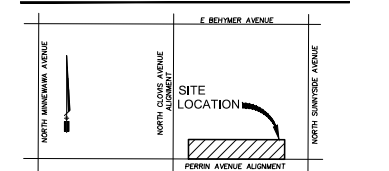
[illegible]

EXCEPTING THEREFROM THE REMAINING UNDIVIDED ONE-HALF INTEREST IN AND TO ALL OIL, GAS, MINERALS, AND OTHER HYDROCARBON SUBSTANCE LYING BELOW A DEPTH OF 500 FEET BENEATH THE SURFACE OF SAID LAND WITHOUT THE RIGHT OF SURFACE ENTRY.


TO BE DEDICATED FOR PRIVATE ROAD AND PUBLIC & PRIVATE
UTILITY PURPOSES:
OUTLOT 'A' = 2,328 SQ.FT.
OUTLOT 'B' = 2,328 SQ.FT.
OUTLOT 'C' = 2,328 SQ.FT.
OUTLOT 'D' = 2,328 SQ.FT.
OUTLOT 'E' = 2,328 SQ.FT.
OUTLOT 'G' = 23,795 SQ.FT.
OUTLOT 'H' = 38,992 SQ.FT.
OUTLOT 'I' = 51,273 SQ.FT.
OUTLOT 'J' = 74,991 SQ.FT.

NOTES:

| | | | | | |
|--|---------------------------------|-----|---------------------------------|----------|--------------------------------|
| | EXISTING STORM DRAIN INLET | | EXISTING WATER LINE | SDMH | STORM DRAIN MANHOLE |
| | EXISTING SANITARY SEWER MANHOLE | | EXISTING OVERHEAD ELECTRIC LINE | SSMH | SANITARY SEWER MANHOLE |
| | EXISTING STORM DRAIN MANHOLE | | EXISTING IRRIGATION LINE | SP | IRRIGATION STANDPIPE |
| | EXISTING STREET LIGHT | | EXISTING EDGE OF PAVEMENT | STL | STREETLIGHT |
| | EXISTING UTILITY POLE | | EXISTING FENCE (CHAIN LINK) | PP | POWER POLE |
| | CENTERLINE | | EXISTING TREE | UP | UTILITY POLE |
| | PROPOSED STREET LIGHT | | EXISTING FIRE HYDRANT | TEL | TELEPHONE POLE |
| | PROPOSED AREA LIGHT | | EXISTING FIRE CONTOUR ELEVATION | WV | WATER VALVE |
| | PROPOSED SETBACK | FH | FIRE HYDRANT | O.R.F.C. | OFFICIAL RECORDS FRESNO COUNTY |
| | EXISTING STORM DRAIN LINE | GW | GUY WIRE | F.C.R. | FRESNO COUNTY RECORDS |
| | EXISTING SEWER LINE | SDI | STORM DRAIN INLET | | |

VICINITY MAP:

SCALE: $1'' = 80'$



40' 80' 160'

Attachment A

VESTING
TENTATIVE SUBDIVISION MAP
OF
TRACT NO. 6452
(A PLANNED DEVELOPMENT)
IN THE CITY OF CLOVIS
FRESNO COUNTY, CALIFORNIA
SHEET 2 OF 5
BOUNDARY ANALYSIS

Ref. & Rev.

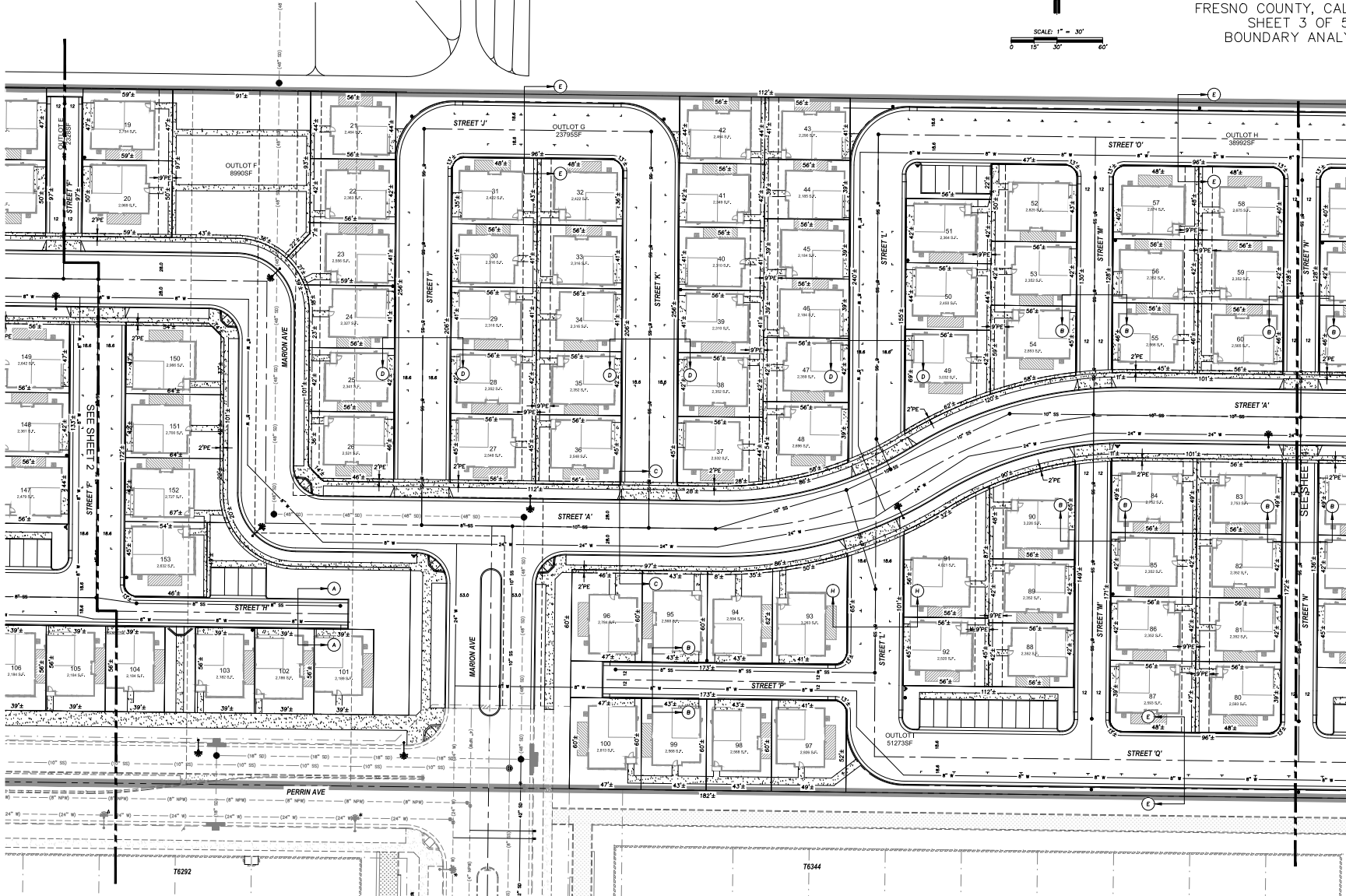
Yamabe & Horn
Engineering, Inc.
CIVIL ENGINEERS - LAND SURVEYORS
2881 N. BURL AVENUE SUITE 101 FRESNO, CA 93727
TEL: (509) 444-1123 WEBSITE: YAHMENG.COM

LENMAR HOMES OF CALIFORNIA, LLC
NORTHWEST CORNER OF PERRIN ROAD AND SUNNYSIDE AVENUE
TRACT 6452

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VESTING
TENTATIVE SUBDIVISION MAP
OF
TRACT NO. 6452
(A PLANNED DEVELOPMENT)
IN THE CITY OF CLOVIS
FRESNO COUNTY, CALIFORNIA
SHEET 3 OF 5
BOUNDARY ANALYSIS

SCALE: 1" = 30'



Ref. & Rev.

Yamabe & Horn
Engineering, Inc.
CIVIL ENGINEERS • LAND SURVEYORS
288 N. BURL AVENUE SUITE 101 FRESNO, CA 93727
TEL: (509) 444-4123 WEBSITE: YANDENG.COM

LENMAR HOMES OF CALIFORNIA, LLC
NORTHWEST CORNER OF PERRIN ROAD AND SUNNYSIDE AVENUE
TRACT 6452

PROJECT TITLE
SHEET DESCRIPTION
Dr. By: [Signature]
Ch. By: [Signature]
104
105
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of 5 Sheets

Ref. & Rev.

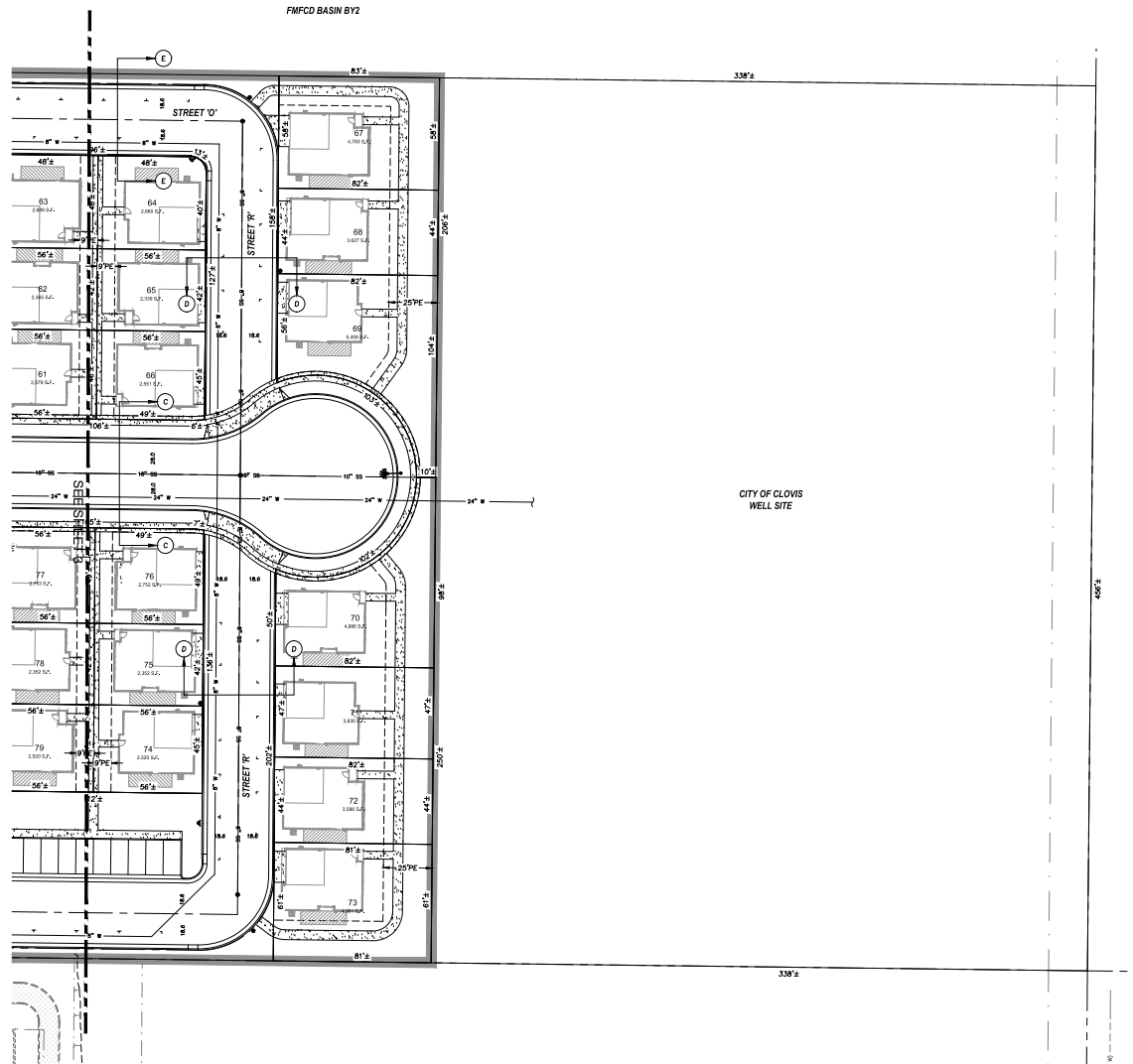
**Yamabe & Horn
Engineering, Inc.**
CIVIL ENGINEERS • LAND SURVEYORS

2985 N. BURL AVENUE SUITE 101 FRESNO, CA 93727
TEL: (559) 244-3123 WEBSITE: YANOHENG.COM

LENNAR HOMES OF CALIFORNIA, LLC
NORTHWEST CORNER OF PERRIN ROAD AND SUNNYSIDE AVENUE
TRACT 6452

PROJECT TITLE

Dr. By: JP
Ch. By: AL
117
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4
of 5 Sheets



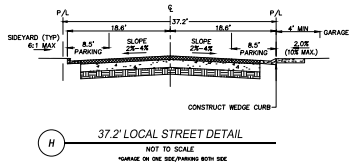
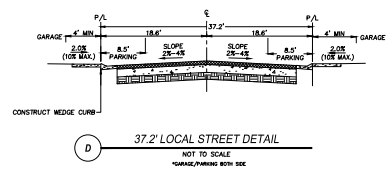
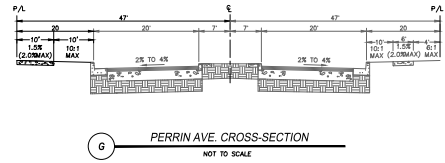
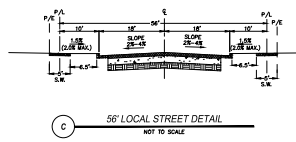
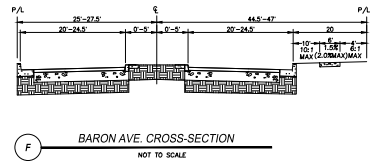
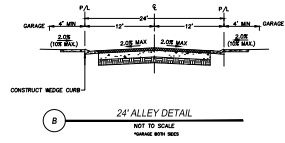
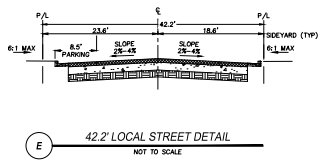
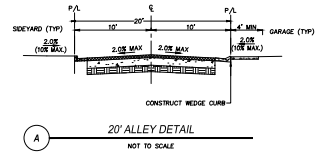
AGENDA ITEM NO. 5.

Yamabe & Horn
Engineering, Inc.
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2885 N. BURL AVENUE SUITE 101 FRESNO, CA 93727
TEL: (559) 344-3123 WEBSITE: YAMABE.COM

LENMAR HOMES OF CALIFORNIA, LLC
NORTHWEST CORNER OF PERRIN ROAD AND SUNNYSIDE AVENUE
TRACT 6452

PROJECT TITLE
SHEET DESCRIPTION
Dr. By: DB
Ch. By: NR
Date: 8/16/2023
Scale: As Noted
YH Job No. 23-116
Sheet No. 5
of 5 Sheets

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Attachment B
Conditions of Approval – TM6452
Planning Division Comments

(Liz Salazar, Assistant Planner – 559-324-2305)

1. The developer shall comply with all mitigation measures identified in the Mitigation Monitoring and Reporting Program prepared for the Project, included as **Attachment 8** to the staff report.
2. TM6452 is approved per **Attachment A**.
3. This Project is subject to the development standards of the Heritage Grove Master Plan.
4. The proposed project shall produce a comprehensive development of superior quality than which might otherwise occur from more traditional development on the site which will be reviewed and approved through the civil plan review process and residential site plan review (RSPR).
5. The developer shall enter into a Homeowner's Association (HOA) covenant regarding the maintenance of open space, common areas, and private drive aisles. Such agreements shall be disclosed to all future home buyers. The HOA shall be formed and functioning prior to tract acceptance.
6. The developer shall obtain City approval in advance of temporary and permanent subdivision signs through separate sign review, consistent with the development criteria of the Development Code Sign Ordinance.
7. No more than two of the same unit type (floor layout and exterior materials package) shall be repeated side by side. When two of the same units are repeated side by side, they shall be different colors. These identical provisions may be waived by the City Planner on a specific lot basis within the project when the size or configuration of a lot would otherwise prevent compliance with the above requirements of any other siting or setback/yard requirements established under this application. If such a waiver is requested, the developer and City Planner shall work together to ensure that any sitings of units not in compliance with the above requirements shall be of different materials and elevations in order to minimize any adverse visual impacts that may result.
8. TM6452 is subject to the development standards of Planned Development Permit (PDP) 2023-001 and any amendments thereafter. Any development standards not expressed within PDP2023-001 and TM6452 shall be subject to the underlying Zone District R-1-PRD Standards and Guidelines, and the Development Code.

9. A RSPR is required to memorialize building plans and elevations for the different product types of TM6452. Specific color and materials of the models, walls, amenities, landscaping, and fencing will be evaluated through the civil plans.
10. Setbacks shall be measured to the exterior face of the framing of the structure. Exceptions to the setbacks are identified in §9.24.100, of the Development Code.
11. Development standards for the lots of TM6452 shall be as follows:

| Development Feature | TM6452 PRD Development Standards |
|---|--|
| Minimum Lot Size | 2,184 sq. ft. |
| Front Setback (garage side) | 4 ft. |
| Front Setback | 10 ft. |
| Corner Street Sides Setbacks | 3 ft. |
| Interior Side Yard Setback (uncovered patio side) | 7 ft. |
| Interior Side Yard Setback (garage side) | 0 ft. (Lots 44-48, 101-107, 111-114, 116-119) 3 ft. (all other lots) |
| Rear Setback (opposite of garage) | 10 ft. |
| Rear Setback | 4 ft. |
| Lot Coverage | 62% |
| Maximum Height | 26 ft. 7 in. |
| Minimum Parcel Width | 39 ft. |
| Minimum Corner Parcel Width | 45 ft. |
| Minimum Parcel Depth | 56 ft. |

12. N. Baron and Perrin Avenues are designated as Neighborhood Boulevards and shall have a 20-foot landscape/pedestrian setback, with a 10-foot landscape, 6-foot walk, and 4-foot landscape buffer setback. Perrin Avenue may combine the 6-foot walk and 4-foot landscape are to form a 10-foot wide sidewalk serving as a continuation of the trail along Perrin Avenue to the west.
13. The developer shall construct a minimum six-foot high solid split face masonry wall along the eastern limits of TM6452.
14. Each lot with a zero (0) foot interior setback shall enter into a recordable covenant that provides access to each abutting property for repair and maintenance and other provisions as deemed necessary by the Planning and Development Services Director.
15. To ensure consistency with the conditions of approval for TM6452, the developer shall provide, for the Planning Department's review and approval, a copy of the Conditions, Covenants, and Restrictions prior to start of construction of homes on any lots.

16. The developer shall utilize street lights along local and private streets within the development area that are of the same design and luminosity as surrounding developments within Heritage Grove.
17. The developer shall contribute a proportionate share towards the acquisition and development of future parks in order for the City to maintain its adopted ratio of providing four (4) acres of parkland per 1,000 residents, as stated in Policy 1.1 in the Open Space and Conservation Element of the 2014 General Plan. The proportionate fair share will be accessed by the Engineering Division.
18. All lighting shall be screened from direct view from the public right-of-way and adjacent residential properties.
19. All landscaping (open space and private yards) shall conform to the City of Clovis Water Efficient Landscape Ordinance.
20. Landscape plans shall be reviewed and approved separately by the landscape review committee with the civil set for tree and landscape type and location.
21. All lots shall provide an all-weather surface and path for the placement and storage of trash totes. The paved path shall lead from the street to the fenced noncovered patio areas within the 7-foot side yard to the street. The fenced noncovered patio area shall provide gate access.
22. Placement of trash totes for service pick-up shall be approved by the Engineering Department. Trash totes will not be serviced along Perrin Avenue. The developer shall restrict parking as necessary along "Street Q" and "Street O" in order to accommodate service for lots 55-66 and 97-100. A minimum of 153 guest parking shall be maintained.
23. Landscape features and forms within amenity areas shall be consistent with Heritage Grove Design Guidelines. Details shall be provided in the construction plan.
24. An 8,990 square foot pocket park with a BBQ station, picnic tables, seat walls, grass area, a 250 square foot shade structure, and a children's play structure shall be constructed as the private amenity.
25. As a public amenity for the Project, the developer shall contribute the dollar amount totaling \$37,929 to the City for utilization in existing or future open space and/or park improvements.
26. The developer shall design and install the Community Gateway (Community Corner Paseo) at the northeast corner of N. Baron and Perrin Avenues. The Corner Paseo shall be designed to meet the intent outlined in the Heritage Grove Guidelines. Final approval of the design shall be made by the Director of Planning and Development Services.

27. The developer shall record a Covenant regarding a “right to farm,” for adjacent property owners. Such agreement shall be disclosed to all future home buyers.
28. The applicant shall record a Notice of Nonconformance dealing with any structure used for model homes where the garage is converted for the use as a sales office.
29. Upon final recordation of this vesting tentative tract map, it shall be the applicant’s responsibility to furnish to the Planning Department an electronic (PDF) copy of the original map obtained from the Fresno County Recorder’s Office.
30. The applicant shall relay all conditions of approval for TM6452 to all subsequent purchasers of individual lots, if applicable, and/or to subsequent purchasers of this entire tract map development.
31. Prior to the final map acceptance, the developer shall incorporate an 8-foot wide pedestrian easement along the eastern property line, adjacent to the future City water storage tank(s) site.

Fire Department Conditions

(Rick Fultz, Fire Department Representative – 559-324-2224)

Roads/ Access

32. **Street Width:** Fire apparatus access width shall be determined by measuring from “base of curb” to “base of curb” for roadways that have curbs. When roadways do not have curbs, the measurements shall be from the edge of the roadway surface (approved all weather surface).
33. **Street Width for Single Family Residences:** Shall comply with Clovis Fire Standard #1.1. Streets highlighted on the plan in blue do not require fire department access. All other streets shall have a minimum of 36’ measured base of curb to base of curb.
34. **Turning Radius:** All access way roads constructed shall be designed with a minimum outside turning radius of forty-five feet (45’).
35. **Security Gates:** All security gates shall comply with Clovis Fire Department Gates Standard #1.5. Plans shall be submitted for Fire Department review and approval prior to installation.
36. **Temporary Street Signs:** The applicant shall install temporary street signs that meet City Temporary Street Sign Standard #1.9 prior to issuance of building permits within a subdivision.
37. **All Weather Access & Water Supply :** The applicant shall provide all weather

access to the site during all phases of construction to the satisfaction of the approved Clovis Fire Department Standard #1.2.

38. **Two Points of Access:** Any development to this parcel will require a minimum of two (2) points of access to be reviewed and approved by the Clovis Fire Department. All required access drives shall remain accessible during all phases of construction which includes paving, concrete work, underground work, landscaping, perimeter walls.

Water Systems

39. **Residential Fire Hydrant:** The applicant shall install ____ 11 ____ 4 ½" x 2 ½" approved Residential Type fire hydrant(s) and "Blue Dot" hydrant locators, paint fire hydrant(s) yellow with blue top and caps, and paint the curb red as specified by the adopted Clovis Fire Department Standard #1.4. Plans shall be submitted to the Clovis Fire Department for review and approval prior to installation. The hydrant(s) shall be charged and in operation prior to any framing or combustible material being brought onto the site. See marked up plans as follows: hydrants with a red circle around them are acceptable as shown, hydrants with a red X through them need to be removed and relocated, and a red solid circle is the location of additional or relocated hydrants.
40. **Looped Water Main:** The applicant shall install approved looped water main capable of the necessary flow of water for adequate fire protection and approved by the Clovis Fire Department.

Engineering / Utilities / Solid Waste Division Conditions

(Sean Smith, Engineering Division Representative – 559-324-2363)
(Paul Armendariz, Department Representative – 559-324-2649)

Maps and Plans

41. The conditions of this tract map are written under the assumption that all dedications and improvements have been completed by the adjacent TM 6292 and TM 6344 development, and that these dedications and improvements have been accepted by the City. Additional conditions shall be required at the discretion of the City Engineer, if the improvements and dedications by TM 6292 and TM 6344 have not been accepted by the City.
42. The applicant shall have a final tract map prepared, in the form prescribed by the Subdivision Map Act and City of Clovis Municipal Code. The final tract map shall be submitted to the City of Clovis Engineering Division, and should include, but not be limited to, final tract map, the current filing fee, closure calculations, current preliminary title report, legal descriptions and drawings of required dedications.

43. The applicant shall submit separately to the City of Clovis Engineering Division, a set of construction plans on 24" x 36" sheets with City standard title block for all required improvements and a current preliminary title report. These plans shall be prepared by a registered civil engineer, and shall include a grading plan, landscape plan, a site plan showing trash enclosure locations and an overall site utility plan showing locations and sizes of sewer, water, storm drain, and irrigation mains, laterals, manholes, meters, valves, hydrants, fire sprinkler services, other facilities, etc. Plan check and inspection fees per City of Clovis Resolution No. 23-34 shall be paid with the first submittal of said plans. All plans shall be submitted at or before the time the building plans are submitted to the Building Division and shall be approved by the City and all other involved agencies prior to the release of any development permits.
44. Prior to the initial submittal of the improvement plans, the applicant shall contact Sean Smith at (559) 324-2363 to setup a coordination meeting (Pre-submittal Meeting).
45. Upon approval of improvement plans, the applicant shall provide the City with the appropriate number of copies. After all improvements have been constructed and accepted by the City, the applicant shall submit to the City of Clovis Engineering Division (1) digital copy to the City in PDF format of the approved set of construction plans revised to accurately reflect all field conditions and revisions and marked "AS-BUILT" for review and approval. Upon approval of the AS-BUILTs by the City, and prior to granting of final occupancy or final acceptance, the applicant shall provide to the City (1) digital copy in PDF format and two (2) bond copies.
46. The applicant shall comply with reporting requirements in accordance with Government Code 65940.1, which requires the City to, "request from a development proponent, upon issuance of a certificate of occupancy or the final inspection, whichever occurs last, the total amount of fees and exactions associated with the project for which the certificate was issued. The City shall post this information on its internet website, and update it at least twice per year."

General Provisions

47. The applicant shall pay all applicable development fees at the rate in effect at the time of payment and prior to final map approval by Council or have the fees payable directly to the City through a separate escrow account at the time of recordation of the map.
48. The applicant is advised that, pursuant to California Government Code, Section 66020, any party may protest the imposition of fees, dedications, reservations, or other exactions imposed on a development project by a local agency. Protests shall be filed in accordance with the provisions of the California Government Code and shall be filed within 90 days after conditional approval of this application is granted. The 90 day protest period for this project shall begin on the "date of approval" as indicated on the "Acknowledgment of Acceptance of Conditions" form.

49. All reimbursement requests shall be prepared and submitted in accordance with the requirements of the current version of the "Developer Reimbursement Procedures" a copy of which may be obtained at the City Engineer's Office.
50. The applicant shall install all improvements within public right-of-way and easements in accordance with the City of Clovis standards, specifications, master plans, and record drawings in effect at the time of improvement plan approval.
51. The applicant shall address all conditions, and be responsible for obtaining encroachment permits from the City of Clovis for all work performed within the City's right-of-way and easements.
52. The applicant shall submit a soils report or a waiver of soils report to the City of Clovis Engineering Division for approval by the City Engineer.
53. The applicant shall provide and pay for all geotechnical services per City policy.
54. The applicant shall comply with the requirements of the local utility, telephone, and cable companies. It shall be the responsibility of the applicant to notify the local utility, telephone, and cable companies for the removal or relocation of utility poles where necessary. The City shall not accept first submittals without proof that the applicant has provided the improvement plans and documents showing all proposed work to the utility, telephone, and cable companies. All utility vaults in which lids cannot be sloped to match proposed finished grading, local utilities have 5% max slope, shall be located in sidewalk areas with pedestrian lids so the lid slope matches sidewalk cross slope.
55. All existing overhead and new utility facilities located on-site, within alleys, or within the street right-of-way along the streets adjacent to this tract shall be undergrounded unless otherwise approved by the City Engineer.
56. The applicant shall contact and address all requirements of the United States Postal Service Clovis Office for the location and type of mailboxes to be installed. The location of the facilities shall be approved by the City Engineer prior to approval of improvement plans or any construction.
57. The applicant shall contact and address Caltrans requirements, and be responsible for obtaining encroachment permits from Caltrans for all work performed within the State right-of-way. The applicant shall be required to mitigate impacts to State Highway facilities as determined by the City Engineer.

Dedications and Street Improvements

58. The applicant shall provide right-of-way acquisition or dedicate free and clear of all encumbrances and/or improve the following streets to City standards. The street improvements shall be in accordance with the City's specific plans and shall match

existing improvements. The applicant's engineer shall be responsible for verifying the type, location, and grades of existing improvements.

- a. Perrin Avenue – Along frontage, dedicate to provide right-of-way acquisition for 94' (exist 47') 47' north of centerline and improve with sidewalk, curb return ramps, street lights, and a landscape strip.
- b. North Baron Avenue – Along frontage, dedicate to provide right-of-way acquisition for 89' (exist 0') 44.5' east of centerline and 44.5' west of centerline, and improve with curb, gutter, 6' sidewalk, drive approaches, curb return ramps, street lights, fiber optic conduit, landscape strip, 45' (22.5' east + 22.5' west) permanent paving, permanent paving and overlay as necessary to match the existing permanent pavement, 3' paved swale, and transitional paving as needed.
- c. Eclipse Avenue – Improve with a drive approach in the cul-de-sac at the east end of the street and gated access to parcel on the eastern property line.
- d. Eclipse Avenue – Dedicate to provide for 50' or 54' of right-of-way in conformance with the City policy on street widths, and improve with curb, gutter, 5' sidewalk adjacent to the curb, drive approaches, curb return ramps, streetlights, permanent paving, and all transitional paving as needed.
- e. Interior streets shall be private. For two-way traffic with no parking on both sides, the minimum travel width shall be 25' with a clear width of 30'. For two-way traffic with parking on one side, the minimum travel width shall be 32'. For two-way traffic with parking on both sides, the minimum travel width shall be 36'.
- f. Entry feature streets with median islands shall have a minimum of 22' wide travel lanes in each direction with parking or without parking.
- g. Cul-De-Sacs - dedicate to provide for 52' radius and improve with curb, gutter, sidewalk, street lights, 43' permanent paving and all transitional paving as needed.
- h. The applicant shall relinquish all vehicular access to North Baron Avenue and Perrin Avenue for lots that back or side on these streets.
- i. Traffic signal improvements are required for the following intersections as identified within the Project's Traffic Impact Analysis. The City Engineer shall determine the timing for the installation of the traffic signal improvements.
 - a. Behymer and Minnewawa Avenues
 - b. Behymer and Baron Avenues

c. Clovis and Baron Avenues

59. The applicant shall provide a dedication for a 10' public utility easement, where applicable, along all frontages or alternate widths approved by the utilities companies.
60. For new onsite ADA paths of travel that connect to the City sidewalk, the applicant shall replace enough sidewalk to provide a compliant landing with appropriate transitions to existing sidewalk grades.
61. If the applicant is required to make onsite ADA path of travel improvements, then the applicant may be required to remove and replace concrete improvements along the property frontage that do not meet current City of Clovis and ADA standards.
62. The applicant shall remove and repair all damaged or broken concrete improvements. The City Engineer may require the repair of additional improvements if they are damaged prior to occupancy.
63. The applicant shall not install any fences, temporary or permanent in public right-of-way.
64. The applicant shall provide preliminary title report, legal description and drawings for all dedications required which are not on the site. All contact with owners, appraisers, etc. of the adjacent properties where dedication is needed shall be made only by the City. The City will prepare an estimate of acquisition costs including but not limited to appraised value, appraisal costs, negotiation costs, and administrative costs. The applicant shall pay such estimated costs as soon as they are determined by the City.
65. The sideyard side of all corner lots shall have full width sidewalk except where planter strips or meandering sidewalk is proposed.
66. The applicant shall obtain "R Value" tests in quantity sufficient to represent all street areas, and have street structural sections designed by a registered civil engineer based on these "R Value" tests.
67. The applicant shall, at the ends of any permanent pavement abutting undeveloped property, install 2" x 6" redwood header boards that shall be placed prior to the street surfacing.
68. Standard barricades with reflectors shall be installed at ends of streets abutting undeveloped property and any other locations to be specified by the City Engineer.

Sewer

69. The applicant shall identify and abandon all septic systems to City standards.

70. The applicant shall install sanitary sewer mains of the size and in the locations indicated below, prior to occupancy. The sewer improvements shall be in accordance with the City's master plans and shall match existing improvements. The applicant's engineer shall be responsible for verifying the size, location, and elevations of existing improvements. Any alternative routing of the mains shall require approval of the City Engineer and shall be supported by appropriate calculations.
 - a. North Baron Avenue – install 10" main.
 - b. Interior Streets – install 8" mains.
 - c. Interior Private Streets – install 8" mains.
71. The applicant shall provide dedication of a 15' wide utility easement for all on-site sewer mains, not located in otherwise dedicated rights-of-way.
72. The applicant shall install one (1) 4" sewer service house branch to each lot within the tentative tract.
73. All existing sewer services that will not be used with this development shall be abandoned by cutting and capping the service at the right-of-way line.
74. The applicant shall notify all property owners annexed to the City and along streets where a new sewer main will be constructed to determine if they wish to be connected to City sewer. Property owners shall work directly with the applicant regarding costs and location. The applicant shall notify property owners that sewer connection fees are required if they choose to connect.
75. The City cannot guarantee at this time that sewer capacity will be available for this development when site construction occurs. The applicant, therefore, waives any claim or demand against the City for any delay in availability of sewer capacity for this subdivision.
76. Applicant acknowledges that sewage collection and treatment capacity for the area within which the proposed subdivision is located is extremely limited, and that capacity may not be available to provide service for the proposed subdivision at such time as applicant is ready to seek approval of a final map. Applicant acknowledges, understands, and agrees that if such sewage collection and treatment capacity is not available to serve the proposed subdivision, as determined in the sole and absolute discretion of the City of Clovis, the final map may not be approved. Notwithstanding the foregoing, applicant has freely and voluntarily chosen to proceed with the submittal and processing of the tentative map, intends to expend money, time and effort in connection therewith, and accepts the risks that the final map approval may be delayed until sufficient capacity is available as determined in the sole and absolute discretion of the City of Clovis. Applicant agrees to hold harmless and indemnify the City of Clovis from any and all claims, costs, expenses, and damages incurred or suffered by applicant, its principals, officers, employees, agents, or contractors, caused by, in connection with, or arising out of the unavailability of sewage collection or treatment capacity to serve the proposed subdivision, or the City's refusal or failure

to approve a final map for the proposed subdivision because of the unavailability of sewage collection or treatment.

Water

77. The applicant shall identify and abandon all water wells to City standards.
78. The applicant shall install water mains of the sizes and in the locations indicated below, and provide an adequately looped water system prior to occupancy. The water improvements shall be in accordance with the City's master plans and shall match existing improvements. The applicant's engineer shall be responsible for verifying the size, location, and elevations of existing improvements. Any alternative routing of the mains shall require approval of the City Engineer and shall be supported by appropriate calculations.
 - a. North Baron Avenue – install 24" main along frontage.
 - b. Install 24" main between the Perrin Avenue & North Marion Avenue intersection and Sunnyside Avenue.
 - c. North Sunnyside Avenue – install 24" main between Perrin and Heirloom.
 - d. North Sunnyside Avenue - install 16" main between Shepherd and Teague Avenues. The City Engineer shall determine the timing for the installation.
 - e. North Sunnyside Avenue - install 12" main between Teague and Omaha Avenues. The City Engineer shall determine the timing for the installation.
 - f. Interior Streets – install 8" mains.
 - g. Interior Private Streets – install 8" mains.
 - h. Install water storage tank T-6 per the Water Master Plan. The City Engineer shall determine the timing for the installation of T-6 by a future City CIP project.
79. The applicant shall provide dedication of 15-foot wide utility easements for all on-site water mains, hydrants, blow-offs, and water meters not located in otherwise dedicated rights-of-way.
80. The applicant shall install a City standard water service to each lot of the proposed subdivision. Water services shall be grouped at property lines to accommodate automatic meter reading system, including installation of connecting conduit. The water meter shall be placed in the sidewalk and not in planters or driveways.
81. All existing water services that will not be used with this development shall be abandoned by closing the service's corporation stop and creating a physical separation between the corporation stop and the service.
82. The applicant shall notify all property owners' annexed to the City and along streets where a new water main will be constructed to determine if they wish to be connected to City water. Property owners shall work directly with the applicant regarding costs and location. The applicant shall notify property owners that water connection fees are required if they choose to connect.

83. Prior to recording a final map of any phase, the applicant shall demonstrate to the satisfaction of the City Fire Chief and City Engineer that there is adequate water pressure to serve the units to be constructed. The applicant shall work with the City Engineer to determine the adequacy of water supply/pressure for the proposed development.
84. Applicant acknowledges that water distribution and treatment capacity for the area within which the proposed subdivision is located is extremely limited, and that distribution may not be available to provide service for the proposed subdivision at such time as applicant is ready to seek approval of a final map. Applicant acknowledges, understands, and agrees that if such water distribution and treatment capacity is not available to serve the proposed subdivision, as determined in the sole and absolute discretion of the City of Clovis, the final map may not be approved. Notwithstanding the foregoing, applicant has freely and voluntarily chosen to proceed with the submittal and processing of the tentative map, intends to expend money, time and effort in connection therewith, and accepts the risks that the final map approval may be delayed until sufficient distribution is available as determined in the sole and absolute discretion of the City of Clovis. Applicant agrees to hold harmless and indemnify the City of Clovis from any and all claims, costs, expenses, and damages incurred or suffered by applicant, its principals, officers, employees, agents, or contractors, caused by, in connection with, or arising out of the unavailability of water distribution or treatment capacity to serve the proposed subdivision, or the City's refusal or failure to approve a final map for the proposed subdivision because of the unavailability of water distribution or treatment capacity.

Recycled Water

85. The applicant shall install recycled water mains of the sizes and in the locations indicated below. The recycled water improvements shall be in accordance with the City's master plans and shall match existing improvements. All areas utilizing recycle water for irrigation shall be clearly marked on the improvement plans. The applicant's engineer shall be responsible for verifying the size, location, and elevations of existing improvements. Any alternative routing of the mains shall require approval of the City Engineer and may require appropriate calculations.
- a. North Baron Avenue – install 8" main along the property frontage.

Grading and Drainage

86. The applicant shall contact the Fresno Metropolitan Flood Control District (FMFCD) and address all requirements, pay all applicable fees required, obtain any required NPDES permit, and implement Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate storm water pollution. Plans for these requirements shall be included in the previously required set of construction plans, and shall be submitted to and approved by FMFCD prior to the release of any development permits.

87. In the event permanent storm drainage facilities are not available, the applicant shall provide temporary on-site retention basins for storm water disposal and provide a cash deposit for each basin to offset the City's cost of maintaining the basins. The size and design shall be in accordance with the requirements of the City Engineer and may change based on design calculations and access requirements for maintenance. The temporary pond maintenance deposit shall be based on size, depth, expected maintenance schedule, etc. However, the property owner shall be responsible for periodic cleaning of toxic material. The temporary basin is solely for the convenience of the subdivision.
88. The owner of the property on which the temporary basin(s) are located shall backfill said basin(s) within ninety (90) days after notice is given by the City that the basin(s) are no longer needed. In the event the owner fails to backfill said basin(s) within said 90 days, the City may cause the basin to be backfilled. A lien to cover the cost of the work will be placed on the property, including the costs to prepare and enforce the lien. A covenant shall be prepared and recorded on the lot on which the basin(s) is/are located.
89. Grade differentials between lots and adjacent properties shall be adequately shown on the grading plan and shall be treated in a manner in conformance with City of Clovis Standard Drawing No. M-4 as modified by the City Council. Any retaining walls required on-site or in public right of way shall be masonry construction. All retaining walls shall be designed by a registered civil engineer.

Irrigation and Landscaping Facilities

90. The applicant, as a portion of the required tract improvements, shall provide landscaping and irrigation as required herein. The landscaping and irrigation shall be installed in public right-of-way and the area reserved for landscaping. The irrigation and landscape improvements shall be in accordance with the City's master plans and shall match existing improvements. The applicant's engineer shall be responsible for verifying the size, location, and elevations of existing improvements. Plans for the required landscaping and irrigation systems shall be prepared by an appropriately registered professional at the applicant's expense and shall be approved by the City of Clovis Planning and Development Services Department and Public Utilities Department prior to the beginning of construction or the recording of the final tract map, whichever occurs first. Landscape and irrigation facilities that the City Landscape Maintenance District shall maintain: the mini-park, paseos, paseo lights, interior street lights, entry features, landscape strips along Perrin and Baron Avenues. The landscape strip around the planned unit development may be maintained by a perpetual maintenance covenant.
91. The owner shall request annexation to and provide a covenant for the Landscape Maintenance District. The property owner acknowledges and agrees that such request serves as a petition pursuant to California State Proposition 218 and no further

election shall be required for the establishment of the initial assessment. The assessment for each lot shall be obtained from the City for the tax year following the recordation of the final map. The estimated annual assessment per average sized lot is \$540.26, which is subject to change prior to issuance of building permit or final tract map approval and is subject to an annual change in the range of the assessment in the amount of the Consumer Price Index, U.S. City Average, All Urban Consumers (CPI Index), plus two percent (2%). The additional landscaping enhancements that exceed the City norms and are specific benefit to the property, such as the entry feature, columns, monuments, interior median islands, round-a-bouts, special street lights, etc, if determined to be maintained by the Landscape Maintenance District, shall be maintained by an additional landscape maintenance assessment. The applicant shall provide construction costs and deposit with the City an amount equal to 50% of the value of the enhanced landscaping hardscape features, or an alternate amount approved by the City Engineer, such as columns, monuments, and special street lights, that exceeds the City norms. The applicant shall provide the City with an estimate of the annual maintenance for the special lighting and landscaping enhancements that exceeds the City norms. The owner/developer shall notify all potential lot buyers before they actually purchase a lot that this tract is a part of a Landscape Maintenance District and shall inform potential buyers of the assessment amount. Said notification shall be in a manner approved by the City. The owner/developer shall supply all pertinent materials for the Landscape Maintenance District.

92. The applicant shall comply with the City of Clovis Water Efficient Landscape Requirements Ordinance.
93. The applicant shall contact and address all requirements of the Fresno Irrigation District (FID). This may include dedicating easements, piping or relocating any existing FID canals and ditches, replacing any existing irrigation piping, concrete lining or improving any existing canals, construction or reconstruction of any canals, culverts, and bridge crossings. Plans for these requirements and improvements shall be included as in the previously required set of construction plans, and shall be submitted to and approved by FID prior to the release of any development permits or recording of the final tract map. If a FID or private irrigation line is to be abandoned, the applicant shall provide waivers from all downstream users.
94. The applicant shall indicate on construction drawings the depth, location and type of material of any existing Fresno Irrigation District's irrigation line along the proposed or existing street rights-of-way or onsite. Any existing canals shall be piped. The material of the existing pipe shall be upgraded to the proper class of rubber gasket pipe at all locations unless otherwise approved by the City Engineer.
95. The applicant shall apply to the Fresno Irrigation District (FID) for transfer of irrigation water rights to the City of Clovis, if the property has not already been removed from FID and transferred to the City. The applicant shall execute a "Request for Change

of Relative Value” that can be obtained and processed through FID. The applicant shall provide a copy of the completed form to the City.

96. All existing agricultural irrigation systems either on-site or in public right of way, whether FID or privately owned, shall be identified prior to any construction activity on the site. Service to all downstream users of irrigation water shall be maintained at all times through preservation of existing facilities or, if the existing facilities are required to be relocated, the relocation and replacement of the existing facilities. It is the intent that downstream users not bear any burden as a result of development of the site. Therefore, the applicant shall pay all costs related to modification, relocation, or repair of any existing irrigation facilities resulting from or necessitated by the development of the site. The applicant shall identify on site plans and construction plans, all existing irrigation systems and their disposition (abandonment, repair, relocation, and/or piping). The applicant shall consult with the Fresno Irrigation District for any additional requirements for lines to be abandoned, relocated, or piped. The applicant shall provide waivers from all users in order to abandon or modify any irrigation pipelines or for any service interruptions resulting from development activities.
97. The applicant shall provide a landscape and irrigation perpetual maintenance covenant recorded for landscaping installed in the public right-of-way behind the curb including easements that will not be maintained by the Clovis Landscape Maintenance District. A recordable covenant shall be submitted to and approved by the City of Clovis City Engineer prior to final map approval.
98. The applicant shall provide a perimeter wall perpetual maintenance covenant on all properties that have a perimeter wall that is installed on private property. A recordable covenant shall be submitted to and approved by the City of Clovis City Engineer prior to final map approval.

Miscellaneous

99. The applicant shall install street lights per the attached street light exhibit. Street lights along the major streets shall be installed on metal poles to local utility provider's standards at the locations designated by the City Engineer. Street light locations shall be shown on the utility plans submitted with the final map for approval. Street lights at future traffic signal locations shall be installed on approved traffic signal poles, including all conduits and pull boxes. Street lights along the major streets shall be owned and maintained by local utility providers. Proof of local utility provider's approval shall be provided. The applicant may install thematic lighting, as approved by the City Engineer. If the applicant chooses to install thematic lighting, the applicant shall provide a conceptual lighting plan identifying adjacent properties that may be incorporated with thematic lights to create a neighborhood effect. Thematic lighting owned by the City shall be maintained by an additional landscape maintenance assessment.

100. The applicant shall provide a Solid Waste Receptacle Locations covenant for Lots 01 – 20, 52 – 63, 77 – 90, 93 – 100, 101 – 104, 109, 119, 129 – 132, and any other lot located where solid waste receptacles cannot be properly serviced as determined by the Solid Waste manager. A recordable covenant shall be submitted to and approved by the City of Clovis City Engineer prior to final map approval.
101. The applicant shall install all major street monumentation and section corner monumentation within the limits of the project work in accordance with City Standard ST-32 prior to final acceptance of the project. Monumentation shall include all section corners, all street centerline intersection points, angle points and beginning and end of curves (E.C.'s & B.C.'s). The applicant/contractor shall furnish brass caps. Any existing section corner or property corner monuments damaged by this development shall be reset to the satisfaction of the City Engineer. A licensed land surveyor or civil engineer licensed to perform land surveying shall certify the placement of all required monumentation prior to final acceptance. Brass caps required for installation of new monuments or replacement of existing monuments shall be provided by the contractor/the applicant and approved by City prior to installation. Within five days after the final setting of all monuments has been completed, the engineer or surveyor shall give written notice to the City Engineer that the final monuments have been set. Upon payment to the engineer or surveyor for setting the final monuments, the applicant shall present to the City Engineer evidence of the payment and receipt thereof by the engineer or surveyor.
102. A deferment, modification, or waiver of any engineering conditions shall require the express written approval of the City Engineer.
103. The conditions given herein are for the entire development. Additional requirements for individual phases may be necessary pending review by the City Engineer

Fresno Metropolitan Flood Control District (FMFCD) Comments

(Amjad M. Qader, FMFCD Representative – 559-456-3292)

104. The applicant shall refer to the attached FMFCD correspondence. If the list is not attached, please contact the FMFCD for the requirements.

Fresno Irrigation District (FID) Comments

(Jeremy Landrith, Department Representative – 559-233-7161 ext. 7407)

105. The applicant shall refer to the attached FID correspondence. If the list is not attached, please contact the FID for the list of requirements.

County of Fresno Health Department Comments

(Kevin Tsuda, County of Fresno Health Department Representative – 559-600-3271)

106. The applicant shall refer to the attached Fresno County Health Department correspondence. If the list is not attached, please contact the Health Department for the list of requirements.

California Department of Transportation

(Christopher Xiong, Caltrans Representative – 559-908-7064)

107. The applicant shall refer to the attached Caltrans correspondence. If the list is not attached, please contact the Caltrans for the list of requirements.

County of Fresno Dept. of Public Works and Planning

(David Randall, Department Representative – 559-600-4052)

108. The applicant shall refer to the attached County of Fresno correspondence. If the list is not attached, please contact the County of Fresno for the list of requirements.

San Joaquin Valley Air Pollution Control District (SJVAPCD)

(Ryan Grossman, District Representative – 559-230-6569)

109. The applicant shall refer to the attached SJVAPCD correspondence. If the list is not attached, please contact the SJVSPCD for the list of requirements.

Clovis Unified School District

(Andrew Nabors, CUSD Representative – 559-327-9264)

110. The applicant shall refer to the attached CUSD correspondence. If the list is not attached, please contact the CUSD for the list of requirements.

Department of Toxic Substances Control

(Tamara Purvis, DTSC Representative – Tamara.Purvis@dtsc.ca.gov)

111. The applicant shall refer to the attached DTSC correspondence. If the list is not attached, please contact the DTSC for the list of requirements.

RESOLUTION 24-__

**RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS
RECOMMENDING THAT THE CITY COUNCIL APPROVE PLANNED
DEVELOPMENT PERMIT 2023-001 FOR VESTING TENTATIVE TRACT MAP 6452
LOCATED AT THE NORTHEAST CORNER OF NORTH BARON AND PERRIN
AVENUES**

WHEREAS, Lennar Homes of California, LLC (“Applicant”), 8080 N. Palm Avenue Suite 110, Fresno, CA 93711, submitted an application for Planned Development Permit (PDP) 2023-001 to deviate from the R-1 Zone District development standards associated with Vesting Tentative Tract Map (TM) 6452 for a 153-lot single-family subdivision (“Project”) on approximately 18 acres of property located on the northeast corner of N. Baron and Perrin Avenues (“Property”); and

WHEREAS, the proposed PDP is in keeping with the intent and purpose of Chapter 66 of Title 9 of the Clovis Municipal Code (Development Code); and

WHEREAS, the City published notice of the public hearing in the Fresno Business Journal on September 30, 2024 mailed public notices to property owners within 1,000 feet of the Property twenty-one (21) days prior to said Planning Commission hearing, and otherwise posted notice of the Public Hearing according to applicable law; and

WHEREAS, a duly noticed public hearing was held on October 24, 2024; and

WHEREAS, the Planning Commission considered the California Environmental Quality Act (“CEQA”) analysis outlined in the staff report and elsewhere in the Administrative Record which determines that the Project meets the requirements pursuant to CEQA Guidelines and recommends that the City Council adopt of an environmental finding of a Mitigated Negative Declaration and a Mitigation Monitoring and Reporting Program; and

WHEREAS, the Planning Commission has had an opportunity to review and consider the entire Administrative Record relating to the Project, which is on file with the Department, and reviewed and considered those portions of the Administrative Record determined to be necessary to make an informed decision, including, but not necessarily limited to, the staff report, the written materials submitted with the request, and the verbal and written testimony and other evidence presented during the public hearing (“Administrative Record”).

NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS, THE PLANNING COMMISSION RESOLVES AND FINDS AS FOLLOWS:

1. The Project satisfies the required findings for approval of a PDP, as follows:
 - a. The Project is allowed within the subject base zoning district;

- b. The Project is consistent with the purpose, intent, goals, policies, actions, and land use designations of the General Plan and any applicable specific plan;
 - c. The Project is generally in compliance with all of the applicable provisions of this Development Code relating to both on- and off-site improvements that are necessary to accommodate flexibility in site planning and property development and to carry out the purpose, intent, and requirements of this chapter and the subject base zoning district, including prescribed development standards and applicable design guidelines;
 - d. The Project ensures compatibility of property uses within the zoning district and general neighborhood of the proposed development;
 - e. The Project would produce a comprehensive development of superior quality (e.g., appropriate variety of structure placement and orientation opportunities, appropriate mix of structure sizes, high quality architectural design, increased amounts of landscaping and open space, improved solutions to the design and placement of parking facilities, incorporation of a program of enhanced amenities, etc.) than which might otherwise occur from more traditional development applications;
 - f. Proper standards and conditions have been imposed to ensure the protection of the public health, safety, and welfare;
 - g. Proper on-site traffic circulation and control is designed into the development to ensure protection for fire suppression and police surveillance equal to or better than what would normally be created by compliance with the minimum setback and parcel width standards identified in Division 2 of this title (Zoning Districts, Allowable Land Uses, and Zone-Specific Standards);
 - h. The subject Property is adequate in terms of size, shape, topography, and circumstances to accommodate the proposed development; and
 - i. The design, location, operating characteristics, and size of the proposed development would be compatible with the existing and future land uses in the vicinity, in terms of aesthetic values, character, scale, and view protection.
2. The Planning Commission could not make the findings necessary for approval of PDP2023-001 without the conditions of approval set forth in **Attachment A** to this Resolution.
 3. That the Planning Commission hereby recommends that the City Council approve PDP2023-001, subject to the conditions of approval set forth in **Attachment A** of this Resolution.

4. The bases for the findings are detailed in the October 24, 2024, staff report, which is hereby incorporated by reference, the entire Administrative Record, as well as the evidence and comments presented during the public hearing.

* * * * *

The foregoing resolution was approved by the Clovis Planning Commission at its regular meeting on October 24, 2024, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:

NOES:

ABSENT:

ABSTAIN:

PLANNING COMMISSION RESOLUTION NO. 24-__

DATED: October 24, 2024

Alma Antuna, Chair

ATTEST: _____
Renee Mathis, Secretary

Attachment A
Conditions of Approval – PDP2023-001
Planning Division Comments

(Liz Salazar, Assistant Planner – 559-324-2305)

1. The Project must produce a comprehensive development of superior quality than which might otherwise occur from more traditional development on the site. This will be reviewed and approved through the civil plan review process and residential site plan review.
2. An 8,990 square foot pocket park with a BBQ station, picnic tables, seat walls, grass area, a 250 square foot shade structure, and a children's play structure shall be constructed as the private amenity.
3. As a public amenity for the Project, the developer shall contribute the dollar amount totaling \$37,929 to the City for utilization in existing or future open space and/or park improvements.
4. The developer shall design and install the Community Gateway (Community Corner Paseo) at the northeast corner of N. Baron and Perrin Avenues. The Corner Paseo shall be designed to meet the intent outlined in the Heritage Grove Guidelines. Final approval of the design shall be made by the Director of Planning and Development Services.
5. The developer shall construct a minimum six-foot high solid split face masonry wall along the eastern limits of TM6452.
6. The developer shall screen all ground mounted mechanical equipment from public view from abutting public streets and rights-of-way and open space uses. Screening material shall be constructed of materials consistent with the superior quality of the PDP and Heritage Grove Design Guidelines.
7. Lots with frontage along N. Baron and Perrin Avenues shall adhere to front yard fencing standards. Fencing shall be limited to three (3) feet in height for material limiting 50% or more of visibility and seven (7) feet in height for material providing 50% or more of visibility. Fencing material shall be consistent with Heritage Grove Design Guidelines. Chain link is not permitted.
8. Landscape features and forms within amenity areas shall be consistent with Heritage Grove Design Guidelines. Details shall be provided in the construction plan.
9. No more than two (2) of the same unit type (floor layout and exterior materials package) shall be repeated side by side. When two (2) of the same units are repeated side by side, they shall be different colors. These identical provisions may be waived by the City Planner on a specific lot basis within the project when the size or

configuration of a lot would otherwise prevent compliance with the above requirements of any other siting or setback/yard requirements established under this application. If such a waiver is requested, the developer and City Planner shall work together to ensure that any sitings of units not in compliance with the above requirements shall be of different materials and elevations in order to minimize any adverse visual impacts that may result.

10. Setbacks shall be measured to the exterior face of the framing of the structure. Exceptions to the setbacks are identified in § 9.24.100, of the Clovis Municipal Code.

11. Development standards for the lots of TM6452 shall be as follows:

| Development Feature | TM6452 PRD Development Standards |
|---|--|
| Minimum Lot Size | 2,184 sq. ft. |
| Front Setback (garage side) | 4 ft. |
| Front Setback | 10 ft. |
| Corner Street Sides Setbacks | 3 ft. |
| Interior Side Yard Setback (uncovered patio side) | 7 ft. |
| Interior Side Yard Setback (garage side) | 0 ft. (Lots 44-48, 101-107, 111-114, 116-119) 3 ft. (all other lots) |
| Rear Setback (opposite of garage) | 10 ft. |
| Rear Setback | 4 ft. |
| Lot Coverage | 62% |
| Maximum Height | 26 ft. 7 in. |
| Minimum Parcel Width | 39 ft. |
| Minimum Corner Parcel Width | 45 ft. |
| Minimum Parcel Depth | 56 ft. |

12. All lighting shall be screened from direct view from the public right-of-way and adjacent residential properties.

13. The developer shall utilize streetlights along local and private streets within the development area that are of the same design and luminosity as surrounding developments within Heritage Grove.

14. A residential site plan review is required to memorialize building plans and elevations for the different product types of TM6452. Specific color and materials of the models, walls, amenities, landscaping, and fencing will be evaluated through the civil plans.

TRACT 6452

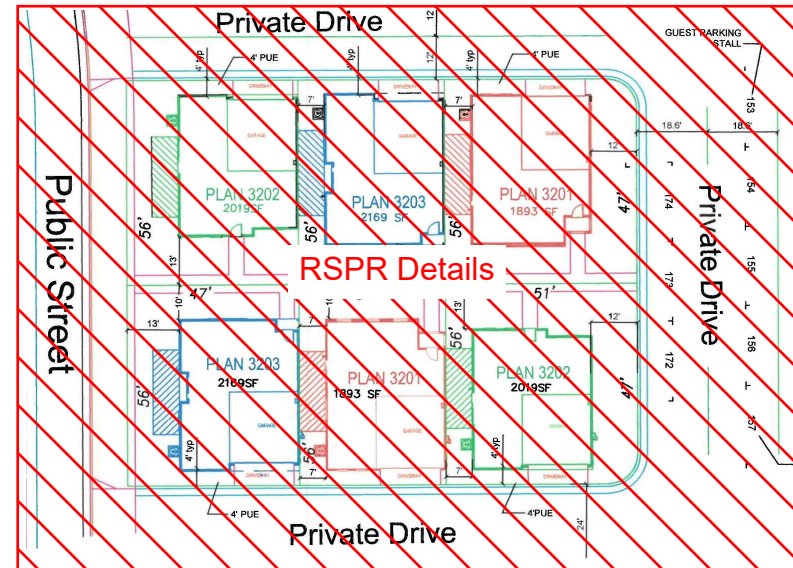
Residential Land Use Development Standards

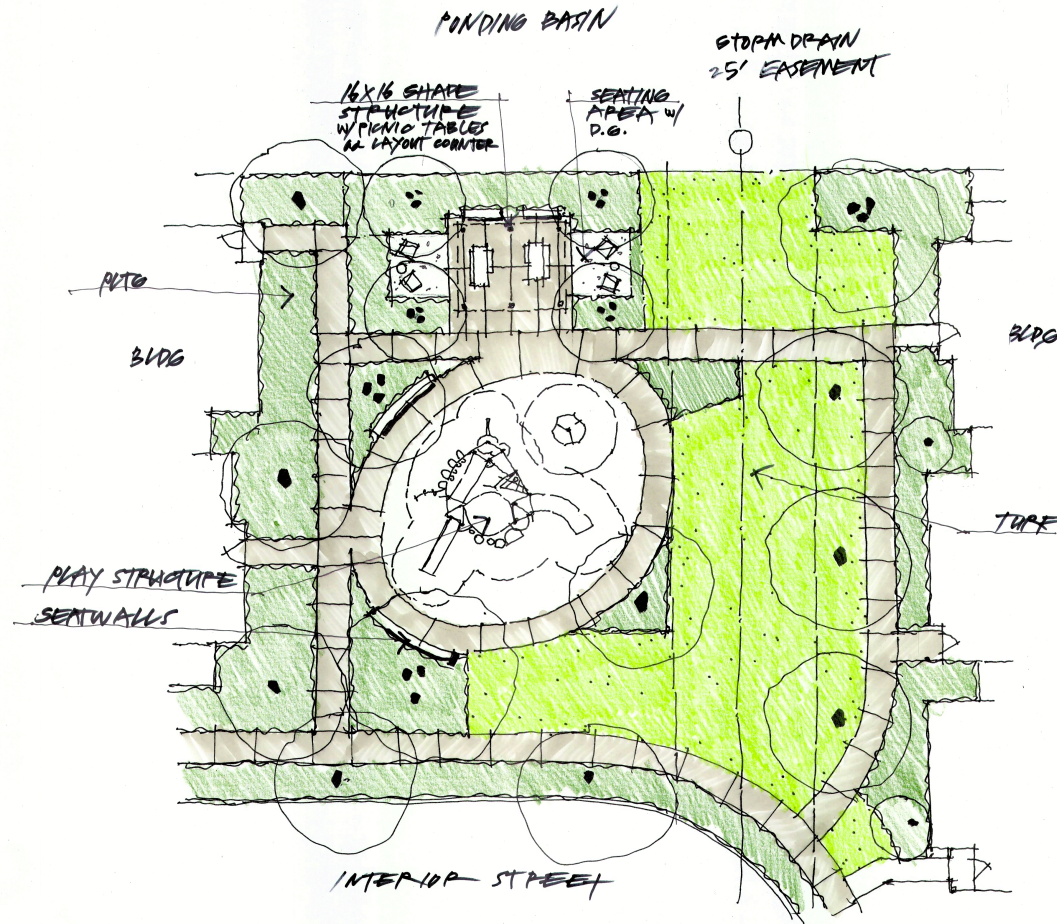
Single Family Residential Standard Notes

| Designation | | |
|---|---|--|
| Zone District | R-1 PRD | |
| GP Density Range | Medium Density and very low density (8.39 DU/AC) | |
| Dwelling Units | 153 | |
| BUILDING INTENSITY | | |
| Minimum Lot Area | 2184 | |
| Minimum Lot Width | 39 | 45' for corner lots |
| Minimum Lot Depth | 56 | |
| Maximum Coverage | 62% | |
| Maximum Height | 26' 7" | |
| Curved Cul-de-Sac or Corner Lot | N/A | |
| Permitted Density | | |
| Residential Density | 1 Dwelling | |
| Set Backs (Minimum) | | |
| Front: | 10' from property line | |
| Side: | 0ft or 3ft Non Patio/7ft to dwelling | |
| Fenced uncovered patio dimensions 22X7. 154 SqFt. | lots 44-48, 101-107, 111-114, 116-119 will have 0'/7' (Patio side/Dwelling unit) | All other lots not included will have a 3'/7' minimum (patio side/Dwelling Unit) |
| Rear: | 4 ft. min from property line | |
| Garages/Street/Parking | 2-car | 20x20 min |
| Street (Interior) | 24 ft min | curb-to curb w/o parking |
| Street | 37 ft with parking on both sides | |
| Parking | 182 uncovered spaces | |
| Accessory Uses | | |
| Walls/Fences | 4' min.-7' | |
| Trellises | 12' High max. | |
| Pools and Spas | 3' min | |
| Equipment | N/A | |
| Covered Structures | 12' High max. | |
| Building Exterior | Architectural treatment applied to all elevations of a building. At minimum, all doors, windows and other wall openings shall be trimmed consistent with architectural style. | |
| Amenities | 8990 sf. community park and gathering area with BBQ station, picnic tables, walkways, and open grass area and 250 sf. shade structure. Direct access to the existing city trail to the south. | |



Street widths shall comply with Engineering conditions





TR 6452 HERITAGE GROVE
 PARK CONCEPT
 LENNAR HOMES

0 5 10

BRUNSSARD
 ASSOCIATES
 LANDSCAPE
 ARCHITECTS
 1"=10'

Bronte



Bronte A



Bronte B

Bronte

The Wilde Series at Heritage Grove

Approx. 1893 sq. ft.

Two Story

3 Bedrooms

2.5 Bathrooms

2-Bay Garage



Kipling



Kipling A



Kipling B

Kipling

The Wilde Series at Heritage Grove

Approx. 2019 sq. ft.

Two Story

3 Bedrooms

2.5 Bathrooms

2-Bay Garage



Hemingway



Hemingway

The Wilde Series at Heritage Grove

Approx. 2169 sq. ft.

Tow Story

4 Bedrooms

2.5 Bathrooms

2-Bay Garage



Lennar Homes

TM6452

Initial Study and Mitigated Negative Declaration

September 2024

PREPARED BY:

Liz Salazar
Assistant Planner
Planning & Development Services
(559) 324-2305
lzs@clovisca.gov



CITY of CLOVIS
PLANNING & DEVELOPMENT
1033 FIFTH STREET • CLOVIS, CA 93612

INITIAL STUDY

This Initial Study was prepared pursuant to the California Environmental Quality Act (CEQA) Public Resources Code Sections 21000 *et seq.*, CEQA Guidelines Title 14, Section 15000 *et seq.* of the California Code of Regulations.

| | |
|--|---|
| PROJECT TITLE: | Lennar Homes (TM6452) |
| LEAD AGENCY NAME AND ADDRESS: | City of Clovis Planning & Development Services 1033 Fifth Street Clovis, CA 93612 |
| CONTACT PERSON AND PHONE NUMBER: | Liz Salazar, Assistant Planner (559) 324-2305 lizes@clovisca.gov |
| PROJECT LOCATION: | Northeast corner of N. Baron and Perrin Avenues County of Fresno, CA 93619 APN: 556-040-23S (portion) |
| PROJECT SPONSOR'S NAME AND ADDRESS: | Jeff Callaway, Project Manager Lennar Homes of California 8080 North Palm Ave., Suite 110 Clovis, CA 93711 |
| LAND USE DESIGNATION: | See page 6 of this Initial Study |
| ZONING DESIGNATION: | See page 7 of this Initial Study |
| SURROUNDING CONDITIONS AND LAND USES: | See page 6 of this Initial Study |
| PROJECT DESCRIPTION: | See page 7 of this Initial Study |
| REQUIRED APPROVALS: | See page 8 of this Initial Study |
| HAVE CALIFORNIA NATIVE AMERICAN TRIBES REQUESTED CONSULTATION? IF SO, HAS CONSULTATION BEGUN? | No |

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A. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and corresponding discussion in this Initial Study.

- | | | |
|--|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology & Soils | <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology & Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities & Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

Determination

On the basis of this initial evaluation:

- ☐ I find that the proposed Project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that, although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponents. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed Project MAY have a significant effect on the environmental, and an ENVIRONMENTAL IMPACT REPORT (EIR) will be prepared.
- ☐ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environmental, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Prepared By:



Liz Salazar, Assistant Planner
City of Clovis Planning & Development Services

9/30/2024

Date

Approved By:



2024.09.30
13:36:28-07'00'

Renee Mathis, Director
City of Clovis Planning & Development Services

Date

B. PROJECT OVERVIEW

Lennar Homes proposes the construction of 153 single-family homes and associated site improvements (i.e., landscape, parking, sidewalks, and utilities infrastructure) on approximately 18 acres of vacant and undeveloped land on the northeast corner of N. Baron and Perrin Avenues in the County of Fresno, California, herein referred to throughout the document as “proposed Project” and/or “Project.”

C. PROJECT LOCATION

As shown in Figure 1 below, the Project is located northeast corner of N. Baron and Perrin Avenues and consists of approximately 18 acres of Assessor’s Parcel Number (APN) 556-040-23S. A remainder portion of approximately 3.54 acres of the subject parcel is planned for a City of Clovis public facility site and is not a part of the Project. The Project site is bound by a Fresno Metropolitan Flood Control Basin to the north, Sunnyside Avenue approximately 338 feet to the east, Perrin Avenue to the south, and N. Baron Avenue to the west.

D. EXISTING SETTING

This section describes the existing conditions, surrounding conditions, as well as the General Plan land use and zoning designations.

1. EXISTING CONDITIONS

As shown in Figure 2 below, the existing site is vacant and undeveloped, consisting of portions of clear areas and portions of vegetation, grasses, sunflower, jimson weed, and lupine. The site is generally flat and includes a graded dirt access road along the southern border. The existing site does not include any pedestrian or other vehicle circulation infrastructure.

2. SURROUNDING CONDITIONS

As referenced in Table 1 below, the Project site is partially surrounded by existing development consisting of single-family residential uses at varying densities to the south and east. To the west of the Project site, single-family homes are currently under entitlement processing, with these homes to the west, there will be residential uses surrounding the majority of the Project site.

Table 1: Surrounding Land Uses

| | Land Use Designation* | Zoning** | Existing Land Use |
|--|---|-----------|---|
| North | Water | P-F | Vacant |
| East | Rural Residential | AL20 | Rural Residential |
| South | Low Density Residential, Medium Density Residential, Public/Quasi Public Facilities | R-1 & P-F | Single-Family Residential (in construction) & PG&E Substation |
| West | Medium-High Density Residential | R-1-PRD | Vacant |
| Notes: *Low Density Residential (2.1-4.0 Dwelling Units/Acre (DU/AC)), Medium Density Residential (4.1-7.0 DU/AC), Medium-High Density Residential (7.1-20 DU/AC) **P-F (Public Facilities), AL20 (County of Fresno Zoning, Limited Agricultural), R-1 (Single-Family Residential), R-1-PRD (Single-Family Planned Residential Development) | | | |

3. LAND USE DESIGNATION

As shown on Figure 3, the Project site has two existing General Plan Land Use designations of Very Low Density Residential, which allows for a density range of 0.6 to 2.0 DU/AC and Medium Density Residential, which allows for a density range of 4.1 to 7.0 DU/AC. According to the 2014 Clovis General Plan, the Very Low Residential designation is intended for large lot single family residences and the Medium Density Residential designation is intended for detached and attached single family homes, patio homes, or zero lot lines.

4. ZONING DESIGNATION

The Project site is currently within the County of Fresno jurisdiction and zoned AE20 (Exclusive Agricultural). However, the Project site will be rezoned to the R-1-PRD (Single-Family Planned Residential Development) Zone District through a separate entitlement application (Rezone 2021-006). According to Section 9.10.010(B)(5) of the Clovis Municipal Code (CMC), the R-1-PRD Zone District identifies areas appropriate for single-family small lot uses, including attached and detached single-family structures on small lots.

E. PROJECT DESCRIPTION

This section describes the components of the proposed Project in more detail, including site preparation, proposed structures, and on- and off-site improvements.

1. PROJECT CONSTRUCTION

The Project is anticipated to begin construction April 2024, first occupancy June 2027, with full buildout by April 2029. This schedule is an estimation only and is contingent upon entitlements, and the market, among other factors.

2. SITE PREPARATION

Site preparation would include typical grading activities to ensure a level surface. Part of the preparation would include removal of vegetation, such as grasses, shrubs, and weeds. Other site preparation activities would include minor excavation for the installation of utility infrastructure, for conveyance of water, sewer, stormwater, and irrigation.

3. PROJECT COMPONENTS

This section describes the overall components of the Project, such as the proposed buildings, landscape, vehicle and pedestrian circulation, and utilities.

DEMOLITION

As described in existing conditions the site is vacant; therefore, no demolition is required.

SITE LAYOUT AND CIRCULATION

As shown in Figure 5, the Project proposes 153 individual single-family residential lots ranging in sizes from approximately 2,184 square-feet to 5,818 square-feet, with an average lot size of approximately 2,619 square-feet under Vesting Tentative Tract Map 6452 (TM6452). The Project also proposes an 8,990 square foot lot for a pocket park.

The Project includes a network of public and private streets throughout the neighborhood, which includes ingress/egress off of N. Baron Avenue to the west and Perrin Avenue to the South. There would be no direct access to Sunnyside Avenue further east. According to the Circulation Element of the 2014 Clovis General Plan,¹ the roadways bordering the Project along its western and southern frontages are designated as collectors.

Other features of the Project include pedestrian sidewalks that connect to the street network, as well as sidewalks along the frontage of the site along N. Baron and Perrin Avenues.

PLANNED RESIDENTIAL DEVELOPMENT

The Project site is included in a separate annexation (RO305) and rezoning (R2021-006) entitlement process for the change from the County of Fresno AE20 (Exclusive Agricultural) Zone District to the R-1-

¹ 2014 Clovis General Plan, Circulation Element, Figure C-1, Circulation Diagram.

PRD (Single-Family Planned Residential Development) Zone District. Chapter 9.66, Planned Development Permits, of the CMC provides a method whereby land may be designed and developed taking advantage of modern site planning techniques resulting in a more efficient use of land and better living environment than otherwise possible through strict application of the development standards. In general, this section of the CMC provides a mechanism to afford some relief to typical development standards, subject to an approved rezone to the R-1-PRD Zone District.

As part of the requirements for consideration of approval of a Planned Development Permit, the applicant has provided a draft of the proposed development standards, such as height limit, lot coverage, front, rear, and side setbacks that would apply to the proposed TM6452. These development standards are provided as Figure 6.

PARKING

The CMC requires that residential planned unit developments provide a minimum of two (2) covered spaces plus one (1) covered or uncovered guest space for each dwelling unit.² Each garage would be required to have an interior dimension of 20 feet by 20 feet. Each single-family home would have a two-car garage and the Project proposes sufficient guest parking, thus meeting the minimum parking requirement.

PROJECT DESIGN

Conceptual design of the units are shown in Figure 7; however, it is important to note that at this stage of the process, these designs are conceptual only. The overall footprint, height limit, and placement of the structures, described above, would generally remain the same, however, the color palette and design details are subject to change throughout the Residential Site Plan Review Process (RSPR), which typically occurs later on in the entitlement process.

LANDSCAPE

The Project would include landscape throughout the site. Landscaped areas would generally be located along the perimeter of the site where a variety of ornamental shrubs, plants, and trees would be planted, as well as landscape in areas in the perceived front yard area of each home. Landscape plans are typically provided at a later date at which time the proposed landscape would be reviewed for compliance with the City's water efficient landscape regulations and guidelines.

UTILITIES

Utilities for the site would consist of water, sewer, electric, cable, gas, and stormwater infrastructure. Trenching and digging activities would be required for the installation of necessary pipelines typical of residential development. All utility plans would be required to be reviewed and approved by the appropriate agency, and/or department to ensure that installation occurs to pertinent codes and regulations. Other infrastructure would include new fire hydrants as required by the City of Clovis Fire Department.

Utilities are provided by and managed from a combination of agencies, including Fresno Irrigation District (FID) which provides the City's water supply, Fresno Metropolitan Flood Control District (FMFCD) which has responsibility for storm water management, and the City's Public Utilities Department which provides for solid waste collection, and sewer collection services. Pacific Gas & Electric (PG&E) provides electricity and natural gas within the City of Clovis.

² City of Clovis Municipal Code, Chapter, 9.32, Parking and Loading, Section 9.32.040, Number of Parking Spaces Requires, Table 3-12, Parking Requirements by Land Use.

F. REQUIRED PROJECT APPROVALS

The City of Clovis requires the following review, permits, and/or approvals for the proposed Project; however, other approvals not listed below may be required as identified throughout the entitlement process:

- Annexation (processed separately through RO305)
- Prezone (processed separately through R2021-006)
- Vesting Tentative Tract Map
- Planned Development Permit
- Residential Site Plan Review
- Grading Permit(s)
- Building Permit(s)

G. TECHNICAL STUDIES

The analysis of the Project throughout this Initial Study relied in part on the technical studies listed below prepared for the Project, as well as other sources, including, but not limited to, the 2014 Clovis General Plan EIR, departmental staff, California Department of Conservation, and the California Department of Toxic Control Substances.

- **Appendix A:** Air Quality and Greenhouse Gas Impact Assessment dated January 2024
- **Appendix B:** Biological Evaluation Report dated November 2023
- **Appendix C:** Cultural Resource Study dated November 2023
- **Appendix D:** Acoustical Analysis dated March 2024
- **Appendix E:** Transportation Impact Analysis dated February 2024

↑
N

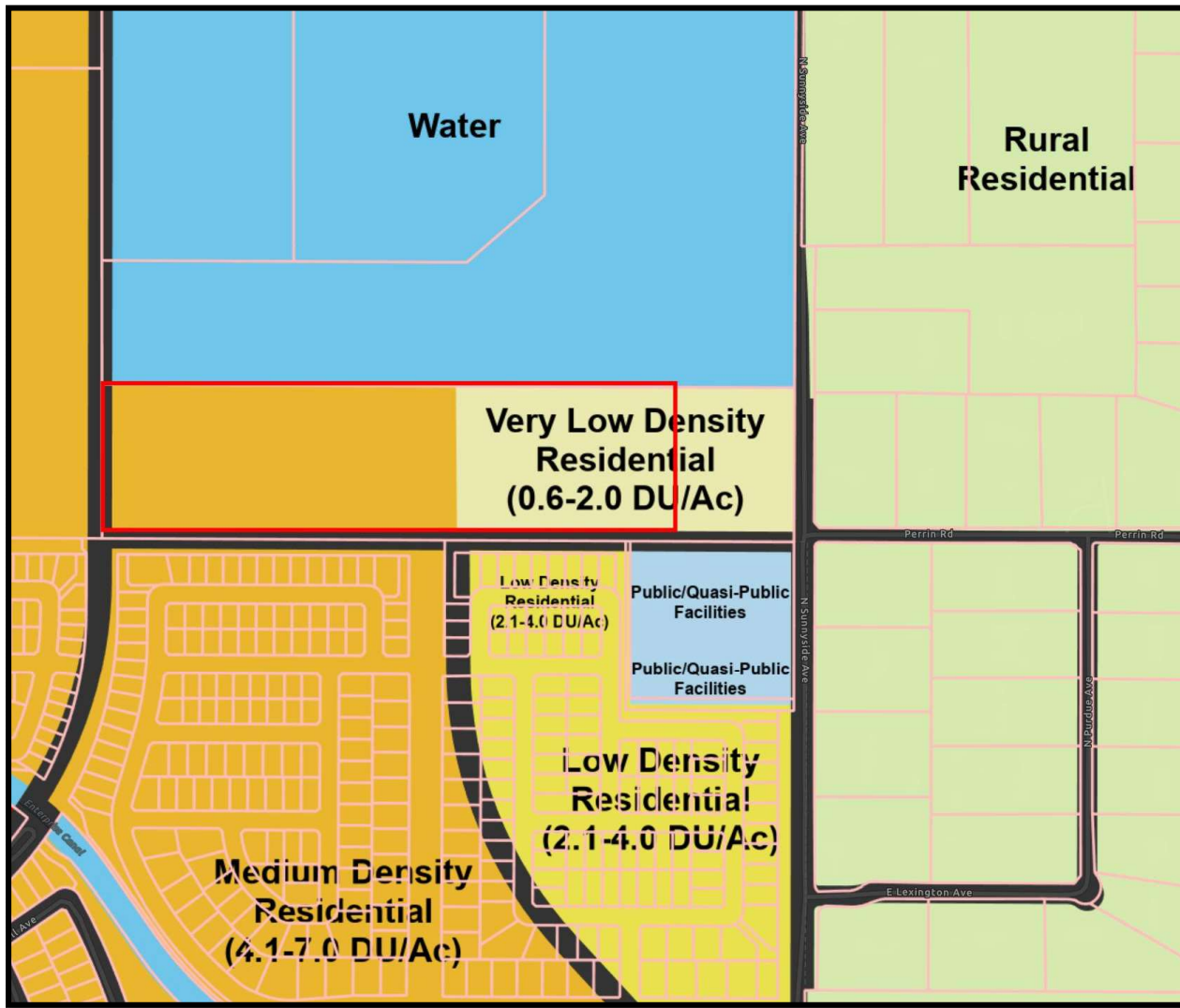
Figure 2: Aerial of Project Site



 = Project Site (approximate limits)



Figure 3: Land Use Designation



= Project Site (approximate limits)

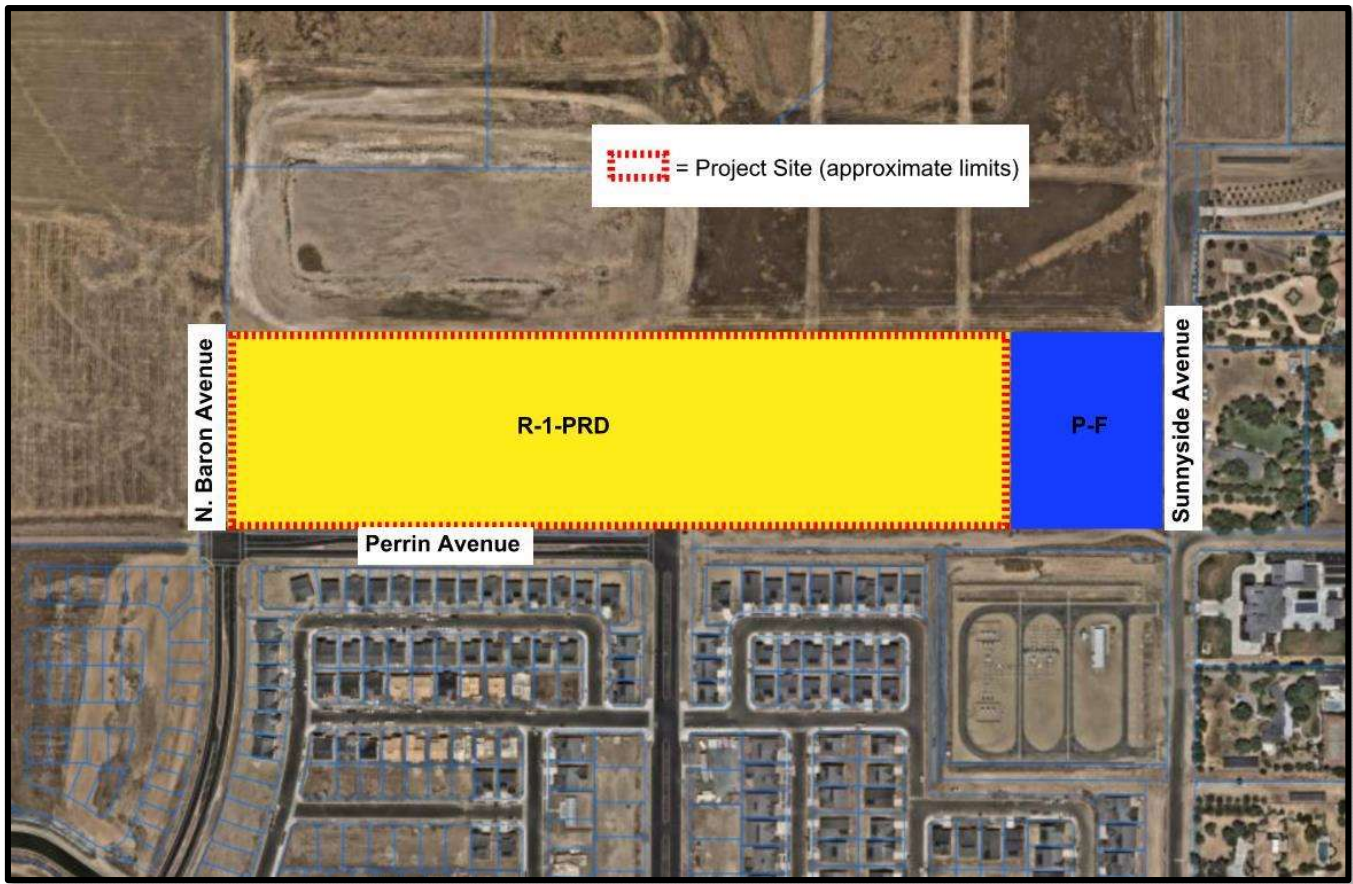
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EXISTING DENSITY:

Medium Density and Very Low Density Residential

PROPOSED DENSITY:

No change

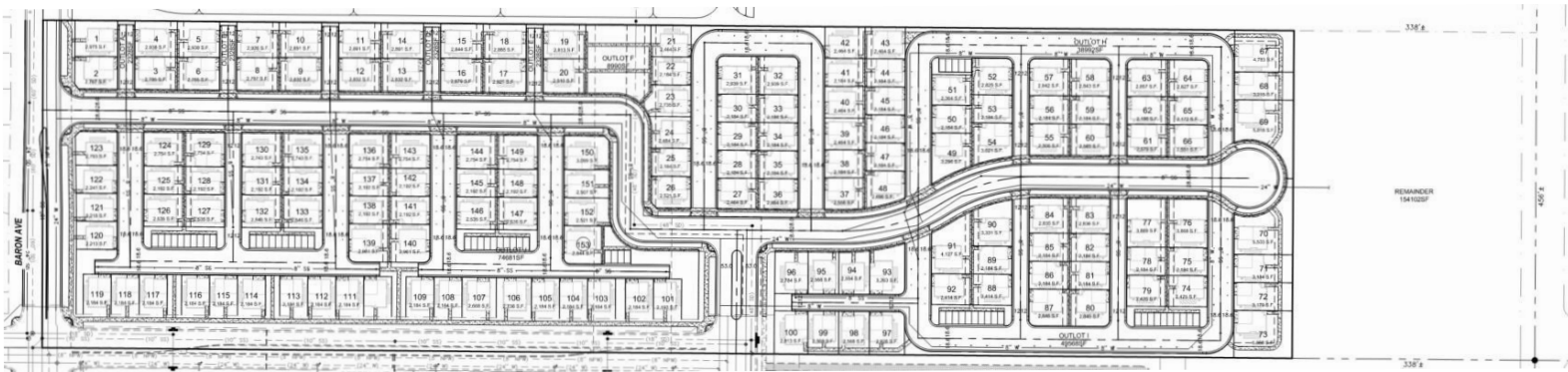
Figure 4: Zoning District**EXISTING ZONING:**

AE20 – Exclusive Agricultural (Fresno County)

PROPOSED ZONING:

R-1-PRD (processed separately through R2021-006)

Figure 5: Proposed Site Plan



Approximate layout

Figure 6: Proposed Development Standards

| TRACT 6452 | | |
|--|---|--------------|
| Residential Land Use Development Standards | | |
| Single Family Residential | Standard | Notes |
| Designation | | |
| Zone District | R-1 PRD | |
| GP Density Range | Medium Density and very low density (8.39 DU/AC) | |
| Dwelling Units | 153 | |
| BUILDING INTENSITY | | |
| Minimum Lot Area | 2184 | |
| Minimum Lot Width | 39 | |
| Minimum Lot Depth | 56 | |
| Maximum Coverage | 62% | |
| Maximum Height | 26' 7" | |
| Curved Cul-de-Sac or Corner Lot | N/A | |
| Permitted Density | | |
| Residential Density | 1 Dwelling | |
| Set Backs (Minimum) | | |
| Front: | 10' from property line | |
| Side: | 0 ft. Non Patio/7 ft. Patio | |
| Rear: | 4 ft. min from property line | |
| Coverage (maximum) | | |
| Site Coverage | None | |
| Garages/Street/Parking | | |
| Garages/Street/Parking | 2-car | 20x20 min |
| Street (Interior) | 24 ft. min | curb-to curb |
| Parking | 174 uncovered spaces | |
| Accessory Uses | | |
| Walls/Fences | 4' min.-8' | |
| Trellises | 12' High max. | |
| Pools and Spas | 3' min | |
| Equipment | N/A | |
| Covered Structures | 12' High max. | |
| Accessory Buildings | | |
| Building Exterior | Architectural treatment applied to all elevations of a building. At minimum, all doors, windows and other wall openings shall be trimmed consistent with architectural style. | |

Proposed development standards only. Actual standards may change during the Planned Development Permit and Residential Site Plan Review process.

Figure 7: Conceptual Elevations



H. ENVIRONMENTAL CHECKLIST

This section provides an evaluation of the potential environmental impacts of the proposed project and are based on CEQA Guidelines Appendix G. For each issue area, one of four conclusions is made:

- **No Impact:** No project-related impact to the environment would occur with project development.
- **Less Than Significant Impact:** The proposed project would not result in a substantial and adverse change in the environment. This impact level does not require mitigation measures.
- **Less Than Significant with Mitigation Incorporated:** The proposed project would result in an environmental impact or effect that is potentially significant, but the incorporation of mitigation measure(s) would reduce the project-related impact to a less than significant level.
- **Potentially Significant Impact:** The proposed project would result in an environmental impact or effect that is potentially significant, and no mitigation can be identified that would reduce the impact to a less than significant level.

1. AESTHETICS

| Except as provided in Public Resources Code Section 21099, would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Have a substantial effect on a scenic vista? | | | | X |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | | | | X |
| c. Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | | | X | |
| d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? | | | X | |

ENVIRONMENTAL SETTING

The City of Clovis is located within the San Joaquin Valley. Thus, much of the City and its surrounding areas are predominately flat. As a result, on clear days, the Sierra Nevada Mountains are visible to the east depending on your location. Aside from Sierra Nevada, there are no officially designated focal points or viewsheds within the City. Policy 2.3, Visual Resources, of the Open Space Element of the 2014 Clovis General Plan, requires maintaining public views of open spaces, parks, and natural features and to preserve Clovis' viewshed of the surrounding foothills.

As mentioned above in the Project Description, the site is located on the northeast corner of N. Baron and Perrin Avenues. In general, the Project site is located in the fringes of Clovis and is situated adjacent to a mix of neighboring agricultural lands, rural residential, and low to medium density residential housing.

DISCUSSION

a) *Would the project have a substantial effect on a scenic vista?*

No Impact. As mentioned above, there are no officially designated scenic vistas or focal points in the City of Clovis. While the Sierra Nevada Mountains can be viewed on clear days, the Project would allow structures to be constructed at a maximum height of 26 feet 7 inches. The Project site is not within the immediate vicinity of open space, parks, or other natural features. Therefore, because the Project would be constructed at a reduced maximum height in comparison to the standard single family residential zone districts and because there are no officially designated scenic vistas in the area, **no impact** would occur with regards to the project having a substantial effect on a scenic vista. As a result, no mitigation measures are required.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?*

No Impact. As stated in the 2014 Clovis General Plan Environmental Impact Report (EIR), there are no Caltrans-designated scenic highways within the City of Clovis.³ Further, there are no existing historical structures or rock outcroppings located on or within the immediate vicinity of the site; therefore, the Project would result in **no impact** with regards to substantially damaging scenic resources within a State scenic highway, and no mitigation measures are required.

c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Less-Than-Significant Impact. As mentioned previously, the existing site is currently surrounded by residential uses of varying densities including medium, low, and rural. Thus, as a proposed blend of medium and very low-density residential project, the homes would fit within the character of the surrounding area.

Policy 3.6 of the Land Use Element of the Clovis General Plan encourages a mix of housing types, unit sizes, and densities. The Project being of a similar scale as surrounding development to the south and west (in entitlement processing) and as a blended density, would serve as a transition from the rural residential neighborhood to the east, which would comply with Policy 3.6 by resulting in a housing product that adds to the variety of housing stock within the City.

Further, the Project would undergo the RSPR process which would ensure that the overall design and character is consistent and/or complements the surrounding areas. The RSPR process will ensure the Project complies with relevant design policies, such as in the Heritage Grove Master Plan, the CMC, and the General Plan. During the review, the height, color and materials are reviewed for consistency with these plans and guidelines. Consequently, a **less-than-significant** impact would occur with regards to substantially degrading the existing visual character of the site and its surroundings, and no mitigation measures are required.

d) *Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

Less-Than-Significant Impact. The Project consists of 153 single-family homes. As a result of the existing site being vacant and undeveloped, the Project would result in new sources of light and glare. Light and glare from the Project would be typical of residential development, including but not limited to, sources such as exterior lighting for safety, light and glare from vehicles or from light reflecting off of surfaces such as windshields. Other sources of light would be the interior lighting of the units at night. These sources of light and glare are not

³ 2014 Clovis General Plan EIR, June 2014, Page 5.1-1.

typically associated with causing significant effects on the environment, especially given that the surrounding developed area already emits similar sources of light and glare and are part of the existing conditions present in the vicinity. Further, the site will be surrounded by residential uses soon to be occupied to the south resulting in similar sources and intensities of light and glare. The development to the south that is under construction will contribute to the urbanization of the area, therefore, lighting and glare will be emitted in the vicinity. Sources of future light and glare are comprised of streetlights, and light and glare from vehicles going to and from home.

Although the Project would introduce new sources of light and glare, the RSPR process would ensure that the design and placement of lighting is appropriate to minimize potential light and glare impacts to surrounding properties. Further, the Project would be required to comply with Section 9.22.050, Exterior Light and Glare, of the CMC, which requires light sources to be shielded and that lighting does not spillover to adjacent properties.

Overall, through the City's design review process and compliance with Section 9.22.050 of the CMC, the Project would result in a **less-than-significant impact** with regard to lighting adversely affecting day or nighttime views in the area. No mitigation measures are required.

2. AGRICULTURE AND FORESTRY RESOURCES

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. | | | | X |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | | | | X |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)) or timberland (as defined in Public Resources Code section 4526)? | | | | X |
| d. Result in the loss of forest land or conversion of forest land to non-forest use? | | | | X |
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? | | | | X |

ENVIRONMENTAL SETTING

The Project site is located on northeast corner of N. Baron and Perrin Avenues. The site is within the fringe of the City and is surrounded by existing residential at varying densities to the south and east with future residential to the west.

DISCUSSION

- a) *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

No Impact. According to the California Important Farmland finder interactive map from the California Department of Conservation,⁴ the Project site is considered Farmland of Local Importance (2020 data), which is defined by the Department of Conservation as farmable lands within Fresno County that do meet the definitions of Prime, Statewide, or Unique farmlands. Generally, Farmland of Local Importance is or has been used for irrigated pasture, dryland farming, livestock, dairy, and grazing land.

The Project site does not appear to have previously been cultivated, other than possible dry farming, nor is it zoned or designated for farming-related activities under the 2014 Clovis General Plan. Although the Project site is considered Farmland of Local Importance it is not considered Prime, Unique, or Farmland of Statewide Importance; therefore, **no impact** would occur, and no mitigation measures are required.

- b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?*

No Impact. As shown on Figure 5.2-2 of the Agricultural Resources Chapter of the 2014 Clovis General Plan EIR, the Project site is not under a Williamson Act Contract. Further, as mentioned above, the site is not currently zoned or designated for agricultural use. As a result, the Project would have **no impact** with regards to conflicting with zoning for agricultural use or a Williamson Act Contract. No mitigation measures are required.

- c) *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)) or timberland (as defined in Public Resources Code section 4526)?*

No Impact. The Project site is vacant and undeveloped, thus, does not contain forest land. Further, the site is not zoned for forestry or other forestry related uses. As a result, **no impact** would occur with regards to conflicts with zoning for, or cause rezoning of, forest land. No mitigation measures are required.

- d) *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

No Impact. See discussion under Section 2c.

- e) *Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

No Impact. Although the Project site is considered Farmland of Local Importance according to the Department of Conservation, the site is not zoned for or designated for agricultural uses. Further, the existing site hasn't been used for agricultural-related uses in recent years. The 2014 Clovis General Plan designates the site for residential uses. Additionally, see discussion under Section 2.C related to forest land. Overall, the project would have a **no impact** with regards to this topic and no mitigation measure are required.

⁴ Farmland Mapping, California Department of Conservation, Interactive mapping tool (<https://maps.conservation.ca.gov/DLRP/CIFF/>).

3. AIR QUALITY

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------------------------------------|---|-------------------------------------|------------------|
| a. Conflict with or obstruct implementation of the applicable air quality plan? | | | X | |
| b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | | | X | |
| c. Expose sensitive receptors to substantial pollutant concentrations? | | | X | |
| d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | | | X | |

ENVIRONMENTAL SETTING

An Air Quality and Greenhouse Gas Impact Assessment (AQ/GHG Report) was prepared by VRPA Technologies, Inc. in January 2024 (see Appendix A). Information in this AQ/GHG Report is used for the analysis included in both the Air Quality and Greenhouse Gas Emissions section of this Initial Study.

San Joaquin Valley Air Basin

The City of Clovis (City) is in the central portion of the San Joaquin Valley Air Basin (SJVAB). SJVAB consists of eight counties: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. Air pollution from significant activities in the SJVAB includes a variety of industrial-based sources as well as on- and off-road mobile sources. These sources, coupled with geographical and meteorological conditions unique to the area, stimulate the formation of unhealthy air.

The SJVAB is approximately 24,840 square miles and is the second largest air basin in California. It is bordered by the Sierra Nevada to the east, the Coast Ranges to the west, and the Tehachapi mountains to the south. The SJVAB is open to the north extending to the Sacramento Valley Air Basin.

Topography⁵

The topography of a region is important for air quality because mountains can block airflow that would help disperse pollutants and can channel air from upwind areas that transports pollutants to downwind areas. Wind patterns within the SJVAB generally flow into the basin from the San Joaquin River Delta. The mountain ranges from the west hinder wind access into the SJVAB while the Sierra Nevada Mountain Range provides a barrier to the east. As mentioned above, these topographic features result in weak airflow that becomes restricted vertically by high barometric pressure over the SJVAB.

⁵ Air Quality and Greenhouse Gas Analysis Report, VRPA Technologies, Inc, page 18-20, January 2024.

Climate⁶

The SJVAB is in a Mediterranean climate zone. Mediterranean climates are characterized by hot, dry summers with sparse rainfall, which occurs mainly in winter. Summertime maximum temperatures often exceed 100°F while winter low temperatures range between 40-50 degrees and is not uncommon to drop below freezing.

In addition to the topographic conditions, the climate can contribute to air quality problems. Temperature inversions can trap air within the SJVAB, thereby preventing the vertical dispersal of air pollutants.

Any emissions of pollutants can be trapped below the inversion.

Ozone often afflicts areas downwind of the original source and can be easily transported by winds. Peak ozone tends to be higher in the southern portion of the SJVAB. Other primary pollutants such as carbon monoxide may form in high concentrations when wind speed is low, during winter cooler temperatures and calm conditions increase the likelihood of carbon monoxide concentrations.

Ambient Air Quality Standards

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

These National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors,” those most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants. As shown in Table 4, Ambient Air Quality Standards for Criteria Pollutants, these pollutants are ozone (O3), nitrogen dioxide (NO2), carbon monoxide (CO), sulfur dioxide (SO2), coarse inhalable particulate matter (PM10), fine inhalable particulate matter (PM2.5), and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

In addition to the criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated on the basis of risk rather than specification of safe levels of contamination.

Table 2: Ambient Air Quality Standards

6 Air Quality and Greenhouse Gas Analysis Report, VRPA Technologies, Inc, page 14,22, January 2024.

| Pollutant | Averaging Time | State Standard | Federal Primary Standard |
|-------------------|---|--|---|
| Ozone | 1-Hour 8-Hour | 0.09 ppm 0.07 ppm | -- 0.07 ppm |
| Carbon Monoxide | 1-Hour 8-Hour | 20 ppm 9 ppm | 35 ppm 9 ppm |
| Nitrogen Dioxide | 1-Hour Annual | 0.18 ppm 0.030 ppm | 100 ppb 0.053 ppm |
| Sulfur Dioxide | 1-Hour 3-Hour 24-Hour Annual | 0.25 ppm -- 0.04 ppm -- | 75 ppb -- 0.14 ppm 0.030 ppm |
| PM ₁₀ | 24-Hour Annual | 50 ug/m ³ 20 ug/m ³ | 150 ug/m ³ -- |
| PM _{2.5} | 24-Hour Annual | -- 12 ug/m ³ | 35 ug/m ³ 12 ug/m ³ |
| Lead | 30-Day Avg. Calendar Quarter 3-Month Avg. | 1.5 ug/m ³ -- -- | -- 1.5 ug/m ³ 0.15 ug/m ³ |
| Sulfates | 24 Hour | 25 ug/m ³ | -- |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm | -- |
| Vinyl Chloride | 24 Hour | 0.01 ppm | -- |

Notes: ppm = parts per million; ppb = parts per billion; ug/m³ = micrograms per cubic meter.
Source: Air Quality and Greenhouse Gas Analysis Report, VRPA Technologies, Inc, page 9, January 2024.

Attainment Status⁷

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is the responsible agency for monitoring and regulating air pollutant emissions from stationary, area, and indirect sources within Fresno County and throughout SJVAB. The SJVAPCD prepares plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by FCAA and CCAA. The SJVAPCD adopted the San Joaquin Valley Air Quality Attainment Plan (AQAP), in response to the requirements of the State CCAA.

The SJVAPCD and the California Air Resources Board (CARB) maintain numerous air quality monitoring sites throughout each County to measure ozone, PM_{2.5}, and PM₁₀. The SJVAB is nonattainment for ozone (1 hour and 8 hour) and PM. The EPA uses standard classifications to reflect the severity of the nonattainment problem; classifications range from marginal nonattainment to extreme nonattainment. The SJVAB was classified as extreme nonattainment for ozone by the EPA (2004). The federal 1 hour ozone standard was revoked on June 6, 2005.

DISCUSSION

- a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

⁷ Air Quality and Greenhouse Gas Analysis Report, VRPA Technologies, Inc, page 14,22, January 2024.

Less-Than-Significant Impact. In general, regional air quality impacts and attainment of standards are the result of the cumulative impacts of all emission sources within the air basin. Thus, individual projects are generally not large enough to contribute measurably to an existing violation or air quality standards alone. Although the CEQA Guidelines indicate that a significant impact would occur if the Project were to conflict with or obstruct implementation of the applicable air quality plan, the SJVAPCDs 2015 Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) does not provide specific guidance on analyzing conformity with the plan. Thus, for purposes of analyzing this potential impact, the AQ/GHG Report considered impacts based on: (1) Conflict with or obstruct implementation of the applicable air quality plan; (2) Result in a cumulatively considerable net increase if any criteria pollutant for which the project region nonattainment under an applicable federal or state ambient air quality standard; (3) Expose sensitive receptors to substantial pollutant concentrations; and (4) Result in other emissions such as those lead to odors adversely affecting a substantial number of people.⁸

The primary way of determining consistency with the air quality plan's assumptions is determining consistency with the General Plan to ensure that the Project's density and land use are consistent with the growth assumption used in the air quality plan. The Project is consistent with the currently adopted 2014 General Plan; therefore, is consistent with the growth assumptions under the applicable air quality plan and per the AQ/GHG Report, the Project will not conflict with or obstruct implementation of any air quality plans.

Lastly, the SJVAPCD provided a comment letter, dated March 15, 2024 indicating that the Project would not exceed thresholds for criteria pollutants. However, the Project would be subject to compliance with District Rule 9510 which is intended to mitigate a project's impact through project design elements or payment of off-site fees. The Project applicant would be required to submit to the SJVAPCD an Air Impact Assessment (AIA). Further, the Project would be required to submit a Dust Control Plan (DCP) to the SJVAPCD for review and approval. Consequently, a **less-than-significant** impact would occur and no mitigation measures are required.

- b) *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Less-Than-Significant Impact. See discussion under Section 3a above.

Additionally, results of the analysis show that emissions generated from construction and operation of the Project will be less than the applicable SJVAPCD emission thresholds for criteria pollutants; therefore, no mitigation measures are required.

- c) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Less-Than-Significant Impact. Sensitive receptors are generally considered to include children, the elderly, and persons with pre-existing respiratory and cardiovascular illness. The SJVAPCD considers a sensitive receptor a location that houses or attracts children, the elderly, or people with illnesses. Examples of these receptors are considered to be hospitals, residences, schools and school facilities, daycare facilities, and convalescent facilities. The nearest sensitive receptors to the Project site would be the residences adjacent to the site to the south (in construction) and east (existing). Based the AQ/GHG Report, an evaluation of nearby land uses considering CARB's Pollution Mapping Tool shows that the Project will not place sensitive receptors in the vicinity of exiting toxic sources and is located 2.5 miles from the State Route 168 freeway⁹; therefore, a **less-than-significant** impact would occur with no mitigation measures.

⁸ Air Quality and Greenhouse Gas Analysis Report, VRPA Technologies, Inc, page 52-53, January 2024.

⁹ Biological Evaluation Report for Tract 6263 prepared by Live Oak Associates, Inc., pages 8 to 21, May 2019.

- d) *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Less-Than-Significant Impact. Generally, sources considered to emit odors are associated with wastewater treatment facilities, sanitary landfills, petroleum refineries, chemical manufacturing, and other industrial/manufacturing related uses. The Project is a residential use, thus, the odors associated with such use would be similar to that of the surrounding area which include residential uses. Overall, because the Project is a residential use, similar to existing residential uses, the types of odor that could result from the Project would not be considered an objectionable odor source. Thus, a **less-than-significant** impact would occur with no mitigation measures.

4. BIOLOGICAL RESOURCES

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | | X | | |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? | | | X | |
| c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | | | | X |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | | | | X |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | | | | X |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | | | | X |

ENVIRONMENTAL SETTING

A Biological Evaluation Report (Biological Report) was prepared by Live Oak Associates, Inc. (LOA) in November 2023 (see Appendix B). This Biological Report included an investigation of the biotic resources of the Project area and assessed potential project-related impacts pursuant to CEQA. As part of the Biological Report, the Project area was surveyed in September 2023 for habitat, plants, and animals.

The existing Project site is vacant and undeveloped with dirt roads containing several cleared and graded areas. The Project site supported grasses and forbs typical of annual grasslands, best characterized as ruderal grassland habitat.

The following analysis is based on information provided by the Biological Report prepared by LOA.

DISCUSSION

- a) *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Less-Than-Significant Impact With Mitigation. As described in the Biological Report, a reconnaissance-level field survey of the Project area was conducted on September 25, 2023 by LOA. The survey consisted of driving and walking throughout the site to identify habitats, plant, and animal species. During the field survey, the site was identified as ruderal grasslands; although presence of disturbance including disking and mowing, road construction, and localized grading was present.

As part of the Biological Report, a search of the California Natural Diversity Database (CNDDDB) was conducted to determine the possible presence of special-status species in the vicinity of the Project. According to the search and field survey the Project site has the potential to be used by various wildlife including special status tricolored blackbird Swainson's hawk (CA threatened species), golden eagle, pallid bat, spotted bat, and western mastiff bat.¹⁰ While none of these species have the potential to nest or roost on the Project site, the Swainson's hawk could potentially nest close enough to the site that individuals could be disturbed by construction activities.

There are no known Habitat Conservation Plans or Natural Community Conservation Plans in the area; however, Swainson's hawk, has occasionally been sighted in the Project vicinity and there is some chance for individuals of the species to forage on the site from time to time. Possible Swainson's hawk nesting habitat is absent from the Project site but may be found on nearby rural residential along the Enterprise Canal. Nevertheless, implementation of mitigation measures BIO-1 would ensure that a **less-than-significant impact with mitigation** occurs.

Mitigation Measure BIO-1: Swainson's hawk. If possible, construction activities should occur outside of the avian nesting season, typically defined as February 1 – August 31. If that is not feasible, pre-construction surveys shall occur if construction must occur between February 1 – August 31. A qualified biologist shall conduct surveys for active bird nests within seven (7) days prior to the start of work during this period. The survey area shall encompass the Project site and accessible surrounding lands within ¼ mile for nesting Swainson's hawk, 500 feet for other nesting raptors, and 250 feet for nesting birds. Should any active nests be discovered in or near proposed construction zones, the biologist will identify

¹⁰ Biological Evaluation Report for Lennar Homes Tract 6452 prepared by Live Oak Associates, Inc., pages 10 to 16, September 2023.

a suitable construction free buffer around the nest. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged are capable of foraging independently.

- b) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?*

Less-Than-Significant Impact. As mentioned previously, the Project site is characterized as vacant and undeveloped with ruderal grassland as the only habitat with the Project site. According to the Biological Report, 19 special status plants documented in the general vicinity of the project site; however, all 19 species are considered absent from or unlikely to occur on the project site due to an absence of suitable habitat and or soils.¹¹ Therefore, the impact would be **less-than-significant**. No mitigation measures are required.

- c) *Would the project have a substantial adverse effect on state or federally protected wetlands as (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Impact. Aquatic features, including any potentially jurisdictional waters or wetlands, are absent from the Project Site.¹²

- d) *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

No Impact. Wildlife corridors are typically considered to be valleys, ridgelines, and rivers and creeks supporting riparian vegetation. According to the Biological Report, the Project site does not contain or adjoin any features likely to function as wildlife movement corridors.¹³ Thus, **no impact** would occur and no mitigation measures are required.

- e) *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

No Impact. The Project site does not indicate the presence of any sensitive habitat or wildlife features that would be impacted and will be consistent with the CMC and 2014 General Plan policies. Although Policy 2.6 of the Open Space and Conservation Element of the General Plan calls for the protection of biological resources, the Biological Evaluation did not identify any such resources at the site due to its location. Further, trees and shrubs are absent from the Project site; therefore, **no impact** would occur and no mitigation measures are required.

- f) *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

¹¹ Biological Evaluation Report for Lennar Homes Tract 6452 prepared by Live Oak Associates, Inc., page 27, September 2023.

¹² Biological Evaluation Report for Lennar Homes Tract 6452 prepared by Live Oak Associates, Inc., page 16, September 2023.

¹³ Biological Evaluation Report for Lennar Homes Tract 6452 prepared by Live Oak Associates, Inc., page 17, September 2023.

No Impact. There are no known Habitat Conservation Plans or Natural Community Conservation Plans for the Project vicinity¹⁴; thus, **no impact** would occur and no mitigation measures are required.

5. CULTURAL RESOURCES

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? | | | | X |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | | X | | |
| c. Disturb any human remains, including those interred outside of formal cemeteries? | | X | | |

ENVIRONMENTAL SETTING

The Project site is located on a vacant undeveloped site. The site is surrounded by existing and future residential development at varying densities.

A Cultural Resource Study (Cultural Study) was prepared by Applied EarthWorks, Inc. dated November 2023 (see Appendix C). This Cultural Study included a records search at the California Historical Resources Information System (CHRIS) Southern San Joaquin Valley Information Center (SSJVIC), Native American Heritage Commission's (NAHC) Sacred Lands File, desktop archival research, as well as a pedestrian survey of the Project site.

In addition to the Cultural Study, City staff conducted Native American Consultation in compliance with Assembly Bill 52 (AB52). In compliance with AB52, invitations for consultation were mailed on April 8, 2024 which affords Native tribes thirty (30) days to respond and to request consultation. During this timeframe, no requests for consultations were received.

DISCUSSION

- a) *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

No Impact. As part of the Cultural Study, the SSJVIC of the CHRIS at the California State University, Bakersfield performed a records search on June 31, 2023, to identify previously recorded resources and prior surveys within the Project area and surrounding 0.25 mile search radius.¹⁵ According to the results, there were four previous cultural resource investigations within the Project area and one previous investigation with the 0.25 mile radius

¹⁴ Biological Evaluation Report for Lennar Homes Tract 6452 prepared by Live Oak Associates, Inc., page 29, September 2023.

¹⁵ Cultural Resource Study for the Clovis Tract 6452 prepared by Applied Earthworks, Inc., page 14, November 2023.

site, the previous studies date from 1991 to 2018.¹⁶ Additionally, as part of the Cultural Study historical topographic maps and aerial photographs were reviewed and a requested search of the Sacred Lands File was conducted by the NAHC on August 17, 2023.¹⁷ According to Cultural Study no cultural resource sites were identified in the Project area.¹⁸ Further, compliance with Policy 2.9 of the 2014 General Plan, which calls for the preservation of historical sites and buildings of state or national significance, would ensure that if there were historical resources present, they would be protected. Therefore, **no impact** would occur with regard to the Project causing a substantial adverse change in the significance of a historical resource and no mitigation measures are required.

- b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

Less-Than-Significant Impact With Mitigation. The site is undeveloped with the site's grounds only have previously disturbed as a result of some light grading with dirt roads and the mowing of weeds. Further, the Cultural Study concluded that there were no cultural resources including potential historical resources were identified in the Project area.¹⁷

Because there is the slight possibility for the accidental or inadvertent uncovering of archaeological resources during construction, Mitigation Measure CULT-1 would serve to reduce those potential impacts by requiring the stopping of any work until any found artifacts can be properly removed and inventoried by a qualified archaeologist. Therefore, the Project would result in a **less-than-significant impact with mitigation**.

Mitigation Measure CULT-1: If archaeological or tribal resources or materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.

If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.

If a potentially-eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.

- c) *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

Less-Than-Significant Impact With Mitigation. As mentioned in the discussion for Section 5a the site is undeveloped. The Cultural Study concluded no cultural resource sites were identified in the Project area.

¹⁶ Cultural Resource Study for the Clovis Tract 6452 prepared by Applied Earthworks, Inc., page 16, November 2023.

¹⁷ Cultural Resource Study for the Clovis Tract 6452 prepared by Applied Earthworks, Inc., page 17, November 2023.

¹⁸ Cultural Resource Study for the Clovis Tract 6452 prepared by Applied Earthworks, Inc., page 21, November 2023.

Nevertheless, the potential remains that human remains could be inadvertently or accidentally uncovered during ground-disturbing activities such as trenching, digging, and the installation of utilities and other infrastructure.

Because there is the slight possibility for the accidental or inadvertent uncovering of human remains during construction, Mitigation Measure CULT-2 would serve to reduce those potential impacts by requiring the stopping of any work until any found human remains can be properly removed by the County coroner and/or tribes. Therefore, the Project would result in a **less-than-significant impact with mitigation**.

Mitigation Measure CULT-2: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code and Project shall follow the procedures and protocols set for un CEQA Guidelines Section 15064.4(e)(1). If human remains are identified to be those of Native American, California Health and Safety Code 7050.5 requires the County coroner notify the NAHC within 24 hours of discovery. All reports, correspondence, and determinations regarding the discovery of human remains on the Project site shall be submitted to the Lead Agency.

6. ENERGY

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | | | X | |
| b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | | | X | |

ENVIRONMENTAL SETTING

The Project site is located on a vacant undeveloped site. The site is surrounded by existing and future residential development at varying densities.

DISCUSSION

- a) *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Less-Than-Significant Impact. The Project proposes the construction of 153 single-family homes on ±18 acres, along with associated landscape, hardscape, and infrastructure (i.e., drive aisles, utilities, etc.). The Project would include construction activities typical of residential development, thus, is not generally considered the type of use or intensity that would result in the unnecessary consumption of energy. The units themselves would comply with Title 24 Green Building Standards for energy efficiency, as well as be required to comply with the latest water efficient landscape policy regulations, and California Building Code. Further, the Project would be required to comply with Clovis 2014 General Plan Policy 3.4, and 3.7 of the Open Space and Conservation, which call for the use of water conserving and drought tolerant landscape, as well as energy efficient buildings. Consequently, compliance with these measures would ensure that the Project does not result

in a significant impact due to the unnecessary consumption of energy and **less-than-significant** impact would occur with no mitigation measures.

b) *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Less-Than-Significant Impact. See discussion under Section 6a above.

7. GEOLOGY AND SOILS

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? | | | | X |
| ii) Strong seismic ground shaking? | | | | X |
| iii) Seismic-related ground failure, including liquefaction? | | | | X |
| iv) Landslides? | | | | X |
| b. Result in substantial soil erosion or the loss of topsoil? | | | X | |
| c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | | | | X |
| d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | | | | X |
| e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater? | | | | X |
| f. Directly or indirectly destroy a unique paleontological resource or unique geologic feature? | | X | | |

ENVIRONMENTAL SETTING

The 2014 Clovis General Plan EIR identified no geologic hazards or unstable soil conditions known to exist on the Project site.

DISCUSSION

- a) *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?; ii) Strong seismic ground shaking?; iii) Seismic-related ground failure, including liquefaction?; iv) Landslides?*

No Impact. Pursuant to the California Department of Conservation, the California Earthquake Hazards Zone Application mapping tool identifies the Project parcel as not within an Earthquake Fault Zone.¹⁹ Additionally, adherence to the most current California Building Codes would ensure that the structures are constructed safely and in compliance with the appropriate Building Codes. With regards to liquefaction, the 2014 General Plan EIR states that the soil types in the area are not considered conducive to liquefaction due to their high clay content or from being too coarse.²⁰ Further, the site is generally flat and therefore landslides would not occur at the Project site. Overall, due to the Project site not being located within an earthquake fault zone, adherence to the most recent California Building Codes, and the flat topography, **no impact** would occur with regards to potential impacts from seismic activity.

- b) *Would the project result in substantial soil erosion or the loss of topsoil?*

Less-Than-Significant Impact. Although the site is relatively flat, grading activities would be required to ensure a flat and graded surface prior to construction, which may result in the soil erosion and loss of topsoil. However, as part of the Project, grading plans are required to be submitted and approved by the Engineering Division to ensure appropriate grading of the site. Thus, this review and approval process would ensure that a **less-than-significant** impact occur and no mitigation measures are required.

- c) *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

No Impact. See discussion under Section 7a.

- d) *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect substantial risks to life or property?*

No Impact. According to the 2014 Clovis General Plan EIR, expansive soils are mostly present in areas along the northern edge of the non-Sphere of Influence (SOI) and the easternmost part of the Clovis non-SOI plan area. Because the Project is within the City's SOI; therefore, not within the vicinity of those areas, there would be no potential for creating direct or indirect substantial risks to life or property with regards to expansive soils. As a result, **no impact** would occur and no mitigation measures are required.

- e) *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater?*

No Impact. The Project does not propose the use of septic tanks; therefore, **no impact** would occur.

¹⁹ California Department of Conservation, the California Earthquake Hazards Zone Application mapping tool, <https://maps.conservation.ca.gov/cgs/EQZApp/app/>

²⁰ 2014 Clovis General Plan EIR, Chapter 5: Geology and Soils, page 5.6-3.

- f) *Would the project directly or indirectly destroy a unique paleontological resource or unique geologic feature?*

Less-Than-Significant Impact With Mitigation. The Project site is vacant and undisturbed and the Cultural Study concluded that there are no cultural resources including potential historical resources identified in the Project area. Nevertheless, the possibility remains that the inadvertent or accidental discovery could occur during ground disturbing construction activities. However, Mitigation Measure GEO-1, below, would serve to protect the accidental discovery of paleontological resources. As such, a **less-than-significant with mitigation** impact would occur.

Mitigation Measure GEO-1: If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist and/or paleontologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.

If the qualified professional determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.

If a potentially-eligible resource is encountered, then the qualified professional archaeologist and/or paleontologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.

8. GREENHOUSE GAS EMISSIONS

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | | X | | |
| b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? | | | X | |

ENVIRONMENTAL SETTING

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHG's has been implicated as a driving force for global climate change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the earth's climate caused by natural fluctuations and anthropogenic activities which alter the composition of the global atmosphere.

Individual Projects contribute to the cumulative effects of climate change by emitting GHGs during construction and operational phases. The principal GHGs are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. While the presence of the primary GHGs in the atmosphere are naturally occurring, carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) are largely emitted from human activities, accelerating the rate at which these compounds occur within earth's atmosphere. Carbon dioxide is the "reference gas" for climate change, meaning that emissions of GHGs are typically reported in "carbon dioxide-equivalent" measures. Emissions of carbon dioxide are largely by-products of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. Other GHGs, with much greater heat-absorption potential than carbon dioxide, include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, and are generated in certain industrial processes.

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming, although there is uncertainty concerning the magnitude and rate of the warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

In 2005, in recognition of California's vulnerability to the effects of climate change, Governor Schwarzenegger established Executive Order S-3-05, which sets forth a series of target dates by which statewide emission of greenhouse gases (GHG) would be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. In 2006, California passed the California Global Warming Solutions Act of 2006 (AB 32), which requires the CARB to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020.

In December 2009, the San Joaquin Valley Air Pollution Control District (SJVAPCD) adopted guidance for addressing GHG impacts in its *Guidance for Valley Land Use Agencies in Addressing GHG Impacts for New Projects Under CEQA*. The guidance relies on performance-based standards, otherwise known as Best Performance Standards (BPS), to assess significance of project-specific GHG emissions on global climate change during the environmental review process.

Projects can reduce their GHG emission impacts to a less than significant level by implementing BPS. Projects can also demonstrate compliance with the requirements of AB 32 by demonstrating that their emissions achieve a 29% reduction below "business as usual" (BAU) levels. BAU is a projected GHG emissions inventory assuming no change in existing business practices and without considering implementation of any GHG emission reduction measures.

Significance Criteria

The SJVAPCDs *Guidance for Valley Land Use Agencies in Addressing GHG Impacts for New Projects Under CEQA* provides initial screening criteria for climate change analyses, as well as draft guidance for the determination of significance.

The effects of project-specific GHG emissions are cumulative, and therefore climate change impacts are addressed as a cumulative, rather than a direct, impact. The guidance for determining significance of impacts has been developed from the requirements of AB 32. The guideline addresses the potential cumulative impacts that a project's GHG emissions could have on climate change. Since climate change is a global phenomenon, no direct impact would be identified for an individual land development project. The following criteria are used to evaluate whether a project would result in a significant impact for climate change impacts:

- Does the project comply with an adopted statewide, regional, or local plan for reduction or mitigation of GHG emissions? If no, then
- Does the project achieve 29% GHG reductions by using approved Best Performance Standards? If no, then
- Does the project achieve AB 32 targeted 29% GHG emission reductions compared with BAU?

Projects that meet one of these guidelines would have less than significant impact on the global climate.

In December 2022 the 2022 Scoping Plan was approved by the CARB which assesses progress toward achieving carbon neutrality by 2045. Because neither the City of Clovis or the SJVAPCD have developed or adopted numerical GHG significance threshold, the proposed Project was analyzed for consistency with the 2022 Scoping Plan consistent with statewide climate goals. The 2022 Scoping Plan includes key project attributes that reduce operational GHG emissions.

DISCUSSION

- a) *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less-Than-Significant Impact With Mitigation. The Project would include the construction and operation of 153 single-family homes and associated infrastructure (i.e., sewer and water infrastructure, roadways, sidewalks, etc.). As such, GHG emissions would be produced through the construction and operational phases of the Project. As a result, an estimate of the Project's operational emissions in 2005 were compared to the operational emission in 2020 in order to determine if the Project meets the 29% emission reduction. Results of the analysis show that the Project's GHG emission in the year 2020 is 2179.68 MTCO₂eq./year, which represents an achievement of 16% GHG emission reduction on the basis of BAU, which does not meet the 29% GHG emission reduction target.²¹ Although, the Project does not meet the 29% GHG emission reduction, the 2022 Scoping Plan recommends that for determining whether a proposed residential or mixed-use residential development would align with the State's climate goals is to examine whether the project includes key project attributes that reduce operational GHG emissions while simultaneously advancing fair housing. With the implementation of recommended mitigation, the proposed project is generally consistent with the key project attributes recommended in the 2022 Scoping Plan, as further discussed below.

The 2022 Scoping Plan recommends that project attributes consistent with specific priority strategies would accommodate growth in a manner consistent with State GHG reduction. The 2022 Scoping Plan recommends that a residential or mixed-use project provide EV charging infrastructure that, at minimum, meets the most ambitious voluntary standard in the California Green Building Standards Code at the time of project approval. CALGreen requires provision of infrastructure to accommodate EV chargers for new single family and attached dwelling units/town houses. It is not yet known whether the proposed project would include electric vehicle charging; therefore, implementation of Mitigation Measure GHG-1 would be required to ensure the proposed project would provide electric vehicle charging.

The 2022 Scoping Plan further recommends that a proposed project be located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer). The proposed Project is located in close proximity to other single-family residential uses that are presently served by existing utilities and essential public services (e.g., transit, streets, water, sewer). The Project site and adjacent parcels

²¹ Air Quality and Greenhouse Gas Analysis Report, VRPA Technologies, Inc, page 56, January 2024.

have been identified for future development in the 2014 General Plan. CARB guidance recommends that, to be consistent with State goals, a proposed project should not result in the loss or conversion of natural and working lands. As discussed in Section 2A the Project will not result in the loss or conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. Therefore, the proposed project would be consistent with this key project attribute.

The proposed project would also be generally consistent with the transit density criteria recommended in the 2022 Scoping Plan. The proposed Project would include an approximately 20-foot-wide parkway containing an approximately 6-foot-wide pedestrian sidewalk and 10-foot-wide landscaping along both N. Baron and Perrin Avenues. Additionally, the Project includes multiple direct pedestrian connections into the proposed Project that would support the ability to use alternative modes of transportation. As such, the project would promote initiatives to reduce vehicle trips and VMT and would increase the use of alternate means of transportation.

The 2022 Scoping Plan recommends that a proposed project reduce parking requirements by eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or providing residential parking supply at a ratio of less than one parking space per dwelling unit. The proposed Project would consist of 153 residential lots with construction of approximately 59 dedicated off-street parking spaces. Based on the minimal parking spaces when compared to the number of residential units, the proposed project would be consistent with this key project attribute. An additional State goal is to advance the availability of fair housing. The proposed project would help to address the California housing shortage and would increase the number of residences available to residents of the San Joaquin Valley. Finally, consistent with the recommendations in the 2022 Scoping Plan, the proposed Project would be all electric and not include natural gas connections.

With implementation of Mitigation Measures GHG-1 the Project would result in **less-than-significant impact with mitigation**.

Mitigation Measure GHG-1: In order to meet the 2022 Scoping Plan GHG requirements, consistent with State GHG reduction and equity prioritization goals, each residential unit shall provide electric vehicle charging capabilities as part of the final project design.

- b) *Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?*

Less-Than-Significant Impact. Based on the AQ/GHG Report,²² as required by California law General Plans contain land use elements that detail types and quantities of land uses needed for future growth assumptions. Therefore, determination of consistency with a county/city's General Plan can be used to confirm that the Project's density and land use are consistent with the growth assumption used in the air quality plan. The Project is consistent with the currently adopted 2014 General Plan; therefore, is consistent with the growth assumptions under the applicable air quality plan and per the AQ/GHG Report, the Project will not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG. Additionally, as indicated in the discussion above under Section 8a, the Project was analyzed for consistency with the goals of the 2022 Scoping Plan, a state adopted plan for Statewide climate goals and greenhouse gas emission reduction. Consequently, the AQ/GHG Report found this potential impact to be **less than significant** impact would occur with no mitigation measures.

²² Air Quality and Greenhouse Gas Analysis Report, VRPA Technologies, Inc, page 58-59, January 2024.

9. HAZARDS AND HAZARDOUS MATERIALS

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------------------------------------|---|-------------------------------------|------------------|
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | | | X | |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | | | X | |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | | | | X |
| d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | | | | X |
| e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | | | | X |
| f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | | | X | |
| g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | | | X | |

ENVIRONMENTAL SETTING

For purposes of this chapter, the term “hazardous materials” refers to both hazardous substances and hazardous wastes. A “hazardous material” is defined in the Code of Federal Regulations (CFR) as “substance or material that is capable of posing an unreasonable risk to health, safety, and property when transported in commerce” (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

“Hazardous material” means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a

reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. "Hazardous wastes" are defined in California Health and Safety Code Section 25141(b) as wastes that because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause or significantly contribute to an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

The nearest school to the Project site is Woods Elementary School, located approximately one (1) mile southwest of the site at its closest point.

DISCUSSION

- a) *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less-Than-Significant Impact. The Project consists of the construction of 153 single-family homes on ±18 acres. The type of hazardous materials that would be associated with the Project are those typical of residential uses, such as the use of household cleaners, landscape maintenance products, soaps, and potential pesticides (for pest control). These materials, when used and applied properly, would not necessarily create a significant hazard to the public or the environment. Further, these materials are not anticipated to be stored in large quantities that could pose a threat. Overall, the Project would not routinely transport, use, or dispose of hazardous materials other than those typical of residential development, which are not generally considered of the type or quantity that would pose a significant hazard to the public when used as directed. During construction, typical equipment and materials would be used that are associated with residential construction; however, any chemicals or materials would be handled, stored, disposed of, and/or transported according to applicable laws. Consequently, because the Project is not of the type of use that would routinely transport, use, or dispose of hazardous materials a **less-than-significant** impact would occur with no mitigation measures.

- b) *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Less-Than-Significant Impact. See discussion above under Section 9a.

- c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

No Impact. As mentioned above, the Project site is located approximately one (1) mile from the nearest school. Further, the Project is not of the type of use typically associated with emitting hazardous emissions or handling the type or quantity of hazardous materials such that it would pose a risk or threat to the school, or surrounding area. Therefore, **no impact** would occur.

- d) *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

No Impact. According the California Department of Toxic Substance Control EnviroStor Database, the Project site is not located on or within the immediate vicinity of a hazardous materials site.²³ Therefore, **no impact** would occur.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

No Impact. The Project is not within an airport land use plan nor is the site within two miles of a public airport. Therefore, **no impact** would occur.

- f) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Less-Than-Significant Impact. The Project will connect in the internal street network to N. Baron, Perrin, and N. Marion Avenues already developed from previous development. Although the Project could result in temporary traffic detouring or closures during buildout, these delays would be temporary and would be coordinated with the City Planning and Development Services Department and other departments to ensure safe access to and from the area is maintained. Further, the site itself would be reviewed by City departments to ensure adequate site access and circulation is provided in the event of an emergency. Overall, a **less-than-significant** impact would occur with no mitigation measures.

- g) *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

Less-Than-Significant Impact. The Project site it is not located in an area typically associated with wildfires. Although urban fires could occur, the Project would be constructed to the latest fire code standards, which would include fire sprinklers in each unit, as well as the installation of several fire hydrants throughout the site as required by the Clovis Fire Department. Further, other life safety features would be required such as smoke detectors, which would be reviewed and checked by the Fire Department to ensure proper operation prior to occupancy. Ultimately, a **less-than-significant** impact would occur with no mitigation measures.

10. HYDROLOGY AND WATER QUALITY

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? | | | X | |
| b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | | | X | |

²³ California Department of Toxic Substance Control, EnviroStor Database, <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Clovis>, accessed on April 11, 2024

| | | | | |
|---|--|--|---|--|
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows? | | | X | |
| i) Result in substantial erosion or siltation on- or off-site? | | | X | |
| ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite? | | | X | |
| iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | | | X | |
| iv) Impede or redirect flood flows? | | | X | |
| d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | | | X | |
| e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | | | X | |

ENVIRONMENTAL SETTING

The City is within the drainages of three streams: Dry Creek, Dog Creek, and Redbank Slough. On the north, Dry Creek discharges into the Herndon Canal in the City of Fresno west of Clovis. South of Dry Creek, Dog Creek is a tributary of Redbank Slough, which discharges into Mill Ditch south of Clovis (USGS 2012). A network of storm drains in the City and the Plan Area discharges into 31 retention basins, most of which provide drainage for a one- to two-square-mile area. Most of the Plan Area east and northeast of the City is not in drainage areas served by retention basins. Those areas drain to streams that discharge into reservoirs, including Big Dry Creek Reservoir in the north-central part of the Plan Area and Redbank Creek Dam and Reservoir in the southeast part of the Plan Area. Fancher Creek Dam and Reservoir are near the east Plan Area boundary.

The Project is located within the FMFCD boundary, and subject to its standards and regulations. Detention and retention basins in the FMFCD's flood control system are sized to accommodate stormwater from each basin's drainage area in builtout condition. The current capacity standard for FMFCD basins is to contain runoff from six inches of rainfall during a ten-day period and to infiltrate about 75 to 80 percent of annual rainfall into the groundwater basin (Rourke 2014). Basins are highly effective at reducing average concentrations of a broad range of contaminants, including several polyaromatic hydrocarbons, total suspended solids, and most metals (FMFCD 2013). Pollutants are removed by filtration through soil, and thus don't reach the groundwater aquifer (FMFCD 2014). Basins are built to design criteria exceeding statewide Standard Urban Stormwater Mitigation

Plan (SUSMP) standards (FMFCD 2013). The urban flood control system provides treatment for all types of development—not just the specific categories of development defined in a SUSMP—thus providing greater water quality protection for surface water and groundwater than does a SUSMP.

In addition to their flood control and water quality functions, many FMFCD basins are used for groundwater recharge with imported surface water during the dry season through contracts with the FID and the cities of Fresno and Clovis; such recharge totaled 48,139 acre feet of water in 2020.

The pipeline collection system in the urban flood control system is designed to convey the peak flow rate from a two-year storm.

Most drainage areas in the urban flood control system do not discharge to other water bodies, and drain mostly through infiltration into groundwater. When necessary, FMFCD can move water from a basin in one such drainage area to a second such basin by pumping water into a street and letting water flow in curb and gutter to a storm drain inlet in an adjoining drainage area (Rourke 2014). Two FMFCD drainage areas discharge directly to the San Joaquin River, and three to an irrigation canal, without storage in a basin. Six drainage areas containing basins discharge to the San Joaquin River, and another 39 basins discharge to canals (FMFCD 2013).

A proposed development that would construct more impervious area on its project site than the affected detention/retention basin is sized to accommodate is required to infiltrate some stormwater onsite, such as through an onsite detention basin or drainage swales (Rourke 2014).

The Big Dry Creek Reservoir has a total storage capacity of about 30 thousand acre-feet (taf) and controls up to 230-year flood flows. Fancher Creek Dam and Reservoir hold up to 9.7 taf and controls up to 200-year flood flows. Redbank Creek Dam and Reservoir hold up to 1 taf and controls up to 200-year flood flows.

Groundwater

Clovis is underlain by the Kings Groundwater Basin that spans 1,530 square miles of central Fresno County and small areas of northern Kings and Tulare counties. Figure 5.9-4, Kings Groundwater Basin, shows that the basin is bounded on the north by the San Joaquin River, on the west by the Delta-Mendota and Westside Subbasins, the south by the Kings River South Fork and the Empire West Side Irrigation District, and on the east by the Sierra Nevada foothills. Depth to groundwater in 2016 ranged from 196.5 feet at the northwest City boundary to 69.5 feet at the southeast City boundary (Clovis 2016), 25 feet at the southeast SOI boundary, and about 20 feet at the eastern Plan Area boundary (FID 2013). The Kings Subbasin has been identified as critically overdrafted (Provost & Pritchard 2011).

In the Plan Area, groundwater levels are monitored by the City of Clovis and FID. The overall area has not experienced land subsidence due to groundwater pumping since the early 1900s (FID 2006). Subsidence occurs when underground water or natural resources (e.g., oil) are pumped to the extent that the ground elevation lowers. No significant land subsidence is known to have occurred in the last 50 years as a result of land development, water resources development, groundwater pumping, or oil drilling (FID 2006). The City has identified a localized area of subsidence of 0.6 feet in the vicinity of Minnewawa and Herndon Avenues within the last 14 years (Clovis 2016). Regional ground subsidence in the Plan Area was mapped as less than one foot by the US Geological Survey in 1999 (Galloway and Riley 1999). Groundwater levels in the San Joaquin Valley are forecast to hit an all-time low in 2014 (UCCHM 2014).

New development in accordance with the General Plan Update would increase the amount of impervious surface in the Plan Area, potentially affecting the amount of surface water that filters into the groundwater supply. Groundwater levels are monitored in the Plan Area by the FID and the City of Clovis. As described in the 2015

City of Clovis Urban Water Management Plan (UWMP), groundwater recharge occurs both naturally and artificially throughout the City. The Kings Groundwater Basin area is recharged through a joint effort between the Cities of Clovis and Fresno and the FID (CDWR 2006). Approximately 8,400 acre-feet per year (afy) of water are intentionally recharged into the Kings Groundwater Basin by the City of Clovis, and approximately 7,700 afy of water naturally flow into groundwater in the City's boundaries (Clovis 2011).

The FMFCD urban stormwater drainage system would provide groundwater infiltration for runoff from developed land uses in detention basins in the drainage system service area.

Projects pursuant to the proposed General Plan Update and developed outside of the FMFCD urban stormwater drainage system would be required to meet the requirements of NPDES regulations, including the implementation of BMPs to improve water retention and vegetation on project sites.

DISCUSSION

- a) *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Less-Than-Significant Impact. The Project is located on a site that was previously anticipated for residential use. As with any development, existing policies and standards are required to be complied with, which are assessed during review of the entitlements. As such, the Engineering Division, as well as outside agencies such as the FMFCD review all plans to ensure that none of the water quality standards are violated and that waste discharge requirements are adhered to during construction and operation of the Project. Consequently, this process of Project review and approval would ensure that a **less-than-significant** impact occur with no mitigation measures.

- b) *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

Less-Than-Significant Impact. The Project would not deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level due to the Project. The 2014 General Plan EIR identified a net decrease in ground water aquifer throughout the region, however, because the City's domestic water system is primarily served through surface water via existing water entitlements, the loss of aquifer is less than significant. The City has developed a surface water treatment plant (opened in June, 2004) that reduces the need for pumped groundwater, and has also expanded the municipal groundwater recharge facility. The Projects impacts to groundwater are **less than significant** with no mitigation measures required.

- c) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows?*

Less-Than-Significant Impact. There are no streams or rivers on the site that would be altered as a result of the Project. Further, some of the infrastructure surrounding the site, such as stormdrains are already in place from existing development to the south. The site is mostly pervious since it is currently undeveloped, and as a result, the Project would increase the amount of impervious surfaces by installing paving for roadways and sidewalks. However, the drainage pattern would be constructed per existing policies and regulations through

review of the plans by the City Engineering Division and the FMFCD to ensure the site is properly and adequately drained such that the stormdrain system is maintained and so that no flooding occurs. Consequently, this review and approval by City engineers and FMFCD would mean that the Project result in a **less-than-significant** impact would occur with no mitigation measures.

- d) *Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

Less-Than-Significant Impact. Due to the Central Valley's location away from the ocean, an impact from a tsunami is unlikely. The majority of the site is located within the 1% annual flood (100-year flood) area as mapped by Federal Emergency Management Agency (FEMA); however, the CMC Section 8.12, Floodplain Management lists standards and requirements for new construction within special flood zones; therefore, the Project would implement flood hazard management as required by the CMC. As a result of adhering to required flood hazard management, the Project would not risk the release of pollutants due to inundation and consequently, the Project would result in a **less-than-significant** impact would occur with no mitigation measures.

- e) *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Less-Than-Significant Impact. The City of Clovis is within the North Kings County Groundwater Sustainability Agency (GSA). Pursuant to the Sustainable Groundwater Management Act of 2014 (SGMA), certain regions in California are required to develop and implement a groundwater management plan that sustainably manages groundwater resources. The proposed Project would comply with the 2020 City of Clovis UWMP which promotes programs and policies to manage water supplies. Nevertheless, the Project would derive the majority of its water from surface water sources and does not propose or include plans for groundwater use. With regards to water quality control, the Project would be required to adhere to appropriate storm drain conveyance and the protection of water resources which would include the installation of backflow preventers. Consequently, the Project would result in a **less-than-significant** impact with no mitigation measures.

11. LAND USE AND PLANNING

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Physically divide an existing community? | | | X | |
| b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | | | X | |

ENVIRONMENTAL SETTING

As described above in the Project Description, the Project site is vacant and undeveloped and is surrounded by residential development, including existing rural residential to the east, residential to the south currently under construction, and development under entitlement processing to the west.

DISCUSSION

a) *Would the project physically divide an existing community?*

Less-Than-Significant Impact. Although the site is currently vacant and undeveloped, the general area to the south is urbanized with residential uses of varying densities. Typically, physically dividing existing communities is associated with the construction of a new road intersecting an established area or introducing uses that are not necessarily in line with the existing uses and planned land uses of the area. However, the Project site has been previously designated in the 2014 Clovis General Plan and zoned for residential use.

Consequently, because the proposed Project is the type of use previously planned for this site and the general areas, it would not physically divide an existing community. Rather, it seeks to add new housing stock to the City with installation of a new public sidewalk and roadway infrastructure. Therefore, a **less-than-significant** impact would occur and no mitigation measures are required.

b) *Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

Less-Than-Significant Impact. As mentioned in the Existing Setting Section above, the Project site is currently within the County of Fresno jurisdiction and zoned AE20 (Exclusive Agricultural). However, the Project site will be rezoned to the R-1-PRD (Single-Family Planned Residential Development) Zone District through a separate entitlement application (Rezone 2021-006). According to Section 9.10.010(B)(5) of the CMC, the R-1-PRD Zone District identifies areas appropriate for single-family small lot uses, including attached and detached single-family structures on small lots. If approved, the Project will be required to go through the RSPR entitlement process for review for compliance with relevant design policies, such as in the Heritage Grove Master Plan, the CMC, and the General Plan. During the review, the height, color and materials are reviewed for consistency with these plans and guidelines. As a result of the Project in complying with the land use and zoning designation upon approval, as well as the review process ensuring General Plan and other applicable policies are adhered to, the Project would result in a **less-than-significant** impact with regards to conflicting with a land use plan. No mitigation measures are required.

12. MINERAL RESOURCES

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | | | | X |
| b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | | | | X |

ENVIRONMENTAL SETTING

The City of Clovis 2014 General Plan EIR defines minerals as any naturally occurring chemical elements or compounds formed from inorganic processes and organic substances.²⁴ The 2014 General Plan EIR indicates that there are no active mines or inactive mines within the Plan Area of the City of Clovis.

²⁴ 2014 Clovis General Plan EIR, Chapter 5: Mineral Resources, page 5.11-1.

DISCUSSION

- a) *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

No Impact. As stated above, the City of Clovis does not have any active mines or inactive mines. Further, the Project site is not designated, or otherwise mapped for mineral resource extraction, or for having mineral resources of value to the region present on or below the surface of the site. Therefore, **no impact** would occur and no mitigation measures are required.

- b) *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

No Impact. Please refer to the discussion under Section 12a.

13. NOISE

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------------------------------------|---|-------------------------------------|------------------|
| a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | | X | | |
| b. Generation of excessive groundborne vibration or groundborne noise levels? | | | X | |
| c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | | | | X |

ENVIRONMENTAL SETTING

The Project site is vacant and surrounded by residential development, including existing rural residential to the east, residential development to the south currently under construction, and residential development under entitlement processing to the west. As such, existing ambient noise levels are typical of those associated with residential development, such as the sound of vehicles passing by, the sound of talking, and recreating could be expected within the Project vicinity. As a result of construction to the south, existing ambient noise levels may be slightly elevated as a result of the use of construction equipment, such as large trucks, tractors, and other construction tools associated with residential development. These increases would be temporary, however, and would cease upon completion of the neighborhood.

An acoustical analysis was prepared for the Project by WJV Acoustics on March 14, 2024 and the analysis below is based in part on the study. As part of the acoustical analysis, noise exposure from traffic on Perrin and N. Clovis Avenues was calculated for future (2046) conditions using the Federal Highway Administration

(FHWA) Highway Traffic Noise Prediction Model. The acoustical analysis can be found in Appendix D of this Initial Study.

DISCUSSION

- a) *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Less-Than-Significant Impact With Mitigation. The Project would include development of 153 single-family homes on an undeveloped site. Thus, the Project would result in a temporary and permanent increase in ambient noise levels as a result of construction and operation. However, as mentioned above, the Project site will be surrounded by residential development of varying densities. The Project would introduce new ambient noise from the construction and operation of the homes, these noises would represent the typical type of noise levels that is expected for a planned residential land use. While increases in ambient noise would occur due to the construction of the Project, this increase would be temporary and would be required to adhere to local regulations limiting the hours of construction.

The CMC Section 9.22.080, Noise, sets forth noise standards for development which would need to be complied with. For example, construction would only be permitted between the hours of 7:00 a.m. and 7:00 p.m. on weekdays, and between 9:00 a.m. and 5:00 p.m. on weekends. However, between June 1 and September 15, construction may begin at 6:00 a.m. on weekdays.

The acoustical analysis indicated that exterior traffic noise exposure at the closest proposed lots to Perrin Avenue would be approximately 61 dB CNEL for future traffic conditions and approximately 51 dB CNEL for the closest proposed lots to N. Clovis Avenue.²⁵ As such, the exterior noise exposure would not exceed the City's exterior noise level of 65 dB CNEL.

The acoustical analysis indicated that the worst-case interior noise exposure within the proposed Project would be approximately 61 dB CNEL which exceeds the City's standard for interior noise; however, the mitigation measures below would reduce these impacts sufficiently to meet the City standards for noise. Consequently, a **less-than-significant impact with mitigation** would occur.

Mitigation Measure NOISE-1: Interior Noise. Mechanical ventilation or air conditioning shall be provided for all homes to enable windows and doors to remain closed for sound insulation purposes.

- b) *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Less-Than Significant Impact. The Project includes development of 153 single-family homes and associated infrastructure (i.e., sidewalks, roadways, curb, gutter, stormdrains, etc.). Therefore, construction equipment typical of the development of residential homes would be utilized temporarily. This equipment could include the use of heavy tractors, trucks, and other equipment; however, this type of equipment isn't typically associated with excessive groundborne vibration. If any vibration were to occur, it's likely that it would be temporary in nature and not at levels that would significantly impact the surrounding area. Further, the Project would be required to comply with the provisions of Section 9.22.090 of the CMC which requires that vibration not be perceptible along property lines and that it shall not interfere with operations or facilities on adjoining parcels. It's important to note also that temporary construction vibration and noise is exempt from these provisions due to the fact that construction is temporary. Overall, because the type of equipment likely to be used in the

²⁵ Acoustical Analysis Tract 6452, VJV Acoustics, Inc, page 8, March 2024.

development of the Project is not considered to be of the type and intensity to result in substantial vibration or groundborne noise, the impact would be **less than significant** and no mitigation measures are required.

- c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. The Project is not located within the vicinity of a private airstrip or within an airport land use plan nor is the site within two miles a public airport. Therefore, **no impact** would occur.

14. POPULATION AND HOUSING

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example through extension of roads or other infrastructure)? | | | X | |
| b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | | | | X |

ENVIRONMENTAL SETTING

The Project is located on a vacant site that is planned for residential use in the 2014 Clovis General Plan. The Project site is ±18 acres and proposes 153 single-family homes.

DISCUSSION

- a) *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example through extension of roads or other infrastructure)?*

Less-Than-Significant Impact. The Project would result in 153 single-family homes. The Project site has two existing General Plan Land Use designations of Very Low Density Residential, which allows for a density range of 0.6 to 2.0 DU/AC and Medium Density Residential, which allows for a density range of 4.1 to 7.0 DU/AC. Calculated with net acres, the Project site would require a range of 42 to 80 dwelling units. Thus, blending of density will be utilized with adjacent TM6200, to the south. TM6200 was recorded on December 24, 2019, which allowed for a maximum of 871 dwelling units. TM6200 has been processed in phases currently with 586 dwelling units approved for development which leaves a 283-unit surplus. Thus, the Project will utilize 73 units of the remaining 283 units for a blended product. Further, the Project includes residential use on a site that is planned for the type of use being proposed. Unplanned population growth is typically associated with providing new services in remote areas of the City or other infrastructure that was not previously identified in the General Plan. Although the Project would result in new housing units and population to the site, this growth was previously planned and anticipated under the 2014 General Plan. Thus, a **less-than-significant** impact would occur and no mitigation measures are required.

- b) *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

No Impact. The Project site is vacant and undeveloped; therefore, **no impact** would occur and no mitigation measure are required.

15. PUBLIC SERVICES

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| <i>Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</i> | | | | |
| a. Fire protection? | | | X | |
| b. Police protection? | | | X | |
| c. Schools? | | | X | |
| d. Parks? | | | X | |
| e. Other public facilities? | | | X | |

ENVIRONMENTAL SETTING

The Project would be served by the Clovis Fire Department, Clovis Police Department, with mutual aid from the City of Fresno, when needed. The Project site would also be within the Clovis Unified School District.

The nearest fire station is Fire Station #3, located approximately three (3) miles southwest of the site. The other closest fire station is Fire Station #5, located approximately four (4) miles to southeast of the site.

DISCUSSION

- a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services?*

Less-Than-Significant Impact. Although the Project would result in 153 new residential units, the site is located adjacent to an area of the City that is already able to be served by the Clovis Fire Department. Upon annexation (R2021-006), the Project will then be located in an area the City will be able to serve. Also, the site itself is in close proximity to Fire Station's #3 and #5, which would mean that response times should be able to be maintained during calls for service. As part of the entitlement process for the Project, the Clovis Fire Department will review the design and site layout to ensure adequate fire safety measures and site circulation are achieved. This would include placement of new fire hydrants in certain locations throughout the site, adequate drive widths for fire truck and emergency vehicle access, and the appropriate application of fire codes, such as installation of sprinkler systems, fire alarms, and smoke detectors. Overall, with the site's close proximity to numerous fire

stations, construction that would meet the latest fire code standards, and review by the Clovis Fire Department, impacts related to effects on the performance of the Fire Department would be **less-than-significant** and no mitigation measures are required.

- b) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services?*

Less-Than-Significant Impact. Although the Project would result in 153 new residential units, the site is located adjacent to an area of the City this already able to be served by the Clovis Police Department. Upon annexation (R2021-006), the Project will then be located in an area the City will be able to serve. The Clovis Police Department headquarters are located at 1233 Fifth Street, which is approximately five (5) miles from the site. As part of the entitlement process for the Project, the Clovis Police Department will review the design and site layout to ensure adequate safety measures are achieved. Consequently, a **less-than-significant** impact would occur and no mitigation measures are required.

- c) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools?*

Less-Than-Significant Impact. As part of the review process, Clovis Unified School District (CUSD) is provided the opportunity to comment and work closely with the City as development is proposed. As mentioned previously, the Project site was previously planned for residential development, as indicated in the 2014 Clovis General Plan. As such, the CUSD has been aware of the potential for this type of development at this location. As part of the process, the Project would be required to pay school fees which typically go towards the improvement and/or construction of new schools or expanding existing schools if and when needed, as determined by the CUSD. Therefore, because the Project is consistent with what was previously planned for at this site in addition to payment of appropriate school fees set by the CUSD, a **less-than-significant** impact would occur and no mitigation measures are required.

- d) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?*

Less-Than-Significant Impact. Although the Project proposes one (1) approximately 8,990 square foot pocket park, this park would not cause significant environmental impacts in order to maintain acceptable service ratios, response times or other performance objectives for parks. Furthermore, the Project is required to request annexation to and provide a covenant for the Landscape Maintenance District. Consequently, a **less-than-significant** impact would occur and no mitigation measures are required.

- e) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?*

Less-Than-Significant Impact. Although the Project would result in 153 new residential units, residential uses have been previously planned for in the 2014 Clovis General Plan in this area. Also, through the entitlement process, the Project would undergo review by several departments and agencies for compliance with

appropriate regulations and policies. This could result in various impact fees that are intended to maintain and enhance public facilities as appropriate to be able to accommodate the Project. As such, payment of the typical development fees, as well as project review by the different department and agencies, would result in the Project having a **less-than-significant** impact to public facilities. No mitigation measures are required.

16. RECREATION

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | | | X | |
| b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? | | | X | |

ENVIRONMENTAL SETTING

The nearest existing recreational site is Dry Creek Trailhead, located at the corner of Shepherd and Sunnyside Avenues. A future community park is planned approximately 0.30 miles west of the Project site.

DISCUSSION

- a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Less-Than-Significant Impact. As mentioned in the Population and Housing section of this Initial Study, the Project is of the type previously planned and accounted for in the 2014 Clovis General Plan. Although 153 new residential units would be constructed, therefore, adding new population to the area that may utilize parks within the surrounding area, this growth was planned for with regards to park usage throughout the city. Further, the Project itself would include landscaped and open space areas on-site for its residents, as well as a pocket park space within the neighborhood, thereby, providing areas of recreation within the site itself. The Project would also be required to comply with 2014 General Plan Policy 2.2 of the Open Space and Conservation Element which encourages the incorporation of on-site natural resources.

Overall, the Project is not likely to increase the use of existing parks such that physical deterioration would occur. Therefore, the impact would be **less-than-significant** and no mitigation measures are required.

- b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?*

Less-Than-Significant Impact. The Project site itself would construct on-site a pocket park. The Project itself would not require the construction or expansion of new recreational facilities elsewhere that would have an adverse physical effect on the environment. The Project would also be required to contribute a proportionate share towards the acquisition and development of future parks in order for the City to maintain its adopted ratio

of providing four (4) acres of parkland per 1,000 residents, as stated in Policy 1.1 in the Open Space and Conservation Element of the 2014 General Plan, and Section 3.4.03 of the CMC. As such, a **less-than-significant** impact would occur and no mitigation measures are required.

17. TRANSPORTATION

| Would the project: | Significant and Unavoidable | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|-----------------------------|--|------------------------------|-----------|
| a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? | | | X | |
| b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | X | | | |
| c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | | | X | |
| d. Result in inadequate emergency access? | | | X | |

ENVIRONMENTAL SETTING

The project is bounded by Perrin Avenue to the south, N. Baron Avenue to the west, a planned FMFCD basin to the north, and rural residential to the east. The circulation network serving the site including internal site circulation will be constructed as part of the project.

According to the 2014 Clovis General Plan Circulation Diagram in the Circulation Element (Figure C-1 of the Circulation Element), N. Baron and Perrin Avenues are classified as “Collector” streets. Collectors generally intended to provide for relatively short distance travel between and within neighborhoods and that serve longer through trips. N. Baron Avenue is planned to connect to N. Clovis and N. Minnewawa Avenues “Arterials” to the west.

A Transportation Impact Analysis (TIA) was prepared by Peters Engineering Group on February 8, 2024 (included as Appendix E of this Initial Study). The information and analysis in the following sections is based in part on the results of the TIA.

DISCUSSION

- a) *Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*

Less-Than-Significant Impact. As mentioned above, the site is on land that was previously planned for residential use in the 2014 Clovis General Plan. As described in the Population and Housing section above, the Project will be consistent with the planned density through density blending with the adjacent TM6200. The 2024 Clovis General Plan considers level of service (LOS) D as the LOS standard vehicle traffic operations, except for roadway segments that are adopted in the City’s General Plan EIR to operate at LOS E or F. At study

intersections under the jurisdiction of the City of Clovis, a significant impact would occur at a signalized intersection when LOS falls below the target LOS of D with the addition of project traffic or when project increases the average delay at an intersection already operating at an unacceptable LOS.

The TIA studied six (6) intersections 1) N. Minnewawa and Behymer Avenues, 2) N. Baron and Behymer Avenues, 3) N. Baron and Perrin Avenues, 4) N. Clovis and Baron Avenues, 5) N. Clovis and Shephard Avenues, and 6) Sunnyside and Sheperd Avenues for existing conditions, existing-plus-project conditions, near term with project conditions, and cumulative conditions to the year 2045. A discussion of each of these scenarios is included below. Each scenario is based on the Projects a.m. and p.m. peak hour trips as determined in the TIS. According to the TIS, the Project would result in 108 trips in the a.m. peak hours of between 7:00 a.m. and 9:00 a.m. and 144 trips in the p.m. peak hours between 4:00 p.m. and 6:00 p.m., as well as a total of 1,444 daily vehicle trips.

Existing Traffic Conditions

Based on the TIA,²⁶ existing traffic volumes were determined during morning peak hours of 7:00 a.m. to 9:00 a.m., and between evening peak hours of 4:00 p.m. and 6:00 p.m. on a weekday. According to the TIA, the intersections of Minnewawa and Behymer Avenues and Sunnyside and Shepherd Avenues are not currently operating at an acceptable LOS based on City of Clovis standards.²⁷

Existing-Plus-Project Conditions

Existing-Plus-Project conditions represent existing conditions plus buildout of the Project if none of the pending and approved project in the vicinity were constructed. According to the TIA, all intersections currently operating at an acceptable LOS are not expected to operate below the City LOS standard.²⁸ Although delays are expected to increase at the intersection of Minnewawa and Behymer Avenues, the delays are relatively minimal. Delays are also expected to increase at the intersection of Sunnyside and Shepherd Avenues during the p.m. peak hour causing the LOS to drop from E to F; however, construction of a traffic signal at the intersection is currently underway.

In order for the intersection of Minnewawa and Behymer Avenues to operate at an acceptable LOS, the intersection may be signalized or at a minimum a dedicated left-turn lanes with protected left-turn phasing would be required on the northbound and southbound approaches. With signalization this intersection is expected to operate at LOS B during a.m. and p.m. peak hours.²⁹

Near-Term-With-Project Conditions

These conditions are based on buildout of the Project plus the near term planned or entitled projects that are reasonably foreseeable. The following projects were considered in the near-term analyses: TM6205, 605 single-family homes (NE of Shepherd and Sunnyside), TM6343, 590 single-family homes (NE of Behymer and Baron), TM6406, 51 single-family homes (SW of Perrin and Baron), TM6375, 387 single-family homes (W of Clovis and Baron), and Heritage Grove, 18-acre mixed use development (SE of Willow and Shepherd). Under this scenario, the intersections of Minnewawa and Behymer Avenues and Clovis and N. Baron Avenues would exceed acceptable LOS thresholds per City standards during peak hours.³⁰ Additionally, per the TIS the intersection of N. Clovis and Shepherd Avenues would not meet the 95th percentile queues for existing storage

26 Transportation Impact Analysis, Proposed Tract No. 6452, Peters Engineering Group, February 8, 2024 page 2.

27 Transportation Impact Analysis, Proposed Tract No. 6452, Peters Engineering Group, February 8, 2024 page 9.

28 Transportation Impact Analysis, Proposed Tract No. 6452, Peters Engineering Group, February 8, 2024 page 9.

29 Transportation Impact Analysis, Proposed Tract No. 6452, Peters Engineering Group, February 8, 2024 page 15.

30 Transportation Impact Analysis, Proposed Tract No. 6452, Peters Engineering Group, February 8, 2024 page 16.

capacity for the left-turn lane on the northbound approach, right turn lanes on the eastbound and northbound approaches.

In order for the intersection of Minnewawa and Behymer Avenues to operate at an acceptable LOS the same improved condition as outlined above in the Existing-Plus-Project Conditions summary is recommended. In order for the intersection of N. Clovis and Baron Avenues to operate at an acceptable LOS, the intersection would require signalization. With signalization, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours. It is not recommended to require installation of signalization with the Project alone; the intersection should require signalization until N. Clovis Avenue is extended north of Baron Avenue.³¹

In order to better accommodate queues at the intersection of N. Clovis and Shepherd Avenues, striping may be modified to open the second left-turn lane on the northbound approach, with this modification the intersection is expected to operate at LOS C during a.m. and p.m. peak hours.³²

Cumulative 2045 Traffic Conditions

These conditions represent anticipated traffic volumes for the year 2045 using the Fresno Council of Governments (Fresno COG) travel model. As described in the TIS, only one (1) study intersection would operate at an acceptable LOS for the year 2045.³³

In order for the intersection of Minnewawa and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized or at a minimum dedicated left turn lanes with protected left turn phasing would be required on all four approaches and a dedicated right turn lane would be required on the westbound approach. With signalization, the intersection is expected to operate at LOS D during the a.m. and p.m. peak hours.

In order for the intersection of N. Baron and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized, at a minimum a dedicated left turn lane with protected left turn phasing would be required on the westbound approach. With signalization, the intersection is expected to operate at LOS B during the a.m. and peak hour and LOS A during the p.m. peak hour.

In order for the intersection of N. Baron and Perrin to operate at acceptable LOS, all way stop control may be installed. With all-way stop control, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours.

To better accommodate the intersection of N. Clovis and Shepherd Avenues, striping may be modified to open the second left-turn on the northbound approach. With the modification the intersection is expected to operate at LOS C during the a.m. and p.m. peak hours.

For Sunnyside and Shepherd Avenues to operate at acceptable LOS, the intersection would require modification from the planned signalized lane to the following:

- Eastbound: two left turn lanes, two through lanes, and one right turn lane
- Westbound: one left turn lane, two through lanes, and one right turn lane

31 Transportation Impact Analysis, Proposed Tract No. 6452, Peters Engineering Group, February 8, 2024 page 16.

32 Transportation Impact Analysis, Proposed Tract No. 6452, Peters Engineering Group, February 8, 2024 page 16.

33 Transportation Impact Analysis, Proposed Tract No. 6452, Peters Engineering Group, February 8, 2024 page 10.

- Northbound: one left turn lane, one through lane, and one right turn lane
- Southbound: two left turn lanes, one through lane, and one right turn lane

With the recommended widening the intersection is expected to operate at LOS C during the a.m. peak hour and LOS D during the p.m. peak hour.

Bicycle Facilities

With regards to bicycle facilities, Figure C-2 of the 2014 Clovis General Plan does not indicate any planned bicycle or trail systems fronting the Project.

Consequently, the Project itself would help to facilitate improved circulation by adding a pedestrian sidewalk along N. Baron and Perrin Avenues fronting the site, which would provide a complete connection of sidewalk to the existing developments to the south the Project.

The traffic conditions above recommend improvements for each study intersection. With incorporation of improvements recommended for each scenario all study intersections will operate at satisfactory LOS levels thus, the Project, will not conflict with the Circulation Element of the 2014 General Plan. Consequently, a **less-than-significant** impact would occur. No mitigation measures are required.

b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Significant and Unavoidable Impact. Senate Bill 743 (SB 743) requires that relevant CEQA analysis of transportation impacts be conducted using a metric known as vehicle miles traveled (VMT) instead of level of service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the proposed project adds excessive car travel onto our roads, the proposed project may cause a significant transportation impact. Per CEQA Guidelines Section 15064.3(b)(4) a lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's VMT, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate VMT and any revisions to model outputs should be documented and explained in the environmental document prepared for the project.

On October 17, 2022, the City of Clovis adopted the Transportation Impact Analysis Guidelines (Guidelines), dated September 15, 2022. Consistent with CEQA Guidelines Section 15064.3, the City of Clovis has adopted thresholds of significance to determine when a project will have a significant transportation impact based on VMT. The City has developed screening criteria to streamline the analysis for projects that meet certain criteria. A project will require a detailed VMT analysis unless it meets at least one of the City's five screening criteria³⁴:

- Small Projects that generate less than 500 vehicle trips per day (i.e., Single-Family Residential developments with less than 53 dwelling units).
- Provision of affordable housing
- Local-serving retail projects with areas of 100,000 square feet and below

³⁴ Transportation Impact Analysis Guidelines, City of Clovis, September 15, 2022 page 4.

- Projects located in a High-Quality Transit Area (HQTa) as defined on page 8 of the City's Transportation Impact Analysis Guidelines
- Project located in low VMT area

The Project does not qualify for the screening criteria; therefore, shall be evaluated per Guidelines thresholds. The significance thresholds and specific VMT metrics are described on page 10 of the City's Transportation Impact Analysis Guidelines. Per the City's Transportation Impact Analysis Guidelines, the residential land use impact threshold is 14.1 VMT per capita. The Project will generate 17.9 VMT per capita which is greater than the threshold of 14.1 VMT per capita; therefore, the Project would create a significant transportation impact. Feasible mitigation measures must be identified to avoid or substantially reduce a significant impact under CEQA. Mitigation of VMT impacts typically requires changes in habits and behaviors of residents. Project design features that encourage mode shift from automobiles to transit or nonmotorized modes can potentially reduce project-specific VMT. The potential VMT reduction was estimated using the California Air Pollution Control Officers Association's (CAPCOA) *"Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity – Designed for Local Governments, Communities, and Project Developers"* dated December 2021.

The Project will implement feasible mitigation measures such as constructing one (1) mile of sidewalks and less than one (1) mile of Class II Bike Lane on Baron and Perrin Avenues; however, implementation of the Project design features described above only reduces the calculated Project VMT by up to approximately 1.7 percent. While the described mitigation measures can help offset a portion of the VMT impact, it will not reduce the impact to less than significant; therefore, the Project will have a **significant and unavoidable** transportation impact.

The City adopted a Supplemental Environmental Impact Report (SEIR) for the 2014 General Plan Circulation Element Update on October 17, 2022. The SEIR evaluated potential land uses consistent with the General Plan and their associated VMT impacts. The SEIR finds that implementation of the 2014 General Plan may result in VMT metrics that are greater than the applicable thresholds. Mitigation measures include policies to reduce VMT. Because the City cannot demonstrate that the implementation of these policies would achieve VMT reductions to meet the VMT thresholds, the impacts would remain significant and unavoidable. Therefore, following approval of the SEIR, individual land use development projects that are consistent with the 2014 General Plan have the opportunity to tier their environmental review from the General Plan SEIR pursuant to section 15152 of the CEQA Guidelines. The SEIR has disclosed the VMT impacts of land use development consistent with the General Plan. Therefore, significant and unavoidable VMT impacts associated with the General Plan have already been disclosed. Because the proposed Project is consistent with the 2014 General Plan, the Project's significant transportation impact does not require the preparation of a project specific EIR. Although the Project, has been determined to be consistent with the 2014 General Plan and is tiering from the SEIR, it would remain a **Significant and Unavoidable** impact.

- c) *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Less-Than-Significant Impact. The Project would result in a significant impact if it would include features that would create a hazard such as a sharp curve in a new roadway, or create a blind corner or result in sight distance issues from entryways. Through the entitlement process, the Project would undergo review by multiple City divisions, such as Planning and Engineering, to ensure that the site layout conforms to existing regulations, such as the CMC, and other applicable codes, such as the fire code and building code. During this review, the Project would need to make the necessary corrections to ensure that no hazardous design features would result from the Project. Further, the main roadway network (N. Baron and Perrin Avenues) will be constructed to City roadway standards. Therefore, because the Project would undergo site plan and design review to ensure

consistency and adherence to applicable design and site layout guidelines, a **less-than-significant** impact would occur and no mitigation measures are required.

d) *Would the project result in inadequate emergency access?*

Less-Than-Significant Impact. The Project would include two (2) ingress/egress access points to the proposed development, including access from N. Baron and Perrin Avenues. As part of the Project review, the Clovis Fire Department would review all plans to ensure adequate emergency access is provided. This review includes review for adequate roadway widths, turning radii, as well as adequate access to units and accessibility to water. Consequently, because the Project plans would be required by the CMC to be reviewed and approved by Clovis Fire Department and Police Department prior to construction, this impact would be **less than significant** and no mitigation measures are required.

18. TRIBAL CULTURAL RESOURCES

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? | | | | X |
| b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe? | | X | | |

ENVIRONMENTAL SETTING

On September 25, 2014, Governor Jerry Brown signed Assembly Bill (AB52), which intends to protect a new class of recourse under CEQA. This new class is Tribal Cultural Resources and provides an avenue to identify Tribal Cultural resources through a consultation process. AB52 applies to all projects where a Notice of Determination is filed. Furthermore, the consultation process is required to be complete prior to filing a Notice of Intent.

City staff conducted Native American Consultation in compliance with AB52. In compliance with AB52, invitations for consultation were mailed on April 8, 2024, which affords Native tribes thirty (30) days to respond and to request consultation. During this timeframe, no requests for consultations were received.

The Cultural Study prepared by Applied EarthWorks, Inc. dated November 2023 (included a records search from the CHRIS SSJVIC, as well as desktop archival research.

DISCUSSION

- a) *Would the project cause a substantial adverse change to a listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*

No Impact. See discussion under Section 5a.

- b) *Would the project cause a substantial adverse change to a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe?*

Less-Than-Significant Impact With Mitigation. The site's ground has been minimally disturbed as a result of some light grading and the mowing of weeds and shrubs. Further, the Cultural Study concluded that there was no evidence of prehistoric archaeological sites, isolated artifacts, or other archaeological features.³⁵ However, the potential remains that tribal cultural resources could be inadvertently or accidentally uncovered during ground-disturbing activities such as trenching, digging, and the installation of utilities and other infrastructure.

Because there is the slight possibility for the accidental or inadvertent uncovering of tribal cultural resources during construction, Mitigation Measures TCR-1 and TCR-2 would serve to reduce those potential impacts by requiring the stopping of any work until any found artifacts can be properly removed and inventoried by a qualified archaeologist. Therefore, the Project would result in a **less-than-significant impact with mitigation**.

Mitigation Measure TCR-1: If archaeological or tribal resources or materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.

If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.

If a potentially-eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.

Mitigation Measure TCR-2: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code and Project shall follow the procedures and protocols set for un CEQA Guidelines Section 15064.4(e)(1). If human remains are identified to be those of Native American, California Health and Safety Code 7050.5 requires the County coroner notify the NAHC within 24 hours of discovery. All

³⁵ Cultural Resource Study for the Clovis Tract 6452 prepared by Applied Earthworks, Inc., page 21, November 2023.

reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency.

19. UTILITIES AND SERVICE SYSTEMS

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | | | X | |
| b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | | | X | |
| c. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | | | X | |
| d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | | | X | |
| e. Comply with federal, state, and local management reduction statutes and regulations related to solid waste? | | | X | |

ENVIRONMENTAL SETTING

Pacific Gas & Electric (PG&E) provides electricity and natural gas services in the City of Clovis. AT&T/SBC provides telephone service to the City.

The City's water supply sources include groundwater drawn from the Kings Sub-basin of the San Joaquin Valley Groundwater Basin and treated surface water from the FID. Surface water is treated at the City of Clovis Surface Water Treatment Facility.

The City of Clovis provides sewer collection service to its residents and businesses. Treatment of wastewater occurs at the Fresno-Clovis Regional Wastewater Treatment Plant (RWTP). The Fresno-Clovis RWTP is operated and maintained by the City of Fresno and operates under a waste discharge requirement issued by the Central Valley Regional Water Quality Control Board. Additionally, the City of Clovis has completed a 2.8 mgd wastewater treatment/water reuse facility, which will service the City's new growth areas.

The FMFCD has the responsibility for storm water management within the Fresno-Clovis metropolitan area of the Project site. Stormwater runoff that is generated by land development is controlled through a system of pipelines and storm drainage detention basins.

DISCUSSION

- a) *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

Less-Than-Significant Impact. The Project includes construction of 153 residential units. As mentioned above, the site is a use previously accounted for in the 2014 Clovis General Plan. Further, as part of the review process for the Project, the wastewater impacts will be evaluated by the City Engineer to ensure compliance with the City's Waste Water Master Plan, as well as FMFCD, so that the Project would not exceed wastewater treatment requirements such that a new facility would be required nor would the existing treatment facility need to be expanded. While the Project would introduce new units at this site, the type of development would be consistent with the land use designation and Zone District. Upon review and approval by the City Engineer, the Project would result in a **less-than-significant** impact. No mitigation measures are required.

- b) *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Less-Than-Significant Impact. The Project is of the type of development previously accounted for in the 2014 Clovis General Plan, and is adjacent to the south with existing urban uses which are served adequately with City water. The Project will be primarily served through surface water and will be required to purchase water allocation rights through Fresno Irrigation District. Therefore, the Project is anticipated to be adequately served by City water. Further, the Project would comply with current Green Building Codes, as well as the water efficient landscape policies with regards to water conserving features. Lastly, the Project would be required to comply several water conserving policies, such as Policy 3.4 and 3.5 of the Open Space and Conservation Element. Overall, a **less-than-significant** impact would occur with no mitigation measures.

- c) *Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Less-Than-Significant Impact. Because the Project is of the type previously planned and accounted for in the 2014 Clovis General Plan, it is not likely that the Project would result in a demand that would exceed the capacity of the wastewater treatment facility. Further, the Project is reviewed by the appropriate departments and agencies to ensure compliance and adequate capacity with regard to infrastructure, such as the ability to provide adequate wastewater treatment. Consequently, the impact would be **less than significant**. No mitigation measures are required.

- d) *Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

Less-Than-Significant. The Project would introduce new solid waste throughout construction and operation of the Project. However, the Project would be required to comply with Chapter 6.3.1, Recycling and Diversion of Construction and Demolition Debris, of the CMC during construction. This section of the CMC requires that a minimum of fifty percent (50%) of waste tonnage from a project be diverted from disposal, and that all new residential (and commercial) construction within the City shall submit and obtain approval for a waste management plan prior to construction activities. Compliance with these measures would ensure that the Project

does not result in a significant impact during the construction phase of the Project. Further, compliance with policies in the General Plan for the reduction and recycling of solid waste would serve to reduce impacts of solid waste by promoting and encouraging the recycling of materials. Lastly, according to the California Department of Resources Recycling and Recovery (CalRecycle), the City of Clovis has exceeded their target per resident disposal rate of 4.7 pounds per day per resident, meaning that Clovis residents are actually producing less solid waste than the target set by the State.³⁶ Consequently, a **less-than-significant** impact would occur. No mitigation measures are required.

- e) *Would the project comply with federal, state, and local management reduction statutes and regulations related to solid waste?*

Less-Than-Significant. See discussion 19d above.

20. WILDFIRE

| If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Substantially impair an adopted emergency response plan or emergency evacuation plan? | | | X | |
| b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | | | X | |
| c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | | | X | |
| d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | | | X | |

ENVIRONMENTAL SETTING

The Project site is located on a vacant undeveloped site surrounded by existing residential homes at various densities to the south and east. The site's topography is generally flat and characterized primarily by low lying shrubs and grasses.

DISCUSSION

³⁶ Calrecycle, City of Clovis, <https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006>, accessed April 17, 2024.

- a) *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less-Than-Significant Impact. The Project is located at a site that is surrounded by existing residential development to the south and east. Further, the road network is in construction and will be in place from previous development. Although the Project could result in temporary traffic detouring or closures during buildout, these delays would be temporary and would be coordinated with the City Engineering Division and other departments to ensure safe access to and from the area is maintained. Further, the site itself would be reviewed by City departments to ensure adequate site access and circulation is provided in the event of an emergency. Overall, a **less-than-significant** impact would occur with no mitigation measures.

- b) *Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

Less-Than-Significant Impact. The general vicinity of the site is flat, therefore, is not of the type of topography nor in a location likely to exacerbate wildfire risks. Additionally, the Project site is located in an area mapped by CAL FIRE as “unzoned” per the Fire Hazard Severity Zone Viewer, indicating the area is not located in an area within State Responsibility Areas into Fire Hazard Severity Zones. Further, the Project would be required to comply with the latest fire codes and would be required to include sprinklers on the interior of the homes and require installation of several hydrants throughout the site. Lastly, the site plans would undergo review by the Clovis Fire Department to ensure that all fire safety regulations are met. Project site is Therefore, a **less-than-significant** impact would occur with no mitigation measures.

- c) *Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

Less-Than-Significant Impact. As a new development, installation of a private roadway network, water lines, and power lines would be required; however, these utilities and infrastructure are typical of residential development and would be constructed to standards of the respective agencies and departments which oversee them, as well as be required to comply all necessary plan review and permitting requirements of such departments and agencies. As such, a **less-than-significant** impact would occur. No mitigation measures are required.

- d) *Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

No Impact. The City of Clovis is generally flat topography, and the site itself is in an area that is not in close proximity to hillsides such that it would expose people or structures to significant risks associates with downstream flooding or landslides as a result of runoff or post-fire slope instability. As such, **no impact** would occur.

21. MANDATORY FINDINGS OF SIGNIFICANCE

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the | | | X | |

| | | | | |
|--|--|--|---|--|
| habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? | | | | |
| b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | | | X | |
| c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? | | | X | |

ENVIRONMENTAL SETTING

The Project is located within the sphere of influence of the City of Clovis, within the jurisdiction of the County of Fresno, substantially surrounded by existing development to the south.

DISCUSSION

- a) *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?*

Less-Than-Significant Impact. As discussed above throughout the Initial Study, the Project would not result in any significant impacts with implementation of mitigation measures prescribed above. Therefore, the Project would have a **less-than-significant** impact as it would not substantially degrade the quality of the environment. No mitigation measures are required.

- b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

Less-Than-Significant Impact. The Project includes mitigation measures in certain topic areas identified throughout this Initial Study, which would reduce potential impacts to a less-than-significant level. None of these impacts would be cumulatively considerable since most are either temporary impacts from construction or site specific. With the exception of air quality that is generally considered measurable cumulatively, the Project was found to have a less-than-significant impact as discussed in the GHG section of this Initial Study. As such, this Project would be required to comply with those same regulations, ensuring adequate mitigation as development

occurs. Lastly, while the Project would introduce 153 new residential units to an existing vacant site, the type of use was previously accounted for in the 2014 Clovis General Plan buildout. Thus, a **less-than-significant** impact would occur with no mitigation measures.

- c) *Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?*

Less-Than-Significant Impact. As discussed throughout the document, although the Project would result in a significant and unavoidable transportation impact; however, all other effects on human beings either directly or indirectly would not result in an impact that could not be mitigated to a less-than-significant level. Therefore, a **less-than-significant** impact would occur. No migration measures are required.

Report Preparation

LEAD AGENCY

Liz Salazar

Assistant Planner
City of Clovis
Planning & Development Services

TECHNICAL STUDIES

Air Quality and Greenhouse Impact Assessment

Wilde North at Hertiage Grove Residential Development
Georgiena Vivian, Project Manager
VRPA Technologies, Inc.

Biological Evaluation Report

Lennar Homes Tract 6452
Austin Pearson, Vice President
Rebekah Jenson, Senior Project Manager and Ecologist
Live Oak Associates, Inc.

Cultural Resource Study

Clovis Tract 6254 Residential Development, City of Clovis, Fresno County, California
Nicole Saenz
Applied EarthWorks, Inc.

Acoustical Analysis

Tract 6452
WJV Acoustics, Inc.

Traffic Impact Analysis

Proposed Tract 6452
Peters Engineering Group

**MITIGATION MONITORING AND REPORTING PROGRAM
TM6452**

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|-----------------------------|---|----------------------------------|---|---|
| Biological Resources | | | | |
| BIO-1 | Swainson's Hawk. If possible, construction activities should occur outside of the avian nesting season, typically defined as February 1 – August 31. If that is not feasible, pre-construction surveys shall occur if construction must occur between February 1 – August 31. A qualified biologist shall conduct surveys for active bird nests within seven (7) days prior to the start of work during this period. The survey area shall encompass the Project site and accessible surrounding lands within ¼ mile for nesting Swainson's hawk, 500 feet for other nesting raptors, and 250 feet for nesting birds. Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction free buffer around the nest. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged are capable of foraging independently. | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |
| Cultural Resources | | | | |
| CULT-1 | If archaeological or tribal resources or materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, can evaluate | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------|--|---------------------------|---|----------------------------------|
| | <p>the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.</p> <p>If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.</p> <p>If a potentially-eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.</p> | | | |
| CULT-2 | If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code and Project shall follow the procedures and protocols set for un CEQA | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|-----------------------------|--|---------------------------|---|----------------------------------|
| | Guidelines Section 15064.4(e)(1). If human remains are identified to be those of Native American, California Health and Safety Code 7050.5 requires the County coroner notify the NAHC within 24 hours of discovery. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency. | | | |
| Geological Resources | | | | |
| GEO-1 | <p>If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist and/or paleontologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.</p> <p>If the qualified professional determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.</p> | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|----------------------------------|---|---------------------------|---|----------------------------------|
| | If a potentially-eligible resource is encountered, then the qualified professional archaeologist and/or paleontologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met. | | | |
| Greenhouse Gas Emissions | | | | |
| GHG-1 | In order to meet the 2022 Scoping Plan GHG requirements, consistent with State GHG reduction and equity prioritization goals, each residential unit shall provide electric vehicle charging capabilities as part of the final project designs. | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |
| Noise | | | | |
| NOISE-1 | Interior Noise. Mechanical ventilation or air conditioning shall be provided for all homes to enable windows and doors to remain closed for sound insulation purposes. | City of Clovis Planning | <i>During Construction and Prior to Occupancy</i> | |
| Tribal Cultural Resources | | | | |
| TCR-1 | If archaeological or tribal resources or materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, can evaluate the significance of the find and make | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------|--|---------------------------|---|----------------------------------|
| | <p>recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.</p> <p>If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.</p> <p>If a potentially-eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.</p> | | | |
| TCR-2 | If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code and Project shall follow the procedures and protocols set for un CEQA Guidelines Section 15064.4(e)(1). If human remains | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------|---|---------------------------|--------|----------------------------------|
| | are identified to be those of Native American, California Health and Safety Code 7050.5 requires the County coroner notify the NAHC within 24 hours of discovery. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency. | | | |

Wilde North at Heritage Grove Residential Development

Air Quality & Greenhouse Gas Impact Assessment January, 2024

Prepared by:

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Fresno, CA 93722
Project Manager: Georgiena Vivian



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1.0 Introduction

1.1 Description of the Region/Project

The proposed project aims to develop 153 single-family residential units in on Northern portion Clovis in unincorporated area of Fresno County. The project site spans approximately 18.23 acres of land and is situated in the northeast portion of Baron and Perrin Avenue within the sphere of influence of City of Clovis. It is positioned approximately 2.5 miles north of State Route (SR) 168 within the City of Clovis, which is located in Fresno County.

This Air Quality & Greenhouse Gas Impact Assessment has been prepared for the purpose of identifying potential project-specific or site-specific air quality impacts that may result from the Project. Figures 1 and 2 show the location of the Project long with major roadways and highways.

The City of Clovis is located in Fresno County one of the most polluted air basins in the country – the San Joaquin Valley Air Basin (SJVAB). The surrounding topography includes foothills and mountains to the east and west. These mountain ranges direct air circulation and dispersion patterns. Temperature inversions can trap air within the Valley, thereby preventing the vertical dispersal of air pollutants. In addition to topographic conditions, the local climate can also contribute to air quality problems. Climate in Fresno is characterized by hot, dry summers and cool winters with the notable presence of Tule fog.

1.2 Regulatory

Air quality within the Project area is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policymaking, education, and a variety of programs. The agencies primarily responsible for improving the air quality within the City of Clovis and Fresno County are discussed below along with their individual responsibilities.

1.2.1 Federal Agencies

✓ U.S. Environmental Protection Agency (EPA)

The Federal Clean Air Bill first adopted in 1967 and periodically amended since then, established federal ambient air quality standards. A 1987 amendment to the Bill set a deadline for the attainment of these standards. That deadline has since passed. The other Clean Air Act (CAA) Bill Amendments, passed in 1990, share responsibility with the State in reducing emissions from mobile sources. The U.S. Environmental Protection Agency (EPA) is responsible for enforcing the 1990 amendments.

The CAA and the national ambient air quality standards identify levels of air quality for six “criteria” pollutants, which are considered the maximum levels of ambient air pollutants considered safe, with an adequate margin of safety, to protect public health and welfare. The

six criteria pollutants include ozone, carbon monoxide (CO), nitrogen dioxide, sulfur dioxide, particulate matter, and lead.

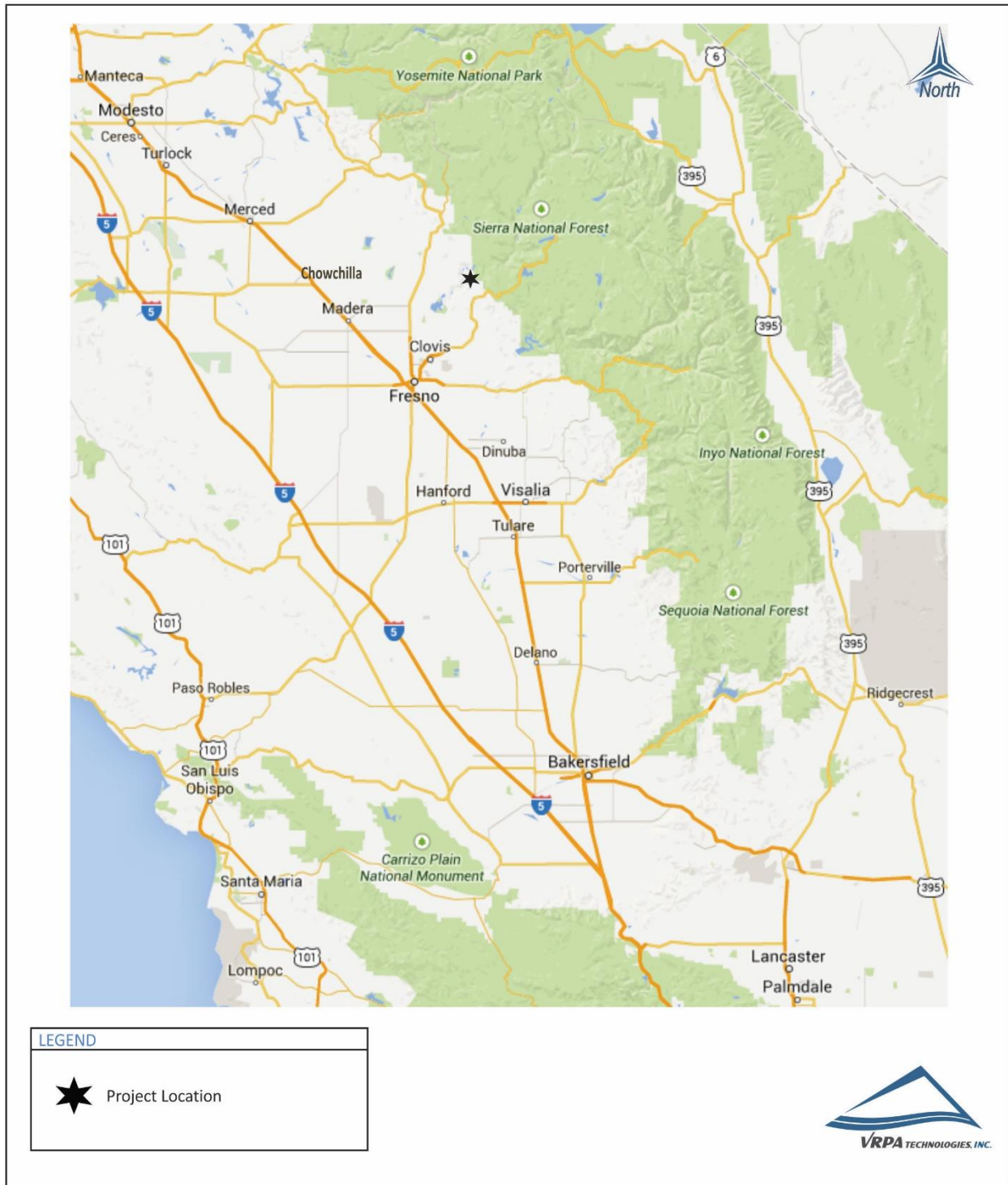
CAA Section 176(c) (42 U.S.C. 7506(c)) and EPA transportation conformity regulations (40 CFR 93 Subpart A) require that each new RTP and Transportation Improvement Program (TIP) be demonstrated to conform to the State Implementation Plan (SIP) before the RTP and TIP are approved by the Metropolitan planning organization (MPO) or accepted by the U.S. Department of Transportation (DOT). The conformity analysis is a federal requirement designed to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS). However, because the State Implementation Plan (SIP) for particulate matter 10 microns or less in diameter (PM₁₀), particulate matter 2.5 microns or less in diameter (PM_{2.5}), and Ozone address attainment of both the State and federal standards, for these pollutants, demonstrating conformity to the federal standards is also an indication of progress toward attainment of the State standards. Compliance with the State air quality standards is provided on the pages following this federal conformity discussion.

The EPA approved San Joaquin Valley reclassification of the ozone (8-hour) designation to extreme nonattainment in the Federal Register on May 5, 2010, even though the San Joaquin Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard. In accordance with the CAA, EPA uses the design value at the time of standard promulgation to assign nonattainment areas to one of several classes that reflect the severity of the nonattainment problem; classifications range from marginal nonattainment to extreme nonattainment. In the Federal Register on October 26, 2015, the EPA revised the primary and secondary standard to 0.070 parts per million (ppm) to provide increased public health protection against health effects associated with long- and short-term exposures. The previous ozone standard was set in 2010 at 0.075 ppm.

Fresno County is located in a nonattainment area for the 8-hour ozone standard, PM_{2.5} standard, and PM₁₀ standard.

**Wilde at North Heritage Grove Residential Development AQ/GHG
Regional Location**

**Figure
1**



**Wilde at North Heritage Grove Residential Development AQ/GHG
Project Location**

**Figure
2**



LEGEND



Project Location



1.2.2 Federal Regulations

✓ National Environmental Policy Act (NEPA)

NEPA provides general information on the effects of federally funded projects. The Act was implemented by regulations included in the Code of Federal Regulations (40CFR6). The code requires careful consideration concerning environmental impacts of federal actions or plans, including projects that receive federal funds. The regulations address impacts on land uses and conflicts with state, regional, or local plans and policies, among others. They also require that projects requiring NEPA review seek to avoid or minimize adverse effects of proposed actions and to restore and enhance environmental quality as much as possible.

✓ State Implementation Plan (SIP)/ Air Quality Management Plans (AQMPs)

To ensure compliance with the NAAQS, EPA requires states to adopt SIP aimed at improving air quality in areas of nonattainment or a Maintenance Plan aimed at maintaining air quality in areas that have attained a given standard. New and previously submitted plans, programs, district rules, state regulations, and federal controls are included in the SIPs. Amendments made in 1990 to the federal CAA established deadlines for attainment based on an area's current air pollution levels. States must enact additional regulatory programs for nonattainment's areas in order to adhere with the CAA Section 172. In California, the SIPs must adhere to both the NAAQS and the California Ambient Air Quality Standards (CAAQS).

To ensure that State and federal air quality regulations are being met, Air Quality Management Plans (AQMPs) are required. AQMPs present scientific information and use analytical tools to identify a pathway towards attainment of NAAQS and CAAQS. The San Joaquin Valley Air Pollution Control District (SJVAPCD) develops the AQMPs for the region where the Fresno Council of Governments(FCOG) operates. The regional air districts begin the SIP process by submitting their AQMPs to the California Air Resources Board (CARB). CARB is responsible for revising the SIP and submitting it to EPA for approval. EPA then acts on the SIP in the Federal Register. The items included in the California SIP are listed in the Code of Federal Regulations Title 40, Chapter 1, Part 52, Subpart 7, Section 52.220.

✓ Transportation Control Measures

One particular aspect of the SIP development process is the assessment of available transportation control measures (TCMs) as a part of making progress towards clean air goals. TCMs are defined in Section 108(f)(1) of the CAA and are strategies designed to reduce vehicle miles traveled, vehicle idling, and associated air pollution. These goals are generally achieved by developing attractive and convenient alternatives to single-occupant vehicle use. Examples of TCMs include ridesharing programs, transportation infrastructure improvements such as adding bicycle and carpool lanes, and expansion of public transit.

✓ **Energy Policy Act of 1992 (EPAct)**

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of alternative fueled vehicles (AFVs). States are also required by the act to consider a variety of incentive programs to help promote AFVs.

1.2.3 State Agencies

✓ **California Air Resources Board (CARB)**

CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing its own air quality legislation called the California Clean Air Act (CCAA), adopted in 1988. CARB was created in 1967 from the merging of the California Motor Vehicle Pollution Control Board and the Bureau of Air Sanitation and its Laboratory.

CARB has primary responsibility in California to develop and implement air pollution control plans designed to achieve and maintain the NAAQS established by the EPA. Whereas CARB has primary responsibility and produces a major part of the SIP for pollution sources that are statewide in scope, it relies on the local air districts to provide additional strategies for sources under their jurisdiction. CARB combines its data with all local district data and submits the completed SIP to the EPA. The SIP consists of the emissions standards for vehicular sources and consumer products set by CARB, and attainment plans adopted by the Air Pollution Control Districts (APCDs) and Air Quality Management District's (AQMDs) and approved by CARB.

States may establish their own standards, provided the State standards are at least as stringent as the NAAQS. California has established California Ambient Air Quality Standards (CAAQS) pursuant to California Health and Safety Code (CH&SC) [§39606(b)] and its predecessor statutes.

The CH&SC [§39608] requires CARB to "identify" and "classify" each air basin in the State on a pollutant-by-pollutant basis. Subsequently, CARB designated areas in California as nonattainment based on violations of the CAAQSs. Designations and classifications specific to the SJVAB can be found in the next section of this document. Areas in the State were also classified based on severity of air pollution problems. For each nonattainment class, the CCAA specifies air quality management strategies that must be adopted. For all nonattainment categories, attainment plans are required to demonstrate a five percent-per-

year reduction in nonattainment air pollutants or their precursors, averaged every consecutive three-year period, unless an approved alternative measure of progress is developed. In addition, air districts in violation of CAAQS are required to prepare an Air Quality Attainment Plan (AQAP) that lays out a program to attain and maintain the CCAA mandates.

CARB, in consultation with MPOs, has provided each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. For the Fresno Council of Governments (FCOG) region, CARB set targets at six(6) percent per capita decrease in 2020 and a thirteen (13) percent per capita decrease in 2035 from a base year of 2005. FCOG's 2022 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which was adopted in July 2022, projects that the Fresno County region would achieve the prescribed emissions targets.

Other CARB duties include monitoring air quality. CARB has established and maintains, in conjunction with local APCDs and AQMDs, a network of sampling stations (called the State and Local Air Monitoring [SLAMS] network), which monitor the present pollutant levels in the ambient air.

Fresno County is in the CARB-designated, SJVAB. A map of the SJVAB is provided in Figure 3. In addition to Fresno County, the SJVAB includes Kings, Kern, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties. Federal and State standards for criteria pollutants are provided in Table 1.

Wilde at North Heritage Grove Residential Development AQ/GHG
San Joaquin Valley Air Basin

Figure
3

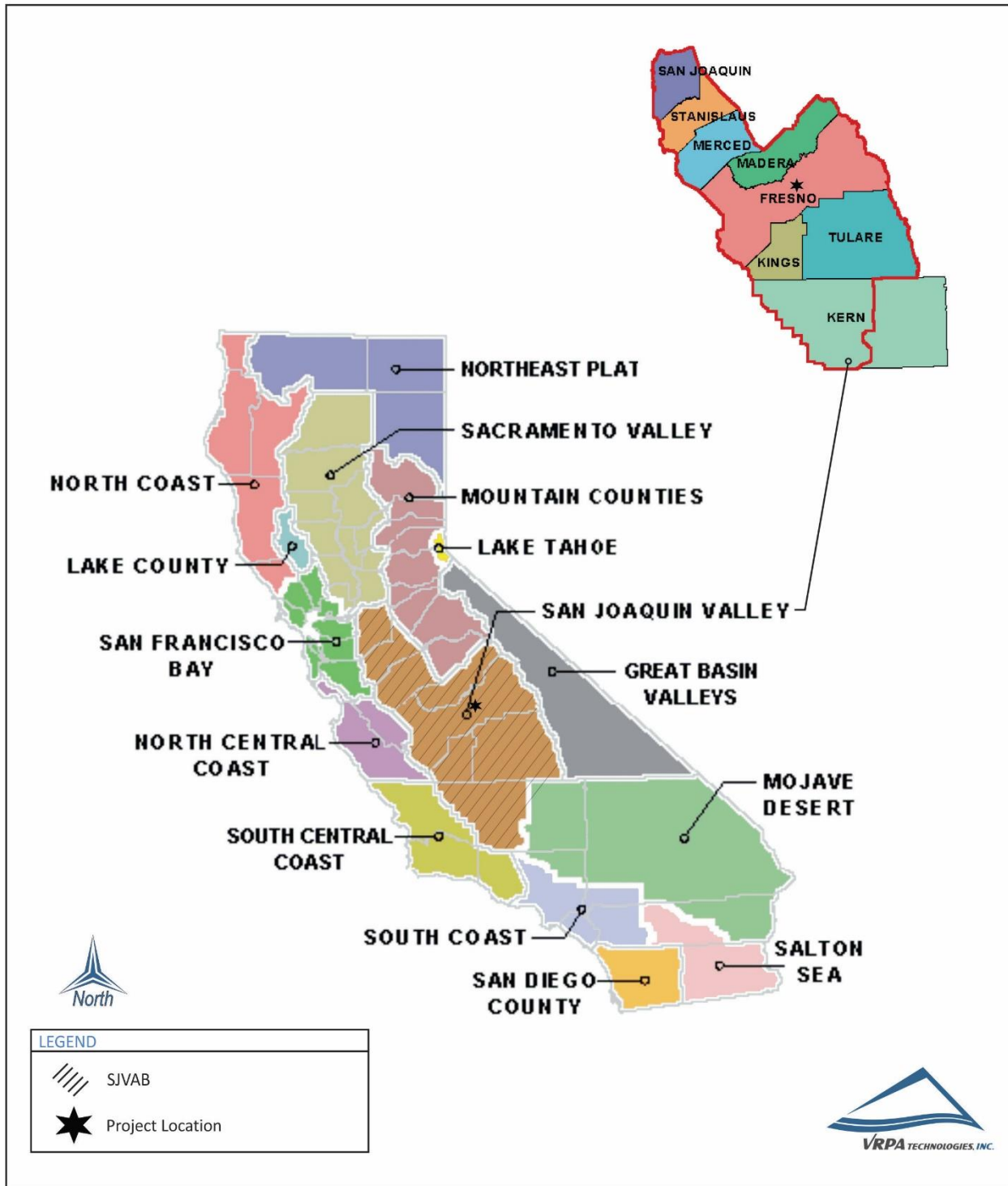


Table 1
Ambient Air Quality Standards

| Pollutant | Averaging Time | California Standards ¹ | | National Standards ² | | |
|---|-------------------------|------------------------------------|--|---|-----------------------------------|---|
| | | Concentration ³ | Method ⁴ | Primary ^{3,5} | Secondary ^{3,6} | Method ⁷ |
| Ozone (O ₃) ⁸ | 1 Hour | 0.09 ppm (180 µg/m ³) | Ultraviolet Photometry | -- | Same as Primary Standard | Ultraviolet Photometry |
| | 8 Hour | 0.070 ppm (137 µg/m ³) | | 0.070 ppm (137 µg/m ³) | | |
| Respirable Particulate Matter (PM10) ⁹ | 24 Hour | 50 µg/m ³ | Gravimetric or Beta Attenuation | 150 µg/m ³ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 20 µg/m ³ | | -- | | |
| Fine Particulate Matter (PM2.5) ⁹ | 24 Hour | -- | -- | 35 µg/m ³ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 12 µg/m ³ | Gravimetric or Beta Attenuation | 12.0 µg/m ³ | 15 µg/m ³ | |
| Carbon Monoxide (CO) | 1 Hour | 20 ppm (23 mg/m ³) | Non-Dispersive Infrared Photometry (NDIR) | 35 ppm (40 mg/m ³) | -- | Non-Dispersive Infrared Photometry (NDIR) |
| | 8 Hour | 9.0 ppm (10 mg/m ³) | | 9 ppm (10 mg/m ³) | -- | |
| | 8 Hour (Lake Tahoe) | 6 ppm (7 mg/m ³) | | -- | -- | |
| Nitrogen Dioxide (NO ₂) ¹⁰ | 1 Hour | 0.18 ppm (339 µg/m ³) | Gas Phase Chemiluminescence | 100 ppb (188 µg/m ³) | -- | Gas Phase Chemiluminescence |
| | Annual Arithmetic Mean | 0.030 ppm (57 µg/m ³) | | 0.053 ppm (100 µg/m ³) | Same as Primary Standard | |
| Sulfur Dioxide (SO ₂) ¹¹ | 1 Hour | 0.25 ppm (655 µg/m ³) | Ultraviolet Fluorescence | 75 ppb (196 µg/m ³) | -- | Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) |
| | 3 Hour | -- | | -- | 0.5 ppm (1300 µg/m ³) | |
| | 24 Hour | 0.04 ppm (105 µg/m ³) | | 0.14 ppm (for cetain areas) ¹¹ | -- | |
| | Annual Arithmetic Mean | -- | | 0.030 ppm (for cetain areas) ¹¹ | -- | |
| Lead ^{12,13} | 30 Day Average | 1.5 µg/m ³ | Atomic Absorption | -- | -- | High Volume Sampler and Atomic Absorption |
| | Calendar Quarter | -- | | 1.5 µg/m ³ (for certain areas) ¹¹ | Same as Primary Standard | |
| | Rolling 3-Month Average | -- | | 0.15 µg/m ³ | | |
| Visibility Reducing Particles ¹⁴ | 8 Hour | See footnote 14 | Beta Attenuation and Transmittance through Filter Tape | No National Standards | | |
| Sulfates | 24 Hour | 25 µg/m ³ | Ion Chromatography | | | |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 µg/m ³) | Ultraviolet Fluorescence | | | |
| Vinyl Chloride ¹² | 24 Hour | 0.01 ppm (26 µg/m ³) | Gas Chromatography | | | |

See footnotes on next page ...

Footnotes:

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
 2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
 3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
 4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
 5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
 6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
 7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
 8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
 9. On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
 10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
 11. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
- Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
 13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
 14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

1.2.4 State Regulations

✓ CARB Mobile-Source Regulation

The State of California is responsible for controlling emissions from the operation of motor vehicles in the State. Rather than mandating the use of specific technology or the reliance on a specific fuel, CARB's motor vehicle standards specify the allowable grams of pollutant per mile driven. In other words, the regulations focus on the reductions needed rather than on the manner in which they are achieved.

✓ California Clean Air Act

The CCAA was first signed into law in 1988. The CCAA provides a comprehensive framework for air quality planning and regulation, and spells out, in statute, the state's air quality goals, planning and regulatory strategies, and performance. The CCAA establishes more stringent ambient air quality standards than those included in the Federal CAA. CARB is the agency responsible for administering the CCAA. CARB established ambient air quality standards pursuant to the CH&SC [§39606(b)], which are similar to the federal standards. The SJVAPCD is one of 35 AQMDs that have prepared air quality management plans to accomplish a five percent (5%) annual reduction in emissions documenting progress toward the State ambient air quality standards.

✓ Tanner Air Toxics Act

California regulates Toxic Air Contaminants (TACs) primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and has adopted EPA's list of Hazardous Air Pollutants (HAPs) as TACs. Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technology (BACT) to minimize emissions.

AB 2588 requires that existing facilities that emit toxic substances above a specified level prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures. CARB has adopted diesel exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators).

These rules and standards provide for:

- More stringent emission standards for some new urban bus engines, beginning with 2002 model year engines.
- Zero-emission bus demonstration and purchase requirements applicable to transit agencies
- Reporting requirements under which transit agencies must demonstrate compliance with the urban transit bus fleet rule.

✓ **AB 1493 (Pavley)**

AB 1493 (Pavley) enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. Regulations adopted by CARB would apply to 2009 and later model year vehicles. CARB estimated that the regulation would reduce climate change emissions from light duty passenger vehicles by an estimated 18 percent in 2020 and by 27 percent in 2030 [Association of Environmental Professionals (AEP) 2007)]. In 2005, the CARB requested a waiver from U.S. EPA to enforce the regulation, as required under the CAA. Despite the fact that no waiver had ever been denied over a 40-year period, the then Administrator of the EPA sent Governor Schwarzenegger a letter in December 2007, indicating he had denied the waiver. On March 6, 2008, the waiver denial was formally issued in the Federal Register. Governor Schwarzenegger and several other states immediately filed suit against the federal government to reverse that decision. On January 21, 2009, CARB requested that EPA reconsider denial of the waiver. EPA scheduled a re-hearing on March 5, 2009. On June 30, 2009, EPA granted a waiver of CAA preemption to California for its greenhouse gas emission standards for motor vehicles beginning with the 2009 model year.

✓ **Assembly Bill 32 (California Global Warming Solutions Act of 2006)**

California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 required that statewide GHG emissions be reduced to 1990 levels by 2020. December 31, 2020 is the deadline for achieving the 2020 GHG emissions cap. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires CARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state reduces GHG emissions enough to meet the cap. AB 32 also includes guidance on instituting emissions reductions in an economically efficient manner, along with conditions

to ensure that businesses and consumers are not unfairly affected by the reductions. Using these criteria to reduce statewide GHG emissions to 1990 levels by 2020 would represent an approximate 25 to 30 percent reduction in current emissions levels. However, CARB has discretionary authority to seek greater reductions in more significant and growing GHG sectors, such as transportation, as compared to other sectors that are not anticipated to significantly increase emissions.

CARB's 2017 Climate Change Scoping Plan builds on the efforts and plans encompassed in the initial Scoping Plan adopted in December of 2008. The current plan has identified new policies and actions to accomplish the State's 2030 GHG limit.

✓ **Senate Bill 375**

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. CARB, in consultation with MPOs, has provided each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. For the Fresno Council of Governments (FCOG), CARB set targets at six (6) percent per capita decrease in 2020 and a thirteen (13) percent per capita decrease in 2035 from a base year of 2018. FCOG 2022 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which was adopted in July 2022, projects that the Fresno County region would achieve the prescribed emissions targets.

This law also extends the minimum time period for the regional housing needs allocation cycle from five years to eight years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

✓ **Executive Order B-30-15**

Executive Order B-30-15, which was signed by Governor Brown in 2016, establishes a California greenhouse gas reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. Executive Order B-30-15 requires MPO's to implement measures that will achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets.

✓ **California Global Warming Solutions Act of 2006: emissions limit, or SB 32**

SB 32 is a California Senate bill expanding upon AB 32 to reduce greenhouse gas (GHG) emissions. SB 32 was signed into law on September 8, 2016, by Governor Brown. SB 32 sets into law the mandated reduction target in GHG emissions as written into Executive Order B-30-15. SB 32 requires that there be a reduction in GHG emissions to 40% below the 1990 levels by 2030. Greenhouse gas emissions include carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons. The California Air Resources Board (CARB) is responsible for ensuring that California meets this goal. The provisions of SB 32 were added to Section 38566 of the Health and Safety Code subsequent to the bill's approval. The bill went into effect January 1, 2017. SB 32 builds onto Assembly Bill (AB) 32 written by Senator Fran Pavley and Assembly Speaker Fabian Nunez passed into law on September 27, 2006. AB 32 required California to reduce greenhouse gas emissions to 1990 levels by 2020 and SB 32 continues that timeline to reach the targets set in Executive Order B-30-15. SB 32 provides another intermediate target between the 2020 and 2050 targets set in Executive Order S-3-05.

1.2.5 Regional Agencies

✓ **San Joaquin Valley Air Pollution Control District**

The SJVAPCD is the agency responsible for monitoring and regulating air pollutant emissions from stationary, area, and indirect sources within Fresno County and throughout the SJVAB. The District also has responsibility for monitoring air quality and setting and enforcing limits for source emissions. CARB is the agency with the legal responsibility for regulating mobile source emissions. The District is precluded from such activities under State law.

The District was formed in mid-1991 and prepared and adopted the San Joaquin Valley Air Quality Attainment Plan (AQAP), dated January 30, 1992, in response to the requirements of the State CCAA. The CCAA requires each non-attainment district to reduce pertinent air contaminants by at least five percent (5%) per year until new, more stringent, 1988 State air quality standards are met.

Activities of the SJVAPCD include the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the FCAA and CCAA.

The SJVAPCD has prepared the following State Implementation Plans to address ozone, PM-10 and PM2.5 that currently apply to non-attainment areas:

- The 2016 Ozone Plan (2008 standard) was adopted by SJVAPCD on June 16, 2016 and subsequently adopted by ARB on July 21, 2016.

- The 2013 1-Hour Ozone Plan (revoked 1997 standard) was adopted by the SJVAPCD on September 19, 2013. EPA withdrew its approval of the plan due to litigation. The District plans to submit a “redesignation substitute” to EPA to maintain its attainment status for this revoked ozone standard.
- The 2007 PM-10 Maintenance Plan (as revised in 2015) was approved by EPA on July 8, 2016 (effective September 30, 2016).
- The 2012 PM_{2.5} Plan (as revised in 2015) was approved by EPA on August 16, 2016 (effective September 30, 2016).

The SJVAPCD Plans identified above represent SJVAPCD’s plan to achieve both state and federal air quality standards. The regulations and incentives contained in these documents must be legally enforceable and permanent. These plans break emissions reductions and compliance into different emissions source categories.

The SJVAPCD also prepared the *Guide for Assessing and Mitigation Air Quality Impacts* (GAMAQI), dated March 19, 2015. The GAMAQI is an advisory document that provides Lead Agencies, consultants, and project applicants with analysis guidance and uniform procedures for addressing air quality impacts in environmental documents. Local jurisdictions are not required to utilize the methodology outlined therein. This document describes the criteria that SJVAPCD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for determining whether or not projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts.

1.2.6 Regional Regulations

The SJVAPCD has adopted numerous rules and regulations to implement its air quality plans. Following, are significant rules that will apply to the Project.

✓ Regulation VIII – Fugitive PM₁₀ Prohibitions

Regulation VIII is comprised of District Rules 8011 through 8081, which are designed to reduce PM₁₀ emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, landfill operations, etc. The proposed Project will be required to comply with this regulation. Regulation VIII control measures are provided below:

1. *All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.*
2. *All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.*

3. *All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.*
4. *When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.*
5. *All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.*
6. *Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.*
7. *Within urban areas, track out shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.*

✓ **Rule 8021 – Construction, Demolition, Excavation, and Other Earthmoving Activities**

District Rule 8021 requires owners or operators of construction projects to submit a Dust Control Plan to the District if at any time the project involves non-residential developments of five or more acres of disturbed surface area or moving, depositing, or relocating of more than 2,500 cubic yards per day of bulk materials on at least three days of the project or residential projects which include 10 or more acres of disturbed surface area. The proposed Project will meet these criteria and will be required to submit a Dust Control Plan to the District in order to comply with this rule.

✓ **Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations**

If asphalt paving will be used, then paving operations of the proposed Project will be subject to Rule 4641. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.

✓ **Rule 9510 – Indirect Source Review (ISR)**

The purpose of this rule is to fulfill the District's emission reduction commitments in the PM10 and Ozone Attainment Plans, achieve emission reductions from construction activities, and to provide a mechanism for reducing emissions from the construction of and use of development projects through off-site measures. The rule is expected to reduce nitrogen oxides and particulates throughout the San Joaquin Valley by more than 10 tons per day.

1.2.7 Local Plans

✓ City of Clovis General Plan

California State Law requires every city and county to adopt a comprehensive General Plan to guide its future development. The General Plan essentially serves as a “constitution for development”— the document that serves as the foundation for all land use decisions. The City of Clovis 2035 General Plan Update (2014) includes various elements, including air quality and greenhouse gases, that address local concerns and provides goals and policies to achieve its development goals.

2.0 Environmental Setting

This section describes existing air quality within the San Joaquin Valley Air Basin and in Fresno County, including the identification of air pollutant standards, meteorological and topological conditions affecting air quality, and current air quality conditions. Air quality is described in relation to ambient air quality standards for criteria pollutants such as, ozone, carbon monoxide, and particulate matter. Air quality can be directly affected by the type and density of land use change and population growth in urban and rural areas.

2.1 Geographical Location

The SJVAB is comprised of eight counties: Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. Encompassing 24,840 square miles, the San Joaquin Valley is the second largest air basin in California. Cumulatively, counties within the Air Basin represent approximately 16 percent of the State's geographic area. The Air Basin is bordered by the Sierra Nevada Mountains on the east (8,000 to 14,492 feet in elevation), the Coastal Range on the west (4,500 feet in elevation), and the Tehachapi Mountains on the south (9,000 feet elevation). The San Joaquin Valley is open to the north extending to the Sacramento Valley Air Basin.

2.2 Topographic Conditions

Fresno County is located within the San Joaquin Valley Air Basin [as determined by the California Air Resources Board (CARB)]. Air basins are geographic areas sharing a common "air shed." A description of the Air Basin in the County, as designated by CARB, is provided in the paragraph below. Air pollution is directly related to the region's topographic features, which impact air movement within the Basin.

Wind patterns within the SJVAB result from marine air that generally flows into the Basin from the San Joaquin River Delta. The Coastal Range hinders wind access into the Valley from the west, the Tehachapi's prevent southerly passage of airflow, and the high Sierra Nevada Mountain Range provides a significant barrier to the east. These topographic features result in weak airflow that becomes restricted vertically by high barometric pressure over the Valley. As a result, the SJVAB is highly susceptible to pollutant accumulation over time. Most of the surrounding mountains are above the normal height of summer inversion layers (1,500-3,000 feet).

2.3 Climate Conditions

Fresno is located in one of the most polluted air basins in the country. Temperature inversions can trap air within the Valley, thereby preventing the vertical dispersal of air pollutants. In addition to topographic conditions, the local climate can also contribute to air quality problems. Climate in Fresno is characterized by warm, dry summers and cool winters with significant Tule fog.

Ozone, classified as a “regional” pollutant, often afflicts areas downwind of the original source of precursor emissions. Ozone can be easily transported by winds from a source area. Peak ozone levels tend to be higher in the southern portion of the Valley, as the prevailing summer winds sweep precursors downwind of northern source areas before concentrations peak. The separate designations reflect the fact that ozone precursor transport depends on daily meteorological conditions.

Other primary pollutants, carbon monoxide (CO), for example, may form high concentrations when wind speed is low. During the winter, Fresno experiences cold temperatures and calm conditions that increase the likelihood of a climate conducive to high CO concentrations.

Precipitation and fog tend to reduce or limit some pollutant concentrations. Ozone needs sunlight for its formation, and clouds and fog block the required radiation. CO is slightly water-soluble, so precipitation and fog tends to “reduce” CO concentrations in the atmosphere. PM10 is somewhat “washed” from the atmosphere with precipitation. Precipitation in the San Joaquin Valley is strongly influenced by the position of the semi-permanent subtropical high-pressure belt located off the Pacific coast. In the winter, this high- pressure system moves southward, allowing Pacific storms to move through the San Joaquin Valley. These storms bring in moist, maritime air that produces considerable precipitation on the western, upslope side of the Coast Ranges. Significant precipitation also occurs on the western side of the Sierra Nevada. On the valley floor, however, there is some down slope flow from the Coast Ranges and the resultant evaporation of moisture from associated warming results in a minimum of precipitation. Nevertheless, the majority of the precipitation falling in the San Joaquin Valley is produced by those storms during the winter. Precipitation during the summer months is in the form of convective rain showers and is rare. It is usually associated with an influx of moisture into the San Joaquin Valley through the San Francisco area during an anomalous flow pattern in the lower layers of the atmosphere. Although the hourly rates of precipitation from these storms may be high, their rarity keeps monthly totals low.

Precipitation on the San Joaquin Valley floor and in the Sierra Nevada decreases from north to south. Stockton in the north receives about 20 inches of precipitation per year, Fresno in the center, receives about 10 inches per year, and Bakersfield at the southern end of the valley receives less than 6 inches per year. This is primarily because the Pacific storm track often passes through the northern part of the state while the southern part of the state remains protected by the Pacific High. Precipitation in the San Joaquin Valley Air Basin (SJVAB) is confined primarily to the winter months with some also occurring in late summer and fall. Average annual rainfall for the entire San Joaquin Valley is approximately 5 to 16 inches. Snowstorms, hailstorms, and ice storms occur infrequently in the San Joaquin Valley and severe occurrences of any of these are very rare.

The winds and unstable air conditions experienced during the passage of storms result in periods of low pollutant concentrations and excellent visibility. Between winter storms, high pressure and light winds allow cold moist air to pool on the San Joaquin Valley floor. This creates strong

low-level temperature inversions and very stable air conditions. This situation leads to the San Joaquin Valley's famous Tule Fogs. The formation of natural fog is caused by local cooling of the atmosphere until it is saturated (dew point temperature). This type of fog, known as radiation fog, is more likely to occur inland. Cooling may also be accomplished by heat radiation losses or by horizontal movement of a mass of air over a colder surface. This second type of fog, known as advection fog, generally occurs along the coast.

Conditions favorable to fog formation are also conditions favorable to high concentrations of CO and PM₁₀. Ozone levels are low during these periods because of the lack of sunlight to drive the photochemical reaction. Maximum CO concentrations tend to occur on clear, cold nights when a strong surface inversion is present and large numbers of fireplaces are in use. A secondary peak in CO concentrations occurs during morning commute hours when a large number of motorists are on the road and the surface inversion has not yet broken.

The water droplets in fog, however, can act as a sink for CO and nitrogen oxides (NO_x), lowering pollutant concentrations. At the same time, fog could help in the formation of secondary particulates such as ammonium sulfate. These secondary particulates are believed to be a significant contributor of winter season violations of the PM₁₀ and PM_{2.5} standards.

2.4 Anthropogenic (Man-made) Sources

In addition to climatic conditions (wind, lack of rain, etc.), air pollution can be caused by anthropogenic or man-made sources. Air pollution in the SJVAB can be directly attributed to human activities, which cause air pollutant emissions. Human causes of air pollution in the Valley consist of population growth, urbanization (gas-fired appliances, residential wood heaters, etc.), mobile sources (i.e., cars, trucks, airplanes, trains, etc.), oil production, agriculture, and other socioeconomic activities. The most significant factors, which are accelerating the decline of air quality in the SJVAB, are the Valley's rapid population growth and its associated increases in traffic, urbanization, and industrial activity.

Carbon monoxide emissions overwhelmingly come from mobile sources in the San Joaquin Valley; on-road vehicles contributed 34 percent, while other mobile vehicles, such as trains, planes, and off-road vehicles, contribute another 20 percent in 2012 according to emission projections from the CARB. Motor vehicles account for significant portions of regional gaseous and particulate emissions. Local large employers such as industrial plants can also generate substantial regional gaseous and particulate emissions. In addition, construction and agricultural activities can generate significant temporary gaseous and particulate emissions (dust, ash, smoke, etc.).

Ozone is the result of a photochemical reaction between Oxides of nitrogen (NO_x) and Reactive Organic Gases (ROG). Mobile sources contribute 84 percent of all NO_x emitted from anthropogenic sources based on data provided in Appendix B of the Air District's 2016 Ozone

Plan. In addition, mobile sources contribute 26 percent of all the ROG emitted from sources within the San Joaquin Valley.

The principal factors that affect air quality in and around Fresno are:

1. The sink effect, climatic subsidence and temperature inversions and low wind speeds
2. Automobile and truck travel
3. Increases in mobile and stationary pollutants generated by local urban growth

Automobiles, trucks, buses and other vehicles using hydrocarbon (HC) fuels release exhaust products into the air. Each vehicle by itself does not release large quantities; however, when considered as a group, the cumulative effect is significant.

Other sources may not seem to fit into any one of the major categories or they may seem to fit in a number of them. These could include agricultural uses, dirt roads, animal shelters; animal feed lots, chemical plants and industrial waste disposal, which may be a source of dust, odors, or other pollutants. For Fresno County, this category includes several agriculturally related activities, such as plowing, harvesting, dusting with herbicides and pesticides and other related activities. Finally, industrial contaminants and their potential to produce various effects depend on the size and type of industry, pollution controls, local topography, and meteorological conditions. Major sources of industrial emissions in Fresno County consist of agricultural production and processing operations.

The primary contributors of PM10 emissions in the San Joaquin Valley are farming activities (22%) and road dust, both paved and unpaved (35%) in 2020 according to emission projections from the CARB. Fugitive windblown dust from “open” fields contributed 14 percent of the PM10.

The four major sources of air pollutant emissions in the SJVAB include industrial plants, motor vehicles, construction activities, and agricultural activities. Industrial plants account for significant portions of regional gaseous and particulate emissions. Motor vehicles, including those from large employers, generate substantial regional gaseous and particulate emissions. Finally, construction and agricultural activities can generate significant temporary gaseous and particulate emissions (dust, ash, smoke, etc.). In addition to these primary sources of air pollution, urban areas upwind from Fresno County including areas north and west of the San Joaquin Valley, can cause or generate emissions that are transported into Fresno County. All four of the major pollutant sources affect ambient air quality throughout the Air Basin.

2.4.1 Motor Vehicles

Automobiles, trucks, buses and other vehicles using hydrocarbon fuels release exhaust products into the air. Each vehicle by itself does not release large quantities; however, when considered as a group, the cumulative effect is significant.

2.4.2 *Agricultural and Other Miscellaneous Activities*

Other sources may not seem to fit into any one of the major categories or they may seem to fit in a number of them. These could include agricultural uses, dirt roads, animal shelters, animal feed lots, chemical plants and industrial waste disposal, which may be a source of dust, odors, or other pollutants. For Fresno, this category includes several agriculturally related activities, such as plowing, harvesting, dusting with herbicides and pesticides and other related activities.

2.4.3 *Industrial Plants*

Industrial contaminants and their potential to produce various effects depend on the size and type of industry, pollution controls, local topography, and meteorological conditions. Major sources of industrial emissions in Fresno County consist of agricultural production and processing operations.

2.5 **San Joaquin Valley Air Basin Monitoring**

SJVAPCD and the CARB maintain numerous air quality monitoring sites throughout each County in the Air Basin to measure ozone, PM_{2.5}, and PM₁₀. It is important to note that the federal ozone 1-hour standard was revoked by the EPA and is no longer applicable for federal standards. The closest monitoring station to the Project is located at Clovis-N Villa Avenue Monitoring Station. The station monitors particulates, ozone, carbon monoxide, and nitrogen dioxide. Monitoring data for the past three years is summarized in Table 2.

Table 3 identifies the Fresno County's attainment status. As indicated, the SJVAB is nonattainment for Ozone (1 hour and 8 hour) and PM. In accordance with the FCAA, EPA uses the design value at the time of standard promulgation to assign nonattainment areas to one of several classes that reflect the severity of the nonattainment problem; classifications range from marginal nonattainment to extreme nonattainment. The FCAA contains provisions for changing the classifications using factors such as clean air progress rates and requests from States to move areas to a higher classification.

On April 16, 2004 EPA issued a final rule classifying the SJVAB as extreme nonattainment for Ozone, effective May 17, 2004 (69 FR 20550). The (federal) 1-hour ozone standard was revoked on June 6, 2005. However, many of the requirements in the 1-hour attainment plan (SIP) continue to apply to the SJVAB. The current ozone plan is the (federal) 8-hour ozone plan adopted in 2007. The SJVAB was reclassified from a "serious" nonattainment area for the 8-hour ozone standard to "extreme" effective June 4, 2010.

Table 2
Maximum Pollutant Levels at Clovis
Clovis-N Villa Monitoring Station

| Pollutant | Time Averaging | 2020 | 2021 | 2022 | Standards | |
|-------------------------------------|--------------------------------|-------------------------|-------------------------|-------------------------|------------------------|----------------------|
| | | Maximums | Maximums | Maximums | National | State |
| Ozone (O ₃) | 1 hour | 0.142 ppm | 0.123 ppm | 0.109 ppm | 0.119 ppm | 0.114 ppm |
| Ozone (O ₃) | 8 hour | 0.108ppm | 0.1 ppm | 0.084 ppm | 0.070 ppm | 0.070 ppm |
| Nitrogen Dioxide (NO ₂) | 1 hour | 54 ppm | 49 ppm | 51 ppm | 51 ppm | 60 ppm |
| Nitrogen Dioxide (NO ₂) | Annual Average | 9 ppm | 8 ppm | 9 ppm | 8 ppm | 8 ppm |
| Particulates (PM ₁₀) | 24 hour | 296.4 µg/m ³ | 281.0 µg/m ³ | 116.1 µg/m ³ | 42 µg/m ³ | 48 µg/m ³ |
| Particulates (PM ₁₀) | Federal Annual Arithmetic Mean | 45.8 µg/m ³ | 37.6 µg/m ³ | 35.5 µg/m ³ | - | 18 µg/m ³ |
| Particulates (PM _{2.5}) | 24 hour | 193.7 µg/m ³ | 104.6 µg/m ³ | 41.9 µg/m ³ | 15.5 µg/m ³ | - |
| Particulates (PM _{2.5}) | Federal Annual Arithmetic Mean | 18.4 µg/m ³ | 15.1 µg/m ³ | 10.5 µg/m ³ | - | 18 µg/m ³ |

Source: California Air Resources Board (ADAM) Air Pollution Summaries

"-"represents insufficient data available to determine the value.

Table 3
Fresno County Attainment Status

| Pollutant | Designation/Classification | |
|-------------------------------|----------------------------|-------------------|
| | Federal Standards | State Standards |
| Ozone - 1 Hour | Revoked in 2005 | Nonattainment |
| Ozone - 8 Hour | Nonattainment/Extreme | No State Standard |
| PM10 | Attainment | Nonattainment |
| PM2.5 | Nonattainment | Nonattainment |
| Carbon Monoxide | Unclassified/Attainment | Unclassified |
| Nitrogen Dioxide | Unclassified/Attainment | Attainment |
| Sulfur Dioxide | Unclassified/Attainment | Attainment |
| Lead (Particulate) | Unclassified/Attainment | Attainment |
| Hydrogen Sulfide | No Federal Standard | Unclassified |
| Sulfates | No Federal Standard | Attainment |
| Visibility Reducing Particles | No Federal Standard | Unclassified |

Source: CARB Website, 2023

a. Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).

Notes:

National Designation Categories

Non-Attainment Area: Any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.

Unclassified/Attainment Area: Any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant or meets the national primary or secondary ambient air quality standard for the pollutant.

State Designation Categories

Unclassified: A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or non-attainment.

Attainment: A pollutant is designated attainment if the State standard for that pollutant was not violated at any site in the area during a three-year period.

Non-attainment: A pollutant is designated non-attainment if there was at least one violation of a State standard for that pollutant in the area.

Non-Attainment/Transitional: A subcategory of the non-attainment designation. An area is designated non-attainment/transitional to signify that the area is close to attaining the standard for the pollutant.

2.6 Air Quality Standards

The FCAA, first adopted in 1963, and periodically amended since then, established National Ambient Air Quality Standards (NAAQS). A set of 1977 amendments determined a deadline for the attainment of these standards. That deadline has since passed. Other CAA amendments, passed in 1990, share responsibility with the State in reducing emissions from mobile sources.

In 1988, the State of California passed the CCAA (State 1988 Statutes, Chapter 568), which set forth a program for achieving more stringent California Ambient Air Quality Standards. The CARB implements State ambient air quality standards, as required in the CCAA, and cooperates with the federal government in implementing pertinent sections of the FCAA Amendments (FCAAA). Further, CARB regulates vehicular emissions throughout the State. The SJVAPCD regulates stationary sources, as well as some mobile sources. Attainment of the more stringent State PM10 Air Quality Standards is not currently required.

The EPA uses six "criteria pollutants" as indicators of air quality and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called the NAAQS.

The SJVAPCD operates regional air quality monitoring networks that provide information on average concentrations of pollutants for which State or federal agencies have established ambient air quality standards. Descriptions of nine pollutants of importance in Fresno County follow.

2.6.1 Ozone (1-hour and 8-hour)

The most severe air quality problem in the Air Basin is the high level of ozone. Ozone occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. Here, ground level, or "bad" ozone, is an air pollutant that damages human health, vegetation, and many common materials. It is a key ingredient of urban smog. The troposphere extends to a level about 10 miles up, where it meets the second layer, the stratosphere. The stratospheric, or "good" ozone layer, extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays.

"Bad" ozone is what is known as a photochemical pollutant. It needs reactive organic gases (ROG), NO_x, and sunlight. ROG and NO_x are emitted from various sources throughout Fresno County. In order to reduce ozone concentrations, it is necessary to control the emissions of these ozone precursors.

Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary

sources are carried hundreds of miles from their origins.

Ozone is a regional air pollutant. It is generated over a large area and is transported and spread by wind. Ozone, the primary constituent of smog, is the most complex, difficult to control, and pervasive of the criteria pollutants. Unlike other pollutants, ozone is not emitted directly into the air by specific sources. Ozone is created by sunlight acting on other air pollutants (called precursors), specifically NO_x and ROG. Sources of precursor gases to the photochemical reaction that form ozone number in the thousands. Common sources include consumer products, gasoline vapors, chemical solvents, and combustion products of various fuels. Originating from gas stations, motor vehicles, large industrial facilities, and small businesses such as bakeries and dry cleaners, the ozone-forming chemical reactions often take place in another location, catalyzed by sunlight and heat. High ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins. Approximately 50 million people lived in counties with air quality levels above the EPA's health-based national air quality standard in 1994. The highest levels of ozone were recorded in Los Angeles, closely followed by the San Joaquin Valley. High levels also persist in other heavily populated areas, including the Texas Gulf Coast and much of the Northeast.

While the ozone in the upper atmosphere absorbs harmful ultraviolet light, ground-level ozone is damaging to the tissues of plants, animals, and humans, as well as to a wide variety of inanimate materials such as plastics, metals, fabrics, rubber, and paints. Societal costs from ozone damage include increased medical costs, the loss of human and animal life, accelerated replacement of industrial equipment, and reduced crop yields.

✓ **Health Effects**

While ozone in the upper atmosphere protects the earth from harmful ultraviolet radiation, high concentrations of ground-level ozone can adversely affect the human respiratory system. Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high ozone levels. Ozone also damages natural ecosystems, such as: forests and foothill communities; agricultural crops; and some man-made materials, such as rubber, paint, and plastic. High levels of ozone may negatively affect immune systems, making people more susceptible to respiratory illnesses, including bronchitis and pneumonia. Ozone accelerates aging and exacerbates pre-existing asthma and bronchitis and, in cases with high concentrations, can lead to the development of asthma in active children. Active people, both children and adults, appear to be more at risk from ozone exposure than those with a low level of activity. Additionally, the elderly and those with respiratory disease are also considered sensitive populations for ozone.

People who work or play outdoors are at a greater risk for harmful health effects from ozone. Children and adolescents are also at greater risk because they are more likely than adults to spend time engaged in vigorous activities. Research indicates that children under 12 years of age spend nearly twice as much time outdoors daily than adults. Teenagers spend at least

twice as much time as adults in active sports and outdoor activities. In addition, children inhale more air per pound of body weight than adults, and they breathe more rapidly than adults. Children are less likely than adults to notice their own symptoms and avoid harmful exposures.

Ozone is a powerful oxidant—it can be compared to household bleach, which can kill living cells (such as germs or human skin cells) upon contact. Ozone can damage the respiratory tract, causing inflammation and irritation, and it can induce symptoms such as coughing, chest tightness, shortness of breath, and worsening of asthmatic symptoms. Ozone in sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. Exposure to levels of ozone above the current ambient air quality standard leads to lung inflammation and lung tissue damage and a reduction in the amount of air inhaled into the lungs.

The CARB found ozone standards in Fresno County nonattainment of Federal and State standards.

2.6.2 *Suspended PM (PM10 and PM2.5)*

Particulate matter pollution consists of very small liquid and solid particles that remain suspended in the air for long periods. Some particles are large or concentrated enough to be seen as soot or smoke. Others are so small they can be detected only with an electron microscope. Particulate matter is a mixture of materials that can include smoke, soot, dust, salt, acids, and metals. Particulate matter is emitted from stationary and mobile sources, including diesel trucks and other motor vehicles; power plants; industrial processes; wood-burning stoves and fireplaces; wildfires; dust from roads, construction, landfills, and agriculture; and fugitive windblown dust. PM10 refers to particles less than or equal to 10 microns in aerodynamic diameter. PM2.5 refers to particles less than or equal to 2.5 microns in aerodynamic diameter and are a subset of PM10. Particulates of concern are those that are 10 microns or less in diameter. These are small enough to be inhaled, pass through the respiratory system and lodge in the lungs, possibly leading to adverse health effects.

In the western United States, there are sources of PM10 in both urban and rural areas. Because particles originate from a variety of sources, their chemical and physical compositions vary widely. The composition of PM10 and PM2.5 can also vary greatly with time, location, the sources of the material and meteorological conditions. Dust, sand, salt spray, metallic and mineral particles, pollen, smoke, mist, and acid fumes are the main components of PM10 and PM2.5. In addition to those listed previously, secondary particles can also be formed as precipitates from chemical and photochemical reactions of gaseous sulfur dioxide (SO₂) and NO_x in the atmosphere to create sulfates (SO₄) and nitrates (NO₃). Secondary particles are of greatest concern during the winter months where low inversion layers tend to trap the precursors of secondary particulates.

The District's 2008 PM2.5 Plan built upon the aggressive emission reduction strategy adopted in the 2007 Ozone Plan and strives to bring the valley into attainment status for the 1997 NAAQS for PM2.5. The District's 2012 PM2.5 Plan provides multiple control strategies to reduce emissions of PM2.5 and other pollutants that form PM2.5. The plan's comprehensive control strategy includes regulatory actions, incentive programs, technology advancement, policy and legislative positions, public outreach, participation and communication, and additional strategies.

✓ **Health Effects**

PM10 and PM2.5 particles are small enough—about one-seventh the thickness of a human hair, or smaller—to be inhaled and lodged in the deepest parts of the lung where they evade the respiratory system's natural defenses. Health problems begin as the body reacts to these foreign particles. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis, and respiratory illnesses in children. Recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. Non-health-related effects include reduced visibility and soiling of buildings. PM10 can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. PM10 and PM2.5 can aggravate respiratory disease and cause lung damage, cancer, and premature death.

Although particulate matter can cause health problems for everyone, certain people are especially vulnerable to adverse health effects of PM10. These "sensitive populations" include children, the elderly, exercising adults, and those suffering from chronic lung disease such as asthma or bronchitis. Of greatest concern are recent studies that link PM10 exposure to the premature death of people who already have heart and lung disease, especially the elderly. Acidic PM10 can also damage manmade materials and is a major cause of reduced visibility in many parts of the United States.

The CARB found PM10 standards in Fresno County in attainment of Federal standards and nonattainment for State standards. The CARB found PM2.5 standards in Fresno County nonattainment of Federal and State standards.

2.6.3 Carbon Monoxide (CO)

Carbon monoxide (CO) is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. CO is an odorless, colorless, poisonous gas that is highly reactive. CO is a byproduct of motor vehicle exhaust, contributes more than two thirds of all CO emissions nationwide. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. These emissions can result in high concentrations of CO, particularly in local areas with heavy traffic congestion. Other sources of CO emissions include industrial

processes and fuel combustion in sources such as boilers and incinerators. Despite an overall downward trend in concentrations and emissions of CO, some metropolitan areas still experience high levels of CO.

✓ **Health Effects**

CO enters the bloodstream and binds more readily to hemoglobin than oxygen, reducing the oxygen-carrying capacity of blood and thus reducing oxygen delivery to organs and tissues. The health threat from CO is most serious for those who suffer from cardiovascular disease. Healthy individuals are also affected but only at higher levels of exposure. At high concentrations, CO can cause heart difficulties in people with chronic diseases and can impair mental abilities. Exposure to elevated CO levels is associated with visual impairment, reduced work capacity, reduced manual dexterity, poor learning ability, difficulty performing complex tasks, and in prolonged, enclosed exposure, death.

The adverse health effects associated with exposure to ambient and indoor concentrations of CO are related to the concentration of carboxyhemoglobin (COHb) in the blood. Health effects observed may include an early onset of cardiovascular disease; behavioral impairment; decreased exercise performance of young, healthy men; reduced birth weight; sudden infant death syndrome (SIDS); and increased daily mortality rate.

Most of the studies evaluating adverse health effects of CO on the central nervous system examine high-level poisoning. Such poisoning results in symptoms ranging from common flu and cold symptoms (shortness of breath on mild exertion, mild headaches, and nausea) to unconsciousness and death.

The CARB found CO standards in Fresno County as unclassified/attainment of Federal standards and attainment for State standards.

2.6.4 Nitrogen Dioxide (NO₂)

Nitrogen oxides (NO_x) is a family of highly reactive gases that are primary precursors to the formation of ground-level ozone and react in the atmosphere to form acid rain. NO_x is emitted from combustion processes in which fuel is burned at high temperatures, principally from motor vehicle exhaust and stationary sources such as electric utilities and industrial boilers. A brownish gas, NO_x is a strong oxidizing agent that reacts in the air to form corrosive nitric acid, as well as toxic organic nitrates. EPA regulates only nitrogen dioxide (NO₂) as a surrogate for this family of compounds because it is the most prevalent form of NO_x in the atmosphere that is generated by anthropogenic (human) activities.¹

¹ United States Environmental Protection Agency (EPA), Nitrogen Oxides (NO_x). Why and How They Are Controlled, 456/F-99-006R, November 2019

✓ **Health Effects**

NO_x is an ozone precursor that combines with Reactive Organic Gases (ROG) to form ozone. See the ozone section above for a discussion of the health effects of ozone.

Direct inhalation of NO_x can also cause a wide range of health effects. NO_x can irritate the lungs, cause lung damage, and lower resistance to respiratory infections such as influenza. Short-term exposures (e.g., less than 3 hours) to low levels of nitrogen dioxide (NO₂) may lead to changes in airway responsiveness and lung function in individuals with preexisting respiratory illnesses. These exposures may also increase respiratory illnesses in children. Long-term exposures to NO₂ may lead to increased susceptibility to respiratory infection and may cause irreversible alterations in lung structure. Other health effects associated with NO_x are an increase in the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO₂ may lead to eye and mucus membrane aggravation, along with pulmonary dysfunction. NO_x can cause fading of textile dyes and additives, deterioration of cotton and nylon, and corrosion of metals due to production of particulate nitrates. Airborne NO_x can also impair visibility. NO_x is a major component of acid deposition in California. NO_x may affect both terrestrial and aquatic ecosystems. NO_x in the air is a potentially significant contributor to a number of environmental effects such as acid rain and eutrophication in coastal waters. Eutrophication occurs when a body of water suffers an increase in nutrients that reduce the amount of oxygen in the water, producing an environment that is destructive to fish and other animal life.

NO₂ is toxic to various animals as well as to humans. Its toxicity relates to its ability to combine with water to form nitric acid in the eye, lung, mucus membranes, and skin. Studies of the health impacts of NO₂ include experimental studies on animals, controlled laboratory studies on humans, and observational studies.

In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, lowering their resistance to such diseases as pneumonia and influenza. Laboratory studies show susceptible humans, such as asthmatics, exposed to high concentrations of NO₂, can suffer lung irritation and, potentially, lung damage. Epidemiological studies have also shown associations between NO₂ concentrations and daily mortality from respiratory and cardiovascular causes as well as hospital admissions for respiratory conditions.

NO_x contributes to a wide range of environmental effects both directly and when combined with other precursors in acid rain and ozone. Increased nitrogen inputs to terrestrial and wetland systems can lead to changes in plant species composition and diversity. Similarly, direct nitrogen inputs to aquatic ecosystems such as those found in estuarine and coastal waters can lead to eutrophication as discussed above. Nitrogen, alone or in acid rain, also can acidify soils and surface waters. Acidification of soils causes the loss of essential plant nutrients and increased levels of soluble aluminum, which is toxic to plants. Acidification of surface waters creates conditions of low pH and levels of aluminum that are toxic to fish and other aquatic organisms.

The CARB found NO₂ standards in Fresno County as unclassified/attainment of Federal standards and attainment for State standards.

2.6.5 Sulfur Dioxide (SO₂)

The major source of sulfur dioxide (SO₂) is the combustion of high-sulfur fuels for electricity generation, petroleum refining and shipping. High concentrations of SO₂ can result in temporary breathing impairment for asthmatic children and adults who are active outdoors. Short-term exposures of asthmatic individuals to elevated SO₂ levels during moderate activity may result in breathing difficulties that can be accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Other effects that have been associated with longer-term exposures to high concentrations of SO₂, in conjunction with high levels of PM, include aggravation of existing cardiovascular disease, respiratory illness, and alterations in the lungs' defenses. SO₂ also is a major precursor to PM_{2.5}, which is a significant health concern and a main contributor to poor visibility. In humid atmospheres, sulfur oxides can react with vapor to produce sulfuric acid, a component of acid rain.

The CARB found SO₂ standards in Fresno County as unclassified for Federal standards and attainment for State standards.

2.6.6 Lead (Pb)

Lead, a naturally occurring metal, can be a constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment, so it essentially persists forever. Lead was used until recently to increase the octane rating in automobile fuel. Since the 1980s, lead has been phased out in gasoline, reduced in drinking water, reduced in industrial air pollution, and banned or limited in consumer products. Gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels; however, the use of leaded fuel has been mostly phased out. Since this has occurred the ambient concentrations of lead have dropped dramatically.

Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children. Effects on the nervous systems of children are one of the primary health risk concerns from lead. In high concentrations, children can even suffer irreversible brain damage and death. Children 6 years old and under are most at risk, because their bodies are growing quickly.

The CARB found Lead standards in Fresno County as unclassified/attainment of Federal standards and attainment for State standards.

2.6.7 Toxic Air Contaminants (TAC)

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TAC) are another group of pollutants of concern. TAC are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation and monitoring of TAC is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TAC are regulated on the basis of risk rather than specification of safe levels of contamination. The ten TAC are acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (diesel PM). Caltrans' guidance for transportation studies references the Federal Highway Administration (FHWA) memorandum titled "Interim Guidance on Air Toxic Analysis in NEPA Documents" which discusses emissions quantification of six "priority" compounds of 21 Mobile Source Air Toxics (MSAT) identified by the United States Environmental Protection Agency (USEPA). The six "priority" compounds are diesel exhaust (particulate matter and organic gases), benzene, 1,3-butadiene, acetaldehyde, formaldehyde, and acrolein.

Some studies indicate that diesel PM poses the greatest health risk among the TAC listed above. A 10-year research program (California Air Resources Board 1998) demonstrated that diesel PM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to diesel PM poses a chronic health risk. In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

Diesel PM differs from other TAC in that it is not a single substance but a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TAC, however, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. The CARB has made preliminary concentration estimates based on a diesel PM exposure method. This method uses the CARB emissions inventory's PM10 database, ambient PM10 monitoring data, and the results from several studies to estimate concentrations of diesel PM. Table 4 depicts the CARB Handbook's recommended buffer distances associated with various types of common sources.

Existing air quality concerns within Fresno and the entire SJVAB are related to increases of regional criteria air pollutants (e.g., ozone and particulate matter), exposure to toxic air contaminants, odors, and increases in greenhouse gas emissions contributing to climate change. The primary source of ozone (smog) pollution is motor vehicles. Particulate matter is caused by dust, primarily dust generated from construction and grading activities, and smoke which is emitted from fireplaces, wood-burning stoves, and agricultural burning.

TABLE 4
Recommendations on Siting New Sensitive Land Uses Such As Residences, Schools, Daycare Centers, Playgrounds, or Medical Facilities*

| SOURCE CATEGORY | ADVISORY RECOMMENDATIONS |
|--|--|
| Freeways and High-Traffic Roads ¹ | - Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. |
| Distribution Centers | - Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). - Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points. |
| Rail Yards | - Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. - Within one mile of a rail yard, consider possible siting limitations and mitigation approaches. |
| Ports | - Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks. |
| Refineries | - Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation. |
| Chrome Platers | - Avoid siting new sensitive land uses within 1,000 feet of a chrome plater. |
| Dry Cleaners Using Perchloroethylene | - Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. - Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations. |
| Gasoline Dispensing Facilities | - Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities. |

1: The recommendation to avoid siting new sensitive land uses within 500 feet of a freeway was identified in CARB's Air Quality and Land Use Handbook published in 2005. CARB recently published a technical advisory to the Air Quality and Land Use Handbook indicating that new research has demonstrated promising strategies to reduce pollution exposure along transportation corridors.

***Notes:**

- These recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.
- Recommendations are based primarily on data showing that the air pollution exposures addressed here (i.e., localized) can be reduced as much as 80% with the recommended separation.
- The relative risk for these categories varies greatly (see Table 1-2). To determine the actual risk near a particular facility, a site-specific analysis would be required. Risk from diesel PM will decrease over time as cleaner technology phases in.
- These recommendations are designed to fill a gap where information about existing facilities may not be readily available and are not designed to substitute for more specific information if it exists. The recommended distances take into account other factors in addition to available health risk data (see individual category descriptions).
- Site-specific project design improvements may help reduce air pollution exposures and should also be considered when siting new sensitive land uses.
- This table does not imply that mixed residential and commercial development in general is incompatible. Rather it focuses on known problems like dry cleaners using perchloroethylene that can be addressed with reasonable preventative actions.
- A summary of the basis for the distance recommendations can be found in the ARB Handbook: Air Quality and Land Use Handbook: A Community Health Perspective.

Source: SJVAPCD 2022

2.6.8 Odors

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air.

When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

The intensity of an odor source's operations and its proximity to sensitive receptors influences the potential significance of odor emissions. The SJVAPCD has identified some common types of facilities that have been known to produce odors in the SJVAB. The types of facilities that are known to produce odors are shown in Table 5 along with a reasonable distance from the source within which, the degree of odors could possibly be significant. The Project does not propose any uses that would be potential odor sources; however, the information presented in Table 5 will be used as a screening level analysis to determine if the Project would be impacted by existing odor sources in the study area. Such information is presented for informational purposes, but it is noted that the environment's effect on the Project, including exposure to potential odors, would not be an impact for CEQA purposes.

TABLE 5
Screening Levels for Potential Odor Sources

| Type of Facility | Distance |
|--|----------|
| Wastewater Treatment Facilities | 2 miles |
| Sanitary Landfill | 1 mile |
| Transfer Station | 1 mile |
| Compositing Facility | 1 mile |
| Petroleum Refinery | 2 miles |
| Asphalt Batch Plant | 1 mile |
| Chemical Manufacturing | 1 mile |
| Fiberglass Manufacturing | 1 mile |
| Painting/Coating Operations (e.g. auto body shops) | 1 mile |
| Food Processing Facility | 1 mile |
| Feed Lot/Dairy | 1 mile |
| Rendering Plant | 1 mile |

Source: SJVAPCD 2022

2.6.9 Naturally Occurring Asbestos (NOA)

Asbestos is a term used for several types of naturally occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. Asbestos is commonly found in ultramafic rock and near fault zones. The amount of asbestos that is typically present in these rocks' ranges from less than 1% up to approximately 25% and sometimes more. It is released from ultramafic rock when it is broken or crushed. This can happen when cars drive over unpaved roads or driveways, which are surfaced with these rocks, when land is graded for building purposes, or at quarrying operations. Asbestos is also released naturally through weathering and erosion. Once released from the rock, asbestos can become airborne and may stay in the air for long periods of time. Asbestos is hazardous and can cause lung disease and cancer dependent upon the level of exposure. The longer a person is exposed to asbestos and the greater the intensity of the exposure, the greater the chances for a health problem.

The proposed Project's construction phase may cause asbestos to become airborne due to the construction activities that will occur on site. The Project would be required to submit a Dust Control Plan under the SJVAPCD's Rule 8021.

2.6.10 Greenhouse Gas Emissions

Gases that trap heat in the atmosphere are often called greenhouse gases. Some greenhouse gases such as carbon dioxide occur naturally and are emitted to the atmosphere through natural processes and human activities. Other greenhouse gases (e.g., fluorinated gases) are created and emitted solely through human activities. The principal greenhouse gases that enter the

atmosphere because of human activities are:

- ✓ **Carbon Dioxide (CO₂):** Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement, asphalt paving, truck trips). Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- ✓ **Methane (CH₄):** Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- ✓ **Nitrous Oxide (N₂O):** Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
- ✓ **Fluorinated Gases:** Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances (i.e., CFCs, HCFCs, and halons). These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High Global Warming Potential gases ("High GWP gases").

3.0 Air-Quality Impacts

3.1 Methodology

The impact assessment for air quality focuses on potential effects the Project might have on air quality within the Fresno region. The SJVAPCD has established thresholds of significance for determining environmental significance. These thresholds separate a project's short-term emissions from its long-term emissions. The short-term emissions are mainly related to the construction phase of a project, which are recognized to be short in duration. The long-term emissions are primarily related to the activities that will occur indefinitely as a result of Project operations. Impacts will be evaluated both on the basis of CEQA Appendix G criteria and SJVAPCD significance criteria. The impacts to be evaluated will be those involving construction and operational emissions of criteria pollutants. The SJVAPCD has established thresholds for certain pollutants shown in Table 6.

Table 6
SJVAPCD Air Quality Thresholds of Significance

| Project Type | Ozone Precursor Emissions (tons/year) | | | | | |
|---|---------------------------------------|-----------------|-----|-----------------|------------------|-------------------|
| | CO | NO _x | ROG | SO _x | PM ₁₀ | PM _{2.5} |
| Construction Emissions | 100 | 10 | 10 | 27 | 15 | 15 |
| Operational Emissions (Permitted Equipment and Activities) | 100 | 10 | 10 | 27 | 15 | 15 |
| Operational Emissions (Non-Permitted Equipment and Activities) | 100 | 10 | 10 | 27 | 15 | 15 |

Source: SJVAPCD 2023

3.1.1 CalEEMod

CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use.

The model is an accurate and comprehensive tool for quantifying air quality impacts from land use projects throughout California. The model can be used for a variety of situations where an air quality analysis is necessary or desirable such as CEQA and NEPA documents, pre-project planning, compliance with local air quality rules and regulations, etc.

3.2 Short-Term Impacts

Short-term impacts are mainly related to the construction phase of a project and are recognized to be short in duration. Construction air quality impacts are generally attributable to dust and exhaust pollutants generated by equipment and vehicles. Fugitive dust is emitted both during construction activity and as a result of wind erosion over exposed earth surfaces. Clearing and earth moving activities do comprise major sources of construction dust emissions, but traffic and general disturbances of soil surfaces also generate significant dust emissions. Further, dust generation is dependent on soil type and soil moisture. Exhaust pollutants are the non-useable gaseous waste products produced during the combustion process. Engine exhaust contains CO, HC, and NO_x pollutants which are harmful to the environment.

Adverse effects of construction activities cause increased dust-fall and locally elevated levels of total suspended particulate. Dust-fall can be a nuisance to neighboring properties or previously completed developments surrounding or within the Project area and may require frequent washing during the construction period.

PM₁₀ emissions can result from construction activities of the Project. The SJVAPCD has determined that compliance with Regulation VIII and other control measures will constitute sufficient mitigation to reduce PM₁₀ impacts to a level considered less-than significant for most development projects. Even with implementation of District Regulation VIII and District Rule 9510, large development projects may not be able to reduce project specific construction impacts below District thresholds of significance.

Ozone precursor emissions are also an impact of construction activities and can be quantified through calculations. Numerous variables factored into estimating total construction emission include: level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and amount of materials to be transported onsite or offsite. Additional exhaust emissions would be associated with the transport of workers and materials. Because the specific mix of construction equipment is not presently known for this Project, construction emissions were estimated using CalEEMod Model defaults for construction equipment.

Table 7 shows the CalEEMod estimated construction emissions that would be generated from construction of the Project. Results of the analysis show that emissions generated from construction of the Project will not exceed the SJVAPCD emission thresholds.

Table 7
Project Construction Emissions (tons/year)

| Summary Report | CO | NO _x | ROG | SO _x | PM ₁₀ | PM _{2.5} | CO ₂ e |
|-----------------------------------|------|-----------------|------|-----------------|------------------|-------------------|-------------------|
| Project Construction Emissions | 2.42 | 2.22 | 2.67 | 0.01 | 0.39 | 0.21 | 428.69 |
| SJVAPCD Level of Significance | 100 | 10 | 10 | 27 | 15 | 15 | None |
| Does the Project Exceed Standard? | No | No | No | No | No | No | No |

Source: CalEEMod

3.3 Long-Term Emissions

Long-Term emissions from the Project would be generated primarily by mobile source (vehicle) emissions from the Project site and area sources such as lawn maintenance equipment.

3.3.1 Localized Operational Emissions – Ozone/Particulate Matter

The Fresno County area is nonattainment for Federal and State air quality standards for ozone, attainment of Federal standards for PM₁₀ and nonattainment for State standards, and nonattainment for Federal and State standards for PM_{2.5}. Nitrogen oxides and reactive organic gases are regulated as ozone precursors. Significance criteria have been established for criteria pollutant emissions as documented in Section 3.1. Operational emissions have been estimated for the Project using the CalEEMod Model and detailed results are included in Appendix A of this report.

Results of the CalEEMod analysis are shown in Table 8. Results indicate that the annual operational emissions from the Project will be less than the SJVAPCD emission thresholds for criteria pollutants.

Table 8
Project Operational Emissions (tons/year)

| Summary Report | CO | NO _x | ROG | SO _x | PM ₁₀ | PM _{2.5} | CO ₂ e |
|-----------------------------------|------|-----------------|------|-----------------|------------------|-------------------|-------------------|
| Project Operational Emissions | 7.53 | 1.36 | 2.05 | 0.02 | 1.60 | 0.45 | 1957.22 |
| SJVAPCD Level of Significance | 100 | 10 | 10 | 27 | 15 | 15 | None |
| Does the Project Exceed Standard? | No | No | No | No | No | No | No |

Source: CalEEMod

3.3.2 Localized Operational Emissions

✓ Carbon Monoxide

The SJVAPCD is currently in unclassified/attainment for Federal standards and unclassified

for State standards for CO. An analysis of localized CO concentrations is typically warranted to ensure that standards are maintained. Also, an analysis is required to ensure that localized concentrations don't reach potentially unhealthful levels that could affect sensitive receptors (residents, school children, hospital patients, the elderly, etc.).

Typically, high CO concentrations are associated with roadways or intersections operating at an unacceptable Level of Service (LOS). CO "Hot Spot" modeling is required if a traffic study reveals that the project will reduce the LOS on one or more streets to E or F or if the project will worsen an existing LOS F.

To analyze the Cumulative Year 2046 Plus Project "worst case" CO concentrations at study roadway segments, the analysis methodology considered the highest annual maximum CO concentration reported in 2013, using 1.0 PPM as an estimate of the background concentration for the 8-hour standard and 2.2 PPM for the 1-hour standard (source: CARB annual publications). Other modeling assumptions include a wind speed of .5 m/s, flat topography, 1,000-meter mixing height, and a 5 degree wind deviation.

✓ **Toxic Air Contaminants (TAC)**

The SJVAPCD's Guidance Document, Guidance for Assessing and Mitigating Air Quality Impacts – 2015, identifies the need for projects to analyze the potential for adverse air quality impacts to sensitive receptors. Sensitive receptors refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses that have the greatest potential to attract these types of sensitive receptors include schools, parks, playgrounds, daycare centers, nursing homes, hospitals, and residential communities. From a health risk perspective, the Project is a Type B Project in that it may potentially place sensitive receptors in the vicinity of existing sources.

The first step in evaluating the potential for impacts to sensitive receptors for TAC's from the Project is to perform a screening level analysis. For Type B Projects, one type of screening tool is found in the CARB Handbook: Air Quality and Land Use Handbook: A Community Perspective. This handbook includes a table (depicted in Table 4) with recommended buffer distances associated with various types of common sources. The screening level analysis for the Project shows that TAC's are not a concern based upon the recommendations provided in Table 4. An evaluation of nearby land uses considering CARB's Pollution Mapping Tool shows that the Project will not place sensitive receptors in the vicinity of existing toxic sources. The Project is located a 2.5 mile from the State Route (SR) 168 freeway. Table 4 indicates that new sensitive land uses shouldn't be sited within 500 feet of a freeway/urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. The Project is located more than 2.5 miles from the SR 168 freeway. As a result, a health risk assessment is not needed at this time.

✓ **Odors**

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air.

When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the SJVAPCD. Any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact.

The SJVAPCD requires that an analysis of potential odor impacts be conducted for the following two situations:

- Generators – projects that would potentially generate odorous emissions proposed to be located near existing sensitive receptors or other land uses where people may congregate, and
- Receivers – residential or other sensitive receptor projects or other projects built for the intent of attracting people locating near existing odor sources.

The Project will not generate odorous emissions given the nature or characteristics of the Project. The intensity of an odor source's operations and its proximity to sensitive receptors influences the potential significance of odor emissions. The SJVAPCD has identified some common types of facilities that have been known to produce odors in the SJV Air Basin. The types of facilities that are known to produce odors are shown in Table 5 above along with a reasonable distance from the source within which, the degree of odors could possibly be significant. None of the facilities shown in Table 5 are located within two (2) miles of the Project.

✓ **Naturally Occurring Asbestos (NOA)**

Asbestos is a term used for several types of naturally occurring fibrous minerals found in

many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. Construction of the Project may cause asbestos to become airborne due to the construction activities that will occur on site. The Project would be required to submit a Dust Control Plan under the SJVAPCD's Rule 8021. Compliance with Rule 8021 would limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities associated with the Project.

The Dust Control Plan may include the following measures:

1. Water wetting of road surfaces
2. Rinse vehicles and equipment
3. Wet loads of excavated material, and
4. Cover loads of excavated material

✓ **Greenhouse Gas Emissions**

CARB, in consultation with MPOs, has provided each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. For the Fresno Council of Governments (FCOG) region, CARB set targets at six (6) percent per capita decrease in 2020 and a thirteen (13) percent per capita decrease in 2035 from a base year of 2005. FCOG's 2018 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which was adopted in July 2022, projects that the Fresno County region would achieve the prescribed emissions targets.

In 2009, the SJVAPCD adopted the following guidance documents applicable to projects within the San Joaquin Valley:

- ✓ Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA (SJVAPCD 2009), and
- ✓ District Policy: Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency (SJVAPCD 2009).

This guidance and policy are the reference documents referenced in the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts adopted in March 2015 (SJVAPCD 2015). Consistent with the District Guidance and District Policy above, SJVAPCD (2015) acknowledges the current absence of numerical thresholds, and recommends a tiered approach to establish the significance of the GHG impacts on the environment:

- i. If a project complies with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, then the project would be determined to have a less than significant individual and cumulative impact for GHG emissions;
- ii. If a project does not comply with an approved GHG emission reduction plan or mitigation program, then it would be required to implement Best Performance

- Standards (BPS); and
- iii. If a project is not implementing BPS, then it should demonstrate that its GHG emissions would be reduced or mitigated by at least 29 percent compared to Business as Usual (BAU).

As shown in Table 9, the Project would generate 2608.35 Metric Tons of Carbon Dioxide Equivalent per year (MTCO₂eq./year) using an operational year of 2005, which includes area, energy, mobile, waste, and water sources. “Business as usual” (BAU) is referenced in CARB’s AB 32 Scoping Plan as emissions projected to occur in 2020 if the average baseline emissions during the 2002-2004 period grew to 2020 levels, without control or Best Performance Standards (BPS) offsets. As a result, an estimate of the Project’s operational emissions in 2005 were compared to operational emissions in 2020 in order to determine if the Project meets the 29% emission reduction. The SJVAPCD has reviewed relevant scientific information related to GHG emissions and has determined that they are not able to determine a specific quantitative level of GHG emissions increase, above which a project would have a significant impact on the environment, and below which would have an insignificant impact. As a result, the SJVAPCD has determined that projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG. Results of the analysis show that the Project’s GHG emissions in the year 2020 is 2179.68 MTCO₂eq./year. This represents an achievement of 16% GHG emission reduction on the basis of BAU, which does not meet the 29% GHG emission reduction target.

In the event that a local air district’s guidance for addressing GHG impacts does not use numerical GHG emissions thresholds, at the lead agency’s discretion, a neighboring air district’s GHG threshold may be used to determine impacts. In December 2008, the South Coast Air Quality Management District (SCAQMD) Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency. The SCAQMD guidance identifies a threshold of 10,000 MTCO₂eq./year for GHG for construction emissions amortized over a 30-year project lifetime, plus annual operation emissions. This threshold is often used by agencies, such as the California Public Utilities Commission, to evaluate GHG impacts in areas that do not have specific thresholds (CPUC 2015)². Therefore, because this threshold has been established by the SCAQMD in an effort to control GHG emissions in the largest metropolitan area in the State of California, this threshold is considered a conservative approach for evaluating the significance of GHG emissions in a more rural area, such as Fresno County. Though the Project is under SJVAPCD jurisdiction, the SCAQMD GHG threshold provides some perspective on the GHG emissions generated by the Project. Table 10 shows the yearly GHG emissions generated by the Project as determined by the CalEEMod model, which is approximately 80% less than the threshold identified by the SCAQMD. Though the Project is under SJVAPCD jurisdiction, the SCAQMD

2 California Public Utilities Commission (CPUC). 2015. Section 4.7, “Greenhouse Gases.” Final Environmental Impact Report for the Santa Barbara County Reliability Project. May 2015. Accessed January 18, 2018.
http://www.cpuc.ca.gov/environment/info/ene/sbcrp/SBCRP_FEIR.html.

GHG threshold provides some perspective on the GHG emissions generated by the Project. Table 10 shows the yearly GHG emissions generated by the Project as determined by the CalEEMod model.

Table 9
2005/2020 Operational greenhouse Gas Emissions

| Summary Report | CO ₂ e |
|---------------------------------------|-------------------------------|
| Operational Emissions Per Year (2005) | 7368.31 MT/yr |
| Operational Emissions Per Year (2020) | 6253.23 MT/yr |
| SJVAPCD Level of Significance | 29% Reduction Compared to BAU |
| Does the Project Meet the Standard | No |

Source: CalEEMod Emissions Model

Table 10
Project Operational Greenhouse Gas Emissions

| Summary Report | CO ₂ e |
|--|-------------------|
| Project Operational Emissions Per Year(Plus amortized construction emissions) | 1971.51 MT/yr |

Source: CalEEMod

3.3.3 Indirect Source Review

The Plans assess current and proposed rules, along with state and federal regulations, to model future emissions and achieve pollution attainment. The proposed Project is subject to the SJVAPCD's ISR program since there are more than 50 residential units. It applies to any applicant that seeks to gain final discretionary approval for a development project of more than 50 residential units as of projects approved after 2006. Rule 9510 and the Administrative ISR Fee Rule (Rule 3180) are the result of state requirements outlined in the California Health and Safety Code, Section 40604 and the State Implementation Plan (SIP). The purpose of the SJVAPCD's ISR program is to reduce emissions of NO_x and PM₁₀ from new projects. In general, new development contributes to the air-pollution problem in the Valley by increasing the number of vehicles and vehicle miles traveled.

Utilizing the ISR Fee Estimator calculator available on the SJVAPCD website, it was determined that the Project's total cost for emission reductions is \$108,033.12 without implementation of emission reduction measures. After the application of ISR rule No_x will be reduced by 0.44 MT/yr and PM₁₀ will be reduced by 0.17 MT/yr during construction phase. The ISR Fee Estimator worksheets are included in Appendix B. The fee noted above may be reduced dependent upon the formal ISR review process.

4.0 Impact Determinations and Recommended Mitigation

In accordance with CEQA, when a proposed project is consistent with a General Plan for which an EIR has been certified, the effects of that project are evaluated to determine if they will result in project-specific significant adverse impacts on the environment. The criteria used to determine the significance of an air quality or greenhouse gas impact are based on the following thresholds of significance, which come from Appendix G of the CEQA Guidelines and the General Plan EIR. Accordingly, air quality or greenhouse gas impacts resulting from the Project are considered significant if the Project would:

Air Quality

- a) Conflict with or obstruct implementation of the applicable air quality plan?
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- c) Expose sensitive receptors to substantial pollutant concentrations?
- d) Result in other emissions such as those leading to odors adversely affecting a substantial number of people?

Greenhouse Gas Emissions

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

4.1 Air Quality

4.1.1 Conflict with or obstruct implementation of the applicable air quality plan

The primary way of determining consistency with the air quality plan's (AQP's) assumptions is determining consistency with the applicable General Plan to ensure that the Project's population density and land use are consistent with the growth assumptions used in the AQPs for the air basin.

As required by California law, city and county General Plans contain a Land Use Element that details the types and quantities of land uses that the city or county estimates will be needed for future growth, and that designate locations for land uses to regulate growth. FCOG uses the growth projections and land use information in adopted general plans to estimate future average daily trips and then VMT, which are then provided to SJVAPCD to estimate future emissions in

the AQPs. Existing and future pollutant emissions computed in the AQP are based on land uses from area general plans. AQPs detail the control measures and emission reductions required for reaching attainment of the air standards.

The applicable General Plan for the project is the City of Clovis 2035 General Plan Update, which was adopted in 2014. The Project is consistent with the currently adopted General Plan for the City of Clovis and is therefore consistent with the population growth and VMT applied in the plan. Therefore, the Project is consistent with the growth assumptions used in the applicable AQPs. As a result, the Project will not conflict with or obstruct implementation of any air quality plans. Therefore, no mitigation is needed.

4.1.2 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard

The Fresno County area is nonattainment for Federal and State air quality standards for ozone, in attainment of Federal standards and nonattainment for State standards for PM₁₀, and nonattainment for Federal and State standards for PM_{2.5}. The SJVAPCD has prepared the 2016 and 2013 Ozone Plans, 2007 PM₁₀ Maintenance Plan, and 2012 PM_{2.5} Plan to achieve Federal and State standards for improved air quality in the SJVAB regarding ozone and PM. Inconsistency with any of the plans would be considered a cumulatively adverse air quality impact. As discussed in Section 4.1.1, the Project is consistent with the currently adopted General Plan for the City of Clovis and is therefore consistent with the population growth and VMT applied in the plan. Therefore, the Project is consistent with the growth assumptions used in the 2016 and 2013 Ozone Plan, 2007 PM₁₀ Maintenance Plan, and 2012 PM_{2.5} Plan.

Project specific emissions that exceed the thresholds of significance for criteria pollutants would be expected to result in a cumulatively considerable net increase of any criteria pollutant for which the County is in non-attainment under applicable federal or state ambient air quality standards. It should be noted that a project is not characterized as cumulatively insignificant when project emissions fall below thresholds of significance. As discussed in Section 3.1, the SJVAPCD has established thresholds of significance for determining environmental significance which are provided in Table 6.

As discussed above in Section 3.2 and 3.3, results of the analysis show that emissions generated from construction and operation of the Project will be less than the applicable SJVAPCD emission thresholds for criteria pollutants. Therefore, no mitigation is needed.

4.1.3 Expose sensitive receptors to substantial pollutant concentrations

Sensitive receptors refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses that have the greatest potential to attract these types of sensitive receptors

include schools, parks, playgrounds, daycare centers, nursing homes, hospitals, and residential communities. From a health risk perspective, the Project is a Type B project in that it may potentially place sensitive receptors in the vicinity of existing sources.

The first step in evaluating the potential for impacts to sensitive receptors for TAC's from the Project is to perform a screening level analysis. For Type B Projects, one type of screening tool is found in the CARB Handbook: Air Quality and Land Use Handbook: A Community Perspective. This handbook includes a table (depicted in Table 4) with recommended buffer distances associated with various types of common sources. The screening level analysis for the Project shows that TAC's are not a concern based upon the recommendations provided in Table 4. An evaluation of nearby land uses considering CARB's Pollution Mapping Tool shows that the Project will not place sensitive receptors in the vicinity of existing toxic sources. The Project is located a 2.5 mile from the State Route (SR) 168 freeway. Table 4 indicates that new sensitive land uses shouldn't be sited within 500 feet of a freeway/urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. The Project is located more than 2.5 miles from the SR 168 freeway. Therefore, no mitigation is needed.

Short-Term Impacts

The annual emissions from the construction phase of the Project will be less than the applicable SJVAPCD emission thresholds for criteria pollutants as shown in Table 8. The construction emissions are therefore considered less than significant with the implementation of the SJVAPCD applicable Regulation VIII control measures, which are provided below.

1. *All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.*
2. *All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.*
3. *All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.*
4. *When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.*
5. *All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.*
6. *Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions*

utilizing sufficient water or chemical stabilizer/suppressant.

7. *Within urban areas, track out shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.*

Naturally Occurring Asbestos (NOA)

The proposed Project's construction phase may cause asbestos to become airborne due to the construction activities that will occur on site. In order to control naturally-occurring asbestos dust, the Project will be required to submit a Dust Control Plan under the SJVAPCD's Rule 8021. The Dust Control Plan may include the following measures:

1. Water wetting of road surfaces
2. Rinse vehicles and equipment
3. Wet loads of excavated material, and
4. Cover loads of excavated material

Long-Term Impacts

Long-Term emissions from the Project are generated primarily by mobile source (vehicle) emissions from the project site and area sources such as lawn maintenance equipment. Emissions from long-term operations generally represent a project's most substantial air quality impact. Table 8 summarizes the Project's operational impacts by pollutant. Results indicate that operational emissions from the Project will not exceed the SJVAPCD emissions threshold for any emissions, hence no mitigations are required.

4.1.4 Result in other emissions such as those leading to odors adversely affecting a substantial number of people

The SJVAPCD requires that an analysis of potential odor impacts be conducted for the following two situations:

- ✓ Generators – projects that would potentially generate odorous emissions proposed to be located near existing sensitive receptors or other land uses where people may congregate, and
- ✓ Receivers – residential or other sensitive receptor projects or other projects built for the intent of attracting people located near existing odor sources.

The proposed Project will not generate odorous emissions given the nature or characteristics of residential developments. The intensity of an odor source's operations and its proximity to

sensitive receptors influences the potential significance of odor emissions. The SJVAPCD has identified some common types of facilities that have been known to produce odors in the SJV Air Basin. The types of facilities that are known to produce odors are shown in Table 5 above along with a reasonable distance from the source within which, the degree of odors could possibly be significant. None of the facilities shown in Table 5 are located within two (2) miles of the Project. Therefore, no mitigation is needed.

4.2 Greenhouse Gas Emissions

4.2.1 *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment*

In 2009, the SJVAPCD adopted the following guidance documents applicable to projects within the San Joaquin Valley:

- ✓ Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA (SJVAPCD 2009), and
- ✓ District Policy: Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency (SJVAPCD 2009).

As shown in Table 9, the Project would generate 2608.35 Metric Tons of Carbon Dioxide Equivalent per year (MTCO₂eq./year) using an operational year of 2005, which includes area, energy, mobile, waste, and water sources. “Business as usual” (BAU) is referenced in CARB’s AB 32 Scoping Plan as emissions projected to occur in 2020 if the average baseline emissions during the 2002-2004 period grew to 2020 levels, without control or Best Performance Standards (BPS) offsets. As a result, an estimate of the Project’s operational emissions in 2005 were compared to operational emissions in 2020 in order to determine if the Project meets the 29% emission reduction. The SJVAPCD has reviewed relevant scientific information related to GHG emissions and has determined that they are not able to determine a specific quantitative level of GHG emissions increase, above which a project would have a significant impact on the environment, and below which would have an insignificant impact. As a result, the SJVAPCD has determined that projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG. Results of the analysis show that the Project’s GHG emissions in the year 2020 is 2179.68 MTCO₂eq./year. This represents an achievement of 16% GHG emission reduction on the basis of BAU, which does not meet the 29% GHG emission reduction target.

In the event that a local air district’s guidance for addressing GHG impacts does not use numerical GHG emissions thresholds, at the lead agency’s discretion, a neighboring air district’s GHG threshold may be used to determine impacts. In December 2008, the South Coast Air Quality Management District (SCAQMD) Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead

agency. The SCAQMD guidance identifies a threshold of 10,000 MTCO₂eq./year for GHG for construction emissions amortized over a 30-year project lifetime, plus annual operation emissions. This threshold is often used by agencies, such as the California Public Utilities Commission, to evaluate GHG impacts in areas that do not have specific thresholds (CPUC 2015)³. Therefore, because this threshold has been established by the SCAQMD in an effort to control GHG emissions in the largest metropolitan area in the State of California, this threshold is considered a conservative approach for evaluating the significance of GHG emissions in a more rural area, such as Fresno County. Though 80% less than the threshold identified by the SCAQMD.

CARB's California GHG Emissions Inventory provides estimates of anthropogenic GHG emissions within California, as well as emissions associated with imported electricity; natural sources are not included in the inventory. California's GHG emissions for 2020 totaled approximately 358.76 million MTCO₂eq. The proposed Project's GHG emissions represents less than 0.001% of the total GHG emissions for the state of California when compared to year 2018 emissions data.

Based on the assessment above, the Project will not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Therefore, any impacts would be less than significant.

4.2.2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases

California passed the California Global Warming Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. Under AB 32, CARB must adopt regulations by January 1, 2011 to achieve reductions in GHGs to meet the 1990 emission cap by 2020. On December 11, 2008, CARB adopted its initial Scoping Plan, which functions as a roadmap of CARB's plans to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. CARB's 2017 Climate Change Scoping Plan builds on the efforts and plans encompassed in the initial Scoping Plan.

SB 375 requires MPOs to adopt a SCS or APS that will prescribe land use allocation in that MPO's regional transportation plan. CARB, in consultation with MPOs, has provided each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. For the FCOF region, CARB set targets at six (6) percent per capita decrease in 2020 and a thirteen (13) percent per capita decrease in 2035 from a base year of 2005. FCOG's 2022 RTP/SCS, which was adopted in July 2022, projects that the Fresno County

3 California Public Utilities Commission (CPUC). 2015. Section 4.7, "Greenhouse Gases." Final Environmental Impact Report for the Santa Barbara County Reliability Project. May 2015. Accessed January 18, 2018.
http://www.cpuc.ca.gov/environment/info/ene/sbcrp/SBCRP_FEIR.html.

region would achieve the prescribed emissions targets.

Executive Order B-30-15 establishes a California greenhouse gas reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. Executive Order B-30-15 requires MPO's to implement measures that will achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets.

As required by California law, city and county General Plans contain a Land Use Element that details the types and quantities of land uses that the city or county estimates will be needed for future growth, and that designate locations for land uses to regulate growth. FCOG uses the growth projections and land use information in adopted general plans to estimate future average daily trips and then VMT, which are then provided to SJVAPCD to estimate future emissions in the AQPs. The applicable General Plan for the project is City of Clovis 2035 General Plan Update, which was adopted in 2014.

The Project is consistent with the currently adopted General Plan for the City of Clovis and the adopted FCOG 2022 RTP/SCS and is therefore consistent with the population growth and VMT applied in those plan documents. Therefore, the Project is consistent with the growth assumptions used in the applicable AQP. It should also be noted that yearly GHG emissions generated by the Project (Table 9) are approximately 80% less than the threshold identified by the SCAQMD (see the discussion for Impact 4.2.1 above).

CARB's 2017 Climate Change Scoping Plan builds on the efforts and plans encompassed in the initial Scoping Plan. The current plan has identified new policies and actions to accomplish the State's 2030 GHG limit. Below is a list of applicable strategies in the Scoping Plan and the Project's consistency with those strategies.

- ✓ California Light-Duty Vehicle GHG Standards – Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs for long-term climate change goals.
 - The Project is consistent with this reduction measure. This measure cannot be implemented by a particular project or lead agency since it is a statewide measure. When this measure is implemented, standards would be applicable to light-duty vehicles that would access the Project. The Project would not conflict or obstruct this reduction measure.
- ✓ Energy Efficiency – Pursuit of comparable investment in energy efficiency from all retail providers of electricity in California. Maximize energy efficiency building and appliance standards.
 - The Project is consistent with this reduction measure. Though this measure applies to the State to increase its energy standards, the Project would comply with this measure

through existing regulation. The Project would not conflict or obstruct this reduction measure.

- ✓ Low Carbon Fuel – Development and adoption of the low carbon fuel standard.
 - The Project is consistent with this reduction measure. This measure cannot be implemented by a particular project or lead agency since it is a statewide measure. When this measure is implemented, standards would be applicable to the fuel used by vehicles that would access the Project. The Project would not conflict or obstruct this reduction measure.

Based on the assessment above, the Project will not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, any impacts would be less than significant.

Appendix-A

CalEEMod Worksheets

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-----------------------|--------|---------------|-------------|--------------------|------------|
| Single Family Housing | 153.00 | Dwelling Unit | 18.63 | 275,400.00 | 438 |

1.2 Other Project Characteristics

| | | | | | |
|-------------------------|----------------------------------|-------------------------|-------|---------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 45 |
| Climate Zone | 3 | | | Operational Year | 2025 |
| Utility Company | Pacific Gas and Electric Company | | | | |
| CO2 Intensity (lb/MWhr) | 203.98 | CH4 Intensity (lb/MWhr) | 0.033 | N2O Intensity (lb/MWhr) | 0.004 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - project description

| Table Name | Column Name | Default Value | New Value |
|---------------|--------------------|---------------|-----------|
| tblLandUse | LotAcreage | 49.68 | 18.63 |
| tblWoodstoves | NumberCatalytic | 18.63 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 18.63 | 0.00 |

2.0 Emissions Summary

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction****Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|-------------|----------|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2024 | 0.2460 | 2.2201 | 2.4298 | 4.8400e-003 | 0.2939 | 0.0962 | 0.3901 | 0.1209 | 0.0899 | 0.2107 | 0.0000 | 424.6752 | 424.6752 | 0.0960 | 5.4300e-003 | 428.6945 |
| 2025 | 2.6768 | 0.7936 | 1.0828 | 2.0400e-003 | 0.0307 | 0.0328 | 0.0635 | 8.3000e-003 | 0.0308 | 0.0391 | 0.0000 | 178.9658 | 178.9658 | 0.0358 | 2.8400e-003 | 180.7065 |
| Maximum | 2.6768 | 2.2201 | 2.4298 | 4.8400e-003 | 0.2939 | 0.0962 | 0.3901 | 0.1209 | 0.0899 | 0.2107 | 0.0000 | 424.6752 | 424.6752 | 0.0960 | 5.4300e-003 | 428.6945 |

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|-------------|----------|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2024 | 0.2460 | 2.2201 | 2.4298 | 4.8400e-003 | 0.2939 | 0.0962 | 0.3901 | 0.1209 | 0.0899 | 0.2107 | 0.0000 | 424.6748 | 424.6748 | 0.0960 | 5.4300e-003 | 428.6941 |
| 2025 | 2.6768 | 0.7936 | 1.0828 | 2.0400e-003 | 0.0307 | 0.0328 | 0.0635 | 8.3000e-003 | 0.0308 | 0.0391 | 0.0000 | 178.9656 | 178.9656 | 0.0358 | 2.8400e-003 | 180.7063 |
| Maximum | 2.6768 | 2.2201 | 2.4298 | 4.8400e-003 | 0.2939 | 0.0962 | 0.3901 | 0.1209 | 0.0899 | 0.2107 | 0.0000 | 424.6748 | 424.6748 | 0.0960 | 5.4300e-003 | 428.6941 |

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| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|-----------|--|--|
| 1 | 1-10-2024 | 4-9-2024 | 0.9567 | 0.9567 |
| 2 | 4-10-2024 | 7-9-2024 | 0.5160 | 0.5160 |
| 3 | 7-10-2024 | 10-9-2024 | 0.5218 | 0.5218 |
| 4 | 10-10-2024 | 1-9-2025 | 0.5195 | 0.5195 |
| 5 | 1-10-2025 | 4-9-2025 | 0.4761 | 0.4761 |
| 6 | 4-10-2025 | 7-9-2025 | 1.7410 | 1.7410 |
| 7 | 7-10-2025 | 9-30-2025 | 1.2065 | 1.2065 |
| | | Highest | 1.7410 | 1.7410 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------------|-------------------|-------------------|---------------|---------------|-------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 1.3748 | 0.0703 | 1.1593 | 4.3000e-004 | | 0.0109 | 0.0109 | | 0.0109 | 0.0109 | 0.0000 | 68.1364 | 68.1364 | 3.0500e-003 | 1.2200e-003 | 68.5747 |
| Energy | 0.0198 | 0.1695 | 0.0721 | 1.0800e-003 | | 0.0137 | 0.0137 | | 0.0137 | 0.0137 | 0.0000 | 309.1390 | 309.1390 | 0.0220 | 5.8100e-003 | 311.4214 |
| Mobile | 0.6651 | 1.1272 | 6.3070 | 0.0153 | 1.5673 | 0.0126 | 1.5799 | 0.4193 | 0.0118 | 0.4311 | 0.0000 | 1,452.2520 | 1,452.2520 | 0.0731 | 0.0778 | 1,477.2689 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 32.0076 | 0.0000 | 32.0076 | 1.8916 | 0.0000 | 79.2975 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 3.1626 | 7.0259 | 10.1884 | 0.3260 | 7.8100e-003 | 20.6642 |
| Total | 2.0598 | 1.3669 | 7.5384 | 0.0169 | 1.5673 | 0.0372 | 1.6045 | 0.4193 | 0.0364 | 0.4557 | 35.1702 | 1,836.5532 | 1,871.7234 | 2.3158 | 0.0927 | 1,957.2267 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------------|-------------------|-------------------|---------------|---------------|-------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 1.3748 | 0.0703 | 1.1593 | 4.3000e-004 | | 0.0109 | 0.0109 | | 0.0109 | 0.0109 | 0.0000 | 68.1364 | 68.1364 | 3.0500e-003 | 1.2200e-003 | 68.5747 |
| Energy | 0.0198 | 0.1695 | 0.0721 | 1.0800e-003 | | 0.0137 | 0.0137 | | 0.0137 | 0.0137 | 0.0000 | 309.1390 | 309.1390 | 0.0220 | 5.8100e-003 | 311.4214 |
| Mobile | 0.6651 | 1.1272 | 6.3070 | 0.0153 | 1.5673 | 0.0126 | 1.5799 | 0.4193 | 0.0118 | 0.4311 | 0.0000 | 1,452.2520 | 1,452.2520 | 0.0731 | 0.0778 | 1,477.2689 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 32.0076 | 0.0000 | 32.0076 | 1.8916 | 0.0000 | 79.2975 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 3.1626 | 7.0259 | 10.1884 | 0.3260 | 7.8100e-003 | 20.6642 |
| Total | 2.0598 | 1.3669 | 7.5384 | 0.0169 | 1.5673 | 0.0372 | 1.6045 | 0.4193 | 0.0364 | 0.4557 | 35.1702 | 1,836.5532 | 1,871.7234 | 2.3158 | 0.0927 | 1,957.2267 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.0 Construction Detail**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|------------------|------------------|------------|-----------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 1/10/2024 | 2/6/2024 | 5 | 20 | |
| 2 | Site Preparation | Site Preparation | 2/7/2024 | 2/20/2024 | 5 | 10 | |
| 3 | Grading | Grading | 2/21/2024 | 4/2/2024 | 5 | 30 | |

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| | | | | | | |
|---|-----------------------|-----------------------|-----------|-----------|---|-----|
| 4 | Building Construction | Building Construction | 4/3/2024 | 5/27/2025 | 5 | 300 |
| 5 | Paving | Paving | 5/28/2025 | 6/24/2025 | 5 | 20 |
| 6 | Architectural Coating | Architectural Coating | 6/25/2025 | 7/22/2025 | 5 | 20 |

Acres of Grading (Site Preparation Phase): 15**Acres of Grading (Grading Phase): 90****Acres of Paving: 0****Residential Indoor: 557,685; Residential Outdoor: 185,895; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

| | | | | | |
|-----------------------|---------------------------|---|------|----|------|
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |

Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 15.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 55.00 | 16.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 11.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction**3.2 Demolition - 2024****Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0224 | 0.2088 | 0.1971 | 3.9000e-004 | | 9.6000e-003 | 9.6000e-003 | | 8.9200e-003 | 8.9200e-003 | 0.0000 | 33.9961 | 33.9961 | 9.5100e-003 | 0.0000 | 34.2338 |
| Total | 0.0224 | 0.2088 | 0.1971 | 3.9000e-004 | | 9.6000e-003 | 9.6000e-003 | | 8.9200e-003 | 8.9200e-003 | 0.0000 | 33.9961 | 33.9961 | 9.5100e-003 | 0.0000 | 34.2338 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2024****Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.3000e-004 | 2.7000e-004 | 3.2800e-003 | 1.0000e-005 | 1.2000e-003 | 1.0000e-005 | 1.2000e-003 | 3.2000e-004 | 1.0000e-005 | 3.2000e-004 | 0.0000 | 0.9308 | 0.9308 | 3.0000e-005 | 3.0000e-005 | 0.9390 |
| Total | 4.3000e-004 | 2.7000e-004 | 3.2800e-003 | 1.0000e-005 | 1.2000e-003 | 1.0000e-005 | 1.2000e-003 | 3.2000e-004 | 1.0000e-005 | 3.2000e-004 | 0.0000 | 0.9308 | 0.9308 | 3.0000e-005 | 3.0000e-005 | 0.9390 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0224 | 0.2088 | 0.1971 | 3.9000e-004 | | 9.6000e-003 | 9.6000e-003 | | 8.9200e-003 | 8.9200e-003 | 0.0000 | 33.9960 | 33.9960 | 9.5100e-003 | 0.0000 | 34.2338 |
| Total | 0.0224 | 0.2088 | 0.1971 | 3.9000e-004 | | 9.6000e-003 | 9.6000e-003 | | 8.9200e-003 | 8.9200e-003 | 0.0000 | 33.9960 | 33.9960 | 9.5100e-003 | 0.0000 | 34.2338 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Demolition - 2024****Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.3000e-004 | 2.7000e-004 | 3.2800e-003 | 1.0000e-005 | 1.2000e-003 | 1.0000e-005 | 1.2000e-003 | 3.2000e-004 | 1.0000e-005 | 3.2000e-004 | 0.0000 | 0.9308 | 0.9308 | 3.0000e-005 | 3.0000e-005 | 0.9390 |
| Total | 4.3000e-004 | 2.7000e-004 | 3.2800e-003 | 1.0000e-005 | 1.2000e-003 | 1.0000e-005 | 1.2000e-003 | 3.2000e-004 | 1.0000e-005 | 3.2000e-004 | 0.0000 | 0.9308 | 0.9308 | 3.0000e-005 | 3.0000e-005 | 0.9390 |

3.3 Site Preparation - 2024**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0983 | 0.0000 | 0.0983 | 0.0505 | 0.0000 | 0.0505 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0133 | 0.1359 | 0.0917 | 1.9000e-004 | | 6.1500e-003 | 6.1500e-003 | | 5.6600e-003 | 5.6600e-003 | 0.0000 | 16.7285 | 16.7285 | 5.4100e-003 | 0.0000 | 16.8638 |
| Total | 0.0133 | 0.1359 | 0.0917 | 1.9000e-004 | 0.0983 | 6.1500e-003 | 0.1044 | 0.0505 | 5.6600e-003 | 0.0562 | 0.0000 | 16.7285 | 16.7285 | 5.4100e-003 | 0.0000 | 16.8638 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2024****Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.6000e-004 | 1.6000e-004 | 1.9700e-003 | 1.0000e-005 | 7.2000e-004 | 0.0000 | 7.2000e-004 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 0.5585 | 0.5585 | 2.0000e-005 | 2.0000e-005 | 0.5634 |
| Total | 2.6000e-004 | 1.6000e-004 | 1.9700e-003 | 1.0000e-005 | 7.2000e-004 | 0.0000 | 7.2000e-004 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 0.5585 | 0.5585 | 2.0000e-005 | 2.0000e-005 | 0.5634 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0983 | 0.0000 | 0.0983 | 0.0505 | 0.0000 | 0.0505 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0133 | 0.1359 | 0.0917 | 1.9000e-004 | | 6.1500e-003 | 6.1500e-003 | | 5.6500e-003 | 5.6500e-003 | 0.0000 | 16.7285 | 16.7285 | 5.4100e-003 | 0.0000 | 16.8638 |
| Total | 0.0133 | 0.1359 | 0.0917 | 1.9000e-004 | 0.0983 | 6.1500e-003 | 0.1044 | 0.0505 | 5.6500e-003 | 0.0562 | 0.0000 | 16.7285 | 16.7285 | 5.4100e-003 | 0.0000 | 16.8638 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Site Preparation - 2024****Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.6000e-004 | 1.6000e-004 | 1.9700e-003 | 1.0000e-005 | 7.2000e-004 | 0.0000 | 7.2000e-004 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 0.5585 | 0.5585 | 2.0000e-005 | 2.0000e-005 | 0.5634 |
| Total | 2.6000e-004 | 1.6000e-004 | 1.9700e-003 | 1.0000e-005 | 7.2000e-004 | 0.0000 | 7.2000e-004 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 0.5585 | 0.5585 | 2.0000e-005 | 2.0000e-005 | 0.5634 |

3.4 Grading - 2024**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1381 | 0.0000 | 0.1381 | 0.0548 | 0.0000 | 0.0548 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0483 | 0.4857 | 0.4158 | 9.3000e-004 | | 0.0200 | 0.0200 | | 0.0184 | 0.0184 | 0.0000 | 81.7793 | 81.7793 | 0.0265 | 0.0000 | 82.4405 |
| Total | 0.0483 | 0.4857 | 0.4158 | 9.3000e-004 | 0.1381 | 0.0200 | 0.1581 | 0.0548 | 0.0184 | 0.0732 | 0.0000 | 81.7793 | 81.7793 | 0.0265 | 0.0000 | 82.4405 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Grading - 2024****Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 8.6000e-004 | 5.3000e-004 | 6.5500e-003 | 2.0000e-005 | 2.4000e-003 | 1.0000e-005 | 2.4100e-003 | 6.4000e-004 | 1.0000e-005 | 6.5000e-004 | 0.0000 | 1.8616 | 1.8616 | 5.0000e-005 | 5.0000e-005 | 1.8780 |
| Total | 8.6000e-004 | 5.3000e-004 | 6.5500e-003 | 2.0000e-005 | 2.4000e-003 | 1.0000e-005 | 2.4100e-003 | 6.4000e-004 | 1.0000e-005 | 6.5000e-004 | 0.0000 | 1.8616 | 1.8616 | 5.0000e-005 | 5.0000e-005 | 1.8780 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1381 | 0.0000 | 0.1381 | 0.0548 | 0.0000 | 0.0548 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0483 | 0.4857 | 0.4158 | 9.3000e-004 | | 0.0200 | 0.0200 | | 0.0184 | 0.0184 | 0.0000 | 81.7792 | 81.7792 | 0.0265 | 0.0000 | 82.4404 |
| Total | 0.0483 | 0.4857 | 0.4158 | 9.3000e-004 | 0.1381 | 0.0200 | 0.1581 | 0.0548 | 0.0184 | 0.0732 | 0.0000 | 81.7792 | 81.7792 | 0.0265 | 0.0000 | 82.4404 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2024

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 8.6000e-004 | 5.3000e-004 | 6.5500e-003 | 2.0000e-005 | 2.4000e-003 | 1.0000e-005 | 2.4100e-003 | 6.4000e-004 | 1.0000e-005 | 6.5000e-004 | 0.0000 | 1.8616 | 1.8616 | 5.0000e-005 | 5.0000e-005 | 1.8780 |
| Total | 8.6000e-004 | 5.3000e-004 | 6.5500e-003 | 2.0000e-005 | 2.4000e-003 | 1.0000e-005 | 2.4100e-003 | 6.4000e-004 | 1.0000e-005 | 6.5000e-004 | 0.0000 | 1.8616 | 1.8616 | 5.0000e-005 | 5.0000e-005 | 1.8780 |

3.5 Building Construction - 2024

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1435 | 1.3108 | 1.5763 | 2.6300e-003 | | 0.0598 | 0.0598 | | 0.0563 | 0.0563 | 0.0000 | 226.0529 | 226.0529 | 0.0535 | 0.0000 | 227.3893 |
| Total | 0.1435 | 1.3108 | 1.5763 | 2.6300e-003 | | 0.0598 | 0.0598 | | 0.0563 | 0.0563 | 0.0000 | 226.0529 | 226.0529 | 0.0535 | 0.0000 | 227.3893 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|--------------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 1.6300e-003 | 0.0685 | 0.0201 | 3.1000e-004 | 0.0103 | 4.4000e-004 | 0.0108 | 2.9900e-003 | 4.2000e-004 | 3.4100e-003 | 0.0000 | 29.4908 | 29.4908 | 1.5000e-004 | 4.4400e-003 | 30.8175 |
| Worker | 0.0154 | 9.4900e-003 | 0.1171 | 3.6000e-004 | 0.0429 | 2.0000e-004 | 0.0431 | 0.0114 | 1.8000e-004 | 0.0116 | 0.0000 | 33.2767 | 33.2767 | 9.2000e-004 | 9.0000e-004 | 33.5692 |
| Total | 0.0170 | 0.0780 | 0.1372 | 6.7000e-004 | 0.0532 | 6.4000e-004 | 0.0539 | 0.0144 | 6.0000e-004 | 0.0150 | 0.0000 | 62.7675 | 62.7675 | 1.0700e-003 | 5.3400e-003 | 64.3867 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1435 | 1.3108 | 1.5763 | 2.6300e-003 | | 0.0598 | 0.0598 | | 0.0563 | 0.0563 | 0.0000 | 226.0526 | 226.0526 | 0.0535 | 0.0000 | 227.3890 |
| Total | 0.1435 | 1.3108 | 1.5763 | 2.6300e-003 | | 0.0598 | 0.0598 | | 0.0563 | 0.0563 | 0.0000 | 226.0526 | 226.0526 | 0.0535 | 0.0000 | 227.3890 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2024****Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|---------------|----------------|----------------|--------------------|--------------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 1.6300e-003 | 0.0685 | 0.0201 | 3.1000e-004 | 0.0103 | 4.4000e-004 | 0.0108 | 2.9900e-003 | 4.2000e-004 | 3.4100e-003 | 0.0000 | 29.4908 | 29.4908 | 1.5000e-004 | 4.4400e-003 | 30.8175 |
| Worker | 0.0154 | 9.4900e-003 | 0.1171 | 3.6000e-004 | 0.0429 | 2.0000e-004 | 0.0431 | 0.0114 | 1.8000e-004 | 0.0116 | 0.0000 | 33.2767 | 33.2767 | 9.2000e-004 | 9.0000e-004 | 33.5692 |
| Total | 0.0170 | 0.0780 | 0.1372 | 6.7000e-004 | 0.0532 | 6.4000e-004 | 0.0539 | 0.0144 | 6.0000e-004 | 0.0150 | 0.0000 | 62.7675 | 62.7675 | 1.0700e-003 | 5.3400e-003 | 64.3867 |

3.5 Building Construction - 2025**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0718 | 0.6547 | 0.8444 | 1.4200e-003 | | 0.0277 | 0.0277 | | 0.0261 | 0.0261 | 0.0000 | 121.7577 | 121.7577 | 0.0286 | 0.0000 | 122.4733 |
| Total | 0.0718 | 0.6547 | 0.8444 | 1.4200e-003 | | 0.0277 | 0.0277 | | 0.0261 | 0.0261 | 0.0000 | 121.7577 | 121.7577 | 0.0286 | 0.0000 | 122.4733 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2025****Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|--------------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 8.6000e-004 | 0.0368 | 0.0106 | 1.6000e-004 | 5.5700e-003 | 2.4000e-004 | 5.8100e-003 | 1.6100e-003 | 2.3000e-004 | 1.8400e-003 | 0.0000 | 15.5744 | 15.5744 | 8.0000e-005 | 2.3400e-003 | 16.2749 |
| Worker | 7.6900e-003 | 4.5500e-003 | 0.0587 | 1.9000e-004 | 0.0231 | 1.0000e-004 | 0.0232 | 6.1400e-003 | 9.0000e-005 | 6.2300e-003 | 0.0000 | 17.4866 | 17.4866 | 4.5000e-004 | 4.5000e-004 | 17.6328 |
| Total | 8.5500e-003 | 0.0413 | 0.0692 | 3.5000e-004 | 0.0287 | 3.4000e-004 | 0.0290 | 7.7500e-003 | 3.2000e-004 | 8.0700e-003 | 0.0000 | 33.0610 | 33.0610 | 5.3000e-004 | 2.7900e-003 | 33.9077 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0718 | 0.6547 | 0.8444 | 1.4200e-003 | | 0.0277 | 0.0277 | | 0.0261 | 0.0261 | 0.0000 | 121.7576 | 121.7576 | 0.0286 | 0.0000 | 122.4731 |
| Total | 0.0718 | 0.6547 | 0.8444 | 1.4200e-003 | | 0.0277 | 0.0277 | | 0.0261 | 0.0261 | 0.0000 | 121.7576 | 121.7576 | 0.0286 | 0.0000 | 122.4731 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Building Construction - 2025****Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|--------------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 8.6000e-004 | 0.0368 | 0.0106 | 1.6000e-004 | 5.5700e-003 | 2.4000e-004 | 5.8100e-003 | 1.6100e-003 | 2.3000e-004 | 1.8400e-003 | 0.0000 | 15.5744 | 15.5744 | 8.0000e-005 | 2.3400e-003 | 16.2749 |
| Worker | 7.6900e-003 | 4.5500e-003 | 0.0587 | 1.9000e-004 | 0.0231 | 1.0000e-004 | 0.0232 | 6.1400e-003 | 9.0000e-005 | 6.2300e-003 | 0.0000 | 17.4866 | 17.4866 | 4.5000e-004 | 4.5000e-004 | 17.6328 |
| Total | 8.5500e-003 | 0.0413 | 0.0692 | 3.5000e-004 | 0.0287 | 3.4000e-004 | 0.0290 | 7.7500e-003 | 3.2000e-004 | 8.0700e-003 | 0.0000 | 33.0610 | 33.0610 | 5.3000e-004 | 2.7900e-003 | 33.9077 |

3.6 Paving - 2025**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 9.1500e-003 | 0.0858 | 0.1458 | 2.3000e-004 | | 4.1900e-003 | 4.1900e-003 | | 3.8500e-003 | 3.8500e-003 | 0.0000 | 20.0193 | 20.0193 | 6.4700e-003 | 0.0000 | 20.1811 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 9.1500e-003 | 0.0858 | 0.1458 | 2.3000e-004 | | 4.1900e-003 | 4.1900e-003 | | 3.8500e-003 | 3.8500e-003 | 0.0000 | 20.0193 | 20.0193 | 6.4700e-003 | 0.0000 | 20.1811 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2025****Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.0000e-004 | 2.4000e-004 | 3.0500e-003 | 1.0000e-005 | 1.2000e-003 | 1.0000e-005 | 1.2000e-003 | 3.2000e-004 | 0.0000 | 3.2000e-004 | 0.0000 | 0.9084 | 0.9084 | 2.0000e-005 | 2.0000e-005 | 0.9160 |
| Total | 4.0000e-004 | 2.4000e-004 | 3.0500e-003 | 1.0000e-005 | 1.2000e-003 | 1.0000e-005 | 1.2000e-003 | 3.2000e-004 | 0.0000 | 3.2000e-004 | 0.0000 | 0.9084 | 0.9084 | 2.0000e-005 | 2.0000e-005 | 0.9160 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 9.1500e-003 | 0.0858 | 0.1458 | 2.3000e-004 | | 4.1900e-003 | 4.1900e-003 | | 3.8500e-003 | 3.8500e-003 | 0.0000 | 20.0192 | 20.0192 | 6.4700e-003 | 0.0000 | 20.1811 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 9.1500e-003 | 0.0858 | 0.1458 | 2.3000e-004 | | 4.1900e-003 | 4.1900e-003 | | 3.8500e-003 | 3.8500e-003 | 0.0000 | 20.0192 | 20.0192 | 6.4700e-003 | 0.0000 | 20.1811 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Paving - 2025****Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.0000e-004 | 2.4000e-004 | 3.0500e-003 | 1.0000e-005 | 1.2000e-003 | 1.0000e-005 | 1.2000e-003 | 3.2000e-004 | 0.0000 | 3.2000e-004 | 0.0000 | 0.9084 | 0.9084 | 2.0000e-005 | 2.0000e-005 | 0.9160 |
| Total | 4.0000e-004 | 2.4000e-004 | 3.0500e-003 | 1.0000e-005 | 1.2000e-003 | 1.0000e-005 | 1.2000e-003 | 3.2000e-004 | 0.0000 | 3.2000e-004 | 0.0000 | 0.9084 | 0.9084 | 2.0000e-005 | 2.0000e-005 | 0.9160 |

3.7 Architectural Coating - 2025**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 2.5849 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 1.7100e-003 | 0.0115 | 0.0181 | 3.0000e-005 | | 5.2000e-004 | 5.2000e-004 | | 5.2000e-004 | 5.2000e-004 | 0.0000 | 2.5533 | 2.5533 | 1.4000e-004 | 0.0000 | 2.5567 |
| Total | 2.5866 | 0.0115 | 0.0181 | 3.0000e-005 | | 5.2000e-004 | 5.2000e-004 | | 5.2000e-004 | 5.2000e-004 | 0.0000 | 2.5533 | 2.5533 | 1.4000e-004 | 0.0000 | 2.5567 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Architectural Coating - 2025****Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.9000e-004 | 1.7000e-004 | 2.2300e-003 | 1.0000e-005 | 8.8000e-004 | 0.0000 | 8.8000e-004 | 2.3000e-004 | 0.0000 | 2.4000e-004 | 0.0000 | 0.6662 | 0.6662 | 2.0000e-005 | 2.0000e-005 | 0.6717 |
| Total | 2.9000e-004 | 1.7000e-004 | 2.2300e-003 | 1.0000e-005 | 8.8000e-004 | 0.0000 | 8.8000e-004 | 2.3000e-004 | 0.0000 | 2.4000e-004 | 0.0000 | 0.6662 | 0.6662 | 2.0000e-005 | 2.0000e-005 | 0.6717 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 2.5849 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 1.7100e-003 | 0.0115 | 0.0181 | 3.0000e-005 | | 5.2000e-004 | 5.2000e-004 | | 5.2000e-004 | 5.2000e-004 | 0.0000 | 2.5533 | 2.5533 | 1.4000e-004 | 0.0000 | 2.5567 |
| Total | 2.5866 | 0.0115 | 0.0181 | 3.0000e-005 | | 5.2000e-004 | 5.2000e-004 | | 5.2000e-004 | 5.2000e-004 | 0.0000 | 2.5533 | 2.5533 | 1.4000e-004 | 0.0000 | 2.5567 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Architectural Coating - 2025****Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|--------------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.9000e-004 | 1.7000e-004 | 2.2300e-003 | 1.0000e-005 | 8.8000e-004 | 0.0000 | 8.8000e-004 | 2.3000e-004 | 0.0000 | 2.4000e-004 | 0.0000 | 0.6662 | 0.6662 | 2.0000e-005 | 2.0000e-005 | 0.6717 |
| Total | 2.9000e-004 | 1.7000e-004 | 2.2300e-003 | 1.0000e-005 | 8.8000e-004 | 0.0000 | 8.8000e-004 | 2.3000e-004 | 0.0000 | 2.4000e-004 | 0.0000 | 0.6662 | 0.6662 | 2.0000e-005 | 2.0000e-005 | 0.6717 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|--------|------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.6651 | 1.1272 | 6.3070 | 0.0153 | 1.5673 | 0.0126 | 1.5799 | 0.4193 | 0.0118 | 0.4311 | 0.0000 | 1,452.2520 | 1,452.2520 | 0.0731 | 0.0778 | 1,477.2689 |
| Unmitigated | 0.6651 | 1.1272 | 6.3070 | 0.0153 | 1.5673 | 0.0126 | 1.5799 | 0.4193 | 0.0118 | 0.4311 | 0.0000 | 1,452.2520 | 1,452.2520 | 0.0731 | 0.0778 | 1,477.2689 |

4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-----------------------|-------------------------|----------|----------|-------------|------------|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Single Family Housing | 1,444.32 | 1,459.62 | 1308.15 | 4,180,793 | 4,180,793 |
| Total | 1,444.32 | 1,459.62 | 1,308.15 | 4,180,793 | 4,180,793 |

4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|-----------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Single Family Housing | 10.80 | 7.30 | 7.50 | 48.40 | 15.90 | 35.70 | 86 | 11 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-----------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Single Family Housing | 0.521458 | 0.053308 | 0.175656 | 0.151963 | 0.025001 | 0.006656 | 0.014407 | 0.022718 | 0.000702 | 0.000287 | 0.023515 | 0.001463 | 0.002865 |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|----------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 112.8805 | 112.8805 | 0.0183 | 2.2100e-003 | 113.9967 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 112.8805 | 112.8805 | 0.0183 | 2.2100e-003 | 113.9967 |
| NaturalGas Mitigated | 0.0198 | 0.1695 | 0.0721 | 1.0800e-003 | | 0.0137 | 0.0137 | | 0.0137 | 0.0137 | 0.0000 | 196.2585 | 196.2585 | 3.7600e-003 | 3.6000e-003 | 197.4248 |
| NaturalGas Unmitigated | 0.0198 | 0.1695 | 0.0721 | 1.0800e-003 | | 0.0137 | 0.0137 | | 0.0137 | 0.0137 | 0.0000 | 196.2585 | 196.2585 | 3.7600e-003 | 3.6000e-003 | 197.4248 |

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Single Family Housing | 3.67775e+006 | 0.0198 | 0.1695 | 0.0721 | 1.0800e-003 | | 0.0137 | 0.0137 | | 0.0137 | 0.0137 | 0.0000 | 196.2585 | 196.2585 | 3.7600e-003 | 3.6000e-003 | 197.4248 |
| Total | | 0.0198 | 0.1695 | 0.0721 | 1.0800e-003 | | 0.0137 | 0.0137 | | 0.0137 | 0.0137 | 0.0000 | 196.2585 | 196.2585 | 3.7600e-003 | 3.6000e-003 | 197.4248 |

Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Single Family Housing | 3.67775e+006 | 0.0198 | 0.1695 | 0.0721 | 1.0800e-003 | | 0.0137 | 0.0137 | | 0.0137 | 0.0137 | 0.0000 | 196.2585 | 196.2585 | 3.7600e-003 | 3.6000e-003 | 197.4248 |
| Total | | 0.0198 | 0.1695 | 0.0721 | 1.0800e-003 | | 0.0137 | 0.0137 | | 0.0137 | 0.0137 | 0.0000 | 196.2585 | 196.2585 | 3.7600e-003 | 3.6000e-003 | 197.4248 |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|-----------------|-----------|--------|-------------|----------|
| Land Use | kWh/yr | MT/yr | | | |
| Single Family Housing | 1.22002e+006 | 112.8805 | 0.0183 | 2.2100e-003 | 113.9967 |
| Total | | 112.8805 | 0.0183 | 2.2100e-003 | 113.9967 |

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|-----------------|-----------|--------|-------------|----------|
| Land Use | kWh/yr | MT/yr | | | |
| Single Family Housing | 1.22002e+006 | 112.8805 | 0.0183 | 2.2100e-003 | 113.9967 |
| Total | | 112.8805 | 0.0183 | 2.2100e-003 | 113.9967 |

6.0 Area Detail

6.1 Mitigation Measures Area

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AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|---------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 1.3748 | 0.0703 | 1.1593 | 4.3000e-004 | | 0.0109 | 0.0109 | | 0.0109 | 0.0109 | 0.0000 | 68.1364 | 68.1364 | 3.0500e-003 | 1.2200e-003 | 68.5747 |
| Unmitigated | 1.3748 | 0.0703 | 1.1593 | 4.3000e-004 | | 0.0109 | 0.0109 | | 0.0109 | 0.0109 | 0.0000 | 68.1364 | 68.1364 | 3.0500e-003 | 1.2200e-003 | 68.5747 |

6.2 Area by SubCategory**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|--------------------|--------------------|----------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.2585 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 1.0756 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 6.7000e-003 | 0.0572 | 0.0244 | 3.7000e-004 | | 4.6300e-003 | 4.6300e-003 | | 4.6300e-003 | 4.6300e-003 | 0.0000 | 66.2807 | 66.2807 | 1.2700e-003 | 1.2200e-003 | 66.6746 |
| Landscaping | 0.0341 | 0.0131 | 1.1350 | 6.0000e-005 | | 6.3000e-003 | 6.3000e-003 | | 6.3000e-003 | 6.3000e-003 | 0.0000 | 1.8557 | 1.8557 | 1.7800e-003 | 0.0000 | 1.9001 |
| Total | 1.3748 | 0.0703 | 1.1593 | 4.3000e-004 | | 0.0109 | 0.0109 | | 0.0109 | 0.0109 | 0.0000 | 68.1364 | 68.1364 | 3.0500e-003 | 1.2200e-003 | 68.5747 |

Tract 000 - Fresno County, Annual

AGENDA ITEM NO. 5.

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|--------------------|--------------------|----------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.2585 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 1.0756 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 6.7000e-003 | 0.0572 | 0.0244 | 3.7000e-004 | | 4.6300e-003 | 4.6300e-003 | | 4.6300e-003 | 4.6300e-003 | 0.0000 | 66.2807 | 66.2807 | 1.2700e-003 | 1.2200e-003 | 66.6746 |
| Landscaping | 0.0341 | 0.0131 | 1.1350 | 6.0000e-005 | | 6.3000e-003 | 6.3000e-003 | | 6.3000e-003 | 6.3000e-003 | 0.0000 | 1.8557 | 1.8557 | 1.7800e-003 | 0.0000 | 1.9001 |
| Total | 1.3748 | 0.0703 | 1.1593 | 4.3000e-004 | | 0.0109 | 0.0109 | | 0.0109 | 0.0109 | 0.0000 | 68.1364 | 68.1364 | 3.0500e-003 | 1.2200e-003 | 68.5747 |

7.0 Water Detail**7.1 Mitigation Measures Water**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|-------------|---------|
| Category | MT/yr | | | |
| Mitigated | 10.1884 | 0.3260 | 7.8100e-003 | 20.6642 |
| Unmitigated | 10.1884 | 0.3260 | 7.8100e-003 | 20.6642 |

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|-----------|--------|-------------|---------|
| Land Use | Mgal | MT/yr | | | |
| Single Family Housing | 9.96857 / 6.28453 | 10.1884 | 0.3260 | 7.8100e-003 | 20.6642 |
| Total | | 10.1884 | 0.3260 | 7.8100e-003 | 20.6642 |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|-----------|--------|-------------|---------|
| Land Use | Mgal | MT/yr | | | |
| Single Family Housing | 9.96857 / 6.28453 | 10.1884 | 0.3260 | 7.8100e-003 | 20.6642 |
| Total | | 10.1884 | 0.3260 | 7.8100e-003 | 20.6642 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|---------|
| | MT/yr | | | |
| Mitigated | 32.0076 | 1.8916 | 0.0000 | 79.2975 |
| Unmitigated | 32.0076 | 1.8916 | 0.0000 | 79.2975 |

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|--------------------------|-------------------|-----------|--------|--------|---------|
| Land Use | tons | MT/yr | | | |
| Single Family Housing | 157.68 | 32.0076 | 1.8916 | 0.0000 | 79.2975 |
| Total | | 32.0076 | 1.8916 | 0.0000 | 79.2975 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|--------------------------|-------------------|-----------|--------|--------|---------|
| Land Use | tons | MT/yr | | | |
| Single Family Housing | 157.68 | 32.0076 | 1.8916 | 0.0000 | 79.2975 |
| Total | | 32.0076 | 1.8916 | 0.0000 | 79.2975 |

9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

| | | | | | | |
|----------------|--------|-----------|------------|-------------|-------------|-----------|
| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|------------|-------------|-------------|-----------|

Boilers

| | | | | | |
|----------------|--------|----------------|-----------------|---------------|-----------|
| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|

User Defined Equipment

| | |
|----------------|--------|
| Equipment Type | Number |
|----------------|--------|

11.0 Vegetation

Appendix-B

ISR Fee Estimate

Emissions Estimator Worksheet

AGENDA ITEM NO. 5.

| | |
|--------------------------|--|
| Applicant/Business Name: | Lennar Central Valley California |
| Project Name: | Wilde North at Heritage Grove Residential Development(Ricchiuti Sunnyside) |
| Project Location: | Northeast portion of Perrin and Bryan Avenue, Fresno County |
| District Project ID No.: | |

| Project Construction Emissions | | | | | | | | | | | | |
|--|-----------|-------------------------|---|---|---|--|---|---|---|---|--|---|
| If applicant selected Construction Clean Fleet Mitigation Measure - Please select "Yes" from dropdown menu | | | | | | | | | | | | Yes |
| Project Phase Name | ISR Phase | Construction Start Date | NOx | | | | | PM10 | | | | |
| | | | Unmitigated Baseline ⁽¹⁾ (TPY) | Mitigated Baseline ⁽²⁾ (TPY) | Achieved On-site Reductions ⁽³⁾ (tons) | Required Off-site Reductions ⁽⁴⁾ (tons) | Emission Reductions Required by Rule ⁽⁵⁾ | Unmitigated Baseline ⁽¹⁾ (TPY) | Mitigated Baseline ⁽²⁾ (TPY) | Achieved On-site Reductions ⁽³⁾ (tons) | Required Off-site Reductions ⁽⁴⁾ (tons) | Emission Reductions Required by Rule ⁽⁵⁾ |
| Ricchiuti Sunnyside | 1 | 1/8/2025 | 2.2200 | 1.7760 | 0.4440 | 0.0000 | 0.4440 | 0.3900 | 0.2145 | 0.1755 | 0.0000 | 0.1755 |
| | 2 | | | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 |
| | 3 | | | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 |
| | 4 | | | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 |
| | 5 | | | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 |
| | 6 | | | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 |
| | 7 | | | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 |
| | 8 | | | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 |
| | 9 | | | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 |
| | 10 | | | | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 |
| | | Total | 2.2200 | 1.7760 | 0.4440 | 0.0000 | 0.4440 | 0.3900 | 0.2145 | 0.1755 | 0.0000 | 0.1755 |

| Total Achieved On-Site Reductions (tons) | | |
|--|--------|--------|
| ISR Phase | NOx | PM10 |
| 1 | 0.4440 | 0.1755 |
| 2 | 0.0000 | 0.0000 |
| 3 | 0.0000 | 0.0000 |
| 4 | 0.0000 | 0.0000 |
| 5 | 0.0000 | 0.0000 |
| 6 | 0.0000 | 0.0000 |
| 7 | 0.0000 | 0.0000 |
| 8 | 0.0000 | 0.0000 |
| 9 | 0.0000 | 0.0000 |
| 10 | 0.0000 | 0.0000 |
| Total | 0.4440 | 0.1755 |

| Project Operations Emissions (Area + Mobile) | | | | | | | | | | | | | | | |
|--|--------------|-------------------------|---|---|--|---|---|---|---|---|--|---|---|---|--|
| | | | NOx | | | | | | PM10 | | | | | | |
| Project Phase Name | ISR Phase | Operation Start Date | Unmitigated Baseline ⁽¹⁾ (TPY) | Mitigated Baseline ⁽²⁾ (TPY) | Achieved On-site Reductions ⁽³⁾ (tons) | Required Off-site Reductions ⁽⁴⁾ (tons) | Total Emission Reductions Required by Rule ⁽⁶⁾ | Average Annual Emission Reductions Required by Rule ⁽⁷⁾ | Unmitigated Baseline ⁽¹⁾ (TPY) | Mitigated Baseline ⁽²⁾ (TPY) | Achieved On-site Reductions ⁽³⁾ (tons) | Required Off-site Reductions ⁽⁴⁾ (tons) | Total Emission Reductions Required by Rule ⁽⁶⁾ | Average Annual Emission Reductions Required by Rule ⁽⁷⁾ | |
| Ricchiuti SunnySide | 1 | 9/9/2025 | 1.3600 | 1.3600 | 0.0000 | 3.4000 | 3.4000 | 0.3400 | 1.6000 | 1.6000 | 0.0000 | 8.0000 | 8.0000 | 0.8000 | |
| | 2 | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| | 3 | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| | 4 | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| | 5 | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| | 6 | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| | 7 | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| | 8 | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| | 9 | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| | 10 | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| | | Total | 1.3600 | 1.3600 | 0.0000 | 3.4000 | 3.4000 | 0.3400 | 1.6000 | 1.6000 | 0.0000 | 8.0000 | 8.0000 | 0.8000 | |

| Total Required Off-Site Reductions (tons) | | |
|---|--------|--------|
| ISR Phase | NOx | PM10 |
| 1 | 3.4000 | 8.0000 |
| 2 | 0.0000 | 0.0000 |
| 3 | 0.0000 | 0.0000 |
| 4 | 0.0000 | 0.0000 |
| 5 | 0.0000 | 0.0000 |
| 6 | 0.0000 | 0.0000 |
| 7 | 0.0000 | 0.0000 |
| 8 | 0.0000 | 0.0000 |
| 9 | 0.0000 | 0.0000 |
| 10 | 0.0000 | 0.0000 |
| Total | 3.4000 | 8.0000 |

Notes:

TPY: Tons Per Year

⁽¹⁾ **Unmitigated Baseline:** The project's baseline emissions generated with no on-site emission reduction measures.

⁽²⁾ **Mitigated Baseline:** The project's baseline emissions generated after on-site emission reduction measures have been applied.

⁽³⁾ **Achieved On-site Reductions:** The project's emission reductions achieved after on-site emission reduction measures have been applied.

⁽⁴⁾ **Required Off-site Reductions:** The project's remaining emission reductions required by Rule 9510 if on-site emission reduction measures did not achieve the required rule reductions.

⁽⁵⁾ **Emission Reductions Required by Rule:** The project's emission reductions required (20% NOx and 45% PM10) for construction from the unmitigated baseline.

⁽⁶⁾ **Total Emission Reductions Required by Rule:** The project's emission reductions required (33.3% NOx and 50% PM10) for operations from the unmitigated baseline over a 10-year period.

⁽⁷⁾ **Average Annual Emission Reductions Required by Rule:** The project's total emission reduction for operations required by Rule 9510 divided by 10 years.

1/12/2024

| | |
|---------------------------------|---|
| Applicant/Business Name: | Lennar Central Valley California |
| Project Name: | Wilde North at Heritage Grove Residential Development(Ricchiuti Sunnyside) |
| Project Location: | Northeast portion of Perrin and Bryan Avenue, Fresno County |
| District Project ID No.: | |

(1) The start date for each ISR phase is shown in TABLE 1.

(2) If you have chosen a **ONE-TIME** payment for the project, then the total amount due for ALL PHASES is shown under TABLE 2.

(3) If you have chosen a **DEFERRED** payment schedule or would like to propose a **DEFERRED** payment schedule for the project, the total amount due for a specific year is shown in TABLE 3 according to the schedule in TABLE 1.

* If you have not provided a proposed payment date, the District sets a default invoice date of 60 days prior to start of the ISR phase.

[illegible]

| Rule 9510 Fee Schedule (\$/ton) | | |
|---------------------------------|---------|---------|
| Year | Nox | PM10 |
| 2021 and Beyond | \$9,350 | \$9,011 |



**BIOLOGICAL EVALUATION
LENNAR HOMES TRACT 6452
FRESNO COUNTY, CALIFORNIA**

Prepared by:

LIVE OAK ASSOCIATES, INC.

Austin Pearson, Vice President
Rebekah Jensen, Senior Project Manager and Ecologist

Prepared for:

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November 8, 2023

PN 2817-01

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EXECUTIVE SUMMARY

Live Oak Associates, Inc. (LOA) investigated the biological resources of an approximately 18-acre site proposed for a residential development and evaluated potential project-related impacts to such resources pursuant to the California Environmental Quality Act (CEQA). The site is located immediately north of Clovis city limits, in unincorporated Fresno County, California. The project would subdivide the existing parcel into 153 single-family lots, annex the development into the City of Clovis, and change the zoning to accommodate medium- and low-density residential housing. Full buildout of the site is anticipated.

LOA's analysis was based on a reconnaissance-level field survey conducted on September 25, 2023. At that time, the site consisted of a vacant field traversed by several dirt roads and containing several cleared and graded areas. It supported grasses and forbs typical of annual grasslands in the region, and could best be characterized as ruderal grassland habitat. It did not contain aquatic resources, wildlife movement corridors, sensitive natural communities, or designated critical habitat.

The project site has the potential to be used by various wildlife species, possibly including the special-status tricolored blackbird, Swainson's hawk, golden eagle, pallid bat, spotted bat, and western mastiff bat. None of these species have the potential to nest or roost on the project site; however, the Swainson's hawk could potentially nest close enough to the site that individuals could be disturbed by construction activities. Construction-related injury, mortality, and disturbance of nesting Swainson's hawks and other nesting birds and raptors is considered a potentially significant impact of the project.

No other biological resources would be significantly impacted by project implementation. Impacts are considered less than significant for all regionally-occurring special status plant species, 22 of 23 regionally-occurring special status animal species, wildlife movement corridors, sensitive natural communities, jurisdictional waters, and designated critical habitat. The project appears to be consistent with City of Clovis and County of Fresno General Plan policies related to biological resources, and there are no known Habitat Conservation Plans or Natural Community Conservation Plans in the area.



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1.0 INTRODUCTION

This technical report, prepared by Live Oak Associates, Inc. (LOA) in support of California Environmental Quality Act (CEQA) review, describes the biological resources of an approximately 18-acre site (“project site”) proposed for a residential development (“project”), and evaluates the potential impacts to biological resources associated with project implementation. The project is located immediately north of Clovis city limits in unincorporated Fresno County, California (Figure 1). It may be found on the *Clovis* and *Friant* U.S. Geological Survey (USGS) 7.5-minute quadrangles, in Section 20 of Township 12 South, Range 21 East, Mount Diablo Base and Meridian (Figure 2).

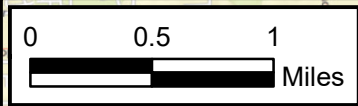
1.1 PROJECT DESCRIPTION

Lennar Homes Central Valley proposes a residential development on approximately 18 acres located between Barron and Sunnyside Avenues, north of Perrin Avenue. The existing Tract 6452 will be subdivided into 153 single-family lots and annexed into the City of Clovis. Current County of Fresno zoning is AE-20, which provides for agricultural and related uses on minimum 20-acre parcels; proposed City of Clovis zoning is Medium and Low Density Residential (M/L). The residential development will be located within the City of Clovis Heritage Grove Master Plan and will be subject to design development standards of the plan.

1.2 REPORT OBJECTIVES

This report summarizes a biological study conducted by LOA to facilitate environmental review pursuant to CEQA. As such, the report’s objectives are to:

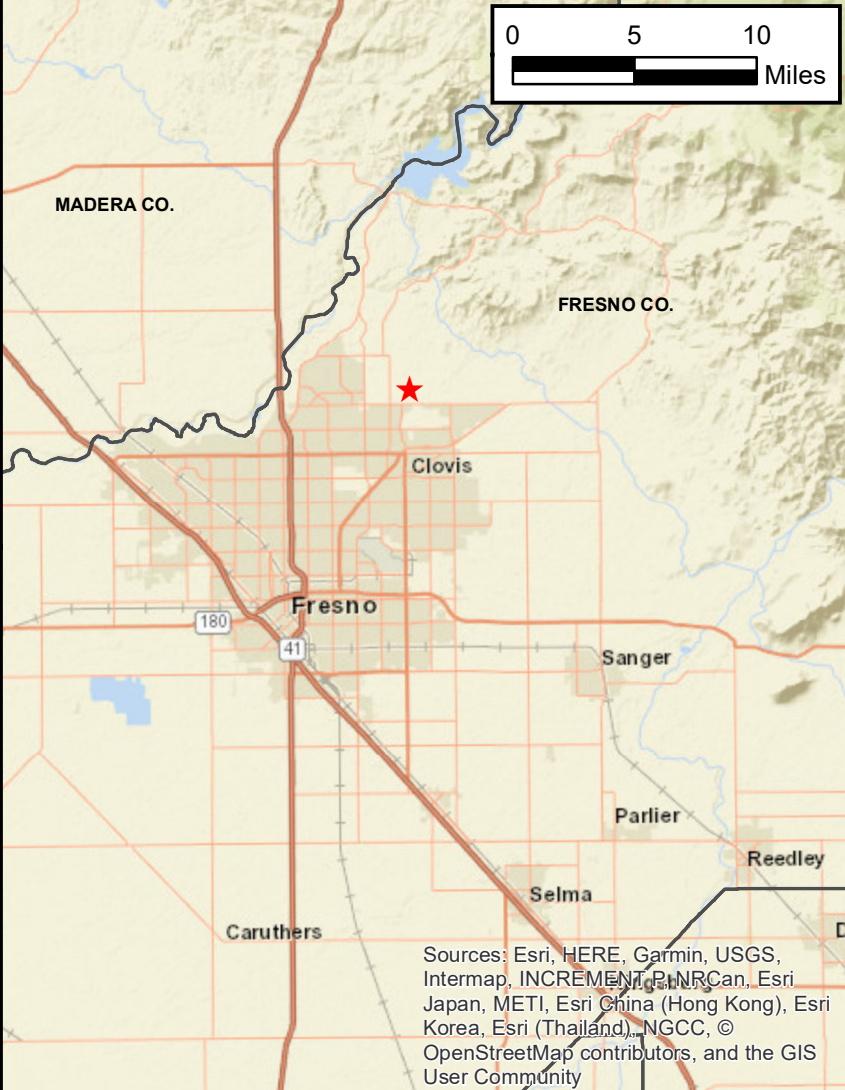
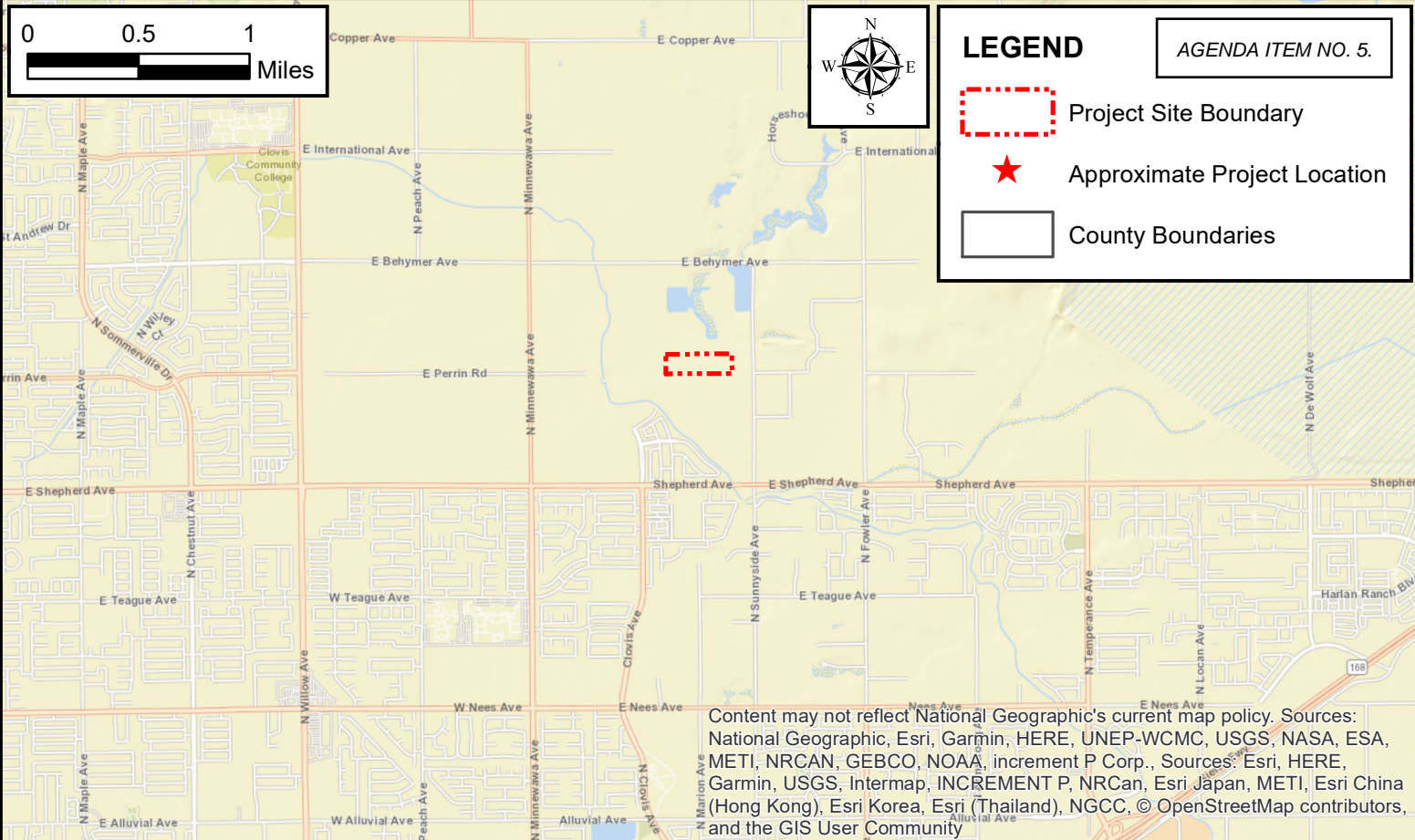
- Characterize the project site’s existing biological resources, including biotic habitats, flora and fauna, soils, and aquatic resources.
- Evaluate the project site’s potential to support sensitive resources such as special status species, sensitive natural communities, and jurisdictional waters and wetlands.
- Summarize all state and federal natural resource protection laws that may be relevant to project implementation.
- Identify and discuss potential project-related impacts to biological resources within the context of CEQA and other state and federal laws.



LEGEND

AGENDA ITEM NO. 5.

- Project Site Boundary
- Approximate Project Location
- County Boundaries





LIVE OAK

ASSOCIATES, INC.

Lennar Homes Tract 6452
Vicinity Map

Date
09/28/2023

Project #
2817-01

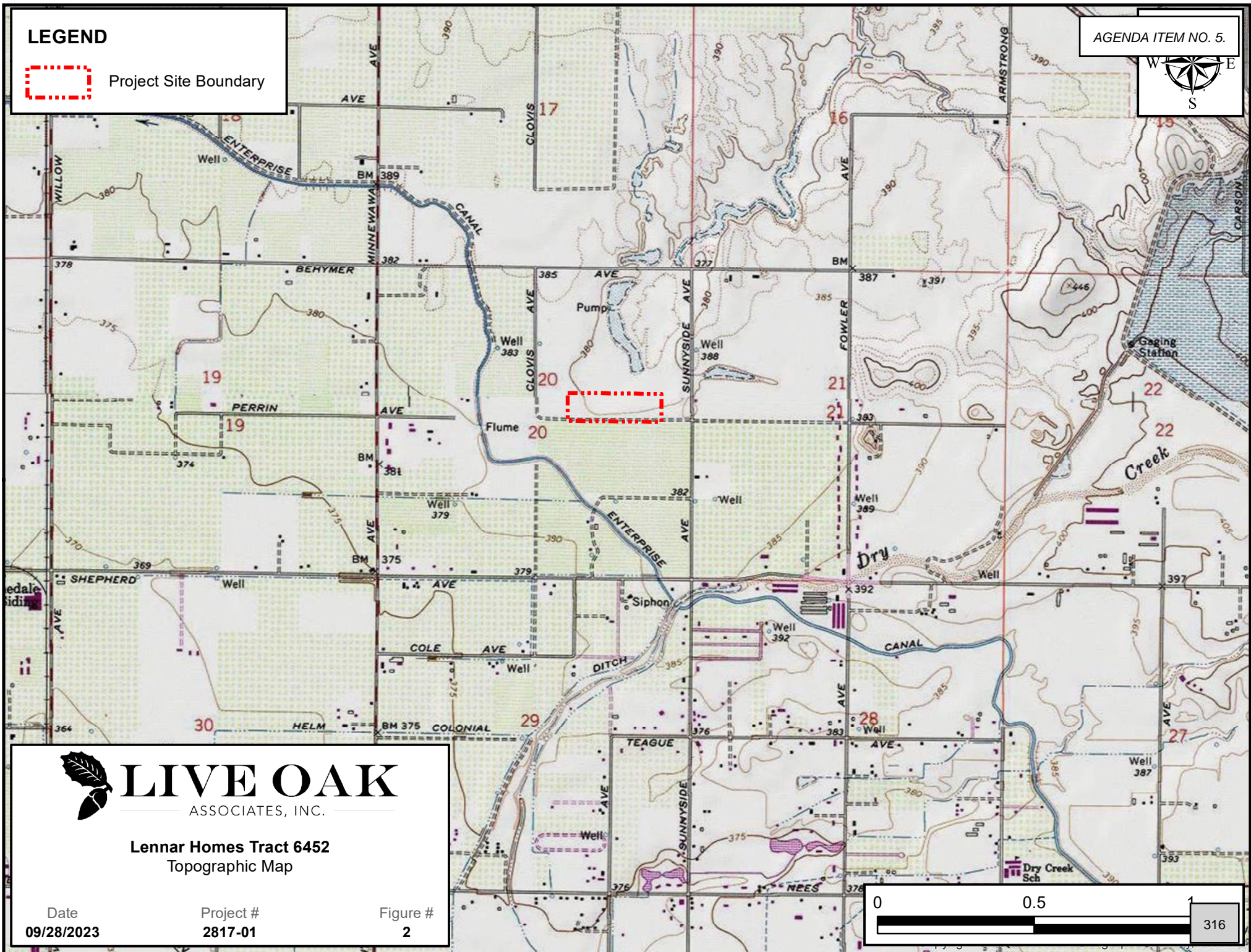
Fig. 315

LEGEND



Project Site Boundary

AGENDA ITEM NO. 5.



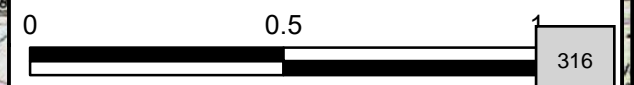
LIVE OAK
ASSOCIATES, INC.

Lennar Homes Tract 6452
Topographic Map

Date
09/28/2023

Project #
2817-01

Figure #
2





- Identify avoidance and mitigation measures that would reduce the magnitude of project-related impacts in a manner consistent with CEQA and species-specific guidelines.

1.3 STUDY METHODOLOGY

A reconnaissance-level field survey of the project site was conducted on September 25, 2023 by LOA ecologist Jeff Gurule. The survey consisted of walking and driving through the project site while identifying its principal land uses, biotic habitats, flora, and fauna, and assessing its potential to support special status species and other sensitive resources.

LOA conducted an analysis of potential project impacts based on the known and potential biotic resources of the project site. Sources of information used in the preparation of this analysis included the *California Natural Diversity Data Base* (CDFW 2023), *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2023), and manuals, reports, and references related to plants and animals of the project vicinity.



2.0 EXISTING CONDITIONS

2.1 REGIONAL SETTING

The project site is located near the eastern margin of the San Joaquin Valley, about four miles southwest of the lowest Sierra foothills. The San Joaquin Valley is a large, nearly flat alluvial plain bordered by the Sierra Nevada to the east, the Tehachapi Mountains to the south, the California coast ranges to the west, and the Sacramento-San Joaquin Delta to the north.

Like most of California, the San Joaquin Valley experiences a Mediterranean climate. Warm, dry summers are followed by cool, moist winters. Summer temperatures commonly exceed 90 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely exceed 70 degrees Fahrenheit, with daytime highs often below 60 degrees Fahrenheit. Annual precipitation in the project vicinity varies considerably from year to year, but averages approximately 11 inches, almost all of which falls between the months of October and March (Western Regional Climate Center 2018). Nearly all precipitation falls in the form of rain.

The principal drainage of the project vicinity is Dry Creek, which originates in the Sierra Nevada foothills and flows past the project site approximately 0.6 mile to the southeast at its closest point. Like many other natural drainages in Fresno County, Dry Creek in the project vicinity is heavily modified, having been channelized, realigned, dammed, and diverted to prevent flooding and to convey flows around developed areas.

The project site is located in the outskirts of Clovis, at the interface of urban and rural land uses. It is situated in a mosaic of agricultural lands, rural residences, and low- to medium-density residential subdivisions. An adjacent Lennar Homes housing development, Tract 6200, is located immediately south of the site and was actively under construction at the time of LOA's field survey. A Fresno Metropolitan Flood Control District (FMFCD) basin facility is located immediately to the north. To the east and west lie vacant land similar to the project site. The nearest areas of relatively undisturbed natural lands are located approximately 0.6 mile east and 2 miles north of the project site; both are annual grasslands that do not appear to have previously been used for agricultural cultivation. Please refer to Figure 3 for an aerial map of the project site and surrounding lands.

LEGEND



Project Site Boundary

AGENDA ITEM NO. 5.



Behymer Ave.

Clovis Ave.

Fresno Metropolitan
Flood Control District
Basin Facility

Approx. 0.6 mile

Contiguous Grassland

Enterprise Canal

Lennar Homes
Tract 6200
(Under Construction)

Sunnyside Ave.

Shepherd Ave.

Fowler Ave.



LIVE OAK

ASSOCIATES, INC.

Lennar Homes Tract 6452
Aerial Map

CLOVIS

Date
09/28/2023

Project #
2817-01

Figure #
3

0 0.25 0.5



319

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



2.2 PROJECT SITE

The project site has relatively level topography and sits at an elevation of approximately 385 feet above sea level. At the time of LOA's survey, it consisted of a vacant field traversed by several dirt roads. A portion of the eastern end of the site had elevated topography, possibly the result of excess soil storage, and a shallow excavated area was observed in the middle of the site. An approximately 2-acre area along the site's southern boundary was enclosed by silt fencing associated with the adjoining Lennar Homes Tract 6200 project, which was under construction. The project site does not appear to have previously been cultivated, other than possible dry-farming. Analysis of aerial imagery indicates that it is periodically disked and/or mowed, with some areas subject to grading, and that the configuration of dirt roads has changed over time.

The site contains two soil map units: Atwater sandy loam, 0 to 3 percent slopes; and Greenfield sandy loam, 0 to 3 percent slopes (NRCS 2023). Neither of these map units are considered hydric, meaning they do not have the propensity to pond water and support the growth of wetland vegetation.

Lists of the vascular plant species observed within the project site and the terrestrial vertebrates using, or potentially using, the site are provided in Appendices A and B, respectively. Representative photographs are presented in Appendix C.

2.3 LAND USES / BIOTIC HABITATS

A single biotic habitat was identified within the project site: ruderal grassland. This habitat supported grasses and forbs typical of annual grasslands in the project vicinity, but was characterized by repeated disturbance including disking and mowing, road construction, and localized grading. Dominant plant species at the time of LOA's survey were primarily non-native and included foxtail barley (*Hordeum murinum*), wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), prickly lettuce (*Lactuca serriola*), doveweed (*Croton setiger*), jimsonweed (*Datura wrightii*), and red-stemmed filaree (*Erodium cicutarium*).



The degraded nature of this grassland, combined with its location within the outskirts of Clovis, limits its potential for faunal biodiversity. However, some wildlife species certainly utilize the grassland. Reptiles expected to occur in this habitat include the side-blotched lizard (*Uta stansburiana*), common kingsnake (*Lampropeltis californiae*), and Pacific gopher snake (*Pituophis catenifer catenifer*). Common amphibians such as the western toad (*Bufo boreas*) and Sierran treefrog (*Pseudacris sierra*) may breed at the adjoining FMFCD basin facility and subsequently disperse through the site's grassland habitat.

The site's ruderal grassland is expected to support both nesting and foraging by various avian species. Likely nesters include the western meadowlark (*Sturnella neglecta*) and mourning dove (*Zenaidura macroura*), both of which nest in ground vegetation, and the killdeer (*Charadrius vociferus*), which preferentially nests in disturbed areas and may use sparsely vegetated or barren portions of the grassland. Likely foragers include the western kingbird (*Tyrannus verticalis*) in the summer, the Say's phoebe (*Sayornis saya*) and savannah sparrow (*Passerculus sandwichensis*) in the winter, and the Brewer's blackbird (*Euphagus cyanocephalus*), American kestrel (*Falco sparverius*) and red-tailed hawk (*Buteo jamaicensis*) year-round.

Small mammal use of the ruderal grassland is expected to include the deer mouse (*Peromyscus maniculatus*), California vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*). At the time of LOA's field survey, burrowing rodent activity was limited to a small area in the northwestern portion of the site that was recently used for bee boxes (Google Earth aerial imagery dated May 2023) and was relatively barren of vegetation. All burrows in this area were associated with the Botta's pocket gopher and were plugged with soil. No open burrows were observed anywhere on the site.

Mammalian predators expected to use the site's ruderal grassland include the coyote (*Canis latrans*), raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*). Due to the proximity of residences, domestic dogs (*Canis familiaris*) and cats (*Felis catus*) may also occur here from time to time.



2.4 SPECIAL STATUS PLANTS AND ANIMALS

Many species of plants and animals within the state of California have low populations, limited distributions, or both. Such species may be considered “rare” and are vulnerable to extirpation as the state’s human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided CDFW and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as “candidates” for such listing. Still others have been designated as “species of special concern” or “fully protected” by CDFW. The California Native Plant Society (CNPS) has developed its own ranking system, California Rare Plant Ranks (CRPR), for native plants considered rare, threatened, or endangered (CNPS 2023). Plants with a CRPR ranking of 1 or 2 meet the definitions of the California Endangered Species Act and are eligible for state listing. Collectively, all of the aforementioned plants and animals are referred to as “special status species.”

The California Natural Diversity Data Base (CNDDDB) (CDFW 2023) was queried for special status species occurrences in the twelve USGS 7.5-minute quadrangles containing and immediately surrounding the project site (*Clovis, Friant, Little Table Mtn., Millerton Lake West, Millerton Lake East, Academy, Round Mountain, Sanger, Malaga, Fresno South, Fresno North, and Lanes Bridge*). These species, and their potential to occur on site, are listed in Table 1 on the following pages. Sources of information for Table 1 included *California’s Wildlife, Volumes I, II, and III* (Zeiner et. al 1988), *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al. 2012), CNPS’s *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2023), Calflora.org, and eBird.org.

**TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY**

PLANTS (adapted from CDFW 2023, CNPS 2023)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

| Species | Status | Habitat / Range | Occurrence on the Project Site |
|---|-----------------|---|---|
| Succulent owl's clover (<i>Castilleja campestris</i> var. <i>succulenta</i>) | FT, CE, CRPR 1B | Occurs in freshwater wetlands, and occasionally in non-wetlands in Valley grassland and foothill woodlands, between 130 and 2,000 ft. in elevation. Blooms April-May. | Absent. Suitable vernal pool habitat for this species is absent from the project site. |
| California jewelflower (<i>Caulanthus californicus</i>) | FE, CE, CRPR 1B | Occurs in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland in sandy soils. Elevations between 200 and 3,300 feet. Blooms February-May. | Absent. All historical populations of this species on the San Joaquin Valley floor are thought to have been extirpated by 1986 (USFWS 1998). There is only one known occurrence of the California jewelflower, historical or otherwise, within approximately 50 miles of the project site. It is generally mapped to Fresno, based on a collection from the late 1890s or early 1900s. That population has long since been extirpated (CDFW 2023). |
| Boggs Lake hedge-hyssop (<i>Gratiola heterosepala</i>) | CE, CRPR 1B | Found in vernal pools or lake margins, usually in clay soils; elevations up to 7,800 feet. Blooms April-August. | Absent. Suitable aquatic habitat for this species is absent from the project site. |
| San Joaquin Valley orcutt grass (<i>Orcuttia inaequalis</i>) | FT, CE, CRPR 1B | Occurs in Central Valley vernal pools between 130 and 820 ft. in elevation. Requires deep pools with prolonged periods of inundation. Blooms April-Sept. | Absent. Suitable vernal pool habitat for this species is absent from the project site. |
| Hairy orcutt grass (<i>Orcuttia pilosa</i>) | FE, CE, CRPR 1B | Occurs in Central Valley vernal pools between 65 and 1,215 ft. in elevation. Requires deep pools with prolonged periods of inundation. Blooms May-Sept. | Absent. Suitable vernal pool habitat for this species is absent from the project site. |
| Hartweg's golden sunburst (<i>Pseudobahia bahiifolia</i>) | FE, CE, CRPR 1B | Occurs in grasslands of the western foothills of the Sierra Nevada in heavy clay soils of the Porterville, Cibo, Mt. Olive and Centerville soil series, between 230 and 525 ft. in elevation. Blooms March-April. | Absent. Suitable soils for this species are absent from the project site. |
| San Joaquin adobe sunburst (<i>Pseudobahia peirsonii</i>) | FT, CE, CRPR 1B | Annual sunflower occurs in grasslands of the Sierra Nevada foothills in heavy clay soils of the Porterville and Centerville series, between 300 and 2,625 ft. in elevation. Blooms March-April. | Absent. Suitable soils for this species are absent from the project site. |
| Greene's tuctoria (<i>Tuctoria greenei</i>) | FE, CR, CRPR 1B | Occurs in vernal pools between 130 and 3,740 ft. in elevation. Requires deep pools with prolonged periods of inundation. Blooms May-Sept. | Absent. Suitable vernal pool habitat for this species is absent from the project site. |

**TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY****PLANTS (cont'd)***CNPS-ranked Species*

| Species | Status | Habitat / Range | Occurrence on the Project Site |
|---|---------------|--|---|
| Hoover's calycadenia (<i>Calycadenia hooveri</i>) | CRPR 1B | Occurs on exposed, rocky, barren soil within valley grasslands and foothill woodlands between 200 and 980 ft. in elevation. Blooms June-September. | Absent. Suitable rocky soils for this species are absent from the project site. There is only one documented occurrence of this species on the valley floor, recorded in Stanislaus County in 1976. All other known populations are on and around rock formations in the lower foothills (CDFW 2023). |
| Bristly sedge (<i>Carex comosa</i>) | CRPR 2B | Found at the margins of lakes and other marsh habitats within valley and foothill grassland and coastal prairie ecosystems. Elevations up to 2,000 ft. Blooms May-September. | Absent. Suitable habitat for this species is absent from the project site. |
| Tree-anemone (<i>Carpenteria californica</i>) | CRPR 1B | Found within on well-drained granitic soils within woodland and chaparral habitats, usually in north-facing ravines and drainages. Elevations 1,100-4,400 feet; blooms April-July. | Absent. Habitat for tree-anemone is absent from the project site, and the site is situated below this species' elevational distribution. |
| Dwarf downingia (<i>Downingia pusilla</i>) | CRPR 2B | Occurs in vernal pools in valley and foothill grassland habitats up to 1,460 ft. in elevation. Blooms March-May. | Absent. Suitable vernal pool habitat for this species is absent from the project site. |
| Spiny-sepaled button-celery (<i>Eryginum spinosepalum</i>) | CRPR 1B | Occurs in vernal pools in valley and foothill grasslands of the San Joaquin Valley and the Tulare Basin, between 330 and 840 ft. in elevation. Blooms April-May. | Absent. Suitable vernal pool habitat for this species is absent from the project site. |
| California satintail (<i>Imperata brevifolia</i>) | CRPR 2B | Found in wetland seeps and riparian areas within various types of scrub, chaparral, and desert communities up to 4,000 feet in elevation. Blooms September-May. | Absent. Suitable habitat for this species is absent from the project site. |
| Forked hare-leaf (<i>Lagophylla dichotoma</i>) | CRPR 1B | Occurs in woodland and valley and foothill grassland habitats, sometimes in clay soils, at elevations from 600 to 1,100 feet. Blooms April-May. | Absent. The site is below the typical elevational range of the forked hare-leaf, and its degraded grassland habitat would be marginal, at best, for this species. There are only seven CNDDDB occurrences of the forked hare-leaf; only one of these, from 1915, is mapped on the valley floor, and there is considerable location uncertainty associated with it. All other known occurrences are in the lower foothills. |
| Madera leptosiphon (<i>Leptosiphon serrulatus</i>) | CRPR 1B | Found on dry slopes, often on decomposed granite, within cismontane woodlands and lower montane coniferous forests. May occur in disturbed locations such as roadcuts (CDFW 2023, iNaturalist 2023). Elevations between 100 and 4,200 ft.; blooms April – May. | Absent. Habitat for Madera leptosiphon is absent from the project site, and the site is situated below this species' elevational distribution. |

**TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY****PLANTS (cont'd)****CNPS-ranked Species**

| Species | Status | Habitat / Range | Occurrence on the Project Site |
|--|---------|--|--|
| Orange Lupine (<i>Lupinus citrinus</i> var. <i>citrinus</i>) | CRPR 1B | Found in association with rocky, decomposed granitic outcrops in chaparral, woodland, and lower montane coniferous forest 2,000-5,500 ft. in elevation. Blooms April-August. | Absent. Habitat for orange lupine is absent from the project site, and the site is situated below this species' elevational distribution. |
| Pincushion navarretia (<i>Navarretia myersii</i> ssp. <i>myersii</i>) | CRPR 1B | Found in vernal pools within annual grassland habitats at elevations up to 1,000 ft. Blooms April-May. | Absent. Suitable vernal pool habitat for this species is absent from the project site. |
| Sanford's arrowhead (<i>Sagittaria sanfordii</i>) | CRPR 1B | Occurs in shallow freshwater marshes, ponds, sloughs, and ditches of the Central Valley and Sierra Nevada foothills up to 2,100 ft. in elevation. Blooms May-October. | Absent. Suitable aquatic habitat for this species is absent from the project site. |

ANIMALS (cont'd)**Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act**

| | | | |
|--|-----|--|--|
| Crotch bumblebee (<i>Bombus crotchii</i>) | CCE | Once common in the Central Valley, this species is now absent from most of it, particularly in the central portion of its historic range. Where present, it is associated with open grassland and scrub habitats, where it relies on food plants of the <i>Asclepias</i> , <i>Chaenactis</i> , <i>Lupinus</i> , <i>Medicago</i> , <i>Phacelia</i> , and <i>Salvia</i> genera (Williams et al. 2014). | Unlikely. This species is unlikely to occur in the matrix of residential and agricultural lands that characterizes the project vicinity. In fact, it is generally thought to be absent from the valley floor. |
| Valley elderberry longhorn beetle (VELB) (<i>Desmocerus californicus dimorphus</i>) | FT | Lives in mature elderberry shrubs of California's Central Valley and Sierra foothills, generally along waterways and in floodplains. | Absent. The USFWS has revised its understanding of VELB distribution to exclude the San Joaquin Valley south of Merced County. Moreover, elderberry shrubs are absent from the project site. |
| Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>) | FT | Occurs in vernal pools, clear to tea-colored water in grass or mud-bottomed swales, and basalt depression pools. | Absent. Suitable vernal pool habitat for this species is absent from the project site. |
| Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>) | FE | Found in vernal pools and other seasonal wetlands in the Central Valley, Bay Delta, and eastern San Francisco Bay Area. | Absent. Suitable vernal pool habitat for this species is absent from the project site. |



TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS (cont'd)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

| Species | Status | Habitat / Range | Occurrence on the Project Site |
|---|----------|---|---|
| California tiger salamander (CTS) (<i>Ambystoma californiense</i>) | FT, CT | Found primarily in annual grasslands; requires vernal pools for breeding and rodent burrows for aestivation. Although most CTS aestivate within 0.4 mile of their breeding pond, outliers may aestivate up to 1.3 miles away (Orloff 2011). | Unlikely. CTS were historically common in the project vicinity; the CNDDDB lists 14 occurrences within 5 miles of the project site. All extant occurrences in the project vicinity are associated with contiguous grassland habitats. The closest such grassland is about 0.6 mile east of the project site at its nearest point. The closest extant CTS occurrences are in this same grassland area, at about 0.9 and 1.3 miles east of site boundaries. While CTS associated with this block of natural land may be physiologically capable of accessing the project site, it is extremely unlikely that individuals of this species would forgo suitable habitat in favor of the anthropogenic landscape that characterizes the project vicinity. Moreover, the site does not contain any habitat features that could support CTS life stages. Aquatic habitat is absent, and at the time of LOA's survey, the site contained no open burrows within which CTS could aestivate. |
| Western pond turtle (<i>Actinemys marmorata</i>) | FPT, CSC | Occurs in ponds, lakes, rivers, creeks, marshes, and irrigation ditches with abundant vegetation, and either rocky or muddy bottoms. Logs, rocks, cattail mats, and exposed banks are required for basking. Eggs are deposited in a variety of soil types on shore. | Unlikely. Suitable aquatic habitat for the western pond turtle is absent from the project site and adjacent lands. The detention basins of the adjoining FMFCD facility do not appear to have an adequate inundation regime for this species. |
| Swainson's hawk (<i>Buteo swainsoni</i>) | CT | This breeding migrant to California nests in mature trees in riparian areas and oak savannah, and occasionally in lone trees at the margins of agricultural fields. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations. | Possible. Swainson's hawks are occasionally sighted in the project vicinity (eBird 2023), and there is some chance for individuals of this species to forage on site from time to time. Nesting habitat is absent from the site itself, but may be found on nearby rural residential properties and along the Enterprise Canal. |
| Golden eagle (<i>Aquila chrysaetos</i>) | CFP | Found a wide range of habitats throughout California's mountains, foothills, sage-juniper flats, and deserts. Primarily nests on cliffs, but may also use large trees in open areas. | Possible. Golden eagles may occasionally pass over or forage on site, but nesting habitat is absent from the site and surrounding lands. |
| Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>) | FT, CE | Frequents valley foothill and desert riparian habitats in scattered locations in California. | Absent. This species has been extirpated from the project vicinity. |
| Least Bell's vireo (<i>Vireo bellii pusillus</i>) | FE, CE | This breeding migrant nests in dense, early-successional riparian vegetation, and forages in adjacent chaparral and coastal sage scrub. Winters in Mexico and Central America. | Absent. Suitable habitat for this species is absent from the project vicinity. |

**TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY****ANIMALS (cont'd)***Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act*

| Species | Status | Habitat / Range | Occurrence on the Project Site |
|---|--------|--|--|
| Tricolored blackbird (<i>Agelaius tricolor</i>) | CT | Nests colonially near fresh water in dense cattails or tules, in thickets of willows or shrubs, and increasingly in grain fields. Forages in grassland and cropland areas. | Possible. Tricolored blackbirds may occasionally forage on the project site, but nesting habitat is absent from the site and surrounding lands. |
| Fresno kangaroo rat (<i>Dipodomys nitratooides exilis</i>) | FE, CE | Historically occupied chenopod scrub and grassland communities on the San Joaquin Valley floor east of the wetlands of the San Joaquin River and Fresno Slough. Associated with bare alkaline clay-based soils in level terrain. | Absent. The project site does not contain suitable habitat for the Fresno kangaroo rat, and no known populations of this species remain in Fresno County. |
| San Joaquin kit fox (SJKF) (<i>Vulpes macrotis mutica</i>) | FE, CT | Frequents desert alkali scrub and annual grasslands and may forage in adjacent agricultural habitats. Utilizes enlarged ground squirrel burrows as denning habitat. | Unlikely. The highly disturbed habitats of the project site and surrounding lands are marginal, at best, for this species. Moreover, there are no natural occurrences of the SJKF in the project vicinity. There is only one record of this species within a 10-mile radius of the project area, recorded in Friant in the early 1990s. That sighting has since been characterized by the observer as a kit fox that had been domesticated and transported from another part of the state (D. Mitchell, pers. comm.). |

California Species of Special Concern or Fully Protected

| | | | |
|--|-----|--|--|
| Hardhead (<i>Mylopharodon conocephalus</i>) | CSC | Occurs in clear deep streams with a slow but present flow, in a low to mid-elevation environment. May also inhabit lakes or reservoirs. Spawns in pools, runs, or riffles with a gravel and rocky substrate. | Absent. Aquatic habitat is absent from the project site. |
| Western spadefoot (<i>Spea hammondi</i>) | CSC | Occurs in grasslands of San Joaquin Valley, where it breeds in vernal pools or other seasonal wetlands and aestivates in underground refugia such as rodent burrows. Baumberger et al. (2019) recorded a maximum distance of around 890 feet between breeding and aestivation sites. | Unlikely. The project site does not contain suitable habitat for the western spadefoot. Aquatic habitat is absent, and at the time of LOA's survey, the site contained no open burrows within which this species could aestivate. Moreover, although the western spadefoot has been documented in grassland habitats approximately 2.5 miles north of the project site, and may also occur in the contiguous grassland 0.6 mile east of the site, it is unlikely to have persisted in the anthropogenic landscape that characterizes the immediate project vicinity. The site is well outside of the distance from suitable habitat that this species is capable of dispersing. |



TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS (cont'd)

California Species of Special Concern or Fully Protected

| Species | Status | Habitat | Occurrence on the Project Site |
|--|--------|---|--|
| Northern California legless lizard (<i>Anniella pulchra</i>) | CSC | Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Requires moist soils. | Absent. The project site does not contain suitable habitat for the northern California legless lizard. The only CNDDB record for this species in the Fresno/Clovis area is from the 1880s. |
| Coast horned lizard (<i>Phrynosoma blainvillii</i>) | CSC | Ranges from the central and southern California coast inland through the western Sierra Nevada, where it is found in grassland and open areas within woodland and forest habitats. Often found in sandy areas including washes and floodplains. | Absent. The only CNDDB record for the coast horned lizard in the Fresno/Clovis area is from 1893. Any habitat for this species that may have once been present in the project vicinity would have been lost with the area's conversion to anthropogenic uses. |
| California glossy snake (<i>Arizona elegans occidentalis</i>) | CSC | Inhabits arid scrub, rocky washes, grasslands, and chaparral, where it forages nocturnally, hiding in underground burrows during the day. Prefers loose, sandy soils. | Absent. The project site is outside of the current distribution of this species (California Herps 2023). |
| Burrowing owl (<i>Athene cunicularia</i>) | CSC | Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low growing vegetation. Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows. | Unlikely. The project site is situated in the outskirts of Clovis, in a landscape dominated by residential development, orchards, and other uses incompatible with burrowing owl ecology. The closest known occurrences of this species are approximately 3 miles to the east in contiguous grassland habitat associated with Dry Creek and the Big Dry Creek Reservoir (eBird 2023). Landscape factors are likely to preclude burrowing owls from occurring in the project vicinity and, by extension, the site itself. Moreover, at the time of LOA's survey, the site contained no California ground squirrel burrows or any other open burrow within which burrowing owls could nest or roost, further limiting their potential for occurrence. |
| Pallid bat (<i>Antrozous pallidus</i>) | CSC | Found in grasslands, chaparral, and woodlands, where it feeds on ground- and vegetation-dwelling arthropods, and occasionally takes insects in flight. Prefers to roost in rock crevices, but many also use tree cavities, caves, bridges, and buildings. | Possible. The pallid bat could forage on or over the site, but roosting habitat is absent. |

**TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY****ANIMALS (cont'd)***California Species of Special Concern or Fully Protected*

| Species | Status | Habitat | Occurrence on the Project Site |
|---|--------|---|--|
| Spotted bat (<i>Euderma maculatum</i>) | CSC | Typically associated with prominent rocky habitats where it roosts in crevices, but is known to occur in a wide range of habitats. Forages in large open habitats, including Ponderosa pine forests and marshlands. | Possible. The spotted bat could forage over the site, but roosting habitat is absent. |
| Western mastiff bat (<i>Eumops perotis</i> ssp. <i>californicus</i>) | CSC | Frequents open, semi-arid to arid habitats, including conifer, and deciduous woodlands, coastal scrub, grasslands, palm oasis, chaparral and urban. Roosts in cliff faces, high buildings, and tunnels. | Possible. The western mastiff bat could forage over the site, but roosting habitat is absent. |
| American badger (<i>Taxidea taxus</i>) | CSC | Found in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Utilize subterranean burrows, usually self-dug, for rest and reproduction. | Unlikely. The site's disturbed nature and urban setting make it highly unlikely to be occupied or utilized by American badgers. |

OCCURRENCE DESIGNATIONS AND STATUS CODES

Present: Species observed on the site at time of field surveys or during recent past.

Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.

Possible: Species not observed on the site, but it could occur there from time to time.

Unlikely: Species not observed on the site, and would not be expected to occur there except, perhaps, as a transient.

Absent: Species not observed on the site and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE Federally Endangered
FT Federally Threatened
FC Federal Candidate
FPT Federal Proposed Threatened

CE California Endangered
CT California Threatened
CCE California Candidate Endangered
CFP California Fully Protected
CSC California Species of Special Concern
CR California Rare

CRPR CODES

1A Plants Presumed Extinct in California
1B Plants Rare, Threatened, or Endangered in California and elsewhere

2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere

2.5 JURISDICTIONAL WATERS

Jurisdictional waters are those rivers, creeks, drainages, lakes, ponds, reservoirs, and wetlands that are subject to the authority of the USACE, CDFW, and/or the RWQCB. In general, the USACE regulates navigable waters, tributaries to navigable waters, and wetlands with a continuous surface connection to these waters, where wetlands are defined by the presence of hydric soils, hydrophytic vegetation, and wetland hydrology. All waters under USACE jurisdiction are also regulated by the RWQCB as waters of the State. Additionally, the RWQCB asserts jurisdiction over certain isolated



features disclaimed by the USACE. The CDFW has jurisdiction over waters that have a defined bed and bank. The regulation of jurisdictional waters is discussed in more detail in Section 3.2.8.

Aquatic features, including any potentially jurisdictional waters or wetlands, are absent from the project site.

2.6 SENSITIVE NATURAL COMMUNITIES

California contains a wide range of natural communities, or unique assemblages of plants and animals. These communities have largely been classified and mapped by CDFW as part of their Vegetation Classification and Mapping Program (VegCAMP). Natural communities are assigned state and global ranks according to their rarity and the magnitude and trend of the threats they face. Any natural community with a state rank of 3 or lower (on a 1 to 5 scale) is considered “sensitive” and must be considered in CEQA review.

The project site does not contain or adjoin any sensitive natural communities.

2.7 WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors are routes that animals regularly and predictably follow during seasonal migration, dispersal from native ranges, daily travel within home ranges, and inter-population movements. Movement corridors in California are typically associated with valleys, ridgelines, and rivers and creeks supporting riparian vegetation.

The project site does not contain or adjoin any features likely to function as wildlife movement corridors.

2.8 DESIGNATED CRITICAL HABITAT

The USFWS often designates areas of “critical habitat” when it lists species as threatened or endangered. Critical habitat is a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.



Designated critical habitat is absent from the project site and immediate vicinity. The nearest unit of critical habitat is located approximately 3.0 miles northeast of the project site at its closest point, and is designated for the protection of the succulent owl's-clover (*Castilleja campestris* var. *succulenta*). Critical habitat for the San Joaquin Valley orcutt grass (*Orcuttia inaequalis*) and vernal pool fairy shrimp (*Branchinecta lynchi*) is located in the same general area, approximately 3.1 miles north-northeast of the project site.



3.0 RELEVANT GOALS, POLICIES, AND LAWS

3.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

In California, any project carried out or approved by a public agency that will result in a direct or reasonably foreseeable indirect physical change in the environment must comply with CEQA. The purpose of CEQA is to ensure that a project's potential impacts on the environment are evaluated and methods for avoiding or reducing these impacts are considered before the project is allowed to move forward. A secondary aim of CEQA is to provide justification to the public for the approval of any projects involving significant impacts on the environment.

According to Section 15382 of the CEQA Guidelines, a significant effect on the environment means a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest.” Although the lead agency may set its own CEQA significance thresholds, project impacts to biological resources are generally considered to be significant if they would meet any of the following criteria established in Appendix G of the CEQA Guidelines:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS.
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.



Furthermore, CEQA Guidelines Section 15065(a) requires the lead agency to make “mandatory findings of significance” if there is substantial evidence that a project may:

- Substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of an endangered, rare or threatened species.
- Achieve short-term environmental goals to the detriment of long-term environmental goals.
- Produce environmental effects that are individually limited but cumulatively considerable, meaning that the incremental effects of the project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects.

3.2 OTHER RELEVANT LAWS AND POLICIES

3.2.1 Fresno County and Clovis General Plans

California state law requires cities and counties to adopt general plans to guide future development while conserving natural resources and working landscapes. In general, projects must be consistent with the goals and policies of these general plans. Because the proposed residential development will be annexed into the City of Clovis, it is assumed that it is subject to both the County of Fresno and City of Clovis general plans. The City of Clovis’s general plan was adopted in 2014, and has a planning horizon extending through 2035. The County of Fresno’s general plan was adopted in 2000, and has a planning horizon of 15 to 25 years.

The Open Space and Conservation Element of the Clovis General Plan includes goals concerning preservation of natural resources and protection of water quality. These goals are supported by numerous policies and implementation programs. Policies relevant to the project include: 1) encourage new development to incorporate on-site natural resources and low impact development techniques, 2) support the protection of biological resources through the conservation of high quality habitat, 3) encourage the use of native plant species and prohibit the use of invasive species, and 4) minimize the use of non-point source pollutants and storm water runoff.

The Open Space and Conservation Element of the Fresno County General Plan includes a number of goals, policies, and implementation programs concerning biological resources. Policies of



particular relevance to the project are summarized as follows: 1) the County shall support the “no-net-loss” wetlands policies of the USACE, USFWS, and CDFW, and shall require new development to fully mitigate the loss of regulated wetlands, 2) the County shall require new development to be designed in such a manner that pollutants and siltation do not significantly degrade the area, value, or function of wetlands, 3) the County shall require new developments to preserve and enhance native riparian habitat unless public safety concerns require removal of habitat, and shall require riparian protection zones around natural watercourses, 4) the County shall identify and conserve remaining upland habitat areas adjacent to wetland and riparian areas that are critically important to wildlife species associated with those wetland and riparian areas, 5) where practicable, the County shall support efforts to avoid the “net” loss of important wildlife habitat, and should preserve in a natural state those areas defined as habitats for rare and endangered animal and plant species, 6) if loss of important habitat for special status species or other valuable wildlife resources cannot be avoided, the County shall impose adequate mitigation, 7) the County shall require adequate buffer zones between construction activities and significant wildlife resources, 8) the County shall support the preservation of significant areas of natural vegetation, e.g. oak woodlands, riparian areas, and vernal pools, and 9) the County shall require that new developments preserve natural woodlands to the maximum extent possible.

3.2.2 Threatened and Endangered Species

In California, imperiled plants and animals may be afforded special legal protections under the California Endangered Species Act (CESA) and/or Federal Endangered Species Act (FESA). Species may be listed as “threatened” or “endangered” under one or both Acts, and/or as “rare” under CESA. Under both Acts, “endangered” means a species is in danger of extinction throughout all or a significant portion of its range, and “threatened” means a species is likely to become endangered within the foreseeable future. Under CESA, “rare” means a species may become endangered if their present environment worsens. Both Acts prohibit “take” of listed species, defined under CESA as “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill” (California Fish and Game Code, Section 86), and more broadly defined under FESA to include “harm” (16 USC, Section 1532(19), 50 CFR, Section 17.3). The USFWS commonly interprets “take” to include the loss of habitat utilized by a listed species.



When state and federally listed species have the potential to be impacted by a project, the USFWS and CDFW must be included in the CEQA process. These agencies review the environmental document to determine the adequacy of its treatment of endangered species issues and to make project-specific recommendations for the protection of listed species. Projects that may result in the “take” of listed species must generally enter into consultation with the USFWS and/or CDFW pursuant to FESA and CESA, respectively. In some cases, incidental take authorization(s) from these agencies may be required before the project can be implemented.

3.2.3 California Fully Protected Species

The classification of certain animal species as “fully protected” was the State of California’s initial effort in the 1960s, prior to the passage of the California Endangered Species Act (CESA), to identify and provide additional protection to those species that were rare or faced possible extinction. Following CESA enactment in 1970, many fully protected species were also listed as California threatened or endangered. The list of fully protected species are identified, and their protections stipulated, in California Fish and Game Code Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and fish (5515). Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take, except in conjunction with necessary scientific research and protection of livestock.

3.2.4 Migratory Birds

The Federal Migratory Bird Treaty Act (FMBTA: 16 USC 703-712) prohibits killing, possessing, or trading in any bird species covered in one of four international conventions to which the United States is a party, except in accordance with regulations prescribed by the Secretary of the Interior. The name of the act is misleading, as it actually covers almost all birds native to the United States, even those that are non-migratory. The FMBTA encompasses whole birds, parts of birds, and bird nests and eggs.

Native birds are also protected under California state law. The California Fish and Game Code makes it unlawful to take or possess any non-game bird covered by the FMBTA (Section 3513), as well as any other native non-game bird (Section 3800), even if incidental to lawful activities.



3.2.5 Birds of Prey

Birds of prey are also protected in California under provisions of the State Fish and Game Code, Section 3503.5, 1992), which states that it is “unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “taking” by the CDFW.

3.2.6 Nesting Birds

In California, protection is afforded to the nests and eggs of all birds. California Fish and Game Code (Section 3503) states that it is “unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Breeding-season disturbance that causes nest abandonment and/or loss of reproductive effort is considered a form of “take” by the CDFW.

3.2.7 Habitat Conservation Plans and Natural Community Conservation Plans

Section 10 of the federal Endangered Species Act establishes a process by which non-federal projects can obtain authorization to incidentally take listed species, provided take is minimized and thoroughly mitigated. A Habitat Conservation Plan (HCP), developed by the project applicant in collaboration with the USFWS and/or NMFS, ensures that such minimization and mitigation will occur, and is a prerequisite to the issuance of a federal incidental take permit. Similarly, a Natural Community Conservation Plan (NCCP), developed by the project applicant in collaboration with CDFW, provides for the conservation of biodiversity within a project area, and permits limited incidental take of state-listed species.

3.2.8 Wetlands and Other Jurisdictional Waters

Section 404 of the federal Clean Water Act (CWA) regulates the discharge of dredged or fill material into “navigable waters” (33 U.S.C. §1344), defined in the CWA as “the waters of the United States, including the territorial seas” (33 U.S.C. §1362(7)). The CWA does not supply a



definition for waters of the U.S., and that has been the subject of considerable debate since the CWA's passage in 1972. A variety of regulatory definitions have been promulgated by the two federal agencies responsible for implementing the CWA, the Environmental Protection Agency (EPA) and USACE. These definitions have been interpreted, and in some cases, invalidated, by federal courts.

Waters of the U.S. are presently defined by the EPA and USACE's joint 2023 Revised Definition of 'Waters of the U.S.' Rule (2023 WOTUS Rule), issued in January 2023 and amended in August 2023. Generally speaking, waters of the U.S. include:

- Waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide
- The territorial seas
- Interstate waters
- Impoundments of waters otherwise defined as waters of the United States under the definition
- Tributaries to other waters of the U.S. that are relatively permanent, standing or continuously flowing bodies of water
- Wetlands adjacent to other waters of the U.S. that have a continuous surface connection to those waters

The 2023 WOTUS Rule also defines a number of exclusions from the definition of waters of the U.S., many of which are longstanding exclusions from earlier regulatory regimes. These generally include:

- Waste treatment systems
- Prior converted cropland
- Ditches excavated wholly in and draining only dry land that do not carry a relatively permanent flow of water
- Certain artificial features, e.g. irrigation basins, swimming pools, borrow pits, and artificially irrigated areas
- Swales and erosional features characterized by low volume, infrequent, or short duration flow



All activities that involve the discharge of dredge or fill material into waters of the U.S. are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values.

Under the Porter-Cologne Water Quality Control Act of 1969, the State Water Resources Control Board (SWRCB) has regulatory authority to protect the water quality of all surface water and groundwater in the State of California (“waters of the State”). Nine RWQCBs oversee water quality at the local and regional level. The RWQCB for a given region regulates discharges of fill or pollutants into waters of the State through the issuance of various permits and orders. Discharges into waters of the State that are also waters of the U.S. require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining a Section 404 Clean Water Act permit. Discharges into waters of the State that are not also waters of the U.S. require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB.

The SWRCB and RWQCBs also administer the federal National Pollution Discharge Elimination System (NPDES) program, which is concerned with the discharge of stormwater and other pollutants into water bodies. Projects that disturb one or more acres of soil must obtain coverage under the SWRCB’s current NPDES Construction Stormwater General Permit. A prerequisite for permit coverage is the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Other types of pollutant discharges into waters of the U.S., such as wastewater, may require coverage under a different NPDES general permit, and in some cases an individual permit.

CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1601 and 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a Notification of Lake or Streambed Alteration. If CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. Such an agreement typically stipulates that certain measures will be implemented to protect the habitat values of the lake or drainage in question.



4.0 IMPACTS AND MITIGATIONS

The following discussions address the potential impacts to biological resources associated with future residential buildout of Tract 6452. In the absence of a detailed site plan, it is assumed that the full 18 acres will be developed.

4.1 POTENTIALLY SIGNIFICANT PROJECT IMPACTS/MITIGATION

4.1.1 Potential Project Impacts to Nesting Birds and Raptors including the Swainson's Hawk

Potential Impacts. The project site has the potential to be used for nesting by several avian species that nest in ground vegetation or barren areas. Trees and shrubs are absent from the site itself but occur on nearby lands; these could support nesting by a wide variety of birds and raptors, possibly including the Swainson's hawk (*Buteo swainsoni*), a California Threatened species. If birds or raptors are nesting on or near the site at the time of future residential buildout, individual birds could be killed or disturbed such that they would abandon their nests. Construction-related mortality of nesting birds and construction-related disturbance leading to nest abandonment are potentially significant impacts of the project. Moreover, such incidents would violate the Migratory Bird Treaty Act, California Fish and Game Code, and, in the case of the Swainson's hawk, the California Endangered Species Act.

Swainson's hawks are not expected to be adversely affected by project-related loss of habitat. Residential buildout will eliminate approximately 18 acres of ruderal grassland that could potentially be used by foraging Swainson's hawks. However, the site is located in the outskirts of Clovis, where Swainson's hawks are uncommon, and use of this grassland would be infrequent, at best. Following project development, considerable alternative foraging habitat for this species will remain available in the larger project vicinity, including contiguous blocks of grassland habitat located approximately 0.6 mile to the east and 2 miles to the north of the site.

Mitigation. The following measures will be implemented for the protection of nesting birds and raptors including the state-threatened Swainson's hawk.

Mitigation Measure 4.1.1a (Construction Timing). If feasible, future construction activities will take place entirely outside of the avian nesting season, typically defined as February 1 to August 31.



Mitigation Measure 4.1.1b (Preconstruction Surveys). If construction must occur between February 1 and August 31, a qualified biologist will conduct surveys for active bird nests within 7 days prior to the start of work during this period. The survey area will encompass the site and accessible surrounding lands within ¼ mile for nesting Swainson's hawks, 500 feet for other nesting raptors, and 250 feet for nesting birds.

Mitigation Measure 4.1.1c (Avoidance of Active Nests). Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. This buffer will be identified on the ground with flagging or fencing, and will be maintained until the biologist has determined that the young have fledged and are capable of foraging independently.

Implementation of the above measures will reduce potential project impacts to nesting birds and raptors, including the state-threatened Swainson's hawk, to a less than significant level under CEQA and ensure compliance with state and federal laws protecting these species.

4.2 LESS THAN SIGNIFICANT PROJECT IMPACTS

4.2.1 Potential Project Impacts to Special Status Plants

Potential Impacts. Nineteen special status plant species have been documented in the general vicinity of the project site (see Table 1). All 19 species are considered absent from or unlikely to occur on the project site due to an absence of suitable habitat and/or soils, the site's being situated outside of the species' distribution, or a combination thereof (see Table 1). The project is not expected to adversely affect these species, either directly or indirectly, and impacts are considered less than significant under CEQA.

Mitigation. No mitigation is warranted.

4.2.2 Project Impacts to Special Status Animal Species Absent from or Unlikely to Occur on the Project Site

Potential Impacts. Twenty-three special status animal species have been documented in the general vicinity of the project site, or are known to occur regionally (Table 1). Of these, 17 are considered absent from or unlikely to occur on the site due to the absence of suitable habitat, the site's urban setting and other landscape factors, and/or the site's being situated outside of the species' known distribution. These comprise the Crotch bumblebee (*Bombus crotchii*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), vernal pool fairy shrimp



(*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), California tiger salamander (*Ambystoma californiense*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), least Bell's vireo (*Vireo bellii pusillus*), Fresno kangaroo rat (*Dipodomys nitratooides exilis*), San Joaquin kit fox (*Vulpes macrotis mutica*), hardhead (*Mylopharadon conocephalus*), western spadefoot (*Spea hammondi*), western pond turtle (*Actinemys marmorata*), northern California legless lizard (*Anniella pulchra*), coast horned lizard (*Phrynosoma blainvillii*), California glossy snake (*Arizona elegans occidentalis*), burrowing owl (*Athene cunicularia*), and American badger (*Taxidea taxus*). Because these species have no appreciable potential to occur on site, they are not expected to be affected by the project, directly or indirectly. Project impacts are considered less than significant under CEQA.

Mitigation. Mitigation measures are not warranted.

4.2.3 Project Impacts to Special Status Animal Species that Would Use the Site for Foraging Only

Potential Impacts. Five special status animal species, the golden eagle (*Aquila chrysaetos*), tricolored blackbird (*Agelaius tricolor*), pallid bat (*Antrozous pallidus*), spotted bat (*Euderma maculatum*), and western mastiff bat (*Eumops perotis* ssp. *californicus*), have the potential to forage on the site from time to time but would not nest or roost on or near enough to the site that they could be vulnerable to construction-related injury, mortality, or reproductive failure (see Table 1). Individuals of these species are unlikely to be injured or killed by construction activities because they are highly mobile while foraging and would be expected to simply avoid active work areas.

The project would not adversely affect any of these species through loss of foraging habitat. The site does not offer unique habitat for any of these species, nor is it likely to represent an important part of any individual foraging range, given its disturbed nature and urban setting. Similar and higher quality habitats, including contiguous blocks of grassland habitat located approximately 0.6 mile to the east and 2 miles to the north of the site, are regionally abundant. For these reasons, impacts to the golden eagle, tricolored blackbird, pallid bat, spotted bat, and western mastiff bat are considered less than significant under CEQA.



Mitigation. Mitigation is not warranted.

4.2.4 Project Impacts to Wildlife Movement Corridors

Potential Impacts. The project site does not contain or adjoin features likely to function as a wildlife movement corridor. No impacts to such corridors are anticipated.

Mitigation. Mitigation is not warranted.

4.2.5 Project Impacts to Sensitive Natural Communities and Critical Habitat

Potential Impacts. The project site does not contain or adjoin any sensitive natural communities or designated critical habitat. There will be no impact to such resources.

Mitigation. Mitigation is not warranted.

4.2.6 Project Impacts to Jurisdictional Waters

Potential Impacts. The project site does not contain any aquatic features. No impacts to jurisdictional waters are anticipated.

Mitigation. Mitigation is not warranted.

4.2.7 Consistency with Local Policies and Ordinances

Potential Impacts. The project appears consistent with Clovis and Fresno County General Plan policies related to biological resources.

Mitigation. Mitigation measures are not warranted.

4.2.8 Consistency with Habitat Conservation Plans and Natural Community Conservation Plans

Potential Impacts. There are no known HCPs or NCCPs in effect for the project vicinity.

Mitigation. Mitigation measures are not warranted.



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APPENDIX A: VASCULAR PLANT LIST



APPENDIX A VASCULAR PLANTS OF THE PROJECT SITE

The plants species listed below were observed on the project site during LOA's September 25, 2023 surveys. The U.S. Fish and Wildlife Service wetland indicator status of each plant, if available, has been shown following its common name.

OBL - Obligate
FACW - Facultative Wetland
FAC - Facultative
FACU - Facultative Upland
UPL - Upland

AMARANTHACEAE – Amaranth Family

| | | |
|-----------------------------|-------------------|------|
| <i>Amaranthus albus</i> | Pigweed Amaranth | FACU |
| <i>Amaranthus blitoides</i> | Prostrate Pigweed | FACU |

ASTERACEAE – Sunflower Family

| | | |
|--------------------------------|-----------------------|------|
| <i>Centaurea solstitialis</i> | Yellow Starthistle | UPL |
| <i>Centromadia pungens</i> | Common Tarweed | FAC |
| <i>Erigeron bonariensis</i> | Flax-leaved Horseweed | FACU |
| <i>Helianthus annuus</i> | Common Sunflower | FACU |
| <i>Heterotheca grandiflora</i> | Telegraph Weed | UPL |
| <i>Lactuca serriola</i> | Prickly Lettuce | FACU |

BORAGINACEAE- Borage Family

| | | |
|----------------------|------------|-----|
| <i>Amsinckia</i> sp. | Fiddleneck | UPL |
|----------------------|------------|-----|

BRASSICACEAE – Mustard Family

| | | |
|----------------------------|---------|-----|
| <i>Hirschfeldia incana</i> | Mustard | UPL |
|----------------------------|---------|-----|

CHENOPODIACEAE – Goosefoot Family

| | | |
|--------------------------|----------------|------|
| <i>Chenopodium album</i> | Lambs Quarters | FACU |
|--------------------------|----------------|------|

CONVOLVULACEAE – Morning Glory Family

| | | |
|-----------------------------|----------------|-----|
| <i>Convolvulus arvensis</i> | Field Bindweed | UPL |
|-----------------------------|----------------|-----|

EUPHORBIACEAE – Spurge Family

| | | |
|-----------------------|----------------|-----|
| <i>Croton setiger</i> | Turkey Mullein | UPL |
|-----------------------|----------------|-----|

FABACEAE – Legume Family

| | | |
|----------------------------|----------------|-----|
| <i>Acmispon americanus</i> | Spanish Clover | UPL |
| <i>Trifolium hirtum</i> | Rose Clover | UPL |

GERANIACEAE – Geranium Family

| | | |
|---------------------------|-----------------|-----|
| <i>Erodium cicutarium</i> | Redstem Filaree | UPL |
|---------------------------|-----------------|-----|

LAMIACEAE – Mint Family

| | | |
|--------------------------------|-------------|------|
| <i>Trichostema lanceolatum</i> | Vinegarweed | FACU |
|--------------------------------|-------------|------|

ONAGRACEAE – Evening-Primrose Family

| | | |
|-------------------------------|-------------|-----|
| <i>Epilobium brachycarpum</i> | Willow Herb | FAC |
|-------------------------------|-------------|-----|

POACEAE – Grass Family

| | | |
|------------------------|--------------|-----|
| <i>Avena</i> sp. | Wild Oats | UPL |
| <i>Bromus diandrus</i> | Ripgut Brome | UPL |



| | | |
|--|------------------------|------|
| <i>Bromus hordeaceus</i> | Soft Chess | FACU |
| <i>Cynodon dactylon</i> | Bermuda Grass | FAC |
| <i>Festuca myuros</i> | Rattail Sixweeks Grass | UPL |
| <i>Hordeum murinum</i> | Foxtail Barley | FACU |
| POLYGONACEAE – Smartweed Family | | |
| <i>Polygonum aviculare</i> | Prostrate Knotweed | FAC |
| <i>Rumex crispus</i> | Curly Dock | FAC |
| SOLANACEAE – Nightshade Family | | |
| <i>Datura wrightii</i> | Jimson Weed | UPL |
| ZYGOPHYLLACEAE – Puncture Vine Family | | |
| <i>Tribulus terrestris</i> | Puncture Vine | UPL |



**APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY
OCCUR ON THE PROJECT SITE**



APPENDIX B TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE PROJECT SITE

The species listed below are those that may be expected to routinely and predictably use or pass through the project site during some or all of the year. An asterisk denotes a species observed on or immediately adjacent to the site during surveys conducted for the current project by LOA on September 25, 2023.

CLASS: AMPHIBIA

ORDER: ANURA (Frogs and Toads)

FAMILY: BUFONIDAE (True Toads)

Western Toad (*Bufo boreas*)

FAMILY: HYLIDAE (Treefrogs and Relatives)

Pacific Tree Frog (*Pseudacris regilla*)

FAMILY: RANIDAE (True Frogs)

American Bullfrog (*Lithobates catesbeianus*)

CLASS: REPTILIA

ORDER: SQUAMATA (Lizards and Snakes)

SUBORDER: SAURIA (Lizards)

FAMILY: PHRYNOSOMATIDAE

Side-blotched Lizard (*Uta stansburiana*)

Western Fence Lizard (*Sceloporus occidentalis*)

FAMILY: TEIIDAE (Whiptails and relatives)

Western Whiptail (*Cnemidophorus tigris*)

SUBORDER: SERPENTES (Snakes)

FAMILY: COLUBRIDAE (Colubrids)

Pacific Gopher Snake (*Pituophis catenifer catenifer*)

Common Kingsnake (*Lampropeltis californiae*)

FAMILY: VIPERIDAE (Vipers)

Western Rattlesnake (*Crotalus viridis*)

CLASS: AVES

ORDER: CICONIIFORMES (Hérons, Storks, Ibises and Relatives)

FAMILY: ARDEIDAE (Bitterns, Herons, and Egrets)

Great Blue Heron (*Ardea herodias*)

Great Egret (*Ardea alba*)

FAMILY: CATHARTIDAE (New World Vultures)

Turkey Vulture (*Cathartes aura*)

ORDER: FALCONIFORMES (Vultures, Hawks, and Falcons)

FAMILY: ACCIPITRIDAE (Hawks, Old World Vultures, and Harriers)

*Red-tailed Hawk (*Buteo jamaicensis*)

FAMILY: FALCONIDAE (Caracaras and Falcons)

*American Kestrel (*Falco sparverius*)

ORDER: GALLIFORMES (Megapodes, Currassows, Pheasants, and Relatives)

FAMILY: ODONTOPHORIDAE (New World Quails)

California Quail (*Callipepla californica*)

**ORDER: CHARADRIIFORMES (Shorebirds, Gulls, and relatives)****FAMILY: CHARADRIIDAE (Plovers and relatives)**

Killdeer (*Charadrius vociferus*)

ORDER: COLUMBIFORMES (Pigeons and Doves)**FAMILY: COLUMBIDAE (Pigeons and Doves)**

Rock Pigeon (*Columba livia*)

Mourning Dove (*Zenaida macroura*)

Eurasian Collared Dove (*Streptopelia decaocto*)

ORDER: STRIGIFORMES (Owls)**FAMILY: TYTONIDAE (Barn Owls)**

Barn Owl (*Tyto alba*)

ORDER: APODIFORMES (Swifts and Hummingbirds)**FAMILY: TROCHILIDAE (Hummingbirds)**

Black-chinned Hummingbird (*Archilochus alexandri*)

Anna's Hummingbird (*Calypte anna*)

ORDER: PASSERIFORMES (Perching Birds)**FAMILY: TYRANNIDAE (Tyrant Flycatchers)**

Black Phoebe (*Sayornis nigricans*)

Say's Phoebe (*Sayornis saya*)

Western Kingbird (*Tyrannus verticalis*)

FAMILY: CORVIDAE (Jays, Magpies, and Crows)

American Crow (*Corvus brachyrhynchos*)

Common Raven (*Corvus corax*)

FAMILY: ALAUDIDAE (Larks)

Horned Lark (*Eremophila alpestris*)

FAMILY: HIRUNDINIDAE (Swallows)

Cliff Swallow (*Petrochelidon pyrrhonota*)

Barn Swallow (*Hirundo rustica*)

Northern Rough-winged Swallow (*Stelgidopteryx serripennis*)

FAMILY: AEGITHALIDAE (Bushtits)

Bushtit (*Psaltiriparus minimus*)

FAMILY: TURDIDAE (Thrushes)

Western Bluebird (*Sialia mexicana*)

American Robin (*Turdus migratorius*)

FAMILY: MIMIDAE (Mockingbirds and Thrashers)

Northern Mockingbird (*Mimus polyglottos*)

FAMILY: STURNIDAE (Starlings and Allies)

European Starling (*Sturnus vulgaris*)

FAMILY: MOTACILLIDAE (Wagtails and Pipits)

American Pipit (*Anthus rubescens*)

FAMILY: EMBERIZIDAE (Sparrows)

*Savannah Sparrow (*Passerculus sandwichensis*)

White-crowned Sparrow (*Zonotrichia leucophrys*)

Golden-crowned Sparrow (*Zonotrichia atricapilla*)

FAMILY: ICTERIDAE (Blackbirds, Orioles and Allies)

*Western Meadowlark (*Sturnella neglecta*)



Red-winged Blackbird (*Agelaius phoeniceus*)
Great-tailed Grackle (*Quiscalus mexicanus*)
Brewer's Blackbird (*Euphagus cyanocephalus*)
Brown-headed Cowbird (*Molothrus ater*)

FAMILY: FRINGILLIDAE (Finches)

House Finch (*Carpodacus mexicanus*)
Lesser Goldfinch (*Carduelis psaltria*)

FAMILY: PASSERIDAE (Old World Sparrows)

House Sparrow (*Passer domesticus*)

CLASS: MAMMALIA

ORDER: DIDELPHIMORPHIA (Marsupials)

FAMILY: DIDELPHIDAE (Opossums)

Virginia Opossum (*Didelphis virginiana*)

ORDER: INSECTIVORA (Shrews and Moles)

FAMILY: TALPIDAE (Moles)

Broad-footed Mole (*Scapanus latimanus*)

ORDER: CHIROPTERA (Bats)

FAMILY: VESPERTILIONIDAE (Vespertilionid Bats)

Yuma Myotis (*Myotis yumanensis*)
California Myotis (*Myotis californicus*)
Western Pipistrelle (*Pipistrellus hesperus*)
Big Brown Bat (*Eptesicus fuscus*)
Pale Big-eared Bat (*Corynorhinus townsendii pallascens*)

FAMILY: MOLOSSIDAE (Free-tailed Bat)

Brazilian Free-tailed Bat (*Tadarida brasiliensis*)

ORDER: LAGOMORPHA (Rabbits, Hares, and Pikas)

FAMILY: LEPORIDAE (Rabbits and Hares)

Audubon's Cottontail (*Sylvilagus audubonii*)
Black-tailed Jackrabbit (*Lepus californicus*)

ORDER: RODENTIA (Rodents)

FAMILY: SCIURIDAE (Squirrels, Chipmunks, and Marmots)

California Ground Squirrel (*Otospermophilus beecheyi*)

FAMILY: GEOMYIDAE (Pocket Gophers)

*Botta's Pocket Gopher (*Thomomys bottae*)

FAMILY: MURIDAE (Mice, Rats and Voles)

Western Harvest Mouse (*Reithrodontomys megalotis*)
Deer Mouse (*Peromyscus maniculatus*)
Norway Rat (*Rattus norvegicus*)
House Mouse (*Mus musculus*)
California Vole (*Microtus californicus*)

FAMILY: HETEROMYIDAE (Kangaroo Rats)

Heermann's Kangaroo Rat (*Dipodomys heermanni*)

ORDER: CARNIVORA (Carnivores)

FAMILY: CANIDAE (Foxes, Wolves, and Relatives)

Red Fox (*Vulpes vulpes*)
Coyote (*Canis latrans*)



Domestic Dog (*Canis familiaris*)

FAMILY: PROCYONIDAE (Raccoons and Relatives)

Raccoon (*Procyon lotor*)

FAMILY: MUSTELIDAE (Weasels and Relatives)

Striped Skunk (*Mephitis mephitis*)

FAMILY: FELIDAE (Cats)

Feral Cat (*Felis catus*)



APPENDIX C: REPRESENTATIVE PHOTOS OF THE PROJECT SITE



Photos 1 (above) and 2 (below). The project site's ruderal grassland habitat. Both photos were taken in the southern portion of the site; Photo 2 faces south toward the adjoining Lennar Homes Tract 6200 project, which was under construction at the time of LOA's survey.





Photos 3 (above) and 4 (below). Recently-disturbed portions of the site's ruderal grassland.





Photo 5 (above). One of the project site's dirt roads. **Photo 6 (below).** Silt fencing in the southern portion of the project site. The fencing was presumably associated with construction of the adjoining Lennar Homes Tract 6200 project, pictured in the background.



Cultural Resource Study for the Clovis Tract 6452 Residential Development, City of Clovis, Fresno County, California

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MANAGEMENT SUMMARY

Applied EarthWorks, Inc. (Æ) conducted a cultural resource inventory for Lennar Central Valley's proposed 18.2-acre Tract 6452 Residential Development Project (Project) in the city of Clovis within Fresno County, California. The Project is north of Perrin Road, between Clovis Avenue and North Sunnyside Avenue.

The proposed development will require a permit issued by the City of Clovis. Therefore, the Project is subject to the California Environmental Quality Act (CEQA), which mandates that public agencies determine whether a proposed project will cause a significant change to the environment, including cultural resources. To assist Lennar Central Valley in fulfilling their responsibility under CEQA, Æ conducted a cultural resource study to identify whether there are potential historical resources (i.e., cultural resources listed or eligible for listing in the California Register [CRHR]) within the Project area.

To meet the requirements under CEQA, Æ conducted: (1) a records search at the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS); (2) desktop research to better understand the history of land use in the Project area; (3) a search of the Native American Heritage Commission's (NAHC) Sacred Lands File, and nongovernmental outreach to local tribes and individuals; and (4) an intensive pedestrian survey of the 18.2-acre Project area to identify archaeological and/or historical built environment cultural resources.

The SSJVIC records search identified no cultural resources within the Project area and only one cultural resource—the Enterprise Canal (P-10-005934/CA-FRE-3564H)—which runs southwest of the Project area. There have been four previous cultural resource investigations that overlap the Project area and one within the 0.25-mile search radius. A search of the NAHC's Sacred Land File did not identify Native American cultural resources within or near the Project area, and no specific information was gleaned from outreach with local tribal representatives.

Æ's intensive pedestrian survey of the Project area, conducted on August 23, 2023, covered the entirety of the 18.2-acre Project area. No cultural resources were identified in the Project area.

Æ's inventory efforts found no historical resources within the Project area. However, if cultural resources are discovered during Project activities, all work should halt until a qualified archaeologist can assess the find. Additionally, if human remains are uncovered during construction, the Project operator shall immediately halt work within 50 feet of the find, contact the Fresno County Coroner to evaluate the remains, and follow the procedures and protocols set forth in CEQA Guidelines Section 15064.4(e)(1). If the remains are identified on the basis of archaeological context, age, cultural associations, or biological traits to be those of a Native American, then the California Health and Safety Code 7050.5 and Public Resource Code 5097.98 require that the county coroner notify the NAHC within 24 hours of discovery. The NAHC will then identify the Most Likely Descendant, who will be afforded the opportunity to recommend treatment of the human remains following protocols in California Public Resources Code 5097.98.

Field notes and photographs for this Project are on file at Æ's office in Fresno, California. A copy of this report will be transmitted to the SSJVIC at California State University, Bakersfield, for inclusion in the CHRIS.

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1

INTRODUCTION

Applied EarthWorks, Inc. (Æ) prepared this cultural resource study in support of Lennar Central Valley's proposed Tract 6452 Residential Development Project (Project) in the city of Clovis, Fresno County, California (Figure 1-1). The property is directly north of Perrin Road between Clovis Avenue and North Sunnyside Avenue, within Section 20 of Township 12 South, Range 21 East, as depicted on the U.S. Geological Survey (USGS) Clovis (1981), California 7.5-minute topographic quadrangle (Figure 1-2).

1.1 PROJECT DESCRIPTION

Lennar Central Valley proposes to construct 153 single-family lots on 18.2 acres of vacant land between Clovis Avenue and North Sunnyside Avenue in the city of Clovis (Figure 1-3). The proposed zoning for the Project will be M/L – Medium and Low Density Residential, while the current Fresno County zoning is AE-20. The property is currently in the County of Fresno, though it will be annexed to the City of Clovis (City). This residential development will be within the City of Clovis (City) Heritage Grove Master Plan and will be subject to design development standards of the plan.

1.2 REGULATORY CONTEXT

The Project is subject to the California Environmental Quality Act (CEQA), with guidelines for implementation codified in the California Code of Regulations (CCR), Title 14, Chapter 3, Section 15000 et seq. Historical resources are considered part of the environment and are subject to review under CEQA. Per CEQA, the lead agency, in this case the City, is required to determine whether a project may have a significant effect on historical resources, and therefore cause a significant effect on the environment (Public Resources Code [PRC] Section 5024.1[b]). CEQA defines a substantial adverse change to a historical resource as the “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired” (14 CCR Section 15064.5[b][1]). Where substantial adverse change is unavoidable and the historical resource cannot be preserved in an undisturbed state, the lead agency shall require mitigation measures to minimize substantial adverse changes to the resource's significance (PRC Section 21083.2[c]). It is further stipulated that the “lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures” (14 CCR Section 15064.5[b][4]; PRC Section 5020.1[q]).

For the purposes of this report, a cultural resource is defined as a prehistoric or historic-era archaeological site or a historic-era building, structure, or object. The importance or significance of a cultural resource depends on whether it qualifies for inclusion in the California Register of Historical Resources (CRHR). Cultural resources determined eligible for listing in the CRHR are called “historical resources.” (Title 14, Chapter 3, Article 5, Section 15064.5 of the CCR). The determination of eligibility is based on a set of significance criteria (14 CCR 15064.5).



Figure 1-1 Project vicinity in Fresno County, California.

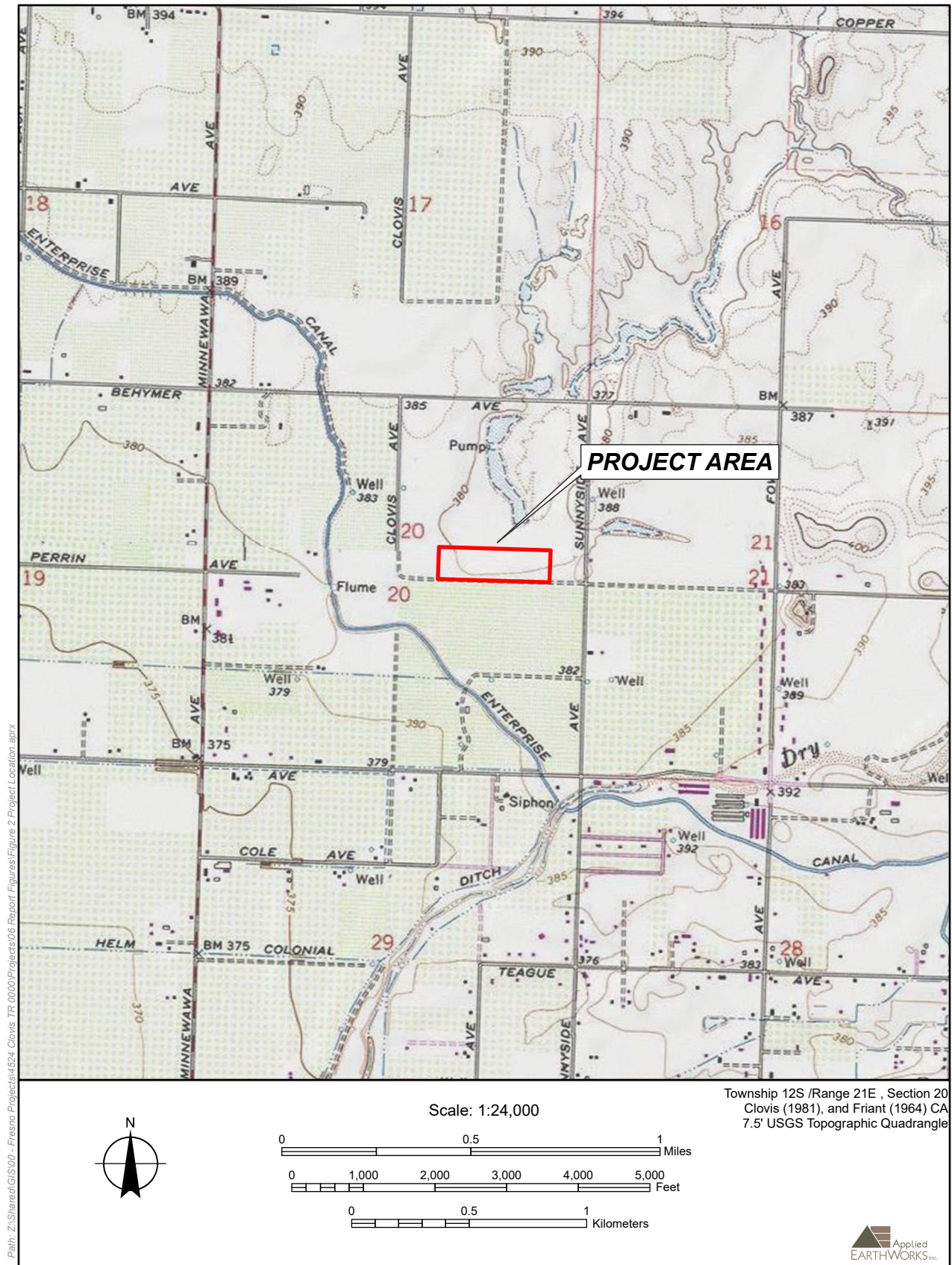


Figure 1-2 Project location on USGS Clovis and Friant 7.5-minute topographic quadrangles.



Figure 1-3 Aerial view of the Project area.

1.3 PROJECT PERSONNEL

Æ Managing Principal Archaeologist Erin Enright (M.A. Registered Professional Archaeologist [RPA] 16575) served as principal investigator for the project. Æ Principal Archaeologist Anna Hoover (M.S., RPA 28576661) served as project manager, overseeing the study efforts and technical reporting. Field Technician Charles Pansarosa (B.A.) conducted the pedestrian survey. This report was prepared by Staff Anthropologist Nicole Saenz (M.S.) and Principal Archaeologist Emerita Mary Baloian (Ph.D., RPA 15189) reviewed the report for technical accuracy. Résumés for key personnel are provided in Appendix A.

1.4 REPORT ORGANIZATION

This document consists of six chapters. Following this introduction, Chapter 2 describes the environmental and cultural context of the Project area. Chapter 3 presents Æ's methods for the study, including the records search, background research, Native American outreach, and pedestrian surveys, while Chapter 4 discusses the study results. Chapter 5 contains a summary and provides recommendations. A complete listing of references cited is in Chapter 6. Appendix A contains résumés of Project personnel. Appendix B presents results of the records search, and Appendix C contains documentation of communication with the NAHC and local tribal representatives.

Field notes, maps, and a complete set of photographs from the current investigation are on file at Æ's office in Fresno, California. A copy of the final version of this report will be submitted to the SSJVIC at California State University, Bakersfield.

2

NATURAL AND CULTURAL SETTING

2.1 PHYSICAL ENVIRONMENT

The Project area lies on the eastern margin of the San Joaquin Valley near the base of the Sierra Nevada foothills. In general, the valley is bordered on the east by the Sierra Nevada, on the west by the Coast Ranges, and on the south by the Tehachapi Range. The north-south orientation of the Sierra Nevada greatly influences the general hydrology of the region by directing the flow of rivers and streams westward into the San Joaquin Valley.

The complex geology of the adjacent foothills and the Sierra Nevada is reflected in the primary and secondary soils in the valley. Primary soils are developed by weathering the underlying granitic parent material. Secondary soils are formed by a combination of eolian and alluvial forces transporting a variety of granitic and assorted metamorphic and metavolcanic materials from mountain streams (Weir 1956). Quaternary and recent alluvium covers most of the valley basin.

The natural vegetation of the San Joaquin Valley has been severely compromised as a result of farming and ranching. Originally, the area was covered with native annual and perennial grasses such as needlegrass (*Stipa* spp.), bluegrass (*Poa* spp.), and three awn (*Aristida divaricata*) commonly found in the Valley Grassland Community (Munz and Keck 1973). Prior to Euro-American colonization, the valley floor was occupied by a diverse population of resident and migratory mammals and birds, which along with fish and other aquatic species provided a rich resource base for aboriginal subsistence. Historical and modern land use has greatly reduced the size and number of native habitats, eliminating numerous indigenous species. Most commonly found in the study vicinity today are jackrabbits, ground squirrels, field mice, snakes, and frogs, along with jays, mourning doves, crows, and red-tailed hawks.

The San Joaquin Valley lies within the Mediterranean climate zone typified by hot, dry summers and cool, wet winters. Temperatures range from highs of 90–100°F in the summer months to lows of 40–50°F in the winter (Weir 1956), although temperatures exceeding 100°F in the summer and dropping below freezing in the winter are not uncommon. Annual precipitation averages 10 inches per year, with most of the rain falling between October and March. Thick “tule” fog is common in the valley during December and January.

The natural topography of the proposed development is flat at 400 feet above mean sea level. The natural watercourse closest to the Project area is Dry Creek, which flows directly southeast of the Project area.

2.2 PREHISTORY AND ARCHAEOLOGY

Archaeological evidence suggests that the valley’s initial occupants settled mostly in lakeshore and streamside environments and used the foothills seasonally. Early (“Paleoindian”) sites are typified by fluted points, stemmed dart points, scrapers, and flaked stone crescents. The middle and late Holocene witnessed mobile hunters and gatherers. As compared with their predecessors,

Archaic groups utilized a broad resource base, including both large and small game and hard seeds. Manos, milling slabs, mortars, and pestles are common in Archaic assemblages, as are atlatl dart points. Favorable climatic conditions between 3,000 and 3,500 years ago fostered widespread settlement along the Sierran west slope. The late Holocene witnessed various technological and social changes, including the adoption of the bow and arrow, expansion of trade, increasing use of acorns, and improved food storage techniques. As populations grew, social relations became more complex. Economic stress and social instability became more pronounced during a period of xeric climates between circa A.D. 450 and 1250. Thereafter, new levels of population growth were achieved, resulting in part from movement of new Sierran groups. By circa A.D. 1600–1700, most groups claimed the territories that would identify them ethnographically. The Project lies in the territory of the Gashowu, a tribelet of the Foothill Yokuts (see Section 3.3).

A number of prehistoric sites have been identified in Gashowu territory (Price 1992). Located in the foothills northeast of Clovis, these sites are primarily either extensive midden deposits found along both small ephemeral drainages and larger permanent watercourses or multiple bedrock milling features, sometimes with numerous individual stations.

Investigations at CA-FRE-1671, which may have formed the core of the *Pohoni* village community, yielded radiocarbon dates showing that Yokuts settlement of the area extended from A.D. 1300 well into the historic period. An earlier occupation phase at the site was dated between circa 700 B.C. and A.D. 300 but could not be linked directly to the Gashowu or any other Yokuts group (Moratto 1988).

At CA-FRE-64, investigations showed that the Yokuts may have occupied the area as early as A.D. 1100–1200, with continuing occupation to around A.D. 1600. An even earlier component lacked the data to attribute it to the Gashowu but suggested that the steatite industry in the area may have begun as early as A.D. 800 (Wallace et al. 1989).

CA-FRE-1154 and -1155 are in the foothills east of the Project area. CA-FRE-1154, the Sharer Site, lies “along an abandoned oxbow bend associated with a channelized-stream” (Langenwalter et al. 1989). This site, interpreted as a seasonal procurement campsite, appears to have been used during a long temporal span from 850 B.C. to A.D. 1850. It consists of a midden ranging from 60 to 160 centimeters deep and a large bedrock boulder containing 76 mortars, cups, cupules, and slicks. Artifacts included ground and flaked stone tools, steatite bowl fragments, ornaments, crystals, daub, and ochre. Additionally, the remains of a juvenile burial were encountered.

CA-FRE-1155, the Harlan Site, contains a small but well-developed midden with thickness varying between 80 and 190 centimeters as well as five bedrock features. Artifacts similar to those from CA-FRE-1154 indicate that CA-FRE-1155 was used as a seasonal procurement site. It appears to have been sporadically occupied between 850 B.C. and A.D. 300, with intensive occupation from A.D. 300 to 1500 (Langenwalter et al. 1989).

Surveys east of the current Project area have shown that many small processing stations and temporary camps occur along seasonal channels near the lower foothills (Meighan and Dillon 1987), suggesting a pattern of widespread but relatively ephemeral use of the area during the late Holocene (McGuire 1992).

In the first half of the nineteenth century, the Gashowu population was decimated by disease, missionization, and military action. This led to a radical change in settlement: the surviving peoples abandoned the residential sites that they had occupied prehistorically and congregated at a small number of locations. Glass trade beads and other historical artifacts recovered from CA-FRE-687 and CA-FRE-1671 may be evidence of these postcontact settlements (Price 1992:32–33).

2.3 ETHNOGRAPHY

At the time of first contact with the Spanish missionaries, the Yokuts people collectively inhabited the San Joaquin Valley, as well as the eastern foothills of the Sierra Nevada from the Calaveras River southward to the Kern River. The Yokuts language belongs to the broader Penutian family, which subsumes a relatively diverse assemblage of languages that also includes Miwok, Costanoan, Maiduan, and Wintuan (Silverstein 1978). Compared to other Penutian languages, however, Yokuts shows considerable internal linguistic homogeneity, especially given its relatively wide geographic distribution. Dialects differed minimally and were mutually intelligible, at least among speakers of contiguous groups. This relative lack of linguistic differentiation suggests that ancestors of the Yokuts entered California after the arrival and subsequent radiation of the more linguistically diverse Penutian groups such as the Miwok and Costanoan (Moratto 1984:554).

Linguists and ethnographers have traditionally divided the Yokuts into Northern Valley, Southern Valley, and Foothill categories based primarily on linguistic similarities and differences. Yet such broad groupings were not mirrored in the larger structure of Yokuts society. Instead, the Yokuts were organized into relatively small autonomous tribes or tribelets, which maintained a fluid territory containing multiple semipermanent settlements.

Gayton (1945, 1948), Kroeber (1976), Spier (1978), and Wallace (1978, 1987) have produced primary source material on Yokuts ethnography. Secondary works on this subject include those authored by Langenwelter et al. (1989) Moratto (1984, 1988), and Wallace et al. (1989). The following discussion about Yokuts lifeways is drawn from these sources.

The Project area lies within the territory of the Gashowu, a tribelet of the Kings River Group of the Foothill Division; that occupied the drainages of Big Dry Creek and Little Dry Creek. Two major settlements are attributed to the Gashowu: *Pohoni*, below Letcher on Big Dry Creek, and *Yokau*, on Little Dry Creek in Auberry Valley (Kroeber 1976:481, plate 47). These villages appear to have been central year-round settlements that were occupied more densely in the winter. At these locations, the Gashowu built conical structures 15–20 feet tall over excavated pits, each with a central rock-lined hearth. Other structures probably included acorn granaries, sweat houses, roofed ramadas, sunshades, and large communal houses. During the summer, residents moved with extended families or family groups to base camps within a day's walk of the central village. These stations served as summer villages and temporary storage places for food until it was transferred to the main village. Summer villages contained smaller structures and are most commonly recognized archaeologically by midden deposits and multiple bedrock milling features. Seed-gathering forays in the spring or summer expanded the Gashowu range to the lowlands of present-day Clovis and Fresno.

Acorns were a Gashowu staple, with additional nutrition culled from other nuts and seeds, berries, fruit, and game. These dietary items as well as tool stone and a variety of other resources were gathered at summer camps. Procurement loci survive today as scatters of lithic artifacts and as bedrock milling stations where plants and seeds were processed. In addition to these features, artifacts used to process procured resources (such as mortars, pestles, and manos) and the remains of resources gathered (such as bone and acorn shell) also may be found.

Steatite is available locally, and items made from this material (including cooking bowls, beads, and ornaments) are often found at Yokuts sites. Steatite goods also were traded with neighbors for obsidian, pine nuts, shell beads and ornaments, and other exotic commodities.

2.4 HISTORIC CONTEXT

2.4.1 Early Settlement in the Clovis Area (1853–1874)

The first Euro-American settlements in the greater Clovis area occurred not within the swampy “hog wallows” that once dotted the landscape of the present city limits but in the grassy plains around Dry Creek where the stream flows down from the foothills into the valley (Clough and Secrest 1984). A small outpost was established at the current intersection of Shepherd and Thompson avenues in 1853 and later became a stop along the Stockton to Los Angeles stage route (Smith 1991). For many years the lonely station, which eventually became known as Collins Corner, stood by itself with no other buildings in sight. After the Civil War, shepherders, many from the southern United States, began to trickle into the area.

During the 1860s, homesteaders came to the valley to graze their herds or flocks in the pastures around the San Joaquin River and its drainages. The local cattle industry continued to grow until at least 1870, when, according to Vandor (1919), it reached its peak. There were, however, some bumps along the way. The erratic climate patterns of the 1860s—a decade that experienced alternating periods of severe flooding and drought—had considerable impact on the makeup of the Central Valley’s agrarian base. In particular, the 2-year-long drought that followed the great flood of 1862 decimated remaining old Spanish cattle that had escaped the deluge (Byron 1951). In response, cattlemen restocked their herds with other varieties, including longhorns that had been driven from Texas Vandor (1919). For their part, shepherds adopted the annual cycle of Old World pastoralists: during the summer months they drove their flocks into the Sierra Nevada high country to conserve the lowland grasses for fall and winter grazing. The floods and droughts similarly wreaked havoc on production of agricultural goods, causing dramatic swings in commodity values. In the wake of the 1864 drought, crop failures depleted the supply of grain as the price of wheat on the San Francisco Market soared to \$5.00 per cental (100 pounds) in March 1865 (Elliott 1883). By comparison, the price rarely breeched the \$3.00 mark during the entire 1870s.

Along with the climate, political factors had a major hand in shaping the economic landscape. Although the 1874 enactment of the “no fence” laws did not necessarily deal a death blow to valley ranching, the statute greatly curtailed the influence and importance of this industry. The law had both operational and monetary repercussions:

The “no fence” law obligated the stock owner to herd his cattle and sheep, whereas before the stock roamed at will and was not assembled except for the annual rodeo. He

was also made responsible for damage done by his beasts. The farmer was not required to fence his holdings, though . . . he occasionally did so (Vandor 1919:163).

Without the entire extent of the San Joaquin Valley at his disposal and burdened by the continual task of containing his herds and flocks, the rancher found himself increasingly marginalized in the developing valley economy.

2.4.2 Initial Development of Agriculture in the Fresno-Clovis Area (1875–1900)

In addition to pro-agriculture legislation and the arrival of the Southern Pacific Railroad in 1872, the development of irrigation systems greatly contributed to the growth of agriculture in Fresno County. Built in the early and mid-1870s, the first major water conveyance systems in the Fresno-Clovis area included the canals of the Fresno Canal and Irrigation Company (FCIC), the Kings River and Fresno Canal Company (KRFCC), and the Enterprise Canal Company (ECC). These same systems, which use the waters of the Kings River, remain essential parts of the area's agricultural industry today.

In local history, Moses Church—a former sheepherder from Napa County—is considered the chief developer of water conveyance in Fresno County. As early as 1870, Church began acquiring water rights along the Kings River; in February 1871, he and two business associates incorporated the FCIC (Elliott 1882; Willison 1980). His first objective was to deliver appropriated water to the farm of A. Y. Easterby, located in the present-day Sunnyside neighborhood of Fresno (Vandor 1919). In 1872, the company completed construction of the first main head gate on the Kings River that allowed 2,000 feet of water to be diverted into the irrigation system (Elliott 1882). The Fresno Canal was the FCIC's primary channel. Although it runs a relatively short 12 miles, the Fresno Canal is the source of numerous large branch canals that still irrigate the fields south, west, and east of the Fresno-Clovis metropolitan area.

The KRFCC, also established in 1871, intended to build a similar system, although the project was not completed until 1873 when L. A. Gould purchased interest in the company (Clough and Secrest 1984; Willison 1980). By August of the same year, Gould's farm was receiving irrigation water from the KRFCC Gould Canal, which taps the Kings River about 1.5 miles above the head gate of the Fresno Canal. The Gould Canal and its primary branch, the Helm Canal, irrigated the former agricultural lands in what is today the heart of the Fresno-Clovis metropolitan area.

While local sources are not specific about the incorporation of the ECC or the dates of its major conveyance, the Enterprise Canal, circumstantial evidence suggests that construction began sometime after 1875 and continued episodically until the early twentieth century when the canal appears to have reached its present-day length of 36.5 miles. According to Willison's (1980) account, the KRFCC agreed to supply water to the ECC following the completion of the Gould Canal in 1873. This agreement was the basis for the eventual creation of the Enterprise Canal. Although the Enterprise Canal is not represented on an 1875 map of the county, construction might have begun shortly after (Willison 1980). Moreover, Hall's (1885) serial maps depicting irrigation in Fresno County as well as later county atlases suggest that the canal was built in stages. Whereas the first 15 miles of the Enterprise Canal (or "Enterprise Ditch") as well as its head gate on the Gould Canal are shown and labeled on the Centerville and Kingsburg Sheet of the series, the lower reaches of the canal do not appear on the Fresno Sheet. Taken at face value,

Hall's (1885) maps indicate that in 1885 the Enterprise Canal terminated at Frolic Creek (present-day Dog Creek), southeast of the Project area. By the time of the 1891 Fresno County atlas, the canal had been lengthened another 9.5 miles through the Clovis area (directly west of the Project area) to its northernmost extent (in Section 18 of Township 12 South, Range 21 East); however, the canal's existing southwesterly leg through what is today north Fresno had not been built yet (Thompson 1891).

Whatever the specific date(s) of the canal's construction, the ECC's dependence on the KRFCC and its Gould Canal clearly proved to be its undoing. In 1875, the KRFCC won a court battle with the FCIC that left KRFCC's water rights intact (Willison 1980:77–83). Ten years later, however, the companies faced off again, but this time the FCIC succeeded in enjoining the KRFCC by drawing water from the Kings River (Mead 1901:277; Willison 1980:84). Without access to water from the river, the KRFCC and ECC were forced to sell their canals to the FCIC. The court decision thus left the FCIC in control of all three canal systems.

Under the ownership of the FCIC, the Enterprise Canal continued to irrigate the farmlands north and east of the Fresno-Clovis area. It gave rise to several secondary canals along its route, including such Clovis-area branches as the Maupin Ditch, the Jefferson Canal, the Clovis Ditch, the Teague Ditch, and Helm Colonial Ditch as well as numerous unnamed laterals (Willison 1980). As early as 1900, the canal and its branches irrigated about 15,000 acres. By 1913, the lower portion of the canal appears to have been completed, bringing irrigation water to the area historically known as Forkner's Fig Gardens (Progressive Map Service 1913:19). The Enterprise Canal, along with the rest of the FCIC's system, was acquired by the Fresno Irrigation District in 1920 (Willison 1980).

For Church and other land promoters, the intended effect of irrigation was to increase the value of their properties so that they could be subdivided and sold to newly arriving homesteaders at a hefty profit. While this primary purpose was certainly achieved, the advent of intensive irrigation additionally led to a shift in both the types of crops grown and the size of a typical farm. Grain farming generally requires substantial acreage, but as irrigation water became more readily available, individual farmers realized that premium crops like grapes, citrus, and tree fruit could be profitably grown on lots as small as 20 acres.

Vandor's history includes a commentary from (probably Charles) Nordoff, who describes how, with irrigation, bigger is not necessarily better.

Big ranches there are yet but they are hazardous ventures, and the fact is that in the big valley the twenty, forty and eighty-acre farmers brought the lasting and real agricultural prosperity. There, where wheat was once the big and only crop, the man with less than 320 acres classed himself as a humble small farmer. Slowly but gradually the conviction forced itself that eighty acres with water on a good location was a little too much, forty a liberal plenty with which to make a fair start in life, and twenty just enough for one man on which to make a comfortable living for self and family and have something over with industry and health for the proverbial rainy day. Wonders have been accomplished with ten acres by men who were not overambitious, not overburdened with money and hesitated not to combine brain and brawn in the labor in the field. Intelligent twenty-acre men are laying up what eastern farmers would consider a fortune . . . (Vandor 1919:261).

Much like the “no fence” laws, the 1887 Wright Act, which provided for the creation of irrigation districts, is also seen as an important step in solidifying the interests of agriculture. In practice, it took some years before newly formed districts could gain the necessary legal and financial traction for operation, and these public cooperatives did not begin replacing private irrigation companies until the early twentieth century. At its passage, the Wright Act was, nevertheless, another legislative expression of the growing need for appropriated water. Another important development in the late nineteenth century was construction of the San Francisco & San Joaquin Valley Railroad in 1896, which provided Fresno with another rail line. Before then, farmers had complained about the Southern Pacific Railroad’s “ruinous” rates and were continually looking for alternative ways to ship their products to the Bay Area. This second railroad was acquired by the Atchison, Topeka, and Santa Fe Railway around 1900.

Agricultural growth in the San Joaquin Valley generally was accompanied by consistent population growth and urbanization, and with the rise in residential, commercial, and infrastructural development came an increase in demand for building materials. The one-man milling operations of the gold rush era had given way to late nineteenth-century lumber companies with the financial and technological means to harvest vast stands of timber in the nearby Sierra Nevada. It was primarily in this context that the town of Clovis arose.

Clovis originated in 1891 as a stop along the San Joaquin Valley Railroad, which extended from Fresno to the aspiring community of Pollasky (formerly called Hamptonville and later renamed Friant), located on the south bank of the San Joaquin River (Clough and Secrest 1984). Although Pollasky never fully materialized and the railroad was eventually sold off to the Southern Pacific, the new transportation link had opened the area northeast of Fresno for settlement and other ventures. Shortly afterward, the Fresno Flume and Irrigation Company, a combination lumber and irrigation venture, located its sawmill on a 60-acre parcel at the current site of Clark Intermediate School and the Clovis Rodeo Grounds. The mill was the end point of a 45-mile wooden flume from Shaver Lake. By its second year of operation in 1895, between 300 and 500 employees worked at the mill (Clough and Secrest 1984; Johnston 1997).

2.4.3 Diversification and Water Issues (1900–1950)

The trend toward smaller farms continued well into the new century. Between 1900 and 1920, 45,000 new farms were established in California, of which about 85 percent were less than 50 acres (Hall 1986). Yet whether a farm is small or large, the decision of which crop(s) to grow from year to year has historically been a speculative one for valley farmers. Given the decentralized nature of the industry, the market for a particular product was capable of unpredictable and dramatic changes. Oversupply of the previous year’s crop and the prospect of low prices have often compelled growers to look for other, more profitable alternatives. Out of this instability, many new fruit and vegetable varieties have been introduced to the valley.

The steady growth of the San Joaquin Valley’s agricultural base and its reliance on irrigation were beginning to erode the state’s water supply. In the period between 1909 and 1919, newly irrigated lands were placed under production at a rate of 155,000 acres per year (Hall 1986). Established in 1920, the Fresno Irrigation District acquired the aging conveyance system of the FCIC, and immediately set out to revamp and add to the existing canals and structures (Willison 1980). Technological improvements to electric water pump technology allowed wells to extend

even deeper into the aquifer, and by the mid-1920s the proliferation of wells had caused the water table to drop to alarmingly low levels. Among the most threatened were farmers who relied solely on wells for irrigation water. Along with a falling water table, California's water issues included reducing the danger of flooding along the major rivers, providing for more dependable navigation on the Sacramento River, and improving the water quality in the East Bay area (Jackson 1977).

The solution was the Central Valley Project (CVP), a statewide multicomponent water conveyance system to control and redistribute the tremendous supply of water flowing from the Sierra Nevada. The CVP, which began at the state level, became part of the New Deal project in the mid-1930s because of the massive financing required for the project. Partially due to labor shortages created by World War II, the entire system was not completed until the early 1950s. The Friant-Kern Canal, an original component of the CVP, flows about 5.5 miles east of the Project area.

In many ways, the Dry Creek drainage was a microcosm of the water issues facing the state during the 1920s and 1930s. Winding southwest from the foothills, Dry Creek disappears into a natural sink near the Old Fig Garden area in north-central Fresno. The natural flow from the creek raises the underground water table, which has been an important source of well irrigation water. Since the earliest days of Fresno, however, the annual flooding of the waterway caused traffic hazards, material damage, and even loss of life (Wilson 1932).

2.4.4 Modern Water Management (1950–Present)

Beginning in the mid-twentieth century, water management methods became more diverse and presently involve the storage of runoff in reservoirs for hydroelectric power and flood control and maintenance of underground water tables for such uses as irrigation and drinking water. As part of this larger process, the Dry Creek Project has sought to control the stream's natural runoff by channeling the water into reservoirs (Fresno Bee 1948). Since beginning operation in 1948, the Dry Creek Project has expanded its scope to prevent flooding while managing the groundwater level (Clovis Unified School District 1984; Fresno Metropolitan Flood Control District 2004).

When it reached fruition in the 1950s, the CVP sparked a new wave of agricultural growth by providing an ample supply of federally subsidized water across the valley floor. The Friant-Kern Canal flows through the Dry Creek District and its primary function is to convey irrigation water to the counties of the southern San Joaquin Valley. Nevertheless, water from the channel does not pass through the greater Fresno area completely untouched; along with the City of Fresno, the Garfield Irrigation District and Harlan Ranch established the right to divert water from the Friant-Kern Canal (Clovis Unified School District 1984).

3 METHODS

This chapter describes methods used to complete the cultural resource inventory of the Project area. This includes a records search to identify previous resources and studies within and adjacent to the Project area, background research, a search of the NAHC Sacred Lands File and contact with Native Americans who may have knowledge about the area, and an intensive pedestrian survey.

3.1 RECORDS SEARCH

At Æ's request, the SSJVIC of the CHRIS at California State University, Bakersfield, performed a records search on June 31, 2023, to identify previously recorded resources and prior surveys within the Project area and surrounding 0.25-mile search radius. SSJVIC staff consulted cultural resource location and survey base maps, reports of previous investigations, and cultural resource records (Appendix B).

3.2 BACKGROUND RESEARCH

Prior to conducting a pedestrian archaeological survey, Æ conducted background research to identify areas within the Project area where extant historic-aged buildings, structures, or objects might be present, or where archaeological deposits might exist. Desktop and online library research focused on historical maps, aerial images, atlases, and photographs. Æ reviewed and compiled information from various sources including:

- General Land Office (GLO) maps (<https://glorerecords.blm.gov/default.aspx>; 1856 and 1901);
- HistoricAerials.com administered by NETRonline topographic maps (<https://www.historicaerials.com/viewer>; T1922, T1923, T1946, T1955, T1965, T1974, T1975, T1982, T1995, T2012, T2015, T2018, and T2021);
- Aerial photographs, accessed through the Map Aerial Locator Tool maintained by California State University, Fresno (<http://malt.lib.csufresno.edu/MALT/>; 1937 and 1964); FrameFinder administered by the University of California, Santa Barbara (http://mil.library.ucsb.edu/ap_indexes/FrameFinder/); and
- HistoricAerials.com administered by NETRonline (1957, 1962, 1972, 1984, 1998, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, and 2020).

The result of Æ's background research is discussed in Section 4.2.

3.3 NATIVE AMERICAN OUTREACH

Pursuant to California PRC Section 5097.9, state and local agencies cooperate with and assist the NAHC in its efforts to preserve and protect locations of sacred or special cultural and spiritual significance to Native Americans. On June 6, 2023, Æ contacted the NAHC to request a search

of its Sacred Lands File to identify Native American resources in the Project area and obtain the names and contact information for individuals knowledgeable of such resources.

The NAHC responded on September 12, 2023, with its findings and attached a list of Native American tribes and individuals culturally affiliated with the Project area. AEC mailed a letter to each of the contacts identified by the NAHC. The letter summarized the Project and requested information about known cultural resources within the Project area and surrounding region. AEC additionally telephoned each contact to ensure they received the letter and to solicit information. Outreach with the Native American tribes and individuals is standard best practices to complete a cultural resource inventory and is not part of formal government-to-government consultation under Assembly Bill (AB) 52. AEC's record of tribal outreach is included in Appendix C.

3.4 PEDESTRIAN SURVEY

AEC Field Technician Charles Pansarosa performed an intensive pedestrian survey of the Project area using interval transects spaced 10 meters apart. AEC collected locational information on the survey coverage and photographed overviews of the Project area documenting the ground visibility and other conditions. All field records and photographs are archived at AEC's office in Fresno, California.

4 FINDINGS

This chapter provides results of the SSJVIC records search, Æ's background research, the NAHC's search of the Sacred Land's File and Æ's outreach to local Native American tribal representatives, and describes the pedestrian survey, including observations of field conditions and findings within the Project area.

4.1 RECORDS SEARCH

On July 31, 2023, the SSJVIC responded to Æ's records search request (Records Search File No. 23-286). In its response, the SSJVIC identified four previous cultural resource investigations within the Project area and one previous investigation in the 0.25-mile search radius. In addition, the records search identified no cultural resources within the Project area and one previously recorded cultural resource within the 0.25-mile records search radius.

4.1.1 Previous Studies

There have been four studies previously conducted within the Project area and one study within the 0.25-mile radius (Table 4-1; Appendix B). The entirety of the Project area has been surveyed previously, portions of which were surveyed most recently in 2006, more than 15 years ago. All other previous studies were conducted more than 30 years ago.

**Table 4-1
Previous Studies in the Project Area and Surrounding 0.25-Mile Radius**

| CHRIS Report No. | Author(s) | Year | Title |
|------------------------------------|--|-------------|--|
| Within the Project Area | | | |
| FR-00534 | Jones & Stokes Associates, Inc. | 1991 | <i>Archaeological Survey Report for the Behymer Lake Storm Drainage and Flood Control Project Initial Study</i> |
| FR-01219 | Bissonnette, L.D. | 1993 | <i>Fresno Metropolitan Flood Control District Drainage Area "BY" Facilities</i> |
| FR-02203 | Varner, D.M. | 2006 | <i>A Cultural Resource Study of the Battlin Brooks Property, Fresno County, California</i> |
| FR-02289 | Nettles, W.M. and R. Baloian | 2006 | <i>Cultural Resources Reconnaissance Survey of the City of Clovis Northwest Urban Center Specific Plan Area, Fresno County, California</i> |
| Within the 0.25-Mile Radius | | | |
| FR-03067 | Stanley, W., R. Baloian, and M. Baloian. | 2018 | <i>Cultural Resource Inventory and Evaluation for the Tract 6200 Development in the City of Clovis, Fresno County, California</i> |

4.1.2 Previously Recorded Resources

The records search identified no previously recorded resources within the Project area, and only one resource, the Enterprise Canal (P-10-005934), within the 0.25-mile records search radius. As

discussed in Section 2.4.2, the Enterprise Canal was constructed in the mid-to-late 1870s to provide bulk irrigation water to the greater Clovis and North Fresno areas. The entire canal is 36.5 miles long.

4.2 BACKGROUND RESEARCH

Æ's review of historical topographic maps and aerial photographs revealed moderate development in the area over the last 100 years. An 1856 map from the GLO depicts Big Dry Creek running southeast of the Project area (Figure 4-1). Big Dry Creek was present on the 1923 topographic map but on the 1947 map had been replaced with "Colonial Ditch." The 1856 GLO shows "Road from Stockton to Kings River" and "Old Road" on either side of the Project area. There were no remnants of these roads on the 1923 topographic map: all roads depicted on that map reflect their current state.

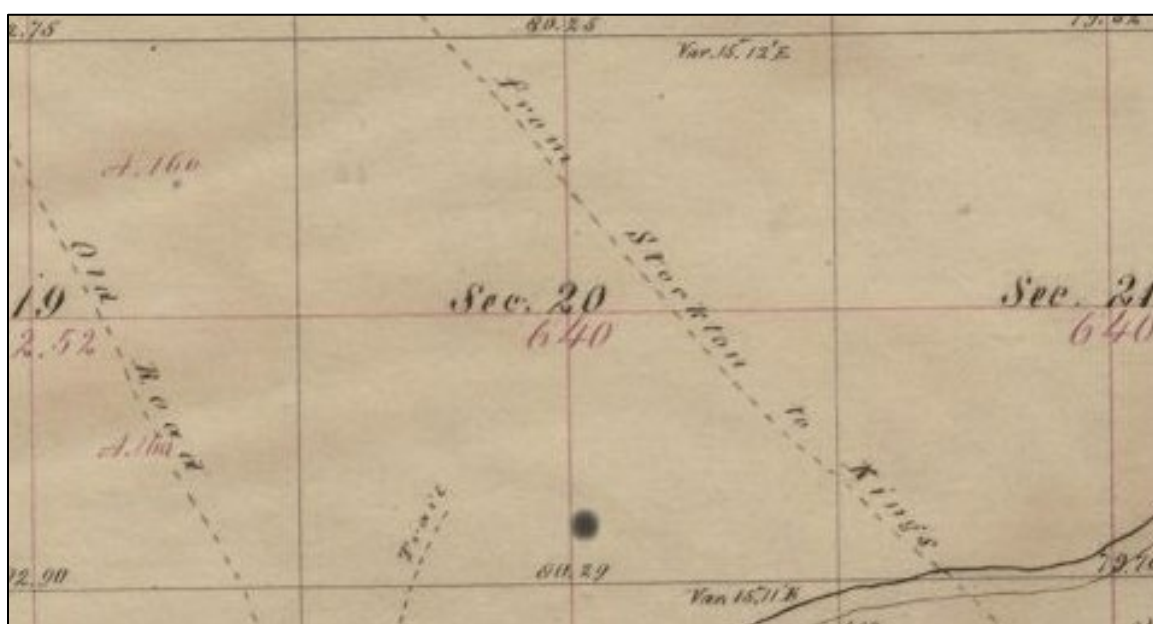


Figure 4-1 1856 GLO map showing transport routes and Big Dry Creek.

Æ's review of historical atlases, aeriels, and maps dating from 1891 to the present concluded that no structures have been built in the Project area. Two houses were built directly east of the Project area prior to 1957 and remained extant until circa 2000. Large, isolated buildings began appearing in the area in 1998, followed by housing developments east of Sunnyside Avenue between 1984 and 1998 and south of Shephard Avenue between 2005 and 2009. The Pacific Gas and Electric Shephard Substation was built directly south of the Project area between 2012 and 2014. The Project area and a significant portion of the surrounding area remain agricultural land.

4.3 NATIVE AMERICAN OUTREACH

On August 17, 2023, the NAHC stated in its search of the Sacred Lands File was negative for the presence of cultural resources in the Project area. The NAHC also supplied a list of individuals

to be contacted for information regarding locations of sacred or special sites of cultural or spiritual significance in the Project area.

On September 14, 2023, Æ sent a letter describing the Project and its location to:

- Chairperson Elizabeth Kipp of Big Sandy Rancheria of Western Mono Indians;
- Tribal Administrator Tom Zizzo of Big Sandy Rancheria of Western Mono Indians;
- Vice Chairperson Joel Marvin of Big Sandy Rancheria of Western Mono Indians;
- Jared Aldern of Cold Springs Rancheria of Mono Indians;
- Chairperson Carol Bill of Cold Springs Rancheria of Mono Indians;
- Chairperson Robert Ledger of Dumna Wo-Wah Tribal Government;
- Chairperson Ron Goode of North Fork Mono Tribe;
- Tribal Secretary Anna Phipps of North Fork Mono Tribe;
- Council Member and Archaeological Director Jesse Valdez of North Fork Mono Tribe;
- Timothy Perez of North Valley Yokuts Tribe;
- Chairperson Katherine Perez of North Valley Yokuts Tribe;
- Tribal Administrator Michael Wynn of Picayune Rancheria of the Chukchansi Indians;
- Tribal Historic Preservation Officer Heather Airey of the Picayune Rancheria of the Chukchansi Indians;
- Chairperson Janet Bill of the Picayune Rancheria of the Chukchansi Indians;
- Cultural Resource Director Bob Pennell of Table Mountain Rancheria;
- Chairperson Brenda Lavell of Table Mountain Rancheria;
- Chairperson David Alvarez of the Traditional Choinumni Tribe;
- Chairperson Neil Peyron of the Tule River Indian Tribe;
- Environmental Department Kerri Vera of the Tule River Indian Tribe;
- Tribal Archaeologist Joey Garfield of the Tule River Indian Tribe; and
- Chairperson Kenneth Woodrow of the Wuksachi Indian Tribe/Eshom Valley Band.

Æ also distributed these letters via email on September 13, 2023, and followed up with all tribes by telephone on October 19, 2023. To date, Æ has received six responses from this outreach.

- Big Sandy Rancheria of Mono Indians requested to be informed of any discoveries.
- The North Fork Mono Tribe requested that work crews remain cognizant of the fact that there are several sites known through oral history in the area that have not yet been located.
- Table Mountain Rancheria requested a copy of the cultural resources report and a meeting to discuss the Project; this communication is being conducted by Lennar Central Valley.
- Picayune Rancheria of the Chukchansi Indians, Traditional Choinumni Tribe, and Tule River Indian Tribe all declined interest in the Project.

A log detailing the outreach efforts and responses is provided in Appendix C. Æ did not facilitate government-to-government consultation on behalf of the City.

4.4 PEDESTRIAN SURVEY

Æ conducted an intensive archaeological pedestrian survey on August 23, 2023, encompassing the entire 18.2 acres of the Project area. The Project area is an open vacant field. Ground visibility varied across the Project area (Figures 4-2 and 4-3). Portions of the Project area were clear and void of vegetation, whereas other portions were entirely obscured by overgrown vegetation with grasses reaching waist height. In addition to grasses, vegetation in the area includes sunflower, jimson weed, and lupine.



Figure 4-2 Cleared and sparsely vegetated ground surface with high visibility; facing northeast.



Figure 4-3 Waist-high grass and star thistle with zero percent ground visibility; facing west.

Æ noted that the Project area appears to have been disked in the last year, and there also has been subsurface infrastructure improvements such as fire suppression, irrigation, and utilities in areas along the southern and western boundaries, likely associated with the adjacent development. Æ observed a graded dirt access road along the southern border. Modern debris including paper, plastic, polyvinyl chloride pipe segments, and fragments of concrete were also observed by the surveyor throughout the property. No cultural resources were identified in the Project area during the pedestrian survey.

5 CONCLUSIONS AND RECOMMENDATIONS

Æ provided cultural resource services for the proposed Tract 6452 Residential Development Project in Fresno County, California for Lennar Central Valley. The Project proposes to construct 153 single-family lots on 18.2 acres of vacant land between Clovis Avenue and North Sunnyside Avenue, north of Perrin Road, in the city of Clovis. The proposed zoning for the Project will be M/L – Medium and Low Density Residential, while the current Fresno County zoning is AE-20. The property is currently in the County of Fresno and will need to be annexed to the City. This residential development will be within the City’s Heritage Grove Master Plan and will be subject to design development standards of the plan.

Æ conducted a cultural resource study to determine if archaeological or historical built environment cultural resources are present within the 18.2-acre Project area. Accordingly, Æ performed background research, obtained a records search from the SSJVIC of the CHRIS, requested a search of the NAHC Sacred Lands File, contacted local tribal representatives, and performed an intensive pedestrian survey of the Project area.

The SSJVIC records search identified four previous cultural resource investigations within the Project area and one previous investigation in the 0.25-mile search radius. In addition, the records search reported no previously recorded cultural resources within the Project area and one previously recorded cultural resource within the 0.25-mile records search radius. A search of the NAHC’s Sacred Lands File did not identify Native American cultural resources within or near the Project area and no specific information was gleaned from outreach with local tribal representative. No cultural resource sites were identified in the Project area from Æ’s survey efforts.

5.1 RECOMMENDATIONS

This study concludes that there are no historical resources within the Project area. Based on the results of this cultural resource inventory, Æ recommends the following management practices be adopted for the proposed Project.

5.1.1 Inadvertent Discovery of Archaeological Resources

If unknown prehistoric or historic-era cultural resources are encountered during Project activities, all ground-disturbing activities within 50 feet of the find shall cease until a qualified archaeologist can evaluate the significance of the resource and recommend appropriate treatment measures. If necessary, per CEQA Guidelines Section 15126.4(b)(3)(A), project redesign and preservation in place shall be the preferred means to avoid impacts to significant cultural resources (i.e., historical resources). Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that a historical resource cannot be avoided, the qualified archaeologist shall develop mitigation practices in consultation with the City, which may include data recovery or other appropriate measures. The City also shall consult with interested Native American representatives in determining appropriate mitigation for unearthed cultural resources if the resources are prehistoric or Native American in nature. If preservation in

place is not possible and additional studies or data recovery mitigation is necessary, the qualified archaeologist shall prepare a report documenting these studies and/or additional mitigation of the resource. A copy of the report shall be provided to the City and to the SSJVIC. Construction can recommence based on the direction of the qualified archaeologist and with concurrence from the City.

5.1.2 Inadvertent Discovery of Human Remains

Æ advises that in the event human remains are uncovered during Project activities, the Fresno County Coroner is to be notified to evaluate the remains and follow the procedures and protocols set forth in CEQA Guidelines Section 15064.4 (e)(1). If the remains are identified to be those of a Native American, California Health and Safety Code 7050.5 requires that the county coroner notify the NAHC within 24 hours of discovery. The NAHC will then identify the Most Likely Descendant, who will be afforded the opportunity to recommend means for treatment of the human remains following protocols in California Public Resources Code 5097.98.

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- 1987 Ethnohistory of the Redbank-Fancher Area: The Gashowu, a Little-Known Foothill Yokuts Tribelet. In *Redbank and Fancher Creeks Intensive Cultural Resources Survey*, edited by Clement W. Meighan and Brian D. Dillon, pp. 133–149. Institute of Archaeology, University of California, Los Angeles. Submitted to the U.S. Army Corps of Engineers, Sacramento District.

Wallace, William J., Adella Schroth, and Philip de Barros

- 1989 *Archaeological Data Recovery at Prehistoric Archaeological Site CA-FRE-64*. Chambers Group, Inc., Santa Ana, California. Submitted to and on file at the California Department of Transportation, District 6, Fresno, California.

Weir, Walter W.

- 1956 *Soils of Madera County, California*. Soil Survey No. 12. Department of Soils and Plant Nutrition, University of California, Berkeley.

Willison, Paul H.

- 1980 Past, Present, & Future of the Fresno Irrigation District. Fresno Irrigation District, Fresno, California.

Wilson, L. H.

- 1932 Deaths, Injuries, Illness Caused by Dry Creek; Elimination Suggested. *Fresno Morning Republican* 19 January:7. Fresno, California.

APPENDIX A

Personnel Qualifications

MARY CLARK BALOIAN

Principal Archaeologist

Areas of Expertise

- Cultural resource management
- Prehistoric archaeology
- Project management

Years of Experience

- 30

Education

Ph.D., Anthropology, Southern Methodist University, 2003

M.A., Anthropology, Southern Methodist University, 1995

B.A., Anthropology, University of California, Davis, 1989

Registrations/Certifications

- Registered Professional Archaeologist 15189

Permits/Licensure

- Principal Investigator, California BLM Statewide Cultural Resources Use Permit CA-18-22

Professional Affiliations

- Society for American Archaeology
- Society for California Archaeology

Professional Experience

- 2021–2023 Principal Archaeologist, subconsultant for Applied EarthWorks, Inc., Fresno, California
- 2000–2020 President (2015–2020), Managing Principal (2015–2020), Regional Manager (2012–2014), Assistant Division Manager (2010–2011), Principal Archaeologist/Project Manager (2016–present), Senior Archaeologist/Project Manager (2000–2015), Applied EarthWorks, Inc., Fresno, California
- 1998–2001 Adjunct Faculty Member, Fresno City College, Fresno, California
- 1995–1996 Staff Archaeologist, Applied EarthWorks, Inc., Fresno, California
- 1994–1995 Staff Archaeologist, INFOTEC Research, Inc., Fresno, California
- 1992–1994 Teaching Assistant, Southern Methodist University, Dallas, Texas
- 1989–1991 Archaeological Project Leader, California Department of Transportation, Sacramento

Technical Qualifications

Dr. Clark Baloian has been involved in archaeology in California and the western United States since 1987. Her areas of expertise include the prehistory of the San Joaquin Valley, Sierra Nevada, Great Basin, central California coast, and the Iron Age of West Africa. Dr. Baloian has served as Principal Investigator/Project Manager, Field Supervisor, Crew Chief, or Field Technician for projects throughout California, Oregon, Nevada, New Mexico, Texas, Hawaii, and West Africa. Her experience in cultural resource management includes research design, data acquisition, laboratory analysis, and preparation of technical reports and compliance documents; she also has completed the Advisory Council on Historic Preservation course in National Historic Preservation Act (NHPA) Section 106 compliance policies and procedures. Her analytic skills include lithic and ceramic analyses as well as settlement pattern studies and spatial analysis, which were the foci of her doctoral research. As a Principal Archaeologist and subconsultant for Applied EarthWorks, Dr. Baloian provides quality assurance, high-level technical review, CEQA and Section 106 oversight, and overall professional guidance for project work, as needed.

ERIN ENRIGHT

Vice President/Principal Archaeologist/Project Manager

Areas of Expertise

- Cultural resource management
- Project management
- Archaeological field work/ Supervision
- GIS analysis and desktop site assessments
- Faunal analysis
- Prehistory and history of California and the Southwest

Years of Experience

- 22

Education

M.A., Anthropology and Applied Archaeology, Eastern New Mexico University, Portales, 2008

B.A., Classical and Near Eastern Archaeology, Bryn Mawr College, Pennsylvania, 2000

Registrations/Certifications

- Register of Professional Archaeologists 16575 (2009)
- OSHA 40-hour HAZWOPER (2019)

Permits/Licensure

- Principal Investigator, California BLM Statewide Cultural Resources Use Permit CA-21-21

Professional Affiliations

- Society for American Archaeology
- Society for California Archaeology

Professional Experience

- | | |
|-----------|--|
| 2021– | Vice President/Managing Principal/Principal Archaeologist, Applied EarthWorks, Inc., San Luis Obispo and Fresno, California |
| 2019–2021 | Managing Principal/Principal Archaeologist, Applied EarthWorks, Inc., San Luis Obispo, California |
| 2014–2018 | Senior Archaeologist/Project Manager, Applied EarthWorks, Inc., San Luis Obispo, California |
| 2008–2014 | Associate Archaeologist/Faunal Analyst, Applied EarthWorks, Inc., Lompoc, California |
| 2004–2008 | Faunal Analyst/Student Supervisor/ Educational Outreach, Blackwater Draw Archaeological Site and Museum, Eastern New Mexico University, Portales |
| 2001–2004 | Staff Archaeologist, Cultural Resource Management Services, Paso Robles, California |
| 2000 | Field Archaeologist, Princeton Expedition, Polis Chrysochous, Cyprus |
| 1999 | Archaeological Field School, Anathica Field School, Petras, Crete, Greece |

Technical Qualifications

Ms. Enright is an experienced professional archaeologist, principal investigator, project manager, and field supervisor/director who has managed projects throughout California and the Southwest. She has participated at all levels within the cultural resource management industry with projects ranging from survey and site recording; testing and data recovery; National Register eligible excavations; buried site testing (backhoe trenching); development of monitoring plans; database creation and maintenance; curation management; GIS; technical report production; and compliance assistance for NHPA and CEQA projects. Ms. Enright has developed close relationships with tribal groups and individuals throughout the Central Coast and Central Valley. She has played a critical role in providing consultation support between agencies and Native American groups for AB 52, CEQA, and Section 106. Additionally, she has experience managing large on-call contracts and complicated cultural resource management efforts with complex regulatory requirements. Several of these efforts have been in support of energy projects. Ms. Enright has authored or co-authored more than 70 technical reports and other NHPA, NEPA, and CEQA compliance documents, and presented research at state and national archaeological meetings.

ANNA HOOVER

Principal Archaeologist

Areas of Expertise

- Cultural resources management
- Prehistoric archaeology of southern California
- Indigenous archaeology and Native American/descendant community coordination
- Federal, state, local environmental laws and regulations
- Training, capacity building
- Traditional Cultural Property and Landscape analysis

Years of Experience

- 24

Education

M.S., Anthropology, focus Archaeology, 2003, University of California, Riverside

B.S., Anthropology, 2000, University of California, Riverside

B.A., Linguistics, 2000, University of California, Riverside

A.A., English, 1996, Long Beach City College

Registrations/Certifications

- Registered Professional Archaeologist 28576661 (current)
- Cultural Consultant, Riverside County #171 (current)

Permits/Licensure

- Field Director, California BLM Statewide Cultural Resources Use Permit CA-21-21

Professional Associations

- Society of California Archaeology

Professional Experience

| | |
|-----------|---|
| 2023– | Principal Archaeologist, Applied EarthWorks, Inc. |
| 2020–2022 | Senior Archaeologist, Applied EarthWorks, Inc. |
| 2017–2023 | Senior Ethnoarchaeologist, Cultural Geographics Consulting |
| 2007–2017 | Deputy Tribal Historic Preservation Officer, Pechanga Band of Luiseño Mission Indians |
| 2001–2015 | Archaeological Assistant, San Bernardino County Coroner |
| 2002–2007 | Senior Archaeologist, L&L Environmental, Inc. |

Technical Qualifications

Ms. Hoover has more than 24 years of experience in archaeological, cultural, and tribal resource management in southern California, Alta and Baja California, and Yucatan, Mexico. Ms. Hoover has collaborated with governmental agencies, environmental consultants, and indigenous communities to develop sustainable and practical applications for the identification and preservation of archaeological and tribal cultural resources, including landscapes and large, geographical features. As a capable Project Manager, she has coordinated dozens of CRM projects during all phases of development, including managing logistics and communications with various clients, lead agencies, Tribal communities, and project staff. Ms. Hoover is the designated archaeologist of record for three Native American Tribal Historic Preservation Offices (THPOs) in southern California.

Ms. Hoover has authored, co-authored, reviewed, and contributed to hundreds of California Environmental Quality Act (CEQA), Section 106 of the National Historic Preservation Act (NHPA), and National Environmental Policy Act (NEPA) technical reports; Programmatic, Memoranda, and Master Agreements; THPO development applications and associated tribal ordinances and historic preservation guidance; ethnographic studies and National Register of Historic Places eligibility forms; and other compliance and mitigation documents.

Ms. Hoover has presented collaborative projects, personal research, cultural resources education, and environmental regulation guidance trainings to a wide variety of audiences, including topics such as AB 52, SB 18 and CEQA guidance, cultural and tribal consultation best practices, and Tribal Monitoring Program trainings. She has contributed to CalTHPO organizational committees, participated in development of California and Federal archaeological and tribal consultation policies, and contributed to a published book on Tribal GIS applications.

NICOLE SAENZ

Staff Anthropologist

Areas of Expertise

- Forensic anthropology
- Human osteology
- Faunal analysis/zooarchaeology
- Project administration

Years of Experience

- 6

Education

M.S., Forensic Anthropology,
Boston University Chobanian and
Avedisian School of Medicine, 2023

B.A., Anthropology, University of
California, Santa Cruz, 2012

Professional Experience

- 2023– Staff Anthropologist, Applied EarthWorks, Inc.
- 2022– Forensic Anthropology Consultant and Peer Reviewer,
Puerto Rico Institute of Forensic Sciences
- 2022–2023 Field Technician, Applied EarthWorks, Inc.
- 2008–2012 Zooarchaeology Preparations and Curation Intern,
University of California, Santa Cruz

Technical Qualifications

Ms. Saenz is a Staff Anthropologist at Applied EarthWorks, Inc. She received her Bachelor of Arts degree in Anthropology from the University of California, Santa Cruz and her Master of Science degree in Forensic Anthropology from the Boston University Chobanian and Avedisian School of Medicine. In addition, Ms. Saenz has completed internships in zooarchaeological preparation and curation, thermally altered scene analysis and remains recovery, and currently serves as a forensic anthropological consultant and peer reviewer for the Puerto Rico Institute of Forensic Sciences. Ms. Saenz's professional responsibilities include project administration, osteological assessments, outreach with the Native American Heritage Commission and its recommendations, pre-field project preparations, writing technical reports, completing California Department of Parks and Recreation 523-series forms, and assisting with project proposals.

APPENDIX B

Records Search Results



7/31/2023

Milo Honsberger
Applied EarthWorks, Inc.
1391 W. Shaw Ave.
Fresno, CA 93711

Re: 4524 Clovis TR 0000
Records Search File No.: 23-286

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on the Clovis & Friant USGS 7.5' quads. The following reflects the results of the records search for the project area and the 0.25 mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☐ custom GIS maps ☒ GIS data

| | |
|------------------------------------|-------------------------------|
| Resources within project area: | None |
| Resources within 0.25 mile radius: | P-10-005934 |
| Reports within project area: | FR-00534, 01219, 02203, 02289 |
| Reports within 0.25 mile radius: | FR-03067 |

Resource Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Database Printout (details): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (details): ☒ enclosed ☐ not requested ☐ nothing listed

Report Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Resource Record Copies: ☒ enclosed ☐ not requested ☐ nothing listed

Report Copies: ☒ enclosed ☐ not requested ☐ nothing listed

OHP Built Environment Resources Directory: ☐ enclosed ☒ not requested ☐ nothing listed

Archaeological Determinations of Eligibility: ☐ enclosed ☒ not requested ☐ nothing listed

CA Inventory of Historic Resources (1976): ☐ enclosed ☒ not requested ☐ nothing listed

Caltrans Bridge Survey: Not available at SSJVIC; please see
<https://dot.ca.gov/programs/environmental-analysis/cultural-studies/california-historical-bridges-tunnels>

Ethnographic Information: Not available at SSJVIC

Historical Literature: Not available at SSJVIC

Historical Maps: Not available at SSJVIC; please see
<http://historicalmaps.arcgis.com/usgs/>

Local Inventories: Not available at SSJVIC

GLO and/or Rancho Plat Maps: Not available at SSJVIC; please see
<http://www.glorerecords.blm.gov/search/default.aspx#searchTabIndex=0&searchByTypeIndex=1> and/or
<http://www.oac.cdlib.org/view?docId=hb8489p15p;developer=local;style=oac4;doc.view=items>

Shipwreck Inventory: Not available at SSJVIC; please see
<https://www.slc.ca.gov/shipwrecks/>

Soil Survey Maps: Not available at SSJVIC; please see
<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

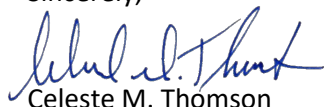
The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

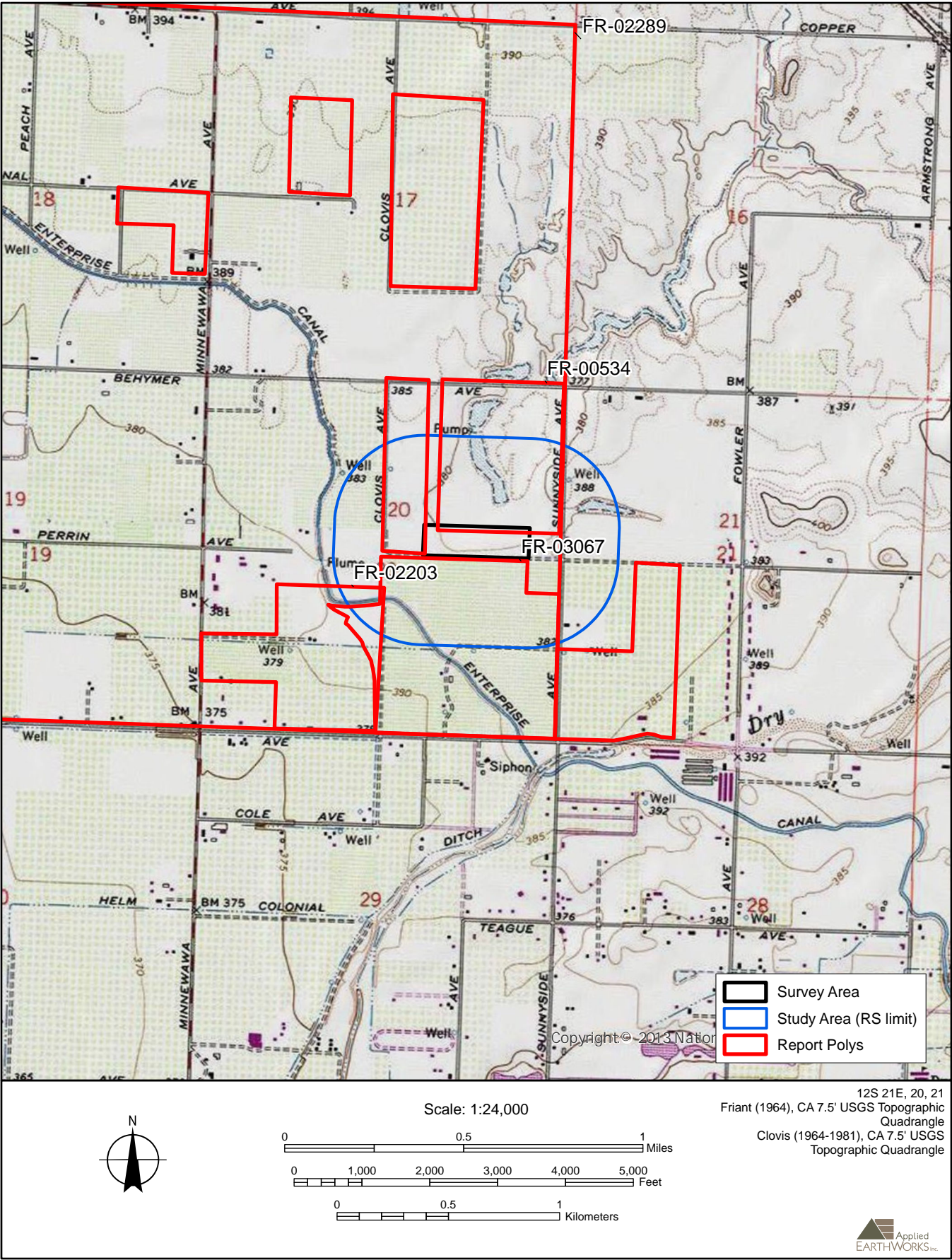


Celeste M. Thomson
 Coordinator

Report List

SSJVIC Record Search 23-286

| Report No. | Other IDs | Year | Author(s) | Title | Affiliation | Resources |
|------------|-----------|------|--|---|---------------------------------|-----------|
| FR-00534 | | 1991 | Jones & Stokes Associates, Inc. | Archaeological Survey Report for the Behymer Lake Storm Drainage and Flood Control Project Initial Study | Jones & Stokes Associates, Inc. | |
| FR-01219 | | 1993 | Bissonnette, Linda Dick | Fresno Metropolitan Flood Control District Drainage Area "BY" Facilities | Cultural Resources Consulting | |
| FR-02203 | | 2006 | Varner, Dudley M. | A Cultural Resource Study of the Battlin Brooks Property, Fresno County, California | Varner Associates | |
| FR-02289 | | 2006 | Nettles, Wendy M. and Baloian, Randy | Cultural Resources Reconnaissance Survey of the City of Clovis Northwest Urban Center Specific Plan Area, Fresno County, California | Applied EarthWorks, Inc. | 10-006109 |
| FR-03067 | | 2018 | Stanley, Ward, Baloian, Randy, and Baloian, Mary | Cultural Resource Inventory and Evaluation for the Tract 6200 Development in the City of Clovis, Fresno County, California | Applied EarthWorks, Inc. | 10-005934 |

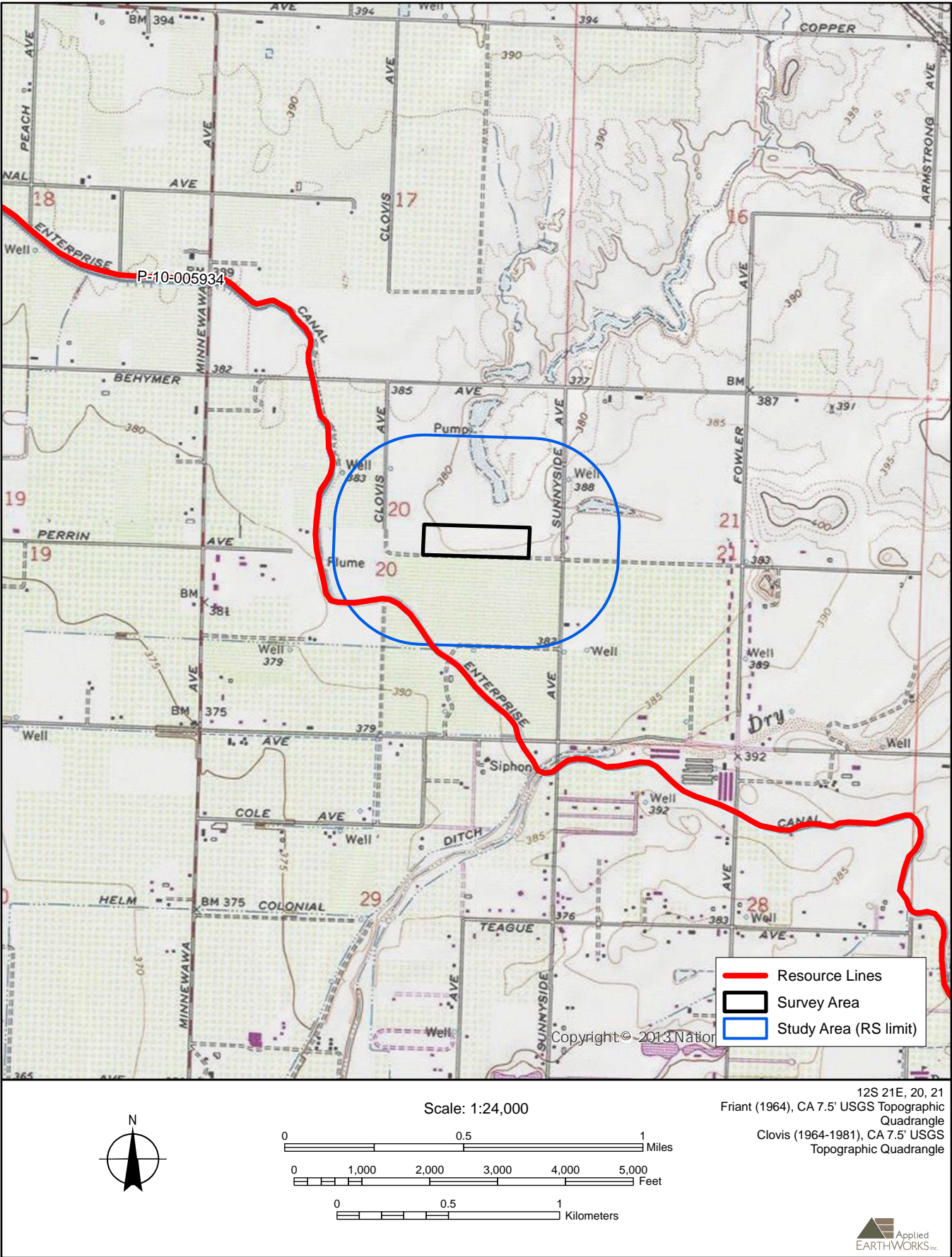


Record Search Results Map: Reports

Resource List

SSJVIC Record Search 23-286

| Primary No. | Trinomial | Other IDs | Type | Age | Attribute codes | Recorded by | Reports |
|-------------|----------------|---|-----------|----------|-----------------|--|------------------------------|
| P-10-005934 | CA-FRE-003564H | Resource Name - Enterprise Canal; OTIS Resource Number - 534499; OHP Property Number - 163775 | Structure | Historic | HP20 | 2007 (R. Baloian, Applied EarthWorks, Inc.); 2013 (Randy Baloian, Applied EarthWorks, Inc.); 2017 (Ward Stanley and Randy Baloian, Applied EarthWorks, Inc.) | FR-02615, FR-02919, FR-03067 |



Record Search Results Map: Resources

APPENDIX C

Native American Outreach

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission

1550 Harbor Boulevard, Suite 100

West Sacramento, CA 95691

916-373-3710

916-657-5390 – Fax

nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Date: 7/17/23

Project: 4524 Clovis Tract 0000

County: Fresno

USGS Quadrangle Name: Fresno & Clovis

TRS: 12S 21E, 20, 21

Company/Firm/Agency: Applied EarthWorks, Inc.

Contact Person: Milo Honsberger

Street Address: 1391 W. Shaw Ave., Suite C

City: Fresno

Zip: 93711

Phone: (559) 229-1856 x

Fax: (559) 229-2019

Email: mhonsberger@appliedearthworks.com

Project Description:

Applied Earthworks will be conducting a survey in Clovis CA.

NATIVE AMERICAN HERITAGE COMMISSION

September 12, 2023

Milo Honsberger
Applied EarthWorks, Inc.

Via Email to: mhonsberger@appliedearthworks.com

Re: 4524 Clovis Tract 0000 Project, Fresno County

Dear Mr. Honsberger:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Cameron.vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

Attachment



CHAIRPERSON
Reginald Pagaling
Chumash

VICE-CHAIRPERSON
Buffy McQuillen
Yokayo Pomo, Yuki,
Nomlaki

SECRETARY
Sara Dutschke
Miwok

PARLIAMENTARIAN
Wayne Nelson
Luiseño

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
Laurena Bolden
Serrano

COMMISSIONER
Reid Milanovich
Cahuilla

COMMISSIONER
Vacant

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok, Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

**Native American Heritage Commission
Native American Contact List
Fresno County
9/12/2023**

| Tribe Name | Fed (F) Non-Fed (N) | Contact Person | Cultural Affiliation |
|--|--------------------------------|---|------------------------------------|
| Dumna Wo-Wah Tribal Government | N | Robert Ledger, Chairperson | Foothill Yokut Mono |
| North Valley Yokuts Tribe | N | Katherine Perez, Chairperson | Costanoan Northern Valley Yokut |
| North Valley Yokuts Tribe | N | Timothy Perez, | Costanoan Northern Valley Yokut |
| Picayune Rancheria of the Chukchansi Indians | F | Michael Wynn, Tribal Administrator | Foothill Yokut |
| Picayune Rancheria of the Chukchansi Indians | F | Janet Bill, Chairperson | Foothill Yokut |
| Picayune Rancheria of the Chukchansi Indians | F | Heather Airey, Tribal Historic Preservation Officer | Foothill Yokut |
| Santa Rosa Rancheria Tachi Yokut Tribe | F | Leo Sisco, Chairperson | Southern Valley Yokut |
| Table Mountain Rancheria | F | Brenda Lavell, Chairperson | Yokut |
| Table Mountain Rancheria | F | Bob Pennell, Cultural Resource Director | Yokut |
| Traditional Choinumni Tribe | N | David Alvarez, Chairperson | Foothill Yokut |
| Tule River Indian Tribe | F | Joey Garfield, Tribal Archaeologist | Yokut |
| Tule River Indian Tribe | F | Kerri Vera, Environmental Department | Yokut |
| Tule River Indian Tribe | F | Neil Peyron, Chairperson | Yokut |
| Wuksachi Indian Tribe/Eshom Valley Band | N | Kenneth Woodrow, Chairperson | Foothill Yokut Mono |

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

September 13, 2023

Joel Marvin, Vice Chairperson
Big Sandy Rancheria of Western Mono Indians
P.O. Box 337
Auberry, CA, 93602
(559) 374-0066
Transmitted via USPS and email (jmarvin@bsrnation.com)

RE: Clovis Tracts 6375 and 6452 Housing Development Projects in Clovis, Fresno County, California

Dear Joel Marvin,

Applied EarthWorks, Inc. (Æ) is providing cultural resource services, including archaeological survey, in support of proposed housing development. The development includes two separate projects on adjacent plots of land, the boundaries of which are just north of the City of Clovis.

The project areas are a combined 77 acres, one 18.23-acre parcel and one 58.9-acre parcel, as shown on the Friant and Clovis 7.5-minute U.S. Geological Survey topographic quadrangles (see enclosed maps). The project does involve new construction, including multiple ground-breaking activities related to construction and development. Therefore, a cultural resource study is required.

On behalf of the City of Clovis, Æ is conducting Native American outreach and performing other tasks related to cultural resource management. The project is subject to the requirements of the California Environmental Quality Act and, as lead agency, the City of Clovis is responsible for any formal government-to-government consultation required. This communication is not intended to initiate Assembly Bill 52 consultation.

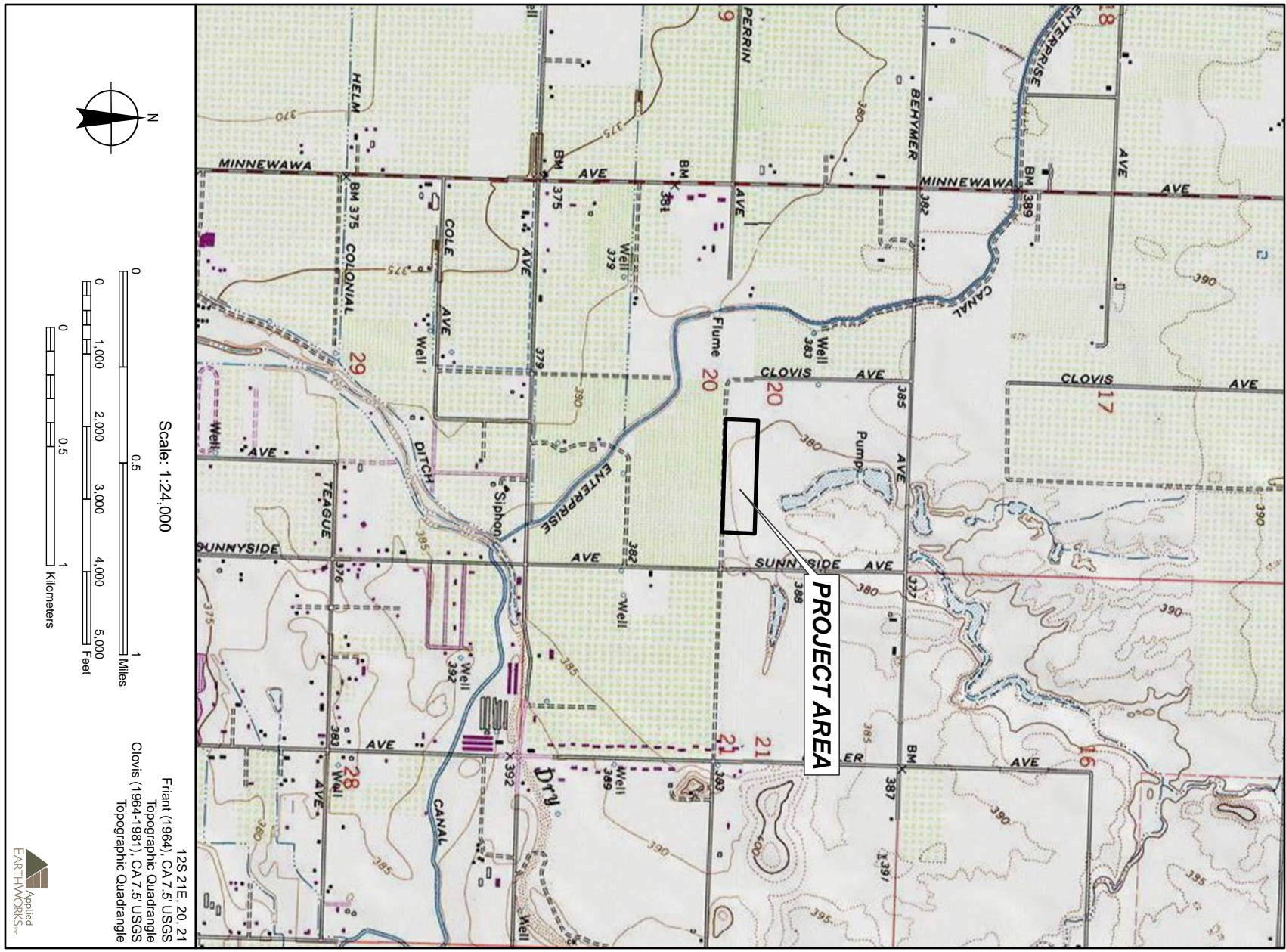
Æ has requested a sacred lands file search from the Native American Heritage Commission. The results were received on September 12, 2023 and indicated a negative result. Your name and address were provided to us by the NAHC as someone who may have additional information and/or concerns about the project.

If you have information about tribal or cultural resources in the area or if you have any interest in the project, please email/phone me or send a letter to my attention. Your comments will be included in our cultural resource report unless noted otherwise. You can contact me during normal business hours (559-229-1856 ext. 121) or via email at nsaenz@appliedearthworks.com if you have any questions or need additional information.

Sincerely,

Nicole Saenz, M.S.
Project Administrator, Fresno Office
Applied EarthWorks, Inc.

encl.: Project Maps



Project location map for the Project - AE4524.



TABLE MOUNTAIN RANCHERIA

TRIBAL GOVERNMENT OFFICE

CERTIFIED 4066 1535

October 18, 2023

Nicole Saenz, M.S., Project Administrator, Fresno Office
Applied EarthWorks Inc.
1391 W. Shaw Ave., Suite C
Fresno, CA 93711

RE: Clovis Tracts 6375 and 6452 Housing Development Projects

Dear: Nicole Saenz

Table Mountain Rancheria is responding to your letter dated September 13, 2023, regarding Clovis Tracts 6375 and 6452 Housing Development Projects. Thank you for notifying Table Mountain Rancheria of the potential development and request for consultation. The Rancheria is very interested in this project as it lies within our cultural area of interest.

If you have already conducted a record search, please provide Table Mountain Rancheria with copies of any cultural resource report you may have.

At this time, please contact our office at (559) 325-0351 or rpennell@tmr.org to coordinate a discussion and meeting date regarding your project.

Sincerely,

Robert Pennell
Tribal Cultural Resources Director

23736
Sky Harbour Road
Post Office
Box 410
Friant
California
93626
(559) 822-2587
Fax
(559) 822-2693



Nicole Saenz <nsaenz@appliedearthworks.com>

City of Clovis Archaeology Project

2 messages

Nicole Saenz <nsaenz@appliedearthworks.com>
 To: "lkipp@bsrnation.com" <lkipp@bsrnation.com>
 Cc: Anna Hoover <ahoover@appliedearthworks.com>

Wed, Sep 13, 2023 at 3:40 PM

Dear Elizabeth Kipp

Applied EarthWorks, Inc. is providing archaeological services for two projects in Clovis, Fresno County, CA. As a result of a recent Native American Heritage Commission (NAHC) Sacred Lands Search for these projects, your name and contact information was provided by the NAHC as someone who may have additional information and/or concerns about this project.

Please kindly review the attached letter and project area map and respond with any comments or concerns you may have. Please note that our outreach is not formal government to government consultation, but an opportunity for you to provide information for the archaeological report.

We appreciate your time and consideration.

--

Nicole Saenz M.S. | Applied EarthWorks, Inc.
Project Administrator - Osteologist - Field Technician | (She/Her)

1391 W. Shaw Ave., Suite C
 Fresno, CA 93711-3600
 Office 559-229-1856 x121
www.appliedearthworks.com

Archaeology | Paleontology | Historical Architecture | GIS

2 attachments

 **NAHC_Map_4522.pdf**
 725K

 **Big Sandy Rancheria Chairperson.pdf**
 139K

Liz Kipp <LKipp@bsrnation.com>
 To: Nicole Saenz <nsaenz@appliedearthworks.com>
 Cc: Anna Hoover <ahoover@appliedearthworks.com>

Thu, Sep 14, 2023 at 2:51 PM

On behalf of Big Sandy Rancheria, we have no comments or concerns with the City of Clovis Archaeology Project. If at any time anything of cultural significance is discovered, we request to be notified. Thank you and have a great day.

Respectfully,

Elizabeth D. Hutchins-Kipp

Tribal Chairperson

Big Sandy Rancheria

AGENDA ITEM NO. 5.

PO Box 337

37387 Auberry Mission Rd.

Auberry, California 93602

559-374-0066 ext. 212

559-374-0055 fax

Lkipp@bsrnation.com



This message and any attachments are intended only for the use of the individual or entity to which they are addressed. If the reader of this message or an attachment is not the intended recipient or the employee or agent responsible for delivering the message or attachment to the intended recipient you are hereby notified that any dissemination, distribution or copying of this message or any attachment is strictly prohibited. If you have received this communication in error, please notify us immediately by replying to the sender. The information transmitted in this message and any attachments may be privileged, is intended only for the personal and confidential use of the intended recipients, and is covered by the Electronic Communications Privacy Act, 18 U.S.C. §2510-2521.

Native American Outreach

Clovis Tract 6452 Project

| Organization | Name | Letter | Email | Phone | Summary of Contact |
|--|-----------------|-----------|------------------|-------------------------|---|
| Big Sandy Rancheria of Western Mono Indians | Elizabeth Kipp | 09/14/23 | 09/13/23 | Message left 10/19/2023 | No response to date |
| Big Sandy Rancheria of Western Mono Indians | Tom Zizzo | 9/14/2023 | 9/13/2023 | Message left 10/19/2023 | No response to date |
| Big Sandy Rancheria of Western Mono Indians | Joel Marvin | 9/14/2023 | 9/13/2023 | 10/19/2023 | Requested to be informed of any discoveries |
| Cold Springs Rancheria of Mono Indians | Jared Aldern | 09/14/23 | 09/13/23 | 10/19/23 | No longer affiliated with tribal management |
| Cold Springs Rancheria of Mono Indians | Carol Bill | 09/14/23 | 09/13/23 | 10/19/23 | No longer affiliated with tribal management |
| Dumna Wo-Wah Tribal Government | Robert Ledger | 09/14/23 | 09/13/23 | Called 10/19/23; | No response to date |
| North Fork Mono Tribe | Ron Goode | 09/14/23 | 09/13/23 | 10/19/23 | Requested that crews remain cognisant of the fact that there are several known sites in the area that have not been located. |
| North Fork Mono Tribe | Anna Phipps | 09/14/23 | 09/13/23 | Message left 10/19/2023 | No response to date |
| North Fork Mono Tribe | Jesse Valdez | 09/14/23 | 09/13/23 | Message left 10/19/2023 | No response to date |
| North Valley Yokuts Tribe | Timothy Perez | 09/14/23 | 09/13/23 | Message left 10/19/2023 | No response to date |
| North Valley Yokuts Tribe | Katherine Perez | 09/14/23 | 09/13/23 | Message left 10/19/2023 | No response to date |
| Picayune Rancheria of the Chukchansi Indians | Michael Wynn | 09/14/23 | 09/13/23 | Message left 10/19/2023 | No response to date |
| Picayune Rancheria of the Chukchansi Indians | Heather Airey | 09/14/23 | 09/13/23 | 10/19/23 | Declined interest in the project |
| Picayune Rancheria of the Chukchansi Indians | Janet Bill | 09/14/23 | 09/13/23 | — | — |
| Table Mountain Rancheria | Bob Pennell | 09/14/23 | 09/13/23 | 10/19/23 | Received e-mail response on 10/19, 2023 expressing interest and requesting a copy of the cultural resources report and meeting to discuss the project |
| Table Mountain Rancheria | Brenda Lavell | 09/14/23 | no email address | — | — |
| Traditional Choinumni Tribe | David Alvarez | 09/14/23 | 09/13/23 | 10/19/23 | Declined interest in the project |
| Tule River Indian Tribe | Neil Peyron | 09/14/23 | 09/13/23 | Message left 10/19/2023 | No response to date |
| Tule River Indian Tribe | Kerri Vera | 09/14/23 | 09/13/23 | 10/19/23 | Deferred interest to Table Mountain Rancheria |
| Tule River Indian Tribe | Joey Garfield | 09/14/23 | 09/13/23 | — | — |
| Wuksachi Indian Tribe/Eshom Valley Band | Kenneth Woodrow | 09/14/23 | 09/13/23 | Message left 10/19/2023 | No response to date |

ACOUSTICAL ANALYSIS

**TRACT 6452
CLOVIS, CALIFORNIA**

WJVA Project No. 23-26

PREPARED FOR

**LENNAR HOMES OF CALIFORNIA, INC.
8080 NORTH PALM AVENUE, SUITE 110
FRESNO, CALIFORNIA 93711**

PREPARED BY

**WJV ACOUSTICS, INC.
VISALIA, CALIFORNIA**



MARCH 14, 2024

INTRODUCTION

The project, Tract 6452, is a proposed 153-lot single-family residential development to be located in Clovis, California. The project site is located north of (and adjacent to) the future alignment of Perrin Avenue, between the future alignment of N. Clovis Avenue and the future alignment of N. Sunnyside Avenue. The City of Clovis has requested an acoustical analysis to quantify project site noise exposure and determine noise mitigation requirements. This analysis, prepared by WJV Acoustics, Inc. (WJVA), is based upon a project site plan prepared by Yamabe & Horn Engineering (dated 8-14-23), traffic data provided by the Fresno Council of Governments (Fresno COG) and the findings of on-site noise level measurements. Revisions to the site plan may affect the findings and recommendations of this report. The site plan is provided as Figure 1.

Appendix A provides a description of the acoustical terminology used in this report. Unless otherwise stated, all sound levels reported are in A-weighted decibels (dB). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A-weighting, as it provides a high degree of correlation with human annoyance and health effects. Appendix B provides typical A-weighted sound levels for common noise sources.

NOISE EXPOSURE CRITERIA

General Plan

The Noise Element of the City of Clovis General Plan establishes noise level standards for both transportation and non-transportation (stationary) noise sources. Table I provides the maximum interior and exterior noise level standards for various land use categories, in terms of the CNEL. The CNEL (Community Noise Equivalent Level) is the time-weighted average noise level for a 24-hour day with penalties of 4.77 dB added to noise levels occurring during the evening hours (7:00 p.m.-10:00 p.m.) and 10 dB added to noise levels occurring during the nighttime hours (10:00 p.m.-7:00 a.m.). Table II provides the Land Use Compatibility Matrix. The City of Clovis applies Table II as guidance to approve development and require mitigation measures to ensure existing and future land use compatibility.

The noise element establishes an exterior noise standard of 65 dB CNEL for exterior noise exposure within outdoor activity areas of residential land uses. Outdoor activity areas include backyards of single-family residences, individual patios or decks of multi-family developments and common outdoor recreation areas of multi-family developments. The intent of the exterior noise level requirement is to provide an acceptable noise environment for outdoor activities and recreation. There is no applicable exterior noise level standard for commercial or office land uses provided in the General Plan Noise Element.

The Noise Element also requires that interior noise levels attributable to exterior noise sources not exceed 45 dB CNEL. The intent of the interior noise level standard is to provide an acceptable noise environment for indoor communication and sleep.

TABLE I
MAXIMUM NOISE STANDARDS
CITY OF CLOVIS GENERAL PLAN NOISE ELEMENT

| Land Use Categories | | Energy Average (CNEL) | |
|-----------------------|--|----------------------------------|-----------------------|
| Primary Land Use | Additional Uses Allowed | Interior ¹ | Exterior ² |
| Residential | Single Family, Multi Family | 45 ³ /55 ⁴ | 65 ⁷ |
| | Mobile Home | -- | 65 ⁵ |
| Commercial/Industrial | Hotel, Motel, Transient Lodging | 45 | 65 ⁶ |
| | Commercial, Retail, Bank, Restaurant | 55 | -- |
| | Office Building, Professional Office, Research & Development | 50 | -- |
| | Gymnasium (Multipurpose) | 50 | -- |
| | Health Clubs | 55 | -- |
| | Manufacturing, Warehousing, Wholesale, Utilities | 65 | -- |
| | Hospital, School Classroom | 45 | 65 |
| Institutional | Church Library | 45 | -- |
| Open Space | Parks | -- | 65 |

Source: City of Clovis General 2-12 Plan Environmental and Safety Element, 2014.

Notes:

¹ Interior environment excludes bathrooms, toilets, closets, and corridors.

² Outdoor environment limited to private yard of single family or multifamily residences private patio which is accessed by a means of exit from inside the unit; mobile home park; hospital patio; park picnic area; school playground; and hotel and motel recreation area.

³ Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided pursuant to Appendix Chapter 12, Section 1208 of UBC.

⁴ Noise level requirement with open windows, if they are used to meet natural ventilation requirement.

⁵ Multi-family developments with balconies that do not meet the 65 CNEL are required to provide occupancy disclosure notices to all future tenants regarding potential noise impacts.

⁶ Exterior noise level shall be such that interior noise level will not exceed 45 CNEL.

⁷ Except those areas affected by aircraft noise.

TABLE II
LAND USE AND NOISE COMPATABILITY MATRIX
CITY OF CLOVIS GENERAL PLAN NOISE ELEMENT

| LAND USES | ENERGY AVERAGE (CNEL) | | | | | | |
|---|-----------------------|----|----|----|----|----|-----|
| Example Land Uses | < | 55 | 60 | 65 | 70 | 75 | 80> |
| Amphitheater, concert hall, auditorium, meeting hall | B | B | C | C | D | D | D |
| Mobile Home | A | A | B | C | C | D | D |
| Hospital, library, school, faith/religious uses | A | A | B | C | C | D | D |
| Hotel, motel, transient lodging | A | A | B | B | C | C | D |
| Single-family, multi-family | A | A | B | B | C | D | D |
| Parks | A | A | A | B | C | D | D |
| Office buildings, research & development, professional office, city office building | A | A | A | B | B | C | D |
| Amusement park, miniature golf, go-cart track, health club, equestrian center | A | A | A | B | B | D | D |
| Golf courses, nature centers, cemeteries, wildlife reserves, wildlife habitat | A | A | A | A | B | C | C |
| Commercial retail, bank, restaurant, movie theater | A | A | A | A | B | B | C |
| Automobile service station, auto dealer, manufacturing, warehousing, wholesale, utilities | A | A | A | A | B | B | B |
| Agriculture | A | A | A | A | A | A | A |

Notes: Compatibility zones indicate the degree to which the land uses listed are compatible with the noise levels (CNEL) shown in the table.

Zone A. Clearly Compatible. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Zone B. Normally Compatible. New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C. Normally Incompatible. New construction or development should normally be discouraged. If new construction or development does proceed, a detailed analysis or noise reduction requirements must be made and needed noise insulation features must be included in the design.

Zone D. Clearly Incompatible. New construction or development should generally not be undertaken.

Municipal Code

Additionally, the City of Clovis Municipal Code provides noise level standards applicable to the project. Section 9.22.080 (Noise) of the City's Municipal Code provides maximum allowable exterior and interior noise level standards for specific land use types. Noise level standards are provided as energy average (L_{eq}) noise levels and apply to any 15-minute interval of time. Table III provides the maximum allowable exterior noise level standards and Table IV provides the maximum allowable interior noise level standards. The Municipal Code also states that *"If the ambient noise level exceeds the resulting standard, the ambient shall be the standard"*.

| TABLE III | | | |
|---|--|--|-------------------------|
| MAXIMUM EXTERIOR NOISE STANDARDS CITY OF CLOVIS MUNICIPAL CODE | | | |
| Noise Zone | Type of Land Use | A-Weighted Decibels, L_{eq} dBA Sources | |
| | | 7:00 a.m. to 10:00 p.m. | 10:00 p.m. to 7:00 a.m. |
| I | Single-, two- or multi-family residential | 55 | 50 |
| II | Commercial | 65 | 60 |
| III | Residential portions of mixed-use properties | 60 | 50 |
| IV | Industrial or manufacturing | 70 | 70 |

Source: City of Clovis Municipal Code

| TABLE IV | | | |
|---|--|--|-------------------------|
| MAXIMUM INTERIOR NOISE STANDARDS CITY OF CLOVIS MUNICIPAL CODE | | | |
| Noise Zone | Type of Land Use | A-Weighted Decibels, L_{eq} dBA Sources | |
| | | 7:00 a.m. to 10:00 p.m. | 10:00 p.m. to 7:00 a.m. |
| I | Residential | 45 | 40 |
| II | Administrative/professional office | 50 | -- |
| III | Residential portions of mixed-use properties | 45 | 40 |

Source: City of Clovis Municipal Code

PROJECT SITE NOISE EXPOSURE

The project site is located north of (and adjacent to) the future alignment of Perrin Avenue, between the future alignment of N. Clovis Avenue and the future alignment of N. Sunnyside Avenue, in Clovis, California. The project site will be exposed traffic noise associated with vehicles on these future roadways. The distance from center of the backyards of the closest proposed lots to the centerline of Perrin Avenue is approximately 60 feet. Additionally, the future alignment of N. Clovis Avenue would be located approximately 500 feet west of the closest proposed residential lots.

Traffic Noise Exposure

Noise exposure from traffic on Perrin Avenue and N. Clovis Avenue was calculated for future (2046) conditions using the FHWA Traffic Noise Model and traffic data obtained from Fresno COG. A description of the noise model, applied data, methodology and findings is provided below. Future traffic volumes for the future alignment of N. Sunnyside Avenue, in the project vicinity, were below the threshold for inclusion in the Fresno COG traffic projection model.

WJVA utilized the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108). The FHWA Model is a standard analytical method used for roadway traffic noise calculations. The model is based upon reference energy emission levels for automobiles, medium trucks (2 axles) and heavy trucks (3 or more axles), with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within ± 1.5 dB. To predict CNEL values, it is necessary to determine the hourly distribution of traffic for a typical day and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Annual Average Daily Traffic (AADT) data for Perrin Avenue N. Clovis Avenue, in the project vicinity was obtained from Fresno COG. Truck percentages and the day/evening/night distribution of traffic were estimated by WJVA, based upon previous studies conducted in the project vicinity since project-specific data were not available from government sources. A speed limit of 45 mph was assumed for both roadways. Table IV summarizes annual average traffic data used to model noise exposure within the project site.

TABLE IV
TRAFFIC NOISE MODELING ASSUMPTIONS
TRACT 6452, CLOVIS

| | Perrin Avenue | N. Clovis Avenue |
|--|---------------|------------------|
| | 2046 | 2046 |
| Annual Avenue Daily Traffic (AADT) | 3,609 | 7,249 |
| Day/Evening/Night Split (%) | 83/7/10 | |
| Assumed Vehicle Speed (mph) | 45 | |
| % Medium Trucks (% AADT) | 2 | |
| % Heavy Trucks (% AADT) | 2 | |
| Sources: Fresno COG WJV Acoustics, Inc. | | |

Using data from Table IV, the FHWA Model, annual average traffic noise exposure was calculated for the closest proposed backyards from Perrin Avenue and from N. Clovis Avenue. Table V provides the noise exposure levels for these two roadways, at the closest proposed residential lots to the roadway.

TABLE V
MODELED TRAFFIC NOISE LEVELS, W. MINNEWAWA AVENUE, dB, CNEL
TRACT 6452, CLOVIS

| Roadway | 2046 Conditions |
|-------------------------------------|-----------------|
| Perrin Avenue | 61 |
| N. Clovis Avenue | 51 |
| Source: WJV Acoustics Fresno COG | |

Reference to Table V indicates that the traffic noise exposure at the closest proposed lots to Perrin Avenue would be approximately 61 dB CNEL for future (2046) traffic conditions, and approximately 51 dB CNEL for the closest proposed lots to N. Clovis Avenue. Such noise exposure levels do not exceed the City's 65 dB CNEL exterior noise level standard and mitigation measures are therefore not required for compliance with the City's exterior noise level standard.

Interior Noise Exposure:

The City of Clovis interior noise level standard is 45 dB CNEL. The worst-case noise exposure within the proposed residential development would be approximately 61 dB CNEL (2046 conditions). This means that the proposed residential construction must be capable of providing a minimum outdoor-to-indoor noise level reduction (NLR) of approximately 16 dB ($61-45=16$).

A specific analysis of interior noise levels was not performed. However, it may be assumed that residential construction methods complying with current building code requirements will reduce exterior noise levels by approximately 25 dB if windows and doors are closed. This will be sufficient for compliance with the City's 45 dB CNEL interior standard at all proposed lots. Requiring that it be possible for windows and doors to remain closed for sound insulation means that air conditioning or mechanical ventilation will be required.

CONCLUSIONS AND RECOMMENDATIONS

The proposed 153-lot single-family residential development will comply with all City of Clovis exterior and interior noise level standards, provided the following mitigation measures are incorporated into final project design.

- Mechanical ventilation or air conditioning must be provided for all homes so that windows and doors can remain closed for sound insulation purposes.

The conclusions and recommendations of this acoustical analysis are based upon the best information known to WJV Acoustics Inc. (WJVA) at the time the analysis was prepared concerning the proposed lot layout plan, project site elevation, traffic volumes and roadway configurations. Any significant changes in these factors will require a reevaluation of the findings of this report. Additionally, any significant future changes in motor vehicle technology, noise regulations or other factors beyond WJVA's control may result in long-term noise results different from those described by this analysis.

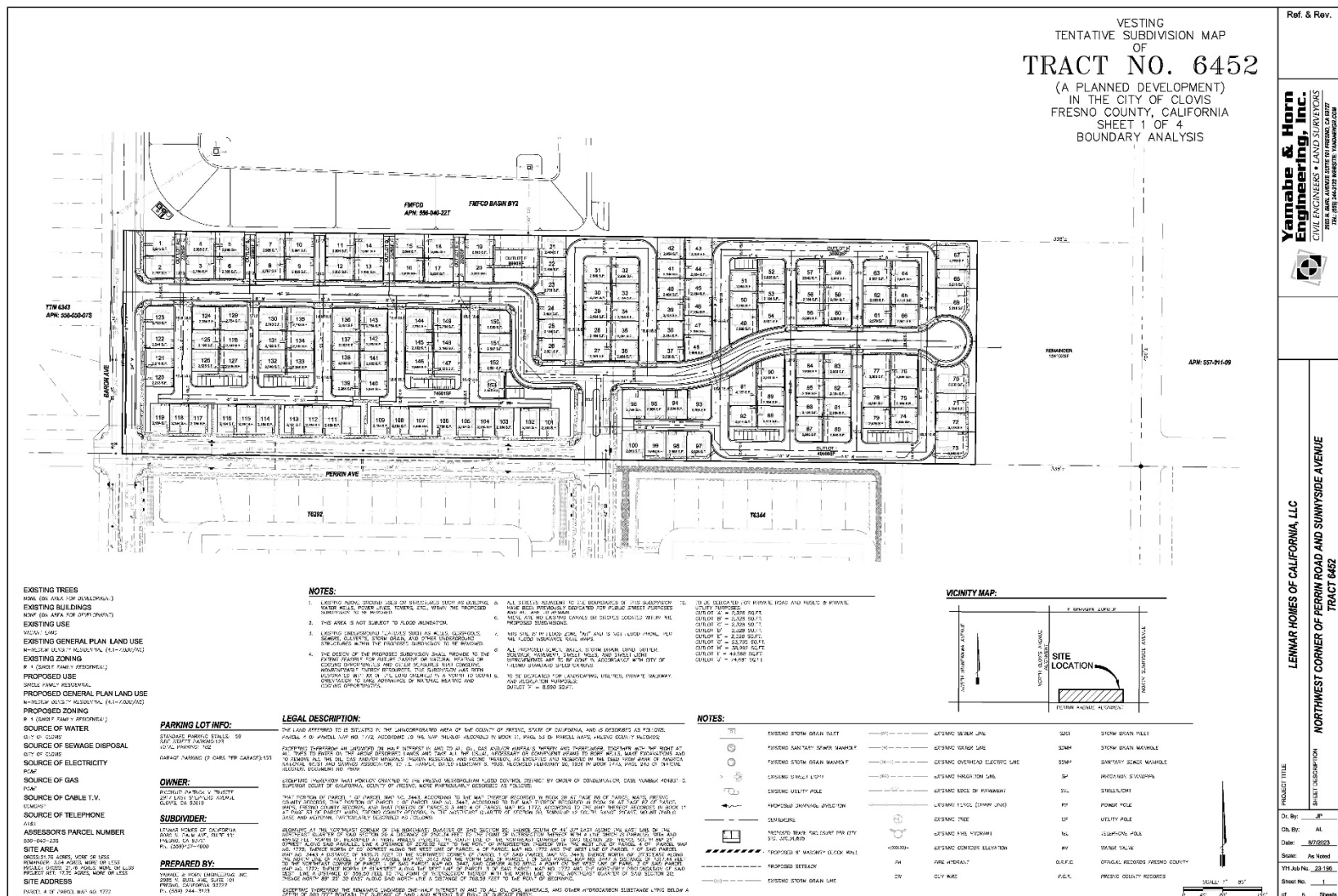
Respectfully submitted,



Walter J. Van Groningen
President

WJV:wjv

FIGURE 1: SITE PLAN



APPENDIX A

ACOUSTICAL TERMINOLOGY

| | |
|---------------------------------|---|
| AMBIENT NOISE LEVEL: | The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location. |
| CNEL: | Community Noise Equivalent Level. The average equivalent sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m. |
| DECIBEL, dB: | A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter). |
| DNL/L_{dn}: | Day/Night Average Sound Level. The average equivalent sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m. |
| L_{eq}: | Equivalent Sound Level. The sound level containing the same total energy as a time varying signal over a given sample period. L_{eq} is typically computed over 1, 8 and 24-hour sample periods. |
| NOTE: | The CNEL and DNL represent daily levels of noise exposure averaged on an annual basis, while L_{eq} represents the average noise exposure for a shorter time period, typically one hour. |
| L_{max}: | The maximum noise level recorded during a noise event. |
| L_n: | The sound level exceeded "n" percent of the time during a sample interval (L_{90} , L_{50} , L_{10} , etc.). For example, L_{10} equals the level exceeded 10 percent of the time. |

A-2**ACOUSTICAL TERMINOLOGY****NOISE EXPOSURE
CONTOURS:**

Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and DNL contours are frequently utilized to describe community exposure to noise.

**NOISE LEVEL
REDUCTION (NLR):**

The noise reduction between indoor and outdoor environments or between two rooms that is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. A measurement of “noise level reduction” combines the effect of the transmission loss performance of the structure plus the effect of acoustic absorption present in the receiving room.

SEL or SENEL:

Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.

SOUND LEVEL:

The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

**SOUND TRANSMISSION
CLASS (STC):**

The single-number rating of sound transmission loss for a construction element (window, door, etc.) over a frequency range where speech intelligibility largely occurs.

APPENDIX B EXAMPLES OF SOUND LEVELS

| NOISE SOURCE | SOUND LEVEL | SUBJECTIVE DESCRIPTION |
|---------------------------|-------------|------------------------|
| AMPLIFIED ROCK 'N ROLL ▶ | 120 dB | DEAFENING |
| JET TAKEOFF @ 200 FT ▶ | | |
| | | |
| | 100 dB | VERY LOUD |
| BUSY URBAN STREET ▶ | | |
| | | |
| | 80 dB | LOUD |
| FREEWAY TRAFFIC @ 50 FT ▶ | | |
| | | |
| | 60 dB | MODERATE |
| CONVERSATION @ 6 FT ▶ | | |
| | | |
| | 40 dB | FAINT |
| SOFT RADIO MUSIC ▶ | | |
| | | |
| | 20 dB | VERY FAINT |
| RESIDENTIAL INTERIOR ▶ | | |
| | | |
| WHISPER @ 6 FT ▶ | | |
| | | |
| | | |
| HUMAN BREATHING ▶ | | |
| | | |
| | | |
| | 0 dB | |

TRANSPORTATION IMPACT ANALYSIS

Proposed Tract 6452

Northeast of the Intersection of Perrin and Baron Avenues

Clovis, California

Prepared For:

Lennar Homes, Inc.
8080 North Palm Avenue, Suite 110
Fresno, California 93711

Date:

February 8, 2024

Job No.:

23-039.01



PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION



EXECUTIVE SUMMARY

This report presents the results of a Transportation Impact Analysis for proposed Tract 6452 in Clovis, California. This analysis focuses on the anticipated effect of vehicle traffic resulting from the Project. The Transportation Impact Analysis was performed in general conformance with the City of Clovis *Transportation Impact Analysis Guidelines* dated September 15, 2022 (City Guidelines).

The Project site covers approximately 18.23 acres northeast of the intersection of Perrin and Baron Avenues (APN 556-040-23) in Clovis, California. The Project will include 153 single-family residential lots. Site access is proposed via Marion Avenue at Perrin Avenue and Eclipse Avenue connecting to Baron Avenue. Sunnyside Avenue will be accessible via Heirloom Avenue.

This report includes analysis of the following intersections:

1. Minnewawa Avenue / Behymer Avenue
2. Baron Avenue / Behymer Avenue
3. Baron Avenue / Perrin Avenue
4. Clovis Avenue / Baron Avenue
5. Clovis Avenue / Shepherd Avenue
6. Sunnyside Avenue / Shepherd Avenue

This report includes an estimate of the number of Project trips that will occur at the following freeway interchanges:

1. State Route (SR) 168 interchange at Herndon Avenue
2. SR 168 interchange at Fowler Avenue

The study time periods include the weekday a.m. and p.m. peak hours determined between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. The peak hours are analyzed for the following conditions:

- Existing Conditions;
- Existing-Plus-Project Conditions;
- Near-Term With-Project Conditions (includes pending and approved projects not yet occupied);
- Cumulative (Year 2045) With-Project Conditions.

Standard traffic engineering principles and methods were employed to establish the existing conditions, to estimate the number of trips expected to be generated by the Project, and to analyze the traffic conditions that are expected to occur in the future. The conclusions of the study are summarized in the following sections.

Trip Generation

The Project is expected to generate approximately 1,444 vehicle trips per day (722 trips entering the site and 722 trips exiting the site). Peak-hour traffic volumes are expected to be on the order of 108 trips during the a.m. peak hour and 144 trips during the p.m. peak hour.

CEQA Impact Analysis (VMT)

Project-specific traffic modeling indicates a calculated Project VMT of 17.9 VMT per capita, which is greater than the threshold of 14.1 VMT per capita. Therefore, the Project would create a significant transportation impact.

The Project will implement feasible mitigation measures such as constructing sidewalk and trails. These Project design features can help offset a portion of the VMT impact of the Project but will not reduce the impact to less than significant. Therefore, the Project will have a significant and unavoidable transportation impact under CEQA.

It is recommended that the proposed Project, consistent with the General Plan, tier its environmental review from the General Plan SEIR, which has disclosed the VMT impacts of land use development consistent with the General Plan. Therefore, the Project's significant transportation impact does not need to be disclosed in a Project-specific EIR.

Existing Conditions

The study intersections are currently operating at acceptable levels of service with calculated 95th-percentile queues contained within the available storage capacity, with the following exceptions:

- Minnewawa Avenue / Behymer Avenue: LOS E during the a.m. peak hour and LOS F during the p.m. peak hour with all-way stop control.
- Sunnyside Avenue / Shepherd Avenue: LOS E during the p.m. peak hour with all-way stop control.

Existing-Plus-Project Conditions

The existing-plus-Project-conditions analyses represent conditions that would occur after construction of the Project if none of the pending and approved projects were constructed. This scenario isolates the specific effects of the Project. The study intersections are expected to continue to operate at levels of service similar to the existing conditions. The Project will not cause any intersections currently operating at acceptable LOS to operate worse than the target LOS, and the calculated 95th-percentile queues are within the available storage capacity.

The Project is expected to increase delays at the intersection of Minnewawa and Behymer Avenues, which operates at LOS E during the a.m. peak hour and LOS F during the p.m. peak hour. It should be noted that the Project's contribution to the level of service issue is relatively minimal, as the Project's percentage of the overall traffic volume in the existing-plus-Project conditions is less on the order of one to two percent during the peak hours.

The Project is expected to increase delays at the intersection of Sunnyside and Shepherd Avenues during the p.m. peak hour, causing the LOS to drop from LOS E to LOS F. However, construction of a traffic signal at the intersection is currently underway.

Existing-Plus-Project Improved Conditions

In order for the intersection of Minnewawa and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized. At a minimum, dedicated left-turn lanes with protected left-turn phasing would be required on the northbound and southbound approaches. With signalization, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours.

Near-Term With-Project Conditions

The near-term with-Project conditions analyses represent conditions that are expected after construction of the Project and the known pending and approved projects. This scenario isolates the near-term cumulative effects of the Project and other known projects. The study intersections are expected to continue to operate at acceptable levels of service, with the following exceptions:

- Minnewawa Avenue / Behymer Avenue: LOS F during the a.m. and p.m. peak hours with all-way stop control.
- Clovis Avenue / Baron Avenue: LOS E during the p.m. peak hour with one-way stop control.

Calculated 95th-percentile queues are contained within the existing storage capacity, with the following exceptions:

- Clovis Avenue / Shepherd Avenue: left-turn lane on the northbound approach, right-turn lanes on the eastbound and northbound approaches.

Near-Term With-Project Improved Conditions

In order for the intersection of Minnewawa and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized. At a minimum, dedicated left-turn lanes with protected left-turn phasing would be required on the northbound and southbound approaches. With signalization, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours.

In order for the intersection of Clovis and Baron Avenues to operate at acceptable LOS, the intersection would require signalization. With signalization, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours. It should be noted that signalization of the intersection by the Project alone is not recommended, as the intersection will not require signalization until Clovis Avenue is extended north of Baron Avenue.

In order to better accommodate queues at the intersection of Clovis and Shepherd Avenues, the intersection striping may be modified to open the second left-turn lane on the northbound approach. With the modification, the intersection is expected to operate at LOS C during the a.m. and p.m. peak hours.

Cumulative Year 2045 With-Project Conditions

The year 2045 cumulative with-Project conditions analyses are based on the assumption that the Project has been constructed, the pending and approved projects have been constructed, and that 20 years of growth has occurred in the Clovis, Fresno, and Fresno County region as incorporated into the adopted Fresno County travel model.

The study intersections are expected to continue to operate at acceptable levels of service, with the following exceptions:

- Minnewawa Avenue / Behymer Avenue: LOS F during the a.m. and p.m. peak hours with all-way stop control.
- Baron Avenue / Behymer Avenue: LOS F during the a.m. peak hour and LOS E during the p.m. peak hour on the northbound approach with one-way stop control.
- Baron Avenue / Perrin Avenue: LOS F during the p.m. peak hour on the eastbound and westbound approaches with two-way stop control.
- Sunnyside Avenue / Shepherd Avenue: LOS E during the a.m. peak hour and LOS F during the p.m. peak hour with traffic signals.

Calculated 95th-percentile queues are contained within the existing storage capacity, with the following exceptions:

- Minnewawa Avenue / Behymer Avenue: excessive queues on the westbound and southbound approaches.
- Clovis Avenue / Shepherd Avenue: left-turn lane on the northbound approach, right-turn lanes on the eastbound, northbound, and southbound approaches.
- Sunnyside Avenue / Shepherd Avenue: excessive queues in the left-turn lanes on the eastbound, northbound, and southbound approaches, the eastbound through lane, and the right-turn lanes on the westbound, northbound, and southbound approaches.

Cumulative Year 2045 With-Project Improved Conditions

In order for the intersection of Minnewawa and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized. At a minimum, dedicated left-turn lanes with protected left-turn phasing would be required on all four approaches and a dedicated right-turn lane would be required on the westbound approach. With signalization, the intersection is expected to operate at LOS D during the a.m. and p.m. peak hours.

In order for the intersection of Baron and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized. At a minimum, a dedicated left-turn lane with protected left-turn phasing would be required on the westbound approach. With signalization, the intersection is expected to operate at LOS B during the a.m. peak hour and LOS A during the p.m. peak hour.

In order for the intersection of Baron and Perrin Avenues to operate at acceptable LOS, all-way stop control may be installed. With all-way stop control, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours.

In order to better accommodate queues at the intersection of Clovis and Shepherd Avenues, the intersection striping may be modified to open the second left-turn lane on the northbound approach. With the modification, the intersection is expected to operate at LOS C during the a.m. and p.m. peak hours.

In order for the intersection of Sunnyside and Shepherd Avenues to operate at acceptable LOS, the intersection would require modification from the planned signalized lane configurations to the following:

Eastbound: two left-turn lanes, two through lanes, and one right-turn lane

Westbound: one left-turn lane, two through lanes, and one right-turn lane

Northbound: one left-turn lane, one through lane, and one right-turn lane

Southbound: two left-turn lanes, one through lane, and one right-turn lane

With the recommended widening, the intersection is expected to operate at LOS C during the a.m. peak hour and LOS D during the p.m. peak hour.



Mr. Jeff Callaway
Lennar Homes, Inc.
8080 North Palm Avenue, Suite 110
Fresno, California 93711

February 8, 2024

Subject: Transportation Impact Analysis
Proposed Tract 6452
Northeast of the Intersection of Perrin and Baron Avenues
Clovis, California

Dear Mr. Callaway:

1.0 INTRODUCTION

This report presents the results of a Transportation Impact Analysis for proposed Tract 6452 in Clovis, California. This analysis focuses on the anticipated effect of vehicle traffic resulting from the Project. The Transportation Impact Analysis was performed in general conformance with the City of Clovis *Transportation Impact Analysis Guidelines* dated September 15, 2022 (City Guidelines).

2.0 PROJECT DESCRIPTION

The Project site covers approximately 18.23 acres northeast of the intersection of Perrin and Baron Avenues (APN 556-040-23) in Clovis, California. The Project will include 153 single-family residential lots. Site access is proposed via Marion Avenue at Perrin Avenue and Eclipse Avenue connecting to Baron Avenue. Sunnyside Avenue will be accessible via Heirloom Avenue. A site vicinity map is presented in the attached Figure 1, Site Vicinity Map, following the text of this report. A site plan is presented in Figure 2, Site Plan.

3.0 STUDY AREA AND TIME PERIOD

This report includes analysis of the following intersections:

1. Minnewawa Avenue / Behymer Avenue
2. Baron Avenue / Behymer Avenue
3. Baron Avenue / Perrin Avenue
4. Clovis Avenue / Baron Avenue
5. Clovis Avenue / Shepherd Avenue
6. Sunnyside Avenue / Shepherd Avenue

This report includes an estimate of the number of Project trips that will occur at the following freeway interchanges:

1. State Route (SR) 168 interchange at Herndon Avenue
2. SR 168 interchange at Fowler Avenue

The study time periods include the weekday a.m. and p.m. peak hours determined between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. The peak hours are analyzed for the following conditions:

- Existing Conditions;
- Existing-Plus-Project Conditions;
- Near-Term With-Project Conditions (includes pending and approved projects not yet occupied);
- Cumulative (Year 2045) With-Project Conditions.

4.0 LANE CONFIGURATIONS AND INTERSECTION CONTROL

The existing lane configurations and intersection control at the study intersections are illustrated in Figure 3, Existing Lane Configurations and Intersection Control. The lane configurations and intersection control assumed for the near-term and year 2045 analyses are presented in Figure 4, Year 2045 Lane Configurations and Intersection Control.

5.0 CITY OF CLOVIS GENERAL PLAN

The City of Clovis General Plan designates the streets at the study locations as follows:

Minnewawa Avenue: Arterial south of Behymer Avenue and Collector north of Behymer Avenue

Baron Avenue: Collector

Perrin Avenue: Collector east of Baron Avenue and west of Clovis Avenue. Not designated between

Clovis Avenue: Arterial

Beyhmer Avenue: Arterial west of Clovis Avenue and Collector east of Clovis Avenue

Shepherd Avenue: Arterial west of Clovis Avenue and Expressway east of Clovis Avenue

Sunnyside Avenue: Collector south of Perrin Avenue

6.0 CEQA IMPACT ANALYSIS

6.1 Background and Significance Threshold

The City Guidelines provide guidance relative to analyzing vehicle miles traveled (VMT) for purposes of determining transportation impacts in accordance with the California Environmental Quality Act (CEQA).

The City Guidelines indicate that Projects that generate or attract fewer than 500 vehicle trips per day are presumed to cause a less-than-significant transportation impact. For residential projects, the City Guidelines indicate a significant transportation impact occurs if the Project VMT per capita is greater than a level of 13 percent below the existing average VMT per capita in Fresno County. The regional average is 16.1 VMT per capita, and the impact threshold is 14.1 VMT per capita.

6.2 Project-Specific VMT Analysis

The Project will generate more than 500 trips per day (see the Trip Generation section of this report) and the Project site lies within a red area on Figure B1 of the City Guidelines. Therefore, the Project is not be screened out with respect to transportation impacts and a Project-specific VMT analysis has been performed.

Project-specific traffic modeling was performed by a COG-approved traffic modeling consultant and the results are presented in Appendix A. The modeling indicates a calculated Project VMT of 17.9 VMT per capita, which is greater than the threshold of 14.1 VMT per capita. Therefore, the Project would create a significant transportation impact.

6.3 Feasible Mitigation Measures

Feasible mitigation measures must be identified to avoid or substantially reduce a significant impact under CEQA. Mitigation measures can be incorporated as a part of plans, policies, regulations, or project designs. Mitigation of VMT impacts typically requires changes in habits and behaviors of residents. Project design features that encourage mode shift from automobiles to transit or nonmotorized modes can potentially reduce project-specific VMT.

VMT reduction and benefits from project design features are typically not accounted for in the project-specific VMT calculations conducted using the regional travel demand model. Therefore, VMT reduction credit can be taken for Project design features that encourage the desired mode shift. Descriptions of such project design features and the corresponding potential VMT reduction are presented below. The potential VMT reduction was estimated using the California Air Pollution Control Officers Association's (CAPCOA) *“Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity – Designed for Local Governments, Communities, and Project Developers”* dated December 2021.

The Project proposes to provide pedestrian facilities both internal to the Project site and along the project frontage. Providing such improvements encourages people to walk instead of drive and thereby reduces VMT. CAPCOA transportation measure “T-18: Provide Pedestrian Network Improvement” provides an estimate of the VMT reduction due to project related enhancements in pedestrian access and connectivity. The Project study area includes approximately three miles of existing sidewalk. The Project proposes to add approximately one mile of sidewalk/pedestrian access. Utilizing the CAPCOA VMT reduction calculation, construction of sidewalk may reduce the Project's VMT by approximately 1.7 percent.

The Project proposes to construct less than one mile of Class II Bike Lane on Baron Avenue and on Perrin Avenue. CAPCOA transportation measure “T-19A: Construct or Improve Bike Facility” suggests the Project bicycle design features have a potential to reduce up to 0.04 percent of the project VMT.

Implementation of the Project design features described above reduces the calculated Project VMT by up to approximately 1.7 percent. The Project design features can help offset a portion of the VMT impact of the Project but will not reduce the impact to less than significant. Therefore, the Project will have a significant and unavoidable transportation impact under CEQA.

6.4 Findings

On October 17, 2022 the Clovis City Council certified a supplemental environmental impact report (SEIR) with a statement of overriding considerations applicable to significant transportation impacts based on VMT for projects that conform to the General Plan and that have implemented feasible mitigation measures.

It is recommended that the proposed Project, consistent with the General Plan, tier its environmental review from the General Plan SEIR, which has disclosed the VMT impacts of land use development consistent with the General Plan. Therefore, the Project's significant transportation impact does not need to be disclosed in a project-specific EIR.

7.0 LEVEL OF SERVICE

The Transportation Research Board *Highway Capacity Manual*, 7th Edition, (HCM) defines level of service (LOS) as, "A quantitative stratification of a performance measure or measures that represent quality of service, measured on an A-F scale, with LOS A representing the best operating conditions from the traveler's perspective and LOS F the worst." Automobile mode LOS characteristics for both unsignalized and signalized intersections are presented in Tables 1 and 2.

Table 1
Level of Service Characteristics for Unsignalized Intersections

| Level of Service | Average Vehicle Delay (seconds) |
|------------------|---------------------------------|
| A | 0-10 |
| B | >10-15 |
| C | >15-25 |
| D | >25-35 |
| E | >35-50 |
| F | >50 |

Table 2
Level of Service Characteristics for Signalized Intersections

| Level of Service | Description | Average Vehicle Delay (seconds) |
|------------------|--|---------------------------------|
| A | Volume-to-capacity ratio is no greater than 1.0. Progression is exceptionally favorable or the cycle length is very short. | <10 |
| B | Volume-to-capacity ratio is no greater than 1.0. Progression is highly favorable or the cycle length is very short. | >10-20 |
| C | Volume-to-capacity ratio is no greater than 1.0. Progression is favorable or cycle length is moderate. | >20-35 |
| D | Volume-to-capacity ratio is high but no greater than 1.0. Progression is ineffective or cycle length is long. Many vehicles stop and individual cycle failures are noticeable. | >35-55 |
| E | Volume-to-capacity ratio is high but no greater than 1.0. Progression is unfavorable and cycle length is long. Individual cycle failures are frequent. | >55-80 |
| F | Volume-to-capacity ratio is greater than 1.0. Progression is very poor and cycle length is long. Most cycles fail to clear the queue. | >80 |

Reference for Tables 1 and 2: *Highway Capacity Manual, 7th Edition*, Transportation Research Board, 2022

The City of Clovis General Plan requires a minimum LOS D at intersections under the City's jurisdiction. The City Guidelines state the following: *"All City intersections and roadway segments shall operate at a LOS D or better under the near-term conditions, unless a finding of overriding consideration was adopted in the General Plan EIR. Under long-term conditions, all City intersections and roadway segments shall operate at a LOS D or better, except for the roadway segments adopted in the General Plan EIR to operate at LOS E or F. Exceptions to this standard may be allowed on a case by case basis where lower levels of service would result in other public benefits, such as:*

- a) Preserving agriculture or open space land*
- b) Preserving the rural/historic character of a neighborhood*
- c) Preserving or creating a pedestrian-friendly environment in Old Town or mixed-use village districts*
- d) Avoiding adverse impacts to pedestrians, cyclists, and transit riders*
- e) Where right-of-way constraints would make capacity expansion infeasible"*

For purposes of this study, a traffic issue may be identified if the addition of the traffic generated by the Project results in any one of the following:

- Triggers an intersection operating at acceptable LOS to operate at unacceptable levels of service;
- Increases the average delay for a study intersection that is already operating at unacceptable LOS.

8.0 EXISTING TRAFFIC VOLUMES

Existing traffic volumes were determined by performing manual turning movement counts between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. on a weekday. The traffic count

data sheets are presented in Appendix B. The existing peak-hour turning movement volumes are presented in Figure 5, Existing Peak-Hour Traffic Volumes.

9.0 PROJECT TRIP GENERATION AND DISTRIBUTION

9.1 Project Trip Generation

Data provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*, are typically used to estimate the number of trips anticipated to be generated by proposed projects. Table 3 presents the vehicle trip generation estimates for the Project.

Table 3
Project Trip Generation Estimate

| Land Use | Units | Daily | | A.M. Peak Hour | | | | | P.M. Peak Hour | | | | |
|--------------------------------------|-------|-------|-------|----------------|--------|----|-----|-------|----------------|--------|----|-----|-------|
| | | Rate | Total | Rate | In:Out | In | Out | Total | Rate | In:Out | In | Out | Total |
| Single Family Detached Housing (210) | 153 | 9.43 | 1,444 | 0.70 | 26:74 | 28 | 80 | 108 | 0.94 | 63:37 | 91 | 53 | 144 |

Reference: *Trip Generation Manual, 11th Edition*, Institute of Transportation Engineers 2021
 Rates are reported in trips per dwelling unit.

9.2 Student Generation

For purposes of estimating trip distribution for students attending nearby schools, Table 4 presents the student generation estimates for the Project utilizing rates presented in the Clovis Unified School District *School Facilities Needs Analysis* by Odell Planning & Research, Inc. dated April 2023.

Table 4
Student Generation Estimate – Single-Family Homes

| Grade Level | Rate | Homes | Students |
|---------------------------|--------------------------|-------|----------|
| Elementary School (TK-6) | 0.3324 students per home | 153 | 51 |
| Intermediate School (7-8) | 0.0766 students per home | 153 | 12 |
| High School (9-12) | 0.1421 students per home | 153 | 22 |
| TOTAL: | 0.5511 students per home | 153 | 85 |

9.3 Project Trip Distribution and Assignment

The regional distribution of Project trips was estimated using the results of a select zone analysis utilizing the Fresno County travel model maintained by the Fresno Council of Governments (COG), engineering judgment based on our knowledge of the area, available traffic counts, the location and configuration of site access points, and available travel routes. A COG-approved traffic modeling consultant performed the Project-specific traffic modeling and the results are presented in Appendix A.

The estimated percentage distribution of Project trips is presented in Figure 6, Peak-Hour Project Traffic Distribution Percentages. The peak-hour trips presented in Table 3 were assigned to the adjacent road network in accordance with the trip distribution percentages in Figure 6. The peak-hour Project traffic volumes at the study intersections for existing-plus-

Project conditions are presented in Figure 7, Peak-Hour Project Traffic Volumes (Existing-Plus-Project Scenario). In the near-term and future conditions, when Baron Avenue has been extended to Behymer Avenue, the Project trips are expected to be as presented in Figure 8, Peak-Hour Project Traffic Volumes (Near-Term and Future Scenarios).

Caltrans requested that the volume of Project trips (trip trace) expected at the SR 168 interchanges at Herndon Avenue and Fowler Avenue be presented in the traffic study. The Project trips were assigned to the interchange and ramp locations based on the criteria described above and the results are presented in Tables 5 and 6.

Table 5
Project Trips on State Facilities – SR 168 and Herndon Avenue Interchange

| Location | A.M. Peak Hour Trips | P.M. Peak Hour Trips |
|--|----------------------|----------------------|
| Westbound off ramp | 1 | 1 |
| Westbound on ramp from eastbound Herndon | 0 | 0 |
| Westbound loop on ramp from westbound Herndon | 7 | 6 |
| Eastbound off ramp | 2 | 8 |
| Eastbound loop on ramp from eastbound Herndon | 0 | 0 |
| Eastbound on ramp from westbound Herndon | 1 | 1 |
| Herndon Avenue westbound through the interchange | 4 | 3 |
| Herndon Avenue eastbound through the interchange | 1 | 4 |

Table 6
Project Trips on State Facilities – SR 168 and Fowler Avenue Interchange

| Location | A.M. Peak Hour Trips | P.M. Peak Hour Trips |
|--|----------------------|----------------------|
| Westbound off ramp | 1 | 4 |
| Westbound on ramp | 0 | 0 |
| Eastbound off ramp | 0 | 1 |
| Eastbound on ramp | 3 | 2 |
| Fowler Avenue northbound through the interchange | 2 | 2 |
| Fowler Avenue southbound through the interchange | 3 | 2 |

10.0 EXISTING-PLUS-PROJECT TRAFFIC VOLUMES

Existing-Plus-Project traffic volumes are presented in Figure 9, Existing-Plus-Project Peak-Hour Traffic Volumes. The values in Figure 9 were determined by adding the values in Figures 5 and 7.

11.0 CUMULATIVE PROJECTS

Projects that were pending or not yet occupied when the traffic counts were performed. The following projects are considered in the near-term analyses:

- Tract 6205: 605 single-family homes northeast of the intersection of Shepherd and Sunnyside Avenues
- Tract 6343: 590 single-family homes northeast of the intersection of Behymer and Baron Avenues
- Tract 6406: 51 single-family homes southwest of the intersection of Perrin and Baron Avenues
- Tract 6375: 387 single-family homes west of the intersection of Clovis and Baron Avenues
- Heritage Grove: 18-acre mixed-use development southeast of the intersection of Willow and Shepherd Avenues. It is acknowledged that a master plan covering a much larger area has been proposed. However, a traffic study has not been prepared and it is unlikely that large portions of the master plan will be developed in the near-term condition.
- Signalization of the intersection of Shepherd and Sunnyside Avenues is currently in progress. The signalization will include widening the intersection to the following lane configuration:
 - Eastbound: one left-turn lane, one through lane, and one right-turn lane
 - Westbound: one left-turn lane, two through lanes, and one right-turn lane
 - Northbound: one left-turn lane, one through lane, and one right-turn lane
 - Southbound: one left-turn lane, one through lane, and one right-turn lane

12.0 NEAR-TERM TRAFFIC VOLUMES

Peak-hour near-term with-Project traffic volumes are presented in Figure 10, Near-Term With-Project Peak-Hour Traffic Volumes.

13.0 CUMULATIVE YEAR 2045 TRAFFIC VOLUMES

Cumulative traffic volumes for the year 2045 were estimated based on information available from the COG travel model. The base year and horizon year model output is presented in Appendix A. Future weekday turning movements were estimated based on the methods presented in Chapter 8 of the Transportation Research Board National Cooperative Highway Research Program Report 255 entitled “*Highway Traffic Data for Urbanized Area Project Planning and Design*.” Cumulative With-Project traffic volumes are presented in Figure 11, Cumulative (Year 2045) With-Project Peak-Hour Traffic Volumes.

14.0 INTERSECTION ANALYSES

The intersection levels of service were determined using the computer program Synchro 11, which incorporates HCM procedures for calculating levels of service. The intersection analysis sheets are presented in Appendix C.

Tables 7 through 10 present the results of the intersection analyses. For signalized and all-way stop-controlled intersections, the overall intersection LOS and the average delay per vehicle are presented. For one-way and two-way stop-controlled intersections, the HCM does not define an overall intersection LOS; therefore, the average delay and LOS for the approach with the greatest delay is presented. Delays and LOS worse than the target LOS are presented in bold type and are underlined.

Table 7
Intersection LOS Summary – Existing Conditions

| Intersection | Control | A.M. Peak Hour | | P.M. Peak Hour | |
|----------------------|----------------|--------------------|-----------------|--------------------|-----------------|
| | | Delay (sec) | LOS | Delay (sec) | LOS |
| Minnewawa / Behymer | All-way stop | <u>38.0</u> | <u>E</u> | <u>54.7</u> | <u>F</u> |
| Baron / Behymer | Does Not Exist | | | | |
| Baron / Perrin | Does Not Exist | | | | |
| Clovis / Baron | All-way stop | 7.7 | A | 7.4 | A |
| Clovis / Shepherd | Signals | 16.3 | B | 16.2 | B |
| Sunnyside / Shepherd | All-way stop | 20.2 | C | <u>35.2</u> | <u>E</u> |

Table 8
Intersection LOS Summary – Existing-Plus-Project Conditions

| Intersection | Control | A.M. Peak Hour | | P.M. Peak Hour | |
|----------------------|----------------|--------------------|-----------------|--------------------|-----------------|
| | | Delay (sec) | LOS | Delay (sec) | LOS |
| Minnewawa / Behymer | All-way stop | <u>43.6</u> | <u>E</u> | <u>59.8</u> | <u>F</u> |
| Baron / Behymer | Does Not Exist | | | | |
| Baron / Perrin | One-Way Stop | 7.2 | A | 7.1 | A |
| Clovis / Baron | All-way stop | 8.0 | A | 7.4 | A |
| Clovis / Shepherd | Signals | 16.6 | B | 16.6 | B |
| Sunnyside / Shepherd | All-way stop | 23.4 | C | <u>53.7</u> | <u>F</u> |

Table 9
Intersection LOS Summary – Near-Term With-Project Conditions

| Intersection | Control | A.M. Peak Hour | | P.M. Peak Hour | |
|----------------------|--------------|---------------------|-----------------|---------------------|-----------------|
| | | Delay (sec) | LOS | Delay (sec) | LOS |
| Minnewawa / Behymer | All-way stop | <u>106.9</u> | <u>F</u> | <u>127.5</u> | <u>F</u> |
| Baron / Behymer | One-way stop | 16.6 | C | 15.5 | C |
| Baron / Perrin | Two-way stop | 13.3 | B | 18.1 | C |
| Clovis / Baron | All-way stop | 17.8 | C | <u>37.9</u> | <u>E</u> |
| Clovis / Shepherd | Signals | 24.2 | C | 26.2 | C |
| Sunnyside / Shepherd | Signals | 20.3 | C | 43.2 | D |

Table 10
Intersection LOS Summary – Year 2045 Cumulative With-Project Conditions

| Intersection | Control | A.M. Peak Hour | | P.M. Peak Hour | |
|----------------------|--------------|-----------------------|-----------------|---------------------|-----------------|
| | | Delay (sec) | LOS | Delay (sec) | LOS |
| Minnewawa / Behymer | All-way stop | <u>>300</u> | <u>F</u> | <u>295.2</u> | <u>F</u> |
| Baron / Behymer | One-way stop | <u>125.9</u> | <u>F</u> | <u>36.0</u> | <u>E</u> |
| Baron / Perrin | Two-way stop | 28.6 | D | <u>63.3</u> | <u>F</u> |
| Clovis / Baron | All-way stop | <u>84.1</u> | <u>F</u> | <u>272.1</u> | <u>F</u> |
| Clovis / Shepherd | Signals | 34.5 | C | 36.0 | D |
| Sunnyside / Shepherd | Signals | <u>78.8</u> | <u>E</u> | <u>98.0</u> | <u>F</u> |

The results of the intersection operational analyses include an estimate of the 95th-percentile queue lengths. The existing storage capacity (where applicable) and the calculated 95th-percentile queue lengths are presented in Tables 11 through 14. The storage capacities reported in Tables 11 through 14 are based on measurements from available aerial photographs. Calculated 95th-percentile queue lengths that exceed the storage capacity by more than 25 (approximate space required for one vehicle) or that are considered to be excessive are indicated in bold type and are underlined.

Notes and abbreviations for Tables 11 through 14:

* Storage length exceeds 1,000 feet

+ Additional storage available – connects to a through lane or two-way left-turn lane

S: Shared movement

DNS: Does not stop

TBD: To be determined per City standards or year 2045 queues

Table 11
Intersection Queuing Summary – Existing Conditions

| Intersection | | Number of Lanes, Storage (feet), and Queue Length (feet) | | | | | | | | | | | |
|------------------------|---------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minnewawa/ Behymer | Lanes | S | 1 | S | S | 1 | S | S | 1 | S | S | 1 | S |
| | Storage | | * | | | * | | | * | | | * | |
| | A.M. | | 73 | | | 278 | | | 158 | | | 188 | |
| | P.M. | | 123 | | | 290 | | | 193 | | | 308 | |
| Baron/ Behymer | Lanes | | | | | | | | | | | | |
| | Storage | | | | | | | | | | | | |
| | A.M. | | | | | | | | | | | | |
| | P.M. | | | | | | | | | | | | |
| Baron/ Perrin | Lanes | | | | | | | | | | | | |
| | Storage | | | | | | | | | | | | |
| | A.M. | | | | | | | | | | | | |
| | P.M. | | | | | | | | | | | | |
| Clovis/ Baron | Lanes | | | | 1 | | 1 | 1 | | 1 | | | |
| | Storage | | | | 600 | | 105 | * | | * | | | |
| | A.M. | | | | 0 | | 0 | 10 | | 0 | | | |
| | P.M. | | | | 0 | | 0 | 3 | | 0 | | | |
| Clovis/ Shepherd | Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 |
| | Storage | 250 | * | 50 | 250 | * | 255 | 235 | * | 65 | 255 | * | 100 |
| | A.M. | 29 | 118 | 53 | 47 | 182 | 0 | 132 | 20 | 6 | 16 | 24 | 0 |
| | P.M. | 26 | 133 | 40 | 34 | 130 | 0 | 134 | 23 | 16 | 10 | 16 | 0 |
| Sunnyside/ Shepherd | Lanes | S | 1 | S | S | 1 | S | S | 1 | S | S | 1 | S |
| | Storage | | * | | | * | | | * | | | * | |
| | A.M. | | 125 | | | 198 | | | 28 | | | 5 | |
| | P.M. | | 273 | | | 293 | | | 33 | | | 8 | |

Table 12
Intersection Queuing Summary – Existing-Plus-Project Conditions

| Intersection | | Number of Lanes, Storage (feet), and Queue Length (feet) | | | | | | | | | | | |
|------------------------|---------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minnewawa/ Behymer | Lanes | S | 1 | S | S | 1 | S | S | 1 | S | S | 1 | S |
| | Storage | | * | | | * | | | * | | | * | |
| | A.M. | | 78 | | | 305 | | | 183 | | | 205 | |
| | P.M. | | 128 | | | 288 | | | 205 | | | 345 | |
| Baron/ Behymer | Lanes | | | | | | | | | | | | |
| | Storage | | | | | | | | | | | | |
| | A.M. | | | | | | | | | | | | |
| | P.M. | | | | | | | | | | | | |
| Baron/ Perrin | Lanes | | | | 1 | | 1 | | 1 | S | 1 | 1 | |
| | Storage | | | | 250 | | * | | * | | 250 | * | |
| | A.M. | | | | 5 | | 0 | | 3 | | 0 | 0 | |
| | P.M. | | | | 3 | | 0 | | 5 | | 0 | 0 | |
| Clovis/ Baron | Lanes | | | | 1 | | 1 | 1 | | 1 | | | |
| | Storage | | | | 600 | | 105 | * | | * | | | |
| | A.M. | | | | 5 | | 0 | 10 | | 3 | | | |
| | P.M. | | | | 5 | | 0 | 3 | | 5 | | | |
| Clovis/ Shepherd | Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 |
| | Storage | 250 | * | 50 | 250 | * | 255 | 235 | * | 65 | 255 | * | 100 |
| | A.M. | 33 | 121 | 54 | 51 | 187 | 0 | 133 | 22 | 7 | 20 | 29 | 0 |
| | P.M. | 37 | 137 | 40 | 36 | 137 | 0 | 136 | 26 | 20 | 12 | 19 | 0 |
| Sunnyside/ Shepherd | Lanes | S | 1 | S | S | 1 | S | S | 1 | S | S | 1 | S |
| | Storage | | * | | | * | | | * | | | * | |
| | A.M. | | 150 | | | 225 | | | 30 | | | 13 | |
| | P.M. | | 358 | | | 405 | | | 38 | | | 13 | |

Table 13
Intersection Queuing Summary – Near-Term With-Project Conditions

| Intersection | | Number of Lanes, Storage (feet), and Queue Length (feet) | | | | | | | | | | | |
|------------------------|---------|--|-----|-----------|-----|-----|-----|------------|-----|-----------|-----|-----|-----|
| | | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minnewawa/ Behymer | Lanes | S | 1 | S | S | 1 | S | S | 1 | S | S | 1 | S |
| | Storage | | * | | | * | | | * | | | * | |
| | A.M. | | 100 | | | 653 | | | 275 | | | 278 | |
| | P.M. | | 180 | | | 428 | | | 313 | | | 560 | |
| Baron/ Behymer | Lanes | | 1 | S | S | 1 | | 1 | | S | | | |
| | Storage | | * | | | * | | * | | | | | |
| | A.M. | | DNS | | | 0 | | 13 | | | | | |
| | P.M. | | DNS | | | 0 | | 10 | | | | | |
| Baron/ Perrin | Lanes | 1 | 1 | S | 1 | 1 | S | 1 | 1 | S | 1 | 1 | S |
| | Storage | TBD | * | | TBD | * | | TBD | * | | TBD | * | |
| | A.M. | 3 | 13 | | 5 | 3 | | 3 | DNS | | 0 | DNS | |
| | P.M. | 3 | 8 | | 5 | 0 | | 8 | DNS | | 0 | DNS | |
| Clovis/ Baron | Lanes | | | | 1 | | 1 | 1 | 2 | S | 1 | 2 | |
| | Storage | | | | 600 | | 105 | TBD | * | | TBD | * | |
| | A.M. | | | | 165 | | 0 | 15 | 53 | | 0 | 23 | |
| | P.M. | | | | 153 | | 0 | 5 | 368 | | 0 | 23 | |
| Clovis/ Shepherd | Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 |
| | Storage | 250 | * | 50 | 250 | * | 255 | 235 | * | 65 | 255 | * | 100 |
| | A.M. | 80 | 278 | 82 | 124 | 392 | 4 | 219 | 77 | 35 | 104 | 181 | 63 |
| | P.M. | 126 | 368 | 73 | 94 | 386 | 44 | 261 | 176 | 96 | 86 | 140 | 55 |
| Sunnyside/ Shepherd | Lanes | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Storage | 275 | * | 275+ | 150 | * | 25 | 105 | * | 105 | 175 | * | 100 |
| | A.M. | 83 | 424 | 38 | 90 | 231 | 0 | 176 | 37 | 0 | 51 | 68 | 28 |
| | P.M. | 205 | 899 | 46 | 136 | 400 | 0 | 301 | 69 | 17 | 65 | 99 | 47 |

Table 14
Intersection Queuing Summary – Year 2045 Cumulative With-Project Conditions

| Intersection | | Number of Lanes, Storage (feet), and Queue Length (feet) | | | | | | | | | | | |
|------------------------|---------|--|--------------|------------|-----|------------------|------------|------------|------------------|------------|------------|------------|------------|
| | | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minnewawa/ Behymer | Lanes | S | 1 | S | S | 1 | S | S | 1 | S | S | 1 | S |
| | Storage | | * | | | * | | | * | | | * | |
| | A.M. | | 133 | | | <u>>1,000</u> | | | 283 | | | <u>958</u> | |
| | P.M. | | 496 | | | 445 | | | 800 | | | 491 | |
| Baron/ Behymer | Lanes | | 1 | S | S | 1 | | 1 | | S | | | |
| | Storage | | * | | | * | | * | | | | | |
| | A.M. | | DNS | | | 3 | | 300 | | | | | |
| | P.M. | | DNS | | | 3 | | 90 | | | | | |
| Baron/ Perrin | Lanes | 1 | 1 | S | 1 | 1 | S | 1 | 1 | S | 1 | 1 | S |
| | Storage | TBD | * | | TBD | * | | TBD | * | | TBD | * | |
| | A.M. | 5 | 13 | | 30 | 25 | | 3 | DNS | | 13 | DNS | |
| | P.M. | 8 | 8 | | 35 | 15 | | 8 | DNS | | 23 | DNS | |
| Clovis/ Baron | Lanes | | | | 1 | | 1 | 1 | 2 | S | 1 | 2 | |
| | Storage | | | | 600 | | 105 | TBD | * | | TBD | * | |
| | A.M. | | | | 383 | | 8 | 23 | 233 | | 8 | 478 | |
| | P.M. | | | | 240 | | 3 | 8 | <u>>1,000</u> | | 15 | 165 | |
| Clovis/ Shepherd | Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 |
| | Storage | 250 | * | 50 | 250 | * | 255 | 235 | * | 65 | 255 | * | 100 |
| | A.M. | 84 | 370 | <u>110</u> | 184 | 394 | 49 | <u>268</u> | 97 | 51 | 123 | 323 | <u>201</u> |
| | P.M. | 135 | 448 | <u>82</u> | 167 | 437 | 52 | <u>287</u> | 350 | <u>289</u> | 117 | 167 | 35 |
| Sunnyside/ Shepherd | Lanes | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Storage | 275 | * | 275+ | 150 | * | 25 | 105 | * | 105 | 175 | * | 100 |
| | A.M. | <u>318</u> | <u>1,015</u> | 85 | 159 | 380 | 18 | <u>283</u> | 128 | 0 | <u>522</u> | 568 | <u>508</u> |
| | P.M. | <u>629</u> | <u>1,211</u> | 66 | 155 | 593 | <u>295</u> | <u>382</u> | 476 | <u>133</u> | <u>315</u> | 229 | <u>158</u> |

15.0 DISCUSSION

15.1 Existing Conditions

The results of the analyses indicate that the study intersections are currently operating at acceptable levels of service with calculated 95th-percentile queues contained within the available storage capacity, with the following exceptions:

- Minnewawa Avenue / Behymer Avenue: LOS E during the a.m. peak hour and LOS F during the p.m. peak hour with all-way stop control.
- Sunnyside Avenue / Shepherd Avenue: LOS E during the p.m. peak hour with all-way stop control.

15.2 Existing-Plus-Project Conditions

The existing-plus-Project-conditions analyses represent conditions that would occur after construction of the Project if none of the pending and approved projects were constructed. This scenario isolates the specific effects of the Project.

The results of the analyses indicate that the study intersections are expected to continue to operate at levels of service similar to the existing conditions. The Project will not cause any

intersections currently operating at acceptable LOS to operate worse than the target LOS, and the calculated 95th-percentile queues are within the available storage capacity.

The Project is expected to increase delays at the intersection of Minnewawa and Behymer Avenues, which operates at LOS E during the a.m. peak hour and LOS F during the p.m. peak hour.

The Project is expected to increase delays at the intersection of Sunnyside and Shepherd Avenues during the p.m. peak hour, causing the LOS to drop from LOS E to LOS F. However, construction of a traffic signal at the intersection is currently underway.

15.2.1 Existing-Plus-Project Improved Conditions

In order for the intersection of Minnewawa and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized. At a minimum, dedicated left-turn lanes with protected left-turn phasing would be required on the northbound and southbound approaches. With signalization, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours. The improved conditions are presented in Tables 15 and 16. The intersection analysis sheets for the improved conditions are presented in Appendix D.

It should be noted that the Project's contribution to the level of service issue is relatively minimal, as the Project is expected to generate 17 trips during the a.m. peak hour and 24 trips during the p.m. peak hour. These values represent approximately 1.2 percent of the a.m. peak hour existing-plus-Project volumes and 1.9 percent of the p.m. peak hour existing-plus-Project volumes.

Table 15
Intersection LOS Summary – Improved Existing-Plus-Project Conditions

| Intersection | Control | A.M. Peak Hour | | P.M. Peak Hour | |
|---------------------|---------|----------------|-----|----------------|-----|
| | | Delay (sec) | LOS | Delay (sec) | LOS |
| Minnewawa / Behymer | Signals | 15.4 | B | 15.8 | B |

Table 16
Intersection Queuing Summary – Improved Existing-Plus-Project Conditions

| Intersection | | Number of Lanes, Storage (feet), and Queue Length (feet) | | | | | | | | | | | |
|-----------------------|---------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minnewawa/ Behymer | Lanes | S | 1 | S | S | 1 | S | 1 | 1 | S | 1 | 1 | S |
| | Storage | | * | | | * | | TBD | * | | TBD | * | |
| | A.M. | | 99 | | | 239 | | 81 | 124 | | 104 | 117 | |
| | P.M. | | 129 | | | 198 | | 60 | 131 | | 138 | 110 | |

TBD: To be determined based on Year 2045 analyses.

S: Shared movement

*: Storage length exceeds 1,000 feet

15.3 Near-Term With-Project Conditions

The near-term with-Project conditions analyses represent conditions that are expected after construction of the Project and the known pending and approved projects. This scenario isolates the near-term cumulative effects of the Project and other known projects.

The results of the analyses indicate that the study intersections are expected to continue to operate at acceptable levels of service, with the following exceptions:

- Minnewawa Avenue / Behymer Avenue: LOS F during the a.m. and p.m. peak hours with all-way stop control.
- Clovis Avenue / Baron Avenue: LOS E during the p.m. peak hour with one-way stop control.

Calculated 95th-percentile queues are contained within the existing storage capacity, with the following exceptions:

- Clovis Avenue / Shepherd Avenue: left-turn lane on the northbound approach, right-turn lanes on the eastbound and northbound approaches.

15.3.1 Near-Term With-Project Improved Conditions

In order for the intersection of Minnewawa and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized. At a minimum, dedicated left-turn lanes with protected left-turn phasing would be required on the northbound and southbound approaches. With signalization, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours. The improved conditions are presented in Tables 17 and 18. The intersection analysis sheets for the improved conditions are presented in Appendix D.

In order for the intersection of Clovis and Baron Avenues to operate at acceptable LOS, the intersection would require signalization. With signalization, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours. The improved conditions are presented in Tables 17 and 18. The intersection analysis sheets for the improved conditions are presented in Appendix D. It should be noted that signalization of the intersection by the Project alone is not recommended, as the intersection will not require signalization until Clovis Avenue is extended north of Baron Avenue.

In order to better accommodate queues at the intersection of Clovis and Shepherd Avenues, the intersection striping may be modified to open the second left-turn lane on the northbound approach. With the modification, the intersection is expected to operate at LOS C during the a.m. and p.m. peak hours. The improved conditions are presented in Tables 17 and 18. The intersection analysis sheets for the improved conditions are presented in Appendix D.

Table 17
Intersection LOS Summary – Improved Near-Term With-Project Conditions

| Intersection | Control | A.M. Peak Hour | | P.M. Peak Hour | |
|---------------------|---------|----------------|-----|----------------|-----|
| | | Delay (sec) | LOS | Delay (sec) | LOS |
| Minnewawa / Behymer | Signals | 19.8 | B | 19.4 | B |
| Clovis / Baron | Signals | 10.2 | B | 10.8 | B |
| Clovis / Shepherd | Signals | 21.4 | C | 22.9 | C |

Table 18
Intersection Queuing Summary – Improved Near-Term With-Project Conditions

| Intersection | | Number of Lanes, Storage (feet), and Queue Length (feet) | | | | | | | | | | | |
|-----------------------|---------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minnewawa/ Behymer | Lanes | S | 1 | S | S | 1 | S | 1 | 1 | S | 1 | 1 | S |
| | Storage | | * | | | * | | TBD | * | | TBD | * | |
| | A.M. | | 106 | | | 336 | | 105 | 143 | | 136 | 131 | |
| | P.M. | | 151 | | | 267 | | 64 | 155 | | 168 | 137 | |
| Clovis / Baron | Lanes | | | | 1 | | 1 | 1 | 2 | S | 1 | 2 | |
| | Storage | | | | 600 | | 105 | TBD | * | | TBD | * | |
| | A.M. | | | | 161 | | 4 | 62 | 43 | | 7 | 60 | |
| | P.M. | | | | 166 | | 3 | 33 | 83 | | 4 | 51 | |
| Clovis/ Shepherd | Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 |
| | Storage | 250 | * | 50 | 250 | * | 255 | 235 | * | 65 | 255 | * | 100 |
| | A.M. | 70 | 233 | 83 | 107 | 324 | 14 | 100 | 77 | 30 | 90 | 154 | 55 |
| | P.M. | 124 | 331 | 65 | 93 | 356 | 41 | 133 | 195 | 120 | 84 | 135 | 53 |

TBD: To be determined based on Year 2045 analyses.

S: Shared movement

*: Storage length exceeds 1,000 feet

15.4 Cumulative Year 2045 With-Project Conditions

The year 2045 cumulative with-Project conditions analyses are based on the assumption that the Project has been constructed, the pending and approved projects have been constructed, and that 20 years of growth has occurred in the Clovis, Fresno, and Fresno County region as incorporated into the adopted Fresno County travel model.

The results of the analyses indicate that the study intersections are expected to continue to operate at acceptable levels of service, with the following exceptions:

- Minnewawa Avenue / Behymer Avenue: LOS F during the a.m. and p.m. peak hours with all-way stop control.
- Baron Avenue / Behymer Avenue: LOS F during the a.m. peak hour and LOS E during the p.m. peak hour on the northbound approach with one-way stop control.
- Baron Avenue / Perrin Avenue: LOS F during the p.m. peak hour on the eastbound and westbound approaches with two-way stop control.
- Sunnyside Avenue / Shepherd Avenue: LOS E during the a.m. peak hour and LOS F during the p.m. peak hour with traffic signals.

Calculated 95th-percentile queues are contained within the existing storage capacity, with the following exceptions:

- Minnewawa Avenue / Behymer Avenue: excessive queues on the westbound and southbound approaches.
- Clovis Avenue / Shepherd Avenue: left-turn lane on the northbound approach, right-turn lanes on the eastbound, northbound, and southbound approaches.
- Sunnyside Avenue / Shepherd Avenue: excessive queues in the left-turn lanes on the eastbound, northbound, and southbound approaches, the eastbound through lane, and the right-turn lanes on the westbound, northbound, and southbound approaches.

15.4.1 Cumulative Year 2045 With-Project Improved Conditions

In order for the intersection of Minnewawa and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized. At a minimum, dedicated left-turn lanes with protected left-turn phasing would be required on all four approaches and a dedicated right-turn lane would be required on the westbound approach. With signalization, the intersection is expected to operate at LOS D during the a.m. and p.m. peak hours. The improved conditions are presented in Tables 19 and 20. The intersection analysis sheets for the improved conditions are presented in Appendix D.

In order for the intersection of Baron and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized. At a minimum, a dedicated left-turn lane with protected left-turn phasing would be required on the westbound approach. With signalization, the intersection is expected to operate at LOS B during the a.m. peak hour and LOS A during the p.m. peak hour. The improved conditions are presented in Tables 19 and 20. The intersection analysis sheets for the improved conditions are presented in Appendix D.

In order for the intersection of Baron and Perrin Avenues to operate at acceptable LOS, all-way stop control may be installed. With all-way stop control, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours. The improved conditions are presented in Tables 19 and 20. The intersection analysis sheets for the improved conditions are presented in Appendix D.

In order to better accommodate queues at the intersection of Clovis and Shepherd Avenues, the intersection striping may be modified to open the second left-turn lane on the northbound approach. With the modification, the intersection is expected to operate at LOS C during the a.m. and p.m. peak hours. The improved conditions are presented in Tables 19 and 20. The intersection analysis sheets for the improved conditions are presented in Appendix D.

In order for the intersection of Sunnyside and Shepherd Avenues to operate at acceptable LOS, the intersection would require modification from the planned signalized lane configurations described in Section 11.0 of this report to the following:

Eastbound: two left-turn lanes, two through lanes, and one right-turn lane

Westbound: one left-turn lane, two through lanes, and one right-turn lane

Northbound: one left-turn lane, one through lane, and one right-turn lane

Southbound: two left-turn lanes, one through lane, and one right-turn lane

With the recommended widening, the intersection is expected to operate at LOS C during the a.m. peak hour and LOS D during the p.m. peak hour. The improved conditions are presented in Tables 19 and 20. The intersection analysis sheets for the improved conditions are presented in Appendix D.

Table 19
Intersection LOS Summary – Improved Year 2045 With-Project Conditions

| Intersection | Control | A.M. Peak Hour | | P.M. Peak Hour | |
|----------------------|--------------|----------------|-----|----------------|-----|
| | | Delay (sec) | LOS | Delay (sec) | LOS |
| Minnewawa / Behymer | Signals | 37.7 | D | 38.0 | D |
| Baron / Behymer | Signals | 11.1 | B | 9.0 | A |
| Baron / Perrin | All-way stop | 11.4 | B | 13.7 | B |
| Clovis / Baron | Signals | 10.9 | B | 19.1 | B |
| Clovis / Shepherd | Signals | 28.2 | C | 33.6 | C |
| Sunnyside / Shepherd | Signals | 34.0 | C | 43.5 | D |

Table 20
Intersection Queuing Summary – Improved Year 2045 With-Project Conditions

| Intersection | | Number of Lanes, Storage (feet), and Queue Length (feet) | | | | | | | | | | | |
|------------------------|---------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Minnewawa/ Behymer | Lanes | 1 | 1 | S | 1 | 1 | 1 | 1 | 1 | S | 1 | 1 | S |
| | Storage | TBD | * | | TBD | * | TBD | TBD | * | | TBD | * | |
| | A.M. | 10 | 213 | | 75 | 512 | 138 | 187 | 233 | | 189 | 566 | |
| | P.M. | 28 | 499 | | 38 | 180 | 55 | 181 | 487 | | 267 | 222 | |
| Baron/ Behymer | Lanes | | 1 | S | 1 | 1 | | 1 | | S | | | |
| | Storage | | * | | TBD | * | | * | | | | | |
| | A.M. | | 282 | | 27 | 228 | | 143 | | | | | |
| | P.M. | | 396 | | 27 | 111 | | 96 | | | | | |
| Baron/ Perrin | Lanes | 1 | 1 | S | 1 | 1 | S | 1 | 1 | S | 1 | 1 | S |
| | Storage | TBD | * | | TBD | * | | TBD | * | | TBD | * | |
| | A.M. | 3 | 18 | | 10 | 43 | | 5 | 18 | | 40 | 13 | |
| | P.M. | 0 | 13 | | 5 | 20 | | 23 | 93 | | 73 | 23 | |
| Clovis/ Baron | Lanes | | | | 1 | | 1 | 1 | 2 | S | 1 | 2 | |
| | Storage | | | | 600 | | 105 | TBD | * | | TBD | * | |
| | A.M. | | | | 244 | | 18 | 85 | 137 | | 34 | 226 | |
| | P.M. | | | | 300 | | 12 | 45 | 522 | | 78 | 132 | |
| Clovis/ Shepherd | Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 |
| | Storage | 250 | * | 50 | 250 | * | 255 | 235 | * | 65 | 255 | * | 100 |
| | A.M. | 81 | 356 | 132 | 180 | 375 | 47 | 125 | 104 | 54 | 123 | 311 | 198 |
| | P.M. | 135 | 448 | 82 | 167 | 437 | 52 | 137 | 350 | 289 | 117 | 151 | 58 |
| Sunnyside/ Shepherd | Lanes | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Storage | TBD | * | TBD | TBD | * | TBD | TBD | * | TBD | TBD | * | TBD |
| | A.M. | 123 | 354 | 54 | 105 | 344 | 13 | 189 | 79 | 0 | 146 | 330 | 336 |
| | P.M. | 230 | 348 | 43 | 95 | 454 | 157 | 275 | 260 | 60 | 94 | 157 | 250 |

TBD: To be designed based on City standards and 95th-percentile queues.

S: Shared movement

*: Storage length exceeds 1,000 feet

16.0 CONCLUSIONS AND RECOMMENDATIONS

Standard traffic engineering principles and methods were employed to establish the existing conditions, to estimate the number of trips expected to be generated by the Project, and to analyze the traffic conditions that are expected to occur in the future. The conclusions of the study are summarized in the following sections.

Trip Generation

The Project is expected to generate approximately 1,444 vehicle trips per day (722 trips entering the site and 722 trips exiting the site). Peak-hour traffic volumes are expected to be on the order of 108 trips during the a.m. peak hour and 144 trips during the p.m. peak hour.

CEQA Impact Analysis (VMT)

Project-specific traffic modeling indicates a calculated Project VMT of 17.9 VMT per capita, which is greater than the threshold of 14.1 VMT per capita. Therefore, the Project would create a significant transportation impact.

The Project will implement feasible mitigation measures such as constructing sidewalk and trails. These Project design features can help offset a portion of the VMT impact of the Project but will not reduce the impact to less than significant. Therefore, the Project will have a significant and unavoidable transportation impact under CEQA.

It is recommended that the proposed Project, consistent with the General Plan, tier its environmental review from the General Plan SEIR, which has disclosed the VMT impacts of land use development consistent with the General Plan. Therefore, the Project's significant transportation impact does not need to be disclosed in a Project-specific EIR.

Existing Conditions

The study intersections are currently operating at acceptable levels of service with calculated 95th-percentile queues contained within the available storage capacity, with the following exceptions:

- Minnewawa Avenue / Behymer Avenue: LOS E during the a.m. peak hour and LOS F during the p.m. peak hour with all-way stop control.
- Sunnyside Avenue / Shepherd Avenue: LOS E during the p.m. peak hour with all-way stop control.

Existing-Plus-Project Conditions

The existing-plus-Project-conditions analyses represent conditions that would occur after construction of the Project if none of the pending and approved projects were constructed. This scenario isolates the specific effects of the Project. The study intersections are expected to continue to operate at levels of service similar to the existing conditions. The Project will not cause any intersections currently operating at acceptable LOS to operate worse than the target LOS, and the calculated 95th-percentile queues are within the available storage capacity.

The Project is expected to increase delays at the intersection of Minnewawa and Behymer Avenues, which operates at LOS E during the a.m. peak hour and LOS F during the p.m. peak hour.

The Project is expected to increase delays at the intersection of Sunnyside and Shepherd Avenues during the p.m. peak hour, causing the LOS to drop from LOS E to LOS F. However, construction of a traffic signal at the intersection is currently underway.

Existing-Plus-Project Improved Conditions

In order for the intersection of Minnewawa and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized. At a minimum, dedicated left-turn lanes with protected left-turn phasing would be required on the northbound and southbound approaches. With signalization, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours. It should be noted that the Project's contribution to the level of service issue is relatively minimal, as the Project's percentage of the overall traffic volume in the existing-plus-Project conditions is less on the order of one to two percent during the peak hours.

Near-Term With-Project Conditions

The near-term with-Project conditions analyses represent conditions that are expected after construction of the Project and the known pending and approved projects. This scenario isolates the near-term cumulative effects of the Project and other known projects. The study intersections are expected to continue to operate at acceptable levels of service, with the following exceptions:

- Minnewawa Avenue / Behymer Avenue: LOS F during the a.m. and p.m. peak hours with all-way stop control.
- Clovis Avenue / Baron Avenue: LOS E during the p.m. peak hour with one-way stop control.

Calculated 95th-percentile queues are contained within the existing storage capacity, with the following exceptions:

- Clovis Avenue / Shepherd Avenue: left-turn lane on the northbound approach, right-turn lanes on the eastbound and northbound approaches.

Near-Term With-Project Improved Conditions

In order for the intersection of Minnewawa and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized. At a minimum, dedicated left-turn lanes with protected left-turn phasing would be required on the northbound and southbound approaches. With signalization, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours.

In order for the intersection of Clovis and Baron Avenues to operate at acceptable LOS, the intersection would require signalization. With signalization, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours. It should be noted that signalization of the intersection by the Project alone is not recommended, as the intersection will not require signalization until Clovis Avenue is extended north of Baron Avenue.

In order to better accommodate queues at the intersection of Clovis and Shepherd Avenues, the intersection striping may be modified to open the second left-turn lane on the northbound approach. With the modification, the intersection is expected to operate at LOS C during the a.m. and p.m. peak hours.

Cumulative Year 2045 With-Project Conditions

The year 2045 cumulative with-Project conditions analyses are based on the assumption that the Project has been constructed, the pending and approved projects have been constructed, and that 20 years of growth has occurred in the Clovis, Fresno, and Fresno County region as incorporated into the adopted Fresno County travel model. The study intersections are expected to continue to operate at acceptable levels of service, with the following exceptions:

- Minnewawa Avenue / Behymer Avenue: LOS F during the a.m. and p.m. peak hours with all-way stop control.
- Baron Avenue / Behymer Avenue: LOS F during the a.m. peak hour and LOS E during the p.m. peak hour on the northbound approach with one-way stop control.
- Baron Avenue / Perrin Avenue: LOS F during the p.m. peak hour on the eastbound and westbound approaches with two-way stop control.
- Sunnyside Avenue / Shepherd Avenue: LOS E during the a.m. peak hour and LOS F during the p.m. peak hour with traffic signals.

Calculated 95th-percentile queues are contained within the existing storage capacity, with the following exceptions:

- Minnewawa Avenue / Behymer Avenue: excessive queues on the westbound and southbound approaches.
- Clovis Avenue / Shepherd Avenue: left-turn lane on the northbound approach, right-turn lanes on the eastbound, northbound, and southbound approaches.
- Sunnyside Avenue / Shepherd Avenue: excessive queues in the left-turn lanes on the eastbound, northbound, and southbound approaches, the eastbound through lane, and the right-turn lanes on the westbound, northbound, and southbound approaches.

Cumulative Year 2045 With-Project Improved Conditions

In order for the intersection of Minnewawa and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized. At a minimum, dedicated left-turn lanes with protected left-turn phasing would be required on all four approaches and a dedicated right-turn lane would be required on the westbound approach. With signalization, the intersection is expected to operate at LOS D during the a.m. and p.m. peak hours.

In order for the intersection of Baron and Behymer Avenues to operate at acceptable LOS, the intersection may be signalized. At a minimum, a dedicated left-turn lane with protected left-turn phasing would be required on the westbound approach. With signalization, the intersection is expected to operate at LOS B during the a.m. peak hour and LOS A during the p.m. peak hour.

In order for the intersection of Baron and Perrin Avenues to operate at acceptable LOS, all-way stop control may be installed. With all-way stop control, the intersection is expected to operate at LOS B during the a.m. and p.m. peak hours.

In order to better accommodate queues at the intersection of Clovis and Shepherd Avenues, the intersection striping may be modified to open the second left-turn lane on the northbound approach. With the modification, the intersection is expected to operate at LOS C during the a.m. and p.m. peak hours.

In order for the intersection of Sunnyside and Shepherd Avenues to operate at acceptable LOS, the intersection would require modification from the planned signalized lane configurations to the following:

Eastbound: two left-turn lanes, two through lanes, and one right-turn lane

Westbound: one left-turn lane, two through lanes, and one right-turn lane

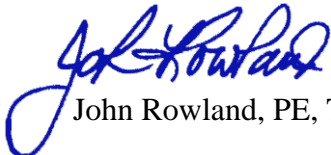
Northbound: one left-turn lane, one through lane, and one right-turn lane

Southbound: two left-turn lanes, one through lane, and one right-turn lane

With the recommended widening, the intersection is expected to operate at LOS C during the a.m. peak hour and LOS D during the p.m. peak hour.

Thank you for the opportunity to perform this Transportation Impact Analysis. Please feel free to contact me if you have any questions.

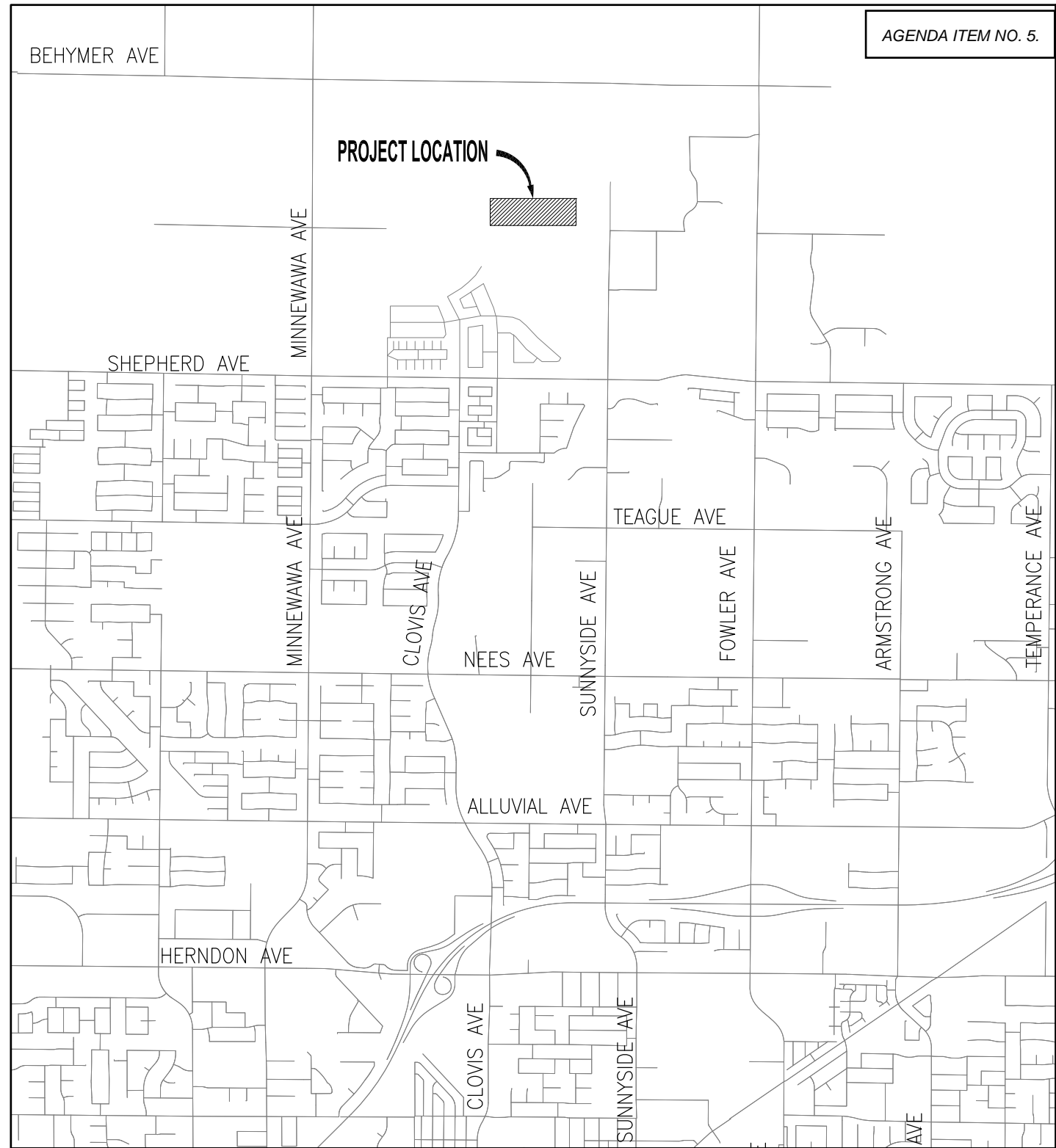
PETERS ENGINEERING GROUP


John Rowland, PE, TE



Attachments: Figures 1 through 11
Appendix A - Traffic Modeling
Appendix B - Traffic Count Data Sheets
Appendix C - Intersection Analyses
Appendix D - Improved Intersection Analyses

FIGURES

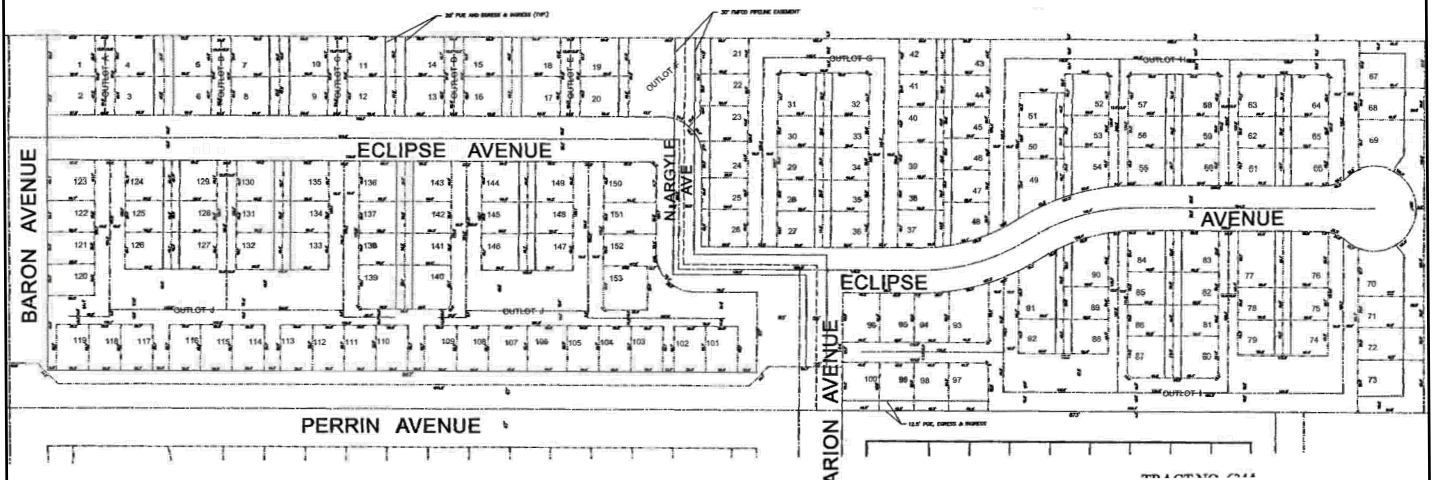


Proposed Tract 6452
Clovis, California

LEGEND

 PROJECT SITE

VICINITY MAP



Proposed Tract 6452
Clovis, California

SITE PLAN

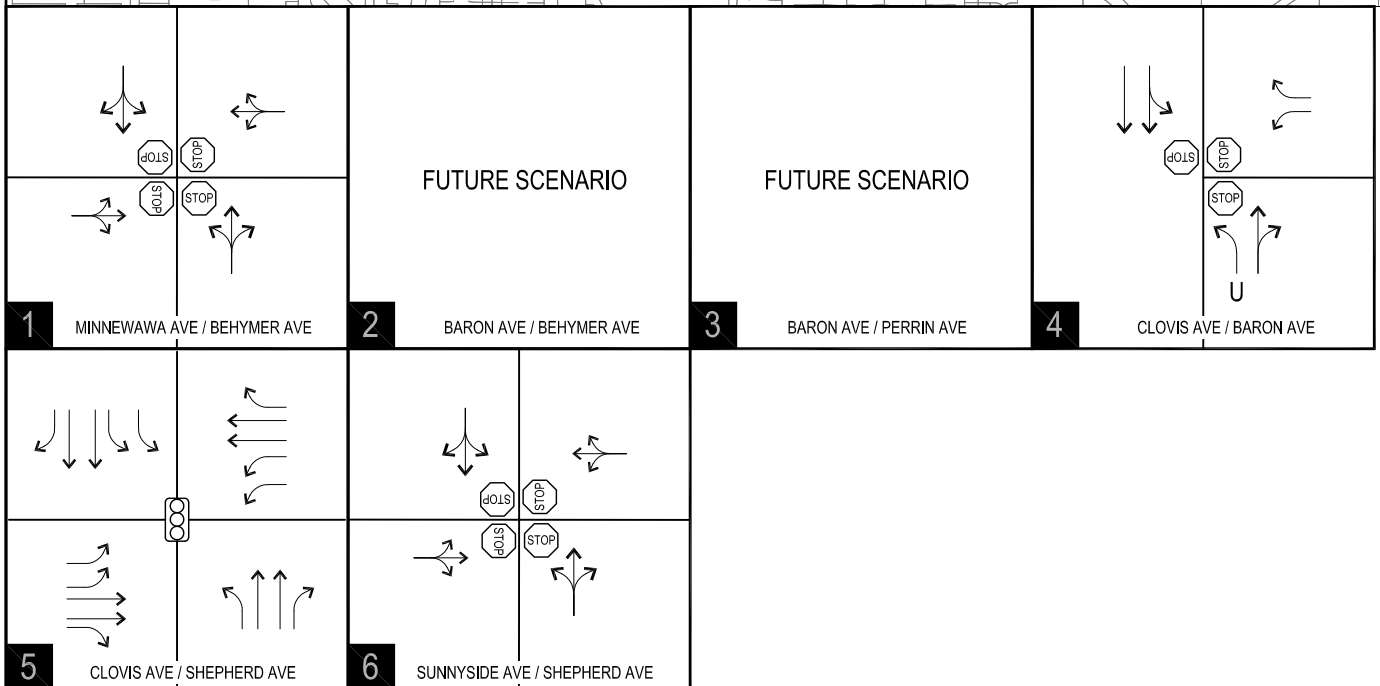
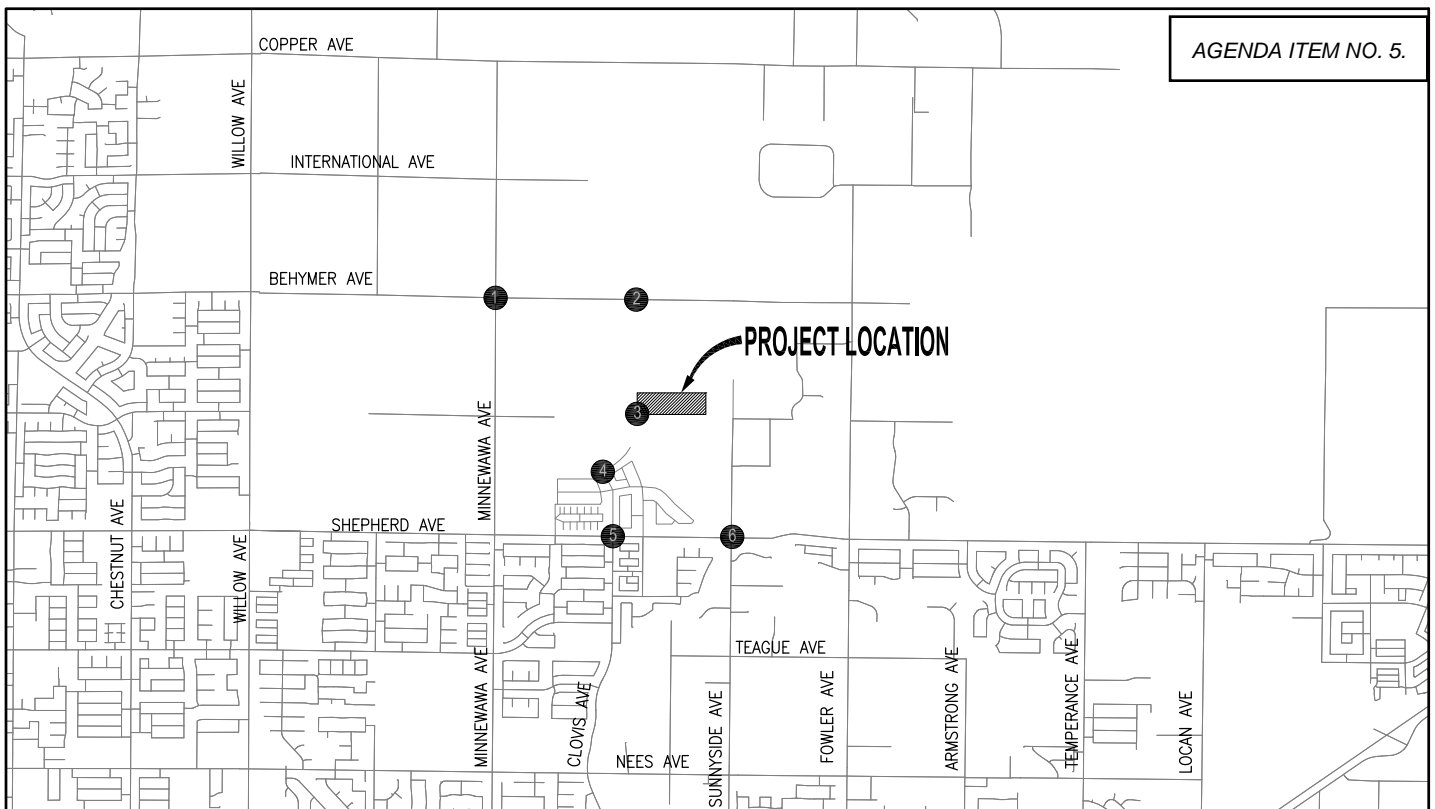


PETERS ENGINEERING GROUP

Figure 2

N

454



LEGEND

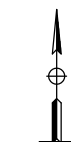
- STUDY AREA INTERSECTIONS
- PROJECT SITE
- SIGNALIZED INTERSECTION
- STOP SIGN
- DIRECTION OF TRAVEL
- U-TURN

Proposed Tract 6452
Clovis, California

EXISTING LANE CONFIGURATIONS AND INTERSECTION CONTROL



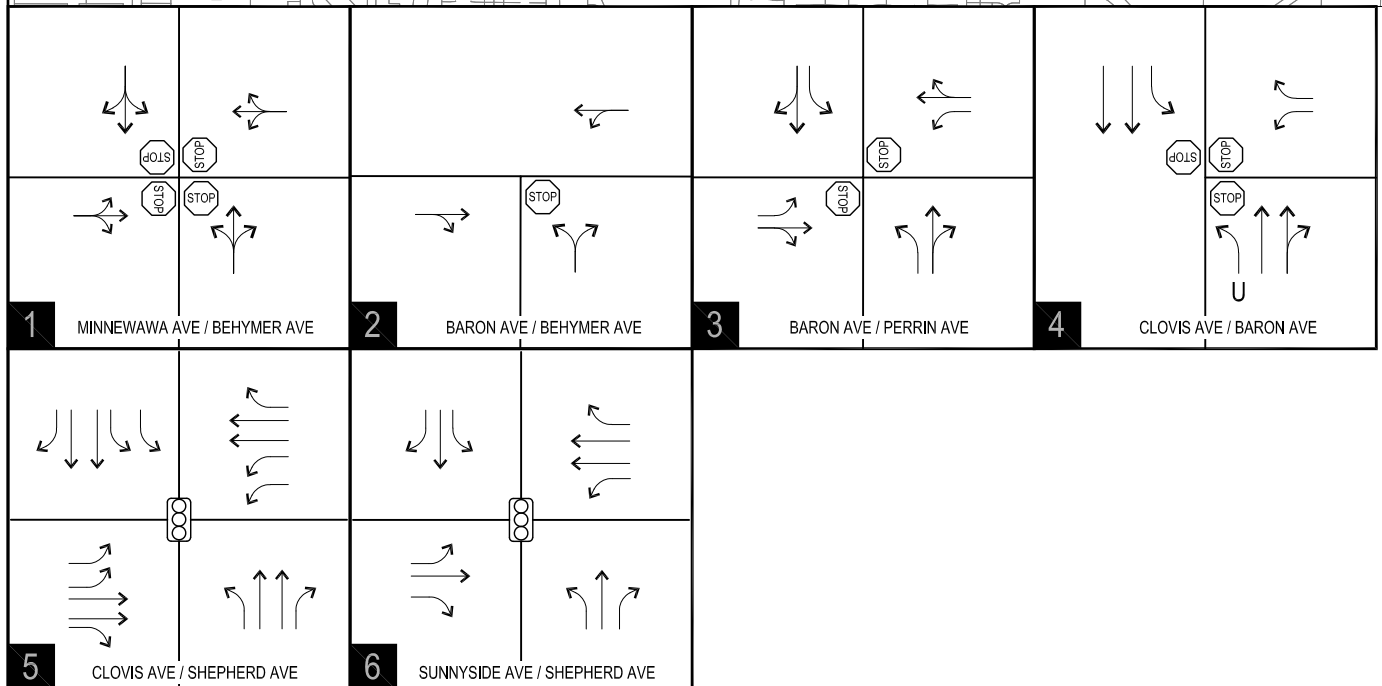
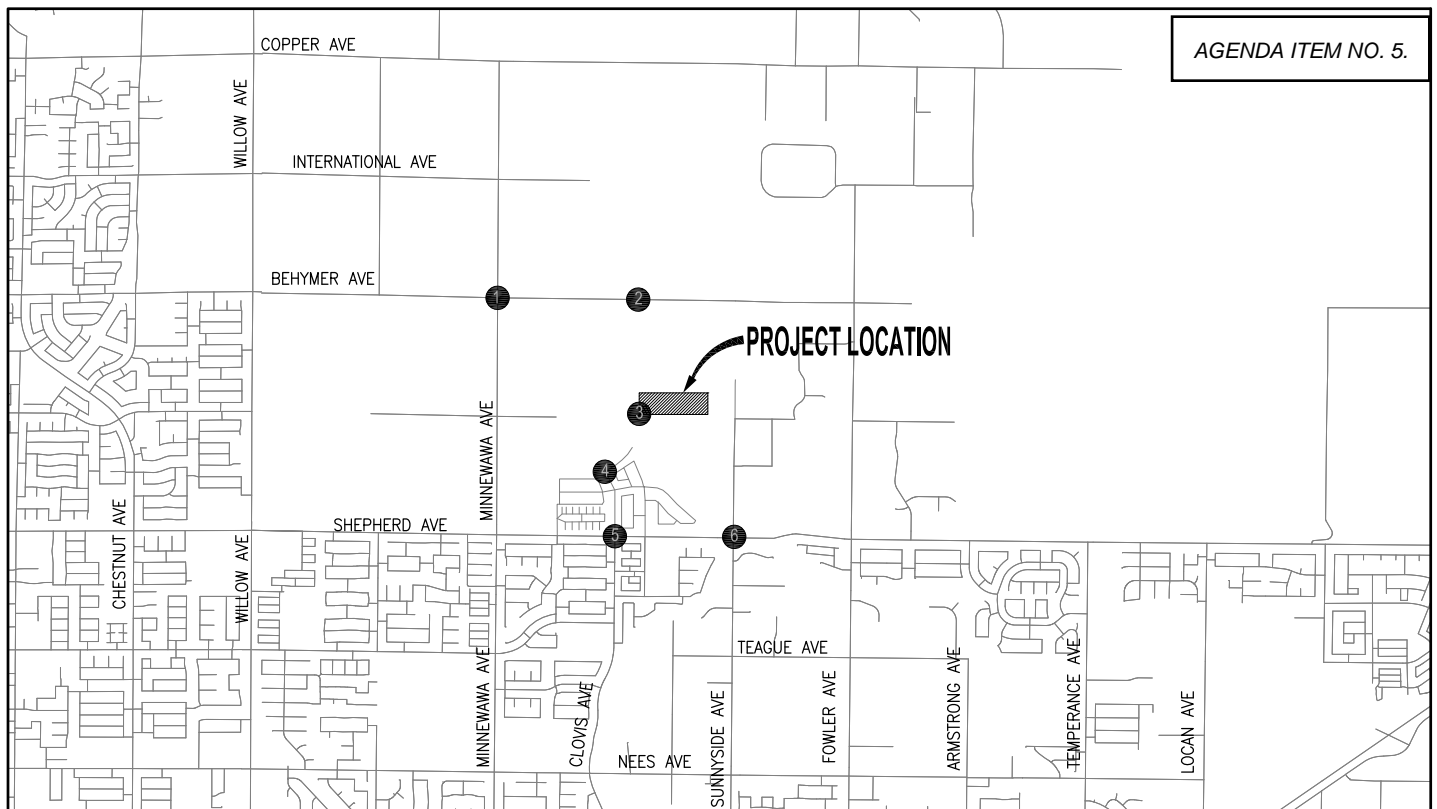
PETERS ENGINEERING GROUP



Not

455

Figure 3

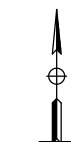


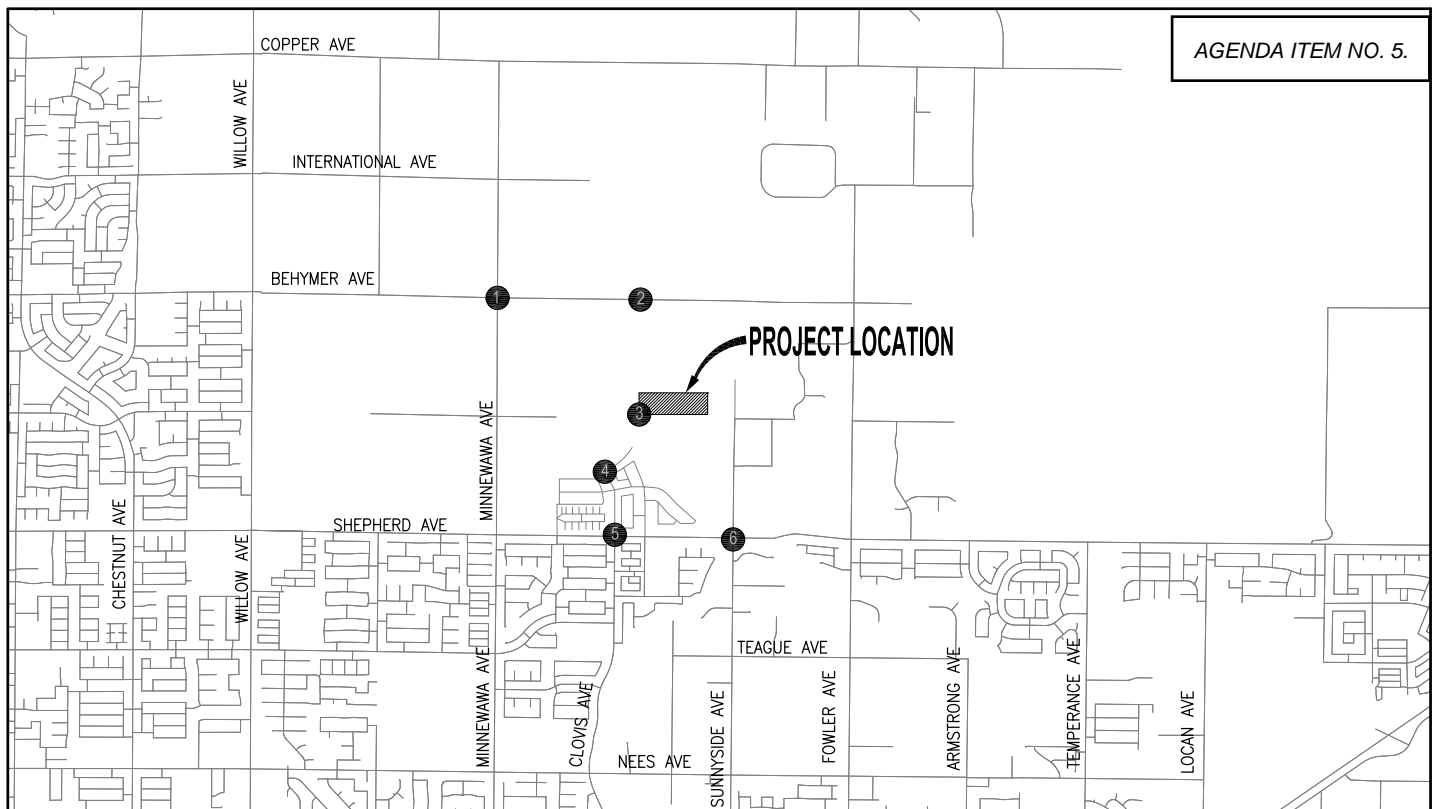
Proposed Tract 6452
Clovis, California

LEGEND

- STUDY AREA INTERSECTIONS
- PROJECT SITE
- SIGNALIZED INTERSECTION
- STOP SIGN
- DIRECTION OF TRAVEL
- U-TURN



YEAR 2045 LANE CONFIGURATIONS AND INTERSECTION CONTROL





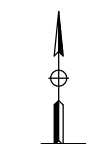
| | | | |
|---|---|---|---|
| <p>1(6) → 225(193) ← 133(164)</p> <p>2(3) → 150(184) ← 68(50)</p> <p>102(67) → 222(214) ← 7(14)</p> <p>1 MINNEWAWA AVE / BEHYMER</p> | <p>← 447(367)</p> <p>290(362) →</p> <p>2 BARON AVE / BEHYMER AVE</p> | <p>3 BARON AVE / PERRIN AVE</p> <p>FUTURE SCENARIO</p> | <p>← 3(1)</p> <p>83(30) → 3(1)</p> <p>4 CLOVIS AVE / BARON AVE</p> |
| <p>27(21) → 38(22) ← 21(11)</p> <p>50(46) → 367(423) ← 148(125)</p> <p>163(181) → 38(51) ← 41(57)</p> <p>5 CLOVIS AVE / SHEPHERD AVE</p> | <p>16(14) → 19(17) ← 2(3)</p> <p>18(10) → 283(386) ← 134(86)</p> <p>116(100) → 11(13) ← 10(11)</p> <p>6 SUNNYSIDE AVE / SHEPHERD AVE</p> | <p>FUTURE SCENARIO</p> | |

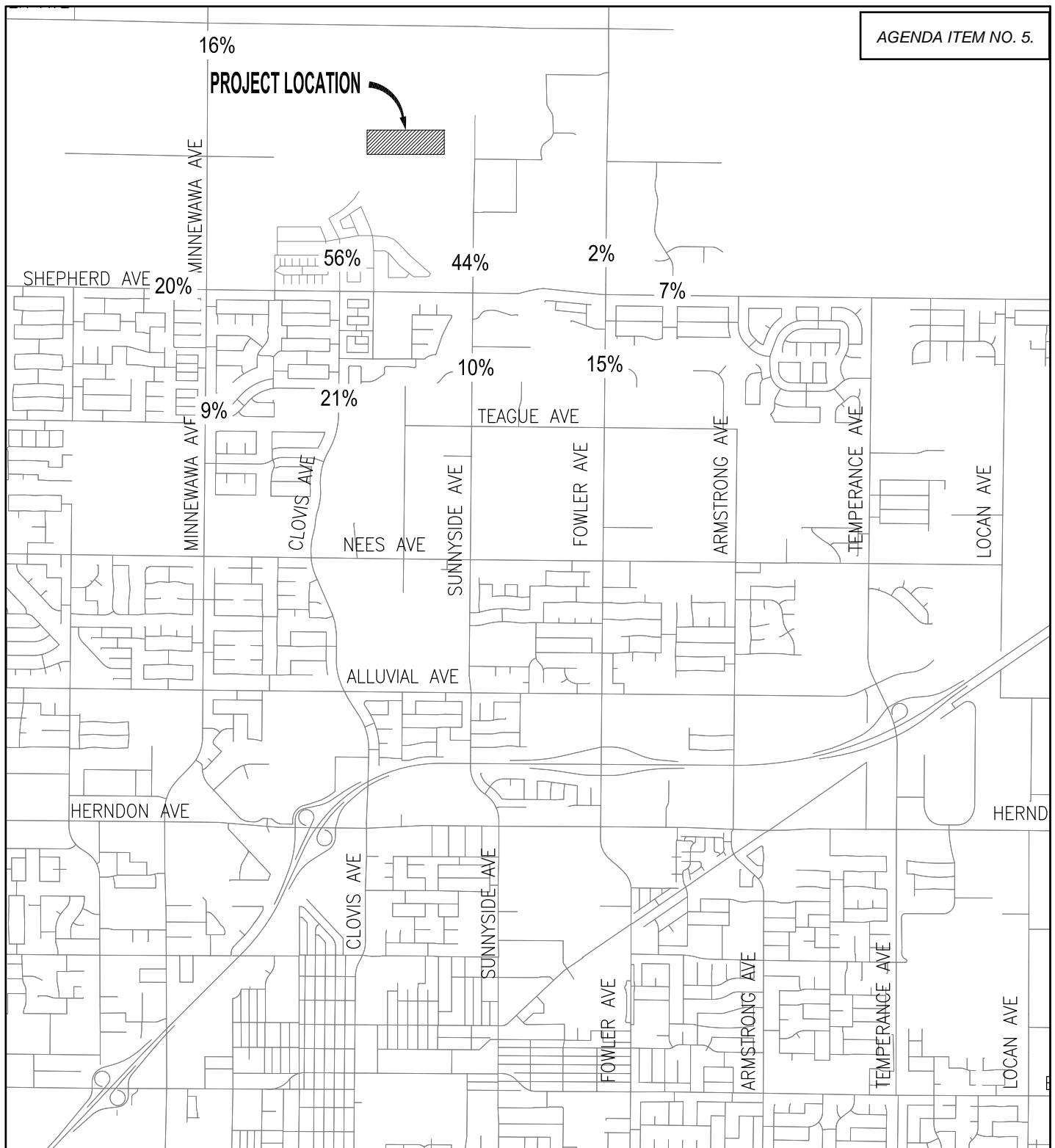
LEGEND

-  STUDY AREA INTERSECTIONS
- XX (YY) AM (PM) PEAK HOUR VOLUMES
-  PROJECT SITE

Proposed Tract 6452
Clovis, California

EXISTING PEAK-HOUR TRAFFIC VOLUMES



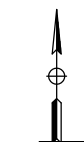


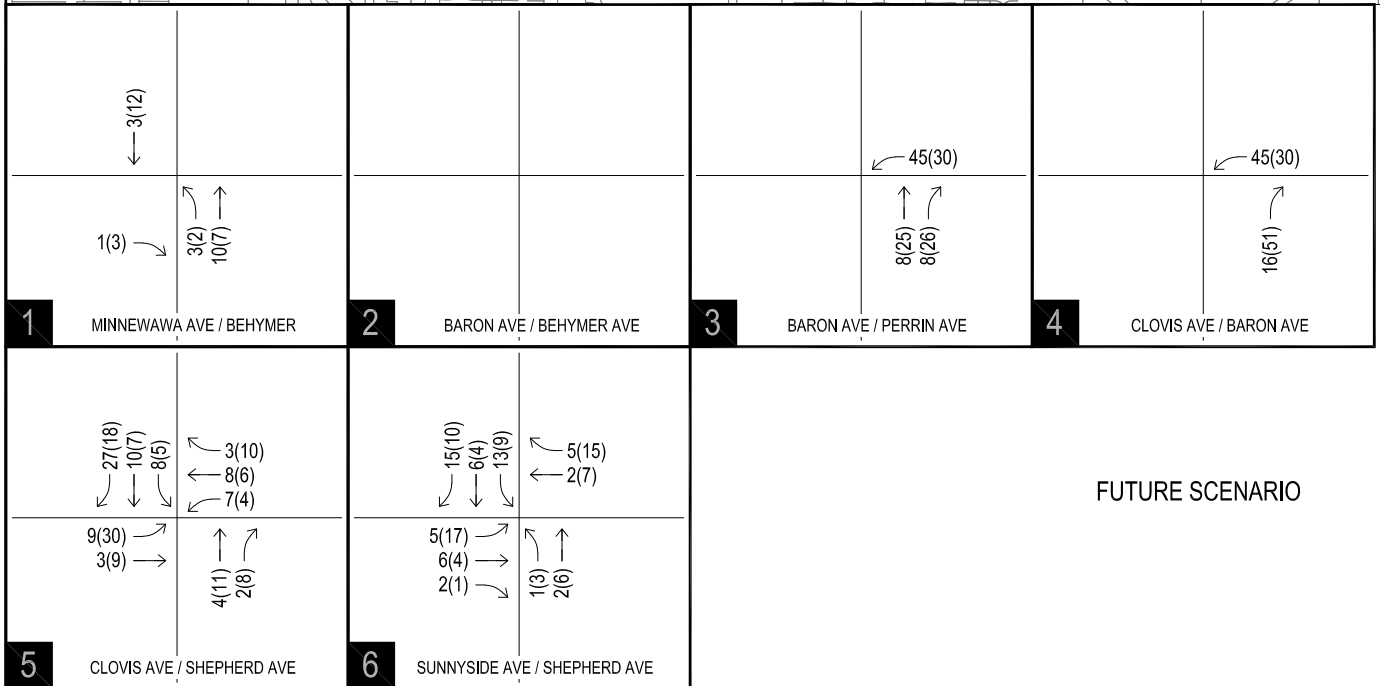
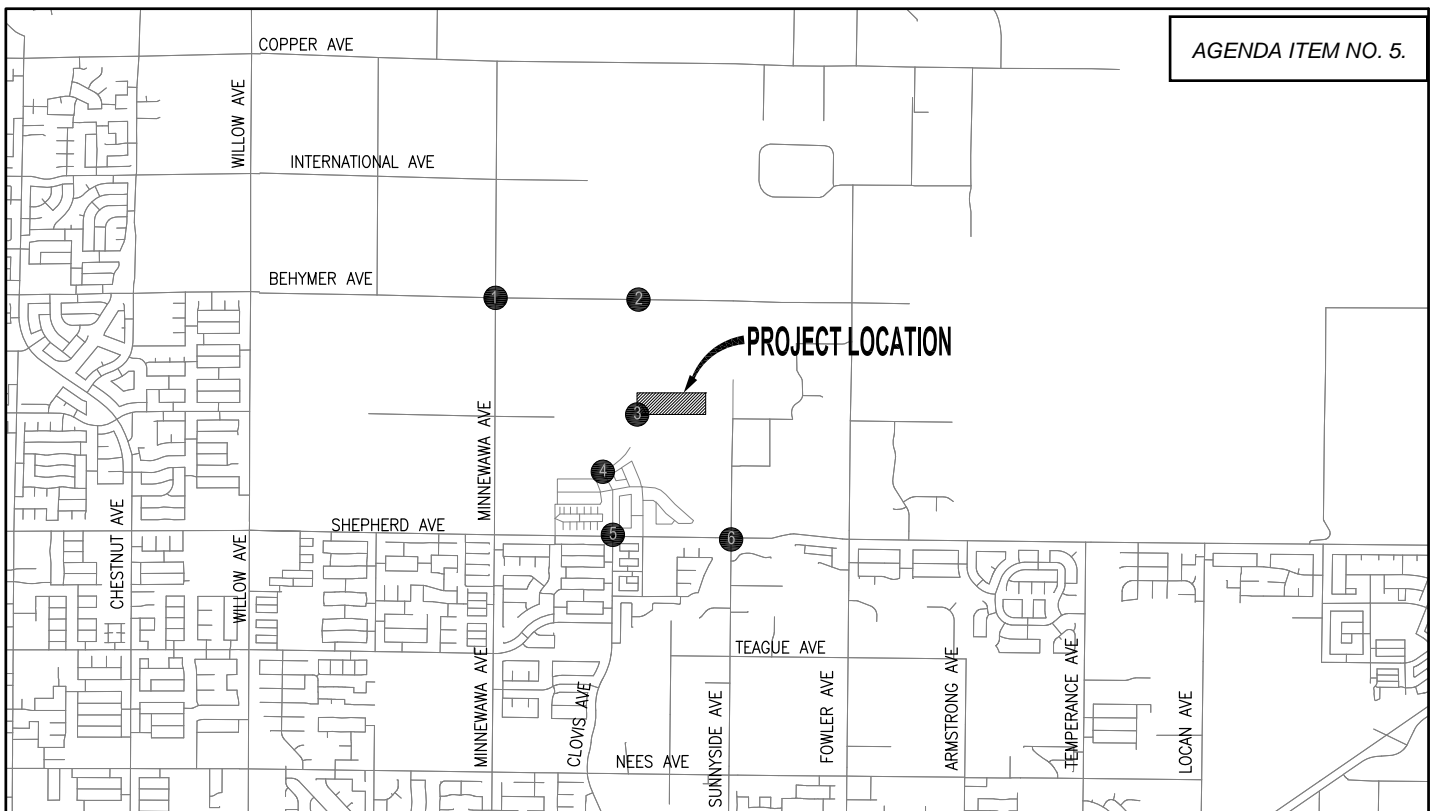
Proposed Tract 6452
Clovis, California

LEGEND

▨ PROJECT SITE

PEAK HOUR PROJECT TRAFFIC TRIP DISTRIBUTION PERCENTAGES





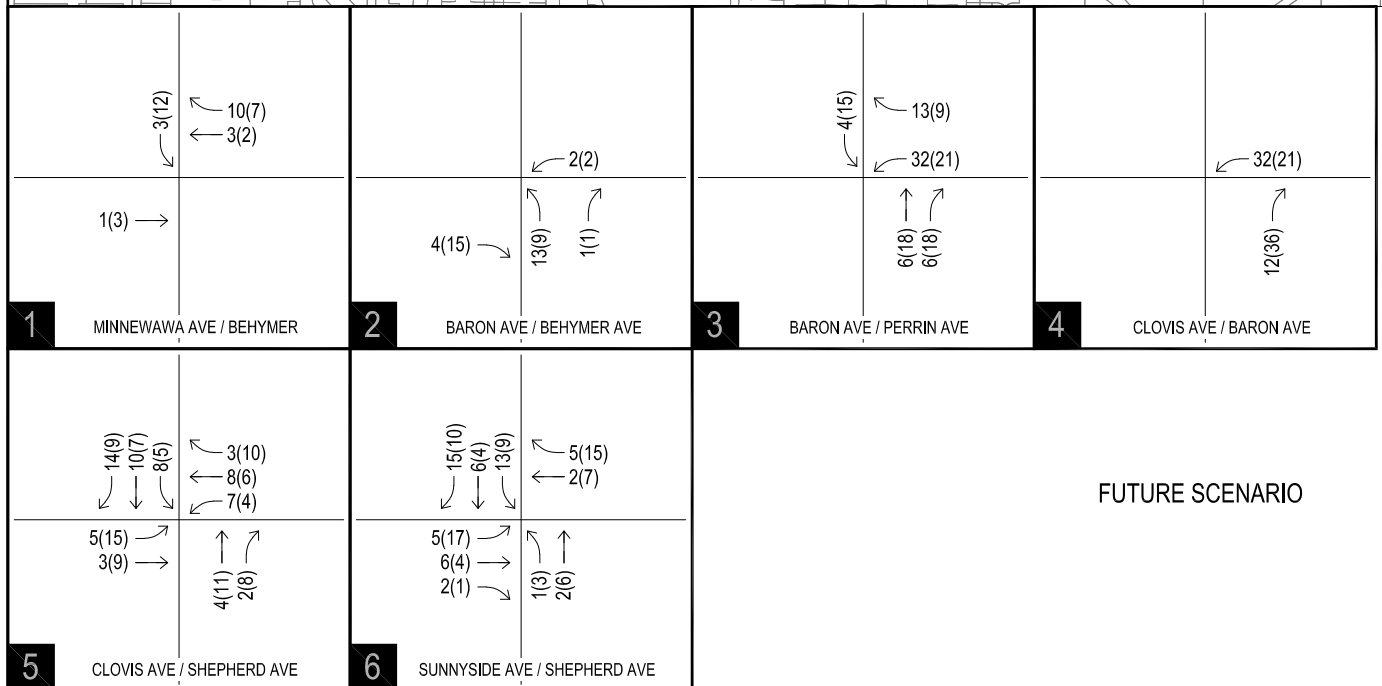
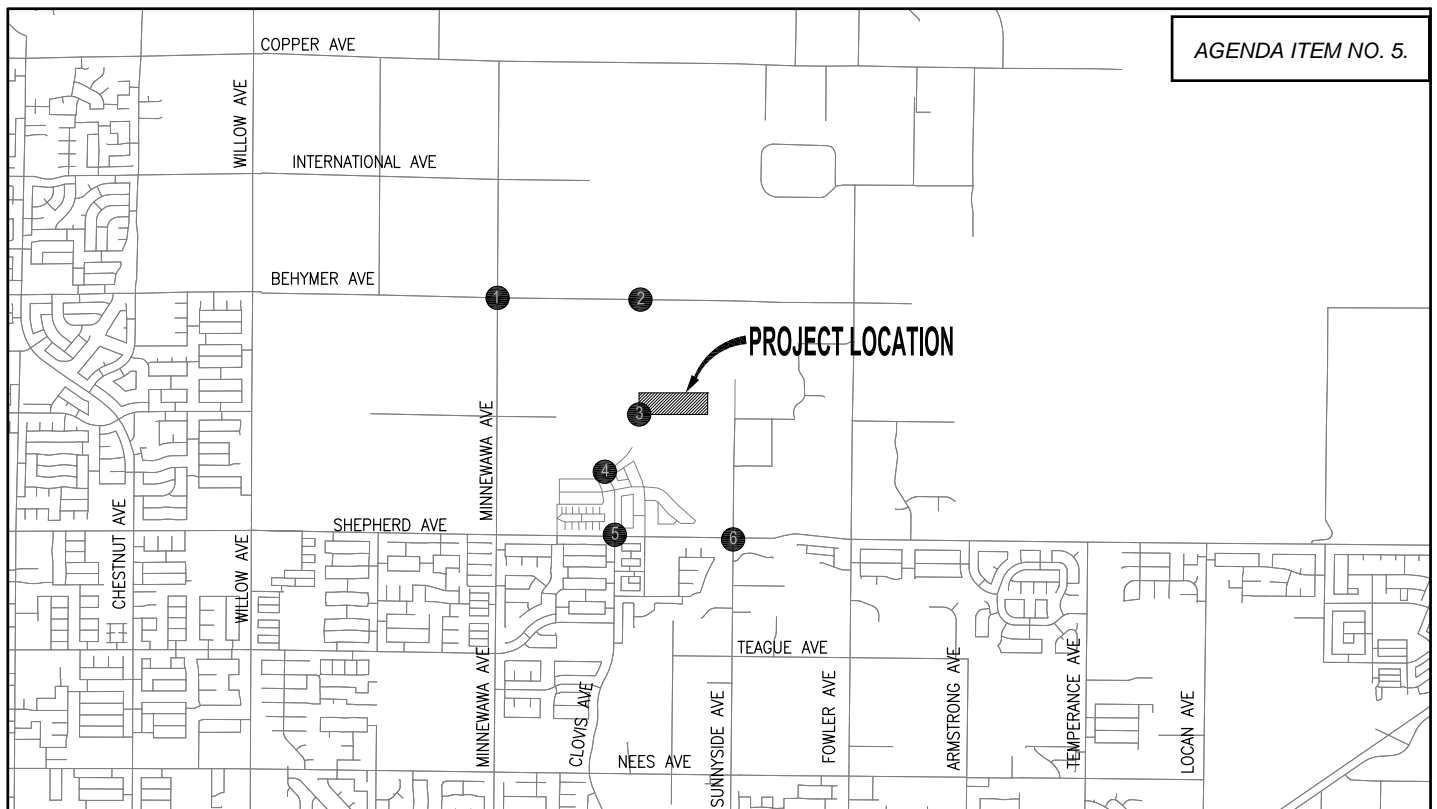
FUTURE SCENARIO

LEGEND

- STUDY AREA INTERSECTIONS
- XX (YY) AM (PM) PEAK HOUR VOLUMES
- PROJECT SITE

Proposed Tract 6452
Clovis, California

PEAK-HOUR PROJECT TRAFFIC VOLUMES

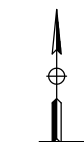


Proposed Tract 6452
Clovis, California

PEAK-HOUR PROJECT TRAFFIC VOLUMES (NEAR-TERM AND FUTURE SCENARIOS)



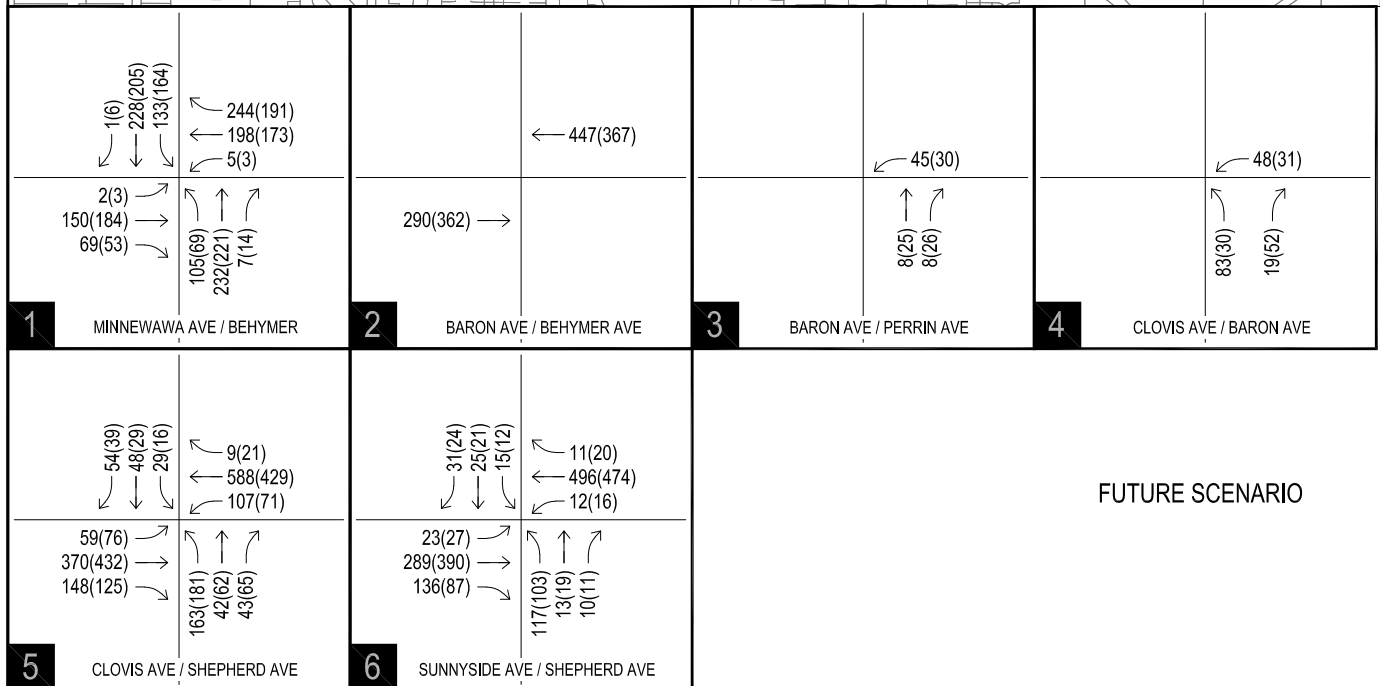
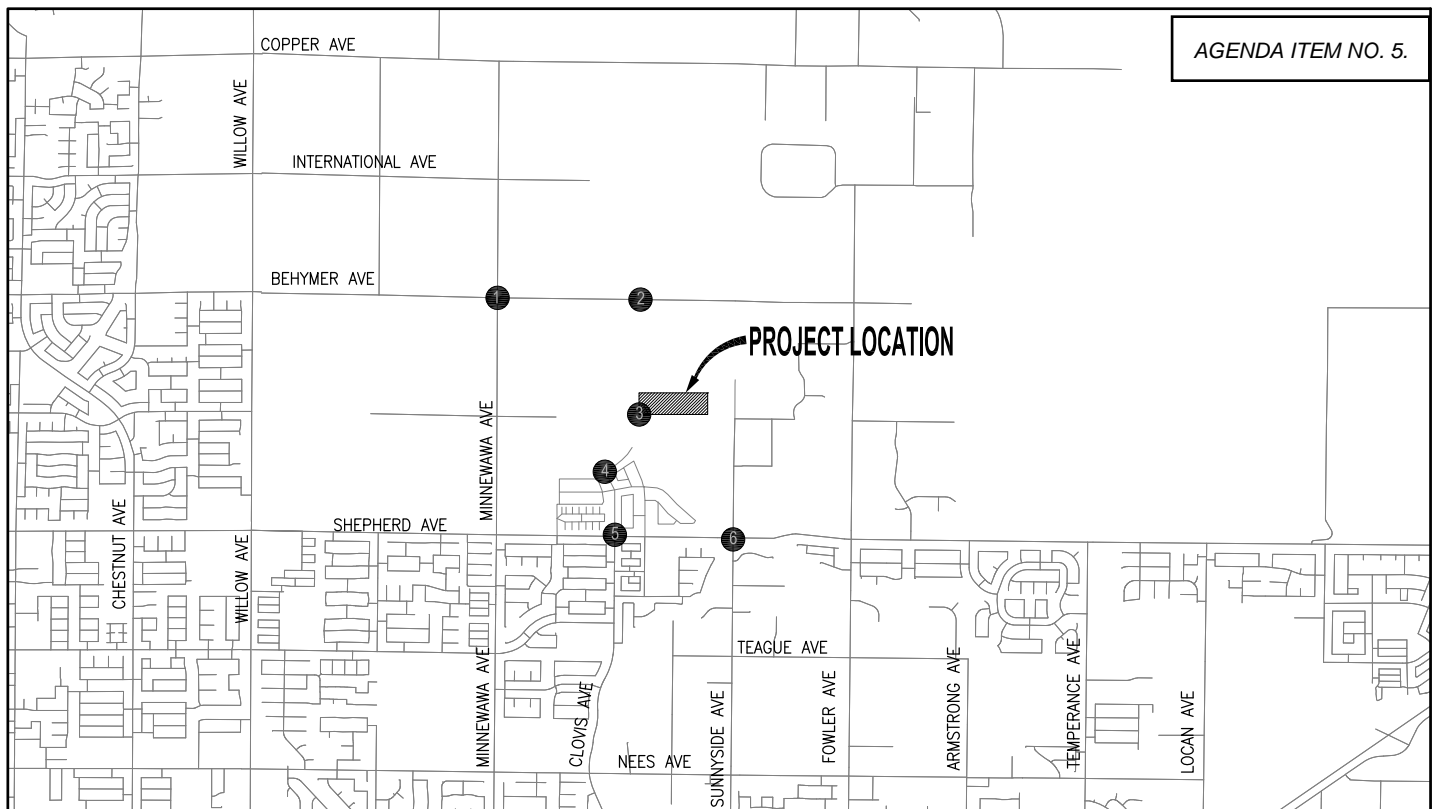
PETERS ENGINEERING GROUP



Not

460

Figure 8



LEGEND

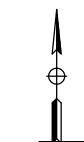
- STUDY AREA INTERSECTIONS
- XX (YY) AM (PM) PEAK HOUR VOLUMES
- ▨ PROJECT SITE

Proposed Tract 6452
Clovis, California

EXISTING-PLUS-PROJECT PEAK-HOUR TRAFFIC VOLUMES



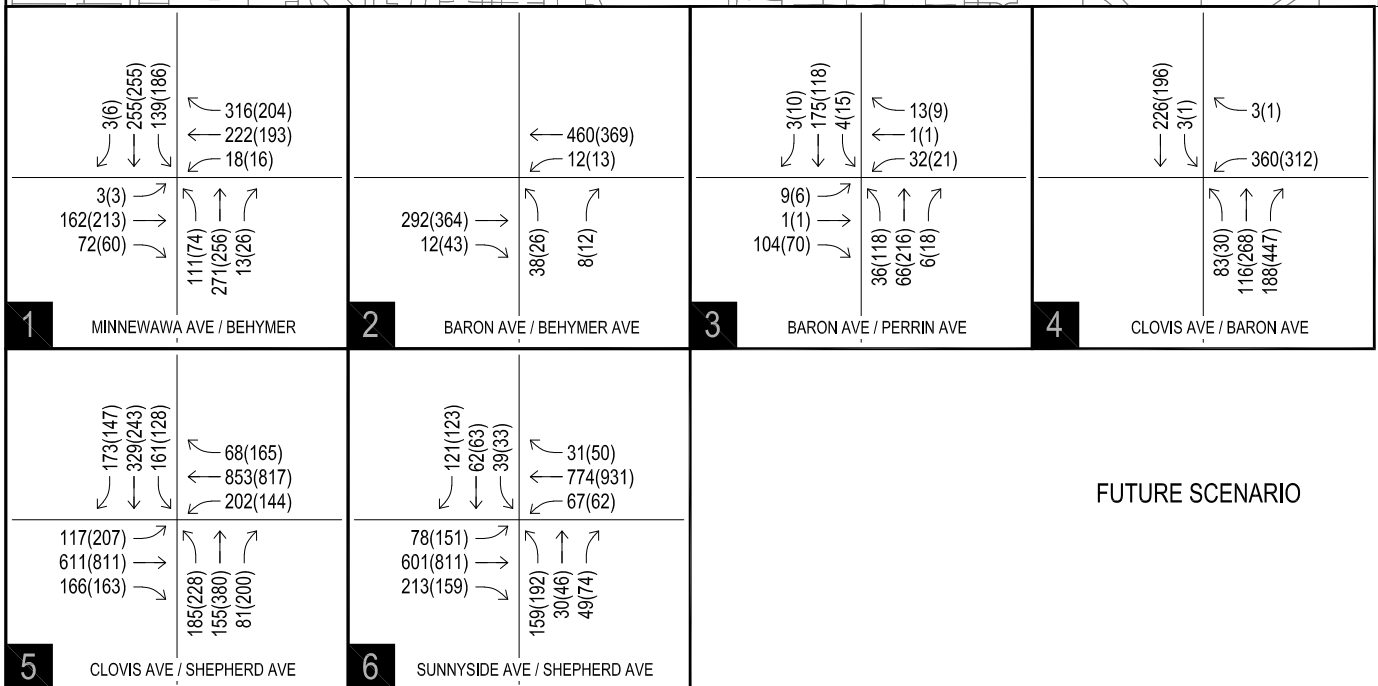
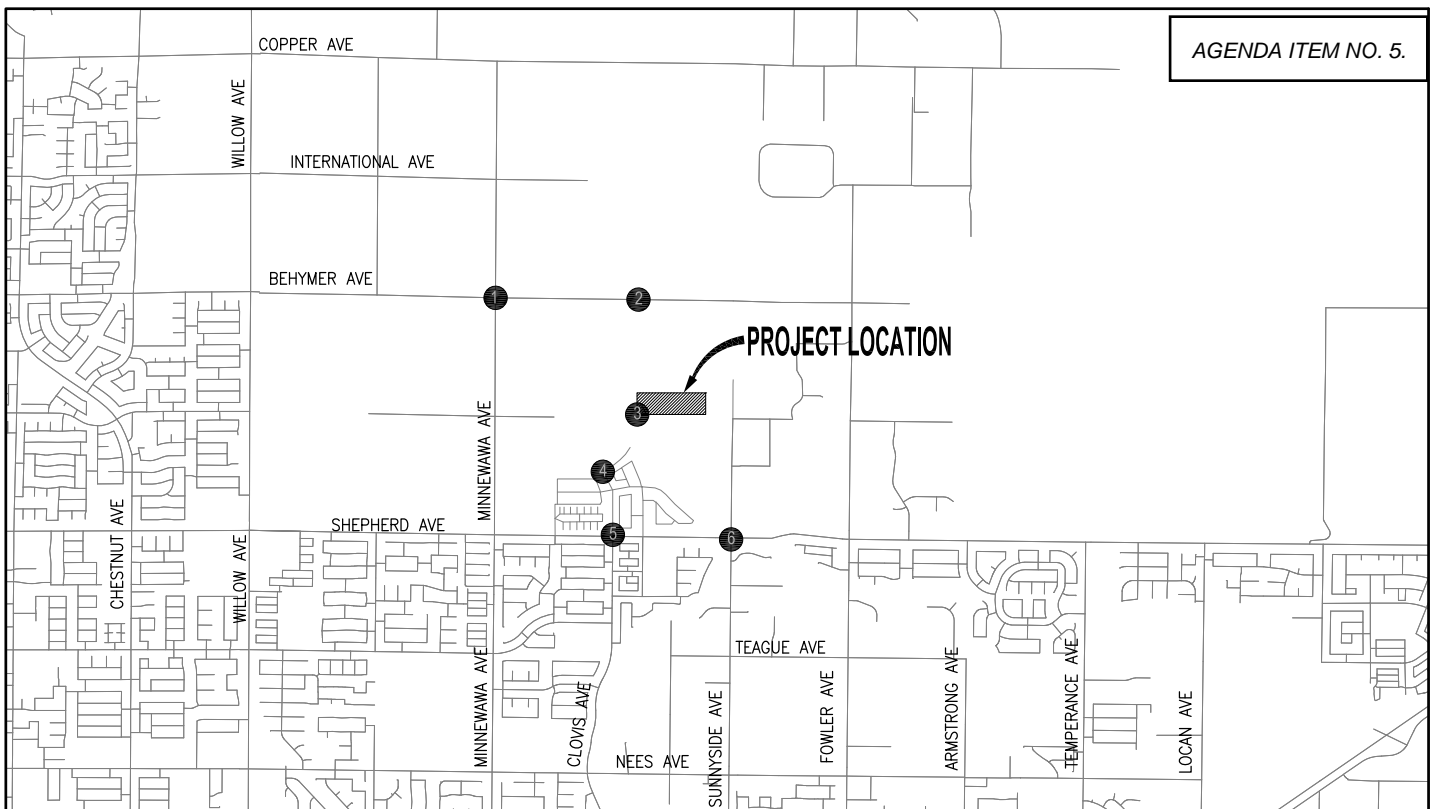
PETERS ENGINEERING GROUP



Not

461

Figure 9



LEGEND

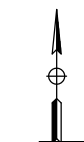
- STUDY AREA INTERSECTIONS
- XX (YY) AM (PM) PEAK HOUR VOLUMES
- ▨ PROJECT SITE

Proposed Tract 6452
Clovis, California

NEAR-TERM WITH-PROJECT PEAK-HOUR TRAFFIC VOLUMES



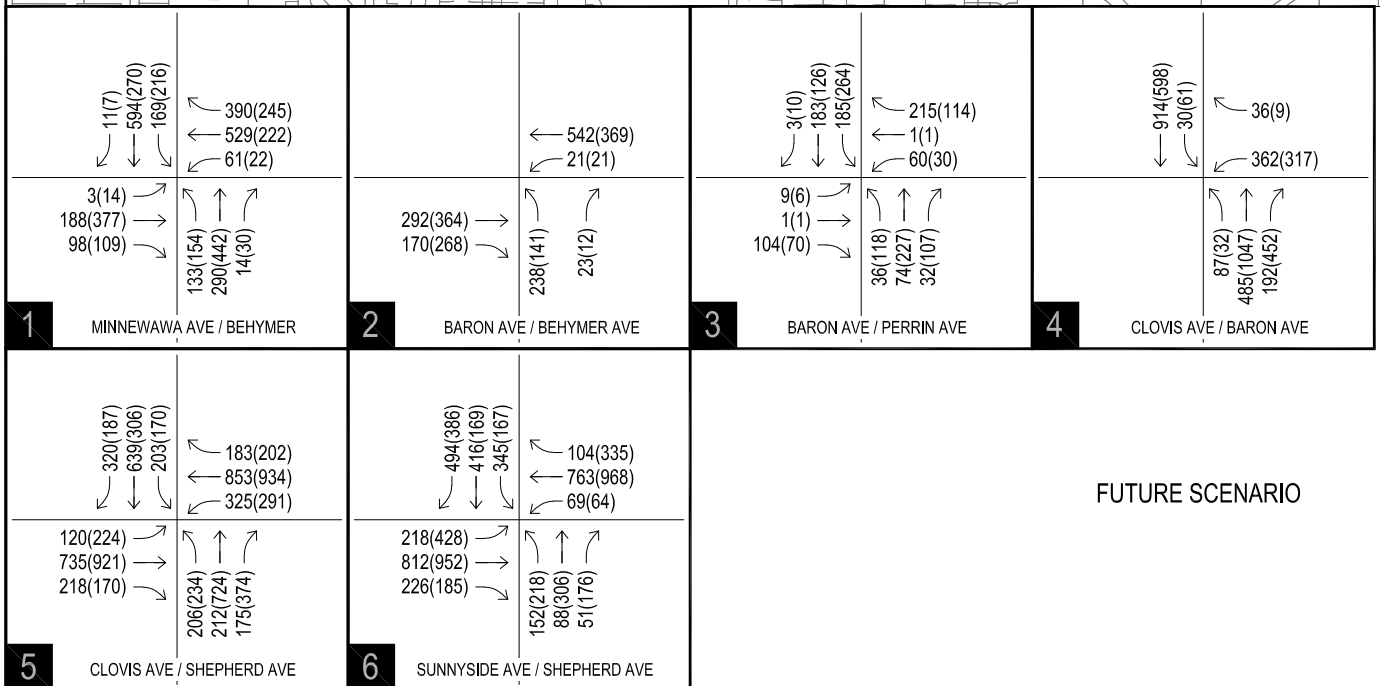
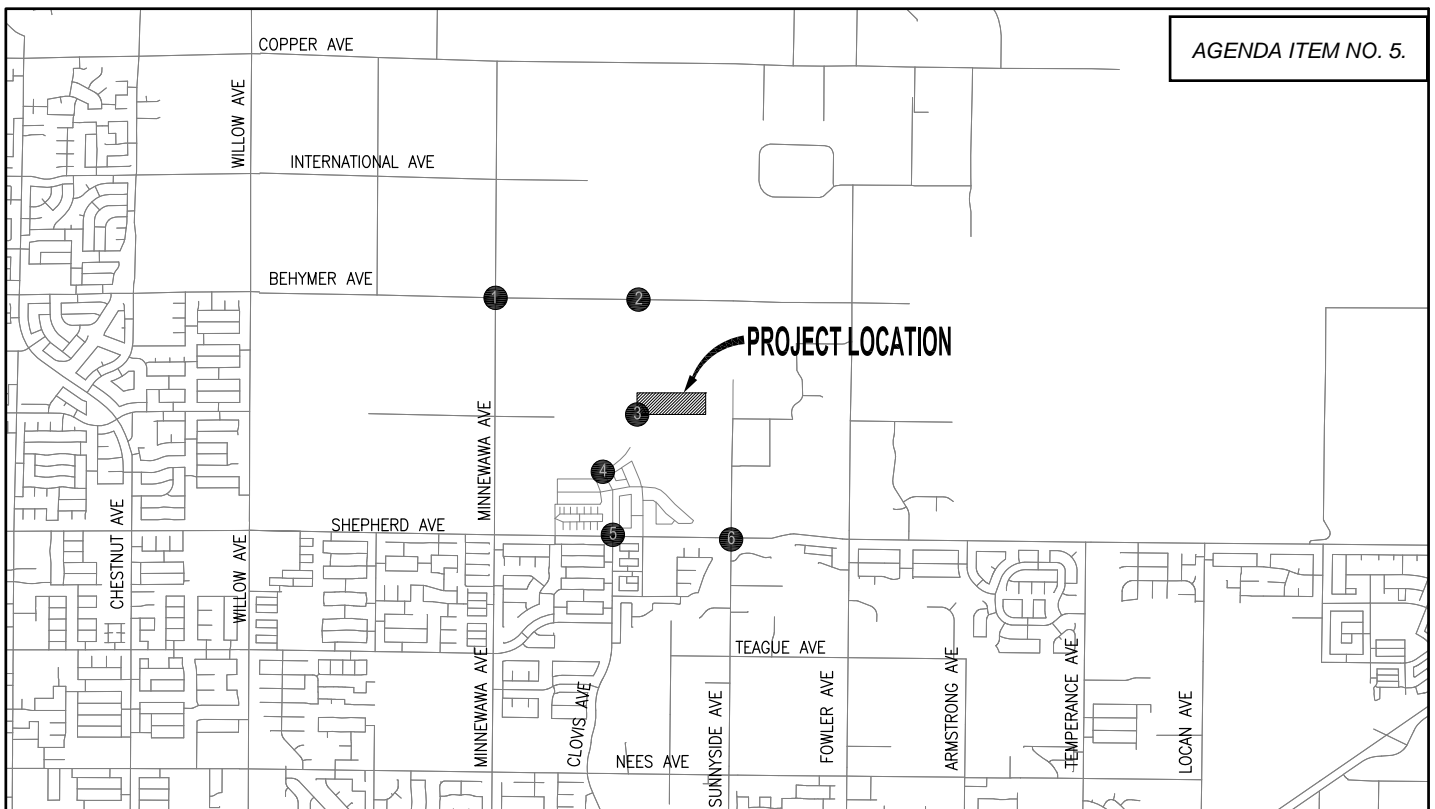
PETERS ENGINEERING GROUP



Not

462

Figure 10



LEGEND

- STUDY AREA INTERSECTIONS
- XX (YY) AM (PM) PEAK HOUR VOLUMES
- ▨ PROJECT SITE

Proposed Tract 6452
Clovis, California

CUMULATIVE (YEAR 2045) WITH-PROJECT PEAK-HOUR TRAFFIC VOLUMES



APPENDIX A

TRAFFIC MODELING



PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

VMT Results

Tract 6452, City of Clovis - VMT Analysis

| Tract 6452 (project) | Region (Fresno County) ¹ | Difference | Percentage Difference |
|----------------------|-------------------------------------|------------|-----------------------|
| 17.9 | 14.1 | 3.8 | 27.3% |

Source: Fresno Council of Governments' Activity-Based Model

VMТ = Vehicle Miles Traveled

¹The Fresno County VMT per capita was obtained from the Interim Transportation Impact Guidelines, City of Clovis - July 14, 2020

Appendix - Detailed VMT Calculations

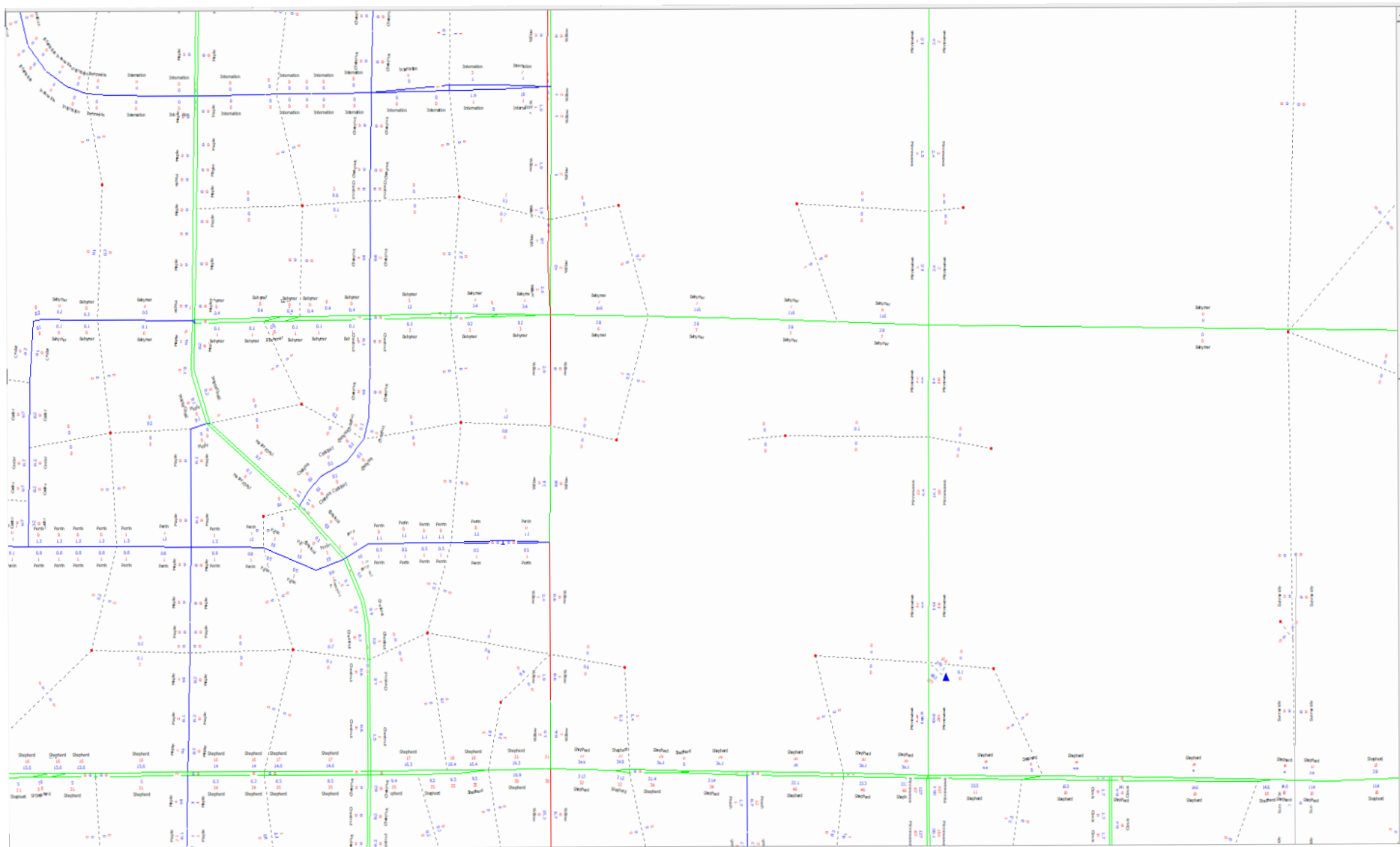
| | |
|---|-------|
| Total project households | 153 |
| Total project population (a) | 527 |
| Percent Population traveling to outside (b) * | 7.79% |
| Project Population traveling to outside (c=b*a) | 41 |
| | |
| Total Internal-Internal (II) Project VMT (d) ** | 7,921 |
| Internal project population (e=a-c) | 486 |
| II VMT per capita (f=d/e) | 16.31 |
| | |
| IX VMT per capita (g) *** | 20.2 |
| Total IX VMT (h=g*c) | 829 |
| | |
| Total project VMT (i=d+h) | 8,750 |
| VMT per capita (j=i/a) | 16.6 |
| VMT adjustment factor for new base model (k) | 1.08 |
| Adjusted project VMT per capita (l = k*j) | 17.9 |

* : Obtained from "Fresno_worker_ixifractions.dat" from model inputs. Used same percentages/values as the parent TAZ (2771)

** : Includes all tours and all sub-tours from the ABM model run for VMT estimation

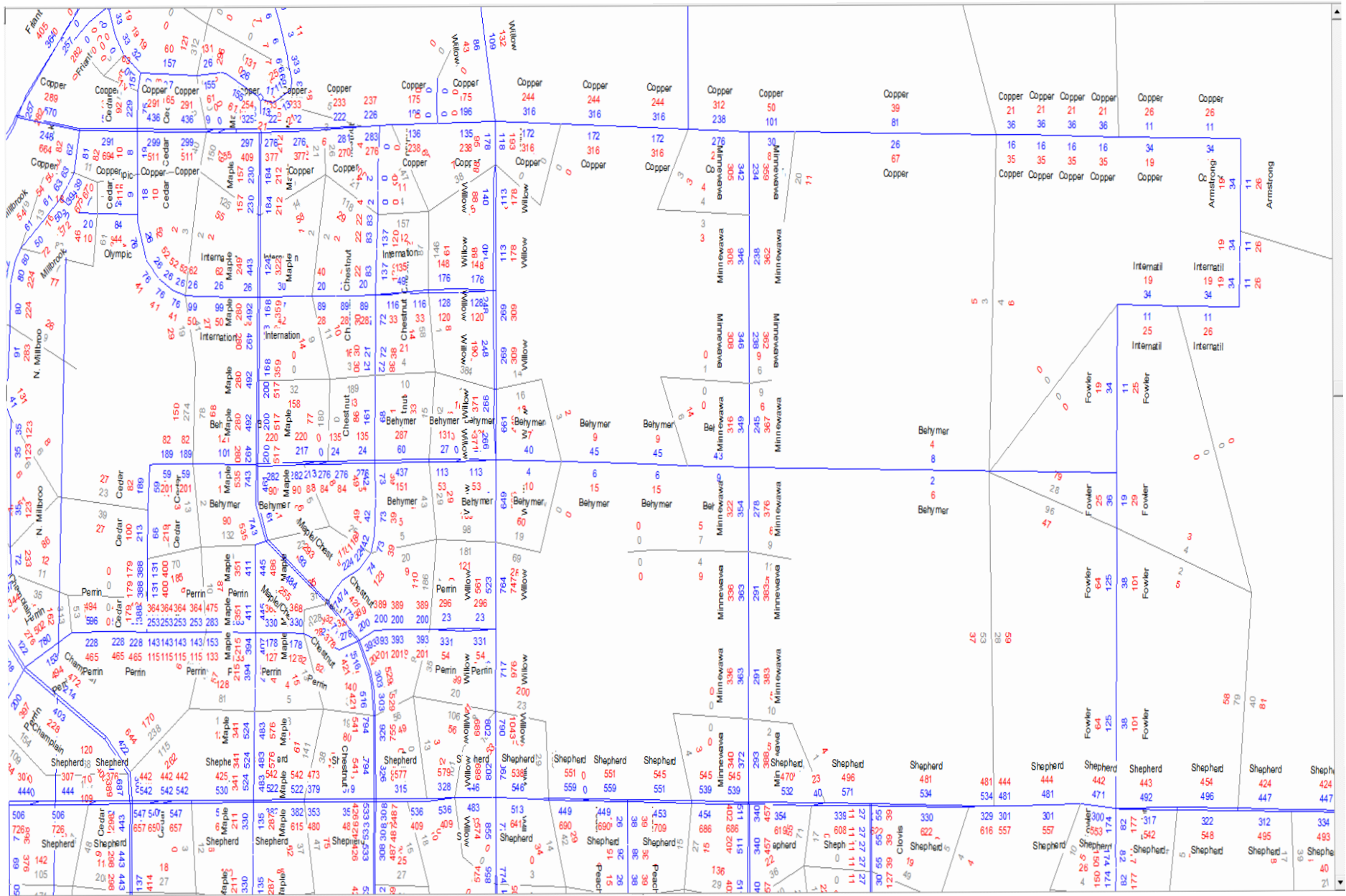
***: IX VMT per capita was estimated as average for all TAZs in the CSTDM Zone 2569

Select Zone Analysis

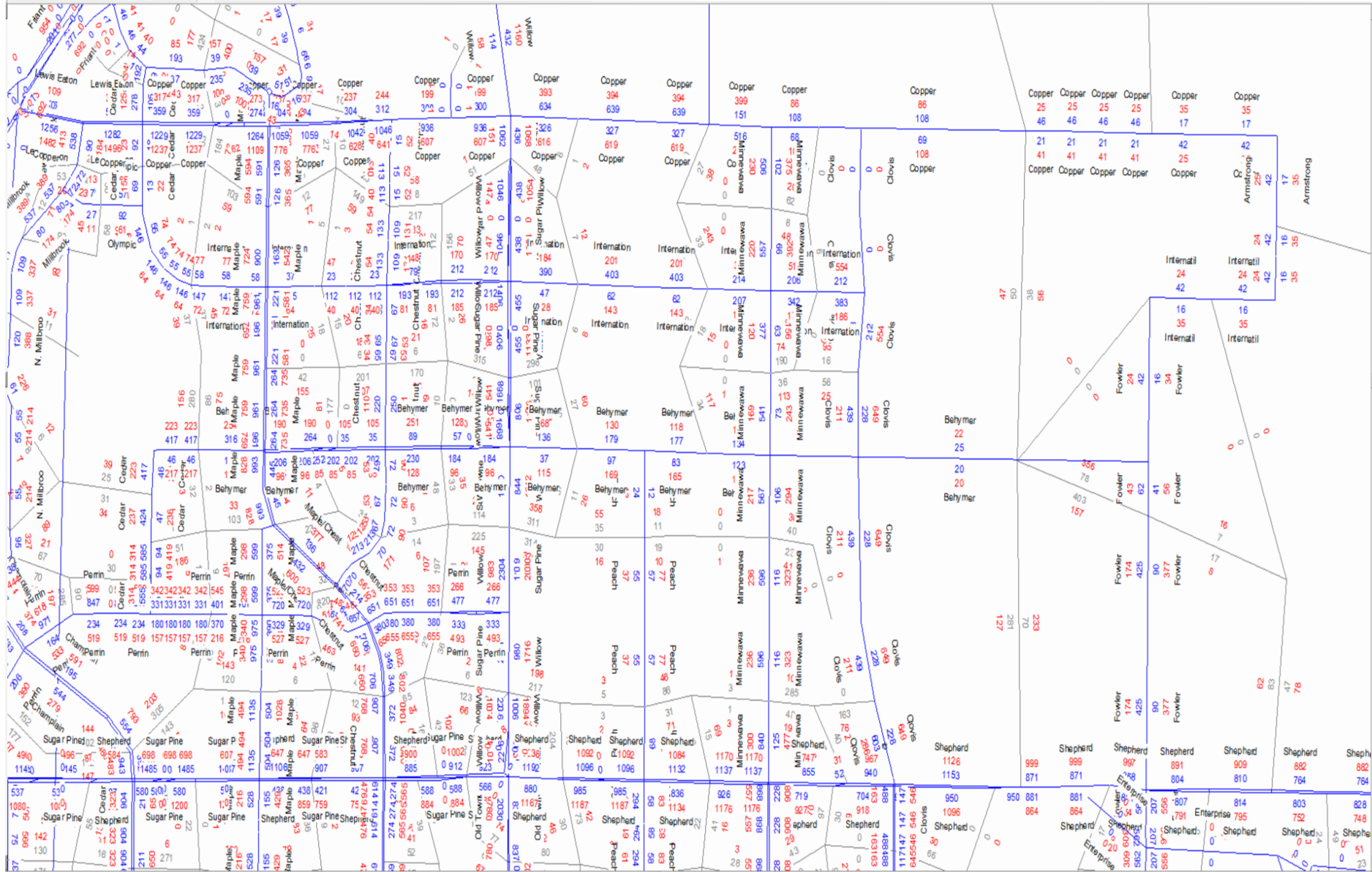


Select Zone Analysis Fresno County Travel Model AM and PM Peak-Hour Traffic Volumes

Baseline and Future Model Output



2019 Fresno County Travel Model AM and PM Peak-Hour Traffic Volumes



2035 Fresno County Travel Demand
AM and PM Peak-Hour Traffic Volumes

APPENDIX B

TRAFFIC COUNT DATA SHEETS



PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230
800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION Clovis Ave @ Shepherd Ave
COUNTY Fresno
COLLECTION DATE Thursday, November 2, 2023

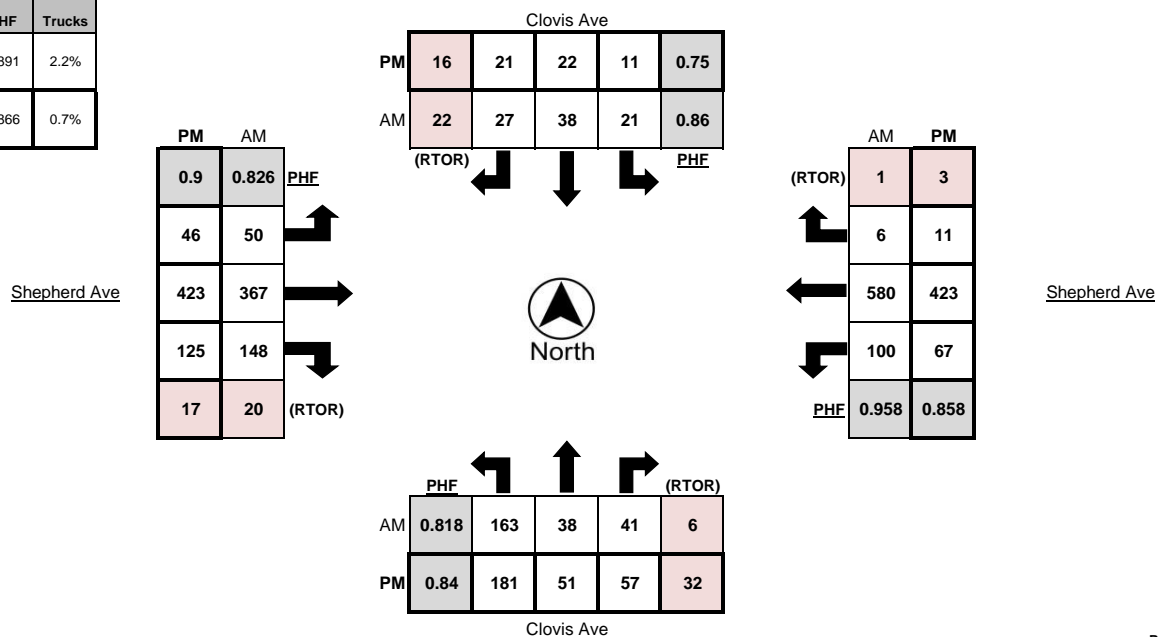
LATITUDE 36.8666
LONGITUDE -119.7021
WEATHER Clear

| | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | |
|-------------------|------------|-----------|-----------|----------|----------|------------|-----------|-----------|-----------|----------|-----------|------------|------------|-----------|-----------|------------|------------|-----------|----------|-----------|
| Time | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks |
| 7:00 AM - 7:15 AM | 23 | 4 | 9 | 2 | 2 | 6 | 8 | 0 | 0 | 0 | 2 | 48 | 27 | 5 | 1 | 8 | 56 | 2 | 1 | 3 |
| 7:15 AM - 7:30 AM | 14 | 6 | 4 | 0 | 0 | 4 | 14 | 10 | 6 | 0 | 1 | 88 | 28 | 5 | 3 | 13 | 81 | 4 | 0 | 4 |
| 7:30 AM - 7:45 AM | 39 | 13 | 14 | 1 | 1 | 5 | 9 | 9 | 5 | 1 | 5 | 75 | 32 | 1 | 2 | 22 | 145 | 0 | 0 | 2 |
| 7:45 AM - 8:00 AM | 51 | 11 | 12 | 3 | 3 | 6 | 9 | 10 | 8 | 0 | 14 | 108 | 49 | 9 | 2 | 27 | 143 | 3 | 1 | 2 |
| 8:00 AM - 8:15 AM | 37 | 6 | 7 | 1 | 1 | 7 | 12 | 2 | 4 | 0 | 20 | 107 | 32 | 7 | 4 | 23 | 155 | 1 | 0 | 3 |
| 8:15 AM - 8:30 AM | 36 | 8 | 8 | 1 | 1 | 3 | 8 | 6 | 5 | 0 | 11 | 77 | 35 | 3 | 8 | 28 | 137 | 2 | 0 | 4 |
| 8:30 AM - 8:45 AM | 27 | 8 | 20 | 1 | 1 | 3 | 3 | 4 | 3 | 0 | 10 | 102 | 39 | 5 | 8 | 9 | 87 | 2 | 1 | 2 |
| 8:45 AM - 9:00 AM | 30 | 5 | 4 | 0 | 0 | 5 | 8 | 4 | 3 | 1 | 13 | 67 | 26 | 7 | 0 | 16 | 78 | 1 | 0 | 1 |
| TOTAL | 257 | 61 | 78 | 9 | 9 | 39 | 71 | 45 | 34 | 2 | 76 | 672 | 268 | 42 | 28 | 146 | 882 | 15 | 3 | 21 |

| | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | |
|-------------------|------------|-----------|------------|-----------|----------|------------|-----------|-----------|-----------|----------|-----------|------------|------------|-----------|-----------|------------|------------|-----------|----------|----------|
| Time | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks |
| 4:00 PM - 4:15 PM | 51 | 4 | 13 | 6 | 1 | 4 | 11 | 6 | 4 | 0 | 11 | 94 | 26 | 14 | 4 | 9 | 79 | 0 | 0 | 3 |
| 4:15 PM - 4:30 PM | 35 | 11 | 9 | 6 | 1 | 1 | 4 | 1 | 1 | 0 | 12 | 119 | 20 | 4 | 4 | 22 | 104 | 1 | 1 | 1 |
| 4:30 PM - 4:45 PM | 41 | 18 | 15 | 6 | 1 | 1 | 7 | 6 | 1 | 0 | 11 | 101 | 30 | 6 | 2 | 13 | 92 | 2 | 0 | 1 |
| 4:45 PM - 5:00 PM | 47 | 9 | 15 | 6 | 0 | 3 | 6 | 4 | 3 | 1 | 14 | 108 | 27 | 5 | 0 | 14 | 99 | 0 | 0 | 0 |
| 5:00 PM - 5:15 PM | 30 | 12 | 15 | 10 | 0 | 2 | 3 | 4 | 2 | 0 | 11 | 91 | 35 | 3 | 3 | 13 | 102 | 1 | 1 | 1 |
| 5:15 PM - 5:30 PM | 58 | 13 | 15 | 11 | 0 | 1 | 8 | 9 | 7 | 0 | 11 | 123 | 31 | 2 | 1 | 22 | 116 | 8 | 2 | 2 |
| 5:30 PM - 5:45 PM | 46 | 17 | 12 | 5 | 1 | 5 | 5 | 4 | 4 | 0 | 10 | 101 | 32 | 7 | 0 | 18 | 106 | 2 | 0 | 1 |
| 5:45 PM - 6:00 PM | 48 | 14 | 6 | 5 | 0 | 5 | 9 | 5 | 5 | 0 | 8 | 101 | 38 | 2 | 0 | 17 | 87 | 2 | 0 | 0 |
| TOTAL | 356 | 98 | 100 | 55 | 4 | 22 | 53 | 39 | 27 | 1 | 88 | 838 | 239 | 43 | 14 | 128 | 785 | 16 | 4 | 9 |

| | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | |
|-------------------|------------|------|-------|--------|--------|------------|------|-------|--------|--------|-----------|------|-------|--------|--------|-----------|------|-------|--------|--------|
| PEAK HOUR | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks | Left | Thru | Right | (RTOR) | Trucks |
| 7:30 AM - 8:30 AM | 163 | 38 | 41 | 6 | 6 | 21 | 38 | 27 | 22 | 1 | 50 | 367 | 148 | 20 | 16 | 100 | 580 | 6 | 1 | 11 |
| 4:45 PM - 5:45 PM | 181 | 51 | 57 | 32 | 1 | 11 | 22 | 21 | 16 | 1 | 46 | 423 | 125 | 17 | 4 | 67 | 423 | 11 | 3 | 4 |

| | PHF | Trucks |
|----|-------|--------|
| AM | 0.891 | 2.2% |
| PM | 0.866 | 0.7% |





Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230
800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION Clovis Ave @ Shepherd Ave
COUNTY Fresno
COLLECTION DATE Thursday, November 2, 2023

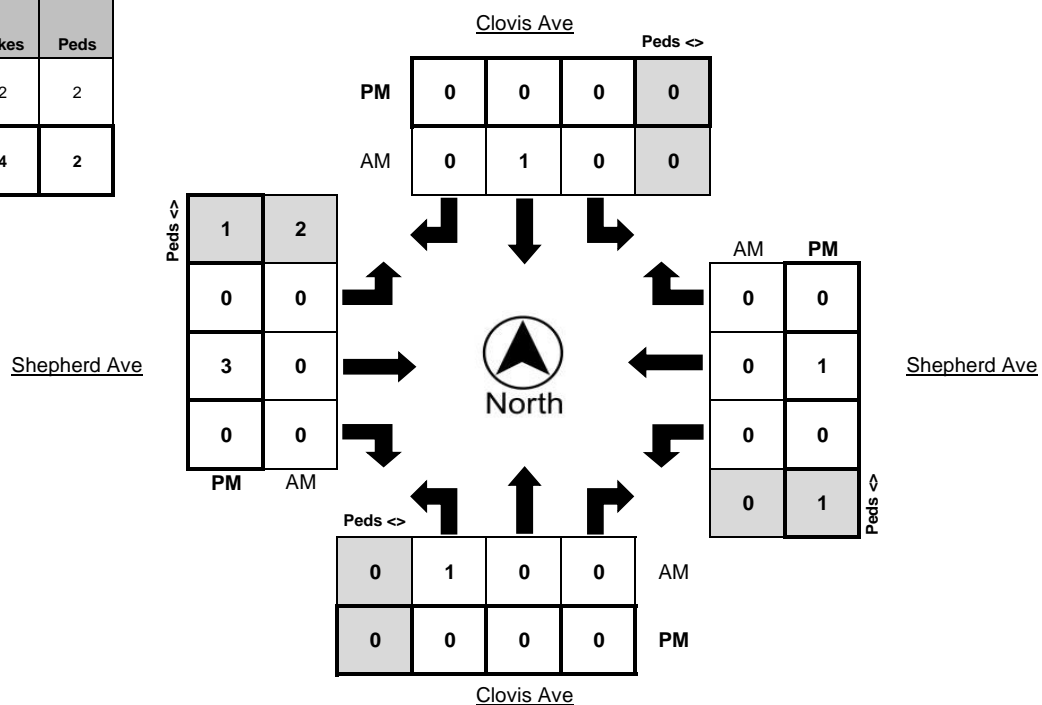
LATITUDE 36.8666
LONGITUDE -119.7021
WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds |
|-------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM - 8:00 AM | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| TOTAL | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 4 |

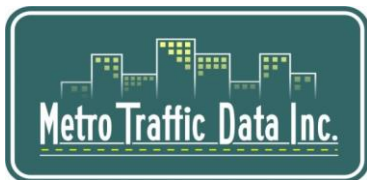
| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds |
|-------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | |
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 |
| TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 1 | 1 | 0 | 2 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds |
|-------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | |
| 7:30 AM - 8:30 AM | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 4:45 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 1 | 0 | 1 |

| | Bikes | Peds |
|---------------|-------|------|
| AM Peak Total | 2 | 2 |
| PM Peak Total | 4 | 2 |



Turning Movement Report



Metro Traffic Data Inc.
 310 N. Irwin Street - Suite 20
 Hanford, CA 93230
 800-975-6938 Phone/Fax
 www.metrotrafficdata.com

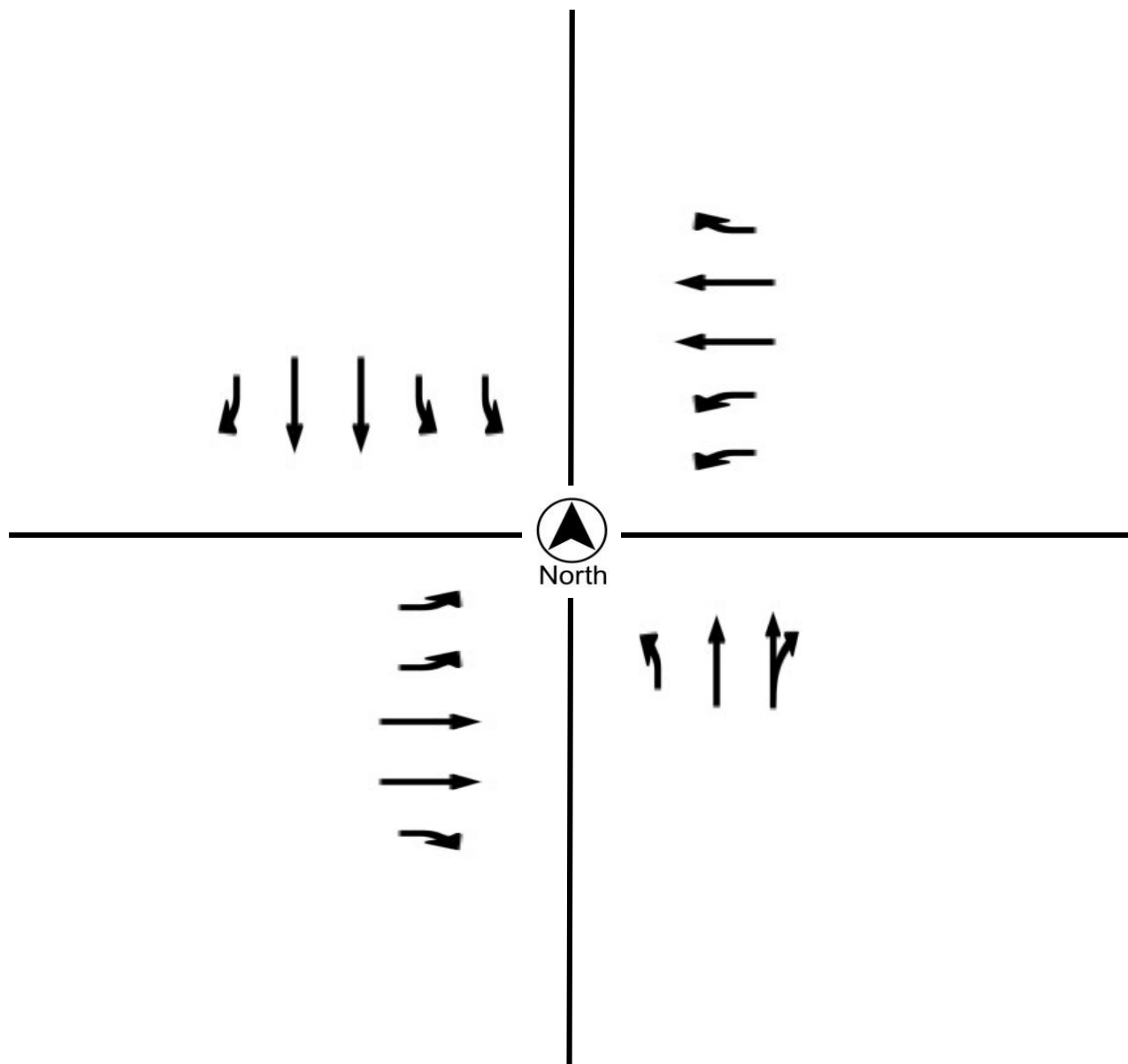
Prepared For:

Peters Engineering Group
 862 Pollasky Ave
 Clovis, CA 93612

LOCATION Clovis Ave @ Shepherd Ave
COUNTY Fresno
COLLECTION DATE Thursday, November 2, 2023
CYCLE TIME 116 Seconds

N/S STREET Clovis Ave
E/W STREET Shepherd Ave
WEATHER Clear
CONTROL TYPE Signal

COMMENTS All approaches have protected left turns





Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230
800-975-6938 Phone/Fax
www.metrotraffdata.com

Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION Minnewawa Ave @ Behymer Ave
COUNTY Fresno
COLLECTION DATE Thursday, September 14, 2023

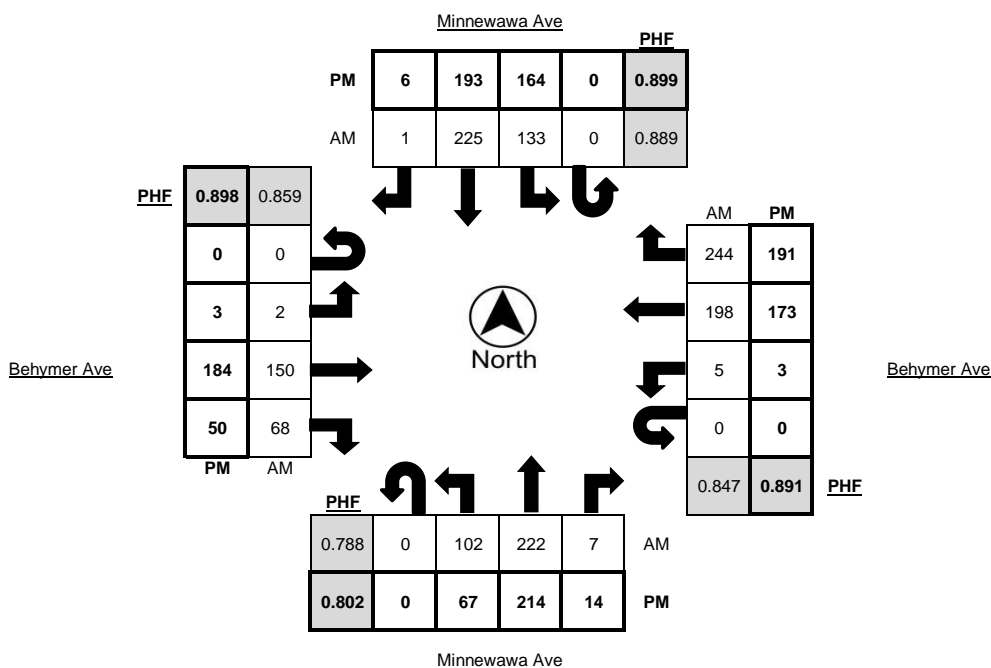
LATITUDE 36.8812
LONGITUDE -119.7112
WEATHER Clear

| | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | |
|-------------------|------------|------------|------------|-----------|-----------|------------|------------|------------|----------|-----------|-----------|----------|------------|------------|-----------|-----------|-----------|------------|------------|-----------|
| Time | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks |
| 7:00 AM - 7:15 AM | 0 | 2 | 33 | 1 | 2 | 0 | 26 | 36 | 0 | 2 | 0 | 0 | 26 | 9 | 0 | 0 | 3 | 32 | 45 | 1 |
| 7:15 AM - 7:30 AM | 0 | 9 | 40 | 2 | 1 | 0 | 36 | 39 | 0 | 1 | 0 | 0 | 27 | 9 | 1 | 0 | 3 | 46 | 44 | 3 |
| 7:30 AM - 7:45 AM | 0 | 33 | 42 | 1 | 2 | 0 | 35 | 48 | 0 | 2 | 0 | 0 | 37 | 10 | 1 | 0 | 3 | 72 | 48 | 1 |
| 7:45 AM - 8:00 AM | 0 | 28 | 47 | 1 | 2 | 0 | 25 | 51 | 0 | 0 | 0 | 2 | 36 | 26 | 1 | 0 | 2 | 54 | 76 | 5 |
| 8:00 AM - 8:15 AM | 0 | 14 | 59 | 1 | 2 | 0 | 33 | 68 | 0 | 3 | 0 | 0 | 36 | 16 | 2 | 0 | 0 | 34 | 68 | 3 |
| 8:15 AM - 8:30 AM | 0 | 27 | 74 | 4 | 3 | 0 | 40 | 58 | 1 | 3 | 0 | 0 | 41 | 16 | 1 | 0 | 0 | 38 | 52 | 1 |
| 8:30 AM - 8:45 AM | 0 | 8 | 44 | 3 | 3 | 0 | 36 | 52 | 1 | 3 | 0 | 2 | 24 | 16 | 4 | 0 | 1 | 32 | 41 | 4 |
| 8:45 AM - 9:00 AM | 0 | 9 | 42 | 2 | 2 | 0 | 22 | 36 | 0 | 3 | 0 | 1 | 15 | 11 | 0 | 0 | 4 | 43 | 36 | 3 |
| TOTAL | 0 | 130 | 381 | 15 | 17 | 0 | 253 | 388 | 2 | 17 | 0 | 5 | 242 | 113 | 10 | 0 | 16 | 351 | 410 | 21 |

| | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | |
|-------------------|------------|------------|------------|-----------|----------|------------|------------|------------|----------|-----------|-----------|----------|------------|-----------|----------|-----------|----------|------------|------------|----------|
| Time | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks |
| 4:00 PM - 4:15 PM | 0 | 16 | 55 | 2 | 0 | 0 | 26 | 45 | 0 | 0 | 0 | 0 | 46 | 14 | 0 | 0 | 0 | 35 | 30 | 2 |
| 4:15 PM - 4:30 PM | 0 | 11 | 49 | 2 | 1 | 0 | 34 | 52 | 1 | 2 | 0 | 4 | 25 | 6 | 1 | 0 | 3 | 37 | 32 | 1 |
| 4:30 PM - 4:45 PM | 0 | 14 | 57 | 1 | 1 | 0 | 37 | 36 | 0 | 2 | 0 | 0 | 40 | 10 | 0 | 0 | 0 | 22 | 39 | 0 |
| 4:45 PM - 5:00 PM | 0 | 10 | 56 | 3 | 0 | 0 | 39 | 59 | 0 | 1 | 0 | 2 | 26 | 1 | 0 | 0 | 1 | 38 | 39 | 1 |
| 5:00 PM - 5:15 PM | 0 | 11 | 51 | 1 | 0 | 0 | 38 | 40 | 3 | 2 | 0 | 0 | 39 | 11 | 0 | 0 | 1 | 41 | 56 | 0 |
| 5:15 PM - 5:30 PM | 0 | 27 | 59 | 6 | 0 | 0 | 40 | 61 | 0 | 2 | 0 | 0 | 56 | 10 | 0 | 0 | 1 | 47 | 55 | 0 |
| 5:30 PM - 5:45 PM | 0 | 20 | 61 | 4 | 1 | 0 | 45 | 43 | 1 | 0 | 0 | 2 | 55 | 7 | 1 | 0 | 1 | 42 | 46 | 0 |
| 5:45 PM - 6:00 PM | 0 | 9 | 43 | 3 | 0 | 0 | 41 | 49 | 2 | 1 | 0 | 1 | 34 | 22 | 1 | 0 | 0 | 43 | 34 | 0 |
| TOTAL | 0 | 118 | 431 | 22 | 3 | 0 | 300 | 385 | 7 | 10 | 0 | 9 | 321 | 81 | 3 | 0 | 7 | 305 | 331 | 4 |

| | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | |
|-------------------|------------|------|------|-------|--------|------------|------|------|-------|--------|-----------|------|------|-------|--------|-----------|------|------|-------|--------|
| PEAK HOUR | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks |
| 7:30 AM - 8:30 AM | 0 | 102 | 222 | 7 | 9 | 0 | 133 | 225 | 1 | 8 | 0 | 2 | 150 | 68 | 5 | 0 | 5 | 198 | 244 | 10 |
| 5:00 PM - 6:00 PM | 0 | 67 | 214 | 14 | 1 | 0 | 164 | 193 | 6 | 5 | 0 | 3 | 184 | 50 | 2 | 0 | 3 | 173 | 191 | 0 |

| | PHF | Trucks |
|----|-------|--------|
| AM | 0.967 | 2.4% |
| PM | 0.872 | 0.6% |





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Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION Minnewawa Ave @ Behymer Ave
COUNTY Fresno
COLLECTION DATE Thursday, September 14, 2023

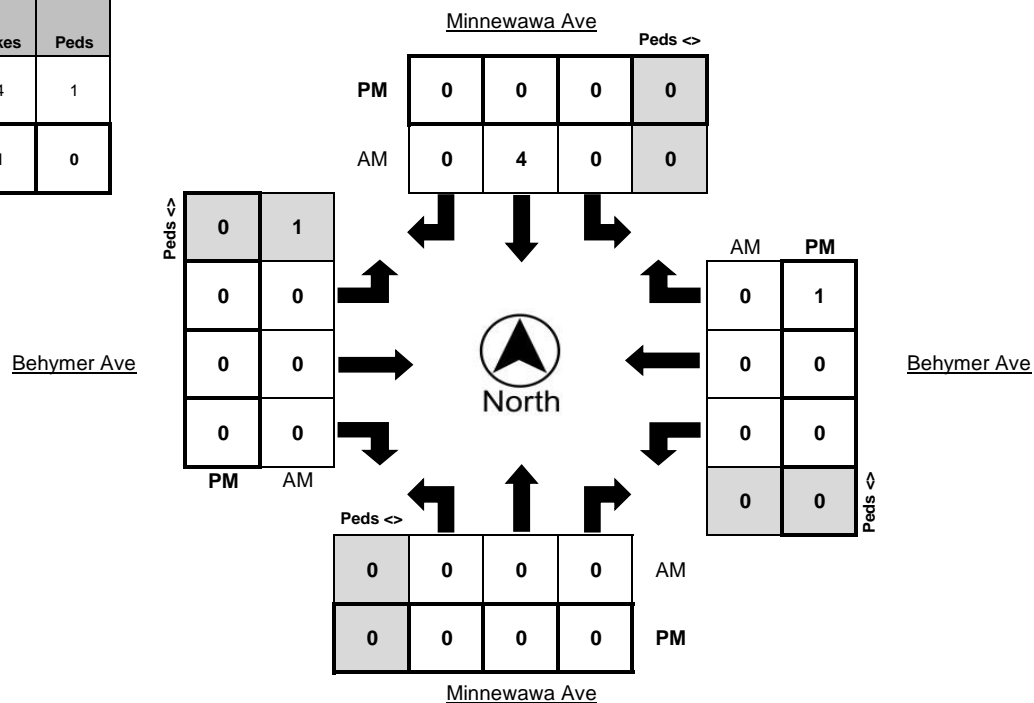
LATITUDE 36.8812
LONGITUDE -119.7112
WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds |
|-------------------|------------------|----------|----------|---------------|------------------|----------|----------|---------------|-----------------|----------|----------|---------------|-----------------|----------|----------|---------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM - 7:30 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 0 | 1 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

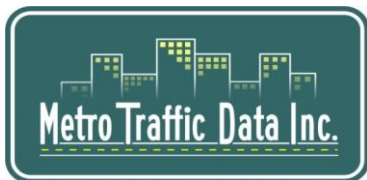
| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds |
|-------------------|------------------|----------|----------|---------------|------------------|----------|----------|---------------|-----------------|----------|----------|---------------|-----------------|----------|----------|---------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | |
| 4:00 PM - 4:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds |
|-------------------|------------------|------|-------|---------------|------------------|------|-------|---------------|-----------------|------|-------|---------------|-----------------|------|-------|---------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | |
| 7:30 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5:00 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

| | Bikes | Peds |
|---------------|-------|------|
| AM Peak Total | 4 | 1 |
| PM Peak Total | 1 | 0 |



Turning Movement Report



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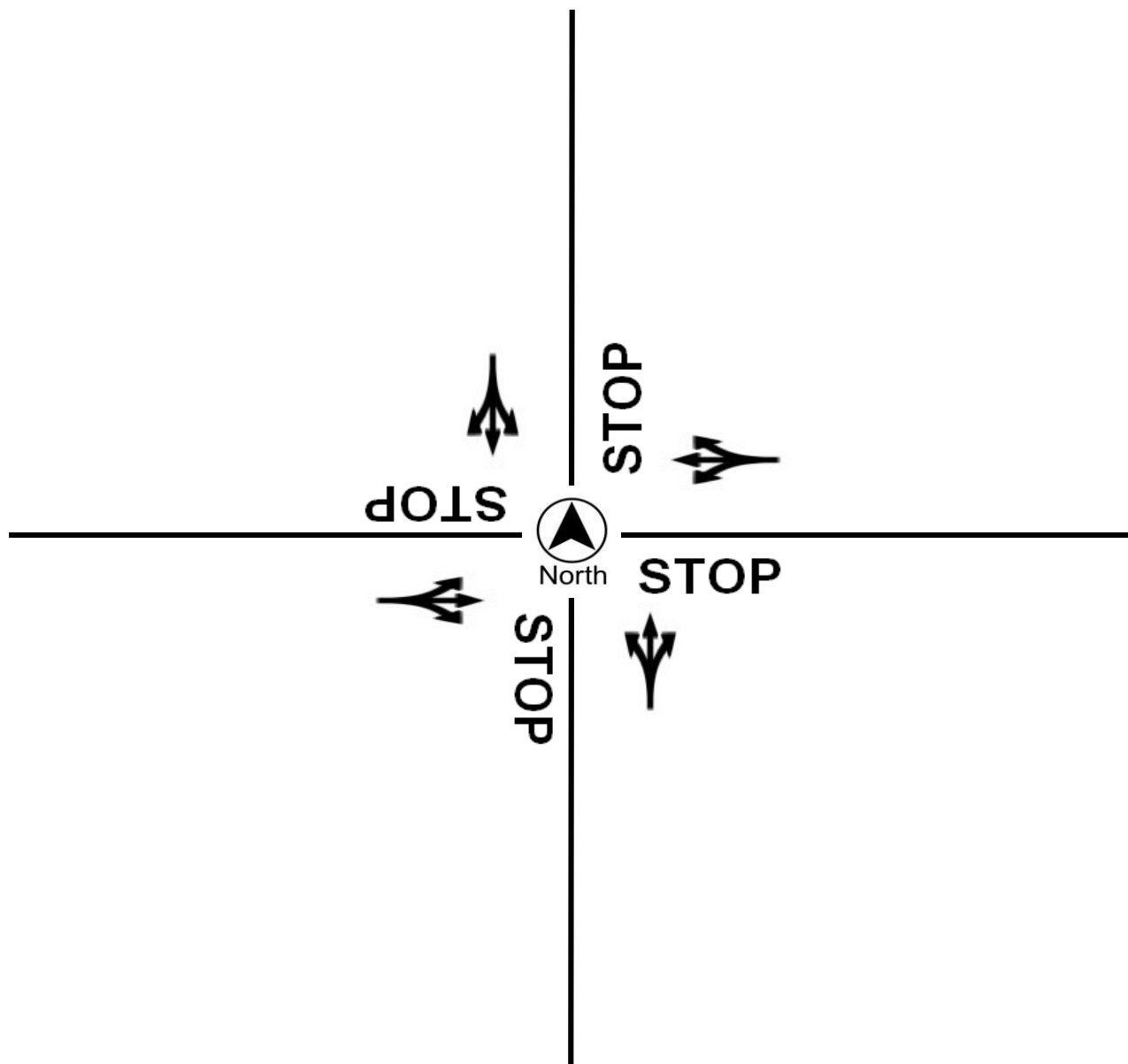
Prepared For:

Peters Engineering Group
 862 Pollasky Ave
 Clovis, CA 93612

LOCATION Minnewawa Ave @ Behymer Ave
COUNTY Fresno
COLLECTION DATE Thursday, September 14, 2023
CYCLE TIME N/A

N/S STREET Minnewawa Ave / Minnewawa Ave
E/W STREET Behymer Ave / Behymer Ave
WEATHER Clear
CONTROL TYPE All-Way Stop

COMMENTS



Turning Movement Report

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

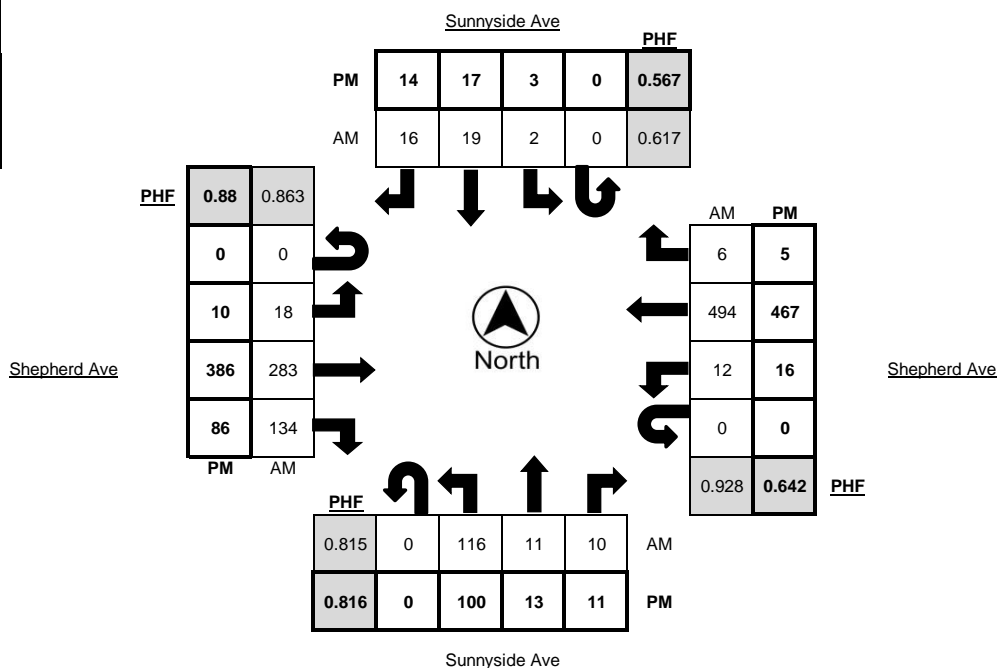
| | |
|-----------|-----------|
| LATITUDE | 36.8666 |
| LONGITUDE | -119.6930 |
| WEATHER | Clear |

| | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | |
|-------------------|------------|------|------|-------|--------|------------|------|------|-------|--------|-----------|------|------|-------|--------|-----------|------|------|-------|--------|
| Time | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks |
| 7:00 AM - 7:15 AM | 0 | 7 | 5 | 2 | 1 | 0 | 0 | 3 | 1 | 0 | 0 | 7 | 40 | 13 | 2 | 0 | 3 | 55 | 3 | 2 |
| 7:15 AM - 7:30 AM | 0 | 16 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 0 | 0 | 3 | 63 | 21 | 2 | 0 | 2 | 70 | 1 | 1 |
| 7:30 AM - 7:45 AM | 0 | 27 | 5 | 2 | 4 | 0 | 1 | 5 | 2 | 0 | 0 | 6 | 72 | 32 | 1 | 0 | 2 | 122 | 1 | 1 |
| 7:45 AM - 8:00 AM | 0 | 37 | 2 | 3 | 1 | 0 | 0 | 3 | 2 | 1 | 0 | 5 | 80 | 41 | 1 | 0 | 5 | 117 | 1 | 2 |
| 8:00 AM - 8:15 AM | 0 | 30 | 3 | 3 | 0 | 0 | 1 | 5 | 3 | 1 | 0 | 6 | 64 | 32 | 4 | 0 | 3 | 131 | 4 | 4 |
| 8:15 AM - 8:30 AM | 0 | 22 | 1 | 2 | 1 | 0 | 0 | 6 | 9 | 1 | 0 | 1 | 67 | 29 | 6 | 0 | 2 | 124 | 0 | 1 |
| 8:30 AM - 8:45 AM | 0 | 12 | 2 | 1 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 6 | 87 | 33 | 5 | 0 | 3 | 73 | 0 | 2 |
| 8:45 AM - 9:00 AM | 0 | 13 | 3 | 2 | 1 | 0 | 1 | 3 | 0 | 0 | 0 | 3 | 46 | 25 | 0 | 0 | 0 | 66 | 1 | 1 |
| TOTAL | 0 | 164 | 21 | 15 | 9 | 0 | 3 | 29 | 22 | 3 | 0 | 37 | 519 | 226 | 21 | 0 | 20 | 758 | 11 | 14 |

| | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | |
|-------------------|------------|------|------|-------|--------|------------|------|------|-------|--------|-----------|------|------|-------|--------|-----------|------|------|-------|--------|
| Time | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks |
| 4:00 PM - 4:15 PM | 0 | 23 | 0 | 9 | 4 | 0 | 1 | 5 | 1 | 0 | 0 | 3 | 80 | 26 | 5 | 0 | 2 | 69 | 1 | 0 |
| 4:15 PM - 4:30 PM | 0 | 29 | 5 | 7 | 0 | 0 | 2 | 0 | 4 | 0 | 0 | 1 | 96 | 20 | 3 | 0 | 3 | 80 | 2 | 1 |
| 4:30 PM - 4:45 PM | 0 | 22 | 3 | 6 | 0 | 0 | 0 | 3 | 4 | 2 | 0 | 2 | 93 | 23 | 3 | 0 | 6 | 56 | 0 | 1 |
| 4:45 PM - 5:00 PM | 0 | 24 | 3 | 3 | 1 | 0 | 0 | 4 | 3 | 0 | 0 | 2 | 98 | 23 | 1 | 0 | 3 | 88 | 1 | 0 |
| 5:00 PM - 5:15 PM | 0 | 26 | 2 | 4 | 0 | 0 | 1 | 8 | 6 | 1 | 0 | 5 | 79 | 22 | 1 | 0 | 6 | 180 | 4 | 1 |
| 5:15 PM - 5:30 PM | 0 | 31 | 4 | 3 | 0 | 0 | 1 | 1 | 4 | 0 | 0 | 3 | 115 | 19 | 0 | 0 | 3 | 104 | 0 | 1 |
| 5:30 PM - 5:45 PM | 0 | 19 | 4 | 1 | 1 | 0 | 1 | 4 | 1 | 0 | 0 | 0 | 94 | 22 | 1 | 0 | 4 | 95 | 0 | 1 |
| 5:45 PM - 6:00 PM | 0 | 14 | 2 | 6 | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | 98 | 21 | 0 | 0 | 6 | 79 | 0 | 0 |
| TOTAL | 0 | 188 | 23 | 39 | 6 | 0 | 6 | 30 | 26 | 3 | 0 | 16 | 753 | 176 | 14 | 0 | 33 | 751 | 8 | 5 |

| | Northbound | | | | | Southbound | | | | | Eastbound | | | | | Westbound | | | | |
|-------------------|------------|------|------|-------|--------|------------|------|------|-------|--------|-----------|------|------|-------|--------|-----------|------|------|-------|--------|
| PEAK HOUR | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks | U-Turn | Left | Thru | Right | Trucks |
| 7:30 AM - 8:30 AM | 0 | 116 | 11 | 10 | 6 | 0 | 2 | 19 | 16 | 3 | 0 | 18 | 283 | 134 | 12 | 0 | 12 | 494 | 6 | 8 |
| 4:45 PM - 5:45 PM | 0 | 100 | 13 | 11 | 2 | 0 | 3 | 17 | 14 | 1 | 0 | 10 | 386 | 86 | 3 | 0 | 16 | 467 | 5 | 3 |

| | PHF | Trucks |
|----|-------|--------|
| AM | 0.947 | 2.6% |
| PM | 0.822 | 0.8% |





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Turning Movement Report

Prepared For:

Peters Engineering Group
862 Pollasky Ave
Clovis, CA 93612

LOCATION Sunnyside Ave @ Shepherd Ave
COUNTY Fresno
COLLECTION DATE Thursday, November 2, 2023

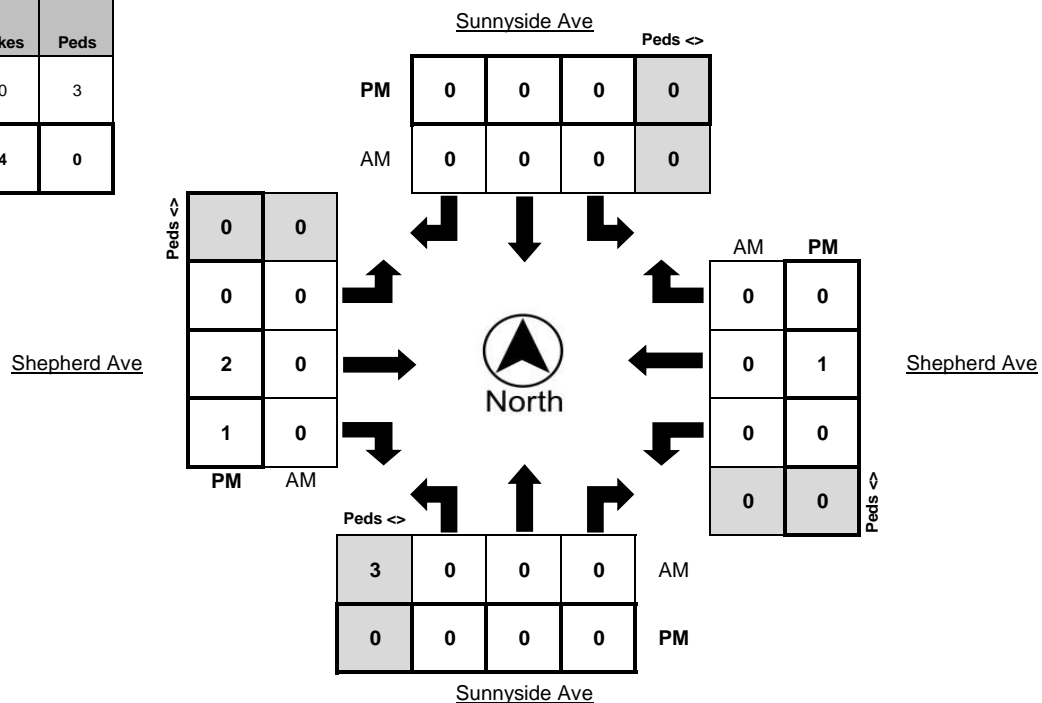
LATITUDE 36.8666
LONGITUDE -119.6930
WEATHER Clear

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds |
|-------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | |
| 7:00 AM - 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 7:15 AM - 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM - 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM - 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM - 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM - 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM - 9:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| TOTAL | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |

| Time | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds |
|-------------------|------------------|----------|----------|------------|------------------|----------|----------|------------|-----------------|----------|----------|------------|-----------------|----------|----------|------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | |
| 4:00 PM - 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM - 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM - 4:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM - 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM - 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 5:30 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM - 6:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| TOTAL | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 3 | 1 | 0 | 0 | 2 | 0 | 0 |

| PEAK HOUR | Northbound Bikes | | | N.Leg Peds | Southbound Bikes | | | S.Leg Peds | Eastbound Bikes | | | E.Leg Peds | Westbound Bikes | | | W.Leg Peds |
|-------------------|------------------|------|-------|------------|------------------|------|-------|------------|-----------------|------|-------|------------|-----------------|------|-------|------------|
| | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | | Left | Thru | Right | |
| 7:30 AM - 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM - 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 |

| | Bikes | Peds |
|---------------|-------|------|
| AM Peak Total | 0 | 3 |
| PM Peak Total | 4 | 0 |





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Turning Movement Report

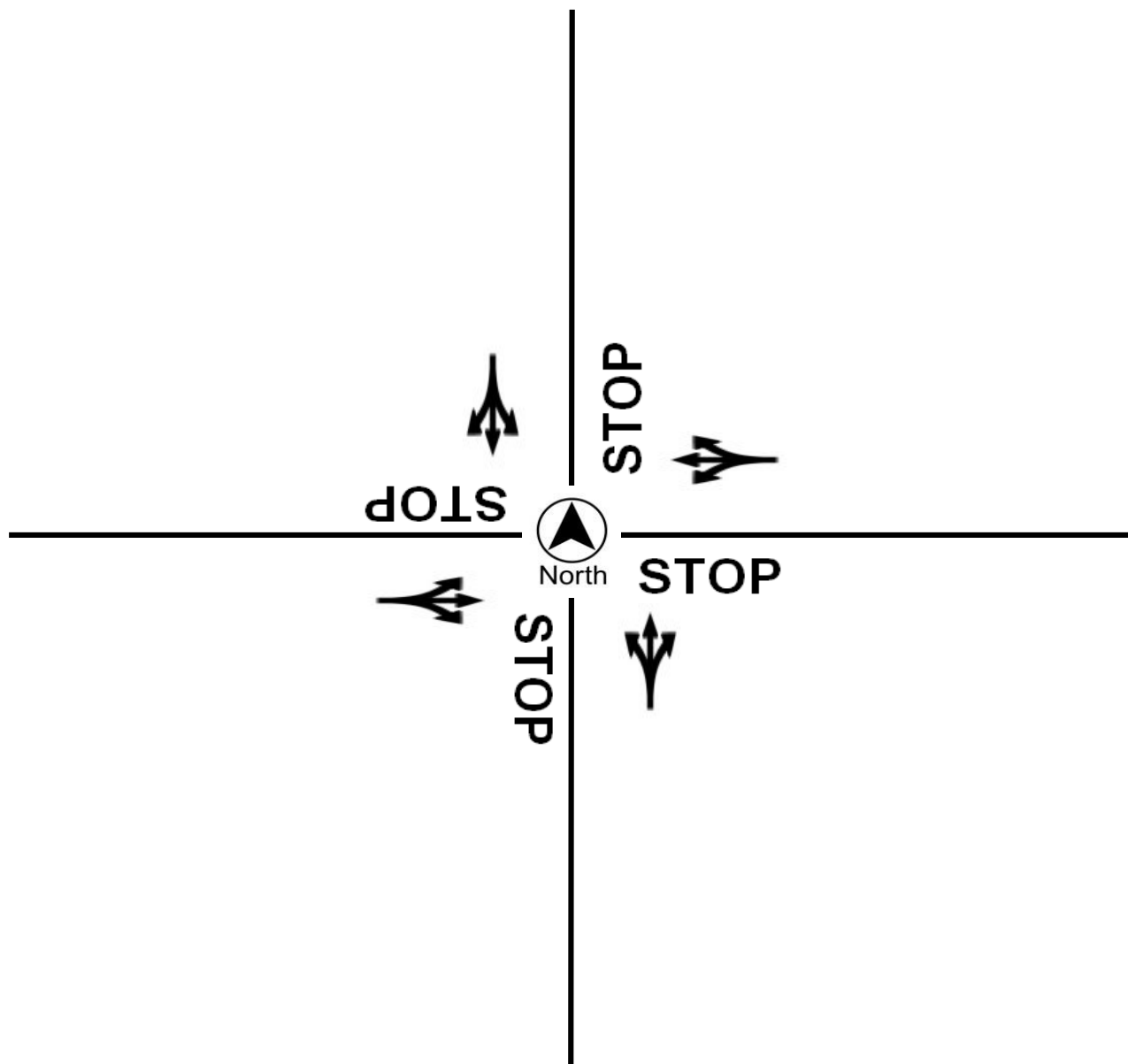
Prepared For:

Peters Engineering Group
 862 Pollasky Ave
 Clovis, CA 93612

LOCATION Sunnyside Ave @ Shepherd Ave
COUNTY Fresno
COLLECTION DATE Thursday, November 2, 2023
CYCLE TIME N/A

N/S STREET Sunnyside Ave
E/W STREET Shepherd Ave
WEATHER Clear
CONTROL TYPE All-Way Stop

COMMENTS



APPENDIX C

INTERSECTION ANALYSES



PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

1: Minnewawa Ave & Behymer Ave
HCM 6th AWSC

AGENDA ITEM NO. 5.

12/21/2023

Intersection

| | |
|---------------------------|----|
| Intersection Delay, s/veh | 38 |
| Intersection LOS | E |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 2 | 150 | 68 | 5 | 198 | 244 | 102 | 222 | 7 | 133 | 225 | 1 |
| Future Vol, veh/h | 2 | 150 | 68 | 5 | 198 | 244 | 102 | 222 | 7 | 133 | 225 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 155 | 70 | 5 | 204 | 252 | 105 | 229 | 7 | 137 | 232 | 1 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|----------------------------|----|----|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 20 | 52 | 31.9 | 37.1 |
| HCM LOS | C | F | D | E |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 31% | 1% | 1% | 37% |
| Vol Thru, % | 67% | 68% | 44% | 63% |
| Vol Right, % | 2% | 31% | 55% | 0% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 331 | 220 | 447 | 359 |
| LT Vol | 102 | 2 | 5 | 133 |
| Through Vol | 222 | 150 | 198 | 225 |
| RT Vol | 7 | 68 | 244 | 1 |
| Lane Flow Rate | 341 | 227 | 461 | 370 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.755 | 0.519 | 0.929 | 0.811 |
| Departure Headway (Hd) | 7.967 | 8.245 | 7.261 | 7.887 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 454 | 435 | 498 | 459 |
| Service Time | 6.053 | 6.344 | 5.337 | 5.97 |
| HCM Lane V/C Ratio | 0.751 | 0.522 | 0.926 | 0.806 |
| HCM Control Delay | 31.9 | 20 | 52 | 37.1 |
| HCM Lane LOS | D | C | F | E |
| HCM 95th-tile Q | 6.3 | 2.9 | 11.1 | 7.5 |

4: Clovis Ave & Baron Ave
HCM 6th AWSC






AGENDA ITEM NO. 5.

12/21/2023

Intersection

Intersection Delay, s/veh 7.7

Intersection LOS A

| Movement | WBL | WBR | NBU | NBT | NBR | SBL | SBT |
|---------------------|---|---|---|---|------|------|---|
| Lane Configurations |  |  |  |  | | |  |
| Traffic Vol, veh/h | 3 | 1 | 83 | 1 | 3 | 1 | 1 |
| Future Vol, veh/h | 3 | 1 | 83 | 1 | 3 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 1 | 90 | 1 | 3 | 1 | 1 |
| Number of Lanes | 1 | 1 | 1 | 1 | 0 | 0 | 2 |
































| Approach | WB | NB | SB |
|-------------------------------|-----|-----|-----|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 2 | 2 |
| Conflicting Approach Left NB | | | WB |
| Conflicting Lanes Left | 2 | 0 | 2 |
| Conflicting Approach Right SB | | WB | |
| Conflicting Lanes Right | 2 | 2 | 0 |
| HCM Control Delay | 7.7 | 7.7 | 7.6 |
| HCM LOS | A | A | A |

| Lane | NBLn1 | NBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 0% | 0% | 100% | 0% | 75% | 0% |
| Vol Thru, % | 100% | 25% | 0% | 0% | 25% | 100% |
| Vol Right, % | 0% | 75% | 0% | 100% | 0% | 0% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 83 | 4 | 3 | 1 | 1 | 1 |
| LT Vol | 0 | 0 | 3 | 0 | 1 | 0 |
| Through Vol | 83 | 1 | 0 | 0 | 0 | 1 |
| RT Vol | 0 | 3 | 0 | 1 | 0 | 0 |
| Lane Flow Rate | 90 | 4 | 3 | 1 | 1 | 1 |
| Geometry Grp | 7 | 7 | 7 | 7 | 7 | 7 |
| Degree of Util (X) | 0.114 | 0.005 | 0.005 | 0.001 | 0.002 | 0.001 |
| Departure Headway (Hd) | 4.543 | 4.018 | 5.198 | 3.997 | 4.961 | 4.586 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 793 | 895 | 684 | 886 | 722 | 781 |
| Service Time | 2.247 | 1.722 | 2.966 | 1.765 | 2.684 | 2.309 |
| HCM Lane V/C Ratio | 0.113 | 0.004 | 0.004 | 0.001 | 0.001 | 0.001 |
| HCM Control Delay | 7.8 | 6.7 | 8 | 6.8 | 7.7 | 7.3 |
| HCM Lane LOS | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.4 | 0 | 0 | 0 | 0 | 0 |

5: Clovis Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

AGENDA ITEM NO. 5.

12/21/2023













| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |   |   |  |   |   |  |  |   |  |   |   |  |
| Traffic Volume (veh/h) | 50 | 367 | 148 | 100 | 580 | 6 | 163 | 38 | 41 | 21 | 38 | 27 |
| Future Volume (veh/h) | 50 | 367 | 148 | 100 | 580 | 6 | 163 | 38 | 41 | 21 | 38 | 27 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 56 | 412 | 144 | 112 | 652 | 6 | 183 | 43 | 39 | 24 | 43 | 5 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 191 | 963 | 420 | 285 | 1059 | 462 | 244 | 832 | 363 | 99 | 446 | 193 |
| Arrive On Green | 0.06 | 0.27 | 0.27 | 0.08 | 0.30 | 0.30 | 0.14 | 0.23 | 0.23 | 0.03 | 0.13 | 0.13 |
| Sat Flow, veh/h | 3456 | 3554 | 1551 | 3456 | 3554 | 1552 | 1781 | 3554 | 1549 | 3456 | 3554 | 1534 |
| Grp Volume(v), veh/h | 56 | 412 | 144 | 112 | 652 | 6 | 183 | 43 | 39 | 24 | 43 | 5 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1551 | 1728 | 1777 | 1552 | 1781 | 1777 | 1549 | 1728 | 1777 | 1534 |
| Q Serve(g_s), s | 0.7 | 4.4 | 3.5 | 1.4 | 7.3 | 0.1 | 4.6 | 0.4 | 0.9 | 0.3 | 0.5 | 0.1 |
| Cycle Q Clear(g_c), s | 0.7 | 4.4 | 3.5 | 1.4 | 7.3 | 0.1 | 4.6 | 0.4 | 0.9 | 0.3 | 0.5 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 191 | 963 | 420 | 285 | 1059 | 462 | 244 | 832 | 363 | 99 | 446 | 193 |
| V/C Ratio(X) | 0.29 | 0.43 | 0.34 | 0.39 | 0.62 | 0.01 | 0.75 | 0.05 | 0.11 | 0.24 | 0.10 | 0.03 |
| Avail Cap(c_a), veh/h | 596 | 2843 | 1241 | 820 | 3073 | 1342 | 1075 | 3226 | 1406 | 596 | 1693 | 731 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.0 | 13.9 | 13.6 | 20.2 | 14.0 | 11.5 | 19.2 | 13.8 | 13.9 | 22.0 | 17.9 | 17.8 |
| Incr Delay (d2), s/veh | 0.8 | 0.3 | 0.5 | 0.9 | 0.6 | 0.0 | 4.6 | 0.0 | 0.1 | 1.2 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 1.3 | 0.9 | 0.5 | 2.2 | 0.0 | 1.9 | 0.1 | 0.3 | 0.1 | 0.2 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 21.9 | 14.2 | 14.1 | 21.1 | 14.6 | 11.5 | 23.8 | 13.8 | 14.1 | 23.3 | 18.0 | 17.8 |
| LnGrp LOS | C | B | B | C | B | B | C | B | B | C | B | B |
| Approach Vol, veh/h | | 612 | | | 770 | | | 265 | | | 72 | |
| Approach Delay, s/veh | | 14.9 | | | 15.5 | | | 20.7 | | | 19.8 | |
| Approach LOS | | B | | | B | | | C | | | B | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.3 | 15.8 | 7.8 | 17.5 | 10.4 | 10.7 | 6.6 | 18.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 8.0 | 42.1 | 11.0 | 37.1 | 28.0 | 22.1 | 8.0 | 40.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.3 | 2.9 | 3.4 | 6.4 | 6.6 | 2.5 | 2.7 | 9.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.3 | 0.2 | 3.0 | 0.4 | 0.1 | 0.0 | 4.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 16.3 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

Synchro 11 Report

5: Clovis Ave & Shepherd Ave Queues

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 56 | 412 | 166 | 112 | 652 | 7 | 183 | 43 | 46 | 24 | 43 | 30 |
| v/c Ratio | 0.14 | 0.43 | 0.32 | 0.24 | 0.57 | 0.01 | 0.49 | 0.04 | 0.08 | 0.07 | 0.11 | 0.10 |
| Control Delay | 28.9 | 20.5 | 8.3 | 28.1 | 19.9 | 0.0 | 27.8 | 19.2 | 1.4 | 29.8 | 29.1 | 0.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 28.9 | 20.5 | 8.3 | 28.1 | 19.9 | 0.0 | 27.8 | 19.2 | 1.4 | 29.8 | 29.1 | 0.7 |
| Queue Length 50th (ft) | 9 | 64 | 10 | 19 | 107 | 0 | 60 | 5 | 0 | 4 | 7 | 0 |
| Queue Length 95th (ft) | 29 | 118 | 53 | 47 | 182 | 0 | 132 | 20 | 6 | 16 | 24 | 0 |
| Internal Link Dist (ft) | 1249 | | | 1233 | | | 1070 | | | 873 | | |
| Turn Bay Length (ft) | 250 | | 50 | 250 | | 255 | 235 | | 65 | 255 | | 100 |
| Base Capacity (vph) | 497 | 2380 | 1081 | 684 | 2520 | 1137 | 898 | 2610 | 1164 | 497 | 1418 | 695 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.11 | 0.17 | 0.15 | 0.16 | 0.26 | 0.01 | 0.20 | 0.02 | 0.04 | 0.05 | 0.03 | 0.04 |
| Intersection Summary | | | | | | | | | | | | |

Intersection

Intersection Delay, s/veh20.2

Intersection LOS C

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 18 | 283 | 134 | 12 | 494 | 6 | 116 | 11 | 10 | 2 | 19 | 16 |
| Future Vol, veh/h | 18 | 283 | 134 | 12 | 494 | 6 | 116 | 11 | 10 | 2 | 19 | 16 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles, % | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Mvmt Flow | 19 | 301 | 143 | 13 | 526 | 6 | 123 | 12 | 11 | 2 | 20 | 17 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|-------------------------------|------|------|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left SB | | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right NB | | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 17.9 | 25.1 | 12.2 | 10.2 |
| HCM LOS | C | D | B | B |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 85% | 4% | 2% | 5% |
| Vol Thru, % | 8% | 65% | 96% | 51% |
| Vol Right, % | 7% | 31% | 1% | 43% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 137 | 435 | 512 | 37 |
| LT Vol | 116 | 18 | 12 | 2 |
| Through Vol | 11 | 283 | 494 | 19 |
| RT Vol | 10 | 134 | 6 | 16 |
| Lane Flow Rate | 146 | 463 | 545 | 39 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.269 | 0.664 | 0.79 | 0.072 |
| Departure Headway (Hd) | 6.643 | 5.169 | 5.222 | 6.626 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 539 | 699 | 692 | 537 |
| Service Time | 4.711 | 3.218 | 3.268 | 4.714 |
| HCM Lane V/C Ratio | 0.271 | 0.662 | 0.788 | 0.073 |
| HCM Control Delay | 12.2 | 17.9 | 25.1 | 10.2 |
| HCM Lane LOS | B | C | D | B |
| HCM 95th-tile Q | 1.1 | 5 | 7.9 | 0.2 |

1: Minnewawa Ave & Behymer Ave
HCM 6th AWSC

AGENDA ITEM NO. 5.

12/21/2023

Intersection

Intersection Delay, s/veh 54.7

Intersection LOS F

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 3 | 184 | 50 | 3 | 173 | 191 | 67 | 214 | 14 | 164 | 193 | 6 |
| Future Vol, veh/h | 3 | 184 | 50 | 3 | 173 | 191 | 67 | 214 | 14 | 164 | 193 | 6 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 211 | 57 | 3 | 199 | 220 | 77 | 246 | 16 | 189 | 222 | 7 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|----------------------------|------|------|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 29.7 | 63.6 | 42.5 | 71.8 |
| HCM LOS | D | F | E | F |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 23% | 1% | 1% | 45% |
| Vol Thru, % | 73% | 78% | 47% | 53% |
| Vol Right, % | 5% | 21% | 52% | 2% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 295 | 237 | 367 | 363 |
| LT Vol | 67 | 3 | 3 | 164 |
| Through Vol | 214 | 184 | 173 | 193 |
| RT Vol | 14 | 50 | 191 | 6 |
| Lane Flow Rate | 339 | 272 | 422 | 417 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.828 | 0.683 | 0.964 | 0.992 |
| Departure Headway (Hd) | 8.891 | 9.132 | 8.223 | 8.558 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 410 | 398 | 443 | 426 |
| Service Time | 6.891 | 7.132 | 6.26 | 6.599 |
| HCM Lane V/C Ratio | 0.827 | 0.683 | 0.953 | 0.979 |
| HCM Control Delay | 42.5 | 29.7 | 63.6 | 71.8 |
| HCM Lane LOS | E | D | F | F |
| HCM 95th-tile Q | 7.7 | 4.9 | 11.6 | 12.3 |

4: Clovis Ave & Baron Ave
HCM 6th AWSC






AGENDA ITEM NO. 5.

12/21/2023

Intersection

Intersection Delay, s/veh 7.4

Intersection LOS A

| Movement | WBL | WBR | NBU | NBT | NBR | SBL | SBT |
|---------------------|---|---|---|---|------|------|---|
| Lane Configurations |  |  |  |  | | |  |
| Traffic Vol, veh/h | 1 | 1 | 30 | 1 | 1 | 1 | 1 |
| Future Vol, veh/h | 1 | 1 | 30 | 1 | 1 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 1 | 33 | 1 | 1 | 1 | 1 |
| Number of Lanes | 1 | 1 | 1 | 1 | 0 | 0 | 2 |

| Approach | WB | NB | SB |
|-------------------------------|-----|-----|-----|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 2 | 2 |
| Conflicting Approach Left NB | | | WB |
| Conflicting Lanes Left | 2 | 0 | 2 |
| Conflicting Approach Right SB | | WB | |
| Conflicting Lanes Right | 2 | 2 | 0 |
| HCM Control Delay | 7.2 | 7.4 | 7.5 |
| HCM LOS | A | A | A |

| Lane | NBLn1 | NBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 0% | 0% | 100% | 0% | 75% | 0% |
| Vol Thru, % | 100% | 50% | 0% | 0% | 25% | 100% |
| Vol Right, % | 0% | 50% | 0% | 100% | 0% | 0% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 30 | 2 | 1 | 1 | 1 | 1 |
| LT Vol | 0 | 0 | 1 | 0 | 1 | 0 |
| Through Vol | 30 | 1 | 0 | 0 | 0 | 1 |
| RT Vol | 0 | 1 | 0 | 1 | 0 | 0 |
| Lane Flow Rate | 33 | 2 | 1 | 1 | 1 | 1 |
| Geometry Grp | 7 | 7 | 7 | 7 | 7 | 7 |
| Degree of Util (X) | 0.041 | 0.003 | 0.002 | 0.001 | 0.002 | 0.001 |
| Departure Headway (Hd) | 4.539 | 4.189 | 5.097 | 3.897 | 4.929 | 4.554 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 793 | 859 | 703 | 918 | 729 | 789 |
| Service Time | 2.241 | 1.891 | 2.823 | 1.623 | 2.638 | 2.263 |
| HCM Lane V/C Ratio | 0.042 | 0.002 | 0.001 | 0.001 | 0.001 | 0.001 |
| HCM Control Delay | 7.4 | 6.9 | 7.8 | 6.6 | 7.6 | 7.3 |
| HCM Lane LOS | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.1 | 0 | 0 | 0 | 0 | 0 |

5: Clovis Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

AGENDA ITEM NO. 5.

12/21/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↑↑ | ↗ | ↔↔ | ↑↑ | ↗ | ↗ | ↑↑ | ↗ | ↔↔ | ↑↑ | ↗ |
| Traffic Volume (veh/h) | 46 | 423 | 125 | 67 | 423 | 11 | 181 | 51 | 57 | 11 | 22 | 21 |
| Future Volume (veh/h) | 46 | 423 | 125 | 67 | 423 | 11 | 181 | 51 | 57 | 11 | 22 | 21 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 53 | 486 | 124 | 77 | 486 | 10 | 208 | 59 | 29 | 13 | 25 | 6 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 186 | 882 | 385 | 238 | 935 | 408 | 278 | 955 | 417 | 58 | 460 | 199 |
| Arrive On Green | 0.05 | 0.25 | 0.25 | 0.07 | 0.26 | 0.26 | 0.16 | 0.27 | 0.27 | 0.02 | 0.13 | 0.13 |
| Sat Flow, veh/h | 3456 | 3554 | 1550 | 3456 | 3554 | 1551 | 1781 | 3554 | 1551 | 3456 | 3554 | 1535 |
| Grp Volume(v), veh/h | 53 | 486 | 124 | 77 | 486 | 10 | 208 | 59 | 29 | 13 | 25 | 6 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1550 | 1728 | 1777 | 1551 | 1781 | 1777 | 1551 | 1728 | 1777 | 1535 |
| Q Serve(g_s), s | 0.7 | 5.3 | 2.9 | 1.0 | 5.2 | 0.2 | 5.0 | 0.6 | 0.6 | 0.2 | 0.3 | 0.2 |
| Cycle Q Clear(g_c), s | 0.7 | 5.3 | 2.9 | 1.0 | 5.2 | 0.2 | 5.0 | 0.6 | 0.6 | 0.2 | 0.3 | 0.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 186 | 882 | 385 | 238 | 935 | 408 | 278 | 955 | 417 | 58 | 460 | 199 |
| V/C Ratio(X) | 0.28 | 0.55 | 0.32 | 0.32 | 0.52 | 0.02 | 0.75 | 0.06 | 0.07 | 0.23 | 0.05 | 0.03 |
| Avail Cap(c_a), veh/h | 695 | 2707 | 1180 | 695 | 2707 | 1181 | 1313 | 3818 | 1666 | 540 | 1754 | 758 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.3 | 14.7 | 13.8 | 19.9 | 14.1 | 12.2 | 18.1 | 12.2 | 12.2 | 21.7 | 17.1 | 17.0 |
| Incr Delay (d2), s/veh | 0.8 | 0.5 | 0.5 | 0.8 | 0.4 | 0.0 | 4.0 | 0.0 | 0.1 | 2.0 | 0.0 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.2 | 1.6 | 0.8 | 0.3 | 1.6 | 0.1 | 1.9 | 0.2 | 0.2 | 0.1 | 0.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 21.2 | 15.2 | 14.2 | 20.6 | 14.5 | 12.3 | 22.1 | 12.2 | 12.3 | 23.7 | 17.1 | 17.1 |
| LnGrp LOS | C | B | B | C | B | B | C | B | B | C | B | B |
| Approach Vol, veh/h | | 663 | | | 573 | | | 296 | | | 44 | |
| Approach Delay, s/veh | | 15.5 | | | 15.3 | | | 19.2 | | | 19.1 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 4.7 | 16.9 | 7.1 | 16.0 | 11.0 | 10.7 | 6.4 | 16.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 7.0 | 48.1 | 9.0 | 34.1 | 33.0 | 22.1 | 9.0 | 34.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 2.6 | 3.0 | 7.3 | 7.0 | 2.3 | 2.7 | 7.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.4 | 0.1 | 3.3 | 0.5 | 0.1 | 0.0 | 2.9 | | | | |













Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 16.2 |
| HCM 6th LOS | B |

5: Clovis Ave & Shepherd Ave Queues

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 53 | 486 | 144 | 77 | 486 | 13 | 208 | 59 | 66 | 13 | 25 | 24 |
| v/c Ratio | 0.13 | 0.54 | 0.29 | 0.18 | 0.46 | 0.02 | 0.52 | 0.04 | 0.10 | 0.04 | 0.06 | 0.08 |
| Control Delay | 27.3 | 21.8 | 7.1 | 26.9 | 19.2 | 0.1 | 26.3 | 15.2 | 3.3 | 28.4 | 28.0 | 0.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 27.3 | 21.8 | 7.1 | 26.9 | 19.2 | 0.1 | 26.3 | 15.2 | 3.3 | 28.4 | 28.0 | 0.6 |
| Queue Length 50th (ft) | 8 | 76 | 3 | 12 | 76 | 0 | 64 | 6 | 0 | 2 | 4 | 0 |
| Queue Length 95th (ft) | 26 | 133 | 40 | 34 | 130 | 0 | 134 | 23 | 16 | 10 | 16 | 0 |
| Internal Link Dist (ft) | 1249 | | | 1233 | | | 1070 | | | 873 | | |
| Turn Bay Length (ft) | 250 | | 50 | 250 | | 255 | 235 | | 65 | 255 | | 100 |
| Base Capacity (vph) | 580 | 2266 | 1035 | 580 | 2266 | 1035 | 1096 | 2953 | 1305 | 451 | 1468 | 715 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.09 | 0.21 | 0.14 | 0.13 | 0.21 | 0.01 | 0.19 | 0.02 | 0.05 | 0.03 | 0.02 | 0.03 |
| Intersection Summary | | | | | | | | | | | | |

6: Sunnyside Ave & Shepherd Ave
HCM 6th AWSC





AGENDA ITEM NO. 5.

12/21/2023

Intersection

Intersection Delay, s/veh35.2

Intersection LOS E

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|---|------|------|---|------|------|---|------|------|---|------|
| Lane Configurations | |  | | |  | | |  | | |  | |
| Traffic Vol, veh/h | 10 | 386 | 86 | 16 | 467 | 5 | 100 | 13 | 11 | 3 | 17 | 14 |
| Future Vol, veh/h | 10 | 386 | 86 | 16 | 467 | 5 | 100 | 13 | 11 | 3 | 17 | 14 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Heavy Vehicles, % | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Mvmt Flow | 12 | 471 | 105 | 20 | 570 | 6 | 122 | 16 | 13 | 4 | 21 | 17 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|-------------------------------|------|------|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left SB | | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right NB | | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 36.7 | 40.9 | 13.4 | 11.1 |
| HCM LOS | E | E | B | B |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 81% | 2% | 3% | 9% |
| Vol Thru, % | 10% | 80% | 96% | 50% |
| Vol Right, % | 9% | 18% | 1% | 41% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 124 | 482 | 488 | 34 |
| LT Vol | 100 | 10 | 16 | 3 |
| Through Vol | 13 | 386 | 467 | 17 |
| RT Vol | 11 | 86 | 5 | 14 |
| Lane Flow Rate | 151 | 588 | 595 | 41 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.304 | 0.888 | 0.913 | 0.085 |
| Departure Headway (Hd) | 7.236 | 5.44 | 5.521 | 7.402 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 499 | 658 | 649 | 486 |
| Service Time | 5.238 | 3.53 | 3.609 | 5.414 |
| HCM Lane V/C Ratio | 0.303 | 0.894 | 0.917 | 0.084 |
| HCM Control Delay | 13.4 | 36.7 | 40.9 | 11.1 |
| HCM Lane LOS | B | E | E | B |
| HCM 95th-tile Q | 1.3 | 10.9 | 11.7 | 0.3 |

Intersection

Intersection Delay, s/veh 43.6

Intersection LOS E




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 2 | 150 | 69 | 5 | 198 | 244 | 105 | 232 | 7 | 133 | 228 | 1 |
| Future Vol, veh/h | 2 | 150 | 69 | 5 | 198 | 244 | 105 | 232 | 7 | 133 | 228 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 155 | 71 | 5 | 204 | 252 | 108 | 239 | 7 | 137 | 235 | 1 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|----------------------------|------|------|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 21.3 | 60.7 | 37.5 | 41.8 |
| HCM LOS | C | F | E | E |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 31% | 1% | 1% | 37% |
| Vol Thru, % | 67% | 68% | 44% | 63% |
| Vol Right, % | 2% | 31% | 55% | 0% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 344 | 221 | 447 | 362 |
| LT Vol | 105 | 2 | 5 | 133 |
| Through Vol | 232 | 150 | 198 | 228 |
| RT Vol | 7 | 69 | 244 | 1 |
| Lane Flow Rate | 355 | 228 | 461 | 373 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.805 | 0.54 | 0.966 | 0.842 |
| Departure Headway (Hd) | 8.173 | 8.537 | 7.547 | 8.124 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 440 | 421 | 484 | 444 |
| Service Time | 6.253 | 6.627 | 5.547 | 6.203 |
| HCM Lane V/C Ratio | 0.807 | 0.542 | 0.952 | 0.84 |
| HCM Control Delay | 37.5 | 21.3 | 60.7 | 41.8 |
| HCM Lane LOS | E | C | F | E |
| HCM 95th-tile Q | 7.3 | 3.1 | 12.2 | 8.2 |

Intersection

| | |
|---------------------------|-----|
| Intersection Delay, s/veh | 7.2 |
| Intersection LOS | A |






| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---------------------|---|------|---|------|------|---|
| Lane Configurations |  | |  | | |  |
| Traffic Vol, veh/h | 45 | 1 | 8 | 8 | 1 | 1 |
| Future Vol, veh/h | 45 | 1 | 8 | 8 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 49 | 1 | 9 | 9 | 1 | 1 |
| Number of Lanes | 1 | 0 | 1 | 0 | 0 | 1 |

| Approach | WB | NB | SB |
|----------------------------|-----|-----|-----|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 1 | 0 | 1 |
| Conflicting Approach Right | SB | WB | |
| Conflicting Lanes Right | 1 | 1 | 0 |
| HCM Control Delay | 7.4 | 6.8 | 7.2 |
| HCM LOS | A | A | A |

| Lane | NBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, % | 0% | 98% | 50% |
| Vol Thru, % | 50% | 0% | 50% |
| Vol Right, % | 50% | 2% | 0% |
| Sign Control | Stop | Stop | Stop |
| Traffic Vol by Lane | 16 | 46 | 2 |
| LT Vol | 0 | 45 | 1 |
| Through Vol | 8 | 0 | 1 |
| RT Vol | 8 | 1 | 0 |
| Lane Flow Rate | 17 | 50 | 2 |
| Geometry Grp | 1 | 1 | 1 |
| Degree of Util (X) | 0.018 | 0.058 | 0.002 |
| Departure Headway (Hd) | 3.722 | 4.15 | 4.134 |
| Convergence, Y/N | Yes | Yes | Yes |
| Cap | 960 | 867 | 865 |
| Service Time | 1.75 | 2.156 | 2.164 |
| HCM Lane V/C Ratio | 0.018 | 0.058 | 0.002 |
| HCM Control Delay | 6.8 | 7.4 | 7.2 |
| HCM Lane LOS | A | A | A |
| HCM 95th-tile Q | 0.1 | 0.2 | 0 |

Intersection

| | |
|---------------------------|---|
| Intersection Delay, s/veh | 8 |
| Intersection LOS | A |

| Movement | WBL | WBR | NBU | NBT | NBR | SBL | SBT |
|---------------------|---|---|---|---|------|------|---|
| Lane Configurations |  |  |  |  | | |  |
| Traffic Vol, veh/h | 48 | 1 | 83 | 1 | 19 | 1 | 1 |
| Future Vol, veh/h | 48 | 1 | 83 | 1 | 19 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 52 | 1 | 90 | 1 | 21 | 1 | 1 |
| Number of Lanes | 1 | 1 | 1 | 1 | 0 | 0 | 2 |

| Approach | WB | NB | SB |
|-------------------------------|-----|-----|-----|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 2 | 2 |
| Conflicting Approach Left NB | | | WB |
| Conflicting Lanes Left | 2 | 0 | 2 |
| Conflicting Approach Right SB | | WB | |
| Conflicting Lanes Right | 2 | 2 | 0 |
| HCM Control Delay | 8.4 | 7.8 | 7.8 |
| HCM LOS | A | A | A |

























| Lane | NBLn1 | NBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 0% | 0% | 100% | 0% | 75% | 0% |
| Vol Thru, % | 100% | 5% | 0% | 0% | 25% | 100% |
| Vol Right, % | 0% | 95% | 0% | 100% | 0% | 0% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 83 | 20 | 48 | 1 | 1 | 1 |
| LT Vol | 0 | 0 | 48 | 0 | 1 | 0 |
| Through Vol | 83 | 1 | 0 | 0 | 0 | 1 |
| RT Vol | 0 | 19 | 0 | 1 | 0 | 0 |
| Lane Flow Rate | 90 | 22 | 52 | 1 | 1 | 1 |
| Geometry Grp | 7 | 7 | 7 | 7 | 7 | 7 |
| Degree of Util (X) | 0.116 | 0.024 | 0.076 | 0.001 | 0.002 | 0.001 |
| Departure Headway (Hd) | 4.628 | 3.962 | 5.225 | 4.024 | 5.058 | 4.683 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 770 | 896 | 679 | 878 | 700 | 755 |
| Service Time | 2.387 | 1.721 | 3.004 | 1.802 | 2.844 | 2.469 |
| HCM Lane V/C Ratio | 0.117 | 0.025 | 0.077 | 0.001 | 0.001 | 0.001 |
| HCM Control Delay | 8 | 6.8 | 8.4 | 6.8 | 7.9 | 7.5 |
| HCM Lane LOS | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.4 | 0.1 | 0.2 | 0 | 0 | 0 |

5: Clovis Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Existing Plu

AGENDA ITEM NO. 5.

12/21/2023













| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 59 | 370 | 148 | 107 | 588 | 9 | 163 | 42 | 43 | 29 | 48 | 54 |
| Future Volume (veh/h) | 59 | 370 | 148 | 107 | 588 | 9 | 163 | 42 | 43 | 29 | 48 | 54 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 66 | 416 | 144 | 120 | 661 | 9 | 183 | 47 | 41 | 33 | 54 | 36 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 212 | 983 | 429 | 291 | 1064 | 465 | 244 | 795 | 346 | 129 | 441 | 190 |
| Arrive On Green | 0.06 | 0.28 | 0.28 | 0.08 | 0.30 | 0.30 | 0.14 | 0.22 | 0.22 | 0.04 | 0.12 | 0.12 |
| Sat Flow, veh/h | 3456 | 3554 | 1551 | 3456 | 3554 | 1552 | 1781 | 3554 | 1548 | 3456 | 3554 | 1533 |
| Grp Volume(v), veh/h | 66 | 416 | 144 | 120 | 661 | 9 | 183 | 47 | 41 | 33 | 54 | 36 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1551 | 1728 | 1777 | 1552 | 1781 | 1777 | 1548 | 1728 | 1777 | 1533 |
| Q Serve(g_s), s | 0.9 | 4.5 | 3.5 | 1.6 | 7.5 | 0.2 | 4.7 | 0.5 | 1.0 | 0.4 | 0.6 | 1.0 |
| Cycle Q Clear(g_c), s | 0.9 | 4.5 | 3.5 | 1.6 | 7.5 | 0.2 | 4.7 | 0.5 | 1.0 | 0.4 | 0.6 | 1.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 212 | 983 | 429 | 291 | 1064 | 465 | 244 | 795 | 346 | 129 | 441 | 190 |
| V/C Ratio(X) | 0.31 | 0.42 | 0.34 | 0.41 | 0.62 | 0.02 | 0.75 | 0.06 | 0.12 | 0.26 | 0.12 | 0.19 |
| Avail Cap(c_a), veh/h | 587 | 2725 | 1190 | 881 | 3027 | 1322 | 1059 | 3178 | 1384 | 587 | 1668 | 720 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.1 | 13.9 | 13.6 | 20.5 | 14.2 | 11.6 | 19.5 | 14.4 | 14.6 | 22.0 | 18.3 | 18.5 |
| Incr Delay (d2), s/veh | 0.8 | 0.3 | 0.5 | 0.9 | 0.6 | 0.0 | 4.6 | 0.0 | 0.2 | 1.0 | 0.1 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 1.4 | 1.0 | 0.5 | 2.3 | 0.1 | 1.9 | 0.2 | 0.3 | 0.2 | 0.2 | 0.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 22.0 | 14.2 | 14.0 | 21.4 | 14.8 | 11.6 | 24.1 | 14.4 | 14.7 | 23.1 | 18.5 | 19.0 |
| LnGrp LOS | C | B | B | C | B | B | C | B | B | C | B | B |
| Approach Vol, veh/h | 626 | | | 790 | | | 271 | | | 123 | | |
| Approach Delay, s/veh | 15.0 | | | 15.8 | | | 21.0 | | | 19.8 | | |
| Approach LOS | B | | | B | | | C | | | B | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.8 | 15.4 | 8.0 | 17.9 | 10.5 | 10.7 | 6.9 | 19.0 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 8.0 | 42.1 | 12.0 | 36.1 | 28.0 | 22.1 | 8.0 | 40.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.4 | 3.0 | 3.6 | 6.5 | 6.7 | 3.0 | 2.9 | 9.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.4 | 0.2 | 3.0 | 0.4 | 0.3 | 0.1 | 4.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 16.6 | | | | | | | | | | | |
| HCM 6th LOS | B | | | | | | | | | | | |

5: Clovis Ave & Shepherd Ave Queues

Existing Plu

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 66 | 416 | 166 | 120 | 661 | 10 | 183 | 47 | 48 | 33 | 54 | 61 |
| v/c Ratio | 0.17 | 0.42 | 0.31 | 0.26 | 0.63 | 0.02 | 0.50 | 0.04 | 0.08 | 0.09 | 0.14 | 0.21 |
| Control Delay | 29.5 | 20.3 | 8.2 | 28.8 | 22.1 | 0.1 | 28.7 | 19.5 | 1.6 | 29.9 | 29.5 | 1.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 29.5 | 20.3 | 8.2 | 28.8 | 22.1 | 0.1 | 28.7 | 19.5 | 1.6 | 29.9 | 29.5 | 1.6 |
| Queue Length 50th (ft) | 11 | 66 | 10 | 21 | 111 | 0 | 61 | 5 | 0 | 5 | 10 | 0 |
| Queue Length 95th (ft) | 33 | 121 | 54 | 51 | 187 | 0 | 133 | 22 | 7 | 20 | 29 | 0 |
| Internal Link Dist (ft) | 1249 | | | 1233 | | | 1070 | | | 873 | | |
| Turn Bay Length (ft) | 250 | | 50 | 250 | | 255 | 235 | | 65 | 255 | | 100 |
| Base Capacity (vph) | 485 | 2259 | 1033 | 728 | 2459 | 1113 | 876 | 2546 | 1137 | 485 | 1383 | 682 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.14 | 0.18 | 0.16 | 0.16 | 0.27 | 0.01 | 0.21 | 0.02 | 0.04 | 0.07 | 0.04 | 0.09 |
| Intersection Summary | | | | | | | | | | | | |

Intersection

Intersection Delay, s/veh23.4

Intersection LOS C

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 23 | 289 | 136 | 12 | 496 | 11 | 117 | 13 | 10 | 15 | 25 | 31 |
| Future Vol, veh/h | 23 | 289 | 136 | 12 | 496 | 11 | 117 | 13 | 10 | 15 | 25 | 31 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles, % | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Mvmt Flow | 24 | 307 | 145 | 13 | 528 | 12 | 124 | 14 | 11 | 16 | 27 | 33 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|-------------------------------|----|------|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left SB | | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right NB | | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 21 | 30.1 | 12.8 | 11.1 |
| HCM LOS | C | D | B | B |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 84% | 5% | 2% | 21% |
| Vol Thru, % | 9% | 65% | 96% | 35% |
| Vol Right, % | 7% | 30% | 2% | 44% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 140 | 448 | 519 | 71 |
| LT Vol | 117 | 23 | 12 | 15 |
| Through Vol | 13 | 289 | 496 | 25 |
| RT Vol | 10 | 136 | 11 | 31 |
| Lane Flow Rate | 149 | 477 | 552 | 76 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.29 | 0.714 | 0.834 | 0.146 |
| Departure Headway (Hd) | 7.001 | 5.396 | 5.44 | 6.942 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 515 | 662 | 657 | 519 |
| Service Time | 5.007 | 3.489 | 3.528 | 4.952 |
| HCM Lane V/C Ratio | 0.289 | 0.721 | 0.84 | 0.146 |
| HCM Control Delay | 12.8 | 21 | 30.1 | 11.1 |
| HCM Lane LOS | B | C | D | B |
| HCM 95th-tile Q | 1.2 | 6 | 9 | 0.5 |

Intersection

Intersection Delay, s/veh 59.8

Intersection LOS F




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 3 | 184 | 53 | 3 | 173 | 191 | 69 | 221 | 14 | 164 | 205 | 6 |
| Future Vol, veh/h | 3 | 184 | 53 | 3 | 173 | 191 | 69 | 221 | 14 | 164 | 205 | 6 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 211 | 61 | 3 | 199 | 220 | 79 | 254 | 16 | 189 | 236 | 7 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|----------------------------|------|------|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 30.8 | 64.4 | 46.4 | 84.7 |
| HCM LOS | D | F | E | F |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 23% | 1% | 1% | 44% |
| Vol Thru, % | 73% | 77% | 47% | 55% |
| Vol Right, % | 5% | 22% | 52% | 2% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 304 | 240 | 367 | 375 |
| LT Vol | 69 | 3 | 3 | 164 |
| Through Vol | 221 | 184 | 173 | 205 |
| RT Vol | 14 | 53 | 191 | 6 |
| Lane Flow Rate | 349 | 276 | 422 | 431 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.853 | 0.693 | 0.964 | 1.039 |
| Departure Headway (Hd) | 9.021 | 9.312 | 8.445 | 8.675 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 405 | 392 | 434 | 422 |
| Service Time | 7.021 | 7.312 | 6.445 | 6.675 |
| HCM Lane V/C Ratio | 0.862 | 0.704 | 0.972 | 1.021 |
| HCM Control Delay | 46.4 | 30.8 | 64.4 | 84.7 |
| HCM Lane LOS | E | D | F | F |
| HCM 95th-tile Q | 8.2 | 5.1 | 11.5 | 13.8 |

Intersection

| | |
|---------------------------|-----|
| Intersection Delay, s/veh | 7.1 |
| Intersection LOS | A |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---------------------|---|------|---|------|------|---|
| Lane Configurations |  | |  | | |  |
| Traffic Vol, veh/h | 30 | 1 | 25 | 26 | 1 | 1 |
| Future Vol, veh/h | 30 | 1 | 25 | 26 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 33 | 1 | 27 | 28 | 1 | 1 |
| Number of Lanes | 1 | 0 | 1 | 0 | 0 | 1 |

| Approach | WB | NB | SB |
|----------------------------|-----|-----|-----|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 1 | 1 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 1 | 0 | 1 |
| Conflicting Approach Right | SB | WB | |
| Conflicting Lanes Right | 1 | 1 | 0 |
| HCM Control Delay | 7.4 | 6.9 | 7.2 |
| HCM LOS | A | A | A |

| Lane | NBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|
| Vol Left, % | 0% | 97% | 50% |
| Vol Thru, % | 49% | 0% | 50% |
| Vol Right, % | 51% | 3% | 0% |
| Sign Control | Stop | Stop | Stop |
| Traffic Vol by Lane | 51 | 31 | 2 |
| LT Vol | 0 | 30 | 1 |
| Through Vol | 25 | 0 | 1 |
| RT Vol | 26 | 1 | 0 |
| Lane Flow Rate | 55 | 34 | 2 |
| Geometry Grp | 1 | 1 | 1 |
| Degree of Util (X) | 0.057 | 0.039 | 0.002 |
| Departure Headway (Hd) | 3.689 | 4.208 | 4.135 |
| Convergence, Y/N | Yes | Yes | Yes |
| Cap | 972 | 853 | 866 |
| Service Time | 1.707 | 2.224 | 2.159 |
| HCM Lane V/C Ratio | 0.057 | 0.04 | 0.002 |
| HCM Control Delay | 6.9 | 7.4 | 7.2 |
| HCM Lane LOS | A | A | A |
| HCM 95th-tile Q | 0.2 | 0.1 | 0 |

4: Clovis Ave & Baron Ave
HCM 6th AWSC

Existing Plu






AGENDA ITEM NO. 5.

12/21/2023

Intersection

Intersection Delay, s/veh 7.4

Intersection LOS A

| Movement | WBL | WBR | NBU | NBT | NBR | SBL | SBT |
|---------------------|---|---|---|---|------|------|---|
| Lane Configurations |  |  |  |  | | |  |
| Traffic Vol, veh/h | 31 | 1 | 30 | 1 | 52 | 1 | 1 |
| Future Vol, veh/h | 31 | 1 | 30 | 1 | 52 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 34 | 1 | 33 | 1 | 57 | 1 | 1 |
| Number of Lanes | 1 | 1 | 1 | 1 | 0 | 0 | 2 |

| Approach | WB | NB | SB |
|-------------------------------|-----|-----|-----|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 2 | 2 |
| Conflicting Approach Left NB | | | WB |
| Conflicting Lanes Left | 2 | 0 | 2 |
| Conflicting Approach Right SB | | WB | |
| Conflicting Lanes Right | 2 | 2 | 0 |
| HCM Control Delay | 8.2 | 7.1 | 7.7 |
| HCM LOS | A | A | A |

























| Lane | NBLn1 | NBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 0% | 0% | 100% | 0% | 75% | 0% |
| Vol Thru, % | 100% | 2% | 0% | 0% | 25% | 100% |
| Vol Right, % | 0% | 98% | 0% | 100% | 0% | 0% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 30 | 53 | 31 | 1 | 1 | 1 |
| LT Vol | 0 | 0 | 31 | 0 | 1 | 0 |
| Through Vol | 30 | 1 | 0 | 0 | 0 | 1 |
| RT Vol | 0 | 52 | 0 | 1 | 0 | 0 |
| Lane Flow Rate | 33 | 58 | 34 | 1 | 1 | 1 |
| Geometry Grp | 7 | 7 | 7 | 7 | 7 | 7 |
| Degree of Util (X) | 0.042 | 0.063 | 0.049 | 0.001 | 0.002 | 0.001 |
| Departure Headway (Hd) | 4.596 | 3.909 | 5.189 | 3.988 | 5.015 | 4.64 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 777 | 913 | 688 | 892 | 710 | 767 |
| Service Time | 2.334 | 1.647 | 2.937 | 1.736 | 2.769 | 2.393 |
| HCM Lane V/C Ratio | 0.042 | 0.064 | 0.049 | 0.001 | 0.001 | 0.001 |
| HCM Control Delay | 7.5 | 6.9 | 8.2 | 6.7 | 7.8 | 7.4 |
| HCM Lane LOS | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.1 | 0.2 | 0.2 | 0 | 0 | 0 |

5: Clovis Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Existing Plu

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 76 | 432 | 125 | 71 | 429 | 21 | 181 | 62 | 65 | 16 | 29 | 39 |
| Future Volume (veh/h) | 76 | 432 | 125 | 71 | 429 | 21 | 181 | 62 | 65 | 16 | 29 | 39 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 87 | 497 | 124 | 82 | 493 | 21 | 208 | 71 | 38 | 18 | 33 | 27 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 254 | 892 | 389 | 246 | 884 | 385 | 277 | 930 | 406 | 77 | 456 | 197 |
| Arrive On Green | 0.07 | 0.25 | 0.25 | 0.07 | 0.25 | 0.25 | 0.16 | 0.26 | 0.26 | 0.02 | 0.13 | 0.13 |
| Sat Flow, veh/h | 3456 | 3554 | 1550 | 3456 | 3554 | 1550 | 1781 | 3554 | 1550 | 3456 | 3554 | 1534 |
| Grp Volume(v), veh/h | 87 | 497 | 124 | 82 | 493 | 21 | 208 | 71 | 38 | 18 | 33 | 27 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1550 | 1728 | 1777 | 1550 | 1781 | 1777 | 1550 | 1728 | 1777 | 1534 |
| Q Serve(g_s), s | 1.1 | 5.5 | 2.9 | 1.0 | 5.5 | 0.5 | 5.0 | 0.7 | 0.8 | 0.2 | 0.4 | 0.7 |
| Cycle Q Clear(g_c), s | 1.1 | 5.5 | 2.9 | 1.0 | 5.5 | 0.5 | 5.0 | 0.7 | 0.8 | 0.2 | 0.4 | 0.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 254 | 892 | 389 | 246 | 884 | 385 | 277 | 930 | 406 | 77 | 456 | 197 |
| V/C Ratio(X) | 0.34 | 0.56 | 0.32 | 0.33 | 0.56 | 0.05 | 0.75 | 0.08 | 0.09 | 0.23 | 0.07 | 0.14 |
| Avail Cap(c_a), veh/h | 688 | 2681 | 1169 | 688 | 2681 | 1169 | 1300 | 3781 | 1650 | 535 | 1737 | 750 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 19.9 | 14.7 | 13.8 | 20.0 | 14.8 | 12.9 | 18.2 | 12.6 | 12.6 | 21.7 | 17.3 | 17.5 |
| Incr Delay (d2), s/veh | 0.8 | 0.5 | 0.5 | 0.8 | 0.6 | 0.1 | 4.1 | 0.0 | 0.1 | 1.5 | 0.1 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 1.7 | 0.8 | 0.4 | 1.7 | 0.1 | 2.0 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 20.7 | 15.3 | 14.2 | 20.8 | 15.4 | 13.0 | 22.3 | 12.6 | 12.7 | 23.2 | 17.4 | 17.8 |
| LnGrp LOS | C | B | B | C | B | B | C | B | B | C | B | B |
| Approach Vol, veh/h | 708 | | | 596 | | | 317 | | | 78 | | |
| Approach Delay, s/veh | 15.8 | | | 16.0 | | | 19.0 | | | 18.9 | | |
| Approach LOS | B | | | B | | | B | | | B | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.0 | 16.7 | 7.2 | 16.2 | 11.0 | 10.7 | 7.3 | 16.1 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 7.0 | 48.1 | 9.0 | 34.1 | 33.0 | 22.1 | 9.0 | 34.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 2.8 | 3.0 | 7.5 | 7.0 | 2.7 | 3.1 | 7.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.5 | 0.1 | 3.4 | 0.5 | 0.2 | 0.1 | 3.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 16.6 | | | | | | | | | | | |
| HCM 6th LOS | B | | | | | | | | | | | |













Synchro 11 Report

5: Clovis Ave & Shepherd Ave Queues

Existing Plu

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 87 | 497 | 144 | 82 | 493 | 24 | 208 | 71 | 75 | 18 | 33 | 45 |
| v/c Ratio | 0.20 | 0.55 | 0.29 | 0.19 | 0.55 | 0.05 | 0.52 | 0.05 | 0.12 | 0.05 | 0.08 | 0.16 |
| Control Delay | 27.3 | 22.1 | 7.1 | 27.4 | 22.1 | 0.2 | 26.7 | 15.3 | 4.2 | 28.8 | 28.1 | 1.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 27.3 | 22.1 | 7.1 | 27.4 | 22.1 | 0.2 | 26.7 | 15.3 | 4.2 | 28.8 | 28.1 | 1.2 |
| Queue Length 50th (ft) | 14 | 79 | 3 | 13 | 78 | 0 | 65 | 7 | 0 | 3 | 5 | 0 |
| Queue Length 95th (ft) | 37 | 137 | 40 | 36 | 137 | 0 | 136 | 26 | 20 | 12 | 19 | 0 |
| Internal Link Dist (ft) | 1249 | | | 1233 | | | 1070 | | | 873 | | |
| Turn Bay Length (ft) | 250 | | 50 | 250 | | 255 | 235 | | 65 | 255 | | 100 |
| Base Capacity (vph) | 574 | 2244 | 1026 | 574 | 2244 | 1026 | 1086 | 2925 | 1293 | 446 | 1454 | 710 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.15 | 0.22 | 0.14 | 0.14 | 0.22 | 0.02 | 0.19 | 0.02 | 0.06 | 0.04 | 0.02 | 0.06 |
| Intersection Summary | | | | | | | | | | | | |

Intersection

Intersection Delay, s/veh53.7

Intersection LOS F

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↔ | | | ↔ | | | ↔ | | | ↔ | |
| Traffic Vol, veh/h | 27 | 390 | 87 | 16 | 474 | 20 | 103 | 19 | 11 | 12 | 21 | 24 |
| Future Vol, veh/h | 27 | 390 | 87 | 16 | 474 | 20 | 103 | 19 | 11 | 12 | 21 | 24 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Heavy Vehicles, % | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Mvmt Flow | 33 | 476 | 106 | 20 | 578 | 24 | 126 | 23 | 13 | 15 | 26 | 29 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|-------------------------------|------|------|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left SB | | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right NB | | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 55.8 | 66.6 | 14.5 | 12.2 |
| HCM LOS | F | F | B | B |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, % | 77% | 5% | 3% | 21% |
| Vol Thru, % | 14% | 77% | 93% | 37% |
| Vol Right, % | 8% | 17% | 4% | 42% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 133 | 504 | 510 | 57 |
| LT Vol | 103 | 27 | 16 | 12 |
| Through Vol | 19 | 390 | 474 | 21 |
| RT Vol | 11 | 87 | 20 | 24 |
| Lane Flow Rate | 162 | 615 | 622 | 70 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.337 | 0.981 | 1.023 | 0.147 |
| Departure Headway (Hd) | 7.689 | 5.888 | 5.92 | 7.869 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 470 | 621 | 616 | 459 |
| Service Time | 5.689 | 3.888 | 3.92 | 5.869 |
| HCM Lane V/C Ratio | 0.345 | 0.99 | 1.01 | 0.153 |
| HCM Control Delay | 14.5 | 55.8 | 66.6 | 12.2 |
| HCM Lane LOS | B | F | F | B |
| HCM 95th-tile Q | 1.5 | 14.3 | 16.2 | 0.5 |

1: Minnewawa Ave & Behymer Ave
HCM 6th AWSC

Near-Term With

AGENDA ITEM NO. 5.

12/21/2023

Intersection

Intersection Delay, s/veh 106.9

Intersection LOS F




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 3 | 162 | 72 | 18 | 222 | 316 | 111 | 271 | 13 | 139 | 255 | 3 |
| Future Vol, veh/h | 3 | 162 | 72 | 18 | 222 | 316 | 111 | 271 | 13 | 139 | 255 | 3 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 167 | 74 | 19 | 229 | 326 | 114 | 279 | 13 | 143 | 263 | 3 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|----------------------------|------|-------|------|----|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 29.3 | 189.4 | 71.5 | 73 |
| HCM LOS | D | F | F | F |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|--------|-------|-------|
| Vol Left, % | 28% | 1% | 3% | 35% |
| Vol Thru, % | 69% | 68% | 40% | 64% |
| Vol Right, % | 3% | 30% | 57% | 1% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 395 | 237 | 556 | 397 |
| LT Vol | 111 | 3 | 18 | 139 |
| Through Vol | 271 | 162 | 222 | 255 |
| RT Vol | 13 | 72 | 316 | 3 |
| Lane Flow Rate | 407 | 244 | 573 | 409 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 0.971 | 0.627 | 1.333 | 0.977 |
| Departure Headway (Hd) | 9.669 | 10.362 | 8.374 | 9.684 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 379 | 352 | 441 | 377 |
| Service Time | 7.669 | 8.362 | 6.374 | 7.684 |
| HCM Lane V/C Ratio | 1.074 | 0.693 | 1.299 | 1.085 |
| HCM Control Delay | 71.5 | 29.3 | 189.4 | 73 |
| HCM Lane LOS | F | D | F | F |
| HCM 95th-tile Q | 11 | 4 | 26.1 | 11.1 |

Intersection

Int Delay, s/veh 1

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|---|------|------|---|---|------|
| Lane Configurations |  | | |  |  | |
| Traffic Vol, veh/h | 292 | 12 | 12 | 460 | 38 | 8 |
| Future Vol, veh/h | 292 | 12 | 12 | 460 | 38 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 317 | 13 | 13 | 500 | 41 | 9 |









| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 330 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | - | 4.12 |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | - | 2.218 |
| Pot Cap-1 Maneuver | - | - | 1229 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1229 |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 0.2 | 16.6 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 360 | - | - | 1229 | - |
| HCM Lane V/C Ratio | 0.139 | - | - | 0.011 | - |
| HCM Control Delay (s) | 16.6 | - | - | 8 | 0 |
| HCM Lane LOS | C | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.5 | - | - | 0 | - |

Intersection

Int Delay, s/veh 4.5

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--------------------------|---|---|------|---|---|------|---|---|------|---|---|------|
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Vol, veh/h | 9 | 1 | 104 | 32 | 1 | 13 | 36 | 66 | 6 | 4 | 175 | 3 |
| Future Vol, veh/h | 9 | 1 | 104 | 32 | 1 | 13 | 36 | 66 | 6 | 4 | 175 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | - | 150 | - | - | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 10 | 1 | 113 | 35 | 1 | 14 | 39 | 72 | 7 | 4 | 190 | 3 |







| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 361 | 357 | 192 | 411 | 355 | 76 | 193 | 0 | 0 | 79 | 0 | 0 |
| Stage 1 | 200 | 200 | - | 154 | 154 | - | - | - | - | - | - | - |
| Stage 2 | 161 | 157 | - | 257 | 201 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 595 | 569 | 850 | 551 | 571 | 985 | 1380 | - | - | 1519 | - | - |
| Stage 1 | 802 | 736 | - | 848 | 770 | - | - | - | - | - | - | - |
| Stage 2 | 841 | 768 | - | 748 | 735 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 572 | 551 | 850 | 466 | 553 | 985 | 1380 | - | - | 1519 | - | - |
| Mov Cap-2 Maneuver | 572 | 551 | - | 466 | 553 | - | - | - | - | - | - | - |
| Stage 1 | 780 | 734 | - | 824 | 748 | - | - | - | - | - | - | - |
| Stage 2 | 804 | 746 | - | 646 | 733 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|----|--|----|--|-----|--|-----|--|
| HCM Control Delay, s | 10 | | 12 | | 2.6 | | 0.2 | |
| HCM LOS | B | | B | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1380 | - | - | 572 | 846 | 466 | 933 | 1519 | - | - |
| HCM Lane V/C Ratio | 0.028 | - | - | 0.017 | 0.135 | 0.075 | 0.016 | 0.003 | - | - |
| HCM Control Delay (s) | 7.7 | - | - | 11.4 | 9.9 | 13.3 | 8.9 | 7.4 | - | - |
| HCM Lane LOS | A | - | - | B | A | B | A | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.1 | 0.5 | 0.2 | 0.1 | 0 | - | - |

Intersection

| | |
|---------------------------|------|
| Intersection Delay, s/veh | 17.8 |
| Intersection LOS | C |

| Movement | WBL | WBR | NBU | NBT | NBR | SBL | SBT |
|---------------------|---|---|---|---|------|---|---|
| Lane Configurations |  |  |  |  | |  |  |
| Traffic Vol, veh/h | 360 | 3 | 83 | 116 | 188 | 3 | 226 |
| Future Vol, veh/h | 360 | 3 | 83 | 116 | 188 | 3 | 226 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 391 | 3 | 90 | 126 | 204 | 3 | 246 |
| Number of Lanes | 1 | 1 | 1 | 2 | 0 | 1 | 2 |

| Approach | WB | NB | SB |
|----------------------------|------|------|------|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 3 | 3 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 3 | 0 | 2 |
| Conflicting Approach Right | SB | WB | |
| Conflicting Lanes Right | 3 | 2 | 0 |
| HCM Control Delay | 28.2 | 12.3 | 10.8 |
| HCM LOS | D | B | B |

























| Lane | NBLn1 | NBLn2 | NBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 0% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 100% | 100% | 17% | 0% | 0% | 0% | 100% | 100% |
| Vol Right, % | 0% | 0% | 83% | 0% | 100% | 0% | 0% | 0% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 83 | 77 | 227 | 360 | 3 | 3 | 113 | 113 |
| LT Vol | 0 | 0 | 0 | 360 | 0 | 3 | 0 | 0 |
| Through Vol | 83 | 77 | 39 | 0 | 0 | 0 | 113 | 113 |
| RT Vol | 0 | 0 | 188 | 0 | 3 | 0 | 0 | 0 |
| Lane Flow Rate | 90 | 84 | 246 | 391 | 3 | 3 | 123 | 123 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.169 | 0.158 | 0.422 | 0.757 | 0.005 | 0.007 | 0.244 | 0.183 |
| Departure Headway (Hd) | 6.763 | 6.763 | 6.169 | 6.966 | 5.768 | 7.664 | 7.151 | 5.373 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 527 | 527 | 579 | 517 | 617 | 464 | 499 | 661 |
| Service Time | 4.55 | 4.55 | 3.956 | 4.733 | 3.534 | 5.462 | 4.948 | 3.167 |
| HCM Lane V/C Ratio | 0.171 | 0.159 | 0.425 | 0.756 | 0.005 | 0.006 | 0.246 | 0.186 |
| HCM Control Delay | 10.9 | 10.8 | 13.4 | 28.4 | 8.6 | 10.5 | 12.3 | 9.4 |
| HCM Lane LOS | B | B | B | D | A | B | B | A |
| HCM 95th-tile Q | 0.6 | 0.6 | 2.1 | 6.6 | 0 | 0 | 0.9 | 0.7 |

5: Clovis Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Near-Term With

AGENDA ITEM NO. 5.

12/21/2023













| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 117 | 611 | 166 | 202 | 853 | 68 | 185 | 155 | 81 | 161 | 329 | 173 |
| Future Volume (veh/h) | 117 | 611 | 166 | 202 | 853 | 68 | 185 | 155 | 81 | 161 | 329 | 173 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 131 | 687 | 165 | 227 | 958 | 75 | 208 | 174 | 84 | 181 | 370 | 169 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 228 | 1175 | 514 | 333 | 1283 | 561 | 259 | 842 | 367 | 278 | 611 | 265 |
| Arrive On Green | 0.07 | 0.33 | 0.33 | 0.10 | 0.36 | 0.36 | 0.15 | 0.24 | 0.24 | 0.08 | 0.17 | 0.17 |
| Sat Flow, veh/h | 3456 | 3554 | 1554 | 3456 | 3554 | 1555 | 1781 | 3554 | 1549 | 3456 | 3554 | 1542 |
| Grp Volume(v), veh/h | 131 | 687 | 165 | 227 | 958 | 75 | 208 | 174 | 84 | 181 | 370 | 169 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1554 | 1728 | 1777 | 1555 | 1781 | 1777 | 1549 | 1728 | 1777 | 1542 |
| Q Serve(g_s), s | 2.6 | 11.2 | 5.5 | 4.4 | 16.4 | 2.3 | 7.9 | 2.7 | 3.0 | 3.5 | 6.7 | 7.1 |
| Cycle Q Clear(g_c), s | 2.6 | 11.2 | 5.5 | 4.4 | 16.4 | 2.3 | 7.9 | 2.7 | 3.0 | 3.5 | 6.7 | 7.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 228 | 1175 | 514 | 333 | 1283 | 561 | 259 | 842 | 367 | 278 | 611 | 265 |
| V/C Ratio(X) | 0.57 | 0.58 | 0.32 | 0.68 | 0.75 | 0.13 | 0.80 | 0.21 | 0.23 | 0.65 | 0.61 | 0.64 |
| Avail Cap(c_a), veh/h | 446 | 1994 | 872 | 645 | 2198 | 962 | 614 | 1785 | 778 | 551 | 1127 | 489 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 31.6 | 19.3 | 17.5 | 30.4 | 19.5 | 14.9 | 28.8 | 21.3 | 21.5 | 31.1 | 26.7 | 26.8 |
| Incr Delay (d2), s/veh | 2.3 | 0.5 | 0.4 | 2.5 | 0.9 | 0.1 | 5.7 | 0.1 | 0.3 | 2.6 | 1.0 | 2.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 4.0 | 1.7 | 1.8 | 5.8 | 0.7 | 3.5 | 1.0 | 1.0 | 1.5 | 2.7 | 2.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 33.8 | 19.8 | 17.8 | 32.9 | 20.4 | 15.1 | 34.5 | 21.5 | 21.8 | 33.6 | 27.6 | 29.4 |
| LnGrp LOS | C | B | B | C | C | B | C | C | C | C | C | C |
| Approach Vol, veh/h | 983 | | | 1260 | | | 466 | | | 720 | | |
| Approach Delay, s/veh | 21.3 | | | 22.3 | | | 27.3 | | | 29.5 | | |
| Approach LOS | C | | | C | | | C | | | C | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.6 | 21.4 | 10.7 | 27.9 | 14.1 | 16.9 | 8.6 | 30.1 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 11.1 | 35.0 | 13.0 | 39.1 | 24.0 | 22.1 | 9.0 | 43.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.5 | 5.0 | 6.4 | 13.2 | 9.9 | 9.1 | 4.6 | 18.4 | | | | |
| Green Ext Time (p_c), s | 0.2 | 1.3 | 0.4 | 4.9 | 0.5 | 2.3 | 0.1 | 6.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 24.2 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |

5: Clovis Ave & Shepherd Ave Queues

Near-Term With

AGENDA ITEM NO. 5.

12/21/2023

























| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 131 | 687 | 187 | 227 | 958 | 76 | 208 | 174 | 91 | 181 | 370 | 194 |
| v/c Ratio | 0.41 | 0.61 | 0.32 | 0.54 | 0.78 | 0.12 | 0.65 | 0.20 | 0.20 | 0.49 | 0.60 | 0.46 |
| Control Delay | 48.1 | 29.7 | 10.7 | 46.2 | 32.1 | 0.8 | 47.5 | 28.9 | 7.4 | 47.0 | 41.2 | 9.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.1 | 29.7 | 10.7 | 46.2 | 32.1 | 0.8 | 47.5 | 28.9 | 7.4 | 47.0 | 41.2 | 9.9 |
| Queue Length 50th (ft) | 37 | 175 | 23 | 64 | 257 | 0 | 114 | 42 | 0 | 51 | 105 | 2 |
| Queue Length 95th (ft) | 80 | 278 | 82 | 124 | 392 | 4 | 219 | 77 | 35 | 104 | 181 | 63 |
| Internal Link Dist (ft) | 1249 | | | 1233 | | | 1070 | | | 873 | | |
| Turn Bay Length (ft) | 250 | | 50 | 250 | | 255 | 235 | | 65 | 255 | | 100 |
| Base Capacity (vph) | 355 | 1589 | 765 | 512 | 1751 | 830 | 487 | 1422 | 676 | 437 | 898 | 533 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.43 | 0.24 | 0.44 | 0.55 | 0.09 | 0.43 | 0.12 | 0.13 | 0.41 | 0.41 | 0.36 |
| Intersection Summary | | | | | | | | | | | | |

6: Sunnyside Ave & Shepherd Ave HCM 6th Signalized Intersection Summary

Near-Term With

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 78 | 601 | 213 | 67 | 774 | 31 | 159 | 30 | 49 | 39 | 62 | 121 |
| Future Volume (veh/h) | 78 | 601 | 213 | 67 | 774 | 31 | 159 | 30 | 49 | 39 | 62 | 121 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 0.96 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 |
| Adj Flow Rate, veh/h | 83 | 639 | 181 | 71 | 823 | 27 | 169 | 32 | 41 | 41 | 66 | 103 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Cap, veh/h | 110 | 757 | 622 | 102 | 1423 | 615 | 213 | 371 | 302 | 73 | 224 | 183 |
| Arrive On Green | 0.06 | 0.41 | 0.41 | 0.06 | 0.40 | 0.40 | 0.12 | 0.20 | 0.20 | 0.04 | 0.12 | 0.12 |
| Sat Flow, veh/h | 1767 | 1856 | 1525 | 1767 | 3526 | 1524 | 1767 | 1856 | 1507 | 1767 | 1856 | 1520 |
| Grp Volume(v), veh/h | 83 | 639 | 181 | 71 | 823 | 27 | 169 | 32 | 41 | 41 | 66 | 103 |
| Grp Sat Flow(s),veh/h/ln | 1767 | 1856 | 1525 | 1767 | 1763 | 1524 | 1767 | 1856 | 1507 | 1767 | 1856 | 1520 |
| Q Serve(g_s), s | 2.8 | 18.9 | 4.8 | 2.4 | 11.0 | 0.7 | 5.6 | 0.9 | 1.4 | 1.4 | 2.0 | 3.9 |
| Cycle Q Clear(g_c), s | 2.8 | 18.9 | 4.8 | 2.4 | 11.0 | 0.7 | 5.6 | 0.9 | 1.4 | 1.4 | 2.0 | 3.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 110 | 757 | 622 | 102 | 1423 | 615 | 213 | 371 | 302 | 73 | 224 | 183 |
| V/C Ratio(X) | 0.76 | 0.84 | 0.29 | 0.70 | 0.58 | 0.04 | 0.79 | 0.09 | 0.14 | 0.56 | 0.30 | 0.56 |
| Avail Cap(c_a), veh/h | 288 | 1103 | 907 | 175 | 1870 | 808 | 320 | 724 | 588 | 186 | 584 | 478 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 28.0 | 16.2 | 12.1 | 28.1 | 14.1 | 11.0 | 26.0 | 19.8 | 20.0 | 28.6 | 24.3 | 25.2 |
| Incr Delay (d2), s/veh | 10.1 | 4.1 | 0.3 | 8.4 | 0.4 | 0.0 | 7.7 | 0.1 | 0.2 | 6.7 | 0.7 | 2.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 6.9 | 1.3 | 1.1 | 3.4 | 0.2 | 2.6 | 0.3 | 0.4 | 0.7 | 0.8 | 1.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 38.1 | 20.3 | 12.3 | 36.5 | 14.5 | 11.0 | 33.7 | 19.9 | 20.2 | 35.3 | 25.1 | 27.9 |
| LnGrp LOS | D | C | B | D | B | B | C | B | C | D | C | C |
| Approach Vol, veh/h | 903 | | | 921 | | | 242 | | | 210 | | |
| Approach Delay, s/veh | 20.4 | | | 16.1 | | | 29.6 | | | 28.4 | | |
| Approach LOS | C | | | B | | | C | | | C | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.5 | 17.0 | 7.5 | 29.7 | 11.3 | 12.2 | 7.8 | 29.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 6.4 | 23.7 | 6.0 | 36.1 | 11.0 | 19.1 | 9.9 | 32.2 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.4 | 3.4 | 4.4 | 20.9 | 7.6 | 5.9 | 4.8 | 13.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.2 | 0.0 | 3.9 | 0.1 | 0.5 | 0.1 | 5.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 20.3 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |













Synchro 11 Report

6: Sunnyside Ave & Shepherd Ave Queues

Near-Term With

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 83 | 639 | 227 | 71 | 823 | 33 | 169 | 32 | 52 | 41 | 66 | 129 |
| v/c Ratio | 0.40 | 0.82 | 0.30 | 0.46 | 0.60 | 0.05 | 0.64 | 0.07 | 0.11 | 0.26 | 0.31 | 0.40 |
| Control Delay | 38.3 | 29.1 | 3.3 | 46.2 | 20.1 | 0.1 | 44.8 | 27.4 | 0.5 | 38.9 | 36.0 | 6.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.3 | 29.1 | 3.3 | 46.2 | 20.1 | 0.1 | 44.8 | 27.4 | 0.5 | 38.9 | 36.0 | 6.6 |
| Queue Length 50th (ft) | 37 | 251 | 0 | 33 | 157 | 0 | 78 | 13 | 0 | 19 | 30 | 0 |
| Queue Length 95th (ft) | 83 | #424 | 38 | #90 | 231 | 0 | #176 | 37 | 0 | 51 | 68 | 28 |
| Internal Link Dist (ft) | 1248 | | | | 771 | | | | 1086 | | | |
| Turn Bay Length (ft) | 275 | | 275 | 150 | | 25 | 105 | | 105 | 175 | | 100 |
| Base Capacity (vph) | 258 | 993 | 917 | 157 | 1684 | 812 | 287 | 652 | 610 | 167 | 525 | 556 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.32 | 0.64 | 0.25 | 0.45 | 0.49 | 0.04 | 0.59 | 0.05 | 0.09 | 0.25 | 0.13 | 0.23 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Intersection

Intersection Delay, s/veh 127.5

Intersection LOS F




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 3 | 213 | 60 | 16 | 193 | 204 | 74 | 256 | 26 | 186 | 255 | 6 |
| Future Vol, veh/h | 3 | 213 | 60 | 16 | 193 | 204 | 74 | 256 | 26 | 186 | 255 | 6 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 245 | 69 | 18 | 222 | 234 | 85 | 294 | 30 | 214 | 293 | 7 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|----------------------------|----|-----|------|-------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 52 | 135 | 95.8 | 192.3 |
| HCM LOS | F | F | F | F |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|--------|--------|-------|--------|
| Vol Left, % | 21% | 1% | 4% | 42% |
| Vol Thru, % | 72% | 77% | 47% | 57% |
| Vol Right, % | 7% | 22% | 49% | 1% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 356 | 276 | 413 | 447 |
| LT Vol | 74 | 3 | 16 | 186 |
| Through Vol | 256 | 213 | 193 | 255 |
| RT Vol | 26 | 60 | 204 | 6 |
| Lane Flow Rate | 409 | 317 | 475 | 514 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 1.046 | 0.835 | 1.175 | 1.324 |
| Departure Headway (Hd) | 10.702 | 11.239 | 9.986 | 10.047 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 344 | 324 | 366 | 365 |
| Service Time | 8.702 | 9.239 | 7.986 | 8.047 |
| HCM Lane V/C Ratio | 1.189 | 0.978 | 1.298 | 1.408 |
| HCM Control Delay | 95.8 | 52 | 135 | 192.3 |
| HCM Lane LOS | F | F | F | F |
| HCM 95th-tile Q | 12.5 | 7.2 | 17.1 | 22.4 |

Intersection









Int Delay, s/veh 0.9

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|---|------|------|---|---|------|
| Lane Configurations |  | | |  |  | |
| Traffic Vol, veh/h | 364 | 43 | 13 | 369 | 26 | 12 |
| Future Vol, veh/h | 364 | 43 | 13 | 369 | 26 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 396 | 47 | 14 | 401 | 28 | 13 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 443 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | - | 4.12 |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | - | 2.218 |
| Pot Cap-1 Maneuver | - | - | 1117 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1117 |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 0.3 | 15.5 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 385 | - | - | 1117 | - |
| HCM Lane V/C Ratio | 0.107 | - | - | 0.013 | - |
| HCM Control Delay (s) | 15.5 | - | - | 8.3 | 0 |
| HCM Lane LOS | C | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.4 | - | - | 0 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|---|---|------|---|---|------|---|---|------|---|---|------|
| Int Delay, s/veh | 3.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Vol, veh/h | 6 | 1 | 70 | 21 | 1 | 9 | 118 | 216 | 18 | 15 | 118 | 10 |
| Future Vol, veh/h | 6 | 1 | 70 | 21 | 1 | 9 | 118 | 216 | 18 | 15 | 118 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | - | 150 | - | - | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 1 | 76 | 23 | 1 | 10 | 128 | 235 | 20 | 16 | 128 | 11 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 673 | 677 | 134 | 705 | 672 | 245 | 139 | 0 | 0 | 255 | 0 | 0 |
| Stage 1 | 166 | 166 | - | 501 | 501 | - | - | - | - | - | - | - |
| Stage 2 | 507 | 511 | - | 204 | 171 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 369 | 375 | 915 | 351 | 377 | 794 | 1445 | - | - | 1310 | - | - |
| Stage 1 | 836 | 761 | - | 552 | 543 | - | - | - | - | - | - | - |
| Stage 2 | 548 | 537 | - | 798 | 757 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 336 | 338 | 915 | 297 | 339 | 794 | 1445 | - | - | 1310 | - | - |
| Mov Cap-2 Maneuver | 336 | 338 | - | 297 | 339 | - | - | - | - | - | - | - |
| Stage 1 | 762 | 752 | - | 503 | 495 | - | - | - | - | - | - | - |
| Stage 2 | 492 | 489 | - | 722 | 748 | - | - | - | - | - | - | - |







| Approach | EB | | WB | | NB | | SB | |
|----------------------|-----|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 9.9 | | 15.6 | | 2.6 | | 0.8 | |
| HCM LOS | A | | C | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1445 | - | - | 336 | 894 | 297 | 700 | 1310 | - | - |
| HCM Lane V/C Ratio | 0.089 | - | - | 0.019 | 0.086 | 0.077 | 0.016 | 0.012 | - | - |
| HCM Control Delay (s) | 7.7 | - | - | 15.9 | 9.4 | 18.1 | 10.2 | 7.8 | - | - |
| HCM Lane LOS | A | - | - | C | A | C | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.1 | 0.3 | 0.2 | 0 | 0 | - | - |

Intersection

Intersection Delay, s/veh 37.9

Intersection LOS E

| Movement | WBL | WBR | NBU | NBT | NBR | SBL | SBT |
|---------------------|---|---|---|---|------|---|---|
| Lane Configurations |  |  |  |  | |  |  |
| Traffic Vol, veh/h | 312 | 1 | 30 | 268 | 447 | 1 | 196 |
| Future Vol, veh/h | 312 | 1 | 30 | 268 | 447 | 1 | 196 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 339 | 1 | 33 | 291 | 486 | 1 | 213 |
| Number of Lanes | 1 | 1 | 1 | 2 | 0 | 1 | 2 |

| Approach | WB | NB | SB |
|----------------------------|------|------|------|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 3 | 3 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 3 | 0 | 2 |
| Conflicting Approach Right | SB | WB | |
| Conflicting Lanes Right | 3 | 2 | 0 |
| HCM Control Delay | 30.3 | 48.1 | 11.6 |
| HCM LOS | D | E | B |

























| Lane | NBLn1 | NBLn2 | NBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 0% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 100% | 100% | 17% | 0% | 0% | 0% | 100% | 100% |
| Vol Right, % | 0% | 0% | 83% | 0% | 100% | 0% | 0% | 0% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 30 | 179 | 536 | 312 | 1 | 1 | 98 | 98 |
| LT Vol | 0 | 0 | 0 | 312 | 0 | 1 | 0 | 0 |
| Through Vol | 30 | 179 | 89 | 0 | 0 | 0 | 98 | 98 |
| RT Vol | 0 | 0 | 447 | 0 | 1 | 0 | 0 | 0 |
| Lane Flow Rate | 33 | 194 | 583 | 339 | 1 | 1 | 107 | 107 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.061 | 0.365 | 1 | 0.745 | 0.002 | 0.003 | 0.236 | 0.183 |
| Departure Headway (Hd) | 6.771 | 6.771 | 6.174 | 7.907 | 6.705 | 8.497 | 7.981 | 6.192 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 530 | 532 | 589 | 458 | 533 | 429 | 458 | 586 |
| Service Time | 4.504 | 4.504 | 3.907 | 5.639 | 4.449 | 6.098 | 5.596 | 3.856 |
| HCM Lane V/C Ratio | 0.062 | 0.365 | 0.99 | 0.74 | 0.002 | 0.002 | 0.234 | 0.183 |
| HCM Control Delay | 9.9 | 13.4 | 61.8 | 30.4 | 9.5 | 11.1 | 13 | 10.2 |
| HCM Lane LOS | A | B | F | D | A | B | B | B |
| HCM 95th-tile Q | 0.2 | 1.7 | 14.7 | 6.1 | 0 | 0 | 0.9 | 0.7 |

5: Clovis Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Near-Term With

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 207 | 811 | 163 | 144 | 817 | 165 | 228 | 380 | 200 | 128 | 243 | 147 |
| Future Volume (veh/h) | 207 | 811 | 163 | 144 | 817 | 165 | 228 | 380 | 200 | 128 | 243 | 147 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 238 | 932 | 167 | 166 | 939 | 187 | 262 | 437 | 193 | 147 | 279 | 151 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 336 | 1316 | 576 | 253 | 1231 | 538 | 312 | 914 | 399 | 230 | 527 | 228 |
| Arrive On Green | 0.10 | 0.37 | 0.37 | 0.07 | 0.35 | 0.35 | 0.18 | 0.26 | 0.26 | 0.07 | 0.15 | 0.15 |
| Sat Flow, veh/h | 3456 | 3554 | 1555 | 3456 | 3554 | 1554 | 1781 | 3554 | 1550 | 3456 | 3554 | 1539 |
| Grp Volume(v), veh/h | 238 | 932 | 167 | 166 | 939 | 187 | 262 | 437 | 193 | 147 | 279 | 151 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1555 | 1728 | 1777 | 1554 | 1781 | 1777 | 1550 | 1728 | 1777 | 1539 |
| Q Serve(g_s), s | 5.1 | 17.1 | 5.8 | 3.6 | 18.0 | 6.8 | 10.9 | 8.0 | 8.1 | 3.2 | 5.6 | 7.1 |
| Cycle Q Clear(g_c), s | 5.1 | 17.1 | 5.8 | 3.6 | 18.0 | 6.8 | 10.9 | 8.0 | 8.1 | 3.2 | 5.6 | 7.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 336 | 1316 | 576 | 253 | 1231 | 538 | 312 | 914 | 399 | 230 | 527 | 228 |
| V/C Ratio(X) | 0.71 | 0.71 | 0.29 | 0.66 | 0.76 | 0.35 | 0.84 | 0.48 | 0.48 | 0.64 | 0.53 | 0.66 |
| Avail Cap(c_a), veh/h | 587 | 1988 | 870 | 465 | 1863 | 815 | 605 | 1645 | 717 | 438 | 887 | 384 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 33.5 | 20.5 | 17.0 | 34.5 | 22.2 | 18.6 | 30.5 | 24.1 | 24.1 | 34.8 | 30.1 | 30.8 |
| Incr Delay (d2), s/veh | 2.8 | 0.7 | 0.3 | 2.9 | 1.0 | 0.4 | 6.0 | 0.4 | 0.9 | 2.9 | 0.8 | 3.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.1 | 6.2 | 1.8 | 1.5 | 6.6 | 2.2 | 4.8 | 3.1 | 2.7 | 1.3 | 2.3 | 2.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 36.2 | 21.3 | 17.3 | 37.4 | 23.2 | 19.0 | 36.5 | 24.5 | 25.0 | 37.7 | 30.9 | 34.0 |
| LnGrp LOS | D | C | B | D | C | B | D | C | C | D | C | C |
| Approach Vol, veh/h | 1337 | | | 1292 | | | 892 | | | 577 | | |
| Approach Delay, s/veh | 23.4 | | | 24.4 | | | 28.1 | | | 33.5 | | |
| Approach LOS | C | | | C | | | C | | | C | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.1 | 24.6 | 9.6 | 33.2 | 17.4 | 16.2 | 11.4 | 31.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 9.7 | 35.4 | 10.3 | 42.8 | 26.0 | 19.1 | 13.0 | 40.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.2 | 10.1 | 5.6 | 19.1 | 12.9 | 9.1 | 7.1 | 20.0 | | | | |
| Green Ext Time (p_c), s | 0.2 | 3.3 | 0.2 | 6.8 | 0.6 | 1.5 | 0.4 | 6.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 26.2 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |













Synchro 11 Report

5: Clovis Ave & Shepherd Ave Queues

Near-Term With

AGENDA ITEM NO. 5.

12/21/2023

























| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 238 | 932 | 187 | 166 | 939 | 190 | 262 | 437 | 230 | 147 | 279 | 169 |
| v/c Ratio | 0.58 | 0.73 | 0.29 | 0.49 | 0.78 | 0.29 | 0.73 | 0.50 | 0.46 | 0.46 | 0.56 | 0.47 |
| Control Delay | 48.7 | 30.8 | 9.4 | 49.7 | 34.1 | 5.0 | 50.3 | 33.2 | 13.6 | 49.9 | 45.0 | 11.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.7 | 30.8 | 9.4 | 49.7 | 34.1 | 5.0 | 50.3 | 33.2 | 13.6 | 49.9 | 45.0 | 11.3 |
| Queue Length 50th (ft) | 73 | 257 | 23 | 51 | 270 | 0 | 154 | 124 | 34 | 45 | 87 | 0 |
| Queue Length 95th (ft) | 126 | 368 | 73 | 94 | 386 | 44 | 261 | 176 | 96 | 86 | 140 | 55 |
| Internal Link Dist (ft) | 1249 | | | 1233 | | | 1070 | | | 873 | | |
| Turn Bay Length (ft) | 250 | | 50 | 250 | | 255 | 235 | | 65 | 255 | | 100 |
| Base Capacity (vph) | 487 | 1653 | 791 | 386 | 1549 | 782 | 502 | 1367 | 695 | 363 | 738 | 454 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.49 | 0.56 | 0.24 | 0.43 | 0.61 | 0.24 | 0.52 | 0.32 | 0.33 | 0.40 | 0.38 | 0.37 |
| Intersection Summary | | | | | | | | | | | | |

6: Sunnyside Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Near-Term With

AGENDA ITEM NO. 5.

12/21/2023













| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 151 | 811 | 159 | 62 | 931 | 50 | 192 | 46 | 74 | 33 | 63 | 123 |
| Future Volume (veh/h) | 151 | 811 | 159 | 62 | 931 | 50 | 192 | 46 | 74 | 33 | 63 | 123 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 0.96 | 1.00 | | 0.96 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 |
| Adj Flow Rate, veh/h | 184 | 989 | 155 | 76 | 1135 | 49 | 234 | 56 | 72 | 40 | 77 | 120 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Cap, veh/h | 211 | 1022 | 842 | 92 | 1705 | 739 | 259 | 410 | 334 | 54 | 194 | 159 |
| Arrive On Green | 0.12 | 0.55 | 0.55 | 0.05 | 0.48 | 0.48 | 0.15 | 0.22 | 0.22 | 0.03 | 0.10 | 0.10 |
| Sat Flow, veh/h | 1767 | 1856 | 1529 | 1767 | 3526 | 1527 | 1767 | 1856 | 1511 | 1767 | 1856 | 1515 |
| Grp Volume(v), veh/h | 184 | 989 | 155 | 76 | 1135 | 49 | 234 | 56 | 72 | 40 | 77 | 120 |
| Grp Sat Flow(s),veh/h/ln | 1767 | 1856 | 1529 | 1767 | 1763 | 1527 | 1767 | 1856 | 1511 | 1767 | 1856 | 1515 |
| Q Serve(g_s), s | 12.5 | 62.7 | 6.2 | 5.2 | 30.0 | 2.1 | 15.9 | 3.0 | 4.8 | 2.7 | 4.7 | 9.4 |
| Cycle Q Clear(g_c), s | 12.5 | 62.7 | 6.2 | 5.2 | 30.0 | 2.1 | 15.9 | 3.0 | 4.8 | 2.7 | 4.7 | 9.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 211 | 1022 | 842 | 92 | 1705 | 739 | 259 | 410 | 334 | 54 | 194 | 159 |
| V/C Ratio(X) | 0.87 | 0.97 | 0.18 | 0.82 | 0.67 | 0.07 | 0.90 | 0.14 | 0.22 | 0.75 | 0.40 | 0.76 |
| Avail Cap(c_a), veh/h | 257 | 1048 | 864 | 92 | 1705 | 739 | 260 | 447 | 364 | 104 | 284 | 232 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.9 | 26.4 | 13.7 | 57.4 | 24.0 | 16.8 | 51.3 | 38.3 | 39.0 | 58.8 | 51.2 | 53.2 |
| Incr Delay (d2), s/veh | 22.8 | 20.1 | 0.1 | 42.4 | 1.0 | 0.0 | 31.7 | 0.2 | 0.3 | 18.3 | 1.3 | 8.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.7 | 30.0 | 2.0 | 3.3 | 11.7 | 0.7 | 9.2 | 1.4 | 1.7 | 1.5 | 2.2 | 3.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 75.7 | 46.5 | 13.8 | 99.8 | 25.0 | 16.9 | 83.0 | 38.4 | 39.3 | 77.1 | 52.5 | 61.3 |
| LnGrp LOS | E | D | B | F | C | B | F | D | D | E | D | E |
| Approach Vol, veh/h | 1328 | | | | 1260 | | | | 362 | | | |
| Approach Delay, s/veh | 46.8 | | | | 29.2 | | | | 67.4 | | | |
| Approach LOS | D | | | | C | | | | E | | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.7 | 31.9 | 10.4 | 72.3 | 21.9 | 17.7 | 18.6 | 64.1 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 7.2 | 29.5 | 6.4 | 69.1 | 18.0 | 18.7 | 17.8 | 57.7 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.7 | 6.8 | 7.2 | 64.7 | 17.9 | 11.4 | 14.5 | 32.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.4 | 0.0 | 2.7 | 0.0 | 0.4 | 0.1 | 8.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 43.2 | | | | | | | | | | | |
| HCM 6th LOS | D | | | | | | | | | | | |

6: Sunnyside Ave & Shepherd Ave Queues

Near-Term With

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 184 | 989 | 194 | 76 | 1135 | 61 | 234 | 56 | 90 | 40 | 77 | 150 |
| v/c Ratio | 0.79 | 0.94 | 0.21 | 0.83 | 0.67 | 0.08 | 0.90 | 0.16 | 0.23 | 0.41 | 0.49 | 0.56 |
| Control Delay | 74.7 | 43.1 | 4.9 | 113.2 | 26.8 | 0.2 | 87.8 | 43.5 | 4.9 | 69.1 | 63.6 | 16.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 74.7 | 43.1 | 4.9 | 113.2 | 26.8 | 0.2 | 87.8 | 43.5 | 4.9 | 69.1 | 63.6 | 16.6 |
| Queue Length 50th (ft) | 140 | 690 | 19 | 60 | 356 | 0 | 183 | 38 | 0 | 31 | 59 | 0 |
| Queue Length 95th (ft) | #205 | #899 | 46 | #136 | 400 | 0 | #301 | 69 | 17 | 65 | 99 | 47 |
| Internal Link Dist (ft) | 1248 | | | | 771 | | | | 1086 | | | |
| Turn Bay Length (ft) | 275 | | 275 | 150 | | 25 | 105 | | 105 | 175 | | 100 |
| Base Capacity (vph) | 256 | 1047 | 913 | 92 | 1706 | 808 | 259 | 447 | 451 | 103 | 283 | 360 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.72 | 0.94 | 0.21 | 0.83 | 0.67 | 0.08 | 0.90 | 0.13 | 0.20 | 0.39 | 0.27 | 0.42 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Intersection




Intersection Delay, s/veh 462

Intersection LOS F

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 3 | 188 | 98 | 61 | 529 | 390 | 133 | 290 | 14 | 169 | 594 | 11 |
| Future Vol, veh/h | 3 | 188 | 98 | 61 | 529 | 390 | 133 | 290 | 14 | 169 | 594 | 11 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 194 | 101 | 63 | 545 | 402 | 137 | 299 | 14 | 174 | 612 | 11 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|----------------------------|------|-------|-------|-------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 68.2 | 692.6 | 148.1 | 494.2 |
| HCM LOS | F | F | F | F |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|--------|--------|-------|
| Vol Left, % | 30% | 1% | 6% | 22% |
| Vol Thru, % | 66% | 65% | 54% | 77% |
| Vol Right, % | 3% | 34% | 40% | 1% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 437 | 289 | 980 | 774 |
| LT Vol | 133 | 3 | 61 | 169 |
| Through Vol | 290 | 188 | 529 | 594 |
| RT Vol | 14 | 98 | 390 | 11 |
| Lane Flow Rate | 451 | 298 | 1010 | 798 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 1.132 | 0.78 | 2.464 | 2.004 |
| Departure Headway (Hd) | 17.2 | 19.063 | 11.685 | 13.63 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 216 | 194 | 323 | 279 |
| Service Time | 15.2 | 17.063 | 9.685 | 11.63 |
| HCM Lane V/C Ratio | 2.088 | 1.536 | 3.127 | 2.86 |
| HCM Control Delay | 148.1 | 68.2 | 692.6 | 494.2 |
| HCM Lane LOS | F | F | F | F |
| HCM 95th-tile Q | 11.3 | 5.3 | 61 | 38.3 |









| Intersection | | | | | | |
|--------------------------|---|------|------|---|---|------|
| Int Delay, s/veh | 25.7 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations |  | | |  |  | |
| Traffic Vol, veh/h | 292 | 170 | 21 | 542 | 238 | 23 |
| Future Vol, veh/h | 292 | 170 | 21 | 542 | 238 | 23 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 317 | 185 | 23 | 589 | 259 | 25 |

| Major/Minor | Major1 | Major2 | Minor1 | | |
|----------------------|--------|--------|--------|-----|-------|
| Conflicting Flow All | 0 | 0 | 502 | 0 | 1045 |
| Stage 1 | - | - | - | - | 410 |
| Stage 2 | - | - | - | - | 635 |
| Critical Hdwy | - | - | 4.12 | - | 6.42 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 |
| Pot Cap-1 Maneuver | - | - | 1062 | - ~ | 253 |
| Stage 1 | - | - | - | - | 670 |
| Stage 2 | - | - | - | - | 528 |
| Platoon blocked, % | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | - | 1062 | - ~ | 245 |
| Mov Cap-2 Maneuver | - | - | - | - ~ | 245 |
| Stage 1 | - | - | - | - | 670 |
| Stage 2 | - | - | - | - | 511 |

| Approach | EB | WB | NB |
|----------------------|----|-----|-------|
| HCM Control Delay, s | 0 | 0.3 | 125.9 |
| HCM LOS | | | F |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 259 | - | - | 1062 | - |
| HCM Lane V/C Ratio | 1.095 | - | - | 0.021 | - |
| HCM Control Delay (s) | 125.9 | - | - | 8.5 | 0 |
| HCM Lane LOS | F | - | - | A | A |
| HCM 95th %tile Q(veh) | 12 | - | - | 0.1 | - |

| Notes | | | |
|----------------------------|------------------------|----------------------------|--------------------------------|
| ~: Volume exceeds capacity | \$: Delay exceeds 300s | +: Computation Not Defined | *: All major volume in platoon |







| Intersection | | | | | | | | | | | | |
|--------------------------|---|---|------|---|---|------|---|---|------|---|---|------|
| Int Delay, s/veh | 7.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Vol, veh/h | 9 | 1 | 104 | 60 | 1 | 215 | 36 | 74 | 32 | 185 | 183 | 3 |
| Future Vol, veh/h | 9 | 1 | 104 | 60 | 1 | 215 | 36 | 74 | 32 | 185 | 183 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | - | 150 | - | - | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 10 | 1 | 113 | 65 | 1 | 234 | 39 | 80 | 35 | 201 | 199 | 3 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 896 | 796 | 201 | 836 | 780 | 98 | 202 | 0 | 0 | 115 | 0 | 0 |
| Stage 1 | 603 | 603 | - | 176 | 176 | - | - | - | - | - | - | - |
| Stage 2 | 293 | 193 | - | 660 | 604 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 261 | 320 | 840 | 287 | 327 | 958 | 1370 | - | - | 1474 | - | - |
| Stage 1 | 486 | 488 | - | 826 | 753 | - | - | - | - | - | - | - |
| Stage 2 | 715 | 741 | - | 452 | 488 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 173 | 269 | 840 | 217 | 275 | 958 | 1370 | - | - | 1474 | - | - |
| Mov Cap-2 Maneuver | 173 | 269 | - | 217 | 275 | - | - | - | - | - | - | - |
| Stage 1 | 472 | 422 | - | 803 | 732 | - | - | - | - | - | - | - |
| Stage 2 | 524 | 720 | - | 337 | 422 | - | - | - | - | - | - | - |

| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|------|--|----|--|-----|--|
| HCM Control Delay, s | 11.4 | | 14.1 | | 2 | | 3.9 | |
| HCM LOS | B | | B | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1370 | - | - | 173 | 823 | 217 | 947 | 1474 | - | - |
| HCM Lane V/C Ratio | 0.029 | - | - | 0.057 | 0.139 | 0.301 | 0.248 | 0.136 | - | - |
| HCM Control Delay (s) | 7.7 | - | - | 27.1 | 10.1 | 28.6 | 10.1 | 7.8 | - | - |
| HCM Lane LOS | A | - | - | D | B | D | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.2 | 0.5 | 1.2 | 1 | 0.5 | - | - |

| Intersection | |
|---------------------------|------|
| Intersection Delay, s/veh | 84.1 |
| Intersection LOS | F |

| Movement | WBL | WBR | NBU | NBT | NBR | SBL | SBT |
|---------------------|---|---|---|---|------|---|---|
| Lane Configurations |  |  |  |  | |  |  |
| Traffic Vol, veh/h | 362 | 36 | 87 | 485 | 192 | 30 | 914 |
| Future Vol, veh/h | 362 | 36 | 87 | 485 | 192 | 30 | 914 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 393 | 39 | 95 | 527 | 209 | 33 | 993 |
| Number of Lanes | 1 | 1 | 1 | 2 | 0 | 1 | 2 |

| Approach | WB | NB | SB |
|----------------------------|-------|------|------|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 3 | 3 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 3 | 0 | 2 |
| Conflicting Approach Right | SB | WB | |
| Conflicting Lanes Right | 3 | 2 | 0 |
| HCM Control Delay | 117.1 | 47.5 | 99.9 |
| HCM LOS | F | E | F |

























| Lane | NBLn1 | NBLn2 | NBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|------------------------|-------|-------|-------|--------|-------|-------|-------|-------|
| Vol Left, % | 0% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 100% | 100% | 46% | 0% | 0% | 0% | 100% | 100% |
| Vol Right, % | 0% | 0% | 54% | 0% | 100% | 0% | 0% | 0% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 87 | 323 | 354 | 362 | 36 | 30 | 457 | 457 |
| LT Vol | 0 | 0 | 0 | 362 | 0 | 30 | 0 | 0 |
| Through Vol | 87 | 323 | 162 | 0 | 0 | 0 | 457 | 457 |
| RT Vol | 0 | 0 | 192 | 0 | 36 | 0 | 0 | 0 |
| Lane Flow Rate | 95 | 351 | 384 | 393 | 39 | 33 | 497 | 497 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.231 | 0.859 | 0.899 | 1.144 | 0.101 | 0.084 | 1.208 | 0.969 |
| Departure Headway (Hd) | 9.536 | 9.536 | 9.138 | 10.846 | 9.622 | 9.922 | 9.397 | 7.578 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 379 | 383 | 400 | 338 | 375 | 363 | 392 | 482 |
| Service Time | 7.236 | 7.236 | 6.838 | 8.546 | 7.322 | 7.622 | 7.097 | 5.278 |
| HCM Lane V/C Ratio | 0.251 | 0.916 | 0.96 | 1.163 | 0.104 | 0.091 | 1.268 | 1.031 |
| HCM Control Delay | 15.1 | 49 | 54 | 127.4 | 13.4 | 13.5 | 144.3 | 61.2 |
| HCM Lane LOS | C | E | F | F | B | B | F | F |
| HCM 95th-tile Q | 0.9 | 8.2 | 9.3 | 15.3 | 0.3 | 0.3 | 19.1 | 12.3 |

5: Clovis Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With

AGENDA ITEM NO. 5.

12/21/2023













| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 120 | 735 | 218 | 325 | 853 | 183 | 206 | 212 | 175 | 203 | 639 | 320 |
| Future Volume (veh/h) | 120 | 735 | 218 | 325 | 853 | 183 | 206 | 212 | 175 | 203 | 639 | 320 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 130 | 799 | 215 | 353 | 927 | 198 | 224 | 230 | 183 | 221 | 695 | 324 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 196 | 980 | 428 | 437 | 1228 | 537 | 262 | 1135 | 496 | 300 | 921 | 402 |
| Arrive On Green | 0.06 | 0.28 | 0.28 | 0.13 | 0.35 | 0.35 | 0.15 | 0.32 | 0.32 | 0.09 | 0.26 | 0.26 |
| Sat Flow, veh/h | 3456 | 3554 | 1551 | 3456 | 3554 | 1554 | 1781 | 3554 | 1553 | 3456 | 3554 | 1550 |
| Grp Volume(v), veh/h | 130 | 799 | 215 | 353 | 927 | 198 | 224 | 230 | 183 | 221 | 695 | 324 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1551 | 1728 | 1777 | 1554 | 1781 | 1777 | 1553 | 1728 | 1777 | 1550 |
| Q Serve(g_s), s | 3.4 | 19.5 | 10.8 | 9.2 | 21.5 | 8.9 | 11.4 | 4.4 | 8.5 | 5.8 | 16.8 | 18.2 |
| Cycle Q Clear(g_c), s | 3.4 | 19.5 | 10.8 | 9.2 | 21.5 | 8.9 | 11.4 | 4.4 | 8.5 | 5.8 | 16.8 | 18.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 196 | 980 | 428 | 437 | 1228 | 537 | 262 | 1135 | 496 | 300 | 921 | 402 |
| V/C Ratio(X) | 0.66 | 0.81 | 0.50 | 0.81 | 0.75 | 0.37 | 0.85 | 0.20 | 0.37 | 0.74 | 0.75 | 0.81 |
| Avail Cap(c_a), veh/h | 260 | 1226 | 535 | 594 | 1569 | 686 | 383 | 1424 | 622 | 475 | 1149 | 501 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.0 | 31.5 | 28.3 | 39.5 | 27.0 | 22.8 | 38.7 | 23.0 | 24.4 | 41.5 | 31.8 | 32.3 |
| Incr Delay (d2), s/veh | 3.8 | 3.5 | 0.9 | 5.9 | 1.6 | 0.4 | 11.9 | 0.1 | 0.5 | 3.5 | 2.2 | 7.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.5 | 8.2 | 3.8 | 4.0 | 8.5 | 3.0 | 5.6 | 1.7 | 2.9 | 2.5 | 7.0 | 7.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 46.8 | 35.0 | 29.2 | 45.4 | 28.6 | 23.3 | 50.6 | 23.1 | 24.9 | 45.0 | 34.0 | 39.9 |
| LnGrp LOS | D | D | C | D | C | C | D | C | C | D | C | D |
| Approach Vol, veh/h | | 1144 | | | 1478 | | | 637 | | | 1240 | |
| Approach Delay, s/veh | | 35.3 | | | 31.9 | | | 33.3 | | | 37.5 | |
| Approach LOS | | D | | | C | | | C | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.1 | 34.6 | 15.8 | 30.6 | 17.7 | 29.0 | 9.3 | 37.1 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 12.8 | 37.3 | 16.0 | 32.1 | 20.0 | 30.1 | 7.0 | 41.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.8 | 10.5 | 11.2 | 21.5 | 13.4 | 20.2 | 5.4 | 23.5 | | | | |
| Green Ext Time (p_c), s | 0.3 | 1.9 | 0.5 | 4.1 | 0.3 | 3.9 | 0.0 | 6.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 34.5 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |

5: Clovis Ave & Shepherd Ave Queues

Cumulative (Year 2045) With

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 130 | 799 | 237 | 353 | 927 | 199 | 224 | 230 | 190 | 221 | 695 | 348 |
| v/c Ratio | 0.57 | 0.83 | 0.44 | 0.74 | 0.76 | 0.30 | 0.77 | 0.21 | 0.31 | 0.59 | 0.78 | 0.65 |
| Control Delay | 61.3 | 45.5 | 13.6 | 55.7 | 36.0 | 4.9 | 62.2 | 28.3 | 5.6 | 54.1 | 44.7 | 21.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 61.3 | 45.5 | 13.6 | 55.7 | 36.0 | 4.9 | 62.2 | 28.3 | 5.6 | 54.1 | 44.7 | 21.9 |
| Queue Length 50th (ft) | 50 | 293 | 39 | 132 | 316 | 0 | 160 | 65 | 0 | 82 | 252 | 96 |
| Queue Length 95th (ft) | #84 | 370 | 110 | 184 | 394 | 49 | #268 | 97 | 51 | 123 | 323 | 201 |
| Internal Link Dist (ft) | 1249 | | | 1233 | | | 1070 | | | 873 | | |
| Turn Bay Length (ft) | 250 | | 50 | 250 | | 255 | 235 | | 65 | 255 | | 100 |
| Base Capacity (vph) | 233 | 1101 | 595 | 532 | 1409 | 734 | 343 | 1280 | 679 | 425 | 1032 | 591 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.56 | 0.73 | 0.40 | 0.66 | 0.66 | 0.27 | 0.65 | 0.18 | 0.28 | 0.52 | 0.67 | 0.59 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

























Queue shown is maximum after two cycles.

6: Sunnyside Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With

AGENDA ITEM NO. 5.

12/21/2023













| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 218 | 812 | 226 | 69 | 763 | 104 | 152 | 88 | 51 | 345 | 416 | 494 |
| Future Volume (veh/h) | 218 | 812 | 226 | 69 | 763 | 104 | 152 | 88 | 51 | 345 | 416 | 494 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 0.95 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 |
| Adj Flow Rate, veh/h | 232 | 864 | 194 | 73 | 812 | 105 | 162 | 94 | 43 | 367 | 443 | 500 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Cap, veh/h | 258 | 858 | 706 | 83 | 1281 | 553 | 169 | 271 | 219 | 367 | 480 | 398 |
| Arrive On Green | 0.15 | 0.46 | 0.46 | 0.05 | 0.36 | 0.36 | 0.10 | 0.15 | 0.15 | 0.21 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1767 | 1856 | 1526 | 1767 | 3526 | 1522 | 1767 | 1856 | 1495 | 1767 | 1856 | 1538 |
| Grp Volume(v), veh/h | 232 | 864 | 194 | 73 | 812 | 105 | 162 | 94 | 43 | 367 | 443 | 500 |
| Grp Sat Flow(s),veh/h/ln | 1767 | 1856 | 1526 | 1767 | 1763 | 1522 | 1767 | 1856 | 1495 | 1767 | 1856 | 1538 |
| Q Serve(g_s), s | 16.8 | 60.1 | 10.2 | 5.3 | 24.8 | 6.1 | 11.9 | 5.9 | 3.3 | 27.0 | 30.2 | 33.6 |
| Cycle Q Clear(g_c), s | 16.8 | 60.1 | 10.2 | 5.3 | 24.8 | 6.1 | 11.9 | 5.9 | 3.3 | 27.0 | 30.2 | 33.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 258 | 858 | 706 | 83 | 1281 | 553 | 169 | 271 | 219 | 367 | 480 | 398 |
| V/C Ratio(X) | 0.90 | 1.01 | 0.27 | 0.88 | 0.63 | 0.19 | 0.96 | 0.35 | 0.20 | 1.00 | 0.92 | 1.26 |
| Avail Cap(c_a), veh/h | 295 | 858 | 706 | 83 | 1281 | 553 | 169 | 271 | 219 | 367 | 480 | 398 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.6 | 35.0 | 21.5 | 61.6 | 34.2 | 28.3 | 58.6 | 49.9 | 48.8 | 51.5 | 47.0 | 48.2 |
| Incr Delay (d2), s/veh | 26.4 | 32.5 | 0.2 | 60.9 | 1.0 | 0.2 | 57.7 | 0.8 | 0.4 | 47.0 | 23.7 | 135.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 9.1 | 32.7 | 3.5 | 3.7 | 10.3 | 2.2 | 7.9 | 2.8 | 1.2 | 16.5 | 16.8 | 27.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 81.0 | 67.4 | 21.7 | 122.5 | 35.2 | 28.5 | 116.2 | 50.7 | 49.2 | 98.5 | 70.6 | 183.2 |
| LnGrp LOS | F | F | C | F | D | C | F | D | D | F | E | F |
| Approach Vol, veh/h | 1290 | | | 990 | | | 299 | | | 1310 | | |
| Approach Delay, s/veh | 63.0 | | | 41.0 | | | 86.0 | | | 121.4 | | |
| Approach LOS | E | | | D | | | F | | | F | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 31.0 | 23.9 | 10.1 | 65.0 | 16.4 | 38.5 | 23.0 | 52.1 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 27.0 | 19.0 | 6.1 | 60.1 | 12.4 | 33.6 | 21.7 | 44.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 29.0 | 7.9 | 7.3 | 62.1 | 13.9 | 35.6 | 18.8 | 26.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 5.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 78.8 | | | | | | | | | | | |
| HCM 6th LOS | E | | | | | | | | | | | |

6: Sunnyside Ave & Shepherd Ave Queues

Cumulative (Year 2045) With

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 232 | 864 | 240 | 73 | 812 | 111 | 162 | 94 | 54 | 367 | 443 | 526 |
| v/c Ratio | 0.85 | 1.01 | 0.30 | 0.89 | 0.65 | 0.18 | 0.96 | 0.36 | 0.16 | 1.01 | 0.95 | 0.95 |
| Control Delay | 80.5 | 67.6 | 7.5 | 132.3 | 38.3 | 2.3 | 119.1 | 54.5 | 1.0 | 99.3 | 77.7 | 55.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 80.5 | 67.6 | 7.5 | 132.3 | 38.3 | 2.3 | 119.1 | 54.5 | 1.0 | 99.3 | 77.7 | 55.3 |
| Queue Length 50th (ft) | 190 | ~739 | 32 | 62 | 306 | 0 | 138 | 72 | 0 | ~316 | 366 | 277 |
| Queue Length 95th (ft) | #318 | #1015 | 85 | #159 | 380 | 18 | #283 | 128 | 0 | #522 | #568 | #508 |
| Internal Link Dist (ft) | 1248 | | | | 771 | | | | 1086 | | | |
| Turn Bay Length (ft) | 275 | | 275 | 150 | | 25 | 105 | | 105 | 175 | | 100 |
| Base Capacity (vph) | 294 | 857 | 790 | 82 | 1249 | 631 | 168 | 271 | 346 | 365 | 479 | 561 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.79 | 1.01 | 0.30 | 0.89 | 0.65 | 0.18 | 0.96 | 0.35 | 0.16 | 1.01 | 0.92 | 0.94 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Intersection

Intersection Delay, s/veh 295.2

Intersection LOS F




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 14 | 377 | 109 | 22 | 222 | 245 | 154 | 442 | 30 | 216 | 270 | 7 |
| Future Vol, veh/h | 14 | 377 | 109 | 22 | 222 | 245 | 154 | 442 | 30 | 216 | 270 | 7 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 15 | 410 | 118 | 24 | 241 | 266 | 167 | 480 | 33 | 235 | 293 | 8 |
| Number of Lanes | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|----------------------------|-------|-------|-------|-------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 1 | 1 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 1 | 1 | 1 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 1 | 1 | 1 |
| HCM Control Delay | 254.2 | 226.9 | 409.4 | 259.6 |
| HCM LOS | F | F | F | F |

| Lane | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|--------|--------|--------|
| Vol Left, % | 25% | 3% | 4% | 44% |
| Vol Thru, % | 71% | 75% | 45% | 55% |
| Vol Right, % | 5% | 22% | 50% | 1% |
| Sign Control | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 626 | 500 | 489 | 493 |
| LT Vol | 154 | 14 | 22 | 216 |
| Through Vol | 442 | 377 | 222 | 270 |
| RT Vol | 30 | 109 | 245 | 7 |
| Lane Flow Rate | 680 | 543 | 532 | 536 |
| Geometry Grp | 1 | 1 | 1 | 1 |
| Degree of Util (X) | 1.809 | 1.435 | 1.366 | 1.445 |
| Departure Headway (Hd) | 13.77 | 14.864 | 15.015 | 15.262 |
| Convergence, Y/N | Yes | Yes | Yes | Yes |
| Cap | 272 | 250 | 250 | 246 |
| Service Time | 11.77 | 12.864 | 13.015 | 13.262 |
| HCM Lane V/C Ratio | 2.5 | 2.172 | 2.128 | 2.179 |
| HCM Control Delay | 409.4 | 254.2 | 226.9 | 259.6 |
| HCM Lane LOS | F | F | F | F |
| HCM 95th-tile Q | 32 | 19.8 | 17.8 | 19.6 |

Intersection









Int Delay, s/veh 4.9

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|--------------------------|---|------|------|---|---|------|
| Lane Configurations |  | | |  |  | |
| Traffic Vol, veh/h | 364 | 268 | 21 | 369 | 141 | 12 |
| Future Vol, veh/h | 364 | 268 | 21 | 369 | 141 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 396 | 291 | 23 | 401 | 153 | 13 |

| Major/Minor | Major1 | Major2 | Minor1 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 0 | 0 | 687 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | - | - | 4.12 |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | - | - | 2.218 |
| Pot Cap-1 Maneuver | - | - | 907 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | - | - | 907 |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | WB | NB |
|----------------------|----|-----|----|
| HCM Control Delay, s | 0 | 0.5 | 36 |
| HCM LOS | | | E |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h) | 276 | - | - | 907 | - |
| HCM Lane V/C Ratio | 0.603 | - | - | 0.025 | - |
| HCM Control Delay (s) | 36 | - | - | 9.1 | 0 |
| HCM Lane LOS | E | - | - | A | A |
| HCM 95th %tile Q(veh) | 3.6 | - | - | 0.1 | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|---|---|------|---|---|------|---|---|------|---|---|------|
| Int Delay, s/veh | 7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Vol, veh/h | 6 | 1 | 70 | 30 | 1 | 114 | 118 | 227 | 107 | 264 | 126 | 10 |
| Future Vol, veh/h | 6 | 1 | 70 | 30 | 1 | 114 | 118 | 227 | 107 | 264 | 126 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | - | 150 | - | - | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 1 | 76 | 33 | 1 | 124 | 128 | 247 | 116 | 287 | 137 | 11 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 1341 | 1336 | 143 | 1316 | 1283 | 305 | 148 | 0 | 0 | 363 | 0 | 0 |
| Stage 1 | 717 | 717 | - | 561 | 561 | - | - | - | - | - | - | - |
| Stage 2 | 624 | 619 | - | 755 | 722 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 129 | 153 | 905 | 135 | 165 | 735 | 1434 | - | - | 1196 | - | - |
| Stage 1 | 421 | 434 | - | 512 | 510 | - | - | - | - | - | - | - |
| Stage 2 | 473 | 480 | - | 401 | 431 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | - | - | - |
| Mov Cap-1 Maneuver | 81 | 106 | 905 | 93 | 114 | 735 | 1434 | - | - | 1196 | - | - |
| Mov Cap-2 Maneuver | 81 | 106 | - | 93 | 114 | - | - | - | - | - | - | - |
| Stage 1 | 384 | 330 | - | 466 | 465 | - | - | - | - | - | - | - |
| Stage 2 | 357 | 437 | - | 278 | 328 | - | - | - | - | - | - | - |







| Approach | EB | | WB | | NB | | SB | |
|----------------------|------|--|----|--|----|--|-----|--|
| HCM Control Delay, s | 13.3 | | 22 | | 2 | | 5.9 | |
| HCM LOS | B | | C | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|------|-----|-----|
| Capacity (veh/h) | 1434 | - | - | 81 | 818 | 93 | 702 | 1196 | - | - |
| HCM Lane V/C Ratio | 0.089 | - | - | 0.081 | 0.094 | 0.351 | 0.178 | 0.24 | - | - |
| HCM Control Delay (s) | 7.8 | - | - | 53.3 | 9.9 | 63.3 | 11.2 | 9 | - | - |
| HCM Lane LOS | A | - | - | F | A | F | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.3 | 0.3 | 1.4 | 0.6 | 0.9 | - | - |

Intersection

Intersection Delay, s/veh 272.1

Intersection LOS F

| Movement | WBL | WBR | NBU | NBT | NBR | SBL | SBT |
|---------------------|---|---|---|---|------|---|---|
| Lane Configurations |  |  |  |  | |  |  |
| Traffic Vol, veh/h | 317 | 9 | 32 | 1047 | 452 | 61 | 598 |
| Future Vol, veh/h | 317 | 9 | 32 | 1047 | 452 | 61 | 598 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 345 | 10 | 35 | 1138 | 491 | 66 | 650 |
| Number of Lanes | 1 | 1 | 1 | 2 | 0 | 1 | 2 |

| Approach | WB | NB | SB |
|----------------------------|------|-------|------|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 3 | 3 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 3 | 0 | 2 |
| Conflicting Approach Right | SB | WB | |
| Conflicting Lanes Right | 3 | 2 | 0 |
| HCM Control Delay | 70.4 | 419.7 | 28.9 |
| HCM LOS | F | F | D |

























| Lane | NBLn1 | NBLn2 | NBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|------------------------|-------|-------|-------|--------|--------|-------|-------|-------|
| Vol Left, % | 0% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 100% | 100% | 44% | 0% | 0% | 0% | 100% | 100% |
| Vol Right, % | 0% | 0% | 56% | 0% | 100% | 0% | 0% | 0% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 32 | 698 | 801 | 317 | 9 | 61 | 299 | 299 |
| LT Vol | 0 | 0 | 0 | 317 | 0 | 61 | 0 | 0 |
| Through Vol | 32 | 698 | 349 | 0 | 0 | 0 | 299 | 299 |
| RT Vol | 0 | 0 | 452 | 0 | 9 | 0 | 0 | 0 |
| Lane Flow Rate | 35 | 759 | 871 | 345 | 10 | 66 | 325 | 325 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.083 | 1.801 | 1.967 | 0.945 | 0.024 | 0.169 | 0.782 | 0.625 |
| Departure Headway (Hd) | 8.544 | 8.544 | 8.133 | 11.293 | 10.095 | 9.906 | 9.392 | 7.61 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 422 | 432 | 453 | 324 | 357 | 365 | 387 | 478 |
| Service Time | 6.244 | 6.244 | 5.833 | 8.993 | 7.795 | 7.606 | 7.092 | 5.31 |
| HCM Lane V/C Ratio | 0.083 | 1.757 | 1.923 | 1.065 | 0.028 | 0.181 | 0.84 | 0.68 |
| HCM Control Delay | 12 | 390 | 461.9 | 72 | 13 | 14.6 | 38.6 | 22.2 |
| HCM Lane LOS | B | F | F | F | B | B | E | C |
| HCM 95th-tile Q | 0.3 | 48.1 | 59 | 9.6 | 0.1 | 0.6 | 6.6 | 4.2 |

5: Clovis Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 224 | 921 | 170 | 291 | 934 | 202 | 234 | 724 | 374 | 170 | 306 | 187 |
| Future Volume (veh/h) | 224 | 921 | 170 | 291 | 934 | 202 | 234 | 724 | 374 | 170 | 306 | 187 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 243 | 1001 | 167 | 316 | 1015 | 217 | 254 | 787 | 372 | 185 | 333 | 186 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 317 | 1193 | 522 | 394 | 1273 | 557 | 292 | 1043 | 455 | 254 | 722 | 314 |
| Arrive On Green | 0.09 | 0.34 | 0.34 | 0.11 | 0.36 | 0.36 | 0.16 | 0.29 | 0.29 | 0.07 | 0.20 | 0.20 |
| Sat Flow, veh/h | 3456 | 3554 | 1554 | 3456 | 3554 | 1555 | 1781 | 3554 | 1552 | 3456 | 3554 | 1546 |
| Grp Volume(v), veh/h | 243 | 1001 | 167 | 316 | 1015 | 217 | 254 | 787 | 372 | 185 | 333 | 186 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1554 | 1728 | 1777 | 1555 | 1781 | 1777 | 1552 | 1728 | 1777 | 1546 |
| Q Serve(g_s), s | 6.7 | 25.3 | 7.8 | 8.7 | 24.9 | 10.1 | 13.5 | 19.5 | 21.6 | 5.1 | 8.0 | 10.6 |
| Cycle Q Clear(g_c), s | 6.7 | 25.3 | 7.8 | 8.7 | 24.9 | 10.1 | 13.5 | 19.5 | 21.6 | 5.1 | 8.0 | 10.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 317 | 1193 | 522 | 394 | 1273 | 557 | 292 | 1043 | 455 | 254 | 722 | 314 |
| V/C Ratio(X) | 0.77 | 0.84 | 0.32 | 0.80 | 0.80 | 0.39 | 0.87 | 0.75 | 0.82 | 0.73 | 0.46 | 0.59 |
| Avail Cap(c_a), veh/h | 427 | 1431 | 626 | 534 | 1541 | 674 | 422 | 1284 | 561 | 320 | 772 | 336 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.1 | 29.8 | 24.0 | 41.9 | 28.0 | 23.3 | 39.6 | 31.1 | 31.9 | 44.0 | 34.0 | 35.1 |
| Incr Delay (d2), s/veh | 5.8 | 4.0 | 0.4 | 6.2 | 2.5 | 0.4 | 12.8 | 2.1 | 7.6 | 6.1 | 0.5 | 2.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.0 | 10.5 | 2.7 | 3.8 | 10.1 | 3.5 | 6.7 | 8.1 | 8.4 | 2.3 | 3.3 | 4.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 48.8 | 33.8 | 24.4 | 48.1 | 30.5 | 23.7 | 52.4 | 33.2 | 39.5 | 50.1 | 34.5 | 37.5 |
| LnGrp LOS | D | C | C | D | C | C | D | C | D | D | C | D |
| Approach Vol, veh/h | 1411 | | 1548 | | | | 1413 | | 704 | | | |
| Approach Delay, s/veh | 35.3 | | 33.2 | | | | 38.3 | | 39.4 | | | |
| Approach LOS | D | | C | | | | D | | D | | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.1 | 33.4 | 15.1 | 37.5 | 19.9 | 24.6 | 12.9 | 39.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 9.0 | 35.1 | 15.0 | 39.1 | 23.0 | 21.1 | 12.0 | 42.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.1 | 23.6 | 10.7 | 27.3 | 15.5 | 12.6 | 8.7 | 26.9 | | | | |
| Green Ext Time (p_c), s | 0.1 | 4.9 | 0.4 | 5.3 | 0.4 | 1.7 | 0.2 | 6.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 36.0 | | | | | | | | | | | |
| HCM 6th LOS | D | | | | | | | | | | | |













Synchro 11 Report

5: Clovis Ave & Shepherd Ave Queues

Cumulative (Year 2045) With

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 243 | 1001 | 185 | 316 | 1015 | 220 | 254 | 787 | 407 | 185 | 333 | 203 |
| v/c Ratio | 0.67 | 0.85 | 0.31 | 0.72 | 0.81 | 0.32 | 0.79 | 0.77 | 0.73 | 0.65 | 0.50 | 0.45 |
| Control Delay | 57.7 | 42.2 | 10.8 | 56.0 | 37.6 | 4.9 | 60.7 | 41.2 | 29.8 | 61.1 | 43.4 | 9.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.7 | 42.2 | 10.8 | 56.0 | 37.6 | 4.9 | 60.7 | 41.2 | 29.8 | 61.1 | 43.4 | 9.2 |
| Queue Length 50th (ft) | 91 | 357 | 27 | 117 | 348 | 1 | 180 | 277 | 168 | 70 | 117 | 0 |
| Queue Length 95th (ft) | 135 | 448 | 82 | 167 | 437 | 52 | #287 | 350 | 289 | #117 | 167 | 65 |
| Internal Link Dist (ft) | 1249 | | | 1233 | | | 1070 | | | 873 | | |
| Turn Bay Length (ft) | 250 | 50 | | 250 | 255 | | 235 | 65 | | 255 | 100 | |
| Base Capacity (vph) | 393 | 1320 | 658 | 491 | 1422 | 751 | 388 | 1185 | 621 | 295 | 714 | 473 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.62 | 0.76 | 0.28 | 0.64 | 0.71 | 0.29 | 0.65 | 0.66 | 0.66 | 0.63 | 0.47 | 0.43 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

























Queue shown is maximum after two cycles.

6: Sunnyside Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With

AGENDA ITEM NO. 5.

12/21/2023













| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 428 | 952 | 185 | 64 | 968 | 335 | 218 | 306 | 176 | 167 | 169 | 386 |
| Future Volume (veh/h) | 428 | 952 | 185 | 64 | 968 | 335 | 218 | 306 | 176 | 167 | 169 | 386 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 0.96 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 |
| Adj Flow Rate, veh/h | 465 | 1035 | 166 | 70 | 1052 | 353 | 237 | 333 | 175 | 182 | 184 | 393 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Cap, veh/h | 459 | 986 | 812 | 80 | 1117 | 482 | 231 | 343 | 278 | 179 | 288 | 237 |
| Arrive On Green | 0.26 | 0.53 | 0.53 | 0.05 | 0.32 | 0.32 | 0.13 | 0.18 | 0.18 | 0.10 | 0.16 | 0.16 |
| Sat Flow, veh/h | 1767 | 1856 | 1528 | 1767 | 3526 | 1520 | 1767 | 1856 | 1505 | 1767 | 1856 | 1528 |
| Grp Volume(v), veh/h | 465 | 1035 | 166 | 70 | 1052 | 353 | 237 | 333 | 175 | 182 | 184 | 393 |
| Grp Sat Flow(s),veh/h/ln | 1767 | 1856 | 1528 | 1767 | 1763 | 1520 | 1767 | 1856 | 1505 | 1767 | 1856 | 1528 |
| Q Serve(g_s), s | 33.8 | 69.1 | 7.4 | 5.1 | 37.8 | 26.9 | 17.0 | 23.2 | 14.0 | 13.2 | 12.1 | 20.2 |
| Cycle Q Clear(g_c), s | 33.8 | 69.1 | 7.4 | 5.1 | 37.8 | 26.9 | 17.0 | 23.2 | 14.0 | 13.2 | 12.1 | 20.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 459 | 986 | 812 | 80 | 1117 | 482 | 231 | 343 | 278 | 179 | 288 | 237 |
| V/C Ratio(X) | 1.01 | 1.05 | 0.20 | 0.87 | 0.94 | 0.73 | 1.03 | 0.97 | 0.63 | 1.01 | 0.64 | 1.66 |
| Avail Cap(c_a), veh/h | 459 | 986 | 812 | 80 | 1117 | 482 | 231 | 343 | 278 | 179 | 288 | 237 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 48.1 | 30.4 | 16.0 | 61.7 | 43.2 | 39.5 | 56.5 | 52.7 | 48.9 | 58.4 | 51.5 | 54.9 |
| Incr Delay (d2), s/veh | 45.0 | 42.5 | 0.1 | 60.1 | 15.0 | 5.7 | 66.0 | 41.0 | 4.5 | 71.0 | 4.6 | 313.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 20.0 | 39.3 | 2.5 | 3.6 | 18.0 | 10.4 | 11.7 | 14.5 | 5.4 | 9.3 | 5.9 | 28.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 93.1 | 73.0 | 16.1 | 121.8 | 58.2 | 45.2 | 122.5 | 93.7 | 53.4 | 129.4 | 56.1 | 368.0 |
| LnGrp LOS | F | F | B | F | E | D | F | F | D | F | E | F |
| Approach Vol, veh/h | | 1666 | | | 1475 | | | 745 | | | 759 | |
| Approach Delay, s/veh | | 72.9 | | | 58.1 | | | 93.4 | | | 235.1 | |
| Approach LOS | | E | | | E | | | F | | | F | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 17.2 | 28.9 | 9.9 | 74.0 | 21.0 | 25.1 | 37.8 | 46.1 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 13.2 | 24.0 | 5.9 | 69.1 | 17.0 | 20.2 | 33.8 | 41.2 | | | | |
| Max Q Clear Time (g_c+I1), s | 15.2 | 25.2 | 7.1 | 71.1 | 19.0 | 22.2 | 35.8 | 39.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 98.0 | | | | | | | | | |
| HCM 6th LOS | | | F | | | | | | | | | |

6: Sunnyside Ave & Shepherd Ave Queues

Cumulative (Year 2045) With

AGENDA ITEM NO. 5.

12/21/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 465 | 1035 | 201 | 70 | 1052 | 364 | 237 | 333 | 191 | 182 | 184 | 420 |
| v/c Ratio | 1.02 | 1.06 | 0.23 | 0.89 | 0.95 | 0.66 | 1.03 | 0.98 | 0.51 | 1.03 | 0.64 | 0.76 |
| Control Delay | 95.2 | 75.2 | 6.0 | 134.4 | 60.6 | 31.8 | 123.4 | 96.6 | 24.4 | 131.8 | 62.9 | 17.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 95.2 | 75.2 | 6.0 | 134.4 | 60.6 | 31.8 | 123.4 | 96.6 | 24.4 | 131.8 | 62.9 | 17.9 |
| Queue Length 50th (ft) | ~415 | ~954 | 25 | 60 | 455 | 181 | ~214 | 282 | 54 | ~163 | 147 | 34 |
| Queue Length 95th (ft) | #629 | #1211 | 66 | #155 | #593 | 295 | #382 | #476 | 133 | #315 | 229 | 158 |
| Internal Link Dist (ft) | 1248 | | | | 771 | | | | 1086 | | | |
| Turn Bay Length (ft) | 275 | | 275 | 150 | | 25 | 105 | | 105 | 175 | | 100 |
| Base Capacity (vph) | 455 | 980 | 863 | 79 | 1110 | 555 | 229 | 340 | 371 | 177 | 286 | 552 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.02 | 1.06 | 0.23 | 0.89 | 0.95 | 0.66 | 1.03 | 0.98 | 0.51 | 1.03 | 0.64 | 0.76 |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Warrant 3: Peak Hour

AGENDA ITEM NO. 5.

1: Minnewawa Ave & Behymer Ave - Existing Plus Proj

Intersection Information:

| | Major Street | Minor Street |
|-----------------|---------------|--------------|
| Street Name | Minnewawa Ave | Behymer Ave |
| Direction | NB/SB | EB/WB |
| Number of Lanes | 1 | 1 |
| Approach Speed | 50 | 40 |

Warrant 3 Met? **Yes**

Details

Low Population? **No**

Condition A Met? **No**

Condition B Met? **Yes**

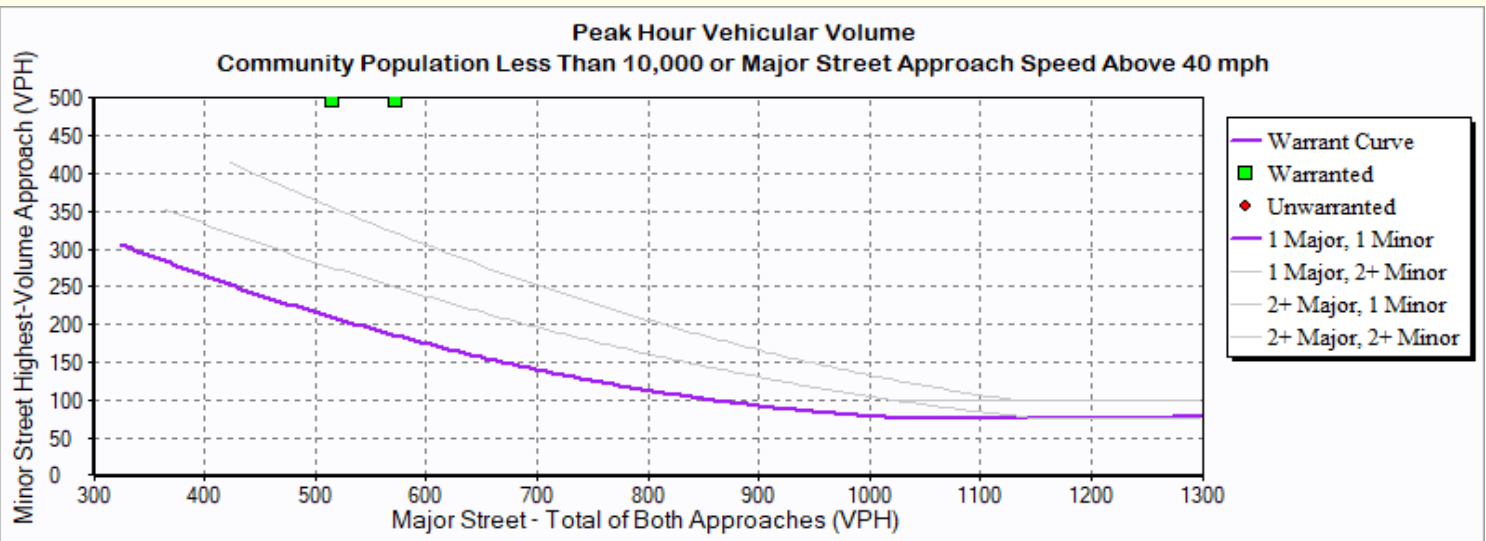
Notes 0 Hours met (1 required)

Notes 2 Hours met (1 required)

Minor Approach Time Delay Condition Met? **Not Met**

Minor Approach Volume Condition Met? **Met**

Total Entering Intersection Volume Condition Met? **Not Met**



Warrant 3: Peak Hour

1: Minnewawa Ave & Behymer Ave - Existing Plus Proj

AGENDA ITEM NO. 5.

| Hour | Major Street Total All Approaches (vph) | Minor Street Highest Volume Approach (vph) |
|-------|---|--|
| 7:45 | 573 | 580 |
| 17:00 | 515 | 531 |

Warrant 3: Peak Hour

AGENDA ITEM NO. 5.

1: Minnewawa Ave & Behymer Ave - Near-Term With Proj

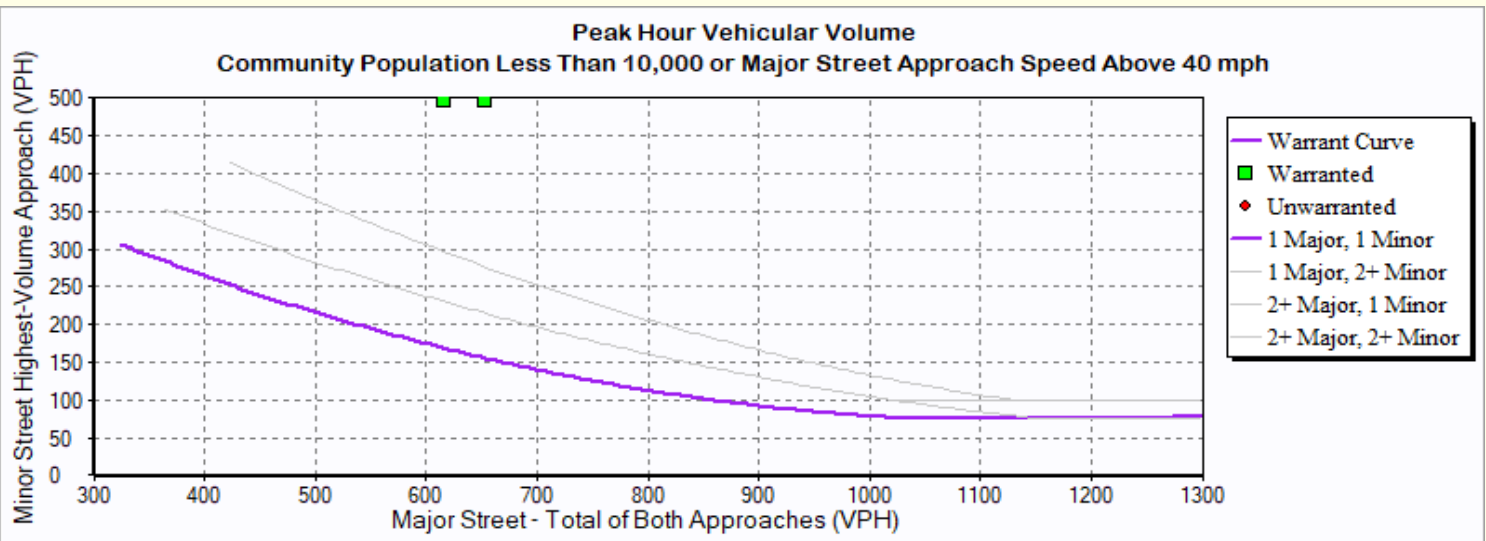
Intersection Information:

| | Major Street | Minor Street |
|-----------------|---------------|--------------|
| Street Name | Minnewawa Ave | Behymer Ave |
| Direction | NB/SB | EB/WB |
| Number of Lanes | 1 | 1 |
| Approach Speed | 50 | 40 |

Warrant 3 Met? **Yes**

Details

| | | | |
|---|--------------------------|------------------|--------------------------|
| Low Population? | No | | |
| Condition A Met? | No | Condition B Met? | Yes |
| Notes | 0 Hours met (1 required) | Notes | 2 Hours met (1 required) |
| Minor Approach Time Delay Condition Met? | Not Met | | |
| Minor Approach Volume Condition Met? | Met | | |
| Total Entering Intersection Volume Condition Met? | Not Met | | |



Warrant 3: Peak Hour

1: Minnewawa Ave & Behymer Ave - Near-Term With Proj

AGENDA ITEM NO. 5.

| Hour | Major Street Total All Approaches (vph) | Minor Street Highest Volume Approach (vph) |
|-------|---|--|
| 7:45 | 653 | 695 |
| 17:00 | 617 | 599 |

Warrant 3: Peak Hour

AGENDA ITEM NO. 5.

4: Clovis Ave & Baron Ave - Near-Term With Proj

Intersection Information:

| | Major Street | Minor Street |
|-----------------|--------------|--------------|
| Street Name | Clovis Ave | Baron Ave |
| Direction | NB/SB | WB |
| Number of Lanes | 2 | 2 |
| Approach Speed | 45 | 40 |

Warrant 3 Met? **Yes**

Details

Low Population? **No**

Condition A Met? **No**

Condition B Met? **Yes**

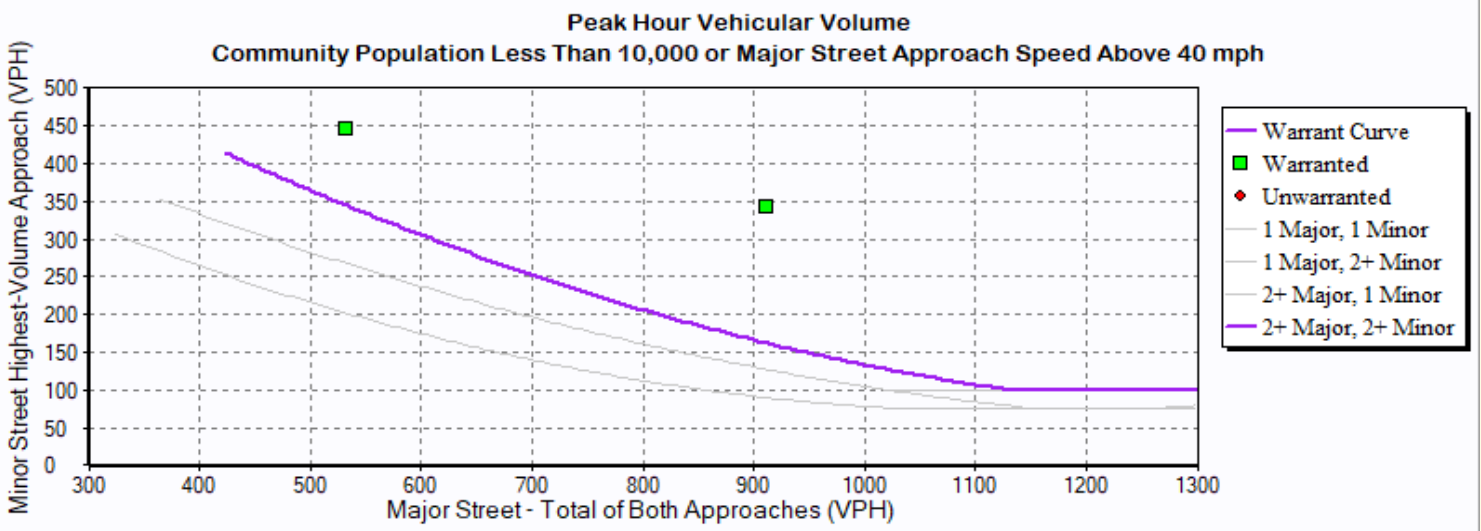
Notes 0 Hours met (1 required)

Notes 2 Hours met (1 required)

Minor Approach Time Delay Condition Met? **Not Met**

Minor Approach Volume Condition Met? **Met**

Total Entering Intersection Volume Condition Met? **Not Met**



| Hour | Major Street Total All Approaches (vph) | Minor Street Highest Volume Approach (vph) |
|-------|---|--|
| 0:00 | 0 | 0 |
| 7:15 | 533 | 446 |
| 17:00 | 912 | 343 |

Warrant 3: Peak Hour

AGENDA ITEM NO. 5.

1: Minnewawa Ave & Behymer Ave - 2045 With Proj

Intersection Information:

| | Major Street | Minor Street |
|-----------------|---------------|--------------|
| Street Name | Minnewawa Ave | Behymer Ave |
| Direction | NB/SB | EB/WB |
| Number of Lanes | 1 | 1 |
| Approach Speed | 50 | 40 |

Warrant 3 Met? **Yes**

Details

Low Population? **No**

Condition A Met? **No**

Condition B Met? **Yes**

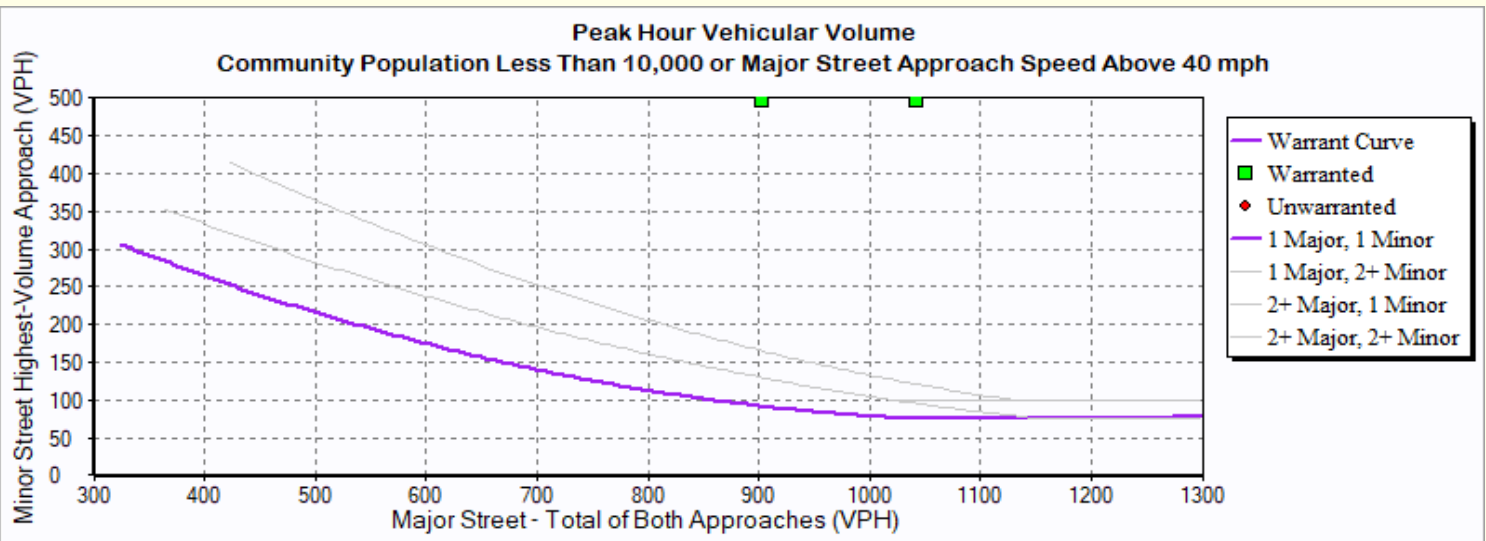
Notes 0 Hours met (1 required)

Notes 2 Hours met (1 required)

Minor Approach Time Delay Condition Met? **Not Met**

Minor Approach Volume Condition Met? **Met**

Total Entering Intersection Volume Condition Met? **Not Met**



Warrant 3: Peak Hour

1: Minnewawa Ave & Behymer Ave - 2045 With Proj

AGENDA ITEM NO. 5.

| Hour | Major Street Total All Approaches (vph) | Minor Street Highest Volume Approach (vph) |
|-------|---|--|
| 7:45 | 1,042 | 1,149 |
| 17:00 | 903 | 716 |

Warrant 3: Peak Hour

AGENDA ITEM NO. 5.

2: Baron Ave & Behymer Ave - 2045 With Proj

Intersection Information:

| | Major Street | Minor Street |
|-----------------|--------------|--------------|
| Street Name | Behymer Ave | Baron Ave |
| Direction | EB/WB | NB |
| Number of Lanes | 1 | 1 |
| Approach Speed | 45 | 40 |

Warrant 3 Met? **Yes**

Details

Low Population? **No**

Condition A Met? **No**

Condition B Met? **Yes**

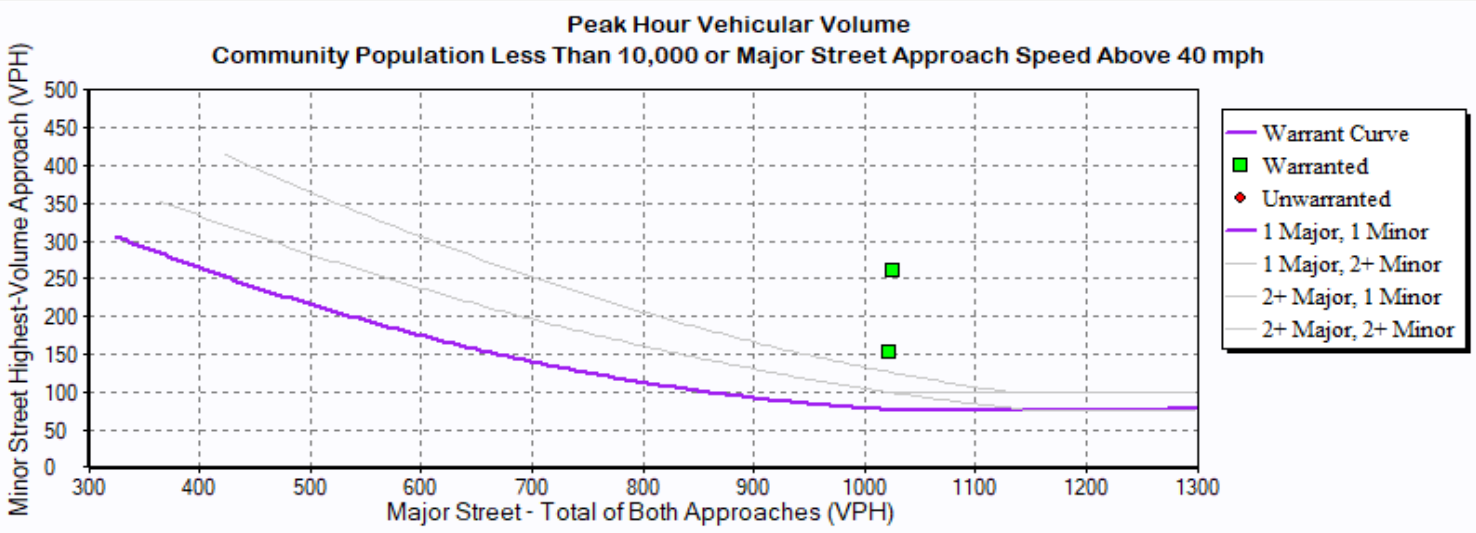
Notes 0 Hours met (1 required)

Notes 2 Hours met (1 required)

Minor Approach Time Delay Condition Met? **Not Met**

Minor Approach Volume Condition Met? **Met**

Total Entering Intersection Volume Condition Met? **Not Met**



Warrant 3: Peak Hour

2: Baron Ave & Behymer Ave - 2045 With Proj

AGENDA ITEM NO. 5.

| Hour | Major Street Total All Approaches (vph) | Minor Street Highest Volume Approach (vph) |
|-------|---|--|
| 7:15 | 1,025 | 261 |
| 17:15 | 1,022 | 153 |

Warrant 3: Peak Hour

AGENDA ITEM NO. 5.

4: Clovis Ave & Baron Ave - 2045 With Proj

Intersection Information:

| | Major Street | Minor Street |
|-----------------|--------------|--------------|
| Street Name | Clovis Ave | Baron Ave |
| Direction | NB/SB | WB |
| Number of Lanes | 2 | 2 |
| Approach Speed | 45 | 40 |

Warrant 3 Met? **Yes**

Details

Low Population? **No**

Condition A Met? **No**

Condition B Met? **Yes**

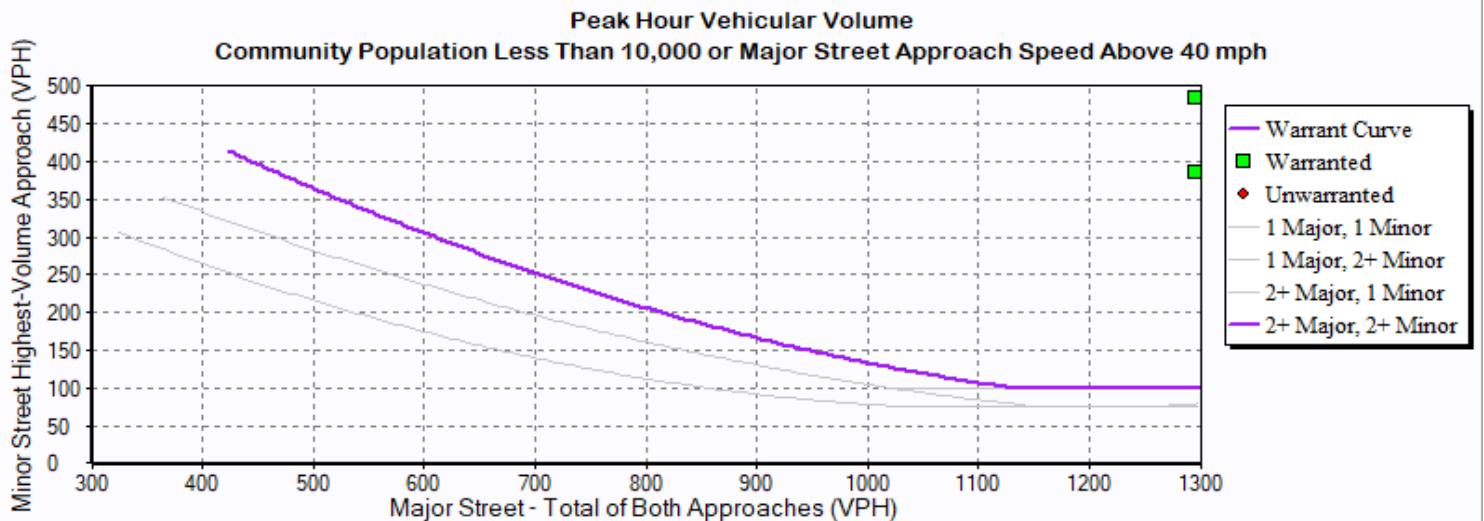
Notes 0 Hours met (1 required)

Notes 2 Hours met (1 required)

Minor Approach Time Delay Condition Met? **Not Met**

Minor Approach Volume Condition Met? **Met**

Total Entering Intersection Volume Condition Met? **Not Met**



| Hour | Major Street Total All Approaches (vph) | Minor Street Highest Volume Approach (vph) |
|-------|---|--|
| 0:00 | 0 | 0 |
| 7:15 | 1,621 | 485 |
| 17:00 | 2,129 | 387 |

APPENDIX D

IMPROVED INTERSECTION ANALYSES





















PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

1: Minnewawa Ave & Behymer Ave
HCM 6th Signalized Intersection Summary

Existing Plus Project-A

AGENDA ITEM NO. 5.

12/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 2 | 150 | 69 | 5 | 198 | 244 | 105 | 232 | 7 | 133 | 228 | 1 |
| Future Volume (veh/h) | 2 | 150 | 69 | 5 | 198 | 244 | 105 | 232 | 7 | 133 | 228 | 1 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 0.96 | 1.00 | | 0.96 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 2 | 155 | 71 | 5 | 204 | 252 | 108 | 239 | 7 | 137 | 235 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 92 | 416 | 189 | 93 | 260 | 316 | 156 | 375 | 11 | 177 | 409 | 2 |
| Arrive On Green | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.09 | 0.21 | 0.21 | 0.10 | 0.22 | 0.22 |
| Sat Flow, veh/h | 3 | 1200 | 544 | 5 | 751 | 911 | 1781 | 1805 | 53 | 1781 | 1861 | 8 |
| Grp Volume(v), veh/h | 228 | 0 | 0 | 461 | 0 | 0 | 108 | 0 | 246 | 137 | 0 | 236 |
| Grp Sat Flow(s),veh/h/ln | 1748 | 0 | 0 | 1667 | 0 | 0 | 1781 | 0 | 1858 | 1781 | 0 | 1869 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 | 0.0 | 4.8 | 3.0 | 0.0 | 4.5 |
| Cycle Q Clear(g_c), s | 3.9 | 0.0 | 0.0 | 9.9 | 0.0 | 0.0 | 2.3 | 0.0 | 4.8 | 3.0 | 0.0 | 4.5 |
| Prop In Lane | 0.01 | | 0.31 | 0.01 | | 0.55 | 1.00 | | 0.03 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 697 | 0 | 0 | 669 | 0 | 0 | 156 | 0 | 386 | 177 | 0 | 410 |
| V/C Ratio(X) | 0.33 | 0.00 | 0.00 | 0.69 | 0.00 | 0.00 | 0.69 | 0.00 | 0.64 | 0.77 | 0.00 | 0.58 |
| Avail Cap(c_a), veh/h | 927 | 0 | 0 | 889 | 0 | 0 | 313 | 0 | 890 | 357 | 0 | 942 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 9.8 | 0.0 | 0.0 | 11.7 | 0.0 | 0.0 | 17.7 | 0.0 | 14.4 | 17.5 | 0.0 | 13.9 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.0 | 1.4 | 0.0 | 0.0 | 5.4 | 0.0 | 1.8 | 7.0 | 0.0 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.1 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 1.0 | 0.0 | 1.6 | 1.3 | 0.0 | 1.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 10.1 | 0.0 | 0.0 | 13.2 | 0.0 | 0.0 | 23.1 | 0.0 | 16.2 | 24.6 | 0.0 | 15.2 |
| LnGrp LOS | B | A | A | B | A | A | C | A | B | C | A | B |
| Approach Vol, veh/h | | 228 | | | 461 | | | 354 | | | 373 | |
| Approach Delay, s/veh | | 10.1 | | | 13.2 | | | 18.3 | | | 18.6 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.0 | 13.2 | | 18.7 | 7.5 | 13.7 | | 18.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | | 4.9 | 4.0 | 4.9 | | 4.9 | | | | |
| Max Green Setting (Gmax), s | 8.0 | 19.1 | | 19.1 | 7.0 | 20.1 | | 19.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.0 | 6.8 | | 5.9 | 4.3 | 6.5 | | 11.9 | | | | |
| Green Ext Time (p_c), s | 0.1 | 0.9 | | 1.0 | 0.1 | 0.9 | | 1.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 15.4 | | | | | | | | |
| HCM 6th LOS | | | | B | | | | | | | | |

Synchro 11 Report

1: Minnewawa Ave & Behymer Ave
Queues

Existing Plus Project-A

AGENDA ITEM NO. 5.

12/22/2023



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 228 | 461 | 108 | 246 | 137 | 236 |
| v/c Ratio | 0.38 | 0.74 | 0.40 | 0.52 | 0.45 | 0.47 |
| Control Delay | 13.5 | 21.0 | 27.0 | 20.8 | 27.5 | 19.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.5 | 21.0 | 27.0 | 20.8 | 27.5 | 19.2 |
| Queue Length 50th (ft) | 41 | 88 | 30 | 63 | 38 | 59 |
| Queue Length 95th (ft) | 99 | #239 | #81 | 124 | #104 | 117 |
| Internal Link Dist (ft) | 2658 | 1520 | | 2614 | | 1226 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 817 | 820 | 293 | 840 | 335 | 885 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.28 | 0.56 | 0.37 | 0.29 | 0.41 | 0.27 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

1: Minnewawa Ave & Behymer Ave
HCM 6th Signalized Intersection Summary

Existing Plus Project-P

AGENDA ITEM NO. 5.

12/22/2023

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↔ | | | ↔ | | ↔ | ↔ | | ↔ | ↔ | |
| Traffic Volume (veh/h) | 3 | 184 | 53 | 3 | 173 | 191 | 69 | 221 | 14 | 164 | 205 | 6 |
| Future Volume (veh/h) | 3 | 184 | 53 | 3 | 173 | 191 | 69 | 221 | 14 | 164 | 205 | 6 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 0.96 | 1.00 | | 0.96 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 3 | 211 | 61 | 3 | 199 | 220 | 79 | 254 | 16 | 189 | 236 | 7 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 88 | 437 | 125 | 87 | 253 | 277 | 128 | 378 | 24 | 243 | 510 | 15 |
| Arrive On Green | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.07 | 0.22 | 0.22 | 0.14 | 0.28 | 0.28 |
| Sat Flow, veh/h | 5 | 1379 | 395 | 3 | 799 | 873 | 1781 | 1736 | 109 | 1781 | 1805 | 54 |
| Grp Volume(v), veh/h | 275 | 0 | 0 | 422 | 0 | 0 | 79 | 0 | 270 | 189 | 0 | 243 |
| Grp Sat Flow(s),veh/h/ln | 1779 | 0 | 0 | 1675 | 0 | 0 | 1781 | 0 | 1845 | 1781 | 0 | 1858 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 0.0 | 5.6 | 4.3 | 0.0 | 4.5 |
| Cycle Q Clear(g_c), s | 5.2 | 0.0 | 0.0 | 9.6 | 0.0 | 0.0 | 1.8 | 0.0 | 5.6 | 4.3 | 0.0 | 4.5 |
| Prop In Lane | 0.01 | | 0.22 | 0.01 | | 0.52 | 1.00 | | 0.06 | 1.00 | | 0.03 |
| Lane Grp Cap(c), veh/h | 650 | 0 | 0 | 617 | 0 | 0 | 128 | 0 | 401 | 243 | 0 | 525 |
| V/C Ratio(X) | 0.42 | 0.00 | 0.00 | 0.68 | 0.00 | 0.00 | 0.62 | 0.00 | 0.67 | 0.78 | 0.00 | 0.46 |
| Avail Cap(c_a), veh/h | 853 | 0 | 0 | 809 | 0 | 0 | 293 | 0 | 818 | 403 | 0 | 939 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 11.6 | 0.0 | 0.0 | 13.1 | 0.0 | 0.0 | 18.9 | 0.0 | 15.0 | 17.5 | 0.0 | 12.4 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 | 4.8 | 0.0 | 2.0 | 5.3 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 | 0.7 | 0.0 | 1.9 | 1.7 | 0.0 | 1.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 12.0 | 0.0 | 0.0 | 14.6 | 0.0 | 0.0 | 23.7 | 0.0 | 17.0 | 22.8 | 0.0 | 13.1 |
| LnGrp LOS | B | A | A | B | A | A | C | A | B | C | A | B |
| Approach Vol, veh/h | | 275 | | | 422 | | | 349 | | | 432 | |
| Approach Delay, s/veh | | 12.0 | | | 14.6 | | | 18.5 | | | 17.3 | |
| Approach LOS | | B | | | B | | | B | | | B | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.7 | 14.0 | | 18.2 | 7.0 | 16.7 | | 18.2 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | | 4.9 | 4.0 | 4.9 | | 4.9 | | | | |
| Max Green Setting (Gmax), s | 9.5 | 18.6 | | 18.1 | 6.9 | 21.2 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.3 | 7.6 | | 7.2 | 3.8 | 6.5 | | 11.6 | | | | |
| Green Ext Time (p_c), s | 0.1 | 1.0 | | 1.1 | 0.0 | 1.0 | | 1.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 15.8 | | | | | | | | |
| HCM 6th LOS | | | | B | | | | | | | | |

1: Minnewawa Ave & Behymer Ave
Queues

Existing Plus Project-P

AGENDA ITEM NO. 5.

12/22/2023



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 275 | 422 | 79 | 270 | 189 | 243 |
| v/c Ratio | 0.49 | 0.72 | 0.31 | 0.55 | 0.55 | 0.37 |
| Control Delay | 17.5 | 21.7 | 26.4 | 21.2 | 29.5 | 15.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 17.5 | 21.7 | 26.4 | 21.2 | 29.5 | 15.3 |
| Queue Length 50th (ft) | 61 | 86 | 22 | 72 | 54 | 59 |
| Queue Length 95th (ft) | 129 | #198 | 60 | 131 | #138 | 110 |
| Internal Link Dist (ft) | 2658 | 1520 | | 2614 | | 1226 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 751 | 755 | 278 | 785 | 383 | 917 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.56 | 0.28 | 0.34 | 0.49 | 0.26 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

1: Minnewawa Ave & Behymer Ave HCM 6th Signalized Intersection Summary

Near-Term With Project-A

AGENDA ITEM NO. 5.

12/22/2023



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | ↔ | | | ↔ | | ↗ | ↖ | | ↗ | ↖ | |
| Traffic Volume (veh/h) | 3 | 162 | 72 | 18 | 222 | 316 | 111 | 271 | 13 | 139 | 255 | 3 |
| Future Volume (veh/h) | 3 | 162 | 72 | 18 | 222 | 316 | 111 | 271 | 13 | 139 | 255 | 3 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 0.96 | 1.00 | | 0.96 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 3 | 167 | 74 | 19 | 229 | 326 | 114 | 279 | 13 | 143 | 263 | 3 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 78 | 472 | 206 | 87 | 268 | 363 | 146 | 391 | 18 | 182 | 445 | 5 |
| Arrive On Green | 0.39 | 0.39 | 0.39 | 0.39 | 0.39 | 0.39 | 0.08 | 0.22 | 0.22 | 0.10 | 0.24 | 0.24 |
| Sat Flow, veh/h | 5 | 1219 | 533 | 22 | 691 | 938 | 1781 | 1769 | 82 | 1781 | 1845 | 21 |
| Grp Volume(v), veh/h | 244 | 0 | 0 | 574 | 0 | 0 | 114 | 0 | 292 | 143 | 0 | 266 |
| Grp Sat Flow(s),veh/h/ln | 1757 | 0 | 0 | 1652 | 0 | 0 | 1781 | 0 | 1852 | 1781 | 0 | 1866 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 4.6 | 0.0 | 0.0 | 3.0 | 0.0 | 7.0 | 3.7 | 0.0 | 6.0 |
| Cycle Q Clear(g_c), s | 4.7 | 0.0 | 0.0 | 15.5 | 0.0 | 0.0 | 3.0 | 0.0 | 7.0 | 3.7 | 0.0 | 6.0 |
| Prop In Lane | 0.01 | | 0.30 | 0.03 | | 0.57 | 1.00 | | 0.04 | 1.00 | | 0.01 |
| Lane Grp Cap(c), veh/h | 757 | 0 | 0 | 718 | 0 | 0 | 146 | 0 | 409 | 182 | 0 | 450 |
| V/C Ratio(X) | 0.32 | 0.00 | 0.00 | 0.80 | 0.00 | 0.00 | 0.78 | 0.00 | 0.71 | 0.78 | 0.00 | 0.59 |
| Avail Cap(c_a), veh/h | 816 | 0 | 0 | 773 | 0 | 0 | 224 | 0 | 780 | 224 | 0 | 786 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 10.4 | 0.0 | 0.0 | 13.7 | 0.0 | 0.0 | 21.5 | 0.0 | 17.2 | 20.9 | 0.0 | 16.0 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | 9.2 | 0.0 | 2.3 | 13.6 | 0.0 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 | 1.4 | 0.0 | 2.5 | 2.0 | 0.0 | 2.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 10.6 | 0.0 | 0.0 | 19.3 | 0.0 | 0.0 | 30.7 | 0.0 | 19.5 | 34.5 | 0.0 | 17.2 |
| LnGrp LOS | B | A | A | B | A | A | C | A | B | C | A | B |
| Approach Vol, veh/h | | 244 | | | 574 | | | 406 | | | 409 | |
| Approach Delay, s/veh | | 10.6 | | | 19.3 | | | 22.7 | | | 23.3 | |
| Approach LOS | | B | | | B | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.9 | 15.4 | | 23.4 | 7.9 | 16.4 | | 23.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | | 4.9 | 4.0 | 4.9 | | 4.9 | | | | |
| Max Green Setting (Gmax), s | 6.0 | 20.1 | | 20.1 | 6.0 | 20.1 | | 20.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.7 | 9.0 | | 6.7 | 5.0 | 8.0 | | 17.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.1 | | 1.1 | 0.0 | 1.0 | | 1.0 | | | | |

Intersection Summary

| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 19.8 |
| HCM 6th LOS | B |

1: Minnewawa Ave & Behymer Ave Queues

Near-Term With Project-A

AGENDA ITEM NO. 5.

12/22/2023



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 244 | 574 | 114 | 292 | 143 | 266 |
| v/c Ratio | 0.37 | 0.85 | 0.55 | 0.62 | 0.69 | 0.47 |
| Control Delay | 13.0 | 28.4 | 37.1 | 23.1 | 46.2 | 19.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.0 | 28.4 | 37.1 | 23.1 | 46.2 | 19.6 |
| Queue Length 50th (ft) | 44 | 124 | 35 | 80 | 45 | 73 |
| Queue Length 95th (ft) | 106 | #336 | #105 | 143 | #136 | 131 |
| Internal Link Dist (ft) | 2658 | 1520 | | 2614 | | 1226 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 711 | 722 | 206 | 725 | 206 | 728 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.80 | 0.55 | 0.40 | 0.69 | 0.37 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

4: Clovis Ave & Baron Ave HCM 6th Signalized Intersection Summary

Near-Term With Project-A

AGENDA ITEM NO. 5.

12/22/2023

| Movement | WBL | WBR | NBU | NBT | NBR | SBL | SBT |
|------------------------------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 360 | 3 | 83 | 116 | 188 | 3 | 226 |
| Future Volume (veh/h) | 360 | 3 | 83 | 116 | 188 | 3 | 226 |
| Initial Q (Qb), veh | 0 | 0 | | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 391 | 3 | | 126 | 163 | 3 | 246 |
| Peak Hour Factor | 0.92 | 0.92 | | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | | 2 | 2 | 2 | 2 |
| Cap, veh/h | 515 | 458 | | 363 | 324 | 7 | 1336 |
| Arrive On Green | 0.29 | 0.29 | | 0.20 | 0.20 | 0.00 | 0.38 |
| Sat Flow, veh/h | 1781 | 1585 | | 1870 | 1585 | 1781 | 3647 |
| Grp Volume(v), veh/h | 391 | 3 | | 126 | 163 | 3 | 246 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | | 1777 | 1585 | 1781 | 1777 |
| Q Serve(g_s), s | 5.9 | 0.0 | | 1.8 | 2.7 | 0.0 | 1.4 |
| Cycle Q Clear(g_c), s | 5.9 | 0.0 | | 1.8 | 2.7 | 0.0 | 1.4 |
| Prop In Lane | 1.00 | 1.00 | | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 515 | 458 | | 363 | 324 | 7 | 1336 |
| V/C Ratio(X) | 0.76 | 0.01 | | 0.35 | 0.50 | 0.41 | 0.18 |
| Avail Cap(c_a), veh/h | 1223 | 1088 | | 1226 | 1094 | 304 | 2319 |
| HCM Platoon Ratio | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 9.5 | 7.4 | | 10.0 | 10.3 | 14.5 | 6.1 |
| Incr Delay (d2), s/veh | 2.3 | 0.0 | | 0.6 | 1.2 | 32.7 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 0.0 | | 0.5 | 0.6 | 0.1 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | 11.8 | 7.4 | | 10.5 | 11.5 | 47.2 | 6.2 |
| LnGrp LOS | B | A | | B | B | D | A |
| Approach Vol, veh/h | 394 | | | 289 | | | 249 |
| Approach Delay, s/veh | 11.8 | | | 11.1 | | | 6.7 |
| Approach LOS | B | | | B | | | A |
| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 5.0 | 10.9 | | | | 15.9 | 13.4 |
| Change Period (Y+Rc), s | 4.9 | 4.9 | | | | 4.9 | 4.9 |
| Max Green Setting (Gmax), s | 5.0 | 20.2 | | | | 19.1 | 20.1 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 4.7 | | | | 3.4 | 7.9 |
| Green Ext Time (p_c), s | 0.0 | 1.3 | | | | 1.2 | 1.0 |
| Intersection Summary | | | | | | | |
| HCM 6th Ctrl Delay | | | 10.2 | | | | |
| HCM 6th LOS | | | B | | | | |

Notes







User approved ignoring U-Turning movement.

4: Clovis Ave & Baron Ave Queues

Near-Term With Project-A

AGENDA ITEM NO. 5.

12/22/2023

























| |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBU | NBT | SBL | SBT |
| Lane Group Flow (vph) | 391 | 3 | 90 | 330 | 3 | 246 |
| v/c Ratio | 0.61 | 0.01 | 0.32 | 0.27 | 0.01 | 0.29 |
| Control Delay | 16.4 | 7.3 | 22.4 | 5.7 | 20.3 | 16.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.4 | 7.3 | 22.4 | 5.7 | 20.3 | 16.2 |
| Queue Length 50th (ft) | 81 | 0 | 21 | 8 | 1 | 28 |
| Queue Length 95th (ft) | 161 | 4 | 62 | 43 | 7 | 60 |
| Internal Link Dist (ft) | 681 | | | 390 | | 811 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 959 | 859 | 291 | 1845 | 238 | 1822 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.41 | 0.00 | 0.31 | 0.18 | 0.01 | 0.14 |
| Intersection Summary | | | | | | |

5: Clovis Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Near-Term With Project-A

AGENDA ITEM NO. 5.

12/20/2023













| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 117 | 611 | 166 | 202 | 853 | 68 | 185 | 155 | 81 | 161 | 329 | 173 |
| Future Volume (veh/h) | 117 | 611 | 166 | 202 | 853 | 68 | 185 | 155 | 81 | 161 | 329 | 173 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.97 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 131 | 687 | 165 | 227 | 958 | 75 | 208 | 174 | 84 | 181 | 370 | 169 |
| Peak Hour Factor | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 248 | 1219 | 533 | 344 | 1317 | 576 | 321 | 671 | 292 | 287 | 636 | 276 |
| Arrive On Green | 0.07 | 0.34 | 0.34 | 0.10 | 0.37 | 0.37 | 0.09 | 0.19 | 0.19 | 0.08 | 0.18 | 0.18 |
| Sat Flow, veh/h | 3456 | 3554 | 1554 | 3456 | 3554 | 1555 | 3456 | 3554 | 1544 | 3456 | 3554 | 1543 |
| Grp Volume(v), veh/h | 131 | 687 | 165 | 227 | 958 | 75 | 208 | 174 | 84 | 181 | 370 | 169 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1554 | 1728 | 1777 | 1555 | 1728 | 1777 | 1544 | 1728 | 1777 | 1543 |
| Q Serve(g_s), s | 2.3 | 9.8 | 4.9 | 3.9 | 14.5 | 2.0 | 3.6 | 2.6 | 2.9 | 3.2 | 5.9 | 6.3 |
| Cycle Q Clear(g_c), s | 2.3 | 9.8 | 4.9 | 3.9 | 14.5 | 2.0 | 3.6 | 2.6 | 2.9 | 3.2 | 5.9 | 6.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 248 | 1219 | 533 | 344 | 1317 | 576 | 321 | 671 | 292 | 287 | 636 | 276 |
| V/C Ratio(X) | 0.53 | 0.56 | 0.31 | 0.66 | 0.73 | 0.13 | 0.65 | 0.26 | 0.29 | 0.63 | 0.58 | 0.61 |
| Avail Cap(c_a), veh/h | 499 | 2058 | 900 | 721 | 2286 | 1000 | 665 | 1260 | 547 | 610 | 1203 | 522 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 27.9 | 16.7 | 15.1 | 27.0 | 16.9 | 13.0 | 27.3 | 21.6 | 21.7 | 27.7 | 23.5 | 23.6 |
| Incr Delay (d2), s/veh | 1.7 | 0.4 | 0.3 | 2.2 | 0.8 | 0.1 | 2.2 | 0.2 | 0.5 | 2.3 | 0.8 | 2.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 3.3 | 1.4 | 1.5 | 4.8 | 0.6 | 1.4 | 1.0 | 1.0 | 1.3 | 2.3 | 2.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 29.6 | 17.1 | 15.4 | 29.2 | 17.7 | 13.1 | 29.5 | 21.8 | 22.2 | 29.9 | 24.3 | 25.8 |
| LnGrp LOS | C | B | B | C | B | B | C | C | C | C | C | C |
| Approach Vol, veh/h | 983 | | | 1260 | | | 466 | | | 720 | | |
| Approach Delay, s/veh | 18.5 | | | 19.5 | | | 25.3 | | | 26.1 | | |
| Approach LOS | B | | | B | | | C | | | C | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.2 | 16.7 | 10.2 | 26.3 | 9.8 | 16.1 | 8.5 | 28.0 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 11.0 | 22.1 | 13.0 | 36.1 | 12.0 | 21.1 | 9.0 | 40.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.2 | 4.9 | 5.9 | 11.8 | 5.6 | 8.3 | 4.3 | 16.5 | | | | |
| Green Ext Time (p_c), s | 0.3 | 1.1 | 0.4 | 4.9 | 0.3 | 2.2 | 0.1 | 6.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 21.4 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |

5: Clovis Ave & Shepherd Ave
Queues

Near-Term With Project-

AGENDA ITEM NO. 5.

12/20/2023



















| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 131 | 687 | 187 | 227 | 958 | 76 | 208 | 174 | 91 | 181 | 370 | 194 |
| v/c Ratio | 0.38 | 0.59 | 0.32 | 0.50 | 0.75 | 0.12 | 0.48 | 0.26 | 0.24 | 0.45 | 0.57 | 0.44 |
| Control Delay | 40.8 | 25.3 | 11.4 | 38.9 | 27.1 | 2.1 | 39.4 | 30.4 | 6.6 | 39.8 | 35.1 | 8.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 40.8 | 25.3 | 11.4 | 38.9 | 27.1 | 2.1 | 39.4 | 30.4 | 6.6 | 39.8 | 35.1 | 8.6 |
| Queue Length 50th (ft) | 32 | 150 | 28 | 56 | 219 | 0 | 51 | 40 | 0 | 44 | 91 | 0 |
| Queue Length 95th (ft) | 70 | 233 | 83 | 107 | 324 | 14 | 100 | 77 | 30 | 90 | 154 | 55 |
| Internal Link Dist (ft) | 1234 | | | | 1233 | | | | 1070 | | | |
| Turn Bay Length (ft) | 250 | | 50 | 250 | | 255 | 235 | | 65 | 255 | | 100 |
| Base Capacity (vph) | 399 | 1652 | 780 | 577 | 1836 | 854 | 532 | 1012 | 518 | 488 | 966 | 562 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.33 | 0.42 | 0.24 | 0.39 | 0.52 | 0.09 | 0.39 | 0.17 | 0.18 | 0.37 | 0.38 | 0.35 |
| Intersection Summary | | | | | | | | | | | | |

1: Minnewawa Ave & Behymer Ave HCM 6th Signalized Intersection Summary

Near-Term With Project-F

AGENDA ITEM NO. 5.

12/20/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  | | |  | |  |  | |  |  | |
| Traffic Volume (veh/h) | 3 | 213 | 60 | 16 | 193 | 204 | 74 | 256 | 26 | 186 | 255 | 6 |
| Future Volume (veh/h) | 3 | 213 | 60 | 16 | 193 | 204 | 74 | 256 | 26 | 186 | 255 | 6 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.97 | 1.00 | | 0.96 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 3 | 245 | 69 | 18 | 222 | 234 | 85 | 294 | 30 | 214 | 293 | 7 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 76 | 458 | 128 | 86 | 269 | 270 | 125 | 394 | 40 | 267 | 576 | 14 |
| Arrive On Green | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.07 | 0.24 | 0.24 | 0.15 | 0.32 | 0.32 |
| Sat Flow, veh/h | 4 | 1397 | 390 | 26 | 819 | 824 | 1781 | 1662 | 170 | 1781 | 1817 | 43 |
| Grp Volume(v), veh/h | 317 | 0 | 0 | 474 | 0 | 0 | 85 | 0 | 324 | 214 | 0 | 300 |
| Grp Sat Flow(s),veh/h/ln | 1791 | 0 | 0 | 1669 | 0 | 0 | 1781 | 0 | 1832 | 1781 | 0 | 1861 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 3.7 | 0.0 | 0.0 | 2.3 | 0.0 | 7.9 | 5.6 | 0.0 | 6.4 |
| Cycle Q Clear(g_c), s | 7.0 | 0.0 | 0.0 | 12.9 | 0.0 | 0.0 | 2.3 | 0.0 | 7.9 | 5.6 | 0.0 | 6.4 |
| Prop In Lane | 0.01 | | 0.22 | 0.04 | | 0.49 | 1.00 | | 0.09 | 1.00 | | 0.02 |
| Lane Grp Cap(c), veh/h | 663 | 0 | 0 | 625 | 0 | 0 | 125 | 0 | 435 | 267 | 0 | 590 |
| V/C Ratio(X) | 0.48 | 0.00 | 0.00 | 0.76 | 0.00 | 0.00 | 0.68 | 0.00 | 0.75 | 0.80 | 0.00 | 0.51 |
| Avail Cap(c_a), veh/h | 743 | 0 | 0 | 699 | 0 | 0 | 261 | 0 | 722 | 331 | 0 | 806 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.3 | 0.0 | 0.0 | 15.2 | 0.0 | 0.0 | 22.0 | 0.0 | 17.1 | 19.9 | 0.0 | 13.5 |
| Incr Delay (d2), s/veh | 0.5 | 0.0 | 0.0 | 4.3 | 0.0 | 0.0 | 6.3 | 0.0 | 2.6 | 10.8 | 0.0 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.2 | 0.0 | 0.0 | 4.4 | 0.0 | 0.0 | 1.0 | 0.0 | 2.9 | 2.7 | 0.0 | 2.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 13.8 | 0.0 | 0.0 | 19.6 | 0.0 | 0.0 | 28.3 | 0.0 | 19.7 | 30.7 | 0.0 | 14.2 |
| LnGrp LOS | B | A | A | B | A | A | C | A | B | C | A | B |
| Approach Vol, veh/h | | 317 | | | 474 | | | 409 | | | 514 | |
| Approach Delay, s/veh | | 13.8 | | | 19.6 | | | 21.5 | | | 21.0 | |
| Approach LOS | | B | | | B | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.3 | 16.4 | | 20.8 | 7.4 | 20.3 | | 20.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | | 4.9 | 4.0 | 4.9 | | 4.9 | | | | |
| Max Green Setting (Gmax), s | 9.0 | 19.1 | | 18.1 | 7.1 | 21.0 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.6 | 9.9 | | 9.0 | 4.3 | 8.4 | | 14.9 | | | | |
| Green Ext Time (p_c), s | 0.1 | 1.1 | | 1.1 | 0.0 | 1.2 | | 0.9 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | | 19.4 | | | | | | | | |
| HCM 6th LOS | | | | B | | | | | | | | |

Synchro 11 Report



| Lane Group | EBT | WBT | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 317 | 474 | 85 | 324 | 214 | 300 |
| v/c Ratio | 0.56 | 0.83 | 0.38 | 0.66 | 0.72 | 0.41 |
| Control Delay | 19.5 | 30.3 | 28.8 | 24.5 | 40.4 | 16.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.5 | 30.3 | 28.8 | 24.5 | 40.4 | 16.1 |
| Queue Length 50th (ft) | 76 | 113 | 26 | 92 | 68 | 81 |
| Queue Length 95th (ft) | 151 | #267 | 64 | 155 | #168 | 137 |
| Internal Link Dist (ft) | 5395 | 1520 | | 2614 | | 2532 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 634 | 632 | 239 | 672 | 303 | 773 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.50 | 0.75 | 0.36 | 0.48 | 0.71 | 0.39 |

Intersection Summary














95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

4: Clovis Ave & Baron Ave
HCM 6th Signalized Intersection Summary

Near-Term With Project-F

AGENDA ITEM NO. 5.

12/22/2023







| |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|
| Movement | WBL | WBR | NBU | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  | |  |  |
| Traffic Volume (veh/h) | 312 | 1 | 30 | 268 | 447 | 1 | 196 |
| Future Volume (veh/h) | 312 | 1 | 30 | 268 | 447 | 1 | 196 |
| Initial Q (Qb), veh | 0 | 0 | | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 339 | 1 | | 291 | 389 | 1 | 213 |
| Peak Hour Factor | 0.92 | 0.92 | | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | | 2 | 2 | 2 | 2 |
| Cap, veh/h | 443 | 394 | | 624 | 556 | 5 | 1663 |
| Arrive On Green | 0.25 | 0.25 | | 0.35 | 0.35 | 0.00 | 0.47 |
| Sat Flow, veh/h | 1781 | 1585 | | 1870 | 1585 | 1781 | 3647 |
| Grp Volume(v), veh/h | 339 | 1 | | 291 | 389 | 1 | 213 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | | 1777 | 1585 | 1781 | 1777 |
| Q Serve(g_s), s | 6.1 | 0.0 | | 4.4 | 7.3 | 0.0 | 1.2 |
| Cycle Q Clear(g_c), s | 6.1 | 0.0 | | 4.4 | 7.3 | 0.0 | 1.2 |
| Prop In Lane | 1.00 | 1.00 | | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 443 | 394 | | 624 | 556 | 5 | 1663 |
| V/C Ratio(X) | 0.77 | 0.00 | | 0.47 | 0.70 | 0.19 | 0.13 |
| Avail Cap(c_a), veh/h | 1087 | 967 | | 982 | 876 | 309 | 1963 |
| HCM Platoon Ratio | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 12.1 | 9.8 | | 8.7 | 9.7 | 17.2 | 5.2 |
| Incr Delay (d2), s/veh | 2.8 | 0.0 | | 0.5 | 1.6 | 17.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 0.0 | | 1.0 | 1.6 | 0.0 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | 14.9 | 9.8 | | 9.3 | 11.3 | 34.6 | 5.2 |
| LnGrp LOS | B | A | | A | B | C | A |
| Approach Vol, veh/h | 340 | | | 680 | | | 214 |
| Approach Delay, s/veh | 14.8 | | | 10.4 | | | 5.4 |
| Approach LOS | B | | | B | | | A |
| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 4.0 | 17.0 | | | | 21.1 | 13.5 |
| Change Period (Y+Rc), s | 4.0 | 4.9 | | | | 4.9 | 4.9 |
| Max Green Setting (Gmax), s | 6.0 | 19.1 | | | | 19.1 | 21.1 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 9.3 | | | | 3.2 | 8.1 |
| Green Ext Time (p_c), s | 0.0 | 2.8 | | | | 1.0 | 0.8 |
| Intersection Summary | | | | | | | |
| HCM 6th Ctrl Delay | | | 10.8 | | | | |
| HCM 6th LOS | | | B | | | | |
| Notes | | | | | | | |
| User approved ignoring U-Turning movement. | | | | | | | |

4: Clovis Ave & Baron Ave Queues

Near-Term With Project-F

AGENDA ITEM NO. 5.

12/22/2023

























| |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBU | NBT | SBL | SBT |
| Lane Group Flow (vph) | 339 | 1 | 33 | 777 | 1 | 213 |
| v/c Ratio | 0.56 | 0.00 | 0.11 | 0.55 | 0.00 | 0.18 |
| Control Delay | 14.9 | 9.0 | 19.4 | 6.1 | 20.0 | 10.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 14.9 | 9.0 | 19.4 | 6.1 | 20.0 | 10.8 |
| Queue Length 50th (ft) | 42 | 0 | 5 | 17 | 0 | 12 |
| Queue Length 95th (ft) | 166 | 3 | 33 | 83 | 4 | 51 |
| Internal Link Dist (ft) | 681 | | | 390 | | 811 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 1087 | 972 | 309 | 1998 | 309 | 1967 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.31 | 0.00 | 0.11 | 0.39 | 0.00 | 0.11 |
| Intersection Summary | | | | | | |

5: Clovis Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Near-Term With Project-F

AGENDA ITEM NO. 5.

12/20/2023













| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 207 | 811 | 163 | 144 | 817 | 165 | 228 | 380 | 200 | 128 | 243 | 147 |
| Future Volume (veh/h) | 207 | 811 | 163 | 144 | 817 | 165 | 228 | 380 | 200 | 128 | 243 | 147 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 238 | 932 | 167 | 166 | 939 | 187 | 262 | 437 | 193 | 147 | 279 | 151 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 352 | 1390 | 609 | 263 | 1298 | 568 | 381 | 707 | 308 | 240 | 562 | 244 |
| Arrive On Green | 0.10 | 0.39 | 0.39 | 0.08 | 0.37 | 0.37 | 0.11 | 0.20 | 0.20 | 0.07 | 0.16 | 0.16 |
| Sat Flow, veh/h | 3456 | 3554 | 1556 | 3456 | 3554 | 1555 | 3456 | 3554 | 1546 | 3456 | 3554 | 1540 |
| Grp Volume(v), veh/h | 238 | 932 | 167 | 166 | 939 | 187 | 262 | 437 | 193 | 147 | 279 | 151 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1556 | 1728 | 1777 | 1555 | 1728 | 1777 | 1546 | 1728 | 1777 | 1540 |
| Q Serve(g_s), s | 4.5 | 14.6 | 4.9 | 3.1 | 15.4 | 5.8 | 4.9 | 7.6 | 7.7 | 2.8 | 4.8 | 6.2 |
| Cycle Q Clear(g_c), s | 4.5 | 14.6 | 4.9 | 3.1 | 15.4 | 5.8 | 4.9 | 7.6 | 7.7 | 2.8 | 4.8 | 6.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 352 | 1390 | 609 | 263 | 1298 | 568 | 381 | 707 | 308 | 240 | 562 | 244 |
| V/C Ratio(X) | 0.68 | 0.67 | 0.27 | 0.63 | 0.72 | 0.33 | 0.69 | 0.62 | 0.63 | 0.61 | 0.50 | 0.62 |
| Avail Cap(c_a), veh/h | 769 | 2590 | 1134 | 564 | 2379 | 1041 | 821 | 1430 | 622 | 564 | 1166 | 505 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 29.2 | 16.9 | 14.0 | 30.2 | 18.4 | 15.4 | 28.9 | 24.6 | 24.7 | 30.5 | 25.9 | 26.5 |
| Incr Delay (d2), s/veh | 2.3 | 0.6 | 0.2 | 2.5 | 0.8 | 0.3 | 2.2 | 0.9 | 2.1 | 2.5 | 0.7 | 2.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.8 | 4.9 | 1.5 | 1.3 | 5.3 | 1.8 | 2.0 | 2.9 | 2.6 | 1.1 | 1.9 | 2.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 31.4 | 17.5 | 14.2 | 32.7 | 19.2 | 15.8 | 31.1 | 25.5 | 26.8 | 33.0 | 26.6 | 29.0 |
| LnGrp LOS | C | B | B | C | B | B | C | C | C | C | C | C |
| Approach Vol, veh/h | 1337 | | | 1292 | | | 892 | | | 577 | | |
| Approach Delay, s/veh | 19.6 | | | 20.4 | | | 27.4 | | | 28.8 | | |
| Approach LOS | B | | | C | | | C | | | C | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.7 | 18.3 | 9.1 | 31.3 | 11.4 | 15.6 | 10.9 | 29.5 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 11.0 | 27.1 | 11.0 | 49.1 | 16.0 | 22.1 | 15.0 | 45.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.8 | 9.7 | 5.1 | 16.6 | 6.9 | 8.2 | 6.5 | 17.4 | | | | |
| Green Ext Time (p_c), s | 0.2 | 3.0 | 0.2 | 7.4 | 0.6 | 1.8 | 0.5 | 7.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 22.9 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |

5: Clovis Ave & Shepherd Ave Queues

Near-Term With Project-I

AGENDA ITEM NO. 5.

12/20/2023






















| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 238 | 932 | 187 | 166 | 939 | 190 | 262 | 437 | 230 | 147 | 279 | 169 |
| v/c Ratio | 0.53 | 0.69 | 0.28 | 0.45 | 0.74 | 0.28 | 0.56 | 0.61 | 0.54 | 0.42 | 0.47 | 0.43 |
| Control Delay | 44.1 | 26.6 | 8.1 | 45.9 | 29.8 | 4.5 | 43.8 | 38.2 | 18.9 | 45.6 | 38.8 | 9.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 44.1 | 26.6 | 8.1 | 45.9 | 29.8 | 4.5 | 43.8 | 38.2 | 18.9 | 45.6 | 38.8 | 9.8 |
| Queue Length 50th (ft) | 64 | 225 | 20 | 45 | 236 | 0 | 71 | 118 | 40 | 40 | 75 | 0 |
| Queue Length 95th (ft) | 124 | 331 | 65 | 93 | 356 | 41 | 133 | 195 | 120 | 84 | 135 | 53 |
| Internal Link Dist (ft) | 1234 | | | | 1233 | | | | 1070 | | | |
| Turn Bay Length (ft) | 250 | | 50 | 250 | | 255 | 235 | | 65 | 255 | | 100 |
| Base Capacity (vph) | 597 | 2017 | 937 | 438 | 1852 | 899 | 637 | 1113 | 585 | 438 | 908 | 520 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.40 | 0.46 | 0.20 | 0.38 | 0.51 | 0.21 | 0.41 | 0.39 | 0.39 | 0.34 | 0.31 | 0.33 |
| Intersection Summary | | | | | | | | | | | | |

1: Minnewawa Ave & Behymer Ave
HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With Project-A

AGENDA ITEM NO. 5.

12/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  |  |  | |  |  | |
| Traffic Volume (veh/h) | 3 | 188 | 98 | 61 | 529 | 390 | 133 | 290 | 14 | 169 | 594 | 11 |
| Future Volume (veh/h) | 3 | 188 | 98 | 61 | 529 | 390 | 133 | 290 | 14 | 169 | 594 | 11 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.96 | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 3 | 194 | 71 | 63 | 545 | 281 | 137 | 299 | 14 | 174 | 612 | 11 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 7 | 356 | 130 | 84 | 596 | 488 | 170 | 597 | 28 | 212 | 661 | 12 |
| Arrive On Green | 0.00 | 0.28 | 0.28 | 0.05 | 0.32 | 0.32 | 0.10 | 0.34 | 0.34 | 0.12 | 0.36 | 0.36 |
| Sat Flow, veh/h | 1781 | 1292 | 473 | 1781 | 1870 | 1532 | 1781 | 1769 | 83 | 1781 | 1830 | 33 |
| Grp Volume(v), veh/h | 3 | 0 | 265 | 63 | 545 | 281 | 137 | 0 | 313 | 174 | 0 | 623 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1765 | 1781 | 1870 | 1532 | 1781 | 0 | 1852 | 1781 | 0 | 1863 |
| Q Serve(g_s), s | 0.1 | 0.0 | 10.3 | 2.8 | 22.6 | 12.3 | 6.1 | 0.0 | 10.9 | 7.7 | 0.0 | 25.9 |
| Cycle Q Clear(g_c), s | 0.1 | 0.0 | 10.3 | 2.8 | 22.6 | 12.3 | 6.1 | 0.0 | 10.9 | 7.7 | 0.0 | 25.9 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 0.02 |
| Lane Grp Cap(c), veh/h | 7 | 0 | 487 | 84 | 596 | 488 | 170 | 0 | 625 | 212 | 0 | 673 |
| V/C Ratio(X) | 0.42 | 0.00 | 0.54 | 0.75 | 0.91 | 0.58 | 0.81 | 0.00 | 0.50 | 0.82 | 0.00 | 0.93 |
| Avail Cap(c_a), veh/h | 130 | 0 | 554 | 170 | 629 | 515 | 172 | 0 | 625 | 274 | 0 | 725 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 40.1 | 0.0 | 24.9 | 38.0 | 26.4 | 22.9 | 35.7 | 0.0 | 21.3 | 34.7 | 0.0 | 24.7 |
| Incr Delay (d2), s/veh | 34.4 | 0.0 | 0.9 | 12.8 | 17.5 | 1.4 | 23.4 | 0.0 | 0.6 | 14.1 | 0.0 | 17.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.0 | 4.1 | 1.5 | 12.1 | 4.3 | 3.6 | 0.0 | 4.3 | 3.9 | 0.0 | 13.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 74.5 | 0.0 | 25.8 | 50.8 | 43.9 | 24.3 | 59.2 | 0.0 | 21.9 | 48.8 | 0.0 | 42.0 |
| LnGrp LOS | E | A | C | D | D | C | E | A | C | D | A | D |
| Approach Vol, veh/h | | 268 | | | 889 | | | 450 | | | 797 | |
| Approach Delay, s/veh | | 26.4 | | | 38.2 | | | 33.3 | | | 43.5 | |
| Approach LOS | | C | | | D | | | C | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.6 | 32.1 | 7.8 | 27.2 | 11.7 | 34.0 | 4.3 | 30.6 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 12.4 | 26.8 | 7.7 | 25.3 | 7.8 | 31.4 | 5.9 | 27.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 9.7 | 12.9 | 4.8 | 12.3 | 8.1 | 27.9 | 2.1 | 24.6 | | | | |
| Green Ext Time (p_c), s | 0.1 | 1.3 | 0.0 | 1.1 | 0.0 | 1.2 | 0.0 | 1.1 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 37.7 | | | | | | | | | |
| HCM 6th LOS | | | D | | | | | | | | | |



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 3 | 295 | 63 | 545 | 402 | 137 | 313 | 174 | 623 |
| v/c Ratio | 0.02 | 0.62 | 0.41 | 0.84 | 0.56 | 0.82 | 0.52 | 0.71 | 0.91 |
| Control Delay | 39.0 | 32.0 | 46.0 | 40.0 | 9.9 | 75.4 | 27.3 | 52.2 | 45.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 39.0 | 32.0 | 46.0 | 40.0 | 9.9 | 75.4 | 27.3 | 52.2 | 45.2 |
| Queue Length 50th (ft) | 2 | 129 | 31 | 252 | 37 | 71 | 129 | 86 | 293 |
| Queue Length 95th (ft) | 10 | 213 | 75 | #512 | 138 | #187 | 233 | #189 | #566 |
| Internal Link Dist (ft) | | 2658 | | 1520 | | | 2614 | | 1226 |
| Turn Bay Length (ft) | 250 | | 250 | | 150 | 250 | | 250 | |
| Base Capacity (vph) | 126 | 562 | 165 | 647 | 722 | 167 | 606 | 266 | 707 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.02 | 0.52 | 0.38 | 0.84 | 0.56 | 0.82 | 0.52 | 0.65 | 0.88 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

2: Baron Ave & Behymer Ave HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With Project-A

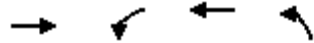
AGENDA ITEM NO. 5.

12/22/2023

| | → | ↘ | ↙ | ← | ↖ | ↗ |
|------------------------------|------|------|------|------|------|------|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↗ | | ↖ | ↗ | ↖ | |
| Traffic Volume (veh/h) | 292 | 170 | 21 | 542 | 238 | 23 |
| Future Volume (veh/h) | 292 | 170 | 21 | 542 | 238 | 23 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 317 | 148 | 23 | 589 | 259 | 25 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 415 | 194 | 51 | 949 | 357 | 34 |
| Arrive On Green | 0.34 | 0.34 | 0.03 | 0.51 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1206 | 563 | 1781 | 1870 | 1602 | 155 |
| Grp Volume(v), veh/h | 0 | 465 | 23 | 589 | 285 | 0 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1769 | 1781 | 1870 | 1762 | 0 |
| Q Serve(g_s), s | 0.0 | 8.5 | 0.5 | 8.2 | 5.4 | 0.0 |
| Cycle Q Clear(g_c), s | 0.0 | 8.5 | 0.5 | 8.2 | 5.4 | 0.0 |
| Prop In Lane | | 0.32 | 1.00 | | 0.91 | 0.09 |
| Lane Grp Cap(c), veh/h | 0 | 608 | 51 | 949 | 392 | 0 |
| V/C Ratio(X) | 0.00 | 0.76 | 0.45 | 0.62 | 0.73 | 0.00 |
| Avail Cap(c_a), veh/h | 0 | 1028 | 250 | 1602 | 927 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 0.0 | 10.6 | 17.4 | 6.4 | 13.1 | 0.0 |
| Incr Delay (d2), s/veh | 0.0 | 2.0 | 6.2 | 0.7 | 2.6 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 2.3 | 0.2 | 1.4 | 1.8 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 12.6 | 23.5 | 7.1 | 15.7 | 0.0 |
| LnGrp LOS | A | B | C | A | B | A |
| Approach Vol, veh/h | 465 | | | 612 | 285 | |
| Approach Delay, s/veh | 12.6 | | | 7.7 | 15.7 | |
| Approach LOS | B | | | A | B | |
| Timer - Assigned Phs | 2 | | 3 | 4 | 8 | |
| Phs Duration (G+Y+Rc), s | 13.0 | | 5.9 | 17.4 | 23.3 | |
| Change Period (Y+Rc), s | 4.9 | | 4.9 | 4.9 | 4.9 | |
| Max Green Setting (Gmax), s | 19.1 | | 5.1 | 21.1 | 31.1 | |
| Max Q Clear Time (g_c+I1), s | 7.4 | | 2.5 | 10.5 | 10.2 | |
| Green Ext Time (p_c), s | 0.6 | | 0.0 | 2.0 | 3.5 | |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 11.1 | | | |
| HCM 6th LOS | | | B | | | |

Notes

User approved volume balancing among the lanes for turning movement.



| Lane Group | EBT | WBL | WBT | NBL |
|-------------------------|------|------|------|------|
| Lane Group Flow (vph) | 502 | 23 | 589 | 284 |
| v/c Ratio | 0.65 | 0.10 | 0.70 | 0.55 |
| Control Delay | 15.5 | 23.0 | 14.4 | 17.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 15.5 | 23.0 | 14.4 | 17.8 |
| Queue Length 50th (ft) | 65 | 5 | 93 | 51 |
| Queue Length 95th (ft) | #282 | 27 | 228 | 143 |
| Internal Link Dist (ft) | 1543 | | 1999 | 1602 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 1009 | 234 | 1450 | 877 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.50 | 0.10 | 0.41 | 0.32 |









Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection

Intersection Delay, s/veh11.4

Intersection LOS B

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|---|---|------|---|---|------|---|---|------|---|---|------|
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Vol, veh/h | 9 | 1 | 104 | 60 | 1 | 215 | 36 | 74 | 32 | 185 | 183 | 3 |
| Future Vol, veh/h | 9 | 1 | 104 | 60 | 1 | 215 | 36 | 74 | 32 | 185 | 183 | 3 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 10 | 1 | 113 | 65 | 1 | 234 | 39 | 80 | 35 | 201 | 199 | 3 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|------------------------------|----|------|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 2 |
| Conflicting Approach Left SB | | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 2 | 2 |
| Conflicting Approach RightNB | | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 2 |
| HCM Control Delay | 10 | 11.4 | 10.3 | 12.3 |
| HCM LOS | A | B | B | B |














| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| Vol Thru, % | 0% | 70% | 0% | 1% | 0% | 0% | 0% | 98% |
| Vol Right, % | 0% | 30% | 0% | 99% | 0% | 100% | 0% | 2% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 36 | 106 | 9 | 105 | 60 | 216 | 185 | 186 |
| LT Vol | 36 | 0 | 9 | 0 | 60 | 0 | 185 | 0 |
| Through Vol | 0 | 74 | 0 | 1 | 0 | 1 | 0 | 183 |
| RT Vol | 0 | 32 | 0 | 104 | 0 | 215 | 0 | 3 |
| Lane Flow Rate | 39 | 115 | 10 | 114 | 65 | 235 | 201 | 202 |
| Geometry Grp | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Degree of Util (X) | 0.075 | 0.197 | 0.019 | 0.187 | 0.124 | 0.366 | 0.363 | 0.336 |
| Departure Headway (Hd) | 6.876 | 6.154 | 7.113 | 5.899 | 6.824 | 5.611 | 6.492 | 5.975 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 520 | 582 | 502 | 606 | 525 | 639 | 555 | 600 |
| Service Time | 4.631 | 3.908 | 4.871 | 3.656 | 4.572 | 3.359 | 4.233 | 3.716 |
| HCM Lane V/C Ratio | 0.075 | 0.198 | 0.02 | 0.188 | 0.124 | 0.368 | 0.362 | 0.337 |
| HCM Control Delay | 10.2 | 10.4 | 10 | 10 | 10.5 | 11.6 | 12.9 | 11.7 |
| HCM Lane LOS | B | B | A | A | B | B | B | B |
| HCM 95th-tile Q | 0.2 | 0.7 | 0.1 | 0.7 | 0.4 | 1.7 | 1.6 | 1.5 |

4: Clovis Ave & Baron Ave
HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With Project-A

AGENDA ITEM NO. 5.

12/22/2023







| |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|
| Movement | WBL | WBR | NBU | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  | |  |  |
| Traffic Volume (veh/h) | 362 | 36 | 87 | 485 | 192 | 30 | 914 |
| Future Volume (veh/h) | 362 | 36 | 87 | 485 | 192 | 30 | 914 |
| Initial Q (Qb), veh | 0 | 0 | | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 393 | 31 | | 527 | 168 | 33 | 993 |
| Peak Hour Factor | 0.92 | 0.92 | | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | | 2 | 2 | 2 | 2 |
| Cap, veh/h | 496 | 441 | | 833 | 264 | 69 | 1633 |
| Arrive On Green | 0.28 | 0.28 | | 0.31 | 0.31 | 0.04 | 0.46 |
| Sat Flow, veh/h | 1781 | 1585 | | 2747 | 842 | 1781 | 3647 |
| Grp Volume(v), veh/h | 393 | 31 | | 352 | 343 | 33 | 993 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | | 1777 | 1719 | 1781 | 1777 |
| Q Serve(g_s), s | 7.6 | 0.5 | | 6.3 | 6.4 | 0.7 | 7.8 |
| Cycle Q Clear(g_c), s | 7.6 | 0.5 | | 6.3 | 6.4 | 0.7 | 7.8 |
| Prop In Lane | 1.00 | 1.00 | | | 0.49 | 1.00 | |
| Lane Grp Cap(c), veh/h | 496 | 441 | | 558 | 539 | 69 | 1633 |
| V/C Ratio(X) | 0.79 | 0.07 | | 0.63 | 0.64 | 0.48 | 0.61 |
| Avail Cap(c_a), veh/h | 862 | 767 | | 1055 | 1021 | 281 | 2101 |
| HCM Platoon Ratio | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 12.5 | 9.9 | | 11.0 | 11.0 | 17.6 | 7.6 |
| Incr Delay (d2), s/veh | 2.9 | 0.1 | | 1.2 | 1.2 | 5.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.5 | 0.1 | | 1.7 | 1.7 | 0.3 | 1.5 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | 15.4 | 10.0 | | 12.2 | 12.2 | 22.6 | 7.9 |
| LnGrp LOS | B | A | | B | B | C | A |
| Approach Vol, veh/h | 424 | | | 695 | | | 1026 |
| Approach Delay, s/veh | 15.0 | | | 12.2 | | | 8.4 |
| Approach LOS | B | | | B | | | A |
| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 5.5 | 16.6 | | | | 22.1 | 15.3 |
| Change Period (Y+Rc), s | 4.0 | 4.9 | | | | 4.9 | 4.9 |
| Max Green Setting (Gmax), s | 5.9 | 22.2 | | | | 22.1 | 18.1 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 8.4 | | | | 9.8 | 9.6 |
| Green Ext Time (p_c), s | 0.0 | 3.3 | | | | 5.1 | 0.9 |
| Intersection Summary | | | | | | | |
| HCM 6th Ctrl Delay | | | 10.9 | | | | |
| HCM 6th LOS | | | B | | | | |
| Notes | | | | | | | |
| User approved ignoring U-Turning movement. | | | | | | | |

4: Clovis Ave & Baron Ave Queues

Cumulative (Year 2045) With Project-A

AGENDA ITEM NO. 5.

12/22/2023

| |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBU | NBT | SBL | SBT |
| Lane Group Flow (vph) | 393 | 39 | 95 | 736 | 33 | 993 |
| v/c Ratio | 0.76 | 0.08 | 0.47 | 0.47 | 0.17 | 0.74 |
| Control Delay | 29.8 | 6.4 | 34.6 | 11.0 | 27.0 | 19.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 29.8 | 6.4 | 34.6 | 11.0 | 27.0 | 19.7 |
| Queue Length 50th (ft) | 126 | 0 | 34 | 61 | 11 | 161 |
| Queue Length 95th (ft) | #244 | 18 | #85 | 137 | 34 | 226 |
| Internal Link Dist (ft) | 681 | | | 390 | | 811 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 625 | 584 | 207 | 1729 | 204 | 1526 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.63 | 0.07 | 0.46 | 0.43 | 0.16 | 0.65 |

Intersection Summary

























95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

5: Clovis Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With Project-A

AGENDA ITEM NO. 5.

12/22/2023













| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 120 | 735 | 218 | 325 | 853 | 183 | 206 | 212 | 175 | 203 | 639 | 320 |
| Future Volume (veh/h) | 120 | 735 | 218 | 325 | 853 | 183 | 206 | 212 | 175 | 203 | 639 | 320 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 130 | 799 | 189 | 353 | 927 | 159 | 224 | 230 | 152 | 221 | 695 | 278 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 205 | 1040 | 454 | 458 | 1301 | 569 | 314 | 941 | 410 | 312 | 939 | 410 |
| Arrive On Green | 0.06 | 0.29 | 0.29 | 0.13 | 0.37 | 0.37 | 0.09 | 0.26 | 0.26 | 0.09 | 0.26 | 0.26 |
| Sat Flow, veh/h | 3456 | 3554 | 1552 | 3456 | 3554 | 1555 | 3456 | 3554 | 1551 | 3456 | 3554 | 1551 |
| Grp Volume(v), veh/h | 130 | 799 | 189 | 353 | 927 | 159 | 224 | 230 | 152 | 221 | 695 | 278 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1552 | 1728 | 1777 | 1555 | 1728 | 1777 | 1551 | 1728 | 1777 | 1551 |
| Q Serve(g_s), s | 3.0 | 16.6 | 7.9 | 8.0 | 18.1 | 5.9 | 5.1 | 4.1 | 6.5 | 5.0 | 14.5 | 13.0 |
| Cycle Q Clear(g_c), s | 3.0 | 16.6 | 7.9 | 8.0 | 18.1 | 5.9 | 5.1 | 4.1 | 6.5 | 5.0 | 14.5 | 13.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 205 | 1040 | 454 | 458 | 1301 | 569 | 314 | 941 | 410 | 312 | 939 | 410 |
| V/C Ratio(X) | 0.63 | 0.77 | 0.42 | 0.77 | 0.71 | 0.28 | 0.71 | 0.24 | 0.37 | 0.71 | 0.74 | 0.68 |
| Avail Cap(c_a), veh/h | 371 | 1539 | 672 | 767 | 1947 | 852 | 512 | 1416 | 618 | 546 | 1451 | 633 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 37.3 | 26.1 | 23.1 | 34.0 | 22.0 | 18.1 | 35.8 | 23.4 | 24.3 | 35.8 | 27.3 | 26.7 |
| Incr Delay (d2), s/veh | 3.2 | 1.4 | 0.6 | 2.8 | 0.7 | 0.3 | 3.0 | 0.1 | 0.6 | 3.0 | 1.2 | 2.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 6.5 | 2.7 | 3.3 | 6.7 | 1.9 | 2.2 | 1.6 | 2.2 | 2.1 | 5.8 | 4.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 40.5 | 27.5 | 23.7 | 36.7 | 22.8 | 18.4 | 38.8 | 23.6 | 24.8 | 38.8 | 28.4 | 28.7 |
| LnGrp LOS | D | C | C | D | C | B | D | C | C | D | C | C |
| Approach Vol, veh/h | | 1118 | | | 1439 | | | 606 | | | 1194 | |
| Approach Delay, s/veh | | 28.4 | | | 25.7 | | | 29.5 | | | 30.4 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.3 | 26.4 | 14.7 | 28.6 | 11.4 | 26.3 | 8.8 | 34.6 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 12.8 | 32.3 | 18.0 | 35.1 | 12.0 | 33.1 | 8.7 | 44.4 | | | | |
| Max Q Clear Time (g_c+I1), s | 7.0 | 8.5 | 10.0 | 18.6 | 7.1 | 16.5 | 5.0 | 20.1 | | | | |
| Green Ext Time (p_c), s | 0.3 | 1.8 | 0.8 | 5.1 | 0.3 | 4.9 | 0.1 | 6.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 28.2 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |

5: Clovis Ave & Shepherd Ave Queues

Cumulative (Year 2045) With Project-A

AGENDA ITEM NO. 5.

12/22/2023

























| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 130 | 799 | 237 | 353 | 927 | 199 | 224 | 230 | 190 | 221 | 695 | 348 |
| v/c Ratio | 0.46 | 0.78 | 0.44 | 0.68 | 0.73 | 0.29 | 0.60 | 0.25 | 0.35 | 0.58 | 0.74 | 0.63 |
| Control Delay | 53.6 | 39.7 | 16.8 | 49.5 | 32.3 | 4.6 | 52.7 | 31.1 | 6.6 | 51.5 | 39.7 | 20.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.6 | 39.7 | 16.8 | 49.5 | 32.3 | 4.6 | 52.7 | 31.1 | 6.6 | 51.5 | 39.7 | 20.4 |
| Queue Length 50th (ft) | 44 | 258 | 54 | 118 | 280 | 0 | 75 | 64 | 0 | 74 | 225 | 88 |
| Queue Length 95th (ft) | 81 | 356 | 132 | 180 | 375 | 47 | 125 | 104 | 54 | 123 | 311 | 198 |
| Internal Link Dist (ft) | 1249 | | | 1233 | | | 1070 | | | 873 | | |
| Turn Bay Length (ft) | 250 | | 50 | 250 | | 255 | 235 | | 65 | 255 | | 100 |
| Base Capacity (vph) | 306 | 1276 | 640 | 634 | 1614 | 813 | 423 | 1174 | 638 | 451 | 1203 | 652 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.42 | 0.63 | 0.37 | 0.56 | 0.57 | 0.24 | 0.53 | 0.20 | 0.30 | 0.49 | 0.58 | 0.53 |
| Intersection Summary | | | | | | | | | | | | |

6: Sunnyside Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With Project-A

AGENDA ITEM NO. 5.

12/22/2023













| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 218 | 812 | 226 | 69 | 763 | 104 | 152 | 88 | 51 | 345 | 416 | 494 |
| Future Volume (veh/h) | 218 | 812 | 226 | 69 | 763 | 104 | 152 | 88 | 51 | 345 | 416 | 494 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 |
| Adj Flow Rate, veh/h | 232 | 864 | 192 | 73 | 812 | 89 | 162 | 94 | 43 | 367 | 443 | 409 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Cap, veh/h | 312 | 1073 | 462 | 93 | 938 | 409 | 198 | 527 | 438 | 468 | 572 | 475 |
| Arrive On Green | 0.09 | 0.30 | 0.30 | 0.05 | 0.27 | 0.27 | 0.11 | 0.28 | 0.28 | 0.14 | 0.31 | 0.31 |
| Sat Flow, veh/h | 3428 | 3526 | 1519 | 1767 | 3526 | 1538 | 1767 | 1856 | 1539 | 3428 | 1856 | 1541 |
| Grp Volume(v), veh/h | 232 | 864 | 192 | 73 | 812 | 89 | 162 | 94 | 43 | 367 | 443 | 409 |
| Grp Sat Flow(s),veh/h/ln | 1714 | 1763 | 1519 | 1767 | 1763 | 1538 | 1767 | 1856 | 1539 | 1714 | 1856 | 1541 |
| Q Serve(g_s), s | 5.3 | 18.1 | 8.1 | 3.3 | 17.6 | 3.6 | 7.2 | 3.1 | 1.6 | 8.3 | 17.4 | 20.0 |
| Cycle Q Clear(g_c), s | 5.3 | 18.1 | 8.1 | 3.3 | 17.6 | 3.6 | 7.2 | 3.1 | 1.6 | 8.3 | 17.4 | 20.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 312 | 1073 | 462 | 93 | 938 | 409 | 198 | 527 | 438 | 468 | 572 | 475 |
| V/C Ratio(X) | 0.74 | 0.81 | 0.42 | 0.78 | 0.87 | 0.22 | 0.82 | 0.18 | 0.10 | 0.78 | 0.77 | 0.86 |
| Avail Cap(c_a), veh/h | 342 | 1105 | 476 | 132 | 1017 | 444 | 243 | 586 | 486 | 676 | 697 | 579 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.5 | 25.7 | 22.2 | 37.5 | 28.0 | 22.9 | 34.7 | 21.6 | 21.1 | 33.4 | 25.2 | 26.1 |
| Incr Delay (d2), s/veh | 7.7 | 4.4 | 0.6 | 17.3 | 7.5 | 0.3 | 16.1 | 0.2 | 0.1 | 3.8 | 4.4 | 10.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.4 | 7.3 | 2.6 | 1.8 | 7.6 | 1.2 | 3.8 | 1.3 | 0.5 | 3.5 | 7.7 | 7.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.2 | 30.0 | 22.8 | 54.8 | 35.6 | 23.2 | 50.9 | 21.8 | 21.2 | 37.3 | 29.6 | 36.9 |
| LnGrp LOS | D | C | C | D | D | C | D | C | C | D | C | D |
| Approach Vol, veh/h | 1288 | | | | 974 | | | | 299 | | | |
| Approach Delay, s/veh | 31.3 | | | | 35.9 | | | | 37.5 | | | |
| Approach LOS | C | | | | D | | | | D | | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.9 | 27.7 | 8.2 | 29.3 | 13.0 | 29.6 | 11.3 | 26.2 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 15.8 | 25.3 | 6.0 | 25.1 | 11.0 | 30.1 | 8.0 | 23.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 10.3 | 5.1 | 5.3 | 20.1 | 9.2 | 22.0 | 7.3 | 19.6 | | | | |
| Green Ext Time (p_c), s | 0.6 | 0.5 | 0.0 | 2.6 | 0.1 | 2.7 | 0.1 | 1.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 34.0 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |

6: Sunnyside Ave & Shepherd Ave Queues

Cumulative (Year 2045) With Project-A

AGENDA ITEM NO. 5.

12/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 232 | 864 | 240 | 73 | 812 | 111 | 162 | 94 | 54 | 367 | 443 | 526 |
| v/c Ratio | 0.71 | 0.78 | 0.37 | 0.58 | 0.88 | 0.21 | 0.74 | 0.19 | 0.10 | 0.67 | 0.80 | 0.85 |
| Control Delay | 52.1 | 34.2 | 5.5 | 60.5 | 42.8 | 2.2 | 59.0 | 25.7 | 0.4 | 40.4 | 38.7 | 30.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 52.1 | 34.2 | 5.5 | 60.5 | 42.8 | 2.2 | 59.0 | 25.7 | 0.4 | 40.4 | 38.7 | 30.1 |
| Queue Length 50th (ft) | 65 | 239 | 0 | 40 | 228 | 0 | 88 | 40 | 0 | 99 | 218 | 158 |
| Queue Length 95th (ft) | #123 | #354 | 54 | #105 | #344 | 13 | #189 | 79 | 0 | 146 | 330 | #336 |
| Internal Link Dist (ft) | 1248 | | | 771 | | | 1086 | | | 1554 | | |
| Turn Bay Length (ft) | 275 | | 275 | 150 | | 25 | 105 | | 105 | 175 | | 100 |
| Base Capacity (vph) | 325 | 1111 | 641 | 125 | 969 | 545 | 231 | 559 | 581 | 643 | 665 | 695 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.71 | 0.78 | 0.37 | 0.58 | 0.84 | 0.20 | 0.70 | 0.17 | 0.09 | 0.57 | 0.67 | 0.76 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.






















Queue shown is maximum after two cycles.

1: Minnewawa Ave & Behymer Ave
HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With Project-F

AGENDA ITEM NO. 5.

12/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  |  |  |  | |  |  | |
| Traffic Volume (veh/h) | 14 | 377 | 109 | 22 | 222 | 245 | 154 | 442 | 30 | 216 | 270 | 7 |
| Future Volume (veh/h) | 14 | 377 | 109 | 22 | 222 | 245 | 154 | 442 | 30 | 216 | 270 | 7 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 0.97 | 1.00 | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 15 | 410 | 82 | 24 | 241 | 186 | 167 | 480 | 23 | 235 | 293 | 7 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 32 | 451 | 90 | 46 | 577 | 472 | 205 | 526 | 25 | 274 | 611 | 15 |
| Arrive On Green | 0.02 | 0.30 | 0.30 | 0.03 | 0.31 | 0.31 | 0.12 | 0.30 | 0.30 | 0.15 | 0.34 | 0.34 |
| Sat Flow, veh/h | 1781 | 1503 | 301 | 1781 | 1870 | 1531 | 1781 | 1767 | 85 | 1781 | 1817 | 43 |
| Grp Volume(v), veh/h | 15 | 0 | 492 | 24 | 241 | 186 | 167 | 0 | 503 | 235 | 0 | 300 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1804 | 1781 | 1870 | 1531 | 1781 | 0 | 1852 | 1781 | 0 | 1861 |
| Q Serve(g_s), s | 0.7 | 0.0 | 21.0 | 1.1 | 8.2 | 7.7 | 7.3 | 0.0 | 21.0 | 10.3 | 0.0 | 10.2 |
| Cycle Q Clear(g_c), s | 0.7 | 0.0 | 21.0 | 1.1 | 8.2 | 7.7 | 7.3 | 0.0 | 21.0 | 10.3 | 0.0 | 10.2 |
| Prop In Lane | 1.00 | | 0.17 | 1.00 | | 1.00 | 1.00 | | 0.05 | 1.00 | | 0.02 |
| Lane Grp Cap(c), veh/h | 32 | 0 | 542 | 46 | 577 | 472 | 205 | 0 | 551 | 274 | 0 | 626 |
| V/C Ratio(X) | 0.48 | 0.00 | 0.91 | 0.52 | 0.42 | 0.39 | 0.82 | 0.00 | 0.91 | 0.86 | 0.00 | 0.48 |
| Avail Cap(c_a), veh/h | 134 | 0 | 602 | 134 | 624 | 511 | 272 | 0 | 604 | 298 | 0 | 635 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 38.9 | 0.0 | 26.9 | 38.5 | 22.0 | 21.8 | 34.6 | 0.0 | 27.1 | 33.0 | 0.0 | 21.0 |
| Incr Delay (d2), s/veh | 10.7 | 0.0 | 16.7 | 8.8 | 0.5 | 0.5 | 13.2 | 0.0 | 17.4 | 20.2 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.0 | 10.8 | 0.6 | 3.4 | 2.6 | 3.7 | 0.0 | 10.8 | 5.6 | 0.0 | 4.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 49.6 | 0.0 | 43.7 | 47.3 | 22.4 | 22.3 | 47.8 | 0.0 | 44.5 | 53.2 | 0.0 | 21.6 |
| LnGrp LOS | D | A | D | D | C | C | D | A | D | D | A | C |
| Approach Vol, veh/h | | 507 | | | 451 | | | 670 | | | 535 | |
| Approach Delay, s/veh | | 43.8 | | | 23.7 | | | 45.3 | | | 35.5 | |
| Approach LOS | | D | | | C | | | D | | | D | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 16.3 | 28.7 | 6.1 | 28.9 | 13.2 | 31.8 | 5.4 | 29.6 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 13.4 | 26.1 | 6.0 | 26.7 | 12.2 | 27.3 | 6.0 | 26.7 | | | | |
| Max Q Clear Time (g_c+I1), s | 12.3 | 23.0 | 3.1 | 23.0 | 9.3 | 12.2 | 2.7 | 10.2 | | | | |
| Green Ext Time (p_c), s | 0.1 | 0.9 | 0.0 | 1.0 | 0.1 | 1.3 | 0.0 | 1.7 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 38.0 | | | | | | | | | |
| HCM 6th LOS | | | D | | | | | | | | | |



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 15 | 528 | 24 | 241 | 266 | 167 | 513 | 235 | 301 |
| v/c Ratio | 0.12 | 0.90 | 0.19 | 0.38 | 0.38 | 0.70 | 0.90 | 0.83 | 0.49 |
| Control Delay | 41.1 | 48.9 | 42.5 | 23.5 | 4.8 | 52.4 | 50.3 | 61.4 | 26.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.1 | 48.9 | 42.5 | 23.5 | 4.8 | 52.4 | 50.3 | 61.4 | 26.6 |
| Queue Length 50th (ft) | 7 | 238 | 12 | 91 | 0 | 79 | 235 | 114 | 116 |
| Queue Length 95th (ft) | 28 | #499 | 38 | 180 | 55 | #181 | #487 | #267 | 222 |
| Internal Link Dist (ft) | | 2658 | | 1520 | | | 2614 | | 1226 |
| Turn Bay Length (ft) | 250 | | 250 | | 150 | 250 | | 250 | |
| Base Capacity (vph) | 128 | 586 | 128 | 641 | 699 | 260 | 582 | 286 | 616 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.12 | 0.90 | 0.19 | 0.38 | 0.38 | 0.64 | 0.88 | 0.82 | 0.49 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

2: Baron Ave & Behymer Ave HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With Project-F

AGENDA ITEM NO. 5.

12/22/2023

| | → | ↘ | ↙ | ← | ↖ | ↗ |
|------------------------------|------|------|------|------|------|------|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ↗ | | ↖ | ↗ | ↘↗ | |
| Traffic Volume (veh/h) | 364 | 268 | 21 | 369 | 141 | 12 |
| Future Volume (veh/h) | 364 | 268 | 21 | 369 | 141 | 12 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 396 | 232 | 23 | 401 | 153 | 13 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 496 | 290 | 51 | 1093 | 245 | 21 |
| Arrive On Green | 0.45 | 0.45 | 0.03 | 0.58 | 0.15 | 0.15 |
| Sat Flow, veh/h | 1106 | 648 | 1781 | 1870 | 1617 | 137 |
| Grp Volume(v), veh/h | 0 | 628 | 23 | 401 | 167 | 0 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1754 | 1781 | 1870 | 1765 | 0 |
| Q Serve(g_s), s | 0.0 | 11.4 | 0.5 | 4.2 | 3.3 | 0.0 |
| Cycle Q Clear(g_c), s | 0.0 | 11.4 | 0.5 | 4.2 | 3.3 | 0.0 |
| Prop In Lane | | 0.37 | 1.00 | | 0.92 | 0.08 |
| Lane Grp Cap(c), veh/h | 0 | 786 | 51 | 1093 | 268 | 0 |
| V/C Ratio(X) | 0.00 | 0.80 | 0.45 | 0.37 | 0.62 | 0.00 |
| Avail Cap(c_a), veh/h | 0 | 1232 | 288 | 1817 | 907 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 0.0 | 8.8 | 17.8 | 4.1 | 14.8 | 0.0 |
| Incr Delay (d2), s/veh | 0.0 | 2.1 | 6.2 | 0.2 | 2.4 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 2.5 | 0.2 | 0.4 | 1.2 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 10.9 | 24.0 | 4.3 | 17.1 | 0.0 |
| LnGrp LOS | A | B | C | A | B | A |
| Approach Vol, veh/h | 628 | | | 424 | 167 | |
| Approach Delay, s/veh | 10.9 | | | 5.4 | 17.1 | |
| Approach LOS | B | | | A | B | |
| Timer - Assigned Phs | 2 | | 3 | 4 | 8 | |
| Phs Duration (G+Y+Rc), s | 10.5 | | 5.1 | 21.6 | 26.6 | |
| Change Period (Y+Rc), s | 4.9 | | 4.0 | 4.9 | 4.9 | |
| Max Green Setting (Gmax), s | 19.1 | | 6.0 | 26.1 | 36.1 | |
| Max Q Clear Time (g_c+I1), s | 5.3 | | 2.5 | 13.4 | 6.2 | |
| Green Ext Time (p_c), s | 0.3 | | 0.0 | 3.2 | 2.3 | |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 9.8 | | | |
| HCM 6th LOS | | | A | | | |



| Lane Group | EBT | WBL | WBT | NBL |
|-------------------------|------|------|------|------|
| Lane Group Flow (vph) | 687 | 23 | 401 | 166 |
| v/c Ratio | 0.74 | 0.10 | 0.40 | 0.42 |
| Control Delay | 16.1 | 22.6 | 7.3 | 19.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.1 | 22.6 | 7.3 | 19.4 |
| Queue Length 50th (ft) | 88 | 5 | 47 | 34 |
| Queue Length 95th (ft) | #396 | 27 | 111 | 96 |
| Internal Link Dist (ft) | 1543 | | 1999 | 1602 |
| Turn Bay Length (ft) | | | | |
| Base Capacity (vph) | 1168 | 252 | 1535 | 802 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.59 | 0.09 | 0.26 | 0.21 |









Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection

Intersection Delay, s/veh13.7

Intersection LOS B

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|---|---|------|---|---|------|---|---|------|---|---|------|
| Lane Configurations |  |  | |  |  | |  |  | |  |  | |
| Traffic Vol, veh/h | 6 | 1 | 70 | 30 | 1 | 114 | 118 | 227 | 107 | 264 | 126 | 10 |
| Future Vol, veh/h | 6 | 1 | 70 | 30 | 1 | 114 | 118 | 227 | 107 | 264 | 126 | 10 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 1 | 76 | 33 | 1 | 124 | 128 | 247 | 116 | 287 | 137 | 11 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|------------------------------|------|------|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 2 | 2 | 2 |
| Conflicting Approach Left SB | | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 2 | 2 |
| Conflicting Approach RightNB | | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 2 |
| HCM Control Delay | 10.4 | 10.9 | 14.7 | 14.2 |
| HCM LOS | B | B | B | B |














| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 100% | 0% | 100% | 0% | 100% | 0% |
| Vol Thru, % | 0% | 68% | 0% | 1% | 0% | 1% | 0% | 93% |
| Vol Right, % | 0% | 32% | 0% | 99% | 0% | 99% | 0% | 7% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 118 | 334 | 6 | 71 | 30 | 115 | 264 | 136 |
| LT Vol | 118 | 0 | 6 | 0 | 30 | 0 | 264 | 0 |
| Through Vol | 0 | 227 | 0 | 1 | 0 | 1 | 0 | 126 |
| RT Vol | 0 | 107 | 0 | 70 | 0 | 114 | 0 | 10 |
| Lane Flow Rate | 128 | 363 | 7 | 77 | 33 | 125 | 287 | 148 |
| Geometry Grp | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Degree of Util (X) | 0.23 | 0.576 | 0.014 | 0.14 | 0.069 | 0.221 | 0.516 | 0.243 |
| Departure Headway (Hd) | 6.443 | 5.71 | 7.765 | 6.547 | 7.582 | 6.363 | 6.479 | 5.921 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 557 | 632 | 460 | 545 | 471 | 562 | 557 | 605 |
| Service Time | 4.19 | 3.457 | 5.536 | 4.317 | 5.346 | 4.126 | 4.23 | 3.672 |
| HCM Lane V/C Ratio | 0.23 | 0.574 | 0.015 | 0.141 | 0.07 | 0.222 | 0.515 | 0.245 |
| HCM Control Delay | 11.1 | 16 | 10.6 | 10.4 | 10.9 | 10.9 | 16 | 10.6 |
| HCM Lane LOS | B | C | B | B | B | B | C | B |
| HCM 95th-tile Q | 0.9 | 3.7 | 0 | 0.5 | 0.2 | 0.8 | 2.9 | 0.9 |

4: Clovis Ave & Baron Ave
HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With Project-F

AGENDA ITEM NO. 5.

12/22/2023







| |  |  |  |  |  |  |  |
|--|---|---|---|---|---|---|---|
| Movement | WBL | WBR | NBU | NBT | NBR | SBL | SBT |
| Lane Configurations |  |  |  |  | |  |  |
| Traffic Volume (veh/h) | 317 | 9 | 32 | 1047 | 452 | 61 | 598 |
| Future Volume (veh/h) | 317 | 9 | 32 | 1047 | 452 | 61 | 598 |
| Initial Q (Qb), veh | 0 | 0 | | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 345 | 10 | | 1138 | 393 | 66 | 650 |
| Peak Hour Factor | 0.92 | 0.92 | | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | | 2 | 2 | 2 | 2 |
| Cap, veh/h | 396 | 352 | | 1368 | 463 | 93 | 2258 |
| Arrive On Green | 0.22 | 0.22 | | 0.53 | 0.53 | 0.05 | 0.64 |
| Sat Flow, veh/h | 1781 | 1585 | | 2699 | 883 | 1781 | 3647 |
| Grp Volume(v), veh/h | 345 | 10 | | 769 | 762 | 66 | 650 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | | 1777 | 1711 | 1781 | 1777 |
| Q Serve(g_s), s | 12.8 | 0.3 | | 24.9 | 26.2 | 2.5 | 5.6 |
| Cycle Q Clear(g_c), s | 12.8 | 0.3 | | 24.9 | 26.2 | 2.5 | 5.6 |
| Prop In Lane | 1.00 | 1.00 | | | 0.52 | 1.00 | |
| Lane Grp Cap(c), veh/h | 396 | 352 | | 933 | 899 | 93 | 2258 |
| V/C Ratio(X) | 0.87 | 0.03 | | 0.82 | 0.85 | 0.71 | 0.29 |
| Avail Cap(c_a), veh/h | 495 | 440 | | 1062 | 1023 | 155 | 2258 |
| HCM Platoon Ratio | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.8 | 20.9 | | 13.7 | 14.0 | 32.1 | 5.6 |
| Incr Delay (d2), s/veh | 13.2 | 0.0 | | 4.8 | 6.2 | 9.6 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.4 | 0.1 | | 8.7 | 9.1 | 1.2 | 1.4 |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | 39.0 | 21.0 | | 18.5 | 20.1 | 41.7 | 5.7 |
| LnGrp LOS | D | C | | B | C | D | A |
| Approach Vol, veh/h | 355 | | | 1531 | | | 716 |
| Approach Delay, s/veh | 38.5 | | | 19.3 | | | 9.0 |
| Approach LOS | D | | | B | | | A |
| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 7.6 | 41.0 | | | | 48.6 | 20.2 |
| Change Period (Y+Rc), s | 4.0 | 4.9 | | | | 4.9 | 4.9 |
| Max Green Setting (Gmax), s | 6.0 | 41.1 | | | | 41.1 | 19.1 |
| Max Q Clear Time (g_c+I1), s | 4.5 | 28.2 | | | | 7.6 | 14.8 |
| Green Ext Time (p_c), s | 0.0 | 7.9 | | | | 4.4 | 0.4 |
| Intersection Summary | | | | | | | |
| HCM 6th Ctrl Delay | | | 19.1 | | | | |
| HCM 6th LOS | | | B | | | | |
| Notes | | | | | | | |
| User approved ignoring U-Turning movement. | | | | | | | |

4: Clovis Ave & Baron Ave Queues

Cumulative (Year 2045) With Project-F

AGENDA ITEM NO. 5.

12/22/2023

| |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBU | NBT | SBL | SBT |
| Lane Group Flow (vph) | 345 | 10 | 35 | 1629 | 66 | 650 |
| v/c Ratio | 0.82 | 0.03 | 0.24 | 0.89 | 0.46 | 0.33 |
| Control Delay | 46.0 | 13.2 | 39.5 | 23.0 | 46.9 | 10.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 46.0 | 13.2 | 39.5 | 23.0 | 46.9 | 10.7 |
| Queue Length 50th (ft) | 164 | 0 | 17 | 344 | 32 | 95 |
| Queue Length 95th (ft) | #300 | 12 | 45 | #522 | #78 | 132 |
| Internal Link Dist (ft) | 681 | | | 390 | | 811 |
| Turn Bay Length (ft) | | | | | | |
| Base Capacity (vph) | 467 | 425 | 146 | 1973 | 146 | 2100 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.74 | 0.02 | 0.24 | 0.83 | 0.45 | 0.31 |

Intersection Summary

























95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

5: Clovis Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With Project-F

AGENDA ITEM NO. 5.

12/22/2023













| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (veh/h) | 224 | 921 | 170 | 291 | 934 | 202 | 234 | 724 | 374 | 170 | 306 | 187 |
| Future Volume (veh/h) | 224 | 921 | 170 | 291 | 934 | 202 | 234 | 724 | 374 | 170 | 306 | 187 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 243 | 1001 | 148 | 316 | 1015 | 177 | 254 | 787 | 325 | 185 | 333 | 163 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 320 | 1205 | 527 | 398 | 1286 | 562 | 335 | 1001 | 437 | 257 | 920 | 401 |
| Arrive On Green | 0.09 | 0.34 | 0.34 | 0.12 | 0.36 | 0.36 | 0.10 | 0.28 | 0.28 | 0.07 | 0.26 | 0.26 |
| Sat Flow, veh/h | 3456 | 3554 | 1554 | 3456 | 3554 | 1555 | 3456 | 3554 | 1552 | 3456 | 3554 | 1550 |
| Grp Volume(v), veh/h | 243 | 1001 | 148 | 316 | 1015 | 177 | 254 | 787 | 325 | 185 | 333 | 163 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1777 | 1554 | 1728 | 1777 | 1555 | 1728 | 1777 | 1552 | 1728 | 1777 | 1550 |
| Q Serve(g_s), s | 6.4 | 24.3 | 6.5 | 8.4 | 23.9 | 7.7 | 6.7 | 19.2 | 17.9 | 4.9 | 7.2 | 8.2 |
| Cycle Q Clear(g_c), s | 6.4 | 24.3 | 6.5 | 8.4 | 23.9 | 7.7 | 6.7 | 19.2 | 17.9 | 4.9 | 7.2 | 8.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 320 | 1205 | 527 | 398 | 1286 | 562 | 335 | 1001 | 437 | 257 | 920 | 401 |
| V/C Ratio(X) | 0.76 | 0.83 | 0.28 | 0.79 | 0.79 | 0.31 | 0.76 | 0.79 | 0.74 | 0.72 | 0.36 | 0.41 |
| Avail Cap(c_a), veh/h | 442 | 1482 | 648 | 553 | 1595 | 698 | 527 | 1330 | 581 | 332 | 1129 | 493 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 41.5 | 28.5 | 22.6 | 40.4 | 26.7 | 21.6 | 41.3 | 31.1 | 30.6 | 42.5 | 28.4 | 28.8 |
| Incr Delay (d2), s/veh | 5.0 | 3.4 | 0.3 | 5.4 | 2.2 | 0.3 | 3.5 | 2.3 | 3.6 | 5.3 | 0.2 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.8 | 9.9 | 2.2 | 3.6 | 9.5 | 2.6 | 2.9 | 8.0 | 6.6 | 2.2 | 2.9 | 2.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 46.5 | 32.0 | 22.9 | 45.8 | 28.9 | 21.9 | 44.8 | 33.4 | 34.2 | 47.8 | 28.7 | 29.4 |
| LnGrp LOS | D | C | C | D | C | C | D | C | C | D | C | C |
| Approach Vol, veh/h | 1392 | | | | 1508 | | | | 1366 | | | |
| Approach Delay, s/veh | 33.5 | | | | 31.6 | | | | 35.7 | | | |
| Approach LOS | C | | | | C | | | | D | | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.0 | 31.3 | 14.8 | 36.7 | 13.1 | 29.2 | 12.7 | 38.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 9.0 | 35.1 | 15.0 | 39.1 | 14.3 | 29.8 | 12.0 | 42.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.9 | 21.2 | 10.4 | 26.3 | 8.7 | 10.2 | 8.4 | 25.9 | | | | |
| Green Ext Time (p_c), s | 0.1 | 5.2 | 0.5 | 5.5 | 0.4 | 2.4 | 0.3 | 6.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | 33.6 | | | | | | | | | | | |
| HCM 6th LOS | C | | | | | | | | | | | |

5: Clovis Ave & Shepherd Ave Queues

Cumulative (Year 2045) With Project-F

AGENDA ITEM NO. 5.

12/22/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 243 | 1001 | 185 | 316 | 1015 | 220 | 254 | 787 | 407 | 185 | 333 | 203 |
| v/c Ratio | 0.67 | 0.85 | 0.31 | 0.72 | 0.81 | 0.32 | 0.63 | 0.77 | 0.73 | 0.65 | 0.37 | 0.38 |
| Control Delay | 57.7 | 42.2 | 10.8 | 56.0 | 37.6 | 4.9 | 53.8 | 41.2 | 29.8 | 61.1 | 35.2 | 6.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.7 | 42.2 | 10.8 | 56.0 | 37.6 | 4.9 | 53.8 | 41.2 | 29.8 | 61.1 | 35.2 | 6.9 |
| Queue Length 50th (ft) | 91 | 357 | 27 | 117 | 348 | 1 | 93 | 277 | 168 | 70 | 107 | 0 |
| Queue Length 95th (ft) | 135 | 448 | 82 | 167 | 437 | 52 | 137 | 350 | 289 | #117 | 151 | 58 |
| Internal Link Dist (ft) | | 1249 | | | 1233 | | | 1070 | | | 873 | |
| Turn Bay Length (ft) | 250 | | 50 | 250 | | 255 | 235 | | 65 | 255 | | 100 |
| Base Capacity (vph) | 393 | 1320 | 658 | 491 | 1422 | 751 | 468 | 1185 | 621 | 295 | 1006 | 584 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.62 | 0.76 | 0.28 | 0.64 | 0.71 | 0.29 | 0.54 | 0.66 | 0.66 | 0.63 | 0.33 | 0.35 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
























Queue shown is maximum after two cycles.

6: Sunnyside Ave & Shepherd Ave
HCM 6th Signalized Intersection Summary

Cumulative (Year 2045) With Project-F

AGENDA ITEM NO. 5.

12/26/2023













| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  | |
| Traffic Volume (veh/h) | 428 | 952 | 185 | 64 | 968 | 335 | 218 | 306 | 176 | 167 | 169 | 386 |
| Future Volume (veh/h) | 428 | 952 | 185 | 64 | 968 | 335 | 218 | 306 | 176 | 167 | 169 | 386 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.97 | 1.00 | | 0.98 | 1.00 | | 0.98 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | | | No | | | No | | |
| Adj Sat Flow, veh/h/ln | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 |
| Adj Flow Rate, veh/h | 465 | 1035 | 158 | 70 | 1052 | 277 | 237 | 333 | 148 | 182 | 184 | 290 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Cap, veh/h | 498 | 1399 | 605 | 90 | 1067 | 466 | 257 | 519 | 431 | 253 | 387 | 320 |
| Arrive On Green | 0.15 | 0.40 | 0.40 | 0.05 | 0.30 | 0.30 | 0.15 | 0.28 | 0.28 | 0.07 | 0.21 | 0.21 |
| Sat Flow, veh/h | 3428 | 3526 | 1524 | 1767 | 3526 | 1540 | 1767 | 1856 | 1539 | 3428 | 1856 | 1534 |
| Grp Volume(v), veh/h | 465 | 1035 | 158 | 70 | 1052 | 277 | 237 | 333 | 148 | 182 | 184 | 290 |
| Grp Sat Flow(s),veh/h/ln | 1714 | 1763 | 1524 | 1767 | 1763 | 1540 | 1767 | 1856 | 1539 | 1714 | 1856 | 1534 |
| Q Serve(g_s), s | 12.0 | 22.4 | 6.2 | 3.5 | 26.6 | 13.7 | 11.9 | 14.1 | 6.9 | 4.7 | 7.8 | 16.5 |
| Cycle Q Clear(g_c), s | 12.0 | 22.4 | 6.2 | 3.5 | 26.6 | 13.7 | 11.9 | 14.1 | 6.9 | 4.7 | 7.8 | 16.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 498 | 1399 | 605 | 90 | 1067 | 466 | 257 | 519 | 431 | 253 | 387 | 320 |
| V/C Ratio(X) | 0.93 | 0.74 | 0.26 | 0.78 | 0.99 | 0.59 | 0.92 | 0.64 | 0.34 | 0.72 | 0.48 | 0.91 |
| Avail Cap(c_a), veh/h | 498 | 1399 | 605 | 124 | 1067 | 466 | 257 | 519 | 431 | 276 | 396 | 327 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 37.9 | 23.1 | 18.2 | 42.0 | 31.0 | 26.6 | 37.8 | 28.3 | 25.7 | 40.6 | 31.2 | 34.6 |
| Incr Delay (d2), s/veh | 25.0 | 2.1 | 0.2 | 18.8 | 24.1 | 2.0 | 36.4 | 2.7 | 0.5 | 8.0 | 0.9 | 27.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.4 | 8.6 | 2.0 | 1.9 | 13.7 | 4.8 | 7.5 | 6.3 | 2.4 | 2.2 | 3.4 | 8.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 62.9 | 25.2 | 18.4 | 60.8 | 55.2 | 28.6 | 74.2 | 31.0 | 26.2 | 48.6 | 32.1 | 61.9 |
| LnGrp LOS | E | C | B | E | E | C | E | C | C | D | C | E |
| Approach Vol, veh/h | 1658 | | 1399 | | | | 718 | | 656 | | | |
| Approach Delay, s/veh | 35.1 | | 50.2 | | | | 44.3 | | 49.8 | | | |
| Approach LOS | D | | D | | | | D | | D | | | |
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.6 | 30.0 | 8.5 | 40.5 | 17.0 | 23.6 | 17.0 | 32.0 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | 4.0 | 4.9 | | | | |
| Max Green Setting (Gmax), s | 7.2 | 24.9 | 6.3 | 33.8 | 13.0 | 19.1 | 13.0 | 27.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.7 | 16.1 | 5.5 | 24.4 | 13.9 | 18.5 | 14.0 | 28.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.6 | 0.0 | 4.7 | 0.0 | 0.1 | 0.0 | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 43.5 | | | | | | | | | |
| HCM 6th LOS | | | D | | | | | | | | | |

6: Sunnyside Ave & Shepherd Ave Queues

Cumulative (Year 2045) With Project-F

AGENDA ITEM NO. 5.

12/26/2023

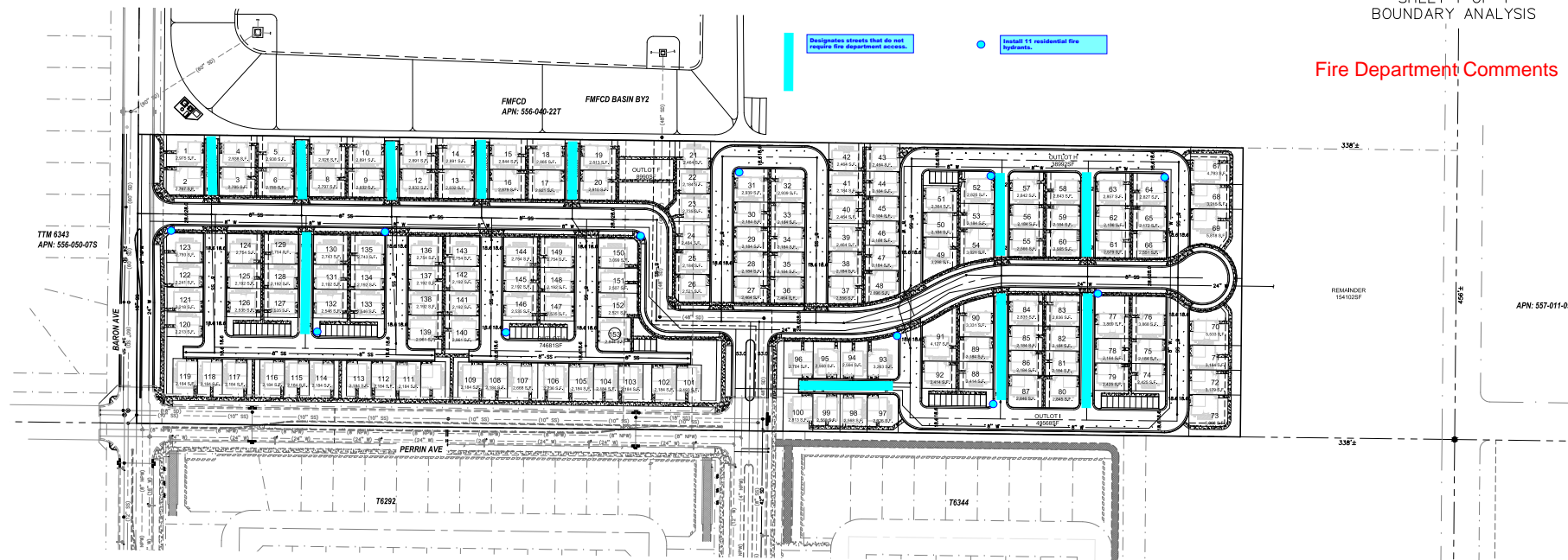
| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Group Flow (vph) | 465 | 1035 | 201 | 70 | 1052 | 364 | 237 | 333 | 191 | 182 | 184 | 420 |
| v/c Ratio | 0.91 | 0.71 | 0.27 | 0.56 | 0.96 | 0.58 | 0.90 | 0.73 | 0.38 | 0.64 | 0.55 | 0.88 |
| Control Delay | 61.3 | 25.8 | 4.0 | 58.8 | 49.9 | 14.6 | 74.4 | 40.0 | 8.3 | 50.8 | 38.8 | 34.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 61.3 | 25.8 | 4.0 | 58.8 | 49.9 | 14.6 | 74.4 | 40.0 | 8.3 | 50.8 | 38.8 | 34.5 |
| Queue Length 50th (ft) | 137 | 269 | 0 | 39 | 312 | 64 | 135 | 167 | 10 | 53 | 92 | 93 |
| Queue Length 95th (ft) | #230 | 348 | 43 | #95 | #454 | 157 | #275 | 260 | 60 | #94 | 157 | #250 |
| Internal Link Dist (ft) | 1248 | | | 771 | | | 1086 | | | 1554 | | |
| Turn Bay Length (ft) | 275 | | 275 | 150 | | 25 | 105 | | 105 | 175 | | 100 |
| Base Capacity (vph) | 511 | 1460 | 746 | 127 | 1098 | 628 | 263 | 531 | 560 | 283 | 407 | 531 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.91 | 0.71 | 0.27 | 0.55 | 0.96 | 0.58 | 0.90 | 0.63 | 0.34 | 0.64 | 0.45 | 0.79 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

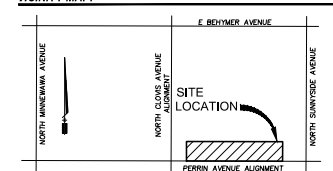
Fire Department Comments



NOTES:

- | | | |
|--|--|--|
| 1. EXISTING ABOVE GROUND USES OR STRUCTURES SUCH AS BUILDING, SEWER MAINS, POWER LINES, TOWERS, ETC., WITHIN THE PROPOSED SUBDIVISION ARE TO BE REMOVED. | ALL STREETS ADJACENT TO THE BOUNDARIES OF THIS SUBDIVISION ARE TO BE REMOVED. DEDICATED FOR PUBLIC STREET PURPOSES AND ARE TO BE ADJACENT TO THE PROPOSED SUBDIVISION. | 10. TO BE DEDICATED FOR PRIVATE ROAD AND PUBLIC UTILITIES PURPOSES. |
| 2. THIS AREA IS NOT SUBJECT TO FLOOD INUNDATION. | ALL EXISTING "C" AND "D" CANNALS OR DITCHES LOCATED WITHIN THE PROPOSED SUBDIVISION. | 11. 1. 2,328 SQ.FT. 2. 2,328 SQ.FT. 3. 2,328 SQ.FT. 4. 2,328 SQ.FT. 5. 2,328 SQ.FT. 6. 2,328 SQ.FT. 7. 2,328 SQ.FT. 8. 2,328 SQ.FT. 9. 2,328 SQ.FT. 10. 2,328 SQ.FT. 11. 2,328 SQ.FT. 12. 2,328 SQ.FT. 13. 2,328 SQ.FT. 14. 2,328 SQ.FT. 15. 2,328 SQ.FT. 16. 2,328 SQ.FT. 17. 2,328 SQ.FT. 18. 2,328 SQ.FT. 19. 2,328 SQ.FT. 20. 2,328 SQ.FT. 21. 2,328 SQ.FT. 22. 2,328 SQ.FT. 23. 2,328 SQ.FT. 24. 2,328 SQ.FT. 25. 2,328 SQ.FT. 26. 2,328 SQ.FT. 27. 2,328 SQ.FT. 28. 2,328 SQ.FT. 29. 2,328 SQ.FT. 30. 2,328 SQ.FT. 31. 2,328 SQ.FT. 32. 2,328 SQ.FT. 33. 2,328 SQ.FT. 34. 2,328 SQ.FT. 35. 2,328 SQ.FT. 36. 2,328 SQ.FT. 37. 2,328 SQ.FT. 38. 2,328 SQ.FT. 39. 2,328 SQ.FT. 40. 2,328 SQ.FT. 41. 2,328 SQ.FT. 42. 2,328 SQ.FT. 43. 2,328 SQ.FT. 44. 2,328 SQ.FT. 45. 2,328 SQ.FT. 46. 2,328 SQ.FT. 47. 2,328 SQ.FT. 48. 2,328 SQ.FT. 49. 2,328 SQ.FT. 50. 2,328 SQ.FT. 51. 2,328 SQ.FT. 52. 2,328 SQ.FT. 53. 2,328 SQ.FT. 54. 2,328 SQ.FT. 55. 2,328 SQ.FT. 56. 2,328 SQ.FT. 57. 2,328 SQ.FT. 58. 2,328 SQ.FT. 59. 2,328 SQ.FT. 60. 2,328 SQ.FT. 61. 2,328 SQ.FT. 62. 2,328 SQ.FT. 63. 2,328 SQ.FT. 64. 2,328 SQ.FT. 65. 2,328 SQ.FT. 66. 2,328 SQ.FT. 67. 2,328 SQ.FT. 68. 2,328 SQ.FT. 69. 2,328 SQ.FT. 70. 2,328 SQ.FT. 71. 2,328 SQ.FT. 72. 2,328 SQ.FT. 73. 2,328 SQ.FT. 74. 2,328 SQ.FT. 75. 2,328 SQ.FT. 76. 2,328 SQ.FT. 77. 2,328 SQ.FT. 78. 2,328 SQ.FT. 79. 2,328 SQ.FT. 80. 2,328 SQ.FT. 81. 2,328 SQ.FT. 82. 2,328 SQ.FT. 83. 2,328 SQ.FT. 84. 2,328 SQ.FT. 85. 2,328 SQ.FT. 86. 2,328 SQ.FT. 87. 2,328 SQ.FT. 88. 2,328 SQ.FT. 89. 2,328 SQ.FT. 90. 2,328 SQ.FT. 91. 2,328 SQ.FT. 92. 2,328 SQ.FT. 93. 2,328 SQ.FT. 94. 2,328 SQ.FT. 95. 2,328 SQ.FT. 96. 2,328 SQ.FT. 97. 2,328 SQ.FT. 98. 2,328 SQ.FT. 99. 2,328 SQ.FT. 100. 2,328 SQ.FT. 101. 2,328 SQ.FT. 102. 2,328 SQ.FT. 103. 2,328 SQ.FT. 104. 2,328 SQ.FT. 105. 2,328 SQ.FT. 106. 2,328 SQ.FT. 107. 2,328 SQ.FT. 108. 2,328 SQ.FT. 109. 2,328 SQ.FT. 110. 2,328 SQ.FT. 111. 2,328 SQ.FT. 112. 2,328 SQ.FT. 113. 2,328 SQ.FT. 114. 2,328 SQ.FT. 115. 2,328 SQ.FT. 116. 2,328 SQ.FT. 117. 2,328 SQ.FT. 118. 2,328 SQ.FT. 119. 2,328 SQ.FT. 120. 2,328 SQ.FT. 121. 2,328 SQ.FT. 122. 2,328 SQ.FT. 123. 2,328 SQ.FT. 124. 2,328 SQ.FT. 125. 2,328 SQ.FT. 126. 2,328 SQ.FT. 127. 2,328 SQ.FT. 128. 2,328 SQ.FT. 129. 2,328 SQ.FT. 130. 2,328 SQ.FT. 131. 2,328 SQ.FT. 132. 2,328 SQ.FT. 133. 2,328 SQ.FT. 134. 2,328 SQ.FT. 135. 2,328 SQ.FT. 136. 2,328 SQ.FT. 137. 2,328 SQ.FT. 138. 2,328 SQ.FT. 139. 2,328 SQ.FT. 140. 2,328 SQ.FT. 141. 2,328 SQ.FT. 142. 2,328 SQ.FT. 143. 2,328 SQ.FT. 144. 2,328 SQ.FT. 145. 2,328 SQ.FT. 146. 2,328 SQ.FT. 147. 2,328 SQ.FT. 148. 2,328 SQ.FT. 149. 2,328 SQ.FT. 150. 2,328 SQ.FT. 151. 2,328 SQ.FT. 152. 2,328 SQ.FT. 153. 2,328 SQ.FT. 154. 2,328 SQ.FT. 155. 2,328 SQ.FT. 156. 2,328 SQ.FT. 157. 2,328 SQ.FT. 158. 2,328 SQ.FT. 159. 2,328 SQ.FT. 160. 2,328 SQ.FT. 161. 2,328 SQ.FT. 162. 2,328 SQ.FT. 163. 2,328 SQ.FT. 164. 2,328 SQ.FT. 165. 2,328 SQ.FT. 166. 2,328 SQ.FT. 167. 2,328 SQ.FT. 168. 2,328 SQ.FT. 169. 2,328 SQ.FT. 170. 2,328 SQ.FT. 171. 2,328 SQ.FT. 172. 2,328 SQ.FT. 173. 2,328 SQ.FT. 174. 2,328 SQ.FT. 175. 2,328 SQ.FT. 176. 2,328 SQ.FT. 177. 2,328 SQ.FT. 178. 2,328 SQ.FT. 179. 2,328 SQ.FT. 180. 2,328 SQ.FT. 181. 2,328 SQ.FT. 182. 2,328 SQ.FT. 183. 2,328 SQ.FT. 184. 2,328 SQ.FT. 185. 2,328 SQ.FT. 186. 2,328 SQ.FT. 187. 2,328 SQ.FT. 188. 2,328 SQ.FT. 189. 2,328 SQ.FT. 190. 2,328 SQ.FT. 191. 2,328 SQ.FT. 192. 2,328 SQ.FT. 193. 2,328 SQ.FT. 194. 2,328 SQ.FT. 195. 2,328 SQ.FT. 196. 2,328 SQ.FT. 197. 2,328 SQ.FT. 198. 2,328 SQ.FT. 199. 2,328 SQ.FT. 200. 2,328 SQ.FT. 201. 2,328 SQ.FT. 202. 2,328 SQ.FT. 203. 2,328 SQ.FT. 204. 2,328 SQ.FT. 205. 2,328 SQ.FT. 206. 2,328 SQ.FT. 207. 2,328 SQ.FT. 208. 2,328 SQ.FT. 209. 2,328 SQ.FT. 210. 2,328 SQ.FT. 211. 2,328 SQ.FT. 212. 2,328 SQ.FT. 213. 2,328 SQ.FT. 214. 2,328 SQ.FT. 215. 2,328 SQ.FT. 216. 2,328 SQ.FT. 217. 2,328 SQ.FT. 218. 2,328 SQ.FT. 219. 2,328 SQ.FT. 220. 2,328 SQ.FT. 221. 2,328 SQ.FT. 222. 2,328 SQ.FT. 223. 2,328 SQ.FT. 224. 2,328 SQ.FT. 225. 2,328 SQ.FT. 226. 2,328 SQ.FT. 227. 2,328 SQ.FT. 228. 2,328 SQ.FT. 229. 2,328 SQ.FT. 230. 2,328 SQ.FT. 231. 2,328 SQ.FT. 232. 2,328 SQ.FT. 233. 2,328 SQ.FT. 234. 2,328 SQ.FT. 235. 2,328 SQ.FT. 236. 2,328 SQ.FT. 237. 2,328 SQ.FT. 238. 2,328 SQ.FT. 239. 2,328 SQ.FT. 240. 2,328 SQ.FT. 241. 2,328 SQ.FT. 242. 2,328 SQ.FT. 243. 2,328 SQ.FT. 244. 2,328 SQ.FT. 245. 2,328 SQ.FT. 246. 2,328 SQ.FT. 247. 2,328 SQ.FT. 248. 2,328 SQ.FT. 249. 2,328 SQ.FT. 250. 2,328 SQ.FT. 251. 2,328 SQ.FT. 252. 2,328 SQ.FT. 253. 2,328 SQ.FT. 254. 2,328 SQ.FT. 255. 2,328 SQ.FT. 256. 2,328 SQ.FT. 257. 2,328 SQ.FT. 258. 2,328 SQ.FT. 259. 2,328 SQ.FT. 260. 2,328 SQ.FT. 261. 2,328 SQ.FT. 262. 2,328 SQ.FT. 263. 2,328 SQ.FT. 264. 2,328 SQ.FT. 265. 2,328 SQ.FT. 266. 2,328 SQ.FT. 26 |

VICINITY MAP



R-1 (SINGLE FAMILY RESIDENTIAL)
SOURCE OF WATER
CITY OF CLOVIS
SOURCE OF SEWAGE DISPOSAL
CITY OF CLOVIS
SOURCE OF ELECTRICITY
PG&E
SOURCE OF GAS
PG&E
SOURCE OF CABLE T.V.
COMCAST
SOURCE OF TELEPHONE
AT&T
ASSESSOR'S PARCEL NUMBER
506-040-235
SITE AREA
GROSS 27.76 ACRES, MORE OR LESS
REMAINDER: 3.54 ACRES, MORE OR LESS
PROJECT GROSS: 21.76 ACRES, MORE OR LESS
PROJECT REMAIN: 11.76 ACRES, MORE OR LESS
SITE ADDRESS
PARCEL 4 OF PARCEL MAP NO. 1772

PARKING LOT INFO:
STANDARD PARKING STALLS: 59
SITE STREET FRONTAGE: 1000 FT
TOTAL PARKING: 182
GARAGE PARKING (2 CARS PER GARAGE): 153

OWNER:
RICHOUGH PATRICK V. TRUSTEE
2917 EAST SHEPHERD AVENUE
CLOVIS, CA 93519

SUBDIVIDER:
LENNAR HOMES OF CALIFORNIA
8000 KAY AVENUE, SUITE 101
FRESNO, CA 93711
PH: (509)437-4600

PREPARED BY:
YAMANE & HORN ENGINEERING, INC.
2085 N. BURL AVENUE, SUITE 101
FRESNO, CALIFORNIA 93727
PH: (509) 244-3121

LEGAL DESCRIPTION:

THE LAND REFERRED TO IS SITUATED IN THE UNINCORPORATED AREA OF THE COUNTY OF FRESNO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:
PARCEL 4 OF PARCEL NAP NO. 1772, ACCORDING TO THE NAP THEREOF RECORDED IN BOOK 11, PAGE 53 OF PARCEL MAPS, FRESNO COUNTY RECORDS;

EXCEPTING THEREFROM AN UNDIVIDED ONE-HALF INTEREST IN AND TO ALL OIL, GAS AND/OR MINERALS THEREIN AND THEREUNDER, TOGETHER WITH THE RIGHT AT ALL TIMES TO ENTER ON THE ABOVE DESCRIBED LANDS AND TAKE ALL THE USUAL, NECESSARY OR CONVENIENT MEANS TO BORE, WELLS, MAKE EXCAVATIONS AND TO REMOVE ALL THE OIL, GAS AND/OR MINERALS THEREIN RESERVED, AND FOLLOWS THEREON, AS EXPECTED AND RESERVED IN THE DEED FROM BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOCIATION, TO T.L. HARPER, DATED FEBRUARY 6, 1936, RECORDED FEBRUARY 20, 1936 IN BOOK 1473, PAGE 243 OF OFFICIAL RECORDS, DOCUMENT NO. 4809;











EXCEPTING THEREFROM THAT PORTION GRANTED TO THE FRESNO METROPOLITAN WOOD CONTROL DISTRICT BY ORDER OF CONDEMNATION, CASE NUMBER 404831-
SUPERIOR COURT OF CALIFORNIA, COUNTY OF FRESNO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THAT PORTION OF PARCEL 1, OF PARCEL MAP NO. 3443, ACCORDING TO THE MAP THEREOF RECORDED IN BOOK 26 AT PAGE 88 OF PARCEL MAPS, FRESNO
COUNTY RECORDS, THAT PORTION OF PARCEL 1 OF PARCEL MAP NO. 3447, ACCORDING TO THE MAP THEREOF RECORDED IN BOOK 26 AT PAGE 87 OF PARCEL
MAPS, FRESNO COUNTY RECORDS, AND THAT PORTION OF PARCELS 3 AND 4 OF PARCEL MAP NO. 1772, ACCORDING TO THE MAP THEREOF RECORDED IN BOOK
26 AT PAGE 86 OF PARCEL MAPS, FRESNO COUNTY RECORDS, AND THE NORTHEAST QUARTER OF SECTION 20, TOWNSHIP 12 SOUTH, RANGE 12EAST, MOUNT DIABLO
BASE AND MERIDIAN, PARTICULARLY DESCRIBED AS FOLLOWS:

[illegible]

EXCEPTING THEREFROM THE REMAINING UNDIVIDED ONE-HALF INTEREST IN AND TO ALL OIL, GAS, MINERALS, AND OTHER HYDROCARBONS

NOTES:

- | | | | | | |
|---|--|---|---------------------------------|----------|--------------------------------|
|  | EXISTING STORM DRAIN INLET | ---(10)--- | EXISTING SEWER LINE | SDOI | STORM DRAIN INLET |
|  | EXISTING SANITARY SEWER MANHOLE | ---(0)--- | EXISTING WATER LINE | SDMH | STORM DRAIN MANHOLE |
|  | EXISTING STORM DRAIN MANHOLE | ---(2H+2)--- | EXISTING OVERHEAD ELECTRIC LINE | SSMH | SANITARY SEWER MANHOLE |
|  | EXISTING STREET LIGHT | ---(NH)--- | EXISTING IRRIGATION LINE | SP | IRRIGATION STANDPIPE |
|  | EXISTING UTILITY POLE | ---//--- | EXISTING EDGE OF PAVEMENT | STL | STREETLIGHT |
|  | PROPOSED DRAINAGE DIRECTION | ---o---o--- | EXISTING FENCE (CHAIN LINK) | PP | POWER POLE |
| ----- | CENTERLINE |  | EXISTING TREE | UP | UTILITY POLE |
|  | PROPOSED TRASH ENCLOSURE PER CITY STD. 330.4A&B |  | EXISTING FIRE HYDRANT | TEL | TELEPHONE POLE |
|  | PROPOSED 6" MASONRY BLOCK WALL | ---(0000)--- | EXISTING CONTOUR ELEVATION | WV | WATER VALVE |
| ----- | PROPOSED SETBACK | TH | EXISTING HYDRANT | O.R.F.C. | OFFICIAL RECORDS FRESNO COUNTY |
| ---(10)--- | EXISTING STORM DRAIN LINF | OW | GUY WIRE | F.C.R. | FRESNO COUNTY RECORDS |

Attachment 8



2907 S. Maple Avenue
Fresno, California 93725-2208
Telephone: (559) 233-7161
Fax: (559) 233-8227

CONVEYANCE. COMMITMENT. CUSTOMER SERVICE.

April 23, 2024

Liz Salazar
Planning Division
City of Clovis
1033 Fifth Street
Clovis, CA 93612

RE: Tract Map 6452
N/W Perrin and Sunnyside avenues

Dear Ms. Salazar:

The Fresno Irrigation District (FID) has reviewed Tract Map 6452 for which the applicant proposes a 153-lot single-family residential development, APN: 556-040-23. This application is being processed concurrently with PDP2023-001. FID has the following comment:

1. FID does not own, operate, or maintain any facilities located on the subject property, as shown on the attached FID exhibit map. The property is located outside the FID boundary.
2. The proposed development appears to be within the City of Clovis Sphere of Influence but lies outside FID's boundary line. The development is not entitled to water from the Kings River.
3. For informational purposes, FID's Enterprise No 109 runs northwesterly, crosses Shepherd Avenue approximately 3,100 feet south of the subject property, crosses Baron Avenue approximately 800 feet southwest of the subject property, and crosses Behymer Avenue approximately 2,700 feet northwest of the subject property, as shown on the attached FID exhibit map. Should this project include any street and/or utility improvements along Shepherd Avenue, Baron Avenue, Behymer Avenue, or in the vicinity of this Canal, FID requires it review and approve all plans.
4. The proposed land use (or change in land use) should be such that the need for water is minimized and/or reduced so that groundwater impacts to the proposed project area and any surrounding areas are eliminated. The "demand" side of water consumed needs to be evaluated or scrutinized as much as the "supply" side of the water supply. FID is concerned that the proposed development may negatively impact local groundwater supplies including those areas adjacent to or neighboring the proposed development area. The area is currently open land with minimal to no water use. Under current circumstances the project area is experiencing a modest but continuing groundwater

\\fdfs01\Eng\Agencies\Clovis\Tract Map\TM6452\TM6452 FID Comment.doc

overdraft. Should the proposed development result in a significant increase in dependence on groundwater, this deficit will increase. FID recommends the City of Clovis require the proposed development balance anticipated groundwater use with sufficient recharge of imported surface water in order to preclude increasing the area's existing groundwater overdraft problem.

5. It is unclear if the source of water for this development is solely groundwater or a mixture of treated surface water from FID's Enterprise Canal. If treated surface water will be used, the City must acquire additional water from a water purveyor, such as FID for that purpose, so as to not reduce water supplies to or create water supply deficits in other areas of the City. Water supply issues must be resolved before any further "hardening" of the water supply demand is allowed to take place.
6. It should be noted that without the use of surface water, continued dependence on solely a groundwater supply will do nothing to reverse or correct the existing overdraft of the groundwater supply beneath the City of Clovis and FID service area. As this project will "harden" or make firmer the need for water, the long-term correction of the groundwater overdraft should be considered as a requirement of the project.
7. The City of Clovis and FID have been working to address water supplies issues for development outside of the FID service area. We encourage the City to continue towards finding solutions to minimize the impacts of changes in land uses and to mitigate any existing adverse water supply impacts within the development areas.
8. California enacted landmark legislation in 2014 known as the Sustainable Groundwater Management Act (SGMA). The act requires the formation of local groundwater sustainability agencies (GSAs) that must assess conditions in their local water basins and adopt locally-based management plans. FID and the City of Clovis are members of the North Kings Groundwater Sustainability Agency which will manage the groundwater basin within the FID service area. This area is completely reliant on groundwater pumping and SGMA will impact all users of groundwater and those who rely on it. The City of Clovis should consider the impacts of the development on the City's ability to comply with requirements of SGMA.

Thank you for submitting this for our review. We appreciate the opportunity to review and comment on the subject documents for the proposed project. If you have any questions, please feel free to contact Jeremy Landrith at (559) 233-7161 extension 7407 or jlandrith@fresnoirrigation.com.

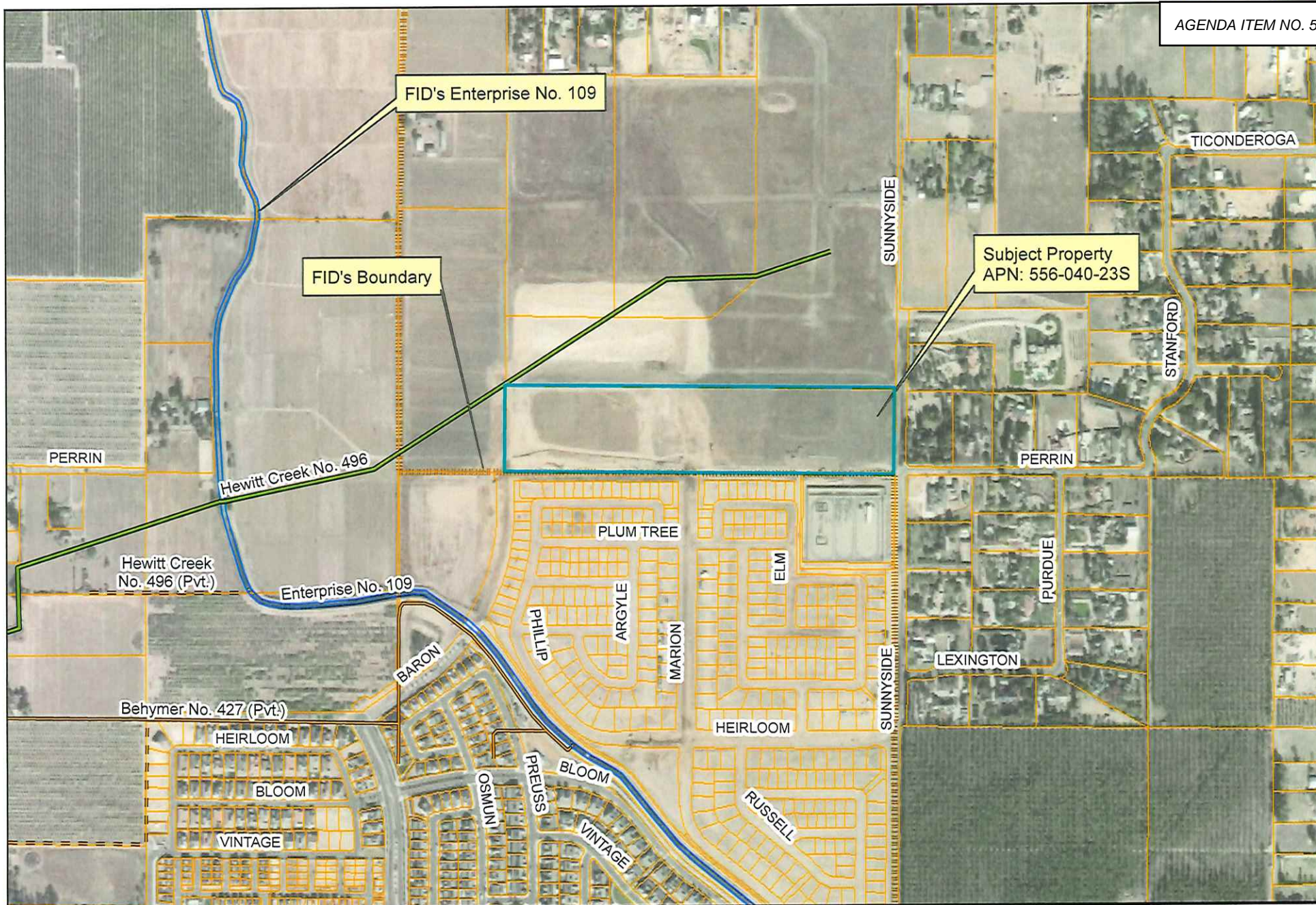
Sincerely,



Laurence Kimura, P.E.
Chief Engineer

Attachment

\\fdfs01\Eng\Agencies\Clovis\Tract Map\TM6452\TM6452 FID Comment.doc



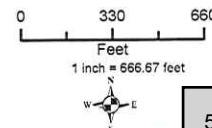
FRESNO IRRIGATION DISTRICT

Legend

- | | | | | |
|-----------------|--------------------|-------------------|----------------|-----------------------|
| FID Canal | FID Pipeline | Stream Group | FID Boundary | Parcel |
| Private Canal | Private Pipeline | Other-Creek/River | Railroad | FMFCD Acquired Basins |
| Abandoned Canal | Abandoned Pipeline | Other-Pipeline | Streets & Hwys | FMFCD Proposed Basins |

This map was produced by the Fresno Irrigation District and is provided for reference and informational purposes only and is not intended to show map scale accuracy or all inclusive map features, nor for legal purposes. FID makes no statements regarding the accuracy of this map as the features shown are in their approximate location. Please contact the FID Engineering Dept. at (559) 233-7161 for further information on FID facilities.

Path: G:\Fidgis\20240220 FID Master.mxd
Spatial Reference
Name: NAD 1983 StatePlane California IV FIPS 0404



**County of Fresno**DEPARTMENT OF PUBLIC HEALTH
Environmental Health Division

May 10, 2023

LU0022200
2604

Lily Cha-Haydostian, Assistant Planner
City of Clovis
Planning and Development Services Department
1033 Fifth Street
Clovis, CA 93612

Dear Ms. Cha-Haydostian:

PROJECT NUMBER: **DRC2023-015****DRC2023-015**; The project proposes to construct 216 SFR homes.**APN: Not Listed ZONING: County AE 20 to City Residential ADDRESS: Baron & Perrin Avenues**

Recommended Conditions of Approval:

- Construction permits for development should be subject to assurance of sewer capacity of the Regional Wastewater Treatment Facility. Concurrence should be obtained from the California Regional Water Quality Control Board (RWQCB). For more information, contact staff at (559) 445-5116.
- Construction permits for the development should be subject to assurance that the City of Clovis community water system has the capacity and quality to serve this project. Concurrence should be obtained from the State Water Resources Control Board, Division of Drinking Water-Southern Branch. For more information call (559) 447-3300.
- The proposed project has the potential to expose nearby residents to elevated noise levels. Consideration should be given to your City's municipal code.
- As a measure to protect ground water, all water wells and/or septic systems that exist or have been abandoned within the project area should be properly destroyed by an appropriately licensed contractor.
- Should any underground storage tank(s) be found during the project, the applicant shall apply for and secure an Underground Storage Tank Removal Permit from the Fresno County Department of Public Health, Environmental Health Division. Contact the Fresno County Hazmat Compliance Program at (559) 600-3271 for more information.

REVIEWED BY:



Kevin Tsuda, R.E.H.S.
Environmental Health Specialist II

(559) 600-33271

KT

cc: Deep Sidhu Environmental Health Division (CT. 55.25)

California Department of Transportation

DISTRICT 6 OFFICE
1352 WEST OLIVE AVENUE | P.O. BOX 12616 | FRESNO, CA 93778-2616
(559) 908-7064 | FAX (559) 488-4195 | TTY 711
www.dot.ca.gov



March 13, 2024

FRE-168-R7.371

Application for TM – Tentative Map

TM 6452 and PDP 2023-001

<https://ld-igr-gts.dot.ca.gov/district/6/report/29818>

SENT VIA EMAIL

Liz Salazar, Assistant Planner
Planning and Development Services Department
City of Clovis
1033 Fifth Street
Clovis, CA 93612

Dear Mx. Liz Salazar:

Thank you for the opportunity to review Tentative Tract Map (TM) 6452 and Planned Development Permit (PDP) 2023-001 which proposes to construct 153-lot single-family residential development. The project is located on the northwest corner of Sunnyside Avenue and Perrin Road in the City of Clovis, approximately 2.5 miles north of the State Route 168 and Herndon Avenue interchange and 2.5 miles northwest of the SR 168 and Fowler Avenue interchange.

This project seems to be part of the Heritage Grove Specific Plan which this office has reviewed the corresponding Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) as well as a Scope of Work for a Traffic Impact Analysis (TIA) with comment letters being submitted dated March 10, 2022, and May 3, 2023.

The project was also reviewed as Development Review Committee (DRC) application 2023-015 with our office submitting a comment letter dated May 31, 2023, which still apply. The comment letter is provided as Attachment "A".

If you have any other questions, please call or email Christopher Xiong at (559) 908-7064 or Christopher.Xiong@dot.ca.gov.

Sincerely,

A blue ink signature of David Padilla, written in a cursive style.

DAVID PADILLA, Branch Chief
Transportation Planning – North

Attachment A:
DRC 2023-015 Comment Letter

Attachment A

California Department of Transportation

DISTRICT 6 OFFICE

1352 WEST OLIVE AVENUE | P.O. BOX 12616 | FRESNO, CA 93778-2616
(559) 908-7064 | FAX (559) 488-4195 | TTY 711

www.dot.ca.gov



May 31, 2023

FRE-168-R7.371

Pre-Appl – Pre-Application Referrals

DRC 2023-015

<https://ld-igr-gts.dot.ca.gov/district/6/report/29818>

SENT VIA EMAIL

Lily Cha-Haydostian, Senior Planner
Planning and Development Services Department
City of Clovis
1033 Fifth Street
Clovis, CA 93612

Dear Mx. Cha-Haydostian:

Thank you for the opportunity to review the Development Review Committee (DRC) application 2023-015 which proposes to construct a 216-unit single-family detached housing development. The project is located west of the Sunnyside Avenue and Perrin Road intersection in the City of Clovis, approximately 2.5 miles northwest of the State Route (SR) 168 and Fowler Avenue interchange.

The portion on the northeast corner of the future Baron Avenue and Perrin Avenue seems to be part of the Heritage Grove Specific Plan which this office has reviewed the corresponding Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) as well as a Scope of Work (SOW) for a Traffic Impact Analysis (TIA) with comment letters being submitted dated March 10, 2022, and May 3, 2023, respectively.

Caltrans provides the following comments consistent with the State's smart mobility goals that support a vibrant economy and sustainable communities:

1. As mentioned above, a portion of this project seems to be included in the Heritage Grove Specific Plan. **It is recommended that this project be included in the Transportation element and TIA of the EIR analyses to assess any potential impacts, specifically with discussions on potential impacts to the State Routes and Vehicle Miles Traveled (VMT) in accordance with Senate Bill (SB) 743.**

2. This development is expected to add vehicles to the eastbound SR 168 exit ramp queue at Fowler Avenue during the PM peak hour and could potentially result in a significant speed differential between the off-ramp queue and the mainline of the freeway. **It is recommended that a peak hour ramp queue analysis is completed to determine this development's potential impact.**
3. Caltrans recommends that the City consider creating a VMT Mitigation Impact Fee to help reduce potential impacts on the State Highway System.
4. It is recommended that the project contribute to all applicable Impact Fee programs, such as the City's Development Fee and the Regional Transportation Mitigation Fee (RTMF) program to ensure that the developments contribute to its fair share toward future improvement needs.
5. Caltrans recommends the project proponents consider working with the City to convert a portion of the planned residential units to affordable housing units.
6. Alternative transportation policies should be applied to the development. An assessment of multimodal facilities should be conducted to develop an integrated multimodal transportation system to serve and help alleviate traffic congestion resulting from the project and related development in the area of the City. The assessment should include the following:
 - a. Pedestrian walkways should not only be limited to the project's internal connectivity but be connected to existing walkways and transit facilities outside the project area.
 - b. The project should consider coordinating connections to local and regional bicycle pathways to encourage the use of bicycles for commuter and recreational purposes.
 - c. If transit is not available within 1/4-mile of the project area, transit should be extended to provide services to high-activity centers of the project.
7. As part of the statewide effort to reduce greenhouse gas emissions, Caltrans recommends the project proponents consider the installation of public Level 2 Electric Vehicle (EV) and DC Fast Charging EV charging stations into the housing units.
8. Active Transportation Plans and Smart Growth efforts support the state's 2050 Climate goals. Caltrans supports reducing VMT and GHG emissions in ways that increase the likelihood that people will use and benefit from a multimodal transportation network.

Lily Cha-Haydostian, DRC 2023-015
May 31, 2023
Page 3

If you have any other questions, please call or email Christopher Xiong at (559) 908-7064 or Christopher.Xiong@dot.ca.gov.

Sincerely,



DAVID PADILLA, Branch Chief
Transportation Planning – North



County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING
STEVEN E. WHITE, DIRECTOR

March 13, 2024

Liz Salazar
Assistant Planner, Planning Division
City of Clovis
1033 Fifth Street
Clovis, CA 93612

SUBJECT: City of Clovis TM6452 and PDP2023-001- 153-lot single-family residential subdivision

Dear Ms. Salazar:

The County of Fresno appreciates the opportunity to review and comment on the subject project being reviewed by the City of Clovis.

The documents received for this review were circulated to our various Fresno County Public Works and Planning divisions. See comments below.

Fresno County Transportation Division:

- The County requires the completion of a Transportation Impact Study (TIS) and a Vehicle Miles Traveled (VMT) analysis which should include an assessment of the potential impacts of the project on county facilities.

Fresno County Road Maintenance and Operations Division:

- City of Clovis should be required to annex the full road right-of-way of Sunnyside Ave along parcel frontage.

If you have any questions regarding the information described in this letter, please contact me at eracusin@FresnoCountyCA.gov or (559) 600-4245.

Sincerely,

Elliot Racusin

Elliot Racusin, Planner
Development Services and Capital Projects Division

DR:er:cwm
G:\4360Devs&Pin\PROJSEC\PROJDOCS\Environmental\OAR\City of Clovis\TM 6452 and PDP 2023-001\TM 6452 and PDP 2023-001 City of Clovis -Response Letter.docx



March 15, 2024

Liz Salazar
City of Clovis
Planning and Development Services
1033 Fifth St
Clovis, CA 93612

Project: Planned Development Permit PDP2023-001, Tentative Tract Map TM6452

District CEQA Reference No: 20240217

Dear Mrs. Salazar,

The San Joaquin Valley Air Pollution Control District (District) has reviewed the Planned Development Permit (PDP) from the City of Clovis (City). Per the PDP, the project consists of 153 single-family residential lots (Project). The Project is located at the northeast corner of Baron Ave and Perrin Ave, Clovis.

The District offers the following comments at this time regarding the Project:

1) Project Related Emissions

At the federal level under the National Ambient Air Quality Standards (NAAQS), the District is designated as extreme nonattainment for the 8-hour ozone standards and serious nonattainment for the particulate matter less than 2.5 microns in size (PM2.5) standards. At the state level under California Ambient Air Quality Standards (CAAQS), the District is designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 standards.

Based on information provided to the District, Project specific annual criteria pollutant emissions from construction and operation are not expected to exceed any of the significance thresholds as identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI):
<https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf>.

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061
www.valleyair.org

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585
www.healthyairliving.com

1a) Construction Emissions

The District recommends, to reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment.

2) Health Risk Screening/Assessment

The City should evaluate the risk associated with the Project for sensitive receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) in the area and mitigate any potentially significant risk to help limit exposure of sensitive receptors to emissions.

To determine potential health impacts on surrounding receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) a Prioritization and/or a Health Risk Assessment (HRA) should be performed for the Project. These health risk determinations should quantify and characterize potential Toxic Air Contaminants (TACs) identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) that pose a present or potential hazard to human health.

Health risk analyses should include all potential air emissions from the project, which include emissions from construction of the project, including multi-year construction, as well as ongoing operational activities of the project. Note, two common sources of TACs can be attributed to diesel exhaust emitted from heavy-duty off-road earth moving equipment during construction, and from ongoing operation of heavy-duty on-road trucks.

Prioritization (Screening Health Risk Assessment):

A "Prioritization" is the recommended method for a conservative screening-level health risk assessment. The Prioritization should be performed using the California Air Pollution Control Officers Association's (CAPCOA) methodology. Please contact the District for assistance with performing a Prioritization analysis.

The District recommends that a more refined analysis, in the form of an HRA, be performed for any project resulting in a Prioritization score of 10 or greater. This is because the prioritization results are a conservative health risk representation, while the detailed HRA provides a more accurate health risk evaluation.

Health Risk Assessment:

Prior to performing an HRA, it is strongly recommended that land use agencies/ project proponents develop and submit for District review a health risk modeling protocol that outlines the sources and methodologies that will be used to perform the HRA.

A development project would be considered to have a potentially significant health risk if the HRA demonstrates that the health impacts would exceed the District's established risk thresholds, which can be found here:

<https://ww2.valleyair.org/permitting/ceqa/>.

A project with a significant health risk would trigger all feasible mitigation measures. The District strongly recommends that development projects that result in a significant health risk not be approved by the land use agency.

The District is available to review HRA protocols and analyses. For HRA submittals please provide the following information electronically to the District for review:

- HRA (AERMOD) modeling files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodologies.

For assistance, please contact the District's Technical Services Department by:

- E-Mailing inquiries to: hramodeler@valleyair.org
- Calling (559) 230-5900

Recommended Measure: Development projects resulting in TAC emissions should be located an adequate distance from residential areas and other sensitive receptors to prevent the creation of a significant health risk in accordance to CARB's Air Quality and Land Use Handbook: A Community Health Perspective located at <https://ww2.arb.ca.gov/our-work/programs/resource-center/strategy-development/land-use-resources>.

3) Ambient Air Quality Analysis

An Ambient Air Quality Analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of State or National Ambient Air Quality Standards. The District recommends an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

An AAQA uses air dispersion modeling to determine if emission increase from a project will cause or contribute to a violation of State or National Ambient Air Quality Standards. An acceptable analysis would include emissions from both project-specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis.

Specific information for assessing significance, including screening tools and modeling guidance, is available online at the District's website:
<https://ww2.valleyair.org/permitting/ceqa/>.

4) Clean Lawn and Garden Equipment in the Community

Since the Project consists of residential development, gas-powered lawn and garden equipment have the potential to result in an increase of NO_x and PM_{2.5} emissions. Utilizing electric lawn care equipment can provide residents with immediate economic, environmental, and health benefits. The District recommends the Project proponent consider the District's Clean Green Yard Machines (CGYM) program which provides incentive funding for replacement of existing gas powered lawn and garden equipment. More information on the District CGYM program and funding can be found at: <https://ww2.valleyair.org/grants/clean-green-yard-machines-residential/> and <https://ww2.valleyair.org/grants/zero-emission-landscaping-equipment-voucher-program/>.

5) On-Site Solar Deployment

It is the policy of the State of California that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045. While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, the production of solar energy is contributing to improving air quality and public health. The District suggests that the City consider incorporating solar power systems as an emission reduction strategy for the Project.

6) District Rules and Regulations

The District issues permits for many types of air pollution sources, and regulates some activities that do not require permits. A project subject to District rules and regulations would reduce its impacts on air quality through compliance with the District's regulatory framework. In general, a regulation is a collection of individual rules, each of which deals with a specific topic. As an example, Regulation II (Permits) includes District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits), and several other rules pertaining to District permitting requirements and processes.

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: <https://ww2.valleyair.org/rules-and-planning/current-district-rules-and-regulations>. To identify other District rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888.

6a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources

Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 (Permits Required) requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201 (New and Modified Stationary Source Review) requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology (BACT).

This Project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District permits. Prior to construction, the Project proponent should submit to the District an application for an ATC. For further information or assistance, the project proponent may contact the District's SBA Office at (559) 230-5888.

6b) District Rule 9510 - Indirect Source Review (ISR)

The Project is subject to District Rule 9510 because it will receive a project-level discretionary approval from a public agency and will equal or exceed 50 residential units.

The purpose of District Rule 9510 is to reduce the growth in both NO_x and PM emissions associated with development and transportation projects from mobile and area sources; specifically, the emissions associated with the construction and subsequent operation of development projects. The ISR Rule requires developers to mitigate their NO_x and PM emissions by incorporating clean air design elements into their projects. Should the proposed development project clean air design elements be insufficient to meet the required emission reductions, developers must pay a fee that ultimately funds incentive projects to achieve off-site emissions reductions.

Per Section 5.0 of the ISR Rule, an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency. As of the date of this letter, the District has not received an AIA application for this Project. Please inform the project proponent to immediately submit an AIA application to the District to comply with District Rule 9510 so that proper mitigation and clean air design under ISR can be incorporated into the Project's design. One AIA application should be submitted for the entire Project.

Information about how to comply with District Rule 9510 can be found online at: <https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview>

The AIA application form can be found online at:
<https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview/forms-and-applications/>

District staff is available to provide assistance and can be reached by phone at (559) 230-5900 or by email at ISR@valleyair.org.

6c) District Rule 4601 (Architectural Coatings)

The Project may be subject to District Rule 4601 since it is expected to utilize architectural coatings. Architectural coatings are paints, varnishes, sealers, or stains that are applied to structures, portable buildings, pavements or curbs. The purpose of this rule is to limit VOC emissions from architectural coatings. In addition, this rule specifies architectural coatings storage, cleanup and labeling requirements. Additional information on how to comply with District Rule 4601 requirements can be found online at:
<https://ww2.valleyair.org/media/tkgjeusd/rule-4601.pdf>

6d) District Regulation VIII (Fugitive PM10 Prohibitions)

The project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities*.

Should the project result in at least 1-acre in size, the project proponent shall provide written notification to the District at least 48 hours prior to the project proponents intent to commence any earthmoving activities pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). Also, should the project result in the disturbance of 5-acres or more, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials, the project proponent shall submit to the District a Dust Control Plan pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). For additional information regarding the written notification or Dust Control Plan requirements, please contact District Compliance staff at (559) 230-5950.

The application for both the Construction Notification and Dust Control Plan can be found online at: <https://ww2.valleyair.org/media/fm3jrbsq/dcp-form.docx>

Information about District Regulation VIII can be found online at:
<https://ww2.valleyair.org/dustcontrol>

6e) District Rule 4901 - Wood Burning Fireplaces and Heaters

The purpose of this rule is to limit emissions of carbon monoxide and particulate matter from wood burning fireplaces, wood burning heaters, and outdoor wood burning devices. This rule establishes limitations on the installation of new wood burning fireplaces and wood burning heaters. Specifically, at elevations below 3,000 feet in areas with natural gas service, no person shall install a wood burning fireplace, low mass fireplace, masonry heater, or wood burning heater.

Information about District Rule 4901 can be found online at:
<https://ww2.valleyair.org/compliance/residential-wood-smoke-reduction-program/>

6f) Other District Rules and Regulations

The Project may also be subject to the following District rules: Rule 4102 (Nuisance) and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

7) District Comment Letter

The District recommends that a copy of the District's comments be provided to the Project proponent.

If you have any questions or require further information, please contact Ryan Grossman by e-mail at Ryan.grossman@valleyair.org or by phone at (559) 230-6569.

Sincerely,

Tom Jordan
Director of Policy and Government Affairs



For: Mark Montelongo
Program Manager



Yana Garcia
Secretary for
Environmental Protection



Department of Toxic Substances Control

Katherine M. Butler, MPH, Director
8800 Cal Center Drive
Sacramento, California 95826-3200
<https://dtsc.ca.gov>



Gavin Newsom
Governor

SENT VIA ELECTRONIC MAIL

October 10, 2024

Liz Salazar
Assistant Planner
City of Clovis
1033 Fifth Street
Clovis, CA 93612
lizs@clovisca.gov

RE: MITIGATED NEGATIVE DECLARATION FOR THE TM6452, PDP2023-001
PDATED OCTOBER 01, 2024, STATE CLEARINGHOUSE NUMBER 2024100057

Dear Liz Salazar,

The Department of Toxic Substances Control (DTSC) received a Mitigated Negative Declaration (MND) for the TM6452, PDP2023-001 project (project). The proposed project is approximately 18 acres of land located at the northeast corner of N. Baron and Perrin Avenues. The project applicant is requesting the City Council approval of a vesting tentative tract map for a 153-lot single-family planned residential development and a planned development permit for a 153-lot single-family residential development. After reviewing the Project, DTSC recommends and requests consideration of the following comments:

1. When agricultural crops and/or land uses are proposed or rezoned for residential use, a number of contaminants of concern (COCs) can be present. The Lead Agency shall identify the amounts of Pesticides and Organochlorine Pesticides (OCPs) historically used on the property. If present, OCPs

requiring further analysis are dichloro-diphenyl-trichloroethane, toxaphene, and dieldrin. Additionally, any level of arsenic present would require further analysis and sampling and must meet [HHRA NOTE NUMBER 3, DTSC-SLs](#) approved thresholds. If they are not, remedial action must take place to mitigate them below those thresholds.

Additional COCs may be found in mixing/loading/storage areas, drainage ditches, farmhouses, or any other outbuildings and should be sampled and analyzed. If smudge pots were routinely utilized, additional sampling for Polycyclic Aromatic Hydrocarbons and/or Total Petroleum Hydrocarbons may be required.

2. DTSC recommends that all imported soil and fill material should be tested to assess any contaminants of concern meet screening levels as outlined in [DTSC's Preliminary Endangerment Assessment \(PEA\) Guidance Manual](#). Additionally, DTSC advises referencing the [DTSC Information Advisory Clean Imported Fill Material Fact Sheet](#) if importing fill is necessary. To minimize the possibility of introducing contaminated soil and fill material there should be documentation of the origins of the soil or fill material and, if applicable, sampling be conducted to ensure that the imported soil and fill material are suitable for the intended land use. The soil sampling should include analysis based on the source of the fill and knowledge of prior land use. Additional information can be found by visiting [DTSC's Human and Ecological Risk Office \(HERO\) webpage](#).

DTSC appreciates the opportunity to comment on the MND for the TM6452, PDP2023-001 project. Thank you for your assistance in protecting California's people and environment from the harmful effects of toxic substances. If you have any questions or would like clarification on DTSC's comments, please respond to this letter or via [email](#) for additional guidance.

Liz Salazar
October 10, 2024
Page 3

Sincerely,

Tamara Purvis

Tamara Purvis
Associate Environmental Planner
HWMP - Permitting Division – CEQA Unit
Department of Toxic Substances Control
Tamara.Purvis@dtsc.ca.gov

cc: (via email)

Governor's Office of Planning and
Research State Clearinghouse
State.Clearinghouse@opr.ca.gov

Dave Kereazis
Associate Environmental Planner
HWMP-Permitting Division – CEQA Unit
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Scott Wiley
Associate Governmental Program Analyst
HWMP - Permitting Division – CEQA Unit
Department of Toxic Substances Control
Scott.Wiley@dtsc.ca.gov



CITY of CLOVIS

REPORT TO THE PLANNING COMMISSION

TO: Clovis Planning Commission

FROM: Planning and Development Services

DATE: October 24, 2024

SUBJECT: Consider items associated with approximately 33 acres of land located at the northwest corner of Sierra and N. Clovis Avenues. Blanchimont Corner LLC et al., owners; Legacy Realty and Development, applicant; Roger Hurtado, representative.

- a) Consider Adoption, Res. 24-____, A resolution recommending that the City Council adopt an environmental finding of a Mitigated Negative Declaration and a Mitigation Monitoring and Reporting Program for P-C-C Amendment R2024-004.
- b) Consider Approval Res. 24-____, R2024-004, A resolution recommending that the City Council approve P-C-C Amendment R2024-004, amending the development standard and preliminary development plan for the Tuscan Village Planned Commercial Center.

Staff: Lily Cha, Senior Planner

Recommendation: Approve

ATTACHMENTS:

1. Res. 24-____, ISMND
2. Res. 24-____, R2024-004
3. Correspondence from Commenting Agencies
4. Initial Study Mitigated Negative Declaration

RECOMMENDATION

Staff recommends that the Planning Commission adopt a resolution recommending that the City Council adopt an environmental finding of a Mitigated Negative Declaration (MND) and a Mitigation Monitoring and Reporting Program for P-C-C Amendment R2024-004 and approve R2024-004.

EXECUTIVE SUMMARY

Legacy Realty and Development ("Applicant") is seeking approval for R2024-004, hereinafter referred to as the "Project." R2024-004 proposes amendments to the Planned Commercial

Center (P-C-C) development standards and the preliminary development plan for approximately 33 acres of the partially developed Tuscan Village commercial center, located on the west side of N. Clovis Avenue, between Magill and Sierra Avenues. The request also includes renaming the center from "Tuscan Village" to the more commonly known "Golden Triangle." P-C-C Zone Districts are created through Rezone applications, and the proposed changes will require a Rezone amendment. This update aims to resolve long-standing challenges within the existing P-C-C that have hindered development and align with the new property owner's vision for future development. Approval of the project would allow the Applicant to proceed with developing their portion of the center, with the remaining sites expected to be developed incrementally in the future.

BACKGROUND

- General Plan Designation: General Commercial
- Existing Zoning: P-C-C
- Lot Size: Approximately 33 acres
- Current Land Use: Commercial Center
- Adjacent Land Uses:
 - North: Commercial
 - South: Residential and Park
 - East: Commercial
 - West: Residential and SR 168
- Previous Entitlements: R2004-36 and R2004-36A

The Project site is located in Focus Area 2 of the City's General Plan. This area covers approximately 40 acres, bounded by Freeway 168, Herndon Avenue, N. Clovis Avenue, Sierra Avenue, and the Clovis Old Town Trail. Focus areas offer flexibility in urban design, site planning, mixed-use development, and facilitating coordinated land use in areas with multiple ownerships. In Focus Area 2, the primary land use is General Commercial, with additional permitted uses such as high-density residential and mixed-use developments. The area allows vertically mixed-use buildings, with commercial spaces on the ground floor and residential units above. However, historically, the Project site has not taken advantage of this flexibility, and the current Project continues in that tradition.

In December 2004, the City Council approved R2004-36, which established the initial phase of the Tuscan Village P-C-C on approximately 5.81 acres located at the southwest corner of Herndon and N. Clovis Avenues, between Herndon and Magill Avenues. This approval included a conceptual development plan intended as a vision tool for the incremental development of the entire center. It was expected that future rezones might adjust the plan to cover the remaining 33-acre area south of Magill Avenue, as needed.

In March 2007, the City Council approved an interim C-2 (Community Commercial) zoning designation for approximately 1.8 acres in the southern portion of the center, enabling the processing of a conditional use permit for an 85-room hotel. This rezone and use permit were conditioned to be incorporated into future P-C-C requests for the remaining 33-acre site.

In June 2007, the City Council approved R2004-36A, which memorialized the second phase of the P-C-C covering the southern 33 acres of the center situated west of N. Clovis Avenue, between Sierra and Magill Avenues. This amendment updated the general development standards for the site, including signage standards and the preliminary development plan (site layout). The architectural design from the first phase of the P-C-C was carried over, and development was expected to proceed incrementally through the site plan review ("SPR") process. This amendment also incorporated the March 2007 interim C-2 zoning designation.

Since that approval, less than half of the 33-acre portion of the P-C-C has been developed. However, development has been challenging due to irregularly shaped parcels, multiple property owners with different interests, and the need to underground the West Branch Clovis Ditch that bisects the Project area. In some cases, the parcels did not align with the preliminary development plan, leaving some property owners with land that could only be developed as parking areas. City staff made several attempts to mediate discussions between property owners to encourage collaborative development, but these efforts were unsuccessful. In recent years, one entity was able to acquire a large portion of the properties and negotiate a development plan that worked for all the parcels, resulting in the proposed Project.

FIGURE 1 – Project Location



PROPOSAL AND ANALYSIS

The Applicant is seeking approval of R2024-004 to amend the exiting Tuscan Center P-C-C, with modifications to the development standards and preliminary development plan. This amendment also proposes renaming the center to the more commonly known “Golden Triangle.” Notably, while the original P-C-C was established with two (2) phases – Phase 1, a 5.81-acre section north of Magill, and Phase 2, the current subject properties – this Project pertains only to Phase 2. Phase 1 will continue to operate under the existing Tuscan Village P-C-C guidelines, while Phase 2, if approved, will follow the new Golden Triangle standards.

The Project aims to formalize the development pattern for this area, paving the way for future site-specific plan approvals. The properties in this area are under multiple ownerships and include a mix of developed properties, residences slated for future development, and vacant lots. While the entire site is being planned under this Project, some properties will likely develop in future phases when owners are ready. The Applicant intends to proceed with developing their properties shortly after approval. This Project ensures that as development progresses incrementally, there will be established guidelines for access, circulation, and design to maintain cohesive development throughout the area.

P-C-C Development Plan and Planning Areas

The P-C-C Zone District is intended to support neighborhood, community, and regional shopping centers within a planned development, offering innovative design solutions that are not achievable under conventional commercial zoning. While P-C-C zoning allows for customized development criteria—whether more or less restrictive than standard City requirements—it is not considered a variance. A development plan is required, specifying all permitted uses, development standards, and maintenance obligations. The zoning also categorizes different uses to address variations in parking needs and design considerations, allowing for tailored design criteria. P-C-C Zone Districts are established through Rezone applications. The proposed modifications require a Rezone amendment.

The Golden Triangle development plan incorporates a set of guidelines and standards that will govern the center (**Attachment 2B**). These guidelines include development standards such as setbacks, building height restrictions, architectural design, parking requirements, signage regulations, and land use provisions. The plan divides the site into four distinct Planning Areas (PAs), each with its own standards and designated land uses. The remaining Tuscan Village area north of Magill Avenue, outside of this Project, has been designated as the fifth PA for reference purposes. Additionally, the Project upholds the pedestrian connectivity goals set by the previous Tuscan Village standards by requiring enhanced pedestrian pathways and crossings, linking buildings within the center to the Old Town Clovis trail and N. Clovis Avenue.

Planning Areas

The development plan outlines four (4) distinct planning areas, each with unique characteristics and development permissions. **Figure 2** below illustrates the boundaries of these planning areas, and the descriptions that follow detail the intended uses for each:

Planning Area 1 (PA1)

PA1 encompasses approximately 15 acres and is shown within the orange boundary in **Figure 2** below. This area will accommodate about 133,396 square feet of building space. The primary land uses focus on new and used automotive retail sales and associated repair services, along with supporting office spaces. Four (4) automotive-related buildings are planned for PA1, ranging in size from approximately 16,376 to 48,776 square feet. Proposed tenants include AUDI, BMW, and Porsche, with a fourth to be determined.

Planning Area 2 (PA2)

PA2 spans about 8 acres and is outlined in yellow in **Figure 2** below. This area will accommodate approximately 106,198 square feet of building space, supporting a variety of uses such as office, institutional, retail, services, and lodging. A total of eight (8) buildings are planned within PA2, four (4) of which are already in place: California Health Sciences, the Fairfield Hotel, Valley Care Residential Training, and a dental office. The proposed new buildings will range in size from 2,816 to 12,184 square feet.

Planning Area 3 (PA3)

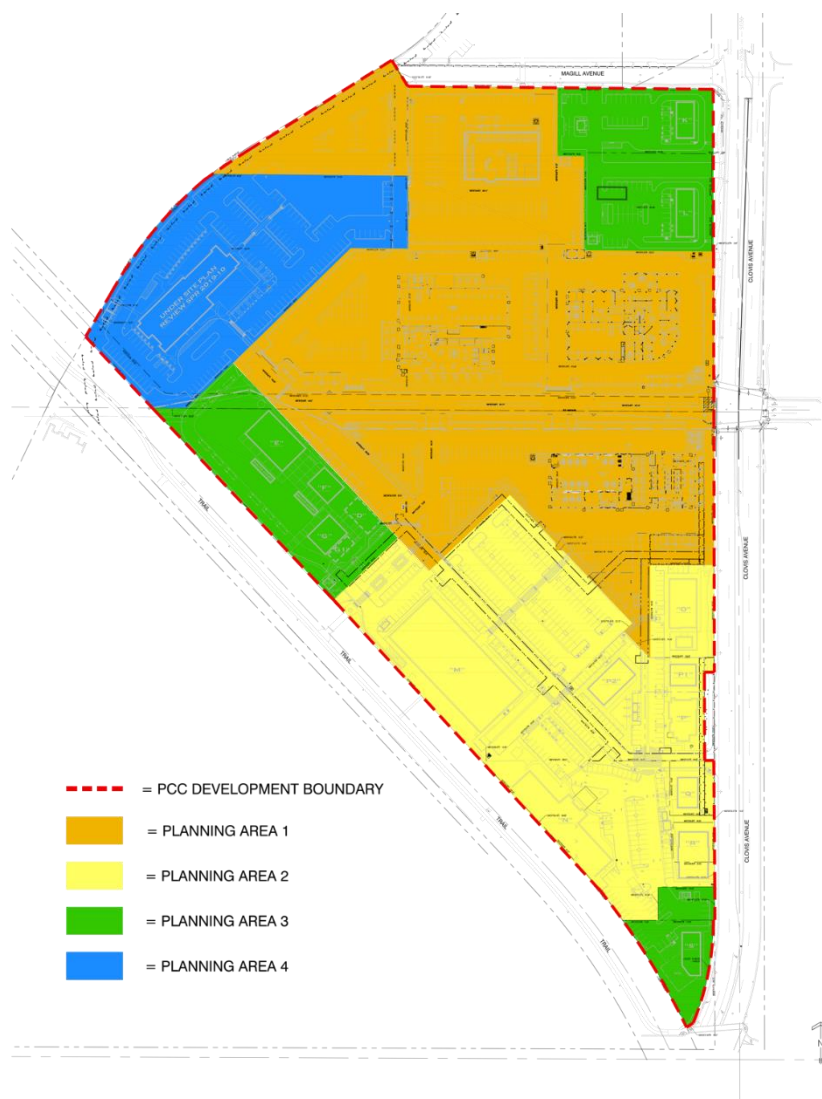
PA3 covers approximately 5 acres and is marked by the green boundary in **Figure 2** below. This area will accommodate roughly 30,324 square feet of building space and is designed to support food services. PA3 is intended to minimize automobile-centric uses and instead focus on ancillary beverage production, dining, and entertainment in both interior and exterior experiential settings, with possible uses including banquets, weddings, and conferences. The area currently contains two residences at the southwest corner of Magill and N. Clovis Avenues, as well as a used car dealership at Sierra and N. Clovis Avenues. The homes will eventually be demolished and redeveloped for commercial purposes, though they may remain without expansion for the time being. The used car dealership will stay operational until fifty (50) percent of the overall center is developed (SPR90-20A), at which point it must either cease operations or be redeveloped consistent to the Golden Triangle plan. PA3 will include buildings ranging from 2,800 to 9,375 square feet.

Planning Area 4 (PA4)

PA4 is approximately four (4) acres and is highlighted by the blue boundary in **Figure 2**. It will accommodate around 78,000 square feet of building space and is planned primarily for lodging, with potential ancillary uses for conferences, banquets, weddings, and special events. The design for PA4 aligns with a previously approved SPR (SPR2019-10) for an 86-room hotel.

Planning Area 5 (PA5)

PA5, covering approximately 5.8 acres, is the initial phase of the Tuscan Village P-C-C located north of Magill Avenue. While not part of the current update, it is included in this P-C-C document to clarify governance of the area. PA5 will continue to operate under the original Tuscan Village P-C-C development standards and preliminary plan. The area is fully developed, with no significant redevelopment expected in the near future. It currently includes a large office building, a drive-through fast food restaurant, and a multi-suite retail building, separated from the 33-acre subject site to the south by Magill Avenue.

FIGURE 2 – Golden Triangle Planning Areas

Architectural Guidelines

The architectural guidelines for Tuscan Village were originally based on an Italian/Tuscan theme, featuring primary materials such as stucco, cornices, columns, and terracotta tile roofs. However, as the center developed incrementally, a more contemporary interpretation of the Tuscan theme emerged, with some buildings incorporating flat roofs and clean geometric forms. The new Project introduces updated architectural guidelines, primarily focused on the new automotive retail buildings, while allowing flexibility for each building to have a distinct character. The overarching style will shift towards a contemporary or modern design, characterized by clean or organic lines in geometric forms, flat roofs, and the use of materials like glass, steel, concrete, and stone, with neutral color palettes.

While the contrast between existing and proposed architectural features is acknowledged, the intent behind updating the design guidelines is to encourage the remodeling of older buildings

to align with future trends. Additionally, the benefits of the applicant's Project, including enhanced functionality and market appeal, outweigh the architectural contrast. The shift towards modern design is largely driven by the proposed automotive dealerships, which have limited flexibility in design alterations and thus necessitate this update. Although the modern architectural theme differs from the existing style, it brings advantages, such as better alignment with changing design trends, increased adaptability to future needs, and technological advancements in building design and materials.

Sign Program

Tuscan Village initially established a sign program tailored to its preliminary development plan. With this update, the sign program for the Project area will need to be revised as the preliminary development plan has changed. The proposed sign program will follow the Clovis Municipal Code ("CMC") for commercial sign standards for on-building signage in PA 2, 3, and 4. PA1 however, is provided with unique sign standards due to the need for freestanding identification and directional signs for the automotive dealerships, as outlined in the sign program included in **Attachment 2B**. On-building signage for PA1 remains consistent with the current CMC guidelines.

The notable exception to PA1 standards is the request for a multi-tenant freeway pylon sign adjacent to Freeway 168. The applicant is requesting a 50-foot-tall sign with an area of up to 300 square feet. This request aligns with what is allowed under the CMC and is consistent with similar signage established in other planned commercial center developments, such as the Sunrise Pavilion Shopping Center at Owens Mountain Parkway and Temperance Avenue. Appropriate permits from both the City and the California Department of Transportation must be obtained.

Preliminary Development Plan (Site Design)

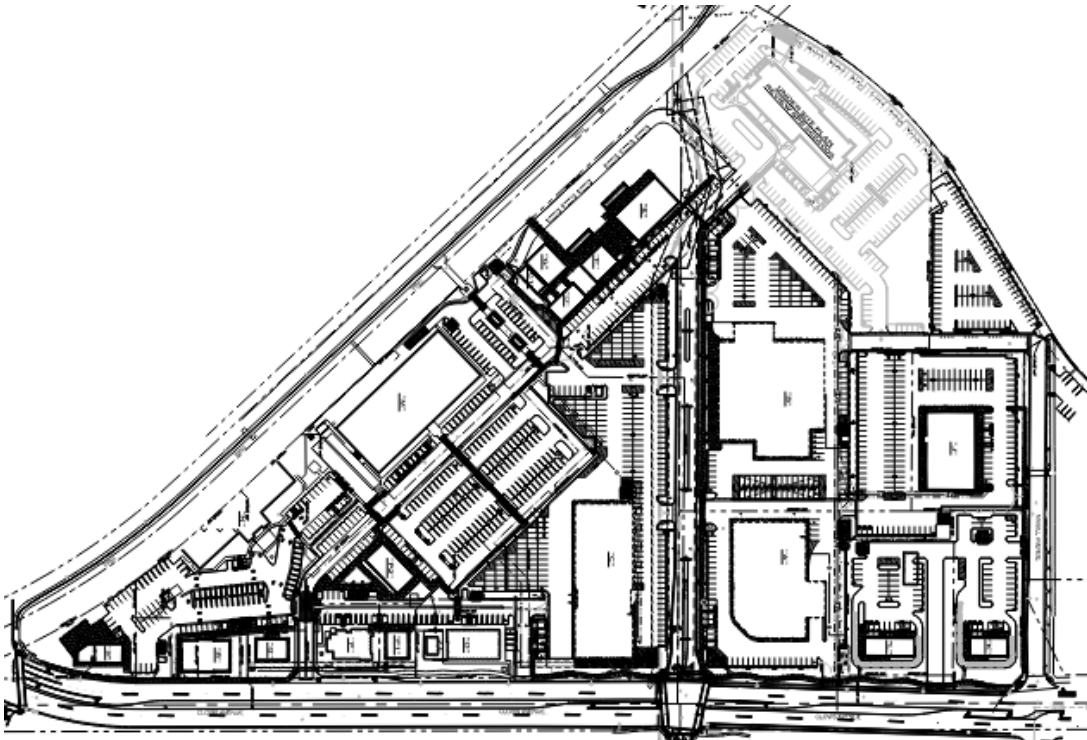
The initial Tuscan Center preliminary development plan (see **Figure 3** below) focused around the creation of a major professional office core along the Palo Alto Avenue alignment, central to the site. The total building area proposed for the center south of Magill Avenue was approximately 416,000 square feet. The office core would be accessed by a central driveway, which proceeds from N. Clovis Avenue through a pedestrian-oriented commercial corridor. While the initial site design presented a visually appealing layout, it posed significant challenges for development with multiple property owners and odd lots that don't align with proposed buildings. Hence the reason why development never occurred. Additionally, office type uses are no longer demanding in the market. For these reasons, the original site layout is not feasible.

The proposed update to the preliminary development plan (see **Figure 4** below) is driven by the applicant's project and their ability to acquire properties and collaborate with other property owners. The site layout maintains the primary drive along the Palo Alto Avenue alignment from N. Clovis Avenue, central to the site. This will be a private driveway. The automotive dealerships will be situated adjacent to this driveway as entry features to the center. The total building area proposed for this update is approximately 346,285 square feet, less than the original.

FIGURE 3 – Tuscan Center (Current) Preliminary Development Plan



FIGURE 4 – Golden Triangle (proposed) Preliminary Development Plan



Circulation and Parking

Access to the overall Project site will remain largely consistent with the initial Tuscan Village preliminary development plan with additional driveways included. The primary access point will continue to be centrally located, extending from the Palo Alto Avenue alignment. The site will be accessible from N. Clovis Avenue through a total of five (5) driveways, with an additional three (3) access points from Magill Avenue. Enhanced pedestrian connectivity to the Old Town Clovis Trail will also be provided.

The Tuscan Center established parking requirements of 4.7 parking spaces per 1,000 square feet for commercial development and four (4) spaces per 1,000 square feet of gross floor area for office development. The Project will adhere to these parking standards and introduce additional provisions based on various use types, including commercial, office, automotive sales and repairs, and hotel.

Table 1 – Parking Requirements by Land Use Type

| Use | Required Parking |
|------------------------|---|
| Commercial | 4.7 parking stalls per 1,000 square feet of gross floor area. |
| Office | 4 parking stalls per 1,000 square feet of gross floor area. |
| Vehicle Sales & Repair | 5 stalls per acre and 5 additional parking stalls (Vehicle sales); 1 space for each 300 square feet of gross floor area or 3 stalls for each bay, whichever is greater, plus 1 additional space (Vehicle repair). |
| Hotel | 1.2 stalls for each guest room plus required spaces for accessory uses. |

According to the proposed preliminary development plan, the Project will need to provide at least 1,067 parking spaces. However, the plan offers 1,306 spaces, exceeding the minimum requirement by 239 spaces.

Site Plan Review and Projected Development

As previously mentioned, this Project aims to formalize the development pattern for the area, setting the stage for future site-specific plan approvals. The SPR process, conducted at the staff level, will evaluate the site-specific development in detail to ensure consistency with approved P-C-C development standards and other City requirements. Development will occur incrementally, driven by the varying timelines and interests of multiple property owners.

The Applicant is leading the development of the PA1 sites, which are designated for automotive dealerships and related uses. Therefore, the initial phase of development following Project approval will focus on PA1. This phase includes 133,963 square feet of buildings across approximately 15 acres located centrally within the project's boundaries. Development will begin with Building C, with construction expected to start as early as January 2025, followed shortly by the remaining sites in this phase. Development of other areas outside PA1 will proceed as property owners are ready to move forward. After the near-term development of PA1 the total percentage of developed area in the Project site, excluding non-conforming development, will be approximately (67) percent.

P-C-C Amendment (R2024-004)

Planned Commercial Centers are established through the City's Rezone application process and therefore, this update requires an amendment to the Rezone (R2004-36A) that established this phase of the Tuscan Village P-C-C. (CMC § 9.12.020, subd. (D).) With Rezone applications, there are specific findings that must be considered for approval (CMC § 9.76.020):

1. The proposed amendment is consistent with the goals, policies, and actions of the General Plan:

The proposed P-C-C amendment to R2004-36A is consistent with the goals, policies, and actions of the General Plan. The P-C-C Zone District is consistent with the property's General Plan designation of General Commercial. This Project seeks to update the previously established development standards and preliminary development plan for the Tuscan Center P-C-C. It is expected to attract new businesses to Clovis, create job opportunities, and expand the variety of goods, services, and entertainment options available. The development will also provide a pedestrian-oriented space, enhancing the area's walkability. The update does not conflict with any General Plan goals or policies for commercial development and supports the following goals and policies:

Land Use Element - Goal 5: A city with housing, employment, and lifestyle opportunities for all ages and income residents.

Policy 5.5 – Jobs for residents. Encourage development that provides job opportunities in industries and occupations currently underserved in Clovis.

Economic Development Element – Goal 3: Distinctive commercial destinations, corridors, and centers that provide a wide variety of unique shopping, dining, and entertainment opportunities for residents and visitors.

Policy 3.1 – Quality of life. Promote retail development with the primary objective of improving the quality of life by providing a full range of goods and services in Clovis.

Policy 3.4 – Large-scale retail centers. Require community-and regional-scale retail centers and districts to create a pedestrian-friendly, human-scale atmosphere with street furniture, shading, landscaping, and gather spaces that enhance the experience of shopping and socializing. Such centers and districts should provide entertainment and dining in addition to retail and services.

2. The proposed amendment would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City.

The Project is an infill development centrally located in Clovis. It has undergone a thorough review by various City departments and external agencies, with no significant concerns raised by these stakeholders. Furthermore, the Project's environmental impacts have been evaluated through the accompanying Initial Study/Mitigated Negative Declaration (ISMND).

3. The proposed amendment is internally consistent with other applicable provisions of the Development Code.

The Project is amending the development standards and preliminary development plan previously established for the Tuscan Village P-C-C, as allowed under the Clovis Development Code. These modifications have been reviewed by various City departments and external agencies, with no issues raised. Future individual developments will undergo additional scrutiny through the SPR process, ensuring detailed, site-specific compliance.

4. The parcel is physically suitable (including absence of physical constraints, access, compatibility with adjoining land uses, and provision of utilities) for the requested zoning designations and anticipated land uses/projects.

The Project site is well-suited to support the proposed development. It has been thoroughly reviewed by various City departments and external agencies, with no significant concerns raised by these stakeholders. Each individual development will undergo further evaluation through the SPR process to ensure detailed, site-specific compliance.

Public Comments

The City published notice of this public hearing in *The Business Journal* on Monday, September 30, 2024. A public notice was also sent to property owners within a minimum of 600 feet of the project site boundaries. This notice was also sent to all current property owners within the Golden Triangle Project site. Staff have not received any inquiries prior to the finalization of the staff report.

Review and Comments from Agencies

The Project was distributed to all City Divisions as well as outside agencies, including Cal Trans, Clovis Unified School District, Fresno Irrigation District, Fresno Metropolitan Flood Control District, AT&T, PG&E, San Joaquin Valley Air Pollution Control District, State Department of Fish and Wildlife, and the County of Fresno.

Comments received are attached (**Attachment 3**) only if the agency has provided concerns, conditions, or mitigation measures. Routine responses and comment letters are placed in the administrative record and provided to the Applicant for their records.

California Environmental Quality Act (CEQA)

Although an Initial Study Mitigated Negative Declaration (ISMND) was prepared for the original Tuscan Village Project, an updated Initial Study was prepared by the City because significant time has passed since the initial environmental determination. The new Initial Study prepared by the City of Clovis (see **Attachment 4**) assesses the Project's impact on natural and manmade environments, as required by the California Environmental Quality Act ("CEQA"). Staff is recommending approval of a mitigated negative declaration ("MND"). An MND is a written statement announcing that this project would not have a significant effect on the environment with the implementation of mitigation measures.

In summary, environmental impacts were determined to be found to be less than significant with implementation of mitigation measures for aesthetics, air quality, biological resources, cultural resources, geological resources, and tribal cultural resources (See the Mitigation and Monitoring Program that is attached to **Attachment 1A**). The Notice of Intent to adopt an MND was posted to the City's website at the web address <https://cityofclovis.com/planning-and-development/planning/ceqa/>. (Cal. Code Regs., Tit. 14, § 15072, subd. (b)(2).) The proposed MND was made available for public comment and review at the City's Planning and Development Services Department from October 04, 2024, to October 24, 2024. (*Id.* at § 15073, subd. (a).).

REASON FOR RECOMMENDATION

The applicant is seeking approval of R2024-004 to amend the existing Tuscan Center P-C-C, incorporating updates to the development standards and preliminary development plan. The Project aims to formalize the development pattern for this area, facilitating future site-specific plan approvals. This update will help address historical challenges within the P-C-C that have previously hindered development. The Project aligns with the goals and policies of the General Plan and is expected to bring positive benefits to the Clovis community. As a result, staff recommends that the Planning Commission approve resolutions recommending that the City Council adopt an environmental finding of a Mitigated Negative Declaration (MND) and a Mitigation Monitoring and Reporting Program for R2024-004 and approve R2024-004.

ACTIONS FOLLOWING APPROVAL

The Project will proceed to the City Council for final consideration.

CONFLICT OF INTEREST

None.

NOTICE OF HEARING

Property owners within 600 feet notified: 149

Prepared by: Lily Cha, Senior Planner

Reviewed by: George Gonzalez, Interim Deputy City Planner



RESOLUTION 24-____

**RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS
RECOMMENDING THE CITY COUNCIL ADOPT A MITIGATED NEGATIVE DECLARATION
FOR P-C-C AMENDMENT R2024-004 PURSUANT TO THE CALIFORNIA
ENVIRONMENTAL QUALITY ACT GUIDELINES**

WHEREAS, Legacy Realty and Development, 5390 E. Pine Ave, Fresno, CA 93727 (“Applicant”), has applied for P-C-C Amendment R2024-004 (“Project”); and

WHEREAS, the City of Clovis (“City”) caused to be prepared an initial study in October 2024, to evaluate potential environmental impacts from the Project (hereinafter incorporated by reference), and on the basis of that initial study, it was determined that no significant environmental impacts would result from this Project with the adoption of mitigation measures; and

WHEREAS, on the basis of this initial study, a proposed mitigated negative declaration (“MND”) has been prepared, circulated, and made available for public comment pursuant to the California Environmental Quality Act (“CEQA”), (see Pub. Res. Code § 21000, et seq., and Cal Code Regs., Tit. 14, § 15000, et seq.); and

WHEREAS, the notice of intent to adopt an MND was posted to City’s website in accordance with CEQA Guidelines section 15072, subdivision (b)(2), and notice of the public hearing for this item was published with the *Fresno Business Journal* on Monday, September 30, 2024; and

WHEREAS, the Planning Commission has independently reviewed, evaluated, and considered the CEQA analysis outlined in the staff report, initial study, MND and all comments, written and oral, received from persons who reviewed the MND, or otherwise commented on the Project (“Administrative Record”).

NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS, THE PLANNING COMMISSION RESOLVES AND RECOMMENDS THAT THE CITY COUNCIL FOR THE CITY OF CLOVIS FINDS AS FOLLOWS:

1. The foregoing recitals as true and correct.
2. The initial study and mitigated negative declaration for the Project are adequate, reflect the City’s independent judgment and analysis, and have been completed in compliance with CEQA and the CEQA Guidelines.
3. That the initial study and MND were presented to the Planning Commission and the Planning Commission has independently reviewed, evaluated, and considered the initial study, MND and all comments, written and oral, received from persons who reviewed the initial study and MND, or otherwise commented on the Project (“Administrative Record”) prior to approving the Project.

Attachment 1

4. On the basis of the whole record that there is no substantial evidence that the Project will have a significant effect on the environment with the adoption of the mitigation measures identified in **Attachment A**.
5. The MND and the mitigation monitoring program set forth in **Attachment A**, including the mitigation measures identified therein and as described in the mitigated negative declaration itself are hereby adopted.
6. Directs that the record of these proceedings shall be contained in the City's Department of Planning and Development Services located at 1033 Fifth Street, Clovis, CA 93612, and the custodian of the record shall be the City Planner or other person designated by the Planning and Development Services Director.
7. The Planning and Development Services Director, or his/her designee, is authorized to file a notice of determination for the Project in accordance with CEQA and to pay any fees required for such filing.
8. The bases for the findings are detailed in the October 24, 2024, staff report, which is hereby incorporated by reference in its entirety, the entire Administrative Record, as well as evidence and comments presented in connection with the mitigated negative declaration.

* * * * *

The foregoing resolution was approved by the Clovis Planning Commission at its regular meeting on October 24, 2024, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:
 NOES:
 ABSENT:
 ABSTAIN:

CLOVIS PLANNING COMMISSION RESOLUTION NO. 24-____
 Date: October 24, 2024

 Alma Antuna, Chair

 Renee Mathis, Secretary

**ATTACHMENT A:
Mitigation Monitoring Program
R2024-004**

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|-----------------------------|---|---------------------------|---|----------------------------------|
| Aesthetics | | | | |
| AES-1 | The Project shall comply with Section 9.22.050, Exterior Light and Glare, of the Clovis Municipal Code, which requires light sources to be shielded and that lighting does not spillover to adjacent properties. | City of Clovis Planning | <i>After Construction Prior to Occupancy</i> | |
| Biological Resources | | | | |
| BIO-1 | Worker Training: Prior to construction, personnel shall complete worker environmental awareness training. The training shall present information on burrowing owls and notification procedures and shall direct workers to halt work and allow individual burrowing owls to move off-site of their own accord. Construction personnel shall provide signatures confirming completion of the training, and copies of the training shall be maintained and made available to applicable agencies upon request | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |
| BIO-2 | Burrowing Owl: A pre-construction survey shall be conducted by a qualified biologist no more than 14 days prior to construction activities. The preconstruction survey shall be conducted in accordance with the "Take Avoidance Surveys" described in California Department of Fish and Wildlife's (CDFW) Staff Report on Burrowing Owl Mitigation (CDFW, 2012). If burrowing owls or sign of burrowing owls is not observed, results shall be documented, and no further action is necessary. Should burrowing owl burrows be observed, CDFW shall be consulted to determine necessary | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------|---|---------------------------|--------|----------------------------------|
| | <p>avoidance or exclusion methods. Mitigation shall follow CDFW recommended measures in CDFW's Staff Report on Burrowing Owl Mitigation (CDFW, 2012), and shall follow the below steps:</p> <ul style="list-style-type: none"> • If the burrows can be avoided, a qualified biologist shall demarcate a no-disturbance buffer around the burrows using high visibility fencing or pin flagging. The size of the buffer shall be established with CDFW and shall remain in place until construction is completed. Buffer size for burrowing owl, as detailed in CDFW's staff report, range from 50 meters to 500 meters depending on the level of disturbance and timing of disturbance. • Should full avoidance be infeasible, CDFW shall be consulted to identify appropriate exclusion methods to be implemented prior to removal of the burrows. Consistent with the CDFW Staff Report, exclusion would not occur until a Burrowing Owl Exclusion Plan is approved by CDFW. • In order to mitigate for loss of burrows that are excluded, the Burrowing Owl Exclusion Plan shall identify one of the following mitigation options, or a combination thereof, as outlined in the CDFW Staff Report "Mitigating Impacts" section: <ul style="list-style-type: none"> ○ Creation of artificial burrows commensurate to the number of burrows excluded; ○ Permanent conservation of like habitat, such as conservation easement; | | | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------|---|---------------------------|---|----------------------------------|
| | <ul style="list-style-type: none"> ○ Purchase of conservation bank credits; and/or ○ An alternative mitigation strategy, as developed with and approved by CDFW. | | | |
| BIO-3 | <p>Nesting Birds: If construction activities would occur during the nesting season (February 1 through August 31), a pre-construction survey for the presence of nesting bird species shall be conducted by a qualified biologist on and within 500 feet of proposed construction areas, as accessible. The survey shall occur within five days of the commencement of construction activities. If active nests are identified in these areas, one of the following should occur:</p> <ul style="list-style-type: none"> • A qualified biologist shall establish a disturbance-free buffer zone using high-visibility fencing or flagging. The size of the buffer shall be determined by the qualified biologist based on the needs of the species. The buffer shall remain in place until either (1) construction activities are completed, (2) the conclusion of the nesting season, or (3) the qualified biologist determines that the young have fledged and are no longer dependent on the nest, or the nest has failed. If construction activities are halted for a period of more than 14 days, an additional preconstruction nesting bird survey shall be conducted. <p>Or</p> <ul style="list-style-type: none"> • Commencement of construction activities shall be postponed until after the nesting | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------------|--|---------------------------|---|----------------------------------|
| | season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site or the nest has failed. | | | |
| Cultural Resources | | | | |
| CULT-1 | <p>If prehistoric or historic-era cultural or archaeological materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.</p> <p>If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.</p> <p>If a potentially eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be</p> | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|-----------------------------|--|---------------------------|---|----------------------------------|
| | formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met. | | | |
| CULT-2 | If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the County coroner. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency. | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |
| Geological Resources | | | | |
| GEO-1 | If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist and/or paleontologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|----------------------------------|--|---------------------------|---|----------------------------------|
| | <p>historic resources such as glass, metal, wood, brick, or structural remnants.</p> <p>If the qualified professional determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.</p> <p>If a potentially-eligible resource is encountered, then the qualified professional archaeologist and/or paleontologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.</p> | | | |
| Tribal Cultural Resources | | | | |
| TCR-1 | <p>If cultural or archaeological materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic</p> | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------|---|---------------------------|---|----------------------------------|
| | <p>resources such as glass, metal, wood, brick, or structural remnants.</p> <p>If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.</p> <p>If a potentially eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.</p> | | | |
| TCR-2 | <p>If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5, subdivision (c) shall guide the potential Native American involvement, in the event of discovery of</p> | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------|--|---------------------------|--------|----------------------------------|
| | human remains, at the direction of the County coroner. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency. | | | |

RESOLUTION 24-__

**RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF CLOVIS
RECOMMENDING THAT THE CITY COUNCIL APPROVE P-C-C AMENDMENT R2024-
004 AMENDING THE DEVELOPMENT STANDARDS AND PRELIMINARY
DEVELOPMENT PLAN FOR THE APPROXIMATELY 33 ACRES OF PROPERTY
LOCATED ON THE WEST SIDE OF NORTH CLOVIS AVENUE, BETWEEN MAGILL AND
SIERRA AVENUES**

LEGAL DESCRIPTION:

See **Exhibit 1** attached hereto.

WHEREAS, Legacy Realty and Development, 5390 E. Pine Ave, Fresno, CA 93727 (“Applicant”), has applied for a P-C-C Amendment R2024-004; and

WHEREAS, the Applicant’s request is to amend the P-C-C Zone District to modify the development standards and preliminary development plan for approximately 33-acres of property within the Tuscan Village center located on the west side of North Clovis Avenue, between Magill and Sierra Avenues (“Project”); and

WHEREAS, the City published notice of the public hearing in the *Fresno Business Journal* on September 30, 2024, mailed public notices to property owners within 600 feet of the Property 21 days prior to the Planning Commission hearing, and otherwise posted notice of the public hearing according to applicable law; and

WHEREAS, a duly noticed public hearing was held on October 24, 2024; and

WHEREAS, on the basis of an initial study completed for the Project, a proposed mitigated negative declaration has been prepared, circulated, and made available for public comment pursuant to the California Environmental Quality Act (“CEQA”) (see Pub. Res. Code§ 21000, et seq., and Cal. Code Regs., Tit. 14, § 15000, et seq.); and

WHEREAS, on October 24, 2024, the Planning Commission adopted Resolution No. 24-__ recommending that the City Council adopt a mitigated negative declaration and mitigation monitoring program in accordance with CEQA for the Project; and

WHEREAS, the Planning Commission has had an opportunity to review and consider the entire administrative record relating to the Project, which is on file with the City of Clovis Department of Planning and Development Services, and reviewed and considered those portions of the administrative record determined to be necessary to make an informed decision, including, but not necessarily limited to, the staff report, the written materials submitted with the request, and the verbal and written testimony and other evidence presented during the public hearing (“Administrative Record”).

NOW, THEREFORE, BASED UPON THE ENTIRE RECORD OF THE PROCEEDINGS, THE PLANNING COMMISSION RESOLVES AND FINDS AS FOLLOWS:

1. The Project satisfies the required findings for approval of an amendment to the Tuscan Village P-C-C (R2024-004) hereinafter referred to as the Golden Triangle, as follows:
 - a. The Project is consistent with the goals, policies, and actions of the General Plan.
 - b. The Project would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City.
 - c. The Project is internally consistent with other applicable provisions of the Development Code.
 - d. The Project site is physically suitable (including absence of physical constraints, access, compatibility with adjoining land uses, and provision of utilities) for the requested zoning designation and development of the Project.
2. The Planning Commission hereby recommends the City Council approve P-C-C Amendment R2024-004.
3. The bases for the findings are detailed in the October 24, 2024, staff report, which is hereby incorporated by reference, the entire Administrative Record as well as the evidence and comments presented during the public hearing in connection with the Project.

NOW, THEREFORE, BE IT RESOLVED that the Clovis Planning Commission recommends the City Council approve Rezone 2024-004.

* * * * *

The foregoing resolution was approved by the Clovis Planning Commission at its regular meeting on October 24, 2024, upon a motion by Commissioner _____, seconded by Commissioner _____, and passed by the following vote, to wit:

AYES:
 NOES:
 ABSENT:
 ABSTAIN:

CLOVIS PLANNING COMMISSION RESOLUTION NO. 24-____
DATED: October 24, 2024

Alma Altuna, Chair

ATTEST: _____
Renee Mathis, Secretary

EXHIBIT 1 LEGAL DESCRIPTION

That portion of land situated in Section 5, Township 13 South, Range 21 East, Mount Diablo Base and Meridian, in the City of Clovis, County of Fresno, State of California, described as follows:

BEGINNING at the East quarter corner of said Section 5; thence North $89^{\circ}46'18''$ West, along the South line of the Northeast quarter of said Section 5, a distance of 102.21 feet to the intersection with the Southerly prolongation of the Westerly line of that property described as Parcel 4 in Grant Deed recorded June 3, 2011 as Document No. 2011-0074903, Official Records of Fresno County, said point being the beginning of a 1460.89 foot radius non-tangent curve concave Southwesterly, a radial to said beginning bears North $66^{\circ}23'30''$ East; thence Northwesterly, along said Southerly prolongation and along said Westerly line, along said curve, through a central angle of $12^{\circ}05'08''$, an arc distance of 308.10 feet; thence North $54^{\circ}18'22''$ East, along the Northwesterly line of said property, a distance of 22.00 feet to a point on the Northeasterly right-of-way line of the Southern Pacific Railroad property known as Clovis Trail as shown on Parcel Map No. 2005-01 recorded in Book 66 of Parcel Maps at Pages 25 through 27, Fresno County Records, said point being the beginning of a 1482.69 foot radius non-tangent curve concave Southwesterly, a radial to said beginning bears North $54^{\circ}18'22''$ East; thence, along said Northeasterly right-of-way line, the following four (4) courses: (1) Northwesterly, along said curve, through a central angle of $5^{\circ}36'18''$, an arc distance of 145.05 feet; thence (2) North $42^{\circ}23'44''$ West, a distance of 91.57 feet; thence (3) North $43^{\circ}03'22''$ West, a distance of 190.93 feet; thence (4) North $43^{\circ}05'23''$ West, a distance of 1171.00 feet to the intersection of the Northeasterly right-of-way line of the Southern Pacific Railroad and the Southeasterly right-of-way of the State Route 168 as shown on said Parcel Map No. 2005-01; thence North $30^{\circ}16'02''$ East, along said right-of-way of said State Route 168, a distance of 119.02 feet to the beginning of an 820.21 foot radius tangent curve concave Southeasterly; thence Northeasterly, along the right-of-way of said State Route 168, along said curve, through a central angle of $28^{\circ}26'14''$, an arc distance of 407.09 feet; thence North $58^{\circ}43'04''$ East, along the right-of-way of said State Route 168, a distance of 321.42 feet to the North corner of Parcel D of said Parcel Map No. 2005-01; thence South $31^{\circ}32'09''$ East, along the Northeasterly line of said Parcel D, a distance of 61.56 feet to the Southwest corner of Parcel C of said Parcel Map No. 2005-01, said point being on the Southerly right-of-way line of Magill Avenue; thence South $89^{\circ}26'31''$ East, along the South line of said Parcel C, and along the Southerly right-of-way line of said Magill Avenue, a distance of 302.90 feet; thence South $89^{\circ}48'39''$ East, continuing along the South line of said Parcel C, along the South line of Parcel A of said Parcel Map No. 2005-01 and along the Southerly right-of-way line of said Magill Avenue, a distance of 362.77 feet to a point on the East line of said Section 5; thence South $00^{\circ}06'51''$ East, along said East line, a distance of 1956.80 feet to the **POINT OF BEGINNING**.

ATTACHMENT 1
Conditions of Approval – R2024-004

Planning Division Comments
(Lily Cha, Senior Planner – 559-324-2335)

1. The Project is subject to approval of a final development plan (Site Plan Review) by the Planning and Development Services Director.
2. The final development plan for each phase shall be approved prior to the issuance of a building permit for development within that phase.
3. Any substantial modifications to the development plan shall require an amendment to R2024-004.
4. This development is approved in accordance with the Preliminary Development Plan provided as **Attachment A**. Any significant modifications will require an amendment to R2024-004.
5. Development shall adhere to land uses and development standards approved for the Golden Triangle P-C-C as outlined in **Attachment B**.

A. PURPOSE AND INTENT

1. Purpose. The purpose of this chapter is to establish The Golden Triangle Planned Commercial Center (P-C-C) District and preliminary development plan. The purpose of this district and preliminary development plan is to:
 - a. Regulate the use of buildings, structures, and land relative to uses consistent with the Golden Triangle Master Plan.
 - b. Regulate the location, intensity, and type of buildings and structures and land uses consistent with the Golden Triangle Master Plan.
 - c. Establish permitted and conditionally permitted uses.
 - d. Establish the process for review and approval of future development within the district.
 - e. Provide for the establishment of Design Review Guidelines to be administered by the Planning and Development Services Director or his or her designee.
 - f. Encourage a creative and efficient approach to the use of land.
2. Intent. The Golden Triangle P-C-C District (District) is designed to facilitate uses customarily associated with large scale commercial centers, focusing on retail, office, dining, and entertainment. Pedestrian and bicycle connectivity are included within the Golden Triangle P-C-C District through the use of site amenities, design guidelines, and landscaping features providing linkages throughout the site and to surrounding areas.

B. APPLICABILITY

1. Location. The Golden Triangle P-C-C District is intended to regulate development within the Golden Triangle project site, located on Clovis Ave and bordered by Sierra, Magill and HWY 168 as shown in *Figure 1: Golden Triangle Master Plan*.
2. Relationship to Clovis Municipal Code. Where provisions are not addressed in this District, the provisions of Title 9 (Development Code) of the Clovis Municipal Code (CMC) shall apply.
3. Conflicting requirements. In the event the provisions of this District conflict with any other City ordinance or provision of law, the provisions contained in this District shall apply.

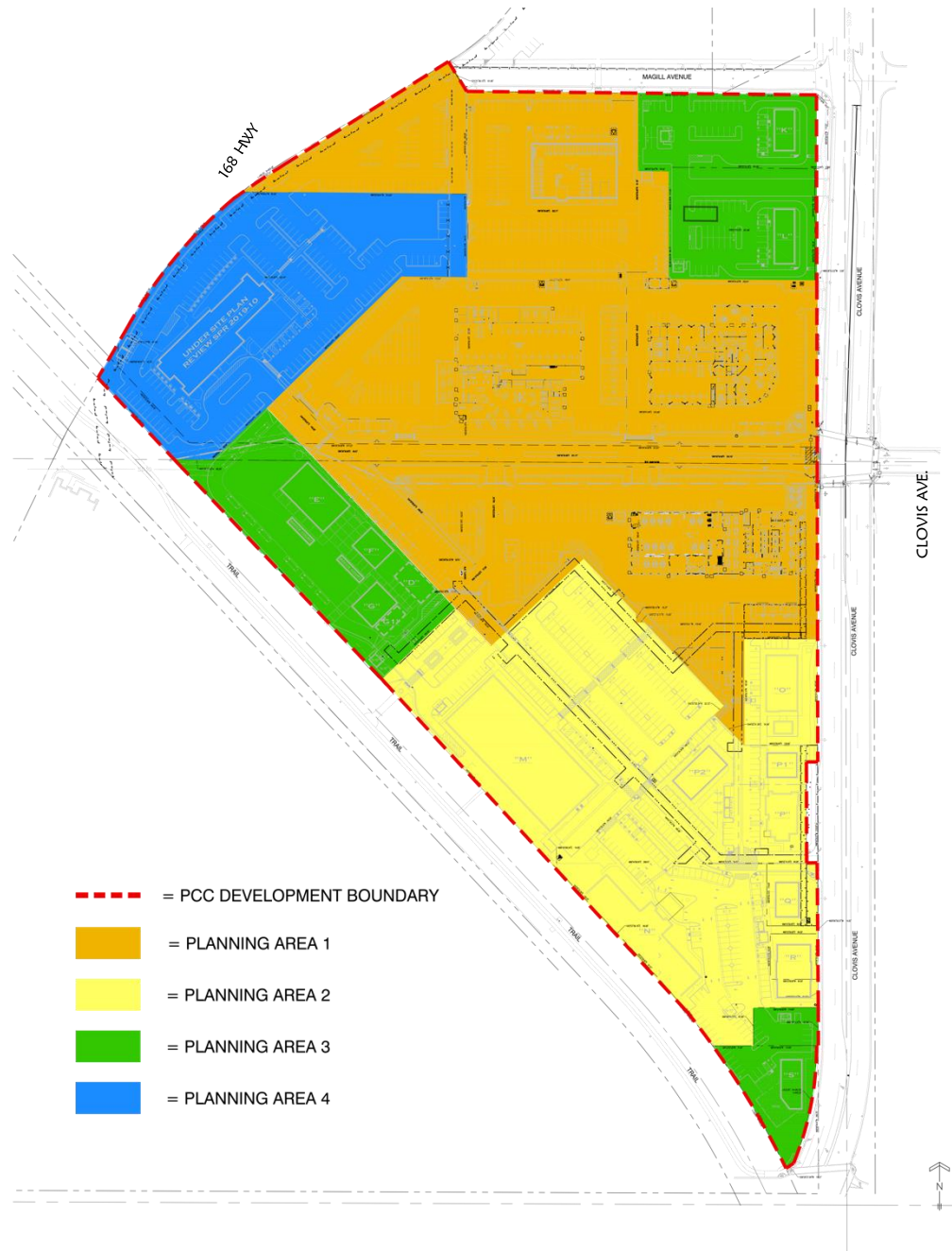
Figure 1: Golden Triangle Location Map



C. ESTABLISHMENT OF THE PRELIMINARY DEVELOPMENT PLAN

1. Preliminary Development Plan. The preliminary development plan is adopted as shown in *Attachment A: Golden Triangle P-C-C Preliminary Development Site Plan*.
2. Areas, Character, and Types of Uses. The Golden Triangle P-C-C District is divided into four areas, each planned for specific characteristic uses, providing for maximum flexibility while still maintaining oversight and ensuring the vision of the Golden Triangle Master Plan is achieved. The following descriptions identify the characteristic uses intended for each area of the Golden Triangle P-C-C District. Location and area boundaries are shown in *Figure 2: Golden Triangle Master Plan P-C-C District Area Boundaries*.
 - a. Area 1. Area 1 is considered the most fixed and inclusive, focused on new and used automotive retail sales and associated repairs of all types with supporting offices.
 - b. Area 2. Area 2 allows for a wide range of office, institutional, retail, services, and lodging uses.
 - c. Area 3. Area 3 is designed to facilitate food services. Area 3 along the trail is designed by limiting automobile focused uses including ancillary beverage production, food services, and entertainment in both an interior and exterior experiential environment with possible accommodations for banquets, weddings, and conferences.
 - d. Area 4. Area 4 is designed to facilitate lodging, with possible ancillary accommodations of conferences, banquets, weddings, and special events.
 - e. Area 5. Area 5 covers the approximately 5.8-acre area of the initial phase for the Tuscan Village P-C-C located north of Magill Avenue. This area will continue to be governed by the Tuscan Village P-C-C as approved by R2004-36A.

Figure 2: Golden Triangle Master Plan P-C-C District Area Boundaries



D. DEVELOPMENT STANDARDS BY PLANNING AREA

The development standards outlined in this section apply within the Golden Triangle P-C-C District:

1. Planning Area 1 – Motor Vehicle Retail and Service

- a. Planning Area 1 is approximately 15 acres in area and is identified by Figure 2 above. The area accommodates approximately 133,396 square feet of building area.
- b. Allowable Land Uses: Refer to Table 5: Allowed Uses and Approval Requirements.
- c. Fencing Adjacent or viewable from the public right-of-way or trail shall be of decorative tubular steel or a design and material approved by the Director of Planning and Development Services through the site plan review process. Fencing within the center shall be of consistent design.
- d. Sufficient parking must be demonstrated for each specific building at the time of Site Plan Review.
- e. Modifications:
 1. Administrative Modifications – The Planning and Development Director may approve minor changes to the P-C-C District, including the preliminary development plan, at the administrative level if the proposed changes are in substantial conformance with the P-C-C District. Such proposed changes shall not significantly affect the design, intensity, or intent of the district, as determined by the Director:
 - a. Reconfiguration of building location/ footprint/ orientation within PA-1 where primary circulation is not affected.
 - b. Changes to building area within PA-1 where the maximum area is not exceeded.
 2. Council – Approved Modifications – Changes that are substantive, deviating from the approved standards of the P-C-C District or features of the preliminary development plan. The City Council is the designated approval authority for major amendments. Major amendments shall require a public hearing and may be appealed.
 - a. Overall increase in building area.
 - b. Modifications to development standards.

Table 1: PA-1 Development Standards

| BUILDING INTENSITY | | |
|--------------------------------------|-------------------------------|-----------|
| Minimum lot area | No specific criteria required | |
| Minimum lot width | No specific criteria required | |
| Minimum lot depth | No specific criteria required | |
| Maximum lot coverage | No specific criteria required | |
| Maximum height | *35' | 2 stories |
| BUILDING SETBACKS | | |
| Clovis Avenue | 10' Minimum (PUE) | |
| Clovis trail | 5' | |
| Local street | 10' | |
| Between buildings | 20' | |
| PEDESTRIAN AND VEHICULAR CIRCULATION | | |

| | | |
|--|--|---|
| Internal enhanced pedestrian walkways | Enhanced crossing shall be 10' wide and match existing | Pedestrian walkways shall connect all buildings within the PCC; pedestrian connection shall also occur between the PCC and the Clovis trail |
| Driveways | 26' wide (min.) | Additional width may be imposed by the Fire or Public Utilities Department; turning radius must also meet Fire and Public Utilities Department requirements |
| Private Street (Primary driveway) | Per the preliminary development plan | As approved by the Engineering/ Fire Departments |
| PARKING | | |
| Per all current ordinances for Vehicle Sales and Vehicle Repair** | | |
| <p>* Additional height/ stories may be considered through the Conditional Use Permit (CUP) process</p> <p>**If at any time the auto retail use is modified to commercial/ retail use, the site will need to accommodate parking at the commercial/ retail requirements. Appropriate amendments to the PCC development standards and preliminary development plan must be made.</p> | | |

2. Planning Area 2 – Consumer, Lifestyle, Retail and Lodging

- a. Planning Area 2 is approximately 8 acres in area and is identified by Figure 2 above. The area accommodates approximately 106,198 square feet of building area.
- b. Allowable Land Uses: Refer to Table 5: Allowed Uses and Approval Requirements.
 1. PA 2 is limited to one hotel business.
- c. Fencing Adjacent or viewable from the public right-of-way or trail shall be of decorative tubular steel or a design and material approved by the Director of Planning and Development Services through the site plan review process. Fencing within the center shall be of consistent design.
- d. Outside storage and retail areas associated with the primary indoor uses shall provide adequate screening using materials and colors that are consistent with the primary building's architecture, and those deemed appropriate by the City Planner. All items within the outdoor area must be screened from view. Screening design shall be approved at the discretion of the Planning and Development Services Director:
- e. Sufficient parking must be demonstrated for each specific building at the time of Site Plan Review.
- f. Modifications:
 1. Administrative Modifications – The Planning and Development Director may approve minor changes to the P-C-C District, including the preliminary development plan, at the administrative level if the proposed changes are in substantial conformance with the P-C-C District. Such proposed changes shall not significantly affect the design, intensity, or intent of the district, as determined by the Director:
 - a. Reconfiguration of buildings location/ footprint/ orientation within PA-2 where primary circulation is not affected.
 - b. Changes to building area within PA-2 where the maximum area is not exceeded.

2. Council – Approved Modifications – Changes that are substantive, deviating from the approved standards of the P-C-C District or features of the preliminary development plan. The City Council is the designated approval authority for major amendments. Major amendments shall require a public hearing and may be appealed.
- Overall increase in building area.
 - Modifications to development standards.

Table 2: PA-2 Development Standards

| BUILDING INTENSITY | | |
|---|--|---|
| Minimum lot area | No specific criteria required | |
| Minimum lot width | No specific criteria required | |
| Minimum lot depth | No specific criteria required | |
| Maximum lot coverage | 50% | |
| Maximum height | *35' / 55' (Hotel) | 2 stories / 5 stories (Hotel) |
| BUILDING SETBACKS | | |
| Clovis Avenue | 10' Minimum (PUE) | |
| Clovis trail | 5' | |
| Local street | 10' | |
| Between buildings | 20' | |
| PEDESTRIAN AND VEHICULAR CIRCULATION | | |
| Internal enhanced pedestrian walkways | Enhanced crossing shall be 10' wide and match existing | Pedestrian walkways shall connect all buildings within the PCC; pedestrian connection shall also occur between the PCC and the Clovis trail |
| Driveways | 26' wide (min.) | Additional width may be imposed by the Fire or Public Utilities Department; turning radius must also meet Fire and Public Utilities Department requirements |
| Private Street (Primary driveway) | Per the preliminary development plan | As approved by the Engineering/ Fire Departments |
| PARKING | | |
| Per all current ordinances for: | | |
| <ul style="list-style-type: none"> Retail/ Commercial Uses – 4.7 spaces for each 1,000 square feet of gross floor area Office Uses – 1 space for each 250 square feet of gross floor area Hotel Uses – 1.2 space for each guest room plus required spaces for accessory uses Additional parking may be required per special “use permit” conditions | | |
| * Additional height/ stories may be considered through the Conditional Use Permit (CUP) process | | |

3. Planning Area 3 – Retail Multi-Purpose and Entertainment

- a. Planning Area 3 is approximately 5 acres in area and is identified by Figure 2 above. The area accommodates approximately 30,324 square feet of building area.
- b. Allowable Land Uses: Refer to Table 5: Allowed Uses and Approval Requirements.
- c. Fencing Adjacent or viewable from the public right-of-way or trail shall be of decorative tubular steel or a design and material approved by the Director of Planning and Development Services through the stie plan review process. Fencing within the center shall be of consistent design.
- d. Outside storage and retail areas associated with the primary indoor uses shall provide adequate screening using materials and colors that are consistent with the primary building's architecture, and those deemed appropriate by the City Planner. All items within the outdoor area must be screened from view. Screening design shall be approved at the discretion of the Planning and Development Services Director.
- e. Drive-through restaurants/ uses are limited to buildings K and L within PA-3. No additional drive-throughs are allowed in the shopping center.
- f. Drive-Through Standards. Drive-through uses shall conform with current City Code requirements. For any drive-through use identified by City staff as being high-volume, additional queuing capacity will be required based on the specific characteristics of the proposed use and the location and configuration of drive-through lane(s).
- g. Sufficient parking must be demonstrated for each specific building at the time of Site Plan Review.
- h. Modifications:
 1. Administrative Modifications – The Planning and Development Director may approve minor changes to the P-C-C District, including the preliminary development plan, at the administrative level if the proposed changes are in substantial conformance with the P-C-C District. Such proposed changes shall not significantly affect the design, intensity, or intent of the district, as determined by the Director:
 - a. Reconfiguration of buildings location/ footprint/ orientation within PA-3 where primary circulation is not affected.
 - b. Changes to building area within PA-3 where the maximum area is not exceeded.
 2. Council – Approved Modifications – Changes that are substantive, deviating from the approved standards of the P-C-C District or features of the preliminary development plan. The City Council is the designated approval authority for major amendments. Major amendments shall require a public hearing and may be appealed.
 - a. Overall increase in building area.
 - b. Modifications to development standards.

Table 3: PA-3 Development Standards

| BUILDING INTENSITY | | |
|----------------------|-------------------------------|-----------|
| Minimum lot area | No specific criteria required | |
| Minimum lot width | No specific criteria required | |
| Minimum lot depth | No specific criteria required | |
| Maximum lot coverage | No specific criteria required | |
| Maximum height | *35' | 2 stories |
| BUILDING SETBACKS | | |

| | | |
|---|--|---|
| Clovis Avenue | 10' Minimum (PUE) | |
| Clovis trail | 5' | |
| Local street | 10' | |
| Between buildings | 20' | |
| PEDESTRIAN AND VEHICULAR CIRCULATION | | |
| Internal enhanced pedestrian walkways | Enhanced crossing shall be 10' wide and match existing | Pedestrian walkways shall connect all buildings within the PCC; pedestrian connection shall also occur between the PCC and the Clovis trail |
| Driveways | 26' wide (min.) | Additional width may be imposed by the Fire or Public Utilities Department; turning radius must also meet Fire and Public Utilities Department requirements |
| Private Street (Primary driveway) | Per the preliminary development plan | As approved by the Engineering/ Fire Departments |
| PARKING | | |
| Per all current ordinances for: <ul style="list-style-type: none"> Retail/ Commercial Uses – 4.7 spaces for each 1,000 square feet of gross floor area Office Uses – 1 space for each 250 square feet of gross floor area Additional parking may be required per special “use permit” conditions | | |
| * Additional height/ stories may be considered through the Conditional Use Permit (CUP) process | | |

4. Planning Area 4 – Lodging

- a. Planning Area 4 is approximately 4 acres in area and is identified by Figure 2 above. The area accommodates approximately 78,500 square feet of building area.
- b. Allowable Land Uses: Refer to Table 1: Allowed Uses and Approval Requirements.
 1. PA 4 is limited to one hotel business.
- c. Fencing Adjacent or viewable from the public right-of-way or trail shall be of decorative tubular steel or a design and material approved by the Director of Planning and Development Services through the site plan review process. Fencing within the center shall be of consistent design.
- d. Sufficient parking must be demonstrated for each specific building at the time of Site Plan Review.
- e. Modifications:
 1. Administrative Modifications – The Planning and Development Director may approve minor changes to the P-C-C District, including the preliminary development plan, at the administrative level if the proposed changes are in substantial conformance with the P-C-C District. Such proposed changes shall not significantly affect the design, intensity, or intent of the district, as determined by the Director:

- a. Reconfiguration of buildings location/ footprint/ orientation within PA-4 where primary circulation is not affected.
 - b. Changes to building area within PA-4 where the maximum area is not exceeded.
2. Council – Approved Modifications – Changes that are substantive, deviating from the approved standards of the P-C-C District or features of the preliminary development plan. The City Council is the designated approval authority for major amendments. Major amendments shall require a public hearing and may be appealed.
 - a. Overall increase in building area.
 - b. Modifications to development standards.

Table 4: PA-4 Development Standards

| BUILDING INTENSITY | | |
|---|--|---|
| Minimum lot area | No specific criteria required | |
| Minimum lot width | No specific criteria required | |
| Minimum lot depth | No specific criteria required | |
| Maximum lot coverage | No specific criteria required | |
| Maximum height | *35' / 72'(Hotel) | 2 stories/ 5 stories (Hotel) |
| BUILDING SETBACKS | | |
| Clovis Avenue | 10' Minimum (PUE) | |
| Clovis trail | 5' | |
| Local street | 10' | |
| Between buildings | 20' | |
| PEDESTRIAN AND VEHICULAR CIRCULATION | | |
| Internal enhanced pedestrian walkways | Enhanced crossing shall be 10' wide and match existing | Pedestrian walkways shall connect all buildings within the PCC; pedestrian connection shall also occur between the PCC and the Clovis trail |
| Driveways | 26' wide (min.) | Additional width may be imposed by the Fire or Public Utilities Department; turning radius must also meet Fire and Public Utilities Department requirements |
| Private Street (Primary driveway) | Per the preliminary development plan | As approved by the Engineering/ Fire Departments |
| PARKING | | |
| Per all current ordinances for: | | |
| <ul style="list-style-type: none"> Hotel Uses – 1.2 space for each guest room plus required spaces for accessory uses Ancillary uses shall provide parking per the current city ordinance | | |

* Additional height/ stories may be considered through the Conditional Use Permit (CUP) process

5. Planning Area 5 – Tuscan Village

- Planning Area 5 covers the approximately 5.8-acre area of the initial phase for the Tuscan Village P-C-C located north of Magill Avenue. This area will continue to be governed by the Tuscan Village P-C-C as approved by R2004-36A.
- The Tuscan Village P-C-C standards and preliminary development plan is provided as Appendix A to this document.

E. ALLOWED USES

- Allowed Uses. *Table 5: Allowed Uses and Approval Requirements* identifies allowed uses and corresponding permit requirements for the Golden Triangle P-C-C District subject to compliance with all other provisions of this District and applicable provisions of Title 9 (Development Code) of the CMC. Descriptions/definitions of uses can be found in Chapter 9.120 (Definitions) of the CMC.
- Similar Uses. If a proposed use is not listed, it shall not be allowed unless determined to be sufficiently similar to a use listed in *Table 5: Allowed Uses and Approval Requirements*. Should such proposed use be sufficiently similar in character, operation, environmental impact, and neighborhood compatibility, it may be deemed a permitted, administrative, or conditional use at the discretion of the Planning and Development Services Director in accordance with Section 9.02.020 (Rules of Interpretation) of the CMC.

Table 5: Allowed Uses and Approval Requirements

| Use | Permitted Use | Conditional Use Permit | Administrative Use Permit | Area |
|--|---------------|------------------------|---------------------------|------|
| Planning Area 1 – Motor Vehicle Retail and Services | | | | |
| Automotive New & Used Sales & Rentals | X | | | 1 |
| Automotive services & Repairs Associated with Automotive Sales | X | | | 1 |
| Automotive Storage Associated with Automotive Sales | X | | | 1 |
| Automotive Services Station Associated with Automotive Sales | X | | | 1 |
| Car Wash Associated with Automotive Sales | X | | | 1 |
| EV Electric Charging Stations | X | | | 1 |
| Ancillary Retail | X | | | 1 |
| Planning Area 2 – Consumer, Lifestyle, Retail and Lodging | | | | |
| General Retail | X | | | 2 |
| Studios, art, dance, music, and photography | | | X | 2 |
| Bakeries, Retail | X | | | 2 |
| Off-site Alcohol Sales | | X | | 2 |
| Alcohol Consumption Indoor | X | | | 2 |
| Alcohol Consumption Outdoor (associated with primary use) | | | X | 2 |
| Banks | X | | | 2 |
| Bars and Cocktail Lounges | X | | | 2 |

| Use | Permitted Use | Conditional Use Permit | Administrative Use Permit | Area |
|---|---------------|------------------------|---------------------------|------|
| Beauty & Barber Shops | X | | | 2 |
| Bowling Alleys | | X | | 2 |
| Cigar Lounge | | | X | 2 |
| Churches | | X | | 2 |
| Convenience Stores | | X | | 2 |
| Daycare Facilities | | | X | 2 |
| Dining Indoor & Outdoor | X | | | 2 |
| Drugstores | X | | | 2 |
| Florist | X | | | 2 |
| Grocery Stores | X | | | 2 |
| Hardware and Home Improvement Stores (with or without exterior yard requirements) | | | X | 2 |
| Health Studios | X | | | 2 |
| Medical Office/ Dental Office | X | | | 2 |
| Dry Cleaning | X | | | 2 |
| Business Office/ Office | X | | | 2 |
| Rooftop Patio & Lounge | | | X | 2 |
| Rooftop Patio Lounge, Bar, Dining | | | X | 2 |
| Restaurants, Restaurants-bar combination | X | | | 2 |
| Schools: Trade and Commercial | | | X | 2 |
| Technical or Adult Schools | | | X | 2 |
| Tobacco Shops | X | | | 2 |
| Yard and Garden Sales (with or without exterior yard requirements) | | | X | 2 |
| Planning Area 3 – Multi-Purpose and Entertainment | | | | |
| Alcohol Consumption Indoor | X | | | 3 |
| Alcohol Consumption Outdoor (associated with primary use) | | | X | 3 |
| Activities & Games (Outdoor) | | | X | 3 |
| Bars and Cocktail Lounges | X | | | 3 |
| Micro-Brewery (Production, Sales, and Tasting) | | | X | 3 |
| Conferences, Banquets, Weddings, Receptions, Special Events | | | X | 3 |
| Distillery (Production, Sales, and Tasting) | | | X | 3 |
| Drive-up and Drive-through Restaurants | | X | | 3 |
| Fast Casual/ QSR Restaurants | X | | | 3 |
| Food Trucks | | | X | 3 |
| Outdoor Activities | | | X | 3 |
| Outdoor Dining | X | | | 3 |
| Live (Amplified) Music (Indoor & Outdoor) | | | X | 3 |
| Pet Friendly (Outdoor, Indoor only if Service Licensed) | | | X | 3 |
| Restaurants, Coffee Shops, Restaurant-Bar Combinations: Self-Service Restaurants | X | | | 3 |
| Retail Sales | X | | | 3 |
| Roof Top Patio & Lounge | | | X | 3 |
| Roof Top Patio Lounge, Bar and Dining | | | X | 3 |
| Wine (Production, Sales, and Tasting) | | | X | 3 |
| Business Office/ Office | X | | | 3 |

| Planning Area 4- Lodging | | | | |
|--|---|--|--|---|
| Hotel, Motel, and Lodging | X | | | 4 |
| Conference, Banquets, Weddings, Receptions, Special Events (Ancillary to Hotel) | X | | | 4 |

F. FINAL DEVELOPMENT PLAN AND PERMITS REQUIRED

1. Final Development Plan Submittal. Prior to the issuance of required building or use permits, a final development plan shall be submitted for review to verify conformance with the approved preliminary development plan (see *Attachment A: Golden Triangle P-C-C Preliminary Development Plan*) and P-C-C District provisions. The final development plan shall be processed in accordance with Chapter 9.56 (Site Plan Review) of the CMC. The final development plan may be processed concurrently with establishment of the P-C-C District but shall not be approved until the P-C-C has been established. The final development plan shall depict the site layout of the entire PCC. Subsequent individual site plan reviews may occur incrementally as development is proposed.
2. Compliance with the Final Development Plan. No permit shall be issued for any building or use except when in compliance with the final development plan. Compliance shall be determined through the applicable review process. The City may require additional information to be submitted to demonstrate compliance.
3. Use Permits Required. In addition to compliance with the final development plan and the provisions of the Golden Triangle P-C-C District, all proposed uses must obtain the required use permits, as indicated in *Table 5: Allowed Uses and Approval Requirements* as follows:
 - a. "AUP" indicates the use shall be permitted subject to the approval of an Administrative Use Permit per Chapter 9.62 (Administrative Use Permits) of the CMC.
 - b. "CUP" indicates the use shall be conditionally permitted subject to the approval of a Conditional Use Permit per Chapter 9.64 (Conditional Use Permits) of the CMC.

G. SIGN PROGRAM

Refer to the *Attachment B: Golden Triangle Sign Program*.

H. DESIGN AND ARCHITECTURE

The design of individual buildings within the Master Plan will be based on the unique standards and branding features of the building owners. All buildings will incorporate high quality architectural design, building materials, and construction methods. Exterior building designs will be reviewed and approved through the site plan review (SPR) process.

Contemporary or modern architecture is the prevailing style for new construction within the Master Plan boundary. Departure from this style will be the exception, when necessary to meet specific required branding elements of individual tenants or when otherwise determined to be necessary by the Director. For the purposes of this Master Plan, the contemporary architectural style is characterized by features including, but not limited to, the following:

1. Desired Features and Characteristics
 - a. The use of clean lines, whether in geometric forms or with a focus on flowing, organic lines.
 - b. Flat or slightly sloped roofs, large glass panels for natural lighting (floor-to-ceiling windows, glass curtain walls, or large, strategically placed glass panels), and seamless transitions between materials.

- c. Materials such as glass, steel, concrete, and stone. The use of metal cladding or panelization, including perforated panels or corrugated panels, and wooden slats, in combination with glass panels and other materials in varying textures and finishes is common.
 - d. Repeating clean lines across different surfaces, materials, and colors, such as architectural panels, lap siding, windows, and iron balcony railings all featuring straightforward lines.
 - e. The use of neutral color palettes. However, the use of contrasting colors in building materials can be used to emphasize the lines and forms of buildings (i.e. dark steel frames, light wood cladding, and contrasting white plaster finishes). Occasional bold accents can be used to emphasize branding or to add visual interest where the added color does not detract from the prevailing design.
- 2. Design Features that are Discouraged and Should Generally be Avoided
 - a. Overly ornate or traditional detailing, such as excessive moldings, arches, or intricate carvings. Unnecessary decorative columns or pilasters should also be avoided.
 - b. Small or traditional-style windows
 - c. Excessive use of color
 - d. False mansard or pitched roofs, gable roofs
 - e. Blank, inactive facades; lack of articulation; reliance on a single building material or texture. Comprehensive/monotonous use of stucco as an exterior building treatment should be avoided.

I. AMENDMENTS

- 1. Applicability. Amendments may be requested to the P-C-C District. For the purpose of this section, the amendments include changes to the language of the P-C-C District provisions, allowed uses, development standards, procedures outlined herein, or preliminary development plan.
- 2. Review Process. The designated approving authority for an amendment to the P-C-C District shall be determined as follows:
 - a. Substantial conformance. The Planning and Development Director may approve minor changes to the P-C-C District, including the preliminary development plan, at the administrative level if the proposed changes are in substantial conformance with the P-C-C District. Such proposed changes shall not significantly affect the design, intensity, or intent of the District, as determined by the Director. The Director may permit the reallocation of building area to create smaller, new buildings, provided they are located in areas that do not disrupt primary circulation or parking.
 - b. Minor amendment. The Planning and Development Director is the designated approval authority for minor amendments. Minor amendments are non-substantive changes typically resulting in less than a 10 percent deviation from the approved standards of the P-C-C District or features of the preliminary development plan. No public hearing shall be required. Minor amendments may be appealed to the Planning Commission and further to the City Council.
 - c. Major amendments. Major amendments are substantive changes typically resulting in more than a 10 percent deviation from the approved standards of the P-C-C District or features of the preliminary development plan. The City Council is the designated approval authority for major amendments. Major amendments shall require a public hearing.
 - d. Amendments to the use schedule. A conditional use permit shall be required for any change in use category from that approved by the Council under the development plan.

Conditional use permit applications shall be processed in accordance with Chapter 64(Conditional Use Permits) of the CMC.

J. COVENANTS, CONDITIONS, AND RESTRICTIONS

Refer to the *Attachment C: Golden Triangle Covenants, Conditions, and Restrictions*. CC&Rs are to be established for the development and provided to planning staff for the record before construction takes place.

K. DEFINITIONS

1. Preliminary Development Plan. Refers to a site plan approved as part of the P-C-C District for the intent of establishing site development expectations in conformance with the goals and intent of the P-C-C District.
2. Final Development Plan. A site plan submitted following approval of the P-C-C District, to implement and approve, through the site plan review process, the development of property within the P-C-C District, consistent with District standards and the approved preliminary development plan.

Master Sign Program for Golden Triangle

1. Introduction

Purpose and Scope

The purpose of this Master Sign Program (MSP) is to provide a comprehensive sign plan for Golden Triangle Development located near the southwest corner of N. Clovis Ave and Herndon Ave, Clovis, CA. This MSP establishes guidelines for the design, placement, and maintenance of all signs within the shopping center to ensure consistency, aesthetic appeal, and compliance with the City of Clovis Municipal Code.

2. General Sign Requirements

Compliance with Municipal Code

This MSP is applicable to the Golden Triangle Planned Commercial Center, separated into distinct planning areas as identified in Figure 1. Existing signs approved under the Tuscan Village or Old Town Village sign programs are considered legal non-conforming with the adoption of this sign program.

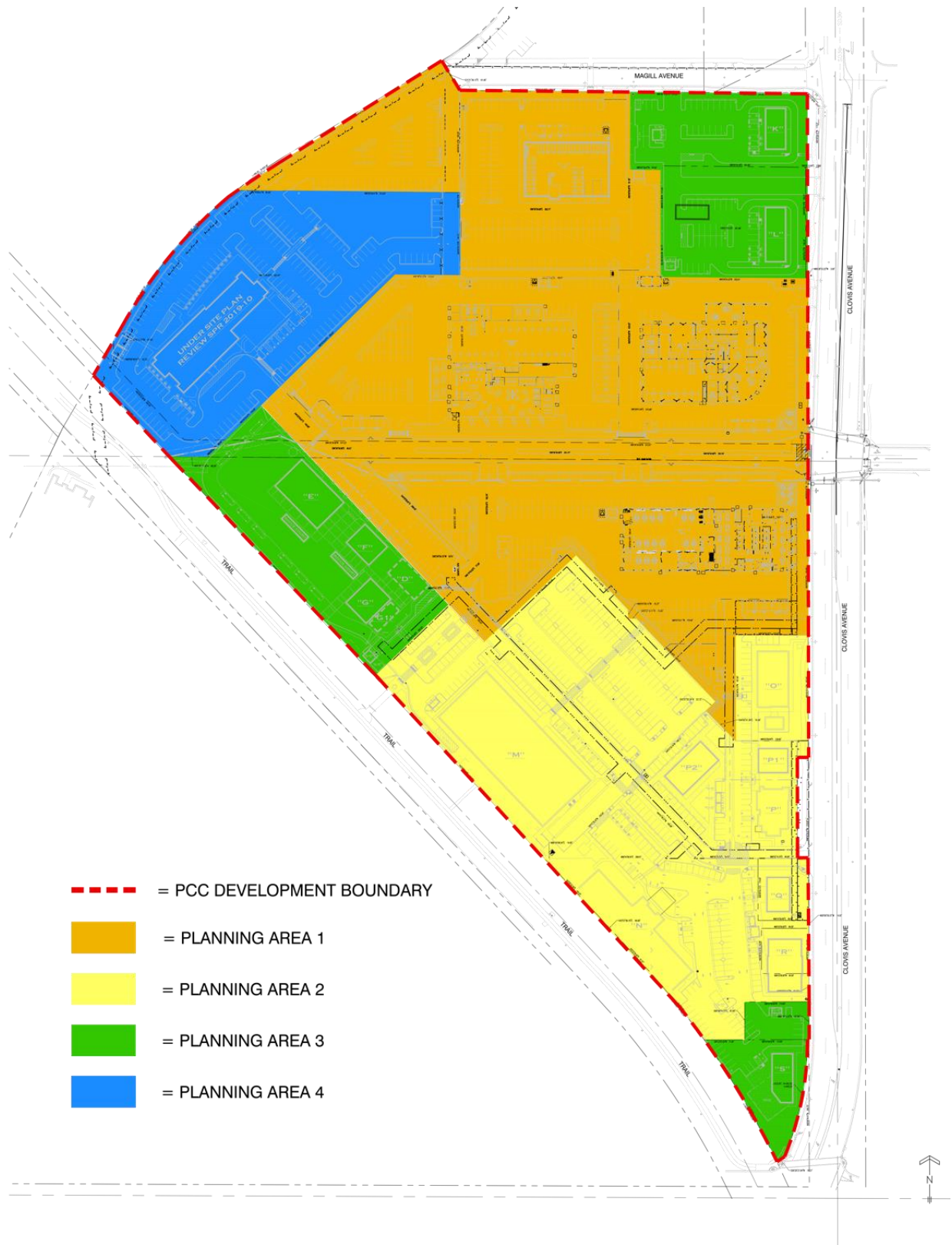
Temporary Signs

- A. Description: Signs intended for temporary use, such as promotional banners, flags a-frames or event signs.
- B. Specifications: Duration, size, and placement restrictions as per City of Clovis Municipal Code.
- C. Materials: Fabric, vinyl, or other temporary materials.

Maintenance and Safety Standards

All signs must be maintained in good condition, free of damage, rust, and other forms of deterioration. The property owner or designated manager is responsible for ensuring that signs are safe and secure.

FIGURE 1



3. Sign Types and Specifications – PA 1 Automobile Dealerships

Wall Signs

- A. Description: Signs mounted directly on the exterior walls of buildings. Types of wall signs include but are not limited to individual channel letters, non-illuminated flat cut out letters and cabinet signs.
- B. Specifications: Sign area allowance is to be determined by table below. Each elevation's allowance shall be added together to calculate the building's maximum sign area. In addition, any business having a street frontage with no public entrance shall be allowed one-half (1/2) square foot of sign area for each one foot of leased building frontage, to a maximum area of 25 square feet. There will be no limit to the number of signs installed per elevation, so long as no single elevation exceeds 125 square feet in sign area.

| Structure Entrance Setback (from street frontage property line) | Allowable Sign Area Formula | Minor Tenants Maximum Allowable Sign Area | Major Tenants Maximum Allowable Sign Area |
|--|---|--|--|
| 150 feet or less to the intended service street property line. | One sq. ft. per each linear foot of lease space. | 50 sq. ft. | 100 sq. ft. |
| More than 150 feet to the intended service street property line. | One and one-half sq. ft. per each linear foot of lease space. | 75 sq. ft. | 150 sq. ft. |

- C. Materials: Durable, weather-resistant materials such as aluminum, acrylic, or similar.

Internal Monument Signs

- A. Description: Signs that are supported by structures placed on the ground and not attached to any building.
- B. Specifications: Each dealership shall be allowed two monument signs. Maximum height 6 feet. Maximum sign area 30 square feet per sign. Monument signs shall have setback requirements as per City of Clovis Municipal Code. To be limited to numbers and general locations specified within this program's site plan Exhibit 1.
- C. Materials: Metal, wood, or composite materials with a finished appearance.

Directional Signs

- A. Description: Signs that provide directional information for vehicular and pedestrian traffic within the shopping center.
- B. Specifications: Each dealership shall be allowed three directional signs. Maximum height 3 feet. Maximum sign area 15 square feet per sign. Directional signs shall have setback requirements as per City of Clovis Municipal Code. To be limited to numbers and general locations specified within this program's site plan Exhibit 1.
- C. Materials: Metal, wood, or composite materials with a finished appearance.

4. Sign Types and Specifications – Planning Area 2, 3, and 4 Tenants

Wall Signs

- A. Description: Signs mounted directly on the exterior walls of buildings. Types of wall signs include but are not limited to individual channel letters, non-illuminated flat cut out letters and cabinet signs.
- B. Specifications: Sign area allowance is to be determined by table below. Each elevation's allowance shall be added together to calculate the building's maximum sign area. In addition, any business having a street frontage with no public entrance shall be allowed one-half (1/2) square foot of sign area for each one foot of leased building frontage, to a maximum area of 25 square feet.

| Structure Entrance Setback (from street frontage property line) | Allowable Sign Area Formula | Minor Tenants Maximum Allowable Sign Area | Major Tenants Maximum Allowable Sign Area |
|--|---|--|--|
| 150 feet or less to the intended service street property line. | One sq. ft. per each linear foot of lease space. | 50 sq. ft. | 100 sq. ft. |
| More than 150 feet to the intended service street property line. | One and one-half sq. ft. per each linear foot of lease space. | 75 sq. ft. | 150. ft. |

- C. Materials: Durable, weather-resistant materials such as aluminum, acrylic, or similar.

- D. The Director may grant minor adjustments in order to prevent unnecessary hardships which would result from a strict and literal interpretation and enforcement of certain regulations required by this MSP. A practical difficulty or unnecessary hardship may result from the size, shape, or dimensions of a site or the location of existing structures on the site, from geographic, topographic, or other physical conditions on the site, or in the immediate vicinity, or from street locations or traffic conditions in the immediate vicinity which would affect the placement of signs on the site or structure.

Directional Signs

- A. Description: Signs that provide directional information for vehicular and pedestrian traffic within the shopping center.
- B. Specifications: Each dealership shall be allowed three directional signs. Maximum height 3 feet. Maximum sign area 2 square feet per sign. Directional signs shall have setback requirements as per City of Clovis Municipal Code. To be limited to numbers and general locations specified within this program's site plan Exhibit 1.
- C. Materials: Metal, wood, or composite materials with a finished appearance.

5. Freestanding Signs

Freestanding Multi-Tenant Signs

- A. Description: Signs that are supported by structures placed on the ground and not attached to any building.
- B. Specifications: One multi-tenant freestanding sign shall be allowed at the north end of the development along Clovis Avenue, north of Palo Alto Avenue alignment. One multi-tenant freestanding sign shall be allowed at the south end of the development along Clovis Avenue, south of Palo Alto Avenue alignment. Maximum height 20 feet. Maximum sign area 100 square feet. Freestanding signs shall have setback requirements as per City of Clovis Municipal Code. limited to numbers and general locations specified within this program's site plan Exhibit 1. Locations identified in Exhibit 1 are general and may be relocated upon staff approval.
- C. Materials: Metal, wood, or composite materials with a finished appearance.

Freeway Pylon Sign

- A. Description: Signs that are supported by structures placed on the ground and not attached to any building.

- B. Specifications: One multi-tenant freeway pylon sign shall be allowed at the northwest section of the development. Maximum height 50 feet. Maximum sign area, not including any supporting structures, not to exceed 300 square feet. Freeway pylon sign shall have setback requirements as per City of Clovis Municipal Code. Limited to numbers and general locations specified within this program's site plan Exhibit 1.
- C. Materials: Metal, wood, or composite materials with a finished appearance.

6. Design Standards

Materials, Colors, Copy and Logos

All signs must use high-quality, durable materials. Colors shall be at the discretion of the tenant subject to approval by the City of Clovis. Choice of copy and logos shall be at the discretion of the tenant and allowed on all wall signs, freestanding signs, monuments and directional signs subject to the approval by the City of Clovis.

Illumination

Illumination of all signs including wall signs, freestanding signs, monuments and directional signs should be consistent and subtle. Internally lit signs, external spotlights, exposed neon and halo lighting are acceptable, provided they comply with City of Clovis Municipal Code. Non-illuminated signs will also be required for any signs facing the residences along the southwest border of this development.

Size and Placement

Signs must be appropriately sized and placed to ensure visibility without overwhelming the architectural features of the buildings. Specific size and placement guidelines are detailed in the appendices and follow the City of Clovis Municipal Code.

7. Permitting Process

Application Requirements

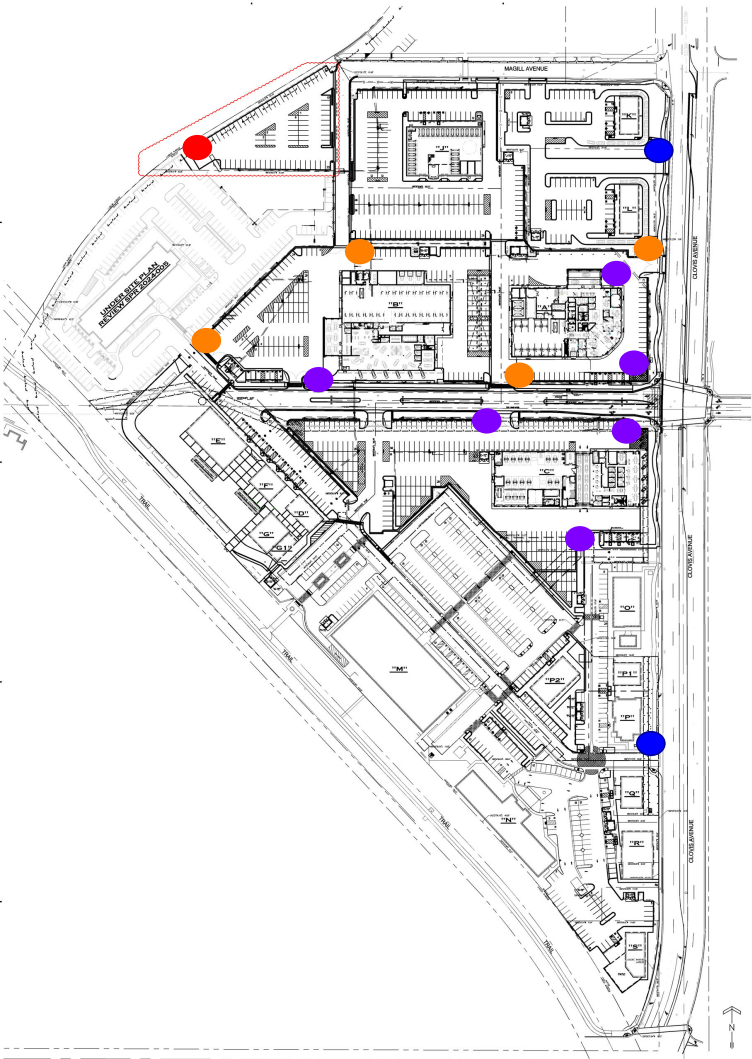
Applicants must submit detailed sign plans, including dimensions, materials, colors, and placement, for review.

Review and Approval Process

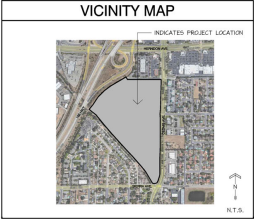
The property owner or designated manager will review all sign applications for compliance with this MSP and the City of Clovis Municipal Code before submitting to the City for building permit and final approval.

Inspection and Enforcement

All signs will be inspected upon installation to ensure compliance. Non-compliant signs must be corrected or removed at the property owner's expense.



- Freeway Multi-tenant Pylon Sign
- Freestanding Multi-tenant Signs
- PA 1 Internal Monument Signs
- PA 1 Directional Signs



Attachment C: Golden Triangle Covenants, Conditions, and Restrictions.

**Tuscan Village
&
Old Town Village
Planned Commercial
Center
Clovis, California**

**General Development Plan Standards
and
Design Guidelines**

**Red Rock Ventures
1400 Rocky Ridge Drive, Ste. 180
Roseville, CA 95661**

March 5, 2007

Tuscan Village & Old Town Village Planned Commercial Center
General Development Plan Standards

TUSCAN VILLAGE & OLD TOWN VILLAGE PLANNED COMMERCIAL CENTER

General Development Plan Standards

I. PLANNED DEVELOPMENT ZONE

The purpose of the Tuscan Village & Old Town Village Planned Commercial Center General Development Plan is to:

- A. Regulate the use of buildings, structures and land relative to commercial and business/professional development;
- B. Regulate the location, height, bulk, number of stories, and size of buildings and structures;
- C. Regulate the size and use of lots, setbacks and open spaces;
- D. Regulate the percentage of a lot which may be occupied by a building or structure;
- E. Regulate the intensity of land use;
- F. Establish permitted and conditionally permitted uses;
- G. Establish requirements for off-street parking;
- H. Provide for establishment of Design Review Guidelines to be administered by the Community Development Director or his designee.

II. INTERPRETATION

All provisions of the City of Clovis Municipal Code Title 9 (Zoning Ordinance) shall apply to this project unless otherwise specified in this General Development Plan whereby the provisions of the General Development Plan shall apply.

III. ZONING CATEGORIES

The zoning categories in the Tuscan Village & Old Town Village Planned Commercial Center Planned Development and properties within it's sphere of influence shall be administrative & professional office, neighborhood & community commercial.

IV. ZONE BOUNDARIES

The boundaries of zones described in this plan shall be as shown on the General Development Plan Map as shown on the attached Exhibit 1, and Zoning Map.

V. ZONING DEFINITIONS

The definitions contained in Chapter 9.3.104.2 of the Clovis Municipal Code shall apply to this plan.

VI. STANDARDS

A. Purpose.

1. Encourage a creative and more efficient approach to the use of land.
2. Provide a means for creativity and flexibility in design while providing adequate protection of the environment and of the health, safety and comfort of the residents of the City.

B. Design Review Guidelines shall be adopted by Resolution of the Planning Commission.

1. The Design Review Guidelines are to be a reference framework to assist the developer in understanding the City's goals and objectives for high quality development within the Tuscan Village & Old Town Village Planned Commercial Center and adjoining properties. The Guidelines shall complement the mandatory site development regulations contained within this General Development Plan.
2. The Community Development Director, or his or her designee, shall determine if a proposed development complies with the Design Review Guidelines established by the Planning Commission. Upon a determination of compliance by the Community Development Director or his or her designee, a specific plan use permit shall be issued for the project.
3. If staff determines that an application does not comply with the Design Review Guidelines the applicant may either modify the plans to comply or apply to the Planning Commission for consideration of the plans as originally submitted.
4. If an applicant wishes to make an application for review to the Planning Commission, a public hearing shall be held at a regularly scheduled meeting of the Planning Commission. All property owners affected by this specific plan use permit as well as those within a standard public hearing mailing radius shall be notified of the meeting date and the nature of the applicant.
5. An appeal may be taken from the decisions of the Planning Commission to the City Council.

C. P-C-C: Planned Commercial Center District Use Regulations.

1. Permitted (P) and Conditionally Permitted Used (U)

All permitted uses shall be allowed provided there is no appreciable offensive or objectionable odor, dust, noise, bright light, vibration or other nuisance factor, and further provided that the use is conducted within a building or where the activity is outside, it is wholly surrounded by a solid fence or wood masonry, or other material approved by the Planning Director. Appurtenant uses shall generally occupy no more than 25% of the floor area of the primary use.

2. Permitted and Conditionally Permitted Uses: Refer to Use Table

TUSCAN VILLAGE & OLD TOWN VILLAGE PLANNED COMMERCIAL CENTER

Use Table

| Use | Permitted Uses | Conditionally Permitted Uses |
|--|----------------|------------------------------|
| Appliance sales (household) | X | |
| Arcades | | X |
| Art Galleries & Studios | X | |
| Artist Studios | X | |
| Automotive Service Stations | | X |
| Bakeries, Retail | X | |
| Banks and Savings and Loan Associations | X | |
| Barber and beauty shops | X | |
| Bars and Cocktail Lounges | | X |
| Bicycle Shops | X | |
| Bookstore and Periodical Store; (except that adult/sex oriented book and periodical stores shall not be allowed.) | X | |
| Bowling Alleys | | X |
| Car Washes | | X |
| Carpet Sales, Retail Only | | X |
| Churches | | X |
| Clothing Stores | X | |
| Computer and Related Sales | X | |
| Confectioneries | X | |
| Convenience Stores | | X |
| Daycare Facilities | | X |
| Delicatessens | X | |
| Drive-up and Drive-in Restaurants= | | X |
| Drugstores | X | |
| Dry Goods | X | |
| Employee Credit Unions | X | |
| Employment Agencies | X | |
| Floor and Wall Coverings | | X |
| Florist | X | |
| Furniture Stores | | X |
| Gasoline Stations | | X |
| Gift Shops | X | |
| Grocery Stores | X | |
| Hardware and Home Improvement Stores | | X |

| | | |
|--|---|---|
| (with or without exterior yard requirements) | | |
| Health Club & Studios | X | |
| Health Food Stores | X | |
| Hotels, Motels and Lodgings | X | |
| Ice Cream Sales | X | |
| Indoor Sports | X | |
| Jewelry Stores | X | |
| Laboratories: | | |
| a. Biological; | x | |
| b. Dental; | x | |
| c. Medical | x | |
| d. Optical | x | |
| Dry Cleaning (pick-up agencies for work to be done elsewhere) | X | |
| Dry Cleaners | X | |
| Leather Goods and Luggage Stores | X | |
| Libraries | X | |
| Liquor Store | | X |
| Mail Centers | X | |
| Mortgage and Loan Offices | X | |
| Museums | X | |
| Music Stores | X | |
| Offices | | |
| a. Administrative; | x | |
| b. Business; | x | |
| c. General; | x | |
| d. Medical | x | |
| e. Professional | x | |
| Optometry Clinics | X | |
| Paint Stores | | X |
| Personal Services | X | |
| Pet Shops | X | |
| Photographic Studios | X | |
| Photographic Supply Stores | X | |
| Post Offices | X | |
| Pottery Sales | X | |
| Radio and Television Sales and Service | X | |
| Restaurants, Coffee Shop, Restaurant-Bar Combination, Self-Service Restaurants | X | |
| Retail Sales | X | |
| Schools; Trade and Commercial | X | |
| Security Brokers & Dealers | X | |
| Shoe Repair Shops | X | |

| | | |
|---|---|---|
| Shoe Stores | X | |
| Signs Subjects to the Provisions of the Approved Sign Program | X | |
| Sporting Good Stores | X | |
| Stationery Stores | X | |
| Technical or Adult Schools | X | |
| Tobacco Shops | X | |
| Toy Stores | X | |
| Yard and Garden Sales (with or without exterior yard requirements) | | X |

The Community Development Director may determine certain uses or activities, which are not explicitly stated above to be permitted uses, provided the use or activity has characteristics, which are similar to one of the uses listed above.

Any use sufficiently similar to one of the above listed uses, in character, operation, environmental impact and neighborhood compatibility, may be deemed a permitted or a conditional use in the discretion of the Community Development Director.

D. Development Standards.

The following property development standards shall apply to all land, buildings, and structures in the Tuscan Village & Old Town Village Planned Commercial Center district.

a. Lot Area: Except as hereinafter provided, no building or structure shall be hereafter erected or located on a lot unless such lot conforms with the area regulations stated below.

1. Not more than one (1) main building or permitted group of buildings shall be constructed onto any lot unless all regulations herein established are complied with and a subdivision tract map or approved record of survey is recorded with the County Recorder, or a lot split map is approved by the Director in accordance with the requirements of the Clovis Municipal Code.
2. No required yard or other open space around any building for the purpose of complying with the provisions of this chapter, may be considered as providing a yard or open space for any other building; nor may any yard or other required open space on an adjoining lot be considered as providing a yard or open space on a lot where on a building is to be erected.
3. No parking area, parking space, or loading space which is provided for the purpose of complying with the provisions of this chapter shall hereafter be relinquished or reduced in any manner below the requirements of this chapter unless equivalent facilities are provided elsewhere, the location of which is approved by the Director. If such parking area is established by a conditional use permit, equivalent facilities shall be subject to approval by the Commission. Allowances for shared parking of uses with off-peak and / or operating hours shall be at the discretion of the Community Development Director.
4. After the effective date of these development guidelines, no land in such development may be divided by the recordation of any map or by voluntary sale, contract of sale, or conveyance of any kind which creates a new parcel of land under separate ownership which consists of less than the minimum lot area required for the development of which such a lot is part; provided, however, a tolerance of ten (10%) percent shall be allowed as to this requirement when the parcel so created is irregular in shape.
5. The minimum lot size for any parcel within the development shall be 20,000 square feet.

b. Lot Dimensions:

1. Every lot shall have a minimum width of not less than one hundred (100) feet and a minimum depth of not less than one hundred fifty (150) feet. Each dimension is a minimum only. One (1) or both shall be increased to attain the minimum lot area required.
2. Exceptions: Lots without street frontage may be created within commercial centers having a City -approved reciprocal access, parking, drainage and use agreement (Reciprocal Easement Agreement).

c. Population Density: No requirements**d. Building Height:**

1. All buildings. Buildings or structures hereafter designed or erected shall not exceed three (3) stories or fifty (50') feet in height, except that buildings over three (3) stories or fifty (50') feet in height may be erected subject to the securing of a conditional use permit as set forth in the Clovis Municipal Code.
2. Exceptions. Roof structures for the housing of elevators, stairways, tanks, ventilating fans or similar equipment required to operate and maintain the building, and fire or parapet walls, skylights, towers church steeples, flagpoles, chimneys, water tanks, wireless masts, or similar structures, when approved by the Commission, may be erected above the height limits set forth in the subsection d provided the same may be safely erected and maintained at such height in view of the surrounding conditions and circumstances. No roof structures or any space above the height limits shall be allowed for the purpose of providing additional habitable floor space.

e. Yards:

1. General yard requirements

- a. All required yards shall extend the full width of depth of the lot and shall be open from the ground to the sky, except as provided in subsection 5 of this subsection e.
- b. Front yards shall be landscaped and maintained. Side and rear yards may be used for parking, access to parking, or loading.
- c. No main building shall be erected within thirty (30') feet of the right-of-way of any railroad line, freeway, or flood control channel.
- d. Measuring. In measuring a front yard or side yard adjoining a street, it shall be the perpendicular distance between the street and a line through the corner or face of the building closest to and drawn parallel with the street, excluding any architectural features.
- e. Official plan lines shall be established by the Major Street and Highway Plan of the City of Clovis.

2. Front yards. Each lot fronting on a street shall have a front yard of not less than twenty (20') feet.
3. Side yards. None required except where the side yard abuts a street, a ten (10') side yard shall be provided along such street.
4. Rear yards. None required, except where the planned commercial center abuts a residential district, the requirements of the C-1 District (subsection 3 of subsection E of Section 9.3.214.5 of the City of Clovis Municipal Code) shall apply.

f. Space Between Buildings: All buildings hereafter designed or erected shall comply with the space between building requirements of the Uniform Building Code based on construction type, occupancy type and building area limitations based on type of construction..

g. Lot Coverage: The maximum coverage of the lot by buildings or structures shall not exceed fifty (50%) percent of the total lot area, including easements.

h. Fences, Hedges & Walls:

1. A solid masonry wall not less than five (5') feet nor more than six (6') feet in height shall be erected along the district boundary between the planned commercial center and any residential district.
 - a. Where the district boundary is at a rear lot line which is not on a street, the wall shall be on that line.
 - b. Where the district boundary is on a side lot line which is not on a street, the required wall shall be on, or parallel with such lot line. Such wall shall be reduced in height to three (3') feet within the area defined by a line which is the prolongation of the front yard required in the abutting residential district.
 - c. Where the district boundary is a street, any wall constructed along such street in either a front or side yard shall be set back from the property line a distance of ten (10') feet and shall not exceed three and one-half (3-1/2') feet in height. The space between the wall and the property line shall be landscaped and maintained.
 2. All walls shall be developed subject to the general conditions of subsection H of Section 9.3.306 of Article 3 of the Clovis Municipal Code
 3. Walls. Wall materials shall include concrete, concrete block, brick, or any other similar material that is solid and is so assembled as to form a solid barrier.
- j. **Off-Street Parking.** The intent and purpose of these regulations are to create properly designed off-street parking areas with adequate capacity, location, and design to prevent traffic congestion and a shortage of curb spaces in the development. Off-street parking facilities shall be provided for new land used and for major alterations and enlargements of existing uses in proportion to the need for such facilities created by each use. Off-street parking and loading facilities shall be designed in such a manner that will ensure their usefulness, protect the public health and safety, minimize congestion and conflict points on public streets, and where appropriate, insulate surrounding land uses from their impact.
1. **General Provisions. Compliance.** The following standards for providing off-street parking shall apply at the time of the erection of any building or when off-street parking is established. These standards shall also be complied with when an existing building is altered or enlarged or where the use is intensified by the addition of floor space, seating capacity, or seats.
 - a. **Maintenance of parking.** Off-street automobile parking space being maintained in connection with any existing main building or structure shall be maintained so long as such main building or structure remains.
 - b. **Minimum required standards.** Parking ratios are the minimum established standards required by these development guidelines. Development shall provide adequate space to accommodate all required parking on-site, sufficient to meet the needs of the entire park. Parking that is not being provided on-site may require that the applicant provide additional parking area. Requirements for stand-alone uses shall be determined according to the primary use of a site and according to any ancillary use if additional parking is deemed necessary. Combinations of facilities not otherwise identified in part or in whole as a multi-tenant facility (identified as Special Stand Alone Uses) shall provide the number of spaces required for each facility, and the spaces provided for one facility shall not be construed as satisfying the requirements for another facility. Parking provided on the basis of an integrated site plan approved by the Director of

Planning and Development Services shall be considered as satisfying the individual requirements of this section.

- c. Reduction in parking spaces. No parking area or parking space that is provided for the purpose of complying with the provisions of this chapter shall hereafter be relinquished, reduced or altered in any manner below the requirements established herein, unless equivalent facilities are provided elsewhere, the location of which is approved by the Director of Planning and Development Services.
- d. Uses not specified. In case of a use for which off-street parking requirements are not specified at all in this section, the requirements for the most nearly similar use for which off-street parking requirements are specified shall apply, as determined by the Director.

2. Definitions.

- a. Fractional spaces. If the number of off street parking spaces hereinafter required contains a fraction, such number shall be figured accordingly: less than 0.5 shall be calculated to the nearest lower whole number and shall not constitute a parking space; 0.5 or greater shall be calculated to the nearest lower whole number and shall not constitute a parking space; 0.5 or greater shall be calculated to the nearest higher whole number and shall constitute one parking space.
 - b. For buildings or structures involving large concentrations of people, parking spaces, unless otherwise provided, shall be on the same lot with the main building, or on lots immediately contiguous thereto in the same district therewith and available for use by the occupants.
 - c. Off-street parking. Off-street parking shall mean parking area located off any public right-of-way, alley, or private street that shall be provided as required by this article.
 - d. Parking area. Parking area shall mean that part of the property used or intended to be used for parking and/or storage of vehicles, access drives, aisles, and maneuvering, and may include landscaping within that portion of the property that is used for vehicle and pedestrian access and circulation. Parking area shall exclude loading spaces and facilities and associated areas not required for drives, aisles, and maneuvering for parking required herein.
 - e. Parking Space/Stall: A parking stall shall be an area for the parking of a motor vehicle, plus those additional areas required to provide for the safe ingress and egress from such space. The area set aside to meet these provisions shall be usable and accessible for off-street parking.
 - f. Special stand alone uses. Uses of this nature are not identified as an integral part of a multi-tenant facility and are typically characteristic of detached, stand alone commercial leasable space. Stand alone uses may include those single tenant pads located within a commercial shopping center and within business and industrial parks, not otherwise considered as in-line commercial or an integral part of a collective commercial development.
 - g. Standard stall: A standard stall shall mean an off-street parking stall that is ten (10') feet wide and twenty (20') feet long.
 - h. Compact stall: A compact stall shall mean an off-street parking stall that is nine (9') feet wide and eighteen (18') feet long.
- ## 3. Treatment private parking areas: Every parcel of land hereafter used for parking or loading of motor vehicles shall be improved and maintained as follows:

- a. All parking areas shall be surfaced and striped and drained as required by the Director of Planning and Development Services and shall thereafter be maintained in good condition. Parking stalls shall be marked, and the access lanes shall be clearly defined, including directional arrows to guide internal movement.
 - b. Marked off spaces, and directional signs, where necessary, shall be required.
 - c. When such areas adjoin a residential district, the area shall be separated therefrom by a solid masonry wall not less than five (5') feet in height; provided, however, such wall shall not exceed three (3') feet in height where it is in the front yard area of an abutting residential district. Where no wall is required along a boundary or an area covered by this section, there shall be a concrete curb barrier not less than six (6") inches in height securely installed and maintained as a safeguard to abutting property or a public right-of-way. The barrier shall not be less than ten (10') feet from any property line on the subject property.
 - d. Where such areas adjoin a residential district, there shall be a border of appropriate landscaping, not less than ten (10') feet in depth, along the residential street frontage to protect the character of the adjoining residential property. Such landscaping shall be maintained. No building shall be erected nor shall any property be used unless a site plan for the development has been submitted to and approved by the director.
 - e. Lighting where provided to illuminate such parking, sales, or display areas shall be hooded and so arranged and controlled so as not to cause a nuisance either to highway traffic or to the adjacent environment. The amount of light shall be provided according to the standards of the Department of Planning and Development Services.
 - f. No parking space shall be so located as to require the moving of any vehicle on the premises in order to enter or leave any other stall.
 - g. Automobile parking so arranged as to require the backing out of motor vehicles from a parking space onto a street shall not be allowed.
 - h. In no case shall parking spaces be so arranged that ingress or egress from a parking space requires backing into a public or private pedestrian access way.
4. Parking space standards.
- a. Automobile parking spaces arranged in a 90 degree configuration shall minimum dimensions of ten (10') feet by twenty (20') feet.
 - b. Angular parking spaces shall have a minimum width of nine (9') feet six (6") inches by twenty (20) feet long.
 - c. Compact parking spaces shall be a minimum dimension of nine (9') feet by eighteen (18') feet.
5. Parking requirements
- a. Professional office uses
 - i. *Business Professional Offices* – 1 per 250 square feet
 - ii. *Financial Institutions* – 5.2 per 1,000 gross building area
 - iii. *Medical and Dental Offices/Clinics* – 1 per 200 square feet.
 - b. Commercial /Service Uses (including commercial multi-tenant users)

- i. 0 to 20,000 square feet – 5.2 per 1,000 gross building area
 - ii. 20,000 to 70,000 square feet – 5.0 per 1,000 gross building area
 - iii. 70,000 square feet and over – 4.7 per 1,000 gross building area
- c. Eating Establishment/Restaurant Users
 - i. 0 to 1000 square feet
 - ii. 1,000 – 5,000 square feet – 1 per 100 square feet
 - iii. 5,000 square feet and over – 50 spaces plus 1 per 100 square feet over 5,000 square feet
- d. Barber Shops/Beauty Salons – 2 per station
- e. Churches – 1 per 5 fixed seats or 1 per 40 square feet of seating area.
- f. Convenience Stores (stand alone) – 2 minimum plus any additional as may be determined by conditional use permit.
- g. Furniture and Carpet Stores – 1 per 500 square feet
- h. Health Clubs:
 - i. aerobics – 1 per 50 feet
 - ii. gym – 1 per 100 square feet
- i. Lodgings – 1.2 per sleeping unit plus each additional use as required
- j. Recreation/Entertainment
 - i. Bowling alleys – 5 per alley plus each additional use as required
- k. Trade Schools, Business Colleges, and Institutions of Higher Learning – 1 per 150 gross feet
- k. Access:
 - a. There shall be adequate vehicular access from a dedicated and improved street, service road or alley, the design of which shall be approved by the Director of Public Works.
 - b. The Director shall specify the location and number of means of ingress and egress to property by conditions established at the time of the review of the required site plan.
- l. **Outdoor Advertising:** Signs shall be subject to the provisions of Chapter 4 of the Clovis Municipal Code and the Tuscan Village & Old Town Village Planned Commercial Center Sign Program.
- m. **Loading Space Requirements:** Every hotel or commercial building hereafter erected or established shall provide and maintain loading spaces as provided in this subsection subject to the following conditions:
 - a. No loading space which is provided for the purpose of complying with the provision of this chapter shall hereafter be relinquished or reduced in any manner below the requirements established in this chapter, unless equivalent facilities are provided elsewhere, the location of which is approved by the Director.

- b. Loading spaces required by this chapter may occupy a required yard, but in no case shall any part of an alley or street be used for loading.
- c. Loading spaces shall not be less than twelve (12') feet in width, forty (40') feet in length, and with fourteen (14') feet of vertical clearance.
- d. The number of loading spaces required are as follows:

| Total Square Feet Building Space (gross floor area) | Loading Spaces Required |
|---|----------------------------|
|---|----------------------------|

1. Commercial buildings:

| | |
|---------------------|---|
| 3,500 – 15,000 sf | 1 |
| 15,001 – 45,000 sf | 2 |
| 45,001 – 75,000 sf | 3 |
| 75,001 – 105,000 sf | 4 |
| 105,001 – and over | 5 |

2. Office Buildings:

| | |
|---------------------|---|
| 3,500 – 50,000 sf | 1 |
| 50,001 – 100,000 sf | 2 |
| 100,001 – and over | 3 |

n. Special Standards & Regulations

1. Driveways. Driveways shall be paved, having not less than ten (10') feet in width and not encumbered by any properties to a height under (8') feet above the ground
2. Easements. No building or structure shall be constructed which may be in conflict with an easement.
3. Landscaping. When ever this chapter, or any special permission granted hereunder, requires landscaping, the following standards of design, practices, and maintenance shall be observed:
 - a. When property is undeveloped at the time landscaping requirements are imposed upon the property, landscaped yards and areas shall be provided and maintained at the time a main building is constructed and occupied for any use requiring a building.
 - b. All vegetation shall be provided with an adequate and permanent source of water which shall be provided by installed on-site water sprinkler systems.
 - c. All vegetation shall be maintained free of physical damage or injury from lack of water, excess chemical fertilizer, or other toxic chemical, blight, or disease, and such vegetation, or that which shows signs of such damage or injury at any time, shall be replaced by the same, similar, or substitute vegetation of a size, forma and character which will be comparable at full growth.
 - d. Landscaping shall be kept free from weeds and undesirable grasses.

- e. Landscaping provided with any use requiring a site plan shall be generally designated on the site plan. Prior to the issuance of any building permit, a further site plan shall be submitted (without an additional fee) to a scale of not less than one inch equaling thirty (30') feet, which site plan shall show the location and variety of all plantings, the water supply, and similar designations at the Director may require. The Director may make a finding of landscaping inadequacy amounting to an avoidance of any purpose of the planting of vegetation and may require as a condition of approval that additional or similar vegetation or water supply be added to the site.
- f. The Director may allow minor deviations from a landscape site plan.
- g. Whenever any person neglects to conform to this chapter or a site plan concerning any landscaping or landscaped area, the Director may require, upon thirty (30) days' written notice, such compliance. In the event noncompliance continues thereafter, the Director may cause the work to be done and plantings to be made to bring the landscaping or area into compliance. The work and plantings, and a lien therefore, shall be accomplished under the direction of the City Attorney.

4. Lot lines: front.

- a. On an interior lot, the Director shall determine which property line or lines shall be the front line for the purposes of compliance with the yard and setback provisions of this chapter.
- b. On a corner or reversed corner lot, the front lot line shall be the shorter property line abutting a street.
- c. On a through lot, or a lot with three (3) or more sides abutting a street, or a corner or reversed corner lot with lot lines of equal length, the Director shall determine which property line or lines shall be the front lot line for the purposes of compliance with the yard and setback provisions of this chapter.

- 5. Lot lines: rear. In the case of an irregular, triangular, or goreshaped lot, the rear lot line shall be a line within the lot, parallel to and at a maximum distance from the front lot line, having a length of not less than ten (10') feet. A lot which is bounded on all sides by streets may have no rear lot line.
- 6. Lot lines: side. On a lot with three (3) or more sides abutting a street, all lot lines abutting such street or streets, other than the front lot line or lines, may be side lot lines.

Updated Use Schedule (R2004-36A2)

TUSCAN VILLAGE & OLD TOWN VILLAGE
PLANNED COMMERCIAL CENTER
 USE TABLE

| USE | PERMITTED USES | CONDITIONALLY PERMITTED USES |
|---|----------------|------------------------------|
| Appliance sales (household) | X | |
| Arcades | | X |
| Art Galleries & Studios | X | |
| Artist Studios | X | |
| Automotive Service Stations | | X |
| Bakeries, Retail | X | |
| Banks and Savings and Loan Associations | X | |
| Barber and beauty shops | X | |
| Bars and Cocktail Lounges | | X |
| Bicycle Shops | X | |
| Bookstores and Periodical Store; (except that adult/sex oriented book and periodical stores shall not be allowed) | X | |
| Bowling Alleys | | X |
| Car Washes | | X |
| Carpet Sales, Retail Only | X | |
| Clothing Stores | X | |
| Computer and Related Sales | X | |
| Confectioneries | X | |
| Convenience Stores | | X |
| Daycare Facilities | | X |
| Delicatessens | X | |
| Drive –up and Drive-in Restaurants | | X |
| Drive up window uses | | X |
| Drugstore | X | |
| Dry Goods | X | |
| Dry Cleaners | X | |
| Dry Cleaning (pick-up agencies for work to be done elsewhere) | X | |
| Employee Credit Unions | X | |
| Employment Agencies | X | |
| Event Centers | | X |
| Floor and Wall Coverings | X | |
| Florist | X | |
| Furniture Stores | X | |
| Gasoline Stations | | X |

| USE | PERMITTED USES | CONDITIONALLY PERMITTED USES |
|--|----------------|------------------------------|
| Gift Shops | X | |
| Grocery Stores | X | |
| Hardware and Home Improvement Stores (with or without exterior yard requirements) | X | |
| | | |
| Health Club & Studios | | X |
| Health Food Stores | X | |
| Hotels, Motels and Lodgings | X | |
| Ice Cream Sales | X | |
| Indoor Sports | X | |
| Jewelry Stores | X | |
| Laboratories: a. Biological; | X | |
| b. Dental; | X | |
| c. Medical; | X | |
| d. Optical | X | |
| Leather Goods and Luggage Stores | X | |
| Libraries | X | |
| Liquor Stores | | X |
| Mail Centers | X | |
| Mortgage and Loan Offices | X | |
| Museums | X | |
| Music Stores | X | |
| Offices a. Administrative; | X | |
| b. Business; | X | |
| c. General; | X | |
| d. Medical; | X | |
| e. Professional | X | |
| Optometry Clinics | X | |
| Paint Stores | X | |
| Personal Services | X | |
| Pet Shops | X | |
| Photographic Studios | X | |
| Photographic Supply Stores | X | |
| Post Offices | X | |
| Pottery Sales | X | |
| Radio and Television Sales and Service | X | |
| Restaurants, Coffee Shops, Restaurant-Bar Combinations; Self-Service Restaurants | X | |
| Retail Sales | X | |
| Schools; Trade and Commercial | X | |

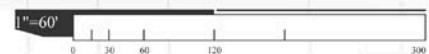
| USE | PERMITTED USES | CONDITIONALLY PERMITTED USES |
|---|----------------|------------------------------|
| Security Brokers & Dealers | X | |
| Shoe Repair Shops | X | |
| Shoe Stores | X | |
| Sporting Good Stores | X | |
| Stationery Stores | X | |
| Technical or Adult Schools | X | |
| Tobacco Shops | X | |
| Toy Stores | X | |
| Yard and Garden Sales (with or without exterior yard requirements) | X | |

The Community Development Director may determine certain uses or activities, which are not explicitly stated above to be permitted uses, provided the use or activity has characteristics, which are similar to one of the uses listed above.

Any use sufficiently similar to one of the above listed uses, in character, operation, environmental impact and neighborhood compatibility, may be deemed a permitted or conditional use in the discretion of the Community Development Director.



Preliminary Development Plan (R2004-36A)





County of Fresno

DEPARTMENT OF PUBLIC HEALTH

February 27, 2023

LU0022133
2604

Lily Cha, Assistant Planner
City of Clovis
Planning and Development Services Department
1033 Fifth Street
Clovis, CA 93612

Dear Ms. Cha:

PROJECT NUMBER: **DRC2023-005**

DRC2023-005; Development of multiple parcels support the new construction of various structures, road improvements, landscape areas and paved parking per City of Clovis standards.

APN: 491-030-23, 40, 491-110-02, 29, 30, 39, 43
ADDRESS: Palo Alto & Clovis Avenues

ZONING: P-C-C

Comments/Concerns:

Since all of the retail tenants have not been identified for this application, the full range of **PCC** uses must be considered. The potential adverse impacts could include (but are not limited to) storage of hazardous materials and/or wastes, medical waste, solid waste, water quality degradation, excessive noise, and odors.

Recommended Conditions of Approval:

- The proposed construction and retail project has the potential to expose nearby residents to elevated noise levels. Consideration should be given to your City's municipal code.
- Should food facilities be proposed, then prior to issuance of building permits the applicant(s) will be required to submit complete food facility plans and specifications to the Fresno County Department of Public Health, Environmental Health Division, for review and approval. Prior to operation, the applicant(s) shall apply for and obtain permits to operate a food facility from the Fresno County Department of Public Health, Environmental Health Division. A permit, once issued, is nontransferable. Contact the Consumer Food Protection Program at (559) 600-3357 for more information.
- Should alcohol be proposed, Prior to alcohol sales the applicant shall first obtain their license to sell alcoholic beverages. Contact the California Alcoholic Beverage Control Department at (559) 225-6334 for more information.
- Facilities that use and/or store hazardous materials and/or hazardous wastes shall meet the requirements set forth in the California Health and Safety Code (HSC), Division 20, Chapter 6.95,

Promotion, preservation and protection of the community's health

1221 Fulton Street / P. O. Box 11867, Fresno, CA 93775

The County of **Attachment 3** -7629
Opportunity Employer
www.fresno-ph.org

and the California Code of Regulations (CCR), Title 22, Division 4.5. Your proposed business will handle hazardous materials and/or hazardous waste and will be required to submit a Hazardous Materials Business Plan pursuant to the HSC, Division 20, Chapter 6.95 (<http://cers.calepa.ca.gov/>). Contact the Fresno County Hazmat Compliance Program at (559) 600-3271 for more information.

- The applicant will be required to obtain a Medical Waste Permit from the California Department of Health Services, Medical Waste Management Program. Call (916) 449-5671 for more information.
- Should a body art facility (i.e. tattoo, piercing, branding or permanent cosmetics facility) be proposed, prior to issuance of building permits, the tenant shall submit complete body art facility plans and specifications to the Fresno County Department of Public Health, Environmental Health Division, for review and approval. Contact the Body Art Program at (559) 600-3357 for more information.
- As a measure to protect ground water, all water wells and/or septic systems that exist or have been abandoned within the project area should be properly destroyed by an appropriately licensed contractor.
- Should any underground storage tank(s) be found during the project, the applicant shall apply for and secure an Underground Storage Tank Removal Permit from the Fresno County Department of Public Health, Environmental Health Division. Contact the Fresno County Hazmat Compliance Program at (559) 600-3271 for more information.

The following comments pertain to the demolition of existing structure(s):

- Should the structure(s) have an active rodent or insect infestation, the infestation should be abated prior to demolition of the structure(s) in order to prevent the spread of vectors to adjacent properties.
- In the process of demolishing the existing structure(s), the contractor may encounter asbestos containing construction materials and materials coated with lead-based paints.
- If asbestos containing materials are encountered, contact the San Joaquin Valley Air Pollution Control District at (559) 230-6000 for more information.
- If the structure(s) were constructed prior to 1979 or if lead-based paint is suspected to have been used in these structures, then prior to demolition work the contractor should contact the following agencies for current regulations and requirements:
 - California Department of Public Health, Childhood Lead Poisoning Prevention Branch, at (510) 620-5600.
 - United States Environmental Protection Agency, Region 9, at (415) 947-8000.
 - State of California, Industrial Relations Department, Division of Occupational Safety and Health, Consultation Service (CAL-OSHA) at (559) 454-5302.

REVIEWED BY:

Kevin Tsuda

Kevin Tsuda, R.E.H.S.
Environmental Health Specialist II

(559) 600-33271

cc: Rogers, Moreno, C. Yang & Sauls (assigns) - Environmental Health Division (CT. 56.02)

Rezone R2024-004

Initial Study and Mitigated Negative Declaration

October 2024

PREPARED BY:

Lily Cha
Senior Planner
Planning & Development Services
(559) 324-2335
lilyc@clovisca.gov



INITIAL STUDY

This Initial Study was prepared pursuant to the California Environmental Quality Act (CEQA) Public Resources Code Sections 21000 *et seq.*, CEQA Guidelines Title 14, Section 15000 *et seq.* of the California Code of Regulations.

| | |
|--|--|
| PROJECT TITLE: | R2024-004 |
| LEAD AGENCY NAME AND ADDRESS: | City of Clovis Planning & Development Services 1033 Fifth Street Clovis, CA 93612 |
| CONTACT PERSON AND PHONE NUMBER: | Lily Cha, Senior Planner (559) 324-2335 lilyc@cityofclovis.com |
| PROJECT LOCATION: | Area West of Clovis Avenue between Magill and Sierra Avenues APN(s): 491-030-18,20T,23,28,40,67,70T,71; 491-110-02,24,25,29,30,35,39,42,43; 491-113-13,18,21T,29,33S |
| PROJECT SPONSOR'S NAME AND ADDRESS: | Legacy Realty and Development 5390 E. Pine Fresno, CA 93727 |
| LAND USE DESIGNATION: | General Commercial |
| ZONING DESIGNATION: | Planned Commercial Center (PCC) |
| PROJECT DESCRIPTION | See page 7 of this Initial Study |
| SURROUNDING LAND USES AND SETTING: | See page 7 of this Initial Study |
| REQUIRED APPROVALS: | See page 10 of this Initial Study |
| HAVE CALIFORNIA NATIVE AMERICAN TRIBES REQUESTED CONSULTATION? IF SO, HAS CONSULTATION BEGUN? | N/A |

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A. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and corresponding discussion in this Initial Study.

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology & Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology & Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities & Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

Determination

On the basis of this initial evaluation:

- ☐ I find that the proposed Project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that, although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponents. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed Project MAY have a significant effect on the environmental, and an ENVIRONMENTAL IMPACT REPORT (EIR) will be prepared.
- ☐ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environmental, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An EIR is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

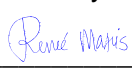
Prepared By:


Lily Cha, MPA, AICP, Senior Planner
Planning & Development Services
City of Clovis

10/2/2024

Date

Approved By:


2024.10.02
16:26:44-07'00'
Renee Mathis, Director
Planning & Development Services
City of Clovis

Date

B. PROJECT OVERVIEW

Legacy Realty and Development (applicant) proposes to amend the Tuscan Village Planned Commercial Center(PCC), thereby renaming the center to the Golden Triangle, updating the Master Plan District standards and guidelines, and updating the preliminary development plan. Should the Council approve this amendment, a final development plan will be processed in phases through the site plan review process at the discretion of the Planning and Development Services Director. The Golden Triangle makes up approximately 32.20 acres and is situated on the west side of Clovis Avenue between Magill and Sierra Avenues in the City of Clovis, California. The project shall be referred to throughout the document as “proposed Project” and/or “Project.” Details regarding the Project are described more within this document, beginning under Section E.

C. PROJECT LOCATION

As shown in Figure 1 below, the Project is located on the west side of Clovis Avenue between Magill and Sierra Avenues and is approximately 32.20 acres in area. The Project pertains to multiple parcels with Accessor’s Parcel Numbers (APNs): 491-030-18,20T,23,28,40,67,70T,71; 491-110-02,24,25,29,30,35,39,42,43; 491-113-13,18,21T,29,33S.

D. EXISTING SETTING

This section describes the existing conditions, surrounding conditions, as well as the General Plan land use and zoning designations.

1. EXISTING CONDITIONS

As shown in Figure 1 below, the Project site has been partially developed under the Tuscan Center PCC. This includes existing developments and uses that predate the center. The existing developments consist of a hotel, several office and retail buildings, an auto dealership, and two currently occupied residences. One of the residences also has a vehicle storage operation associated with it. These residences and the vehicle storage operation predate the PCC allowance and may remain until redevelopment occurs. Recently, a site plan review (PL-SPR-24-00005) was approved for the development of a second hotel. The rest of the site remains undeveloped

2. SURROUNDING CONDITIONS

Table 1 refers to the surrounding land uses which includes a combination of residential, commercial, park, and freeway 168.

Table 1: Surrounding Land Uses

| | Land Use Designation | Existing Zoning* | Existing Land Use |
|--|---------------------------------------|------------------|---------------------------------|
| North | General Commercial | P-C-C | Commercial Center |
| East | General Commercial | C-2 | Commercial/ Retail |
| South | Mixed Use Village | R-1 / R-3 | Single-Family Residences/ Park |
| West | Open Space/Medium Density Residential | R-1 | Trail / Single-Family Residence |
| *R-1 (Single-Family Residential), R-3 (Multifamily-High Density), P-C-C (Planned Commercial Center), C-2 (Community Commercial), | | | |

3. LAND USE DESIGNATION

As illustrated in Figure 2, the Project site currently has a General Plan Land Use designation of General Commercial. This designation allows for community or regional scale centers that can be anchored by large-format stores, as well as a variety of retail outlets, restaurants, and

entertainment venues. Hotels and motels are also considered appropriate within this land use category.

4. ZONING DESIGNATION

As illustrated in Figure 3, the Project site is currently zoned PCC (Planned Commercial Center). This zoning district applies to shopping facilities within a planned center, promoting innovative designs that create a superior environment compared to conventional commercial developments. It permits all uses typically associated with commercial centers, provided they are part of an approved development plan. The PCC district does not require the specification of particular uses, except to differentiate categories of uses that have distinct parking requirements or special design considerations.

E. PROJECT DESCRIPTION

The proposed Project involves amending the development plan for an existing planned commercial center. This approximately 33-acre center is partially developed and classified as in-fill development. The updated plan aims to modify the overall site layout and establish planning areas with specific development standards and designated land uses. The original PCC approval planned for approximately 416,000 square feet of commercial and office development. Approximately 15 acres of the center has been developed. This amendment will result in a new total area of approximately 357,285 square feet of commercial and office space, of which approximately 84,032 square feet is existing. As previously mentioned, two residences, an associated vehicle storage facility, and an existing auto dealership are currently on site and will be removed when redevelopment occurs.

This section describes the components of the proposed Project in more detail, including site preparations, proposed structures, and on- and off- site improvements.

1. PROJECT ENTITLEMENTS

The Project involves a rezone amendment to modify the development plan for the existing planned commercial center. If approved, subsequent site plan reviews with the planning and development services department will ensure that the site's development aligns with the updated development plan.

2. PROJECT CONSTRUCTION AND PHASING

The Project is expected to be constructed incrementally, as each parcel has a different property owner with varying timelines. The first phase of development includes properties owned by a single individual and encompasses 133,963 square feet of buildings. This phase covers approximately 15 acres of centrally located properties within the center's boundary. Development will begin with Building C, with construction anticipated to start as early as January 2025, followed shortly by the remaining sites within this phase. The other sites outside the first phase will require site plan review approval before construction can begin and will proceed as property owners express interest in development.

3. SITE PREPARATION

The Project involves amending the development plan for the entire center, with development occurring incrementally through the site plan review process. As development progresses, individual sites will need to be prepared, which includes removing some existing structures, vegetation, and trees, as well as grading the land. For the development of Building C, the developer will be responsible for undergrounding the existing canal (West Branch Clovis Ditch) adjacent to the Palo Alto alignment.

4. PROJECT COMPONENTS

This section describes the overall components of the Project, such as the proposed buildings, landscape, vehicle and pedestrian circulation, and utilities.

DEMOLITION

The initial phase of development will require the demolition of some existing accessory structures. The redevelopment of three specific sites in future phases will necessitate building demolition. These structures include existing residences, outbuildings, and an auto dealership with a garage.

CONCEPTUAL SITE LAYOUT AND ELEVATIONS

This Project involves amending the development plan for an existing planned commercial center and developing a portion of the center. The updated overall site plan, shown in Figure 4, includes the previously approved existing buildings (4) on approximately 15 acres and 17 proposed buildings on the remaining approximately 18 acres. Associated site improvements include driveways illustrating circulation, parking, and landscaping.

The Project establishes general design and architectural guidelines for future development. The overarching theme is contemporary or modern architecture including the use of geometric forms, with materials such as glass, steel, concrete, and stone. Individual developments will be evaluated through the site plan review process by Planning staff to ensure consistency with the development plan and compatibility with the existing buildings.

SITE CIRCULATION AND PARKING

The Project will have multiple points of ingress and egress from both Clovis and Magil Avenues. There will be four driveways along Clovis Avenue, including one gated driveway for a planned car dealership. Access from Magil Avenue will include two points, with an additional gated driveway for a dealership. The primary access to the site is via a centrally located major driveway on Clovis Avenue following the Palo Alto Avenue alignment. Three of the planned driveways currently exist and are in use by the existing developments. The site will also feature pedestrian walkways from Clovis Avenue, Magil Avenue, and the Clovis Rail Trail, ensuring pedestrian connectivity throughout the development.

While the development will primarily offer shared parking among the various buildings, parking has been allocated by land use to ensure adequate availability. The land uses considered for parking requirements include commercial, vehicle sales, vehicle repair, office, and hotel. Based on the building square footage and specific uses approximately 1,067 parking stalls are required. The development proposes 1,306 parking spaces, exceeding the minimum requirement. The four planned vehicle dealerships will provide separate inventory parking within gated areas that are not accessible to the public. Parking standards will be detailed in the development plan for the PCC.

LANDSCAPE

The Project will implement a comprehensive landscaping plan for the entire center, to be applied incrementally as development progresses. Each development phase will be responsible for providing necessary landscaping on-site and in the immediate vicinity. The landscaping will include trees, shrubs, ground cover, and associated irrigation and utilities along both the project perimeter and internally. As new developments are proposed, each site will undergo a site plan review process to ensure consistency with the approved landscaping plan.

UTILITIES

The site will be equipped with utilities including water, sewer, electric, cable, gas, and stormwater infrastructure. Installing these utilities will require minor trenching and digging activities typical of development projects. All utility plans must be reviewed and approved by the appropriate agencies or departments to ensure compliance with relevant codes and regulations. Additionally, new fire hydrants will be installed as required by the City of Clovis Fire Department.

Utilities will be provided and managed by a combination of agencies. The Fresno Irrigation District (FID) supplies the city's water, which is then distributed to customers by the City of Clovis. The Fresno Metropolitan Flood Control District (FMFCD) is responsible for stormwater management. The City's public utilities department handles solid waste collection and sewer services. Pacific Gas & Electric (PG&E) provides electricity and natural gas within the City of Clovis.

F. REQUIRED PROJECT APPROVALS

The City of Clovis requires the following review, permits, and/or approvals for the proposed Project; however, other approvals not listed below may be required as identified throughout the entitlement process:

- Rezone
- Site Plan Review
- Grading Permit
- Building Permit
- Sign Permit
- San Joaquin Air Pollution Control District
- Fresno Metropolitan Flood Control District
- Fresno Irrigation District

G. TECHNICAL STUDIES

The analysis of the Project throughout this Initial Study relied in part on the technical studies listed below prepared for the Project, as well as other sources, including, but not limited to, the 2014 Clovis General Plan EIR, departmental staff, California Department of Conservation, and the California Department of Toxic Control Substances.

- **Appendix A:** Air Quality and Greenhouse Gas Analysis Memorandum dated May 2024
- **Appendix B:** Biological Resources Assessment dated February 2024
- **Appendix C:** Cultural Resources Report dated October 2023
- **Appendix D:** Noise Memorandum dated May 2024
- **Appendix E:** Vehicle Miles Traveled Analysis dated May 2024

Figure 1: Project Location and Existing Conditions



Project Location (37 acres)



Figure 2: General Plan Land Use Designations

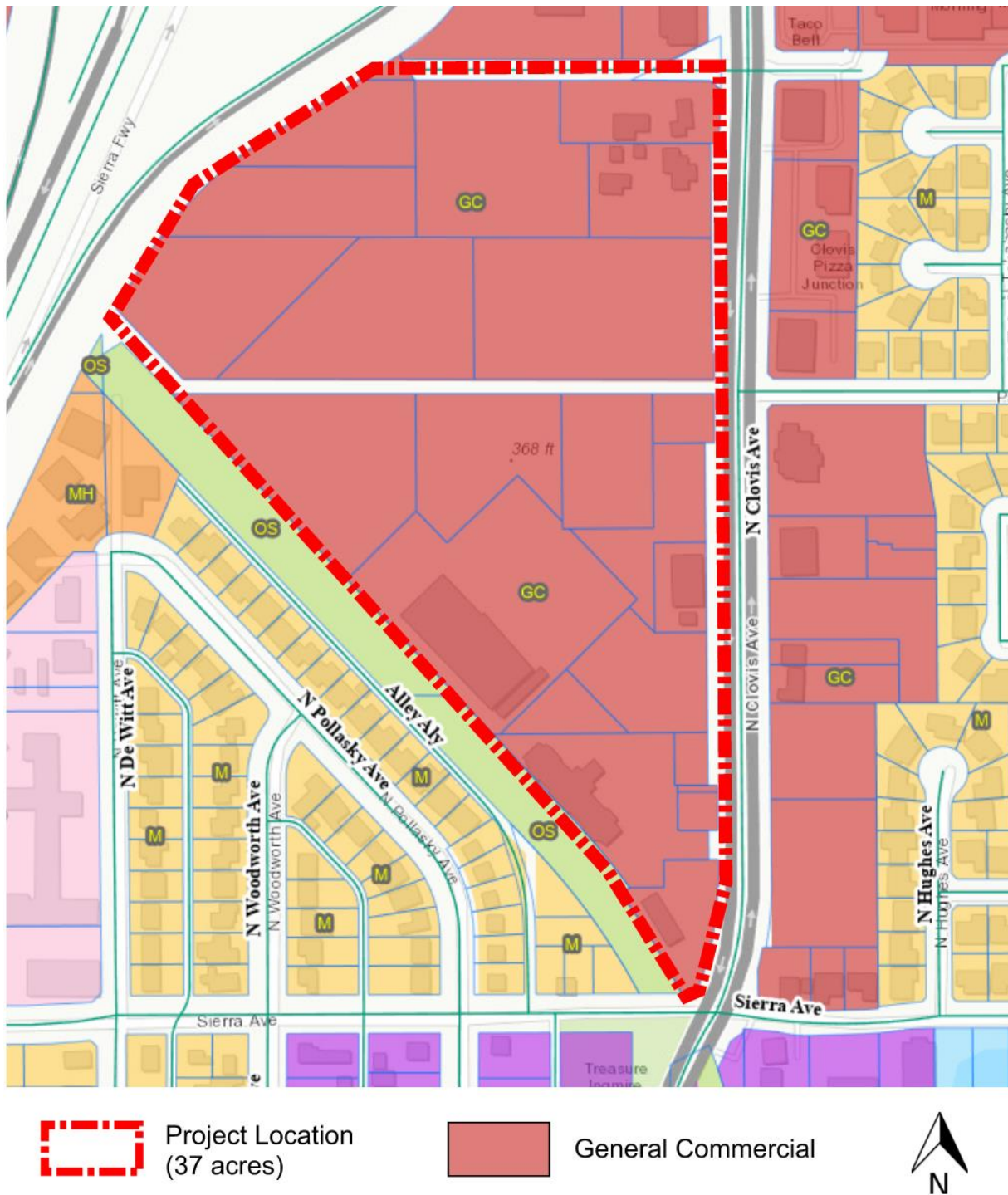


Figure 3: Zoning

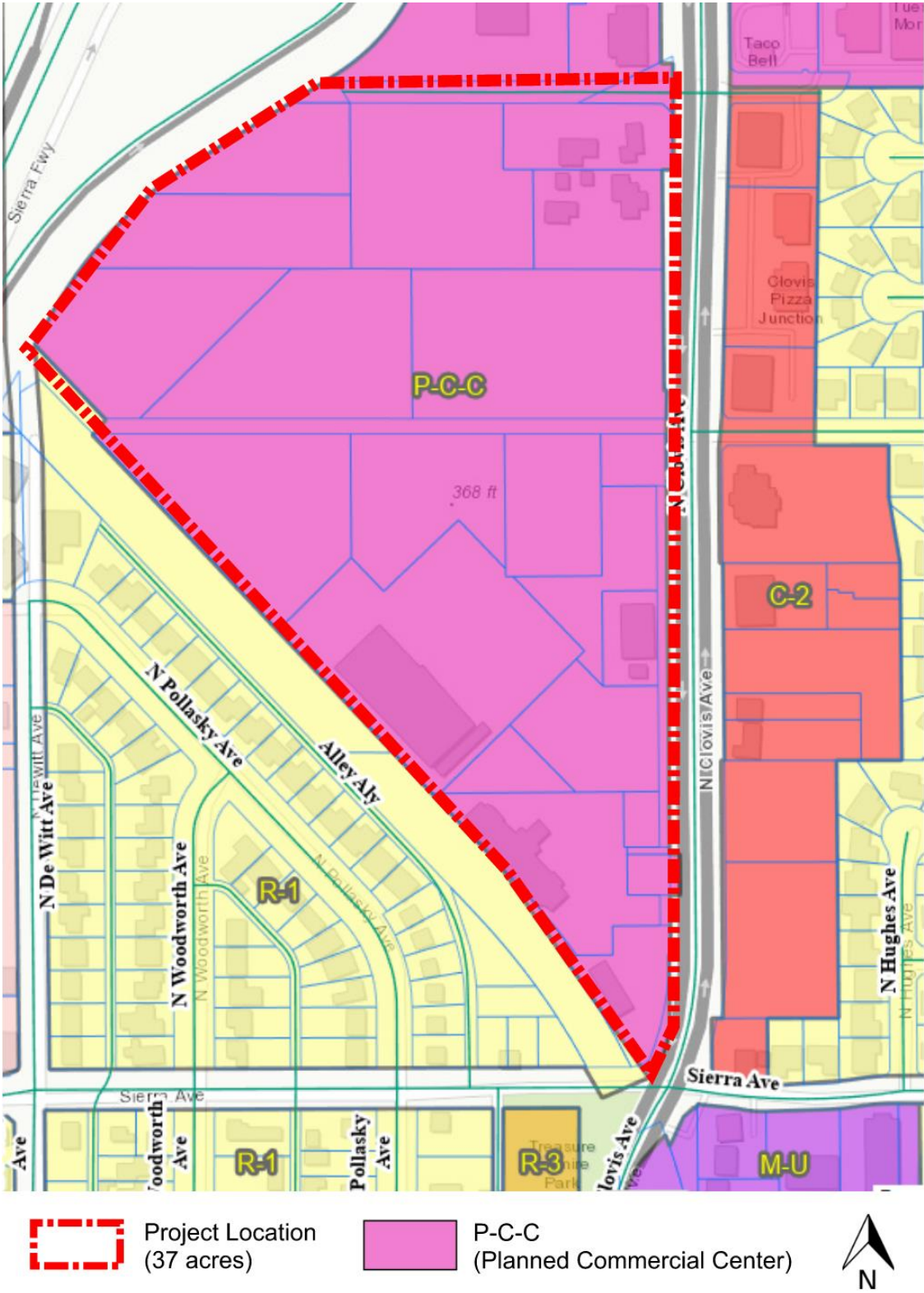
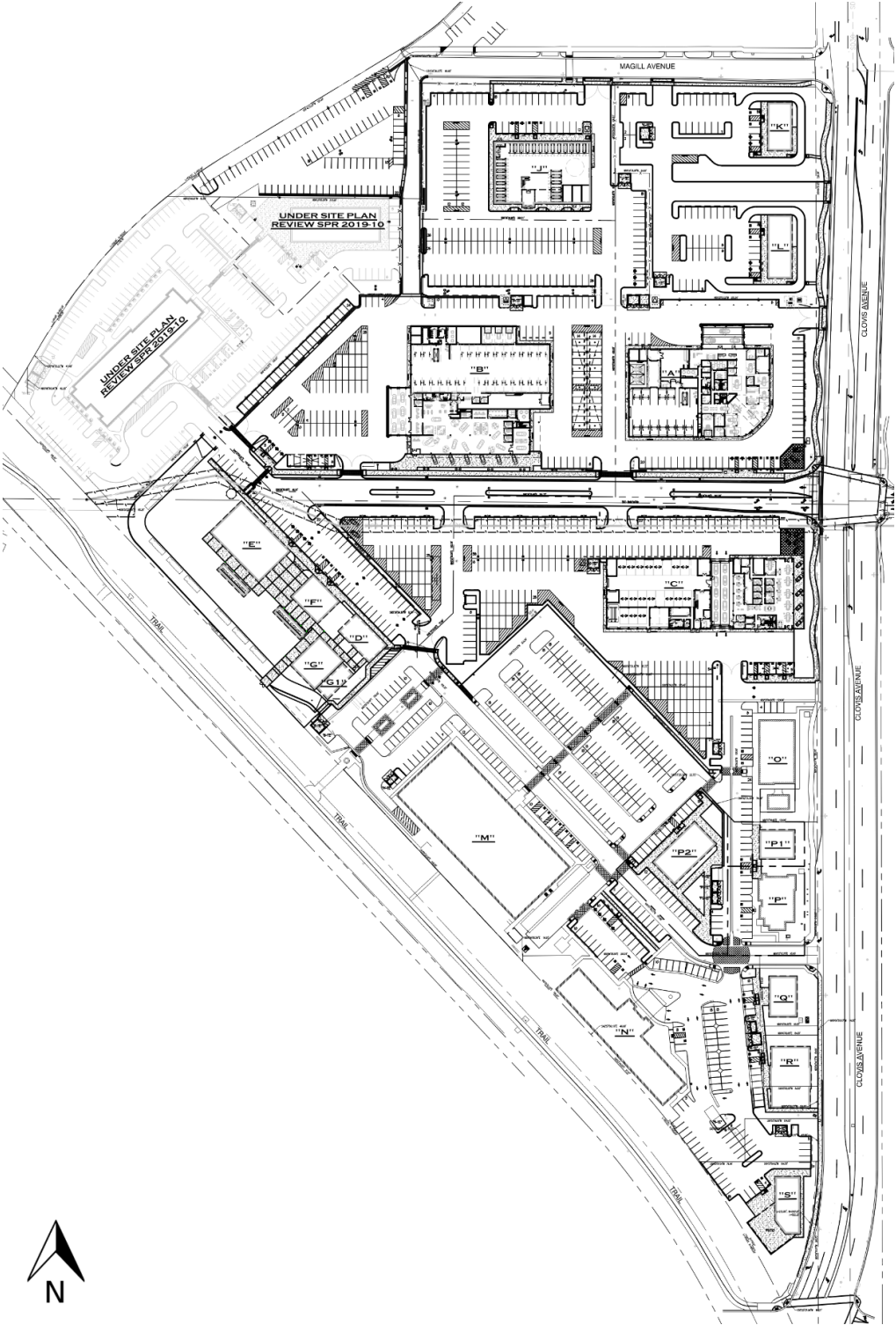


Figure 4: Conceptual Site Plan



H. ENVIRONMENTAL CHECKLIST

This section provides an evaluation of the potential environmental impacts of the proposed project and are based on CEQA Guidelines Appendix G. For each issue area, one of four conclusions is made:

- **No Impact:** No project-related impact to the environment would occur with project development.
- **Less Than Significant Impact:** The proposed project would not result in a substantial and adverse change in the environment. This impact level does not require mitigation measures.
- **Less Than Significant with Mitigation Incorporated:** The proposed project would result in an environmental impact or effect that is potentially significant, but the incorporation of mitigation measure(s) would reduce the project-related impact to a less than significant level.
- **Potentially Significant Impact:** The proposed project would result in an environmental impact or effect that is potentially significant, and no mitigation can be identified that would reduce the impact to a less than significant level.

1. AESTHETICS

| Except as provided in Public Resources Code Section 21099, would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Have a substantial effect on a scenic vista? | | | X | |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | | | | X |
| c. Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | | | X | |
| d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? | | X | | |

ENVIRONMENTAL SETTING

The City of Clovis is located within the San Joaquin Valley. Thus, much of the City and its surrounding areas are predominately flat. As a result, on clear days, the Sierra Nevada Mountains are visible to the east depending on your location. Aside from Sierra Nevada, there are no officially designated focal points or viewsheds within the City. However, Policy 2.3, Visual Resources, of the Open Space Element of the

2014 Clovis General Plan, requires maintaining public views of open spaces, parks, and natural features and to preserve Clovis' viewshed of the surrounding foothills.

The Project site is centrally located in urbanized Clovis, specifically at the northwest corner of Clovis and Sierra Avenues. It is surrounded by existing development, including freeway 168 and the Clovis Old Town Trail to the west, residential areas to the south and west, and commercial developments to the north and east. Additionally, there is a park located to the south of the site, across Sierra Avenue. The area features a mix of development types and uses, along with typical infrastructure such as a trail, a freeway, roadways, streetlights, parking lot lights, and ambient light sources. The development is an extension of the highly commercial Herndon Avenue corridor.

DISCUSSION

- a) *Would the project have a substantial effect on a scenic vista?*

Less-Than-Significant Impact. As mentioned, there are no officially designated scenic vistas or focal points in the City of Clovis. While the Sierra Nevada Mountains are visible on clear days, the Project will adhere to the proposed PCC zone district standards, which permit structures up to 35 feet in height and up to 72 feet for hotels in Planning Area 4. General Plan Policy 2.3 mandates the preservation of public views of open spaces, parks, and natural features. The Clovis Old Town Trail runs adjacent to the western properties of the site, and Treasure Ingmire Park is located to the south, across Sierra Avenue. The Project enhances its proximity to the trail by providing connectivity from the trail to the site. Furthermore, the Project proposes uses that will benefit from facing the trail, such as restaurants with outdoor dining and a brewery with open space adjacent to the trail. The park will not be impacted by the Project due to the buffer provided by Sierra Avenue. The Project will be constructed at a maximum height consistent with the proposed PCC Zone District, ensuring a **less-than-significant** impact on scenic vistas.

- b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?*

No Impact. As stated in the 2014 Clovis General Plan EIR, there are no Caltrans-designated scenic highways within the City of Clovis.¹ Further, there are no existing historical structures or rock outcroppings located on or within the immediate vicinity of the site, therefore, the Project would result in **no impact** with regards to substantially damaging scenic resources within a State scenic highway.

- c) *Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Less-Than-Significant Impact. The Project is situated in an urbanized area featuring a mix of land uses, including commercial, residential, and park areas. Consequently, the urban landscape comprises various structures with differing heights, designs, and characters. The Project plans to develop commercial and office buildings, including a total of 17 buildings. These buildings will align with the surrounding commercial structures and will not detract from the existing visual character or quality of public views of the site and its surroundings. Moreover, as previously mentioned, there are no officially designated scenic areas in the City, nor are there any specifically at or around the site itself.

¹ 2014 Clovis General Plan EIR, Page 5.1-1.

Additionally, the Project structures will comply with the height limits permitted under the proposed PCC Zone District, aligning with typical commercial development height requirements. Therefore, the Project will maintain the scale and character of the area, ensuring that it does not significantly degrade the existing visual character. As a result, the impact on the visual character of the site and its surroundings will be **less-than-significant**.

- d) *Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

Less-Than-Significant Impact With Mitigation.

The Project will introduce new sources of light and glare to the area, typical of commercial developments. These include parking lot security lights, exterior building lighting, vehicle lights, and interior building lights during nighttime hours. These light sources are not usually associated with significant environmental impacts. Additionally, the site is already surrounded by commercial developments, street and trail lighting, and vehicle lights from street traffic.

Despite the introduction of new light and glare sources, the site plan review process will ensure that lighting design and placement minimize potential impacts on surrounding properties. Moreover, adherence to Mitigation Measure AES-1 will ensure that light and glare impacts remain **less-than-significant with mitigation**.

Mitigation Measure AES-1: The Project shall comply with Section 9.22.050, Exterior Light and Glare, of the Clovis Municipal Code, which requires light sources to be shielded and that lighting does not spillover to adjacent properties.

2. AGRICULTURE AND FORESTRY RESOURCES

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|---------------------------------------|---|-------------------------------------|------------------|
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. | | | | X |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | | | | X |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)) or timberland (as defined in Public Resources Code section 4526)? | | | | X |
| d. Result in the loss of forest land or conversion of forest land to non-forest use? | | | | X |

| | | | | |
|---|--|--|--|---|
| e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? | | | | X |
|---|--|--|--|---|

ENVIRONMENTAL SETTING

The Project site is centrally located in urbanized Clovis, specifically at the northwest corner of Clovis and Sierra Avenues. It is surrounded by a mix of existing developments and does not include any agricultural lands.

DISCUSSION

- a) *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

No Impact. The project site is not Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). The site is designated as Urban and Built-up Land by the Department of Conservation.² Project site partially developed with commercial uses and surrounded by commercial and residential urban uses. The Project will provide a cohesive plan for the remaining development of the commercial center.

- b) *Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?*

No Impact. As shown in Figure 5.2-2 of the Agricultural Resources Chapter of the 2014 Clovis General Plan EIR, the Project site is not under a Williamson Act Contract. Further, the site is not currently zoned or designated for agricultural use. As a result, the Project would have **no impact** with regards to conflicting with existing zoning for agricultural use or a Williamson Act Contract.

- c) *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220 (g)) or timberland (as defined in Public Resources Code section 4526)?*

No Impact. The Project site does not contain forest land. Further, the site is not zoned for forestry or other forestry related uses. As a result, **no impact** would occur with regards to conflicts with existing zoning for, or cause rezoning of, forest land.

- d) *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

No Impact. See discussion under Section 2c.

- e) *Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

No Impact. See discussion under Section 2a.

² Department of Conservation - <https://maps.conservation.ca.gov/DLRP/CIFF/>, August 2024.

3. AIR QUALITY

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Conflict with or obstruct implementation of the applicable air quality plan? | | X | | |
| b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | | | X | |
| c. Expose sensitive receptors to substantial pollutant concentrations? | | X | | |
| d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | | | X | |

ENVIRONMENTAL SETTING

An Air Quality and Greenhouse Gas Analysis Memorandum (AQ/GHG Memo) was prepared by Acorn Environmental (Acorn) on May 15, 2024 (see Appendix A). Information in this AQ/GHG Memo is used for the analysis included in both the Air Quality and Greenhouse Gas Emissions section of this Initial Study.

San Joaquin Valley Air Basin

The City of Clovis (City) is in the central portion of the San Joaquin Valley Air Basin (SJVAB). SJVAB consists of eight counties: Fresno, Kern (western and central), Kings, Tulare, Madera, Merced, San Joaquin, and Stanislaus. The SJVAB is approximately 25,000 square miles. It is bordered by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. The valley is topographically flat with a slight downward gradient to the northwest. The valley opens to the sea at the Carquinez Straits where the San Joaquin-Sacramento Delta empties into San Francisco Bay.

Topography

The topography of a region is important for air quality because mountains can block airflow that would help disperse pollutants and can channel air from upwind areas that transports pollutants to downwind areas. The San Joaquin Valley Air Pollution Control District (SJVAPCD) covers the entirety of the SJVAB. The SJVAB is generally shaped like a bowl. It is open in the north and is surrounded by mountain ranges on all other sides. The Sierra Nevada mountains are along the eastern boundary (8,000 to 14,000 feet in elevation), the Coast Ranges are along the western boundary (3,000 feet in elevation), and the Tehachapi Mountains are along the southern boundary (6,000 to 8,000 feet in elevation).

Climate

The SJVAB is in a Mediterranean climate zone and is influenced by a subtropical high-pressure cell most of the year. Mediterranean climates are characterized by sparse rainfall, which occurs mainly in winter. Summers are hot and dry. Summertime maximum temperatures often exceed 100°F in the valley.

The subtropical high-pressure cell is strongest during spring, summer, and fall and produces subsiding air, which can result in temperature inversions in the valley. A temperature inversion can act like a lid, inhibiting vertical mixing of the air mass at the surface.

Any emissions of pollutants can be trapped below the inversion. Most of the surrounding mountains are above the normal height of summer inversions (1,500–3,000 feet).

Winter-time high pressure events can often last many weeks, with surface temperatures often lowering into the 30°F. During these events, fog can be present, and inversions are extremely strong. These wintertime inversions can inhibit vertical mixing of pollutants to a few hundred feet.

Ambient Air Quality Standards

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 CAA amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National Air Quality Standards (AAQS) and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

These National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors,” those most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health based AAQS for six air pollutants. As shown in Table 3, Ambient Air Quality Standards for Criteria Pollutants, these pollutants are carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and suspended particulate matter (PM_{2.5} and PM₁₀). In addition, the state has set standards for sulfates and hydrogen sulfide. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

In addition to the criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated based on risk rather than specification of safe levels of contamination.

Attainment Status

The air quality management plans prepared by SJVAPCD provide the framework for SJVAB to achieve attainment of the state and federal AAQS through the State Implementation Plan. Areas are classified as attainment or nonattainment areas for pollutants, depending on whether they meet the ambient air quality standards. Nonattainment areas are imposed with additional restrictions as required by the United States Environmental Protection Agency. There are different classifications for attainment and the severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to

severe and extreme. These classifications are used as a foundation to create air quality management strategies to improve air quality and comply with the National AAQS.

Table 2: Air Quality Attainment Status for Fresno County

| Pollutant | State | Federal |
|-------------------|---------------------|--------------------------|
| Ozone (1-hour) | Sever/Nonattainment | Standard Revoked |
| Ozone (8-hour) | Nonattainment | Extreme Nonattainment |
| PM ₁₀ | Nonattainment | Attainment (Maintenance) |
| PM _{2.5} | Nonattainment | Nonattainment |
| Carbon Monoxide | Attainment | Attainment (Maintenance) |
| Nitrogen Dioxide | Attainment | Unclassified/Attainment |
| Lead | Attainment | Unclassified/Attainment |
| Sulfur Dioxide | Attainment | Unclassified |
| Sulfates | Attainment | No Federal Regulation |
| Hydrogen Sulfide | Unclassified | No Federal Regulation |

DISCUSSION

a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Less-Than-Significant Impact With Mitigation. Although the CEQA Guidelines indicate that a significant impact would occur if the Project were to conflict with or obstruct implementation of the applicable air quality plan, the SJVAPCDs 2015 Guide for Assessing and Mitigating Air Quality Impacts does not provide specific guidance on analyzing conformity with the plan. Thus, for purposes of analyzing this potential impact, the AQ/GHG Memo considered impacts based on: (1) whether the Project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards; and (2) whether the Project will comply with applicable control measures in the air quality plan, primarily compliance with Regulation VIII – Fugitive PM₁₀ Prohibitions and Rule 9510 – Indirect Source Review.

In general, regional air quality impacts and attainment of standards are the result of the cumulative impacts of all emission sources within the air basin. Thus, individual projects are generally not large enough to contribute measurably to an existing violation or air quality standards alone. Therefore, in order to analyze this threshold, and because of the region's existing nonattainment status for several pollutants, the Project would be considered to cause significant impacts if it were to generate emissions that would exceed the SJVAPCD's significance thresholds. The District's annual emission significance thresholds are as follows:

- 100 tons per year CO
- 10 tons per year NO_x
- 10 tons per year ROG
- 27 tons per year So_x
- 15 tons per year PM₁₀
- 15 tons per year PM_{2.5}

Based on the AQ/GHG Memo, the Project would not exceed these thresholds from construction and operation of the Project (As Shown in Table 4).³ Further, any impacts related to the construction activities

³ Air Quality and Greenhouse Gas Assessment, Acorn Environmental, May 15, 2024.

of the Project, such as dust control, would be regulated through the SJVAPCD, which require measures such as frequent watering of the site during construction to minimize dust.

Table 4: CO, NO_x, ROG, PM₁₀, PM_{2.5} Thresholds, Maximum

| Emission Source (Tons Per Year) | CO | NO _x | ROG | PM ₁₀ | PM _{2.5} |
|--|--------------|-----------------|-------------|------------------|-------------------|
| Construction Emissions | 1.99 | 1.47 | 0.49 | 0.18 | 0.11 |
| Operational Emissions | 29.2 | 4.51 | 6.44 | 5.29 | 1.40 |
| Total Emissions | 31.19 | 5.98 | 6.93 | 5.47 | 1.51 |
| Significance Threshold | 100 | 10 | 10 | 15 | 15 |
| Exceed threshold – significant impact? | No | No | No | No | No |
| Notes: CO = carbon monoxide ROG = reactive organic gases NO _x = nitrous oxides PM ₁₀ = particulate matter less than 10 microns in size PM _{2.5} = particulate matter less than 2.5 microns in size | | | | | |

The Project exceeds the minimum threshold and therefore is subject to the SJVAPCD rule 9510 (Indirect Source Review). The SJVAPCD recently approved an Air Impact Assessment (AIA) for the Project and provided a statement of tentative rule compliance. The Project will be subject to other air quality regulations, including Regulation VIII (Fugitive PM₁₀ Prohibitions), which requires a Construction Notification Form or approval of a Dust Control Plan prior to construction.

Consequently, compliance with SJVAPCD regulations would ensure that a **less-than-significant impact with mitigation** occurs.

- b) *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Less-Than-Significant Impact. See discussion under Section 3a above.

- c) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Less-Than-Significant Impact With Mitigation. Sensitive receptors are generally considered to include children, the elderly, and persons with pre-existing respiratory and cardiovascular illness. The SJVAPCD considers a sensitive receptor a location that houses or attracts children, the elderly, or people with illnesses. Examples of these receptors are hospitals, residences, schools and school facilities, and convalescent facilities. The nearest sensitive receptors to the Project site are residential neighborhoods including single- and multi-family residential units southwest (50 feet) from the study area. A park is located to the south of the Project and a trail adjacent to the west.

Due to compliance with SJVAPCD's Best Practices for construction-related Exhaust Emissions and the limited extent and duration of diesel equipment use on the project site, potential health risk impacts would be negligible, and a detailed health risk assessment is not warranted. The Project would not exceed emission thresholds that would result in a significant impact⁴ based on compliance with SJVAPCD regulations and standards for construction and operation of this type of development.

⁴ Air Quality and Greenhouse Gas Assessment, Acorn Environmental, May 15, 2024

- d) *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Less-Than-Significant Impact. Generally, sources considered to emit odors are associated with wastewater treatment facilities, sanitary landfills, petroleum refineries, chemical manufacturing, and other industrial/manufacturing related uses. The Project is commercial development and thus, is unlikely to produce odors that would be considered to adversely affect a substantial number of people. Further, there are no major odor-generating sources within screening distance of the site. Although some odors would be emitted through the construction of the Project, such as diesel fuel and exhaust from construction equipment, these odors would be temporary in nature and last only during construction activities. Overall, a **less-than-significant** impact would occur.

4. BIOLOGICAL RESOURCES

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | | X | | |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? | | | X | |
| c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | | | X | |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | | | | X |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | | | X | |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | | | | X |

ENVIRONMENTAL SETTING

A Biological Resources Assessment (BRA) was prepared by Acorn Environmental in February 2024 (see Appendix B). This BRA included a literature review and records search to identify the existence and potential for occurrence of sensitive or special-status plant and animal species in the project vicinity. The study area is limited to the proposed commercial development area within the larger PCC. The study area is relatively flat, with an on-site elevation of approximately 350 feet above mean sea level. The West Branch Clovis Ditch bisects the study area, and a stormwater detention basin occurs in the southwestern portion of the study area.

DISCUSSION

- a) *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Less-Than-Significant Impact With Mitigation. As described in the BRA, the study area is located in an urban infill location within Clovis. It includes both developed and undeveloped areas. The undeveloped portion of the study area has no major vegetation and is bisected by the West Branch Clovis Ditch. This area is classified as ruderal habitat, which includes areas that are subject to ongoing or regular disturbance and are modified from their natural state and not considered critical habitat. Although no listed or special-status species were observed within the study area, there is marginal habitat for two special-status species that have a low potential to occur within the study area, including the Burrowing owl and the Swainson's hawk. Additionally, mature trees on the site could provide suitable nesting habitat for tree-nesting species. Impacts to nesting birds during construction is considered a potentially significant impact. Implementation of mitigation measure BIO-1, BIO-2, and BIO-3 would ensure that a **less-than-significant impact with mitigation** occurs.

Mitigation Measure BIO-1: Worker Training: Prior to construction, personnel shall complete worker environmental awareness training. The training shall present information on burrowing owls and notification procedures and shall direct workers to halt work and allow individual burrowing owls to move off-site of their own accord. Construction personnel shall provide signatures confirming completion of the training, and copies of the training shall be maintained and made available to applicable agencies upon request.

Mitigation Measure BIO-2: Burrowing Owl: A pre-construction survey shall be conducted by a qualified biologist no more than 14 days prior to construction activities. The preconstruction survey shall be conducted in accordance with the "Take Avoidance Surveys" described in California Department of Fish and Wildlife's (CDFW) Staff Report on Burrowing Owl Mitigation (CDFW, 2012). If burrowing owls or sign of burrowing owls is not observed, results shall be documented, and no further action is necessary.

Should burrowing owl burrows be observed, CDFW shall be consulted to determine necessary avoidance or exclusion methods. Mitigation shall follow CDFW recommended measures in CDFW's Staff Report on Burrowing Owl Mitigation (CDFW, 2012), and shall follow the below steps:

- If the burrows can be avoided, a qualified biologist shall demarcate a no-disturbance buffer around the burrows using high visibility fencing or pin flagging. The size of the buffer shall be established with CDFW and shall remain in place until construction is completed. Buffer

size for burrowing owl, as detailed in CDFW's staff report, range from 50 meters to 500 meters depending on the level of disturbance and timing of disturbance.

- Should full avoidance be infeasible, CDFW shall be consulted to identify appropriate exclusion methods to be implemented prior to removal of the burrows. Consistent with the CDFW Staff Report, exclusion would not occur until a Burrowing Owl Exclusion Plan is approved by CDFW.
- In order to mitigate for loss of burrows that are excluded, the Burrowing Owl Exclusion Plan shall identify one of the following mitigation options, or a combination thereof, as outlined in the CDFW Staff Report "Mitigating Impacts" section:
 - Creation of artificial burrows commensurate to the number of burrows excluded;
 - Permanent conservation of like habitat, such as conservation easement;
 - Purchase of conservation bank credits; and/or
 - An alternative mitigation strategy, as developed with and approved by CDFW.

Mitigation Measure BIO-3: Nesting Birds: If construction activities would occur during the nesting season (February 1 through August 31), a pre-construction survey for the presence of nesting bird species shall be conducted by a qualified biologist on and within 500 feet of proposed construction areas, as accessible. The survey shall occur within five days of the commencement of construction activities. If active nests are identified in these areas, one of the following should occur:

- A qualified biologist shall establish a disturbance-free buffer zone using high-visibility fencing or flagging. The size of the buffer shall be determined by the qualified biologist based on the needs of the species. The buffer shall remain in place until either (1) construction activities are completed, (2) the conclusion of the nesting season, or (3) the qualified biologist determines that the young have fledged and are no longer dependent on the nest, or the nest has failed. If construction activities are halted for a period of more than 14 days, an additional preconstruction nesting bird survey shall be conducted.

Or

- Commencement of construction activities shall be postponed until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site or the nest has failed.

b) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?*

Less-Than-Significant Impact. No riparian habitat or other sensitive natural communities have been identified within the project site. The perimeter of the study area and parking lots are landscaped with ornamental vegetation. The site is comprised of a combination developed areas and undeveloped ruderal areas that are kept in a ruderal state through ongoing disturbance such as disking. These habitat types are highly modified from natural conditions and subject to ongoing disturbance. These habitats offer little value to plants and wildlife species and are not considered sensitive. Therefore, the Project would not

result in a substantial adverse effect with respect to this threshold, and a **less-than-significant** impact would occur.

- c) *Would the project have a substantial adverse effect on state or federally protected wetlands as (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Less-Than-Significant Impact. Surface water resources within the Project area that have the potential to be impacted by the proposed Project include a freshwater marsh within a stormwater detention basin, and the West Branch Clovis Ditch. Both features are man-made, isolated, and do not offer suitable habitat to support special-status species. Additionally, these features are non-jurisdictional. The marsh does not meet the definition of a water of the U.S. as confirmed by the Central Valley Regional Water Quality Control Board. CDFW was provided with supporting documents confirming that the ditch was an isolated, man-made feature dug from uplands. Therefore, impacts to these features would not be significant and mitigation would not be required.

- d) *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

No Impact. The Biological Resources Assessment did not identify the site as a regional or local wildlife movement corridors.⁵ Further, wildlife corridors typically serve as areas that wildlife traverse in order to migrate from one habitat to another and because the site is infill and surrounded by urban development, the site is unlikely to serve as any sort of wildlife corridor. Thus, **no impact** would occur.

- e) *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Less-Than-Significant Impact. The Clovis Development Code includes tree protection standards for the removal of trees. Compliance with tree protection standards will require approval of a tree removal permit for protected trees. The project will be required to comply with the tree protection ordinance; therefore, the impact would be **less-than-significant**.

- f) *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

No Impact. The City and Fresno County currently do not have a regional Natural Community Conservation Plan or a Habitat Conservation Plan. The Project site is subject to relevant biological resource policies of the 2014 General Plan. Therefore, there are no impacts to conservation plans. Overall, **no impact** would occur.

⁵ Biological Resources Memo prepared by Acorn Environmental, February 2024, page 19.

5. CULTURAL RESOURCES

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------------------------------------|---|-------------------------------------|------------------|
| a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? | | X | | |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | | X | | |
| c. Disturb any human remains, including those interred outside of formal cemeteries? | | X | | |

ENVIRONMENTAL SETTING

The Project site is partially developed and disturbed through regular disking. The 37-acre site has existing commercial development, two existing homes, and undeveloped areas. The West Branch Clovis Ditch traverses through the site. Acorn Environmental conducted a Cultural Resources Inventory and Evaluation on October 24, 2023 (Appendix C). The evaluation was conducted using records search, review of published and gray literature, examining historic maps, contacting the California Native American Heritage Commission (NAHC), outreach to local Native American tribal representatives, examining historic documents held at regional repositories, and a field survey. Based on the evaluation, no historic properties or historical resources are present within the study area and there is a very low potential for buried archaeological deposits to be present.

DISCUSSION

- a) *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

Less-Than-Significant Impact With Mitigation. As mentioned, the Project site is partially developed with commercial uses, has two existing residential homes, and is split by the West Branch Clovis Ditch. A cultural resource records search was conducted within a quarter mile of the Project. The search indicated that the subject property had six previous cultural resources study that included a portion of the site. However, the evaluation concluded that based on the results of the records search findings and lack of archeological resources previously identified within a quarter mile radius of the Project, the potential to encounter subsurface cultural resources is minimal.⁶

Further, compliance with Policy 2.9 of the Open Space and Conservation Element of the General Plan, which calls for the preservation of historical sites and buildings of state or national significance, would ensure that if there were historical resources present, they would be protected. Because there is the slight possibility for the accidental or inadvertent uncovering of archaeological resources during construction, Mitigation Measure CULT-1 would serve to reduce those potential impacts by requiring any work to stop until any found artifacts can be properly removed and inventoried by a qualified

⁶ Cultural Resources Inventory and Evaluation by Acorn Environmental, October 24, 2023, page 43.

archaeologist. Therefore, regarding the Project causing a substantial adverse change in the significance of a historical resource the Project would result in a **less-than-significant impact with mitigation**.

Mitigation Measure CULT-1: If prehistoric or historic-era cultural or archaeological materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.

If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.

If a potentially eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.

- b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

Less-Than-Significant Impact With Mitigation. The site is partially developed with commercial uses and two residential homes. Undeveloped portions of the site are regularly maintained with disking. Nevertheless, the potential remains that archeological resources could be inadvertently or accidentally uncovered during ground-disturbing activities such as trenching, digging, and the installation of utilities and other infrastructure.

Because there is the slight possibility for the accidental or inadvertent uncovering of archaeological resources during construction, Mitigation Measure CULT-1 would serve to reduce those potential impacts by requiring any work to stop until any found artifacts can be properly removed and inventoried by a qualified archaeologist. Therefore, the Project would result in a **less-than-significant impact with mitigation**.

- c) *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

Less-Than-Significant Impact With Mitigation. The Project site is partially developed and surrounded by existing commercial and residential development. Undeveloped portions of the site has been disturbed through regular maintenance by disking. Nevertheless, the potential remains that human remains could be inadvertently or accidentally uncovered during ground-disturbing activities such as trenching, digging, and the installation of utilities and other infrastructure.

Because there is the slight possibility for the accidental or inadvertent uncovering of human remains during construction, Mitigation Measure CULT-2 would serve to reduce those potential impacts by

requiring any work to stop until any found human remains can be properly removed by the County coroner and/or tribes. Therefore, the Project would result in a **less-than-significant impact with mitigation**.

Mitigation Measure CULT-2: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the County coroner. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency.

6. ENERGY

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | | | X | |
| b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | | | X | |

ENVIRONMENTAL SETTING

The Project site is an infill site and is surrounded by existing commercial and residential development.

DISCUSSION

- a) *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Less-Than-Significant Impact. The Project proposes the construction of the remainder of the commercial center. Construction of such structures would require site preparation, grading, paving, architectural coating, and trenching. Construction would consist of typical activities for construction projects and therefore would not require use of new resources. While such activities would consume petroleum-based fuels, such consumption would be temporary and conclude upon completion of construction. The proposed Project in operation would be served by PG&E and would not require extensions of energy infrastructure or new energy supplies. As previously mentioned, the Project is located on an infill site surrounded by existing urban uses. Sources of operational energy consumption would include natural gas and/or electricity for space and water heating and transportation fuels (i.e., gasoline and diesel) for vehicle trips. Further, the commercial use would be subject to compliance with the latest energy efficiency standards in effect at the time of development and operation. This would include compliance with Title 24 Green Building Standards for energy efficiency, as well as be required

to comply with the latest water efficient landscape policy regulations. Further, the Project would be required to comply with Clovis General Plan Policies 3.4 and 3.7 of the Open Space and Conservation, which call for the use of water conserving and drought tolerant landscape, as well as energy efficient buildings. Conformance to these standards would be reviewed during the City's site plan review Review process and during review of building plans.

Consequently, compliance with these policies would ensure that the Project does not result in a significant impact due to the unnecessary consumption of energy and **less-than-significant** impact would occur.

- b) *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Less-Than-Significant Impact. See discussion under Section 6a above.

7. GEOLOGY AND SOILS

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? | | | X | |
| ii. Strong seismic ground shaking? | | | X | |
| iii. Seismic-related ground failure, including liquefaction? | | | X | |
| iv. Landslides? | | | X | |
| b. Result in substantial soil erosion or the loss of topsoil? | | | X | |
| c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | | | X | |

| | | | | |
|---|--|---|--|---|
| d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | | | | X |
| e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater? | | | | X |
| f. Directly or indirectly destroy a unique paleontological resource or unique geologic feature? | | X | | |

ENVIRONMENTAL SETTING

The 2014 Clovis General Plan EIR identified no geologic hazards or unstable soil conditions known to exist on the Project site. Although Figure 5.6-2 of the Geology and Soils Chapter of the General Plan EIR does show a fault, the fault is located several miles east of the Project site.

DISCUSSION

- a) *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?; ii) Strong seismic ground shaking?; iii) Seismic-related ground failure, including liquefaction?; iv) Landslides?*

Less-Than-Significant Impact. Although the Project site does not have any known faults on the site, the potential remains that seismic ground-shaking could occur from the fault located east of the Project. However, adherence to the most current California Building Codes would ensure that the structures are constructed safely and in compliance with the appropriate building codes. With regards to liquefaction, the 2014 General Plan EIR states that the soil types in the area are not considered conducive to liquefaction due to their high clay content or from being too coarse.⁷ Further, the site is generally flat and therefore landslides would not occur at the Project site. Overall, due to the location away from a known fault, adherence to the most recent California Building Codes, and the flat topography, a **less-than-significant impact** would occur with regards to potential impacts from seismic activity.

- b) *Would the project result in substantial soil erosion or the loss of topsoil?*

Less-Than-Significant Impact. The topography of the Project site is relatively flat with little to no slope. Development of the site would require grading and construction activities to ensure a flat and graded surface prior to construction. Such activities may result in the soil erosion and loss of topsoil. Such impacts would be addressed by applicable regulations set forth by the Regional Water Quality Control Board including preparation of a Stormwater Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer per the General Construction Permit requirements of the National Pollutant Discharge Elimination System. The SWPPP incorporates Best Management Practices for erosion and sediment controls and soil stabilization. Further, as part of the Project, grading plans are required to be submitted

⁷ 2014 Clovis General Plan EIR, Chapter 5: Geology and Soils, page 5.6-3.

and approved by the Engineering Division to ensure appropriate grading of the site. Thus, these reviews and approval processes would ensure that a **less-than-significant** impact occur.

- c) *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Less-Than-Significant Impact. See discussion under Section 7a.

- d) *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect substantial risks to life or property?*

No Impact. According to the 2014 Clovis General Plan EIR, expansive soils are mostly present in areas along the northern edge of the non-Sphere of Influence (SOI) and the easternmost part of the Clovis non-SOI plan area. Because the Project is not within the vicinity of these areas, there would be no potential for creating direct or indirect substantial risks to life or property with regards to expansive soils. As a result, **no impact** would occur.

- e) *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater?*

No Impact. The Project does not propose the use of septic tanks; therefore, **no impact** would occur.

- f) *Would the project directly or indirectly destroy a unique paleontological resource or unique geologic feature?*

Less-Than-Significant Impact With Mitigation. The Project site has been previously disturbed, as well as the immediately surrounding areas with no known occurrences of the discovery of paleontological resources. In addition, the Biological Resource Memo concluded that the potential for uncovering of subsurface deposits is unlikely. Nevertheless, the possibility remains that the inadvertent or accidental discovery could occur during ground disturbing construction activities. However, Mitigation Measure GEO-1, below, would serve to protect the accidental discovery of paleontological resources. As such, a **less-than-significant with mitigation** impact would occur.

Mitigation Measure GEO-1: If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist and/or paleontologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.

If the qualified professional determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.

If a potentially eligible resource is encountered, then the qualified professional archaeologist and/or paleontologist, the Lead Agency, and the project proponent shall arrange for either 1) total

avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.

8. GREENHOUSE GAS EMISSIONS

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | | | X | |
| b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? | | | X | |

ENVIRONMENTAL SETTING

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected into the atmosphere. The accumulation of GHG's has been implicated as a driving force for global climate change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the earth's climate caused by natural fluctuations and anthropogenic activities which alter the composition of the global atmosphere.

Individual projects contribute to the cumulative effects of climate change by emitting GHGs during construction and operational phases. The principal GHGs are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. While the presence of the primary GHGs in the atmosphere are naturally occurring, carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) are largely emitted from human activities, accelerating the rate at which these compounds occur within earth's atmosphere. Carbon dioxide is the "reference gas" for climate change, meaning that emissions of GHGs are typically reported in "carbon dioxide-equivalent" measures. Emissions of carbon dioxide are largely by-products of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. Other GHGs, with much greater heat-absorption potential than carbon dioxide, include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, and are generated in certain industrial processes.

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming, although there is uncertainty concerning the magnitude and rate of the warming. Potential global warming impacts in California may include, but are not limited to, loss in snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

In 2005, in recognition of California's vulnerability to the effects of climate change, Executive Order S-3-05 was signed. The order sets forth a series of target dates by which statewide emission of GHGs would be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce

GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill 32), which requires the California Air Resources Board to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020.

In December 2009, the SJVAPCD adopted guidance for addressing GHG impacts in its *Guidance for Valley Land Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA*. The guidance relies on performance-based standards, otherwise known as Best Performance Standards (BPS), to assess significance of project-specific GHG emissions on global climate change during the environmental review process. Projects can reduce their GHG emission impacts to a less than significant level by implementing BPS. Projects can also demonstrate compliance with the requirements of AB 32 by demonstrating that their emissions achieve a 29% reduction below “business as usual” (BAU) levels. BAU is a projected GHG emissions inventory assuming no change in existing business practices and without considering implementation of any GHG emission reduction measures.

Significance Criteria

The SJVAPCDs *Guidance for Valley Land Use Agencies in Addressing GHG Impacts for New Projects Under CEQA* provides initial screening criteria for climate change analyses, as well as draft guidance for the determination of significance.

The effects of project specific GHG emissions are cumulative, and therefore climate change impacts are addressed as a cumulative, rather than a direct, impact. The guidance for determining significance of impacts has been developed from the requirements of Assembly Bill 32. The guideline addresses the potential cumulative impacts that a project’s GHG emissions could have on climate change.

Since climate change is a global phenomenon, no direct impact would be identified for an individual land development project. The following criteria are used to evaluate whether a project would result in a significant impact for climate change impacts:

- Does the project comply with an adopted statewide, regional, or local plan for reduction or mitigation of GHG emissions?
- Does the project achieve 29% GHG reductions by using approved Best Performance Standards?
- Does the project achieve Assembly Bill 32 targeted 29% GHG emission reductions compared with BAU?

Projects that meet one of these guidelines would have less-than-significant impact on the global climate. The goal of 29% below BAU for emissions of GHG has been used as a threshold of significance for this analysis.

DISCUSSION

- a) *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less-Than-Significant Impact. The Project would include the construction of a commercial center. As such, GHG emissions would be produced through the construction and operational phases of the Project.

However, the SJVAPCD includes regulations to reduce GHG emissions such as standards for medium and heavy-duty engines and vehicles (i.e., tractors and construction equipment) that would apply to buildout of the Project. Compliance with Title 24 energy efficient building codes would apply, which also helps to reduce GHG emissions during the operation of the Project, by requiring minimum standards for insulation, energy efficiency, and window glazing, etc., which serve to maximize efficiency of new construction. Further, the Project would comply with the latest water efficient landscape standards, which help to reduce energy usage. Overall, the AQ/GHG Memo conducted by Acorn Environmental concluded that the Project, with implementation of required energy efficient standards, would sufficiently reduce emissions. Therefore, a **less-than-significant** impact would occur.

- b) *Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?*

Less-Than-Significant Impact. Based on the AQ/GHG Memo,⁸ the Project would comply with existing State regulations adopted to achieve the overall GHG emission reduction goals. As indicated in the discussion above under Section 8a, the Project would result in GHG reductions by complying with the latest energy efficient and water conservation standards. Consequently, the AQ/GHG Memo found this potential impact to be **less-than-significant**.

9. HAZARDS AND HAZARDOUS MATERIALS

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | | | X | |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | | | X | |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | | | X | |
| d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | | | | X |
| e. For a project located within an airport land use plan or, where such a plan | | | | X |

⁸ Air Quality and Greenhouse Gas Analysis Memorandum, Acorn Environmental, page 22, May 15, 2024.

| | | | | |
|--|--|--|---|--|
| has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | | | | |
| f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | | | X | |
| g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | | | X | |

ENVIRONMENTAL SETTING

For purposes of this chapter, the term “hazardous materials” refers to both hazardous substances and hazardous wastes. A “hazardous material” is defined in the Code of Federal Regulations (CFR) as “substance or material that is capable of posing an unreasonable risk to health, safety, and property when transported in commerce” (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as “any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.” Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

“Hazardous wastes” are defined in California Health and Safety Code Section 25141(b) as wastes that “...because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause or significantly contribute to an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.”

The nearest school to the Project site is within Weldon Elementary School. Weldon Elementary School is located approximately 1,500 feet to the southwest of the Project site.

DISCUSSION

- a) *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less-Than-Significant Impact. The Project consists of the construction of the remainder of the commercial center. The type of hazardous materials that would be associated with the Project are those typical of commercial uses, such as the use of cleaners, landscape maintenance products, soaps, and potential pesticides (for pest control). It is not expected that the Project would routinely transport, use, or dispose of hazardous materials other than those typical of those associated with commercial uses. However, if transported, handled, and disposed of in accordance with regulations, these materials are not generally considered of the type or quantity that would pose a significant hazard to the public when used as directed. During construction, typical equipment and materials would be used that are associated with residential/commercial construction; however, any chemicals or materials would be handled, stored,

disposed of, and/or transported according to applicable laws. Consequently, because the Project is not of the type of use that would routinely transport, use, or dispose of hazardous materials a **less-than-significant** impact would occur.

- b) *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Less-Than-Significant Impact. See discussion above under Section 9a.

- c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Less-Than-Significant Impact. As previously discussed, the Project site is near an elementary school. However, the Project is not of the type of use typically associated with emitting hazardous emissions or handling the type or quantity of hazardous materials such that it would pose a risk or threat to the school, or surrounding area. Therefore, a **less-than-significant** impact would occur.

- d) *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

No Impact. According to the California Department of Toxic Substance Control EnviroStor Database, the Project site is not located on or within the immediate vicinity of a hazardous materials site.⁹ Therefore, **no impact** would occur.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

No Impact. The Project is located approximately four (4) miles north of the Fresno Yosemite International Airport and is not within the Airport Influence Area, safety zones, noise, or airspace and overflight areas. Therefore, **no impact** would occur.

- f) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Less-Than-Significant Impact. The Project is located at a site that is surrounded by existing development. Further, the road network is already in place from previous development. Although the Project could result in temporary traffic detouring or closures during buildout, these delays would be temporary and would be coordinated with the City Engineering Division and other divisions/departments to ensure safe access to and from the area is maintained. Further, the site itself would be reviewed by City departments to ensure adequate site access and circulation is provided in the event of an emergency. Overall, a **less-than-significant** impact would occur.

⁹ California Department of Toxic Substance Control, EnviroStor Database, https://www.envirostor.dtsc.ca.gov/public/map/?global_id=71003467 accessed on August 10, 2024.

- g) *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

Less-Than-Significant Impact. The site is an infill site surrounded by urban uses. Therefore, it is not in a location typically associated with wildfires. Although urban fires could occur, the Project would be constructed to the latest fire code standards, which would include fire sprinklers in each unit, as well as the installation of fire hydrants throughout the site as required by the Clovis Fire Department. Further, other life safety features would be required such as smoke detectors, which would be reviewed and checked by the Fire Department to ensure proper operation prior to occupancy. Ultimately, a **less-than-significant** impact would occur.

10. HYDROLOGY AND WATER QUALITY

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? | | | X | |
| b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | | | X | |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows? | | | X | |
| i. Result in substantial erosion or siltation on- or off-site? | | | X | |
| ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite? | | | X | |

| | | | | |
|---|--|--|---|---|
| iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | | | X | |
| iv. Impede or redirect flood flows? | | | X | |
| d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | | | | X |
| e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | | | X | |

ENVIRONMENTAL SETTING

The City is within the drainages of three streams: Dry Creek, Dog Creek, and Redbank Slough. On the north, Dry Creek discharges into the Herndon Canal in the City of Fresno west of Clovis. South of Dry Creek, Dog Creek is a tributary of Redbank Slough, which discharges into Mill Ditch south of Clovis (USGS 2012). A network of storm drains in the City discharge into 31 retention basins, most of which provide drainage for a one- to two-square-mile area. Most of the Plan Area east and northeast of the City is not in drainage areas served by retention basins.

The Project is located within the FMFCD boundary, and subject to its standards and regulations. Detention and retention basins in the FMFCD's flood control system are sized to accommodate stormwater from each basin's drainage area in built out condition. The current capacity standard for FMFCD basins is to contain runoff from six inches of rainfall during a 10-day period and to infiltrate about 75 to 80 percent of annual rainfall into the groundwater basin (Rourke 2014). Basins are highly effective at reducing average concentrations of a broad range of contaminants, including several polyaromatic hydrocarbons, total suspended solids, and most metals (FMFCD 2013). Pollutants are removed by filtration through soil, and thus do not reach the groundwater aquifer (FMFCD 2014). Basins are built to design criteria exceeding statewide Standard Urban Stormwater Mitigation Plan (SUSMP) standards (FMFCD 2013). The urban flood control system provides treatment for all types of development—not just the specific categories of development defined in a SUSMP—thus providing greater water quality protection for surface water and groundwater than does a SUSMP.

In addition to their flood control and water quality functions, many FMFCD basins are used for groundwater recharge with imported surface water during the dry season through contracts with the FID and the cities of Fresno and Clovis (FMFCD 2013).

The pipeline collection system in the urban flood control system is designed to convey the peak flow rate from a two-year storm.

Most drainage areas in the urban flood control system do not discharge to other water bodies and drain mostly through infiltration into groundwater. When necessary, FMFCD can move water from a basin in one such drainage area to a second such basin by pumping water into a street and letting water flow in curb and gutter to a storm drain inlet in an adjoining drainage area (Rourke 2014). Two FMFCD drainage areas discharge directly to the San Joaquin River, and three to an irrigation canal, without storage in a

basin. Six drainage areas containing basins discharge to the San Joaquin River, and another 39 basins discharge to canals (FMFCD 2013).

A proposed development that would construct more impervious area on its project site than the affected detention/retention basin is sized to accommodate is required to infiltrate some stormwater onsite, such as through an onsite detention basin or drainage swales (Rourke 2014).

Groundwater

In 2014, the Sustainable Groundwater Management Act (SGMA) was signed into law which created the framework for groundwater management within California. As a result, SGMA requires governments and water agencies of high and medium priority basins to halt groundwater overdraft and bring the groundwater basins back to a balance.

The City of Clovis is within the Kings Groundwater Subbasin, which is managed by the North Kings Groundwater Sustainability Agency for the area which the City is located and is considered critically over drafted. The Kings Basin is a sub basin to the southern part of the San Joaquin Valley Basin and covers 1,530 square miles. Groundwater within the basin is monitored by the City, FID, and the Kings River Conservation District.

The City of Clovis provides water through a combination of surface and groundwater sources, including the Kings River, as well as several City-managed wells.

DISCUSSION

- a) *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Less-Than-Significant Impact. The Project is located on a site that was previously anticipated for suburban development that the Project proposes. As with any development, existing policies and standards are required to be complied with, which are assessed during review of the entitlements. As such, the engineering department, as well as outside agencies such as the FMFCD review all plans to ensure that none of the water quality standards are violated and that waste discharge requirements are adhered to during construction and operation of the Project. Consequently, this process of Project review and approval would ensure that a **less-than-significant** impact occur.

- b) *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

Less-Than-Significant Impact. The Project would not deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level due to the Project. The General Plan EIR identified a net decrease in groundwater aquifer throughout the region, however, because the City's domestic water system is primarily served through surface water via existing water entitlements, the loss of aquifer is less than significant.

The City has developed a surface water treatment plant that reduces the need for pumped groundwater and has also expanded the municipal groundwater recharge facility. In addition, all landscaping shall be subject to Model Water Efficient Landscape Ordinance requirements, which mandate drought tolerant and low water use landscaping. The existing and planned water distribution system and recommended

connections should be adequate to convey water supply to the Project to support anticipated demands from the Project. For these reasons, the Project's impacts to groundwater are **less-than-significant**.

- c) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows?*

Less-Than-Significant Impact. The Project site is located on an infill site that is generally flat and surrounded by existing urban uses. There are no streams or rivers on the site that would be altered as a result of the Project. The infrastructure surrounding the site, such as storm drains are already in place from existing development. The drainage pattern would be constructed per existing policies and regulations through review of the plans by the City engineering department and the FMFCD to ensure the site is properly and adequately drained such that the storm drain system is maintained and so that no flooding occurs. The review and approval by City engineers and FMFCD would mean that the Project results in a **less-than-significant** impact.

- d) *Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

No Impact. The Project site is located on an infill site substantially surrounded by existing urban uses. Due to the Central Valley's location away from the ocean, an impact from a tsunami is unlikely. The Project site is not in a Federal Emergency Management Agency (FEMA) flood zone. The nearest FEMA flood zone is over one mile to the south of the site. Consequently, this is a low-risk area and as a result a **no impact** would occur.

- e) *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Less-Than-Significant Impact. The City of Clovis is within the North Kings County Groundwater Sustainability Agency (GSA). Pursuant to the SGMA, certain regions in California are required to develop and implement a groundwater management plan that sustainably manages groundwater resources. The North Kings County GSA adopted a groundwater management plan in 2019. The Project will have access to the annual allotment of water. With regards to water quality control, the Project would be required to adhere to appropriate storm drain conveyance and the protection of water resources which would include the installation of backflow preventers. Consequently, the Project would result in a **less-than-significant** impact.

11. LAND USE AND PLANNING

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Physically divide an existing community? | | | | X |
| b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation | | | X | |

| | | | | |
|--|--|--|--|--|
| adopted for the purpose of avoiding or mitigating an environmental effect? | | | | |
|--|--|--|--|--|

ENVIRONMENTAL SETTING

As described above in the Project Description, the Project site is centrally located in Clovis and is considered an in-fill site in that the surrounding areas are urbanized. The site is surrounded by commercial development to the north and east, and residential development to the south and west.

DISCUSSION

a) *Would the project physically divide an existing community?*

No Impact. The site is partially developed and is within a general area that is urbanized with a mix of existing uses and land use types. Typically, physically dividing existing communities is associated with the construction of a new road intersecting an established area or introducing uses that are not necessarily in line with the existing uses and planned land uses of the area. The Project site is situated between Highway 168, Clovis Avenue and Sierra Avenue. The site was planned for commercial development and intends to complete the development of the commercial center. Additionally, it would not construct features that would physically divide an established community or remove means of access that would impair mobility in a community. Therefore, **no impact** would occur.

b) *Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

Less-Than-Significant Impact. The proposed use is consistent with the General Commercial land use designation of the General Plan. The Project proposes to amend the Planned Commercial Center (PCC) development standards and master site plan through the Rezone process. Through the entitlement process, the Project is reviewed for compliance with applicable regulations, including those intended for avoiding or mitigating an environmental effect. For example, the Project would be required to comply with applicable lighting, landscape, and noise standards, which are regulated through the Clovis Municipal Code to ensure minimal impacts to the environment as well as with neighboring properties. Overall, with the review process ensuring General Plan and other applicable policies will be adhered to, the Project would result in a **less-than-significant** impact with regards to conflicting with a land use plan.

12. MINERAL RESOURCES

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | | | | X |
| b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general | | | | X |

| | | | | |
|---|--|--|--|--|
| plan, specific plan or other land use plan? | | | | |
|---|--|--|--|--|

ENVIRONMENTAL SETTING

The City of Clovis 2014 General Plan EIR defines minerals as any naturally occurring chemical elements or compounds formed from inorganic processes and organic substances.¹⁰ The 2014 General Plan EIR indicates that there are no active mines or inactive mines within the Plan Area of the City of Clovis.

DISCUSSION

- a) *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

No Impact. As stated above, the City of Clovis does not have any active mines or inactive mines. Further, the Project site is an infill site within the City and is not zoned, designated, or otherwise mapped for mineral resource extraction, or for having mineral resources of value to the region present on or below the surface of the site. Therefore, **no impact** would occur.

- b) *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

No Impact. See discussion under Section 12a.

13. NOISE

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---------------------------------------|---|-------------------------------------|------------------|
| a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | | | X | |
| b. Generation of excessive groundborne vibration or groundborne noise levels? | | | X | |
| c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | | | | X |

¹⁰ 2014 Clovis General Plan EIR, Chapter 5: Mineral Resources, page 5.11-1.

ENVIRONMENTAL SETTING

As mentioned above in the Project Description, the site is located centrally located in Clovis near the northwest corner of Clovis and Sierra Avenues. The Project site is within an urbanized area of the City surrounded by existing commercial uses to the north and east, and residential uses to the south and west. As such, existing ambient noise levels are typical of noises from these types of developments (i.e., schools, roadway networks, commercial, and residential). A Noise memorandum was prepared by JK Consulting Group

DISCUSSION

- a) *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Less-Than-Significant Impact. The Project would lead to both temporary and permanent increases in ambient noise levels. JK Consulting Group prepared a noise memorandum analyzing the noise impacts from the project. The analysis concluded that the combined stationary noise sources from the project would not exceed 54 dBA. Additionally, noise generated by project-related traffic would range from 64-66 dBA CNEL, which is lower than the current noise levels caused by SR 168. Construction noise will be temporary, and the analysis shows that noise from construction activities will not exceed the interior noise limits for the surrounding land use categories.

Moreover, CMC Section 9.22.080, which governs noise standards for developments, must be followed. For example, construction is only allowed between 7:00 a.m. and 7:00 p.m. on weekdays, and between 9:00 a.m. and 5:00 p.m. on weekends. However, from June 1st to September 15th construction can start as early as 6:00 a.m. on weekdays.

Consequently, because the Project site is considered infill, already surrounded by similar uses, and because construction noise would be temporary in nature, the potential for a substantial increase in ambient or temporary noise increases is considered **less-than-significant**.

- b) *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Less-Than-Significant Impact. The Project would include the development of a site within Clovis. Construction equipment typical of the development of commercial buildings would be utilized temporarily. This equipment could include the use of heavy tractors, trucks, and other equipment; however, this type of equipment isn't typically associated with excessive groundborne vibration given the distance of residential homes to the site. If any vibration were to occur, it's likely that it would be temporary in nature and not at levels that would significantly impact the surrounding area.

The noise memorandum analyzed groundborne vibration impacts and determined that the predicted vibration velocity levels for sensitive receptors adjacent to the Project are predicted to approach 0.026 in/sec using a Vibratory Roller level (0.210 at 25 ft). The level of vibration generated by the Project's construction phase is considered less than significant.

Further, the Project would be required to comply with the provisions of Section 9.22.100 of the CMC, which requires that vibration not be perceptible along property lines and that it shall not interfere with operations or facilities on adjoining parcels. It's important to note that temporary construction vibration and noise is exempt from these provisions since construction is temporary. Overall, because the type of equipment likely to be used in the development of the Project is not considered to be of the type and

intensity to result in substantial vibration or groundborne noise, the impact would be **less-than-significant**.

- c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. The Project is not located within the vicinity of Fresno Yosemite International Airport, which is approximately four (4) miles south of the site. As such, it is located outside of the noise contour map of the airport.¹¹ Therefore, there would be no exposure to excessive noise levels and **no impact** would occur.

14. POPULATION AND HOUSING

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example through extension of roads or other infrastructure)? | | | X | |
| b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | | | X | |

ENVIRONMENTAL SETTING

The Project is located on an in-fill site that is planned for commercial use in the 2014 Clovis General Plan. The Project proposes to develop according to the commercial land use designation.

DISCUSSION

- a) *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example through extension of roads or other infrastructure)?*

Less-Than-Significant Impact. As mentioned, the Project would include the development of a commercial center in accordance with planned land use of the General Plan. Unplanned population growth is typically associated with providing new services in remote areas of the City or other infrastructure that was not previously identified in the General Plan. The Project site itself is an in-fill site, thus, the primary infrastructure (i.e., road network, utilities, etc.) is already in place and would be able to serve the site. Thus, a **less-than-significant** impact would occur.

¹¹ Fresno Council of Governments, Airport Land Use Compatibility Plan, December 2018, Fresno Yosemite International Airport, Exhibit D2, Noise Contours.

- b) *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

Less-Than-Significant Impact. The project site is partially developed with commercial uses and includes two existing residential homes. Although the site was originally planned for commercial development, the homes will remain in place until the property owners choose to pursue commercial projects. While the two homes are currently occupied, the project will not result in the displacement of a significant number of people. Therefore, the Project would not result in the substantial displacement of existing people or housing and a **less-than-significant** impact would occur.

15. PUBLIC SERVICES

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | | | | |
| a. Fire protection? | | | X | |
| b. Police protection? | | | X | |
| c. Schools? | | | X | |
| d. Parks? | | | X | |
| e. Other public facilities? | | | X | |

ENVIRONMENTAL SETTING

The Project is located on an in-fill site within the City, surrounded by existing commercial and residential uses. The Project would be served by the Clovis Fire Department, Clovis Police Department, with mutual aid from the City of Fresno or County of Fresno, when needed. The Project site would also be within the Clovis Unified School District.

The nearest fire station is Clovis Fire Station 1, located approximately a half (.5) mile south of the site. The Clovis Police department is located approximately a half (.5) mile southeast of the site.

DISCUSSION

- a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services?*

Less-Than-Significant Impact. The Project is an infill site being developed in accordance to the City's planned land use of General Commercial. As part of the entitlement process for the Project, the Clovis Fire Department will review the design and site layout to ensure adequate fire safety measures and site circulation are achieved. This includes placement of new fire hydrants throughout the site, adequate drive widths for fire truck and emergency vehicle access, and the appropriate application of fire codes, such as installation of sprinkler systems, fire alarms, and smoke detectors. The initial review by the Fire Department determined that adequate fire services can be provided to the site subject to standard conditions of approval, including providing minimum clear paths of travel for fire access. Overall, construction that would meet the latest fire code standards, and review by the Clovis Fire Department, impacts related to effects on the performance of the Fire Department would be **less-than-significant** impact.

- b) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services?*

Less-Than-Significant Impact. The Project is an infill site being developed in accordance to the City's planned land use of General Commercial. The Clovis Police Department headquarters are located at 1233 Fifth Street, which is approximately a half (.5) mile from the site. As part of the entitlement process for the Project, the Clovis Police Department will review the design and site layout to ensure adequate safety measures are achieved. Lastly, the site is in an already urbanized area serviced by the Clovis Police Department, and thus access to and from the site would be similar to existing conditions when responding to calls for services. Consequently, a **less-than-significant** impact would occur.

- c) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools?*

Less-Than Significant Impact. The Project includes construction of the remainder of a commercial center which would not generate students for schools. The Project request was distributed to the Clovis Unified School District for review and the school district did not express any concerns with the development of this project. Therefore, a **less-than-significant** impact would occur.

- d) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?*

Less-Than-Significant Impact. See discussion under Section 16, Recreation for the analysis related to parks.

- e) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?*

Less-Than-Significant Impact. The Project is an infill site being developed in accordance to the City's planned land use of General Commercial. The project site is an infill development surrounded by existing commercial and residential uses. Further, through the entitlement process, the Project would undergo review by several departments and agencies for compliance with appropriate regulations and policies. This could result in various impact fees that are intended to maintain and enhance public facilities as appropriate. As such, payment of the typical development fees, as well as project review by the different department and agencies, would result in the Project having a **less-than-significant** impact to public facilities.

16. RECREATION

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | | | X | |
| b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? | | | X | |

ENVIRONMENTAL SETTING

The Project site is an infill site surrounded by existing commercial and residential uses. There are three parks within half a mile of the subject property. Treasure Ingmire Park and Sierra Bicentennial Parks, located south and west of the site, are the closest public parks. The Clovis Old Town Trail also traverses adjacent to the property's western boundary.

DISCUSSION

- a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Less-Than-Significant Impact. As mentioned in the Population and Housing section of this Initial Study, the Project proposes the development of the rest of the commercial center. Although the development is not residential, it is a possibility that it may increase utilization of the nearby parks. However, it is not likely that the development would substantially increase the usage of the parks. Overall, the type and use of Project would not likely increase the use of existing parks such that physical deterioration would occur. Therefore, the impact would be **less-than-significant**.

- b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?*

Less-Than-Significant Impact. The Project site itself would construct on site landscaping in compliance with City standards for residential development. However, it is not likely that the Project itself would require the construction or expansion of new recreational facilities that would have an adverse physical effect on the environment. As such, a **less-than-significant** impact would occur.

17. TRANSPORTATION

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? | | | X | |
| b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | | | X | |
| c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | | | X | |
| d. Result in inadequate emergency access? | | | X | |

ENVIRONMENTAL SETTING

The Project is an infill site surrounded by existing commercial and residential developments. The site is bounded by Clovis Avenue to the east, Sierra Avenue to the south, a portion of Highway 168 to the west, and Magill Avenue to the north. According to the 2014 Clovis General Plan Circulation Diagram in the Circulation Element (Figure C-1), Clovis Avenue is designated as an arterial street, Sierra Avenue is designated as a collector street, and Magill Avenue is a local street. Arterial streets are designed to move large volumes of traffic and are intended to provide high level of mobility between freeways, expressways, other arterials, and collector roadways. Arterial streets typically have more right-of-way and a higher degree of access control than collector roadways. Collector streets provide for relatively short distance travel between and within neighborhoods. Collectors are not designed to handle long-distance through-traffic. Driveway access to collectors is less limited than on arterials. Speed limits on these streets are typically lower than those found on arterials. A Traffic Impact Analysis (TIA) and Vehicle Miles Traveled Analysis (VMT Analysis) was prepared by JLB Traffic Engineering, Inc. dated May 16, 2024 (included as Appendix E of this Initial Study). The information and analysis in the following section is based on the results of the TIA and VMT Analysis.

DISCUSSION

- a) *Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*

Less-Than-Significant Impact. As mentioned above, the site is within an urbanized area that has been planned for commercial development by the 2014 Clovis General Plan. The project would not modify the planned land use or include any features that would preclude the City from completing and complying

with guiding documents and policy objectives, and therefore, would not conflict with the relevant City plans, policies, and programs.

A TIA was prepared to evaluate potential on-site and off-site traffic impacts, identify short-term and long-term roadway needs, determine potential roadway improvement measures and identify any critical traffic issues that should be addressed as a result of the project. Based on the analysis, the City Engineer determined that there are **less-than-significant** impacts to the program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

- b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Less-Than-Significant Impact. Under Senate Bill (SB) 743, traffic impacts are related to Vehicle Miles Traveled (VMT). The VMT metric became mandatory on July 1, 2020. The City Guidelines provide guidance relative to analyzing VMT for purposes of determining transportation impacts in accordance with the CEQA. The guidelines also adopted a screening standard and criteria that is used to screen out qualified development projects that meet the criteria from needing to prepare a detailed VMT analysis. Projects not screened out must be analyzed through adopted VMT thresholds of significance. The VMT analysis prepared by JBL Traffic Engineering concluded that the office component of the project are screened out from a detailed VMT analysis as its VMT impacts have been previously reported to be less than significant by the City's General Plan and VMT guidelines. The Project's retail component was determined to be less than significant after pass-by trip reductions are applied to the VMT. Overall, the project was determined to result in a **less-than significant** VMT impact.

- c) *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Less-Than-Significant Impact. The Project would result in a significant impact if it would include features that would create a hazard such as a sharp curve in a new roadway or create a blind corner or result in sight distance issues from entryways. Through the entitlement process, the Project would undergo review by multiple City departments, such as planning and engineering, to ensure that the site layout conforms to existing regulations, such as the City Development Code, and other applicable codes, such as the fire code and building code. During this review, the Project would need to make the necessary corrections to ensure that no hazardous design features would result from the Project. Therefore, because the Project would undergo site plan and design review to ensure consistency and adherence to applicable design and site layout guidelines, a **less-than-significant** impact would occur.

- d) *Would the project result in inadequate emergency access?*

Less-Than-Significant Impact. The Project would include eight (8) ingress/egress access points. Magill Avenue extends west of Clovis Avenue and is proposed to have two (2) access points along its south side and a third at the west end of Magill Avenue. The Project proposes to have five (5) access points located along the west side of Clovis Avenue between Magill and Sierra Avenues. As part of the Project review, the Clovis Fire Department would review all plans to ensure adequate emergency access is provided. This review includes review for adequate roadway widths, turning radii, as well as adequate access to units and accessibility to water. Consequently, because the Project plans would be required by the CMC to be reviewed and approved by Clovis Fire Department and Police Department prior to construction, this impact would be **less-than-significant**.

18. TRIBAL CULTURAL RESOURCES

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? | | | | X |
| b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe? | | X | | |

ENVIRONMENTAL SETTING

On September 25, 2014, Governor Jerry Brown signed Assembly Bill (AB) 52, which intends to protect a new class of resources under the CEQA. This new class is Tribal Cultural Resources and provides an avenue to identify tribal cultural resources through a consultation process, similar to SB 18. However, unlike SB 18 where consultation is required for all General Plan and Specific Plan amendments, AB 52 applies to all projects where a Notice of Determination is filed, and the City has received written notification requests. Furthermore, the consultation process is required to be complete prior to filing a Notice of Intent.

On July 12, 2024, consistent with AB 52, invitations to consult on the Project were mailed to three tribes within the area. Tribes have up to thirty (30) days to request consultation in accordance with AB 52. No requests for consultation were requested during these times.

Acorn Environmental prepared a Cultural Resources Inventory and Evaluation dated October 24, 2023 (Appendix C). The full accounting of cultural resources occurring within the study area was achieved by conducting records search, review of published and gray literature, examining historic maps, contacting the California American Heritage Commission (NAHC), outreach to local Native American tribal representatives, examining historic documents held at regional repositories, and a field survey. The evaluation concluded that no historic properties or historical resources are present within the study area and there is very low potential for buried archaeological deposits to be present.

DISCUSSION

- a) *Would the project cause a substantial adverse change to a listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*

No Impact. As mentioned in the Project Description, the Project site is partially developed. There are no existing structures or features on the site that are listed or eligible in the California Register of Historical Resources, or in a local register. As such, the Project would have **no impact**.

- b) *Would the project cause a substantial adverse change to a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe?*

Less-Than-Significant Impact With Mitigation. As mentioned above, the City invited three Native American tribes to consult on the Project under AB 52, and no tribes requested consultation within the 30-day. The undeveloped portion of the Project site would require trenching and ground-disturbing activities during construction for the installation of utility infrastructure needed to serve the Project. Although no cultural resources were identified at the site, the potential remains that cultural resources could be inadvertently discovered during ground-disturbing activities. However, implementation of Mitigation Measures TCR-1 and TCR-2 below would reduce potential significant impacts and ensure protection in the event of accidental discovery of any cultural resources. With Mitigation Measure TCR-1 and TCR-2, impacts would be **less-than-significant with mitigation**.

Mitigation Measure TCR-1: If cultural or archaeological materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.

If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.

If a potentially eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.

Mitigation Measure TCR-2: If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code

(Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the County coroner. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency.

19. UTILITIES AND SERVICE SYSTEMS

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | | | X | |
| b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | | | X | |
| c. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | | | X | |
| d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | | | X | |
| e. Comply with federal, state, and local management reduction statutes and regulations related to solid waste? | | | X | |

ENVIRONMENTAL SETTING

The electricity and natural gas services in the City of Clovis are provided by PG&E. AT&T/SBC provides telephone service to the City.

The City's water supply sources include groundwater drawn from the Kings Sub-basin of the San Joaquin Valley Groundwater Basin and surface water from the FID. Surface water is treated at the City of Clovis Surface Water Treatment Facility.

The City of Clovis provides sewer collection service to its residents and businesses. Treatment of wastewater occurs at the Fresno-Clovis Regional Wastewater Treatment Plant (RWTP). The Fresno-

Clovis RWTP is operated and maintained by the City of Fresno and operates under a waste discharge requirement issued by the Central Valley Regional Water Quality Control Board. Additionally, the City has completed a 2.8 mgd wastewater treatment/water reuse facility, which will service the City's new growth areas.

The FMFCD has the responsibility for storm water management within the Fresno-Clovis metropolitan area of the Project site. Stormwater runoff that is generated by land development is controlled through a system of pipelines and storm drainage detention basins.

DISCUSSION

- a) *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

Less-Than-Significant Impact. The Project site is centrally located in the City's urban and developed area. The Project will be developed in accordance with the planned land use per the City's General Plan. Systems related to water, wastewater treatment, storm water drainage, electric, natural gas, or telecommunications facilities already exists within the general area and the Project would only need to connect to these systems. Further, as part of the review process for the Project, the wastewater impacts will be evaluated by the City Engineer to ensure compliance with the City's Wastewater Master Plan, as well as FMFCD, so that the Project would not exceed wastewater treatment requirements such that a new facility would be required, nor would the existing treatment facility need to be expanded. Upon review and approval by the City Engineer, the Project would result in a **less-than-significant** impact.

- b) *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Less-Than-Significant Impact. The project site is centrally located within the city's urbanized area and will be developed in accordance with the planned land use outlined in the City's General Plan. The entire project falls within the FID service area, where land is entitled to an average annual allocation of approximately 2.24 acre-feet per acre (AF/ac). The City Engineer has confirmed that there is sufficient water supply to support the project, as it has been planned for in the General Plan. Therefore, the Project will cause a **less-than-significant impact** on water supply.

- c) *Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Less-Than-Significant Impact. The project site is centrally located within the city's urbanized area and will be developed in accordance with the planned land use outlined in the City's General Plan. The City Engineer has confirmed that there is sufficient system capacity to support the project, as it has been planned for in the General Plan. Therefore, the Project will cause a **less-than-significant impact** for wastewater capacity.

- d) *Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

Less-Than-Significant Impact. The Project would introduce new solid waste throughout construction and operation of the Project. However, the Project would be required to comply with Chapter 6.3.1, Recycling and Diversion of Construction and Demolition Debris, of the CMC during construction. This

section of the CMC requires that a minimum of fifty percent (50%) of waste tonnage from a project be diverted from disposal, and that all new residential (and commercial) construction within the City shall submit and obtain approval for a waste management plan prior to construction activities. Compliance with these measures would ensure that the Project does not result in a significant impact during the construction phase of the Project. Further, compliance with policies in the General Plan for the reduction and recycling of solid waste would serve to reduce impacts of solid waste by promoting and encouraging the recycling of materials. Lastly, according to the California Department of Resources Recycling and Recovery (CalRecycle), the City has exceeded their target population disposal rate of 15.5 pounds per day per person, meaning that Clovis businesses are actually producing less solid waste than the target set by the State.¹² Consequently, a **less-than-significant** impact would occur.

- e) *Would the project comply with federal, state, and local management reduction statutes and regulations related to solid waste?*

Less-Than-Significant. See discussion 19d above.

20. WILDFIRE

| If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| a. Substantially impair an adopted emergency response plan or emergency evacuation plan? | | | X | |
| b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | | | X | |
| c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | | | X | |
| d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | | | X | |

ENVIRONMENTAL SETTING

The Project site is located on an infill site surrounded by existing urban uses. The site's topography is relatively flat with level terrain with a partially developed commercial center.

¹² CalRecycle, City of Clovis, <https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006>, accessed August 2024.

DISCUSSION

- a) *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less-Than-Significant Impact. The Project is located at a site that is relatively flat with level terrain and is surrounded by existing development. Further, the road network is already in place from previous developments. Although the Project could result in temporary traffic detouring or closures during buildout, these delays would be temporary and would be coordinated with the City Engineering staff and other departments to ensure safe access to and from the area is maintained. Further, the site itself would be reviewed by City departments to ensure adequate site access and circulation is provided in the event of an emergency. Overall, a **less-than-significant** impact would occur.

- b) *Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

Less-Than-Significant Impact. The Project site is relatively flat with level terrain, is partially developed, and is located on an infill site surrounded by existing urban uses. The general vicinity of the site is flat, therefore, is not of the type of topography nor in a location likely to exacerbate wildfire risks. Further, the Project would be required to comply with the latest fire codes and would be required to include sprinklers on the interior of the structures and require installation of several hydrants throughout the site. Lastly, the site plans would undergo review by the Clovis Fire Department to ensure that all fire safety regulations are met. Therefore, a **less-than-significant** impact would occur.

- c) *Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

Less-Than-Significant Impact. Installation of a private roadway network, water lines, and power lines would be required; however, these utilities and infrastructure are typical of development and would be constructed to standards of the respective agencies and departments which oversee them, as well as be required to comply all necessary plan review and permitting requirements of such departments and agencies. As such, a **less-than-significant** impact would occur.

- d) *Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

Less-Than-Significant Impact. The City of Clovis has generally flat topography, and the site itself is in an area that is not in close proximity to hillsides that would expose people or structures to significant risks associates with downstream flooding or landslides as a result of runoff or post-fire slope instability. As such, a **less-than-significant** impact would occur.

21. MANDATORY FINDINGS OF SIGNIFICANCE

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? | | | X | |
| b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | | | X | |
| c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? | | | X | |

ENVIRONMENTAL SETTING

The Project is located on an infill site within the City of Clovis, substantially surrounded by existing development consisting of commercial and residential uses.

DISCUSSION

- a) *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?*

Less-Than-Significant Impact. As discussed throughout the Initial Study, the Project would not result in any significant impacts with implementation of mitigation measures prescribed above. Therefore, the Project would have a **less-than-significant** impact as it would not substantially degrade the quality of the environment.

- b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

Less-Than-Significant Impact. The Project includes mitigation measures in certain topic areas identified throughout this Initial Study which would reduce potential impacts to a less-than-significant level. None of these impacts would be cumulatively considerable since most are either temporary impacts from construction or site specific. While air quality that is generally considered to be cumulatively measured, the Project was found to have a less-than-significant impact through compliance with existing regulations from the SJVPACD. As such, future Projects in the City would be required to comply with those same regulations, ensuring adequate mitigation as development occurs. Thus, a **less-than-significant** impact would occur.

- c) *Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?*

Less-Than-Significant Impact. As discussed throughout the Initial Study, the Project would not result in a significant impact that could not be mitigated to a less-than-significant level. Therefore, a **less-than-significant** impact would occur.

I. Report Preparation

LEAD AGENCY

Lily Cha, MPA, AICP

Senior Planner

City of Clovis

Planning & Development Services

TECHNICAL STUDIES

Air Quality and Greenhouse Gas Analysis Memorandum

Golden Triangle Planned Commercial Center Master Plan

Acorn Environmental

Biological Resources Assessment

Golden Triangle Planned Commercial Center Master Plan

Acorn Environmental

Cultural Resources Inventory & Evaluation

Golden Triangle Planned Commercial Center Master Plan

Acorn Environmental

Noise Memorandum

Golden Triangle Planned Commercial Center Master Plan

JK Consulting Group, LLC

Vehicle Miles Traveled Analysis Memorandum

Golden Triangle Planned Commercial Center Master Plan

Jose Benavides

JLB Traffic Engineering, Inc.

MITIGATION MONITORING AND REPORTING PROGRAM
R2024-004

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|------------------------------------|--|----------------------------------|---|---|
| <i>Aesthetics</i> | | | | |
| AES-1 | The Project shall comply with Section 9.22.050, Exterior Light and Glare, of the Clovis Municipal Code, which requires light sources to be shielded and that lighting does not spillover to adjacent properties. | City of Clovis Planning | <i>After Construction Prior to Occupancy</i> | |
| <i>Biological Resources</i> | | | | |
| BIO-1 | Worker Training: Prior to construction, personnel shall complete worker environmental awareness training. The training shall present information on burrowing owls and notification procedures and shall direct workers to halt work and allow individual burrowing owls to move off-site of their own accord. Construction personnel shall provide signatures confirming completion of the training, and copies of the training shall be maintained and made available to applicable agencies upon request | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |
| BIO-2 | Burrowing Owl: A pre-construction survey shall be conducted by a qualified biologist no more than 14 days prior to construction activities. The preconstruction survey shall be conducted in accordance with the "Take Avoidance Surveys" described in California Department of Fish and Wildlife's (CDFW) Staff Report on Burrowing Owl Mitigation (CDFW, 2012). If burrowing owls or sign | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------|--|---------------------------|--------|----------------------------------|
| | <p>of burrowing owls is not observed, results shall be documented, and no further action is necessary.</p> <p>Should burrowing owl burrows be observed, CDFW shall be consulted to determine necessary avoidance or exclusion methods. Mitigation shall follow CDFW recommended measures in CDFW's Staff Report on Burrowing Owl Mitigation (CDFW, 2012), and shall follow the below steps:</p> <ul style="list-style-type: none"> • If the burrows can be avoided, a qualified biologist shall demarcate a no-disturbance buffer around the burrows using high visibility fencing or pin flagging. The size of the buffer shall be established with CDFW and shall remain in place until construction is completed. Buffer size for burrowing owl, as detailed in CDFW's staff report, range from 50 meters to 500 meters depending on the level of disturbance and timing of disturbance. • Should full avoidance be infeasible, CDFW shall be consulted to identify appropriate exclusion methods to be implemented prior to removal of the burrows. Consistent with the CDFW Staff Report, exclusion would not occur until a Burrowing Owl Exclusion Plan is approved by CDFW. • In order to mitigate for loss of burrows that are excluded, the Burrowing Owl Exclusion Plan shall identify one of the following mitigation options, or a combination thereof, | | | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------|---|---------------------------|---|----------------------------------|
| | <p>as outlined in the CDFW Staff Report “Mitigating Impacts” section:</p> <ul style="list-style-type: none"> ○ Creation of artificial burrows commensurate to the number of burrows excluded; ○ Permanent conservation of like habitat, such as conservation easement; ○ Purchase of conservation bank credits; and/or ○ An alternative mitigation strategy, as developed with and approved by CDFW. | | | |
| BIO-3 | <p>Nesting Birds: If construction activities would occur during the nesting season (February 1 through August 31), a pre-construction survey for the presence of nesting bird species shall be conducted by a qualified biologist on and within 500 feet of proposed construction areas, as accessible. The survey shall occur within five days of the commencement of construction activities. If active nests are identified in these areas, one of the following should occur:</p> <ul style="list-style-type: none"> • A qualified biologist shall establish a disturbance-free buffer zone using high-visibility fencing or flagging. The size of the buffer shall be determined by the qualified biologist based on the needs of the species. The buffer shall remain in place until either (1) construction activities are completed, (2) the conclusion of the nesting season, or (3) | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------------|--|---------------------------|---|----------------------------------|
| | <p>the qualified biologist determines that the young have fledged and are no longer dependent on the nest, or the nest has failed. If construction activities are halted for a period of more than 14 days, an additional preconstruction nesting bird survey shall be conducted.</p> <p>Or</p> <ul style="list-style-type: none"> Commencement of construction activities shall be postponed until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site or the nest has failed. | | | |
| Cultural Resources | | | | |
| CULT-1 | <p>If prehistoric or historic-era cultural or archaeological materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.</p> | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------|---|---------------------------|---|----------------------------------|
| | <p>If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.</p> <p>If a potentially eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met.</p> | | | |
| CULT-2 | <p>If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American</p> | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|-----------------------------|--|---------------------------|---|----------------------------------|
| | involvement, in the event of discovery of human remains, at the direction of the County coroner. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency. | | | |
| Geological Resources | | | | |
| GEO-1 | <p>If prehistoric or historic-era cultural materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist and/or paleontologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.</p> <p>If the qualified professional determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.</p> <p>If a potentially-eligible resource is encountered, then the qualified professional archaeologist and/or paleontologist, the Lead Agency, and the project</p> | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|----------------------------------|---|---------------------------|---|----------------------------------|
| | proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met. | | | |
| Tribal Cultural Resources | | | | |
| TCR-1 | <p>If cultural or archaeological materials are encountered during construction activities, all work in the immediate vicinity of the find shall halt until a qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, can evaluate the significance of the find and make recommendations. Cultural resource materials may include prehistoric resources such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock as well as historic resources such as glass, metal, wood, brick, or structural remnants.</p> <p>If the qualified professional archaeologist determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse impacts from project implementation. These additional studies may include avoidance, testing, and evaluation or data recovery excavation.</p> | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

| Proposed Mitigation | Summary of Measure | Monitoring Responsibility | Timing | Verification (Date and Initials) |
|---------------------|--|---------------------------|---|----------------------------------|
| | If a potentially eligible resource is encountered, then the qualified professional archaeologist, the Lead Agency, and the project proponent shall arrange for either 1) total avoidance of the resource or 2) test excavations to evaluate eligibility and, if eligible, total data recovery. The determination shall be formally documented in writing and submitted to the Lead Agency as verification that the provisions for managing unanticipated discoveries have been met. | | | |
| TCR-2 | If human remains are discovered during construction or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the County coroner. All reports, correspondence, and determinations regarding the discovery of human remains on the project site shall be submitted to the Lead Agency. | City of Clovis Planning | <i>Prior to Permits and During Construction</i> | |

APPENDIX A

Air Quality and Greenhouse Gas Memorandum



5170 Golden Foothill Parkway
El Dorado Hills, CA 95762
O: 916-235-8224 | w: www.acorn-env.com

Technical Memorandum:

Air Quality and Greenhouse Gas Assessment of the Golden Triangle Planned Commercial Center Master Plan City of Clovis, California

May 15, 2024

Introduction

The purpose of this memorandum is to evaluate the potential air quality and greenhouse gas (GHG) emissions of a proposed update to the Development Plan and Master Site Plan for the Golden Triangle Planned Commercial Center (PCC) (Proposed Project) in the City of Clovis (City) (see **Figure 1 in Appendix A**). The City has requested this analysis in support of environmental documentation for compliance with the California Environmental Quality Act (CEQA). This memorandum estimates the air quality and GHG emissions of the Proposed Project and compares these emissions to the San Joaquin Valley Air Pollution Control District (SJVAPCD) and City thresholds, following the SJCAPCD methodology within the *Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI)*.

Project Description

Project Site Location and Setting

The Golden Triangle PCC consists of approximately 37 acres located southwest of the Clovis Avenue and Magill Avenue intersection (PCC Boundary) (see **Figure 1 in Appendix A**). The PCC Boundary is bordered by Magill Avenue-State Route (SR) 168 to the north, the Clovis Old Town Trail to the south, and Clovis Avenue to the east (see **Figure 2 in Appendix A**). The study area addressed in this memorandum is limited to the proposed development boundary (roughly 20 acres) within the larger PCC Boundary (Study Area or project site). The location of the project site relative to the PCC Boundary can be seen in **Figure 3 in Appendix A**. Regional and local access to the project site is provided by Highway 168. In addition, local access is provided by Clovis Avenue and Herndon Avenue.

The project site is currently zoned Planned Commercial Center according to the City of Clovis 2014 General Plan. Approximately half of the PCC Boundary (15.6 acres) is already developed with commercial buildings, paved parking lots and driveways, graveled lots for storage of RVs and other vehicles, and three residences. The remaining area, including the project site, is undeveloped and has no major vegetation. The West Branch Clovis Ditch bisects the project site, and a stormwater detention basin is located in the southwestern area of the project site.

Proposed Land Uses

The Proposed Project would allow for the development of retail, restaurant, commercial, and office uses and ancillary infrastructure throughout the project site (see **Table 1**). Proposed development includes the Mad Duck Brewery Campus including approximately 20,802 square feet (sf) of brewery, tasting room, banquet, wine lounge, and office space; and multiple car dealerships and associated repair/maintenance shops consisting of 139,019 sf. Additionally, the Proposed Project provides for the future development of two fast food restaurants with drive-thrus, each approximately 3,880 sf with ten employees; two office buildings consisting of approximately 15,000 sf; and three retail buildings consisting of approximately 10,526 sf. Surface parking lots would be developed throughout the project site. Electric vehicle charging stations would be installed in compliance with the 2022 CalGreen Code, which for the Proposed Project generally requires that 20% of the parking spaces be installed with EV ready infrastructure, and that 25% of those spaces be equipped with EV charging stations. Solar energy generation facilities, including photovoltaic panels mounted on rooftops and covered parking areas, and battery storage systems, would be utilized to supply at least a portion of the Proposed Project's energy demands in compliance with the 2022 CalGreen Code. The Proposed Project site plan is provided as **Figure 4** in **Appendix A**.

Given the relatively level topography of the project site, grading activities associated with the Proposed Project would be minor and are not anticipated to include the import of fill or export of cut. Drainage facilities would be designed and constructed to collect and route stormwater runoff from roads, sidewalks, roofs, and landscape areas to different water quality and/or flow control facilities prior to discharge into municipal stormwater collection facilities. The West Branch Clovis Ditch would be realigned and undergrounded within the project site. The Proposed Project will include connections to existing utilities located within the project site or adjacent public right-of-ways and developed areas.

All components of the Proposed Project shall adhere to development standards of the Clovis Municipal Code and the Golden Triangle PCC or update the PCC development standards through the rezone amendment. Construction is anticipated to begin in 2026 and last for approximately 14 months.

Design Elements and Best Management Practices

For this analysis, the following design elements, and best management practices (BMPs) are assumed to be incorporated into the Proposed Project to reduce the potential for adverse air quality impacts and to comply with SJVAPCD rules and regulations. These requirements are described within the SJVAPCD's *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI) dated March 19, 2015. As stated therein "The [SJVAPCD] recommends that any air quality assessment reflect emission reductions achieved through compliance with [SJVAPCD] rules and regulations."

Table 1: Proposed Facilities within the Study Area/Project Site

| Component | Approximate Square Footage (sf) |
|--|---------------------------------|
| Car Dealerships / Repair Shops | |
| Building "A" | 33,199 sf |
| Building "B" | 48,776 sf |
| Building "C" | 35,613 sf |
| Building "J" | 21,431 sf |
| | 139,019 sf |
| Mad Duck Campus | |
| Future Building "D" | 2,800 sf |
| Building "E" Brewery, Offices, and Tasting Room Building | 10,575 sf |
| Building "F" CRU Wine Lounge Building | 2,500 sf |
| Building "G" Barn/Banquet Building | 3,575 sf |
| Building "G1" (Future Addition) | 1,352 sf |
| | 20,802 sf |
| Restaurant with Drive-Thru (Future) | |
| Building "K" | 3,880 sf |
| Building "L" | 3,880 sf |
| | 7,760 SF |
| Professional Office (Future) | |
| Building "Q" | 2,816 sf |
| Building "R" | 12,184 sf |
| | 15,000 sf |
| Retail (Future) | |
| Building "P1" | 2,566 sf |
| Building "P2" | 4,600 sf |
| Building "S" | 3,360 sf |
| | 10,526 SF |
| | |
| | 193,107 sf |

SJVAPCD Regulation VIII (Fugitive PM₁₀ Prohibition)

The purpose of Regulation VIII (Fugitive PM₁₀ Prohibitions) is to reduce ambient concentrations of fine particulate matter (PM₁₀) by requiring actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions. Relevant Rules contained within Regulation VIII include SJVAPCD Rule 8021 "Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities". In accordance with Rule 8021, the Proposed Project will:

- Apply sufficient water to building exterior surfaces, unpaved surface areas where equipment will operate, and razed building materials to limit VDE to 20% opacity throughout the duration of razing and demolition activities.
- Apply sufficient dust suppressants to unpaved surface areas within 100 feet where materials from razing or demolition activities will fall in order to limit VDE to 20% opacity.
- Apply sufficient dust suppressants to unpaved surface areas where wrecking or hauling equipment will be operated in order to limit VDE to 20% opacity.
- Handling, storage, and transport of bulk materials on-site or off-site resulting from the demolition or razing of buildings shall comply with the requirements specified in Rule 8031 (Bulk Materials)
- Apply water within 1 hour of demolition to unpaved surfaces within 100 feet of the demolished structure.
- Prevention and removal of carryout or trackout on paved public access roads from demolition operations shall be performed in accordance with Rule 8041 (Carryout and Trackout).
- Control the fugitive dust emissions to meet the requirements in Table 8021-1 of Rule 8021
- An owner/operator shall limit the speed of vehicles traveling on uncontrolled unpaved access/haul roads within construction sites to a maximum of 15 miles per hour.
- An owner/operator shall post speed limit signs that meet State and Federal Department of Transportation standards at each construction site's uncontrolled unpaved access/haul road entrance. At a minimum, speed limit signs shall also be posted at least every 500 feet and shall be readable in both directions of travel along uncontrolled unpaved access/haul roads.
- Cease outdoor construction, excavation, extraction, and other earthmoving activities that disturb the soil whenever VDE exceeds 20% opacity. Indoor activities such as electrical, plumbing, dry wall installation, painting, and any other activity that does not cause any disturbances to the soil are not subject to this requirement.
- Continue operation of water trucks/devices when outdoor construction excavation, extraction, and other earthmoving activities cease, unless unsafe to do so.
- An owner/operator shall submit a Dust Control Plan to the APCO prior to the start of any construction activity on any site that will include 10 acres or more of disturbed surface area for residential developments, or 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. Construction activities shall not commence until the APCO has approved or conditionally approved the Dust Control Plan. An owner/operator shall provide written notification to the APCO within 10 days prior to the commencement of earthmoving activities via fax or mail. The requirement to submit a dust control plan shall apply to all such activities conducted for residential and non-residential (e.g., commercial, industrial, or institutional) purposes or conducted by any governmental entity.
- An owner/operator may submit one Dust Control Plan covering multiple projects at different sites where construction will commence within the next 12 months provided the plan includes each project size and location, types of activities to be performed. The Dust Control Plan shall specify the expected start and completion date of each project.
- The Dust Control Plan shall describe all fugitive dust control measures to be implemented before, during, and after any dust generating activity.
- A Dust Control Plan shall contain all the information described in Section 6.3.6 of this rule. The APCO shall approve, disapprove, or conditionally approve the Dust Control Plan within 30 days of plan submittal. A Dust Control Plan is deemed automatically approved if, after 30 days following receipt by the District, the District does not provide any comments to the owner/operator regarding the Dust Control Plan.

- An owner/operator shall retain a copy of an approved Dust Control Plan at the project site. The approved Dust Control Plan shall remain valid until the termination of all dust generating activities. Failure to comply with the provisions of an approved Dust Control Plan is deemed to be a violation of this rule. Regardless of whether an approved Dust Control Plan is in place or not, or even when the owner/operator responsible for the plan is complying with an approved Dust Control Plan, the owner/operator is still subject to comply with all requirements of the applicable rules under Regulation VIII at all times.

SJVAPCD Rule 9510 (Indirect Source Review)

District Rule 9510 (ISR) is intended to reduce a project’s impact on air quality through project design elements or mitigation by payments of applicable off-site mitigation fees. The SJVAPCD has identified a list of Emission Reduction Clean Air Measures that are intended to assist land use agencies and developers in reducing air quality impacts associated with development projects. These measures can be incorporated into the project’s design to reduce air quality impacts, and it is recommended they be included in the ISR Application. In accordance with District Rule 9510, the Proposed Project has incorporated the following measures:

- Utilize the cleanest available off-road construction equipment, including the latest Tier diesel or electric equipment (e.g., scrapers, graders, trenchers, tractors, loaders, backhoes, etc.).
- Install and utilize solar panels as a renewable energy source.
- Utilize electrical outlets on the exterior of project buildings as necessary for sufficient powering of electric landscaping equipment.
- Provide design elements that enhance walkability and connectivity such as sidewalk coverage, pedestrian crossings, and presence of street trees.
- Provide a pedestrian access network to link areas of the project site with existing and planned external streets and pedestrian facilities to encourage people to walk instead of drive. The parking lot includes clearly marked pedestrian pathways between transit facilities and building entrances, including the existing bus stop on Clovis Avenue in the northeastern portion of the project site. Pedestrian access will be retained between bus service and major transportation points and to destination points within the project.
- Implement a Vehicle Idling Policy that requires all vehicles under company control to adhere to a 5-minute idling policy and/or to minimize the idling time (e.g., 5-minute maximum) for construction-related vehicles.

Note, some Clean Air Measures contained in Rule 9510 are not applicable to the Proposed Project (e.g., those pertaining to residential heating devices) and are not included in the list above or the ISR Application prepared for the Proposed Project.

On-Site Energy Generation

As noted above, the Proposed Project includes solar energy generation facilities and battery storage systems that would be utilized to supply at least a portion of the project’s energy demands. However, emission reductions associated with the project’s solar energy generation facilities cannot be quantified at this time since the quantity of photovoltaic panels and battery storage capacity are yet to be determined. It should be noted that project’s implementation of solar energy generation facilities and battery storage systems is consistent with the California Air Pollution Control Officers Association’s (CAPCOA) mitigation measure Alternative Energy (AE)-1 and AE-2 in addition to 2022 CalGreen Code.

Environmental Setting

San Joaquin Valley Air Basin

The City of Clovis is located within the San Joaquin Valley Air Basin (SJVAB), which includes Fresno, Kern (western portion), Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties. Fresno County is unclassified or in attainment for all state and federal ambient air quality standards except for the state and federal ozone standards, state PM_{10} ¹ standards, and state and federal $PM_{2.5}$ ² standards.

The SJVAB is approximately 250 miles long and 35 miles in width and is bordered by the Coast Range Mountains on the west, the Sierra Nevada mountains on the east, and the Tehachapi Mountains to the south. Marine air, which often enters the Basin from the San Joaquin River Delta, causes the wind patterns found inside the SJVAB. The Tehachapi Mountains block airflow in from the south, the Coastal Range blocks wind entry into the Valley from the west, and the tall Sierra Nevada Mountain Range acts as a formidable barrier to the east. Weak airflow caused by these topographical factors is vertically constrained by high atmospheric pressure above the Valley. The SJVAB is hence extremely vulnerable to pollutant buildup over time. The majority of the mountains in the area are higher than summer inversion layers.

The closest air quality monitoring station is in the City of Clovis along N. Villa Avenue, approximately 1.25 miles southwest of the project site. The most recent available data from this station shows 34 days above the federal 8-hour ozone standard in 2021 and 23 days above the standard in 2022. In addition, data from this station shows 9 days above the state 1-hour ozone standard in 2021 and 3 days above the standard in 2022. Available data from this station show no measured exceedances of the national PM_{10} standard in 2021 and 2022, and 111 measured exceedances of the state PM_{10} standard in 2021 and 73 measured exceedances in 2022. Available data from this station also shows 22 measured exceedances of the national $PM_{2.5}$ standard in 2021 and 4 measured exceedances in 2022 (CARB, 2024).

Sensitive Receptors

As described in the GAMAQI, sensitive receptors are of the population most susceptible to poor air quality, including children, the elderly, and those with pre-existing serious health problems affected by air quality. Schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities are where sensitive individuals are most likely to spend extended amounts of time, and these sensitive land uses may also be referred to as sensitive receptors. The nearest sensitive receptors to the project site are residential neighborhoods including single- and multi-family residential units directly southwest (50 feet) from the Study Area. There are additional residential neighborhoods approximately 250 feet east of the northeastern boundary of the Study Area, but an existing commercial district lies between those neighborhoods and the project site. The nearest schools are approximately 1,700 feet north and 1,800 feet south, and the nearest medical facility is located approximately 2.2 miles east of the project site.

¹ PM_{10} is particulate Matter 10 microns or less in diameter.

² $PM_{2.5}$ is particulate matter 2.5 microns or less in diameter.

Regulatory Setting

Federal Clean Air Act

The federal Clean Air Act (CAA) required the U.S. Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to define levels of air quality that protect the public health and welfare from the known adverse effects of air pollutants and set deadlines for attainment. If a criteria air pollutant (CAP) does not meet the NAAQS criteria for the specific CAP, then the region or area is designated by the EPA as nonattainment. Once an area reaches attainment for particular criteria pollutant, then the area is redesignated attainment or maintenance. The CAA places most of the responsibility on states to achieve compliance with the NAAQS. States, municipal statistical areas, and counties that contain areas of nonattainment are required to develop a State Implementation Plan (SIP), which outlines policies and procedures designed to bring the state into compliance with the NAAQS. The CAA amendments of 1990 added requirements for states with nonattainment areas to revise their state implementation plans (SIPs) to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The EPA has the responsibility to review all state SIPs to determine conformance to the mandates of the CAA and determine whether implementation would achieve air quality goals. If the EPA determines a SIP to be inadequate, a Federal Implementation Plan may be prepared for the nonattainment area that imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated period may result in sanctions to transportation funding and stationary air pollution sources in the air basin.

California Clean Air Act

The California Clean Air Act (CCAA), adopted in 1988, required the establishment of the California Ambient Air Quality Standards (CAAQS). CAAQSs were created for the following pollutants: sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the six national CAPs. The CAAQS are generally more stringent than the NAAQS. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals. The CCAA requires that all local air districts in the state endeavor to achieve and maintain the CAAQS by the earliest practical date. The CCAA requires that air quality plans be prepared for areas of the state that have not met state air quality standards for O₃, CO, NO₂, and SO₂. Among other requirements of the CCAA, the plans must include a wide range of implementable control measures, which often include transportation control measures and performance standards. In order to implement the transportation-related provisions of the CCAA, local air pollution control districts have been granted explicit authority to adopt and implement transportation control measures.

California Air Resources Board

The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementation of the CCAA. CARB has primary responsibility in California to develop and implement air pollution control plans designed to achieve and maintain the NAAQS. Collectively, all regional air pollution control plans or air quality management plans to achieve the NAAQS throughout the state constitute the SIP. As California's air quality management agency, CARB regulates mobile emission sources and oversees the activities of county air pollution control districts and regional air quality management districts. CARB regulates local air quality indirectly by using state standards and vehicle emission standards, conducting research

activities, and carrying out planning and coordinating activities. CARB also provides land use guidance, as it relates to air quality, including criteria for siting schools and other sensitive land uses.

California Global Warming Solutions Act of 2006 (AB-32)

Signed by the California Governor on September 27, 2006, Assembly Bill (AB) 32 codifies a key requirement of EO S-3-05, specifically the requirement to reduce GHG emissions in California to 1990 levels by 2020. AB 32 tasks CARB with monitoring state sources of GHGs and designing emission reduction measures to comply with emission reduction requirements. However, AB 32 also continues the efforts of the CAT to meet the requirements of EO S-3-05 and states that the CAT should coordinate overall state climate policy.

To accelerate the implementation of emission reduction strategies, AB 32 requires that CARB identify a list of discrete early action measures that can be implemented relatively quickly. In October 2007, CARB published a list of early action measures that it estimated could be implemented and would serve to meet about 25% of the required 2020 emissions reductions (CARB, 2007). To assist CARB in identifying early action measures, the CAT published a report in April 2007 that updated their 2006 report and identified strategies for reducing GHG emissions (CAT, 2007). In its October 2007 report, CARB cited the CAT strategies and other existing strategies that can be utilized to achieve the remainder of the emissions reductions (CARB, 2007a). AB 32 requires that CARB prepare a comprehensive “scoping plan” that identifies all strategies necessary to fully achieve the required 2020 emissions reductions. Consequently, in December 2008, CARB released its scoping plan to the public; the plan was approved by CARB on December 12, 2008. An update to the Climate Change Scoping Plan occurred on May 22, 2014, which included new strategies and recommendations to ensure reduction goals of near-term 2020 are met with consideration of current climate science.

A second update to the Climate Change Scoping Plan was adopted on December 14, 2017. The 2017 Scoping Plan Update addresses the 2030 target established by Senate Bill 32, as discussed below, and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG by 2030 compared to 1990 levels. The key programs that the 2017 Scoping Plan Update builds on include the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, increasing the use of renewable energy in the state, and reduction of methane emissions from agricultural and other wastes.

On December 15, 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan), which builds on the 2017 Scoping Plan as well as the requirements set forth by AB 1279, which directs the State to become carbon neutral no later than 2045. To achieve this statutory objective, the 2022 Scoping Plan lays out how California can reduce GHG emissions by 85% below 1990 levels and achieve carbon neutrality by 2045. The 2022 Scoping Plan creates a sector-by-sector roadmap for California that deploys “a broad portfolio of existing and emerging fossil fuel alternatives and clean technologies, and align with statutes, Executive Orders, Board direction, and direction from the governor” (CARB, 2022).

The 2022 Scoping Plan recognizes three methods for evaluating a project's alignment with the State's climate goals in CEQA GHG analyses. These methods can be used at the discretion of lead agencies for the purpose of determining if a project would have a potentially significant impact on GHG emissions. These methods are:

- Determine if the project includes key project attributes that reduce operational GHG emissions while simultaneously advancing fair housing;
- Determine if the project would result in net-zero GHG emissions; and
- Assessment of a project's GHG impact by employing a threshold of significance recommended by the applicable air district or other lead agencies.

Senate Bill (SB) 1020: Clean Electricity

SB 1020 codifies into law a state policy that eligible renewable energy resources and zero-carbon resources supply: 1) 90% of all retail sales of electricity to California end-use customers by December 31, 2035, 95% by December 31, 2040, and 100% by December 31, 2045; and 2) 100% of electricity procured to serve all State agencies by December 31, 2035. To achieve these objectives, SB 1020 requires that CARB and the California Energy Commission (CEC) use unspecified programs authorized under existing statutes and employ measures to ensure that implementation of the policy does not cause increases in GHG emissions elsewhere, a concept also known as leakage.

Building Energy Standards

The **2022 Title 24 Standards** improve upon the 2019 standards for new construction, additions, and alterations to residential and nonresidential buildings. The CEC adopted the 2022 Title 24 Energy Code in August 2021 and the California Building Standards Commission approved incorporating the updated code into the California Building Standards Code (CALGreen) in December 2021. The 2022 Energy Code went into effect on January 1, 2023. The 2022 Energy Code encourages energy-efficient approaches to move towards building decarbonization. Emphasis is placed on heat pumps for space and water heating, as well as electric vehicle (EV) charging and photovoltaic (PV) and battery storage systems. Finally, ventilation standards are strengthened to improve indoor air quality.

San Joaquin Valley Air Pollution Control District

Guidance for Assessing and Mitigating Air Quality Impacts

The SJVAPCD's February 2015 Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) was developed to assist lead agencies in evaluating air quality and climate impacts from proposed land use projects and plans in the SJVAB. The GAMAQI contains instructions and examples for how a lead agency can evaluate, measure, and mitigate air quality and climate impacts generated from land use construction and operational activities. They focus on generated emissions of criteria air pollutants and precursors, odors, toxic air contaminants, and greenhouse gases from local plans and projects. The GAMAQI provides thresholds of significance which gives lead agencies a method to assess a project's potential impacts.

Screening Criteria

In the interest of streamlining California Environmental Quality Act (CEQA) requirements, the SJVAPCD’s Small Project Analysis Levels (SPAL) guidance identifies project types and sizes and corresponding vehicle trips that would not exceed applicable thresholds of significance for criteria pollutants. The Screening Criteria for criteria air pollutants and their precursors are not thresholds of significance, rather they are conservative guidelines that a lead agency can use to qualitatively assess whether a project could result in potentially significant impacts. If all screening criteria are met, then the lead agency does not need to perform a detailed assessment and can presume that potential impacts due to criteria air pollutants are less than significant.

If a project is consistent with all of the following screening criteria related to construction activities, then detailed air quality modeling is not required:

- The project size is at or below the applicable screening level size and Average Daily One-way Trips for all fleet types (except HHDT) or Average Daily One-Way for HHDT Trips only as shown in Tables 1 through 6 of the SPAL guidance.

Significance Thresholds

If a project does not meet the screening criteria discussed above, the SJVAPCD provides project-level air quality thresholds of significance that include numerical thresholds for construction and operation emissions of local carbon monoxide (CO), ROG, NO_x, Sox, PM₁₀, and PM_{2.5}. Construction and operation thresholds of significance use annual emissions in tons per year (tpy). In addition to local CO, ROG, NO_x, Sox, PM₁₀, and PM_{2.5}, there are odor and local risks and hazards thresholds of significance. Should a project exceed the thresholds of significance, the GAMAQI provides recommendations for reducing potential air quality and climate impacts from land use development projects. In terms of GHG thresholds, the GAMAQI summarizes the recommendations contained in the SJVAPCD’s 2009 “Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA”, described in more detail below.

Toxic Air Contaminants

The SJVAPCD’s GAMAQI provides guidance in addressing project-related toxic air contaminants (TACs) such as diesel particulate matter (DPM), lead, and benzene, and the associated risks to the local community. Commons sources of TACs include freeways, ports, railyards, industrial facilities, gas stations and backup diesel generators.

The SJVAPCD has identified the following significance thresholds for local risks and hazards:

- Carcinogens: Maximally Exposed Individual risk equals or exceeds 10 in one million.
- Non-Carcinogens: Acute- Hazard Index equals or exceeds 1 for the Maximally Exposed Individual.
- Non-Carcinogens: Chronic- Hazard Index equals or exceeds 1 for the Maximally Exposed Individual.

These are the cumulative thresholds which apply to siting new sources and receptors. CARB's Pollution Mapping Tool provides emissions data for toxic air contaminants from large facilities in California. The mapping tool identifies St. Agnes Medical Center as the nearest large facility that generates toxic air contaminants, which is located approximately 3.5 miles west of the project site. Considering 2020 emissions, the St. Agnes Medical Center generates 10.3 lbs/year of DPM and 28 lbs/year of formaldehyde.

Climate Change Action Plan

In August 2008, the SJVAPCD adopted the Climate Change Action Plan (CCAP). The CCAP directed SJVAPCD to develop guidance to assist lead agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project specific GHG emissions on global climate change.

Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA

On December 17, 2009, SJVAPCD adopted Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA; which outlined the SJVAPCD's methodology for assessing a project's significance for GHGs under CEQA. The following criteria was outlined in the document to determine project significance:

- Projects determined to be exempt from the requirements of CEQA would be determined to have a less than significant individual and cumulative impact for GHG emissions and would not require further environmental review, including analysis of project specific GHG emissions. Projects exempt under CEQA would be evaluated consistent with established rules and regulations governing project approval and would not be required to implement BPS.
- Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement BPS.
- Projects implementing Best Performance Standards would not require quantification of project specific GHG emissions. Consistent with CEQA Guidelines, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.
- Projects not implementing Best Performance Standards would require quantification of project specific GHG emissions and demonstration that project specific GHG emissions would be reduced or mitigated by at least 29 percent, compared to Business-as-Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period. Projects achieving at least a 29 percent GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.
- Notwithstanding any of the above provisions, projects requiring preparation of an Environmental Impact Report for any other reason would require quantification of project specific GHG emissions. Projects implementing BPS or achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.

City of Clovis

The City addresses air quality goals and policies in the Air Quality Element of the City’s General Plan, which works to improve air quality through strategies such as effective land use and transportation planning, regional cooperation, and emissions reduction. The following General Plan policies from the Air Quality Element are applicable to the Proposed Project:

- **Policy 1.2:** Sensitive Land Uses. Prohibit, without sufficient mitigation, the future siting of sensitive land uses within the distances of emissions sources as defined by the California Air Resources Board.
- **Policy 1.3:** Construction Activities. Encourage the use of best management practices during construction activities to reduce emissions of criteria pollutants as outlined by the San Joaquin Valley Air Pollution Control District (SJVAPCD).
- **Policy 1.8:** Trees. Maintain or plant trees where appropriate to provide shade, absorb carbon, improve oxygenation, slow stormwater runoff, and reduce the heat island effect.
- **Policy 2.6:** Innovative Mitigation. Encourage innovative mitigation measures to reduce air quality impacts by coordinating with the SJVAPCD, project applicants, and other interested parties.

Air Quality Impact Assessment

Methods

Screening Criteria

First, the Proposed Project was assessed against the SJVAPCD’s screening criteria to determine whether or not detailed air quality modeling was required. The characteristics of the Proposed Project do not meet SJVAPCD’s SPAL and therefore further assessment of construction and operational criteria air pollutant emissions is required.

Detailed Air Quality Modeling

Emissions from construction and operation of the Project were calculated using the California Emissions Estimator Model, Version 2022.1.1.19 (CalEEMod). Emissions were estimated assuming that construction would begin in begin in October 2026 and last for 14 months.

Construction Criteria Pollutant Emissions

Construction activities including site preparation, earth moving, building, and other general construction activities can generate air pollution. While construction activities are temporary in nature, short-term impacts can contribute to exceedances of air quality standards. The emissions generated from construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips.

CalEEMod emissions results are summarized below and included in **Appendix B**. Construction emissions are summarized in **Table 2**.

Table 2: Estimated Construction Emissions

| | tons/year | | | | | |
|--|-----------|------|------|------------------|-------------------|--------|
| | ROG | NOx | CO | PM ₁₀ | PM _{2.5} | Sox |
| Maximum Emissions per Year | 0.49 | 1.47 | 1.99 | 0.18 | 0.11 | <0.005 |
| <i>SJVAPCD Threshold of Significance</i> | 10 | 10 | 100 | 15 | 15 | 27 |
| Exceed Level? | No | No | No | No | No | No |

Source: **Appendix B**

As shown in **Table 2**, Project construction emissions of criteria pollutants are all below SJVAPCD significance thresholds. In addition to the thresholds identified in the tables, SJVAPCD addresses construction-related fugitive dust emissions by recommending the incorporation of BMPs to reduce dust emissions, which are identified under the **Design Elements and BMPs** section above. Therefore, construction emissions are less than significant because they are less than the thresholds of significance.

Operational Criteria Pollutant Emissions

Operational emissions primarily occur from project-related vehicle trips, which may also cause localized air quality impacts (i.e., higher carbon monoxide concentrations or “hot-spots”) near intersections or roadway segments in the project vicinity, as well as area sources from landscape equipment, heating and cooling units, and cooktops. The Proposed Project does not include components that would lead to other potential sources of emissions such as wastewater treatment or industrial processing.

Operational air pollutant emissions were calculated using CalEEMod based on information provided by Project representatives and the estimated traffic trip generation for the Proposed Project. Estimated operational emissions for the Project are included in **Appendix B** and summarized in **Table 3**.

Table 3: Estimated Operational Emissions

| | tons/year | | | | | |
|--|-------------|-------------|-------------|------------------|-------------------|-------------|
| | ROG | NOx | CO | PM ₁₀ | PM _{2.5} | Sox |
| Mobile | 5.49 | 4.09 | 28.1 | 5.26 | 1.37 | 0.06 |
| Area | 0.93 | 0.01 | 0.76 | < 0.005 | < 0.005 | < 0.005 |
| Energy/Other | 0.02 | 0.42 | 0.35 | 0.03 | 0.03 | < 0.005 |
| Total Emissions per Year | 6.44 | 4.51 | 29.2 | 5.29 | 1.40 | 0.06 |
| <i>SJVAPCD Threshold of Significance</i> | 10 | 10 | 100 | 15 | 15 | 27 |
| Exceed Level? | No | No | No | No | No | No |

Source: **Appendix B**

As shown in **Table 3**, all criteria pollutant emissions would remain below their respective thresholds during Project operations. Criteria pollutant emissions generated during Project operations would not expose sensitive receptors to substantial pollutant concentrations. Therefore, operational emissions are less than significant because they are less than the thresholds of significance.

Toxic Air Contaminants

Most of the estimated health risks from Toxic Air Contaminants (TACs), according to the CARB California Almanac of Emissions and Air Quality (2005), can be attributable to a small number of compounds. The most significant of which is PM from diesel-fueled engines, known as diesel particulate matter (DPM). Diesel exhaust has hundreds of different gaseous and particulate components, many of which are harmful, and has been classified as a human carcinogen. DPM particles are so small that they penetrate deep into the lungs. According to studies, DPM concentrations are significantly greater near busy intersections and roads. Heavy-duty vehicles and off-road construction equipment are the main sources of diesel-related emissions. The CARB's Air Quality and Land Use Handbook (2005) provides recommendations for siting new sensitive land uses within proximity to facilities known to generate TACs, as depicted in **Table 4**.

Table 4: CARB Recommendations On Siting New Sensitive Land Uses Such As Residences, Schools, Daycare Centers, Playgrounds, Or Medical Facilities*

| Source Category | Advisory Recommendations |
|--|--|
| Freeways and High-Traffic Roads ¹ | - Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. |
| Distribution Centers | - Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). - Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points. |
| Rail Yards | - Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. - Within one mile of a rail yard, consider possible siting limitations and mitigation approaches. |
| Ports | - Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks. |
| Refineries | - Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation. |
| Chrome Platers | - Avoid siting new sensitive land uses within 1,000 feet of a chrome plater. |
| Dry Cleaners Using Perchloroethylene | - Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. - Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations. |
| Gasoline Dispensing Facilities | - Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities. |

1: The recommendation to avoid siting new sensitive land uses within 500 feet of a freeway was identified in CARB's Air Quality and Land Use Handbook published in 2005. CARB recently published a technical advisory to the Air Quality and Land Use Handbook indicating that new research has demonstrated promising strategies to reduce pollution exposure along transportation corridors.

*Notes:

- These recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

- Recommendations are based primarily on data showing that the air pollution exposures addressed here (i.e., localized) can be reduced as much as 80% with the recommended separation.
- The relative risk for these categories varies greatly (see Table 1-2). To determine the actual risk near a particular facility, a site-specific analysis would be required. Risk from diesel PM will decrease over time as cleaner technology phases in.
- These recommendations are designed to fill a gap where information about existing facilities may not be readily available and are not designed to substitute for more specific information if it exists. The recommended distances take into account other factors in addition to available health risk data (see individual category descriptions).
- Site-specific project design improvements may help reduce air pollution exposures and should also be considered when siting new sensitive land uses.
- This table does not imply that mixed residential and commercial development in general is incompatible. Rather it focuses on known problems like dry cleaners using perchloroethylene that can be addressed with reasonable preventative actions.
- A summary of the basis for the distance recommendations can be found in the ARB Handbook: Air Quality and Land Use Handbook: A Community Health Perspective.

Source: **ARB Air Quality and Land Use Handbook: A Community Health Perspective**

The Proposed Project land uses, including car dealerships, brewery campus, restaurants, and office buildings, would not generate significant quantities of toxic air contaminants; the Proposed Project does not include any of the TAC source categories presented in **Table 4**. As a result, the Proposed Project would not expose adjacent sensitive receptors to toxic air emissions or generate TAC's that would have a significant impact on the environment. Construction emissions of DPM would be reduced with compliance with SJVAPCD's Best Practices for Construction-Related Exhaust Emissions identified under the **Design Elements and BMPs** section above as well as adherence to SJVAPCD Rule 4702, which limits emissions from internal combustion engines. These measures include requiring operators of spark-ignited internal combustion engine rated at >50 bhp to not operate it in such a manner that results in exceeding specified emissions limits. Due to compliance with SJVAPCD's Best Practices for Construction-Related Exhaust Emissions and the limited extent and duration of diesel equipment use on the project site, potential health risk impacts would be negligible, and a detailed health risk assessment is not warranted.

CEQA Significance Criteria Review

To conclude this analysis, the Project is reviewed under the CEQA checklist form provided as Appendix G of the CEQA Guidelines.

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

As described above, with the incorporation of the identified design elements and BMPs, the Proposed Project would not exceed SJVAPCD significance thresholds for criteria air pollutants or TACS emissions. The SJVAPCD significance thresholds ensure compliance with adopted air quality plans, which include the 2018 PM_{2.5} Plan for the San Joaquin Valley and the 2022 Ozone Plan for the San Joaquin Valley. Accordingly, the Project would not conflict with or obstruct implementation of applicable air quality plans.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The SJVAB is nonattainment for the state and federal ozone standards, state PM₁₀ standards, and state and federal PM_{2.5} standards. As shown in **Table 3**, Project emissions of criteria pollutants are all below SJVAPCD significance thresholds. In addition to the thresholds identified in the table, SJVAPCD addresses construction-related fugitive dust emissions by recommending the incorporation of BMPs to reduce dust emissions. These BMPs are identified under the **Design Elements and BMPs** section above. The Project would not result in a cumulatively considerable increase of any criteria pollutant.

c) Expose sensitive receptors to substantial pollutant concentrations?

With the incorporation of the identified design elements and BMPs, the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations. As shown in **Table 3**, Project emissions of criteria pollutants are all below SJVAPCD significance thresholds. Operation of the Project would generate a relatively small number of truck trips on local roadways and would have a negligible impact on roadway TAC emissions.

Construction emissions of DPM would be reduced with compliance with SJVAPCD's Best Practices for Construction-Related Exhaust Emissions identified under the **Design Elements and BMPs** section above as well as adherence to SJVAPCD Rule 4702 which limits emissions from internal combustion engines. These measures include requiring operators of spark-ignited internal combustion engine rated at >50 bhp to not operate it in such a manner that results in exceeding specified emissions limits. Compliance with SJVAPCD's Best Practices for Construction-Related Exhaust Emissions and incorporation of design elements and BMPs will ensure that the Project will not generate substantial pollutant concentrations.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The likelihood that a project might produce odors should be assessed per CEQA guidelines. Any project that has the potential to regularly subject people to offensive odors should be considered to have a significant impact. Nuisance odors may be assessed qualitatively, taking into consideration project design elements and proximity to off-site receptors that would potentially be exposed to objectionable odors. It should be noted that individual responses to odors are highly variable and can result in a variety of effects. As noted previously, the Proposed Project would allow for the development of retail, restaurant, commercial, and office uses and ancillary infrastructure throughout the project site, including a brewery which is part of the Mad Duck Campus.

The potential significance of odor emissions depends on an odor source's strength and proximity to sensitive receptors. Various facilities that have been reported to cause odors in the SJVAB have been identified by the SJVAPCD, as shown in **Table 5**. The characteristics of the Project do not fit any of the facilities identified in **Table 5**. However, as noted in the SJVAPCD's GAMAQI, **Table 5** is not an all-inclusive list of facilities with the potential to generate odors. Odors from vehicle exhaust, waste disposal, and brewery operations would be small in quantity and duration during operation of the Proposed Project.

The SJVAPCD's *Guidance to Conduct Detailed Analysis for Assessing Odor Impacts to Sensitive Receptors* indicates that odor impacts would be considered significant if there were more than one (1) confirmed complaint per year average over a three (3) year period or if there were three (3) unconfirmed complaints

per year averaged over a three (3) year period. This odor analysis was based upon a review of odor complaints from a similar facility as recommended by SJVAPCD guidance since the Proposed Project does not currently exist.

There are two (2) existing Mad Duck Craft Brewing Company locations in the City of Fresno (3085 E. Campus Point / 7050 N Marks Ave), with the closest sensitive receptor less than 250 feet from one of the facilities. The Mad Duck Campus portion of the Proposed Project is located approximately 250 feet northeast of single-family residences. The SJVAPCD indicated that no odor complaints have been received for activities associated with the operation of the two existing facilities based upon a public records request to the SJVAPCD regarding odor complaints. Due to the nature of the Proposed Project and the proximity to sensitive receptors, no significant impact related to odors would occur during the operation of the Proposed Project. As a result, the Proposed Project would not result in other emissions adversely affecting a substantial number of people.

Table 5: Screening Levels For Potential Odor Sources

| Type of Facility | Distance |
|--|----------|
| Wastewater Treatment Facilities | 2 miles |
| Sanitary Landfill | 1 mile |
| Transfer Station | 1 mile |
| Compositing Facility | 1 mile |
| Petroleum Refinery | 2 miles |
| Asphalt Batch Plant | 1 mile |
| Chemical Manufacturing | 1 mile |
| Fiberglass Manufacturing | 1 mile |
| Painting/Coating Operations (e.g., auto body shops) | 1 mile |
| Food Processing Facility | 1 mile |
| Feed Lot/Dairy | 1 mile |
| Rendering Plant | 1 mile |

Source: **SJVAPCD 2024**

Climate/Greenhouse Gas Emissions Impact Assessment

Methods

Screening Criteria

First, the Proposed Project was assessed against the SJVAPCD’s screening criteria to determine whether or not detailed GHG modeling was required. The characteristics of the Proposed Project do not meet SJVAPCD’s SPAL and therefore further assessment of construction and operational GHG emissions is required.

Detailed Air Quality Modeling

Emissions from construction and operation of the Project were calculated using the California Emissions Estimator Model, Version 2022.1.1.19 (CalEEMod). Emissions were estimated assuming that construction would begin in begin in October 2026 and last 14 month. CalEEMod default assumptions were used except

where project-specific information was available. Trip generation rate inputs in the CalEEMod were derived from the Golden Triangle Traffic Impact Analysis Report prepared by JLB Traffic Engineering, Inc. (JLB, 2024a).

In emissions inventories, GHG emissions are typically reported as metric tons of carbon dioxide (CO₂) equivalents (CO₂e). CO₂e is calculated as the product of the mass emitted of a given GHG and its specific global warming potential (GWP). While methane (CH₄) and nitrous oxide (N₂O) have much higher GWPs than CO₂, CO₂ is emitted in higher quantities and it accounts for the majority of GHG emissions in CO₂e, both from commercial developments and human activity in general.

Thresholds of Significance

The SJVAPCD has not adopted numerical thresholds for GHG emissions and instead recommends a tiered approach to establish the significance of the GHG impacts on the environment:

- i. If a project complies with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, then the project would be determined to have a less than significant individual and cumulative impact for GHG emissions;
- ii. If a project does not comply with an approved GHG emission reduction plan or mitigation program, then it would be required to implement Best Performance Standards; and
- iii. If a project is not implementing BPS, then it should demonstrate that its GHG emissions would be reduced or mitigated by at least 29 percent compared to Business as Usual.

Section 15064.4 of the CEQA *Guidelines* states that: “A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project.” In performing that analysis, the lead agency has discretion to determine whether to use a model or methodology to quantify greenhouse gas emissions, or to rely on a qualitative analysis or performance-based standards. In making a determination as to the significance of potential impacts, the lead agency should then consider:

- 1) the extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting,
- 2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project, and
- 3) the extent to which the project complies with regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

The City of Clovis and SJVAPCD have not adopted numerical thresholds for GHG emissions. In the absence of an adopted numeric GHG emissions threshold, the project’s GHG emissions impact determination will be based on the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. This approach is consistent with the State CEQA *Guidelines* Section 15064.4, and the SJVAPCD’s recommendation that if a project is consistent with an approved GHG emission reduction plan, it can be presumed that the project will not have significant GHG emission impacts.

The City of Clovis has not adopted a GHG reduction plan. Thus, the project is assessed for its consistency with CARB’s adopted 2017 and 2022 Scoping Plans.

CEQA Guidelines Significance Criteria Review

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction activities that emit GHG emissions include those from on- and off-road vehicles, stationary equipment such as air compressors and generators, as well as other sources including transportation, electricity use, natural gas use, and solid waste disposal. Because construction emissions are temporary and short-term, they contribute a relatively small portion of a project’s overall lifetime GHG emissions and, in the absence of a construction-specific significant threshold and consistent with recommendations of air districts throughout the state, these construction emissions are amortized over the anticipated life of the Proposed Project and added to operational emissions. The estimated total GHG emissions during the construction phase of the Project are 379.00 MT CO₂e as shown in **Table 6**. Construction emissions amortized over a 30-year project lifetime (estimated) yield approximately 12.63 MT CO₂e per year. Total operational emissions combined with amortized construction emissions shows that the Project will generate 6,789.17 MT CO₂e per year as shown in **Table 6**. Operational sources of GHG emissions are primarily associated with mobile sources from vehicle trips, as well as indirect GHG emissions sources such as electricity use and solid waste disposal. The Proposed Project’s GHG emissions are provided in **Table 6** for informational purposes only.

Table 6: Estimated GHG Emissions

| Emission Source | Emissions (MT CO ₂ e per Year) |
|---------------------------|---|
| Construction Emissions | 379.00 (12.63) ¹ |
| Area | 2.84 |
| Energy | 739.00 |
| Mobile (On-Road Vehicles) | 5,780.00 |
| Waste | 204.00 |
| Water | 47.30 |
| Refrigeration | 3.40 |
| Total | 6,789.17 |

Source: **Appendix B**

1 – Amortized over a 30-year project lifetime

As discussed, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds or consistency with a regional GHG reduction plan (such as a Climate Action Plan). Neither the City of Clovis, County of Fresno, nor SJVAPCD has developed or adopted numeric GHG significance thresholds. Since no other local or regional Climate Action Plan is in place, the project is assessed for its consistency with CARB’s adopted 2017 and 2022 Scoping Plans as discussed below.

Consistency with Greenhouse Gas Reduction Plans

The 2022 Scoping Plan lays forth a plan for achieving carbon neutrality goals and reducing anthropogenic GHG emissions by 85% below 1990 levels by 2045 as required by AB 1279. By implementing clean technologies and fuels, the plan’s actions and results will result in significant decreases in the combustion of fossil fuels, further decreases in short-lived climate pollutants, support for sustainable development, increased action on working and natural lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

The 2022 Scoping Plan focuses on augmenting the State’s clean energy production and distribution infrastructure for a carbon-neutral future, of which the transition away from fossil fuels and towards electrification plays an important role in nearly all sectors. Specific methods include transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes. The State needs to add four times the solar and wind capacity by 2045 and about 1,700 times the amount of current hydrogen supply to reach this goal. As discussed in the 2022 Scoping Plan, EO N-79-20 requires that all new passenger vehicles sold in California will be zero-emission by 2035, and all other fleets will have transitioned to zero-emission as fully possible by 2045, which will reduce the percentage of fossil fuel combustion vehicles.

The 2022 Scoping Plan measures applicable to the Proposed Project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures. As described above, the Project includes numerous design elements and BMPs to minimize the emissions of GHGs, including solar energy generation facilities and battery storage systems. While the Project is not a residential or Mixed-Use Residential project, it should be noted that the Project meets two of the six ‘Key Project Attribute(s)’ identified in Table 3 (Key Residential and Mixed-Use Project Attributes that Reduce GHGs) of the 2022 Scoping Plan. Specifically, the Project meets the following VMT Reduction attributes:

- Is located on an infill site that is surrounded by existing urban uses.
- Does not result in the loss or conversion of natural and working lands.

Below is a list of applicable strategies in the Scoping Plan and the Project’s consistency with those strategies.

Energy Efficiency Measures

Energy efficiency measures of the 2022 Scoping Plan are intended to maximize and increase energy efficiency building and appliance standards, pursue additional efficiency efforts that include new technologies and new policy and implementation mechanisms, accelerate the reduction and replacement of fossil fuel production and consumption in California, and invest in energy efficiency from all retail providers of electricity in California. These measures cannot be implemented by an individual project or lead agency since they are statewide measures, but the Proposed Project is consistent with and would not conflict or obstruct these goals. These measures are designed to expand the use of green building practices to reduce the carbon footprint of proposed and existing buildings; the Proposed Project would be required to comply with the latest Title 24 standards of the California Code of Regulations, established by the California Energy Commission and the City’s current building code, regarding energy conservation and green building standards. The Proposed Project would include solar energy generation and battery

systems that would reduce the reliance on fossil fuels. Therefore, the Proposed Project would comply with applicable energy measures.

Water Conservation Measures

The treatment and transport of water emits GHGs, and therefore the 2022 Scoping Plan includes water conservation and efficiency measures that are intended to continue efficiency programs and use cleaner energy sources to move and treat water. The Proposed Project would be required to comply with the latest Title 24 standards of the California Code of Regulations, which includes a variety of different measures, including reduction of wastewater and water use. In addition, the Proposed Project would install low maintenance landscape features. Therefore, the Proposed Project would not conflict with any of the water conservation and efficiency measures and would be consistent with this goal of the 2022 Scoping Plan.

Transportation and Motor Vehicle Efficiency

The goal of transportation and motor vehicle measures is to develop regional GHG emissions reduction targets for passenger vehicles. State goals include achieving 100 percent Zero-Emission Vehicle (ZEV) sales of light-duty vehicles by 2035 and medium-heavy-duty vehicles by 2040; accelerating the reduction and replacement of fossil fuel production and consumption in California; and achieving a per capita Vehicle Miles Traveled (VMT) reduction of at least 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045. These measures cannot be implemented by a particular project or lead agency since they are statewide measures. When they are implemented, standards would be applicable to light-duty and medium-heavy-duty vehicles that would access the proposed commercial/retail development.

The Proposed Project is consistent with the State's Strategies for Achieving Success for VMT Reduction in that it is an infill development site that is surrounded by existing urban uses and is serviced by two routes of the Clovis Transit System with a third route currently contemplated for future access (Clovis Transit, 2024). Additionally, the Proposed Project would include the installation of EV charging stations and EV ready parking stalls consistent with the 2022 CalGreen Code requirements, resulting in the addition of roughly 32 EV charging stations within the project site. A VMT Analysis was prepared for the Proposed Project by JLB Traffic Engineering, Inc (JLB, 2024b). As stated therein, according to Section 2.1.1.5 of the City of Clovis Transportation Impact Analysis Guidelines, "Office or the employment portions of other non-residential uses with total daily employee based VMT per employee that is 13 percent less than the existing average baseline level in Fresno County...are shown in green in the maps provided..." (City of Clovis, 2022). The Project Site is located within a "green" area identified by the City as having low VMT in terms of VMT per employee (City of Clovis, 2022). As the proposed car dealership and office land use categories are employment driven land uses that are located in a low employee VMT zone, they are considered screened out from a detailed VMT analysis in accordance with the City's Transportation Impact Analysis Guidelines. The VMT analysis for the remaining land uses, including the retail land uses, brewery campus and restaurants, shows that the regional VMT, after taking into account internal trips, pass-by trips, and the installation of EV charging infrastructure, will be reduced by the Proposed Project, and would not exceed the VMT thresholds defined in City of Clovis Transportation Impact Analysis Guidelines (JLB, 2024b).

Therefore, the Proposed Project would not conflict or obstruct state or local plans pertaining to a reduction in GHG emissions from transportation and motor vehicle efficiency.

Summary

Therefore, the Proposed Project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals identified in Executive Order B-30-15, SB 32, AB 197, and AB 1279 and would be consistent with applicable plans and programs designed to reduce GHG emissions. Therefore, the Proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

b) Question B: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As described above, the Proposed Project includes numerous design elements and BMPs to minimize the emissions of greenhouse gases, including solar energy generation facilities and battery storage systems. The analysis under Question A details how the Proposed Project would be consistent with the State's 2022 Scoping Plan, which is designed to achieve the overall GHG emission reduction goals identified in Executive Order B-30-15, SB 32, AB 197, and AB 1279. Therefore, the Proposed Project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions. The Proposed Project would result in a less than significant impact.

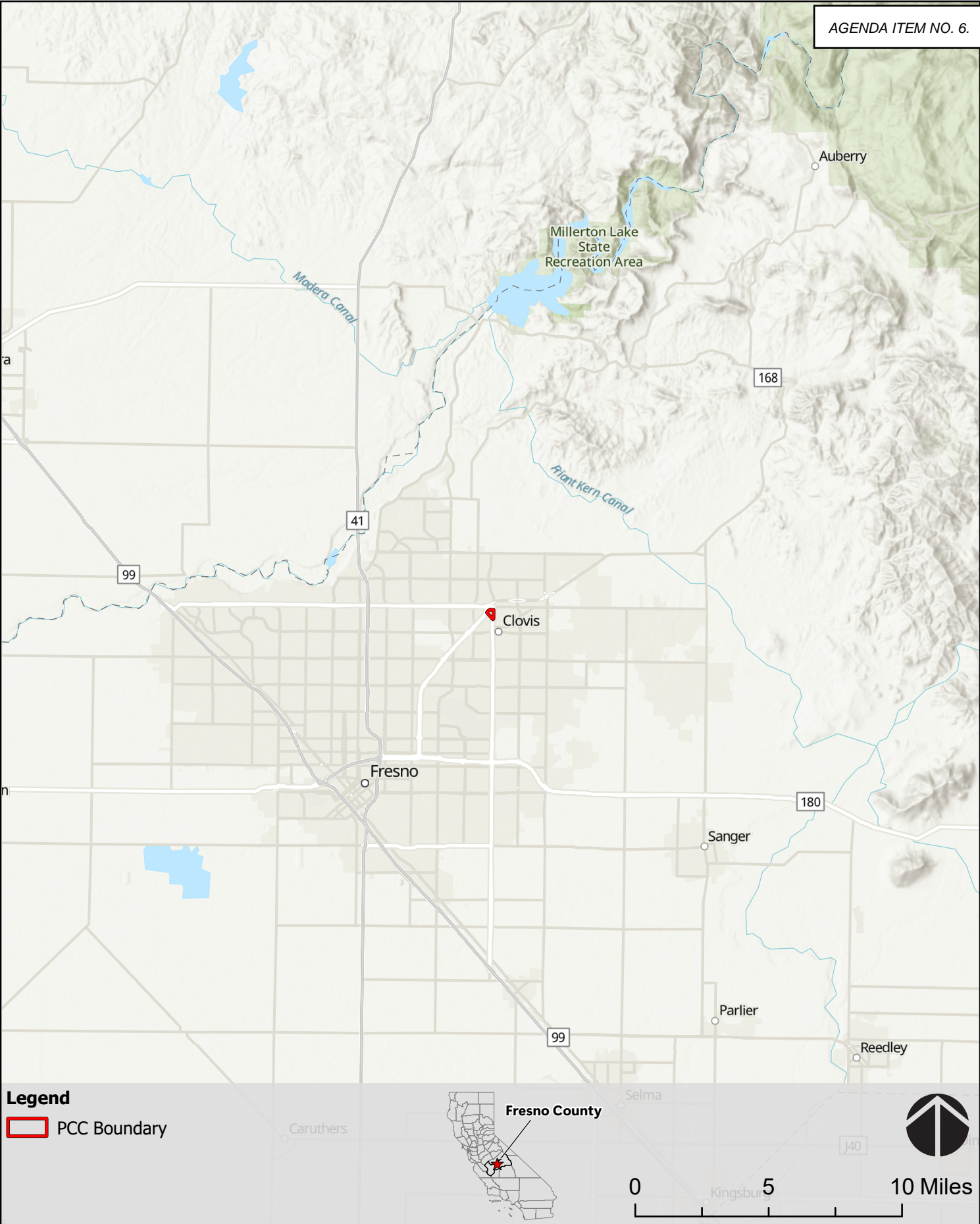
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APPENDICES

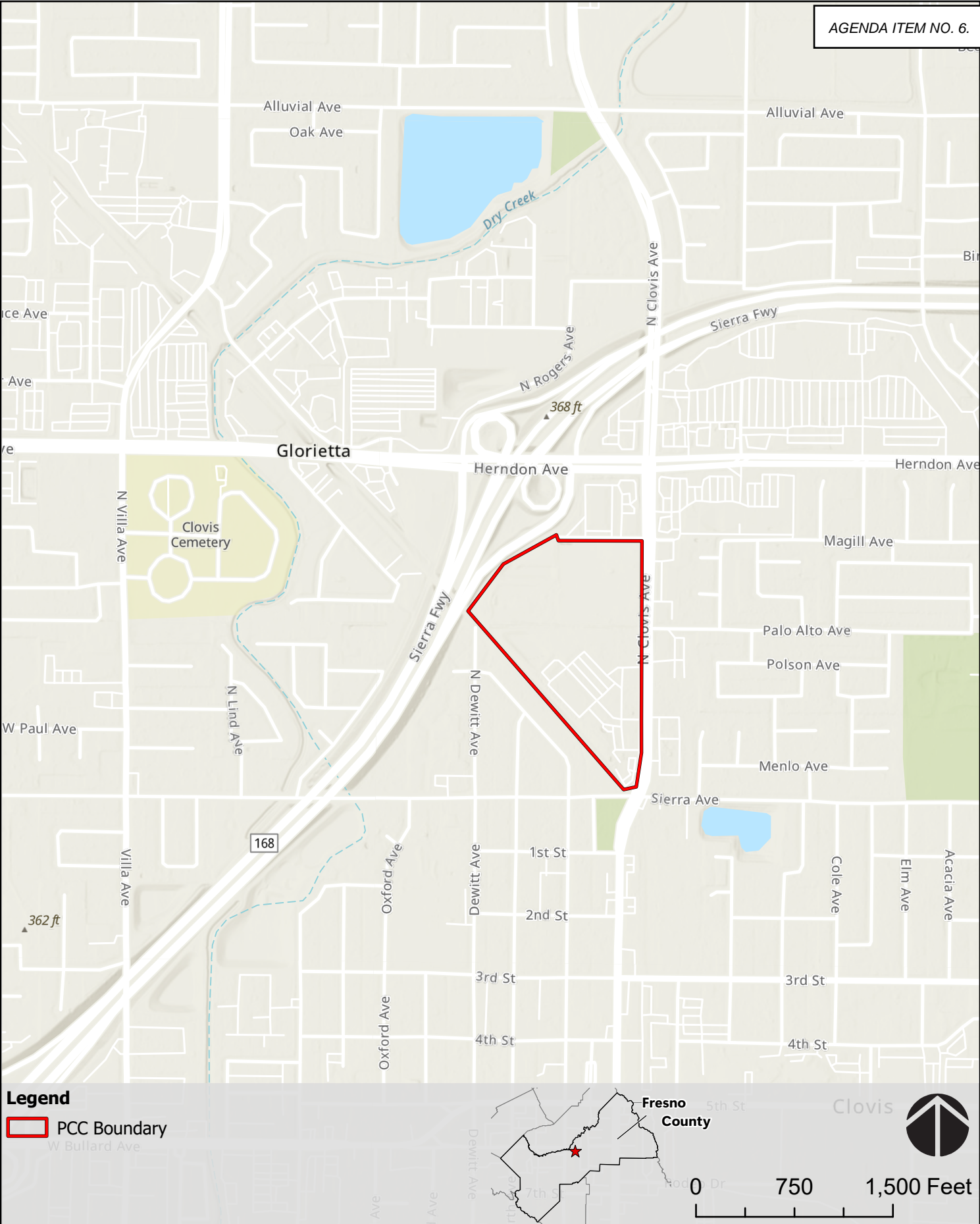
APPENDIX A

Figures



City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, Esri, NASA, NGA, USGS

FIGURE 1
REGIONAL LOCATION



Esri Community Maps Contributors, City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land

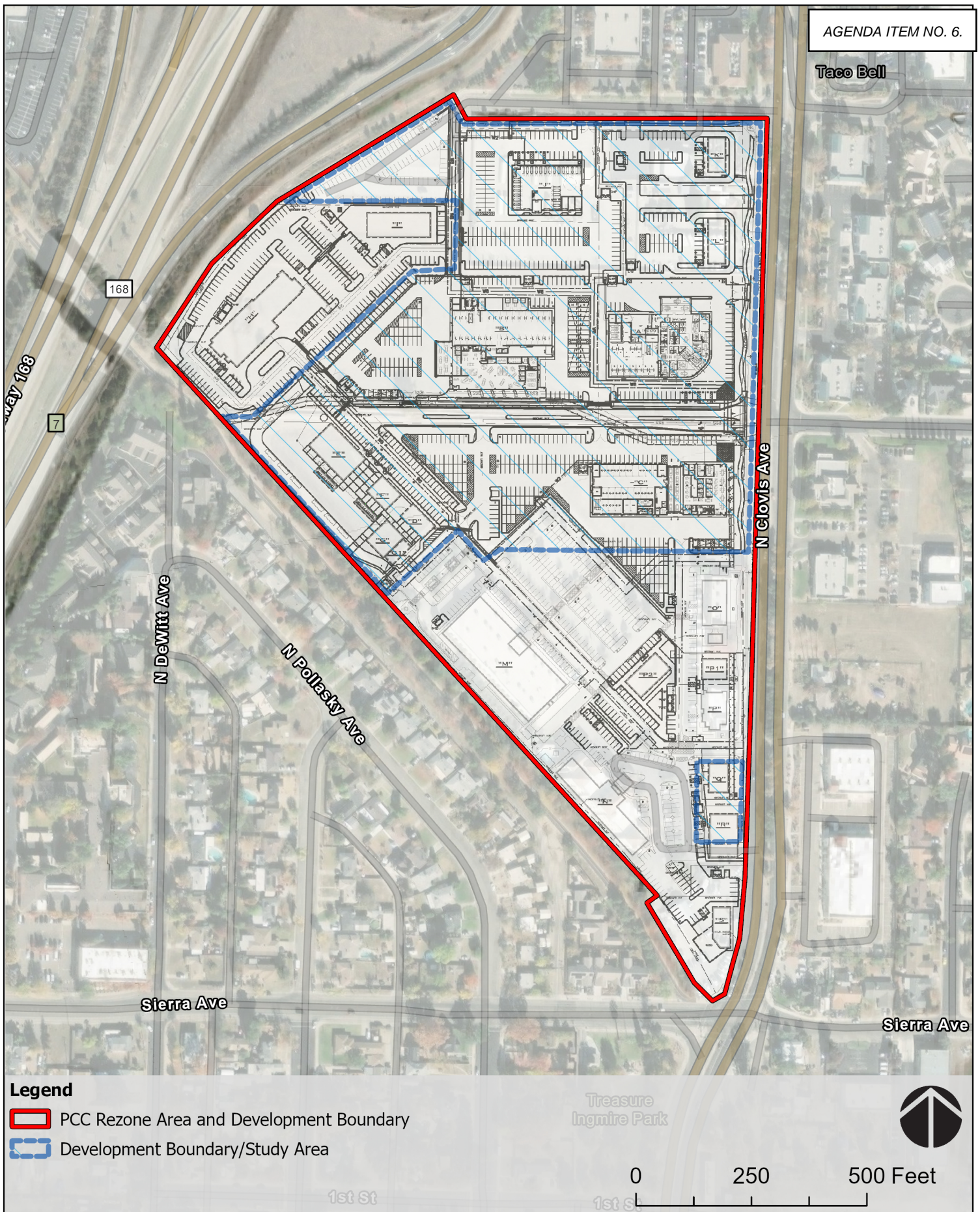
FIGURE 2
SITE AND VICINITY



Airbus, USGS, NGA, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community, Maxar

FIGURE 3
AERIAL OVERVIEW

Taco Bell



Airbus, USGS, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community, Maxar, Esri Community Maps Contributors, City Of Fresno, Fresno County Dept. PWP,

APPENDIX B

CalEEMod Output Files

Golden Triangle Planned Commercial Center Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

| Data Field | Value |
|-----------------------------|---|
| Project Name | Golden Triangle Planned Commercial Center |
| Construction Start Date | 10/1/2026 |
| Operational Year | 2028 |
| Lead Agency | City of Clovis |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.70 |
| Precipitation (days) | 21.4 |
| Location | 36.83426442288318, -119.70216172030855 |
| County | Fresno |
| City | Clovis |
| Air District | San Joaquin Valley APCD |
| Air Basin | San Joaquin Valley |
| TAZ | 2437 |
| EDFZ | 5 |
| Electric Utility | Pacific Gas & Electric Company |
| Gas Utility | Pacific Gas & Electric |
| App Version | 2022.1.1.23 |

1.2. Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|------------------|------|------|-------------|-----------------------|------------------------|--------------------------------|------------|-------------|
|------------------|------|------|-------------|-----------------------|------------------------|--------------------------------|------------|-------------|

| | | | | | | | | |
|--------------------------------------|------|----------|------|---------|-------|------|---|---|
| General Office Building | 15.0 | 1000sqft | 0.34 | 15,000 | 375 | 0.00 | — | — |
| Fast Food Restaurant with Drive Thru | 3.88 | 1000sqft | 1.07 | 3,880 | 100 | 0.00 | — | — |
| Fast Food Restaurant with Drive Thru | 3.88 | 1000sqft | 1.08 | 3,880 | 100 | 0.00 | — | — |
| Automobile Care Center | 139 | 1000sqft | 14.6 | 139,020 | 1,000 | 0.00 | — | Automobile Care Center used as proxy for Dealership/Repair Shop |
| Research & Development | 3.00 | 1000sqft | 0.50 | 3,000 | 75.0 | 0.00 | — | Research & Development used as proxy for Wine Tasting and Brewing Tap room. |
| Research & Development | 10.8 | 1000sqft | 1.50 | 10,760 | 275 | 0.00 | — | Research & Development used as proxy for Wine Tasting and Brewing Tap room. |
| Strip Mall | 13.3 | 1000sqft | 0.31 | 13,330 | 350 | 0.00 | — | — |
| Quality Restaurant | 4.93 | 1000sqft | 0.64 | 4,930 | 125 | 0.00 | — | Quality Restaurant used as proxy for Banquet. |

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-------------------------|------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.51 | 1.29 | 10.1 | 15.2 | 0.03 | 0.34 | 0.45 | 0.79 | 0.32 | 0.11 | 0.43 | — | 3,166 | 3,166 | 0.12 | 0.09 | 2.02 | 3,199 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 3.81 | 45.1 | 29.2 | 29.3 | 0.06 | 1.24 | 7.76 | 9.00 | 1.14 | 3.96 | 5.11 | — | 6,704 | 6,704 | 0.27 | 0.10 | 0.05 | 6,728 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.96 | 3.28 | 6.64 | 9.68 | 0.02 | 0.23 | 0.59 | 0.78 | 0.21 | 0.25 | 0.42 | — | 2,007 | 2,007 | 0.08 | 0.06 | 0.54 | 2,026 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.18 | 0.60 | 1.21 | 1.77 | < 0.005 | 0.04 | 0.11 | 0.14 | 0.04 | 0.05 | 0.08 | — | 332 | 332 | 0.01 | 0.01 | 0.09 | 335 |
| Exceeds (Daily Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | Yes | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Exceeds (Average Daily) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | Yes | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Exceeds (Annual) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 10.0 | 10.0 | 100 | 27.0 | — | — | 15.0 | — | — | 15.0 | — | — | — | — | — | — | — |
| Unmit. | — | No | No | No | No | — | — | No | — | — | No | — | — | — | — | — | — | 790 |

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------------------|------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|---------|------|-------|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2027 | 1.51 | 1.29 | 10.1 | 15.2 | 0.03 | 0.34 | 0.45 | 0.79 | 0.32 | 0.11 | 0.43 | — | 3,166 | 3,166 | 0.12 | 0.09 | 2.02 | 3,199 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 3.81 | 3.21 | 29.2 | 29.3 | 0.06 | 1.24 | 7.76 | 9.00 | 1.14 | 3.96 | 5.11 | — | 6,704 | 6,704 | 0.27 | 0.10 | 0.03 | 6,728 |
| 2027 | 3.57 | 45.1 | 25.6 | 27.8 | 0.06 | 1.04 | 3.70 | 4.74 | 0.96 | 1.45 | 2.41 | — | 6,701 | 6,701 | 0.27 | 0.09 | 0.05 | 6,726 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.61 | 0.51 | 4.52 | 4.52 | 0.01 | 0.19 | 0.59 | 0.78 | 0.17 | 0.25 | 0.42 | — | 994 | 994 | 0.04 | 0.01 | 0.05 | 999 |
| 2027 | 0.96 | 3.28 | 6.64 | 9.68 | 0.02 | 0.23 | 0.29 | 0.52 | 0.21 | 0.07 | 0.28 | — | 2,007 | 2,007 | 0.08 | 0.06 | 0.54 | 2,026 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.11 | 0.09 | 0.83 | 0.82 | < 0.005 | 0.03 | 0.11 | 0.14 | 0.03 | 0.05 | 0.08 | — | 165 | 165 | 0.01 | < 0.005 | 0.01 | 165 |
| 2027 | 0.18 | 0.60 | 1.21 | 1.77 | < 0.005 | 0.04 | 0.05 | 0.09 | 0.04 | 0.01 | 0.05 | — | 332 | 332 | 0.01 | 0.01 | 0.09 | 335 |

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|-----|------|-------|-------|-------|--------|--------|--------|------|--------|--------|------|------|-----|--------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 54.5 | 55.8 | 39.0 | 318 | 0.74 | 0.73 | 61.7 | 62.4 | 0.69 | 15.6 | 16.3 | 405 | 79,048 | 79,453 | 44.4 | 3.93 | 230 | 81,963 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|--------|--------|------|------|------|--------|
| Unmit. | 47.6 | 48.8 | 43.9 | 278 | 0.68 | 0.72 | 61.7 | 62.4 | 0.68 | 15.6 | 16.3 | 405 | 72,909 | 73,314 | 44.9 | 4.20 | 26.0 | 75,715 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 31.2 | 33.8 | 23.5 | 152 | 0.34 | 0.45 | 28.5 | 29.0 | 0.43 | 7.23 | 7.66 | 405 | 37,978 | 38,383 | 43.2 | 2.20 | 62.9 | 40,182 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 5.70 | 6.18 | 4.30 | 27.8 | 0.06 | 0.08 | 5.20 | 5.29 | 0.08 | 1.32 | 1.40 | 67.0 | 6,288 | 6,355 | 7.15 | 0.36 | 10.4 | 6,653 |
| Exceeds (Annual) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Threshold | — | 10.0 | 10.0 | 100 | 27.0 | — | — | 15.0 | — | — | 15.0 | — | — | — | — | — | — | — |
| Unmit. | — | No | No | No | No | — | — | No | — | — | No | — | — | — | — | — | — | — |

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Sector | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|--------|--------|---------|---------|------|--------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 52.8 | 49.9 | 36.6 | 307 | 0.73 | 0.54 | 61.7 | 62.2 | 0.51 | 15.6 | 16.1 | — | 74,515 | 74,515 | 3.24 | 3.76 | 210 | 75,926 |
| Area | 1.50 | 5.78 | 0.07 | 8.43 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 34.7 | 34.7 | < 0.005 | < 0.005 | — | 34.8 |
| Energy | 0.25 | 0.13 | 2.30 | 1.93 | 0.01 | 0.17 | — | 0.17 | 0.17 | — | 0.17 | — | 4,438 | 4,438 | 0.52 | 0.04 | — | 4,462 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 52.4 | 60.3 | 113 | 5.38 | 0.13 | — | 286 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 352 | 0.00 | 352 | 35.2 | 0.00 | — | 1,233 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 20.5 | 20.5 |
| Total | 54.5 | 55.8 | 39.0 | 318 | 0.74 | 0.73 | 61.7 | 62.4 | 0.69 | 15.6 | 16.3 | 405 | 79,048 | 79,453 | 44.4 | 3.93 | 230 | 81,963 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------------|------|------|------|------|---------|---------|------|---------|---------|------|---------|------|--------|--------|---------|---------|------|--------|
| Mobile | 47.4 | 44.3 | 41.6 | 277 | 0.67 | 0.54 | 61.7 | 62.2 | 0.51 | 15.6 | 16.1 | — | 68,411 | 68,411 | 3.82 | 4.03 | 5.43 | 69,713 |
| Area | — | 4.39 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Energy | 0.25 | 0.13 | 2.30 | 1.93 | 0.01 | 0.17 | — | 0.17 | 0.17 | — | 0.17 | — | 4,438 | 4,438 | 0.52 | 0.04 | — | 4,462 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 52.4 | 60.3 | 113 | 5.38 | 0.13 | — | 286 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 352 | 0.00 | 352 | 35.2 | 0.00 | — | 1,233 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 20.5 | 20.5 |
| Total | 47.6 | 48.8 | 43.9 | 278 | 0.68 | 0.72 | 61.7 | 62.4 | 0.68 | 15.6 | 16.3 | 405 | 72,909 | 73,314 | 44.9 | 4.20 | 26.0 | 75,715 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 30.2 | 28.6 | 21.2 | 146 | 0.33 | 0.27 | 28.5 | 28.8 | 0.25 | 7.23 | 7.48 | — | 33,463 | 33,463 | 2.07 | 2.03 | 42.4 | 34,163 |
| Area | 0.74 | 5.08 | 0.03 | 4.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 17.1 | 17.1 | < 0.005 | < 0.005 | — | 17.2 |
| Energy | 0.25 | 0.13 | 2.30 | 1.93 | 0.01 | 0.17 | — | 0.17 | 0.17 | — | 0.17 | — | 4,438 | 4,438 | 0.52 | 0.04 | — | 4,462 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 52.4 | 60.3 | 113 | 5.38 | 0.13 | — | 286 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 352 | 0.00 | 352 | 35.2 | 0.00 | — | 1,233 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 20.5 | 20.5 |
| Total | 31.2 | 33.8 | 23.5 | 152 | 0.34 | 0.45 | 28.5 | 29.0 | 0.43 | 7.23 | 7.66 | 405 | 37,978 | 38,383 | 43.2 | 2.20 | 62.9 | 40,182 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 5.52 | 5.23 | 3.87 | 26.7 | 0.06 | 0.05 | 5.20 | 5.25 | 0.05 | 1.32 | 1.37 | — | 5,540 | 5,540 | 0.34 | 0.34 | 7.02 | 5,656 |
| Area | 0.14 | 0.93 | 0.01 | 0.76 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 2.83 | 2.83 | < 0.005 | < 0.005 | — | 2.84 |
| Energy | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 735 | 735 | 0.09 | 0.01 | — | 739 |
| Water | — | — | — | — | — | — | — | — | — | — | — | 8.68 | 9.98 | 18.7 | 0.89 | 0.02 | — | 47.3 |
| Waste | — | — | — | — | — | — | — | — | — | — | — | 58.3 | 0.00 | 58.3 | 5.83 | 0.00 | — | 204 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3.40 | 3.40 |
| Total | 5.70 | 6.18 | 4.30 | 27.8 | 0.06 | 0.08 | 5.20 | 5.29 | 0.08 | 1.32 | 1.40 | 67.0 | 6,288 | 6,355 | 7.15 | 0.36 | 10.4 | 6,653 |

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|---------|-------|---------|---------|--------|---------|---------|------|-------|-------|---------|---------|------|-------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 2.72 | 2.29 | 20.7 | 19.0 | 0.03 | 0.84 | — | 0.84 | 0.78 | — | 0.78 | — | 3,427 | 3,427 | 0.14 | 0.03 | — | 3,438 |
| Demolition | — | — | — | — | — | — | 0.35 | 0.35 | — | 0.05 | 0.05 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.15 | 0.13 | 1.13 | 1.04 | < 0.005 | 0.05 | — | 0.05 | 0.04 | — | 0.04 | — | 188 | 188 | 0.01 | < 0.005 | — | 188 |
| Demolition | — | — | — | — | — | — | 0.02 | 0.02 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.03 | 0.02 | 0.21 | 0.19 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 31.1 | 31.1 | < 0.005 | < 0.005 | — | 31.2 |
| Demolition | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 794 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|------|------|---------|---------|---------|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.05 | 0.04 | 0.42 | 0.00 | 0.00 | 0.08 | 0.08 | 0.00 | 0.02 | 0.02 | — | 79.1 | 79.1 | < 0.005 | < 0.005 | 0.01 | 80.3 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.02 | 0.01 | 0.55 | 0.13 | < 0.005 | 0.01 | 0.12 | 0.13 | 0.01 | 0.03 | 0.04 | — | 435 | 435 | 0.01 | 0.07 | 0.03 | 456 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 4.49 | 4.49 | < 0.005 | < 0.005 | 0.01 | 4.56 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | < 0.005 | < 0.005 | 0.03 | 0.01 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 23.8 | 23.8 | < 0.005 | < 0.005 | 0.02 | 25.0 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.74 | 0.74 | < 0.005 | < 0.005 | < 0.005 | 0.76 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | — | 3.95 | 3.95 | < 0.005 | < 0.005 | < 0.005 | 4.14 |

3.3. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|---|------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.74 | 3.14 | 29.2 | 28.8 | 0.05 | 1.24 | — | 1.24 | 1.14 | — | 1.14 | — | 5,298 | 5,298 | 0.21 | 0.04 | — | 795 |

| | | | | | | | | | | | | | | | | | | |
|------------------------------|------|------|------|------|---------|------|------|------|------|------|------|---|------|------|---------|---------|------|------|
| Dust From Material Movement: | — | — | — | — | — | — | 7.67 | 7.67 | — | 3.94 | 3.94 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.10 | 0.09 | 0.80 | 0.79 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 145 | 145 | 0.01 | < 0.005 | — | 146 |
| Dust From Material Movement: | — | — | — | — | — | — | 0.21 | 0.21 | — | 0.11 | 0.11 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.15 | 0.14 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 24.0 | 24.0 | < 0.005 | < 0.005 | — | 24.1 |
| Dust From Material Movement: | — | — | — | — | — | — | 0.04 | 0.04 | — | 0.02 | 0.02 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.06 | 0.04 | 0.48 | 0.00 | 0.00 | 0.10 | 0.10 | 0.00 | 0.02 | 0.02 | — | 92.2 | 92.2 | < 0.005 | < 0.005 | 0.01 | 93.7 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 796 |

| | | | | | | | | | | | | | | | | | | |
|---------------|---------|---------|---------|---------|------|------|---------|---------|------|---------|---------|---|------|------|---------|---------|---------|------|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 2.62 | 2.62 | < 0.005 | < 0.005 | < 0.005 | 2.66 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.43 | 0.43 | < 0.005 | < 0.005 | < 0.005 | 0.44 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-----------------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|------|-------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.62 | 3.04 | 27.2 | 27.6 | 0.06 | 1.12 | — | 1.12 | 1.03 | — | 1.03 | — | 6,599 | 6,599 | 0.27 | 0.05 | — | 6,621 |
| Dust From Material Movement | — | — | — | — | — | — | 3.59 | 3.59 | — | 1.42 | 1.42 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.34 | 0.29 | 2.56 | 2.59 | 0.01 | 0.11 | — | 0.11 | 0.10 | — | 0.10 | — | 620 | 620 | 0.03 | 0.01 | — | 797 |

| | | | | | | | | | | | | | | | | | | |
|-----------------------------|---------|---------|---------|------|---------|------|---------|---------|------|---------|---------|---|------|------|---------|---------|---------|------|
| Dust From Material Movement | — | — | — | — | — | — | 0.34 | 0.34 | — | 0.13 | 0.13 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.06 | 0.05 | 0.47 | 0.47 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 103 | 103 | < 0.005 | < 0.005 | — | 103 |
| Dust From Material Movement | — | — | — | — | — | — | 0.06 | 0.06 | — | 0.02 | 0.02 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.07 | 0.07 | 0.05 | 0.55 | 0.00 | 0.00 | 0.11 | 0.11 | 0.00 | 0.03 | 0.03 | — | 105 | 105 | < 0.005 | 0.01 | 0.01 | 107 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | < 0.005 | 0.05 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | — | 10.3 | 10.3 | < 0.005 | < 0.005 | 0.02 | 10.4 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 1.70 | 1.70 | < 0.005 | < 0.005 | < 0.005 | 1.72 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 798 |

| | | | | | | | | | | | | | | | | | | |
|---------|------|------|------|------|------|------|------|------|------|------|------|---|------|------|------|------|------|------|
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|---------|------|------|------|------|------|------|------|------|------|------|------|---|------|------|------|------|------|------|

3.7. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-----------------------------|---------|---------|------|------|---------|---------|-------|---------|---------|--------|---------|------|-------|-------|---------|---------|------|--------------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 3.51 | 2.95 | 25.6 | 27.3 | 0.06 | 1.04 | — | 1.04 | 0.96 | — | 0.96 | — | 6,598 | 6,598 | 0.27 | 0.05 | — | 6,621 |
| Dust From Material Movement | — | — | — | — | — | — | 3.59 | 3.59 | — | 1.42 | 1.42 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.10 | 0.11 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 25.8 | 25.8 | < 0.005 | < 0.005 | — | 25.9 |
| Dust From Material Movement | — | — | — | — | — | — | 0.01 | 0.01 | — | 0.01 | 0.01 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.02 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 4.28 | 4.28 | < 0.005 | < 0.005 | — | 4,280 799 |

| | | | | | | | | | | | | | | | | | | |
|-----------------------------|---------|---------|---------|---------|------|------|---------|---------|------|---------|---------|---|------|------|---------|---------|---------|------|
| Dust From Material Movement | — | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.07 | 0.06 | 0.05 | 0.51 | 0.00 | 0.00 | 0.11 | 0.11 | 0.00 | 0.03 | 0.03 | — | 103 | 103 | < 0.005 | 0.01 | 0.01 | 105 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.42 | 0.42 | < 0.005 | < 0.005 | < 0.005 | 0.43 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.07 | 0.07 | < 0.005 | < 0.005 | < 0.005 | 0.07 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.9. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|----------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 800 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|------|------|------|------|---------|------|------|------|------|------|------|---|-------|-------|------|---------|------|-------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.23 | 1.03 | 9.39 | 12.9 | 0.02 | 0.34 | — | 0.34 | 0.31 | — | 0.31 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.23 | 1.03 | 9.39 | 12.9 | 0.02 | 0.34 | — | 0.34 | 0.31 | — | 0.31 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.74 | 0.62 | 5.63 | 7.76 | 0.01 | 0.20 | — | 0.20 | 0.19 | — | 0.19 | — | 1,438 | 1,438 | 0.06 | 0.01 | — | 1,443 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.11 | 1.03 | 1.42 | < 0.005 | 0.04 | — | 0.04 | 0.03 | — | 0.03 | — | 238 | 238 | 0.01 | < 0.005 | — | 239 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.24 | 0.24 | 0.12 | 2.00 | 0.00 | 0.00 | 0.34 | 0.34 | 0.00 | 0.08 | 0.08 | — | 368 | 368 | 0.01 | 0.01 | 1.18 | 374 |
| Vendor | 0.03 | 0.02 | 0.63 | 0.28 | < 0.005 | 0.01 | 0.11 | 0.11 | 0.01 | 0.03 | 0.04 | — | 401 | 401 | 0.01 | 0.06 | 0.84 | 420 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---------|---------|------|------|---------|---------|------|------|---------|---------|---------|---|------|------|---------|---------|------|------|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.22 | 0.20 | 0.15 | 1.63 | 0.00 | 0.00 | 0.34 | 0.34 | 0.00 | 0.08 | 0.08 | — | 327 | 327 | 0.01 | 0.02 | 0.03 | 332 |
| Vendor | 0.03 | 0.02 | 0.67 | 0.29 | < 0.005 | 0.01 | 0.11 | 0.11 | 0.01 | 0.03 | 0.04 | — | 402 | 402 | 0.01 | 0.06 | 0.02 | 420 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.13 | 0.13 | 0.08 | 0.99 | 0.00 | 0.00 | 0.20 | 0.20 | 0.00 | 0.05 | 0.05 | — | 203 | 203 | 0.01 | 0.01 | 0.31 | 206 |
| Vendor | 0.02 | 0.01 | 0.39 | 0.17 | < 0.005 | < 0.005 | 0.06 | 0.07 | < 0.005 | 0.02 | 0.02 | — | 241 | 241 | 0.01 | 0.04 | 0.22 | 252 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.02 | 0.01 | 0.18 | 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.01 | 0.01 | — | 33.6 | 33.6 | < 0.005 | < 0.005 | 0.05 | 34.2 |
| Vendor | < 0.005 | < 0.005 | 0.07 | 0.03 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | — | 39.9 | 39.9 | < 0.005 | 0.01 | 0.04 | 41.7 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.11. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|-------|-------|------|------|---|-------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.88 | 0.74 | 6.94 | 9.95 | 0.01 | 0.30 | — | 0.30 | 0.27 | — | 0.27 | — | 1,511 | 1,511 | 0.06 | 0.01 | — | 1,516 |
| Paving | — | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---|------|------|---------|---------|---------|------|
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.05 | 0.04 | 0.38 | 0.55 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 82.8 | 82.8 | < 0.005 | < 0.005 | — | 83.1 |
| Paving | — | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.07 | 0.10 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 13.7 | 13.7 | < 0.005 | < 0.005 | — | 13.8 |
| Paving | — | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.05 | 0.03 | 0.39 | 0.00 | 0.00 | 0.08 | 0.08 | 0.00 | 0.02 | 0.02 | — | 77.4 | 77.4 | < 0.005 | < 0.005 | 0.01 | 78.7 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 4.39 | 4.39 | < 0.005 | < 0.005 | 0.01 | 4.47 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.73 | 0.73 | < 0.005 | < 0.005 | < 0.005 | 803 |

| | | | | | | | | | | | | | | | | | | |
|---------|------|------|------|------|------|------|------|------|------|------|------|---|------|------|------|------|------|------|
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

3.13. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-------------------------|---------|---------|------|------|---------|---------|-------|---------|---------|--------|---------|------|-------|------|---------|---------|------|------|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.14 | 0.11 | 0.83 | 1.13 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 134 | 134 | 0.01 | < 0.005 | — | 134 |
| Architect ural Coatings | — | 44.9 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.05 | 0.06 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 7.32 | 7.32 | < 0.005 | < 0.005 | — | 7.34 |
| Architect ural Coatings | — | 2.46 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 1.21 | 1.21 | < 0.005 | < 0.005 | — | 1.22 |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---------|---------|---------|---------|------|------|---------|---------|------|---------|---------|---|------|------|---------|---------|---------|------|
| Architect Coatings | — | 0.45 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.04 | 0.04 | 0.03 | 0.33 | 0.00 | 0.00 | 0.07 | 0.07 | 0.00 | 0.02 | 0.02 | — | 65.3 | 65.3 | < 0.005 | < 0.005 | 0.01 | 66.4 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 3.71 | 3.71 | < 0.005 | < 0.005 | 0.01 | 3.77 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | — | 0.61 | 0.61 | < 0.005 | < 0.005 | < 0.005 | 0.62 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

805

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|--------------------------------------|------|------|------|------|------|-------|-------|-------|--------|--------|--------|------|--------|--------|------|------|------|--------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | 0.57 | 0.54 | 0.39 | 3.30 | 0.01 | 0.01 | 0.66 | 0.67 | 0.01 | 0.17 | 0.17 | — | 800 | 800 | 0.03 | 0.04 | 2.25 | 815 |
| Fast Food Restaurant with Drive Thru | 16.6 | 15.8 | 11.5 | 97.0 | 0.23 | 0.17 | 19.5 | 19.6 | 0.16 | 4.93 | 5.09 | — | 23,515 | 23,515 | 1.02 | 1.19 | 66.1 | 23,960 |
| Automobile Care Center | 25.3 | 23.9 | 17.5 | 147 | 0.35 | 0.26 | 29.6 | 29.8 | 0.24 | 7.50 | 7.74 | — | 35,718 | 35,718 | 1.55 | 1.80 | 100 | 36,395 |
| Research & Development | 6.72 | 6.35 | 4.66 | 39.1 | 0.09 | 0.07 | 7.85 | 7.92 | 0.06 | 1.99 | 2.05 | — | 9,484 | 9,484 | 0.41 | 0.48 | 26.7 | 9,664 |
| Strip Mall | 2.53 | 2.39 | 1.75 | 14.7 | 0.03 | 0.03 | 2.95 | 2.98 | 0.02 | 0.75 | 0.77 | — | 3,570 | 3,570 | 0.16 | 0.18 | 10.0 | 3,637 |
| Quality Restaurant | 1.01 | 0.96 | 0.70 | 5.89 | 0.01 | 0.01 | 1.18 | 1.19 | 0.01 | 0.30 | 0.31 | — | 1,428 | 1,428 | 0.06 | 0.07 | 4.01 | 1,455 |
| Total | 52.8 | 49.9 | 36.6 | 307 | 0.73 | 0.54 | 61.7 | 62.2 | 0.51 | 15.6 | 16.1 | — | 74,515 | 74,515 | 3.24 | 3.76 | 210 | 75,926 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | 0.51 | 0.48 | 0.45 | 2.97 | 0.01 | 0.01 | 0.66 | 0.67 | 0.01 | 0.17 | 0.17 | — | 734 | 734 | 0.04 | 0.04 | 0.06 | 748 |
| Fast Food Restaurant with Drive Thru | 14.9 | 14.0 | 13.1 | 87.3 | 0.21 | 0.17 | 19.5 | 19.6 | 0.16 | 4.93 | 5.09 | — | 21,588 | 21,588 | 1.21 | 1.27 | 1.71 | 21,999 |

| | | | | | | | | | | | | | | | | | | |
|--|------|------|------|------|---------|---------|------|------|---------|------|------|---|--------|--------|---------|------|------|--------|
| Automob Care Center | 22.7 | 21.2 | 19.9 | 133 | 0.32 | 0.26 | 29.6 | 29.8 | 0.24 | 7.50 | 7.74 | — | 32,793 | 32,793 | 1.83 | 1.93 | 2.60 | 33,417 |
| Researc h & Development | 6.03 | 5.63 | 5.30 | 35.2 | 0.09 | 0.07 | 7.85 | 7.92 | 0.06 | 1.99 | 2.05 | — | 8,707 | 8,707 | 0.49 | 0.51 | 0.69 | 8,873 |
| Strip Mall | 2.27 | 2.12 | 1.99 | 13.2 | 0.03 | 0.03 | 2.95 | 2.98 | 0.02 | 0.75 | 0.77 | — | 3,277 | 3,277 | 0.18 | 0.19 | 0.26 | 3,340 |
| Quality Restaurart | 0.91 | 0.85 | 0.80 | 5.30 | 0.01 | 0.01 | 1.18 | 1.19 | 0.01 | 0.30 | 0.31 | — | 1,311 | 1,311 | 0.07 | 0.08 | 0.10 | 1,336 |
| Total | 47.4 | 44.3 | 41.6 | 277 | 0.67 | 0.54 | 61.7 | 62.2 | 0.51 | 15.6 | 16.1 | — | 68,411 | 68,411 | 3.82 | 4.03 | 5.43 | 69,713 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | 0.07 | 0.07 | 0.06 | 0.40 | < 0.005 | < 0.005 | 0.09 | 0.09 | < 0.005 | 0.02 | 0.02 | — | 93.8 | 93.8 | < 0.005 | 0.01 | 0.12 | 95.6 |
| Fast Food Restaurart with Drive Thru | 2.03 | 1.93 | 1.30 | 8.93 | 0.02 | 0.02 | 1.56 | 1.58 | 0.01 | 0.40 | 0.41 | — | 1,688 | 1,688 | 0.12 | 0.11 | 2.11 | 1,726 |
| Automob ile Care Center | 2.33 | 2.21 | 1.65 | 11.4 | 0.03 | 0.02 | 2.25 | 2.27 | 0.02 | 0.57 | 0.59 | — | 2,388 | 2,388 | 0.15 | 0.14 | 3.03 | 2,438 |
| Researc h & Development | 0.57 | 0.54 | 0.47 | 3.25 | 0.01 | 0.01 | 0.73 | 0.73 | 0.01 | 0.18 | 0.19 | — | 759 | 759 | 0.04 | 0.04 | 0.98 | 774 |
| Strip Mall | 0.37 | 0.35 | 0.30 | 2.09 | 0.01 | < 0.005 | 0.47 | 0.47 | < 0.005 | 0.12 | 0.12 | — | 488 | 488 | 0.02 | 0.03 | 0.63 | 498 |
| Quality Restaurart | 0.14 | 0.14 | 0.09 | 0.64 | < 0.005 | < 0.005 | 0.11 | 0.11 | < 0.005 | 0.03 | 0.03 | — | 122 | 122 | 0.01 | 0.01 | 0.15 | 125 |
| Total | 5.52 | 5.23 | 3.87 | 26.7 | 0.06 | 0.05 | 5.20 | 5.25 | 0.05 | 1.32 | 1.37 | — | 5,540 | 5,540 | 0.34 | 0.34 | 7.02 | 5,656 |

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|--------------------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|-------|------|---------|---|-------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | — | 197 | 197 | 0.03 | < 0.005 | — | 198 |
| Fast Food Restaurant with Drive Thru | — | — | — | — | — | — | — | — | — | — | — | — | 194 | 194 | 0.03 | < 0.005 | — | 196 |
| Automobile Care Center | — | — | — | — | — | — | — | — | — | — | — | — | 922 | 922 | 0.15 | 0.02 | — | 931 |
| Research & Development | — | — | — | — | — | — | — | — | — | — | — | — | 180 | 180 | 0.03 | < 0.005 | — | 182 |
| Strip Mall | — | — | — | — | — | — | — | — | — | — | — | — | 78.7 | 78.7 | 0.01 | < 0.005 | — | 79.4 |
| Quality Restaurant | — | — | — | — | — | — | — | — | — | — | — | — | 123 | 123 | 0.02 | < 0.005 | — | 124 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 1,694 | 1,694 | 0.27 | 0.03 | — | 1,711 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | — | 197 | 197 | 0.03 | < 0.005 | — | 198 |

| | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|-------|-------|---------|---------|---|-------|
| Fast Food Restaurant with Drive Thru | — | — | — | — | — | — | — | — | — | — | — | — | 194 | 194 | 0.03 | < 0.005 | — | 196 |
| Automobile Care Center | — | — | — | — | — | — | — | — | — | — | — | — | 922 | 922 | 0.15 | 0.02 | — | 931 |
| Research & Development | — | — | — | — | — | — | — | — | — | — | — | — | 180 | 180 | 0.03 | < 0.005 | — | 182 |
| Strip Mall | — | — | — | — | — | — | — | — | — | — | — | — | 78.7 | 78.7 | 0.01 | < 0.005 | — | 79.4 |
| Quality Restaurant | — | — | — | — | — | — | — | — | — | — | — | — | 123 | 123 | 0.02 | < 0.005 | — | 124 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 1,694 | 1,694 | 0.27 | 0.03 | — | 1,711 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | — | 32.5 | 32.5 | 0.01 | < 0.005 | — | 32.9 |
| Fast Food Restaurant with Drive Thru | — | — | — | — | — | — | — | — | — | — | — | — | 32.1 | 32.1 | 0.01 | < 0.005 | — | 32.4 |
| Automobile Care Center | — | — | — | — | — | — | — | — | — | — | — | — | 153 | 153 | 0.02 | < 0.005 | — | 154 |
| Research & Development | — | — | — | — | — | — | — | — | — | — | — | — | 29.9 | 29.9 | < 0.005 | < 0.005 | — | 30.1 |
| Strip Mall | — | — | — | — | — | — | — | — | — | — | — | — | 13.0 | 13.0 | < 0.005 | < 0.005 | — | 809 |

| | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|------|------|---------|---------|---|------|
| Quality Restaurant | — | — | — | — | — | — | — | — | — | — | — | — | 20.4 | 20.4 | < 0.005 | < 0.005 | — | 20.6 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | 280 | 280 | 0.05 | 0.01 | — | 283 |

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|--------------------------------------|---------|---------|------|------|---------|---------|-------|---------|---------|--------|---------|------|-------|-------|---------|---------|---|-------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | 0.02 | 0.01 | 0.16 | 0.14 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 192 | 192 | 0.02 | < 0.005 | — | 193 |
| Fast Food Restaurant with Drive Thru | 0.03 | 0.01 | 0.26 | 0.22 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 311 | 311 | 0.03 | < 0.005 | — | 312 |
| Automobile Care Center | 0.17 | 0.08 | 1.53 | 1.29 | 0.01 | 0.12 | — | 0.12 | 0.12 | — | 0.12 | — | 1,825 | 1,825 | 0.16 | < 0.005 | — | 1,831 |
| Research & Development | 0.02 | 0.01 | 0.15 | 0.12 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 176 | 176 | 0.02 | < 0.005 | — | 177 |
| Strip Mall | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 41.8 | 41.8 | < 0.005 | < 0.005 | — | 41.9 |
| Quality Restaurant | 0.02 | 0.01 | 0.17 | 0.14 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 198 | 198 | 0.02 | < 0.005 | — | 198 |
| Total | 0.25 | 0.13 | 2.30 | 1.93 | 0.01 | 0.17 | — | 0.17 | 0.17 | — | 0.17 | — | 2,744 | 2,744 | 0.24 | 0.01 | — | 2,752 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---------|---------|------|------|---------|---------|---|---------|---------|---|---------|---|-------|-------|---------|---------|---|-------|
| General Office Building | 0.02 | 0.01 | 0.16 | 0.14 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 192 | 192 | 0.02 | < 0.005 | — | 193 |
| Fast Food Restaurant with Drive Thru | 0.03 | 0.01 | 0.26 | 0.22 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 311 | 311 | 0.03 | < 0.005 | — | 312 |
| Automobile Care Center | 0.17 | 0.08 | 1.53 | 1.29 | 0.01 | 0.12 | — | 0.12 | 0.12 | — | 0.12 | — | 1,825 | 1,825 | 0.16 | < 0.005 | — | 1,831 |
| Research & Development | 0.02 | 0.01 | 0.15 | 0.12 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 176 | 176 | 0.02 | < 0.005 | — | 177 |
| Strip Mall | < 0.005 | < 0.005 | 0.04 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 41.8 | 41.8 | < 0.005 | < 0.005 | — | 41.9 |
| Quality Restaurant | 0.02 | 0.01 | 0.17 | 0.14 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 198 | 198 | 0.02 | < 0.005 | — | 198 |
| Total | 0.25 | 0.13 | 2.30 | 1.93 | 0.01 | 0.17 | — | 0.17 | 0.17 | — | 0.17 | — | 2,744 | 2,744 | 0.24 | 0.01 | — | 2,752 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | < 0.005 | < 0.005 | 0.03 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 31.8 | 31.8 | < 0.005 | < 0.005 | — | 31.9 |
| Fast Food Restaurant with Drive Thru | 0.01 | < 0.005 | 0.05 | 0.04 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 51.5 | 51.5 | < 0.005 | < 0.005 | — | 51.6 |
| Automobile Care Center | 0.03 | 0.02 | 0.28 | 0.23 | < 0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 302 | 302 | 0.03 | < 0.005 | — | 303 |
| Research & Development | < 0.005 | < 0.005 | 0.03 | 0.02 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 29.2 | 29.2 | < 0.005 | < 0.005 | — | 29.2 |

| | | | | | | | | | | | | | | | | | | |
|--------------------|---------|---------|------|------|---------|---------|---|---------|---------|---|---------|---|------|------|---------|---------|---|------|
| Strip Mall | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 6.93 | 6.93 | < 0.005 | < 0.005 | — | 6.95 |
| Quality Restaurant | < 0.005 | < 0.005 | 0.03 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 32.7 | 32.7 | < 0.005 | < 0.005 | — | 32.8 |
| Total | 0.05 | 0.02 | 0.42 | 0.35 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 454 | 454 | 0.04 | < 0.005 | — | 456 |

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Source | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|------------------------|------|------|------|------|---------|-------|-------|-------|--------|--------|--------|------|-------|------|---------|---------|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | — | 4.15 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.25 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 1.50 | 1.38 | 0.07 | 8.43 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 34.7 | 34.7 | < 0.005 | < 0.005 | — | 34.8 |
| Total | 1.50 | 5.78 | 0.07 | 8.43 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 34.7 | 34.7 | < 0.005 | < 0.005 | — | 34.8 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | — | 4.15 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.25 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|------------------------|------|------|------|------|---------|---------|---|---------|---------|---|---------|---|------|------|---------|---------|---|------|
| Total | — | 4.39 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | — | 0.76 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | — | 0.04 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.14 | 0.12 | 0.01 | 0.76 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 2.83 | 2.83 | < 0.005 | < 0.005 | — | 2.84 |
| Total | 0.14 | 0.93 | 0.01 | 0.76 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | — | 2.83 | 2.83 | < 0.005 | < 0.005 | — | 2.84 |

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|--------------------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | 5.11 | 5.88 | 11.0 | 0.52 | 0.01 | — | 27.8 |
| Fast Food Restaurant with Drive Thru | — | — | — | — | — | — | — | — | — | — | — | 4.51 | 5.19 | 9.70 | 0.46 | 0.01 | — | 24.6 |
| Automobile Care Center | — | — | — | — | — | — | — | — | — | — | — | 25.1 | 28.8 | 53.9 | 2.57 | 0.06 | — | 137 |

| | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|------|------|------|------|---------|---|------|
| Research & Development | — | — | — | — | — | — | — | — | — | — | — | 13.0 | 14.9 | 27.9 | 1.33 | 0.03 | — | 70.7 |
| Strip Mall | — | — | — | — | — | — | — | — | — | — | — | 1.89 | 2.18 | 4.07 | 0.19 | < 0.005 | — | 10.3 |
| Quality Restaurant | — | — | — | — | — | — | — | — | — | — | — | 2.87 | 3.30 | 6.16 | 0.29 | 0.01 | — | 15.6 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 52.4 | 60.3 | 113 | 5.38 | 0.13 | — | 286 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | 5.11 | 5.88 | 11.0 | 0.52 | 0.01 | — | 27.8 |
| Fast Food Restaurant with Drive Thru | — | — | — | — | — | — | — | — | — | — | — | 4.51 | 5.19 | 9.70 | 0.46 | 0.01 | — | 24.6 |
| Automobile Care Center | — | — | — | — | — | — | — | — | — | — | — | 25.1 | 28.8 | 53.9 | 2.57 | 0.06 | — | 137 |
| Research & Development | — | — | — | — | — | — | — | — | — | — | — | 13.0 | 14.9 | 27.9 | 1.33 | 0.03 | — | 70.7 |
| Strip Mall | — | — | — | — | — | — | — | — | — | — | — | 1.89 | 2.18 | 4.07 | 0.19 | < 0.005 | — | 10.3 |
| Quality Restaurant | — | — | — | — | — | — | — | — | — | — | — | 2.87 | 3.30 | 6.16 | 0.29 | 0.01 | — | 15.6 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 52.4 | 60.3 | 113 | 5.38 | 0.13 | — | 286 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | 0.85 | 0.97 | 1.82 | 0.09 | < 0.005 | — | 4.61 |

| | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|------|------|------|------|---------|---|------|
| Fast Food Restaurant with Drive Thru | — | — | — | — | — | — | — | — | — | — | — | 0.75 | 0.86 | 1.61 | 0.08 | < 0.005 | — | 4.07 |
| Automobile Care Center | — | — | — | — | — | — | — | — | — | — | — | 4.15 | 4.77 | 8.92 | 0.43 | 0.01 | — | 22.6 |
| Research & Development | — | — | — | — | — | — | — | — | — | — | — | 2.15 | 2.47 | 4.61 | 0.22 | 0.01 | — | 11.7 |
| Strip Mall | — | — | — | — | — | — | — | — | — | — | — | 0.31 | 0.36 | 0.67 | 0.03 | < 0.005 | — | 1.71 |
| Quality Restaurant | — | — | — | — | — | — | — | — | — | — | — | 0.47 | 0.55 | 1.02 | 0.05 | < 0.005 | — | 2.59 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 8.68 | 9.98 | 18.7 | 0.89 | 0.02 | — | 47.3 |

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|--------------------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|------|------|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | 7.52 | 0.00 | 7.52 | 0.75 | 0.00 | — | 26.3 |
| Fast Food Restaurant with Drive Thru | — | — | — | — | — | — | — | — | — | — | — | 48.2 | 0.00 | 48.2 | 4.81 | 0.00 | — | 169 |

| | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|------|------|------|------|------|---|-------|
| Automob Care Center | — | — | — | — | — | — | — | — | — | — | — | 286 | 0.00 | 286 | 28.6 | 0.00 | — | 1,001 |
| Researc h & Development | — | — | — | — | — | — | — | — | — | — | — | 0.56 | 0.00 | 0.56 | 0.06 | 0.00 | — | 1.97 |
| Strip Mall | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 0.00 | 7.54 | 0.75 | 0.00 | — | 26.4 |
| Quality Restaurant | — | — | — | — | — | — | — | — | — | — | — | 2.42 | 0.00 | 2.42 | 0.24 | 0.00 | — | 8.48 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 352 | 0.00 | 352 | 35.2 | 0.00 | — | 1,233 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | 7.52 | 0.00 | 7.52 | 0.75 | 0.00 | — | 26.3 |
| Fast Food Restaurant with Drive Thru | — | — | — | — | — | — | — | — | — | — | — | 48.2 | 0.00 | 48.2 | 4.81 | 0.00 | — | 169 |
| Automob ile Care Center | — | — | — | — | — | — | — | — | — | — | — | 286 | 0.00 | 286 | 28.6 | 0.00 | — | 1,001 |
| Researc h & Development | — | — | — | — | — | — | — | — | — | — | — | 0.56 | 0.00 | 0.56 | 0.06 | 0.00 | — | 1.97 |
| Strip Mall | — | — | — | — | — | — | — | — | — | — | — | 7.54 | 0.00 | 7.54 | 0.75 | 0.00 | — | 26.4 |
| Quality Restaurant | — | — | — | — | — | — | — | — | — | — | — | 2.42 | 0.00 | 2.42 | 0.24 | 0.00 | — | 8.48 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 352 | 0.00 | 352 | 35.2 | 0.00 | — | 1,233 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 816 |

| | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|------|------|------|------|------|---|------|
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | 1.24 | 0.00 | 1.24 | 0.12 | 0.00 | — | 4.35 |
| Fast Food Restaurant with Drive Thru | — | — | — | — | — | — | — | — | — | — | — | 7.98 | 0.00 | 7.98 | 0.80 | 0.00 | — | 27.9 |
| Automobile Care Center | — | — | — | — | — | — | — | — | — | — | — | 47.4 | 0.00 | 47.4 | 4.74 | 0.00 | — | 166 |
| Research & Development | — | — | — | — | — | — | — | — | — | — | — | 0.09 | 0.00 | 0.09 | 0.01 | 0.00 | — | 0.33 |
| Strip Mall | — | — | — | — | — | — | — | — | — | — | — | 1.25 | 0.00 | 1.25 | 0.12 | 0.00 | — | 4.37 |
| Quality Restaurant | — | — | — | — | — | — | — | — | — | — | — | 0.40 | 0.00 | 0.40 | 0.04 | 0.00 | — | 1.40 |
| Total | — | — | — | — | — | — | — | — | — | — | — | 58.3 | 0.00 | 58.3 | 5.83 | 0.00 | — | 204 |

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|-------------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|------|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.04 | 0.04 |

AGENDA ITEM NO. 6.

| | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------|------|
| Fast Food Restaurant with Drive Thru | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 12.1 | 12.1 |
| Automobile Care Center | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Research & Development | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.35 | 0.35 |
| Strip Mall | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.08 | 0.08 |
| Quality Restaurant | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 7.71 | 7.71 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 20.5 | 20.5 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.04 | 0.04 |
| Fast Food Restaurant with Drive Thru | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 12.1 | 12.1 |
| Automobile Care Center | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Research & Development | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.35 | 0.35 |
| | | | | | | | | | | | | | | | | | | 818 |

| | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------|------|
| Strip Mall | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.08 | 0.08 |
| Quality Restaurant | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 7.71 | 7.71 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 20.5 | 20.5 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| General Office Building | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.01 | 0.01 |
| Fast Food Restaurant with Drive Thru | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2.01 | 2.01 |
| Automobile Care Center | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.04 | 0.04 |
| Research & Development | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.06 | 0.06 |
| Strip Mall | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.01 | 0.01 |
| Quality Restaurant | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.28 | 1.28 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 3.40 | 3.40 |

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| | | | | | | | | | | | | | | | | | | |
|----------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Equipment Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
| 819 | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetation | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 821 |

| | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---------------------|-----|-----|-----|----|-----|-------|-------|-------|--------|--------|--------|------|-------|------|-----|-----|---|------|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest ered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Remove d | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest ered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Remove d | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

5. Activity Data

5.1. Construction Schedule

| | | | | | | | |
|------------|------------|------------|----------|---------------|---------------------|-------------------|-----|
| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description | 823 |
|------------|------------|------------|----------|---------------|---------------------|-------------------|-----|

| | | | | | | |
|-----------------------|-----------------------|------------|------------|------|------|---|
| Demolition | Demolition | 10/1/2026 | 10/29/2026 | 5.00 | 20.0 | — |
| Site Preparation | Site Preparation | 10/30/2026 | 11/13/2026 | 5.00 | 10.0 | — |
| Grading | Grading | 11/14/2026 | 1/2/2027 | 5.00 | 35.0 | — |
| Building Construction | Building Construction | 1/3/2027 | 11/4/2027 | 5.00 | 219 | — |
| Paving | Paving | 11/5/2027 | 12/2/2027 | 5.00 | 20.0 | — |
| Architectural Coating | Architectural Coating | 12/3/2027 | 12/30/2027 | 5.00 | 20.0 | — |

5.2. Off-Road Equipment

5.2.1. Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|-----------------------|---------------------------|-----------|-------------|----------------|---------------|------------|-------------|
| Demolition | Concrete/Industrial Saws | Diesel | Average | 1.00 | 8.00 | 33.0 | 0.73 |
| Demolition | Excavators | Diesel | Average | 3.00 | 8.00 | 36.0 | 0.38 |
| Demolition | Rubber Tired Dozers | Diesel | Average | 2.00 | 8.00 | 367 | 0.40 |
| Site Preparation | Rubber Tired Dozers | Diesel | Average | 3.00 | 8.00 | 367 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | Diesel | Average | 4.00 | 8.00 | 84.0 | 0.37 |
| Grading | Excavators | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Scrapers | Diesel | Average | 2.00 | 8.00 | 423 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 8.00 | 84.0 | 0.37 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |
| Building Construction | Forklifts | Diesel | Average | 3.00 | 8.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |

| | | | | | | | |
|-----------------------|------------------|--------|---------|------|------|------|------|
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |
| Paving | Pavers | Diesel | Average | 2.00 | 8.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Average | 2.00 | 8.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Average | 2.00 | 8.00 | 36.0 | 0.38 |
| Architectural Coating | Air Compressors | Diesel | Average | 1.00 | 6.00 | 37.0 | 0.48 |

5.3. Construction Vehicles

5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|-----------------------|--------------|-----------------------|----------------|---------------|
| Demolition | — | — | — | — |
| Demolition | Worker | 15.0 | 7.70 | LDA,LDT1,LDT2 |
| Demolition | Vendor | — | 4.00 | HHDT,MHDT |
| Demolition | Hauling | 6.35 | 20.0 | HHDT |
| Demolition | Onsite truck | — | — | HHDT |
| Site Preparation | — | — | — | — |
| Site Preparation | Worker | 17.5 | 7.70 | LDA,LDT1,LDT2 |
| Site Preparation | Vendor | — | 4.00 | HHDT,MHDT |
| Site Preparation | Hauling | 0.00 | 20.0 | HHDT |
| Site Preparation | Onsite truck | — | — | HHDT |
| Grading | — | — | — | — |
| Grading | Worker | 20.0 | 7.70 | LDA,LDT1,LDT2 |
| Grading | Vendor | — | 4.00 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 63.3 | 7.70 | LDA,LDT1,LDT2 |

| | | | | |
|-----------------------|--------------|------|------|---------------|
| Building Construction | Vendor | 31.8 | 4.00 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 15.0 | 7.70 | LDA,LDT1,LDT2 |
| Paving | Vendor | — | 4.00 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 12.7 | 7.70 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | — | 4.00 | HHDT,MHDT |
| Architectural Coating | Hauling | 0.00 | 20.0 | HHDT |
| Architectural Coating | Onsite truck | — | — | HHDT |

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|-----------------------|--|--|--|--|-----------------------------|
| Architectural Coating | 0.00 | 0.00 | 290,700 | 96,900 | — |

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

| Phase Name | Material Imported (Cubic Yards) | Material Exported (Cubic Yards) | Acres Graded (acres) | Material Demolished (Building Square Footage) | Acres Paved (acres) | 826 |
|------------|---------------------------------|---------------------------------|----------------------|---|---------------------|-----|
|------------|---------------------------------|---------------------------------|----------------------|---|---------------------|-----|

| | | | | | |
|------------------|------|------|------|--------|------|
| Demolition | 0.00 | 0.00 | 0.00 | 11,000 | — |
| Site Preparation | 0.00 | 0.00 | 15.0 | 0.00 | — |
| Grading | 0.00 | 0.00 | 105 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

5.6.2. Construction Earthmoving Control Strategies

| Control Strategies Applied | Frequency (per day) | PM10 Reduction | PM2.5 Reduction |
|----------------------------|---------------------|----------------|-----------------|
| Water Exposed Area | 2 | 61% | 61% |
| Water Demolished Area | 2 | 36% | 36% |

5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|--------------------------------------|--------------------|-----------|
| General Office Building | 0.00 | 0% |
| Fast Food Restaurant with Drive Thru | 0.00 | 0% |
| Fast Food Restaurant with Drive Thru | 0.00 | 0% |
| Automobile Care Center | 0.00 | 0% |
| Research & Development | 0.00 | 0% |
| Research & Development | 0.00 | 0% |
| Strip Mall | 0.00 | 0% |
| Quality Restaurant | 0.00 | 0% |

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|------|--------------|-----|------|---------|
| 2026 | 0.00 | 204 | 0.03 | < 0.005 |
| 2027 | 0.00 | 204 | 0.03 | < 0.005 |

5.9. Operational Mobile Sources

5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|--------------------------------------|---------------|----------------|--------------|------------|-------------|--------------|------------|-----------|
| General Office Building | 163 | 33.2 | 10.5 | 44,668 | 936 | 191 | 60.4 | 257,148 |
| Fast Food Restaurant with Drive Thru | 1,814 | 2,391 | 1,834 | 693,149 | 3,728 | 13,762 | 10,556 | 2,239,819 |
| Fast Food Restaurant with Drive Thru | 1,814 | 2,391 | 1,834 | 693,149 | 3,728 | 13,762 | 10,556 | 2,239,819 |
| Automobile Care Center | 3,870 | 7,262 | 3,021 | 1,545,248 | 12,880 | 41,809 | 17,391 | 6,444,835 |
| Research & Development | 138 | 610 | 615 | 99,862 | 794 | 3,514 | 3,542 | 574,893 |
| Research & Development | 664 | 1,313 | 387 | 261,683 | 3,821 | 7,559 | 2,226 | 1,506,467 |
| Strip Mall | 726 | 560 | 272 | 232,652 | 4,178 | 3,226 | 1,568 | 1,339,342 |
| Quality Restaurant | 270 | 290 | 232 | 97,674 | 647 | 1,671 | 1,336 | 325,430 |

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

| Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) | |
|--|--|--|--|-----------------------------|-----|
| 0 | 0.00 | 290,700 | 96,900 | — | 828 |

5.10.3. Landscape Equipment

| Season | Unit | Value |
|-------------|--------|-------|
| Snow Days | day/yr | 0.00 |
| Summer Days | day/yr | 180 |

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|--------------------------------------|----------------------|-----|--------|--------|-----------------------|
| General Office Building | 351,696 | 204 | 0.0330 | 0.0040 | 599,086 |
| Fast Food Restaurant with Drive Thru | 173,371 | 204 | 0.0330 | 0.0040 | 485,131 |
| Fast Food Restaurant with Drive Thru | 173,371 | 204 | 0.0330 | 0.0040 | 485,131 |
| Automobile Care Center | 1,649,352 | 204 | 0.0330 | 0.0040 | 5,695,972 |
| Research & Development | 70,339 | 204 | 0.0330 | 0.0040 | 119,817 |
| Research & Development | 252,283 | 204 | 0.0330 | 0.0040 | 429,745 |
| Strip Mall | 140,766 | 204 | 0.0330 | 0.0040 | 130,532 |
| Quality Restaurant | 220,288 | 204 | 0.0330 | 0.0040 | 616,416 |

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|--------------------------------------|-------------------------|--------------------------|
| General Office Building | 2,666,006 | 5,148 |
| Fast Food Restaurant with Drive Thru | 1,177,711 | 1,373 |

| | | |
|--------------------------------------|------------|--------|
| Fast Food Restaurant with Drive Thru | 1,177,711 | 1,373 |
| Automobile Care Center | 13,079,156 | 13,727 |
| Research & Development | 1,475,082 | 1,030 |
| Research & Development | 5,290,627 | 3,775 |
| Strip Mall | 987,387 | 4,805 |
| Quality Restaurant | 1,496,421 | 1,716 |

5.13. Operational Waste Generation

5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|--------------------------------------|------------------|-------------------------|
| General Office Building | 14.0 | — |
| Fast Food Restaurant with Drive Thru | 44.7 | — |
| Fast Food Restaurant with Drive Thru | 44.7 | — |
| Automobile Care Center | 531 | — |
| Research & Development | 0.23 | — |
| Research & Development | 0.82 | — |
| Strip Mall | 14.0 | — |
| Quality Restaurant | 4.50 | — |

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|-------------------------|---|-------------|-------|---------------|----------------------|-------------------|----------------|
| General Office Building | Household refrigerators and/or freezers | R-134a | 1,430 | 0.02 | 0.60 | 0.00 | 1.00 |
| General Office Building | Other commercial A/C and heat pumps | R-410A | 2,088 | < 0.005 | 4.00 | 4.00 | 18.0 |

| | | | | | | | |
|--------------------------------------|---|--------|-------|---------|------|------|------|
| Fast Food Restaurant with Drive Thru | Household refrigerators and/or freezers | R-134a | 1,430 | 0.00 | 0.60 | 0.00 | 1.00 |
| Fast Food Restaurant with Drive Thru | Other commercial A/C and heat pumps | R-410A | 2,088 | 1.80 | 4.00 | 4.00 | 18.0 |
| Fast Food Restaurant with Drive Thru | Walk-in refrigerators and freezers | R-404A | 3,922 | < 0.005 | 7.50 | 7.50 | 20.0 |
| Fast Food Restaurant with Drive Thru | Household refrigerators and/or freezers | R-134a | 1,430 | 0.00 | 0.60 | 0.00 | 1.00 |
| Fast Food Restaurant with Drive Thru | Other commercial A/C and heat pumps | R-410A | 2,088 | 1.80 | 4.00 | 4.00 | 18.0 |
| Fast Food Restaurant with Drive Thru | Walk-in refrigerators and freezers | R-404A | 3,922 | < 0.005 | 7.50 | 7.50 | 20.0 |
| Automobile Care Center | Other commercial A/C and heat pumps | R-410A | 2,088 | < 0.005 | 4.00 | 4.00 | 18.0 |
| Research & Development | Household refrigerators and/or freezers | R-134a | 1,430 | 0.45 | 0.60 | 0.00 | 1.00 |
| Research & Development | Other commercial A/C and heat pumps | R-410A | 2,088 | < 0.005 | 4.00 | 4.00 | 18.0 |
| Research & Development | Household refrigerators and/or freezers | R-134a | 1,430 | 0.45 | 0.60 | 0.00 | 1.00 |
| Research & Development | Other commercial A/C and heat pumps | R-410A | 2,088 | < 0.005 | 4.00 | 4.00 | 18.0 |
| Strip Mall | Other commercial A/C and heat pumps | R-410A | 2,088 | < 0.005 | 4.00 | 4.00 | 18.0 |
| Strip Mall | Stand-alone retail refrigerators and freezers | R-134a | 1,430 | 0.04 | 1.00 | 0.00 | 1.00 |
| Strip Mall | Walk-in refrigerators and freezers | R-404A | 3,922 | < 0.005 | 7.50 | 7.50 | 20.0 |
| Quality Restaurant | Household refrigerators and/or freezers | R-134a | 1,430 | 0.00 | 0.60 | 0.00 | 1.00 |
| Quality Restaurant | Other commercial A/C and heat pumps | R-410A | 2,088 | 1.80 | 4.00 | 4.00 | 18.0 |

| | | | | | | | |
|--------------------|------------------------------------|--------|-------|---------|------|------|------|
| Quality Restaurant | Walk-in refrigerators and freezers | R-404A | 3,922 | < 0.005 | 7.50 | 7.50 | 20.0 |
|--------------------|------------------------------------|--------|-------|---------|------|------|------|

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

| Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|----------------|-----------|-------------|----------------|---------------|------------|-------------|
|----------------|-----------|-------------|----------------|---------------|------------|-------------|

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

| Equipment Type | Fuel Type | Number per Day | Hours per Day | Hours per Year | Horsepower | Load Factor |
|----------------|-----------|----------------|---------------|----------------|------------|-------------|
|----------------|-----------|----------------|---------------|----------------|------------|-------------|

5.16.2. Process Boilers

| Equipment Type | Fuel Type | Number | Boiler Rating (MMBtu/hr) | Daily Heat Input (MMBtu/day) | Annual Heat Input (MMBtu/yr) |
|----------------|-----------|--------|--------------------------|------------------------------|------------------------------|
|----------------|-----------|--------|--------------------------|------------------------------|------------------------------|

5.17. User Defined

| Equipment Type | Fuel Type |
|----------------|-----------|
|----------------|-----------|

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|--------------------------|----------------------|---------------|-------------|
|--------------------------|----------------------|---------------|-------------|

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|--------------------|---------------|-------------|
|--------------------|---------------|-------------|

5.18.2. Sequestration

5.18.2.1. Unmitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|-----------|--------|------------------------------|------------------------------|
|-----------|--------|------------------------------|------------------------------|

8. User Changes to Default Data

| Screen | Justification |
|-----------------------------------|--|
| Characteristics: Project Details | The Project is in an urban area |
| Land Use | Acreage adjusted to be consistent with Project Site |
| Operations: Vehicle Data | Automobile Care Center used as proxy for Dealership/Repair Shop Research & Development used as proxy for Wine Tasting and Brewing Tap room. Quality Restaurant used as proxy for Banquet. Trip Rates Consistent with Traffic Study and ITE 11th Edition |
| Operations: Refrigerants | Automobile Care Center is a proxy for a Dealership |
| Construction: Construction Phases | Consistent w/ Project Representative Information |

APPENDIX B

Biological Resources Assessment



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El Dorado Hills, CA 95762
O: 916-235-8224 | w: www.acorn-env.com

Technical Memorandum: Biological Resources Assessment for the Golden Triangle Development Project, Clovis, CA

February 23, 2024

Introduction

This Biological Resources Assessment technical memorandum has been prepared to address the effects of a proposed update to the Development Plan and Master Site Plan for the Golden Triangle Planned Commercial Center (PCC) (Proposed Project) in the City of Clovis (see **Figure 1**). The purpose of this analysis is to inventory biological resources within the project area, to identify potential biological resources constraints to development, to assess potential project-related impacts to biological resources, and to identify mitigation measures and other recommendations to reduce the significance of these impacts.

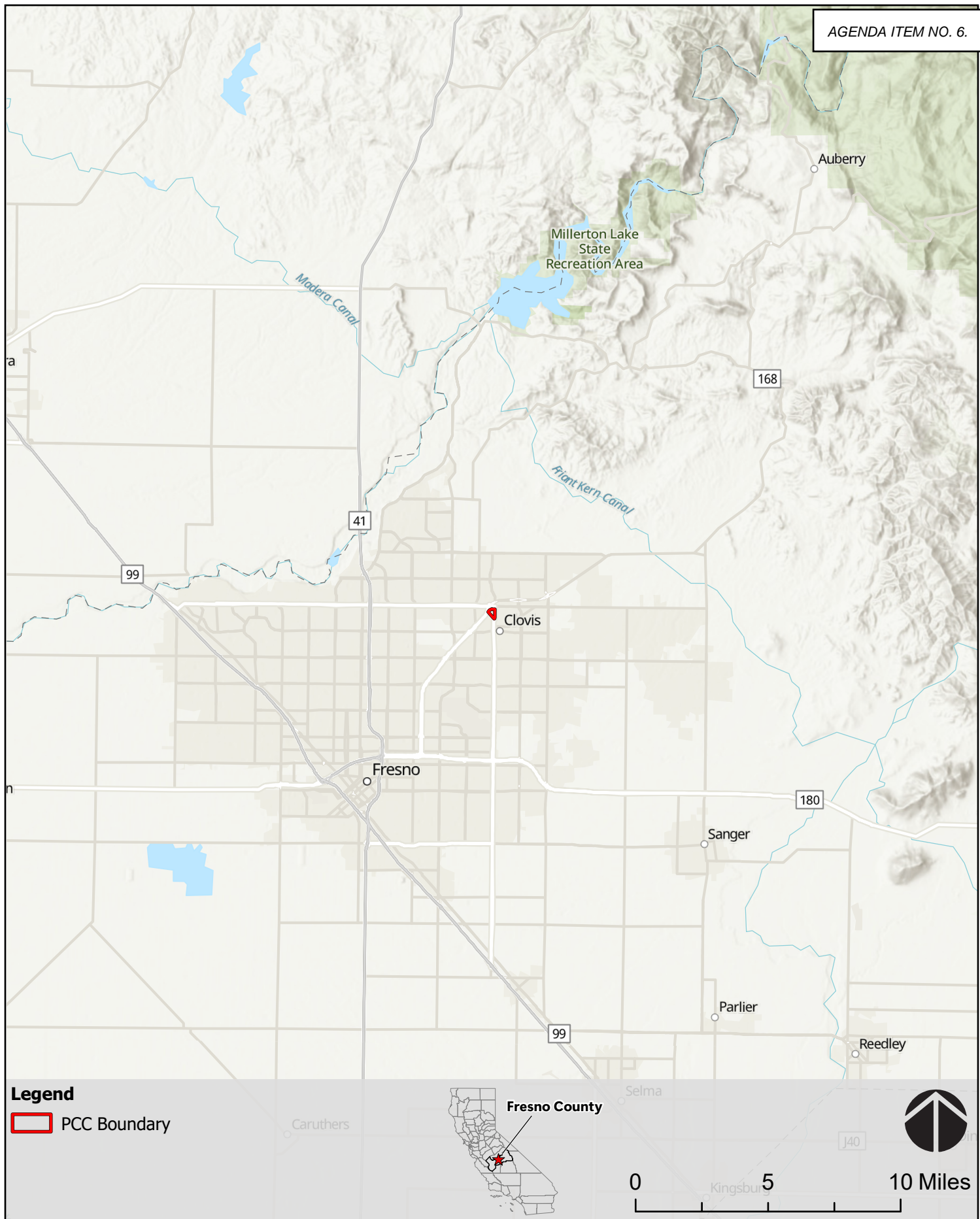
Study Area

The Golden Triangle PCC consists of approximately 37 acres located southwest of the Clovis Avenue and Magill Avenue intersection (PCC Boundary). The PCC Boundary is located in an urban infill location, and is bordered by Magill Avenue-State Route (SR) 168 to the north, the Clovis Old Town Trail to the south, and Clovis Avenue to the east (see **Figure 2**). The study area addressed in this memorandum is limited to the proposed commercial development area (roughly 20 acres) within the larger PCC Boundary (Study Area or Project Area) that is proposed for commercial development. The location of the Study Area relative to the PCC Boundary can be seen in **Figure 3**.

The Study Area is currently zoned Planned Commercial Center according to the City of Clovis 2014 General Plan. Approximately half of the PCC Boundary (15.6 acres) is already developed with commercial buildings, paved parking lots and driveways, graveled lots for storage of RVs and other vehicles, and three residences. The remaining area, including the Study Area, is undeveloped and has no major vegetation. The Study Area is relatively flat, with an on-site elevation of approximately 350 feet above mean sea level. The West Branch Clovis Ditch bisects the Study Area, and a stormwater detention basin occurs in the southwestern portion of the Study Area.

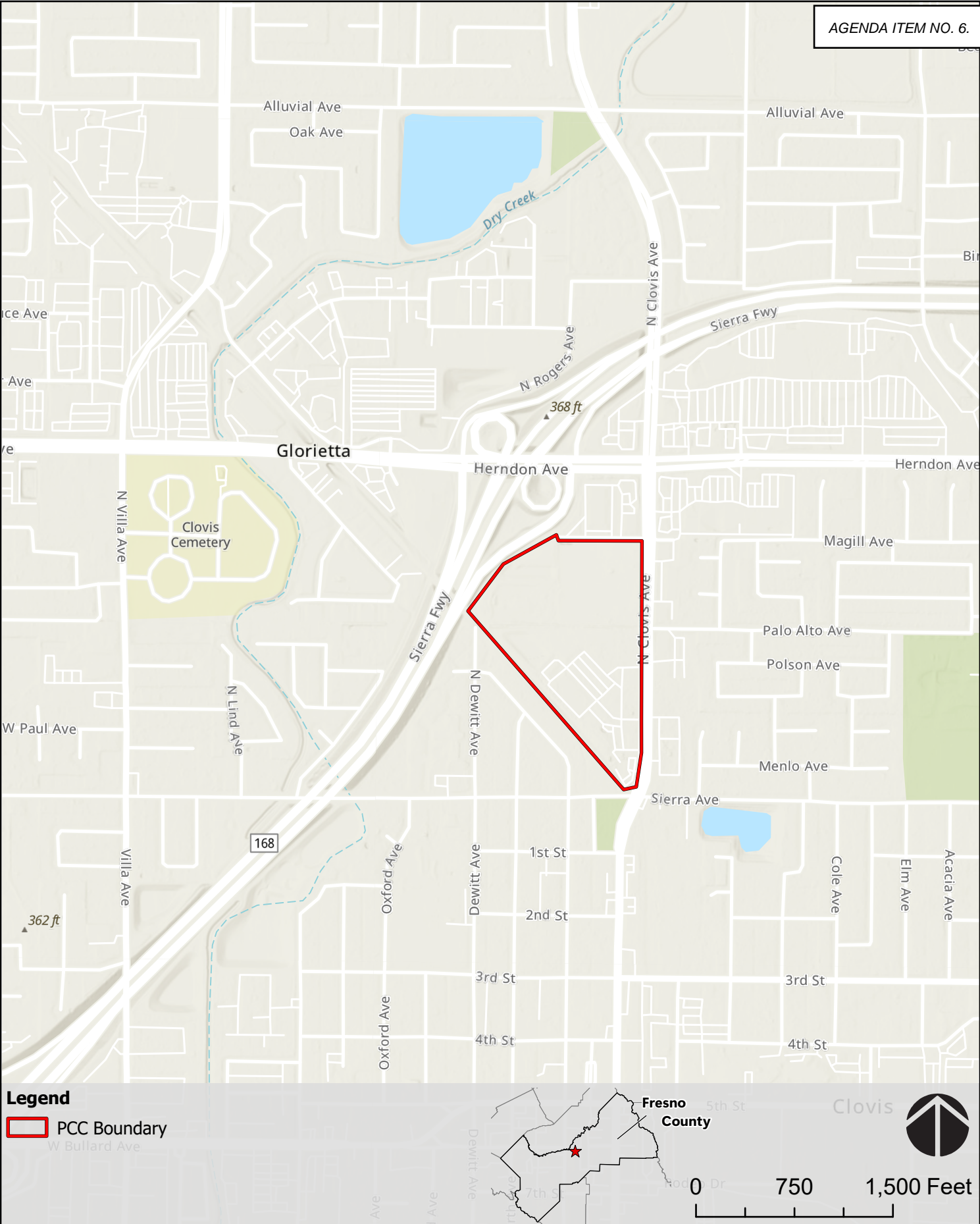
Project Overview

The Proposed Project includes development of retail, commercial, and office buildings, surface parking lots and ancillary infrastructure throughout the Study Area. Exterior lighting would be integrated into



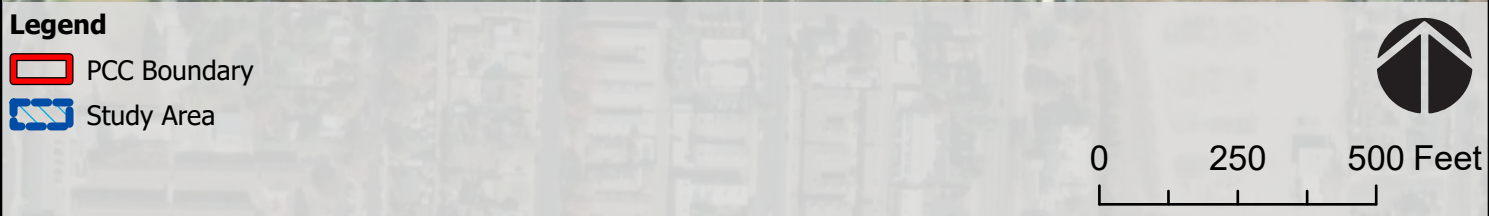
City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, Esri, NASA, NGA, USGS

FIGURE 1
REGIONAL LOCATION



Esri Community Maps Contributors, City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land

FIGURE 2
SITE AND VICINITY



Airbus, USGS, NGA, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community, Maxar

FIGURE 3
AERIAL OVERVIEW



components of the architecture and would be strategically positioned to minimize off-site lighting and any direct sight lines to the public. New streetlights would be provided on the internal roadways and parking areas as appropriate to provide sufficient illumination of the streets for traffic and pedestrians to traverse them safely. New driveways may be constructed on adjacent roadways to provide access to the Project Area.

Given the relatively level topography of the Project Area, grading activities associated with the Proposed Project would be minor and are not anticipated to include the import of fill or export of cut. Drainage facilities would be designed and constructed to collect and route stormwater runoff from roads, sidewalks, roofs, and landscape areas to different water quality and/or flow control facilities prior to discharge into the on-site stormwater detention basin. The Proposed Project will include connections to existing utilities located within the Project Area or adjacent public right-of-way and developed areas.

Methods

Database Queries

Prior to conducting the field survey, the following information sources were reviewed:

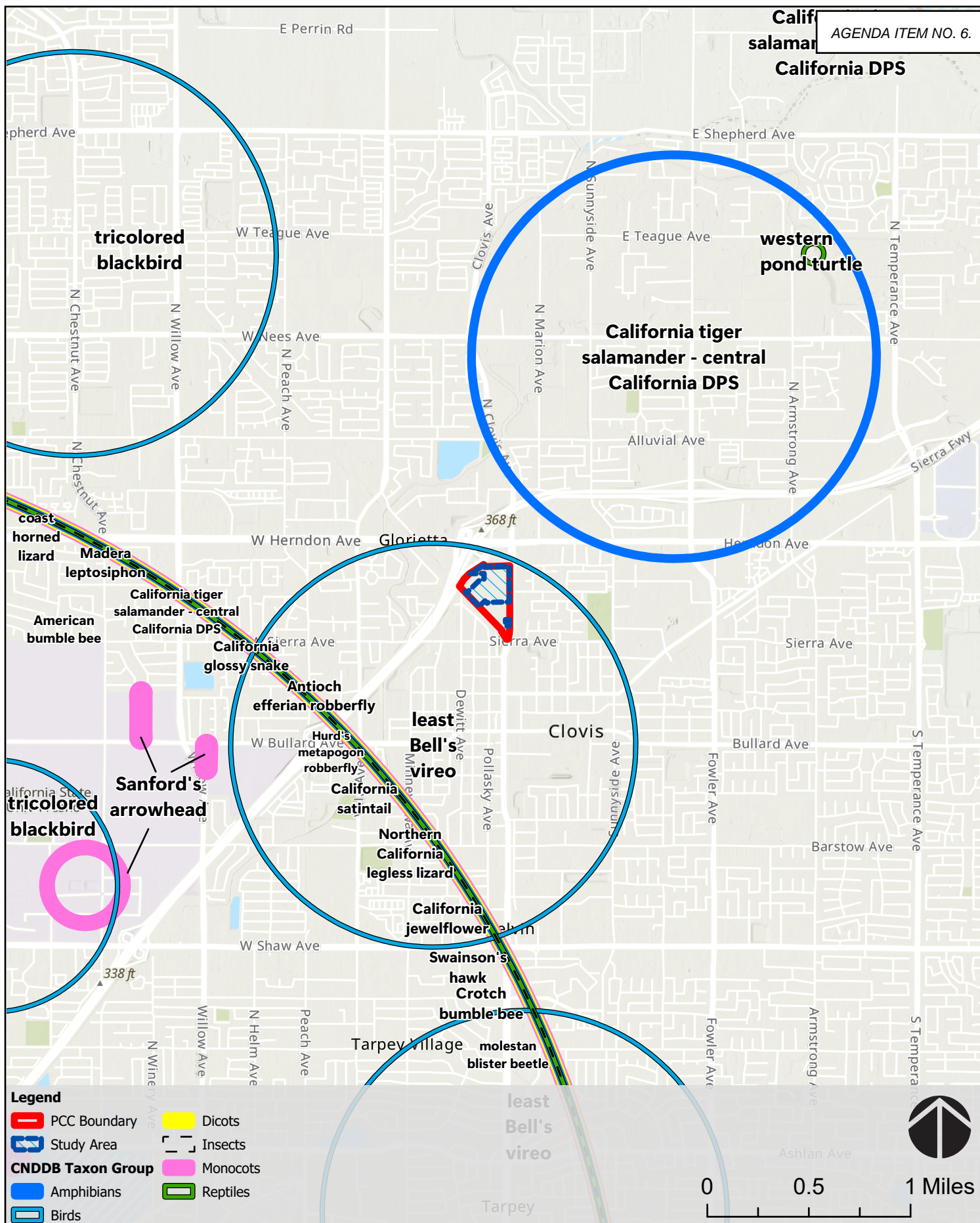
- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation Species List (USFWS, 2023a; **Attachment A**);
- A spatial query of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database CNDDDB using a nine quadrangle (quad) boundary, with “Clovis” as the central quad (CDFW, 2023a; **Figure 4**);
- A query of the California Native Plant Society’s (CNPS) database Inventory of Rare and Endangered Plants of California using a nine quad boundary, with “Clovis” as the central quad (CNPS, 2023; **Attachment A**); and
- USFWS National Wetland Inventory (NWI) digital maps (USFWS, 2023b; **Attachment A**).

Biological Field Survey

Acorn senior biologist Dr. G.O. Graening conducted a biological survey of the PCC Boundary on October 3, 2023. Weather conditions were warm and overcast. Survey efforts covered the totality of the PCC Boundary and emphasized the search for special-status species and sensitive habitats or habitats suitable for supporting special-status species. Wildlife signs—tracks, feathers and shedding, burrows, scat, etc.—were interpreted to detect species not actually seen. All visible fauna and flora observed were recorded in a field notebook and identified to the lowest taxon possible.

Resources Mapping

Locations of species’ occurrences and habitat boundaries within the PCC Boundary were recorded on color aerial photographs, and then digitized to produce habitat maps. Geographic analyses were performed using geographical information system software (ArcGIS 10, ESRI, Inc.). Vegetation communities were classified by Vegetation Series using the CNPS Vegetation Classification system (Sawyer and Keeler-Wolf, 1995, as updated in 2009) and considering CDFW’s Natural Communities nomenclature system. Wetlands and other aquatic habitats were classified using USFWS National Wetlands Inventory Classification System for Wetland and Deepwater Habitats, or “Cowardin class” (USFWS 2013). Informal wetland delineation methods consisted of an abbreviated, visual assessment of the three requisite wetland parameters (hydrophytic vegetation, hydric soils, hydrologic regime) defined in the U.S. Army Corps of Engineers



City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, Esri,

FIGURE 4
CNDDDB MAPPED SPECIES DISTRIBUTION



Wetlands Delineation Manual (Environmental Laboratory, 1987). Wildlife habitats were classified according to the CDFW's California Wildlife Habitat Relationships System (CDFW, 2023b). Species' habitat requirements and life histories were identified using the following sources: Baldwin et al. (2012); CNPS (2023), Calflora (2023); CDFW (2023a, b); and University of California at Berkeley (2023a, b).

Results

Environmental Setting

The Study Area is located in an urban infill location within the City of Clovis. The Study Area is relatively flat, with an on-site elevation of approximately 350 feet above mean sea level. A representative collection of site photographs is included as **Attachment B**.

Habitat Types

The Study Area does not contain Essential Fish Habitat and does not fall within designated or proposed Critical Habitat (NOAA, 2023; USFWS, 2023c). The nearest Critical Habitat in relation to the Study Area is designated for fleshy owl's-clover (*Castilleja campestris ssp. Succulenta*), approximately 3.3 miles northeast of the Study Area. The following habitat types were identified within the Study Area:

- Ruderal
- Developed
- Manmade drainage ditch (West Branch Clovis Ditch)
- Stormwater detention basin
- Marsh

A detailed discussion of each habitat type is provided below, and a figure showing the location of vegetation community types is included as **Figure 5**. An inventory of plant species identified during the survey is included as **Attachment C**. The USFWS NWI data reviewed prior to the survey is provided in **Attachment A** and shown in **Figure 6**. **Figure 7** shows surface water resources present on the Study Area based on the results of the survey.

Ruderal

Ruderal habitat includes those areas that are subject to ongoing or regular disturbance and are modified from their natural state. Ruderal areas comprise 13.6 acres of the Study Area and are kept in a ruderal state through ongoing disturbance such as disking. Vegetation within ruderal areas is dominated by non-native European herbs and grasses, primarily vinegar weed (*Trichostema sp.*), mustard (*Brassica*), and annual grasses (*Bromus* and *Avena spp.*). The Study Area perimeter, as well as parking lots, are landscaped with ornamentals such as rosemary (*Rosemarinus*), coast redwood (*Sequoia sempervirens*), purple leaf plum (*Prunus cerasifera*), Bradford pear (*Pyrus calleryana*), ash (*Fraxinus angustifolia*), and elm (*Ulmus pumila*). The smaller, southern Project Area is entirely ruderal habitat, and approximately half of the northern Project Area is also ruderal. A portion of the ruderal habitat occurs within a stormwater detention basin, which was dry at the time of the survey, and is discussed further below.

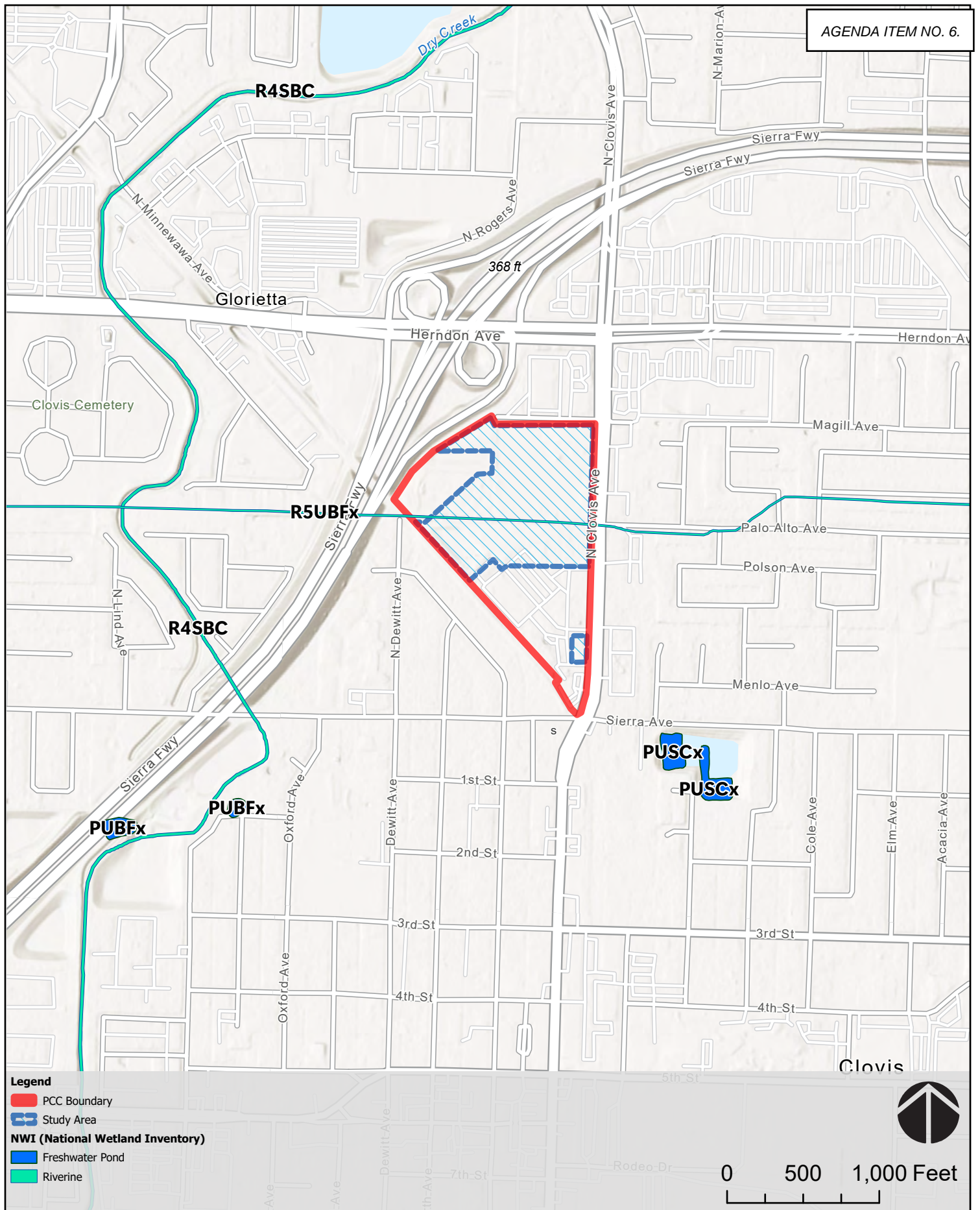
Developed

A total of 6.1 acres of the Study Area is developed with commercial buildings, paved parking lots and driveways, graveled lots for storage of RVs and other vehicles, and three residences. Developed areas are located within the larger, northern portion of the Project Area.



Maxar, Microsoft, Airbus, USGS, NGA, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community

FIGURE 5
VEGETATION COMMUNITY TYPE



Esri Community Maps Contributors, City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land

FIGURE 6
NATIONAL WETLAND INVENT
843



Airbus, USGS, NGA, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community, Maxar

FIGURE 7
WATER RESOURCE



Surface Water Resources – West Branch Clovis Ditch

The NWI reported a single surface water resource within the Study Area. This feature is listed as “Riverine” habitat and bisects the larger Project Area in an east to west direction. This feature was identified in the field as a portion of the West Branch Clovis Ditch, which is a manmade drainage ditch. This feature is an earthen trapezoidal ditch that is approximately 12 feet wide at the top and 4 feet deep. The Ordinary High Water Mark is about 6 feet wide and 1 foot deep. The channel bottom is lined with hydrophytic vegetation, including tall flatsedge (*Cyperus eragrostis*), common rush (*Juncus effusus*), and cattail (*Typha*). The West Branch Clovis Ditch was dry at the time of the survey. The totality of the West Branch Clovis Ditch on site crosses the northern Project Area.

Surface Water Resources – Stormwater Detention Basin and Marsh

In addition to the West Branch Clovis Ditch, a stormwater detention basin occurs within the Study Area, within the southwestern area of the larger Project Area. The majority of this basin has upland vegetation (primarily European annual grasses) and does not fit the regulatory definition of a wetland. A small wetland, identified as a freshwater marsh, is located in the southwest corner of the basin and contains hydrophytic vegetation such as tall flatsedge (*Cyperus eragrostis*) and common rush (*Juncus effusus*).

Wildlife Corridors, Nursery Sites, and Other Habitat Features

The Study Area did not contain wildlife corridors, nursery sites or other unique habitat features. Wildlife access to the Study Area is limited due to surrounding residential and commercial development, fences, and major roadways.

Special-status Species

For the purposes of this assessment, “special status” is defined to be species that are of management concern to state or federal natural resource agencies, and include those species that are:

- Listed as endangered, threatened, proposed, or candidate for listing under the Federal Endangered Species Act;
- Listed as endangered, threatened, rare, or proposed for listing, under the California Endangered Species Act of 1970;
- Designated as endangered or rare, pursuant to California Fish and Game Code (§1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§3511, §4700, or §5050);
- Designated as a species of special concern by CDFW;
- Plants considered to be rare, threatened or endangered by CNPS; this consists of species on Lists 1A, 1B, and 2 of the CNPS Ranking System; or
- Plants listed as rare under the California Native Plant Protection Act.

Special-status species with the potential to occur in the vicinity of the Study Area, based on the database queries and field survey, are presented in **Table 1**. **Table 1** identifies the species, status, a description of suitable habitat, and potential to occur within the Study Area. Where a species was determined to have no potential to occur, the determination was made based upon a lack of suitable habitat characteristics, such as lack of suitable soils or vegetative cover, or lack of suitable means to access the Study Area.

Table 1: Special-status Species with Potential to Occur in the Vicinity of the Study Area

| Scientific Name | Common Name | Status* | General Habitat** | Microhabitat** | Potential to Occur in Study Area |
|---------------------------------------|--|---------|---|---|--|
| ANIMALS | | | | | |
| <i>Agelaius tricolor</i> | tricolored blackbird | CT | Highly colonial species, most numerous in central valley & vicinity. Largely endemic to California | Requires open water, protected nesting substrate, & foraging area with insect prey within a few km of the colony | Absent: No habitat onsite |
| <i>Ambystoma californiense pop. 1</i> | California tiger salamander – central California DPS | FT, CT | Vernal pools, playas, ponds | Bodies of water must hold water for a minimum of 12 weeks to support the salamander larvae development. The salamanders also need access to upland habitat that contains small animal burrows or underground hideaways, including those constructed by California ground squirrel | Absent: No habitat onsite |
| <i>Anniella pulchra</i> | Northern California legless lizard | SSC | Rocks and moist soil | Requires vegetative cover for foraging with moist leaf litter and soil (CDFW, 2000) | Absent: No habitat onsite |
| <i>Antrozous pallidus</i> | pallid bat | SSC | Deserts, grasslands, shrublands, woodlands & forests. Most common in open, dry habitats with rocky areas for roosting | Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites | Absent: No habitat onsite |
| <i>Arizona elegans occidentalis</i> | California glossy snake | SSC | Grassy fields | Require small mammal burrows or grassland-adjacent rock outcrops for refuge, or, less commonly, suitably soft soil that they can burrow in themselves (CDFW, n.d.) | Absent: Study Area is outside of species range (CDFW, 2023c) |
| <i>Athene cunicularia</i> | burrowing owl | SSC | Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation | Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel | Low potential to occur, both burrowing and foraging |

| | | | | | |
|--|-----------------------------------|--------|---|---|---|
| <i>Branchinecta conservatio</i> | conservancy fairy shrimp | FT | Conservancy fairy shrimp are restricted to vernal pools found in California's Central Valley from Tehama County in the north to Merced County in the south. However, there is one outlying population in Ventura County's Interior Coast Ranges | Conservancy fairy shrimp have been found at elevations ranging from 16 to 5,577 feet (5 to 1,700 meters) above sea level. The species has been found at sites that are low in alkalinity that range from 16 to 47 parts per million | Absent: No habitat onsite |
| <i>Branchinecta lynchi</i> | vernal pool fairy shrimp | FT | Endemic to the grasslands of the central valley, central coast mtns, and south coast mtns, in astatic rain-filled pools | Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools | Absent: No habitat onsite |
| <i>Buteo swainsoni</i> | Swainson's hawk | CT | Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands | Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations | Low potential to occur, foraging habitat only |
| <i>Coccyzus americanus occidentalis</i> | western yellow-billed cuckoo | FT, CE | Riparian forest nester, along the broad, lower flood-bottoms of larger river systems | Nests in riparian jungles of willow, often mixed with cottonwoods, w/ lower story of blackberry, nettles, or wild grape | Absent: No habitat onsite |
| <i>Danaus plexippus</i> | monarch butterfly | FC | Milkweed and flowering plants are needed for monarch habitat. Adult monarchs feed on the nectar of many flowers during breeding and migration, but they can only lay eggs on milkweed plants | For overwintering monarchs, habitat with a specific microclimate is needed for protection from the elements, as well as moderate temperatures to avoid freezing | Absent: No habitat onsite |
| <i>Desmocerus californicus dimorphus</i> | valley elderberry longhorn beetle | FT | Occurs only in the central valley of California, in association with blue elderberry (<i>Sambucus mexicana</i>) | Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries | Absent: No habitat onsite |
| <i>Dipodomys nitratoides exilis</i> | Fresno kangaroo rat | FE, CE | Alkali sink-open grassland habitats in western Fresno County | Bare alkaline clay-based soils subject to seasonal inundation, with more friable soil mounds around shrubs & grasses | Absent: No habitat onsite |
| <i>Emys marmorata</i> | western pond turtle | SSC | A thoroughly aquatic turtle of ponds, marshes, rivers, streams & irrigation ditches, usually with aquatic vegetation | Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying | Absent: No habitat onsite |

| | | | | | |
|------------------------------------|---------------------|--------|--|---|---------------------------|
| <i>Euderma maculatum</i> | spotted bat | SSC | Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests | Feeds over water and along washes. Feeds almost entirely on moths. Needs rock crevices in cliffs or caves for roosting | Absent: No habitat onsite |
| <i>Eumops perotis californicus</i> | western mastiff bat | SSC | Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral etc. | Roosts in crevices in cliff faces, high buildings, trees & tunnels | Absent: No habitat onsite |
| <i>Gymnogyps californianus</i> | California condor | FE, CE | Condors roost on large trees or snags, or on rocky outcrops and cliffs. Nests are located in caves and ledges of steep rocky terrain or in cavities and broken tops of old growth conifers created by fire or wind | Foraging habitat includes open grasslands, oak savanna foothills, and beaches adjacent to coastal mountains | Absent: No habitat onsite |
| <i>Mylopharodon conocephalus</i> | hardhead | SSC | Low to mid-elevation streams in the Sacramento San Joaquin drainage. Also present in the Russian river | Clear, deep pools with sand-gravel-boulder bottoms & slow water velocity. Not found where exotic centrarchids predominate | Absent: No habitat onsite |
| <i>Phrynosoma blainvillii</i> | coast horned lizard | SSC | Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes | Open areas for sunning, bushes for cover, patches of loose soil for burial, & abundant supply of ants & other insects | Absent: No habitat onsite |
| <i>Spea hammondi</i> | western spadefoot | SSC | Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands | Vernal pools are essential for breeding and egg-laying | Absent: No habitat onsite |
| <i>Taxidea taxus</i> | American badger | SSC | Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils | Needs sufficient food, friable soils & open, uncultivated ground. Preys on burrowing rodents. Digs burrows | Absent: No habitat onsite |
| <i>Vireo bellii pusillus</i> | least Bell's vireo | FE, CE | Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. | Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, mesquite | Absent: No habitat onsite |
| <i>Vulpes macrotis mutica</i> | San Joaquin kit fox | FE, CT | Annual grasslands or grassy open stages with scattered shrubby vegetation | Need loose-textured sandy soils for burrowing, and suitable prey base | Absent: No habitat onsite |

| PLANTS | | | | | |
|---|-----------------------------|-----------|--|--|---|
| <i>Calycadenia hooveri</i> | Hoover's calycadenia | CNPS 1B.3 | Cismontane woodland, valley and foothill grassland | On exposed, rocky, barren soil. 65-260m. | Absent: No habitat onsite |
| <i>Carex comosa</i> | bristly sedge | CNPS 2B.1 | Marshes and swamps | Lake margins, wet places. -5-1,005m. | Absent: No habitat onsite (marsh on site small, degraded, and isolated) |
| <i>Castilleja campestris</i> var. <i>succulenta</i> | succulent owl's-clover | FT, CE | Vernal pools, valley and foothill grassland | Moist places, often in acidic soils. 25-750m. | Absent: No habitat onsite |
| <i>Caulanthus californicus</i> | California jewelflower | FE, CE | Chenopod scrub, valley and foothill grassland, pinyon-juniper woodland | Historical from various valley habitats in both the Central Valley and Carrizo Plain. 65-900m. | Absent: No habitat onsite |
| <i>Downingia pusilla</i> | dwarf downingia | CNPS 2B.2 | Valley and foothill grassland (mesic sites), vernal pools | Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 1-485m. | Absent: No habitat onsite |
| <i>Eryngium spinosepalum</i> | spiny-sepaled button-celery | CNPS 1B.2 | Vernal pools, valley and foothill grassland | Some sites on clay soil of granitic origin; vernal pools, within grassland. 100-420m. | Absent: No habitat onsite |
| <i>Imperata brevifolia</i> | California satintail | CNPS 2B.1 | Coastal scrub, chaparral, riparian scrub, mojavean scrub, meadows and seeps (alkali) | Mesic sites, alkali seeps, riparian areas. 0-500m. | Absent: No habitat onsite |
| <i>Lagophylla dichotoma</i> | forked hare-leaf | CNPS 1B.1 | Sierra Nevada foothills, Sacramento Valley, and San Joaquin Valley (UC Berkely, 2023c) | Grasslands, openings within woodlands. 50-400m (UC Berkely, 2023c) | Absent: No habitat onsite |
| <i>Leptosiphon serrulatus</i> | Madera leptosiphon | CNPS 1B.2 | Cismontane woodland, lower montane coniferous forest | Dry slopes; often on decomposed granite in woodland. 80-1575m. | Absent: No habitat onsite |
| <i>Navarretia myersii</i> ssp. <i>Myersii</i> | pincushion navarretia | CNPS 1B.1 | Vernal pools | Clay soils within nonnative grassland. 20-330 m. | Absent: No habitat onsite |

| | | | | | |
|-------------------------------|---------------------------------|-------------------|--|--|---|
| <i>Orcuttia inaequalis</i> | San Joaquin Valley Orcutt grass | FT, CE | Vernal pools | 15-660 m. | Absent: No habitat onsite |
| <i>Orcuttia pilosa</i> | hairy Orcutt grass | FE, CE | Vernal pools | 45-200 m. | Absent: No habitat onsite |
| <i>Pseudobahia bahiifolia</i> | Hartweg's golden sunburst | FE, CE | Valley and foothill grassland, cismontane woodland | Clay soils, often acidic. Predominantly on the northern slopes of knolls, but also along shady creeks or near vernal pools | Absent: No habitat onsite |
| <i>Pseudobahia peirsonii</i> | San Joaquin adobe sunburst | FT, CE, CNPS 1B.1 | Valley and foothill grassland, cismontane woodland | Grassy valley floors and rolling foothills in heavy clay soil. 90-800m. | Absent: No habitat onsite |
| <i>Sagittaria sanfordii</i> | Sanford's arrowhead | CNPS 1B.2 | Marshes and swamps | In standing or slow-moving freshwater ponds, marshes, and ditches. 0-610m. | Absent: the drainage ditch is not perennial, and there are no known occurrences of this species in over 45 miles in over 30 years |
| <i>Tuctoria greenei</i> | Greene's tuctoria | FE | Vernal pools | Dry bottoms of vernal pools in open grasslands. 30-1070m. | Absent: No habitat onsite |

*Definitions of Status Codes: FE = Federally listed as endangered; FT = Federally listed as threatened; CE = California State listed as endangered; CT = California State listed as threatened; SSC = California species of special concern; CNPS List 1A = Plants presumed extinct in California by CNPS; CNPS List 1B = CNPS designated rare or endangered plants in California and elsewhere; and CNPS List 2 = CNPS designated rare or endangered plants in California, but more common elsewhere.

**Copied verbatim from CNDDB or USFWS ECOS/FWS Focus, unless otherwise noted.

The following animals were detected during the field survey:

western fence lizard (*Sceloporus occidentalis*); ground squirrel (*Otospermophilus beecheyi*); cat (*Felis catus*); dragonfly (*Odonata*); rock dove (*Columba livia*); and Pacific tree frog (*Pseudacris regilla*).

No special-status species were detected during the field survey. No active bird nests were detected; however, the trees and structures in the Study Area provide nesting habitat.

Impact Assessment and Recommendations

Impact Significance Criteria

The significance of impacts to biological resources depends upon the proximity and quality of vegetation communities and wildlife habitats, the presence or absence of special-status species, and the effectiveness of measures implemented to protect these resources from Project-related impacts. For the purposes of this report, sensitive habitats include those that are considered by natural resource agencies to be of limited distribution, require permits for impacts, or are identified as limited in distribution or of local importance in local plans. In general, the following are considered when evaluating whether a significant impact to biological resources would occur:

- Direct or indirect impacts to sensitive habitats, including waters of the U.S. or State;
- Interference with migratory wildlife corridors or the use of native wildlife nursery sites;
- Direct or indirect impacts to special-status species;
- Conflict with applicable policies or ordinances protecting biological resources; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved governmental habitat conservation plan.

Habitat Impacts

Vegetative Communities

Implementation of the Proposed Project will result in impacts to ruderal and developed habitat. These habitat types are highly modified from natural conditions and subject to ongoing disturbance. These habitats offer little value to plants and wildlife species and are not considered sensitive. Impacts to ruderal and developed habitats would not be considered significant and would not require mitigation.

Recommended Mitigation Measure

None.

Surface Water Resources

Surface water resources are generally considered sensitive habitats and additionally have the potential to be considered waters of the U.S. and/or State and subject to permitting under the federal Clean Water Act, State Porter-Cologne Act and California Fish and Game Code. Surface water resources within the Study Area that have the potential to be impacted by the Proposed Project include a freshwater marsh within a stormwater detention basin, and the West Branch Clovis Ditch. Both of these features are man-made, isolated, and do not offer suitable habitat to support special-status species. Aside from the freshwater marsh, the balance of the detention basin within the Study Area did not display hydrophytic

vegetation, standing water, or other indicators of a surface water resource. Therefore, the balance of the stormwater detention basin is considered ruderal habitat.

The freshwater marsh is an isolated feature within a man-made basin. Under the current definition of a water of the U.S., isolated wetlands that are man-made and dug from uplands are not considered waters of the U.S. The current definition of waters of the State includes “any surface water or groundwater, including saline waters, within the boundaries of the state.” Per the *State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, only certain artificial wetlands are considered waters of the State. The marsh was evaluated to determine if it met any of the conditions that would categorize it as a water of the State (**Attachment D**). The evaluation determined that the marsh failed to meet the conditions to be considered a water of the State. The Central Valley Regional Water Quality Control Board was consulted and concurred with the evaluation that the marsh did not meet the definition of a water of the State and that permitting would not be required (Scroggins, pers. comm., 2023; **Attachment D**).

The West Branch Clovis Ditch is an isolated segment of a larger ditch that historically drained into Dry Creek. However, as shown on NWI and in City mapping, the historic Clovis Ditch is now broken into two segments, with the West Branch Clovis Ditch isolated from other surface water resources (USFWS, 2023b; City of Clovis, 2014). The West Branch Clovis Ditch is a man-made irrigation ditch that was constructed from uplands and drains into uplands. The majority of this feature is piped underground, with only a small portion daylighted and limited to the section crossing the Study Area. This feature was dry at the time of the survey and is not connected to other surface water resources. Under the current regulatory definition of waters of the U.S., isolated man-made drainage ditches that were dug from uplands and drain into uplands are not considered waters of the U.S. Therefore, the West Branch Clovis Ditch would not be considered a water of the U.S.

However, this feature still has the potential to be considered a water of the State. Certain waters of the State impacts are exempt from permitting requirements, including impacts to certain agricultural ditches. Section IV.D(2c) of the *State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* provides the conditions under which an agricultural ditch is exempt from permitting (RWQCB, 2021). An evaluation of the West Branch Clovis Ditch found that it was likely exempt from permitting requirements (**Attachment D**). The Central Valley Regional Water Quality Control Board was consulted and concurred with the evaluation that the West Branch Clovis Ditch is a water of the State and that it met permit exemption conditions; therefore, permitting would not be required (Scroggins, pers. comm., 2023; **Attachment D**).

Additionally, impacts to the West Branch Clovis Ditch may require a Lake or Streambed Alteration Agreement (LSAA) from CDFW pursuant to Section 1602 of the California Fish and Game Code. Section 1602 of the California Fish and Game Code requires notification be provided to CDFW for activities impacting a river, stream, or lake. While the West Branch Clovis Ditch is not likely considered a river, stream, or lake, CDFW was contacted to provide information on the Proposed Project and the West Branch Clovis Ditch. CDFW requested proof that the West Branch Clovis Ditch was an isolated, man-made feature dug from uplands. Supporting documents were provided to CDFW. No further information was requested by CDFW (Kitch, pers. comm., 2023).

During review of the freshwater marsh and West Branch Clovis Ditch, it was determined that these features are isolated, man-made, non-jurisdictional, and do not provide habitat for special-status species. Therefore, impacts to these features would not be significant and mitigation would not be required.

Potential indirect impacts to water resources could occur during construction by degradation from stormwater transport of sediment from disturbed soils or by accidental release of hazardous materials or petroleum products from sources such as heavy equipment servicing or refueling. This is a potentially significant impact. However, the Proposed Project would require enrollment under the State Water Quality Control Board's Construction General Permit prior to the initiation of construction (for projects that disturb at least 1 acre of ground). In conjunction with enrollment under this Permit, a Storm Water Pollution Prevention Plan must be created and implemented during construction to avoid or minimize the potential for erosion, sedimentation, or accidental release of hazardous materials. Implementation of these measures mandated by law would reduce potential indirect construction-related impacts to water quality to a less-than-significant level.

Recommended Mitigation Measure

None.

Wildlife Corridors, Nursery Sites, and Other Habitat Features

As discussed above, no wildlife corridors, nursery sites, or other unique habitat characteristics were observed within the Study Area. Therefore, there would be no impacts to these resources, and no mitigation would be warranted.

Recommended Mitigation Measure

None.

Special-status Species and Nesting Birds

During the field survey, no listed species or special-status species were observed within the Study Area. No special-status animal species have a moderate or high potential to occur in the Project Area. As discussed within **Table 1**, the Study Area has marginal habitat for two special-status species that have a low potential to occur within the Study Area, including:

- **Burrowing owl:** Burrowing owl may forage within the ruderal habitat and may utilize ground squirrel burrows on site. Although none were observed during the site survey, burrowing owl could migrate into the Project Area between the time that the field survey was completed and the start of construction. Should active burrowing owl burrows occur within the Study Area at the commencement of construction, disturbance to the burrows would be a potentially significant impact. Mitigation presented below includes performing a preconstruction survey prior to impacts in order to confirm absence before groundbreaking and avoidance/exclusion of individuals should special-status animals be identified with compensation for loss of burrows. With mitigation, impacts to burrowing owls would be less than significant.
- **Swainson's hawk:** Swainson's hawk may forage over the Study Area. The amount and quality of foraging habitat is minimal and low quality due to the ruderal and fragmented natural of the site in an urban setting. Per CDFW's Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California, mitigation for foraging habitat is deemed necessary only for foraging habitat within 10 miles of an active Swainson's hawk nest (CDFW, 1994). A query of CNDDDB was run for occurrences of Swainson's hawk within 10 miles of the Study Area, and there are no known occurrences of active (used within the past 5 years) Swainson's hawk nests. Therefore, impacts to Swainson's hawk foraging habitat would be less than significant and would not require mitigation.

The Survey Area also contains suitable nesting habitat for various bird species because of the presence of trees and nearby structures. California Fish and Game Code protects nesting birds and their nests, and migratory birds are also protected under the Migratory Bird Treaty Act of 1918. If construction activities commence, or recommence during a delay in activity, during the bird nesting season (February through August), nesting birds could be directly impacted by tree removal and indirectly impacted by noise, vibration, and other construction-related disturbance. Impacts to nesting birds during construction is considered a potentially significant impact. Recommended mitigation below requires a pre-construction nesting bird survey to identify whether active nests exist in the vicinity of proposed construction activities. If active nests are present, measures to avoid “take” of active nests will be implemented prior to the initiation of construction activities. With the implementation of mitigation, adverse impacts to special-status bird species and nesting birds would be reduced to a less-than-significant level.

Recommended Mitigation Measures

Worker Training: Prior to construction, personnel shall complete worker environmental awareness training. The training shall present information on burrowing owls and notification procedures, and shall direct workers to halt work and allow individual burrowing owls to move off-site of their own accord. Construction personnel shall provide signatures confirming completion of the training, and copies of the training shall be maintained and made available to applicable agencies upon request.

Burrowing owl: A pre-construction survey shall be conducted by a qualified biologist no more than 14 days prior to construction activities. The preconstruction survey shall be conducted in accordance with the “Take Avoidance Surveys” described in CDFW’s Staff Report on Burrowing Owl Mitigation (CDFW, 2012). If burrowing owls or sign of burrowing owls is not observed, results shall be documented and no further action is necessary.

Should burrowing owl burrows be observed, CDFW shall be consulted to determine necessary avoidance or exclusion methods. Mitigation shall follow CDFW recommended measures in CDFW’s Staff Report on Burrowing Owl Mitigation (CDFW, 2012) and shall follow the below steps:

- If the burrows can be avoided, a qualified biologist shall demarcate a no-disturbance buffer around the burrows using high visibility fencing or pin flagging. The size of the buffer shall be established with CDFW and shall remain in place until construction is completed. Buffer sizes for burrowing owl, as detailed in CDFW’s Staff Report, range from 50 meters to 500 meters depending on the level of disturbance and timing of disturbance.
- Should full avoidance be infeasible, CDFW shall be consulted to identify appropriate exclusion methods to be implemented prior to removal of the burrows. Consistent with the CDFW Staff Report, exclusion would not occur until a Burrowing Owl Exclusion Plan is approved by CDFW.
- In order to mitigate for loss of burrows that are excluded, the Burrowing Owl Exclusion Plan shall identify one of the following mitigation options, or a combination thereof, as outlined in the CDFW Staff Report “Mitigating Impacts” section:
 - Creation of artificial burrows commensurate to the number of burrows excluded;
 - Permanent conservation of like habitat, such as a conservation easement;
 - Purchase of conservation bank credits; and/or
 - An alternative mitigation strategy, as developed with and approved by CDFW.

Nesting Birds: If construction activities would occur during the nesting season (February 1 through August 31), a pre-construction survey for the presence of nesting bird species shall be conducted by a qualified biologist on and within 500 feet of proposed construction areas, as accessible. The survey shall



occur within five days of the commencement of construction activities. If active nests are identified in these areas, one of the following should occur:

- A qualified biologist shall establish a disturbance-free buffer zone using high-visibility fencing or flagging. The size of the buffer shall be determined by the qualified biologist based on the needs of the species. The buffer shall remain in place until either (1) construction activities are completed, (2) the conclusion of the nesting season, or (3) the qualified biologist determines that the young have fledged and are no longer dependent on the nest, or the nest has failed. If construction activities are halted for a period of more than 14 days, an additional preconstruction nesting bird survey shall be conducted.

OR

- Commencement of construction activities shall be postponed until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site or the nest has failed.

Policies, Ordinances, Habitat Conservation Plans, and Natural Community Conservation Plans

The Study Area is not within a Habitat Conservation Plan, Natural Community Conservation Plan, or other biological plan area. The City of Clovis, however, requires a tree removal permit for removal of trees greater than 12 inches diameter at breast height (dbh). As part of the permit process, an arborist report must be prepared to identify tree removal requiring permits. The tree removal permits also require mitigation, including avoidance of trees, replacement of trees, payment of in-lieu fees, or a combination thereof. As a tree removal permit would be a condition of approval and would require mitigation, no additional mitigation would be necessary beyond the required permit acquisition.

Recommended Mitigation Measure

None.

Preparers and Qualifications

G.O. Graening, Ph.D., M.S.E.

Dr. Graening holds a Doctorate in Biological Sciences and a Master of Science in Biological Engineering and is a certified arborist (International Society of Arboriculture). Dr. Graening has 26 years of experience in environmental assessment and research, including the performance of numerous wetland delineations and aquatic restoration projects, USFWS permitted work for multiple bat species, and plant surveys. Dr. Graening also served as an adjunct professor of biology at California State University Sacramento for 10 years and was an active researcher in the area of conservation biology and groundwater ecology.

Kelli Raymond, B.S.

Ms. Raymond holds a B.S. in Animal Biology with a focus on Wildlife Ecology. She has approximately 10 years of experience collecting field data and preparing environmental reports. Ms. Raymond has worked in several states across the U.S. performing biological resources surveys. She also has experience live handling numerous wildlife species, including fish, migratory birds, and big game. Ms. Raymond is experienced in the preparation of Biological Assessments and Section 7 consultation with both the USFWS and NMFS under the federal Endangered Species Act.

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Attachments:

Attachment A – Desktop Review

Attachment B – Site Photographs

Attachment C – List of Observed Plants

Attachment D – Waters of the State Evaluation and SWRCB Consultation

Attachment A

Desktop Review



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:
Project Code: 2023-0134904
Project Name: Golden Triangle

September 28, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2023-0134904
Project Name: Golden Triangle
Project Type: Commercial Development
Project Description: Commercial center
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@36.83276755,-119.70151542893993,14z>



Counties: Fresno County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

| NAME | STATUS |
|--|------------|
| Fresno Kangaroo Rat <i>Dipodomys nitratoides exilis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5150 | Endangered |
| San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873 | Endangered |

BIRDS

| NAME | STATUS |
|---|------------|
| California Condor <i>Gymnogyps californianus</i> Population: U.S.A. only, except where listed as an experimental population There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193 | Endangered |
| Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911 | Threatened |

AMPHIBIANS

| NAME | STATUS |
|--|------------|
| California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076 | Threatened |

INSECTS

| NAME | STATUS |
|--|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743 | Candidate |

CRUSTACEANS

| NAME | STATUS |
|---|------------|
| Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246 | Endangered |
| Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498 | Threatened |

FLOWERING PLANTS

| NAME | STATUS |
|--|------------|
| Greene's Tuctoria <i>Tuctoria greenei</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1573 | Endangered |

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION



Agency: Private Entity
Name: Kelli Raymond
Address: 5170 Golden Foothill Parkway
City: El Dorado Hills
State: CA
Zip: 95762
Email: kraymond@acorn-env.com
Phone: 9162358224



Search Results

7 matches found. Click on scientific name for details

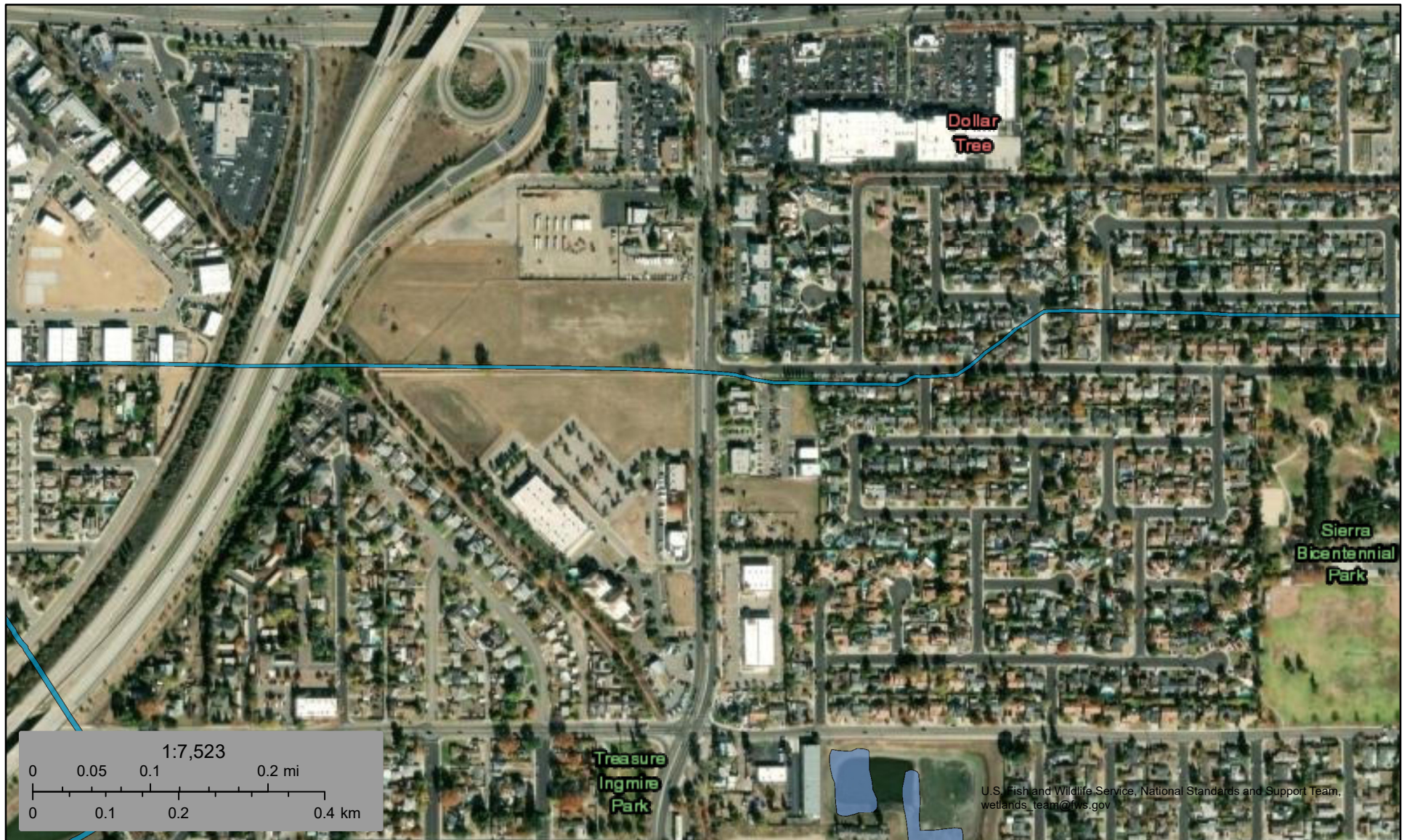
Search Criteria: Fed List is one of [FE:FT:FC] or State List is one of [CE:CT:CR:CC] , Quad is one of [3611976:3611977:3611987:3611986:3611985:3611975:3611965:3611966:3611967]

| ▲ SCIENTIFIC NAME | COMMON NAME | LIFEFORM | BLOOMING PERIOD | FED LIST | STATE LIST | CA RARE PLANT RANK | GENERAL HABITATS | MICROHABITATS | LOWEST ELEVATION (FT) | HIGHEST ELEVATION (FT) | PHOTO |
|--|---------------------------------|-----------------------------|-----------------|----------|------------|--------------------|--|----------------------|-----------------------|------------------------|--|
| <u>Castilleja campestris</u> <u>var. succulenta</u> | succulent owl's-clover | annual herb (hemiparasitic) | (Mar)Apr-May | FT | CE | 1B.2 | Vernal pools (often acidic) | | 165 | 2460 | No Photo Available |
| <u>Caulanthus californicus</u> | California jewelflower | annual herb | Feb-May | FE | CE | 1B.1 | Chenopod scrub, Pinyon and juniper woodland, Valley and foothill grassland | Sandy | 200 | 3280 | No Photo Available |
| <u>Orcuttia inaequalis</u> | San Joaquin Valley Orcutt grass | annual herb | Apr-Sep | FT | CE | 1B.1 | Vernal pools | | 35 | 2475 | No Photo Available |
| <u>Orcuttia pilosa</u> | hairy Orcutt grass | annual herb | May-Sep | FE | CE | 1B.1 | Vernal pools | | 150 | 655 |  © 2003 George W. Hartwell |
| <u>Pseudobahia bahiifolia</u> | Hartweg's golden sunburst | annual herb | Mar-Apr | FE | CE | 1B.1 | Cismontane woodland, Valley and foothill grassland | Acidic (often), Clay | 50 | 490 | No Photo Available |
| <u>Pseudobahia peirsonii</u> | San Joaquin adobe sunburst | annual herb | Feb-Apr | FT | CE | 1B.1 | Cismontane woodland, Valley and foothill grassland | Adobe, Clay | 295 | 2625 | No Photo Available |
| <u>Tuctoria greenei</u> | Greene's tuctoria | annual herb | May-Jul(Sep) | FE | CR | 1B.1 | Vernal pools | | 100 | 3510 |  ©2008 F. Gauna |

Showing 1 to 7 of 7 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 28 September 2023].



October 2, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Attachment B

Site Photographs



View of ruderal habitat and fencing on site.



Outflow of West Branch Clovis Ditch.



Portion of West Branch Clovis Ditch within Study Area.



View of graveled storage area within Study Area.

Attachment C

List of Observed Plants

Plants Observed at Golden Triangle, Clovis
on October 3, 2023

| Common Name | Scientific Name |
|-------------------|-------------------------------|
| Deerweed | <i>Acmispon glaber</i> |
| Tree of Heaven | <i>Ailanthus altissima</i> |
| Ragweed | <i>Ambrosia sp.</i> |
| Pimpernel | <i>Anagallis arvense</i> |
| Wild oat | <i>Avena barbata</i> |
| Black mustard | <i>Brassica nigra</i> |
| Ripgut brome | <i>Bromus diandrus</i> |
| Soft chess | <i>Bromus hordeaceus</i> |
| Italian thistle | <i>Carduus pycnocephalus</i> |
| Catalpa | <i>Catalpa sp.</i> |
| Field bindweed | <i>Convolvulus arvensis</i> |
| Dove weed | <i>Croton setiger</i> |
| Tall flatsedge | <i>Cyperus eragrostis</i> |
| Jimsonweed | <i>Datura sp.</i> |
| Jungle rice | <i>Echinochloa sp.</i> |
| Tall willowherb | <i>Epilobium brachycarpum</i> |
| Horseweed | <i>Erigeron canadensis</i> |
| Narrow-leaved ash | <i>Fraxinus angustifolia</i> |
| Barley | <i>Hordeum murinum</i> |
| English walnut | <i>Juglans regia</i> |
| Rush | <i>Juncus effusus</i> |
| Prickly lettuce | <i>Lactuca serriola</i> |
| Crepe myrtle | <i>Lagerstroemia sp.</i> |
| Sprangletop | <i>Leptochloa fusca</i> |
| Mulberry | <i>Morus sp.</i> |
| Date palm | <i>Phoenix dactylifera</i> |
| Purple leaf plum | <i>Prunus cerasifera</i> |
| Common plantain | <i>Plantago major</i> |
| Bradford pear | <i>Pyrus calleryana</i> |
| Southern live oak | <i>Quercus virginiana</i> |
| Rosemary | <i>Rosmarinus sp.</i> |
| Russian thistle | <i>Salsola sp.</i> |
| Coast redwood | <i>Sequoia sempervirens</i> |
| Puncture vine | <i>Tribulus terrestris</i> |
| Vinegar weed | <i>Trichostema sp.</i> |
| Cattail | <i>Typha sp.</i> |
| Elm | <i>Ulmus pumila</i> |

Attachment D

Waters of the State
Evaluation and Consultation

Technical Memorandum



To: Matthew Scroggins, Senior Water Resource Control Engineer
Regional Water Quality Control Board

From: Ryan Sawyer, AICP, Project Director
Acorn Environmental

Date: November 9, 2023

Subject: Clovis Golden Triangle Development Waste Discharge Requirements Permitting

Introduction

This technical memorandum has been prepared to support the conclusion that aquatic permits are not required for the Development Plan and Master Site Plan for the Golden Triangle Planned Commercial Center (PCC) (Proposed Project) in the City of Clovis. The Golden Triangle PCC consists of approximately 37 acres located southwest of the Clovis Avenue and Magill Avenue intersection. The Study Area shown in **Figure 1** identifies the boundary of project areas and ground disturbance and **Figure 2** shows the location of isolated water resources. The purpose of this memorandum is to describe surface water resources present within the Study Area, to provide a historical account of these features, and to provide the rationale on why we understand these features to not be subject to permitting under the Porter-Cologne Water Quality Control Act.

Surface Water Resources

Methodology

In order to identify surface water resources, the following were completed:

- The U.S. Fish and Wildlife Service National Wetlands Inventory was reviewed (**Attachment 1**)
- Historic and current aerials were reviewed
- The Fresno Irrigation District was consulted
- Acorn senior biologist Dr. G.O. Graening conducted a preliminary jurisdictional delineation of the Study Area on October 3, 2023

As a result of the above, it was determined that two water resources occur within the Study Area: a portion of the West Branch Clovis Ditch, and a freshwater marsh located at the base of a stormwater detention basin. These features are discussed in detail below, and images are provided in **Figure 3**.



Airbus, USGS, NGA, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community, Maxar

FIGURE 1
AERIAL OVERVIEW



Marsh observed at the base of stormwater detention pond within the Study Area



West Branch Clovis Ditch crossing the Study Area



Airbus, USGS, NGA, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community, Maxar

FIGURE 3
WATER RESOURCE

West Branch Clovis Ditch

The NWI reported a single surface water resource within the Study Area. This feature is listed as “Riverine” habitat and bisects the Study Area in an east to west direction. This feature was identified in the field as a portion of the West Branch Clovis Ditch, which is a manmade agricultural irrigation ditch. This feature is an earthen trapezoidal ditch that is approximately 12 feet wide at the top and 4 feet deep. The channel bottom is lined with hydrophytic vegetation, including tall flatsedge (*Cyperus eragrostis*), common rush (*Juncus effusus*), and cattail (*Typha*). The West Branch Clovis Ditch was dry at the time of the survey.

The Clovis Ditch historically was a 4.5 mile man-made agricultural irrigation ditch that began at a head gate on the Enterprise Canal where it crossed Herndon Avenue to the east, terminating at a channelized section of Dry Creek. Originally constructed as an earthen open-cut ditch, the conveyance is now piped underground for more than 95% of its length; the only portion left that is daylighted is the portion that crosses the project site. The West Branch Clovis Ditch is a portion of the larger Clovis Ditch that has since become fragmented from the balance of the irrigation network and is now isolated. The West Branch Clovis Ditch was dug from uplands and drains into uplands. While precise impacts have not yet been defined, it is expected that the ditch will be re-routed away from development areas within the Study Area in coordination with the Fresno Irrigation District.

Marsh

A man-made stormwater detention basin occurs within the Study Area. The majority of this basin has upland vegetation (primarily European annual grasses) and does not fit the regulatory definition of a wetland. A small poorly-drained area (0.06 acres in size), identified as a freshwater marsh, is located in the southwest corner of the basin and contains hydrophytic vegetation such as tall flatsedge (*Cyperus eragrostis*) and common rush (*Juncus effusus*).

The stormwater detention basin is a man-made feature operated by the Fresno Metropolitan Flood Control District and dug wholly from uplands. The stormwater detention basin was established to serve the Study Area exclusively and does not have a hydrological connection to other surface water resources. Currently, the Fresno Metropolitan Flood Control District is in the process of installing a stormwater collection system, and it is expected that an abandonment agreement will be in place for this stormwater detention basin prior to construction.

Waters of the State Determination

West Branch Clovis Ditch

Under the current regulatory definition of waters of the U.S., isolated man-made drainage ditches that were dug from uplands and drain into uplands are not considered waters of the U.S. Therefore, the West Branch Clovis Ditch would not be considered a water of the U.S. However, this feature still has the potential to be considered a water of the State. Under the current definition of waters of the State, the term is defined to include any surface water or groundwater,

including saline waters, within the boundaries of the state. Therefore, it appears that the portion of the West Branch Clovis Ditch within the Study Area is considered a water of the State.

Marsh

As discussed above, the marsh was generated artificially by the creation of a man-made stormwater detention basin. Under the current definition of a water of the U.S., isolated wetlands that are man-made and dug from uplands are not considered waters of the U.S. However, this feature still has the potential to be considered a water of the State. Per the State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, only certain artificial wetlands are considered waters of the State. The table below itemizes the conditions that would merit classification of an artificial wetland as a water of the State, along with a rationale as to whether or not the marsh meets the criteria.

| Condition (State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, Section II) | Meets condition? | Rationale |
|--|------------------|---|
| Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration | No | The stormwater detention basin was created for stormwater collection and treatment; therefore, the marsh is not part of a compensatory mitigation program. |
| Specifically identified in a water quality control plan as a wetland or other water of the state | No | The marsh is within a manmade stormwater detention basin and is not a component of a water quality control plan. |
| Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape | No | Although the marsh resulted from historic human activity, the entirety of the stormwater detention basin is presently operated and maintained by the Fresno Metropolitan Flood Control District |
| Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes: | No | The marsh is less than one acre in size. Additionally, the marsh is within a stormwater detention basin operated and maintained by the Fresno Metropolitan Flood Control District, which satisfies purpose iii. |

| | | | |
|-------|---|--|--|
| i. | Industrial or municipal wastewater treatment or disposal | | |
| ii. | Settling of sediment | | |
| iii. | Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program | | |
| iv. | Treatment of surface waters | | |
| v. | Agricultural crop irrigation or stock watering | | |
| vi. | Fire suppression | | |
| vii. | Industrial processing or cooling | | |
| viii. | Active surface mining – even if the site is managed for interim wetlands functions and values | | |
| ix. | Log storage | | |
| x. | Treatment, storage, or distribution of recycled water | | |
| xi. | Maximizing groundwater recharge | | |
| xii. | Fields flooded for rice growing | | |

Based on the discussion above, it appears that the marsh does not meet the definition of a water of the State.

WDR Permitting Need Analysis

West Branch Clovis Ditch

In general, features that do not meet the definition of a water of the U.S. but do meet the definition of a water of the State are subject to permitting requirements as dictated by the Porter-Cologne Water Quality Control Act. Impacts to waters of the State, under the Porter-Cologne Water Quality Control Act, would generally require acquisition of a Waste Discharge

Requirement permit. However, the State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State provides exemptions for certain ditches. The table below outlines the conditions for exemption satisfied by the West Branch Clovis Ditch. The West Branch Clovis Ditch need only satisfy one exemption, however, the table below identifies all exemptions that the ditch satisfies for the sake of thoroughness.

| Condition (State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, Section IV.D(2c)) | Rationale |
|---|--|
| Agricultural ditches with ephemeral flow that are not a relocated water of the state or excavated in a water of the state | The West Branch Clovis Ditch is owned by the Fresno Irrigation District and was constructed as an agricultural irrigation ditch. The ditch has ephemeral flow and was dry at the time of the survey. The ditch was dug from uplands by the Fresno Irrigation District and did not relocate a natural surface water. |
| Agricultural ditches with intermittent flow that are not a relocated water of the state or excavated in a water of the state, or that do not drain wetlands other than any wetlands described in sections (iv) or (v) | The West Branch Clovis Ditch is owned by the Fresno Irrigation District and was constructed as an agricultural irrigation ditch. The ditch has intermittent flow and was dry at the time of the survey. This feature is isolated and does not drain into other surface waters. As noted above, the ditch is wholly piped underground except for where it crosses the Study Area. |
| Agricultural ditches that do not flow, either directly or through another water, into another water of the state | The West Branch Clovis Ditch is owned by the Fresno Irrigation District and was constructed as an agricultural irrigation ditch. As noted above, this feature is isolated and does not flow into other waters. |

Based on the discussion above, the West Branch Clovis Ditch appears to be a water of the State that is exempt from Waste Discharge Requirement permitting.

Marsh

As discussed above, the marsh does not appear to meet the definition of a water of the State. Therefore, the marsh would not require Waste Discharge Requirement permitting.

Conclusion

We respectfully submit this information for review and request that the Regional Water Quality Control Board provide a response on whether it concurs with the above findings and rationale.

From: Scroggins, Matt@Waterboards
To: [Jeff Milgrom](#)
Cc: [Ryan Sawyer](#); [Kelli Raymond](#); [Eric Tienken](#); [Hal Lore](#); [Bryan Pok](#); [Roger Hurtado](#)
Subject: RE: Waste Discharge Requirement Permitting Need - Golden Triangle Clovis, CA
Date: Friday, December 29, 2023 9:02:10 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)

Hi Jeff,

I've reviewed the Technical Memorandum prepared by Acorn Environmental. As identified in the Technical Memorandum, the *State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Procedures) defines what features are considered wetlands, what wetlands are waters of the state, and what activities/areas are excluded from the Procedures. The Technical Memorandum provides documentation supporting findings that 1) the marsh in the stormwater detention basin is not a water of the state per the Procedures, and 2) the discharge of fill to West Branch Clovis Ditch is excluded from the Procedure's application requirements. My review found no basis to object to such findings.

Based on the finding that the marsh in the stormwater detention basin is not a water of the state per the Procedures, no dredge/fill permitting from our agency is required for impacts to the stormwater detention basin. While dredge/fill impacts to West Branch Clovis Ditch appear to be excluded from the Procedures' application requirements per Section IV.D.2.c of the Procedures, the Procedures make clear that the Water Boards can decide to otherwise regulate a dredge/fill project to the extent authorized by the California Water Code. In other words, the Central Valley Water Board has the discretion to require Waste Discharge Requirements (WDRs) for discharges of dredged or fill material to West Branch Clovis Ditch. However, due to the isolated nature of West Branch Clovis Ditch, the limited habitat value of the ditch, the project location, the nature of downstream waters, etc., Central Valley Water Board staff does not propose to require a Report of Waste Discharge or regulate the discharge of dredge/fill material to West Branch Clovis Ditch under WDRs.

Notwithstanding the above, the project proponent is expected to implement best management practices during the project to prevent impacts to water quality, including, but not limited to, erosion and sediment control measures, and site management measures for equipment and materials that could potentially be a threat to water quality if discharged. Other Water Board permits such as the [NPDES Construction Stormwater Permit](#) may be necessary for the development of the project area. Also, the decision to not issue WDRs is applicable to the specific project area identified in the Technical Memorandum and is not intended to set a precedent for future activities. Legacy Construction should notify the Central Valley Water Board of other proposed projects in order to determine if a Section 401 Water Quality Certification and/or WDRs are required and to address any water quality concerns.

Lastly, the Central Valley Water Board reserves the right to investigate and take enforcement as appropriate for any discharges that are causing, or are threatening to cause, nuisance/pollution conditions.

Let me know if you have any questions concerning this matter.

Regards,

-Matt

=====

MATTHEW S. SCROGGINS, P.E.
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 NPDES WASTEWATER PERMITTING/STORMWATER/DREDGE & FILL UNIT
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From: Jeff Milgrom <jmilgrom@lcfresno.com>

Sent: Thursday, November 9, 2023 5:16 PM

To: Scroggins, Matt@Waterboards <Matt.Scroggins@waterboards.ca.gov>

Cc: Ryan Sawyer <rsawyer@acorn-env.com>; Kelli Raymond <kraymond@acorn-env.com>; Eric Tienken <Eric@lcfresno.com>; Hal Lore <hal@lore-engineering.com>; Bryan Pok <bryan@clinedesignllc.com>; Roger Hurtado <roger@clinedesignllc.com>

Subject: Waste Discharge Requirement Permitting Need - Golden Triangle Clovis, CA

EXTERNAL:

Mr. Scroggins,

Please find attached a technical memorandum prepared by our consultant Acorn Environmental to support the conclusion that aquatic permits are not required for the Development Plan and Master Site Plan for the Golden Triangle Planned Commercial Center (PCC) (Proposed Project) in the City of Clovis. We request your office's review and concurrence with these findings. Please let me know if you would like any additional information to support your review. Thank you in advance for your assistance.

Thank you,



Jeff Milgrom

Sr. Development Manager

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APPENDIX C

Cultural Resources Report

CULTURAL RESOURCES INVENTORY & EVALUATION

Golden Triangle Planned Commercial Center Clovis, CA

Prepared for: City of Clovis

October 24, 2023



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Section 1 | Introduction

1.1 PROJECT DESCRIPTION AND LOCATION

This report presents the scope and results of a cultural resources inventory and evaluation for planning entitlements related to a proposed update to the Development Plan and Master Site Plan for the Golden Triangle Planned Commercial Center (PCC) (Proposed Project) in the City of Clovis (see **Figure 1**). The Golden Triangle PCC Area consists of approximately 37 acres located southwest of the Clovis Avenue and Magill Avenue intersection (PCC Boundary). The PCC Boundary is bordered by Magill Avenue-State Route (SR) 168 to the north, the Clovis Old Town Trail to the south, and Clovis Avenue to the east (see **Figure 2**). Portions of the PCC Boundary have been developed with land uses consistent with the existing Master Plan. The study area addressed in this report is limited to the proposed development boundary (roughly 20 acres) within the larger PCC Boundary (Study Area; see **Figure 3**).

The Study Area is situated in Township 13 south Range 21 east Section 5 as depicted on the *Clovis, CA* United States Geological Survey (USGS) 7.5-minute topographic quadrangle. A topographic map and an aerial photograph of the study area are shown in **Figures 2** and **3**, respectively.

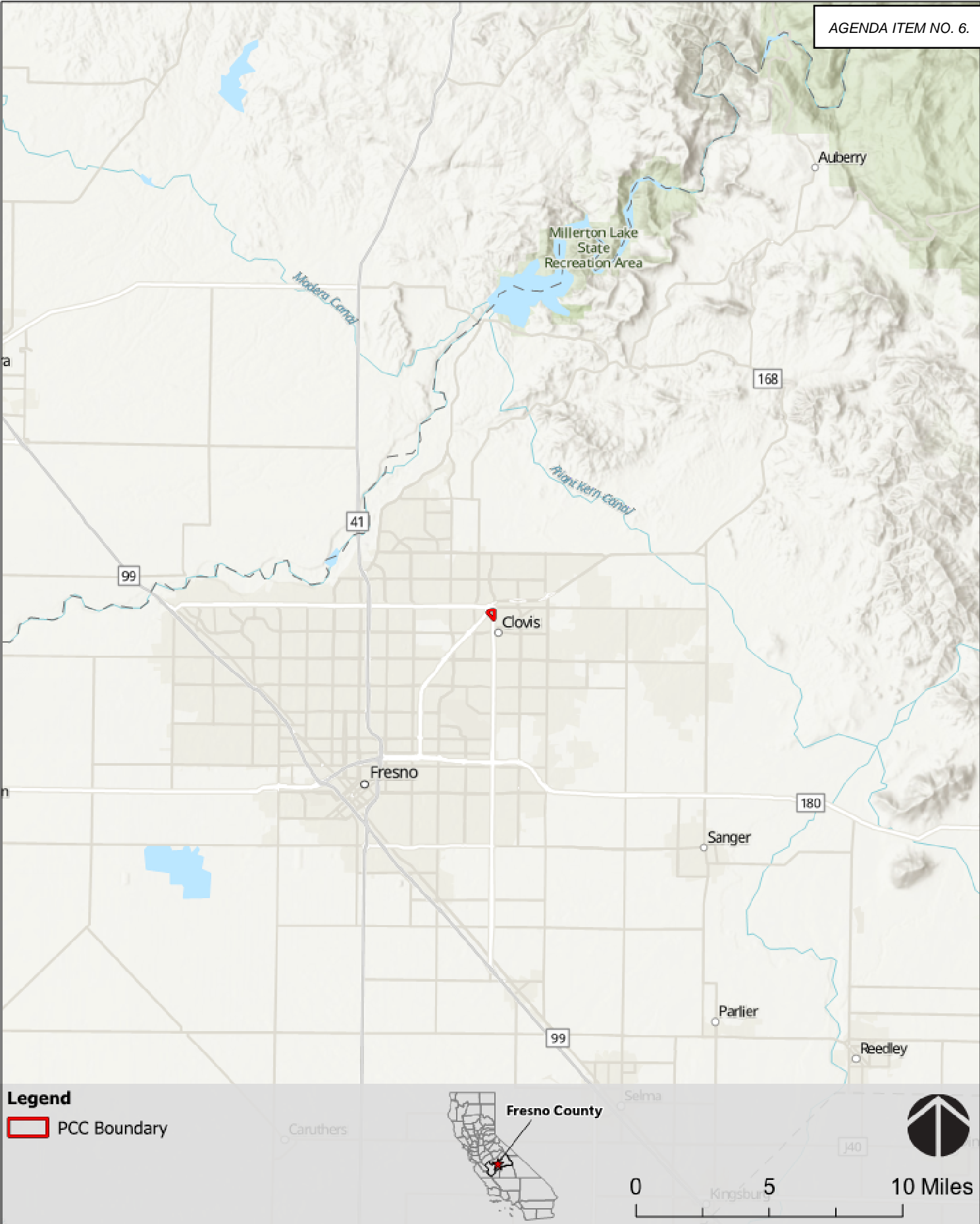
1.2 REGULATORY CONTEXT

The study was performed consistent with the requirements of Section 106 of the National Historic Preservation Act (NHPA), the California Environmental Quality Act (CEQA), and the City of Clovis General Plan (2014). The following sections provide a summary of the applicable regulatory frameworks.

1.2.1 National Historic Preservation Act

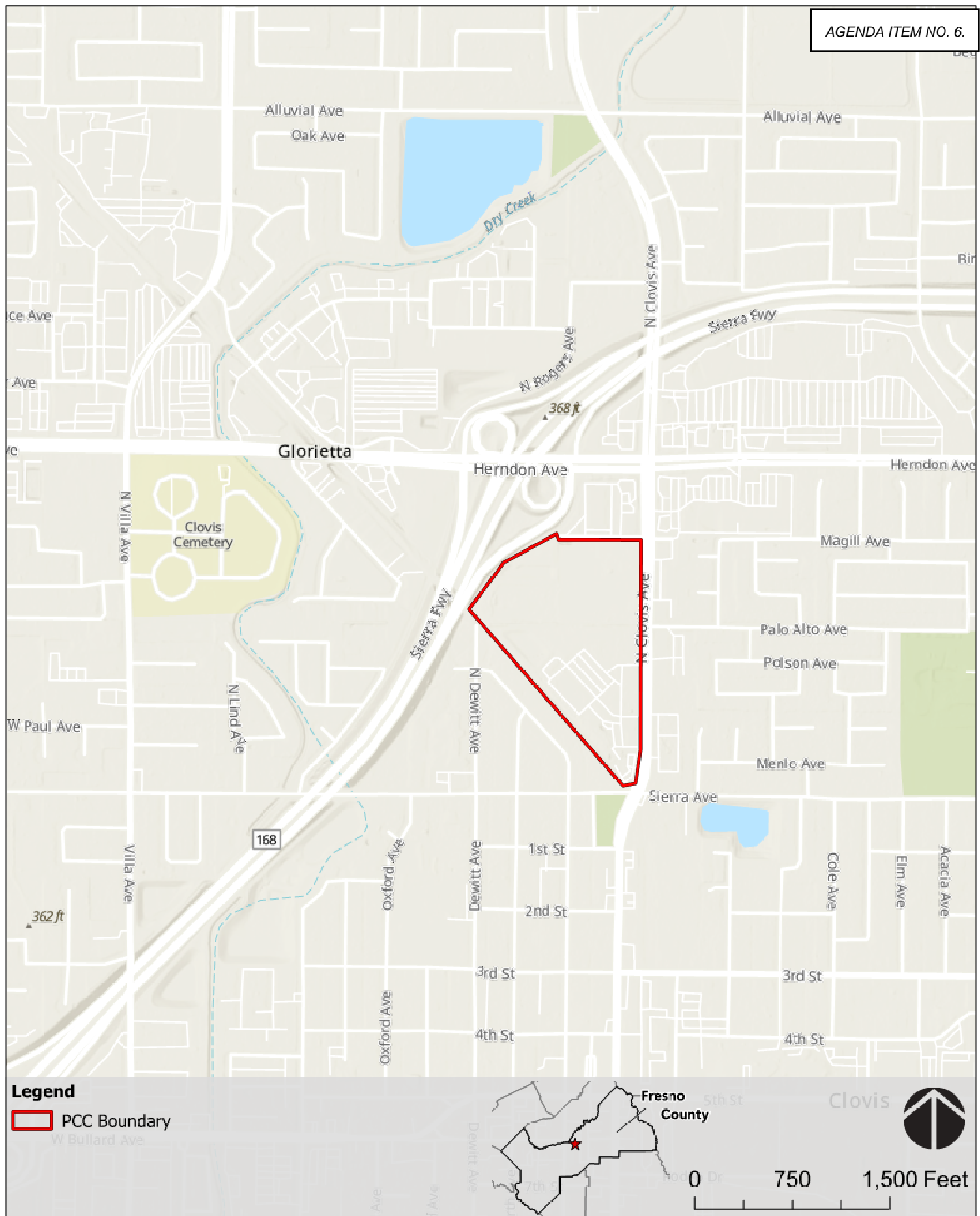
Section 106 of the National Historic Preservation Act (NHPA) as amended, and the implementing regulations found at 36 Code of Federal Regulations (CFR) Part 800, requires federal agencies to take into account the effects of undertakings on historic properties. An undertaking is a "project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval" (36 CFR 800.16(y)). Issuance of a Section 404 permit by the US Army Corps of Engineers constitutes an undertaking.

A historic property is defined as "...any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places [NRHP] maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria."



City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, Esri, NASA, NGA, USGS

FIGURE 1
REGIONAL LOCATION
891



Legend

PCC Boundary

Esri Community Maps Contributors, City Of Fresno, Fresno County Dept. PWP, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land

FIGURE 2
SITE AND VICINITY



Airbus, USGS, NGA, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community, Maxar

FIGURE 3
AERIAL OVERVIEW

The eligibility of a resource for listing in the NRHP is determined by evaluating the resource using criteria defined in 36 CFR 60.4, as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and

- A. That are associated with events that have made a significant contribution to the broad patterns of our history;
- B. That are associated with the lives of persons significant in our past;
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded, or may be likely to yield, information important to prehistory or history.

Resources less than 50 years of age, unless of exceptional importance, are not eligible for listing in the NRHP. In addition to meeting at least one of the criteria listed above, the resource must also retain enough integrity to enable it to convey its historic significance. A historic property will always possess several, and usually most, aspects of integrity. The NRHP recognizes seven aspects or qualities that, in various combinations, define integrity (NPS 1990):

1. Location – the place where the historic property was constructed or the place where the historic event occurred.
2. Design – the combination of elements that create the form, plan, space, structure, and style of a property.
3. Setting – the physical environment of a historic property.
4. Materials – the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
5. Workmanship – the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
6. Feeling – a property's expression of the aesthetic or historic sense of a particular period of time.
7. Association – the direct link between an important historic event or person and a historic property.

The criteria of adverse effect (36 CFR 800.5(a)[1]) establishes thresholds for determining whether an undertaking would alter, directly or indirectly, any of the characteristics of a historic property such that the integrity of the property's location, design, setting, materials, workmanship, feeling, or association would be significantly impaired. Examples of adverse effects include:

- physical destruction of or damage to all or part of the property;
- alteration of a property;
- removal of the property from its historic location;

- change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;
- neglect of a property that causes its deterioration; and
- transfer, lease, or sale of the property.

If an adverse effect is found, the agency official shall consult further to resolve the adverse effect pursuant to 36 CFR 800.6.

1.2.2 California Environmental Quality Act

Projects in California requiring discretionary approval from public agencies are subject to CEQA, which requires consideration of potential impacts to historical resources (Public Resources Code [PRC] Section 21083.2). As applied in CEQA, historical resources are defined as "buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance" (PRC Section 50201).

The CEQA Guidelines, found in Title 14, Division 6, Chapter 3 of the California Code of Regulations, serve as administrative regulations that oversee the execution of the California Environmental Quality Act. These guidelines align with the stipulations outlined in the Public Resources Code, in addition to court rulings that provide interpretation of the law, and pragmatic factors related to planning.

Under the CEQA Guidelines, an effect is considered significant if a project will result in a substantial adverse change to the resource (PRC Section 21084.1). Actions that would cause a substantial adverse change to a historical resource include demolition, replacement, substantial alteration, and relocation. When it is determined that a project may cause a substantial adverse change to a historical resource, alternative plans or measures to mitigate effects to the resource must be considered.

The CEQA Guidelines (Section 15064.5) define four cases in which a cultural resource may qualify as a significant historical resource for the purposes of CEQA review:

- A) The resource is listed in or determined eligible for the listing in the California Register of Historical Resources (CRHR). Section 5024.1 defines eligibility requirements and states that a resource may be eligible for inclusion in the CRHR if it:
 1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 2. Is associated with the lives of persons important in our past;
 3. Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
 4. Has yielded, or may be likely to yield, information important in prehistory or history.

Properties must retain integrity to be eligible for listing on the CRHR. Properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP) are automatically considered eligible for listing in the CRHR, and thus are significant historical resources for the purpose of CEQA (PRC Section 5024.1[d][1]).

- B) The resource is included in a local register of historic resources, as defined in section 5020.1(k) of the PRC, or is identified as significant in a historical resources survey that meets the requirements of section 5024.1(g) of the PRC (unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant).
- C) The lead agency determines it is a historical resource as defined in PRC Section 5020.1(j) or 5024.1, as supported by substantial evidence in light of the whole record.
- D) The resource is found to be a *unique archaeological resource*, defined as “an archaeological artifact, object, or site about which it can be clearly demonstrated” as meeting any of the following criteria:
 - 1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
 - 2. Has a special and particular quality such as being the oldest of its type or the best example of its type.
 - 3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Assembly Bill 52

Signed into law in September of 2014, Assembly Bill 52 (AB 52) established Tribal Cultural Resources (TCRs) as a new category under CEQA and mandated a more rigorous process for consultation among California Native American Tribes and CEQA lead agencies. The law also requires noticing and consultation with affected Native American tribes for projects filing a Notice of Preparation, Notice of Mitigated Negative Declaration or Notice of Negative Declaration is filed on or after July 1, 2015. (Stats. 2014, ch. 532, § 11 (c)).

TCRs are defined in PRC 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources or is listed in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1 [of the PRC]. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

A project that has potential to impact a TCR such that it would cause a substantial adverse change constitutes a significant effect on the environment unless mitigation reduces such effects to a less than significant level.

1.2.3 City of Clovis General Plan

The City of Clovis General Plan provides a framework for development within the city and supports protection of the natural and cultural resources that lie within. The goals and policies are applicable throughout the city. The singular goal and implementation policies related to cultural resources excerpted from the General Plan are presented below.

Goal 2:

Natural, agricultural, and historic resources that are preserved and promoted as key features for civic pride and identity.

Policies

2.9 National and state historic resources. Preserve historical sites and buildings of state or national significance in accordance with the Secretary of Interior Standards for Historic Rehabilitation.

2.10 Local historic resources. Encourage property owners to maintain the historic integrity of the site by (listed in order of preference): preservation, adaptive reuse, or memorialization.

Applicable General Plan Mitigation Measures

The Final Environmental Impact Report (EIR) for the City's 2014 General Plan update provides five measures related to cultural resources that apply to future discretionary development approvals (p. 5.5-17 – 5.5-20). The five mitigation measures are informed by the supporting cultural resources study by Treffers and Dietler (2012).

- *5-1 Prior to any construction activities of individual projects that may affect historic resources, a historic resources assessment shall be performed by an architectural historian or historian who meets the Secretary of the Interior's Professional Qualifications Standards requirements in architectural history or history. The assessment shall include a records search at the Southern San Joaquin Valley Information Center to determine if any resources that may potentially be affected by the project have been previously recorded, evaluated, and/or designated on the National Register of Historic Places or California Register of Historic Resources. Following the records search, the qualified architectural historian or historian will conduct a reconnaissance-level and/or intensive-level survey in accordance with the California Office of Historic Preservation guidelines to identify any previously unrecorded potential historic resources that may potentially be affected by the proposed project. If the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code Section 5024.1, Title 14 CCR, Section 4852), mitigation shall be identified within the technical study that ensures the value of the historic resource is maintained.*

- *5-2 To ensure that individual projects requiring the relocation, rehabilitation, or alteration of a historic resource do not impair its significance, the Interior's Standards for the Treatments of Historic Properties (Standards) shall be used. The application of the standards shall be overseen by a qualified architectural historian or historic architect meeting the Secretary of the Interior's Professional Qualifications Standards. Prior to any construction activities that may affect the historic resource, a report identifying and specifying the treatment of character-defining features and construction activities shall be provided to the City of Clovis.*
- *5-3 If an individual project would result in the demolition or significant alteration of a historic resource, it cannot be mitigated to a less than significant level. However, recordation of the resource prior to construction activities will assist in reducing adverse impacts to the resource to the greatest extent possible (but not avoid a significant impact). Recordation shall take the form of Historic American Buildings Survey, Historic American Engineering Record, or Historic American Landscape Survey documentation, and shall be performed by an architectural historian or historian who meets the Secretary of the Interior's Professional Qualifications Standards. Documentation shall include an architectural and historical narrative; medium- or large-format black-and-white photographs, negatives, and prints; and supplementary information such as building plans and elevations and/or historic photographs. Documentation shall be reproduced on archival paper and placed in appropriate local, state, or federal institutions. The specific scope and details of documentation will be developed at the project level.*
- *5-4 The City staff shall retain a cultural resources consultant to prepare a study and a map of the Plan Area categorizing sensitivity levels for archaeological resources. The study shall identify areas of low archaeological sensitivity for which subsequent site-specific archaeological studies will not be required, as well as identify the subsequent requirements for archaeologically sensitive areas. The study must be determined to be current at the time of pulling a grading permit, and if not current, updated by the applicant at the time of the specific project. Development applications prior to the City's completion of the sensitivity area mapping shall be required to prepare a site-specific cultural resources analysis in accordance with existing City procedures.*

The following mitigation shall be required for subsequent development projects, based on the sensitivity classification of the project site:

- 1. Low sensitivity sites: Additional studies will not be required.*
 - 2. Archaeologically sensitive sites: City staff shall require applicants for grading permits in undeveloped (not covered in buildings or pavement) areas requiring grading to provide studies by qualified archaeologists assessing the cultural and historical significance of any known archaeological resources on or next to each respective development site. Such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a cultural preservation expert who meets the Secretary of the Interior's Professional Qualifications Standards.*
- *5-5 Should any cultural resources, including human remains, be discovered during project implementation, no further grading shall occur in the area of the discovery until the Planning Director concurs in writing that adequate provisions are in place to protect these resources. Unanticipated*

discoveries shall be treated in accordance with applicable state law and evaluated for significance by a professional archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards. If significance criteria are met, then the project shall be required to protect the resource through avoidance or mitigate impacts to the resource by performing data recovery; curate materials with a recognized scientific or educational repository; and provide a comprehensive final report including appropriate records for the California Department of Parks and Recreation Series 523 forms (Building, Structure, and Object Record; Archaeological Site Record; or District Record, as applicable.

Section 2 | Natural and Cultural Setting

2.1 ENVIRONMENTAL SETTING

The Study Area is located in central Fresno County, on the eastern edge of the San Joaquin Valley. It is situated on relatively flat topography, roughly 5.5 miles southeast of the San Joaquin River and 14 miles northwest of the Kings River. The project area lies near the transition between the San Joaquin Valley and the lower Sierra Nevada Foothills. Millerton Lake, constructed on the western edge of the foothills, is located 11 miles to the north, and Pine Flat Reservoir on the Kings River is located roughly 20 miles due east. The elevation within the project area is approximately 365 feet above sea level.

Geologically, the San Joaquin Valley is a long trough that receives sediment from the Sierra Nevada transported by rivers and streams. The San Joaquin River has played an outsized role in shaping the landscape of the central and northern San Joaquin Valley. Most importantly, it has actively transported eroded material from the Sierra Nevada Mountains to create the rich alluvial plains that define the valley's fertile character over millions of years. The river has carved out a complex network of channels and tributaries across the valley, shaping the distribution of wetlands, riparian habitats, and laying the foundation for agriculture. The San Joaquin River is the southern-most Sierran river with a nexus to the Sacramento – San Joaquin Delta and the ocean beyond.

The valley floor is underlain by the mass of granite known as the Sierra Nevada Batholith. Glacial outwash and more recent alluvium capping the batholith is miles thick in some locations. Alluvial fans spreading from the large rivers exiting the lower Sierra Nevada have shaped the drainage patterns of the valley, effectively cutting off rivers of the southern San Joaquin Valley from the ocean. To the south, the Kings, Kaweah, Tule, and Kern drain to closed basins that historically formed large, shallow lakes.

Soils on the Study Area are dominated by Atwater sandy loam, which covers approximately 99% of the surface (NRCS 2023). This soil group is found on the shoulder and footslope of ancient dune and alluvial fan remnants. The source material is wind-blown deposits derived from granite alluvium. This soil profile lacks the hardpan observed elsewhere in the region.

To the east in the foothills, landforms include granitic alluvial fans and terraces interspersed with rocks of Mesozoic and Precambrian age. Outcrops of granite, quartz monzonite, granodiorite, and quartz diorite abound (Jennings et al. 1977). Metamorphic rocks such as gneiss are also present in the area. The primary geomorphic processes are fluvial erosion and deposition (Miles and Goudey 1997).

The climate of the lower elevations of Fresno County is typical of the eastern San Joaquin Valley. Temperatures and precipitation vary considerably during the year, characterized by hot, dry summers and cold, wet winters. The nearest natural surface water is Dry Creek, a former stream channel located 0.5 mile distant to the north and west. West of the Friant – Kern Canal, Dry Creek has been diked, channelized, and otherwise altered from its natural configuration. Annually, the area receives approximately 17 inches of precipitation in the form of rain, with the majority occurring between October and April.

Vegetation at the Study Area is ruderal and has been cultivated in the past for row crops. Prior to the introduction of agriculture, the vicinity of the Study Area was likely prairie grassland interrupted by groves of valley oak in well drained soils.

Current animal populations are substantially altered in density, composition, and distribution from pre-historic populations. The grasslands and riparian corridors in the region supported a diverse array of fish, amphibian, reptile, bird, and mammal species. Prior to mining agriculture, the San Joaquin River to the north was one of the largest salmon fisheries in California, with spring and fall runs of Chinook (Yoshiyama et al. 2001).

Wildlife commonly observed in the region includes rabbits, hares, ground squirrels, gophers, and mice. Common birds of prey are present in the San Joaquin Valley including Red-shouldered hawks, Red-tailed hawks, Black-shouldered kite, and American kestrel Larger. Other common birds include quail, crow acorn woodpeckers, vultures, and songbirds.

Medium sized mammals include skunk, bobcat, kit fox, and coyote. Prior to extirpation during the Gold Rush and subsequent agricultural development, large mammals roamed the valley floor including grizzly and black bears, tule elk, pronghorn, and black-tailed deer (Schoenherr 1992).

2.2 ARCHAEOLOGICAL OVERVIEW

The archaeological record of the San Joaquin Valley is comparatively limited as a result of widespread surface disturbance from agriculture, levee construction, and geomorphic processes that have buried ancient surfaces episodically during the terminal Pleistocene and early Holocene. The region lacks a universally accepted cultural chronology and is generally described in relation to adjacent regions such as the Sierra foothills and Delta region. The sections below summarize the region's prehistory using the cultural periods suggested by Rosenthal et al. (2007) and Rosenthal (2011), with reference to regional phases delineated by Moratto (1984).

Paleo Indian Period (13,500 – 10,500 B.P.)

The first well documented phase of human occupation in the San Joaquin Valley stretches back to the terminal Pleistocene, between roughly 13,500 and 10,500 years before present (B.P.) The earliest evidence for occupation of the region comes from archaeological assemblages that include fluted projectile points. In California, fluted points are often found in association with the former strand lines of ancient pluvial lakes and marshlands that were once resource rich, but are now arid and inhospitable. Fluted points have also been found associated with streams, springs, ponds, and river terraces, and even high elevation mountain passes. Sites in California that have yielded fluted points include Tulare Lake (Riddell and Olsen 1969), Borax Lake (Harrington 1948; Meighan and Haynes 1970), China Lake (Davis 1978), Eb-betts Pass (Davis and Shutler 1969), and Tracy Lake (Beck 1971), among others. In the far West archaeological sites with these diagnostic points suggest the people were highly mobile and practicing a broad-spectrum subsistence strategy.

Lower Archaic Period (10,550 – 7,550 B.P.)

The Lower Archaic Period was a time of rapid environmental change corresponding to the early Holocene. Rivers formed high in the Sierra Nevada carried enormous amounts of sediment, resulting in a period of rapid deposition on floodplains and alluvial fans. This aggradation capped older landforms and left a clear stratigraphic boundary of the event.

The Lower Archaic Period in the San Joaquin Valley is marked by the presence of large stemmed and concave-base projectile points, crescents, lanceolate points, and core tools. Sites dating to this period are typically isolated and found in association with ancient lakes that were once common in the far west in the early Holocene. In the San Joaquin Valley, this period saw the emergence of a cultural tradition which was adapted to the wetland environments of Tulare and Buena Vista Lakes (Fredrickson and Grossman 1977). The paucity of early Holocene sites regionally may be attributed to the rapid sedimentation of the valley that has occurred throughout the Holocene epoch (Moratto 1984). Other significant localities in California include Silver Lake and Soda Lake Playas (Campbell et al. 1937), the San Dieguito River (Warren 1967), Clear Lake (Kaufman 1978; King and Berg 1973) and Burns Valley (Weber 1978).

Archaeological evidence suggests that people practiced a high degree of residential mobility during the Lower Archaic, accessing a wide range of habitats and resources (Willig and Aikens 1988). This interpretation is supported by the presence of exotic raw materials in tool assemblages and the technological organization recorded in the tools.

Middle Archaic Period (7,550 – 2,550 B.P.)

The Middle Archaic Period in central California is marked by the onset of a warm and dry period. Tulare and Buena Vista lakes shrank during this time due to less run off and a hot climate. To the north the Delta grew as rising sea levels pushed the tidal waters deeper into the Central Valley. Following another period of rapid deposition in the early part of the period the environment stabilized.

The handful of sites attributed to the early portion of the Middle Archaic in central California occur along the valley's margin, where it meets the Sierra foothills, within the Delta, and in the Diablo range. Occupations of the Farmington Complex, Clarks Flat sites, and Sky Rocket sites have been attributed to the Middle Holocene (Riddell 1949; Treganza 1952; Milliken 1997). Assemblages from these sites are dominated by stemmed points, points resembling Pinto series, and formal flake tools.

The later portion of the period is better represented in the archaeological record. According to Rosenthal et al. (2007:153), "The late Middle Archaic record reveals a distinct adaptive pattern reflecting the emergence of logistically organized subsistence practices and increasing residential stability along river corridors of the Sacramento and San Joaquin Valleys." Fishing likely grew in importance as indicated by the appearance of gorge hooks, composite bone hooks, spears, and abundant fish bone in archaeological deposits.

New artifact forms appear including baked clay objects, basketry awls, and basic pottery. Inter-regional trade was well established during the Middle Archaic period. Long distance trade brought Olivella shell beads and Haliotis ornaments from coastal regions, as well as obsidian from east of the Sierra crest into the San Joaquin Valley.

Upper Archaic Period (2,550 – 850 B.P.)

During the Upper Archaic Period, regional cultural traditions and sequences emerged throughout the San Joaquin Valley, Sierra Foothills, and Coast Range areas. This period benefited from late environmental Holocene conditions with a relatively cool, wet, and stable climate. Regional expressions of culture developed and are evident in the archaeological record marked by specific burial postures, artifact styles, and diversifying material culture. The shell bead and obsidian trade continued, and many large villages and satellite settlements were established.

Roughly 30 miles northwest of Clovis is Eastman Lake (Buchanan Dam) on the Chowchilla River, one of the most intensively studied areas in the Central Sierran Foothill region. While the archaeological investigations there are somewhat dated, they remain an enduring framework for interpreting archaeological assemblages in the region. In four seasons of archaeological fieldwork between 1967 and 1970, T.F. King and M.J. Moratto excavated several sites (including CA-MAD-106, -107, -117, and -159) and tested 23 others (Moratto 1984: 315-327). These studies resulted in the documentation of some 20,000 artifacts, 140 burials, and 92 structural features. Moratto (1972) synthesized the abundant data, including temporal control provided by stratigraphy, cross dating, seriation of grave and house pits, and thirteen radiocarbon dates, and defined three phases of Central Sierran Foothill prehistory: the Chowchilla Phase (2,300-1,700 B.P.), the Raymond Phase (1,700-500 B.P.), and The Madera Phase (500-150 B.P.).

The Chowchilla Phase is characterized by a few large main settlements located along the banks of the Chowchilla River. Large, socially complex populations exploited local resources that included a limited utilization of acorns. Artifacts indicative of this phase include large projectile points such as Sierra concave base points and triangular contracting-stem points indicating the use of atlatl and dart technology, cobble mortars, cylindrical pestles, millingsstones, and fish bone spear tips. Ornamental artifacts include Olivella and Haliotis ornaments and beads. Burials are extended and semi-extended and are accompanied by numerous grave goods including ochre. Evidence of trade with the Great Basin and southwest California is well documented. Chowchilla Phase artifact assemblages are considered similar in nature assemblages attributed to the Crane Flat Phase in Yosemite and the Windmiller Pattern in the Central Valley (Moratto 1984:317).

The Raymond Phase is characterized by significantly smaller populations occupying older Chowchilla Phase sites. Acorn and seed resources emerge as the dominant subsistence strategy supported by hunting with little evidence of fishing. Artifacts from this period include Rosespring and Eastgate projectile points, bedrock mortars, cobble pestles, and the continued use of millingsstones. Ornamental artifacts include Olivella beads. Burials are marked by stone cairns with tightly or loosely flexed interments and a few grave goods. Trade networks are not well represented, and violence appears to be common by pathologies on human remains (Moratto 1984:317).

Emergent Period (850 B.P.- historic)

The Emergent Period corresponds to the lifeways there were present at the time of Spanish contact with Yokuts in Central California. It was a time that witnessed the emergence of greater social complexity while some of the technologies and practices of the Archaic traditions were shed. Burials show more diversity in posture and grave offerings. Settlements host semi-sedentary populations, which are focused on

streams, rivers, and sloughs. The hallmark technological change during this period is the introduction of the bow and arrow between roughly 900 – 650 B.P.

Acorns are now exploited and intensively supported by a broad spectrum of animal and vegetable resources such as small mammals and fowl. Bedrock mortars become abundant during this phase. The bow and arrow continue to be used and projectile points are represented by the smaller Desert Side-Notched and Cottonwood series. Ornamental artifacts include the development of an elaborate steatite industry of disc beads and pendants, bird bone tubular beads, and Olivella beads. Burials consist of flexed interments and cremations with a return to abundant grave goods. Evidence of trade includes Brown Ware pottery from southwest California, Olivella and Haliotis shell from the California coast, and obsidian from the east side of the Sierra (Moratto 1984:317).

The Madera Phase is the local manifestation of the Emergent Period. The phase is marked by the village community pattern of large main villages with expanded populations near the river with smaller settlements developing in outlying areas. Structural evidence includes oval to circular pit houses and semi-subterranean ceremonial structures of wattle and daub.

2.3 ETHNOGRAPHIC OVERVIEW

Prior to disruption of traditional lifeways during Euro-American settlement from disease, missionization, and violent displacement, the region surrounding the Study Area was occupied by Yokuts people. Though loosely connected through trade and marriage there was no Yokuts nation or overarching political unity. The distinctions between subgroups were mostly linguistic and territorial (Spier 1978:471; Wallace 1978a:462). Tribelets occupied semi-permanent village sites with smaller seasonal/temporary camps scattered throughout the territory incorporated into a seasonal round. The Yokuts are part of the California Penutian language family and linguistically related to the Miwok, Ohlone, Maiduan, and Wintuan tribes (Sliverstein 1978).

2.3.1 Yokuts

Primary sources for the Yokuts are relatively few and many draw from the accounts of missionaries, Spanish military, and trappers during the Spanish and Mexican periods. The information in this section is derived primarily from Cook (1955), Latta (1977), Silverstein (1978), Spier (1978), and Wallace (1978a and b). Additional sources on Yokuts ethnography include Barter (1987), Cummins (1978), Gayton (1929, 1945, 1948), Gifford (1926), Kroeber (1906, 1907, 1925, 1959), Latta (1977), Powers (1877), and Stewart (1906 and 1908).

The vicinity of Clovis lies at the intersection of three groups of Penutian-speaking Yokuts: Northern Valley, Southern Valley, and Foothill Yokuts. The Yokuts occupied an area extending from the Calaveras River in the north, to the Tehachapi Foothills in the south, and from the west side of the Coastal Range in the west, to the foothills of the Sierra Nevada in the east. Yokuts populations are divided into three basic geographic regions: Northern Valley, Southern Valley, and Foothill. Foothill Yokuts bands in proximity to the Study Area include the *Gashowu* band, who occupied the environs around the upper Little Dry Creek and Big Dry Creek watersheds, and the *Choynimni* who lived along the Kings River below what is now Pine Flat Reservoir (Spier 1978). The most proximate Southern Valley Yokuts villages are reported as *Musahau* and *Apyachi*, occupied by the *Wechihit* and *Wewayo* bands, respectively (Wallace 1978a).

Northern Valley Yokuts bands occupied lands primarily north of the San Joaquin River, although the *Wakichi* and *Pitkachi* bands ranged south of the river (Wallace 1978a). The Northern Valley Yokuts were comprised of a group of numerous tribelets that occupied the northern San Joaquin Valley from Friant on the southeast to Stockton on the north. They occupied the width of the valley on both sides of the river (Spier 1978:471; Wallace 1978:462).

The individual Yokuts tribes maintained connections with each other and with neighboring Miwok, Monache, Salinan, and Ohlone groups through trade, travel, assemblies and ceremonies, visiting, excursions for resource exploitation, and marriage (Wallace 1978; Spier 1978). Yokuts played a pivotal role in regional and trans-Sierran trade generally conducted with acorns moving eastward into Nevada, and pine nuts, obsidian, and rabbit skins moving west. Settlements were typically situated on top of low mounds along major watercourses, positioned to weather spring floods. Groups set out from principal villages to hunt and gather, while the aged typical remained behind (Wallace 1978).

Yokuts families lived in a semi-sedentary life way prior to Spanish colonization, which included seasonal movements by the young and able. Summer camps at higher elevations consisted of small temporary shelters or windbreaks constructed with willow, tule, or other local materials. Family groups came together in larger camps during the winter season, and these camps were often located near food and water resources. Winter houses were typically semi-subterranean, cone-shaped structures, approximately 10 to 15 feet in diameter, supported with posts, and covered with tule or grass thatch. Villages often consisted of 12 to 15 small family houses and an earth-covered sweat house or other ceremonial structure.

Hunting, fishing, and gathering of plant foods comprised the subsistence strategy of the Yokuts. Seasonal movements occurred to take advantage of ripening acorns and seeds. Deer were the primary game staple, hunted by stalking in disguise, driving into ambush, tracking, or trapping with a spring-pole device that caught the animal by the leg. Animals were dispatched by the bow and arrow (Spier 1978). Ground squirrels and rabbits were commonly smoked from their holes or pulled out by twisting long flexible sticks into their fur.

Acorns and pine nuts, after gathering, were stored in elevated granaries located near the dwellings. Manzanita berries were mashed and strained with water to create a beverage. Insects, grubs, seeds, and roots were also eaten, and honey was favored when it could be found (Spier 1978).

Obsidian was the principal material used for making stone tools, particularly for knives, scrapers, and projectile points. Bows were fashioned from California laurel or juniper wood. Steatite was a common material used in the making of cooking vessels. Yokuts basketry was similar to that of the Monache, and twined cooking baskets were commonly found among both groups (Spier 1978). Woven textiles were not locally made.

After 1770, Spanish raids sought to bring Yokuts to coastal mission sites, causing great disruptions both in settlement patterns and population of the native Californians. Exposure to illnesses brought by the Spaniards, the Mexicans, and later the Americans, led to significant attrition rates due to diseases for which they had little or no immunity (Erlandson and Bartoy 1996). The most significant impact came from the epidemic of 1833 (most likely malaria), which claimed an estimated 75% of the Central Valley's native inhabitants by 1846 (Moratto 1984). The Yokuts resisted the mission system, defended their land from 49ers, and fought early attempts to sequester them to reservations. Today state and federally recognized

Yokuts bands include the Table Mountain Rancheria, Tule River Reservation, North Valley Yokuts Tribe, Santa Rosa Rancheria Tachi Yokut Tribe, and Northern Yokuts Tribe.

2.4 HISTORIC CONTEXT

2.4.1 Spanish Colonization

Following the settlement of San Diego in 1769, the Spanish made steady progress in the exploration and settlement of the coastal regions of Alta California. The Central Valley and the Sierra Nevada, however, remained largely uncharted. Spaniards made occasional forays into the upper San Joaquin Valley in pursuit of natives who had fled the forced labor imposed on them at coastal missions. Between 1772 and 1828 the Spanish made numerous trips from the south and west prospecting for new mission sites, attempting to recover stolen horses and cattle, or making punitive raids on the local natives believed responsible for the theft of livestock.

Among the earliest Spaniards in the Valley was Pedro Fages, who left San Diego in 1772 with friar Juan Crespi to blaze a new trail to the mission lands in the north. The route took the men over Tejon Pass and into the southern San Joaquin Valley before turning west into the coast ranges to reach San Luis Obispo. A point where Fages party passed is now marked by California Historical Landmark number 291 in Kern County. Fages' incursions sometimes encountered resistance from the local populations, including the Yokuts and others in the San Joaquin Valley.

Along the San Joaquin River early accounts are relatively rare. The dense tulares and sloughs of western Fresno and Madera counties, as well as the dry, sandy washes in the area, made exploration by early Spanish expeditions difficult. Spanish Lieutenant Gabriel Moraga made forays into the Central Valley around 1800 and is credited for naming the San Joaquin River in homage to Saint Joachim. In 1806 Moraga led an expedition along the San Joaquin River and encountered a Northern Yokuts village on the south side of the river inhabited by the *Pitkachi* band. Between 1821 and 1831, approximately 223 Pitkachi were baptized at Mission Soledad (Cook 1955).

By the early 19th century, the various Yokuts bands were resisting the mission system and colonization. Over time they grew skilled at taking horses which became an important food source (Beck and Haase 1974). Horses were taken from interior coastal lands and driven east to the Sierra foothills, often prompting raids and reprisals from Spanish soldiers and later by Californios.

2.4.2 Mexican Period

After 1820, Spain's control over California grew ever more tenuous. Spain initiated secularization of California missions in 1813, and formally declared secularization in 1821 (Caughey 1940). That same year, Mexican forces prevailed in their struggle for independence from Spain and declared California part of the Mexican empire. This event marked the beginning of the short-lived Mexican Period in California history.

In 1826 Jose Pico set out from San Juan Bautista to capture run away neophytes. He and his men attacked a village on the north side of the San Joaquin River (Hoyima band of Northern Yokuts), noting that "40 gentiles and one Christian" were captured. Sergeant Sebastian Rodriguez led a group of men 1828 in

pursuit of stolen horses and encountered three villages between the San Joaquin and Fresno rivers attributed to the Hoyima. They found roughly 100 recently slaughtered horses and an equal number wandering the nearby lands (Cook 1955).

Beginning in 1833, the Mexican governors in Alta California granted large land holdings, formerly mission lands, to native and naturalized Mexican citizens. Two such land grants were created in what is now Fresno County: Laguna de Tache (1846) and Sanjon de Santa Rita (1841). The former was located on the north bank of the Kings River, running from present day Kingsburg to just beyond Riverdale. The latter land grant was situated along the middle reach of the San Joaquin River. Only a small portion of the Sanjon de Santa Rita land grant lay inside of modern Fresno County, with the vast majority lying in Merced County north of Dos Palos (Shumway 1998).

New comers to the interior of California spread in the decades after Jedediah Smith blazed an overland trail in 1826. With Smith's opening a route to the interior of California, additional trappers and pioneers ventured into California's interior. The Hudson's Bay Trading Company soon entered, following the Siskiyou Trail from their outpost at Fort Vancouver. These early fur traders likely introduced malaria into the Central Valley in 1833, resulting in an epidemic that killed tens of thousands of native people by 1846 (Hurtado 1988). Disease spread rapidly into the foothills and significantly affected local indigenous people. Subsequent Euroamerican settlement of the region was enabled, in large part, by the introduction of exotic diseases that decimated the native populations of California. By the spring of 1844, John C. Fremont led the first American Expedition across what would become Fresno County (Hoover et al. 1990).

While much what is now Fresno County would remain largely bereft of non-Natives through the Spanish and Mexican periods, Pueblo de las Juntas was a notable exception. Located at the confluence of Fresno Slough and the San Joaquin River near present-day Mendota, Pueblo de las Juntas was among the earliest settlements in the San Joaquin Valley. While its precise origins are lost to history, the pueblo grew at the common meeting spot for Spaniards and Californios venturing into the San Joaquin Valley (Latta 1932). By 1870 the settlement had grown to a community of approximately 250 people. Sometimes referred to as "Fresno", the town was a stop on the Butterflied Overland Stage route and home to many Californio families. The settlement gained notoriety for its association with the outlaw Joaquin Murrieta and a perceived lawlessness.

2.4.3 American Period

The Bear Flag Revolt was a pivotal event in California's history, marking the beginning of the American period in California. It took place in June 1846, during the Mexican-American War, when California was still part of Mexican territory. Tensions between American settlers and Mexican authorities had been rising, and a group of about 30 American settlers, led by William B. Ide, sought to assert their independence.

The settlers, adopting a homemade flag with a bear and a star, declared the short-lived California Republic. They captured the Mexican commandant, Mariano Vallejo, and raised the Bear Flag over the Sonoma Barracks, symbolizing their revolt against Mexican authority. This marked the onset of the Bear Flag Revolt, which lasted only a few weeks.

Shortly after the revolt, American forces under the command of John C. Fremont arrived in California. They supported the American settlers and helped solidify their control over the region. The Bear Flag

Revolt, though relatively brief, played a crucial role in California's transition to American control. With the signing of the Treaty of Guadalupe Hidalgo in 1848, California was officially ceded to the United States.

In the summer of 1847 John Sutter hired carpenter James Marshall to build a sawmill on the American River at Coloma on land purchased from the local Nisenan band with clothing, flour, and trinkets (Holden 1988:110). By January 1848 the mill was nearly complete, with Marshall and his crew making final adjustments to the tail race before it became fully operational. In the course of deepening the tail race channel which funneled water back to the river, Marshall discovered placer gold nuggets and set off a chain of events that would change California and the West irrevocably. Word of the discovery spread quickly and by the fall of 1848 gold seekers began to trickle into this veritable wilderness. By 1849 the trickle of emigrants had surged into a full-blown rush with thousands of miners pouring in from all over the world. The ensuing California Gold Rush further fueled the decline of indigenous people throughout the state. As thousands of emigrants came to California, the native people were overwhelmed, displaced, abused, and murdered. Newcomers from around the world transformed the region's demographics and economy. This period of rapid growth and migration paved the way for California's admission to the Union as the 31st state on September 9, 1850.

During the early American period in Fresno County's history, several settlements were established as pioneers and settlers moved into the region. Notable early American period settlements in Fresno County included Pueblo de las Juntas, Friant, Fresno City, Millerton, Fort Miller, and Fresno.

During the 1850s and 1860s, the primary routes to pass through Fresno County in a north/south direction was Millerton Road, also known as the Stockton-Los Angeles Road, which ran along the Sierra foothills passing through the nearby town of Friant. Far to the west, the El Camino Viejo, or Los Angeles Trail, followed the Native American route which hugged the western edge of the entire San Joaquin Valley (Hoover et al. 1990).

The influx of Euro-American settlement in the area stirred hostilities with the indigenous Native American tribes, which ultimately resulted in a conflict known as the Mariposa Indian War (1850). The newly formed state commissioned John Savage, among others, to pacify the local Native Americans. In the course of carrying out his campaign, Savage and his men joined an exclusive list of non-Native people to enter Yosemite Valley (Beck and Haase 1974). The bloody dispute was settled in 1851 by treaty. The Federal government had established Camp Miller that same year along the south side of the San Joaquin River in what would become Fresno County. Initially called Camp Barbour, the outpost was tasked with negotiating treaties with the local Native Americans. Two reservations were established by treaty, one in Fresno County at Camp (or Fort) Miller and the other in Madera County. On the Madera side the site known as Adobe Ranch served as the short-lived Fresno Indian Reservation, which lies roughly 9 miles north of the Study Area. Camp Miller was abandoned in 1858, reoccupied in 1863, and permanently abandoned in 1864 (Vandor 1919: 22).

The nearby town of Millerton (now inundated) was an early mining camp established in 1850, which thrived in the early years of the Gold Rush and during the periods the Camp Miller was occupied (Hoover et al. 1990:88). As gold mining on the San Joaquin faded, Millerton's focus shifted to agriculture and eventually became the first county seat of Fresno County in 1856.

Friant began as a ferry crossing on the San Joaquin along the along the Stockton - Los Angeles road around 1854. The ferry was owned by Charles Converse and W. Worland and operated by Converse (Byrd et al. 2009). The business and surrounding property was bought by James Jones in 1868, who built a hotel and store on the north side of the river crossing. The primary settlement shifted to the south side of the river and renamed Hamptonville in the 1880s when William Hampton assumed ownership and further developed the settlement. Lumbering and gravel mining would come to dominate economic pursuits.

Fresno was established as a rail station along the so-called Sunset Route of Central Pacific in 1872. Leland Stanford selected the location after touring the area and being impressed with the fertility of soil once irrigated. The location selected was in an area known as the Sinks of Dry Creek, being a low-lying basin between the two major rivers where surface waters sank into the ground (Eaton 1965). Construction of the route began in late 1869, which branched off the transcontinental line at Lathrop, traverse more than 200 miles south, and eventually up and through the Tehachapi Mountains (Heath 1945). Around the same time, construction of irrigation canals would bring many additional agricultural products to market beyond the traditional cattle and wheat raised without irrigation. Fresno became the county seat in 1874, displacing Millerton (Hoover et al. 1990).

2.4.4 Town of Clovis

The town of Clovis got its start as a planned depot on the speculative San Joaquin Valley Railroad in 1891. A railroad promoter from Detroit, Marcus Pollasky, settled in Fresno and set to work raising capital for the proposed railroad that would connect the Southern (formerly Central) Pacific line in Fresno to the Sierra Nevada in order to access plentiful timber and mineral resources. Pollasky had a knack for promotion, and newspapers from Los Angeles to San Francisco printed his vision for the new rail line. Soon he raised local capital and incorporated the San Joaquin Valley Railroad with Pollasky serving as President in January 1891. Work to lay track soon began on the first stretch from Fresno to Hamptonville (now Friant). Right of way through what is now Clovis was acquired from local farmers Clovis Cole and George Owen. A depot was constructed on the west side of the tracks and named for Clovis Cole. It is speculated that Pollasky was secretly promoting the interests of Southern Pacific with the intent of preventing another trans-Sieran railroad that could compete with the Donner Pass route. The apparent plan was to exhaust local capital through land acquisition and the construction of the line. The railroad never made it past Hamptonville (aka Pollasky, Friant), but was ultimately taken over by Southern Pacific and did serve as an important link connecting Clovis to the growing California market for milled lumber.

The extension of a flume from Shaver Lake in 1893 solidified the foundation of the nascent community, delivering two important raw materials: water and timber. The Fresno Flume and Irrigation Company constructed a v-shaped flume from Shaver to Clovis in 1893 - 1894. The venture was started by Charles B. Shaver and C.B. Swift, who built a dam on Stevenson Creek to form Shaver Lake and built two sawmills to exploit the plentiful, virgin timber (Calisphere 2023; Vandor 1919). The flume traversed roughly 41 miles and terminated at the planing mill located at what is now Fifth Street and Clovis Ave. (Treffers and Dietler 2012). The company built a finishing plant that included a planing mill, dry kilns and a box factory adjacent to the newly constructed San Joaquin Valley Railroad.

As described by Treffers and Dietler (2012), the community of Clovis soon sprang to life:

“A number of businesses, churches, and schools soon developed in response to the increasing population and by 1895, the community had its first post office (Durham 1998). Following the arrival of Italian immigrants, grape production began in Clovis as the new residents started the first vineyards in the region (Smith 2004:545). Clovis incorporated in 1912 and grew modestly into the twentieth century, with its economy continuing to rely primarily on agriculture. An unprecedented demand for canned food occurred with the onset of World War I, stimulating the local economy and growth within the city. As evidence of the city’s changing status, the Clovis high school was relocated to an ornate, Spanish-designed building in 1920.” (Treffers and Dietler 2012:17)

2.4.5 Water Development and Agriculture In Fresno County

Early Years

The earliest water developments in central California served to bring water to mines in the pursuit of gold. Mining operations in what is now Fresno County were very modest compared to the Mother Lode districts to the north. Mines in the county included the Big Dry Creek District, Temperance Flat, Big Creek District, Friant District, and Rootville (Gudde and Gudde 1975). While many water storage features and delivery conveyances in gold mining regions of California were eventually repurposed for agriculture, the early water systems in Fresno County largely were purpose built for farming.

Early agriculture in Fresno County and the broader San Joaquin Valley focused on cattle ranching and dry land wheat farming, which required little to no irrigation (JRP and Caltrans 2000). A series of droughts, local water shortages, and population growth in the 1860s sparked greater interest in developing costly irrigation systems. Irrigated farmland in California would grow sharply in the following decades, expanding from 60,000 acres of irrigated farmland in 1860 to roughly 400,000 acres in 1880. Nearly half of those irrigated acres in 1880 were located in the San Joaquin Valley. The seasonal flows of the Kings and San Joaquin Rivers would be tapped and regulated to irrigate San Joaquin Valley farmland.

The large sums of capital required to build and maintain water conveyance systems in California fostered development of entities to pool resources and risk. The arrangements included private water companies, land colonies, mutual water companies, and irrigation districts. The 1870s saw many regional water companies incorporate to build canals on a large scale. The same companies often sold land that was newly irrigated at a significant premium. **Figures 4 through 8** below are historic maps that depict the various water conveyances discussed.

Among the earliest irrigation companies in the region was the Centerville Canal and Irrigation Company, established at a riverbank community on the Kings River. By adding a head gate and clearing a natural channel, the cooperating landowners established a reliable source of irrigation. Construction of Sweem’s Ditch followed in 1869 to power a grist mill north of Centerville. But these small-scale efforts would soon be overshadowed by land barons and groups of speculators that sought to inflate land values around Fresno by bringing water to the parched plain. These early irrigation features would be incorporated into broader systems to come.

MAP OF IRRIGATING CANALS IN THE VICINITY OF FRESNO, FRESNO COUNTY, CALIFORNIA.

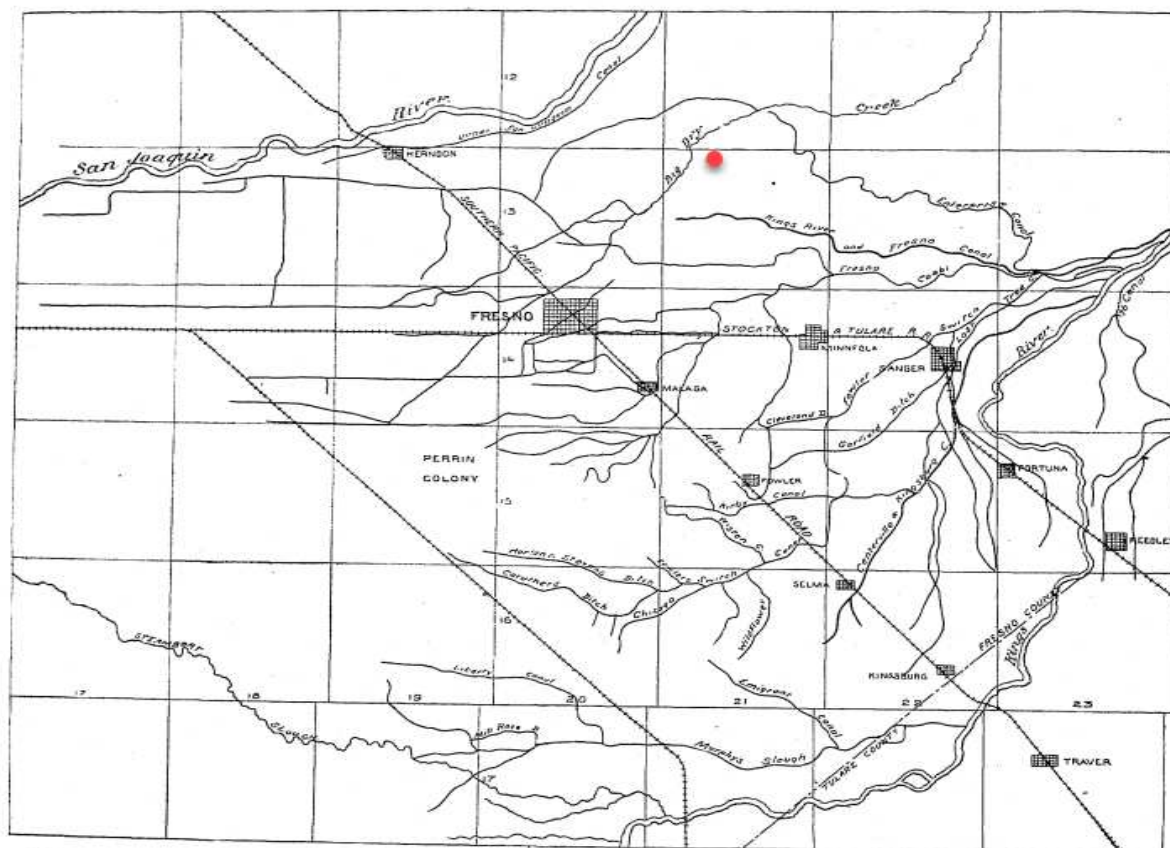


Figure 4: 1894 Department of Interior map depicting regional canals in relation to Proposed Project (red dot).

Among the earliest irrigation companies in the region was the Centerville Canal and Irrigation Company, established at a riverbank community on the Kings River. By adding a head gate and clearing a natural channel, the cooperating landowners established a reliable source of irrigation. Construction of Sweem's Ditch followed in 1869 to power a grist mill north of Centerville. But these small-scale efforts would soon be overshadowed by land barons and groups of speculators that sought to inflate land values around Fresno by bringing water to the parched plain. These early irrigation features would be incorporated into broader systems to come. Fresno Canal & Irrigation Company

In 1870, local pioneer A.Y. Easterby sought to bring water to his acres east of contemporary Fresno and commissioned Moses Church to construct the initial segment of the Fresno Canal (McFarland 2020). The Fresno Canal and Irrigation Company (FCIC) was formed in response and endeavored to build on the early success of the Centerville and Sweem's ditches. The headworks on the Kings River incorporated and widened the Sweem's Ditch as the intake. The system built by Church would incorporate a series of cuts, levees, the bed of Fancher Creek, and natural sloughs along its length (USGS 1898). It would evolve to incorporate the Centerville Ditch and add numerous branches and laterals. Completed in 1872, the canal demonstrated the fertility of the Fresno Plains, which proved decisive in Southern Pacific's decision to site a depot at Fresno (JRP and Caltrans 2000).

The Kings River & Fresno Canal (KRFC) began construction in 1872, backed by L.A. Gould, as a competitor to the FCIC. This canal drew water from the north side of the Kings River just above the Fresno Canal intake. The intake was simple, being a natural channel of the river that was diverted. The canal used a series of open cuts and intermittent stream channels, and flumes at drainage crossings. The canal flowed west from the Kings River then branched south to farms north of Fresno. The system incorporated the Enterprise and Gould ditches to deliver water.

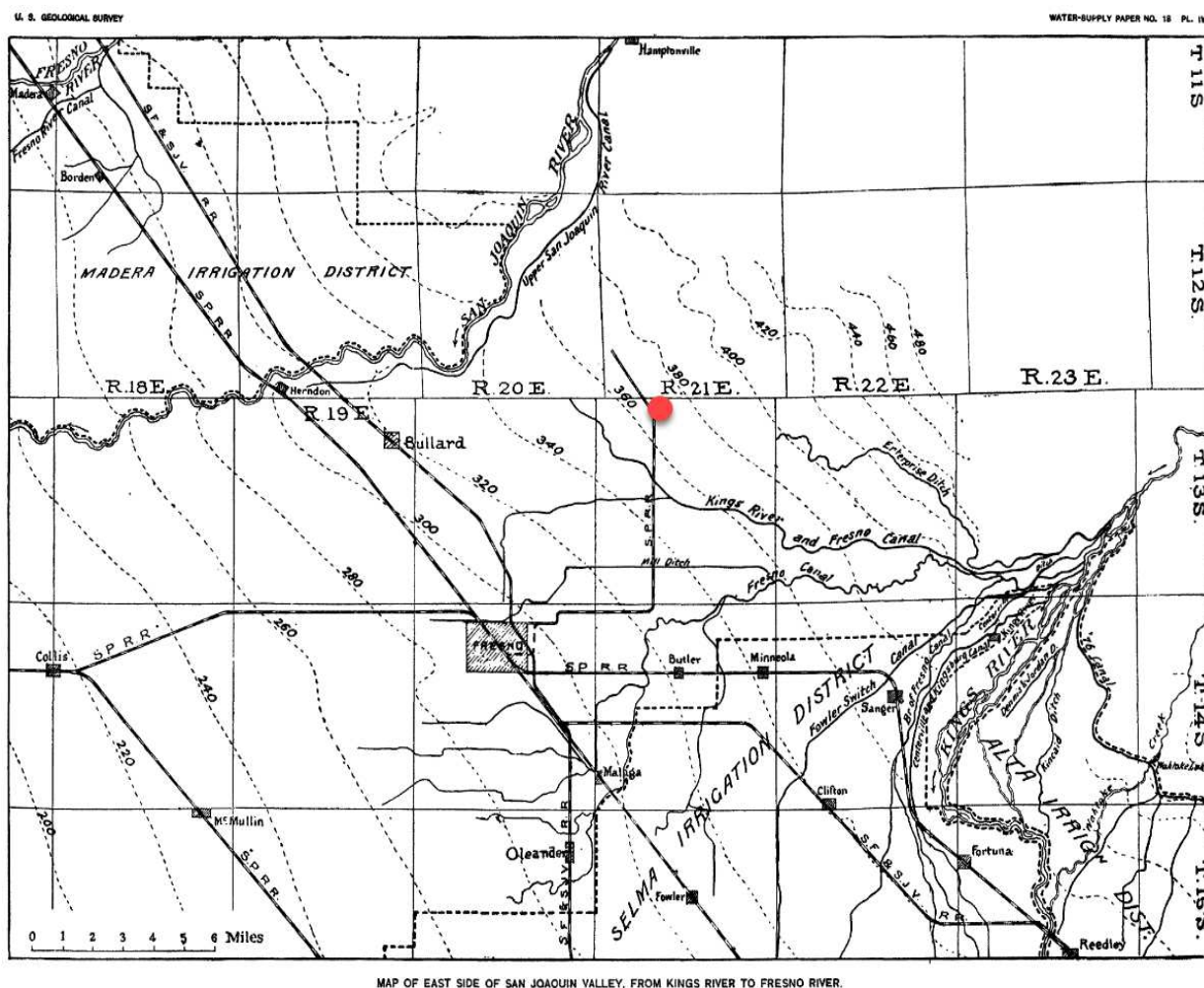


Figure 5: 1898 USGS Map of East Side of San Joaquin Valley, From Kings River to Fresno River overlain with Proposed Project (red dot).

The Enterprise Ditch (later Canal) formed an important foundation for irrigation near Clovis. According to the Bureau of Reclamation, "The Enterprise Canal Company was constructed between 1870 and 1880 to deliver water from the Kings River to previously non-irrigated land in an area now located in northern Fresno and further west. The Enterprise Canal is 28 miles long and delivers surface water to the City of Fresno water treatment plant, irrigation water, and is also utilized for the disposal of storm water (BOR 2009:16)."

An 1898 report compiled by the US Geological Survey describes the Enterprise as follows, “The Enterprise Ditch... received water for a time from the main canal at the point where its waters are dropped into Kip Slough, and takes a westerly course along the base of the north-side foothills. Bounding the point of these about 2 1/2 miles north of Centerville, its course is northerly for 4 miles, thence westerly about 8 miles, generally 3 to 4 miles north of the main canal (USGS 1898:43).”

Ultimately the KRFC Company lost its water rights litigation with the FCIC (1885) and was subsumed into the latter (JRP and Caltrans 2000). McFarland describes the outcome of the years-long dispute: “A good deal of legal conflict existed between the Church and Gould systems until 1885. Then, a lengthy court case concluded. The Fresno Canal and Irrigation Company purchased the Gould Canal and, soon after, the Enterprise. With that, Church controlled essentially all the primary canal distribution system now serving the Fresno Irrigation District (McFarland 2020:13).”

Despite the acquisition, the KRFC and Enterprise Canal Company continued to exist as a corporate entity on paper for a time, but were controlled by Church and the FCIC (Barnes 1918:15). This trend towards consolidation is a hallmark of California water development and regional irrigation systems, which required large sums of money to prevail in litigation over water rights and to construct/maintain the infrastructure.

Moses Church, known locally as “father of Fresno irrigation”, would run the FCIC for a decade and a half, all the while embroiled in legal disputes over water rights. Church eventually sold the FCIC in 1887 to an agricultural speculator and developer, Dr. E.B. Perrin (McFarland 2020:17). Perrin sought an end-run around the water rights disputes by purchasing the Rancho Laguna de Tache land grant, a sprawling ranch on the west bank of the Kings River. Perrin’s gamble was paying off, but at great cost just as the country was headed into an economic depression. Control of the company passed to L.A. Nares in 1894, who set out to tamp down the legal turbulence. As McFarland describes, “[Nares] brought the senior Kings River diverters together to frame and adopt the river’s first water flow entitlement schedule. This agreement included only the Fresno company and three lower river firms in Kings County, Peoples Ditch Company, Last Chance Water Ditch Company and Lower Kings River Ditch [now Lemoore] Company, as well as a small but constant Laguna Grant supply (McFarland 2020:17).” Nares strategic leadership resulted in the steady consolidation of irrigation in Fresno County and would set the stage for next phase of governance over the system.

Land Colonies

Newly irrigated lands around Fresno attracted newcomers ready to work the land. Land colonies were communities formed around irrigation and small-scale agriculture. Early in the history of the state, land colonies had the character of communes, with people of similar religious and/or ethnic backgrounds. In Fresno County, colonies were more akin to agricultural subdivisions, served by the colony ditch system with the infrastructure owned by the water company. Such colonies were developed by speculators to offer small scale agricultural plots with irrigation water without the communal aspects (JRP and Caltrans 2000). The earliest colony in the Fresno region was the Central California Colony covering 4,000 acres. The subdivision established 20-acre lots south of Fresno, offered by Bernard Marks and William Chapman (McFarland 2020:11).

Colonies served as a catalyst for settlement of the parched plains, with farmers initially growing wheat but soon diversified crops to include grapes and orchards. While the current project area was not located within a land colony, several were present located to the south including the Scandinavian Colony, Wolters Colony, Gould Ranch, Nevada Colony, Temperance Colony, Fresno Colony, and Union Colony. There would eventually be more than 20 significant agricultural colonies in the county, “with over 800 miles of canals and over 2,000 miles in branches (JRP and Caltrans 2000:20).”

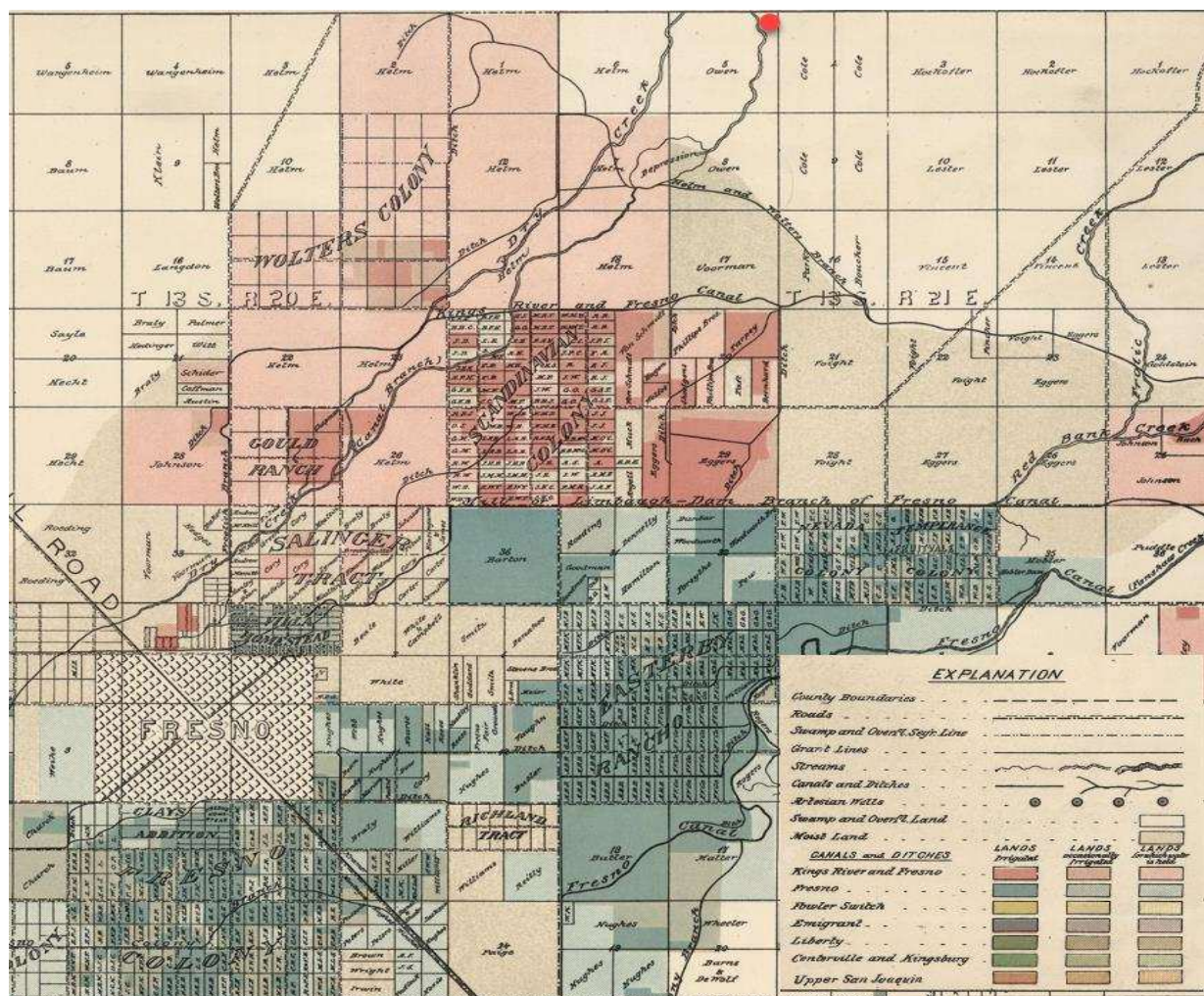


Figure 6: 1885 California State Engineering Department, Detail Irrigation Map Fresno Sheet, depicting irrigated land in relation to Proposed Project (red dot).

Clovis Ditch

The Clovis Ditch is a lateral from the Enterprise Canal running west from an intake near Herndon Ave. at North Locan Ave. in Clovis. The original open cut ditch ran approximately 2.6 miles to a point immediately east of N. Clovis Ave. Like many small, open cut lateral ditches off of main arteries in the distribution system, the precise age and origin are not firm. However, review of historic maps, newspaper archives,

and consulting FID suggest the initial segment was constructed circa 1903. Sometime between 1937 – 1946 the ditch was extended west of N. Clovis Ave. through the Study Area and continuing for another 1.7 miles before terminating at a channelized segment of Dry Creek. Despite the acquisition, the KRFC and Enterprise Canal Company continued to exist as a corporate entity on paper for a time, but were controlled by Church and the FCIC (Barnes 1918:15). This trend towards consolidation is a hallmark of California water development and regional irrigation systems, which required large sums of money to prevail in litigation over water rights and to construct/maintain the infrastructure. An 1885 map prepared by the California State Engineering Department (CSED), titled Detail Irrigation Map, Fresno Sheet, depicts the Study Area and greater Clovis area as not irrigated (CSED 1885). An 1894 monograph with maps based on 1890 census data depicts the Enterprise Canal extending to Big Dry Creek, thus available for irrigating the land (Newell 1894). However, the town of Clovis had not yet been established in 1890 and the area likely remained sparsely populated, thus making an eponymous ditch unlikely. An 1898 USGS map depicts the Enterprise Canal but omits any laterals from it (USGS 1898). Then, in late 1902, the Clovis Ditch Company is incorporated, as reported by the Secretary of State of the State of California (Secretary of State 1904).

News about the ditch is scant in local papers beyond announcements for stockholder meetings in Clovis and brief descriptions of active litigation (Fresno Morning Republican September 4, 1904). The Clovis Ditch Company was short lived, while the ditch itself persisted. By the end of 1905 the company had forfeited its right to operate in California (Secretary of State 1905). The ditch very likely came under the control of the FCIC until the formation of the Fresno Irrigation District in 1920.

The ditch initially extended from its intake at the Enterprise Canal on Herndon, then trended west to terminate at the intersection of what is now N. Clovis Ave. and Palo Alto Ave. as it remained until the late 1930s or early 1940s. Sometime between the 1937 – 1946 the ditch was extended west of N. Clovis Ave. and named West Branch Clovis Ditch where it passes through the Study Area. The area around the ditch, from beginning to end, has become highly urbanized. As a result, the vast majority of the ditch is now a buried pipeline with the exception of the segment between N. Clovis Ave. and the former Southern Pacific railroad tracks.

Fresno Irrigation District

Several early irrigation districts formed and failed following passage of the Wright Act in 1887. The act allowed the formation of public irrigation districts that could bond their property to raise capital to develop and maintain irrigation systems. Early attempts suffered from poor planning, unending litigation, and bad financial management (McFarland 2020). However, by 1915 the Fresno Canal and Land Corporation (formerly the Fresno Canal and Irrigation Company) monopoly and proposed rate hikes had sufficiently riled local farmers that the idea of public irrigation districts again gained interest. By the summer of 1919 petitions were circulating calling for the formation of a district. To many peoples' surprise, Nares and the Fresno Canal and Land Corporation's financial backers were in support of the formation of a district as an opportunity to cash out.

In March of 1920 a petition signed by nearly 800 landowners was presented to the Fresno County Board of Supervisors who then set an election for the citizens of the County to decide the district's fate. By a margin of nearly 8:1, voters approved the formation of the Fresno Irrigation District (FID). After raising nearly \$1.75 million through the sale of bonds, the FID acquired the water infrastructure and water rights

from the Fresno Canal and Land Corporation in the spring of 1921. The physical assets included approximately 800 miles of canals and distribution works, most of which were constructed between 1850 and 1880.

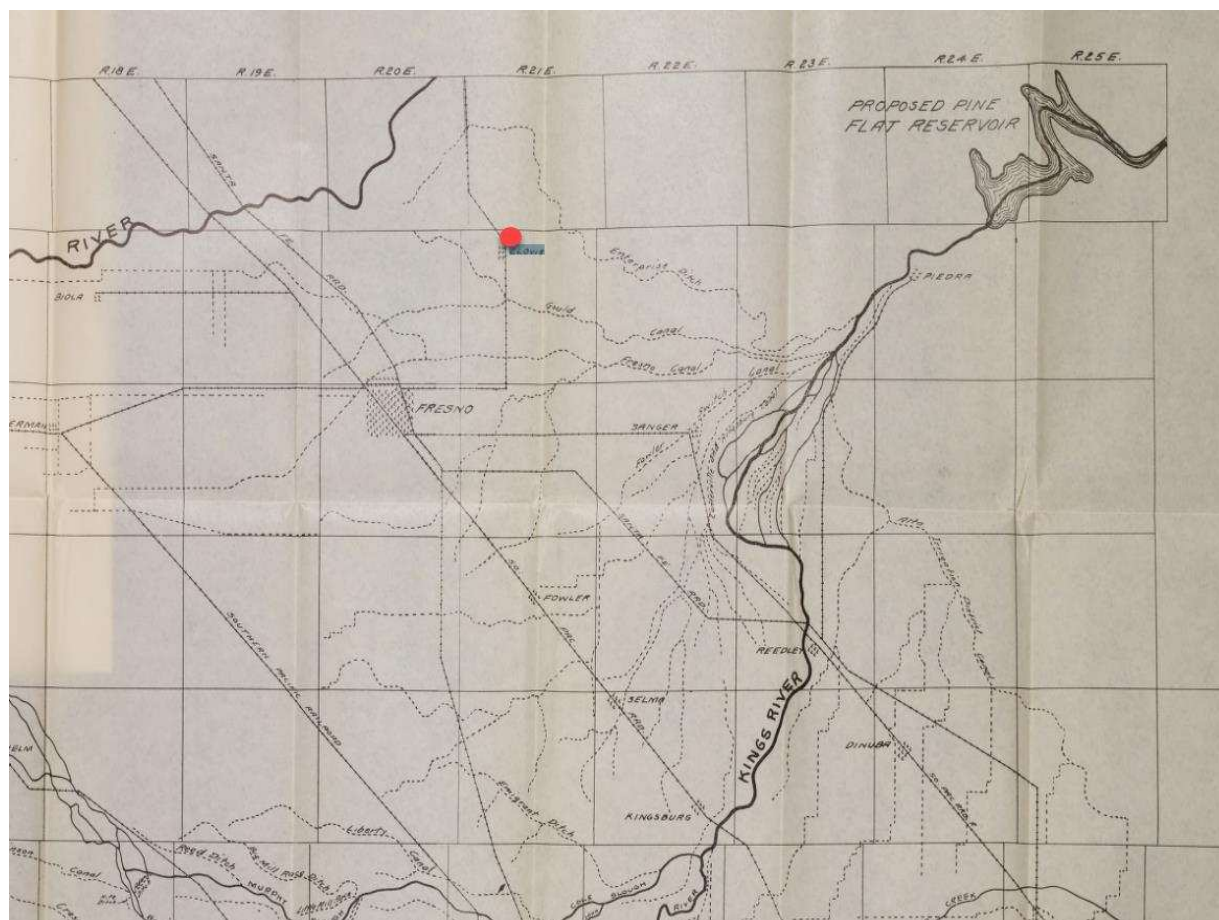


Figure 7: 1918 Department of the Interior, Kings River Irrigation Map depicting regional canals in relation to Proposed Project (red dot).

The FID quickly turned to making improvements to the system. As McFarland notes, “Work was started in the fall of 1921 to improve a canal system filled with old wooden structures. Hundreds were considered unsafe. Most, including headworks of the Fresno and Gould canals, were inadequate. Top priority was given to replacing the dilapidated wooden structures with concrete construction. The surge of work continued for five years as assessment revenue became available, adding up to \$438,817 worth of projects. The two system headgates were replaced. More than 5,000 grower turnouts from canals and laterals were built. Later efforts were aimed at resolving seepage problems (McFarland 2020:25).”

With the irrigation infrastructure secure, over time attention turned to the need for greater water storage and the ability to attenuate floodwaters. Major floods in 1925 and 1938 refocused the district’s attention and in 1940s the Big Dry Creek Reservoir and Diversion Project was constructed with funds earmarked by Congress. After approval by Congress in 1941 it took seven years to finally be completed in 1948.

The FID recently celebrated 100 years of service to Fresno County. The system has evolved, but still relies on the Fresno Canal Headworks on the Kings River, to deliver water. For over 150 years the Fresno Canal has provided the backbone of the region's irrigated agriculture, consumptive uses, and ground water recharge. The modern FID system includes approximately 325 miles of canals and ditches for water delivery. According to FID, "the majority of these earthen channels were constructed by the Fresno Canal and Irrigation Company long before the formation of FID in 1920. FID acquired these earthen channels, which provide for both water delivery & natural groundwater recharge." In addition to earthen channels, FID maintains another 355 miles of subsurface pipelines that have been converted from open cut conveyances in response to urban development (McFarland 2020).

While FID could contribute to flood control as demonstrated by the Big Dry Creek Reservoir and Diversion Project, the demands of the problem were beyond its mandate. Significant flooding during the 1955 – 1956 season precipitated Fresno Metropolitan Flood Control District (FMFCD) formation in 1956. Within five years the new district constructed a detention reservoir with Redbank Dam and continued making improvements through the 1990s in cooperation with the US Army Corps of Engineers (McFarland 2020).

Water storage and delivery in the pre-World War II (WWII) era paved the way for the growth of small-scale agriculture in Fresno County, by subdividing very large plots of land, often amassed by speculators and bankers. A number of conditions converged that led to the intensification of agriculture in the San Joaquin Valley, wherein ranching and dry land wheat farming were progressively replaced by much smaller plots of land producing more product. Diversification of crops accompanied intensification as a broad range of new crops were grown such as grapes/raisins, sugar beets, vegetables and, cotton (Olmstead and Rhode 2017). A number of factors contributed to diversification and intensification beginning in the 1870s and continuing through 1941. Forces that converged and contributed to the intensification and diversification of agriculture in the Valley include the proliferation of land colonies, widespread irrigation, mechanization, long distance transportation via the railroad, gradual biological knowledge of farmers, artful marketing, development of the "California model" agribusiness approach, and international commodity prices (Olmstead and Rhode 2017).

2.4.6 Post World War II Development

The decades following WWII witnessed steady growth of the area around Clovis and a diversification of the local economy. Long-planned Federal and State water projects would be constructed, providing water storage for irrigation in the hot summer months and flood protection in light of the sharply vacillating patterns of central California weather.



Figure 8: 1958 Bureau of Reclamation Technical Record of Design and Construction for the Friant-Kern Canal in relation to Proposed Project (red dot).

The Central Valley Project (CVP), an ambitious plan to provide flood protection, navigation, storage/delivery, and power generation, was authorized by Congress in 1937. The general system was conceived as a state water project and approved by the Legislature and California voters as the Great Depression was taking hold. The State of California was unable to sell bonds to finance the endeavor and thus turned to the federal government for authorization and financing (DOI et al. 1985).

The CVP was primarily planned and constructed by the United States Bureau of Reclamation, with some partnership from the California Department of Water Resources. The CVP's infrastructure includes an extensive network of dams, reservoirs, canals, pumping stations, and power generation facilities. Key components of the project include Shasta Dam, Friant Dam, New Melones Dam, and the Sacramento-San Joaquin Delta pumping facilities. The water stored and conveyed by the CVP supports irrigation for farms, provides water for municipal and industrial use, and generates hydroelectric power (de Roos 1948).

The Friant – Kern Canal is the most proximate feature of the CVP. Beginning roughly 10 miles north of Clovis below Friant Dam, the canal skirts the eastern edge of the San Joaquin Valley, running 152 miles south to the Kern River. The canal was authorized as part of the CVP by the Flood Control Act of 1944, but the start of construction was delayed by the World War II and labor shortages. Construction of the canal commenced with the San Joaquin River Diversion Works, which included Friant Dam and the initial section of the canal, and was completed in 1949. The canal was subsequently expanded and extended in the 1950s and 1960s to reach a broader area of the southern San Joaquin Valley, becoming instrumental in providing irrigation water to thousands of acres of farmland, significantly contributing to the region's agricultural productivity.

Plans to construct a dam and reservoir at Pine Flat on the Kings River were hatched more than 70 years before its eventual completion in 1954. The project was authorized to be built by US Army Corps of Engineer in the Flood Control Act of 1944. President Truman assigned the Bureau of Reclamation to determine the irrigation benefit and establish the storage fee that those with water rights on the Kings River would have to pay. Pine Flat Dam now provides significant flood protection and water storage/regulation that benefits downstream communities and the 28 water right entities on Kings River, of which the FID is a major customer.

A plethora of crops and livestock were raised in Fresno County in the second half of the 20th century, the chief products being grapes and raisins, cotton, stone fruits, citrus, alfalfa, almonds, poultry, and dairy. The period is marked by what has been dubbed the second American agricultural revolution, which is plainly evident throughout Fresno County. “The factors that made up this revolution included greater use of soil conditioners, fertilizers and cover crops; adoption of more productive crop varieties and livestock breeds; more efficient crop production and livestock feeding regimes; widespread advances in mechanization; better control of insects and diseases; and more careful conservation practices (Editors 1996).”

In parallel, regional agriculture witnessed a gradual consolidation of farms and conversion of land into mixed uses to support a diversifying regional economy. While small scale agriculture grew alongside much larger agribusiness interests prior to WWII, the number of small ventures shrank steadily over time despite the continued growth in productivity of agriculture in Fresno County. The once arid plain between the Kings and San Joaquin rivers would maintain its status as an international agricultural powerhouse.

2.4.7 Residential Development in Fresno County

Following WWII residential tracts rapidly expanded into formerly cultivated land, a trend that continues as the population expands and the economy grows. While the postwar development of Clovis has a different character and began somewhat later, the town shares many of the core aspects typified by Fresno. Prior to WWII it was common for a prospective homeowner to purchase a subdivided lot and hire a builder for the design/build of a home. Alternatively, a builder might purchase several lots on speculation and

build homes to suit specific buyers. Between 1945 and 1970 the population of California state nearly tripled, while becoming the most populous state in 1962 (Caltrans 2011).

The sudden population boom created a demand for housing that would have to be addressed quickly, requiring a new approach. According to Caltrans (2011:15), “California grew much more rapidly in the postwar period than most of the other regions of the country. Many servicemen who had been stationed at California bases during the war decided to settle in the state after being discharged, rather than returning to their home states. In addition, job growth sparked by the defense economy brought migrants from across the country to California. As in the rest of the country, the postwar baby boom also played a significant role in the state’s population growth. While California’s population grew by 88 percent between 1950 and 1970.”

Mass production techniques were introduced into housing construction of vast tracts of homes. The styles of post-war tract homes also influenced the design and layout of homes built on a smaller scale. The most common house styles from the post-war period include the Postwar Minimal House (aka GI House), Ranch House, Multi-level Houses, Contemporary, Rustic Ranch, Storybook, Asian influence, Sweeping-roof, and later Eclecticism. On the whole, postwar houses in California often lack distinction as mass produced products with minor embellishments. Remarking on the character of common houses during the period, Caltrans (2011:80) writes that “...the majority of postwar tract houses probably cannot be said to possess any architectural style. As applied to houses of low or moderate cost, some of the more popular styles were little more than the efforts of a highly competitive building industry to create an image with market appeal.”

Section 3 | Methods and Results

A full accounting of cultural resources occurring within the Study Area was achieved by conducting a records search, review of published and gray literature, examining historic maps, contacting the California Native American Heritage Commission (NAHC), examining historic documents held at regional repositories, and an intensive field survey in July 2023. As a result of these efforts, a segment of the West Branch Clovis Ditch and two residential structures were identified, which meet the minimum age threshold for consideration as historic properties and/or historical resources. However, an evaluation of the ditch and two single family homes in this report concludes that the properties do not meet the significance criteria for listing in the California Register of Historical Resources (CRHR) or the National Register of Historic Places (NRHP).

3.1 LITERATURE REVIEW AND RECORDS SEARCH

3.1.1 Sources

A record search was completed on July 24, 2023, at the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS) located at California State University, Bakersfield (File No. 23-282; **Appendix B**). A ¼ mile search radius was used for the records search, which is large enough to capture any previously recorded resources and prior studies in proximity to the Study Area with the potential to be impacted.

Cultural resource site maps and records, survey reports, and other pertinent materials were reviewed as part of the records search. The records search included the California Office of Historic Preservation's (OHP) Built Environment Resources Directory, the Archaeological Determinations of Eligibility, and the California Inventory of Historic Resources (1976).

Additional sources of information were consulted as part of the literature review including archaeological, ethnographic, and historic sources in the public domain and the author's library. Such sources include, but were not limited to, the National Register of Historic Places (NPS 2023), California Historical Landmarks in Fresno County (COHP 2023), Fresno County Historical Landmarks & Records Advisory Commission's Inventory of Historic Sites in Fresno County (FCHLRC 2022), the Index of Historical Sites in Fresno County (FCPL 2022), Historic Spots in California (Hoover et al. 2002), California Ranchos (Shumway 1998), California Points of Historical Interest (OHP 1992), Handbook of North American Indians Volume 8: California (Wallace 1978), California Gold Camps (Gudde and Gudde 1975), Gold Districts of California (Clark 1970), California Heritage (Caughey and Caughey 1962), and California (Caughey 1940). A wide range of additional sources and historical references are cited in the Natural and Cultural Context sections above.

Primary archival documentation was sought by contacting several organizations and repositories, including the Fresno Irrigation District (FID) engineering archives, the California State Library, the Fresno County Library Heritage Center, the Online Archive of California (OAC), the Clovis Big Dry Creek Historical Society, and the Fresno County Historical Society. The FID generously opened up their engineering archives and historic aerial photographs. Mr. Kevin Mitchell at FID helped identify pertinent records, including a 1937 aerial photograph covering the Study Area. Collections at the California State Library were searched with

the help of Bradley Seybold, Senior Librarian. The State Library yielded pertinent information from from the Government Publications and California History collections. Digital collections from the Fresno County Library Heritage Center examined include Fresno County Property Atlases (1891-1920) and Historic San Joaquin Valley Photos. The OAC compiles digital collections from regional libraries and archives in California, organized through the University of California Libraries. To-date, neither the Clovis Big Dry Creek Historical Society or the Fresno County Historical Society has responded to inquiries about pertinent collections in their possession.

Many historic maps and aerial photographs were examined, including:

- General Land Office survey plats for Township 13 south Range 21 east (1854)
- California State Engineering Department *Detail Irrigation Map, Fresno County* (1885)
- *Official Atlas of Fresno County* (Thompson 1891, 1909)
- *Water Supply and Irrigation Papers* of the United States Geological Survey (1898)
- Sanborn Fire Insurance Maps for Clovis, California (1903, 1907, 1912, 1929, and 1932)
- Department of the Interior, *Kings River Irrigation Map* (1918)
- *Progressive Map of County of Fresno* (1920)
- *Clovis, California* USGS topographic quadrangles (1923, 1946, 1964, 1972, and 1981)
- Fresno Irrigation District aerial photography (1937)
- *Fresno, California* 1:250,000 topographic quadrangle (1948, 1955, 1958, 1960, 1962, and 1982)
- Commercial aerial photography (1957, 1962, 1972, 1984, and 1998)

3.1.2 Results

Literature Review Results

The literature review, as well as examination of historic maps and aerial photography, identified the presence of a segment of the West Branch Clovis Ditch and two single-family homes within the project area that are 50+ years old.

The literature review and records search also indicated that the potential for pre-contact archaeological sites within the project area is very low. Considering the environmental positioning of the Study Area, located at a significant distance from perennial water sources and within a relatively resource-poor habitat (compared to foothill or riparian zones), it is unlikely that it ever served as a magnet for prehistoric human occupation. Soils on the Study Area are largely derived from aeolian processes rather than alluvial, thus precluding the rapid, episodic, and deep sedimentation that characterizes areas to the west that were influenced to a greater extent by the flooding of the San Joaquin and Kings rivers. The study area is situated a significant distance from perennial water sources and there are no known pre-contact resources in the vicinity. Thus, the study area is deemed to have a low potential of harboring buried archaeological resources.

The approximate age and historic significance of the West Branch Clovis Ditch and two houses under consideration were established by reviewing available historic maps, historic aerial photographs, consulting the FID archives, newspaper clippings, and conducting a property deed search. The relevant findings in chronological order are provided below.

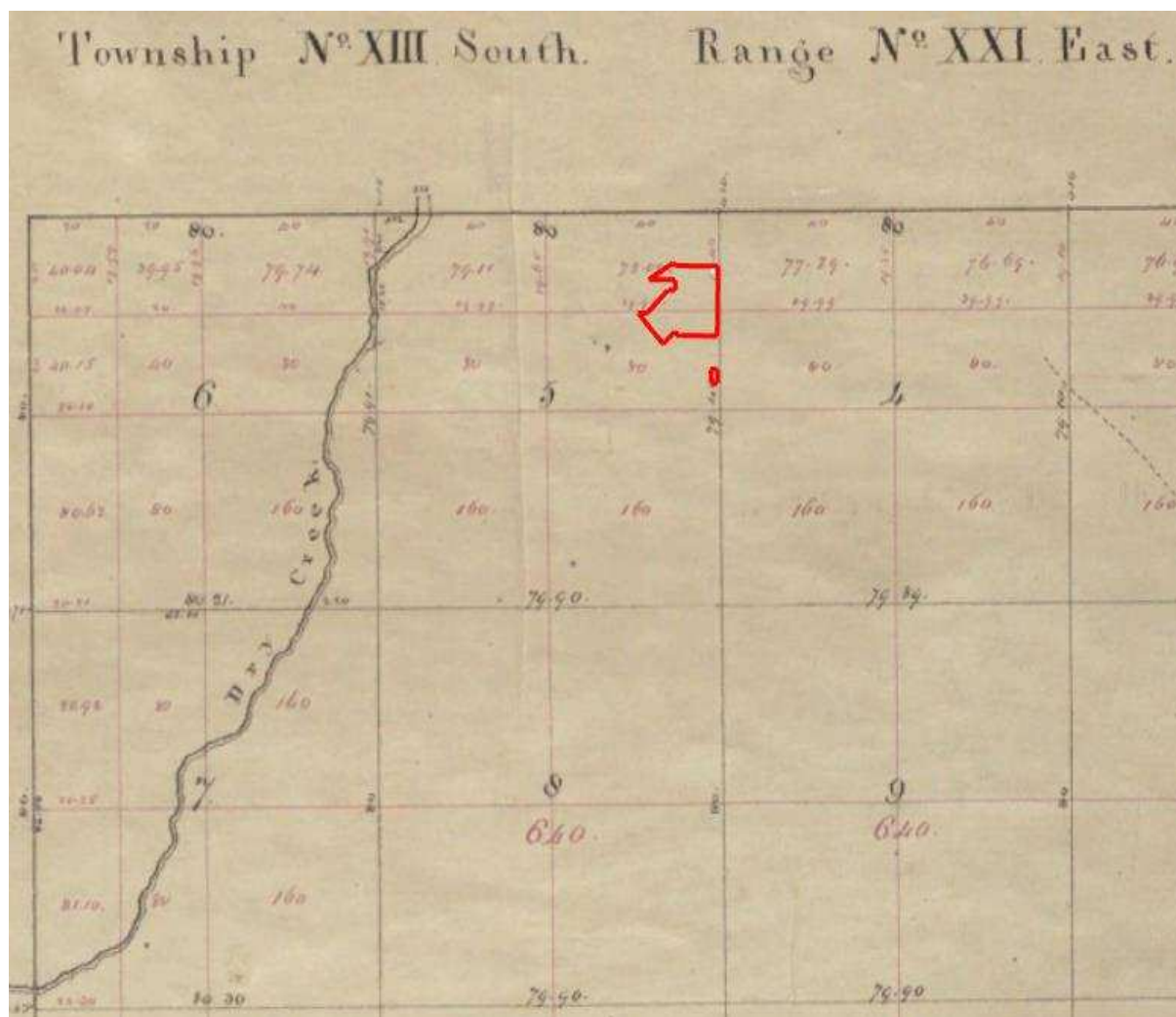


Figure 9: 1854 General Land Office plat for T 13 S, R 21 E in relation to Proposed Project (red polygons).

The 1854 GLO plat for Township 13 south, Range 21 east is the earliest map identified that covers the Study Area (**Figure 9**). The plat depicts very few natural or cultural features in the vicinity of the Study Area. Section 5 is completely bereft of features with the exception of a segment of Dry Creek that clips the northwest quarter of the section. An “Old Road” is depicted roughly one mile to the east, that likely corresponds to the Stockton – Los Angeles Road.

An 1885 map, titled Detail Irrigation Map Fresno Sheet, was prepared by the California State Engineering Department (**Figure 6**). The map depicts major irrigation canals and ditches, as well as the plots of land irrigated by each. The whole of Section 5 (inclusive of current Study Area) is mapped as not irrigated.

The Official Atlas of Fresno County (Thompson 1891) indicates that G.W. Owen owned all of the land within Section 5, inclusive of the Study Area. The map depicts a single structure within the entirety of the section, located roughly 0.75 mile west of the Study Area.

Sanborn Fire Insurance maps, dating between 1904 – 1932, focus exclusively on the original town center and do not depict the current Study Area that lies roughly 0.5 mile north.

The 1909 update to the Official Fresno County Atlas indicates that the land previously owned by G.W. Owen had been subdivided (**Figure 10**). The subdivision was called Phillips Sierra Park Terrace. The 1909 map depicts North Dewitt Ave that once ran north to south along the eastern margin of the Study Area that was removed when highway 168 was expanded. Names visible on the map whose parcels intersect the Study Area include W.H. Hamilton, Jacob Heinkey, H. (W.?) Heinke, J.P. Spence, J.J. Hutchinson, and U.E. Brown.

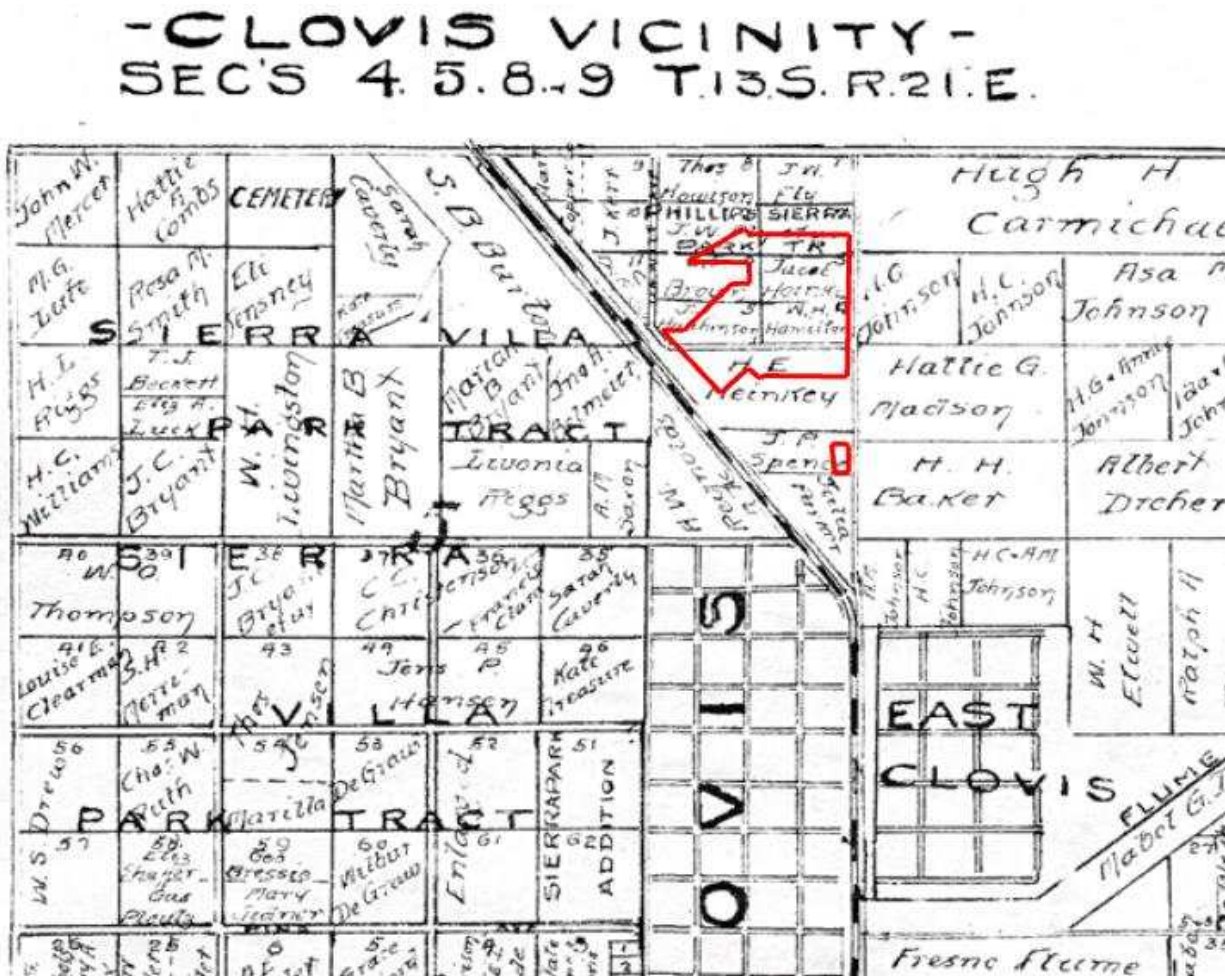


Figure 10: 1909 *Atlas of Fresno* map depicting land owners in relation to Proposed Project (red polygons).

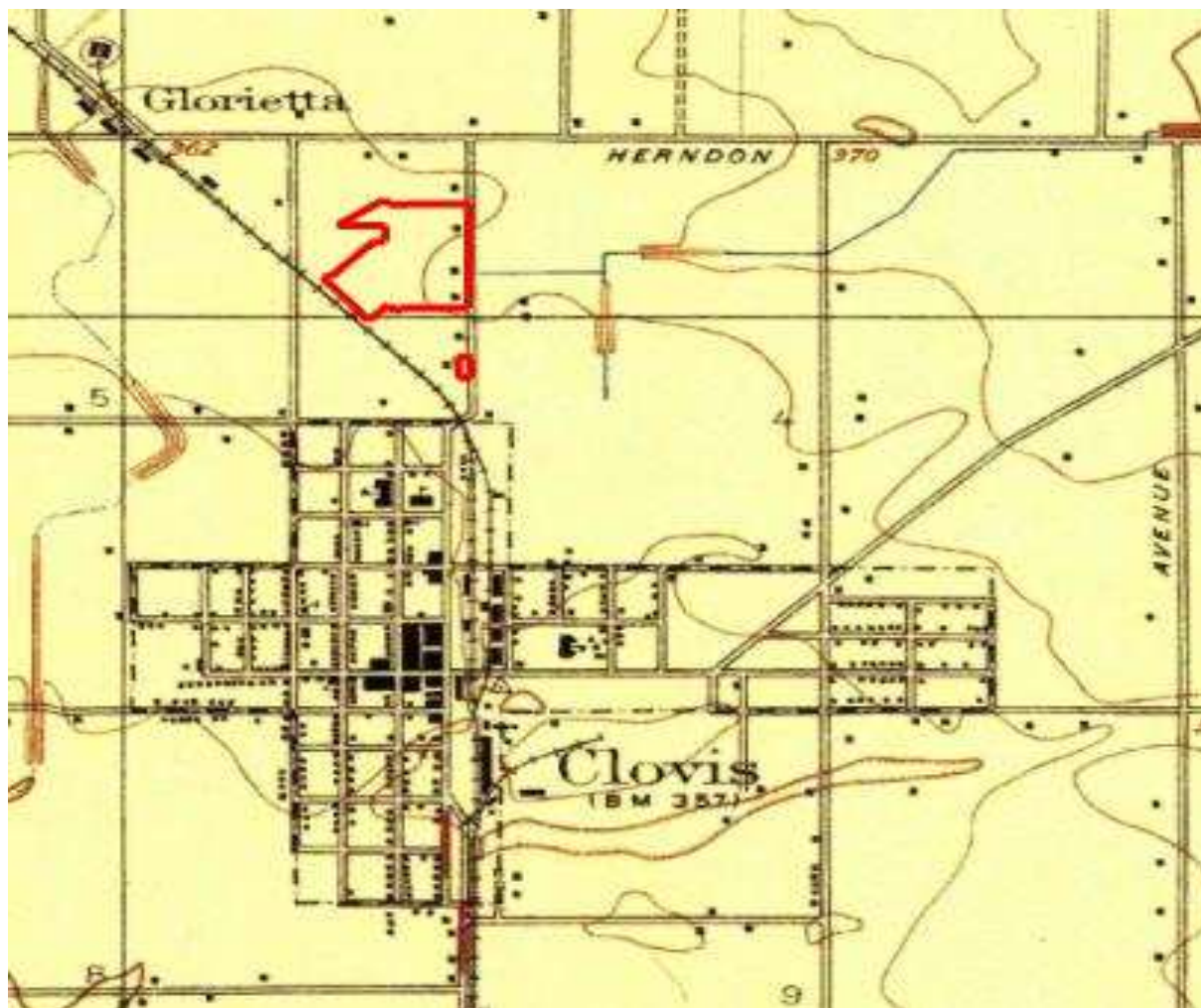


Figure 11: 1923 Clovis, CA USGS topographic map with Proposed Project depicted (red polygons).

The 1923 *Clovis, CA* USGS topographic map is the earliest map located that depicts the Clovis Ditch (**Figure 11**). The map clearly indicates that the Clovis Ditch had not yet been extended west of Clovis Ave. to intersect the Study Area. The 1923 map depicts three structures on the west side of Clovis Ave. that fall within the current Study Area, none of which appear correlated to the two extant houses within the Study Area (270 and 290 N. Clovis Ave.).

A 1937 aerial photograph from FID depicts the Study Area at a large scale, and indicates that the Clovis Ditch was still located east of Clovis Ave. (**Figure 12**). The aerial also depicts two structures, presumably houses, west of Clovis Ave. surrounded by agriculture.

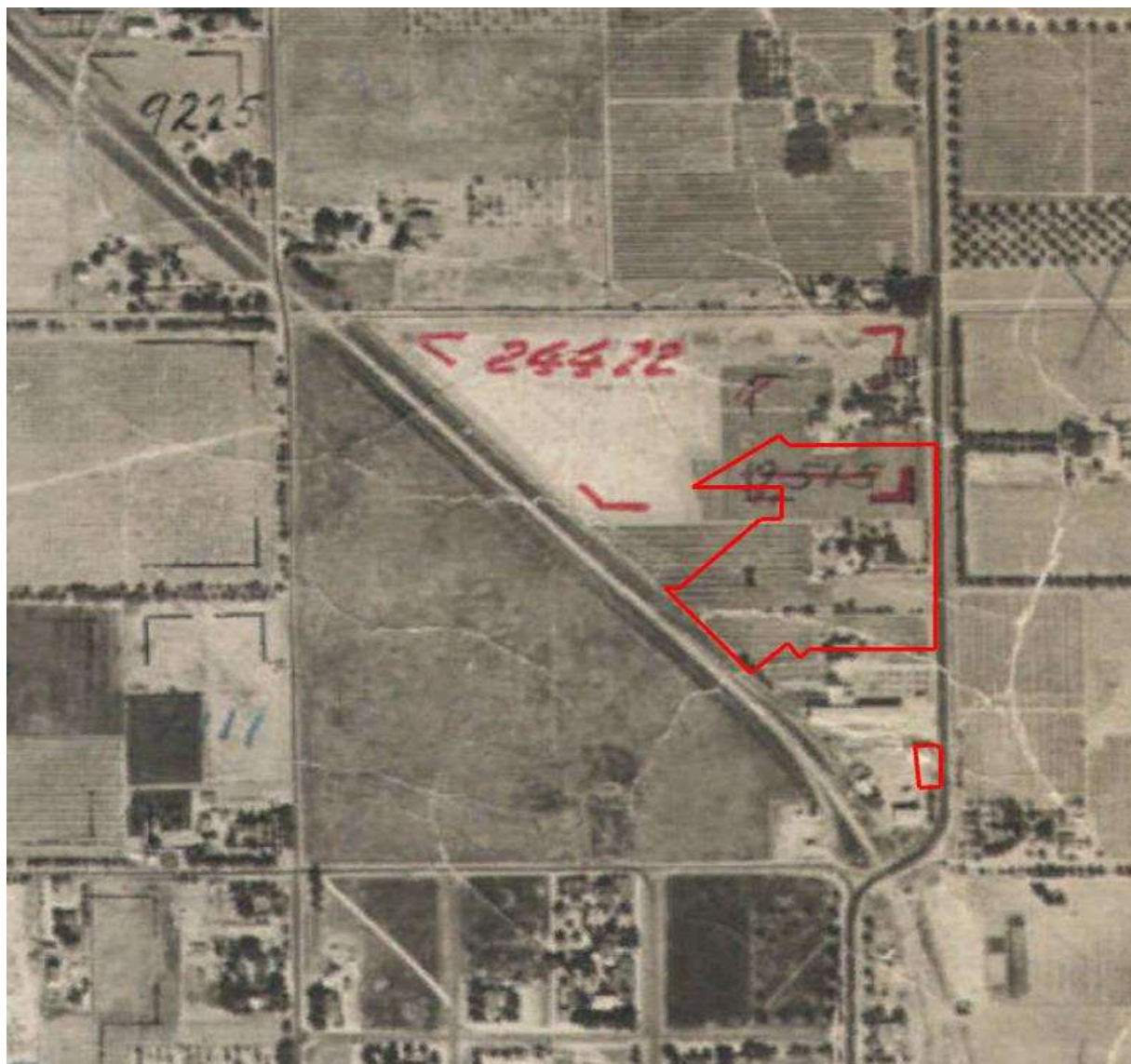


Figure 12: 1937 aerial photograph overlain with Proposed Project (red polygons) from the Fresno Irrigation District engineering archives.

Likewise, the 1946 USGS topographic map only shows the two southern-most structures that appear on the 1923 map, neither of which correlate to the two existing houses (**Figure 13**). Significantly, the 1946 map shows the Clovis Ditch now extending west of Clovis Ave., into the current Study Area, thus placing extension of the ditch into the current Study Area to sometime between 1937 and 1946. According to Mr. Kevin Mitchell, simple open cut earthen ditches are not well documented in the FID archives.

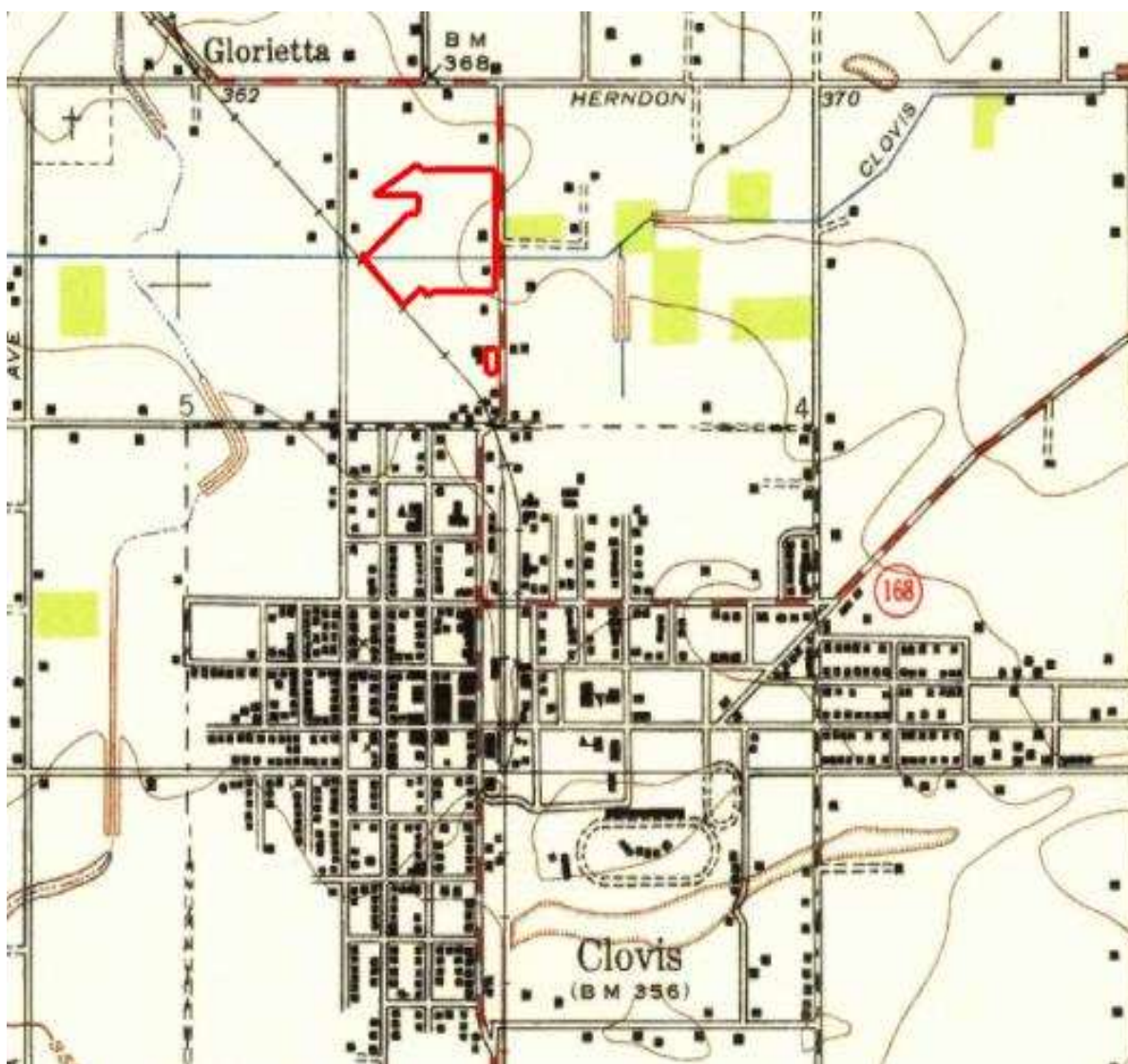


Figure 13: 1946 Clovis, CA USGS topographic map overlain with Proposed Project (red polygons).

The title history for 270 N. Clovis Ave. lists a construction date of 1951, which is corroborated by a 1957 aerial photo that depicts the home and landscaping (Netronline 2023). The adjacent property at 290 N. Clovis Ave. appears to be vacant land in 1957, with no visible structures or obvious improvements.

A subsequent aerial photo from 1962 depicts the newly constructed house at 290 N. Clovis Ave., with associated landscaping. Indeterminate crops are visible adjacent to the houses on the west and south (Netronline 2023).

The 1964 edition of the USGS map depicts the structures previously noted in the 1946 map remaining in the southern portion of the Study Area, and the addition of two structures in the north that correlate with 270 and 290 N. Clovis Ave. (**Figure 14**). The 1964 map also labels the West Branch Clovis Ditch as such for the first time.

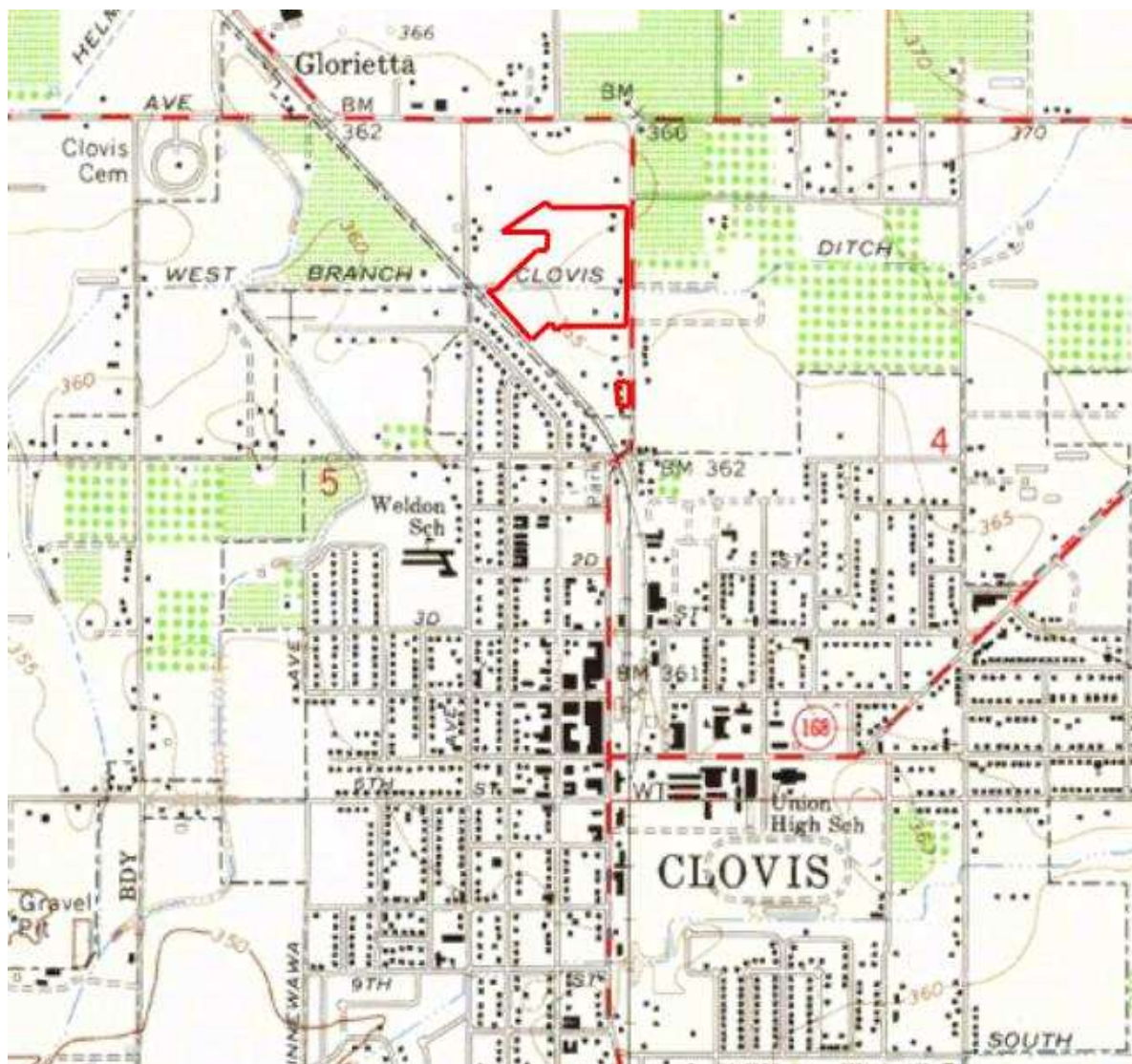


Figure 14: 1964 Clovis, CA USGS topographic map overlain with Proposed Project (red polygons).

A 1972 aerial photograph shows the presence of crops in the configuration noted above and does not depict any significant changes over the prior 10 year period (Netronline 2023). A 1984 aerial photograph shows a striking change in land use, with the absence of crops and addition of numerous rectangular objects neatly arranged to the west and south of 270 and 290 N. Clovis Ave (Netronline 2023). The patterns are consistent with shipping containers, recreational vehicles, and/or tractor trailers being stored. In the 1984 photograph, a large, rectangular building is visible for the first time in the storage area south of 270 N. Clovis Ave., north of the ditch (and later removed circa 2006). Structure additions during the

1990s include a manufactured home placed behind 270 N. Clovis Ave., and a large metal building erected behind 270 N. Clovis Ave. The 1998 aerial photo shows a dramatic expansion of the apparent storage, stretching from the north bank of the ditch north to Magill Ave (Netronline 2023). This general configuration remained in place until 2007 – 2009, when five of the remaining homes south of 270 N. Clovis Ave. were removed and the storage footprint was reduced to its current extent.

In summary, the literature review established that the West Branch Clovis Ditch was extended through the Study Area between 1937 - 1946. The house at 270 N. Clovis Ave. was constructed in 1951 and was surrounded by agricultural uses until the mid-1970s or early 1980s. The house at 290 N. Clovis Ave. was constructed in roughly 1960, although the County records erroneously suggest a construction date of 1998, which likely corresponds to the construction of a large open-air metal building behind the house to the west.

Records Search Results

The SSJVIC completed records search 23-282 using a ¼ mile search radius around the Study Area (**Figure 15**). The records search identified six prior studies intersecting all or portions of the Study Area. Five of the prior studies are regional overviews that did not include pedestrian survey of the study area, but were instructive for development of the natural and cultural contexts for the area (FR-00357, FR-00641, FR-01156, FR-01162, and FR-02675). The sixth study did include survey, but it was conducted just outside of the Study Area (FR-02986; Montgomery 2019). The Montgomery (2019) study (**Figure 15**) did not identify any potentially significant resources during the survey or background research. Several other studies have been conducted within 0.25 mile.

The resource location map prepared by the SSJVIC depicts two former historic home sites (P-10-006878 and P-10-006881) intersecting or abutting a sliver of the Study Area on the far west (**Figure 16**). The home sites include the Carl Polson Residence (251 North DeWitt) and Leonard Isaac and Oyier Morter Residence (285 North DeWitt). Both residential properties were evaluated for inclusion in the National Register and recommended ineligible (Smith and Austin 1991a, 1991b). The two houses were among three others located on North DeWitt which were all demolished in 1990s to make way for construction of the Sierra Freeway segment of highway 168. Previously documented resources are depicted in **Figure 16**.

An additional 19 resources have been identified within 0.25 mile of the Study Area, many in connection with the construction of highway 168. These nearby resources include the San Joaquin Valley Railroad / Southern Pacific Railroad (now Old Town trail), several residential properties, outbuildings, a service station, commercial buildings, barns, and a church/residence. No pre-contact archaeological resources have been previously documented on-site or within 0.25 mile.

The OHP Built Environment Resources Directory and OHP Archaeological Determinations of Eligibility do not list any resources near the Proposed Project. The California Inventory of Historic Resources (1976) and the National Register of Historic Places (as of 1/19/23) are also both negative. The National Register lists a total of 45 historic properties in Fresno County, but none in Clovis or in proximity to the Study Area. The Fresno Historical Landmarks and Records Commission's Inventory of Historic Sites in Fresno County (2002) lists approximately 345 properties, of which 13 are located in Clovis. Several of the sites in Clovis are discussed in the resource evaluations section (3.4) of this report as comparative properties.

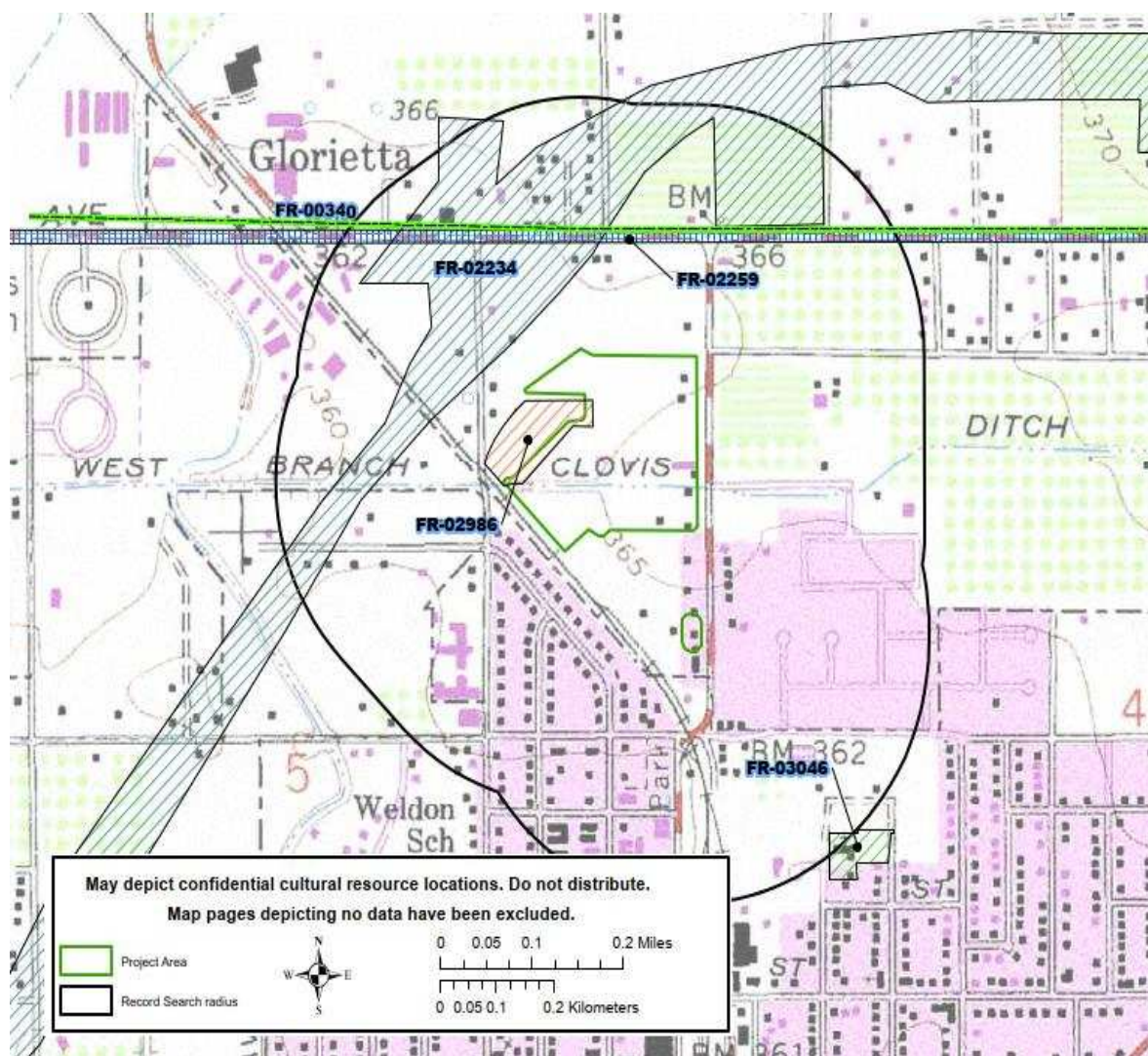


Figure 15: Records search results map - prior survey coverage

There are eight State Historical Landmarks in Fresno County, the nearest being No. 934, the Temporary Detention Camps for Japanese Americans - Pinedale Assembly Center, located roughly five miles due west of the Proposed Project.

While the records search failed to identify any archaeological, ethnographic, or historic resources within the Study Area, pre-field literature review and due diligence identified segment of the West Branch Clovis Ditch and two residential structures, which meet the minimum age threshold for consideration as historic (50+ years). These historic-period resources are described and evaluated in Section 3.4 below.

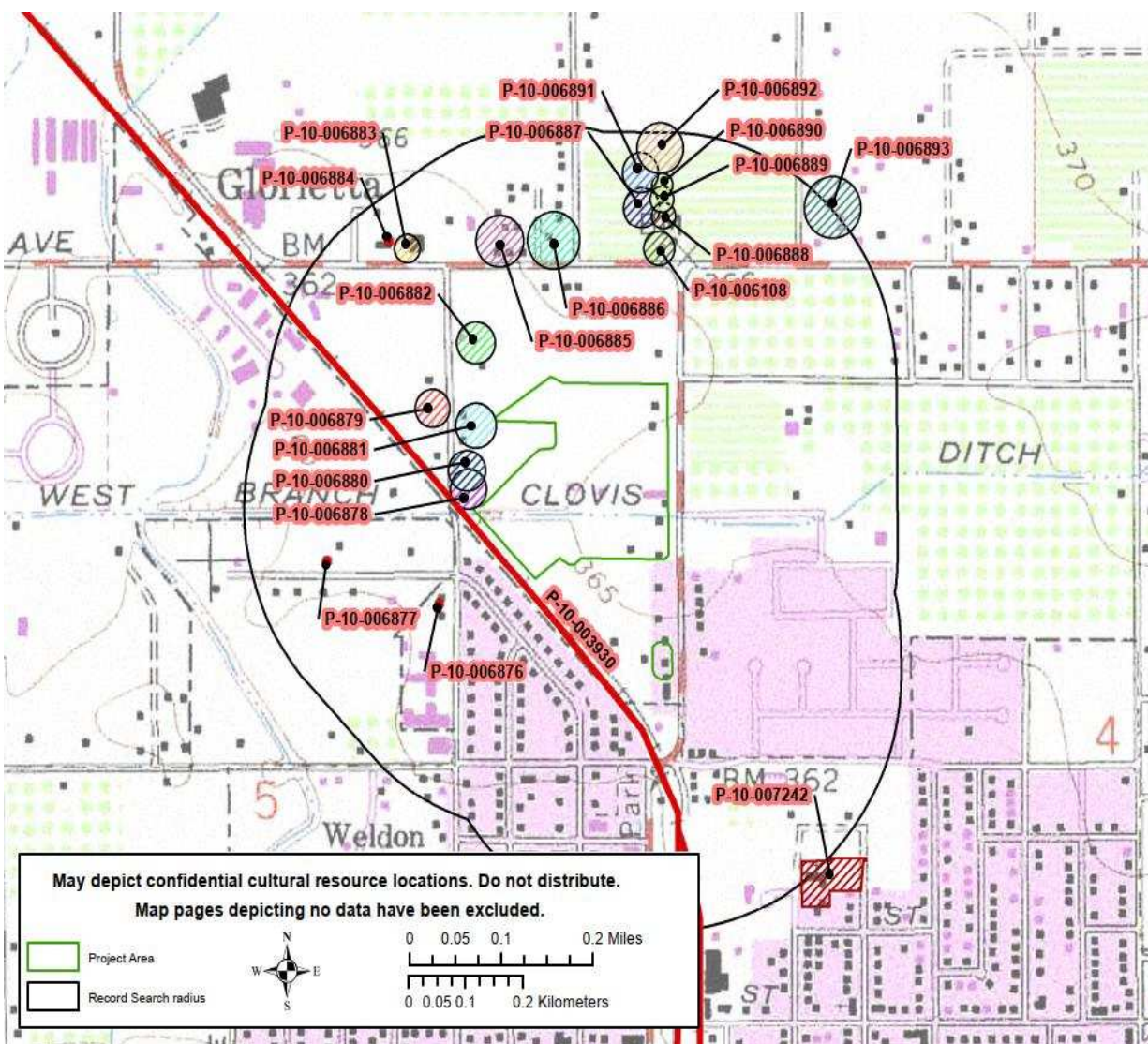


Figure 16: Records search results map – previously recorded resources.

3.2 NATIVE AMERICAN OUTREACH

The California Native American Heritage Commission (NAHC) was contacted on July 17, 2023, to request a search of the Sacred Lands File (SLF) and a list of local Native American contacts that may have information regarding the project area. Ms. Cameron Vela of the NAHC responded via email on August 15, 2023, and stated that the SLF search for the Study Area was negative. The NAHC also provided a list of 10 Native American tribes who may have knowledge of cultural resources in the study area (**Appendix A**):

“This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By

contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.” (Vela 2023)

Outreach to Native American tribes was initiated by emailing each representative of the 10 tribes identified: Big Sandy Rancheria of Western Mono Indians, California Valley Miwok Tribe, Dumna Wo-Wah Tribal Government, North Fork Rancheria of Mono Indians, North Valley Yokuts Tribe, Picayune Rancheria of Chukchansi Indians, Southern Sierra Miwuk Nation, Table Mountain Rancheria, Tule River Indian Tribe, and the Wuksachi Indian Tribe/Eshom Valley Band.

The initial communication introduced the proposed project, provided maps of the Study Area (vicinity, location, and aerial) and disclosed that the records search and pedestrian survey failed to identify any Native-affiliated cultural resources (refer to **Appendix A** for an example letter). After two weeks passed without a response a follow-up email was sent (hard copy sent to Chairperson Alavarez). To-date no responses have been received.

3.3 FIELD SURVEY

The Study Area was subject to a thorough pedestrian survey on July 16, 2023. During the survey a segment of the West Branch Clovis Ditch and two residential properties (270 and 290 N. Clovis Ave.) were recorded. The survey did not identify any archaeological resources. Representative photographs are presented in **Figures 20** through **24**. The area surveyed is depicted in **Figure 17** and resources documented are mapped in **Figure 18**. California Department of Parks and Recreation 523 forms (DPR 523) were prepared for the ditch and single-family homes (**Appendix C**).

The survey was conducted by Mike Taggart, RPA (No. 12572), who meets the Secretary of Interior’s Professional Qualification Standards for Archaeology and History. The survey used transects spaced 15 - 20 meters apart (intensive) in the undeveloped portions of the Study Area, focused on identifying artifacts, ecofacts, features, and landforms associated with pre-contact Native American occupation and historic uses. Developed areas, including paved parking lots, the residential compounds and extensive storage grounds covered in gravel were given reconnaissance level examination to observe and document built environment features, but were not intensively surveyed like the undeveloped areas.

Modern features such as the commercial storage yard, landscaping, a storm water detention basin, and contemporary detritus were noted but not recorded.

Ground surface visibility varied throughout, but was generally quite good. Areas tilled for weed abatement and compacted as result of past land uses provided excellent surface visibility. Periodic surface scrapes with a hoe were used to more closely inspect the surface for signs of archaeological material in areas where vegetation obscured visibility. Ubiquitous ground squirrel burrows also provided enhanced ground visibility throughout the undeveloped area surveyed.



Figure 17: Survey coverage map. Intensive coverage = red polygon; reconnaissance coverage = checkered.



Figure 18: Resource location map.

Contemporary detritus was observed throughout the Study Area, predominately along the ditch's edge where it is shaded, in proximity to the Old Town trail on the western margin, and those portions abutting N. Clovis Ave. Items noted include, plastic water bottles and food packaging, glass bottle fragments, a ceramic tile fragment, nondescript metal scrap, and a single saucer sherd. None of the contemporary detritus warranted documentation.

Improvements noted on site include a paved parking lot on the northwest corner of the Study Area, a fenced and graveled commercial storage space, two single family homes and one manufactured home, a segment of the West Branch Clovis Ditch that bisects the lower third of the Study Area, a fenced storm water detention basin, and the corner of another existing parking lot on the south. The small, discontinuous portion of the Study Area in the south is surrounded by commercial development and has been graded into a pad. A PG&E electric distribution line runs overhead on the eastern margin of the site and subsurface utility vaults were noted nearby. Landscaping is present on the two residential properties and along the northern property boundary where it fronts on Magill Ave. Three resources were examined and documented during the survey, and are evaluated below: the West Branch Clovis Ditch, 270 N. Clovis Ave., and 290 N. Clovis Ave. (**Appendix C**).

3.4 RESOURCE DESCRIPTIONS & EVALUATIONS

This section describes the three resources identified within the Study Area and considers whether they qualify as historic properties (36 CFR 63) and/or historical resources (CEQA Guidelines Section 15064.5).

The evaluations presented here follow National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation* (NPS 1997). Bulletin 15 establishes a uniform process to evaluate the significance and integrity of resources that meet the minimum age criterion (50 years). And because the California Register of Historical Resources and Public Resources Code draws so heavily from the national model, the evaluation framework is customary in CEQA contexts.

The survey, documentation, and evaluation of the West Branch Clovis Ditch follows the best practices established in *Water Conveyance Systems in California: Historic Context Development and Evaluation Procedures* (JRP and Caltrans 2000). This document provides a comprehensive historic context for the development of water conveyance systems in California and provides a jumping off point for a more detailed context for regional subsystems.

Likewise, evaluation of the two houses was guided by *Tract Housing in California, 1945 – 1973: A Context for National Register Evaluation* (Caltrans 2011). **Appendix C** provides the DPR 523 forms used to document the ditch and residential properties.

The historic context presented in Section 2.4 of this report describes the relevant themes in the history of Clovis, Fresno County, and the broader San Joaquin Valley. The themes provide a lens through which the resources on the Study Area are viewed to understand their place in the history of the region and beyond. The theme of water development and agriculture in Fresno County (1870 – 1944) is applicable to the evaluation of the West Branch Clovis Ditch and is considered in Section 3.4.1 below. The two residential properties are viewed within the theme of post-WWII development in the San Joaquin Valley (1945 – 1973) as described in Sections 2.4.6 and 2.4.7.

Following Bulletin 15, the historic contexts established that the property types may have relevance in history, so the following evaluation discussion will describe the resources with reference to their respective historic contexts and periods of significance. The discussion will establish whether the resources possess the physical characteristics with sufficient integrity to convey the aspects of history they are associated with.

3.4.1 West Branch Clovis Ditch

The West Branch Clovis Ditch is a 4.5 mile water conveyance that begins at a head gate on the Enterprise Canal where it crosses Herndon Ave. to the east, terminating at a channelized section of Big Dry Creek in Clovis. Originally constructed as an earthen open-cut ditch, the conveyance is now piped underground for more than 95% of its length (**Figure 19**).

The ditch bisects the Study Area along an east-west axis for a distance of approximately 1,130 feet, representing the only open ditch section remaining. Outside of the Study Area the conveyance is completely buried, moving water through an FID pipeline under suburban development.

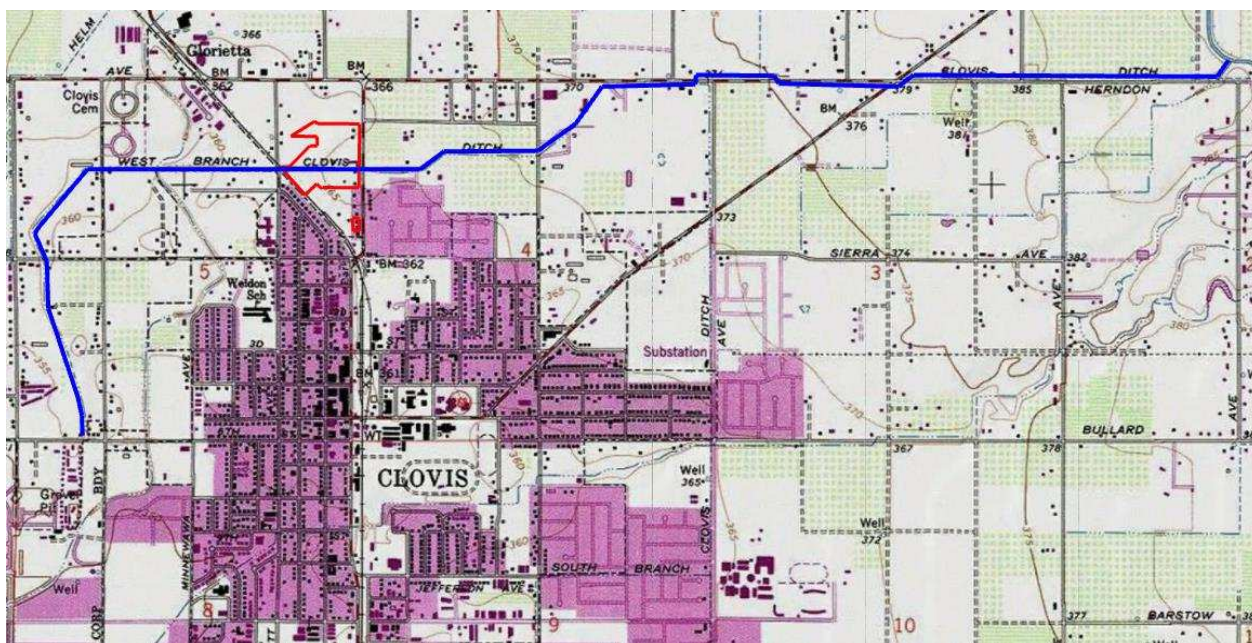


Figure 19: Map of West Branch Clovis Ditch (blue line) in relation to the project site (red polygons).



Figure 21: Central segment of the West Branch Clovis Ditch looking west.

Like many small, open cut lateral ditches off of main arteries in the FID system, the precise age and origin of the Clovis Ditch are not firm. As discussed in the historic context and literature review sections, examination of historic maps, publications, government reports, newspaper archives, and consulting FID suggest the initial segment was constructed circa 1903 by the Clovis Ditch Company and later extended west of N. Clovis Ave. by FID between 1937 – 1946 (see Sections 2.45 and 3.12 for details). Thus, the portion of the ditch running through the Study Area was part of the later extension, likely constructed well after FID's establishment in 1920. Between the District's founding and the years leading to WWII, FID constructed and improved thousands of miles of ditch laterals and appurtenances.

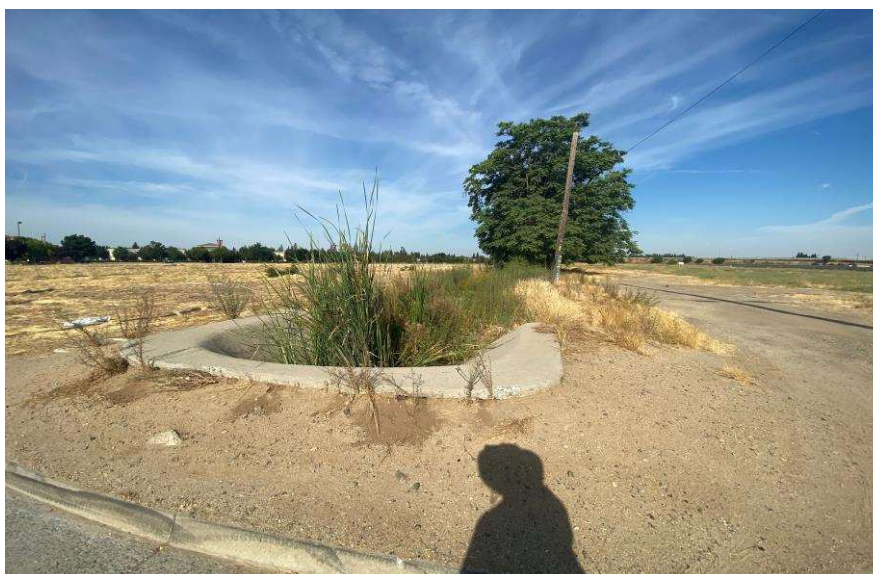


Figure 20: Eastern segment of West Branch Clovis Ditch where it's daylight west of N. Clovis Ave. looking west.

The original open cut intake into the ditch from the Enterprise Canal has been replaced with a gate leading directly to a buried pipe. The buried pipe then travels approximately 2.6 miles to reach the Study Area, where the conveyance daylights just west of N. Clovis Ave. After re-entering a pipe on the western edge of the Study Area, the conveyance continues underground for another 1.7 miles before terminating at a channelized segment of Dry Creek.

The surface segment of the conveyance is virtually indistinguishable from any of the earthen ditch laterals present throughout FID's service area. Within the Study Area the ditch is an open cut, unlined conveyance that is piped underground on the east and west ends. Water flows from the east and daylights immediately adjacent to N. Clovis Ave. directly opposite of Palo Alto Ave. Water flows out of a 24" pipe embedded in a concrete apron on the east end (Feature A). The ditch measures approximately 136" across at the crest of the banks, 60" wide at the base, with an average depth of 42". The berms measure between 8 – 18" above grade and are generally higher on the north side of the ditch.

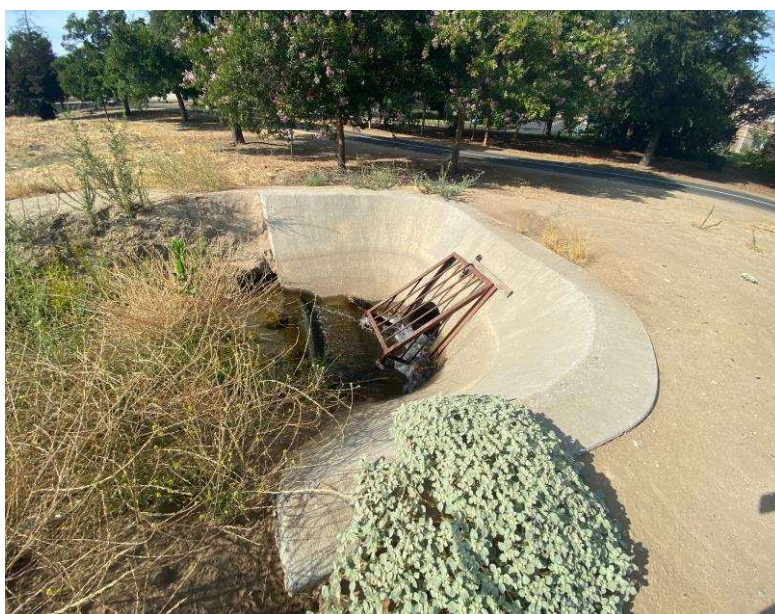


Figure 22: West end of the above ground ditch where it enters a buried pipe, looking southwest.

The ditch is again piped underground near its intersection with the former Southern Pacific Railroad, which is now occupied by the Old Town Trail. The western terminus of the ditch is nearly identical to the one on the east end, with a small metal debris grate at the pipe entrance (Feature B). A gate valve is present on the north bank of the ditch, approximately 80 feet east of the eastern terminus (Feature C).

The ditch is largely absent from the archival record, as a ubiquitous irrigation feature in the region. What little can be gleaned from historic records are limited to public notices in local newspapers concerning shareholder meetings early in its life, and records from the State marking the creation and dissolution of the corporation that built the original segments that were ultimately incorporated into the FID system. The plentiful maps, reports, and publications concerning irrigation and water development in the region all neglect to mention the ditch and it is only mapped on USGS topographical maps beginning in 1923 (roughly two decades after its initial construction).

FID does not retain any pertinent historic documentation on the precise age or other characteristics of the ditch, which is not uncommon for simple earthen ditches in their service area (Mitchell 2023). However, we can surmise that the original 2.6 mile segment was part of the roughly 800 miles of canals and ditches conveyed to FID at its inception in 1920. Not surprisingly, the ditch is not listed in a local register of historic resources, as defined in section 5020.1(k) of the Public Resources Code, nor is it identified as significant in a historical resources survey. Research at the Fresno County Public Library, FID engineering archives, California State Library, historic newspapers, government publications, and outreach to the Clovis Big Dry Creek Historical Society and the Fresno County Historical Society failed to produce any material of substance related to the ditch.

Viewed in relation to key regional water infrastructure, the diminutive importance of the West Branch Clovis Ditch is clear. Conveyances such as the Enterprise, Gould, Fresno, and Friant – Kern canals all played a significant role in the development of irrigated agriculture in the region and supported the subsequent growth of local communities. These substantial engineering features all made contributions to the patterns of both San Joaquin Valley and California history. While the first three canals mentioned above represent the early years of water development in Fresno County (1870 – 1919) built with private capital and closely tied to land speculation, the latter represents the last major phase of water development (1937 - 1954) in the project vicinity that was publicly funded and tied to a broader system of enormous proportions in the post-war era. The early canals also played pivotal roles in the water wars of the late 19th and early 20th centuries, each swept up in consequential litigation that would shape case law around water rights for generations.

At the time of FID formation in 1920, the Clovis Ditch represented roughly 0.3% of the total length of District’s conveyance facilities at just 2.6 miles in an area of marginal agricultural significance. After the ditch’s extension to the current 4.5 miles, it would come to account for approximately 0.5% of the District’s conveyance infrastructure. Thus, the Clovis Ditch (later dubbed West Branch) has never accounted for a significant share of the FID’s conveyance infrastructure, let alone that of the County more broadly. Likewise, this diminutive ditch did not play any discernable role in the development of Clovis, which owes its early existence to the flume, mill, and San Joaquin Valley Railroad. The Clovis ditch skirted the town site on the north and watered the sparsely populated lands beyond the town center.

The design and construction of the ditch are completely unremarkable and urban development has drastically altered the setting, feeling from agricultural to residential and commercial. With the exception of the Enterprise Canal, the ditch lacks related sites, associated resources, or aspects of the surrounding setting that could contribute to its significance. “Associated resources may include agricultural fields, mines, hydroelectric power plants, caretakers’ or construction crews’ housing, and perhaps even entire communities. A system’s setting may also contribute to its significance (JRP and Caltrans 2011:85).” Likewise, the drastic modifications to the ditch and surroundings have affected its integrity of design, setting, materials, workmanship, feeling, and association.

The West Branch Clovis Ditch is not directly associated with any events that have made a significant contribution to the broad patterns of California’s history and cultural heritage, nor is it associated with the lives of persons important in history. The simple conveyance does not embody distinctive characteristics of a type, period, region, or method of construction, nor does it represent the work of an important creative individual, or possess high artistic values. The West Branch Clovis Ditch has not yielded, nor is it likely to yield, information important in history. Even if the ditch was found to meet the significance thresholds

cited above, its integrity has been severely compromised by removing 95% of the open cut earthen canal features. Thus, the West Branch Clovis Ditch does not meet the criteria for listing in the CRHR or the NRHP.

3.4.2 270 N. Clovis Avenue

The property at 270 N. Clovis Ave. includes a primary residence with landscaping, a manufactured home, a detached garage, and a large open-air vehicle port covering approximately 1.2 acres. The title history for 270 N. Clovis Ave. lists a construction date of 1951, which is corroborated by a 1957 aerial photo that depicts the home and landscaping. Refer to **Appendix C** for the DPR site records for the property.

The primary residence is a ranch-style home with aspects of both a Spanish and Prairie sub variants (McAlester and McAlester 2002). The reported conditioned space is 1,945 square feet with a one-car attached garage, although the actual size is larger. The building has been expanded over the years, including an addition next to the garage on the north side of the original building, as well as a rectangular addition on the rear northwest corner covering approximately 1,600 additional square feet. The home's original rambling layout has been expanded over time using different materials and incongruous roof lines.

It has a hip and valley tile roof that is low-slung with moderately deep eaves. The front facade is clad in tan bricks laid in a running half pattern. The front exterior walls include picture windows are made up of a grouping of tall rectangular shapes, with some that open for ventilation. The windows are white, double-pane vinyl that are not original.

Consistent with ranch architecture the building exhibits natural colors in materials in a warm palette, and uses repeating square and rectangle shapes. A brick walkway leads to a covered brick porch oriented perpendicular to the street, which is bound by a simple wrought iron railing.



Figure 23: House located at 270 N. Clovis Ave. looking west.

The house features decorative red brick planters in the front and low-slung brick wall at the northern driveway entrance and along the dirt sidewalk. The tidy, well-manicured landscaping includes grass and well-pruned shrubs in the front yard. Two large Mexican palms are present on the southern margin of the front yard, separating the residential space from the adjoining commercial outside storage space.

The rear of the house features a lawn and concrete patio, with a line of trees providing vegetated screen. Beyond the screen lies a large metal vehicle port, a detached garage, and a manufactured home. A chain link fence with privacy slats surrounds the 270 N. Clovis Ave. property and separates it from the adjacent house to the north, 290 N. Clovis Ave.

The southern half of the property currently serves as a boat and RV storage area that is fenced and gravelled. The primary house was originally surrounded by agricultural uses until the mid-1970s or early 1980s. Sometime after 1984 the property was used for storage of what looked to be tractor trailers, boats, and RVs. Structure additions during the 1990s include a manufactured home placed behind the main residence and a large metal building also erected behind the house. The 1998 aerial photo shows a dramatic expansion of the apparent storage, stretching from the north bank of the ditch north to Magill Ave.

As described in the historic context, postwar houses in California often lack distinction as mass produced products with minor embellishments, and 270 N. Clovis Ave. is no exception. Ranch style homes that are significant are typically well-preserved examples of a quintessential type, associated with an influential architect or builder such as William Wurster or Cliff May.

Local historic inventories were examined to identify significant built environment resources for comparison to the property evaluated here. These include the Fresno County Historical Landmarks & Records Advisory Commission's *Inventory of Historic Sites in Fresno County* (FCHLRC 2022) and the *Index of Historical Sites in Fresno County* maintained by the Fresno County Public Library (FCPL 2022). Historically significant homes around Clovis range from a simple board and batten house of a Clovis pioneer (e.g., Reyburn Home, 1881), to large opulent homes built by successful men (e.g., L.W. Gibson House, 1912). In contrast, the Larson residence and Cobb Fig Compound is significant locally as an excellent example of diversified agriculture in Fresno County between 1916 – 1965. The compound includes a fig barn, tractor shed, horse shed, and a ranch house. In each case, the historical resources used as a basis for comparison were associated with an important person, an important event or period, and/or possesses high architectural value.

Viewed through the historic context and in comparison to regional built environment resources, the house and surrounding grounds at 270 N. Clovis are unremarkable among the thousands of ranch style variants that proliferated in Fresno County after WWII. The property is not listed in a local register of historic resources and has not been identified as significant in a qualifying historical resources survey. The builder could not be identified, but there is no indication that the house is the work of a noted architect. The past property owners and occupants of the home have not been identified as persons of historical interest. The house and property do not exemplify a specific phase of regional history, such as small-scale diversified agriculture. The house and associated features do not exhibit the distinctive characteristics of a type, period, region, or method of construction, nor do they possess high artistic values. The property is not a source of information important in history. The property at 270 N. Clovis Ave. does not meet the significance criteria for listing in the CRHR or the NRHP.

3.4.3 290 N. Clovis Avenue

The property at 290 N. Clovis Ave. includes a primary residence with landscaping and a large open-air metal building on approximately one acre.

The house at 290 N. Clovis Ave. was constructed in approximately 1960, although the County records erroneously suggest a construction date of 1998, which likely corresponds to the construction of a large open air metal building behind the house to the west. Refer to **Appendix C** for the DPR site records for the property.

The house is a simple ranch-style home with aspects of the Prairie sub variant (McAlester and McAlester 2002). The conditioned space is approximately 1,690 square feet with a 1.5-car attached garage. There are four exterior doors on the front facade of the building that include, moving south to north, a car door on the attached garage, a standard door into the garage, the primary entrance near the center, and a sliding glass door on the far north.

The house has asphalt shingles on a hipped roof with moderately deep eaves. The front exterior is horizontally divided in the classic ranch style, with a low brick cladding that extends 1/3 of the way up, which then transitions to stucco. Windows are rectangular and high-set. A sliding glass door was added to the house on the north end of the eastern facade that opens to the small front yard. The front exterior walls include picture windows are made up of a grouping of tall rectangular shapes, with some that open for ventilation. The windows are aluminum that appear original.

The house features decorative red brick wall and small planter that frame the entrance to the house, which is set perpendicular to the long axis of the facade. In the front a low-slung cinder block (18 inches tall) wall skirts the eastern yard and abuts the dirt sidewalk. The small front yard is dominated by concrete for parking and includes large Californian cypress providing ample shade and several Italian cypress providing vertical contrast to the low-slung architecture.

The house is surrounded by, with the exception of the front yard, a chain link fence with privacy slats topped with three strands of barbed wire. The small back and side yards are shaded by two mature Californian cypress. Beyond the back yard lies a paved light industrial area dominated by a large open air metal building with a small enclosed lean-to structure on its east side. The paved area behind the house has a large driveway with a rolling gate fronting on Magill Ave.

Like its neighbor to the south, the property at 290 N. Clovis exhibits a similar evolution in land use from one dominated by agriculture to one dedicated to commercial uses. An aerial photo from 1962 depicts the newly constructed house at 290 N. Clovis Ave., with associated landscaping. Indeterminate crops are visible adjacent to the house on the west. A 1984 aerial photograph shows a striking change in land use, with the absence of crops and addition of numerous rectangular objects neatly arranged to the west and south of 270 and 290 N. Clovis Ave. The patterns are consistent with shipping containers, recreational vehicles, and/or tractor trailers being stored.

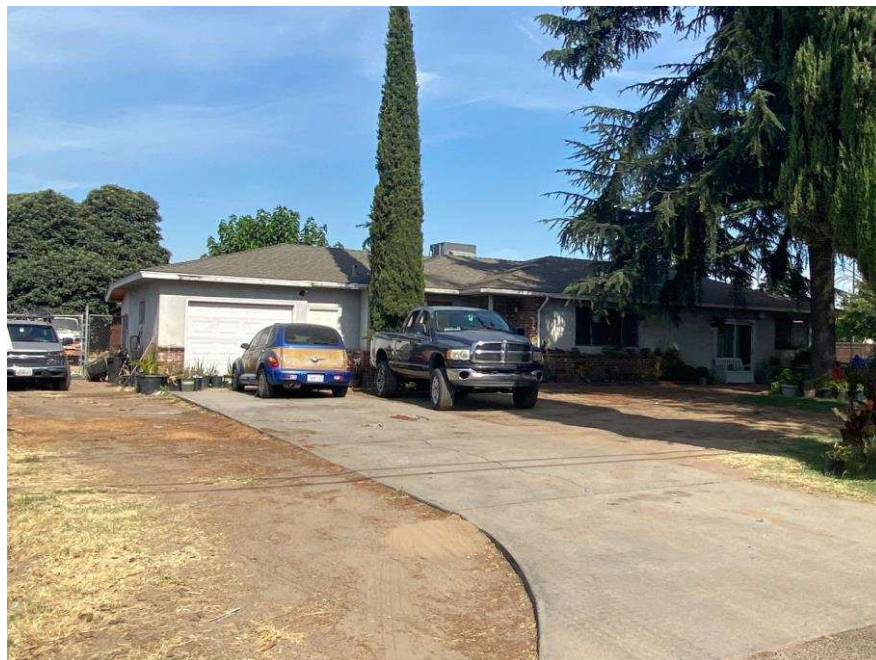


Figure 24: House located at 290 N. Clovis Ave. looking west / northwest.

As with the adjacent residential property, 290 N. Clovis Ave. was viewed through the historic context presented in Section 2.4 and compared to regional built environment resources. The property does not have any hallmarks as an architecturally significant building, nor is it associated with any recognized historical figures within any of the themes considered. The property is not listed in a local register of historic resources and has not been identified as significant in a qualifying historical resources survey. The house and property do not exemplify a specific phase of regional history or events. As an unembellished ranch style house that is ubiquitous in the western United States (and even more so regionally), it does not exhibit the distinctive characteristics of a type, period, region, or method of construction, or possess high artistic values. The property is not a source of information important in history. The property at 290 N. Clovis Ave. does not meet the significance criteria for listing in the CRHR or the NRHP.

Section 4 | Findings and Recommendations

4.1 FINDINGS

This report presents the scope and results of a cultural resources inventory and evaluation for planning entitlements related to the Golden Triangle Planned Commercial Center Project. A full accounting of cultural resources occurring within the Study Area was achieved by conducting a records search, review of published and gray literature, examining historic maps, contacting the California Native American Heritage Commission (NAHC), outreach to local Native American tribal representatives, examining historic documents held at regional repositories, and a field survey.

A Sacred Lands File search by the California Native American Heritage Commission was negative. The Commission provided a list of 19 Native American contacts, representing 10 tribes, who may have knowledge of regional resources. Letters were sent to all representatives, most delivered via email (**Appendix A**). The outreach introduced the proposed project, provided maps, and shared that the records search and pedestrian survey did not identify any Native-affiliated cultural resources. After two weeks passed without a response a follow-up email was sent. To-date no responses have been received. There is no indication of Tribal Cultural Resources on the Study Area.

The literature review identified the presence of the West Branch Clovis Ditch and two single-family homes within the project area that are 50+ years old. The literature review and records search also indicated that the potential for pre-contact archaeological sites within the project area is very low considering the environmental setting, being situated at a significant distance from perennial water and other known resources.

The records search identified six prior studies intersecting all or portions of the Study Area (**Appendix B**). Five of the prior studies are regional overviews that did not include pedestrian survey of the study site or vicinity. The records search identified one prior pedestrian survey that had been completed adjacent to the Study Area assessed here (Montgomery 2019).

A thorough pedestrian survey was conducted on July 16, 2023. During the survey the West Branch Clovis Ditch and two residential properties (270 and 290 N. Clovis Ave.) were recorded. California Department of Parks and Recreation 523 forms were prepared for the ditch and single-family homes (**Appendix C**). The survey did not identify any pre-contact or historic archaeological resources.

The identified resources were evaluated with reference to their respective historic contexts and periods of significance, using an established methodology. The evaluation concludes that the West Branch Clovis Ditch, 270 N. Clovis Ave., and 290 N. Clovis Ave. do not meet the significance criteria for listing in the CRHR or the NRHP.

In conclusion, no historic properties or historical resources are present within the Study Area and there is a very low potential for buried archaeological deposits to be present.

4.2 RECOMMENDATIONS

Thorough study of the Study Area failed to identify any significant cultural resources and further investigation is not warranted.

In the unlikely event that suspected or confirmed human remains are uncovered during ground disturbing activities, immediate action is required. Removal or possession of any Native American human remains or artifacts from a grave or cairn is a felony unless otherwise permitted by law (PRC 5097.99). In compliance with Section 7050.5 of the Health and Safety Code, implement the following:

1. Stop all ground disturbing work in the vicinity and secure the discovery location from damage.
2. Immediately contact the Fresno County Coroner through the Sheriff's Office.
 - The coroner has two working days to examine human remains after being notified by the responsible person. If the remains are Native American, the Coroner has 24 hours to notify the Native American Heritage Commission.
 - The Native American Heritage Commission will immediately notify the person it believes to be the most likely descendant (MLD) of the deceased individual(s).
3. The MLD has 48 hours to make recommendations to the landowner, or representative, for the treatment or disposition of the human remains and grave goods.
 - If the MLD does not make recommendations within 48 hours the owner shall re-inter the remains in an area of the property secure from further disturbance, or:
 - If the landowner does not accept the MLD's recommendations, the owner or the descendant may request mediation by the Native American Heritage Commission.

Likewise, if buried artifacts or features are encountered during construction, work should stop in the vicinity of the discovery until an archaeologist can make an assessment. Examples of archaeological material and features that occur in buried contexts within Fresno County include darkened (midden) soil; milling tools such as handstones, millingstones, portable mortars or pestles; flaked stone tools and flakes made of obsidian, basalt, or chert; shell and bone.

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Appendix A

Native American Outreach Correspondence

NATIVE AMERICAN HERITAGE COMMISSION

August 15, 2023

Mike Taggart
Taggart & Associates

Via Email to: taggart.mike@gmail.com

Re: Golden Triangle Development Project, Fresno County

Dear Mr. Taggart:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Cameron.vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst
Attachment



ACTING CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki,
Nomlaki

COMMISSIONER
Wayne Nelson
Luiseño

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
Vacant

COMMISSIONER
Vacant

COMMISSIONER
Vacant

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok, Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
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(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

Native American Outreach

AGENDA ITEM NO. 6.

| Organization / Tribe | Contact | Initial Outreach | Response / Comments |
|--|---|------------------|--|
| Native American Heritage Commission | Pricilla Torres-Fuentes | 7.17.23 | NAHC responded via email on August 15, 2023, and stated that the Sacred Lands File search for the project site was negative. The NAHC also provided a list of 20 representatives from 11 Native American tribes who may have knowledge of cultural resources in the study area. The representatives identified by the NAHC were then contacted. Emails were sent to all representatives on August 16 with a brief letter attached and a map set of the project location. |
| Dumna Wo-Wah Tribal Government | Robert Ledger, Chairperson | 8.16.23 | No response received to-date. |
| North Fork Rancheria of Mono Indians | Fred Beihn, Chairperson | 8.16.23 | No response received to-date. |
| North Fork Rancheria of Mono Indians | Mary Stalter, Environmental / Heritage Manager | 8.16.23 | Email could not be delivered. Email to Chairperson delivered. |
| North Valley Yokuts Tribe | Timothy Perez, | 8.16.23 | No response received to-date. |
| North Valley Yokuts Tribe | Katherine Perez, Chairperson | 8.16.23 | No response received to-date. |
| Picayune Rancheria of the Chukchansi Indians | Michael Wynn, Tribal Administrator | 8.16.23 | No response received to-date. |
| Picayune Rancheria of the Chukchansi Indians | Heather Airey, Tribal Historic Preservation Officer | 8.16.23 | No response received to-date. |
| Picayune Rancheria of the Chukchansi Indians | Janet Bill, Chairperson | 8.16.23 | No response received to-date. |
| Table Mountain Rancheria | Brenda Lavell, Chairperson | 8.16.23 | No response received to-date. |
| Table Mountain Rancheria | Bob Pennell, Cultural Resource Director | 8.16.23 | No response received to-date. |
| Traditional Choinumni Tribe | David Alvarez, Chairperson | 8.16.23 | Email could not be delivered. Hard copy letter mailed 8/17/23. |
| Tule River Indian Tribe | Neil Peyron, Chairperson | 8.16.23 | No response received to-date. |
| Tule River Indian Tribe | Kerri Vera, Environmental Department | 8.16.23 | No response received to-date. |
| Tule River Indian Tribe | Joey Garfield, Tribal Archaeologist | 8.16.23 | No response received to-date. |
| Wuksachi Indian Tribe/Eshom Valley Band | Kenneth Woodrow, Chairperson | 8.16.23 | No response received to-date. |
| Dumna Wo-Wah Tribal Government | Robert Ledger, Chairperson | 8.16.23 | No response received to-date. |
| North Fork Rancheria of Mono Indians | Fred Beihn, Chairperson | 8.16.23 | No response received to-date. |
| North Fork Rancheria of Mono Indians | Mary Stalter, Environmental/Heritage Manager | 8.16.23 | No response received to-date. |
| North Valley Yokuts Tribe | Timothy Perez | 8.16.23 | No response received to-date. |
| North Valley Yokuts Tribe | Katherine Perez, Chairperson | 8.16.23 | No response received to-date. |



Mike

AGENDA ITEM NO. 6.

2027 Sloat Way
Sacramento, CA
916-955-8074

August 15, 2023

Janet Bill, Chairperson
Picayune Rancheria of the Chukchansi Indians
P.O. Box 2226
Oakhurst, CA, 93644

Re: Golden Triangle Planned Commercial Center

Dear Chairperson Bill,

I am contacting you to share information about the proposed Golden Triangle Planned Commercial Center (PCC) and solicit any information you would like to share that may have bearing on the cultural resource assessment.

The Golden Triangle PCC is a proposed commercial development located in the City of Clovis and consists of approximately 37 acres, of which portions have already been developed consistent with the existing Master Plan. The present cultural resources assessment is focused on the proposed development boundary, which constitutes roughly 20 acres of the total project area. The City of Clovis is requiring the preparation of various environmental studies in compliance with the California Environmental Quality Act (CEQA).

The project area is located west of N. Clovis Avenue, south of Magill Avenue. State Route (SR) 168 bounds the project site on the northwest and the Clovis Old Town Trail roughly follows the southwest margin of the project area. The project site is situated in Section 5 of Township 13 south Range 21 east, as depicted on the Clovis, CA United States Geological Survey 7.5-minute topographic quadrangle. Vicinity and location maps are enclosed.

A range of methods is being used to identify cultural resources occurring within the project site including a records search at the Southern San Joaquin Information Center, review of published and gray literature, examining historical maps, a Sacred Lands File search by the California Native American Heritage Commission (NACHC), and an intensive field survey. Our efforts to-date have failed to identify any Native American-affiliated resources or historical resources.

As part of our efforts to identify cultural resources that could be affected by the proposed project, we are seeking the input of Tribal representatives. We would appreciate receiving any information you would like to share concerning resources of concern to your community. The sensitive nature of such information is acknowledged and will be treated accordingly.

Your response within two weeks would be most appreciated.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mike Taggart".

Mike Taggart, RPA
Principal Archaeologist

Enclosure (maps)

CC: Michael Wynn, Tribal Administrator and Heather Airey, Tribal Historic Preservation Officer

Appendix B

Records Search Results



7/24/2023

Mike Taggart
Taggart & Associates
2027 Sloat Way
Sacramento, CA 95818

Re: Golden Triangle Development
Records Search File No.: 23-282

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on the Clovis USGS 7.5' quad. The following reflects the results of the records search for the project area and the 0.25 mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☒ custom GIS maps ☐ GIS data

| | |
|------------------------------------|---------------------------|
| Resources within project area: | P-10-006878, 006881 |
| Resources within 0.25 mile radius: | 19 Resources; - See List. |
| Reports within project area: | 6 Reports; - See List. |
| Reports within 0.25 mile radius: | 4 Reports; - See List. |

Resource Database Printout (list): ☐ enclosed ☐ not requested ☐ nothing listed

Resource Database Printout (details): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (list): ☐ enclosed ☒ not requested ☐ nothing listed

Report Database Printout (details): ☒ enclosed ☐ not requested ☐ nothing listed

Report Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Resource Record Copies: ☒ enclosed ☐ not requested ☐ nothing listed

Report Copies: ☒ enclosed ☐ not requested ☐ nothing listed

OHP Built Environment Resources Directory: ☐ enclosed ☐ not requested ☒ nothing listed

Archaeological Determinations of Eligibility: ☒ enclosed ☐ not requested ☐ nothing listed

CA Inventory of Historic Resources (1976): ☐ enclosed ☐ not requested ☒ nothing listed

Caltrans Bridge Survey: Not available at SSJVIC; please see
<https://dot.ca.gov/programs/environmental-analysis/cultural-studies/california-historical-bridges-tunnels>

Ethnographic Information: Not available at SSJVIC

Historical Literature: Not available at SSJVIC

Historical Maps: Not available at SSJVIC; please see
<http://historicalmaps.arcgis.com/usgs/>

Local Inventories: Not available at SSJVIC

GLO and/or Rancho Plat Maps: Not available at SSJVIC; please see
<http://www.glorerecords.blm.gov/search/default.aspx#searchTabIndex=0&searchByTypeIndex=1> and/or
<http://www.oac.cdlib.org/view?docId=hb8489p15p;developer=local;style=oac4;doc.view=items>

Shipwreck Inventory: Not available at SSJVIC; please see
<https://www.slc.ca.gov/shipwrecks/>

Soil Survey Maps: Not available at SSJVIC; please see
<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

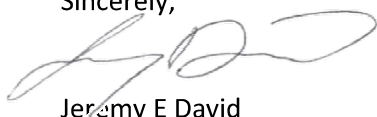
The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

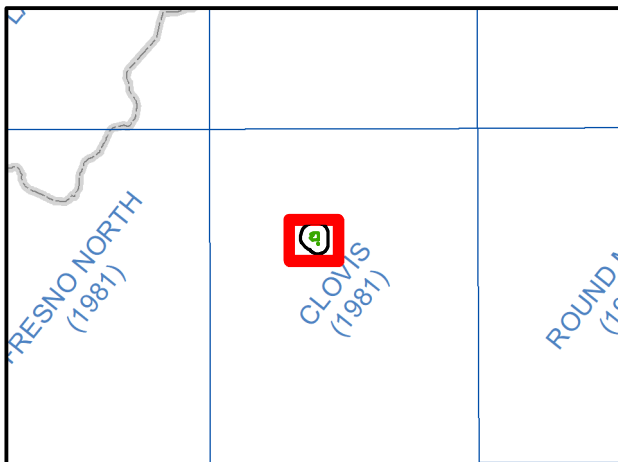
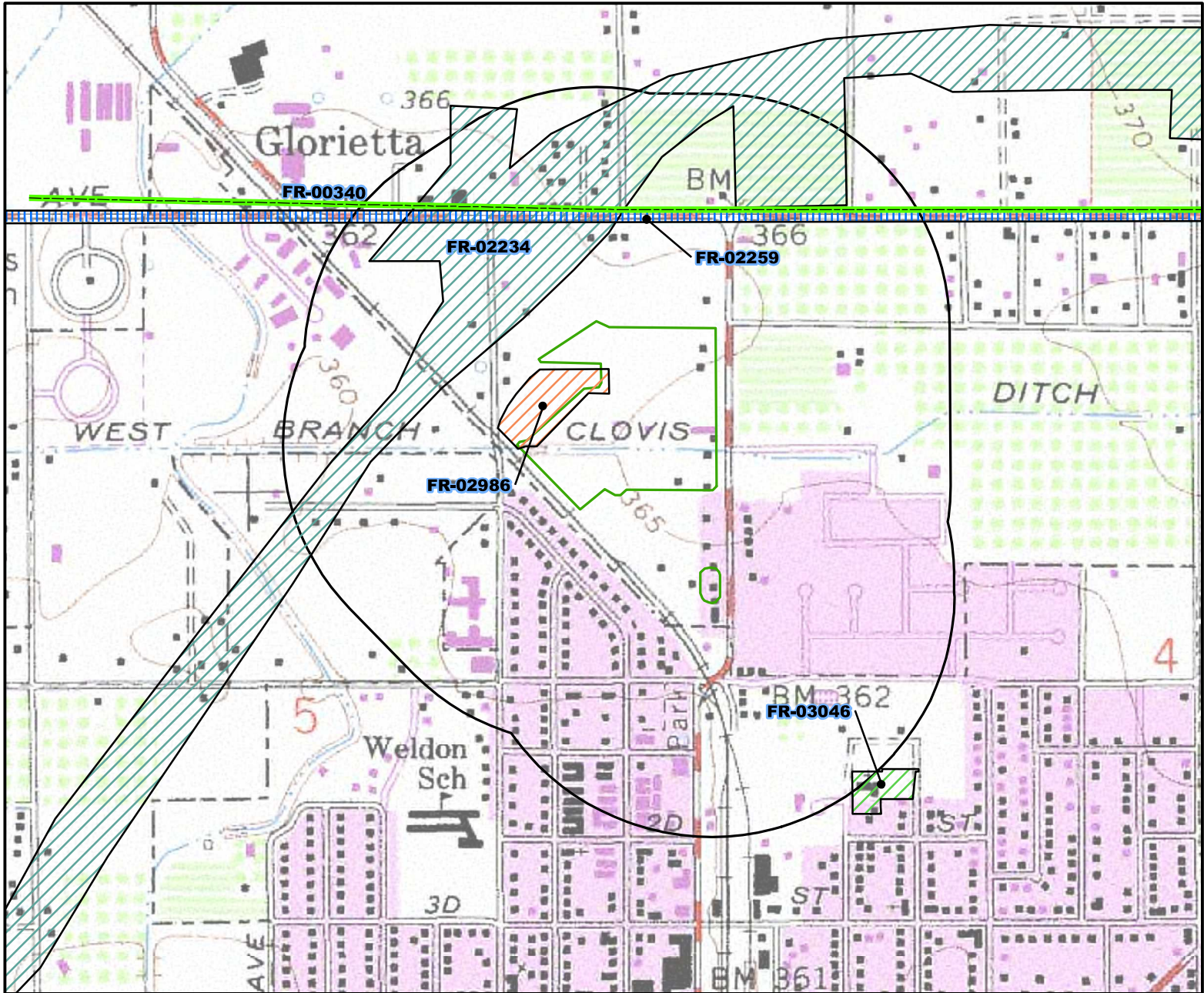
Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,



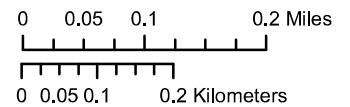
Jeremy E David
 Assistant Coordinator

| Reports in PA: | Reports in 0.25 Radius: | Resources in PA: | Resources in 0.25 Radius: |
|----------------|-------------------------|------------------|---------------------------|
| FR-00357 | FR-00340 | P-10-006878 | P-10-003930 |
| FR-00641 | FR-02234 | P-10-006881 | P-10-006108 |
| FR-01156 | FR-02259 | | P-10-006876 |
| FR-01162 | FR-03046 | | P-10-006877 |
| FR-02675 | | | P-10-006879 |
| FR-02986 | | | P-10-006880 |
| | | | P-10-006882 |
| | | | P-10-006883 |
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| | | | P-10-006889 |
| | | | P-10-006890 |
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| | | | P-10-007242 |

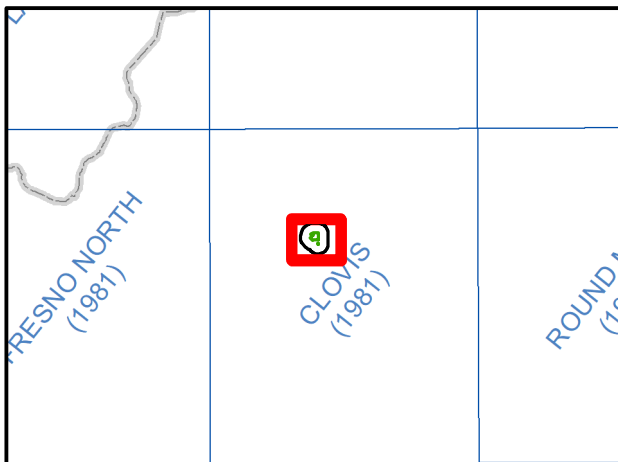
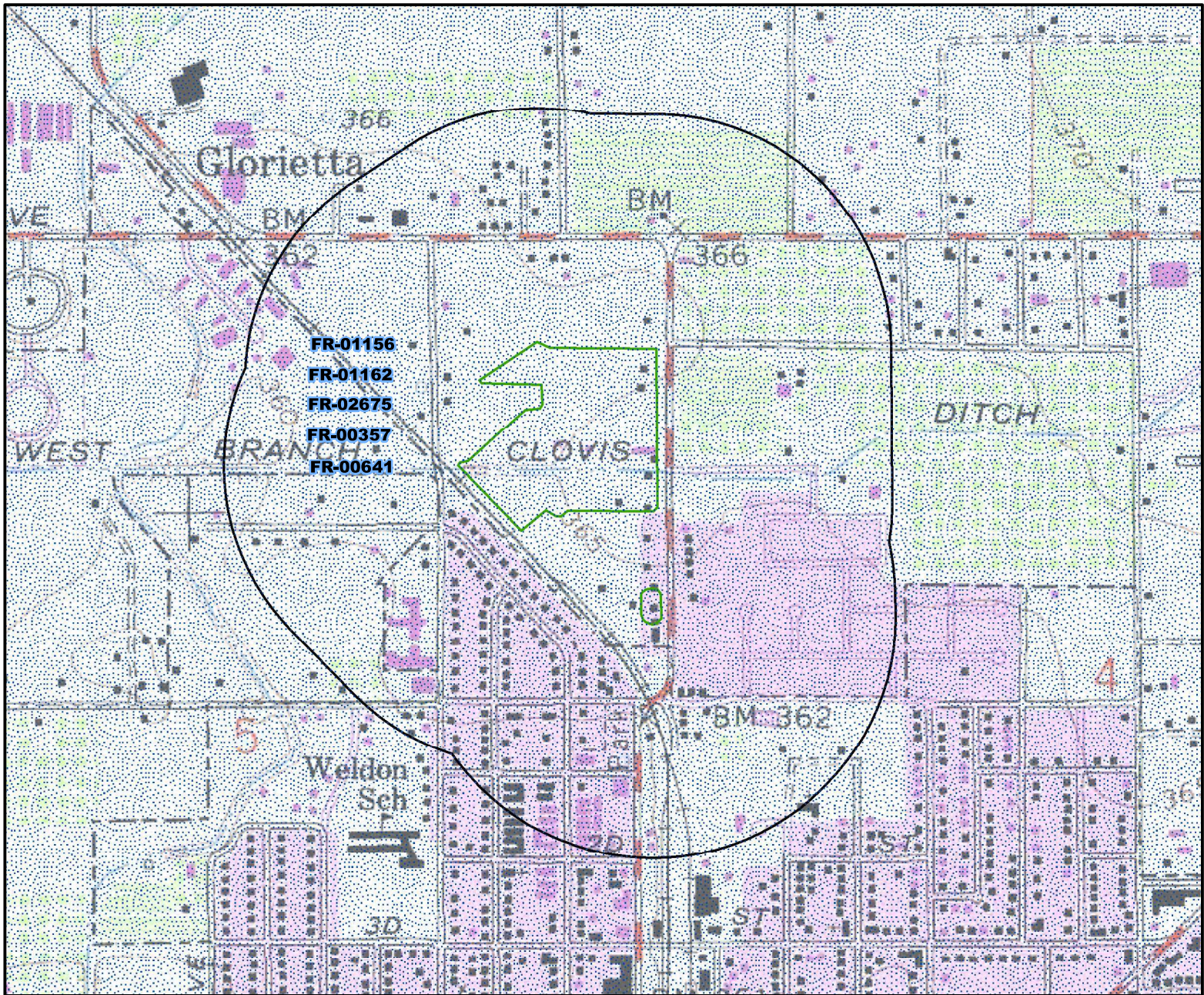


May depict confidential cultural resource locations. Do not distribute.

Map pages depicting no data have been excluded.

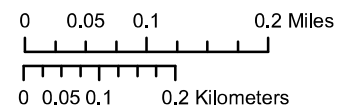


Reports Map
SSJV Information Center Record Search 23-282
Requester: Mike Taggart; Taggart & Associates
Project Name: Golden Triangle Development
USGS 7.5' Quad(s): Clovis
County: Fresno



May depict confidential cultural resource locations. Do not distribute.

Map pages depicting no data have been excluded.



"Other" Reports Map

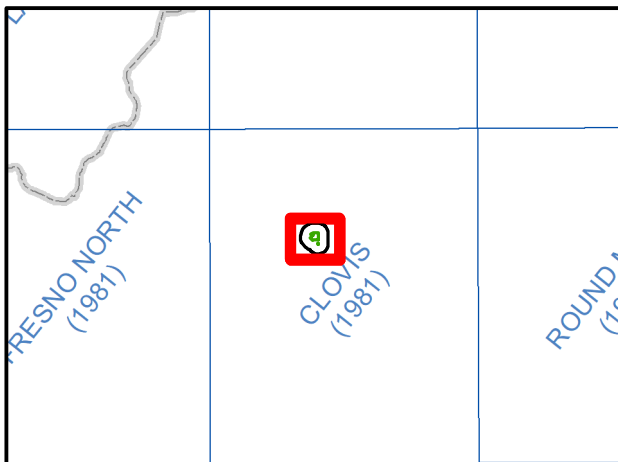
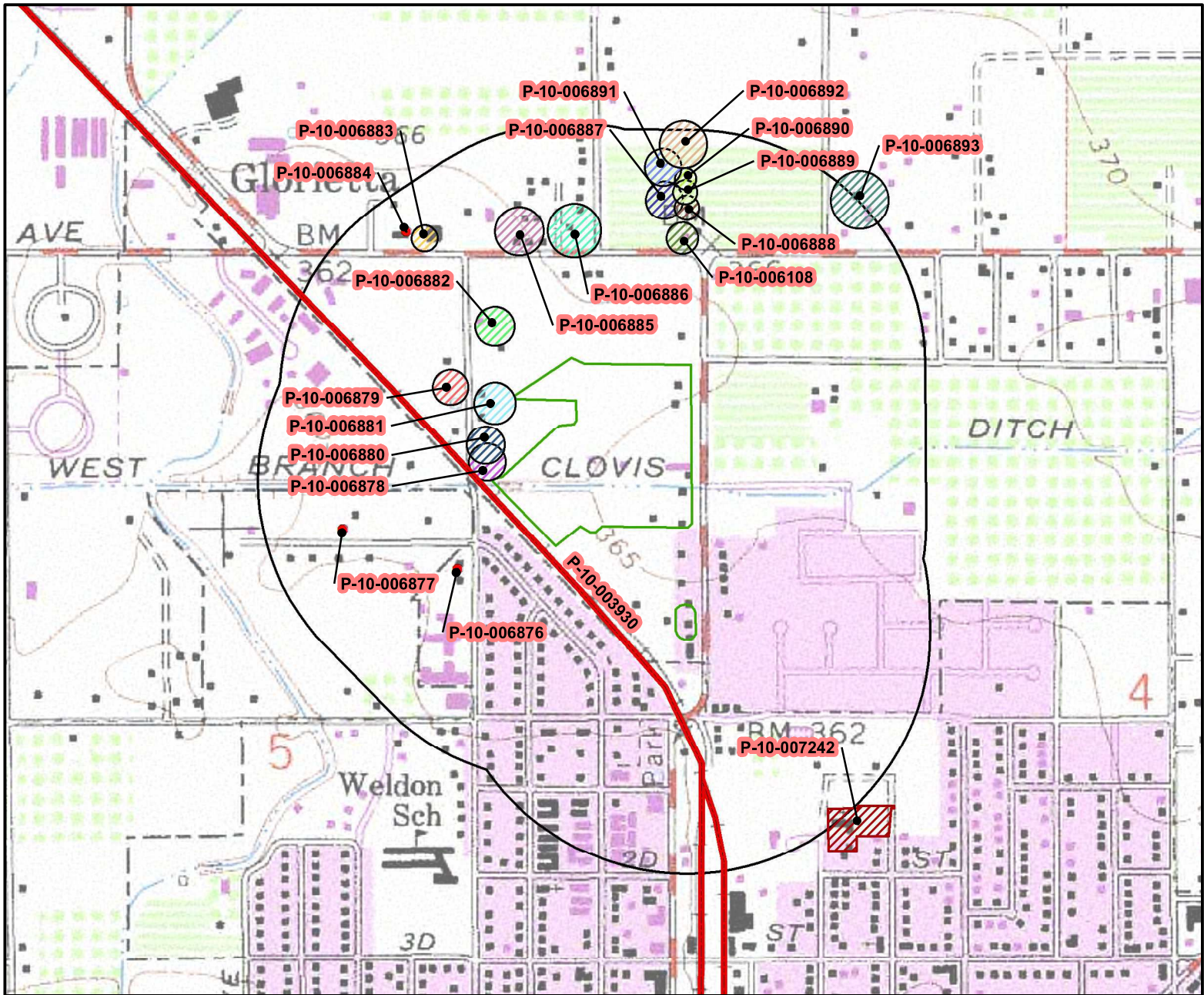
SSJV Information Center Record Search 23-282

Requester: Mike Taggart; Taggart & Associates

Project Name: Golden Triangle Development

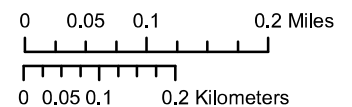
USGS 7.5' Quad(s): Clovis

County: Fresno



May depict confidential cultural resource locations. Do not distribute.

Map pages depicting no data have been excluded.



Resources Map
SSJV Information Center Record Search 23-282
Requester: Mike Taggart; Taggart & Associates
Project Name: Golden Triangle Development
USGS 7.5' Quad(s): Clovis
County: Fresno

CALIFORNIA OHP * ARCHEOLOGICAL DETERMINATIONS OF ELIGIBILITY * FRESNO COUNTY * 11:25:45 12-18-12 PA

SITE-NUMBER. PRIMARY-NUM NRS EVL-DATE PROGRAM REF..... EVAL OTHER NAMES AND NUMBERS.....

| | | | | | | |
|--------------|-----------|-----|----------|--------------------|------|---|
| FRE-001646 | 10-001646 | 6Y | 07/30/96 | USFS960617X | SGPR | FS# 05-15-54-0429 |
| FRE-001671 | 10-001671 | 2S | 04/17/85 | 65007370 | KPNP | DRY CREEK ONE |
| FRE-001680 | 10-001680 | 6Y | 02/20/86 | FERC820607a | | PF-TS-4 |
| FRE-001684 | 10-001684 | 6Y | 10/05/94 | FHWA921218B | GRPR | 12-22-82-1 |
| FRE-001691 | 10-001691 | 2S2 | 07/01/87 | ADOE-10-87-003-00 | NDPR | RBF-TS-11 |
| | | 2 | 07/01/87 | COE841203C | | |
| FRE-001693 | 10-001693 | 2S2 | 07/01/87 | ADOE-10-87-004-00 | NDPR | RBF-TS-1 |
| | | 2 | 07/01/87 | COE841203C | | |
| FRE-001734 | 10-001734 | 2S2 | 07/02/07 | USFS050422A | WEPR | FS# 05-15-54-0479 |
| FRE-001776H | 10-001776 | 7 | 06/11/90 | USFS900611C | RJPR | FS# 05-15-53-0832 |
| FRE-001807H | 10-001807 | 6Y | 06/09/87 | USFS870408B | | FS# 05-13-51-0019, THE BOO |
| FRE-001811H | 10-001811 | 6Y | 06/09/87 | USFS870408A | | FS# 05-13-51-0127, STUMP MEADOW LOGGING SITE |
| FRE-001829H | 10-001829 | 6Y | 10/05/94 | ADOE-10-94-001-00 | | RBF-TS IV |
| | | 6Y | 10/05/94 | FHWA921218B | GRPR | |
| FRE-001835 | 10-001835 | 7 | 06/11/90 | USFS900611C | RJPR | FS# 05-15-53-0354 |
| FRE-001842 | 10-001842 | 7 | 06/11/90 | USFS900611C | RJPR | FS# 05-15-53-0355 |
| FRE-001849 | 10-001849 | 6Y | 02/20/86 | FERC820607a | | FS# 05-15-53-0412, YMCA MEADOW |
| FRE-001894H | 10-001894 | 6Y2 | 08/08/11 | FERC110708A | ABPR | FS# 05-15-54-0687, KELLER RANCH |
| | | 6Y | 11/12/97 | ADOE-10-97-002-00 | CCPR | HKB-1 |
| | | 6Y | 11/12/97 | USFS970923C | CCPR | |
| FRE-001895 | 10-001895 | 6Y | 02/01/86 | FERC820607a | | HKB-4 |
| FRE-001963 | 10-001963 | 6Y | 07/02/07 | USFS050422A | WEPR | FS# 05-15-54-0650 |
| FRE-001964/H | 10-001964 | 2S2 | 07/02/07 | USFS050422A | WEPR | FS# 05-15-54-0651, PREHISTORIC IS ELIGIBLE ONLY |
| FRE-001968 | 10-001968 | 6Y | 07/02/07 | USFS050422A | WEPR | FS# 05-15-54-0655 |
| FRE-001969 | 10-001969 | 6Y | 07/02/07 | USFS050422A | WEPR | FS# 05-15-54-0556 |
| FRE-001970 | 10-001970 | 6Y | 07/02/07 | USFS050422A | WEPR | FS# 05-15-54-0657 |
| FRE-001972 | 10-001972 | 6Y | 07/02/07 | USFS050422A | WEPR | FS# 05-15-54-0659 |
| FRE-001975 | 10-001975 | 2S2 | 07/02/07 | USFS050422A | WEPR | FS# 05-15-54-0662 |
| FRE-001976 | 10-001976 | 2S2 | 07/02/07 | USFS050422A | WEPR | FS# 05-15-54-0663 |
| FRE-001977 | 10-001977 | 6Y | 07/02/07 | USFS050422A | WEPR | FS# 05-15-54-0664 |
| FRE-001978 | 10-001978 | 6Y | 07/02/07 | USFS050422A | WEPR | FS# 05-15-54-0665 |
| FRE-001979 | 10-001979 | 6Y | 07/02/07 | USFS050422A | WEPR | FS# 05-15-54-0666 |
| FRE-001980 | 10-001980 | 2S2 | 07/02/07 | USFS050422A | WEPR | FS# 05-15-54-0667 |
| FRE-001999 | 10-001999 | 7 | 06/11/90 | USFS900611C | RJPR | FS# 05-15-53-0006 |
| FRE-002015H | 10-002015 | 6Y | 12/28/06 | USFS051118G | CFPR | FS# 05-15-53-0422 |
| FRE-002016H | 10-002016 | 6Y | 12/28/06 | USFS051118G | CFPR | FS# 05-15-53-0423 |
| FRE-002037 | 10-002037 | 2 | 12/14/89 | USFS891127J | | FS# 05-15-53-0516 |
| FRE-002038H | 10-002038 | 6Y2 | 06/08/12 | USFS120411C | TPPR | FS# 05-15-53-0517, DOWVILLE DAY USE PICNIC AREA |
| FRE-002039 | 10-002039 | 6Y | 12/14/89 | USFS891127J | | FS# 05-15-53-0520 |
| FRE-002183 | 10-002183 | 6Y | 10/01/96 | ADOE-10-96-015-00 | GRPR | 6-1-1 |
| | | 6Y | 10/01/96 | FERC941123A | GRPR | |
| FRE-002244 | 10-002244 | 1S | 03/12/03 | NPS-03000117-0000 | KPNP | BIRDWELL ROCK PETROGYPH SITE, COALARG NO. 1 |
| | | 3S | 11/21/02 | 10-0015 | MLRG | |
| FRE-002344H | 10-002344 | 6Y | 12/21/89 | USFS891120A | | FS# 05-13-51-0018, HUME LAKE COMM.SAWMILL DUMP |
| FRE-002345H | 10-002345 | 6Y | 12/21/89 | USFS891120A | | FS# 05-13-51-0215, BABYFACE |
| | | | | | | HUME LK |
| FRE-002346H | 10-002346 | 6Y | 12/21/89 | USFS891120A | | FS# 05-13-52-0216, DUTCH BOY |
| | | | | | | HUME LK |
| FRE-002413 | 10-002413 | 7 | 06/11/90 | USFS900611C | RJPR | AUBERRY |
| FRE-002414 | 10-002414 | 7 | 06/11/90 | USFS900611C | RJPR | |
| FRE-002437 | 10-002437 | 7 | 06/11/90 | USFS900611C | RJPR | FS# 05-15-53-0769 |
| FRE-002475 | 10-002475 | 7J | 06/11/90 | USFS900611C | RJPR | FS# 05-15-53-0961 |
| FRE-002476 | 10-002476 | 7J | 06/11/90 | USFS900611C | RJPR | FS# 05-15-53-0954 |
| FRE-002484 | 10-002484 | 7J | 06/11/90 | USFS900611C | RJPR | FS# 05-15-53-0935 |
| FRE-002577 | 10-002577 | 6Y | 10/05/94 | FHWA921218B | GRPR | |
| FRE-002586H | 10-002586 | 6Y | 10/05/94 | FHWA921218B | GRPR | |
| FRE-002651 | 10-002651 | 6Y | 11/11/09 | COE090506A | WEPR | |
| FRE-002652 | 10-002652 | 6Y | 11/11/09 | COE090506A | WEPR | |
| FRE-002653 | 10-002653 | 2S2 | 05/12/09 | COE090506A | WEPR | |
| FRE-002657 | 10-002657 | 6Y | 10/05/94 | FHWA921218B | GRPR | |
| FRE-002905H | 10-002905 | 6Y | 10/05/94 | FHWA921218B | GRPR | ACADEMY POST OFFICE |
| | | | | | | SR168-1 |
| FRE-002928H | 10-002928 | 6Y2 | 04/11/11 | USFS110307A | J2PR | FS# 05-15-53-1040, CAMP 71 |
| FRE-002930H | 10-002930 | 6Y2 | 04/11/11 | USFS110307A | J2PR | FS# 05-15-53-1048 |
| FRE-003018H | 10-003018 | 6Y | 04/03/97 | FHWA960805A | GRPR | |
| FRE-003026H | 10-003026 | 6Y | 06/16/98 | ADOE-10-98-001-00 | JWPR | OILFIELD DUMP |
| | | 6Y | 06/16/98 | FHWA980522B | JWPR | 10-3037H |
| FRE-003088 | 10-003088 | 6Y | 06/12/03 | ADOE-10-03-001-000 | CCPR | |
| | | 6Y | 06/12/03 | FHWA030428A | CCPR | |
| FRE-003109H | 10-003109 | 7J | 11/11/09 | COE090506A | WEPR | SEGMENT OF SAN JOAQUIN VALLEY RAILROAD/POLLASKY GRADE |
| | | 6Y | 05/12/09 | COE090506A | WEPR | |
| FRE-003136 | 10-003136 | 6Y | 09/04/02 | ADOE-10-02-001-000 | MMPR | SAN JOAQUIN VALLEY RAILROAD TURNABLE SITE |
| | | 6Y | 09/04/02 | FHWA011206A | MMPR | |
| FRE-003137 | 10-003137 | 6Y | 09/04/02 | ADOE-10-02-002-000 | MMPR | COMMERCIAL BLDG SITE |
| | | 6Y | 09/04/02 | FHWA011206A | MMPR | |

Report Detail: FR-00340

SSJVIC Record Search 23-282

Identifiers*Report No.:* FR-00340*Other IDs:**Cross-refs:***Citation information***Author(s):* Varner, Dudley M.*Year:* 1979 (Nov)*Title:* An Archaeological Reconnaissance Along Herndon Avenue between Villa and State Highway 168, Fresno County, California*Affiliation:* California State University, Fresno*No. pages:* 40*No. maps:* 10*Attributes:* Archaeological, Field study*Inventory size:* 2.25 linear miles*Disclosure:* Not for publication*Collections:* No**General notes**

NEGATIVE

Associated resources*No. resources:* 0*Has informals:* No**Location information***County(ies):* Fresno*USGS quad(s):* Clovis*Address:**PLSS:* T12S R21E Sec. 32, 33, 34 MDBM**Database record metadata**

| | <i>Date</i> | <i>User</i> | |
|-----------------------|-------------------|-------------|---------------------|
| <i>Entered:</i> | 8/6/2014 | user | |
| <i>Last modified:</i> | 3/18/2016 | user1 | |
| <i>IC actions:</i> | <i>Date</i> | <i>User</i> | <i>Action taken</i> |
| | 8/6/2014 | user | report entered: cls |
| | 3/18/2016 | user1 | Entered report: MMB |
| <i>Record status:</i> | Database Complete | | |

Report Detail: FR-00357SSJVIC Record Search 23-282

Identifiers*Report No.:* FR-00357*Other IDs:**Cross-refs:***Citation information***Author(s):* Crist, Michael K. and Varner, Dudley M.*Year:* 1981 (May)*Title:* Archaeological Overview and Locational Analysis of the Fresno Area*Affiliation:* California State University, Fresno*No. pages:* 94*No. maps:* 5*Attributes:* Other research*Inventory size:**Disclosure:* Not for publication*Collections:* No**General notes****Associated resources**

| <i>Primary No.</i> | <i>Trinomial</i> | <i>Name</i> |
|--------------------|------------------|-------------|
|--------------------|------------------|-------------|

| | | |
|-------------|---------------|-------|
| P-10-001014 | CA-FRE-001014 | B-2-P |
|-------------|---------------|-------|

No. resources: 1*Has informals:* No**Location information***County(ies):* Fresno*USGS quad(s):* ~All quads - Fresno Co.*Address:**PLSS:***Database record metadata**

| <i>Date</i> | <i>User</i> |
|-------------|-------------|
|-------------|-------------|

| | |
|---------------------------|-------|
| <i>Entered:</i> 3/21/2016 | user1 |
|---------------------------|-------|

| | |
|---------------------------------|--------|
| <i>Last modified:</i> 5/17/2019 | jdavid |
|---------------------------------|--------|

| <i>IC actions:</i> Date | <i>User</i> | <i>Action taken</i> |
|-------------------------|-------------|---------------------|
|-------------------------|-------------|---------------------|

| | | |
|-----------|-------|---------------------|
| 3/21/2016 | user1 | Entered report: MMB |
|-----------|-------|---------------------|

| | | |
|-----------|--------|----------------|
| 5/17/2019 | jdavid | Added resource |
|-----------|--------|----------------|

Record status: Database Complete

Report Detail: FR-00641SSJVIC Record Search 23-282

Identifiers*Report No.:* FR-00641*Other IDs:**Cross-refs:***Citation information***Author(s):* Peck, Billy J.*Year:* 1977 (Dec)*Title:* The Distribution of Aboriginal Occupational Sites in Fresno County, California*Affiliation:* California State University, Fresno*No. pages:* 25*No. maps:* 3*Attributes:* Other research*Inventory size:**Disclosure:* Not for publication*Collections:* No**General notes**

NEGATIVE

Associated resources*No. resources:* 0*Has informals:* No**Location information***County(ies):* Fresno*USGS quad(s):* ~All quads - Fresno Co.*Address:**PLSS:***Database record metadata**

| | <i>Date</i> | <i>User</i> | |
|-----------------------|-------------------|-------------|---------------------|
| <i>Entered:</i> | 3/29/2016 | user1 | |
| <i>Last modified:</i> | 3/29/2016 | user1 | |
| <i>IC actions:</i> | <i>Date</i> | <i>User</i> | <i>Action taken</i> |
| | 3/29/2016 | user1 | Entered report: MMB |
| <i>Record status:</i> | Database Complete | | |

Report Detail: FR-01156SSJVIC Record Search 23-282

Identifiers*Report No.:* FR-01156*Other IDs:**Cross-refs:***Citation information***Author(s):* Unknown*Year:* 1968 (Dec)*Title:* A Proposal for an Archaeological Element in the Fresno County, General Plan*Affiliation:* Committee on Sierra Foothills Public Archaeology*No. pages:* 23*No. maps:* 0*Attributes:* Archaeological, Management/planning*Inventory size:**Disclosure:* Not for publication*Collections:* No**General notes**

NEGATIVE

Associated resources*No. resources:* 0*Has informals:* No**Location information***County(ies):* Fresno*USGS quad(s):* ~All quads - Fresno Co.*Address:**PLSS:***Database record metadata**

| | <i>Date</i> | <i>User</i> | |
|-----------------------|-------------------|-------------|---------------------|
| <i>Entered:</i> | 4/14/2016 | user1 | |
| <i>Last modified:</i> | 4/14/2016 | user1 | |
| <i>IC actions:</i> | <i>Date</i> | <i>User</i> | <i>Action taken</i> |
| | 4/14/2016 | user1 | Entered report: MMB |
| <i>Record status:</i> | Database Complete | | |

Report Detail: FR-01162SSJVIC Record Search 23-282

Identifiers*Report No.:* FR-01162*Other IDs:**Cross-refs:***Citation information***Author(s):* Stuart, David R.*Year:* 1990 (Jan)*Title:* A Summary of the Present Archaeological Resources of Fresno County*Affiliation:* California Department of Parks and Recreation*No. pages:* 5*No. maps:* 1*Attributes:* Other research*Inventory size:**Disclosure:* Not for publication*Collections:* No**General notes**

NEGATIVE - Date not listed, date used above is a placeholder

Associated resources*No. resources:* 0*Has informals:* No**Location information***County(ies):* Fresno*USGS quad(s):* ~All quads - Fresno Co.*Address:**PLSS:***Database record metadata**

| | <i>Date</i> | <i>User</i> | |
|-----------------------|-------------------|-------------|---------------------|
| <i>Entered:</i> | 4/15/2016 | user1 | |
| <i>Last modified:</i> | 4/15/2016 | user1 | |
| <i>IC actions:</i> | <i>Date</i> | <i>User</i> | <i>Action taken</i> |
| | 4/15/2016 | user1 | Entered report: MMB |
| <i>Record status:</i> | Database Complete | | |

Report Detail: FR-02234

SSJVIC Record Search 23-282

Identifiers

Report No.: FR-02234

| Other IDs: | Type | Name |
|------------|----------|-----------------|
| | Caltrans | EA 06255-342200 |

Cross-refs:

Citation information

Author(s): Hack, Sheryl

Year: 1992 (Mar)

Title: Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California

Affiliation: Woodward-Clyde Consultants

No. pages: 25

No. maps: 4

Attributes: Architectural/Historical, Field study

Inventory size:

Disclosure: Not for publication

Collections: No

Sub-design.: A

Author(s): Smith, Ephraim

Year: 1991 (Sep)

Title: Historic Architectural Survey Report for the Route 168 Urban Project, Fresno County, California, Exhibit D

Affiliation: CSU Fresno

Report type(s): Architectural/Historical, Field study

Inventory size:

No. pages: 189

Disclosure: Not for publication

Collections: No

PDF Pages: 104-292

Sub-design.: B

Author(s): Reiss, Ronald B.

Year: 1992 (Feb)

Title: Supplementary Historical Architectural Survey Report for the Route 168 Urban Project, Fresno County, California

Affiliation: Architectural Resources Group

Report type(s): Architectural/Historical, Field study

Inventory size:

No. pages: 24

Disclosure: Not for publication

Collections: No

PDF Pages: 81-103

Sub-design.: C

Author(s): Snyder, John

Year: 1992 (Feb)

Title: Historic Architectural Survey Report - MOU Short Form, for the Route 168 Urban Project, Fresno County, California

Affiliation: Caltrans

Report type(s): Architectural/Historical, Field study

Inventory size:

No. pages: 10

Disclosure: Not for publication

Collections: No

PDF Pages: 71-80

Report Detail: FR-02234**SSJVIC Record Search 23-282***Sub-desig.:* D*Author(s):* Hack, Sheryl*Year:* 1992 (May)*Title:* Historic Architectural Survey Report #1 for the Route 168 Urban Project, Fresno County, California*Affiliation:* Woodward-Clyde Consultants*Report type(s):* Architectural/Historical, Field study*Inventory size:**No. pages:* 35*Disclosure:* Not for publication*Collections:* No*PDF Pages:* 36-70*Sub-desig.:* E*Author(s):* Price, Barry*Year:* 1992 (May)*Title:* Negative Archaeological Survey Report for the Route 168 Urban Project, Fresno County, California*Affiliation:* Infotec*Report type(s):* Archaeological, Field study*Inventory size:**No. pages:* 5*Disclosure:* Not for publication*Collections:* No*PDF Pages:* 26-35**General notes****Associated resources**

| <i>Primary No.</i> | <i>Trinomial</i> | <i>Name</i> |
|--------------------|------------------|--------------------------------|
| P-10-006106 | | Livonia and Horace Riggs Resid |
| P-10-006107 | | Rollie Argent House |
| P-10-006108 | | Thomas Howison Residence |
| P-10-006110 | | Truman Kahler Property; Flume |
| P-10-006533 | | Donaghy House |
| P-10-006534 | | Foley House |
| P-10-006535 | | Peterson House |
| P-10-006536 | | S-08 |
| P-10-006537 | | S-09 |
| P-10-006538 | | Joseph Knight House |
| P-10-006539 | | S-10 |
| P-10-006540 | | Summers House |
| P-10-006541 | | Mathers House |
| P-10-006542 | | Crawford House |
| P-10-006543 | | Bruce House |
| P-10-006544 | | Bollinger House |
| P-10-006545 | | Houston House |
| P-10-006546 | | S-43 |
| P-10-006547 | | S-44 |
| P-10-006548 | | S-45 |
| P-10-006549 | | Cape House |
| P-10-006550 | | Harris House |
| P-10-006551 | | S-49 |
| P-10-006552 | | S-50 |
| P-10-006553 | | S-51 |
| P-10-006554 | | S-52 |
| P-10-006555 | | Cresey House |
| P-10-006556 | | S-16 |
| P-10-006557 | | Bodtcher House |

Report Detail: FR-02234**SSJVIC Record Search 23-282**

| | |
|-------------|----------------------------------|
| P-10-006558 | Foster House |
| P-10-006559 | Leshner House |
| P-10-006560 | Thompson House |
| P-10-006561 | S-21 |
| P-10-006562 | Semple House |
| P-10-006563 | Campbell House |
| P-10-006564 | Martin House |
| P-10-006565 | S-53 |
| P-10-006566 | Waddell House |
| P-10-006567 | Brainard House |
| P-10-006568 | S-56 |
| P-10-006569 | S-57 |
| P-10-006570 | S-58 |
| P-10-006571 | S-59 |
| P-10-006572 | S-60 |
| P-10-006573 | S-61 |
| P-10-006574 | S-62 |
| P-10-006575 | S-63 |
| P-10-006576 | S-04 |
| P-10-006577 | S-05 |
| P-10-006578 | Steavens House |
| P-10-006579 | Caesar House |
| P-10-006580 | S-26 |
| P-10-006581 | S-64 |
| P-10-006582 | S-65 |
| P-10-006583 | S-66 |
| P-10-006584 | S-67 |
| P-10-006585 | S-27 |
| P-10-006586 | S-28 |
| P-10-006587 | S-36 |
| P-10-006588 | S-37 |
| P-10-006589 | S-38 |
| P-10-006590 | S-39 |
| P-10-006591 | Iglesia Santa Pentacostas "Hore |
| P-10-006592 | S-29 |
| P-10-006593 | Fibreboard Box and Millwork Cor |
| P-10-006594 | S-31 |
| P-10-006595 | S-32 |
| P-10-006596 | S-33 |
| P-10-006597 | St. Martin of Tours Church and C |
| P-10-006598 | S-40 |
| P-10-006599 | S-68 |
| P-10-006600 | S-69 |
| P-10-006601 | S-70 |
| P-10-006788 | Margerite H. Rittenhouse Home |
| P-10-006789 | James W. Jolly Home |
| P-10-006790 | John Hendershot Home |
| P-10-006791 | Asle C. Green Home |
| P-10-006792 | Claude L. Kirkner Home |
| P-10-006793 | Triplex Apartments |
| P-10-006794 | Robert E. Jolly Construction Co |
| P-10-006795 | A.F. Archie Huston Home |
| P-10-006796 | Joseph L. McCall Home |
| P-10-006797 | M.L. Williams Home |
| P-10-006798 | W.E. Crane Home |
| P-10-006799 | George Lobdell Home |
| P-10-006800 | Albert N. Reid Home |
| P-10-006801 | Marcus King Home |
| P-10-006802 | Ooadis Speir Home |

Report Detail: FR-02234

SSJVIC Record Search 23-282

| | |
|-------------|---------------------------------|
| P-10-006803 | Mrs. Grace Schroeder Home |
| P-10-006804 | Levi Smith Home |
| P-10-006805 | William Henry Ulsh Home |
| P-10-006806 | Frank R. Lewis |
| P-10-006807 | James W. Carter Home |
| P-10-006808 | Herbert L. Caskey Home |
| P-10-006809 | Donald O. Trainer Home |
| P-10-006810 | F.C. Emmert Home |
| P-10-006811 | Jacob J. Lindblom Home |
| P-10-006812 | Thomas E. West Home |
| P-10-006813 | Rudolph Ruiz Home |
| P-10-006814 | Hiram G. Hughes Home |
| P-10-006815 | Granville D. Edwards Home |
| P-10-006816 | Albert Yocham Home |
| P-10-006817 | John B. Wilson Home |
| P-10-006818 | Ralph L. Leeds Home |
| P-10-006819 | Prudencio Sotelo Home |
| P-10-006820 | The Reverend Howard Call Hom |
| P-10-006821 | The Charles W. Davis Home |
| P-10-006822 | Kenneth McClure Home |
| P-10-006823 | Elmer Leong Home |
| P-10-006824 | A. Sanoian Rental |
| P-10-006825 | Clarence F. Foster Home |
| P-10-006826 | John A. Chase Home |
| P-10-006827 | McCoy Thornton |
| P-10-006828 | Jasper A. Kingham |
| P-10-006829 | William A. Sanders |
| P-10-006830 | The Carl Patterson Home |
| P-10-006831 | Marvin Castillo Home |
| P-10-006832 | T.C. Thornton Home |
| P-10-006833 | Clarence Hagen Home |
| P-10-006834 | Clinton E. Haas Home |
| P-10-006835 | Allen O. Johnson Home |
| P-10-006836 | J.H. Barnes Home |
| P-10-006837 | Leo T. Kerner Home |
| P-10-006838 | D.L. "Daindie" Twileager Home |
| P-10-006839 | Burton W. Dickey Home |
| P-10-006840 | Harvey W. Freeman Home |
| P-10-006841 | Esther B Prince Home |
| P-10-006842 | James T. Cook Home |
| P-10-006843 | Steve O'Hano Home |
| P-10-006844 | 1480 North Barton Ave |
| P-10-006845 | Mary S. Urrutia Home |
| P-10-006846 | G.B. Baker Home |
| P-10-006847 | Lloyd D. Rogers Home |
| P-10-006848 | Sacred Heart School |
| P-10-006849 | Silvina Nieto Charlesworth Home |
| P-10-006850 | August R. Nieto Home |
| P-10-006851 | Webb V. Hyatt and Poultry Farm |
| P-10-006852 | Jerry Vsetula Home |
| P-10-006853 | George A. Higgins Home |
| P-10-006854 | Edna Harrell Rental Property |
| P-10-006855 | Garabed M. Nishkian Home |
| P-10-006856 | Robert Whitaker Home |
| P-10-006857 | Max Neunzig Home |
| P-10-006858 | Harvey W. Johnsen Home |
| P-10-006859 | Charles E. Sickler Home |
| P-10-006860 | J. Albert Stebbins |
| P-10-006861 | B.A. Clay / B.W. Fiedler Home |

Report Detail: FR-02234

SSJVIC Record Search 23-282

| | |
|-------------|-----------------------------------|
| P-10-006862 | Arthur Dresser Residential Prope |
| P-10-006863 | Henry Kachadoorian Bungalow |
| P-10-006864 | The Bonds Residence |
| P-10-006865 | Hobson and Ruth Brooks Reside |
| P-10-006866 | John Stefka Residence |
| P-10-006867 | 584 Villa |
| P-10-006868 | Linzie Ewing Residence |
| P-10-006869 | Hilda Weston Residence |
| P-10-006870 | The Della Weston Residence |
| P-10-006871 | Urban L. Jensen Residence |
| P-10-006872 | Hammer Field Barracks |
| P-10-006873 | Ollie and Louise Jensen Residen |
| P-10-006874 | The Olga and Lloyd Bridges Ho |
| P-10-006875 | Livonia and Horace Riggs Resid |
| P-10-006876 | Clarence Petersen Home |
| P-10-006877 | Ben Borunda Residence |
| P-10-006878 | Carl Polson Residence |
| P-10-006879 | Yard Office |
| P-10-006880 | Shelton Residence |
| P-10-006881 | The Leonard Isaac and Oyier Re |
| P-10-006882 | Morrison Residence |
| P-10-006883 | Clovis Hi-Tech Automotive |
| P-10-006884 | Jimbo's Bar, All Around Better Tr |
| P-10-006885 | Bill Crowell Dairy |
| P-10-006886 | Crowell Barn-Residence |
| P-10-006887 | Elva Barrett Residence |
| P-10-006888 | The Louis Gibson Residence |
| P-10-006889 | The Flloyd C. Bishop Home |
| P-10-006890 | Sean King Residence |
| P-10-006891 | Bart and Rebecca King Residen |
| P-10-006892 | The Bart King Rental Residence |
| P-10-006893 | The Clovis First Baptist Parsona |
| P-10-006894 | John Gore Residence |
| P-10-006895 | Ernest and Hazel Wolf Residenc |
| P-10-006896 | Bowen Sheds |
| P-10-006897 | Pickup Residence |
| P-10-006898 | Maurice Olivero Tankhouse |
| P-10-006899 | Dr. Gerald Nyder Residence |
| P-10-006900 | Raisin Dehydrator |
| P-10-006901 | Russell F. Bibler Jr. Home |
| P-10-006902 | Russell F. Bibler Sr. Home |
| P-10-006903 | Frank R. Escobedo Home |
| P-10-006904 | John Graner Home |
| P-10-006905 | Lauren R. Turck Home |

No. resources: 191

Has informals: No

Location information

County(ies): Fresno

USGS quad(s): Clovis, Fresno North

Address:

PLSS:

Database record metadata

| | |
|--------------------------|---------|
| Date | User |
| Entered: 7/19/2013 | ssjvic |
| Last modified: 6/10/2022 | jdavid5 |
| IC actions: Date | User |
| 5/31/2016 | user1 |

Action taken
Entered report: MMB

Report Detail: FR-02234

SSJVIC Record Search 23-282

| | | |
|-----------|------|---|
| 3/22/2017 | User | merged all project reports with same EA no: cls |
|-----------|------|---|

Record status: Database Complete

Report Detail: FR-02259

SSJVIC Record Search 23-282

Identifiers*Report No.:* FR-02259*Other IDs:* Type*Name*

Submitter

STPL 5208(069)

*Cross-refs:***Citation information***Author(s):* Baloian, Randy*Year:* 2006 (Sep)*Title:* Historical Resources Evaluation Report and Archaeological Survey Report for the Herndon Avenue Widening Project Between Willow and Minnewawa in Clovis, Fresno County, California*Affiliation:* Applied EarthWorks, Inc.*No. pages:* 17*No. maps:* 3*Attributes:* Archaeological, Architectural/Historical, Evaluation, Field study*Inventory size:* 21 acres*Disclosure:* Not for publication*Collections:* No**General notes****Associated resources***No. resources:* 0*Has informals:* Yes**Location information***County(ies):* Fresno*USGS quad(s):* Clovis*Address:*

PLSS: T12S R21E Sec. 31, 32 MDBM

T13S R21E Sec. 5, 6 MDBM

Database record metadata*Date* *User**Entered:* 6/2/2016 user1*Last modified:* 6/2/2016 user1*IC actions:* *Date* *User*

6/2/2016 user1

Action taken

Entered report: MMB

Record status: Database Complete

Report Detail: FR-02675SSJVIC Record Search 23-282

Identifiers*Report No.:* FR-02675*Other IDs:* *Type**Name*

Submitter

SWCA Project No. 022459.00

Submitter

SWCA Cultural Resources Report Database No. 2012-4

*Cross-refs:***Citation information***Author(s):* Treffers, Stevan and Dietler, John*Year:* 2012 (Dec)*Title:* Cultural Resources Study in Support of the Clovis General Plan Update Environmental Impact Report, City of Clovis, Fresno County, California*Affiliation:* SWCA Environmental Consultants*No. pages:* 69*No. maps:* 3*Attributes:* Archaeological, Management/planning*Inventory size:**Disclosure:* Not for publication*Collections:* No**General notes****Associated resources***No. resources:* 0*Has informals:* Yes**Location information***County(ies):* Fresno*USGS quad(s):* Academy, Clovis, Friant, Round Mountain*Address:**PLSS:***Database record metadata***Date* *User**Entered:* 3/23/2015 user*Last modified:* 6/21/2016 user1*IC actions:* *Date* *User*

3/23/2015 user

3/23/2015 user

Action taken

report entered: cls

report mapped: cls

Record status: Database Complete

Report Detail: FR-02986

SSJVIC Record Search 23-282

Identifiers*Report No.:* FR-02986*Other IDs:**Cross-refs:***Citation information***Author(s):* Montgomery, Courtney*Year:* 2019 (Sep)*Title:* Clovis Tru Hotel Cultural Resources Assessment Accessor Parcel Numbers 491-030-019 and 491-030-028 Clovis, California*Affiliation:* Soar Environmental Consulting*No. pages:* 26*No. maps:* 4*Attributes:* Archaeological, Field study*Inventory size:* 3.53 acres*Disclosure:* Not for publication*Collections:* No**General notes**

18 potential historic cultural materials were found on the south end of the project site.

Associated resources*No. resources:* 0*Has informals:* Yes**Location information***County(ies):* Fresno*USGS quad(s):* Clovis*Address:* Address*City**Assessor's parcel no.**Zip code*

Clovis

491-030-019

Clovis

491-030-028

PLSS: T13S R21E Sec. 5 MDBM**Database record metadata***Date**User**Entered:* 6/19/2020

cthomson

Last modified: 6/19/2020

cthomson

IC actions: *Date**User**Action taken*

6/19/2020

cthomson

Entered

6/19/2020

cthomson

Verified

Record status: Verified

Report Detail: FR-03046

SSJVIC Record Search 23-282

Identifiers*Report No.:* FR-03046*Other IDs:* Type*Name*

Other

LSA Project No. FLI1801

*Cross-refs:***Citation information***Author(s):* Vallarie, Katie and Falke, Mariko*Year:* 2018 (Oct)*Title:* Cultural Resources Study for the Proposed Residential Project at Osmun Avenue and Second Street*Affiliation:* LSA Associates Inc.*No. pages:* 56*No. maps:* 10*Attributes:* Archaeological, Architectural/historical, Field study*Inventory size:* 1.6 acres*Disclosure:* Not for publication*Collections:* No**General notes****Associated resources***Primary No.* *Trinomial**Name*

P-10-007242

Clovis Foursquare Church; 135

No. resources: 1*Has informals:* No**Location information***County(ies):* Fresno*USGS quad(s):* Clovis*Address:* Address*City**Assessor's parcel no.**Zip code*

135 Osmun Avenue

Clovis

93612

147 Osmun Avenue

Clovis

93612

PLSS: T13S R21E Sec. 4 MDBM**Database record metadata***Date**User**Entered:* 11/23/2021

kprince4

Last modified: 1/18/2022

jdavid5

IC actions: Date*User**Action taken*

11/23/2021

kprince4

Entered

Record status: Verified

Resource Detail: P-10-003930

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-003930

Trinomial: CA-FRE-003109H

Name: Southern Pacific Railroad

Other IDs: *Type* *Name*

Resource Name Southern Pacific Railroad

Cross-refs: Extends into another county as 15-002050

Extends into another county as 16-000122

Extends into another county as 54-004626

Physically overlaps or intersects 10-004678

Physically overlaps or intersects 10-005166

Physically overlaps or intersects 10-006130

Physically overlaps or intersects 10-006640

Physically overlaps or intersects 10-007227

Physically overlaps or intersects 10-007351

See also 10-007254

See also 10-007257

Subsumes 10-003199

Subsumes 10-005160

Subsumes 10-005804

Subsumes 10-005807

Subsumes 10-005810

Subsumes 10-006034

Subsumes 10-006128

Attributes

Resource type: Structure

Age: Historic

Information base: Survey

Attribute codes: AH07 (Roads/trails/railroad grades); HP11 (Engineering structure)

Disclosure: Not for publication

Collections: No

Accession no(s):

Facility:

General notes

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|--------------------------------|---------------------------|--------------|
| 3/5/1998 | W.L. Norton | Jones & Stokes | [SUPPLEMENT] |
| 1/18/1999 | S. Hooper, S. Flint | Applied EarthWorks, Inc. | [UPDATE] |
| 10/25/2002 | Peggy B. Murphy | Three Girls and a Shovel | [UPDATE] |
| 1/14/2004 | Bryan Larson, Cindy Toffelmier | JRP Historical Consulting | [SUPPLEMENT] |
| 2/11/2009 | Joseph Freeman, Rebecca Flores | JRP Historical Consulting | [SUPPLEMENT] |
| 2/10/2009 | Joseph Freeman, Rebecca Flores | JRP Historical Consulting | [SUPPLEMENT] |
| 2/9/2009 | Joseph Freeman, Rebecca Flores | JRP Historical Consulting | [SUPPLEMENT] |
| 1/7/2010 | Michael Hibma | LSA Associates | [SUPPLEMENT] |
| 12/1/2013 | Randy Baloian | Applied Earthworks, Inc. | [UPDATE] |
| 8/17/2015 | Randy Baloian | Applied Earthworks, Inc. | [UPDATE] |
| 6/14/2016 | J. Tibbet | Applied EarthWorks, Inc. | [SUPPLEMENT] |
| 2/8/2015 | Randy Baloian | Applied EarthWorks, Inc. | [SUPPLEMENT] |
| 5/21/2018 | Annie McCausland | Applied EarthWorks, Inc. | [UPDATE] |

Resource Detail: P-10-003930

SSJVIC Record Search 23-282

| | | | |
|-----------|---------------|--------------------------------|--------------|
| 6/1/2018 | Jessica Jones | Applied EarthWorks, Inc. | [SUPPLEMENT] |
| 2/17/2021 | Morgan Bird | SWCA Environmental Consultants | [SUPPLEMENT] |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|---|--------------------------------|
| FR-00238 | 1999 | Archaeological Survey Report for the Friant Road Improvement Project, Fresno County, California | Applied EarthWorks, Inc. |
| FR-01770 | 2001 | Archaeological Survey Report for the Friant Road Improvement Project Fresno County, California | Applied EarthWorks, Inc. |
| FR-01771 | 2001 | Historic Property Survey Reprot for the Friant Road Improvement Project, Fresno County, California | Applied EarthWorks, Inc. |
| FR-01772 | 2001 | Historic Study Report for the Friant Road Improvement Project, Fresno County, California | Applied EarthWorks, Inc. |
| FR-02642 | 2014 | Historic Property Survey Report for the American Avenue Reconstruction and Rehabilitation State Route 99 to Temperance Avenue, Fresno County, California | Applied EarthWorks, Inc. |
| FR-02726 | 2015 | Cultural Resources Inventory and Evaluation for the First Lift Canal Relining Project, Shaw Avenue to Highway 33, Fresno County, California | Applied EarthWorks, Inc. |
| FR-02769 | 2016 | Cultural Resources Inventory and Evaluation for the Central Valley Power Connect Project, Fresno, Kings, and Madera Counties, California | Applied EarthWorks |
| FR-02847 | 2016 | Cultural Resources Inventory for the City of Huron Recycled Wastewater Project, Fresno County, California | Applied EarthWorks, Inc. |
| FR-02942 | 2018 | Cultural Resource Inventory and Evaluation for the Biola Community Services District Recycled Water Improvements Feasibility Study, Fresno County, California | Applied EarthWorks, Inc. |
| FR-03037 | 2018 | Historic Properties Inventory and Evaluation for City of San Joaquin Wells 4 and 6 Manganese Treatment and Distribution Pipeline Project, Fresno County, California | Applied EarthWorks, Inc. |
| FR-03103 | 2021 | Historic Property Survey Report City of Coalinga Trails Master Plan (TMP) | SWCA Environmental Consultants |

Location information

County: Fresno

USGS quad(s): Burrel, Coalinga, Conejo, Dos Palos, Firebaugh, Five Points, Fresno North, Fresno South, Friant, Guijaral Hills, Helm, Herndon, Huron, Jamesan, Kearney Park, Kerman, Malaga, Mendota Dam, Oxalis, Poso Farm, Reedley, Riverdale, San Joaquin, Sanger, Tranquillity, Vanguard, Wahtoke, Westhaven

Address:

PLSS: T11S R21E Sec. 7 MDBM
 T11S R21E Sec. 18 MDBM
 T11S R21E Sec. 19 MDBM
 T11S R21E Sec. 30 MDBM
 T11S R21E Sec. 31 MDBM
 T11S R21E Sec. 36 MDBM
 T12S R21E Sec. 1 MDBM
 T20S R15E SE¼ of SW¼ of Sec. 26 MDBM
 T15S R21E Sec. 5 MDBM
 T15S R21E Sec. 6 MDBM
 T14S R21E Sec. 31 MDBM

UTMs: Zone 11 256760mE 4089100mN NAD83 (NAD not listed)
 Zone 11 256910mE 4090460mN NAD83 (NAD not listed)
 Zone 11 257140mE 4091800mN NAD83 (NAD not listed)

Resource Detail: P-10-003930**SSJVIC Record Search 23-282**

Zone 11 257370mE 4093180mN NAD83 (NAD not listed)
 Zone 11 257200mE 4094600mN NAD83 (NAD not listed)
 Zone 11 257960mE 4095720mN NAD83 (NAD not listed)
 Zone 11 258370mE 4096200mN NAD83 (NAD not listed)
 Zone 10 620741mE 8604003mN NAD83 (NAD not listed)
 Zone 10 100742mE 8804003mN NAD83 (NAD not listed)
 Zone 11 256783mE 4061268mN NAD83 (North)
 Zone 11 257249mE 4060708mN NAD83 (South)
 Zone 10 751724mE 4054732mN NAD83 ((NW End) 6/1/2018)
 Zone 10 751919mE 4054575mN NAD83 ((SE End) 6/1/2018)

Management status**Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|--|
| <i>Entered:</i> 10/23/2013 | ssjvic | |
| <i>Last modified:</i> 5/11/2023 | kprince4 | |
| <i>IC actions:</i> <i>Date</i> | <i>User</i> | <i>Action taken</i> |
| 10/12/2014 | user | Entered location, updated events: MMB |
| 12/17/2015 | user1 | subsumed all Southern Pacific records: cls |
| 1/25/2023 | jdavid5 | Entered Supplement |
| 10/23/2013 | ssjvic | resource entered: cls |
| 9/16/2017 | User | entered supplement: cls |
| 12/21/2022 | kprince4 | PDF Rescanned |
| 3/14/2019 | User | Entered Update: JD |
| 4/19/2019 | cthompson | Verified |
| 2/3/2023 | cthompson | Verified |
| 7/20/2021 | jdavid5 | Entered Supplement |
| 8/25/2021 | cthompson | Verified |
| 1/11/2023 | jdavid5 | PDF Verified |

Record status: Verified

Resource Detail: P-10-006108

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-006108

Trinomial:

Name: Thomas Howison Residence

Other IDs: Type Name

Resource Name Thomas Howison Residence

Cross-refs:

Attributes

Resource type: Building

Age: Historic

Information base: Unknown

Attribute codes: HP02 (Single family property)

Disclosure: Unrestricted

Collections: No

Accession no(s):

Facility:

General notes

appears eligible for the National Register; According to aerials, address no longer exists and the building is likely destroyed.

Recording events

| Date | Recorder(s) | Affiliation | Notes |
|-----------|-------------------------|-------------|------------|
| 2/6/1992 | Gloria Scott | Caltrans | |
| 2/25/1991 | E.K. Smith, A.A. Austin | CSU Fresno | SUPPLEMENT |

Associated reports

| Report No. | Year | Title | Affiliation |
|------------|------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information

County: Fresno

USGS quad(s): Clovis

| Address: Address | City | Assessor's parcel no. | Zip code |
|------------------|--------|-----------------------|----------|
| 404 North Clovis | Clovis | 304-180-14 | 90274 |

PLSS: T12S R21E Sec. 32 MDBM

UTMs:

Management status

Database record metadata

| Date | User | Action taken |
|--------------------------|----------|-------------------------|
| Entered: 8/6/2014 | user | |
| Last modified: 2/17/2023 | jdavid5 | |
| IC actions: Date | User | Action taken |
| 10/24/2016 | User | entered supplement: cls |
| 10/24/2016 | User | mapped: cls |
| 8/6/2014 | user | resource entered: cls |
| 6/6/2022 | kprince4 | Added Note |
| 2/17/2023 | jdavid5 | PDF Verified |
| 2/16/2023 | kprince4 | PDF Rescanned |

Record status: Database Complete

Resource Detail: P-10-006876

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006876*Trinomial:**Name:* Clarence Petersen Home*Other IDs:* *Type* *Name**Resource Name* Clarence Petersen Home*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP02 (Single family property)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes****Recording events**

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 3/10/1991 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis

| <i>Address:</i> <i>Address</i> | <i>City</i> | <i>Assessor's parcel no.</i> | <i>Zip code</i> |
|--------------------------------|-------------|------------------------------|-----------------|
| 140 North DeWitt | Clovis | 491-100-06S | 93612 |

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | |
|---|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions:</i> <i>Date</i> | <i>User</i> | <i>Action taken</i> |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |
| <i>Record status:</i> Database Complete | | |

Resource Detail: P-10-006877

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006877*Trinomial:**Name:* Ben Borunda Residence*Other IDs:* *Type* *Name**Resource Name* Ben Borunda Residence*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP02 (Single family property)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes****Recording events**

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 4/26/1991 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis*Address:* *Address*

219 Polson

City

Fresno

Assessor's parcel no.

491-100-02S

Zip code

93612

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | |
|---|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions:</i> <i>Date</i> | <i>User</i> | <i>Action taken</i> |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |
| <i>Record status:</i> Database Complete | | |

Resource Detail: P-10-006878

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006878*Trinomial:**Name:* Carl Polson Residence*Other IDs: Type**Name**Resource Name*

Carl Polson Residence

*Cross-refs:***Attributes***Resource type:* Site*Age:* Historic*Information base:* Survey*Attribute codes:* AH02 (Foundations/structure pads)*Disclosure:* Not for publication*Collections:* No*Accession no(s):**Facility:***General notes**

Based on aerials, Building is likely to have been destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 3/8/1991 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis*Address:* Address*City**Assessor's parcel no.**Zip code*

251 North DeWitt

Clovis

491-030-19

93612

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | |
|---------------------------------|-------------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions: Date</i> | <i>User</i> | <i>Action taken</i> |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |
| <i>Record status:</i> | Database Complete | |

Resource Detail: P-10-006879

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006879*Trinomial:**Name:* Yard Office*Other IDs: Type**Name**Resource Name*

Yard Office

*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP06 (1-3 story commercial building)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 3/10/1991 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis*Address:* Address*City**Assessor's parcel no.**Zip code*

290 N. DeWitt

Clovis

491-030-29

93612

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions: Date</i> | <i>User</i> | <i>Action taken</i> |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |

Record status: Database Complete

Resource Detail: P-10-006880

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006880*Trinomial:**Name:* Shelton Residence*Other IDs: Type**Name**Resource Name*

Shelton Residence

*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP02 (Single family property)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 3/16/1991 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis*Address:* Address*City**Assessor's parcel no.**Zip code*

255 DeWitt

Clovis

491-030-19

93612

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions: Date</i> | <i>User</i> | <i>Action taken</i> |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |

Record status: Database Complete

Resource Detail: P-10-006881

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006881*Trinomial:**Name:* The Leonard Isaac and Oyier Residence*Other IDs: Type**Name**Resource Name*

The Leonard Isaac and Oyier Residence

*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP02 (Single family property)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

Based on aerials, Building is likely to have been destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 3/7/1991 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis*Address:* Address

285 North DeWitt

City

Clovis

Assessor's parcel no.

491-030-20

Zip code

93612

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | |
|---------------------------------|-------------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions: Date</i> | <i>User</i> | <i>Action taken</i> |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |
| <i>Record status:</i> | Database Complete | |

Resource Detail: P-10-006882

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006882*Trinomial:**Name:* Morrison Residence*Other IDs:* *Type* *Name**Resource Name* Morrison Residence*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP02 (Single family property)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 3/16/1991 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis

| <i>Address:</i> | <i>City</i> | <i>Assessor's parcel no.</i> | <i>Zip code</i> |
|------------------|-------------|------------------------------|-----------------|
| 355 North DeWitt | Clovis | 491-030-15 | 93612 |

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions:</i> <i>Date</i> | <i>User</i> | |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |

Record status: Database Complete

Resource Detail: P-10-006883

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006883*Trinomial:**Name:* Clovis Hi-Tech Automotive*Other IDs:* *Type* *Name**Resource Name* Clovis Hi-Tech Automotive*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP06 (1-3 story commercial building)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

Based on aerials, Building is likely to have been destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 10/29/1990 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis

| <i>Address:</i> | <i>City</i> | <i>Assessor's parcel no.</i> | <i>Zip code</i> |
|-----------------|-------------|------------------------------|-----------------|
| 491 E. Herndon | Clovis | 304-180-20 | 93612 |

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions:</i> <i>Date</i> | <i>User</i> | |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |

Record status: Database Complete

Resource Detail: P-10-006884

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006884*Trinomial:**Name:* Jimbo's Bar, All Around Better Transmissions*Other IDs:* *Type* *Name**Resource Name* Jimbo's Bar, All Around Better Transmissions*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP06 (1-3 story commercial building)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes****Recording events**

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 12/16/1990 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis

| <i>Address:</i> <i>Address</i> | <i>City</i> | <i>Assessor's parcel no.</i> | <i>Zip code</i> |
|--------------------------------|-------------|------------------------------|-----------------|
| 451 E. Herndon | Clovis | 304-180-20 | 93612 |

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | |
|---|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions:</i> <i>Date</i> | <i>User</i> | <i>Action taken</i> |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |
| <i>Record status:</i> Database Complete | | |

Resource Detail: P-10-006885

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006885*Trinomial:**Name:* Bill Crowell Dairy*Other IDs: Type**Name**Resource Name*

Bill Crowell Dairy

*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP04 (Ancillary building)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 12/16/1990 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis*Address:* Address*City**Assessor's parcel no.**Zip code*

521 Herndon

Fresno

304-180-03

93612

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions: Date</i> | <i>User</i> | <i>Action taken</i> |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |

Record status: Database Complete

Resource Detail: P-10-006886

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006886*Trinomial:**Name:* Crowell Barn-Residence*Other IDs:* *Type* *Name**Resource Name* Crowell Barn-Residence*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP06 (1-3 story commercial building)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 12/16/1990 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis

| <i>Address:</i> | <i>City</i> | <i>Assessor's parcel no.</i> | <i>Zip code</i> |
|-----------------|-------------|------------------------------|-----------------|
| 577 E. Herndon | Clovis | 304-180-04 | 93612 |

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions:</i> <i>Date</i> | <i>User</i> | |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |

Record status: Database Complete

Resource Detail: P-10-006887

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006887*Trinomial:**Name:* Elva Barrett Residence*Other IDs:* *Type* *Name**Resource Name* Elva Barrett Residence*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP02 (Single family property)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 2/18/1991 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis

| <i>Address:</i> | <i>City</i> | <i>Assessor's parcel no.</i> | <i>Zip code</i> |
|-----------------|-------------|------------------------------|-----------------|
| 715 E. Herndon | Clovis | 304-180-12 | 93612 |

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions:</i> <i>Date</i> | <i>User</i> | <i>Action taken</i> |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |

Record status: Database Complete

Resource Detail: P-10-006888

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006888*Trinomial:**Name:* The Louis Gibson Residence*Other IDs:* *Type* *Name**Resource Name* The Louis Gibson Residence*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP02 (Single family property)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 10/30/1990 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis

| <i>Address:</i> | <i>City</i> | <i>Assessor's parcel no.</i> | <i>Zip code</i> |
|------------------|-------------|------------------------------|-----------------|
| 424 North Clovis | Clovis | 304-180-13 | 93612 |

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions:</i> <i>Date</i> | <i>User</i> | |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |

Record status: Database Complete

Resource Detail: P-10-006889

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006889*Trinomial:**Name:* The Flloyd C. Bishop Home*Other IDs:* *Type* *Name**Resource Name* The Flloyd C. Bishop Home*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP02 (Single family property)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 2/17/1991 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis

| <i>Address:</i> | <i>City</i> | <i>Assessor's parcel no.</i> | <i>Zip code</i> |
|------------------|-------------|------------------------------|-----------------|
| 436 North Clovis | Clovis | 304-180-13 | 93612 |

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions:</i> <i>Date</i> | <i>User</i> | |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |

Record status: Database Complete

Resource Detail: P-10-006890

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006890*Trinomial:**Name:* Sean King Residence*Other IDs:* *Type* *Name**Resource Name* Sean King Residence*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP02 (Single family property)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 2/17/1991 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis

| <i>Address:</i> | <i>City</i> | <i>Assessor's parcel no.</i> | <i>Zip code</i> |
|------------------|-------------|------------------------------|-----------------|
| 436 North Clovis | Clovis | 304-180-13 | 93612 |

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions:</i> <i>Date</i> | <i>User</i> | |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |

Record status: Database Complete

Resource Detail: P-10-006891

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006891*Trinomial:**Name:* Bart and Rebecca King Residence*Other IDs:* *Type* *Name**Resource Name* Bart and Rebecca King Residence*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP02 (Single family property)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

According to aerals, address no longer exists and the building is likely destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 10/30/1990 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis

| <i>Address:</i> | <i>City</i> | <i>Assessor's parcel no.</i> | <i>Zip code</i> |
|------------------|-------------|------------------------------|-----------------|
| 436 North Clovis | Clovis | 304-180-11 | 93612 |

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions:</i> <i>Date</i> | <i>User</i> | |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |

Record status: Database Complete

Resource Detail: P-10-006892

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006892*Trinomial:**Name:* The Bart King Rental Residence*Other IDs:* *Type* *Name**Resource Name* The Bart King Rental Residence*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP02 (Single family property)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 10/29/1990 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis

| <i>Address:</i> | <i>City</i> | <i>Assessor's parcel no.</i> | <i>Zip code</i> |
|------------------|-------------|------------------------------|-----------------|
| 436 North Clovis | Fresno | 304-180-11 | 93612 |

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions:</i> <i>Date</i> | <i>User</i> | <i>Action taken</i> |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |

Record status: Database Complete

Resource Detail: P-10-006893

SSJVIC Record Search 23-282

Identifying information*Primary No.:* P-10-006893*Trinomial:**Name:* The Clovis First Baptist Parsonage*Other IDs: Type**Name**Resource Name*

The Clovis First Baptist Parsonage

*Cross-refs:***Attributes***Resource type:* Building*Age:* Historic*Information base:* Survey*Attribute codes:* HP02 (Single family property)*Disclosure:* Unrestricted*Collections:* No*Accession no(s):**Facility:***General notes**

According to aerials, address no longer exists and the building is likely destroyed.

Recording events

| <i>Date</i> | <i>Recorder(s)</i> | <i>Affiliation</i> | <i>Notes</i> |
|-------------|-------------------------|--------------------|--------------|
| 4/8/1991 | E.K. Smith, A.A. Austin | CSU Fresno | |

Associated reports

| <i>Report No.</i> | <i>Year</i> | <i>Title</i> | <i>Affiliation</i> |
|-------------------|-------------|--|-------------------------------------|
| FR-02234 | 1992 | Historic Property Survey Report for the Route 168 Urban Project, Fresno County, California | Woodward-Clyde Consultants |
| FR-02283 | 1991 | | California State University, Fresno |

Location information*County:* Fresno*USGS quad(s):* Clovis*Address:* Address*City**Assessor's parcel no.**Zip code*

535 North Marion

Clovis

304-200-12

93612

*PLSS:**UTMs:***Management status****Database record metadata**

| <i>Date</i> | <i>User</i> | <i>Action taken</i> |
|---------------------------------|-------------|-----------------------|
| <i>Entered:</i> 10/21/2016 | User | |
| <i>Last modified:</i> 3/17/2023 | jdavid5 | |
| <i>IC actions:</i> Date | User | |
| 6/13/2022 | kprince4 | Added Note |
| 10/21/2016 | User | resource entered: cls |
| 10/21/2016 | User | resource mapped: cls |
| 3/15/2023 | kprince4 | PDF Rescanned |
| 3/17/2023 | jdavid5 | PDF Verified |

Record status: Database Complete

Resource Detail: P-10-007242

SSJVIC Record Search 23-282

Identifying information

Primary No.: P-10-007242

Trinomial:

Name: Clovis Foursquare Church; 135 Osmun Avenue, 147 Osmun Avenue

Other IDs: Type Name

Resource Name Clovis Foursquare Church

Resource Name 135 Osmun Avenue, 147 Osmun Avenue

Cross-refs:

Attributes

Resource type: Building

Age: Historic

Information base: Survey

Attribute codes: HP02 (Single family property); HP16 (Religious building)

Disclosure: Not for publication

Collections: No

Accession no(s):

Facility:

General notes

Recording events

| Date | Recorder(s) | Affiliation | Notes |
|-----------|-------------|---|-------|
| 10/2/2018 | | TGP Investments, LLC, and Flyline Investments, LLC | |

Associated reports

| Report No. | Year | Title | Affiliation |
|------------|------|---|---------------------|
| FR-03046 | 2018 | Cultural Resources Study for the Proposed Residential Project at Osmun Avenue and Second Street | LSA Associates Inc. |

Location information

County: Fresno

USGS quad(s): Clovis

| Address | City | Assessor's parcel no. | Zip code |
|------------------|--------|-----------------------|----------|
| 135 Osmun Avenue | Clovis | | 93612 |
| 147 Osmun Avenue | Clovis | | 93612 |

PLSS: T13S R21E NW¼ of SW¼ of Sec. 4 MDBM

UTMs: Zone 11 259460mE 4079259mN NAD83 (From GIS 10/02/2018)

Management status

Database record metadata

| Date | User | Action taken |
|--------------------------|----------|--------------|
| Entered: 11/23/2021 | kprince4 | |
| Last modified: 3/22/2023 | kprince4 | |
| IC actions: Date | User | Action taken |
| 11/23/2021 | kprince4 | Entered |
| 3/22/2023 | kprince4 | PDF Verified |
| Record status: Verified | | |

Appendix C

DPR 523 Site Records for New Resources

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code _____

Other
Review Code _____

Reviewer _____

Date _____

Listings _____

Page 1 of 7 *Resource Name or #: (Assigned by recorder) West Branch Clovis Ditch

P1. Other Identifier: _____

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Fresno and _____

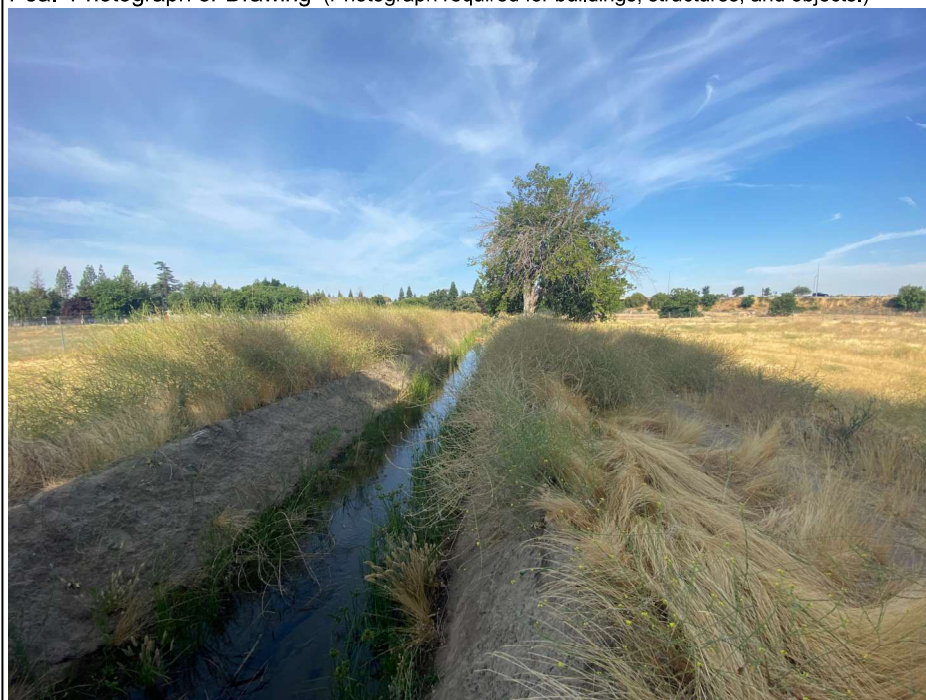
*b. USGS 7.5' Quad Clovis, CA Date 1981 T 13S ; R 21E ; Sec multiple ; Mt. Diablo B.M.

c. UTM: Zone 11, intake 36.83826 mE/ -119.65555 mN; center of earthen segment
36.83388 mE/ -119.701758 mN; terminus 36.82318 mE/ -119.71447 mN.

e. **Other Locational Data:** The ditch begins at an intake on the Enterprise Canal, just north of the intersection of Herndon Avenue and N. Locan Avenue, Clovis. The remaining open ditch segment is located immediately west of the intersection of N. Clovis Avenue and Palo Alto Avenue.

*P3a. **Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The West Branch Clovis Ditch is a 4.5 mile water conveyance that begins at a gate on the Enterprise Canal. It runs to the west for most of its length, before turning south and terminating near a channelized section of Big Dry Creek in Clovis. The original open cut ditch was constructed circa 1903 by the Clovis Ditch Company and spanned 2.6 miles to a point immediately east of N. Clovis Avenue. The ditch was extended west and south between 1937 and 1946, then progressively piped underground in response to urban development. The conveyance is now underground for more than 95% of its length, with a single segment of ditch spanning approximately 1,130 feet before reentering a subsurface pipe. The West Branch Clovis Ditch appears ineligible for listing in the California Register of Historical Resources and National Register.

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



*P3b. **Resource Attributes:** (List attributes and codes) HP20. Canal/Aqueduct

*P4. **Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: Overview of earthen ditch segment looking west (7.16.23).

*P6. **Date Constructed/Age and Source:** ☒ Historic ☐ Prehistoric ☐ Both

*P7. **Owner and Address:**

Fresno Irrigation District
907 S Maple Ave
Fresno, CA 93725

*P8. **Recorded by:**

Mike Taggart, RPA;
Taggart & Associates
Sacramento, California

*P9. **Date Recorded:**

July 16, 2023

*P10. **Survey Type:** (Describe)

Pedestrian survey

*P11. **Report Citation:** (Cite survey report and other sources, or enter "none.")

Taggart, Mike (2023) Cultural
Resources Inventory & Evaluation

Golden Triangle Planned Commercial Center City of Clovis, Fresno. Prepared for Acorn Environmental by Taggart & Associates, Sacramento.

*Attachments: ☐ NONE ☒ Location Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # _____
HRI# _____

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) West Branch Clovis Ditch *NRHP Status Code 6Z

Page 2 of 7

B1. Historic Name: Clovis Ditch or West Branch Clovis Ditch

B2. Common Name: Clovis Ditch

B3. Original Use: Water conveyance

B4. Present Use: Water Conveyance

*B5. Architectural Style: Utilitarian

*B6. Construction History: (Construction date, alterations, and date of alterations)

The original open cut Clovis Ditch was constructed circa 1903 by the Clovis Ditch Company and spanned 2.6 miles to a point immediately east of N. Clovis Avenue. The Clovis Ditch Company was short lived, while the ditch itself persisted. By the end of 1905 the company had forfeited its right to operate in California (Secretary of State 1905). The ditch very likely came under the control of the Fresno Canal and Irrigation Company until the formation of the Fresno Irrigation District in 1920. Sometime between the 1937 – 1946 the ditch was extended west of North Clovis Avenue, this new segment named the West Branch Clovis Ditch.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date:

Original Location:

*B8. Related Features:

The conveyance begins at a gate and subsurface pipe on the Enterprise Canal. There are no visible above-ground features with the exception of a 1,130 foot ditch segment. The conveyance daylights at a concrete apron into the lone remaining ditch segment west of N. Clovis Avenue. A valve is present on the north side of the ditch, 75 feet east of the western end of the open ditch segment. The ditch re-enters a subsurface pipe through another concrete apron fitted with a debris grate just east of the former Southern Pacific Railroad alignment.

B9a. Architect: Unknown

b. Builder: Clovis Ditch Company

*B10. Significance: Theme Water Development and Irrigation in Fresno County

Area Fresno County

Period of Significance 1870 - 1954

Property Type Water Conveyance

Applicable Criteria 1 & 3 per CRHR (A & C per NRHP) (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The West Branch Clovis Ditch appears ineligible for listing in the California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP). It is not associated with events or persons that are important in local or regional history. The design and construction of the ditch are unremarkable. Moreover the ditch lacks integrity of design, materials, and setting (see Continuation Sheet).

B11. Additional Resource Attributes: (List attributes and codes) N/A

*B12. References: See Continuation Sheet (page 4 of 7)

B13. Remarks: N/A

*B14. Evaluator: Mike Taggart, Taggart & Assoc.

*Date of Evaluation: August 2023

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary#
HRI #
Trinomial

CONTINUATION SHEET

Property Name: West Branch Clovis Ditch

Page 3 of 7

The original open cut ditch was constructed circa 1903 by the Clovis Ditch Company and ran approximately 2.6 miles to a point immediately east of N. Clovis Avenue. The ditch was extended west and south 1937 – 1946, then progressively piped underground in response to urban development (Taggart 2023).

The ditch is largely absent from the archival record, as a ubiquitous irrigation feature in the region. In contrast, conveyances such as the Enterprise, Gould, Fresno, and Friant – Kern canals all played a significant role in the development of irrigated agriculture in the region and supported the subsequent growth of local communities. These substantial engineering features all made contributions to the patterns of both San Joaquin Valley and California history (McFarland 2020). The first three canals exemplify the early years of water development in Fresno County (1870 – 1919), which were built with private capital and closely tied to land speculation. The early canals also played pivotal roles in the water wars of the late 19th and early 20th centuries, each swept up in consequential litigation that would shape case law around water rights for generations. Likewise, the Friant - Kern Canal represents the last major phase of water development (1937 - 1954) in the region that was publicly funded and tied to a broader system of enormous proportions in the post-war era. Viewed in relation to key regional water infrastructure, the diminutive importance of the West Branch Clovis Ditch is clear.

News about the ditch is scant in local papers beyond announcements for stockholder meetings in Clovis and brief descriptions of active litigation. The Clovis Ditch Company was short lived, while the ditch itself persisted. By the end of 1905 the company had forfeited its right to operate in California. The ditch very likely came under the control of the FCIC until the formation of the Fresno Irrigation District (FID) in 1920 (Taggart 2023).

At the time of FID formation in 1920 an acquisition of the region's water infrastructure, the Clovis Ditch represented roughly 0.3% of the total length of District's conveyance facilities at just 2.6 miles in an area of marginal agricultural significance. After the ditch's extension to the current 4.5 miles, it would come to account for approximately 0.5% of FID's conveyance infrastructure. Thus, the Clovis Ditch (later dubbed West Branch) has never accounted for a significant share of the FID's conveyance infrastructure, let alone that of the County more broadly. Likewise, this diminutive ditch did not play a role in the development of Clovis, which owes its early existence to the flume, mill, and San Joaquin Valley Railroad. The Clovis ditch skirted the town site on the north and watered the sparsely populated lands beyond the town center.

The design and construction of the ditch are completely unremarkable and urban development has drastically altered the setting from agricultural to residential and commercial. With the exception of the Enterprise Canal, the ditch lacks related sites, associated resources, or aspects of the surrounding setting

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary#
HRI #
Trinomial

CONTINUATION SHEET

Property Name: West Branch Clovis Ditch

Page 4 of 7

that could contribute to its significance. “Associated resources may include agricultural fields, mines, hydroelectric power plants, caretakers’ or construction crews’ housing, and perhaps even entire communities. A system’s setting may also contribute to its significance (JRP and Caltrans 2011:85).”

In summary, the West Branch Clovis Ditch is not directly associated with any events that have made a significant contribution to the broad patterns of California’s history and cultural heritage, nor is it associated with the lives of persons important in history. The simple conveyance does not embody distinctive characteristics a type, period, region, or method of construction, nor does it represent the work of an important creative individual, or possess high artistic values. The West Branch Clovis Ditch has not yielded, nor is it likely to yield, information important in prehistory or history. Even if the ditch was found to meet the significance thresholds cited above, its integrity has been severely compromised by removing 95% of the open cut earthen canal features. With these considerations in mind, the West Branch Clovis Ditch appears ineligible for listing in the CRHR and NRHP.

References:

JRP Historical Consulting Services (JRP) and Caltrans (2000) *Water Conveyance Systems in California: Historic Context Development and Evaluation Procedures*. Sacramento, CA.

McFarland, J.R. (2020) *A Century of Excellence: Fresno Irrigation District*. A publication of the Fresno Irrigation District, Fresno.

Taggart, Mike (2023) *Cultural Resources Inventory & Evaluation Golden Triangle Planned Commercial Center City of Clovis, Fresno*. Prepared for Acorn Environmental by Taggart & Associates, Sacramento.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary#
HRI #
Trinomial

CONTINUATION SHEET

Property Name: West Branch Clovis Ditch

Page 5 of 7



Photograph 1: Eastern end of ditch and concrete apron where the conveyance daylights. View east with N. Clovis Avenue (mid-ground) and Palo Alto Avenue (background) visible.



Photograph 2: Central segment of the ditch looking west.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary#
HRI #
Trinomial

CONTINUATION SHEET

Property Name: West Branch Clovis Ditch

Page 6 of 7



Photograph 3: Western segment of the ditch with valve on right, looking west.



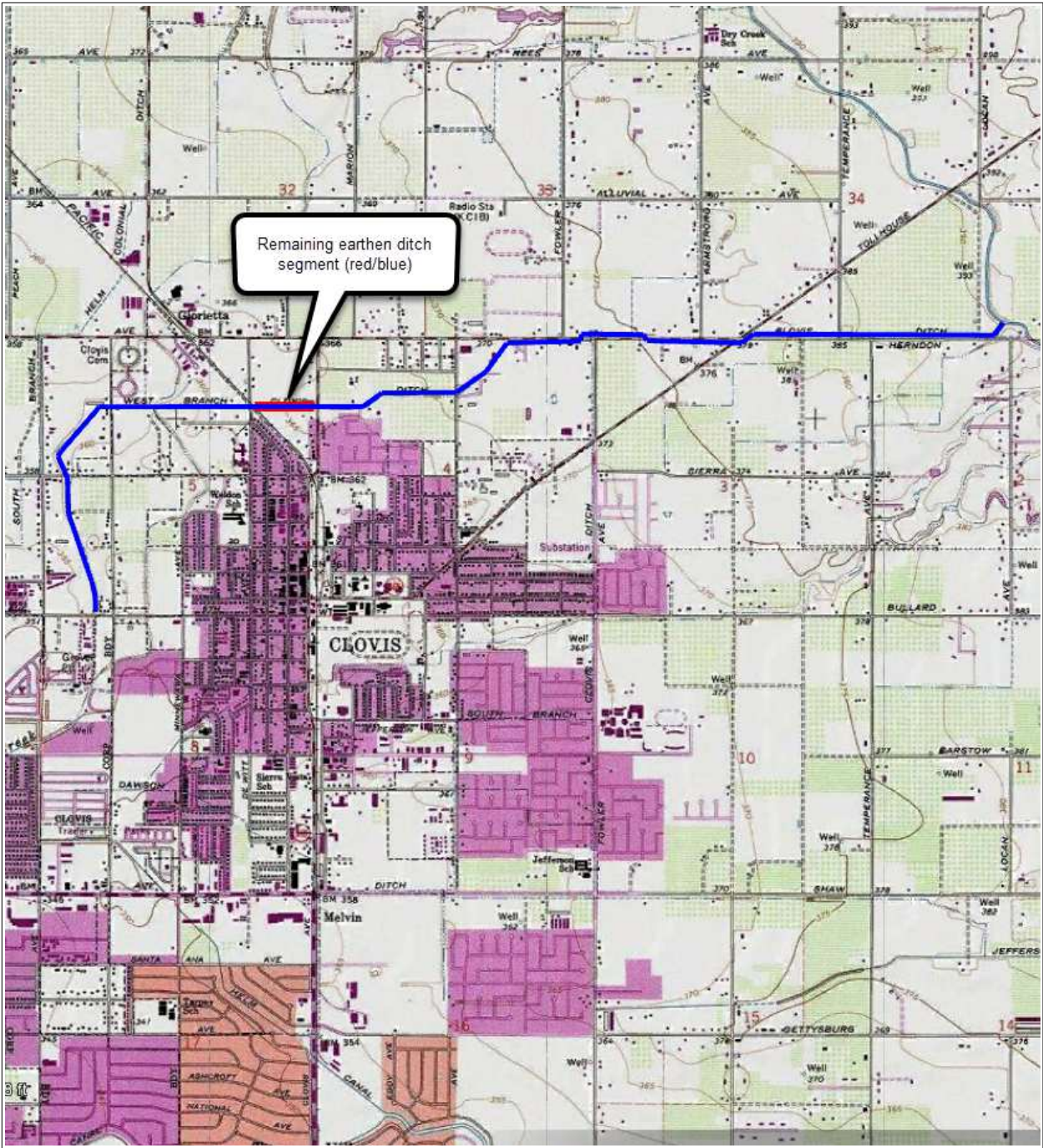
Photograph 4: Western end of ditch with concrete apron where water re-enters the subsurface pipe, looking southwest.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #
HRI#
Trinomial

Page 7 of 7 *Resource Name or # (Assigned by recorder) West Branch Clovis Ditch

*Map Name: Clovis, CA *Scale: 1:24,000 *Date of map: 1981



State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code _____

Other
Review Code _____

Reviewer _____

Date _____

Listings _____

Page 1 of 5 *Resource Name or #: (Assigned by recorder) 270 N. Clovis Avenue

P1. Other Identifier: _____

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Fresno and _____

*b. USGS 7.5' Quad Clovis, CA Date 1981 T 13S ; R 21E ; Sec 5 ; Mt. Diablo B.M.

c. Address 270 N. Clovis Avenue City Clovis Zip 93612

d. UTM: Zone 11, 36.835175 mE/ -119.700442 mN

e. Other Locational Data: The residence is accessed via a horseshoe driveway that intersects the south-bound lanes of N. Clovis Avenue, just south of Magill Avenue.

*P3a. **Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The property at 270 N. Clovis Avenue includes a primary residence with landscaping, a manufactured home, a detached garage, and a large open air vehicle port covering approximately 1.2 acres. The ranch-style home with aspects of both a Spanish and Prairie sub variants was built in 1951. The reported conditioned space is 1,945 square feet with a one-car attached garage. The building has been expanded over the years, including an addition next to the garage on the north side of the original building, as well as a rectangular addition on the rear northwest corner covering approximately 1,600 additional square feet. The home's original rambling layout has been expanded over time using different materials and incongruous roof lines. The property appears ineligible for listing in the California Register of Historical Resources and National Register.

*P3b. **Resource Attributes:** (List attributes and codes) HP2, Single Family Property

*P4. **Resources Present:**

☒ Building ☐ Structure ☐ Object ☐ Site
☐ District ☐ Element of District ☐ Other
(Isolates, etc.)

P5b. Description of Photo: Front (eastern) facade of 270 N. Clovis Ave.

*P6. **Date Constructed/Age and Source:** ☒ Historic ☐ Prehistoric
☐ Both

*P7. **Owner and Address:**

Paul T. Moore
270 N. Clovis Avenue
Clovis, CA 93612

*P8. **Recorded by:**
Mike Taggart, RPA:
Taggart & Associates
Sacramento, California

*P9. **Date Recorded:**
July 16, 2023

*P10. **Survey Type:** (Describe)
Pedestrian survey

*P11. **Report Citation:** (Cite survey report and other sources, or enter "none.")
Taggart, Mike (2023) Cultural
Resources Inventory & Evaluation

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



Golden Triangle Planned Commercial Center City of Clovis, Fresno. Prepared for Acorn Environmental by Taggart & Associates, Sacramento.

*Attachments: ☐ NONE ☒ Location Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other
(List):

BUILDING, STRUCTURE, AND OBJECT RECORD

*Resource Name or # (Assigned by recorder) 270 N. Clovis Avenue *NRHP Status Code 6Z

Page 2 of 5

B1. Historic Name: 270 N. Clovis Avenue

B2. Common Name: 270 N. Clovis Avenue

B3. Original Use: Residential

B4. Present Use: Residential

*B5. Architectural Style: Ranch

*B6. Construction History: (Construction date, alterations, and date of alterations)

The title history for 270 N. Clovis Avenue lists a construction date of 1951, which is corroborated by a 1957 aerial photo that depicts the home and landscaping.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: _____ Original Location: _____

*B8. Related Features:

The southern half of the property currently serves as a boat and RV storage area that is fenced and graveled. The primary house was originally surrounded by agricultural uses until the mid-1970s or early 1980s. Sometime after 1984 the property was used for storage of what appear to be tractor trailers, boats, and RVs based on historic aerial photographs. Structure additions during the 1990s include a manufactured home placed behind the main residence and a large metal building also erected behind the house. The 1998 aerial photo shows a dramatic expansion of the apparent storage, stretching from the north bank of the ditch north to Magill Ave.

B9a. Architect: Unknown

b. Builder: Unknown

*B10. Significance: Theme Post-WWII Development and Fresno County Residential Development

Area Fresno County

Period of Significance 1946 - 1973 Property Type Residential

Applicable Criteria 1, 2 and 3 of CRHR (A, B, and C of NRHP) (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The residential property at 270 N. Clovis Avenue appears ineligible for listing in the California Register of Historical Resources (CRHR) and National Register of Historic Places (NRHP). It is not associated with events or persons that are important in local or regional history. The design and construction of the house and outbuildings are unremarkable. Moreover the house lacks integrity of design, materials, and setting (see Continuation Sheet).

B11. Additional Resource Attributes: (List attributes and codes) N/A

*B12. References: See Continuation Sheet (page 4 of 5)

B13. Remarks: N/A

*B14. Evaluator: Mike Taggart, Taggart & Assoc.

*Date of Evaluation: August 2023

(This space reserved for official comments.)



CONTINUATION SHEET

Property Name: 270 N. Clovis Avenue

Page 3 of 5

This ranch-style house with Prairie sub-variant has a hip and valley tile roof that is low-slung with moderately deep eaves (McAlester and McAlester 2002). The front facade is clad in tan bricks laid in a running half pattern. The front exterior walls include picture windows are made up of a grouping of tall rectangular shapes, with some that open for ventilation. The windows are white, double-pane vinyl that are not original.

Consistent with ranch architecture the building exhibits natural colors in materials in a warm palette, and uses repeating square and rectangle shapes. A brick walkway leads to a covered brick porch oriented perpendicular to the street, which is bound by a simple wrought iron railing.

The house features decorative red brick planters in the front and low-slung brick wall at the northern driveway entrance and along the dirt sidewalk. The tidy, well manicured landscaping includes grass and well-pruned shrubs in the front yard. Two large Mexican palms are present on the southern margin of the front yard, separating the residential space from the adjoining commercial outside storage space.

The rear of the house features a lawn and concrete patio, with a line of trees providing vegetated screen. Beyond the screen lies a large metal vehicle port, a detached garage, and a manufactured home. A chain link fence with privacy slats surrounds the 270 North Clovis Avenue property and separates it from the adjacent house to the north, 290 North Clovis Avenue.

The southern half of the property currently serves as a boat and RV storage area that is fenced and graveled. The primary house was originally surrounded by agricultural uses until the mid-1970s or early 1980s. Sometime after 1984 the property was used for storage of what look to be tractor trailers, boats, and RVs. Structure additions during the 1990s include a manufactured home placed behind the main residence and a large metal building also erected behind the house. The 1998 aerial photo shows a dramatic expansion of the apparent storage, stretching from the north bank of the ditch north to Magill Ave.

As described in the historic context, postwar houses in California often lack distinction as mass produced products with minor embellishments, and 270 North Clovis Avenue is no exception. Ranch style homes that are significant are typically well preserved examples of a quintessential type, associated with an influential architect or builder such as William Wurster or Cliff May.

Local historic inventories were examined to identify significant built environment resources for comparison to the property evaluated here. These include the Fresno County Historical Landmarks & Records Advisory Commission's Inventory of Historic Sites in Fresno County (FCHLRC 2022) and the Index of Historical Sites in Fresno County maintained by the Fresno County Public Library (FCPL 2022). Historically significant homes around Clovis range from a simple board and batten house of a Clovis pioneer (e.g., Reyburn Home, 1881), to large opulent homes built by successful men (e.g., L.W. Gibson House, 1912). In contrast, the Larson residence and Cobb Fig Compound is significant locally as an

APPENDIX D

Noise Memorandum

May 15, 2024

Mr. Jeff Milgrom, Senior Development Manager
Legacy Realty & Development
5390 E. Pine Avenue
Fresno, CA 93727

RE: Clovis Golden Triangle Noise Memorandum

Dear Mr. Jeff Milgrom:

JK Consulting Group prepared the following Noise memorandum for the proposed update to the Development Plan and Master Site Plan for the Golden Triangle Planned Commercial Center (PCC). This will allow for the development of three luxury car dealerships, a brewery/restaurant, and future commercial uses consistent with the proposed zoning for the property. The Golden Triangle Planned PCC (Project) is located on approximately 13.64 acres of land, southwest of the Clovis Avenue and Magill Avenue intersection. The Project is bounded by Magill Avenue-State Route (SR) 168 to the north, the Clovis Old Town Trail to the south, and Clovis Avenue to the east. The Project location and site plan are depicted in Figures 1 and 2.

EXISTING CONDITIONS

The existing noise environment is characterized by ambient noise levels in the Project area. Table 1 summarizes ambient noise levels in the Project area considering existing noise level measurements. Short-term monitoring was conducted at two (2) locations on Wednesday, January 17th, using a Reed Instruments Model R8080 Type 2 sound level meter. The calibration of the meter was checked before and after the measurements using a Reed Instruments Model R8090 sound level calibrator. The determination of noise impacts associated with Project is based upon ambient (baseline) noise levels in the study area and City of Clovis noise standards. Traffic noise from vehicles along Clovis Avenue, Herndon Avenue, and SR 168 are the major noise sources in the Project area. Other sources of noise include stationary sources from various land uses (i.e., commercial, residential, and industrial).

A field investigation was conducted to identify land uses that could be subject to operational and construction noise impacts from the proposed Project. The Project site is located to the east of Clovis Avenue between Magill Avenue-SR 168 and the Clovis Old Town Trail. There are single-family and multi-family residences southwest of the Project, adjacent to the Clovis Old Town Trail. In addition, there is a hotel (Fairfield Inn & Suites), California Health Sciences University, and medical office building(s) immediately to the south of the Project. There are also commercial and office uses to the north and east of the Project site. Noise abatement is generally evaluated in cases where frequent human use occurs and where a lowered noise level would be of benefit. Accordingly, this impact analysis focuses on locations with interior and exterior noise standards as defined by the City of Clovis General Plan, such as residential backyards and common use areas. Sensitive receptors in the Project study area are depicted in Figure 3. Sensitive receptors are defined as areas sensitive to noise or areas where occupants are more vulnerable to the adverse effects of noise pollution.

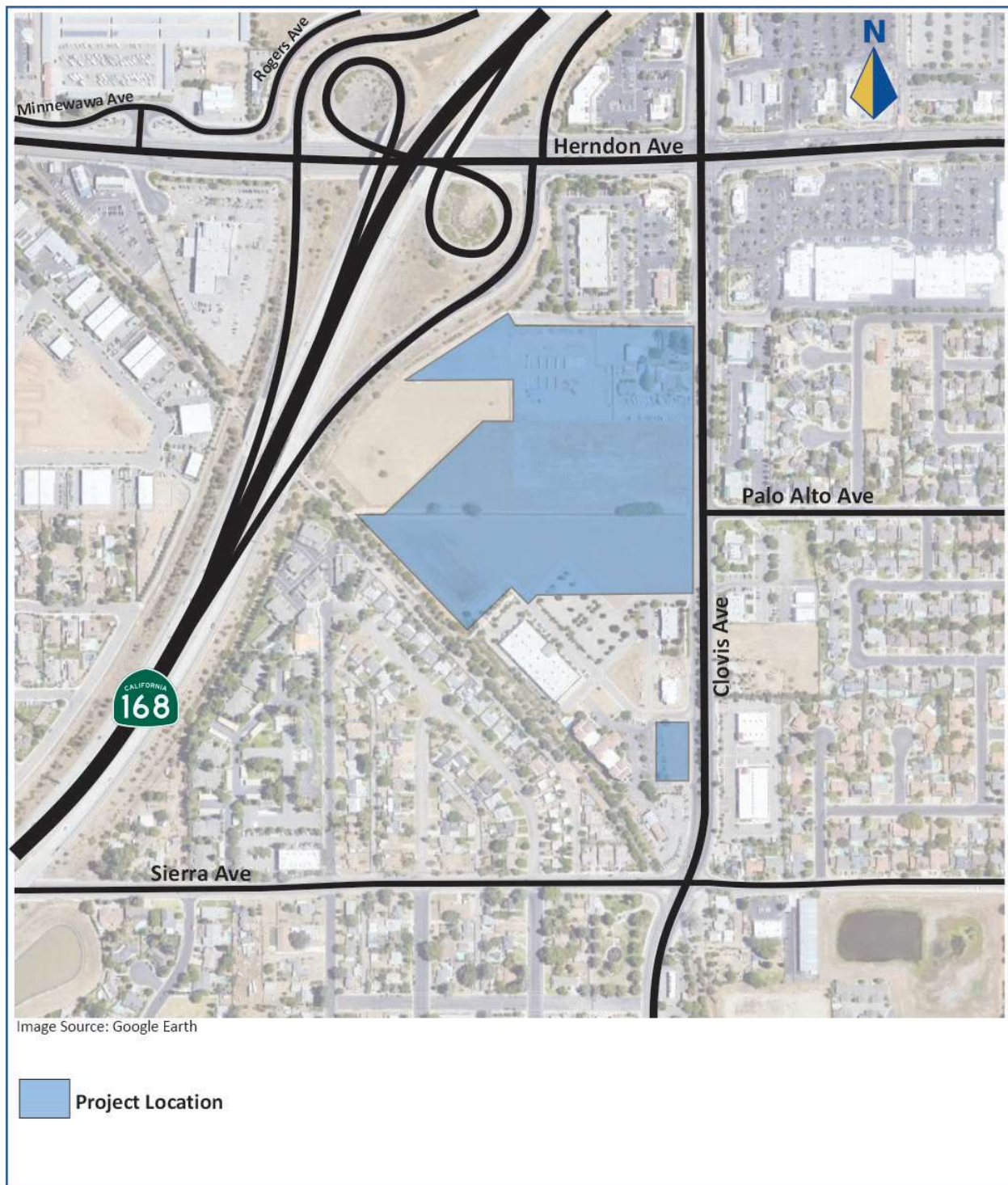


FIGURE 1
Project Location

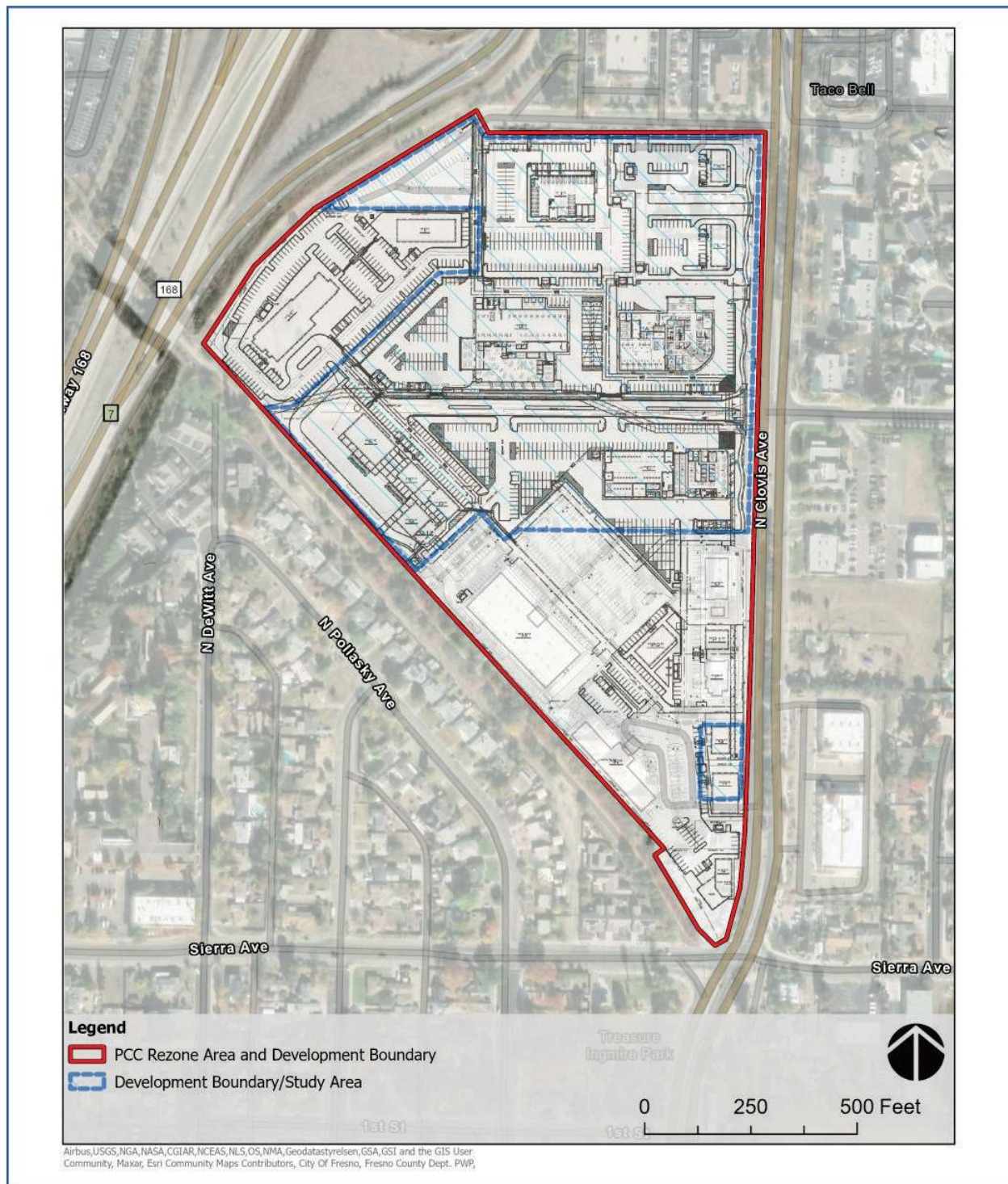


FIGURE 2
Project Site Plan

TABLE 1
EXISTING (AMBIENT) NOISE LEVELS

| RECEIVER ID | LOCATION | EXISTING (BASELINE) NOISE LEVEL Leq dBA |
|-------------|--|--|
| 1 | Clovis Avenue, south of Palo Alto Avenue (50 ft. west of Roadway Centerline) | 74.0 |
| 2 | Western portion of Project site (90 ft. east of Old Town Clovis Trail) | 68.5 |

Source: JK Consulting Group, LLC

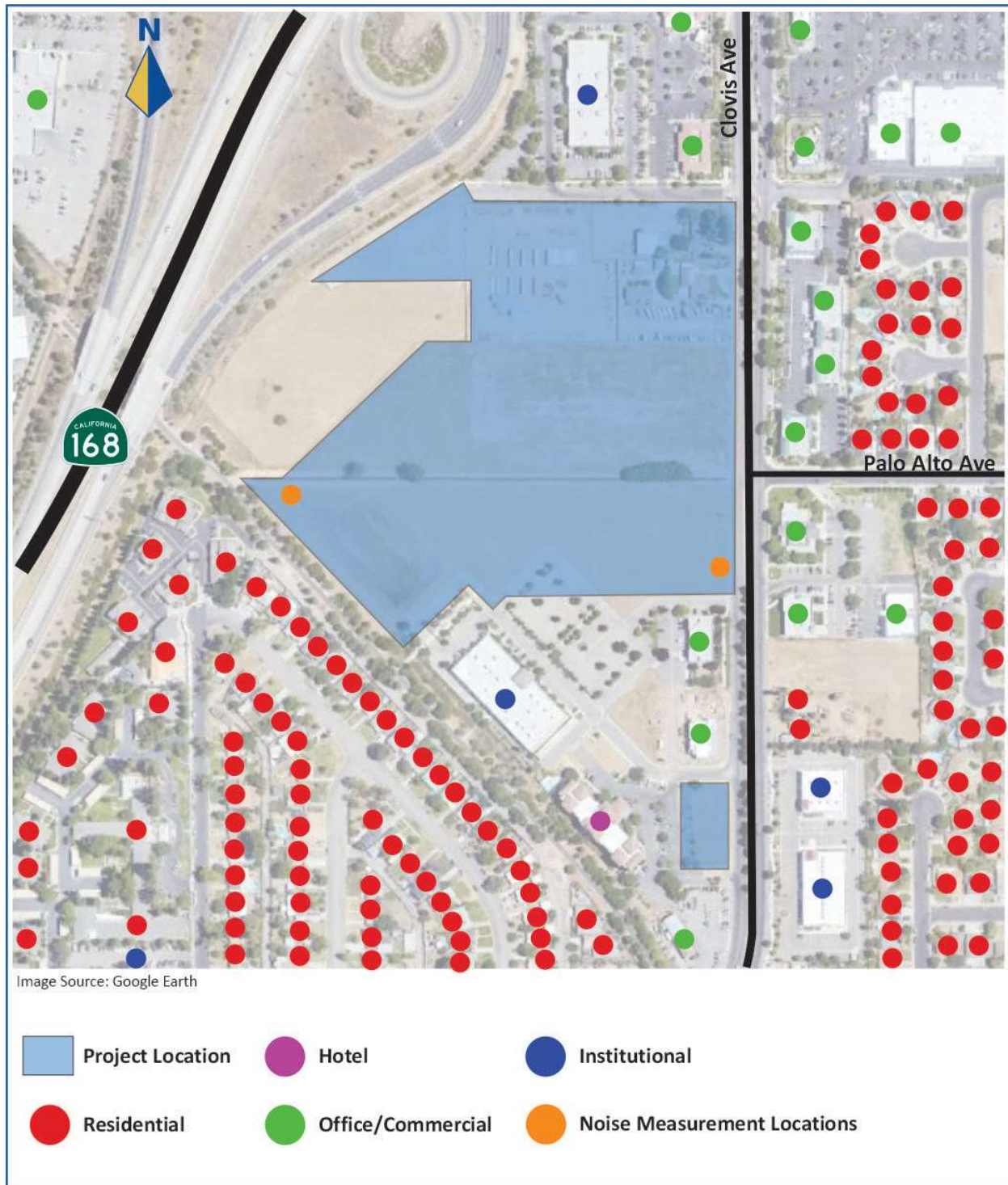


FIGURE 3
Sensitive Receptors

REGULATORY SETTING

City of Clovis General Plan

The Environmental Safety Element of the City of Clovis General Plan Policy Document provides noise guidelines for the City of Clovis and establishes the following goals and policies that would be applicable to the Project:

- **Policy 3.1 Land Use Compatibility** – Approve development and require mitigation measures to ensure existing and future land use compatibility as shown in Table 2 and the city’s noise ordinance.
- **Policy 3.2 Land Use and Traffic Patterns** – Discourage land use and traffic patterns that would expose sensitive land uses or noise-sensitive areas to unacceptable noise levels.
- **Policy 3.4 Acoustical Study** – Require an acoustical study for proposed projects that have the potential to exceed acceptable noise thresholds or are exposed to existing or future noise levels in excess of the thresholds in the city’s noise ordinance.
- **Policy 3.5 Site and Building Design** – Minimize noise impacts by requiring appropriate site, circulation, equipment, and building design, and sound walls, landscaping, and other buffers.
- **Policy 3.6 Noise Impacts** – Minimize or eliminate persistent, periodic, or impulsive noise impacts of business operations.
- **Policy 3.14 Control Sound at the Source** – Prioritize using noise mitigation measures to control sound at the source before buffers, soundwalls, and other perimeter measures.

The City of Clovis’ Interior and Exterior Noise Standards Energy Average (CNEL) is provided in Table 3.

City of Clovis Municipal Code

The City of Clovis Municipal Code or “Clovis Municipal Code” provides rules, regulations, or standards for the City of Clovis and establishes the following unlawful noise related nuisances that would be applicable to the Project:

- **5.27.601 Loud Noise** – The making or continuing, or causing to be made and continued, of any loud, unnecessary or unusual noise which disturbs the peace and quiet of the neighborhood, or which causes discomfort or annoyance to reasonable persons of normal sensitivities residing on the property or in the area, shall be considered a nuisance.
- **5.27.602 Noise and Other Activities During Specified Hours** – No person shall make, or cause or suffer or permit to be made or caused, on any premises owned or occupied by him/her, between the hours of 11:00 p.m. and 7:00 a.m. on any Friday or Saturday, or between the hours of 10:00 p.m. and 7:00 a.m. of any other day, any sporting, business, or social event, race, or other activity in such manner as to disturb the peace and quiet of any neighborhood.

- **5.27.604 Construction Activities** – Unless otherwise expressly provided by permit, construction activities are only permitted between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday. From June 1st through September 15th, permitted construction activity may commence after 6:00 a.m. Monday through Friday. Extended construction work hours must at all times be in strict compliance with the permit.

PROJECT RELATED NOISE IMPACTS

Assessment Criteria

The California Environmental Quality Act (CEQA) Guidelines, Appendix G, are used to assess the potential significance of Project impacts pursuant to local General Plan policies, Municipal Code standards, or applicable standards of other agencies. Under CEQA, noise impacts would be considered significant if the project would:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- Generate excessive groundborne vibration or groundborne noise levels?
- Expose people residing or working in the project area to excessive noise levels for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport?

Noise Impacts

Construction noise impacts (short-term) are related to development of the Project. The Project has the potential to result in short-term noise impacts to surrounding land uses due to construction activity. Construction noise represents a short-term impact on ambient noise levels and includes activities such as site preparation, grading, and other construction-related activities. Long-Term impacts relate to the operation of the Project and include noise generated from site operations and increased traffic in the study area as a result of the Project. Noise impacts associated with the construction and operation of the Project were evaluated to determine if the Project will result in significant impacts on the environment.

- a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

- Short-Term (Construction) Impacts

Development or construction of the Project would temporarily increase ambient noise levels in the vicinity due to construction equipment use. On-site construction noise impacts were evaluated by determining the noise levels generated by different types of construction activity and calculating the construction-related noise level at nearby sensitive receptor locations. The distance between construction site noise sources and the surrounding sensitive receptors were measured using the Project site plan and Google

Earth. Typical construction activities related to building construction generate noise levels of 74 to 84 dBA at 50 feet as shown in Table 4.

The nearest sensitive receptor(s) to the Project site (75 to 200 feet from building construction activities – See Figure 4) would be subject to short-term noise levels reaching 66 to 76 dBA Lmax from Project related construction activities considering typical construction activities as shown in Table 4 and noise attenuation due to distance. While noise from construction activities would be intermittent, it was assumed that a sound level of 76 dBA Lmax occurs for a constant duration of 15 minutes each hour during the twelve-hour construction window (7:00am to 7:00pm) as determined by the City of Clovis noise ordinance. A baseline (ambient) sound level of 68 dBA was assumed for the remaining 45-minutes. An ambient sound level of 55 dBA was assumed between 7pm and 10pm and 50 dBA was assumed between 10pm and 7am. This results in a sound level of 67 dBA Community Noise Equivalent Level (CNEL) at adjacent sensitive receptors (nearest) considering Project construction operations. A sound level of 64 dBA CNEL is expected, absent Project construction operations, assuming an ambient sound level of 68 dBA for the morning, mid-day, and afternoon peak hours (3-hour window for each), 55 Leq(h) dBA for the remaining 6-daytime hours, and 50 Leq(h) dBA for the nighttime hours. The increase in noise levels at adjacent sensitive receptors is 3 dBA with the addition of noise from Project construction operations. It should be noted that the City of Clovis does not have an established threshold for noise exposure due to a project's construction operations. For the purposes of this analysis, construction operations associated with the Project would result in a significant impact if interior noise levels established by the City of Clovis (Table 3) were exceeded. It should be noted that interior noise levels are 20-25 dB's less than exterior noise levels with windows and doors closed according to the Federal Highway Administration's (FHWA) *Techniques for Reviewing Noise Analyses and Associated Noise Reports*, June 1st, 2018.

Although there would be a relatively high single-event noise exposure potential at a maximum of 76 dBA Lmax at 125 feet, causing short-term intermittent annoyances, the effect would be an approximately 3 dBA increase in the ambient noise environment when averaged over 24 hours considering existing (ambient) noise levels in the study area. In typical noisy environments, changes in noise of 1 to 2 dB's are generally not perceptible. It is widely accepted that human perceptibility begins at increases of 3 dB in typical noisy environments. In other words, the changes in noise levels over 24 hours considering Project construction noise would just be perceptible to the normal human ear. Figure 5 shows the maximum interior noise levels at sensitive receptors considering Project construction operations. Results show that noise generated from Project construction activities would not exceed the interior noise levels of the respective land use categories as outlined in Table 3. Therefore, short-term construction-related impacts associated with the Project would result in a less than significant impact on noise-sensitive receptors adjacent to the Project site. As a result, mitigation measures are not required. It should be noted that Project construction operations must comply with Section 5.27.604 of the City of Clovis Municipal Code which sets the hours of construction between 7:00am and 7:00pm, Monday through Friday, and between 9:00am and 5:00pm on Saturday and Sunday. From June 1st through September 15th, construction activity may start after 6am, Monday through Friday.

TABLE 2
LAND USE AND NOISE COMPATIBILITY MATRIX

| LAND USES | ENERGY AVERAGE (CNEL) | | | | | | |
|---|-----------------------|----|----|----|----|----|-----|
| | < | 55 | 60 | 65 | 70 | 75 | 80> |
| Example Land Uses | | | | | | | |
| Amphitheater, concert hall, auditorium, meeting hall | B | B | C | C | D | D | D |
| Mobile home | A | A | B | C | C | D | D |
| Hospital, library, school, faith/religious uses | A | A | B | C | C | D | D |
| Hotel, motel, transient lodging | A | A | B | B | C | C | D |
| Single family, multifamily, faith/religious uses | A | A | B | B | C | D | D |
| Parks | A | A | A | B | C | D | D |
| Office building, research & development, professional office, city office building, and hotel | A | A | A | B | B | C | D |
| Amusement park, miniature golf, go-cart track, health club, equestrian center | A | A | A | B | B | D | D |
| Golf courses, nature centers, cemeteries, wildlife reserves, wildlife habitat | A | A | A | A | B | C | C |
| Commercial retail, bank, restaurant, movie theater | A | A | A | A | B | B | C |
| Automobile service station, auto dealer, manufacturing, warehousing, wholesale, utilities | A | A | A | A | B | B | B |
| Agriculture | A | A | A | A | A | A | A |

Notes:

Compatibility zones indicate the degree to which the land uses listed are compatible with the noise levels (CNEL) shown in the table.

Zone A. Clearly Compatible. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Zone B. Normally Compatible. New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C. Normally Incompatible. New construction or development should normally be discouraged. If new construction or development does proceed, a detailed analysis or noise reduction requirements must be made and needed noise insulation features must be included in the design.

Zone D. Clearly Incompatible. New construction or development should generally not be undertaken.

Source: City of Clovis General Plan, August 2014

TABLE 3
INTERIOR AND EXTERIOR NOISE STANDARDS ENERGY AVERAGE (CNEL)

| LAND USE CATEGORIES | | ENERGY AVERAGE (CNEL) | |
|------------------------------|--|----------------------------------|-----------------------|
| Primary Land Uses | Additional Uses Allowed | Interior ¹ | Exterior ² |
| Residential | Single Family, Multifamily | 45 ³ /55 ⁴ | 65 ⁷ |
| | Mobile Home | -- | 65 ⁵ |
| Commercial/Industrial | Hotel, motel, transient lodging | 45 | 65 ⁶ |
| | Commercial, retail, bank, restaurant | 55 | -- |
| | Office building, professional office, research & development | 50 | -- |
| | Gymnasium (Multipurpose) | 50 | -- |
| | Health clubs | 55 | -- |
| | Manufacturing, warehousing, wholesale, utilities | 65 | -- |
| Institutional | Hospital, school classroom | 45 | 65 |
| | Church, library | 45 | -- |
| Open Space | Parks | -- | 65 |

Notes:

1. Interior environment excludes bathrooms, toilets, closets, and corridors.
2. Outdoor environment limited to private yard of single family or multifamily residences private patio which is accessed by a means of exit from inside the unit; mobile home park; hospital patio; park picnic area; school playground; and hotel and motel recreation area.
3. Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided pursuant to Appendix Chapter 12, Section 1208 of UBC.
4. Noise level requirement with open windows, if they are used to meet natural ventilation requirement.
5. Multi-family developments with balconies that do not meet the 65 CNEL are required to provide occupancy disclosure notices to all future tenants regarding potential noise impacts.
6. Exterior noise level shall be such that interior noise level will not exceed 45 CNEL.
7. Except those areas affected by aircraft noise.

Source: City of Clovis General Plan, August 2014

TABLE 4
CONSTRUCTION EQUIPMENT NOISE

| EQUIPMENT CATEGORY | Measured Sound Levels (dBA Lmax @ 50 feet) |
|----------------------------------|---|
| Auger Drill Rig | 84 |
| Backhoe | 78 |
| Boring Jack Power Unit | 83 |
| Chain Saw | 84 |
| Compactor | 83 |
| Compressor (air) | 78 |
| Concrete Mixer Truck | 79 |
| Crane | 81 |
| Dozer | 82 |
| Dump Truck | 76 |
| Excavator | 81 |
| Front End Loader | 79 |
| Generator | 81 |
| Horizontal Boring Hydraulic Jack | 82 |
| Paver | 77 |
| Roller | 80 |
| Scraper | 84 |
| Tractor | 84 |
| Vibratory Concrete Mixer | 80 |
| Welder/Torch | 74 |

Source: U.S. Department of Transportation Federal Highway Administration
(FHWA) - *Construction Noise Handbook*, August 2006

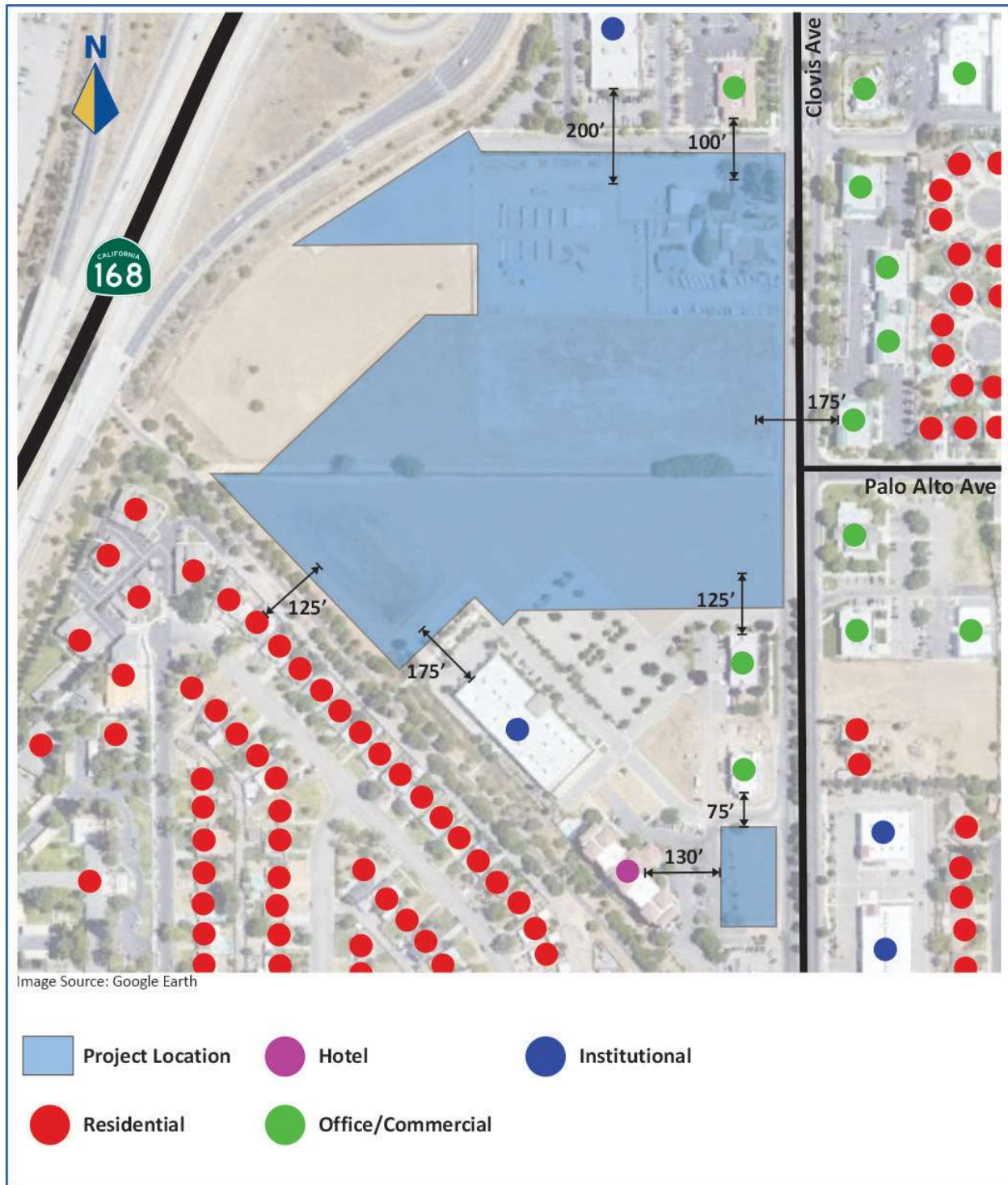


FIGURE 4
Sensitive Receptor Offsets From Construction Activities

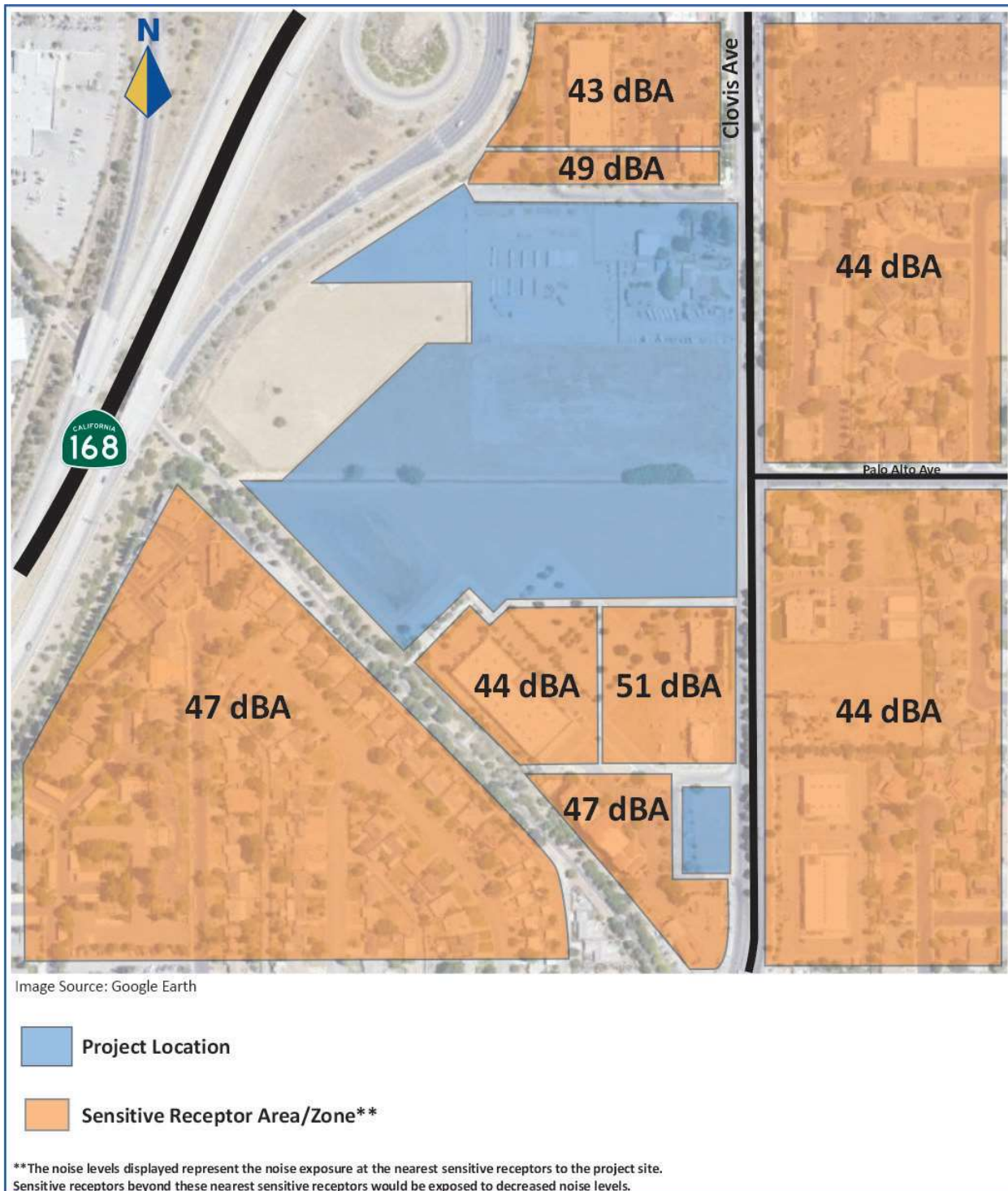


FIGURE 5

Maximum Interior Noise Levels from Project Construction Activities

- Long-Term (Operational) Impacts

Traffic noise in the study area is primarily generated from traffic along Clovis Avenue, Herndon Avenue, and SR 168 given their connectivity to numerous areas throughout the Fresno-Clovis metropolitan area. The Environmental Safety Element of the City of Clovis General Plan Policy Document shows that the projected noise level along Clovis Avenue, Herndon Avenue, and SR 168 in the Future (2035) is approximately 60 to 70 dBA CNEL as depicted in Figure 6. This is the anticipated noise level in the future at approximately 100 feet from the roadway centerline. New trips generated by the Project would primarily use Clovis Avenue and Herndon Avenue.

The Project will generate approximately 8,881 Daily Trips, 628 AM Peak Hour Trips, and 840 PM Peak Hour Trips. Section 6.3.3 (Fundamentals of Traffic Noise) of the Technical Noise Supplement to the Traffic Noise Analysis Protocol by Caltrans indicates that it takes a doubling of traffic to increase noise levels by 3 dB's. The addition of Project trips will not double the amount of existing or future traffic in the Project area. Traffic volumes at the Clovis Avenue and Magill Avenue intersection shows that Clovis Avenue between Herndon Avenue and Sierra Avenue has an existing AM and PM peak hour segment volume of 1,140 and 2,185, respectively. The increase in traffic along Clovis Avenue as a result of the Project is approximately 475 trips in the AM Peak Hour and 581 trips in the PM Peak Hour. The increase in traffic noise levels along Clovis Avenue and the surrounding study area would be less than 3 dB with the addition of Project traffic. As noted previously, changes in noise of 1 to 2 dB's are generally not perceptible by the human ear.

Noise levels at sensitive receptors, as depicted in Figure 7, were estimated using existing traffic volumes in the study area and the Traffic Noise Model (TNM) Version 3.1. To calibrate the TNM, existing traffic counts, posted speed limits, and other data were added to the TNM. Appropriate adjustment factors were applied to modeled receptors based on existing measured noise levels as depicted in Table 1. Projected traffic volumes for Existing Plus Project, Near-Term, and Cumulative Year scenarios, as identified in the Traffic Impact Study (TIS) prepared for the Project, and TNM 3.1 was used to estimate noise levels at sensitive receptors in the study area. Tables 5, 6, and 7 provide the predicted noise levels at sensitive receptors for Existing Plus Project, Near-Term No Project, Near-Term Plus Project, Cumulative Year (2046) No Project, and Cumulative Year (2046) Plus Project conditions. Results of the analysis show that the increase in noise levels, as a result of the Project, would be 1 dB or less.

According to Caltrans' Technical Noise Supplement to the Traffic Noise Analysis Protocol (September 2013), the CNEL is estimated to be within plus or minus 2 dB's of the peak hour Leq under normal traffic conditions. Cumulative Year (2046) Plus Project noise levels at sensitive receptors are within the City of Clovis' Land Use and Noise Compatibility Matrix (Table 2) and Interior and Exterior Noise Standards Energy Average (Table 3) noise criteria as defined in the City of Clovis General Plan. It should be noted that interior noise levels are 20-25 dB's less than exterior noise levels with windows and doors closed according to the Federal Highway Administration's (FHWA) *Techniques for Reviewing Noise Analyses and Associated Noise Reports*, June 1st, 2018.

The existing estimated noise levels at sensitive receptors 13 and 14 are 70 and 68 Leq(h) dBA, respectively, which is a result of their proximity to SR 168. The estimated noise levels at sensitive receptors 13 and 14,

as shown in Tables 5, 6, and 7, are reflective of peak hour traffic conditions along SR 168. Exterior noise levels would be reduced during off-peak and nighttime conditions. Assuming 70 Leq(h) dBA for the morning, mid-day, and afternoon peak hours (3-hour window for each), 55 Leq(h) dBA for the remaining 6-daytime hours, and 50 Leq(h) dBA for the nighttime hours (9pm-6am), sensitive receptors 13 and 14 would experience exterior noise levels of 64 – 66 dBA CNEL. Exterior noise levels are within the City of Clovis noise criteria and the roadway noise levels contours shown in Figure 6. Therefore, operational related noise impacts associated with Project traffic would result in a less than significant impact on noise-sensitive receptors adjacent to the Project site. Mitigation measures are not required.

- Project Related Stationary Point-Source Noise

While the predominant source of noise in the Project area is related to traffic noise along Clovis Avenue, Herndon Avenue, and SR 168, stationary point-source noise impacts were evaluated considering Project operations. Noise from Project operations would be consistent with other commercial/office type developments in the City of Clovis.

Drive-Thru/Customer Order Display

Noise will be generated from two restaurant drive-thrus located at the northeast corner of the Project site. The drive-thru customer order displays and idling vehicles are the most common stationary noise source generated by restaurant drive-thrus. The estimated noise level from customer order displays and idling vehicles is reflected in Table 8 and includes data from three (3) independent sources. For purposes of this analysis, the highest noise levels reflected in Table 8 were used to estimate impacts associated with the Project.

Truck Deliveries

Reference noise levels at an Albertson's Shopping Center (Ldn Consulting 2011/San Diego) was used to conservatively estimate noise from truck deliveries at the Project site. The measurements include truck drive-by noise and a single truck's engine noise. Noise levels were measured at 66.5 dBA Leq at a distance of 25 feet. For purposes of this analysis, it was assumed that trucks would idle for no more than five minutes due to state air quality requirements. As a result, it is estimated that trucks would operate for up to 15 minutes of the total time required during the delivery process (five minutes for arrival, five minutes of idling, and five minutes during departure). The average hourly noise levels from truck deliveries (assuming one delivery completed over an hour period) would equate to 60.5 dBA Leq at a distance of 25 feet.

Dealership Repair Shop

The Project includes the development of a dealership repair shop(s) which also generates noise with the potential to impact sensitive receptors. Reference noise levels from the Michigan State University College of Human Medicine and the Exposure Assessment in Auto Collision Repair Shops show that typical tools associated with a repair shops generate noise levels of 90 dBA at the sound source (5 feet). While repair shop work would be performed indoors, to be conservative, it was assumed that repairs would be performed outdoors with no noise attenuation from building interior/exterior.

HVAC Units

HVAC units would be associated with the development of the Project site. Specific equipment/data for HVAC units to be included with the development of the Project was not known at the time this analysis was prepared. Representative sound power levels for the 2-ton Carrier 38HDRD018 was used for this analysis since it is a HVAC unit used for commercial type buildings. The manufacturer's noise data (See attachments for specifications) indicates a standard noise rating of 68 dBA at 25 feet.

Cumulative Project Related Stationary Noise Sources

Caltrans' Technical Noise Supplement to the Traffic Noise Analysis Protocol (September 2013) provides methodology (Table 9) for determining the approximate noise level at sensitive receptors considering multiple noise sources. This methodology was used in determining impacts to sensitive receptors in the Project area as depicted in Figure 4. Table 10 shows the maximum noise levels generated by the restaurant drive-thrus, truck deliveries, dealership repair shops, and the HVAC units at a distance of 100 feet. Figure 8 shows the maximum noise levels at sensitive receptors considering Project site operations. Results show that stationary noise sources would not exceed 54 dBA considering the combined noise generated by the drive-thru customer display-idling vehicle area, truck deliveries, dealership repair shops, and HVAC unit. This equates to 60 dBA CNEL assuming adjacent sensitive receptors were solely impacted by Project stationary noise sources that operated for a 24-hour period. Impacts from Project stationary noise sources at sensitive receptors are within the City of Clovis' Land Use and Noise Compatibility Matrix (Table 2) and Interior and Exterior Noise Standards Energy Average (Table 3) noise criteria as defined in the City of Clovis General Plan. Therefore, operational related noise impacts associated with Project stationary noise sources would result in a less than significant impact on noise-sensitive receptors adjacent to the Project site. Mitigation measures are not required.

b) Generation of excessive ground-borne vibration or ground-borne noise levels?

Ground-borne vibration impacts were evaluated by identifying potential vibration sources and measuring the distance between vibration sources and surrounding structure locations. It should be noted that the City of Clovis does not have established criteria for vibration impacts. However, the City of Clovis General Plan relies upon Federal Transit Administration (FTA) criteria in determining acceptable levels of groundborne vibration and vibration thresholds in terms of human annoyance. As shown in Table 5.12-3 (Reaction of People and Damage to Buildings for Continuous/Frequent Intermittent Vibration Levels) of the City of Clovis General Plan, a velocity level of 0.02 in/sec PPV is barely perceptible by human beings while 0.08 in/sec PPV is distinctly perceptible. A vibration threshold of 0.04 in/sec PPV was used to estimate the impact of vibrations from construction activities associated with the Project.

The predicted vibration velocity levels for sensitive receptors adjacent to the Project are predicted to approach 0.026 in/sec using a Vibratory Roller level (0.210 at 25ft) as shown in Table 11. The level of vibration generated by the Project's construction phase is considered less than significant based on vibration velocity levels presented in Table 11 and the location of sensitive receptors as shown in Figure 4. As a result, mitigation measures are not required.

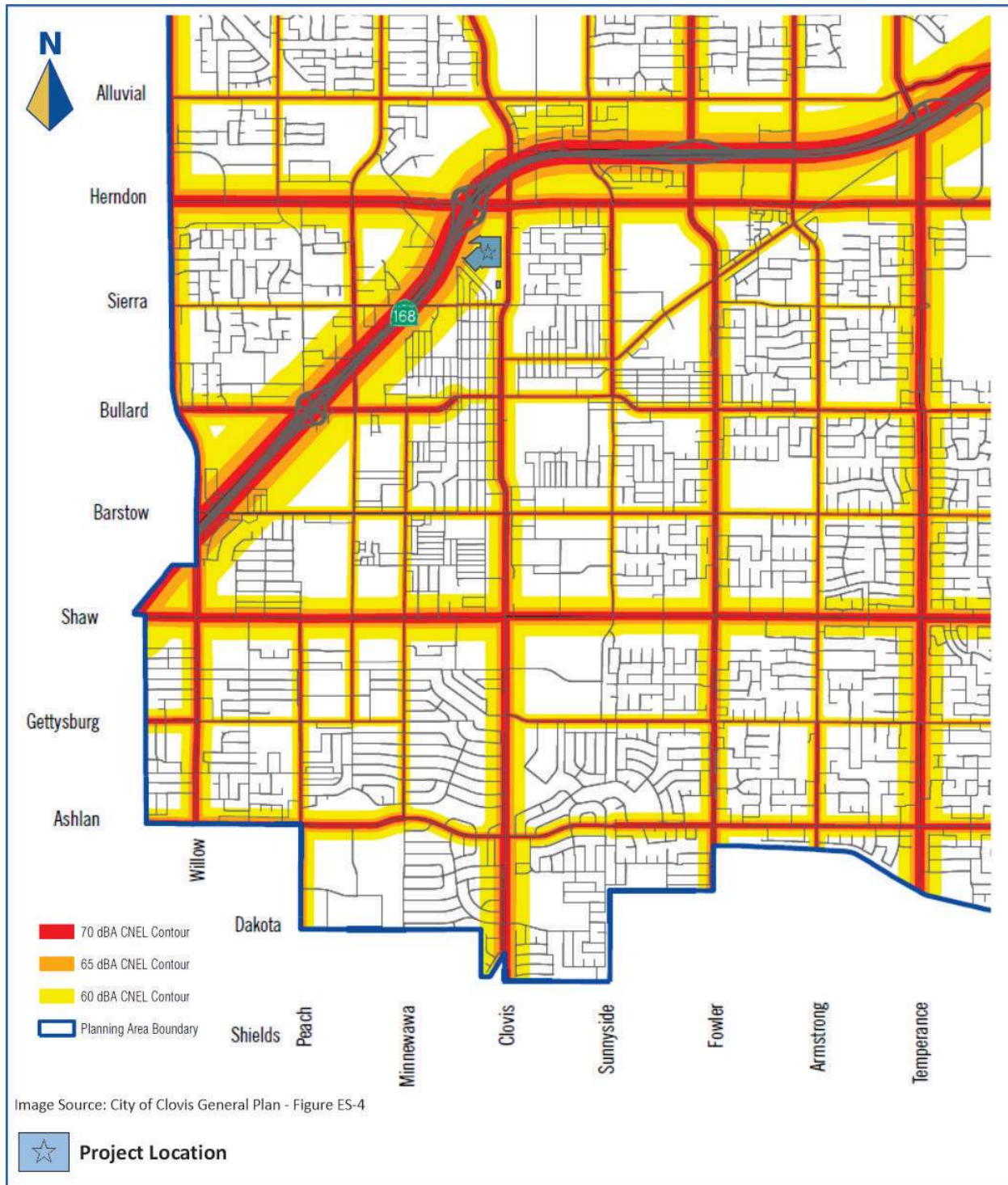


FIGURE 6

City of Clovis General Plan - Future Roadway Noise Level Contours

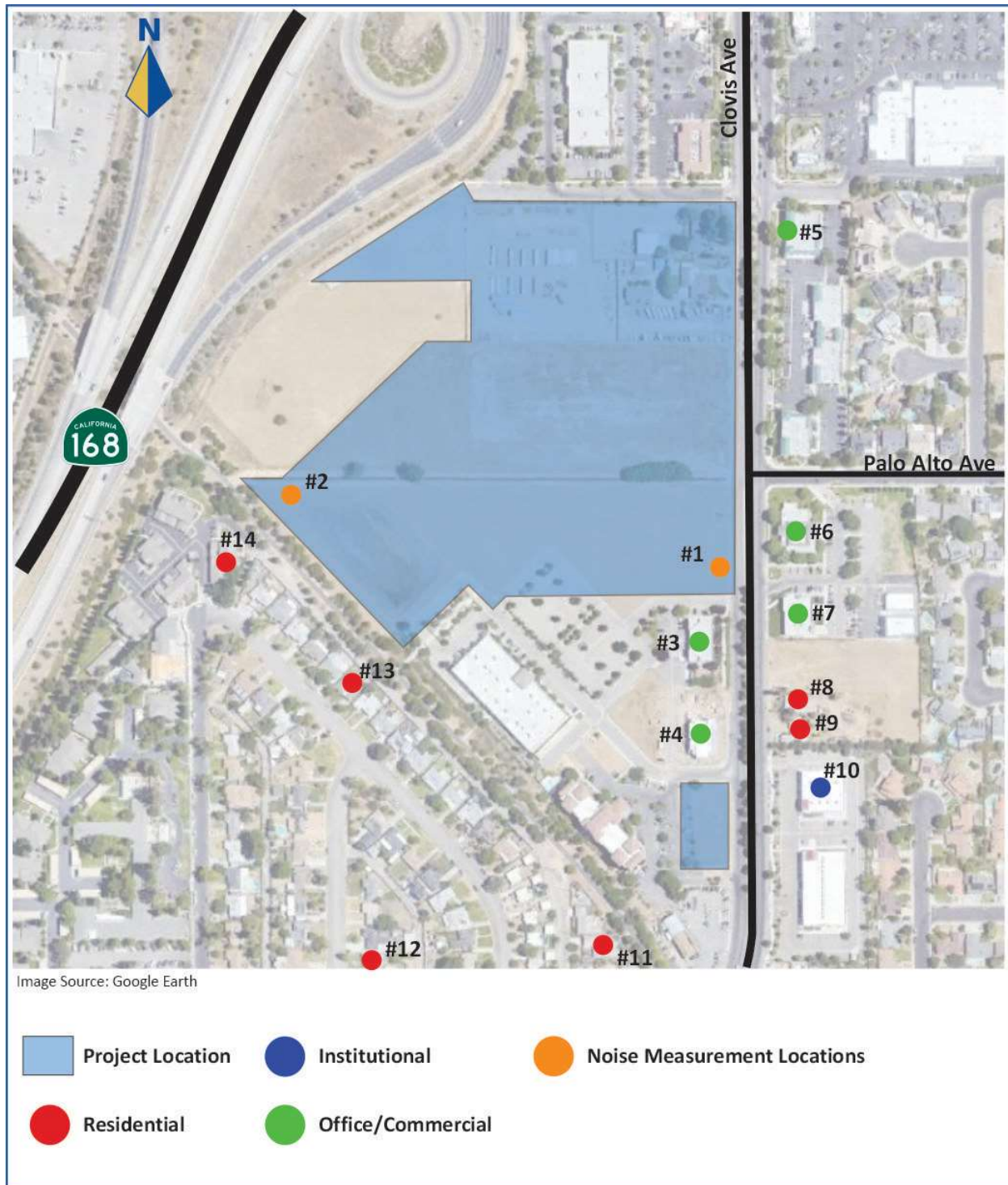


FIGURE 7
Modeled Sensitive Receptors

TABLE 5
EXISTING PLUS PROJECT NOISE CONDITONS

| SENSITIVE RECEPTOR ID | LAND USE | ESTIMATED EXISTING NOISE LEVEL Leq(h) dBA | EXISTING PLUS PROJECT NOISE LEVEL Leq(h) dBA | CHANGE IN NOISE LEVEL Leq(h) dBA |
|-----------------------|-------------------|--|---|-------------------------------------|
| 3 | Office/Commercial | 67.0 | 68.0 | 1.0 |
| 4 | Office/Commercial | 67.0 | 68.0 | 1.0 |
| 5 | Office/Commercial | 65.0 | 66.0 | 1.0 |
| 6 | Office/Commercial | 66.0 | 66.0 | 0.0 |
| 7 | Office/Commercial | 66.0 | 66.0 | 0.0 |
| 8 | Residential | 62.0 | 62.0 | 0.0 |
| 9 | Residential | 62.0 | 62.0 | 0.0 |
| 10 | Institutional | 63.0 | 64.0 | 1.0 |
| 11 | Residential | 61.0 | 62.0 | 1.0 |
| 12 | Residential | 61.0 | 62.0 | 1.0 |
| 13 | Residential | 70.0 | 71.0 | 1.0 |
| 14 | Residential | 68.0 | 69.0 | 1.0 |

Source: JK Consulting Group, LLC

TABLE 6
NEAR-TERM NOISE CONDITONS

| SENSITIVE RECEPTOR ID | LAND USE | NEAR-TERM NO PROJECT NOISE LEVEL Leq(h) dBA | NEAR-TERM PLUS PROJECT NOISE LEVEL Leq(h) dBA | CHANGE IN NOISE LEVEL Leq(h) dBA |
|-----------------------|-------------------|--|--|-------------------------------------|
| 3 | Office/Commercial | 67.0 | 68.0 | 1.0 |
| 4 | Office/Commercial | 67.0 | 68.0 | 1.0 |
| 5 | Office/Commercial | 66.0 | 66.0 | 0.0 |
| 6 | Office/Commercial | 66.0 | 67.0 | 1.0 |
| 7 | Office/Commercial | 66.0 | 67.0 | 1.0 |
| 8 | Residential | 62.0 | 63.0 | 1.0 |
| 9 | Residential | 62.0 | 63.0 | 1.0 |
| 10 | Institutional | 64.0 | 65.0 | 1.0 |
| 11 | Residential | 62.0 | 62.0 | 0.0 |
| 12 | Residential | 61.0 | 62.0 | 1.0 |
| 13 | Residential | 70.0 | 71.0 | 1.0 |
| 14 | Residential | 68.0 | 69.0 | 1.0 |

Source: JK Consulting Group, LLC

TABLE 7
CUMULATIVE YEAR (2046) NOISE CONDITONS

| SENSITIVE RECEPTOR ID | LAND USE | CUMULATIVE YEAR NO PROJECT NOISE LEVEL Leq(h) dBA | CUMULATIVE YEAR PLUS PROJECT NOISE LEVEL Leq(h) dBA | CHANGE IN NOISE LEVEL Leq(h) dBA | ESTIMATED EXISTING NOISE LEVEL Leq(h) dBA | CHANGE IN NOISE LEVEL FROM EXISTING Leq(h) dBA |
|-----------------------|-------------------|--|--|-------------------------------------|--|---|
| 3 | Office/Commercial | 67.0 | 68.0 | 1.0 | 67.0 | 1.0 |
| 4 | Office/Commercial | 67.0 | 68.0 | 1.0 | 67.0 | 1.0 |
| 5 | Office/Commercial | 66.0 | 66.0 | 0.0 | 65.0 | 1.0 |
| 6 | Office/Commercial | 66.0 | 67.0 | 1.0 | 66.0 | 1.0 |
| 7 | Office/Commercial | 66.0 | 67.0 | 1.0 | 66.0 | 1.0 |
| 8 | Residential | 62.0 | 63.0 | 1.0 | 62.0 | 1.0 |
| 9 | Residential | 62.0 | 63.0 | 1.0 | 62.0 | 1.0 |
| 10 | Institutional | 64.0 | 65.0 | 1.0 | 63.0 | 2.0 |
| 11 | Residential | 62.0 | 62.0 | 0.0 | 61.0 | 1.0 |
| 12 | Residential | 62.0 | 62.0 | 0.0 | 61.0 | 1.0 |
| 13 | Residential | 70.0 | 71.0 | 1.0 | 70.0 | 1.0 |
| 14 | Residential | 68.0 | 69.0 | 1.0 | 68.0 | 1.0 |

Source: JK Consulting Group, LLC

TABLE 8
REFERENCE NOISE LEVEL MEASUREMENTS

| NOISE SOURCE | Distance from Noise Source (feet) | Reference Noise Level (dBA Leq) |
|---|--------------------------------------|------------------------------------|
| Two Drive-Thru Customer Order Displays and Idling Vehicles ¹ | 20.0 | 64.0 |
| One Drive-Thru Customer Order Display and Idling Vehicles ² | 20.0 | 59.0 |
| Two Drive-Thru Customer Order Displays ³ | 4 / 20 | 68 / 54 |

1: Noise Expert, LLC - Noise Analysis for Proposed McDonalds, November 2014

2: Extant Acoustical Consulting, LLC - 645 Horning Street Environmental Noise Assessment, February 2017

3: 3M XT-1 Intercom System Manufacturer Specifications (Considering two intercom systems). Caltrans methodology used to estimate noise levels at a distance of 20 feet

TABLE 9
DECIBEL ADDITION

| WHEN TWO DECIBEL VALUES DIFFER BY: | ADD THIS AMOUNT TO THE HIGHER VALUE: | EXAMPLE: |
|------------------------------------|--------------------------------------|------------|
| 0 or 1 dB | 3 dB | 70+69 = 73 |
| 2 or 3 dB | 2 dB | 74+71 = 76 |
| 4 to 9 dB | 1 dB | 66+60 = 67 |
| 10 dB or more | 0 dB | 65+55 = 65 |

Source: Caltrans Technical Noise Supplement

TABLE 10
PROJECT STATIONARY NOISE SOURCE MAXIMUM NOISE LEVELS

| STATIONARY NOISE SOURCE | Maximum Sound Level (Leq dBA) at 100 feet |
|-----------------------------------|---|
| Drive-Thru/Customer Order Display | 53.0 |
| Truck Deliveries | 49.0 |
| Dealership Repair Shop(s) | 64.0 |
| HVAC Unit(s) | 42.0 |

Source: JK Consulting Group, LLC

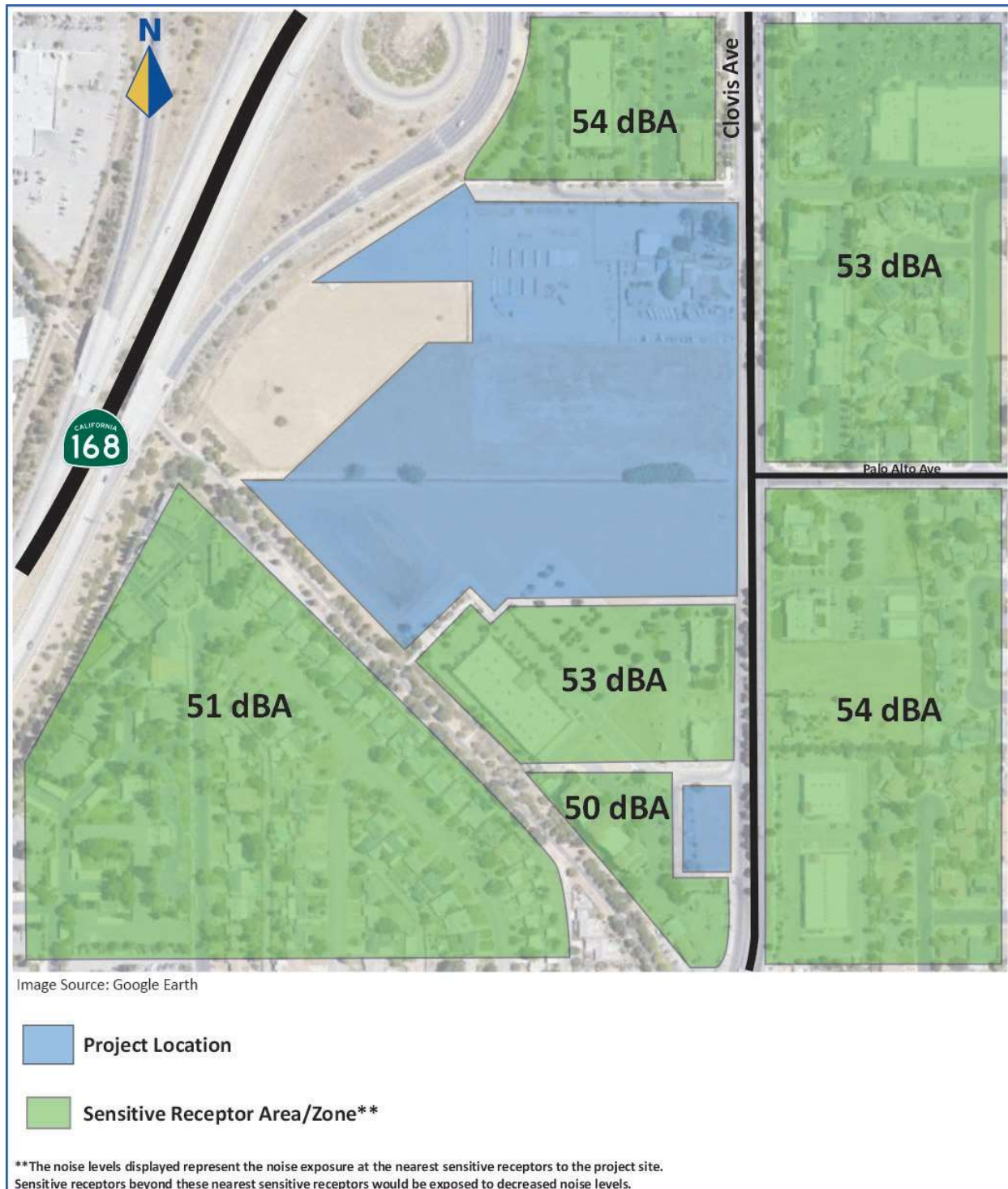


FIGURE 8
Maximum Noise Levels from Project Stationary Sources

TABLE 11
VIBRATION LEVELS

| EQUIPMENT CATEGORY | PPV at 25 ft. (in/sec) ¹ | PPV at 75 ft. (in/sec) | PPV at 100 ft. (in/sec) |
|--------------------|--|---------------------------|----------------------------|
| Clam Shovel Drop | 0.202 | 0.025 | 0.025 |
| Vibratory Roller | 0.210 | 0.026 | 0.026 |
| Hoe Ram | 0.089 | 0.017 | 0.011 |
| Large Bulldozer | 0.089 | 0.017 | 0.011 |
| Caisson Drilling | 0.089 | 0.017 | 0.011 |
| Loaded Trucks | 0.076 | 0.015 | 0.010 |
| Jackhammer | 0.035 | 0.007 | 0.004 |
| Small Bulldozer | 0.003 | 0.001 | 0.000 |

Source: JK Consulting Group, LLC

1 -Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning Environment, Federal Transit Administration, May 2006

- c) Expose people residing or working in the project area to excessive noise levels for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport?

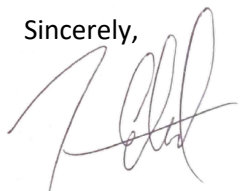
The Project site is not located within two miles of a private airstrip, public airport, or public use airport. The Fresno Yosemite International Airport is located approximately four (4) miles south of the Project and the Sierra Skypark Airport is located nine (9) miles to the west. The Fresno Chandler Executive Airport is located ten (10) miles southwest of the Project site. As a result, aircraft noise is not expected to result in significant impacts in the Project Area. Therefore, mitigation measures are not required.

SUMMARY

The significance criteria established by the City of Clovis are used for determining environmental significance. These screening criteria can be used to demonstrate that a project's noise impacts would not result in a significant impact as defined by CEQA. As discussed above, the Project will have a less than significant impact on the environment as it relates to Noise.

Should you have any further questions or comments, please contact me by phone at (559) 246-4204 or by email at jellard@jkconsultinggroupllc.com.

Sincerely,



Jason Ellard, Principal
JK Consulting Group, LLC

Attachment – Traffic Noise Model (TNM) 3.1 Worksheets

REFERENCES

- **City of Clovis** – *General Plan*. August 2014
- **Placeworks** – Final Program Environmental Impact Report – *General Plan and Development Code Update*. September 2014.
- **City of Clovis** – Municipal Code. January 8, 2024
- **California Department of Transportation** – *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September 2013
- **California Department of Transportation** – *Transportation and Construction Vibration Guidance Manual*. April 2020
- **Noise Expert, LLC** – *Noise Analysis: Proposed McDonald's Restaurant*. November 2014
- **Extant Acoustical Consulting, LLC** – *645 Horning Street Environmental Noise Assessment*. February, 27, 2017
- **Carrier** – HVAC Technical Data: *38HDR Performance Series Air Conditioner*
- **3M Wireless Communication System** – Technical Data: *Wireless Communication System Model XT-1*
- **Michigan State University College of Human Medicine** – Auto Brochure. November 12, 2012
- **Bejan A, Brosseau LM, Parker DL** – *Exposure Assessment in Auto Collision Repair Shops*. July 2011
- **Federal Highway Administration** – *Techniques for Reviewing Noise Analyses and Associated Noise Reports*, June 1st, 2018.

TNM 3.1 Worksheets

REPORT:

Results: Sound Levels - No Barrier Objects

TNM VERSION 3.1.7970.37608
CALCULATED WITH: 3.1.7970.37608
CASE: Existing Conditions Scenario
UNITS: English
DEFAULT GROUND TYPE: HardSoil
ATMOSPHERICS: 68°F, 50%
PAVEMENT TYPE(S) USED: Average

REPORT DATE: 12 May 2024
CALCULATION DATE: 5/12/2024 11:13:11 PM
ORGANIZATION: Clovis Golden Triangle PCC
ANALYSIS BY: VRPA Technologies, Inc.
PROJECT/CONTRACT Clovis Golden Triangle PCC
Average pavement type shall be used unless a state highway agency substantiates the use of a different type with approval FHWA.

| Receiver | | | | Modeled Traffic Noise Levels | | | | | |
|-------------|-----|-------------|-----------------------------|------------------------------|-----------------------|------------------------|-----------------------|-------------|----------------------|
| Name | No. | Nb. R.R. | Existing LAeq dBA | | | | | | Type of Impact |
| | | | | LAeq | | Increase over Existing | | | |
| | | | | Calc. | Absolute Criterion | | Relative Criterion | | |
| | | | | dBA | dBA | dBA | dBA | dBA | |
| Receptor-1 | 1 | 1 | --- | 68.1 | 0.0 | --- | --- | Sound Level | |
| Receptor-2 | 2 | 1 | --- | 68.5 | 0.0 | --- | --- | Sound Level | |
| Receptor-3 | 3 | 1 | --- | 67.0 | 0.0 | --- | --- | Sound Level | |
| Receptor-4 | 4 | 1 | --- | 67.1 | 0.0 | --- | --- | Sound Level | |
| Receptor-5 | 5 | 1 | --- | 65.2 | 0.0 | --- | --- | Sound Level | |
| Receptor-6 | 6 | 1 | --- | 65.6 | 0.0 | --- | --- | Sound Level | |
| Receptor-7 | 7 | 1 | --- | 65.6 | 0.0 | --- | --- | Sound Level | |
| Receptor-8 | 8 | 1 | --- | 61.5 | 0.0 | --- | --- | Sound Level | |
| Receptor-9 | 9 | 1 | --- | 61.5 | 0.0 | --- | --- | Sound Level | |
| Receptor-10 | 10 | 1 | --- | 63.4 | 0.0 | --- | --- | Sound Level | |
| Receptor-11 | 11 | 1 | --- | 61.3 | 0.0 | --- | --- | Sound Level | |
| Receptor-12 | 12 | 1 | --- | 61.3 | 0.0 | --- | --- | Sound Level | |
| Receptor-13 | 13 | 1 | --- | 70.1 | 0.0 | --- | --- | Sound Level | |
| Receptor-14 | 14 | 1 | --- | 68.1 | 0.0 | --- | --- | Sound Level | |

REPORT:

Results: Sound Levels - No Barrier Objects

AGENDA ITEM NO. 6.

TNM VERSION

3.1.7970.37608

REPORT DATE:

12 May 2024

CALCULATED WITH:

3.1.7970.37608

CALCULATION DATE:

5/12/2024 11:19:50 PM

CASE:

Existing Plus Project
Scenario

ORGANIZATION:

Clovis Golden Triangle PCC

UNITS:

English

ANALYSIS BY:

VRPA Technologies, Inc.

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Clovis Golden Triangle PCC

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

| Receiver | | | | Modeled Traffic Noise Levels | | | | |
|-------------|-----|-------------|------------------|------------------------------|-----------------------|------------------------|-----------------------|----------------------|
| Name | No. | Nb. R.R. | Existing LAeq | LAeq | | Increase over Existing | | Type of Impact |
| | | | | Calc. | Absolute Criterion | Calc. | Relative Criterion | |
| | | | dba | dba | dba | dba | dba | |
| Receptor-3 | 3 | 1 | --- | 68.0 | 0.0 | --- | --- | Sound Level |
| Receptor-4 | 4 | 1 | --- | 68.2 | 0.0 | --- | --- | Sound Level |
| Receptor-5 | 5 | 1 | --- | 66.1 | 0.0 | --- | --- | Sound Level |
| Receptor-6 | 6 | 1 | --- | 66.5 | 0.0 | --- | --- | Sound Level |
| Receptor-7 | 7 | 1 | --- | 66.5 | 0.0 | --- | --- | Sound Level |
| Receptor-8 | 8 | 1 | --- | 62.4 | 0.0 | --- | --- | Sound Level |
| Receptor-9 | 9 | 1 | --- | 62.4 | 0.0 | --- | --- | Sound Level |
| Receptor-10 | 10 | 1 | --- | 64.3 | 0.0 | --- | --- | Sound Level |
| Receptor-11 | 11 | 1 | --- | 61.8 | 0.0 | --- | --- | Sound Level |
| Receptor-12 | 12 | 1 | --- | 61.5 | 0.0 | --- | --- | Sound Level |
| Receptor-13 | 13 | 1 | --- | 70.9 | 0.0 | --- | --- | Sound Level |
| Receptor-14 | 14 | 1 | --- | 68.9 | 0.0 | --- | --- | Sound Level |

REPORT:

Results: Sound Levels - No Barrier Objects

AGENDA ITEM NO. 6.

TNM VERSION

3.1.7970.37608

REPORT DATE:

12 May 2024

CALCULATED WITH:

3.1.7970.37608

CALCULATION DATE:

5/12/2024 11:24:39 PM

CASE:

Near-Term No Project
Scenario

ORGANIZATION:

Clovis Golden Triangle PCC

UNITS:

English

ANALYSIS BY:

VRPA Technologies, Inc.

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Clovis Golden Triangle PCC

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

| Receiver | | | | Modeled Traffic Noise Levels | | | | | |
|-------------|-----|-------------|---------------------------------|------------------------------|-----------------------|------------------------|-----------------------|----------------------|--|
| Name | No. | Nb. R.R. | Existing LAeq dBA | | | | | | |
| | | | | LAeq | | Increase over Existing | | Type of Impact | |
| | | | | Calc. | Absolute Criterion | Calc. | Relative Criterion | | |
| | | | | dBA | dBA | dBA | dBA | | |
| Receptor-3 | 3 | 1 | --- | 67.3 | 0.0 | --- | --- | Sound Level | |
| Receptor-4 | 4 | 1 | --- | 67.4 | 0.0 | --- | --- | Sound Level | |
| Receptor-5 | 5 | 1 | --- | 65.6 | 0.0 | --- | --- | Sound Level | |
| Receptor-6 | 6 | 1 | --- | 66.0 | 0.0 | --- | --- | Sound Level | |
| Receptor-7 | 7 | 1 | --- | 66.0 | 0.0 | --- | --- | Sound Level | |
| Receptor-8 | 8 | 1 | --- | 61.8 | 0.0 | --- | --- | Sound Level | |
| Receptor-9 | 9 | 1 | --- | 61.8 | 0.0 | --- | --- | Sound Level | |
| Receptor-10 | 10 | 1 | --- | 63.7 | 0.0 | --- | --- | Sound Level | |
| Receptor-11 | 11 | 1 | --- | 61.5 | 0.0 | --- | --- | Sound Level | |
| Receptor-12 | 12 | 1 | --- | 61.3 | 0.0 | --- | --- | Sound Level | |
| Receptor-13 | 13 | 1 | --- | 70.4 | 0.0 | --- | --- | Sound Level | |
| Receptor-14 | 14 | 1 | --- | 68.3 | 0.0 | --- | --- | Sound Level | |

REPORT:

Results: Sound Levels - No Barrier Objects

AGENDA ITEM NO. 6.

TNM VERSION

3.1.7970.37608

REPORT DATE:

12 May 2024

CALCULATED WITH:

3.1.7970.37608

CALCULATION DATE:

5/12/2024 11:36:48 PM

CASE:

Near-Term Plus
Project Scenario

ORGANIZATION:

Clovis Golden Triangle PCC

UNITS:

English

ANALYSIS BY:

VRPA Technologies, Inc.

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Clovis Golden Triangle PCC

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

| Receiver | | | | Modeled Traffic Noise Levels | | | | |
|-------------|-----|-------------|------------------|------------------------------|-----------------------|------------------------|-----------------------|----------------------|
| Name | No. | Nb. R.R. | Existing LAeq | LAeq | | Increase over Existing | | Type of Impact |
| | | | | Calc. | Absolute Criterion | Calc. | Relative Criterion | |
| | | | dba | dba | dba | dba | dba | |
| Receptor-3 | 3 | 1 | --- | 68.3 | 0.0 | --- | --- | Sound Level |
| Receptor-4 | 4 | 1 | --- | 68.4 | 0.0 | --- | --- | Sound Level |
| Receptor-5 | 5 | 1 | --- | 66.4 | 0.0 | --- | --- | Sound Level |
| Receptor-6 | 6 | 1 | --- | 66.8 | 0.0 | --- | --- | Sound Level |
| Receptor-7 | 7 | 1 | --- | 66.8 | 0.0 | --- | --- | Sound Level |
| Receptor-8 | 8 | 1 | --- | 62.7 | 0.0 | --- | --- | Sound Level |
| Receptor-9 | 9 | 1 | --- | 62.7 | 0.0 | --- | --- | Sound Level |
| Receptor-10 | 10 | 1 | --- | 64.6 | 0.0 | --- | --- | Sound Level |
| Receptor-11 | 11 | 1 | --- | 62.1 | 0.0 | --- | --- | Sound Level |
| Receptor-12 | 12 | 1 | --- | 61.6 | 0.0 | --- | --- | Sound Level |
| Receptor-13 | 13 | 1 | --- | 71.1 | 0.0 | --- | --- | Sound Level |
| Receptor-14 | 14 | 1 | --- | 69.1 | 0.0 | --- | --- | Sound Level |

REPORT:

Results: Sound Levels - No Barrier Objects

AGENDA ITEM NO. 6.

TNM VERSION

3.1.7970.37608

REPORT DATE:

12 May 2024

CALCULATED WITH:

3.1.7970.37608

CALCULATION DATE:

5/12/2024 11:47:19 PM

CASE:

Cumulative Year No
Project Scenario

ORGANIZATION:

Clovis Golden Triangle PCC

UNITS:

English

ANALYSIS BY:

VRPA Technologies, Inc.

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Clovis Golden Triangle PCC

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

| Receiver | | | | Modeled Traffic Noise Levels | | | | |
|-------------|-----|-------------|------------------|------------------------------|-----------------------|------------------------|-----------------------|----------------------|
| Name | No. | Nb. R.R. | Existing LAeq | LAeq | | Increase over Existing | | Type of Impact |
| | | | | Calc. | Absolute Criterion | Calc. | Relative Criterion | |
| | | | dba | dba | dba | dba | dba | |
| Receptor-3 | 3 | 1 | --- | 67.3 | 0.0 | --- | --- | Sound Level |
| Receptor-4 | 4 | 1 | --- | 67.4 | 0.0 | --- | --- | Sound Level |
| Receptor-5 | 5 | 1 | --- | 65.6 | 0.0 | --- | --- | Sound Level |
| Receptor-6 | 6 | 1 | --- | 66.0 | 0.0 | --- | --- | Sound Level |
| Receptor-7 | 7 | 1 | --- | 66.0 | 0.0 | --- | --- | Sound Level |
| Receptor-8 | 8 | 1 | --- | 61.8 | 0.0 | --- | --- | Sound Level |
| Receptor-9 | 9 | 1 | --- | 61.8 | 0.0 | --- | --- | Sound Level |
| Receptor-10 | 10 | 1 | --- | 63.7 | 0.0 | --- | --- | Sound Level |
| Receptor-11 | 11 | 1 | --- | 61.6 | 0.0 | --- | --- | Sound Level |
| Receptor-12 | 12 | 1 | --- | 61.5 | 0.0 | --- | --- | Sound Level |
| Receptor-13 | 13 | 1 | --- | 70.4 | 0.0 | --- | --- | Sound Level |
| Receptor-14 | 14 | 1 | --- | 68.4 | 0.0 | --- | --- | Sound Level |

REPORT:

Results: Sound Levels - No Barrier Objects

AGENDA ITEM NO. 6.

TNM VERSION

3.1.7970.37608

REPORT DATE:

12 May 2024

CALCULATED WITH:

3.1.7970.37608

CALCULATION DATE:

5/12/2024 11:52:45 PM

CASE:

Cumulative Year Plus
Project Scenario

ORGANIZATION:

Clovis Golden Triangle PCC

UNITS:

English

ANALYSIS BY:

VRPA Technologies, Inc.

DEFAULT GROUND TYPE:

HardSoil

PROJECT/CONTRACT

Clovis Golden Triangle PCC

ATMOSPHERICS:

68°F, 50%

Average pavement type shall be used unless a state

PAVEMENT TYPE(S) USED:

Average

highway agency substantiates the use of a different

type with approval FHWA.

| Receiver | | | | Modeled Traffic Noise Levels | | | | |
|-------------|-----|-------------|------------------|------------------------------|-----------------------|------------------------|-----------------------|----------------------|
| Name | No. | Nb. R.R. | Existing LAeq | LAeq | | Increase over Existing | | Type of Impact |
| | | | | Calc. | Absolute Criterion | Calc. | Relative Criterion | |
| | | | dba | dba | dba | dba | dba | |
| Receptor-3 | 3 | 1 | --- | 68.3 | 0.0 | --- | --- | Sound Level |
| Receptor-4 | 4 | 1 | --- | 68.5 | 0.0 | --- | --- | Sound Level |
| Receptor-5 | 5 | 1 | --- | 66.4 | 0.0 | --- | --- | Sound Level |
| Receptor-6 | 6 | 1 | --- | 66.8 | 0.0 | --- | --- | Sound Level |
| Receptor-7 | 7 | 1 | --- | 66.8 | 0.0 | --- | --- | Sound Level |
| Receptor-8 | 8 | 1 | --- | 62.7 | 0.0 | --- | --- | Sound Level |
| Receptor-9 | 9 | 1 | --- | 62.7 | 0.0 | --- | --- | Sound Level |
| Receptor-10 | 10 | 1 | --- | 64.6 | 0.0 | --- | --- | Sound Level |
| Receptor-11 | 11 | 1 | --- | 62.2 | 0.0 | --- | --- | Sound Level |
| Receptor-12 | 12 | 1 | --- | 61.8 | 0.0 | --- | --- | Sound Level |
| Receptor-13 | 13 | 1 | --- | 71.2 | 0.0 | --- | --- | Sound Level |
| Receptor-14 | 14 | 1 | --- | 69.2 | 0.0 | --- | --- | Sound Level |

APPENDIX E

Vehicles Miles Traveled Analysis

Revised Vehicle Miles Traveled Analysis

Golden Triangle

**Located on the Southwest Quadrant of Clovis
Avenue at Magill Avenue**

In the City of Clovis, California

Prepared for

Legacy Realty & Development
5390 East Pine Avenue
Fresno, CA 93727

October 2, 2024

Project No. 006-047



Traffic Engineering, Transportation Planning, & Parking Solutions

516 W. Shaw Ave., Ste. 103

Fresno, CA 93710

Phone: (559) 570-8991

www.JLBtraffic.com



Traffic Engineering, Transportation Planning, & Parking Solutions

Revised Vehicle Miles Traveled Analysis

**For the Golden Triangle located on the Southwest Quadrant of Clovis Avenue
at Magill Avenue**

In the City of Clovis, CA

October 2, 2024

This Revised Vehicle Miles Traveled Analysis Report has been prepared under the direction of a licensed Traffic Engineer. The licensed Traffic Engineer attests to the technical information contained therein and has judged the qualifications of any technical specialists providing engineering data from which recommendations, conclusions and decisions are based.

Prepared by:

A handwritten signature in black ink, reading "Jose L Benavides".

Jose Luis Benavides, PE, TE
President



Traffic Engineering, Transportation Planning, & Parking Solutions

516 W. Shaw Ave., Ste. 103
Fresno, CA 93704
Phone: (559) 570-8991
www.JLBtraffic.com

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List of Exhibits

- Exhibit A: Project Site Plan**
- Exhibit B: Fresno COG ABM Output**
- Exhibit C: VMT Improvements**

Project Description

This report describes a **Revised Vehicle Miles Traveled Analysis (VMT) Analysis** prepared by **JLB Traffic Engineering, Inc. (JLB)** for the **Golden Triangle (Project)** located on the Southwest Quadrant of Clovis Avenue at Magill Avenue in the City of Clovis. The Project proposes to develop auto dealerships, a brewery with ancillary buildings, general office buildings, general retail buildings and fast food restaurants with drive through windows. The Project will displace existing buildings. These buildings include a used car dealership, RV storage, general storage and single family residential. Based on information provided to JLB, the Project is consistent with the City of Clovis *General Plan*. A Project Site Plan is shown in Exhibit A.

Project Trip Generation

The trip generation rates for the proposed Project were obtained from the 11th Edition of the Trip Generation Manual published by the Institute of Transportation Engineers (ITE). Table II presents the trip generation for the proposed Project with trip generation rates for General Office Building (710), Strip Retail Plaza (822), Automobile Sales – New (840), Fast-Food Restaurant with Drive-Through (934), Wine Tasting Room (970), Brewery Tap Room (971) and Banquet Hall. At buildout, the proposed Project is estimated to generate approximately 8,881 daily trips, 628 AM peak hour trips and 840 PM peak hour trips.

Table I: Project Trip Generation

| Land Use (ITE Code) | Size | Unit | Daily | | AM Peak Hour | | | | | | PM Peak Hour | | | | | |
|--|---------|------|--------|-------|--------------|----|-----|-----|-----|-------|--------------|----|-----|-----|-----|-------|
| | | | Rate | Total | Trip Rate | In | Out | In | Out | Total | Trip Rate | In | Out | In | Out | Total |
| | | | | | | % | | | | | | % | | | | |
| General Office Building (710) | 15.000 | KSF | 10.84 | 163 | 1.52 | 88 | 12 | 20 | 3 | 23 | 1.44 | 17 | 83 | 4 | 18 | 22 |
| Strip Retail Plaza (<40k) (822) | 13.396 | KSF | 54.45 | 729 | 2.36 | 60 | 40 | 19 | 13 | 32 | 6.59 | 50 | 50 | 44 | 44 | 88 |
| Automobile Sales (New) (840) | 133.963 | KSF | 27.84 | 3,730 | 1.86 | 73 | 27 | 182 | 67 | 249 | 2.42 | 40 | 60 | 130 | 194 | 324 |
| Fast-Food Restaurant with Drive Through Window (934) | 6.844 | KSF | 467.48 | 3,199 | 44.61 | 51 | 49 | 156 | 149 | 305 | 33.03 | 52 | 48 | 118 | 108 | 226 |
| Wine Tasting Room (970) | 3.000 | KSF | 45.96 | 138 | 2.07 | 70 | 30 | 4 | 2 | 6 | 7.31 | 50 | 50 | 11 | 11 | 22 |
| Brewery Tap Room (971) | 10.575 | KSF | 61.69 | 652 | 0.68 | 88 | 12 | 6 | 1 | 7 | 9.83 | 59 | 41 | 61 | 43 | 104 |
| Banquet Hall ¹ | 200 | PPL | 1.35 | 270 | 0.03 | 90 | 10 | 5 | 1 | 6 | 0.27 | 98 | 2 | 53 | 1 | 54 |
| Total Driveway Trips | | | | 8,881 | | | | 392 | 236 | 628 | | | | 421 | 419 | 840 |

Note: 1 = Based on Non-ITE Rates
KSF = Thousand Square Feet
PPL = People

VMT Analysis

Regulatory Setting

Senate Bill (SB) 743 requires that relevant California Environmental Quality Act (CEQA) analysis of transportation impacts be conducted using a metric known as VMT instead of level of service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the project adds excessive car travel onto our roads, the project may cause a significant transportation impact.

The State CEQA Guidelines were amended to implement SB 743, by adding Section 15064.3. Among its provisions, Section 15064.3 confirms that, except with respect to transportation projects, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, LOS measures of impacts on traffic facilities are no longer a relevant CEQA criteria for transportation impacts.

CEQA Guidelines Section 15064.3(b)(4) states that "[a] lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section."

On October 17, 2022, the City of Clovis adopted the *Transportation Impact Analysis Guidelines* for VMT pursuant to Senate Bill 743 which was effective on July 1, 2020. The City of Clovis *Transportation Impact Analysis Guidelines* document was prepared and adopted consistent with the requirements of CEQA Guidelines Sections 15064.3 and 15064.7. The December 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA (TA) published by the Governor's Office of Planning and Research (OPR), was utilized as a reference and guidance document in the preparation of the Clovis VMT thresholds.

The City of Clovis *Transportation Impact Analysis Guidelines* adopted a screening standard and criteria that can be used to screen out qualified development projects that meet the adopted criteria from needing to prepare a detailed VMT Analysis. These criteria may be size, location, proximity to transit, of trip making potential. In general, development projects that are consistent with the City of Clovis' General Plan and Zoning that meet one or more of the following criteria can be screened out from a quantitative VMT analysis.

1. Project Located in a Transit Priority Area/High Quality Transit Corridor (within 0.5 miles of a transit stop).
2. Project is Local-serving Retail of less than 100,000 square feet.
3. Project is a Low Trip Generator (Less than 500 average daily trips)
4. Project is 100% Affordable Housing Units
5. Project is located in a Low VMT Zone

This screening tool is consistent with the OPR December 2018 Guidance referenced above. The screening tool includes an analysis of those portions of the City that satisfy the standard of reducing VMT by 13% from existing per capita and per employee VMT averages within the relevant region. The relevant region adopted by the City of Clovis *Transportation Impact Analysis Guidelines* is Fresno County. The City of Clovis *Transportation Impact Analysis Guidelines* Section 2.1.1.6. regarding project screening states that "... projects that are inconsistent with the RTP/SCS would not qualify for screening out of a detailed VMT analysis".

For projects that are not screened out, a quantitative analysis of VMT impacts must be prepared and compared against the adopted VMT thresholds of significance. The City of Clovis *Transportation Impact Analysis Guidelines* document includes thresholds of significance for development projects, transportation projects, and land use plans. These thresholds of significance were developed using the County of Fresno as the applicable region, and the required reduction of VMT (as adopted in the Clovis VMT Thresholds) corresponds to Fresno County's contribution to the statewide GHG emission reduction target. In order to reach the statewide GHG reduction target of 15%, Fresno County must reduce its GHG emissions by 13%. The method of reducing GHG by 13% is to reduce VMT by 13% as well.

VMT is simply the product of a number of trips and those trips' lengths. The first step in a VMT analysis is to establish the baseline average VMT, which requires the definition of a region. The City of Clovis *Transportation Impact Analysis Guidelines* provide that the Fresno County average VMT per Capita (appropriate for residential land uses) and Employee (appropriate for office/commercial non-retail land uses) are 16.1 and 25.6, respectively. The City's threshold targets a 13% reduction in VMT for residential and office/commercial non-retail land uses and a net zero (0) increase in regional VMT for commercial retail land uses.

The City's adopted thresholds for development projects correspond to the regional averages modeled by Fresno Council of Government's (COG's) Activity Based Model (ABM). For residential and office development projects, the adopted threshold of significance is a 13% reduction, which means that projects that generate VMT in excess of a 13% reduction from the existing regional VMT per capita or per employee would have a significant environmental impact. Projects that reduce VMT by 13% or more are less than significant. The adopted threshold for all "other" land use types that do not require a General Plan Amendment or Zone Change is no net increase in VMT per employee. The adopted threshold for retail projects is any net increase in Regional VMT compared to the existing Regional VMT. Quantitative assessments of the VMT generated by a development project are determined using the COG ABM, which is a tour-based model.

For mixed use projects, the City of Clovis *Transportation Impact Analysis Guidelines* state that the VMT can be estimated based on each component of the project, independently, after taking credit for internal trip capture. It also confirms that mixed use projects must use the Fresno COG's Activity Based Model. The VMT per capita (for the residential component) and the total VMT (for the retail component) is then compared against the relevant threshold.

The target VMT for residential and commercial non-retail land uses are $(16.1 \times (1-.13) = 14.0)$ 14.0 VMT per capita and $(25.6 \times (1-.13) = 22.3)$ 22.3 VMT per employee, respectively. The threshold for retail land uses is a net zero (0) increase in Regional VMT for retail land uses (City of Clovis, 2022). The target VMT for all “other” type of land uses that are consistent with the General Plan is dependent on the land use type, project description and setting. These will be determined on a case-by-case basis to either be more aligned with commercial non-retail or retail land uses. In either case, the target VMT will be based on that of the commercial non-retail or retail land uses.

Projects that are consistent with the General Plan and do not meet a VMT Screening Criteria would be required to identify feasible VMT improvement measures. If it cannot be demonstrated that improvement would reduce VMT of the proposed Project below the applicable threshold, then a significant and unavoidable impact would be reported. Section 4.2.2.3 of the City of Clovis *Transportation Impact Analysis Guidelines* states that significant and unavoidable VMT impacts associated with City of Clovis *General Plan* development have already been disclosed. Thus, the Project can tier off of the Clovis General Plan SEIR with a Mitigated Negative Declaration (MND) with VMT improvement.

VMT Screening

There are three land use categories identified in the Project. The auto dealership is designated as the “other” land use category, the general office buildings are designated as the office land use category and the brewery with ancillary buildings, general retail buildings and fast food restaurants with drive through windows are designated as the retail land use category. Within the City of Clovis *Transportation Impact Analysis Guidelines* there are five (5) screening criteria. These criteria are stated in the Regulatory Settings sections of this Report. According to Section 2.1.1.5 of the City of Clovis *Transportation Impact Analysis Guidelines*, “Office or the employment portions of other non-residential uses with total daily employee-based VMT per employee that is 13 percent less than the existing average baseline level in Fresno County. . . are shown in green in the maps provided. . .” (City of Clovis, 2022). The Project is located within a low VMT area in terms of VMT per employee. This screening map can be found in Exhibit B. As the “other” and office land use categories are employment driven land uses and are located in a low VMT zone, they are screened out from a detailed VMT analysis.

VMT Results

The Project’s trip generation was provided to Fresno COG in order to conduct a Project-specific VMT analysis using the Fresno COG ABM. As the office and “other” land use categories were screened out, this Report is now focused on the retail land use category. This land use category includes Strip Retail Plaza (822), Fast-Food Restaurant with Drive-Through (934), Wine Tasting Room (970), Brewery Tap Room (971) and Banquet Hall. Based on Fresno COG results, the regional VMT without the Project is 23,414,391 and the VMT with the Project is 23,416,418. This exceeds the VMT threshold for retail land use categories of no net increase to regional VMT by 2,027. However, it should be noted that the regional VMT with the Project does not account for VMT reductions associated with a Project’s pass-by rate trip reductions. As the retail portion of the Project generates 4,988 daily trips and increases the regional VMT by 2,027, each daily trip would need to be reduced by approximately 0.41 miles $(2,027 \text{ total miles} / 4,988 \text{ daily trips} = 0.41 \text{ miles per trips})$ in order to reduce the Projects Regional VMT to less than significant. Fresno COG

reported an average retail internal trip length of 5.28 miles. The internal trip length is the length in miles that the Project generates solely within the regional boundary, in this case the County of Fresno. Appendix A presents the Project VMT output from the Fresno COG ABM.

It is anticipated that this Project, specifically the Strip Retail Plaza and Fast-Food Restaurant with Drive-Through portions, will benefit from pass-by trip reductions. Pass-by trip reductions are a representation of vehicles already on the road that the Project is anticipated to attract. Considering that pass-by trips do not add any VMT to the roadway network as a result of the Project, pass-by trips can be removed from the VMT generated by the Project. Per Caltrans' *Guide for the Preparation of Traffic Impact Studies*, pass-by rates are to be limited to 15 percent of the trip generation unless substantial evidence can demonstrate otherwise. While it is anticipated that the Project will attract a larger rate of pass-by trips, this VMT analysis has been limited to 5 percent in order to provide a conservative result. Furthermore, since ITE does not provide data for pass-by trip reduction characteristics related to Wine Tasting Room (970), Brewery Tap Room (971) and Banquet Hall, pass-by trips were not applied to these land uses. Therefore, the Project's total VMT is reduced by 5 percent of the traffic generated by the Strip Retail Plaza and Fast-Food Restaurant with Drive-Through portions. The Strip Retail Plaza and Fast-Food Restaurant with Drive-Through portions generate approximately 3,928 daily trips. This equates to 196 daily pass-by trips ($3,928 \text{ daily trips} \times 0.05 = 196$) when rounded down or 1,034 miles ($196 \text{ pass-by trips} \times 5.28 \text{ miles} = 1,034 \text{ miles}$). As a result, the Regional VMT with Project is expected to be reduced to 23,415,384 after accounting for the reduction from pass-by trips. Table II provides the regional VMT once pass-by rate reductions are accounted for but prior to accounting for the Project's VMT improvement measures.

Table II: VMT Results with Pass-by Rate Reduction Prior to Improvement

| <i>Project Component</i> | <i>Regional VMT without Project¹</i> | <i>Regional VMT with Project¹</i> | <i>Pass-By Reductions</i> | <i>Regional VMT with Project After Pass-By Reductions</i> | <i>Above VMT Threshold?</i> |
|--------------------------|---|--|---------------------------|---|-----------------------------|
| Retail | 23,414,391 | 23,416,418 | 1,034 | 23,415,384 | Yes |

Note: 1 = VMT Results from Fresno COG ABM Output.

VMT Improvement

The VMT improvement measures considered for this Project include those appropriate for the respective land use as noted in the City of Clovis *Transportation Impact Analysis Guidelines*. Exhibit C presents a summary of the VMT reduction associated with each improvement measure utilized in this Report. The selected VMT reduction rates appropriate for the Project were based on the *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* published by the California Air Pollution Control Officers Association (CAPCOA). The improvement measure found feasible is Provide Electric Vehicle Charging Infrastructure (T-14). This improvement was calculated using eight (8) electric vehicle (EV) chargers. There are more EV chargers shown on the site plan, but eight (8) of the EV chargers serve the retail components of the Project. Calculations for this measure can be found in Exhibit C. As can be seen in Table III, the improvement measure results in a reduction of 6.2% of Project related VMT. After the application of pass-by reductions and the improvement measure, the resulting regional VMT with Project is 23,413,815. Therefore, the regional VMT with Project is less than the regional VMT without project. In conclusion, the Project is projected to have a less than significant VMT impact when implementing eight (8) EV chargers that serve the retail components.

Table III: VMT Improvement

| <i>Project Component</i> | <i>Regional VMT without Project¹</i> | <i>Regional VMT with Project After Pass-By Reductions</i> | <i>Improvement Reductions</i> | <i>Regional VMT with Project After Improvements and Pass-By Reductions</i> | <i>Above VMT Threshold?</i> |
|--------------------------|---|---|-------------------------------|--|-----------------------------|
| Retail | 23,414,391 | 23,415,384 | 1,569 | 23,413,815 | No |

Note: 1 = VMT Results from Fresno COG ABM Output.

Conclusion

Conclusions regarding the VMT Analysis of the proposed Project are provided below.

- The “other” and office land use categories are employment driven land uses and are located in a low VMT zone, and thus are screened out from a detailed VMT analysis as its VMT impacts have been previously reported to be less than significant by the City’s General Plan and VMT Guidelines.
- Once pass-by trip reductions and VMT improvements are accounted for the Project’s retail components, the regional VMT for the Project is determined to be less than significant.
 - Per the Fresno COG VMT Analysis output, the regional VMT without the Project is 23,414,391 and the regional VMT with the Project is 23,416,418.
 - After applying pass-by reductions, the regional VMT with the Project is 23,415,384.
 - The improvement measure found feasible is Provide Electric Vehicle Charging Infrastructure (T-14).
 - After the implementation of feasible improvements measure, the regional VMT with the Project is 23,413,815.
 - The City of Clovis threshold for retail projects is a no net increase to regional VMT.
- Therefore, once improvements are taken into account, the Project as a whole is projected to result in a less than significant VMT impact.

Study Participants

JLB Traffic Engineering, Inc. Personnel:

| | |
|-----------------------------|----------------------------|
| Jose Luis Benavides, PE, TE | Project Manager |
| Matthew Arndt, EIT | Engineer I/II |
| Christian Sanchez, EIT | Engineer I/II |
| Adrian Benavides | Engineering Aide |
| Carlos Topete | Engineering Aide |
| Dennis Wynn | Sr. Engineering Technician |

Persons Consulted:

| | |
|-------------------|-----------------------------|
| Jeff Milgrom | Legacy Realty & Development |
| Bryan Pok | Centerline Design, LLC |
| Sean Smith, PE | City of Clovis |
| Christopher Kelly | City of Clovis |
| Hector Luna | County of Fresno |
| David Padilla | Caltrans, D6 |
| Christopher Xiong | Caltrans, D6 |
| Santosh Bhattarai | Fresno COG |

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006-047 - 04/30/24 - AD

Exhibit B: Fresno COG ABM Output



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A p p | B

**Golden Triangle Project located Southwest Corner of Clovis Avenue and
Magill Avenue in the City of Clovis (JLB Project 006-047)**

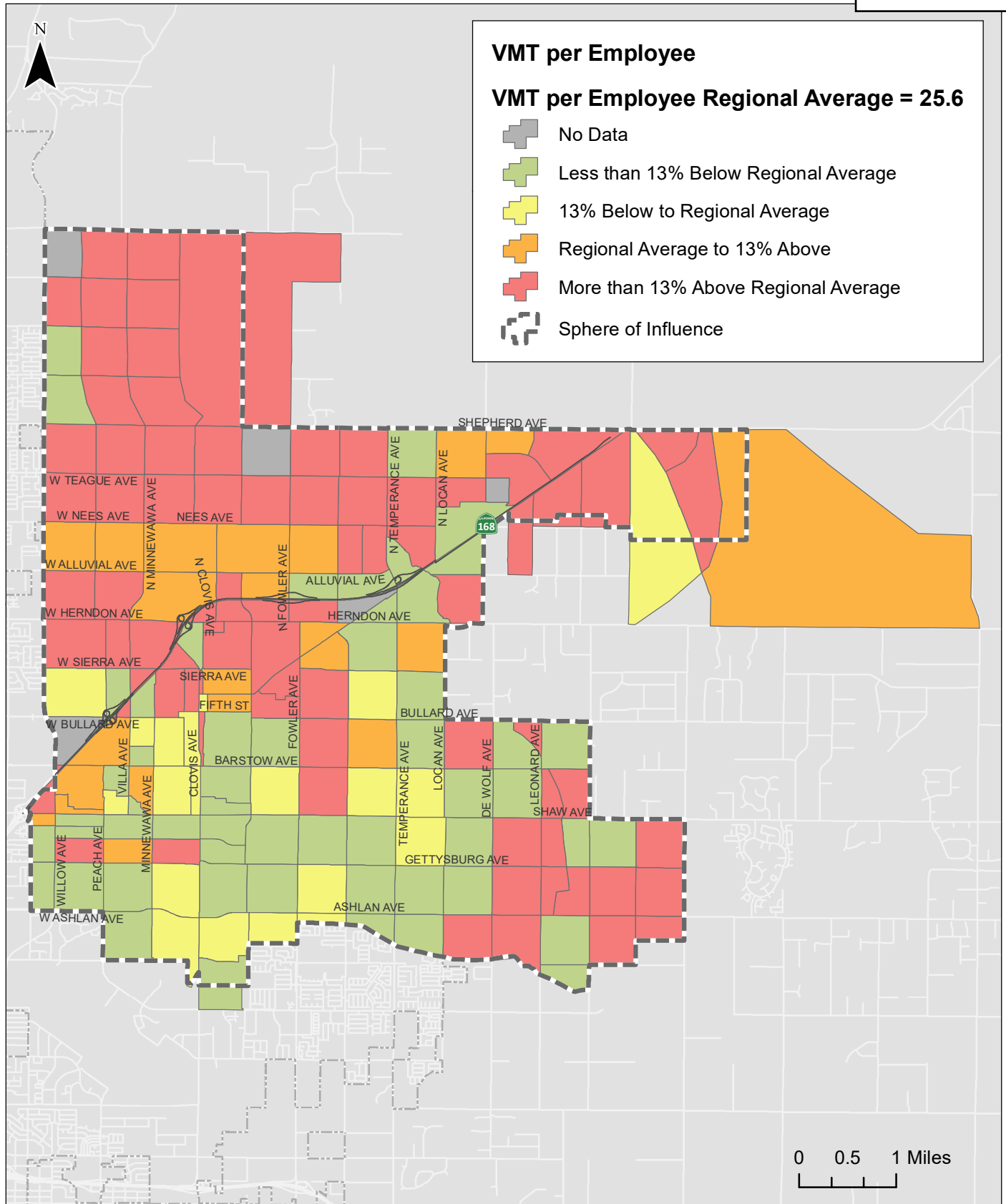
VMT Analysis for the Mixed-Use Project:

Retail/TAZ A

| Scenario | Total VMT | Net Difference | Significant |
|-----------------|------------|----------------|-------------|
| Without Project | 23,414,391 | | |
| With Project | 23,416,418 | 2,027 | Yes |

Other and Office

| TAZ | Total VMT | Employee | VMT/Emp | Type |
|--------|-----------|----------|---------|--------|
| 2858/B | 3338.04 | 118 | 28.3 | Other |
| 2859/C | 1323.90 | 49 | 27.0 | Office |



**Existing VMT Per Employee (2019)
City of Clovis VMT Implementation**

**Figure
B2**

H:\2424913 - City of Clovis VMT Implementation\gis\Clovis_VMTPeremp(2019)_nolabel.mxd - garsky - 9:22 AM 2/4/2021

Exhibit C: VMT Improvements



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A p p | C

Golden Triangle VMT Analysis

| | | | |
|--|--|-------------------|-------------------|
| TAZ: | | | 1404 |
| Land Use: | | | Residential |
| Regional VMT without Project | | | 23,414,391 |
| Regional VMT with Project | | | 23,416,418 |
| Total Internal Retail Miles | | | 26,337 |
| Pass-By Reductions | | | 1,034 |
| Regional VMT with Project after Pass-By Reductions | | | 23,415,384 |
| Total Internal Retail Miles after Pass-By Reductions | | | 25,303 |
| Target VMT Satisfied Prior to Improvement? | | | FALSE |
| Measure | VMT Improvement | Maximum Reduction | VMT Reduction (%) |
| Project/Site Scale | | | |
| <i>Land Use</i> | | | |
| T-1 | Increase Residential Density | 30.0% | 0.0% |
| T-2 | Increase Job Density | 30.0% | 0.0% |
| T-3 | Provide Transit-Oriented Development | 31.0% | 0.0% |
| T-4 | Integrate Affordable and Below Market Rate Housing | 28.6% | 0.0% |
| Combined Land Use | | 65.0% | 0.0% |
| <i>Trip Reduction Programs</i> | | | |
| T-5 | Implement CTR Program (Voluntary) | 4.0% | 0.0% |
| T-6 | Implement CTR Program (Mandatory and Monitoring) | 26.0% | 0.0% |
| T-7 | Implement CTR Marketing | 4.0% | 0.0% |
| T-8 | Provide Ridesharing Program | 8.0% | 0.0% |
| T-9 | Implement Subsidized or Discounted Transit Program | 5.5% | 0.0% |
| T-10 | Provide End-of-Trip Bicycle Facilities | 4.4% | 0.0% |
| T-11 | Provide Employer-Sponsored Vanpool | 20.4% | 0.0% |
| T-12 | Price Workplace Parking | 20.0% | 0.0% |
| T-13 | Implement Employee Parking Cash-Out | 12.0% | 0.0% |
| Combined Trip Reduction Programs | | 45.0% | 0.0% |
| <i>Parking or Road Pricing/Management</i> | | | |
| T-14 | Provide Electric Vehicle Charging Infrastructure | 11.9% | 6.2% |
| T-15 | Limit Residential Parking Supply | 13.7% | 0.0% |
| T-16 | Unbundle Residential Parking Costs from Property Costs | 15.7% | 0.0% |
| Combined Parking or Road Pricing/Management | | 35.0% | 6.2% |
| Combined Project/Site Scale Improvements | | 70.0% | 6.2% |
| VMT Improvement Calculations | | | |
| TAZ: | | | 1404 |
| Land Use: | | | Residential |
| Regional VMT without Project | | | 23,414,391 |
| Regional VMT with Project | | | 23,416,418 |
| Total Internal Retail Miles | | | 26,337 |
| Pass-By Reductions | | | 1,034 |
| Regional VMT with Project after Pass-By Reductions | | | 23,415,384 |
| Total Internal Retail Miles after Pass-By Reductions | | | 25,303 |
| Improvement Reduction | | | 1,569 |
| Regional VMT with Project after Pass-By Reductions and Improvement | | | 23,413,815 |
| Target VMT Satisfied? | | | TRUE |



GHG Mitigation Potential



Up to 11.9% of GHG emissions from vehicles accessing the commercial or multifamily housing building

Co-Benefits (icon key on pg. 34)



Climate Resilience

Providing electric vehicle charging infrastructure increases fuel redundancy for electric vehicles even if an extreme weather event disrupts other fuel sources. Electric vehicles could also provide benefits to buildings and the grid, such as emergency backup, energy reserves, and demand response.

Health and Equity Considerations

Differential costs of PHEVs compared to conventional vehicles are decreasing over time, but at present are more expensive, which means this measure could disproportionately benefit those of greater economic means. As costs come into parity over time, this will be less of an issue. Employer, electricity provider, and state incentives for PHEV purchase could help address near-term disparities.

Measure Description

Install onsite electric vehicle chargers in an amount beyond what is required by the 2019 California Green Building Standards (CALGreen) at buildings with designated parking areas (e.g., commercial, educational, retail, multifamily). This will enable drivers of PHEVs to drive a larger share of miles in electric mode (eVMT), as opposed to gasoline-powered mode, thereby displacing GHG emissions from gasoline consumption with a lesser amount of indirect emissions from electricity. Most PHEVs owners charge their vehicles at home overnight. When making trips during the day, the vehicle will switch to gasoline mode if/when it reaches its maximum all-electric range.

Subsector

Parking or Road Pricing/Management

Locational Context

Urban, suburban, rural

Scale of Application

Project/Site

Implementation Requirements

Parking at the chargers must be limited to electric vehicles.

Cost Considerations

The primary costs associated with electric vehicle charging infrastructure include the capital costs of purchasing and installing charging stations, electricity costs from use of stations, and maintenance costs of keeping the charging stations in working order. Costs initially fall to the station owners, either municipalities or private owners, but can be passed along to station users with usage fees. Depending on station placement and charging times required for PHEVs, businesses near charging stations can derive benefits from patronage of station users.

Expanded Mitigation Options

In addition to increasing the percentage of electric miles for PHEVs, the increased availability of chargers from implementation of this measure could mitigate consumer "range anxiety" concerns and increase the adoption and use of battery electric vehicles (BEVs), but this potential effect is not included in the calculations as a conservative assumption. Expanded mitigation could include quantification of the effect of this measure on BEV use.

GHG Reduction Formula

$$A = \frac{B \times D \times (F - E) \times (G - (H \times I \times K \times L))}{-C \times J} = \frac{8 \times 2 \times (80 - 46) \times (205.1 - (0.327 \times 454 \times 0.001 \times 206))}{4,988 \times 307.5} = 6.2\%$$

GHG Calculation Variables

| ID | Variable | Value | Unit | Source |
|---|---|------------------------|--|---------------------------|
| Output | | | | |
| A | Percent reduction in GHG emissions from vehicles accessing the office building or housing | 0–11.9 | % | calculated |
| User Inputs | | | | |
| B | Number of chargers installed at site | [] | integer | user input |
| C | Total vehicles accessing the site per day | [] | integer | user input |
| Constants, Assumptions, and Available Defaults | | | | |
| D | Average number of PHEVs served per day per charger installed | 2 | integer | CARB 2019 |
| E | Percent of PHEV miles in electric mode without measure | 46 | % | CARB 2020a |
| F | Percent of PHEV miles in electric mode with measure | 80 | % | CARB 2017 |
| G | Average emission factor of PHEV in gasoline mode | 205.1 | g CO ₂ e per mile | CARB 2020a; U.S. DOE 2021 |
| H | Energy efficiency of PHEV in electric mode | 0.327 | kilowatt hours (kWh) per mile | CARB 2020b; U.S. DOE 2021 |
| I | Carbon intensity of local electricity provider | Tables E-4.3 and E-4.4 | lb CO ₂ e per megawatt hour (MWh) | CA Utilities 2021 |
| J | Average emission factor of non-electric vehicles accessing the site | 307.5 | g CO ₂ e per mile | CARB 2020a |
| K | conversion from lb to g | 454 | g per lb | conversion |
| L | Conversion from kWh to MWh | 0.001 | MWh per kWh | conversion |

Further explanation of key variables:

- (D) – The average number of PHEVs served per day per charger installed is 2 vehicles (CARB 2019). If the user can provide a project-specific value, they should replace the default in the GHG reduction formula.
- (E) - Based on the EMFAC2017 model (v1.0.3), 46 percent of miles traveled by PHEVs in California are eVMT, and 54 percent are in gasoline mode (CARB 2020a).

- (F) – A review of EV user surveys and analytics included in the CARB’s *Advanced Clean Cars Mid-Term Report* suggest that PHEV owners can reach 80 percent eVMT with access to adequate supportive charging infrastructure (CARB 2017).
- (G) – As described for (J), the average GHG emission factor for gasoline vehicles is 307.5 grams of CO₂e per mile.
- The fuel efficiency of a PHEV in gasoline mode is calculated as 66.7 percent of the fuel consumption rate of a gasoline vehicle, based on the assumption that a gasoline hybrid vehicle has 50 percent higher fuel economy (miles per gal [mpg]) than a comparable gasoline vehicle, based on a comparison of the gasoline and hybrid Toyota Camry and Corolla models (U.S. DOE 2021). This percentage is applied to the average GHG emission factor for gasoline vehicles to determine the average emission factor for PHEVs in gasoline mode as (66.7% × 307.5 g CO₂e per mile). If the user can provide a project-specific value by running EMFAC based on the future year of a project, they should replace the default in the GHG reduction formula.
- (H) – Scaled from a light-duty automobile gasoline equivalent fuel economy 30.3 mpg (CARB 2020a), an energy efficiency ratio (EER) of 2.5 (CARB 2020b), and an assumption of 33.7 kWh electricity per gallon of gasoline (U.S. DOE 2021).
- (I) – GHG intensity factors for major California electricity providers are provided in Tables E-4.3 and E-4.4 in Appendix C. If the project study area is not serviced by a listed electricity provider, or the user is able to provide a project-specific value (i.e., for the future year not referenced in Appendix C), the user should replace the default in the GHG calculation formula. If the electricity provider is not known, the user may elect to use the statewide grid average carbon intensity.
- (J) – The average GHG emission factor for non-electric vehicles accessing the site was calculated in terms of CO₂e per mile using EMFAC2017 (v1.0.3). The model was run for a 2020 statewide average of LDA, LDT1, and LDT2 vehicles using diesel and gasoline fuel. The running emission factors for CO₂, CH₄, and N₂O (CARB 2020a) were multiplied by the corresponding 100-year GWP values from the IPCC’s Fourth Assessment Report (IPCC 2007). If the user can provide a project-specific value (i.e., for a future year and project location), the user should run EMFAC to replace the default in the GHG reduction formula.

GHG Calculation Caps or Maximums

Measure Maximum

(A_{max}) The percent reduction in GHG emissions (A) is capped at 11.9 percent, which is based on the following assumptions used to generate a maximum scenario:

- (B) – number of chargers installed = 20. CALGreen provides a non-residential voluntary Tier 2 measure that requires projects with 201 or more parking spaces to allocate 10 percent of total parking spaces for “EV Capable” parking spaces (or 20 parking spaces) (CBSC 2019). Note that EV Capable parking spaces do not actually have EV chargers installed, though they do have electrical panel capacity, a dedicated branch circuit, and a raceway to the EV parking spot to support future installation of charging stations. Therefore, using the number of EV Capable parking spaces as a proxy for EV chargers as a high-end estimate is conservative.

- (C) – total vehicles accessing the site = 200. Per the CALGreen voluntary measure, the number of total parking spaces that correspond with 20 “EV Capable” parking spaces is 201.
- (D) – PHEVs served per day per charger installed = 7. This value is the max (D_{max}). This assumes that all PHEV drivers would coordinate sharing of the limited number of chargers at the site. Value is based on data from the National Renewable Energy Laboratory (CARB 2019).
- (I) – carbon intensity of local electricity provider = 0 lb CO_{2e} per MWh. This assumes that the local electricity provider is powered 100 percent by renewables and thus has a carbon intensity of zero.

Subsector Maximum

($\sum A_{max_{T-14 \text{ through } T-16}} \leq 35\%$) This measure is in the Parking or Road Pricing/Management subsector. This subcategory includes Measures T-14 through T-16. The VMT reduction from the combined implementation of all measures within this subsector is capped at 35 percent.

Example GHG Reduction Quantification

The user will install electric vehicle chargers at their proposed office or multifamily housing development, which will enable employees or residents with PHEVs to drive a larger share of miles in electric mode, as opposed to gasoline-powered mode, thereby displacing GHG emissions from gasoline consumption with a lesser amount of indirect emissions from indirect electricity. In this example, 20 chargers (B) will be installed at a workplace with 200 daily employee vehicles accessing the site (C). The electricity provider for the project area is the Sacramento Municipal Utility District (SMUD) and the analysis year is 2022. The carbon intensity of electricity is therefore 344 lb CO_{2e} per MWh (I). The GHG impact is calculated as a 3.4 percent reduction from the total emissions from vehicles accessing the site.

A =

$$\frac{20 \times 2 \frac{\text{PHEVs}}{\text{charger} \cdot \text{day}} \times (80\% - 46\%) \times (205.1 \frac{\text{g CO}_2\text{e}}{\text{miles}} - (0.327 \frac{\text{kWh}}{\text{mile}} \times 344 \frac{\text{lb CO}_2\text{e}}{\text{MWh}} \times 454 \frac{\text{g}}{\text{lb}} \times 0.001 \frac{\text{MWh}}{\text{kWh}}))}{-200 \text{ vehicles} \times 307.5 \frac{\text{g CO}_2\text{e}}{\text{miles}}} = 3.4\%$$

Quantified Co-Benefits

While the measure will achieve fuel savings, it will also increase electricity consumption. This section defines the methods for quantifying Improved Local Air Quality and fuel savings, as well as increased electricity consumption.



Improved Local Air Quality

Local criteria pollutants will be reduced by the reduction in fossil fuel combustion. The percent reduction in criteria pollutants can be calculated using the GHG reduction formula. Electricity supplied by statewide fossil-fueled or bioenergy power plants will generate criteria pollutants. However, because these power plants are located throughout the state, electricity consumption from vehicles charging will not generate localized criteria pollutant emissions. Consequently, for the quantification

of criteria pollutant emission reductions, either the electricity portion of the equation can be removed, or the electricity intensity (I) can be set to zero.



Fuel Savings (Increased Electricity)

The percent reduction in vehicle fuel consumption would be the same as the percent reduction in criteria pollutant emissions. The percent increase in electricity use (M) from this measure can be calculated as follows.

Electricity Use Increase Formula

$$M = \frac{B \times D \times (F - E) \times J \times N \times O}{-C \times P}$$

Electricity Use Increase Calculation Variables

| ID | Variable | Value | Unit | Source |
|---|---|---------|---------------------------|------------|
| Output | | | | |
| M | Increase in electricity from PHEVs | [] | % | calculated |
| User Inputs | | | | |
| N | Existing electricity consumption of project/site | [] | kWh per year | user input |
| O | Days per year with vehicles accessing the site | 260–365 | days per year | user input |
| P | Average annual VMT of vehicles accessing the site | [] | miles per day per vehicle | user input |
| Constants, Assumptions, and Available Defaults | | | | |
| None | | | | |

Further explanation of key variables:

- (N) – The user should take care to properly quantify building electricity using accepted methodologies (such as CalEEMod).
- (O) – If the proposed development is a workplace in which employees access the site an average of 5 days per week, the user should input 260 workdays. If the development is multifamily dwelling, the user should input 365 days.
- Please refer to the GHG Calculation Variables table above for definitions of variables that have been previously defined.

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