



CITY of CLOVIS

AGENDA • CITY COUNCIL MEETING

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

In compliance with the Americans with Disabilities Act, if you need special assistance to access the City Council 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.

Any writings or documents provided to a majority of the City Council regarding any item on this agenda will be made available for public inspection at City Hall, in the City Clerk's office, during normal business hours. In addition, such writings and documents may be posted on the City's website at www.cityofclovis.com.

December 09, 2019

6:00 PM

Council Chamber

The City Council welcomes participation at Council Meetings. Members of the public may address the Council on any item of interest to the public that is scheduled on the Agenda. In order for everyone to be heard, please limit your comments to 5 minutes or less, or 10 minutes per topic.

CALL TO ORDER

FLAG SALUTE - Councilmember Ashbeck

ROLL CALL

Public Comments - This is an opportunity for the members of the public to address the City Council on any matter within the City Council's jurisdiction that is not listed on the Agenda. In order for everyone to be heard, please limit your comments to 5 minutes or less, or 10 minutes per topic. Anyone wishing to be placed on the Agenda for a specific topic should contact the City Manager's office and submit correspondence at least 10 days before the desired date of appearance.

ORDINANCES AND RESOLUTIONS - With respect to the approval of resolutions and ordinances, the reading of the title shall be deemed a motion to waive a reading of the complete resolution or ordinance and unless there is a request by a Councilmember that the resolution or ordinance be read in full, further reading of the resolution or ordinance shall be deemed waived by unanimous consent of the Council.

CONSENT CALENDAR - Items considered routine in nature are to be placed upon the Consent Calendar. They will all be considered and voted upon in one vote as one item unless a Councilmember requests individual consideration. A Councilmember's vote in favor of the Consent Calendar is considered and recorded as a separate affirmative vote in favor of each action listed. Motions in favor of adoption of the Consent Calendar are deemed to include a motion to waive the reading of any ordinance or resolution on the Consent Calendar. For adoption of ordinances, only those that have received a unanimous vote upon introduction are considered Consent items.

1. Administration - Receive and File - Business Organization of Old Town (B.O.O.T.) Second Quarter Report, October through December 2019.
2. Administration - Approval – 2020 Street Closure Requests; and Approval - Res. 19-____, Declaring Certain Events as Old Town Special Events and Setting Precise Boundaries for Those Old Town Special Events.
3. Finance – Receive and File – Investment Report for the Month of August 2019.
4. Finance – Receive and File – Treasurer's Report for the Month of August 2019.
5. Finance - Receive and File – Status Report of Community Facilities District Revenues and Expenditures.
6. Planning and Development Services - Approval - For the City Manager to enter into a contract with Regency Property Management for the management and maintenance of certain improvements in Blackhorse Estates 1 & 2 – Assessment District 1995-1.
7. Planning and Development Services - Approval - Res. 19-____, A request to consider the initiation of an ordinance amendment to provide for electronic message LED and video display signs, California Health Sciences University and Clovis Rodeo Association applicants.
8. Public Utilities – Approval – Authorize the Purchase of Three CNG Side-Loading Refuse Trucks from Golden State Peterbilt.
9. Public Utilities – Approval – Waive Formal Bidding Requirements and Authorize the Purchase of a 5-Yard Dump Truck off of the Sourcewell Purchasing Contract from PB Loader Corporation.

PUBLIC HEARINGS - A public hearing is an open consideration within a regular or special meeting of the City Council, 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.

10. Consider items associated with approximately 21.52 acres of property located along the south side of Shepherd Avenue between Clovis and Sunnyside Avenues. John and Kristen Sobaje (Owners) / Lennar Homes of California, Inc. (Applicant) / Yamabe & Horn Engineering, Inc. (Representative).
 - a. Consider Approval - Res. 19-____, A request to adopt an environmental finding of a Mitigated Negative Declaration for General Plan Amendment GPA2019-001, Rezone R2019-003, and Vesting Tentative Tract Map TM6263.
 - b. Consider Approval - Res. 19-____, GPA2019-001, A request to amend the General Plan and Herndon-Shepherd Specific Plan to re-designate from the Low Density Residential (2.1 to 4.0 DU/Ac) to the Medium Density Residential (4.1 to 7.0 DU/Ac) classification.

- c. Consider Introduction - Ord. 19-____, R2019-003, A request to approve a rezone from the R-1-7500 (Single Family Residential-7,500 Sq Ft) to the R-1-PRD (Single Family Planned Residential) Zone District.
- d. Consider Approval - Res. 19-____, TM6263, A request to approve a vesting tentative tract map for a 137-lot Planned Residential Development.

Staff: Ricky Caperton, AICP, Senior Planner

Recommendation: Approve

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

- [11.](#) Consider Approval – Bid Award for CIP 16-20, Owens Mountain and Temperance Roundabout; and Authorize the City Manager to execute the contract on behalf of the City.

Staff: Michael Harrison, City Engineer

Recommendation: Approve

- [12.](#) Consider Approval - 2018-19 Comprehensive Annual Financial Report.

Staff: Jay Schengel, Finance Director

Recommendation: Approve

- [13.](#) Consider Approval - Res 19-____, Final Amendments to the 2018-19 Budget in conformance with the Budget Ordinance; and Receive and File – Year end report for all funds as of June 30, 2019.

Staff: Jay Schengel, Finance Director

Recommendation: Approve

CITY MANAGER COMMENTS

COUNCIL COMMENTS

ADJOURNMENT

MEETINGS AND KEY ISSUES

Regular City Council Meetings are held at 6:00 P.M. in the Council Chamber. The following are future meeting dates:

Dec. 16, 2019 (Mon.)
Jan. 6, 2020 (Mon.)
Jan. 13, 2020 (Mon.)
Jan. 21, 2020 (Tue.)



CITY of CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Community & Economic Development

DATE: December 9, 2019

SUBJECT: Administration - Receive and File - Business Organization of Old Town (B.O.O.T.) Second Quarter Report, October through December 2019

ATTACHMENTS: 1. Business Organization of Old Town (B.O.O.T.) Second Quarter Report, October through December 2019

CONFLICT OF INTEREST

None

RECOMMENDATION

That the City Council receive and file the B.O.O.T. Second Quarter Report, October through December 2019.

EXECUTIVE SUMMARY

According to the 2019–2020 agreement between the City of Clovis and the Business Organization of Old Town, B.O.O.T. is to submit quarterly reports to the City Manager and City Council. The amount to be funded is \$15,000.

BACKGROUND

According to the 2019-2020 agreement between the City of Clovis and the Business Organization of Old Town, B.O.O.T. is to submit quarterly reports to the City Manager and City Council detailing progress of B.O.O.T.'s promotional and marketing activity. Attached as Attachment "A" is the Second Quarter Report, October through December 2019 activities. The amount to be funded is \$15,000.

FISCAL IMPACT

The amount to be funded is \$15,000, which is called out in the 2019-2020 Budget.

REASON FOR RECOMMENDATION

The attached report meets the requirement established in the 2019-2020 agreement between the City of Clovis and the Business Organization of Old Town.

ACTIONS FOLLOWING APPROVAL

Staff will process payment to B.O.O.T.

Prepared by: Shawn Miller, Business Development Manager

Reviewed by: City Manager LS



Business Organization of Old Town Quarterly Agreement/Compliance Report 2nd Quarter – October 1 through December 31, 2019

In accordance with the Agreement between City of Clovis Economic Development Department and the Business Organization of Old Town Clovis for the fiscal year 2019-20, the following items have been accomplished to date.

Goal #1:

Maintain a viable organization with membership reflective of the diversity of Old Town Clovis.

Objective:

- To maintain current level of membership and seek new members each year.
- To unite the merchants of Old Town as a group of businesses working together for the betterment of the whole downtown district.

Strategy:

- Provide information on the website about B.O.O.T., B.O.O.T. membership, benefits of membership and application forms year round.
- Personal visits to businesses in the PBI to recruit and retain members.
- Contact with businesses outside the PBI to recruit and retain Associate Members/"Friends of B.O.O.T."
- Allow members to pay dues monthly, quarterly or semiannually.
- Create a benefits package to attract both regular and associate members.
- Design benefits that will be exclusive to B.O.O.T. membership.
- Attract Members to a co-op advertising program that runs in the 4th quarter of the year and at other times if funds are available. (The Board agreed to provide co-op advertising at 25% for Member advertising 4th quarter 2019.)
- Plan and post meeting notices for monthly B.O.O.T. membership meetings.
- Advertise frequently to promote Old Town Clovis on behalf of all merchants.
- Enhance existing programs to draw more people to Old Town.

Results:

- A membership and organization characteristic of Old Town Clovis.
- The 2020 Membership Campaign started in November 2019. Members meet at a local restaurant on the 4th Wednesday of each month at 6:30 pm unless otherwise noted.
- New Members are sought throughout the year and new businesses are invited to join.
- The Board of Directors meet on the 4th Wednesday of each month at noon at the B.O.O.T. office to discuss issues pertinent to the organization, i.e. status of B.O.O.T members, review finances and report on events.
- Board members represent our diverse merchant groups: office professional, property owners, restaurants, bars, antique, gift and specialty stores. We are currently in the process of electing and ratifying our new Board for 2020. The 2019-2020 Board of Directors is as follows. Board Elections will take place at the end of the month. Two members are up for election and there is one open position:
 - ◆ Cora Shipley, President (through 2020)
 - ◆ Tom Frost, Vice President (through 2019)

- ◆ Karen Chisum, Secretary (through 2020)
 - ◆ Sheryl Michael, Treasurer (through 2020)
 - ◆ Julie Glenn, Director at Large (through 2019)
 - ◆ Brian Smart, Director at Large (through 2019) *
 - ◆ Ronnie Silva, Director at Large (through 2020)
- * Brian Smart no longer has an office in Old Town so he is dropping off the BOOT Board of Directors but will remain a member of BOOT.

Goal #2:

Maintain Old Town Clovis' promotional activities

Objective:

- Successfully manage, promote, and operate events in Old Town Clovis, as well as create new events on an ongoing basis that attract visitors to Old Town Clovis.
- To provide a quality event giving people a reason to visit the downtown district.
- To showcase Old Town Clovis as a shopping and dining destination.
- To develop marketing strategies to keep Old Town competitive with malls and other shopping areas.
- To attract customers and visitors, both old and new, to the downtown district.
- To present Old Town Clovis as an attractive, appealing, friendly, and inviting business community.

Strategy:

- Develop, operate, promote, maintain and pay for events that bring people to Old Town Clovis.
- Establish and maintain events that highlight Old Town Clovis locally, nationally and internationally such as the NAPVA Pole Vault Championships that draws international attention.
- Meet all requirements set by City, State and other agencies for activities, events and attractions.
- Develop new events and activities like One Enchanted Evening, the Wine Walks and the Craft Beer Crawls to bring visitors directly into the businesses.
- Create and pay for multi-media advertising campaigns for general advertising such as generic "Shop Local in Old Town Clovis".
- Continue to evolve events so they attract new people.
- Contract with entertainers that have a following and will bring new people to Old Town.

Results:

- Fall and winter events included the Old Town Clovis Wine Walk, Farm to Table, Glorious Junk Days, One Enchanted Evening and the holiday carriage rides. The Wine Walk hosted 18 wineries and had good attendance. Glorious Junk Days was our largest to date with many new vendors, as well as the regulars. One Enchanted Evening had a very large crowd. Two carriages carried approximately 2,500 people around Old Town during the 3 hour event. The holiday carriage rides started on Friday following Thanksgiving and continued through the Sunday after Christmas. We did not have a Santa this year.
- The Marketing and Event Committee met recently to plan 2020 events. No new events are planned for 2020 but each event will be looked at for possible changes

and additions to enhance the program and increase attendance. The September Antiques Fair is blending into the Glorious Junk Days and the Wine Walk has been move to the 1st weekend in November as more wineries can participate after harvest/crush.

Goal #3:

Maintain marketing strategies, including safety and appearance, and advertising techniques to position the image of Clovis through Old Town Clovis' unique character.

Objective:

- Create a broad awareness of Old Town Clovis.
- Establish Old Town Clovis as an immediate, intermediate and end destination.
- Retain the established customer base.
- Reach out to Central California so that more people become aware of what Clovis offers.
- Work with City Officials to maintain a safe, crime free area where people feel safe and like bringing their families to Old Town.

Strategy:

- Archer & Hound is retained to handle all marketing for B.O.O.T.
- Secure multi-media advertising campaigns to promote Old Town Clovis along with event generated promotions.
- Submit calendar of events to community and online calendars.
- Use Twitter, Instagram, Pinterest, Snap Chat and Facebook to promote Old Town Clovis in general, merchant businesses and specific events.
- Secure interview segments on radio and television.
- Contribute to the cost of the Clovis Appliance/General Electric ABC/30 Skycam at 5th and Pollasky when B.O.O.T. has sufficient funds (co-op advertising).
- Advertise antique events in focused publications that are regional and national in scope for our four annual antique events. Advertise in classified ad section of regional papers as well as Craigslist to further reach surrounding areas.
- Utilize cable television advertising for antiques events.
- Print and distribute more than 20K event-specific postcards, as well as over 30K Calendar of Events cards. Merchants and B.O.O.T. staff go to out-of-the-area antique events to solicit dealers to come to Old Town antique shows. Merchants also distribute these very popular cards to customers.
- Ongoing outreach to businesses to locate to Old Town Clovis.
- Work with City of Clovis Police and Fire Department to create a safe atmosphere in Old Town.
- Work with City of Clovis department heads to create a clean, well maintained streetscape in Old Town.

Results:

- B.O.O.T. worked directly with KMPH, KSEE and CBS47, The Clovis Round Up and Archer & Hound to create a variety of media packages available to merchants for holiday advertising. Analysis of previous years advertising dollars showed a direct correlation between store success and dollars spent. The Board of Directors approved co-op advertising for 25% reimbursement.
- Archer & Hound used nontraditional advertising avenues for our fall and winter events, including Digital Ads on Social Media and direct emails. They manage

B.O.O.T.'s social media postings, which resulted in a consistent message and branding.

- Archer and Hound created many traditional TV opportunities with "stories" that were carried by local Television, Radio and Print.
- Facilitated wide exposure for Old Town Clovis, its events, character and appeal.
- The Clovis Appliance/General Electric skycam with ABC/30 Action News reaches approximately 684,700 people every week and approximately 400,000 monthly unique visitors online at ABC/30.com. Old Town Clovis is mentioned a minimum of 3 to 4 times per day on the news program during weather reports and if we have anything special going on in Old Town, i.e. One Enchanted Evening, the camera will show the activity. B.O.O.T. contributes co-op advertising dollars when available and pays for the phone line (\$2,700/year).
- Stimulated customer and visitor traffic in Old Town, as evidenced by increase number of customers in town for all of our free events.
- BOOT worked with City of Clovis personnel on the installation of bollards to prevent vehicles from entering the footprint of our events. Bollards are located at 3rd and Pollasky, 5th and Pollasky and on 4th Street at the alleyways.

Goal #4:

Provide information on activities to the Tourism Advisory Committee.

Objective:

- Communicate information to sources essential for tourism opportunities, capturing disposable money from customers who have an option to spend it elsewhere.

Strategy:

- Participate as an active member of the Tourism Advisory Committee.
- Supply the Clovis Visitors Center with information regarding events, activities and leads for tour groups.
- Notify merchants of names and dates of tour groups by email so businesses are prepared to show Old Town Clovis' hospitality.
- Provide information to merchants of Old Town regarding activities conducted in and around Old Town through the B.O.O.T. E-Blast. Archer & Hound prepares several newsletters around our events and it is emailed to those who sign up for the electronic newsletter on B.O.O.T.'s website. It is mailed to all known businesses addresses within the PBIa once a year inviting business and property owners to the Annual Meeting.
- Communicate information to merchants on activities at the monthly B.O.O.T. membership meetings and through E-Blasts. Post events for all organizations in Clovis on B.O.O.T. Website and insure that if someone searches for an event, B.O.O.T.'s website is in the top results.
- Provide event information for visitclovis.com.
- Actively promote Old Town Clovis and Member Businesses on Facebook, Twitter, Instagram, Pinterest and B.O.O.T.'s website.

Results:

- Ensured Old Town Clovis is recognized as a tourism destination.
- Showcased Old Town as a friendly and inviting place to visit throughout the year.
- Visitors Center has current event information.

Goal #5:

Obtain and maintain Workers Compensation, State Disability, and Directors and Officers Policy as well as any other insurance coverage as required by law.

Objective:

- Qualify for Workers Compensation, State Disability coverage, General Liability and any and all required insurances.

Strategy:

- To meet all requirements of renewal; indemnify, hold harmless and defend the City of Clovis, Community and Economic Development Department, its officers, agents or employees.
- Submit for renewal Directors and Officers Insurance Policy through Philadelphia Insurance.
- Complete and submit for renewal the State Fund Compensation Insurance Fund policy information update to Valley Regional Insurance Services, Agent Ron Petersen.
- Submit for approval General Liability Insurance through Charity First an "A" rated Insurance company through Agent Ron Petersen, Valley Regional.

Results:

- Obtained General Liability Policy coverage period April 21, 2019 to April 21, 2020.
- State Fund Compensation Policy renewed for period April 1 2019 to April 1, 2020.
- Directors and Officers Policy will renew for period August 4, 2019 to August 4, 2020.
- Certificates of Insurance with Endorsements provided to the City of Clovis.

Goal #6:

Annual compliance audit

Objective:

- To successfully complete a compliance audit conducted by an independent auditor.

Strategy:

- Efficiently maintain and preserve all records needed to demonstrate full compliance.

Results:

- The annual compliance audit took place in September 2019. The audit was conducted by Craig Saunders of Ryan, Saunders & Co. The agreement between the City of Clovis, Economic Development Department and the Business Organization of Old Town for July 1, 2018 through June 30, 2019 was reviewed. The compliance letter was submitted and is attached.

Financial Status:

- See Balance Sheet Attached.

SUMMARY:

Old Town Clovis plays a significant role in creating a favorable image for the City of Clovis. Growth within Old Town Clovis is one of the more important priorities to ensure the future and well-being of Clovis' Redevelopment Project Area. In order to continue the economic vitality of the central trading district, considerable time and effort has been invested in an effort to encourage new businesses to locate and expand in Old Town Clovis.

UPDATES TO THE PBIA:

- The Business Organization of Old Town represents many business and property owners and operators, within the central business district, who will be affected directly or indirectly by future business promotion efforts and seeks to strengthen the promotion of Old Town Clovis, thereby assuring its continued influence on economic growth in both Old Town Clovis and the City as a whole.
- Centennial Plaza is a hub of activity. The City provided a piano and you can often find people enjoying the sounds of someone playing their favorite pieces.

There are always changes taking place in Old Town Clovis. The following details most of these changes:

- **New Businesses within the PBIA**
 - Tagua Fair Trade has moved into the DeWitt building 453 Pollasky Avenue.
 - Clovis Foliage, a trendy plant store, has moved into the DeWitt Building
 - The Quilters Paradise building is still empty and no progress has been made in its redesign.
 - 836 Pollasky Avenue is empty and for sale.
 - 756 Pollasky is available to lease.
 - Old Town Café has opened at the old Corner Café location. Owners of Salsa’s are running a “diner” for breakfast and lunch.
 - Three Graces on 4th Street is still not open.
 - The block between 3rd and 4th on Pollasky is struggling with empty buildings (i.e. house near Boice Funeral Home, La Posada, the Chamber of Commerce, Quilters Paradise and stores that are not open consistently, i.e. Suquie’s Treasures, and 356 Tavern, as well as “destination” businesses, i.e. Dave Shivers State Farm, Gottschalks Music Center, Boice Funeral Home, Sam’s TV and the engineers firm next to Luna’s). These factors are contributing to a “dead” space at the north end of Old Town.

RYAN, SAUNDERS & CO.
A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS
CERTIFIED PUBLIC ACCOUNTANTS
BUSINESS AND PERSONAL FINANCIAL CONSULTANTS

AGENDA ITEM NO. 1.

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September 12, 2019

Board of Directors
Business Organization of Old Town Clovis

We have reviewed the agreement between the City of Clovis and the Business Organization of Old Town Clovis (B.O.O.T.) for the Parking and Business Improvement area for the period of July 1, 2018 through June 30, 2019.

In connection with our review of the agreement, nothing has come to our attention that caused us to believe that B.O.O.T. failed to comply with the terms and provisions contained in the agreement.

This report is intended solely for the information and use of the board of directors for the Business Organization of Old Town Clovis and the City of Clovis and should not be used for any other purpose.

Thank You



Craig R Saunders

2:47 PM

11/21/19

Cash Basis

Business Organization of Old Town

Profit & Loss

January 1 through November 21, 2019

AGENDA ITEM NO.1.

	Jan 1 - Nov 21, 19
Income	
Bottle Shop Sales	6,433.00
City of Clovis / PBI A Funding	37,500.00
CVCB Line of Credit	5,000.00
Event Income	171,675.69
FM Annual Membership	10,647.63
Fm Art Hop Fees	1,560.00
Fm Weekly Income	66,765.24
HD Fees	1,686.34
Interest Income	3.46
Membership	8,825.00
Merchandise Sales	537.50
Misc. Income	2,650.00
Sponsorships	73,675.00
Total Income	386,958.86
Gross Profit	386,958.86
Expense	
A&H Advertising	67,694.31
Accounting	2,070.00
Bank Fees	96.72
Bottle Shop	4,612.80
Business License & Taxes	2,989.91
Carriages	1,050.00
Co-Op Advertising	1,955.57
Credit Card Fees	1,993.05
Donations	7,800.00
Dues & Subscriptions	4,285.07
Entertainment	20,335.00
Equipment Rentals	20,163.85
General Advertising	14,888.35
Glasses	4,808.00
Insurance	12,823.17
IOT Chef Fees	13,050.19
Labor	5,474.00
Line of Credit	10,355.56
Meetings	3,333.88
Merchandise Expense	3,447.68
Misc. Expense	2,078.23
Office Supplies	8,263.07
Payroll Expenses	142,907.08
Payroll Taxes	1,554.31
Postage	578.42
Printing	10,072.90
Rent	10,080.00
Repairs & Maintenance	300.00
Security	4,047.00
Supplies	11,495.11
Telephone	4,409.59
Utilities	450.00
Wine	2,776.08
Total Expense	402,238.90
Net Income	-15,280.04



CITY of CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Administration

DATE: December 9, 2019

SUBJECT: Administration - Approval – 2020 Street Closure Requests; and Approval - Res. 19-____, Declaring Certain Events as Old Town Special Events and Setting Precise Boundaries for Those Old Town Special Events.

- ATTACHMENTS:
1. Resolution 19-_____
 2. Matrix of Old Town Events
 3. Matrix of Miscellaneous Events
 4. Letter to PBIA
 5. Summary of Old Town Special Events Ordinance

CONFLICT OF INTEREST

None

RECOMMENDATION

That the City Council approve the requests from BOOT, Clovis Chamber of Commerce, Clovis Elks Lodge, Clovis Rodeo Association, Old Town Clovis Kiwanis, Fleet Feet Sports, Make-A-Wish Foundation, Clovis Area Recreation, and Clovis Senior Center for street closures in the City of Clovis for the calendar year 2020; and approve Res. No. 19-____ declaring certain events as Old Town Special Events, and setting precise boundaries for those Old Town Special Events.

EXECUTIVE SUMMARY

Staff requests street closure simultaneously, and in advance, to allow for proper event planning. A resolution (Attachment “A”) is required by Ordinance 00-02, adopted January 10, 2000, declaring certain events as Old Town Special Events and the setting of precise boundaries. Requests for street closure are attached.

BACKGROUND

Attached is a matrix of the events (Attachment “B”), sponsored by BOOT, Clovis Chamber of Commerce, Clovis Elks Lodge, Clovis Rodeo Association, Old Town Clovis Kiwanis,

Fleet Feet Sports, Make-A-Wish Foundation, Clovis Area Recreation, and Clovis Senior Center for closure of streets in Clovis during the calendar year 2020. Each activity has a unique street closure request. The boundaries and time of street closure remain the same as 2019 for all returning events.

A letter was sent to Old Town merchants and property owners on November 19, 2019 (Attachment “C”), soliciting comments/concerns regarding the 2020 street closures. Staff has received no comments or concerns on these events.

The Old Town Special Events Ordinance was adopted by Council on January 10, 2000 and provides guidelines for the operation of Old Town Special Events. A summary of the Old Town Special Events Ordinance is attached (Attachment “D”). A resolution (Attachment “A”) is required by Ordinance 00-02, adopted January 10, 2000, declaring certain events as Old Town Special Events and the setting of precise boundaries.

Additionally, Staff requests the ability to implement street closures at Centennial Plaza and Clovis Veterans Memorial District (CVMD) with less than 60-day lead time. If approved, this method of processing street closure request(s) will require staff review; Special Event Committee Review; written notification distribution to all residents, property owners, and business operators who may be affected by the street closure/event – giving them ten calendar days to respond; Traffic control plan; ABC license application (if necessary); insurance documents; and appropriate permit applications. Like all other street closure requests, staff will continue to work with neighbors and applicant to assure a safe and successful event.

FISCAL IMPACT

The City of Clovis is positively impacted by the proposed events. Local businesses benefit from large numbers of people visiting their neighborhood and the City of Clovis benefits from the increased tax revenue.

Some events require additional City services. Per Council’s decision of November 16, 2009, and starting July 1, 2010, the City of Clovis will help offset the costs of certain events. These include, and are limited to, Big Hat Days, Clovis Rodeo Parade, Farmers Market, Freedom Fest, Clovis Fest, Antique and Collectible Fair, Freedom Fest, and Children’s Electrical Parade.

REASON FOR RECOMMENDATION

In previous years, more than 300,000 people have attended the various events held in Clovis annually, many of whom have returned to Clovis to patronize local businesses. In the past, BOOT, Clovis Chamber of Commerce, Clovis Elks Lodge, Clovis Rodeo Association, Old Town Clovis Kiwanis, Clovis Veterans Memorial District, Fleet Feet Sports, Make-A-Wish Foundation, Clovis Area Recreation, and Clovis Senior Center requested street closures to hold events in Old Town on an individual basis, prior to the event. There have been several occasions where the requests were not processed in time to allow for proper planning from the City’s perspective. Therefore, staff is requesting

street closure simultaneously for all of the special events to ensure adequate time for event planning.

ACTIONS FOLLOWING APPROVAL

- 1. Staff will notify BOOT, Clovis Chamber of Commerce, Clovis Elks Lodge, Clovis Rodeo Association, Old Town Clovis Kiwanis, Fleet Feet Sports, Make-A-Wish Foundation, Clovis Area Recreation, and Clovis Senior Center of Council's decision.

- 2. Staff will work with BOOT, Clovis Chamber of Commerce, Clovis Elks Lodge, Clovis Rodeo Association, Old Town Clovis Kiwanis, Fleet Feet Sports, Justin Morgan, Make-A-Wish Foundation, Clovis Area Recreation, and Clovis Senior Center to ensure that the sponsors provide security and cleanup of the events on an individual basis.

Prepared by: Shawn Miller, Business Development Manager

Reviewed by: City Manager LS

RESOLUTION 19-____

A RESOLUTION OF THE CITY OF CLOVIS DECLARING CERTAIN EVENTS AS OLD TOWN SPECIAL EVENTS

The City Council of the City of Clovis resolves as follows:

WHEREAS, BOOT, Clovis Chamber of Commerce, Clovis Elks Lodge, Clovis Rodeo Association, Old Town Clovis Kiwanis, Clovis Veterans Memorial District, Fleet Feet Sports, Make-A-Wish Foundation, Clovis Area Recreation, and Clovis Senior Center have requested public street closures in the City of Clovis for the 2020 calendar year to conduct such special events as listed in 2020 City of Clovis Special Events Request for Old Town Street Closures; and

WHEREAS, the special events sponsored by BOOT, Clovis Chamber of Commerce, Clovis Elks Lodge, Clovis Rodeo Association, Old Town Clovis Kiwanis, Clovis Veterans Memorial District, Fleet Feet Sports, Make-A-Wish Foundation, Clovis Area Recreation, and Clovis Senior Center shall be declared Old Town Special Events; and

WHEREAS, the City Council of the City of Clovis approves and authorizes the closure of public streets to be used for the attached listed special events.

NOW, THEREFORE BE IT RESOLVED that the City Council hereby declares that the events as described in the 2020 City of Clovis Special Events Request for Old Town Street Closures be declared as Old Town Special Events.

* * * * *

The foregoing resolution was introduced and adopted at a regular meeting of the City Council of the City of Clovis held on the 9th day of December 2019, by the following vote, to wit:

AYES:

NOES:

ABSENT:

ABSTAIN:

DATED: December 9, 2019

Mayor

City Clerk

**2020 CITY OF CLOVIS SPECIAL EVENTS
REQUEST FOR OLD TOWN STREET CLOSURES**

AGENDA ITEM NO.2.

DATE	TIME	EVENT	SPONSOR	STREETS
Every Saturday	6 AM to 12:30 PM	Year Round Farmers Mkt	BOOT	Pollasky (5 th to 7 th); Bullard (Woodworth to Pollasky)
March 8 (Sunday)	12 PM to 10 PM	Craft Beer Crawl	BOOT	Pollasky (4 th to 5 th)
March 29 (Sunday)	2 AM to 8 PM	Antique & Collectible Fair	BOOT	Pollasky (3 rd to 7 th); 4 th (Woodworth to Clovis); 5 th (Woodworth to Clovis); Bullard (Woodworth to Pollasky).
April 4 & 5 (Sat.& Sun.)	Sat @ 5 AM to Sun @ 7 PM	Big Hat Days	Chamber of Commerce	Parking lots #1, #2, & #3. Pollasky (3 rd to 9 th); Bullard (Dewitt to Pollasky); 4 th (Clovis to Woodworth); 7 th (Clovis to Woodworth); Woodworth (5 th to 7 th); 8 th (Clovis to Woodworth); 5 th (Clovis to Woodworth). Set-up will take place on Friday, April 3 on 4 th starting at 3PM and on Bullard (Woodworth to Pollasky) starting at 8PM.
April 19 (Sunday)	5 AM to 8 PM	Old Town Car Show	BOOT	Pollasky (3 rd to 8 th); Parking Lot #1; 4 th (Woodworth to Clovis); 5 th (Woodworth to Clovis); Bullard (Woodworth to Pollasky)
April 25 (Saturday)	8 AM to 12 PM	Rodeo Parade	Rodeo Association	Clovis (3 rd to Barstow); Pollasky (3 rd to Barstow); 3 rd , 4 th , 5 th , Bullard, 7 th , 8 th , 9 th , 10 th , Lincoln, Barstow (Pollasky to Clovis); Jefferson (Clovis to Brookhaven); San Jose (Cole to Railroad); Railroad (Jefferson to San Jose).
May 2 (Saturday)	4 PM to 10 PM	Old Town Wine Walk	BOOT	Pollasky (4 th to 5 th).
May 8 thru Sept 25 (Friday Nights)	4:30 PM to 11:00 PM	Friday Night Farmer's Market	BOOT	Pollasky (3 rd to 7 th); 5 th OPEN; Bullard (Pollasky to Woodworth); 4 th (Woodworth to Pollasky/Clovis alley).
May 24 (Sunday)	2 AM to 8 PM	Glorious Junk Days	BOOT	Pollasky (3 rd to Seventh); 4 th (Woodworth to Clovis); 5 th (Woodworth to Clovis); Bullard (Woodworth to Pollasky).
June 14 (Sunday)	10:30 AM to 1:30 PM	Flag Day Observation	Clovis Elks Lodge	Pollasky (5 th to 7 th); Bullard (Woodworth to Pollasky).
July 24 (Friday)	3 PM to 11:00 PM	Pole Vault Championships	BOOT	Pollasky (3 rd to 7 th); 5 th OPEN; Bullard (Pollasky to Woodworth); 4 th (Woodworth to Pollasky/Clovis alley).
August 8 (Saturday)	Sat: 5 AM to 3 PM	Hot August Daze	Clovis Elks Lodge	Woodworth (Bullard to 5 th), Parking Lot #3).
September 29 (Sunday)	2 AM to 8 PM	British Car Roundup	BOOT	Pollasky (3 rd to 7 th); 4 th (Woodworth to Clovis); 5 th (Woodworth to Clovis); Bullard (Woodworth to Pollasky).
October 3 (Saturday)	6:00 AM to 12 Midnight	Make-A-Wish Golf	Michelangelo's	Bullard between Woodworth and Alley between Woodworth and Pollasky
October 11 (Sunday)	Noon to Midnight	Farm to Table Dinner	BOOT	Pollasky (4 th to 5 th); Parking Lot #1
October 18 (Sunday)	2 AM to 8 PM	Glorious Junk Days and Antique & Collectible Fair	BOOT	Pollasky (3 rd to Seventh); 4 th (Woodworth to Clovis); 5 th (Woodworth to Clovis); Bullard (Woodworth to Pollasky).
October 24 & 25 (Sat.& Sun.)	Sat @ 5 AM to Sun @ 6 PM	Clovis Fest	Chamber of Commerce	Parking lots #1, #2, & #3. Pollasky (3 rd to 8 th); Bullard (Dewitt to Pollasky); 4 th (Clovis to Woodworth); 7 th (Clovis to Woodworth); Woodworth (5 th to 7 th); 8 th (Clovis to Woodworth); 5 th (Clovis to Woodworth). Set-up will take place on Friday, October 23 on 4 th starting at 3PM and on Bullard (Woodworth to Pollasky) starting at 8PM.
November 1 (Sunday)	6 AM to 11 AM	2 Cities Marathon	Fleet Feet Sports	Various Old Town Streets
November 7 (Saturday)	4 PM to 10 PM	Old Town Wine Walk	BOOT	Pollasky (4 th to 5 th).
November 19 (Thursday)	4 PM to 9 PM	One Enchanted Evening	BOOT	Pollasky (3 rd to 7 th); 5 th OPEN; 4 th (Clovis to Woodworth); Bullard (Pollasky to Woodworth).
December 5 (Saturday)	5 PM to 8 PM	Children's Electric Christmas Parade	Old Town Clovis Kiwanis	Clovis Ave. (3 rd to 9 th); Pollasky (3 rd to 9 th); 3 rd , 4 th , 5 th , 7 th Bullard, 8 th (Pollasky to Clovis).

**2020 CITY OF CLOVIS SPECIAL EVENTS
REQUEST FOR MISCELLANEOUS STREET CLOSURES**

DATE	TIME	EVENT	SPONSOR	STREETS
January 5 (Sunday)	4 AM to 4 PM	Clovis Training Crit Series	Richard Gabel	Pelco Way (Dakota to Pontiac); Pontiac Way (Pelco Way to Lind); Lind (Pontiac to Dakota); North half of Dakota (Lind to Pelco Way)
January 12 (Sunday)	4 AM to 4 PM	Clovis Training Crit Series	Richard Gabel	Pelco Way (Dakota to Pontiac); Pontiac Way (Pelco Way to Lind); Lind (Pontiac to Dakota); North half of Dakota (Lind to Pelco Way)
January 19 (Sunday)	4 AM to 4 PM	Clovis Training Crit Series	Richard Gabel	Pelco Way (Dakota to Pontiac); Pontiac Way (Pelco Way to Lind); Lind (Pontiac to Dakota); North half of Dakota (Lind to Pelco Way)
January 26 (Sunday)	4 AM to 4 PM	Clovis Training Crit Series	Richard Gabel	Pelco Way (Dakota to Pontiac); Pontiac Way (Pelco Way to Lind); Lind (Pontiac to Dakota); North half of Dakota (Lind to Pelco Way)
May 25 (Saturday)	6 AM to 12 NOON	Clovis Memorial 5K Run	CSAC	4 th (Veterans Parkway to Cole); Veterans Parkway (5 th to 3 rd); 3 rd (Osmun to Clovis)
October 17 (Saturday)	7 AM to 1 PM	CSAC Car Show	CSAC	4th (Veterans Parkway to Cole)

AGENDA ITEM NO.2.



CITY *of* CLOVIS

1033 FIFTH STREET • CLOVIS, CA 93612

November 19, 2019

Subject: 2020 Old Town Street Closures

Dear Old Town Merchant, Resident and/or Property Owner:

Attached is a list of requested street closures for calendar year 2020. As you may notice, there are three fewer requests for this calendar year. The spring Farm to Table Dinner and the fall Craft Beer Crawl will not take place in Old Town this year. Additionally, the fall Antique & Collectible Fair is being combined with the fall Glorious Junk Days event.

Please review this list and forward any concerns in writing to my attention by noon, Friday, Monday, December 2, 2019. The Clovis City Council will consider these requests in December.

If you have any questions or need further information, Please feel free to contact me at 324-2083, or by email at shawnm@cityofclovis.com.

Sincerely,

Shawn A. Miller, Business Development Manager
City of Clovis

ORDINANCE NO. 00-02

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CLOVIS ADDING CHAPTER 20, OF TITLE 5, OF THE CLOVIS MUNICIPAL CODE PERTAINING TO OLD TOWN SPECIAL EVENTS

THE CITY COUNCIL OF THE CITY OF CLOVIS DOES ORDAIN AS FOLLOWS:

SECTION 1. Chapter 20, of Title 5, of the Clovis Municipal Code is added to read as follows:

Chapter 20: OLD TOWN SPECIAL EVENTS

Section 5.20.01 Findings and declaration of intent.

The City Council finds and declares that it has historically closed City streets in portions of the downtown area, commonly referred to as Old Town Clovis, for the purpose of assisting certain community and regional events benefitting Old Town Clovis, the community at large and non-profit business organizations operating in the City. Control over the operation of these community and regional events has traditionally been turned over to the entity sponsoring the event. The City Council finds and declares that there is a need to provide written guidelines and regulations on how these Old Town community and regional events shall operate. In enacting this chapter, it is not the intent of the Council to declare all events held in Old Town Clovis a declared "Old Town Special Event." Events not declared "Old Town Special Events" shall be subject to other applicable City ordinances. (§ 1, Ord. 00-02, eff. February 17, 2000)

Section 5.20.03 Old Town Special Event.

(a) "Old Town Special Event" means any outdoor public event utilizing public areas, including streets and parking lots temporarily closed by the City Council, in the vicinity of Old Town Clovis, and which event has been declared an Old Town Special Event by resolution of the City Council. The outside maximum boundaries for a declared Old Town Special Event shall consist of the eastern line of the Clovis Old Town Trail (former railroad right-of-way corridor), the southern line of Barstow Avenue, the western line of Woodworth Avenue, and the northern line of Second Avenue.

Old Town Special Events include, but are not limited to, the following:

- (1) Farmers' Market, generally held from May to September;
- (2) Antique and Collectible Fair, generally held several times a year;
- (3) Clovisfest Musicale, generally held in September;
- (4) Big Hat Days, generally held in April;
- (5) Children's Christmas Parade, generally held in December.

(b) Any person seeking to have a public event declared an Old Town Special Event shall seek a declaration from the City Council at least ninety (90) days prior to the event. If a street closure is required in connection with the proposed Old Town Special Event, such request shall be made at the same time.

(c) The declaration of the City Council shall establish the precise boundaries of the Old Town Special Event and designate an event sponsor.

(d) The City Council may by resolution delegate the authority to declare an Old Town Special Event, and to temporarily close City streets in connection therewith, to the City Manager and the City Manager's designee. (§ 1, Ord. 00-03, eff. February 17, 2000)

Section 5.20.04 Permit required.

(a) The sponsor (event sponsor) of an Old Town Special Event shall obtain an Old Town Special Event permit from the City Clerk.

(b) Application for the permit shall be made not less than sixty (60) days prior to the event and shall contain the information required by the City Clerk. The application shall also be accompanied by a street plan showing the proposed location of planned activities and vendor booths.

(c) Upon receipt of an application, the City Clerk shall circulate the application to the following departments for comments and approval: Police Department, Fire Department, Planning and Development Services Department, Public Works Department, and Risk Management Department. These departments may impose terms and conditions upon the Old Town Special Event permit and issuance and approval of the permit is conditioned upon compliance with the required conditions. At a minimum, the permit shall include conditions for holding the City harmless, maintaining minimum limits of liability insurance in accordance with City standards, providing security and traffic control, providing adequate restroom and sanitation facilities, and paying for the cost of City services.

(d) The Old Town Special Event permit may be revoked for noncompliance with the conditions of the permit and the provisions of this chapter. Revocation may be made by the City Manager, the Chief of Police, or their designees. If the grounds for revocation occur during the Old Town Special Event, the City Manager, the Chief of Police, or their designee, shall first advise the event sponsor of the grounds for revocation and provide an opportunity to correct the same.

(e) The Old Town Special Event permit may also be revoked during the event if fire or another emergency requires the event to be terminated to protect the public safety. When the Old Town Special Event permit is revoked for this reason, all event participants must immediately comply with instructions from any City Police Officer or Fire Department personnel. (§ 1, Ord. 00-02 eff. February 17, 2000)

Section 5.20.07 Minimum requirements.

- (a) The event sponsor shall abide by the following minimum requirements:
 - (1) Maintain openings between vendor booths of sizes, and at locations and distances, required by the City. The required openings shall be specified in the terms and conditions of the Old Town Special Event permit and be identified on the event sponsor's street plan;
 - (2) Not use any permanent or semi-permanent paint or other markers to delineate or mark the location or other direction on any public street, sidewalk, alley or parking lot;
 - (3) Not discriminate in the selection of any vendor on the basis of race, color, religion, sex, national origin or familial association;
 - (4) Require that all vendors obtain and display all appropriate permits, licenses and certificates, and comply with all applicable federal, state and local laws, ordinances and regulations.
 - (5) Require that vendors maintain their spaces in a clean and sanitary condition, including the removal of containers, waste and trimmings before leaving the area;
 - (6) Require that vendors take sufficient measures to keep the City storm drain system free from contamination, and require that food vendors take special precaution to keep grease and other waste products off all public streets, sidewalks, alleys and parking lots;
 - (7) Provide on-site personnel who can be contacted by appropriate City officials for immediate corrective action either for noncompliance with this chapter or the permit conditions, for emergencies, or for actions deemed necessary by the City official. Such personnel shall be equipped with appropriate means of communication to be made known to the City by the event sponsor prior to the event;
 - (8) Distribute the rules and regulations to each person participating in the Old Town Special Event.
- (b) These minimum requirements shall be deemed a part of the permit conditions and may be supplemented by resolution of the City Council. (§ 1, Ord. 00-02, eff. February 17, 2000)

Section 5.20.08 Cost of special event.

- (a) The event sponsor will be responsible for the costs associated with the Old Town Special Event, including, but not limited to:
 - (1) The cost of City services related to the Old Town Special Event;
 - (2) The cost to repair any damage caused to any public property and rights-of-way, including landscaping.
- (b) The event sponsor may apply to the City Council for cooperation in presenting an Old Town Special Event and request financial assistance for some or all of the costs of City services related to the Old Town Special Event. (§ 1, Ord. 00-02, eff. February 17, 2000)



CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Finance Department

DATE: December 9, 2019

SUBJECT: Finance – Receive and File – Investment Report for the Month of August 2019

ATTACHMENTS:

1. Distribution of Investments
2. Monthly Investment Transactions
3. Certificates of Deposit
4. Graph of August 31, 2019 Treasury Rates

Attached is the Investment Report for the month of August 2019. Shown in Attachment 1 is the distribution of investments which lists all the individual securities owned by the City with the book and market values. Book value is the actual price paid for the investment. Market value is the amount that the investment is worth if sold in the open market. The market value (which fluctuates daily) that is used in the report is as of the last working day of the month. Attachment 2 reflects the monthly investment transactions for the month of August 2019. Attachment 3 lists the certificates of deposit. Attachment 4 is a graph of Treasury rates on August 31, 2019.

The investment of the City’s funds is performed in accordance with the adopted Investment Policy. Funds are invested with the following objectives in mind:

1. Assets are invested in adherence with the safeguards and diversity of a prudent investor.
2. The portfolio is invested in a manner consistent with the primary emphasis on preservation of the principal, while attaining a high rate of return consistent with this guideline. Trading of securities for the sole purpose of realizing trading profits is prohibited.
3. Sufficient liquidity is maintained to provide a source for anticipated financial obligations as they become due.

- 4. Investments may be made, consistent with the Investment Policy Guidelines, in fixed income securities maturing in three years or less and can be extended to five years with the City Manager's approval.

The Finance Department invests the City's assets with an expectation of achieving a total rate of return at a level that exceeds the annualized rate of return on short-term government guaranteed or insured obligations (90-day Treasury bills) and to assure that the principal is preserved with minimal risk of depreciation or loss. In periods of rising interest rates, the City of Clovis portfolio return may be less than that of the annualized 90-day Treasury bill. In periods of decreasing interest rates, the City of Clovis portfolio return may be greater than the annualized 90-day Treasury bill. The current 90-day Treasury bill rate (annualized) is 2.31%. The rate of return for the City of Clovis portfolio is 2.08%. The goal for the City of Clovis investment return is 120% of the 90-day Treasury bill rate. The current rate of return is 90% of the Treasury bill rate.

In accordance with the Investment Policy, the investment period on each investment does not exceed three years and can be extended to five years with the City Manager's approval. As of August 2019 the average investment life of the City's investment portfolio is 1.00 years.

Current Investment Environment and Philosophy

During the month of August 2019, the federal funds rate remained at 2.00%-2.25%.

On August 31, 2019, the Treasury yield curve declines from 3-month to 5-year notes, followed by a slight increase from 5-year to 10-year notes.

Certificates of Deposit (CD's)

The City purchases both negotiable and non-negotiable Certificates of Deposit (CD's). Although negotiable CD's can be traded, it is the City's policy to buy and hold all CD's. Negotiable CD's are held by U.S. Bank, a third party custodian. Non-negotiable CD's are held in the City's safe.

Purchases and Maturities

- 1 government security totaling \$6,000,000.00 was purchased.
- No government securities were called or matured.
- 3 certificates of deposit totaling \$750,000 were purchased.
- 4 certificates of deposit totaling \$990,000 were called or matured.

Market Environment

- During August, the federal funds rate remained at 2.00%-2.25%.
- On August 31, the yield curve declines from 3-month to 5-year notes, followed by a slight increase from 5-year to 10-year notes. See Attachment 4, Graph of Treasury Rates on August 31, 2019.

Prepared by: Jeffrey Blanks, Deputy Finance Director

Reviewed by: City Manager LS

**City of Clovis
Distribution of Investments
As of August 31, 2019**

AGENDA ITEM NO.3.

	<u>COST</u>	<u>NET BOOK VALUE</u>	<u>MARKET VALUE *</u>	<u>YIELD TO MATURITY</u>	<u>STATED INTEREST RATE</u>	<u>INVEST DATE</u>	<u>MATURITY DATE</u>	<u>DAYS TO MATURITY FROM 8/31/2019</u>
GOV'T SECURITIES								
FHLMCMTN	2,997,000	2,997,000	2,999,070	1.500%	1.500%	10/12/17	09/27/19	27
FHLB	2,498,750	2,498,750	2,498,200	1.625%	1.625%	11/16/17	10/30/19	60
FNMA	3,000,000	3,000,000	2,995,230	1.250%	1.250%	11/16/16	11/15/19	76
FHLMCMTN	3,000,000	3,000,000	2,994,660	1.300%	1.300%	11/28/16	11/27/19	88
FFCB	2,502,117	2,502,117	2,502,975	2.390%	2.390%	06/05/18	12/05/19	96
FFCB	994,500	994,500	997,240	1.400%	1.400%	03/30/17	02/24/20	177
FHLB	1,008,597	1,008,597	999,810	1.875%	1.875%	03/22/17	03/13/20	195
FNAMAMTN	3,006,210	3,006,210	2,997,270	1.700%	1.700%	05/02/17	04/27/20	240
FNAMAMTN	3,007,770	3,007,770	2,998,800	1.800%	1.800%	05/02/17	04/27/20	240
FFCB	1,990,555	1,990,555	1,988,320	1.320%	1.320%	08/31/17	05/07/20	250
FHLMCMTN	2,498,750	2,498,750	2,494,300	1.550%	1.550%	05/25/17	05/22/20	265
FFCB	2,500,000	2,500,000	2,496,500	1.670%	1.670%	06/01/17	06/01/20	275
FHLB	5,000,000	5,000,000	4,990,900	1.625%	1.625%	06/26/17	06/26/20	300
FAMCMTN	2,500,000	2,500,000	2,498,825	1.650%	1.650%	07/27/17	06/29/20	303
FHLB	2,500,000	2,500,000	2,496,800	1.640%	1.640%	07/27/17	06/29/20	303
FFCB	5,000,000	5,000,000	4,987,400	1.625%	1.625%	07/06/17	07/06/20	310
FHLB	2,455,547	2,455,547	2,497,425	1.680%	1.680%	06/01/18	08/28/20	363
FHLB	2,465,678	2,465,678	2,497,475	1.800%	1.800%	01/18/18	08/28/20	363
FHLB	2,500,000	2,500,000	2,492,550	1.600%	1.600%	03/16/18	09/18/20	384
FNAMAMTN	2,500,000	2,500,000	2,500,100	1.850%	1.850%	09/18/17	10/13/20	409
FNMAD	2,442,365	2,442,365	2,493,925	1.500%	1.500%	12/22/17	10/28/20	424
FHLB	2,488,750	2,488,750	2,499,425	1.950%	1.950%	11/16/17	11/25/20	452
FFCB	3,000,000	3,000,000	3,000,030	2.100%	2.100%	03/01/18	12/22/20	479
FHLMCMTN	2,497,500	2,497,500	2,501,775	2.150%	2.150%	01/26/18	01/26/21	514
FHLMCMTN	2,477,875	2,477,875	2,527,850	2.375%	2.375%	08/02/18	02/16/21	535
FHLMCMTN	2,258,140	2,258,140	2,300,322	1.875%	1.875%	06/01/18	03/29/21	576
FAMCMTN	2,502,236	2,502,236	2,532,925	2.650%	2.650%	06/28/18	04/19/21	597
FFCB	2,452,750	2,452,750	2,497,425	2.000%	2.000%	12/13/18	05/17/21	625
FHLB	2,568,983	2,568,983	2,589,425	3.625%	3.625%	06/28/18	06/11/21	650
FHLB	2,418,750	2,418,750	2,487,925	1.640%	1.640%	08/02/18	06/14/21	653
FHLMCMTN	2,471,750	2,471,750	2,497,825	1.500%	1.500%	02/22/19	06/30/21	669
FAMCMTN	3,000,000	3,000,000	3,045,840	2.750%	2.750%	09/06/18	08/17/21	717
FFCB	1,998,520	1,998,520	2,042,160	2.700%	2.700%	09/06/18	08/27/21	727
FFCB	2,490,878	2,490,878	2,562,425	2.850%	2.850%	10/05/18	09/20/21	751
FFCB	2,500,200	2,500,200	2,569,150	2.800%	2.800%	12/17/18	12/17/21	839
FAMC	6,129,600	6,129,600	6,115,200	2.375%	2.375%	08/30/19	01/13/22	866
FFCB	2,498,750	2,498,750	2,508,425	2.800%	2.800%	01/24/19	01/24/22	877
FHLB	12,110,520	12,110,520	12,298,920	2.500%	2.500%	04/25/19	03/11/22	923
FFCB	5,979,668	5,979,668	6,068,651	2.280%	2.280%	03/28/19	03/28/22	940
FFCB	6,017,400	6,017,400	6,057,780	1.875%	1.875%	06/27/19	06/14/22	1,018
FAMC	6,024,900	6,024,900	6,064,320	1.950%	1.950%	07/25/19	06/21/22	1,025
SECURITIES TOTAL	<u>\$ 130,255,007</u>	<u>\$ 130,255,007</u>	<u>\$131,185,573</u>					
LAIF		<u>\$ 65,000,000</u>	<u>\$ 65,000,000</u>					
MONEY MARKET (Rabo)		<u>\$ -</u>	<u>\$ -</u>					
Sweep Account (Union Bank)		<u>\$ 2,281,138</u>	<u>\$ 2,281,138</u>					
TOTAL CD'S		<u>\$ 11,940,000</u>	<u>\$ 12,041,843</u>					
TOTAL INVESTMENTS		<u>\$ 209,476,145</u>	<u>\$ 210,508,554</u>					

* Market values for securities obtained from US Bank.

City of Clovis
Monthly Investment Transactions
As of August 31, 2019

AGENDA ITEM NO.3.

Institution	Description	Activity	Amount	Market Value	Rate	Activity Date	Maturity Date
FHLMCMTN	Gov Security	Purchase	6,000,000	6,129,600	2.375%	08/30/19	01/13/22
Capital One National	CD	Purchase	250,000	250,000	2.150%	08/07/19	05/26/22
Enerbank USA Salt Lake City	CD	Purchase	250,000	250,000	2.050%	08/07/19	05/26/22
Raymond James Bank	CD	Purchase	250,000	250,000	1.900%	08/23/19	07/25/22
FNB of McGregor Tx	CD	Maturity	245,000	245,000	1.100%	08/19/19	08/19/19
Merchants Manufacturers Bank	CD	Full Call	250,000	250,000	2.300%	08/16/19	02/16/21
Morgan Stanley Bank NA	CD	Maturity	250,000	250,000	1.700%	08/12/19	08/12/19
Wex Bank	CD	Maturity	245,000	245,000	1.200%	08/12/19	08/12/19

PORTFOLIO DATA

Current Month (08/19)

	<u>Book</u>	<u>Market</u>
CD'S	\$ 11,940,000	\$ 12,041,843
Gov't Securities*	130,255,007	131,185,573
LAIF	65,000,000	65,000,000
Sweep Account (Union Bank)	2,281,138	2,281,138
TOTAL	\$ 209,476,145	\$210,508,554

One Month Previous (07/19)

	<u>Book</u>	<u>Market</u>
CD'S	\$ 12,180,000	\$12,243,351
Gov't Securities*	124,125,407	124,513,114
LAIF	65,000,000	65,000,000
Sweep Account (Union Bank)	12,925,115	12,925,115
TOTAL	\$ 214,230,522	\$ 214,681,580

Three Months Previous (05/19)

	<u>Book</u>	<u>Market</u>
CD'S	\$ 12,415,000	\$12,415,160
Gov't Securities*	123,585,272	123,972,130
LAIF	65,000,000	65,000,000
Sweep Account (Union Bank)	24,639,055	24,639,055
TOTAL	\$ 225,639,327	\$ 226,026,345

Six Months Previous (02/19)

	<u>Book</u>	<u>Market</u>
CD'S	\$ 12,650,000	\$ 12,611,455
Gov't Securities*	116,159,420	115,658,458
LAIF	65,000,000	65,000,000
Sweep Account (Union Bank)	17,362,894	17,362,894
TOTAL	\$ 211,172,314	\$ 210,632,807

One Year Previous (08/18)

	<u>Book</u>	<u>Market</u>
CD'S	\$ 12,254,000	\$ 12,148,717
Gov't Securities*	96,600,716	95,461,050
LAIF	65,000,000	65,000,000
Sweep Account (Union Bank)	12,021,661	12,021,661
TOTAL	\$ 185,876,377	\$ 184,631,428

*Adjusted Quarterly for Premium/Discount Amortization

**City of Clovis
Certificates of Deposit
As of August 31, 2019**

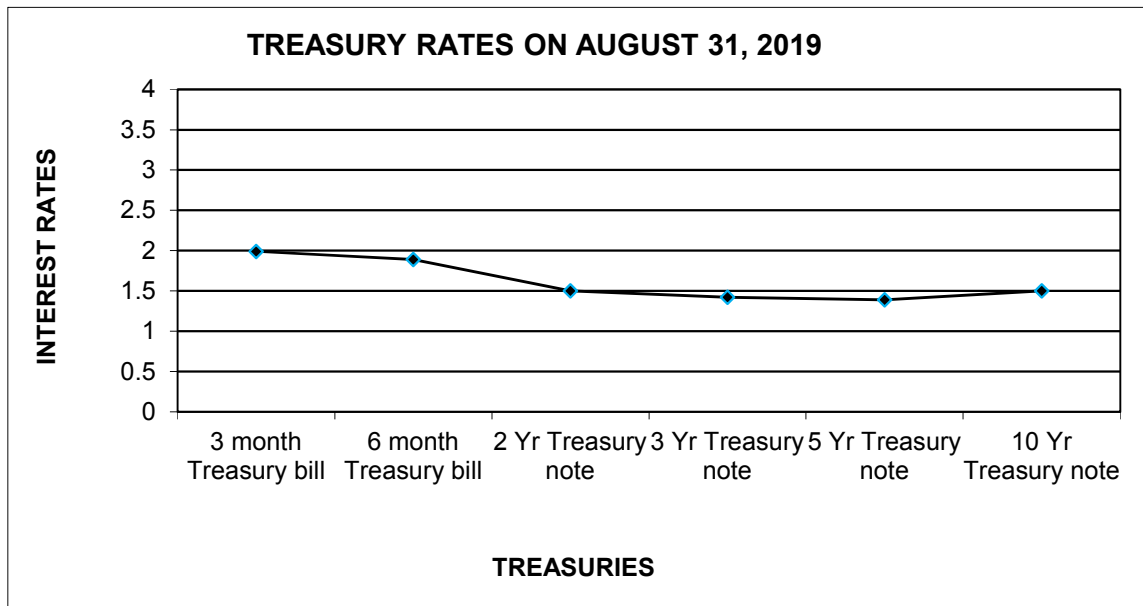
AGENDA ITEM NO.3.

<u>Negotiable CDs</u>	<u>COST</u>	<u>MARKET PRICE</u>	<u>INTEREST RATE</u>	<u>INVEST DATE</u>	<u>MATURITY DATE</u>	<u>MATURITY FROM 08/31/19</u>	<u>INTEREST FREQUENCY</u>
Hamni Bank	250,000	250,017.50	2.100%	09/09/18	09/09/19	9	SEMI-ANNUALLY
Ally Bank	245,000	244,899.55	1.300%	09/15/16	09/16/19	16	MONTHLY
Atlantic	245,000	244,816.25	1.200%	09/30/16	09/30/19	30	MONTHLY
First Technology Fed Cr Un Mtn	250,000	249,950.00	1.800%	10/16/17	10/16/19	46	MONTHLY
Morton Community Bank	245,000	244,703.55	1.500%	12/15/16	12/16/19	107	SEMI-ANNUALLY
Sallie Mae	245,000	244,867.70	1.750%	01/11/17	01/13/20	135	SEMI-ANNUALLY
Stearns Bank	245,000	244,696.20	1.600%	02/10/17	02/10/20	163	MONTHLY
Crescent Bank	245,000	244,639.85	1.550%	02/15/17	02/14/20	167	MONTHLY
Pyramax Bank	245,000	244,693.75	1.600%	02/17/17	02/18/20	171	MONTHLY
American Express	245,000	245,120.05	1.900%	04/17/17	04/06/20	219	MONTHLY
First Bank	245,000	244,683.95	1.600%	04/17/17	04/20/20	233	MONTHLY
Ion Bank	245,000	244,686.40	1.600%	04/17/17	04/20/20	233	MONTHLY
Communitywide	250,000	250,360.00	1.950%	12/01/17	06/01/20	275	MONTHLY
Nthwt Dist Ch8	250,000	249,892.50	1.700%	06/16/17	06/16/20	290	MONTHLY
Tbk Bank Ssb	250,000	249,930.00	1.800%	06/23/17	06/23/20	297	MONTHLY
Amer Natl	250,000	249,897.50	1.700%	07/12/17	07/13/20	317	MONTHLY
Mb Financial Bank	250,000	250,140.00	1.800%	08/10/17	08/10/20	345	MONTHLY
East Boston Svgs Bk Boston Ma	250,000	250,162.50	1.800%	09/28/17	09/28/20	394	MONTHLY
Medallion Bk Salt Lake City Utah	250,000	250,295.00	1.850%	09/29/17	09/29/20	395	MONTHLY
Eagle Bank	250,000	252,037.50	2.500%	03/29/19	09/29/19	29	QUARTERLY
Illinois Cmnty	250,000	250,775.00	2.000%	11/28/17	11/30/20	457	MONTHLY
First Bank	250,000	250,175.00	2.300%	02/06/18	02/08/21	527	MONTHLY
Merrick Bank	250,000	252,955.00	2.550%	03/09/18	03/09/21	556	MONTHLY
Towne Bank	250,000	253,772.50	2.700%	04/27/18	04/27/21	605	MONTHLY
Citibank	250,000	254,780.00	2.900%	05/22/18	05/24/21	632	MONTHLY
University Of Iowa Cmnty Fcu	250,000	254,822.50	2.900%	05/24/18	05/28/21	636	MONTHLY
B Bay Llc	250,000	255,362.50	3.000%	06/15/18	06/15/21	654	MONTHLY
Connectone Bk Englewood Cliffs	250,000	255,377.50	3.000%	06/15/18	06/15/21	654	MONTHLY
Bar Harbor Bank Trust	250,000	255,482.50	3.000%	06/29/18	06/29/21	668	MONTHLY
Keesler Fed Cr Un	250,000	256,177.50	3.050%	02/20/19	08/30/21	730	QUARTERLY
Ubs Bank Usa	250,000	257,500.00	3.200%	11/07/18	11/08/21	800	MONTHLY
Mountain America Fd Credit	250,000	257,560.00	3.200%	11/15/18	11/15/21	807	MONTHLY
Saco Biddleford	250,000	250,127.50	2.600%	03/29/19	12/29/21	851	QUARTERLY
Jp Morgan Chase	250,000	251,027.50	3.000%	01/18/19	01/18/22	871	SEMI-ANNUALLY
Wells Fargo	250,000	256,925.00	3.000%	01/18/19	01/18/22	871	MONTHLY
Security First	250,000	251,127.50	3.000%	01/25/19	01/25/22	878	QUARTERLY
Goldman Sachs Bk USA Ny	245,000	250,828.55	2.800%	02/20/19	02/22/22	906	QUARTERLY
Tiaa FSB Jacksonville Fla	245,000	251,125.00	2.850%	02/28/19	02/22/22	906	QUARTERLY
Comenity Capital Bank	250,000	254,697.50	2.550%	04/30/19	04/29/22	972	QUARTERLY
Jefferson Financial Bank	250,000	251,597.50	2.650%	05/15/19	05/16/22	989	QUARTERLY
Synchrony Bank	250,000	254,090.00	2.450%	05/17/19	05/17/22	990	QUARTERLY
First State Bank of Dequeen	250,000	251,127.50	2.000%	07/26/19	05/26/22	999	QUARTERLY
Flagstar Bank	250,000	254,507.50	2.500%	06/12/19	06/13/22	1,017	QUARTERLY
Capital One Bank	250,000	253,510.00	2.350%	06/19/19	06/20/22	1,024	QUARTERLY
Morgan Stanley Bank	250,000	251,832.50	2.100%	07/25/19	07/25/22	1,059	QUARTERLY
Capital One Bank	250,000	252,200.00	2.150%	08/07/19	08/08/22	1,073	QUARTERLY
Everbanke USA Salt Lake City	250,000	251,485.00	2.050%	08/07/19	08/08/22	1,073	QUARTERLY
Raymond James Bank	250,000	250,405.00	1.900%	08/23/19	08/23/22	1,088	QUARTERLY
Negotiable CD TOTAL	<u>\$ 11,940,000</u>	<u>\$ 12,041,843</u>					
CD TOTAL	<u><u>\$ 11,940,000</u></u>	<u><u>\$ 12,041,843</u></u>					

**CITY OF CLOVIS
FINANCE DEPARTMENT
AUGUST 31, 2019 TREASURY RATES**

Treasury Rates as of August 31, 2019

3 month Treasury bill	1.99
6 month Treasury bill	1.89
2 Yr Treasury note	1.50
3 Yr Treasury note	1.42
5 Yr Treasury note	1.39
10 Yr Treasury note	1.50



As indicated in the above graph, treasuries decline from 3-month to 5-year notes, followed by a slight increase from 5-year to 10-year notes.



CITY of CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Finance Department

DATE: December 9, 2019

SUBJECT: Finance – Receive and File – Treasurer’s Report for the Month of August 2019

ATTACHMENTS: 1. Summary of Cash Balances
2. Summary of Investment Activity
3. Investments with Original Maturities Exceeding One Year

Attached for the Council’s information is the Treasurer’s Report for the month ended August 31, 2019.

Pursuant to Section 41004 of the Government Code of the State of California, the City Treasurer is required to submit a monthly report of all receipts, disbursements and fund balances. Attachment 1 provides a summary of the beginning balance, total receipts, total disbursements, ending balance for all funds, and a listing, by fund, of all month end fund balances. Attachment 2 summarizes the investment activity for the month and distribution, by type of investment, held by the City. Attachment 3 lists all investments with original maturities exceeding one year as of the month ended August 31, 2019.

Prepared by: Jeffrey Blanks, Deputy Finance Director

Reviewed by: City Manager LS

City of Clovis
Statement of Cash Balances
As of August 31, 2019

AGENDA ITEM NO.4.

Previous Balance	\$	7,013,247.98
Deposits		29,666,978.86
Disbursements		(29,773,155.34)

Current Balance	\$	6,907,071.50

FUNDS	BALANCE
100 General Fund	\$ 7,466,576.65
201 Local Transportation	11,516,615.45
202 Parking and Business Improvements	47,418.57
203 Off Highway Use	68,620.86
205 Senior Citizen Memorial Trust	51,756.02
207 Landscape Assessment District	4,249,873.34
208 Blackhorse III (95-1) Assessment District	131,148.70
301 Park & Recreation Acquisition	6,054,693.64
305 Refuse Equipment Reserve	1,176,434.99
310 Special Street Deposit Fund	25,554,341.50
313 Successor Agency	644,952.61
314 Housing Successor Agency	2,032,613.45
402 1976 Fire Bond Redemption	25,475.23
404 1976 Sewer Bond Redemption Fund	395,655.31
501 Community Sanitation Fund	16,552,852.70
502 Sewer Service Fund	28,684,286.17
504 Sewer Capital Projects-Users	836,032.56
506 Sewer Capital Projects-Developer	2,871,661.96
507 Water Service Fund	50,693,687.38
508 Water Capital Projects-Users	4,250,825.64
509 Water Capital Projects-Developer	7,839,897.53
515 Transit Fund	2,400,322.75
540 Planning & Development Services	12,989,072.60
601 Property & Liability Insurance	1,133,828.26
602 Fleet Maintenance	11,643,160.99
603 Employee Benefit Fund	1,286,887.77
604 General Government Services	14,937,557.55
701 Curb & Gutter Fund	156,525.61
702 Sewer Revolving Fund	123,477.35
703 Payroll Tax & Withholding Fund	1,209,624.01
712 Temperance/Barstow Assmt Dist (98-1)	73,860.33
713 Shepherd/Temperance Assmt Dist (2000-1)	5,613.68
715 Supp Law Enforcement Serv	(218.23)
716 Asset Forfeiture	23,491.00
720 Measure A-Public Safety Facility Tax	11,903.29
736 SA Admin Trust Fund	1,421.40
741 SA Debt Service Trust Fund	(759,870.00)
747 Housing Successor Trust Fund	1,137.98

SUBTOTALS	\$ 216,383,216.60
999 Invested Funds	(209,476,145.10)

TOTAL	\$ 6,907,071.50

City of Clovis
Summary of Investment Activity
For the month of August 31, 2019

AGENDA ITEM NO.4.

<hr/> <hr/>	
<u>Balance of Investments Previous Month End</u>	<u>\$ 214,230,521.74</u>
<u>Time Certificates of Deposit Transactions</u>	
Investments	750,000.00
Withdrawals	<u>(990,000.00)</u>
Total CD Changes	(240,000.00)
<u>Other Changes</u>	
Government Securities	6,129,600.00
US Treasury Notes	0.00
Local Agency Investment Fund	0.00
Money Market	0.00
Sweep Account	<u>(10,643,976.64)</u>
Total Other Changes	<u>(4,514,376.64)</u>
Balance of Investments Current Month End	<u>\$ 209,476,145.10</u>

City of Clovis
Distribution of Investments
As of August 31, 2019

<hr/> <hr/>	
Insured CD's	11,940,000.00
Government Securities	130,255,006.97
US Treasury Notes	0.00
Local Agency Investment Fund	65,000,000.00
Money Market	0.00
Sweep Account	<u>2,281,138.13</u>
Investment Total	<u>\$ 209,476,145.10</u>

City of Clovis
Original Maturities Exceeding One Year
As of August 31, 2019

AGENDA ITEM NO.4.

Institution	Face Value	Investment Balance At Amortized Cost	Maturity	Stated Rate
FHLMCMTN	3,000,000.00	2,997,000.00	9/27/2019	1.500%
FHLB	2,500,000.00	2,498,750.00	10/30/2019	1.625%
FNMA	3,000,000.00	3,000,000.00	11/15/2019	1.250%
FHLMCMTN	3,000,000.00	3,000,000.00	11/27/2019	1.300%
FFCB	2,500,000.00	2,502,117.00	12/5/2019	2.390%
FFCB	1,000,000.00	994,500.00	2/24/2020	1.400%
FHLB	1,000,000.00	1,008,596.72	3/13/2020	1.875%
FNAMAMTN	3,000,000.00	3,006,210.00	4/27/2020	1.700%
FNAMAMTN	3,000,000.00	3,007,770.00	4/27/2020	1.800%
FFCB	2,000,000.00	1,990,555.00	5/7/2020	1.320%
FHLMCMTN	2,500,000.00	2,498,750.00	5/22/2020	1.550%
FFCB	2,500,000.00	2,500,000.00	6/1/2020	1.670%
FHLB	5,000,000.00	5,000,000.00	6/26/2020	1.625%
FAMCMTN	2,500,000.00	2,500,000.00	6/29/2020	1.650%
FHLB	2,500,000.00	2,500,000.00	6/29/2020	1.640%
FFCB	5,000,000.00	5,000,000.00	7/6/2020	1.625%
FHLB	2,500,000.00	2,455,546.50	8/28/2020	1.680%
FHLB	2,500,000.00	2,465,677.50	8/28/2020	1.800%
FHLB	2,500,000.00	2,500,000.00	9/18/2020	1.600%
FNAMAMTN	2,500,000.00	2,500,000.00	10/13/2020	1.850%
FNMAD	2,400,000.00	2,442,365.00	10/28/2020	1.500%
FHLB	2,500,000.00	2,488,750.00	11/25/2020	1.950%
FFCB	3,000,000.00	3,000,000.00	12/22/2020	2.100%
FHLMCMTN	2,500,000.00	2,497,500.00	1/26/2021	2.150%
FHLMCMTN	2,500,000.00	2,477,875.00	2/16/2021	2.375%
FHLMCMTN	2,300,000.00	2,258,140.00	3/29/2021	1.875%
FAMCMTN	2,500,000.00	2,502,236.25	4/19/2021	2.650%
FFCB	2,500,000.00	2,452,750.00	5/17/2021	2.000%
FHLB	2,600,000.00	2,568,982.50	6/11/2021	3.625%
FHLB	2,400,000.00	2,418,750.00	6/14/2021	1.640%
FHLMCMTN	2,500,000.00	2,471,750.00	6/30/2021	1.500%
FAMCMTN	3,000,000.00	3,000,000.00	8/17/2021	2.750%
FFCB	2,000,000.00	1,998,520.00	8/27/2021	2.700%
FFCB	2,500,000.00	2,490,877.50	9/20/2021	2.850%
FFCB	2,500,000.00	2,500,200.00	12/17/2021	2.800%
FHLMCMTN	6,000,000.00	6,129,600.00	1/13/2022	2.375%
FFCB	2,500,000.00	2,498,750.00	1/24/2022	2.800%
FHLB	12,100,000.00	12,110,520.00	3/11/2022	2.500%
FFCB	6,000,000.00	5,979,668.00	3/28/2022	2.280%
FFCB	6,000,000.00	6,017,400.00	6/14/2022	1.875%
FAMC	6,000,000.00	6,024,900.00	6/21/2022	1.950%



CITY of CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Finance Department

DATE: December 9, 2019

SUBJECT: Finance – Receive and File – Status Report of Community Facilities District Revenues and Expenditures.

CONFLICT OF INTEREST

None.

RECOMMENDATION

That the Council receive and file the report on the status of the Community Facilities District (CFD) Revenues and Expenditures.

EXECUTIVE SUMMARY

In March 2004, the Council approved the formation of Community Services District 2004-1, which provides funding for public safety operations in new growth areas generally located north of Herndon and east of Locan Avenues. The Council directed staff to prepare an annual report indicating the amounts received from CFD assessments and expenditures applicable to the CFD. The council also requested that a citizen’s committee be established to review the revenues and expenditures of the CFD.

BACKGROUND

Fiscal year 2005-2006 was the first year the City received revenues from the assessment of community facilities district fees. Any parcel located in the CFD with a building permit issued prior to May 1, would be subject to the CFD fee the following fiscal year, payable with their property tax bill.

There were 7,432 parcels assessed in 2018-2019, generating \$1,871,000 in assessments. The per-unit assessment for 2018-2019 was \$248.52 for single family units and \$214.58 for multifamily units.

Expenditures for public safety services associated with growth in the CFD area for 2018-2019 were \$4,499,000. In 2018-2019, Community Service District fee revenue covered 42% of Community Service District expenditures.

	<u>2018-2019</u>	<u>2017-2018</u>	<u>2016-2017 and prior</u>
Expenditures	\$4,499,000	\$4,262,000	\$30,742,000
Revenue	\$1,871,000	\$1,588,000	\$ 7,180,000

The Council established an independent citizen’s oversight committee for the purpose of reviewing revenue and expenditures associated with the Community Facilities District. The committee consists of five members for a term of four (4) years without compensation and shall be appointed by the Mayor, subject to approval by the City Council. The committee includes one member of the real estate community, one member of the Building Industry Association, and three members who are landowners of residential properties within the Community Facilities District. Once appointed, the committee reviews expenditures of the tax proceeds and determines that such expenditures are in accordance with the purpose and intent of the Community Facilities District Resolution of Intention approved by the City Council and to report those findings to the City Council.

The following members were appointed at the January 14, 2019 Council meeting:

- Laura Corey - Real Estate Community Representative
- Mike Prandini - Building Industry Association Representative
- Denise Rivera - Property Owner
- David Martin Connolly - Property Owner
- Jonathan B. Holt - Property Owner

FISCAL IMPACT

This report provides a status of the CFD revenue and expenditures attributable to Community Facilities District. The report currently reflects that the CFD is contributing less than half toward the total expenditures attributable to the CFD.

REASON FOR RECOMMENDATION

The fiscal report is for information only and no action is required. The recommended members of the Citizens oversight Committee need council confirmation. The committee will review the status report and provide comment to council only if deemed necessary by the committee.

ACTIONS FOLLOWING APPROVAL

Copies of the report will be made available to any member of the public who requests a copy. The Committee will be meeting within the next two months and should they deem it necessary, will present their report to council no later than May 1.

Prepared by: Elena Mendrin, Accountant

Reviewed by: City Manager LS



CITY of CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Planning and Development Services

DATE: December 9, 2019

SUBJECT: Planning and Development Services - Approval - For the City Manager to enter into a contract with Regency Property Management for the management and maintenance of certain improvements in Blackhorse Estates 1 & 2 – Assessment District 1995-1.

- ATTACHMENTS:
1. Map
 2. Regency Property Management Proposal
 3. Agreement

CONFLICT OF INTEREST

None.

RECOMMENDATION

For the City Council to authorize the City Manager to enter into a contract with Regency Property Management for the management and maintenance of certain improvements in Blackhorse Estates 1 & 2 – Assessment District 1995-1.

EXECUTIVE SUMMARY

Pacific Central Management Corporation has been managing Assessment District (AD) 1995-1 (Blackhorse Estates 1 & 2) under an agreement with the City for several years. Based on feedback from property owners within the Blackhorse subdivision, staff issued a Request for Proposals (RFP) for Maintenance and Management of Assessment District 1995-1. A total of three (3) proposals were received on September 10, 2019. The proposal review team, which included participants from the neighborhood, carefully evaluated the proposals to select Regency Property Management and negotiated the attached agreement. Staff is recommending approval.

BACKGROUND

AD 1995-1 is a gated community located at the southeast corner of Alluvial and Minnewawa Avenues. The District was created under the provisions of the Benefit Assessment Act of 1982 to provide for the maintenance of sidewalks, curbs and gutters, pavement, valley gutters, entrance control gates, median islands and median island landscaping, drainage inlets and streetlights within the District.

The intent of the maintenance district is to provide all of the necessary street maintenance activities within the tract. Since the streets are private easements, no public funds may be expended on maintenance activities and no City crews may be utilized for street maintenance activities. All maintenance within the District is performed on a contractual basis, utilizing private contractors and funded by the district assessments. All administrative coordination is performed by the private management firm contracted by the City on behalf of the District and funded from the assessments. The management firm will be responsible for all street maintenance activities.

For the past 12 years, the City has contracted with Pacific Central Management Corporation to manage maintenance for AD 95-1. Pacific Central has been able to provide comprehensive management services without increasing the cost of their services for all of these years. However, in the spring of this year, an informational meeting was held for the purpose of providing information to residents and receiving feedback pertaining to the assessment district. Twenty-five (25) property owners attended and many expressed dissatisfaction with the level of service provided by Pacific Central Management Corporation and requested that a new property management company be hired. Others in attendance indicated that they were generally satisfied with the level of service being provided. Staff agreed to issue a request for proposals with a more complete description of the work required.

The RFP was issued in August and three proposals were received on September 10, 2019. The proposals were reviewed by a committee consisting of staff members and 1 property owner representative from each of the 2 benefit areas. The committee selected Regency Property Management and staff has worked with them to arrive at the agreement attached. The annual cost to provide property management services is \$22,800 per year, which is \$120 per year more than the City’s existing contract. Regency’s estimated total annual maintenance cost for the district is \$56,978 and it includes the \$22,800 in management services cost. Staff is recommending approval of the agreement.

FISCAL IMPACT

Regency Property Management proposes a monthly fee of \$1,900 (\$22,800 per year) for management services as described in the proposal as shown in Attachment “2”. The Assessment District has two benefit areas. The revenue derived from each benefit area assessments is used solely in that benefit area to maintain and/or operate street facilities including pavement repairs, sidewalks, curbs and gutters, entrance control gates, street lights, street sweeping, median islands, entrance landscaping, and the planned

preventative pavement maintenance. The assessment is collected with each property owner's County tax assessment. For fiscal year 2019-2020, no assessment increase was proposed. The total receipts from both benefit areas is \$62,406. Regency's estimated total annual maintenance budget for the district is \$56,978 and it includes the \$22,800 in management services cost. The proposed amount is within the budget and will not require an increase in the annual assessment for this fiscal year.

REASON FOR RECOMMENDATION

In order to provide maintenance and property management services, a qualified property management provider is required. Regency Property Management was selected through a competitive process and was responsive to the City's request for proposals with costs within the existing budget.

ACTIONS FOLLOWING APPROVAL

- The City Manager will execute the agreement with Regency Property Management for the management and maintenance of Assessment District 1995-1, for the monthly amount of \$1,900 (\$22,800 per year).
- The existing contract with Pacific Central will be terminated.

Prepared by: Sarai Yanovsky, Civil Engineer

Reviewed by: City Manager *JH*

ATTACHMENT 1



Maintenance Management – Assessment District 1995-1

Attention: City Clerk, Engineering Department

Submitted by: Regency Property Management
September 9, 2019



A. Cover Letter

Regency Property Management (RPM), the area leader in property management proposes to provide the following services in response to RFP Benefit Assessment District No. 95-1; operate, maintain, preserve, and replace the streets, sidewalk, curb and gutters, paved and valley gutters, entry gates, landscaping and drainage inlet structures. RPM proposes to provide the above for areas 1 and 2, as defined in the RFP. Additionally, we are fully prepared to provide all services requested, including financial management and bi-annual neighborhood meetings. Regency Property Management maintains a dedicated staff that is fully trained and extremely responsive to each client’s needs.

RPM is an experienced Home Owners Association manager and maintains all properties to the highest standards. Regency Property Management has a wide range of trusted vendor relationships to ensure that all resident requests are responded to in a timely fashion, including after hour calls. Being a well-known and respected property management company in Fresno County allows us to leverage existing relationships and garner the best services at the lowest rate for each of our customers. Additionally, we are a large corporation that has sound fiscal and account practices as requested in the RFP.

Regency Property Management currently manages over 50 Associations of varying sizes and specializes in customizing their service for each Association. As a large property management company, RPM has an internal compliance department that ensures all files and records are maintained to industry standards. RPM will provide signage at entrances to both assessment districts identifying that the area is professionally managed by Regency Property Management and contact information for residents to reach out at anytime. RPM will also host a welcome festival within the maintenance areas to introduce existing residents to the new management.

B. Budget

Regency Property Management is able to provide the highest qualities services as the lowest costs because of our well established vendor network. RPM proposes to provide all requested services at the fees below as the District Administrator.

TABLE NO. 1: COST ESTIMATE FY 2019-2020 Benefit Area I	
	Proposed FY 2019-20
Miscellaneous/ Contingency Repairs	\$ 400
Electronic Gate Maintenance	\$ 1,500
Telephone	\$ 500
Street Sweeping	\$ 468
Landscape Maintenance	\$ 5,000
Electrical Power for Gate and Streetlights	\$ 3,000
City Administration Costs	\$ 640
County Collection Fees	\$ 8
District Administrator	\$ 8,940
Assessment Engineering	\$ 1,304
Insurance	\$950
Total Expenses:	\$22,710

TABLE NO. 2: COST ESTIMATE FY 2019-2020 Benefit Area II	
	Proposed FY 2019-20
Miscellaneous/ Contingency Repairs	\$ 1,000
Electronic Gate Maintenance	\$ 2,500
Telephone	\$ 500
Street Sweeping	\$ 1,188
Landscape Maintenance	\$ 6,000
Electrical Power for Gate and Streetlights	\$ 4,600
City Administration Costs	\$ 960
County Collection Fees	\$ 14
District Administrator	\$ 13,860
Assessment Engineering	\$ 2,346
Insurance	\$1,300
Total Expenses:	\$34,268

TABLE NO. 3 District Administrator Duties	
Executive Leadership	Executive team management of staff, negotiation of contracts/budgets, and support as needed for all staff and residents.
Property Supervisor	Preparation for and leadership of bi-annual meetings, minute preparation, mailings, welcome package for new owners, vendor management, property inspections, customer service as needed
Office Staff	Assistance with meeting preparation, customer service, mailings, property inspections, and welcome packages.
Bookkeeper	Financial oversight, invoices, and budget preparation

C. A Detailed Description of Services to be Supplied

As a full-service association manager, Regency Property Management is fully prepared to meet all requests in the RFP. RPM will negotiate and secure contracts for all necessary maintenance. We will ensure that contact information for RPM is easily located at the entrances to The Blackhorse Estates neighborhood and that all resident requests are responded to quickly and efficiently. At association meetings, held at least quarterly, RPM will present information regarding inspections of the common area and updates on any upcoming projects.

In accordance with the RFP, Regency Property Management proposes to provide the following services to Benefit Area 1- Birch Lane, Cherry Lane, Chennault Lane, and Oxford Lane as well as to Benefit Area 2- Oxford Land, Harvard Lane, Dartmouth Lane, Birch Lane, Minarets Lane, Oak Lane and Cherry Lane. RPM will maintain all sidewalks in Benefit Areas 1 and 2 including repairing and replacing concrete damage that poses a hazard and is greater than 1/4” wide. Additionally, all curbs and gutters and valley gutters will be maintained to ensure there is no ponding water greater than 1” deep. We are committed to frequently inspecting the benefit areas to ensure that any repairs are identified and remedied quickly.

As requested, four entrance/exit control gates located on Birch Lane and Chennault Lane for Benefit Area 1 and located on Oxford Lane and Dartmouth Lane for Benefit Area 2 will be operational at all times and after-hours repair will be provided as needed. Gate codes will be updated at a minimum, every 2 years and all gates/call boxes will be inspected to ensure they are in good repair and painted frequently. New remotes will be provided to residents upon their request, at cost to each resident. RPM will be responsive to property owners' requests including requesting gates be open for events including yard sales. As a large property management company, RPM has multiple vendor relationships that will guarantee the gates are operational at all times and quickly repaired when necessary.

Regency Property Management strives to maintain each neighborhood to the highest standard and will ensure that landscaping in the median islands and other identified areas appear well-cared for. With a mentality of treating each neighborhood like our own, the results speak for themselves. Our full-service landscaping will include fertilizing, litter removal, weeding, replacement of dead plantings, and maintenance/repair of irrigation lines and systems. All considerations will be taken to ensure irrigation does not overflow to sidewalks and that all maintenance will not interfere with pedestrian use of sidewalks.

As an established property management company, Regency Property Management has all required fiscal components and will prepare an annual budget at least 90 days prior to the end of the fiscal accounting year. Additionally, we will maintain a trust account for the district in a bank approved by the City of Clovis. RPM will ensure that The City Finance Director is named on the trust account with the ability to draw thereon. Upon award of the contract, Regency Property Management will maintain a \$25,000 fiduciary bond in favor of the City with cost of the bond paid out of the assessment district proceeds. Quarterly Cash Flow and Income and Expense Statements shall be distributed on a quarterly basis and RPM will assist in audits in consonance with auditors appointed by the City. All requested reports shall be prepared and submitted as requested and required. In the event of an emergency, RPM is fully prepared to act as an authority for the Assessment District.

RPM is committed to providing the full-service relationship that associations desire in a management company. We are committed to maintaining all financial records as it pertains to Assessment District 1995-1 and to maintaining complete files for all correspondence. All requests made through "Public Records Act" will be responded to promptly and RPM will

respond to discovery in case of litigation. In addition to being responsive to any requests from residents, Regency Property Management will complete monthly inspections of both Benefit Area 1 and Benefit Area 2 to ensure that all vendors are performing work to our standards and to provide any preventive maintenance needed.

D. Bidders Experience during past 5 years

Regency Property Management is regarded as a leader in the property management business in Fresno County because of their commitment to excellent and maintaining every property to the highest standard. Attached, is a sample of RPM’s standard management agreement. Currently, RPM manages over 50 associations with over 2675 doors in those associations. While RPM provides an individualized service to each of the associations, the services typically provided are similar to the services requested herein.

At RPM we believe there is no association that is too small or too big for us to manage, taking an individualized approach to each association allows us to tailor the services for each association. Regency Property Management is experienced in managing all types of associations including condominiums, single-family residences, P.U.D.’s and new construction.

Regency Property Management has had great success in improving neighborhoods upon taking over management of the associations. For example, in Fresno the West Shaw Estates was in blighted conditions with frequent crimes and violence occurring in the neighborhood. RPM quickly assessed the needs of the neighborhood and partnered with Fresno Police Department to secure additional security and patrols of the neighborhood. Additionally, RPM sponsored a neighborhood block party to bring neighbors together and promote a safe neighborhood. With the proactive management, occupancy in the neighborhood had doubled, well calls for service from Fresno Police Department have dropped from 1000+ per year to less than 100 in the last year.

With a goal of bringing back the neighborly neighbors, Regency Property Management comes with a highly qualified and well-trained staff that includes several Certified Managers of Community Associations (CMCA) who have earned that designation through The Community Association Managers Interaction Certification Board (CAMICB). Our team, key personnel

identified below, have a strong focus on customer service ensures that every homeowner and customer will feel their needs are met in a timely and efficient manner.

Brad Hardie, Owner and President- Brad takes pride in leading by example and teaches his team to provide the best possible services to each individual. Brad, once profiled in Forbes Magazine’s “30 Under 30: Real Estate”, is dedicated to ensuring that Regency Property Management continues to be an industry leader. Brad can frequently be seen in the community as he strongly believes in giving back to the community and doing his part to ensure that Fresno County is a place everyone is proud to be from.

Gina Dobson, Partner and Vice President- Gina is a licensed real estate sales person and a Certified Manager of Community Associations (CMCA). With more than 20 years’ experience in property management, Gina has a particular emphasis in home-owner’s association management and works directly with many Board of Directors for the HOAs under Regency’s management.

Bonnie Allen, Executive Director- Bonnie brings more than 20 years’ experience in property management to Regency Property Management and has found a passion in managing HOAs ensuring that neighborhoods are well maintained and providing something for every resident to be proud of. Bonnie is also a Certified Manager of Community Associations (CMCA).

Michalene (Mikki) Martinez, Portfolio Manager- Mikki effectively leads homeowner associations with her passion for ensuring that each customer receives the individualized services they need. She is a Certified Community Association Manager (CMCA) and a finalist for 2019 National Manager of the year.

Arlene Darling, Portfolio Manager- Arlene has managed HOAs for 15 years and has been a Certified Community Association Manager (CMCA) for 11 years AMS and actively pursuing PCAM. Arlene strives to be proactive and solve any problems before her clients realize there is an issue. She takes great pride in providing exceptional customer service.

Julie Laizure, HOA Accountant- Julie brings more than 30 years of accounting and business consulting experience. Julie has experience with tax preparation, financial management, and a focus on creating procedures for checks and balances. Julie’s position, specializing in HOA accounting underlines RPM’s commitment to providing the highest quality services to HOAs.

Regency Property Management is the ideal match for the services being requested. We have the experience necessary to step in and provide the highest quality services and the best

customer service. We strive to create neighborhoods where each resident is proud to call their house their home. RPM's dedicated staff are committed to providing each Association with the customized experience they need and we are confident that our services will exceed the expectations of the neighborhood.

MANAGEMENT AGREEMENT

THIS AGREEMENT made this 1 day of Jan, 2019²⁰, by and between the City of Clovis, hereinafter called "City," and REGENCY PROPERTY MANAGEMENT, hereinafter called "Agent," agrees as follows:

I. APPOINTMENT

The City hereby appoints Agent and Agent hereby accepts the appointment on the terms and conditions hereinafter provided, as agent for Assessment District 1995-1, to supervise the maintenance of the Assessment District's automated entry and exit gate systems, landscape and irrigation adjoining the entry gates, all street maintenance activities within the tract and act as resident contact to coordinate necessary repairs; with the power, authority and duties to act at the cost and expense of Assessment District 1995-1. The City also recognizes the affiliation between the Agent and RP Painting and Maintenance.

II. LIMITATION OF AUTHORITY

It is understood and agreed that the authority and duties conferred upon Agent hereunder are confined to the common elements of Assessment District as defined above.

III. GENERAL DESCRIPTION OF WORKS AND IMPROVEMENTS TO BE MAINTAINED

Reference is made to the map of Tract No. 4299A in the City of Clovis, County of Fresno, State of California, and the street improvements plans prepared therefore.

Items to be maintained are related to the streets within the boundaries of Tract No. 4299A, namely, Birch Lane, Cherry Lane, Chennault Lane, and Oxford Lane and the two parcels adjacent to Tract No. 4299A on the east as shown on the Boundary Map of Assessment District No. 1995-1. Said two parcels adjacent to Tract No. 4299A are designed with parcel assessment numbers 44 and 45 on the assessment diagram of City of Clovis Assessment District No. 1995-1. Proposed streets within assessment parcels 44 and 45, whose maintenance are included Assessment District 1995-1, Oxford Lane, Harvard Lane, Dartmouth Lane, Birch Lane, Minarettes Lane, Oak Lane, and Cherry Lane. Improvements along Minnewawa Avenue and Alluvial Avenue are excluded from maintenance by Assessment District No. 1995-1.

Items to be maintained are as follows:

1. All sidewalks parallel to the above named streets and within 27 feet of the centerline of the streets.
 - a. Level of maintenance includes repair or replacement of concrete damage or settlement that poses a tripping or other hazard to pedestrians and is not caused by property owner misuse or features such as uplifting by tree roots. Cracks less than 1/4" wide and flush need not be repaired. Adjacent property owners will be responsible for day to day sweeping and cleaning as necessary.
2. All curbs and gutters that are a part of the above named streets.
 - a. Level of maintenance includes repair or replacement of damaged concrete as needed where the damage causes tripping hazard or causes water to pond at a depth greater than 1".
3. All valley gutters that are a part of the above named streets.
 - a. Level of maintenance includes repair or replacement of damaged concrete as needed where the damage causes tripping hazard or causes water to pond at a depth greater than 1".
4. The four entrance/exit control gates located on Birch Lane and Chennault Lane (Benefit Area 1); and Oxford Lane and Dartmouth Lane (Benefit Area 2).
 - a. Level of maintenance and service includes the following:
 - a. Keeping gates operational at all times. Availability after hours is required.
 - b. Keeping gates and call boxes in good repair, including periodic inspections and repainting. Contact information for the maintenance agent shall be displayed prominently on the call box for the residents.
 - c. Changing gate codes every 2 years. This includes notification of all residents and making sure all remotes operate properly.
 - d. Providing gate remotes to all new residents. Each resident can have 2 remotes. Replacement remotes and extra remotes shall be provided on request at the property owner's cost.
 - e. Holding gates open for yard sales, etc. upon request by property owners. Property owners need to provide 48 hours notice and provide appropriate proof of their property owner status.
5. Landscaping in the median islands and in other areas.
 - Generally, maintenance practices will be those that create a vigorous growth and display a well-cared for appearance at all times. Maintenance will include, but not be limited to fertilizing, litter removal, weeding, mowing and trimming of all plant material, thinning and the replacement of all plant material that

is dead or in poor condition, and the operation, repair and replacement of irrigation lines and systems.

- All plant material will be mowed, trimmed and maintained in such a manner that it does not interfere with pedestrian use of adjacent sidewalks. Irrigation overspray onto sidewalks is to be minimized to the greatest extent possible.
 - Plant material that is in poor condition or dead will be replaced immediately with like plant material.
6. Drainage inlet structures that are located on the above named streets.
- Structures shall be kept free of debris.

Maintenance shall include all labor, materials, transportation, parts, electricity, equipment, etc. deemed by the Agent, to be necessary and required to operate, maintain, preserve, and replace the above named items of improvement.

IV. AGENT'S DUTIES

Agent shall render services and perform duties as follows:

A. General

1. Maintain common elements in accordance with acceptable standards.
2. Negotiate contracts subject to City approval and retain services with necessary service providers, including gate maintenance providers, street sweeping providers, landscaping providers, insurance providers, and district engineer.
3. Secure street maintenance services which may include but not be limited to street sweeping, pavement and concrete facility repair, reclamite and seal coat application, overlay placement, and street drainage maintenance activities.
4. Provide periodic inspections, upon request by residents and at a minimum of at least quarterly, of all improvements to be maintained.
5. Respond to resident requests in a timely manner.
6. Maintenance company information shall be displayed on or near the call box for the residents.

B. Fiscal and Accounting Services for the project will include:

1. Assisting in preparation of the district annual budget at least 90 days prior to the end of the fiscal accounting year, which ends on June 30 annually.
2. Providing and maintaining a \$25,000 fiduciary bond in favor of the City. Cost of bond shall be paid out of the assessment district proceeds.
3. Preparation and distribution of computerized quarterly Cash Flow and Income and Expense Statements.
4. Assisting in performance of audits in consonance with auditors appointed by the City.

5. Timely preparation and submission of reports and forms to governmental agencies as requested or required.
 6. In the event of an emergency, which may damage the property of the Assessment District covered under this agreement, Agent shall have the authority to act for Assessment District in meeting such emergency. Said emergencies may include without limitations, fires, tornadoes, earthquakes, wars, strikes or other group civil disobedience, hurricanes, or other acts, which require immediate action. Any reasonable cost incurred by Agent pursuant to this paragraph shall be paid by Assessment District 1995-1 whether or not covered by insurance. Agent shall notify City, within one working day following the emergency, of the actions taken and expenses incurred.
- C. Agent is required to assist the City in matters relating to protection of the property against risks which are enumerated as follows:
1. Recommend insurance coverage as required to protect the property and the City.
 2. Prepare insurance specifications for bid proposals and secure bids under the directions of the City.
 3. With the approval of City, place appropriate insurance coverage for fire, general liability, fidelity bonds, statutory and other approved forms of insurance coverage.
 4. Assist in processing insurance claims.
- D. Meetings – City of Clovis and Annual Meetings with Homeowners:
1. Agent shall prepare and mail notices and agendas of all meetings, and shall conduct bi-annual meetings or as needed at no cost to the District. The City shall be noticed of all meetings.
 2. Cost for duplication and postage of notices of meetings and agendas shall be at the expense of the Assessment District.
 3. Attend all meetings, record proceedings and prepare minutes for distribution and mailing. Copies of all minutes shall be sent to the City and all residents of the District. Attendance at meetings shall be included in the Agent's fee, with no extra charges.
 4. Arrange for and conduct an annual Homeowner's meeting, including scheduling of location, date, and time of the meeting, and composing and sending notices.
 5. Any special reports requested by the City shall be prepared at a charge to be mutually agreed upon.
- E. Records and Correspondence:
1. Agent shall maintain all financial records of Assessment District 1995-1 as it pertains to contracted responsibilities.
 2. Agent shall maintain complete files for all correspondence.
 3. All financial records and correspondence files shall be the property of the City.

- 4. Special mailings of newsletters requested by the City shall be prepared, duplicated, and mailed at the expense of Assessment District 1995-1. (Copy to be furnished by the City).
- 5. Agent shall respond to "Public Records Act" requests promptly.
- 6. Agent shall respond to discovery in any litigation.

V. UNDISCLOSED FEES

Agent agrees not to collect or charge any undisclosed fees, rebates, or discounts. Any fees, rebates, or discounts collected shall be credited to the account of Assessment District 1995-1. Any rewards, which may be accrued by Agent's use of credit/charge cards on behalf of Assessment District 1995-1, shall not be considered an undisclosed fee, rebate, or discount and may be retained by Agent.

VI. TERMS

The term of this agreement shall be for a term of one year and renewable indefinitely unless terminated as provide below:

This agreement may be terminated at any time upon the mutual consent of the parties or upon thirty (30) days prior written notice of either party hereto. Any such notice shall be sent by Certified Mail, return receipt required. Notices shall be sent to:

City Engineer
City of Clovis
1033 Fifth Street
Clovis, CA 93612

Property Manager
Regency Property Management
331 W. Shields Avenue
Fresno, CA 93705

VII. AGENTS FEE

The compensation which Agent shall receive for services performed under this Agreement shall be \$1,900.00 per month or \$22,800.00 annually.

In the event the City requests the Agent to perform additional services not included in this Agreement, the City shall submit such requests in writing and Agent shall promptly inform the City of its charge for such additional services, which the City may either accept, or reject. This will also include major tract improvements in excess of \$2,500.00 not included in this agreement.

VIII. AGREEMENT TO BE CHANGED IN WRITING

This agreement shall constitute the entire agreement between the contracting parties. No variance or modification thereof shall be valid or enforceable except by written agreement approved by both City and Agent.

IX. NOTICE

Any notice by either party to the other shall be in writing and shall be given and be deemed to have been duly given, if either delivered or mailed in a registered or certified postpaid envelope addressed to the party as described under "TERMS" above.

X. SUCCESSORS AND ASSIGNS

This Agreement shall inure to the benefit of and constitute a binding obligation upon the City and Assessment District 1995-1, administrators, successors and assigns.

XI. OTHER CONDITIONS

- A. In order to facilitate efficient operation, the City shall furnish the Agent with a complete set of the plans and specifications of the Assessment District, and with the aid of these documents and inspection made by competent personnel, the Agent will inform itself with respect to the layout, construction, location, character, plan and operation of the entry gates, island landscaping, irrigation systems, and streets. Copies of guarantees and warranties pertinent to the construction of the Assessment District and in force at the time of the execution of this Agreement shall be furnished to the Agent.
- B. From the funds collected and deposited in the trust account herein provided, Agent shall cause to be disbursed regularly and punctually, sums otherwise authorized to be incurred under the terms of this Agreement, including the Agent's fee. After disbursement, any sums remaining in the account shall be disbursed or transferred from time-to-time, but only as specifically approved or directed by the City in writing.
- C. Upon termination, the contracting parties shall account to each other with respect to all matters outstanding as of the date of termination.
- D. Upon approval of the management agreement, the City shall deposit into the trust account one-third of the estimated annual district costs. Upon approval of each subsequent quarterly expenditure report and review of appropriate documentation, the City will reimburse the trust account for funds expended during the previous quarterly accounting period.

XII. INDEMNIFICATION AND INSURANCE

- A. Agent hereby agrees to indemnify, defend and hold the City, its officials, officers, employees, agents, and volunteers harmless from and against all

claims, demands, causes of action, actions, damages, losses, expenses, and other liabilities, (including without limitation reasonable attorney fees and costs of litigation) of every nature arising out of or in connection with the alleged or actual acts, errors, omissions or negligence of Agent or its subcontractors relating to the performance of Services described herein, unless the injuries or damages are the result of the City's sole negligence or willful misconduct.

Agent and City agree that said indemnity and defense obligations shall survive the expiration or termination of this Agreement for any items specified herein that arose or occurred during the term of this Agreement.

- B. Agent shall require all subcontractors hired by Agent to perform work associated with Benefit Assessment District 1995-1 to provide proof of insurance. Each subcontractor shall indemnify and hold harmless the City and its officers, officials, employees and agents from and against all claims, damages, losses and expenses, including attorney fees, arising out of the performance of the work described herein, caused in whole or in part by any negligent act or omission of the subcontractor, anyone directly or indirectly employed by the subcontractor or anyone for whose acts subcontractor may be liable, except where caused by the active negligence, sole negligence, or willful misconduct of the City.

In the event Agent hires a subcontractor to perform work associated with Benefit Assessment District 1995-1 that does not provide the required indemnification for the City, the Agent hereby agrees to assume the subcontractor's responsibilities and obligations to indemnify and hold harmless the City.

- C. Agent shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from, or in connection with the performance of the work hereunder by the Agent, his agents, representatives, employees, or subcontractors.

Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Insurance Services office Commercial General Liability coverage (occurrence from CG0001)
2. Insurance Services Office from number CA 0001 (ED, 1/87) covering Automobile Liability, code 1 (any auto).
3. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

Minimum Limits of Insurance

All insurance shall be placed with insurance companies that are licensed and admitted to conduct business in the State of California and are rated at a minimum with an "A:VII" by A.M. Best Company, unless otherwise acceptable to the City.

Agent shall maintain limits no less than the following:

- Workers' Compensation insurance as required by California statutes.
- General Liability Insurance (including operations, products and completed operations coverages) in an amount not less than \$2,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit
- Comprehensive Automobile Liability coverage with a combined single limit of not less that One Million Dollars (\$1,000,000) per occurrence. Such insurance shall include coverage for owned, hired, and non-owned automobiles and shall be provided by a business automobile policy.

Each insurance policy required by this Agreement shall contain the following clause:

"This insurance shall not be canceled, limited in scope or coverage, or non-renewed until after thirty (30) days prior written notice has been given to the City Clerk, City of Clovis, 1033 Fifth Street Clovis CA, 93612, with the exception of cancellation for non-payment of premium, in which case ten (10) days notice shall be given."

"The City of Clovis, its officers, officials, agents, employees, and volunteers are added as additional insureds as respects operations and activities of, or on behalf of the named insured, performed under contract with the City of Clovis."

"In the event Agent purchases an Umbrella or Excess insurance policy(ies) to meet the "Minimum Limits of Insurance," this insurance policy(ies) shall "follow form" and afford no less coverage than the primary insurance policy(ies). In addition, such Umbrella or Excess insurance policy(ies) shall also apply on a primary and non-contributory basis for the

benefit of the City, its officers, officials, employees, agents and volunteers.”

“Agent grants to the City a waiver of any right to subrogation, which any insurer of said Agent may acquire against the City by virtue of the payment of any loss under such insurance. Agent agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.”

“The Agent’s insurance coverage shall be primary insurance as respects the City, its officers, officials, employees, agents, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, agents or volunteers shall be excess of the Agent’s insurance and shall not contribute with it.”

The successful bidder shall maintain the insurance for the life of the contract. Endorsements are to be received and approved by Personnel/Risk Management before work commences. Should Agent cease to have insurance as required during any time, all work by Vendor pursuant to this agreement shall cease until insurance is deemed acceptable by the City.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the Agent shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the flooring provisions:

1. The City, its officers, officials, employees, agents and volunteers are to be covered as insured as respects: liability arising out of activities performed by or on behalf of the Agent; products and completed operations of the Agent; premises owned, occupied, or used by the Agent; or automobiles owned, leased, hired, or borrowed by the Agent. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, officials, employees, agents, or volunteers.

2. For any claims related to this project, the Agent's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees, agents, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, agents, or volunteers shall be excess of the Agent's insurance and shall not contribute with it.
3. Any failure to comply with reporting or other provisions of the policies including breaches of warranties, shall not affect coverage provided to the City, its officers, officials, employees, agents or volunteers.
4. The Agent's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, cancelled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII.

Verification of Coverage

Agent shall furnish the City with original endorsement effecting coverage required by this clause. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. All endorsements are to be received and approved by the City before work commences. The Agent's insurer shall provide complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications.

Subcontractors

Agent shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written:

DATE _____

City of Clovis,

Title

DATE 11/25/19


REGENCY PROPERTY MANAGEMENT

VP



CITY of CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Planning and Development Services

DATE: December 9, 2019

SUBJECT: Planning and Development Services - Approval - Res. 19-____, A request to consider the initiation of an ordinance amendment to provide for electronic message LED and video display signs, California Health Sciences University and Clovis Rodeo Association applicants.

ATTACHMENTS: 1. Draft Resolution
 2. Letter From California Health Sciences University
 3. Letter From the Clovis Rodeo Association

CONFLICT OF INTEREST

None

RECOMMENDATION

Staff recommends approval of this ordinance initiation request, subject to submittal of an application fee of \$3975.

EXECUTIVE SUMMARY

Staff has received requests from the California Health Sciences University and the Clovis Rodeo Association to consider the installation of signs with video capability. Both organizations are seeking video signs to advertise on-site activities as well as community oriented events. With exception of changeable copy and time and temperature signs, the sign ordinance does not allow the opportunity for video or animated signs and only one so far has been approved as a special sign program through the Planned Commercial Zone District at the northeast corner of State Highway 168 and Temperance Avenue.

As both organizations fill a quasi-public role in the community, there may be value in providing video signage in advertising organizational and community events. Staff,

however, is cautious that such signs should not be utilized as off-site advertising for businesses or other similar activities.

BACKGROUND

The Clovis sign ordinance provides guidance for visual identification and advertising of uses throughout the community. To date the ordinance does not allow for animated or video signs and includes limitations in off-site advertising. Two Light Emitting Diode (LED) signs have been allowed as “changeable copy”, non-animated signs for the Clovis Veterans Memorial District and for the Planned Commercial Center located at the northeast corner of State Highway 168 and Temperance Avenue. In the case of the commercial center, it was approved to provide identification of uses within the commercial center and uses and events within the Research and Technology Park.

Several school sites also incorporate LED signs. However, school districts are exempt to the requirements of local jurisdictions.

This request would be the first to consider allowing animated video displays for quasi-public facilities.

FISCAL IMPACT

The processing of an ordinance amendment is \$3975. Staff would look to the applicant(s) to cover the cost of an ordinance amendment application.

REASON FOR RECOMMENDATION

Educational facilities and community organizations such as the Clovis Rodeo Association often serve a civic purpose within a community. While they have specific operational goals, they often connect with other attributes of the community. While California Health Sciences University has a need to advertise campus activities and events, recruitment, graduations and other similar ceremonies, conferences, campus housing, and staff and faculty announcements, they would also like to advertise community wide health care events. The Clovis Rodeo Association has a need to identify their entrance and location as well as advertise upcoming events at the Rodeo Grounds. However, given their significant location and attachment to Old Town, they are interested in promoting Old Town events as well.

While a proliferation of video signs for commercial purposes may not be in the best interest of community development, a limited allowance for educational and community organizations could be “value added” to the community in general.

An ordinance amendment consideration would allow discussion of the potential use of video signs and define, if desired, a manner of operation, an approval process and identify and define appropriate categories of community organizations and uses. Agencies, such as the California Department of Transportation and organizations such as the Business

Organization of Old Town, would also be consulted as to their concerns and requirements for video signs.

ACTIONS FOLLOWING APPROVAL

Should the City Council approve this initiation request, staff will proceed with the preparation of an analysis and draft ordinance amendment text and will schedule this item for Planning Commission and City Council consideration.

Prepared by: Dwight Kroll AICP, Director of PDS

Reviewed by: City Manager *JH*

DRAFT
RESOLUTION 19- ____

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CLOVIS
GRANTING A REQUEST TO CONSIDER THE INITIATION OF AN ORDINANCE
AMENDMENT TO PROVIDE FOR ELECTRONIC MESSAGE LED SIGNS,
CALIFORNIA HEALTH SCIENCES UNIVERSITY AND CLOVIS RODEO
ASSOCIATION APPLICANTS.**

WHEREAS, the California Health Sciences University and the Clovis Rodeo Association is requesting approval of a resolution to initiate an ordinance amendment to consider allowing electronic message LED signs; and

WHEREAS, the California Health Sciences University and the Clovis Rodeo Association would cover the cost of the ordinance amendment consideration request; and

WHEREAS, the City Council finds merit in considering an ordinance amendment request.

NOW, THEREFORE, BE IT RESOLVED, that the City of Clovis Council grants the initiation of an ordinance amendment process to consider amending the City of Clovis sign ordinance to provide for electronic message LED signs.

* * * * *

The foregoing resolution was introduced and adopted at a regular meeting of the City Council of the City of Clovis held on December 9, 2019 by the following vote, to wit.

AYES:

NOES:

ABSENT:

ABSTAIN:

DATED: December 9, 2019

Mayor

City Clerk

Dwight Kroll
Director of Planning and Development
City of Clovis
1033 Fifth Street
Clovis, California 93612

RE: Highway Signage

Dear Dwight

California Health Sciences University (CHSU) would like to initiate the process that would allow freeway signage in the RT Park Zone District. More specifically, there is an interest in a sign with video capability.

In terms of sign usage, we envision the following all of which are related to CHSU or the community as a whole:

- Campus activities and events
- Recruitment
- Graduation and other similar ceremonies
- Recognitions
- Community health care events
- Conferences
- Campus Housing
- Staff and faculty announcements

It is not uncommon to see such signage at campuses. By example, Fresno State signage at Shaw Avenue and Chestnut Avenue and at Barstow and Cedar.

A specific location has not been determined except that a sign would be located along the north side of Highway 168 on Campus property. We have included a site drawing showing a general location for a freeway sign.

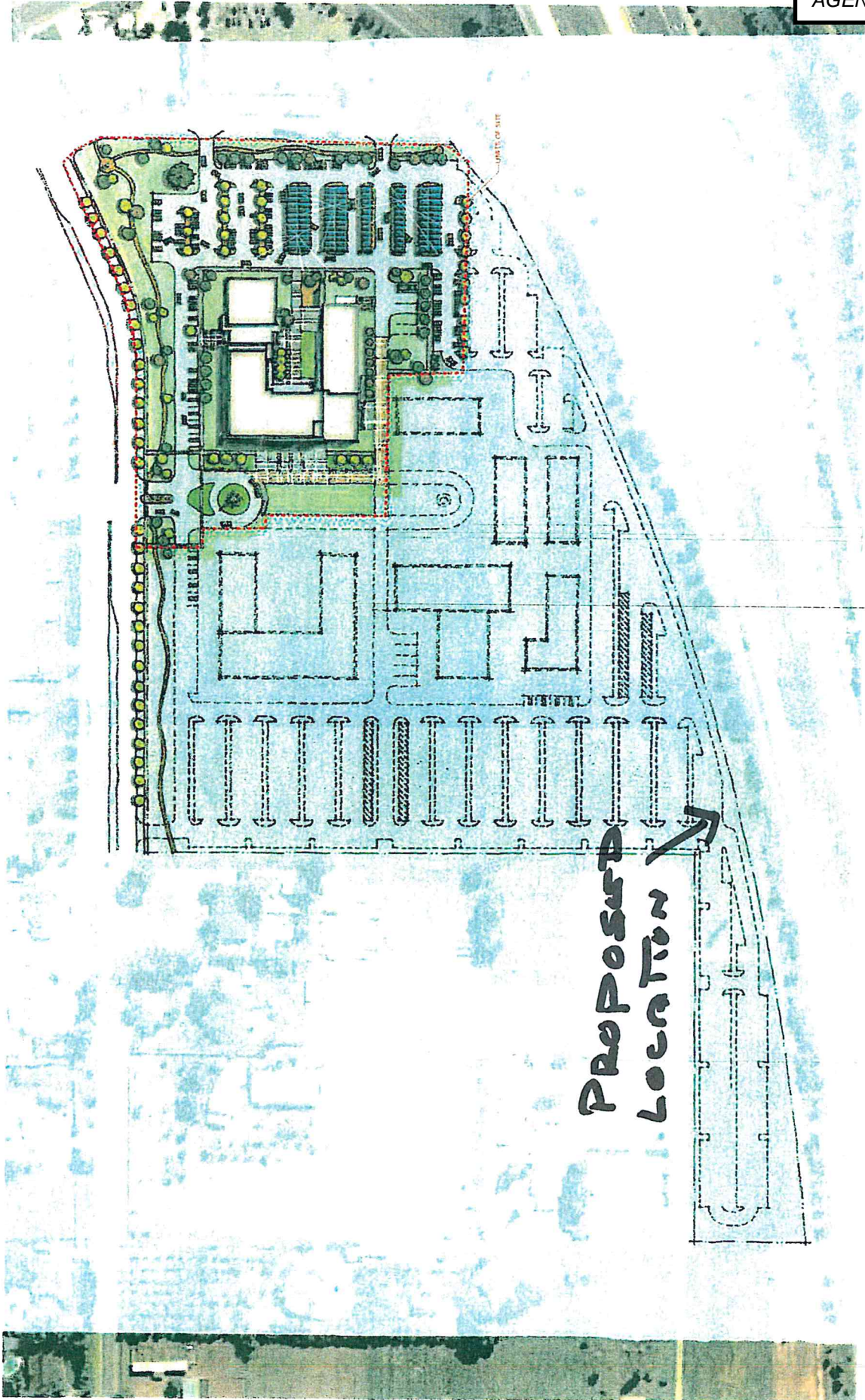
A concept drawing is also included which shows the overall height and width. The drawing is a concept and not a final design. We feel the height and overall size is appropriate.

We would be happy to meet with staff to further discuss a process.

Sincerely


S. Thomas McLaughlin
Director of Planning

cc Flo Dunn



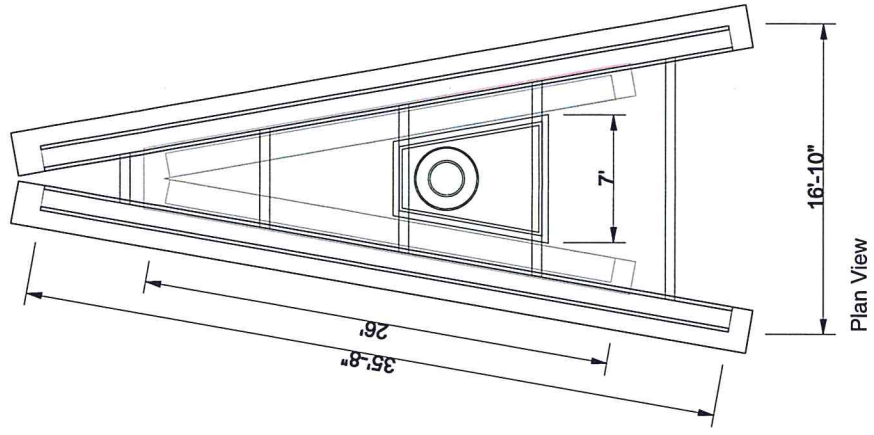
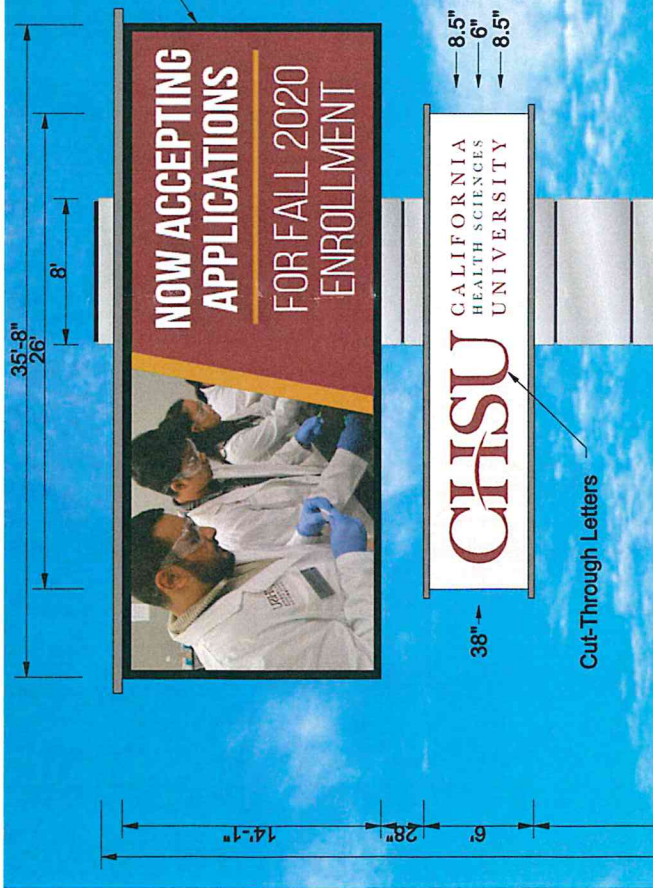
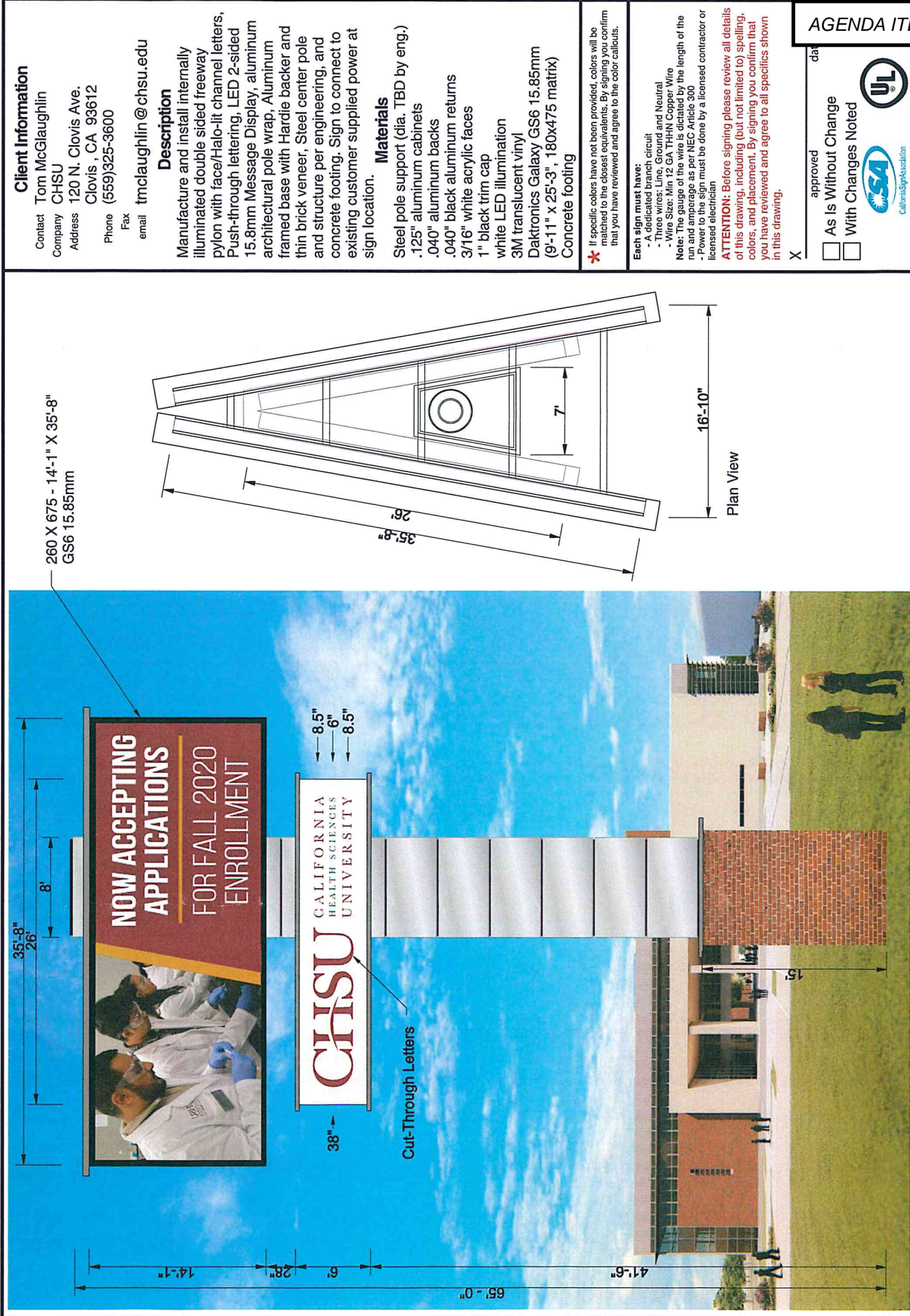
PROPOSED
LOCATION

SCHEMATIC DESIGN 2 SITE PLAN

CALIFORNIA HEALTH SCIENCE UNIVERSITY - COLLEGE OF MEDICINE

Clovis, California

01.31.18



Client Information
 Contact Tom McGlaughlin
 Company CHSU
 Address 120 N. Clovis Ave.
 Clovis, CA 93612
 Phone (559)325-3600
 Fax
 email tmclaughlin@chsu.edu



Description
 Manufacture and install internally illuminated double sided freeway pylon with face/Halo-lit channel letters, Push-through lettering, LED 2-sided 15.8mm Message Display, aluminum architectural pole wrap, Aluminum framed base with Hardie backer and thin brick veneer, Steel center pole and structure per engineering, and concrete footing. Sign to connect to existing customer supplied power at sign location.

Materials
 Steel pole support (dia. TBD by eng.)
 .125" aluminum cabinets
 .040" black aluminum returns
 3/16" white acrylic faces
 1" black trim cap
 white LED illumination
 3M translucent vinyl
 Daktronics Galaxy GS6 15.85mm (9'-11" x 25'-3", 180x475 matrix)
 Concrete footing

* If specific colors have not been provided, colors will be matched to the closest equivalents. By signing you confirm that you have reviewed and agree to the color callouts.

Each sign must have:
 - A dedicated branch circuit
 - Three Wires: Line, Ground and Neutral
 - Wire Size: Min 12 GA THHN Copper Wire
 Note: The gauge of the wire is dictated by the length of the run and amperage as per NEC Article 300
 - Power to the sign must be done by a licensed contractor or licensed electrician
ATTENTION: Before signing please review all details of this drawing, including (but not limited to) spelling, colors, and placement. By signing you confirm that you have reviewed and agree to all specifics shown in this drawing.

approved _____ date _____
 As Is Without Change
 With Changes Noted

This drawing is proof of concept only. Due to constraints, sizes and/or layouts are subject to change. The original drawing is the exclusive property of A-Plus Signs, Inc. and may not be reproduced, displayed or used without express written consent.

Drawn by JTA Date 9/6/19
 Scale NTS
 File CHSU Pylon 2
 Rep KB

A-PLUS SIGNS  64

4270 N. Brawley Ave.
 Fresno, CA 93722
 Ph: (559) 275-0700
 Fax: (559) 275-7482
 design@a-plus-signs.com

CHSUSU CALIFORNIA HEALTH SCIENCES UNIVERSITY



CLOVIS RODEO ASSOCIATION

AGENDA ITEM NO.7.

31 October, 2019

Mr. Dwight Kroll
City Of Clovis-Planning Department
Clovis, CA 93612

Dear Dwight

As you are aware, we are re-aligning the entrance on Clovis Avenue to the Clovis Rodeo Grounds to line up with Seventh Street which will give us a separate entrance from Clark Junior High School. We feel this will make it much safer when events at the Rodeo Grounds coincide with school hours. Our bronze statue was positioned originally for the re-alignment so it would not have to be moved. Our present sign needs to be moved and is in need of repair and maintenance. We would rather replace it with a more modern sign that includes a video board. Our plan is to make this a historical sign, using timber uprights from the nearby Sierra Nevada Mountains, rock fascia for the base from local quarries, and possibly incorporate a piece of the old flume that used to begin at Shaver Lake and end at the lumberyard where the Clovis Rodeo now stands. The new video board could be used for promoting downtown events, as well as to recognize sponsors and events that take place at the Rodeo Grounds throughout the year.

Please advise what the next steps will be for this request. Thank you for considering our project. We will wait for your reply and direction.

Respectfully Submitted,

CLOVIS RODEO ASSOCIATION

By Vince Genco, Director/Project Manager



CITY of CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Public Utilities Department

DATE: December 9, 2019

SUBJECT: Public Utilities – Approval – Authorize the Purchase of Three CNG Side-Loading Refuse Trucks from Golden State Peterbilt

ATTACHMENTS: None

CONFLICT OF INTEREST

None

RECOMMENDATION

For the City Council to authorize the purchase of three CNG side-loading refuse trucks from Golden State Peterbilt for a total of \$988,148.73.

EXECUTIVE SUMMARY

Sufficient funds have been collected in the current Fleet Capital Acquisition budget to purchase three side-loading refuse trucks for the Solid Waste section of the Public Utilities Department. Three trucks are due for replacement based on age and overall condition. The competitively bid contract price for each refuse truck was \$329,382.91, including sales tax. The total for the three trucks is \$988,148.73.

BACKGROUND

The City put out a request for proposals for Compressed Natural Gas (CNG) side-loading refuse trucks in September 2018. One proposal was received from Golden State Peterbilt and it met the necessary specifications. The contract was awarded in October 2018 and can be extended for two additional one-year terms, for a total of three years.

FISCAL IMPACT

Funds were included in the 2019-20 Fleet Capital budget for the replacement vehicles and the user section, Solid Waste, has accumulated the necessary funds for the equipment. The recommended vehicles meet the City's specifications.

REASON FOR RECOMMENDATION

Three residential side-loading refuse trucks are being replaced due to age. The new side loaders will meet emission requirements for the City, they are dependable, and they will be covered by warranty. Staff has evaluated the available equipment and has determined that the proposed equipment will meet the Solid Waste section's needs. The proposed method of purchasing the equipment is cost-effective and funds were included in the 2019-20 budget.

ACTIONS FOLLOWING APPROVAL

Purchase orders will be prepared for the City Manager's approval and sent to the vendor.

Prepared by: Paul Armendariz, Assistant Public Utilities Director

Reviewed by: City Manager *JH*



CITY of CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Public Utilities Department

DATE: December 9, 2019

SUBJECT: Public Utilities – Approval – Waive Formal Bidding Requirements and Authorize the Purchase of a 5-Yard Dump Truck off of the Sourcewell Purchasing Contract from PB Loader Corporation

ATTACHMENTS: None

CONFLICT OF INTEREST

None.

RECOMMENDATION

For the City Council to waive formal bidding requirements and authorize the purchase of a 5-yard dump truck off of the Sourcewell Purchasing Contract from PB Loader Corporation for \$125,496.59.

EXECUTIVE SUMMARY

Sufficient funds have been collected in the current Fleet Capital Acquisition budget to purchase a 5-yard dump truck for the Streets section of the Public Utilities Department. The equipment is being replaced due to age and emission requirements. The competitively bid contract price is \$125,496.59 and will meet On-Road 2020 emission requirements.

The Sourcewell Purchasing contract – formerly the National Joint Powers Alliance (NJPA) contract – is a nationwide public procurement service that makes the governmental procurement process more efficient. All contracts available to participating members have been awarded by virtue of a public competitive procurement process compliant with state statutes.

BACKGROUND

The recommended vehicle is available through the Sourcewell Purchasing Contract (formerly the NJPA contract), which is competitively bid on a nationwide basis.

FISCAL IMPACT

Sufficient funds were included in the 2019-20 Fleet Capital budget for the replacement vehicle and the user section, Streets, has accumulated the necessary funds to purchase the equipment. The recommended vehicle is available through the Sourcewell Purchasing Contract – which is the former NJPA contract – and is competitively bid on a nationwide basis.

REASON FOR RECOMMENDATION

A dump truck is due for replacement because of age and in order to meet emission requirements. The new dump truck will meet emission requirements for the City, is dependable, and will be covered by warranty. Staff has evaluated the available equipment and has determined that the proposed equipment will meet the Streets Section’s needs. The proposed method of purchasing the equipment is cost-effective and funds were included in the 2019-20 budget.

ACTIONS FOLLOWING APPROVAL

A purchase order will be prepared for the City Manager’s approval and sent to the vendor.

Prepared by: Paul Armendariz, Assistant Public Utilities Director

Reviewed by: City Manager *JH*



CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Planning and Development Services

DATE: December 9, 2019

SUBJECT: Consider items associated with approximately 21.52 acres of property located along the south side of Shepherd Avenue between Clovis and Sunnyside Avenues. John and Kristen Sobaje (Owners) / Lennar Homes of California, Inc. (Applicant) / Yamabe & Horn Engineering, Inc. (Representative).

- a. **Consider Approval - Res. 19-___**, A request to adopt an environmental finding of a Mitigated Negative Declaration for General Plan Amendment GPA2019-001, Rezone R2019-003, and Vesting Tentative Tract Map TM6263.
- b. **Consider Approval - Res. 19-___, GPA2019-001**, A request to amend the General Plan and Herndon-Shepherd Specific Plan to re-designate from the Low Density Residential (2.1 to 4.0 DU/Ac) to the Medium Density Residential (4.1 to 7.0 DU/Ac) classification.
- c. **Consider Introduction - Ord. 19-___, R2019-003**, A request to approve a rezone from the R-1-7500 (Single Family Residential-7,500 Sq Ft) to the R-1-PRD (Single Family Planned Residential) Zone District.
- d. **Consider Approval - Res. 19-___, TM6263**, A request to approve a vesting tentative tract map for a 137-lot Planned Residential Development.

Staff: Ricky Caperton, AICP, Senior Planner

Recommendation: Approve

- ATTACHMENTS:
1. Conditions of Approval
 2. Draft Resolution, Initial Study Mitigated Negative Declaration
 3. Draft Resolution, GPA2019-001
 4. Draft Ordinance, R2019-003
 5. Draft Resolution, TM6263
 6. Justification Letter
 7. Proposed Development Standards
 8. TM6263

9. Correspondence (Agencies, Departments, & Public Comments)
10. Planning Commission Minutes, October 24, 2019
11. Initial Study Mitigated Negative Declaration

CONFLICT OF INTEREST

None.

RECOMMENDATION

Planning Commission and staff recommend:

- For the City Council to approve Resolution 19-___ to adopt an environmental finding of a Mitigated Negative Declaration for General Plan Amendment GPA2019-001, Rezone R2019-003, and Vesting Tentative Tract Map TM6263 (**Attachment 2**); and
- For the City Council to approve Resolution 19-___ for General Plan Amendment GPA2019-001, (**Attachment 3**) a request to amend the General Plan and Herndon-Shepherd Specific Plan to re-designate from the Low Density Residential (2.1 to 4.0 DU/Ac) to the Medium Density Residential (4.1 to 7.0 DU/Ac) classification, subject to the conditions of approval included in **Attachment 1-A**; and
- For the City Council to approve the introduction of Ordinance 19-___ for Rezone R2019-003, (**Attachment 4**) a request to approve a rezone from the R-1-7500 (Single Family Residential-7,500 Sq Ft) to the R-1-PRD (Single Family Planned Residential) Zone District, subject to the conditions of approval included in **Attachment 1-B**; and
- For the City Council to approve Resolution 19-___ for Vesting Tentative Tract Map TM6263, (**Attachment 5**) a request to approve a vesting tentative tract map for a 137-lot Planned Residential Development, subject to the conditions of approval included in Attachment 1-C.

EXECUTIVE SUMMARY

The applicant is proposing a 137-unit single-family, non-gated planned residential development on approximately 21.52-acres of property shown in **Figure 1**. The Project would include construction of public streets, sidewalks, landscaped areas, and a block wall along the perimeter of the site, as well as a public park and related amenities (i.e. benches). There is no homeowner's association (HOA) proposed as part of the Project.

To accommodate the Project, the applicant is requesting a general plan amendment to re-designate the site from the Low Density Residential (2.1 to 4.0 DU/Ac) to the Medium Density Residential (4.1 to 7.0 DU/Ac) designation, a rezone from the R-1-7500 (Single-Family Residential-7,500 Sq Ft) to the R-1-PRD (Single-Family Planned Residential) Zone District, and approval of a vesting tentative tract map for a 137-lot, non-gated, planned residential single-family development.

BACKGROUND

- General Plan Designation: Low Density Residential
- Specific Plan: Herndon-Shepherd Specific Plan
- Existing Zoning: R-1-7500
- Lot Size: 21.52 acres (approximate)
- Current Land Use: Rural Residential
- Adjacent Land Uses:
 - North: Medium Density Residential (under construction)
 - South: Medium Density Residential
 - East: Low Density Residential
 - West: Medium-High Density Residential
- Previous Entitlements: CUP2006-06 / V2006-06 / R2004-04 / GPA85-01D

PROPOSAL AND ANALYSIS

The applicant's proposal, which was presented to the Planning Commission on October 24, 2019, requests approval of GPA2019-001, R2019-003, and TM6263 to construct 137 single-family homes as part of a non-gated planned residential development. Each of the required entitlements are described and analyzed in more detail within this report.

General Plan Amendment (GPA2019-001)

The applicant is requesting to amend the General Plan Land Use Diagram and the Herndon-Shepherd Specific Plan for an area currently designated as Low Density Residential (2.1 to 4.0 DU/Ac) to the Medium Density Residential (4.1 to 7.0 DU/Ac) designation. As part of the Project application, a justification letter has been provided for the general plan amendment (**Attachment 6**). This request is required for the applicant to be able to accommodate the Project at the proposed density.

Under the existing land use designation (Low Density Residential), the Project site could support up to a maximum of 86 residential units. Under the proposed Project (Medium Density Residential), the site could accommodate a maximum of up to 150 residential units. However, the Project proposes 137 single-family lots, which is less than the maximum units allowed under the requested designation.

The Project site is surrounded by existing residential developments at varying densities. The development to the north, currently under construction, is designated as Medium Density Residential, the development to the east is designated Low Density Residential, the development to the south is designated Medium Density Residential, and the development to the west is designated Medium-High Density Residential. As such, the Project's request to Medium Density Residential is similar to the densities in the surrounding areas and would serve as a transition of densities between the development to the east (Low Density) and the development to the west (Medium-High Density).

Further, the surrounding properties have previously been the subject of General Plan Amendments (and rezones) to be able to develop the existing housing products immediately adjacent to the Project site. Therefore, the applicant's request is similar to what has historically been supported by Staff and City Council.

For example, the property immediately to the west was granted a general plan amendment (GPA2002-10) to re-designate the land from Low Density Residential to Medium-High Density Residential, and the property to the east and south were also granted general plan amendments (GPA2003-03) to re-designate land from Low Density and Park to Low Density Residential (neighborhood to the east), and from Low Density and Park to Medium Density Residential (neighborhood to the south).

Overall, because the areas immediately surrounding the Project site were the subject of General Plan Amendments in the past (2002 and 2003), and as a result of the Project location being surrounded by a mix of densities, the request to re-designate the site to Medium Density Residential would be appropriate for this area. Further, the request would be consistent with the General Plan to create a diversity of housing within neighborhoods.

Housing Element Site

In accordance with state housing law, the City is required to demonstrate that it has enough property designated for residential development to accommodate housing demand for all income categories. This is referred to as the Regional Housing Needs Allocation (RHNA). The City has accomplished this, in part, by creating a zoning overlay program (RHN Overlay) which specifies that properties meeting certain criteria can be developed with high density residential uses, beginning at 35 units per acre. The eligible properties are identified as "Housing Element Sites" on an inventory approved by the City Council in 2018. As indicated previously, one of the parcels comprising the Project site is Housing Element Site #1 (APN: 560-031-34S) which is approximately 3-acres in size.

Per City policy, if development below the target density is proposed on a Housing Element Site, a written finding is required to determine if the remaining Sites would be sufficient to accommodate the City's RHNA. If remaining Sites are not adequate, new parcels must be designated. The Site inventory can change (parcels can be added or removed), but the inventory must always be capable of accommodating the minimum number of units defined in the City's RHNA. For this discussion, the RHNA includes a total of 4,209 dwelling units that must be accommodated at densities of at least 20 units per acre.

In 2018, the City Council adopted two programs to accommodate these units, including the aforementioned zoning overlay program and a separate program allowing residential development on properties zoned for public facilities. Together, these two programs demonstrated the ability to accommodate up to 5,156 units, which exceeds the RHNA by 947 units. This "surplus" of 947 units was intentional, allowing flexibility in the event that some sites were not developed with high density residential uses. Subsequent to the City's action to approve the two housing programs, a private developer was successful in obtaining approval of a rezoning and development application (Rezone R2018-11, CUP2018-13, and SPR2018-25) for a new high density residential project on 7.5 acres, with a yield of 158 units. This 7.5 acre site, and the 158 new units, may be added to the inventory, increasing the surplus to 1,105 units.

At 35 dwelling units per acre (DU/Ac), Housing Element Site #1 was projected to accommodate 105 multi-family units. Therefore, in order allow the Project to move forward, the City must demonstrate the ability for the remaining Housing Element Sites to absorb the “loss” of 105 units. Based on the surplus described above, the removal of Housing Element Site #1 from the inventory and the loss of 105 units will not limit the City’s ability to accommodate its RHNA requirement. The designation of replacement parcels is not required.

It should be noted that the City Council’s consideration of the Project is occurring following the recent approval of an unrelated project on Housing Element Site #8, approved by Council on November 18, 2019. Taken together, the combined effect will leave a remaining surplus of 895 units, which will not limit the City’s ability to accommodate its RHNA requirement.

Rezone (R2019-003)

The applicant is requesting a rezone of the Project site from the R-1-7500 (Single Family Residential-7,500 Sq Ft) to the R-1-PRD (Single Family Planned Residential Development) Zone District, which allows for flexibility from development standards otherwise required under single-family residential zoning.

Planned Residential Developments are allowed under Chapter 9.66, Planned Development Permits, of the Clovis Municipal Code. The purpose of Planned Development Permits is to provide a method whereby land may be designed and developed by taking advantage of modern site planning techniques thereby resulting in more efficient use of land and a better living environment than is otherwise possible through strict application of the development standards.

Development Standards

The applicant has provided proposed development standards for individual lots, as included in **Attachment 7**, and summarized below.

Proposed Development Standards:

Minimum Lot Area:	4,000 sq. ft.
Minimum Lot Width:	50 ft.
Minimum Lot Depth:	80 ft.
Maximum Lot Coverage:	65%
Maximum Height:	35 ft.
Minimum Front Setback:	18 ft. to garage / 10 ft. to structure
Minimum Side Setback:	5 ft. garage side / 4 ft. other side
Minimum Rear Yard Setback:	5 ft. (Lots 32, 101, and 102) 10 ft. (Lots 33 to 100, and Lots 103 to 137) 15 ft. (Lots 8 through 31) 20 ft. (Lots 1 to 7)
Fence Height:	6 ft. (minimum) to 8 ft. (maximum)
Accessory Structure Height:	12 ft. maximum

Parking and Driveways

Although the applicant has not yet submitted plans for residential site plan review, each unit would include a 2-car garage at a minimum size of 20 feet by 20 feet interior dimension, which is consistent with development regulations for 2-car garages. Further, each unit would have a minimum driveway length of 18 feet from back of sidewalk, which would allow additional parking areas in the driveway.

Residential Site Plan Review

Should the City Council approve the Project, a subsequent residential site plan review will follow this application in order to allow staff to review and memorialize landscaping, open spaces, architecture, and elevations.

Landscape

As part of the Project, the applicant will be required to install landscaping throughout the site, including the front yards of the homes and other public spaces such as required setbacks along Riordan, Shepherd, and Russell Avenues. A separate staff level review of landscape plans will ensure compliance with the City of Clovis Water Efficient Landscape Requirement, as well as placement and location of landscaping.

Amenities

Chapter 9.66 of the Clovis Municipal Code provides for flexibility in development standards as a mechanism to accommodate new types of projects that may not otherwise comply with strict adherence to typical development standards. As part of that request, planned residential developments are required to provide amenities in proportion to the request.

In return for the reduced lot sizes, reduced setbacks, and increased lot coverage, the applicant proposes to construct a park near the entrance off of Russell Avenue, as well as provide several landscaped open space areas throughout the site. The Project also includes enhanced landscape at the corner of Russell and Riordan Avenues and benches along the north end of the Project.

Vesting Tentative Tract Map (TM6263)

As shown in **Attachment 8**, the applicant is requesting approval of Vesting Tentative Tract Map TM6263 for 137-lots, as well as associated infrastructure such as a network of public streets, sidewalks, a park, and other landscape features throughout the site. The map is consistent with the requirements of the Subdivision Map Act.

Lot Sizes

The Project proposes 137-lots and one (1) outlot for a park. The 137-lots for residential use would range in size from 4,000 square feet to 10,109 square feet, with an average lot size of approximately 4,690 square feet. Based on the size of the Project site at approximately 21.52 acres, the density would be approximately 6.4 dwelling units per acre, which would be consistent with the Medium Density Residential designation requested as part of the Project.

Circulation

The Project proposes a public street circulation network that provides three (3) points of access, as shown in **Attachment 8**. Access would be provided at the southern end of the proposed development via Riordan Avenue, at the eastern end via Russell Avenue, and at the western end via Prescott Avenue. Shepherd Avenue along the Project's frontage is designated as an expressway in the Clovis General Plan; therefore, direct access to Shepherd Avenue is not permitted nor requested.

The Project proposes 36-foot wide streets, which is consistent with the City's standards which allow for a 36-foot right-of-way from curb-to-curb for residential subdivisions when such streets:

- Are within 1,000 feet of a standard local street (40 feet or greater from curb-to-curb);
- Do not exceed 500 feet without a second point of access; and
- Serve low volume streets with less than 400 average daily trips (ADT) (an average home generates 10 ADT). This means it would be expected that a narrow street should not serve more than 40 homes.

Subdivisions have been permitted to use this policy upon meeting the above criteria. To date, this street width appears to be working well and adequately accommodates City services and emergency vehicles. The 36-foot curb-to-curb width has been used in the majority of the subdivisions approved since 2001.

The Project would include a pedestrian circulation network (i.e. sidewalks and landscaping) throughout the site and would include a 5-foot sidewalk along Riordan and Russell Avenues, an 8-foot sidewalk along Shepherd Avenue, consistent with the surrounding area.

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, San Joaquin Valley Air Pollution Control District, and the State Department of Fish and Wildlife. Comments received are included in **Attachment 9** 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.

Of note, the Clovis Unified School District (CUSD) provided a comment letter, dated September 3, 2019 (**Attachment 9**), and identified a concern with the increase in density and the ability to accommodate future students at the schools currently serving the Project area. Staff and the applicant met with CUSD staff Andrew Nabors (Senior Analyst, Development & Boundary Analysis) and Denver Stairs (Assistant Superintendent) on Tuesday, September 24, 2019 to discuss the Project.

Following the meeting, CUSD staff provided student yield rates for comparing the number of students that would be generated under the current Low Density designation to the proposed Medium Density designation. In general, CUSD utilizes an average student yield rate for the school area of 0.6986 students per household.

Based on the average student yield rates for the area, the Project would generate approximately 96 students (137 units X 0.6986 = 95.7), which is approximately 50 students more than CUSD projected as an average for the area based on the existing Low Density Residential land use designation. However, approximately 53 acres of land designated and zoned for residential uses were recently acquired by the Well Community Church at the northwest corner of Nees and Clovis Avenues with the intent to develop the property as a new church site. While the removal of this site from the residential land inventory does not alleviate the District’s concerns regarding capacity, it may be viewed as having a “balancing” effect when considering total student yields that would have otherwise been generated in this area.

Public Outreach

Because the Project includes a proposed general plan amendment, a minimum of two neighborhood meetings are required per City policy. One (1) meeting must occur prior to Planning Commission, and one (1) following Planning Commission, prior to City Council. However, the applicant elected to hold additional meetings beyond what is required by the City. The following provides the dates and locations of each meeting. It is important to note that the meeting on November 7, 2019 was limited to “representatives” of each of the surrounding neighborhoods.

- Monday, May 6, 2019: Woods Elementary School
- Wednesday, August 28, 2019: Buchanan High School
- Thursday, November 7, 2019: Broussard and Associates
- Thursday, November 14, 2019: Woods Elementary School
- Monday, December 2, 2019: Woods Elementary School

Public comment letters received up to the finalization of this staff report are included in **Attachment 9**. Further, a summary of the October 24, 2019 Planning Commission hearing is provided below, as well as the draft Planning Commission minutes related to the Project as **Attachment 10**.

Planning Commission Hearing October 24, 2019

The Planning Commission considered the Project on Thursday, October 24, 2019. In general, the primary concerns focused on the proposed change in density and perceived impacts regarding traffic circulation, the access point from Russell Avenue, potential impact to schools, and concerns with parking along Russell Avenue. Other concerns included the request for the neighborhood to be gated, and to allow for access along Shepherd Avenue. These concerns are summarized and analyzed in more detail below.

Circulation

Staff has evaluated these concerns and determined that the proposed traffic circulation network is consistent with City design standards and is adequate for the safe circulation. Regarding the access point to the Project via Russell Avenue, this point of connection is required for adequate circulation and for the purpose of public safety so that emergency vehicles and the residents can safely enter and exit the neighborhood. Further, the access points proposed by the Project were previously planned for at the time the existing surrounding developments occurred. Although it was unknown at that time the development that would occur at the Project site, access via Riordan Avenue, Prescott Lane, and Russell Avenue were planned for in order to provide the porosity as part of a complete street system, which is needed for safe circulation of the area.

Parking

With regard to concerns of parking along Russell Avenue, public streets allow for public parking. However, the Project would include 2-car garages and standard length driveways, as well as public streets throughout the neighborhood, therefore, providing sufficient areas of parking within the proposed neighborhood.

Clovis Unified School District

The potential for impacts to CUSD was discussed earlier in the staff report. In short, Staff and applicant met with CUSD representatives and while they did not directly oppose nor support the Project, their letter indicated a concern with the increase in density, indicating that if the project is approved, the District could make adjustments to enrollment and student placement, if needed.

Gated Neighborhood

Although several neighbors requested that the Project be gated, the applicant has elected for the Project to remain non-gated. Thus, because the Project proposes public streets, it cannot be gated since the circulation infrastructure is public right-of-way.

Shepherd Avenue Access

Following several neighborhood meetings, the general consensus of the surrounding neighborhoods was to allow access to and from Shepherd Avenue via a right turn in and right turn out (i.e. no left turns onto Shepherd Avenue). However, as discussed above, Shepherd Avenue is designated as an expressway and does not allow for access to Shepherd Avenue. Although access was granted with an approved general plan amendment for the tract immediately north of the Project site (TM6200), the justification for that access resulted from that site's constraints and the need for a second point of access to that subdivision. In the case of the proposed Project, there are two points of access already via Riordan and Prescott Avenue. Therefore, staff does not recommend Shepherd Avenue access as part of the Project.

California Environmental Quality Act (CEQA)

The City of Clovis has completed an environmental review (an assessment of the project's impact on natural and manmade environments) of the proposed Project, as required by the State of California.

The City Planner has recommended approval of a Mitigated Negative Declaration (a written statement announcing that this project will not have a significant effect on the environment with implementation of mitigation measures). Recommendation of a proposed Mitigated Negative Declaration does not necessarily mean this Project will be approved. The Initial Study Mitigated Negative Declaration is included as **Attachment 11**.

The City published notice of this public hearing in The Business Journal on Wednesday, October 2, 2019.

Consistency with General Plan Goals and Policies

Staff has evaluated the Project in light of the General Plan Land Use goals and policies. 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. The goals and policies seek to foster more compact development patterns that can reduce the number, length, and duration of auto trips.

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.

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.

Goal 6: A city that grows and develops in a manner that implements its vision, sustains the integrity of its guiding principles, and requires few and infrequent amendments to the General Plan.

Policy 6.1: **Amendment criteria.** The City Council may approve amendments to the General Plan when the City Council is satisfied that the following conditions are met:

- The proposed change is and will be fiscally neutral or positive.
- The proposed change can be adequately served by public facilities and would not negatively impact service on existing development or the ability to service future development.

Policy 6.2 **Smart growth.** The City is committed to the following smart growth goals.

- Create a range of housing opportunities and choices.
- Create walkable neighborhoods.
- Foster distinctive, attractive communities with a strong sense of place.
- Mix land uses.
- Strengthen and direct development toward existing communities.
- Take advantage of compact building design.

FISCAL IMPACT

None.

REASON FOR RECOMMENDATION

The proposal will provide a diversity in housing types and a quality residential environment for this area. 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 proposed vesting tentative tract map is consistent with the goals and policies of the General Plan, Herndon-Shepherd Specific Plan and Development Code. Staff therefore recommends that the City Council approve GPA2019-001, R2019-003 and TM6263, subject to the conditions of approval in **Attachment 1**.

General Plan Amendment GPA2019-001

The findings to consider when making a decision on a general plan amendment application include:

1. The proposed amendment is internally consistent with the goals, policies, and actions of the General Plan; and
2. The proposed amendment would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City; and
3. If applicable, the parcel is physically suitable (including absence of physical constraints, access, compatibility with adjoining land uses, and provision of utilities) for the requested/anticipated project.
4. There is a compelling reason for the amendment.

Rezone R2019-003

The findings to consider when making a decision on a rezone application include:

1. The removal of Housing Element Site #1 from the inventory and the loss of 105 units will not limit the City's ability to accommodate its RHNA requirement. The designation of replacement parcels is not required.
2. The proposed amendment is consistent with the goals, policies, and actions of the General Plan; and
3. The proposed amendment would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City.
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. (§ 2, Ord. 14-13, eff. October 8, 2014)

Vesting Tentative Tract Map TM6263

The findings to consider when making a decision on a tentative subdivision map application are as follows:

1. The proposed map, subdivision design, and improvements are consistent with the General Plan and any applicable specific plan;
2. The site is physically suitable for the type and proposed density of development;
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;
4. The design of the subdivision or type of improvements is not likely to cause serious public health or safety problems;
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;
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;
7. The design of the subdivision provides, to the extent feasible, passive or natural heating and cooling opportunities; and
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.

In light of court decisions, it is appropriate for the City to make findings of consistency between the required dedications and the proposed development. Every dedication condition needs to be evaluated to confirm that there is a rough proportionality, or that a required degree of connection exists between the dedication imposed and the proposed development. The City of Clovis has made a finding that the dedication of property for this Project satisfies the development's proportionate contribution to the City's circulation system. The circulation system directly benefits the subject property by providing access and transportation routes that service the site.

ACTIONS FOLLOWING APPROVAL

The second reading of the Rezone Ordinance will be heard by the City Council at its next regular meeting and if approved, will go into effect 30 days from its passage and adoption.

Prepared by: Ricky Caperton, AICP, Senior Planner

Reviewed by: City Manager *LH*

Conditions of Approval

ATTACHMENT 1

**ATTACHMENT 1-A
Conditions of Approval
General Plan Amendment GPA2019-001**

Planning Division Comments

(Ricky Caperton, AICP, Senior Planner – 559-324-2347)

1. Development of the single-family planned residential development shall be consistent with the General Plan Medium Density Designation (4.1 – 7.0 DU/Ac).

ATTACHMENT 1-B
Conditions of Approval
Rezone R2019-003

Planning Division Comments

(Ricky Caperton, AICP, Senior Planner – 559-324-2347)

2. Rezone R2019-003 shall become effective only upon approval General Plan Amendment GPA2019-001 by the City Council.
3. Rezone R2019-003 approves an R-1-PRD (Single Family Planned Residential Development) Zone District.
4. As an amenity for the Project, the developer shall include a park, and public seating areas as shown on TM6263, as well as enhanced landscape at the corner of Riordan and Russell Avenues, and at the corner of Everglade and Russell Avenues.
5. All transformers shall be located underground. Pad mounted transformers may be considered through approval of a separate Administrative Use Permit.
6. All landscaping (open space and private yards) shall conform to the City of Clovis Water Efficient Landscape Ordinance.
7. Maximum building (main structure) height shall not exceed thirty-five (35) feet.
8. Setbacks shall be measured to the exterior face of the framing of the structure. Exceptions to the setbacks are identified in Section 9.24.100 of the Clovis Municipal Code.
9. The maximum lot coverage for Vesting Tentative Tract Map TM6263 is 65 percent (65%).

**ATTACHMENT 1-C
Conditions of Approval
Vesting Tentative Tract Map TM6263**

Planning Division Comments

(Ricky Caperton, AICP, Senior Planner – 559-324-2347)

10. TM6263 is approved per the **Attachment 8** of the accompanying staff report.
11. Development Standards for TM6263 shall be per the Residential Development Standards per **Attachment 7** of the accompanying staff report and as follows:
- | | |
|-----------------------------|---|
| Minimum Lot Area: | 4,000 sq. ft. |
| Minimum Lot Width: | 50 ft. |
| Minimum Lot Depth: | 80 ft. |
| Maximum Lot Coverage: | 65% |
| Maximum Height: | 35 ft. |
| Minimum Front Setback: | 18 ft. to garage / 10 ft. to structure |
| Minimum Side Setback: | 5 ft. garage side / 4 ft. other side |
| Minimum Rear Yard Setback: | 5 ft. (Lots 32, 101, and 102)
10 ft. (Lots 33 to 100, and Lots 103 to 137)
15 ft. (Lots 8 through 31)
20 ft. (Lots 1 to 7) |
| Fence Height: | 6 ft. (minimum) to 8 ft. (maximum) |
| Accessory Structure Height: | 12 ft. maximum |
12. Garages shall be a minimum dimension of 20' x 20' (interior clear).
13. This Project requires the submittal and approval of a residential site plan review. Specific color and materials of the models, walls, landscaping, and fencing will be evaluated.
14. Landscape plans shall be reviewed and approved separately by the landscape review committee for tree and landscape type and location.
15. The developer shall construct a minimum six-foot high wall/fence along the length of the property lines.
16. Upon final recordation of this 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.
17. The applicant shall relay all conditions of approval for Vesting Tentative Tract Map TM6263 to all subsequent purchasers of individual lots, if applicable, and/or to subsequent purchasers of this entire tract map development.

18. 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.
19. All lighting shall be screened from direct view from the public right-of-way and adjacent residential properties.
20. All landscaping shall conform to the City of Clovis Water Efficient Landscape Ordinance.
21. The developer shall comply with all mitigation measures identified in the Initial Study Mitigated Negative Declaration prepared for the Project, included as **Attachment 11** to the staff report.
22. The applicant shall obtain City approval in advance of temporary and permanent subdivision signs through separate sign review, consistent with the development criteria of the Clovis Municipal Code.
23. The developer shall contact cultural resources staff at Table Mountain Rancheria prior to ground-disturbance to coordinate a training session on how to appropriately identify potential artifacts.
24. All transformers for this subdivision can be located above ground subject to review and approval of the required landscape screening material. Landscaping shall be reviewed through the residential site plan review process. Transformers shall not be placed in public space.
25. The applicant shall install pedestrian lighting along common areas. Spacing and location will be evaluated during residential site plan review.
26. Riordan and Russell Avenues shall have a 12-foot curb pattern including a 5-foot sidewalk and 7-feet of landscaping.
27. Shepherd Avenue shall have a 30-foot curb pattern including a 12-foot landscaping strip, 8-foot sidewalk, and 10-foot landscaping behind sidewalk up to the block wall.
28. On the south side of the block fall facing the units, a 7-foot landscape buffer shall be installed.

Fire Department Conditions

(Gary Sawhill, Department Representative - 324-2224)

29. **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).
30. **Street Width for Single Family Residences:** Shall comply with Clovis Fire Standard #1.1
31. **Turning Radius:** All access way roads constructed shall be designed with a minimum outside turning radius of forty-five feet (45')
32. **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.
33. **All Weather Access:** 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 or #1.3.
34. **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, and perimeter walls.
35. **Address Numbers:** Address numbers shall be installed on every building as per adopted Clovis Fire Department Standard #1.8.
36. **Residential Fire Hydrant:** The applicant shall install ___12___ 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.
37. **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.
38. Provide a copy of the approved stamped site plan from the Planning Division. Site Plan shall include all fire department notes to verify compliance with requirements. Site plans included with this plan submittal are subject to the conditions on the Planning Division approved set.

ENGINEERING / UTILITIES / SOLID WASTE DIVISION CONDITIONS

(Sean Smith, Engineering Division Representative – 324-2363)

(Paul Armendariz, Department Representative – 324-2649)

Maps and Plans

39. 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.
40. 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. 18-61 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.
41. 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).
42. 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 (1) digital copy to the City in PDF format.

General Provisions

43. 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.
44. 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.

45. 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.
46. 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.
47. 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.
48. 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.
49. The applicant shall provide and pay for all geotechnical services per City policy.
50. 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.
51. All existing overhead and new utility facilities located on-site or within the street right-of-way along the streets adjacent to this tract shall be undergrounded unless otherwise approved by the City Engineer.
52. 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.
53. The applicant shall contact and address Caltrans requirements. The applicant will be required to mitigate impacts to State Highway facilities as determined by the City Engineer.

Dedications and Street Improvements

54. 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. Shepherd Avenue – Along frontage, dedicate to provide right-of-way acquisition for 73' (exist varies) south of centerline, and improve with curb, gutter, sidewalk, street lights, fiber optic conduit, median island, median island landscaping and irrigation, 46' (30'+16') permanent paving, overlay as necessary to match the existing permanent pavement, 3' paved swale, and transitional paving as needed.
 - b. Riordan Avenue – Along frontage, dedicate to provide right-of-way acquisition for 30' (exist 20') north centerline, and improve with curb, gutter, sidewalk, permanent paving and overlay as necessary to match the existing permanent pavement, and transitional paving as needed.
 - c. Russell Avenue – Along frontage, dedicate to provide right-of-way acquisition for 27' (exist 14') west of centerline, and improve with curb, gutter, sidewalk, permanent paving and overlay as necessary to match the existing permanent pavement, and transitional paving as needed.
 - d. Preuss Avenue – The applicant shall provide for the abandonment of the Preuss Avenue right-of-way from Shepherd Avenue to Riordan Avenue.
 - e. Clovis Avenue – The applicant shall contribute their proportional share of the construction costs for the installation of a median “worm” at Riordan Avenue, which will be constructed at a later date at the determination of the City Engineer.
 - f. Interior Streets – Dedicate to provide for 50' or 54' right-of-way in conformance with the City policy of 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.
 - g. The applicant shall relinquish all access to Shepherd Avenue.
55. 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.

56. For new ADA paths of travel that connect to existing City sidewalk, the applicant shall replace enough sidewalk to provide a compliant landing with appropriate transitions to existing sidewalk grades.
57. The applicant shall not install any fences, temporary or permanent in public right-of-way.
58. The sideyard side of all corner lots shall have full width sidewalk except where planter strips or meandering sidewalk is proposed.
59. 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.

Sewer

60. The applicant shall identify and abandon all septic systems to City standards.
61. 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 the pending sewer study, 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 will require approval of the City Engineer and shall be supported by appropriate calculations.
62. Interior Streets – install 8" mains.
63. The applicant shall install one (1) 4" sewer service house branch to each lot within the tentative tract.
64. 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.
65. The applicant shall abandon the following sewer main stubs at the adjacent sewer manhole with brick and mortar, as approved by the City Engineer:
 - a. Intersection of North Russell Avenue and Everglade Avenue
 - b. Intersection of Riordan Avenue and the North Pruess Avenue alignment

Water

66. The applicant shall identify and abandon all water wells to City standards.
67. 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 the pending water study, 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 will require approval of the City Engineer and shall be supported by appropriate calculations.

- a. Interior Streets – install 8" mains.

68. The applicant shall abandon the following water main stubs at main, as approved by the City Engineer:

- c. Intersection of North Russell Avenue and Everglade Avenue
- d. Intersection of Riordan Avenue and the North Pruess Avenue alignment

69. 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.

70. 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.

71. 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.

Grading and Drainage

72. 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.

73. 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

74. 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 landscape strips along Shepherd Avenue, and the median island in Shepherd Avenue.
75. All park and landscape improvements shall be installed, accepted for maintenance by the City prior to issuance of 40% of the Tract's building permits. If the park improvements are not constructed on the Outlot for any reason within two (2) years of the recordation of the final map of Tract, City shall have the right to request from surety and receive upon City's demand, sufficient funding to complete the construction of improvements for the park. The two year period may be extended at City's sole option and discretion and upon such conditions as City shall determine.
76. 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 will 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 \$183.00, 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.

77. The applicant shall comply with the City of Clovis Water Efficient Landscape Requirements Ordinance.
78. 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.
79. 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.
80. 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.
81. 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

82. The applicant shall install street lights along the major streets 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 shall be maintained by an additional landscape maintenance assessment.

83. 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.
84. A deferment, modification, or waiver of any engineering conditions will require the express written approval of the City Engineer.
85. The conditions given herein are for the entire development. Additional requirements for individual phases may be necessary pending review by the City Engineer.

Fresno Irrigation District

(Chris Lundeen, FID Representative – 233-7161 ext. 7410)

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

Police Department Conditions

(Curtis Shurtliff, Department Representative - 324-3415)

87. The Applicant shall refer to the attached Clovis Police Department correspondence. If the list is not attached, please contact the Health Department for the list of requirements.

County of Fresno Health Department Conditions

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

88. 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.

Caltrans

(Jamaica Gentry, Caltrans Representative – 488-7307)

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

Clovis Unified School District

(Michael Johnston, CUSD Representative – 327-9000)

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

San Joaquin Valley Air Pollution Control District

(Carol Flores, SJVAPCD Representative – 230-5935)

91. The Applicant shall refer to the attached SJVAPCD correspondence. If the list is not attached, please contact the SJVAPCD for the list of requirements.

Fresno Metropolitan Flood Control District

(Robert Villalobos or Michael Maxwell, FMFCD Representative – 456-3292)

92. The Applicant shall refer to the attached FMFCD correspondence. If the list is not attached, please contact the FMFCD for the list of requirements.

DRAFT RESOLUTION
Initial Study / Mitigated Negative Declaration

ATTACHMENT 2

**DRAFT
RESOLUTION 19-__**

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CLOVIS APPROVING A
MITIGATED NEGATIVE DECLARATION FOR GENERAL PLAN AMENDMENT GPA2019-
001, REZONE R2019-003, AND VESTING TENTATIVE TRACT MAP TM6263 PURSUANT
TO CEQA GUIDELINES**

WHEREAS, Lennar Homes of California, Inc., 8080 N. Palm Avenue, Suite 110, Fresno, CA 93711, has submitted various files including a General Plan Amendment GPA2019-001, Rezone R2019-003, and Vesting Tentative Tract Map TM6263, for property located on south side of Shepherd Avenue between Clovis and Sunnyside Avenues, currently in the City of Clovis, County of Fresno, California; and

WHEREAS, the City of Clovis ("City") caused to be prepared an Initial Study (hereinafter incorporated by reference) on October 2019, for the Project to evaluate potentially significant adverse environmental impacts and on the basis of that study it was determined that no significant environmental impacts would result from this Project, and that mitigation measures would be required for the Project; and

WHEREAS, on the basis of this Initial Study, a 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. starting October 4, 2019; and

WHEREAS, the City Council has independently reviewed, evaluated, and considered the 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.

NOW, THEREFORE, BE IT RESOLVED, that the City of Clovis resolves as follows:

1. Adopts the foregoing recitals as true and correct.
2. Finds that the Initial Study and Mitigated Negative Declaration for the Project are adequate and have been completed in compliance with CEQA and the CEQA Guidelines.
3. Finds and declares that the Initial Study and Mitigated Negative Declaration were presented to the City Council and that the City Council 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 prior to approving the Project and recommends the adoption of a Mitigated Negative Declaration for this Project.

4. Approves and adopts the Mitigation Monitoring Program set forth in Attachment "A", including the mitigation measures identified therein and as described in the Mitigated Negative Declaration.

5. Directs that the record of these proceedings be contained in the Department of Planning and Development Services located at 1033 Fifth Street, Clovis, California 93612, and that the custodian of the record be the Deputy City Planner or other person designated by the Planning and Development Services Director.

6. 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.

* * * * *

The foregoing resolution was introduced and adopted at a regular meeting of the City Council of the City of Clovis held on December 9, 2019 by the following vote, to wit.

AYES:
NOES:
ABSENT:
ABSTAIN:

DATED:

Mayor

City Clerk

**ATTACHMENT A:
Mitigation Monitoring Program
GPA2019-001/R2019-003/TM6263**

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
Biological Resources				
BIO-1	<p>Swainson’s Hawk. If possible, construction activities should occur outside of the Swainson’s hawk nesting season of March 1 to September 15. If that is not feasible, pre-construction surveys shall be conducted by a qualified biologist no more than 14 days prior to the start of construction and/or ground-disturbing activities and shall be conducted on the Project site, as well as adjacent lands within 1/2 –mile of the site to identify any nesting pairs of Swainson’s hawks that may be present. If any active nests are discovered, an appropriate disturbance-free buffer shall be established based on local conditions and as suggested by a qualified biologist or governing agency. Any buffers shall be identified on the ground with flagging, fencing, and/or by other easily visible means, and shall be maintained until the biologist has determined that the young have fledged.</p>	City of Clovis Planning	<i>Prior to Permits and During Construction</i>	
BIO-2	<p>Migratory Birds and Raptors. If possible, construction activities should occur outside of the Swainson’s hawk nesting season of February 1 to August 31. If that is not feasible, pre-construction surveys shall be conducted by a qualified biologist no more than 14 days prior to the start of construction and/or ground-disturbing activities and shall be conducted on the Project site. If any active</p>			

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	<p>nests are discovered, an appropriate disturbance-free buffer shall be established based on local conditions and as suggested by a qualified biologist or governing agency. Any buffers shall be identified on the ground with flagging, fencing, and/or by other easily visible means, and shall be maintained until the biologist has determined that the young have fledged.</p>			
<p>BIO-3</p>	<p>Pallid and Western Mastiff Bat. If possible, the removal of residential trees and/or structures should occur outside of the period between April 15 and August 31, which is the time frame which colony-nesting bats generally assemble, give birth, nurse their young, and disperse. If that is not feasible, a qualified biologist shall survey trees/buildings for the presence of bats within 30 days prior to their removal, which may require the biologist to wait for nighttime emergence of bats from roost sites. If a non-breeding bat roost is found, the individuals shall be humanely removed via two-stage removal of trees under the direction of a qualified biologist to ensure that no harm or “take” of any bats occurs as a result of the Project. If a maternity colony is discovered during the pre-construction surveys, a disturbance-free buffer shall be established around the colony and remain in place until a qualified biologist determines that the nursery is no longer active. The buffer will range from a minimum of 50 feet to 100 feet, as determined by the biologist.</p>	<p>City of Clovis Planning</p>	<p><i>Prior to Permits and During Construction</i></p>	

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
Cultural Resources				
CULT-1	<p>At least five (5) business days prior to any ground-disturbing activities during construction, such as grading and/or installation of utilities, the applicant and/or their contractor, shall notify cultural resources staff at Table Mountain Rancheria to invite them to monitor the site during such ground-disturbance. At the time of this notification, the applicant shall also provide grading plans to Table Mountain Rancheria for review. During this time, and prior to ground-disturbing activities, the Project applicant and their contractors shall allow Table Mountain Rancheria to hold a meeting to educate the contractors and the applicant on what to look out for during activities to ensure the protection of archaeological and tribal resources.</p> <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, 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. During this time, Table Mountain Rancheria shall be contacted to determine if artifacts are culturally important. 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</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>historic resources such as glass, metal, wood, brick, or structural remnants.</p> <p>If the qualified professional archaeologist and/or representatives from Table Mountain Rancheria 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,</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>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.</p>			
<p>Geological Resources</p>				
<p>GEO-1</p>	<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, 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 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</p>	<p>City of Clovis Planning</p>	<p><i>Prior to Permits and During Construction</i></p>	

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	<p>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>			
Noise				
NOISE-1a	<p>Exterior Noise. The Project shall include installation of a sound wall along Shepherd Avenue at least six (6) feet in height above grade. Suitable materials include concrete block, masonry, and/or stucco on both sides of a wood or steel stud wall. Other materials may be used if recommended and/or approved by a noise professional and within the standards of the City. Two-story homes shall not construct balconies facing Shepherd Avenue.</p>	City of Clovis Planning	<i>During Construction and Prior to Occupancy</i>	
NOISE-1b	<p>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. Acoustic baffles shall be installed on the interior side of gable vents that face, or are perpendicular to Shepherd Avenue.</p>	City of Clovis Planning	<i>During Construction and Prior to Occupancy</i>	
Transportation				

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
TRAF-1	The Project proponent and/or applicant shall contribute their share of development impact fees for the following improvements, which will be constructed and/or modified at the determination of the City Engineer: (1) signalization at the intersection of Shepherd and Sunnyside Avenues; (2) signalization at the intersection of Clovis and Shepherd Avenue; and (3) improvements to extend queuing lengths along Shepherd and Clovis Avenue.	City of Clovis Engineering	<i>Prior to Permits</i>	
TRAF-2	The Project proponent and/or applicant shall contribute their proportional share of the construction costs for the installation of a traffic “worm” median in Clovis Avenue at Riordan Avenue, which will be constructed at a later date at the determination of the City Engineer.	City of Clovis Engineering	<i>Prior to Permits</i>	
<i>Tribal Cultural Resources</i>				
TCR-1	At least five (5) business days prior to any ground-disturbing activities during construction, such as grading and/or installation of utilities, the applicant and/or their contractor, shall notify cultural resources staff at Table Mountain Rancheria to invite them to monitor the site during such ground-disturbance. At the time of this notification, the applicant shall also provide grading plans to Table Mountain Rancheria for review. During this time, and prior to ground-disturbing activities, the Project applicant and their contractors shall allow Table Mountain Rancheria to hold a meeting to educate the contractors and the applicant on what to look out	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>for during activities to ensure the protection of archaeological and tribal resources.</p> <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, 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. During this time, Table Mountain Rancheria shall be contacted to determine if artifacts are culturally important. 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 and/or representatives from Table Mountain Rancheria 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</p>			

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	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>	

**DRAFT RESOLUTION
GPA2019-001**

ATTACHMENT 3

**DRAFT
RESOLUTION 19-__**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CLOVIS APPROVING A
GENERAL PLAN AMENDMENT GPA2019-001 AMENDING THE LAND USE ELEMENT
FOR APPROXIMATELY 21.52 ACRES LOCATED AT THE SOUTH SIDE OF SHEPHERD
AVENUE BETWEEN CLOVIS AND SUNNYSIDE AVENUES**

WHEREAS, Lennar, 8080 N. Palm Avenue, Suite 110, Fresno, CA 93711, has applied for a General Plan Amendment GPA2019-001; and

WHEREAS, The Applicant submitted an application for a General Plan Amendment to amend the General Plan and Herndon-Shepherd Specific Plan to re-designate land from the Low Density Residential (2.1 to 4.0 DU/Ac) to the Medium Density Residential (4.1 to 7.0 DU/Ac) classification for to allow for the construction of 137 single-family homes within the Project site, in the City of Clovis, County of Fresno, California; and

WHEREAS, the proposed General Plan Amendment GPA2019-001, was assessed under the provisions of the California Environmental Quality Act (CEQA) and the potential effects on the environment were considered by the Planning Commission, together with comments received and public comments, and the entire public record was reviewed; and

WHEREAS, staff does recommend adoption of a Mitigated Negative Declaration for GPA2019-001; and

WHEREAS, a public notice was sent out to area residents within 800 feet of said property boundaries ten days prior to said hearing; and

WHEREAS, a duly noticed hearing was held on December 9, 2019 and

WHEREAS, on December 9, 2019, the City Council considered testimony and information received at the public hearing and the oral and written reports from City staff, as well as other documents contained in the record of proceedings relating to General Plan Amendment GPA2019-001 which are maintained at the offices of the City of Clovis Department of Planning and Development Services; and

WHEREAS, after hearing evidence gathered by itself and on its behalf and after making the following findings, namely:

- a. The proposed amendment is internally consistent with the goals, policies, and actions of the General Plan; and
- b. The proposed amendment would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City; and

- c. If applicable, the parcel is physically suitable (including absence of physical constraints, access, compatibility with adjoining land uses, and provision of utilities) for the requested/anticipated project.
- d. There is a compelling reason for the amendment.

NOW, THEREFORE, BE IT RESOLVED, that the City of Clovis Council approves General Plan Amendment GPA2019-001.

* * * * *

The foregoing resolution was introduced and adopted at a regular meeting of the City Council of the City of Clovis held on December 9, 2019 by the following vote, to wit.

AYES:
NOES:
ABSENT:
ABSTAIN:

DATED:

Mayor

City Clerk

**DRAFT ORDINANCE
R2019-003**

ATTACHMENT 4

**DRAFT
ORDINANCE 19-_____**

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CLOVIS AMENDING SECTIONS 9.080.020 OF CHAPTER 2 AND 9.86.010 OF CHAPTER 6 OF TITLE 9 OF THE CLOVIS MUNICIPAL CODE RELATING TO THE REQUEST TO APPROVE A REZONE OF APPROXIMATELY 21.52 ACRES OF PROPERTY LOCATED ON THE SOUTH SIDE OF SHEPHERD AVENUE BETWEEN CLOVIS AND SUNNYSIDE AVENUES FROM THE R-1-7500 (SINGLE-FAMILY RESIDENTIAL – 7,500 SQ. FT.) TO THE R-1-PRD (SINGLE FAMILY PLANNED RESIDENTIAL DEVELOPMENT) ZONE DISTRICT AND APPROVING A MITIGATED NEGATIVE DECLARATION PURSUANT TO CEQA GUIDELINES

LEGAL DESCRIPTION:

See the Attachment "A"

WHEREAS, Lennar Homes of California, Inc., 8080 N. Palm Avenue, Suite 110, Fresno, CA 93711, has applied for a Rezone R2019-003; and

WHEREAS, This is a request to rezone approximately 21.52 acres from the R-1-7500 (Single-Family Residential – 7,500 Sq. Ft.) to the R-1-PRD (Single Family Planned Residential Development) Zone District for property located on the south side of Shepherd Avenue between Clovis and Sunnyside Avenues, in the City of Clovis, County of Fresno, California; and

WHEREAS, the Planning Commission held a noticed Public Hearing on October 24, 2019, to consider the Project Approval, at which time interested persons were given opportunity to comment on the Project; and

WHEREAS, the Planning Commission recommended that the Council approve Rezone R2019-003 subject to associated conditions of approval listed as Attachment "B"; and

WHEREAS, the Planning Commission's recommendations were forwarded to the City Council for consideration; and

WHEREAS, the City published Notice of a City Council Public Hearing for December 9, 2019, to consider Rezone R2019-003. A copy of the Notice was mailed to interested parties within 800 feet of the project boundaries and published in The Business Journal; and

WHEREAS, the City Council held a noticed public hearing on December 9, 2019, to consider the approval of Rezone R2019-003; and

WHEREAS, the City Council does approve a Mitigated Negative Declaration pursuant to CEQA guidelines; and

WHEREAS, on December 9, 2019, the City Council considered testimony and information received at the public hearing and the oral and written reports from City staff, as well as other documents contained in the record of proceedings relating to Rezone R2019-003, which are maintained at the offices of the City of Clovis Planning and Development Services Department; and

WHEREAS, the City Council has reviewed the proposed rezoning in light of the subject parcel's inclusion in existing RHN Overlay, together with information which describes the surplus in the Housing Element Sites inventory, and determined that the rezoning and development of the site for the purpose of developing a single family subdivision will not be detrimental to the City's ability to achieve its RHNA requirement; and

WHEREAS, the City Council has evaluated and considered all comments, written and oral, received from persons who reviewed Rezone R2019-003, or otherwise commented on the Project; and

The City Council of the City of Clovis does ordain as follows:

Section 1: FINDINGS. The Council finds as follows:

1. The removal of Housing Element Site #1 from the inventory and the loss of 105 units will not limit the City's ability to accommodate its RHNA requirements. The designation of replacement parcels is not required.
2. The proposed amendment is consistent with goals, policies, and actions of the General Plan,
3. The proposed amendment would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City.
4. The parcel is physically suitable (including absence of physical constraints, access, and compatibility with adjoining land uses, and provision of utilities) for the requested designations and anticipated land uses/ projects.
5. The City Council does approve a Mitigated Negative Declaration for the project pursuant to CEQA guidelines.

Section 2: The Official Map of the City is amended in accordance with Sections 9.08.020 and 9.86.010 of the Clovis Municipal Code by reclassification of certain land in the City of Clovis, County of Fresno, State of California, to wit:

From classification R-1-7500 to classification R-1-PRD

The properties so reclassified is located on the south side of Shepherd Avenue between Clovis and Sunnyside Avenues. In the City of Clovis, County of Fresno, California, and is more particularly described as shown in "Attachment A."

Section 3 This Ordinance shall go into effect and be in full force from and after thirty (30) days after its final passage and adoption.

Section 4: The record of proceedings is contained in the Planning and Development Services Department, located at 1033 Fifth Street, Clovis, California 93612, and the custodian of records is the City Planner.

APPROVED: December 9, 2019

_____	_____
Mayor	City Clerk
* * * * *	* * * * *

The foregoing Ordinance was introduced and read at a regular meeting of the City Council held on December 9, 2019, and was adopted at a regular meeting of said Council held on _____, by the following vote, to wit:

AYES:

NOES:

ABSENT:

ABSTAIN:

DATED:

City Clerk

ATTACHMENT A
Legal Description

Real property in the City of Clovis, County of Fresno, State of California, described as follows:

PARCEL A

THAT PORTION OF PARCELS 1 AND 2 OF PARCEL MAP NO. 7422, IN THE CITY OF CLOVIS, COUNTY OF FRESNO, STATE OF CALIFORNIA, ACCORDING TO THE MAP THEREOF RECORDED IN BOOK 56 OF PARCEL MAPS AT PAGE 75, FRESNO COUNTY RECORDS, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID PARCEL 1; THENCE N 00° 00' 16" W, ALONG THE WEST LINE OF SAID PARCEL 1, A DISTANCE OF 325.08 FEET; THENCE N 45° 04' 43" E, A DISTANCE OF 42.36 FEET TO THE NORTH LINE OF SAID PARCEL 1; THENCE S 89° 50' 17" E, ALONG THE NORTH LINE OF SAID PARCELS 1 AND 2, A DISTANCE OF 339.30 FEET TO A POINT ON A LINE PARALLEL WITH AND 122.68 FEET EAST OF THE WEST LINE OF SAID PARCEL 2; THENCE S 00° 00' 16" E, ALONG SAID PARALLEL LINE, A DISTANCE OF 355.08 FEET TO A POINT ON THE SOUTH LINE OF SAID PARCEL 2; THENCE N 89° 50' 17" W, ALONG THE SOUTH LINE OF SAID PARCELS 1 AND 2, A DISTANCE OF 369.30 FEET TO THE POINT OF BEGINNING.

EXCEPTING AN UNDIVIDED ONE-HALF OF ALL OIL, GAS AND MINERALS IN AND UNDER SAID LAND, AS HERETOFORE RESERVED OF RECORD.

PARCEL B

THAT PORTION OF PARCELS 2 AND 3 OF PARCEL MAP NO. 7422, IN THE CITY OF CLOVIS, COUNTY OF FRESNO, STATE OF CALIFORNIA, ACCORDING TO THE MAP THEREOF RECORDED IN BOOK 56 OF PARCEL MAPS AT PAGE 75, FRESNO COUNTY RECORDS, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID PARCEL 2; THENCE S 89° 50' 17" E, ALONG THE NORTH LINE OF SAID PARCEL 2, A DISTANCE OF 122.68 FEET TO THE TRUE POINT OF BEGINNING; THENCE S 89° 50' 17" E, CONTINUING ALONG THE NORTH LINE OF SAID PARCELS 2 AND 3, A DISTANCE OF 368.03 FEET TO THE NORTHEAST CORNER OF SAID PARCEL 3; THENCE S 00° 00' 16" E, ALONG THE EAST LINE OF SAID PARCEL 3, A DISTANCE OF 355.08 FEET TO THE SOUTHEAST CORNER OF SAID PARCEL 3; THENCE N 89° 50' 17" W, ALONG THE SOUTH LINE OF SAID PARCELS 2 AND 3, A DISTANCE OF 368.03 FEET TO A POINT ON A LINE PARALLEL WITH AND 122.68 FEET EAST OF THE WEST LINE OF SAID PARCEL 2; THENCE N 00° 00' 16" W, ALONG SAID PARALLEL LINE, A DISTANCE OF 355.08 FEET TO THE TRUE POINT OF BEGINNING.

EXCEPTING AN UNDIVIDED ONE-HALF OF ALL OIL, GAS AND MINERALS IN AND UNDER SAID LAND, AS HERETOFORE RESERVED OF RECORD.

PARCEL C

PARCEL 4 OF PARCEL MAP 7422, ACCORDING TO THE MAP THEREOF RECORDED IN BOOK 56, PAGE 75 OF PARCEL MAPS, FRESNO COUNTY RECORDS.

EXCEPTING AN UNDIVIDED ONE-HALF OF ALL OIL, GAS AND MINERALS IN AND UNDER SAID LAND, AS HERETOFORE RESERVED OF RECORD.

APN: 560-031-023-S and 560-031-034-S and 560-031-035-S

**ATTACHMENT B
Conditions of Approval**

**Planning Division Comments
(Ricky Caperton, AICP, Senior Planner – 559-324-2347)**

General Plan Amendment GPA2019-001 and Rezone R2019-003

1. Development of the single-family planned residential development shall be consistent with the General Plan Medium Density Designation (4.1 – 7.0 DU/Ac).
2. Rezone R2019-003 shall become effective only upon approval General Plan Amendment GPA2019-001 by the City Council.
3. Rezone R2019-003 approves an R-1-PRD (Single Family Planned Residential Development) Zone District.
4. As an amenity for the Project, the developer shall include a park, and public seating areas as shown on TM6263, as well as enhanced landscape at the corner of Riordan and Russell Avenues, and at the corner of Everglade and Russell Avenues.
5. All transformers shall be located underground. Pad mounted transformers may be considered through approval of a separate Administrative Use Permit.
6. All landscaping (open space and private yards) shall conform to the City of Clovis Water Efficient Landscape Ordinance.
7. Maximum building (main structure) height shall not exceed thirty-five (35) feet.
8. Setbacks shall be measured to the exterior face of the framing of the structure. Exceptions to the setbacks are identified in Section 9.24.100 of the Clovis Municipal Code.
9. The maximum lot coverage for Vesting Tentative Tract Map TM6263 is 65 percent (65%).

Vesting Tentative Tract Map TM6263

10. TM6263 is approved per the **Attachment 8** of the accompanying staff report.
11. Development Standards for TM6263 shall be per the Residential Development Standards per **Attachment 7**, and as follows:

Minimum Lot Area:	4,000 sq. ft.
Minimum Lot Width:	50 ft.
Minimum Lot Depth:	80 ft.
Maximum Lot Coverage:	65%
Maximum Height:	35 ft.
Minimum Front Setback:	18 ft. to garage / 10 ft. to structure

Minimum Side Setback:	5 ft. garage side / 4 ft. other side
Minimum Rear Yard Setback:	5 ft. (Lots 32, 101, and 102)
	10 ft. (Lots 33 to 100, and Lots 103 to 137)
	15 ft. (Lots 8 through 31)
	20 ft. (Lots 1 to 7)
Fence Height:	6 ft. (minimum) to 8 ft. (maximum)
Accessory Structure Height:	12 ft. maximum

12. Garages shall be a minimum dimension of 20' x 20' (interior clear).
13. This Project requires the submittal and approval of a residential site plan review. Specific color and materials of the models, walls, landscaping, and fencing will be evaluated.
14. Landscape plans shall be reviewed and approved separately by the landscape review committee for tree and landscape type and location.
15. The developer shall construct a minimum six-foot high wall/fence along the length of the property lines.
16. Upon final recordation of this 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.
17. The applicant shall relay all conditions of approval for Vesting Tentative Tract Map TM6263 to all subsequent purchasers of individual lots, if applicable, and/or to subsequent purchasers of this entire tract map development.
18. 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.
19. All lighting shall be screened from direct view from the public right-of-way and adjacent residential properties.
20. All landscaping shall conform to the City of Clovis Water Efficient Landscape Ordinance.
21. The developer shall comply with all mitigation measures identified in the Initial Study Mitigated Negative Declaration prepared for the Project, included as **Attachment 11** to the staff report.
22. The applicant shall obtain City approval in advance of temporary and permanent subdivision signs through separate sign review, consistent with the development criteria of the Clovis Municipal Code.
23. The developer shall contact cultural resources staff at Table Mountain Rancheria prior to ground-disturbance to coordinate a training session on how to appropriately identify potential artifacts.

24. All transformers for this subdivision can be located above ground subject to review and approval of the required landscape screening material. Landscaping shall be reviewed through the residential site plan review process. Transformers shall not be placed in public space.
25. The applicant shall install pedestrian lighting along common areas. Spacing and location will be evaluated during residential site plan review.
26. Riordan and Russell Avenues shall have a 12-foot curb pattern including a 5-foot sidewalk and 7-feet of landscaping.
27. Shepherd Avenue shall have a 30-foot curb pattern including a 12-foot landscaping strip, 8-foot sidewalk, and 10-foot landscaping behind sidewalk up to the block wall.
28. On the south side of the block fall facing the units, a 7-foot landscape buffer shall be installed.

Fire Department Conditions

(Gary Sawhill, Department Representative - 324-2224)

29. **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).
30. **Street Width for Single Family Residences:** Shall comply with Clovis Fire Standard #1.1
31. **Turning Radius:** All access way roads constructed shall be designed with a minimum outside turning radius of forty-five feet (45’)
32. **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.
33. **All Weather Access:** 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 or #1.3.
34. **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, and perimeter walls.
35. **Address Numbers:** Address numbers shall be installed on every building as per adopted

Clovis Fire Department Standard #1.8.

36. **Residential Fire Hydrant:** The applicant shall install ___12___ 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.
37. **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.
38. Provide a copy of the approved stamped site plan from the Planning Division. Site Plan shall include all fire department notes to verify compliance with requirements. Site plans included with this plan submittal are subject to the conditions on the Planning Division approved set.

ENGINEERING / UTILITIES / SOLID WASTE DIVISION CONDITIONS

(Sean Smith, Engineering Division Representative – 324-2363)

(Paul Armendariz, Department Representative – 324-2649)

Maps and Plans

39. 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.
40. 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. 18-61 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.
41. 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).

42. 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 (1) digital copy to the City in PDF format.

General Provisions

43. 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.

44. 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.

45. 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.

46. 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.

47. 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.

48. 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.

49. The applicant shall provide and pay for all geotechnical services per City policy.

50. 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.

51. All existing overhead and new utility facilities located on-site or within the street right-of-way along the streets adjacent to this tract shall be undergrounded unless otherwise approved by the City Engineer.
52. 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.
53. The applicant shall contact and address Caltrans requirements. The applicant will be required to mitigate impacts to State Highway facilities as determined by the City Engineer.

Dedications and Street Improvements

54. 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. Shepherd Avenue – Along frontage, dedicate to provide right-of-way acquisition for 73' (exist varies) south of centerline, and improve with curb, gutter, sidewalk, street lights, fiber optic conduit, median island, median island landscaping and irrigation, 46' (30'+16') permanent paving, overlay as necessary to match the existing permanent pavement, 3' paved swale, and transitional paving as needed.
 - b. Riordan Avenue – Along frontage, dedicate to provide right-of-way acquisition for 30' (exist 20') north centerline, and improve with curb, gutter, sidewalk, permanent paving and overlay as necessary to match the existing permanent pavement, and transitional paving as needed.
 - c. Russell Avenue – Along frontage, dedicate to provide right-of-way acquisition for 27' (exist 14') west of centerline, and improve with curb, gutter, sidewalk, permanent paving and overlay as necessary to match the existing permanent pavement, and transitional paving as needed.
 - d. Preuss Avenue – The applicant shall provide for the abandonment of the Preuss Avenue right-of-way from Shepherd Avenue to Riordan Avenue.
 - e. Clovis Avenue – The applicant shall contribute their proportional share of the construction costs for the installation of a median "worm" at Riordan Avenue, which will be constructed at a later date at the determination of the City Engineer.

- f. Interior Streets – Dedicate to provide for 50' or 54' right-of-way in conformance with the City policy of 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.
 - g. The applicant shall relinquish all access to Shepherd Avenue.
55. 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.
56. For new ADA paths of travel that connect to existing City sidewalk, the applicant shall replace enough sidewalk to provide a compliant landing with appropriate transitions to existing sidewalk grades.
57. The applicant shall not install any fences, temporary or permanent in public right-of-way.
58. The sideyard side of all corner lots shall have full width sidewalk except where planter strips or meandering sidewalk is proposed.
59. 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.

Sewer

60. The applicant shall identify and abandon all septic systems to City standards.
61. 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 the pending sewer study, 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 will require approval of the City Engineer and shall be supported by appropriate calculations.
62. Interior Streets – install 8" mains.
63. The applicant shall install one (1) 4" sewer service house branch to each lot within the tentative tract.
64. 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.
65. The applicant shall abandon the following sewer main stubs at the adjacent sewer manhole with brick and mortar, as approved by the City Engineer:

- a. Intersection of North Russell Avenue and Everglade Avenue
- b. Intersection of Riordan Avenue and the North Pruess Avenue alignment

Water

66. The applicant shall identify and abandon all water wells to City standards.
67. 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 the pending water study, 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 will require approval of the City Engineer and shall be supported by appropriate calculations.
- a. Interior Streets – install 8" mains.
68. The applicant shall abandon the following water main stubs at main, as approved by the City Engineer:
- c. Intersection of North Russell Avenue and Everglade Avenue
 - d. Intersection of Riordan Avenue and the North Pruess Avenue alignment
69. 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.
70. 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.
71. 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.

Grading and Drainage

72. 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.

73. 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

74. 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 landscape strips along Shepherd Avenue, and the median island in Shepherd Avenue.

75. All park and landscape improvements shall be installed, accepted for maintenance by the City prior to issuance of 40% of the Tract's building permits. If the park improvements are not constructed on the Outlot for any reason within two (2) years of the recordation of the final map of Tract, City shall have the right to request from surety and receive upon City's demand, sufficient funding to complete the construction of improvements for the park. The two year period may be extended at City's sole option and discretion and upon such conditions as City shall determine.

76. 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 will 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 \$183.00, 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.

77. The applicant shall comply with the City of Clovis Water Efficient Landscape Requirements Ordinance.
78. 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.
79. 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.
80. 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.
81. 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

82. The applicant shall install street lights along the major streets 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 shall be maintained by an additional landscape maintenance assessment.
83. 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.
84. A deferment, modification, or waiver of any engineering conditions will require the express written approval of the City Engineer.
85. The conditions given herein are for the entire development. Additional requirements for individual phases may be necessary pending review by the City Engineer.

Fresno Irrigation District

(Chris Lundeen, FID Representative – 233-7161 ext. 7410)

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

Police Department Conditions

(Curtis Shurtliff, Department Representative - 324-3415)

87. The Applicant shall refer to the attached Clovis Police Department correspondence. If the list is not attached, please contact the Health Department for the list of requirements.

County of Fresno Health Department Conditions

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

88. 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.

Caltrans

(Jamaica Gentry, Caltrans Representative – 488-7307)

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

Clovis Unified School District

(Michael Johnston, CUSD Representative – 327-9000)

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

DRAFT RESOLUTION
Vesting Tentative Tract Map TM6263

ATTACHMENT 5

**DRAFT
RESOLUTION 19-__**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CLOVIS APPROVING A
VESTING TENTATIVE TRACT MAP FOR A 137-LOT PLANNED RESIDENTIAL
DEVELOPMENT ON APPROXIMATELY 21.52 ACRES OF PROPERTY LOCATED ON
THE SOUTH SIDE OF SHEPHERD AVENUE BETWEEN CLOVIS AND SUNNYSIDE
AVENUES**

WHEREAS, Lennar Homes of California, Inc., 8080 N. Palm Avenue, Suite 110, Fresno, CA 93711, has applied for a Vesting Tentative Tract Map TM6263; and

WHEREAS, Vesting Tentative Tract Map TM6263, was filed on August 8, 2019, and was presented to the Clovis Planning Commission for approval in accordance with the Subdivision Map Act of the Government of the State of California and Title 9, Chapter 2, of the Municipal Code and the City of Clovis; and

WHEREAS, the Planning Commission has considered said map on October 24, 2019 approving said map; and

WHEREAS, a public notice was sent out to area residents within 800 feet of said property boundaries twenty-one days prior to said Planning Commission hearing; and

WHEREAS, a duly noticed hearing was held on December 9, 2019; and

WHEREAS, the City Council has given careful consideration to this map on December 9, 2019, and does approve a Mitigated Negative Declaration for the project, and

WHEREAS, this Council finds and determines that approval of said map should be conditioned on all conditions recommended by the City staff, as set forth in Attachment "A" which is on file with the City Clerk's office.

NOW, THEREFORE, BE IT RESOLVED, that the City of Clovis resolves as follows:

- a. The proposed map is consistent with applicable general and specific plans;
- b. The design or improvement of the proposed subdivision is consistent with applicable general and specific plans;
- c. The site is physically suitable for the type of development;
- d. The site is physically suitable for the proposed density of development;
- e. The design of the subdivision or the type of improvements are not likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat;

- f. The design of the subdivision or the type of improvements is not likely to cause serious public health problems; and
- g. The design of the subdivision or the type of improvements will not conflict with easements acquired by the public at large for access through the use of property within the proposed subdivision.
- h. The dedication toward public right-of-way is proportionate to the development being requested.

* * * * *

The foregoing resolution was introduced and adopted at a regular meeting of the City Council of the City of Clovis held on December 9, 2019 by the following vote, to wit.

AYES:
NOES:
ABSENT:
ABSTAIN:

DATED:

Mayor

City Clerk

ATTACHMENT A
Conditions of Approval
General Plan Amendment GPA2019-001, R2019, and TM6263

Planning Division Comments
(Ricky Caperton, AICP, Senior Planner – 559-324-2347)

GPA2019-001 and R2019-003 Conditions of Approval

1. Development of the single-family planned residential development shall be consistent with the General Plan Medium Density Designation (4.1 – 7.0 DU/Ac).
2. Rezone R2019-003 shall become effective only upon approval General Plan Amendment GPA2019-001 by the City Council.
3. Rezone R2019-003 approves an R-1-PRD (Single Family Planned Residential Development) Zone District.
4. As an amenity for the Project, the developer shall include a park, and public seating areas as shown on TM6263, as well as enhanced landscape at the corner of Riordan and Russell Avenues, and at the corner of Everglade and Russell Avenues.
5. All transformers shall be located underground. Pad mounted transformers may be considered through approval of a separate Administrative Use Permit.
6. All landscaping (open space and private yards) shall conform to the City of Clovis Water Efficient Landscape Ordinance.
7. Maximum building (main structure) height shall not exceed thirty-five (35) feet.
8. Setbacks shall be measured to the exterior face of the framing of the structure. Exceptions to the setbacks are identified in Section 9.24.100 of the Clovis Municipal Code.
9. The maximum lot coverage for Vesting Tentative Tract Map TM6263 is 65 percent (65%).

TM6263 Conditions of Approval

10. TM6263 is approved per the **Attachment 8** of the accompanying staff report.
11. Development Standards for TM6263 shall be per the Residential Development Standards per **Attachment 7** of the accompanying staff report and as follows:

Minimum Lot Area:	4,000 sq. ft.
Minimum Lot Width:	50 ft.
Minimum Lot Depth:	80 ft.
Maximum Lot Coverage:	65%
Maximum Height:	35 ft.

Minimum Front Setback:	18 ft. to garage / 10 ft. to structure
Minimum Side Setback:	5 ft. garage side / 4 ft. other side
Minimum Rear Yard Setback:	5 ft. (Lots 32, 101, and 102) 10 ft. (Lots 33 to 100, and Lots 103 to 137) 15 ft. (Lots 8 through 31) 20 ft. (Lots 1 to 7)
Fence Height:	6 ft. (minimum) to 8 ft. (maximum)
Accessory Structure Height:	12 ft. maximum

12. Garages shall be a minimum dimension of 20' x 20' (interior clear).
13. This Project requires the submittal and approval of a residential site plan review. Specific color and materials of the models, walls, landscaping, and fencing will be evaluated.
14. Landscape plans shall be reviewed and approved separately by the landscape review committee for tree and landscape type and location.
15. The developer shall construct a minimum six-foot high wall/fence along the length of the property lines.
16. Upon final recordation of this 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.
17. The applicant shall relay all conditions of approval for Vesting Tentative Tract Map TM6263 to all subsequent purchasers of individual lots, if applicable, and/or to subsequent purchasers of this entire tract map development.
18. 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.
19. All lighting shall be screened from direct view from the public right-of-way and adjacent residential properties.
20. All landscaping shall conform to the City of Clovis Water Efficient Landscape Ordinance.
21. The developer shall comply with all mitigation measures identified in the Initial Study Mitigated Negative Declaration prepared for the Project, included as **Attachment 11** to the staff report.
22. The applicant shall obtain City approval in advance of temporary and permanent subdivision signs through separate sign review, consistent with the development criteria of the Clovis Municipal Code.
23. The developer shall contact cultural resources staff at Table Mountain Rancheria prior to ground-disturbance to coordinate a training session on how to appropriately identify potential artifacts.

24. All transformers for this subdivision can be located above ground subject to review and approval of the required landscape screening material. Landscaping shall be reviewed through the residential site plan review process. Transformers shall not be placed in public space.
25. The applicant shall install pedestrian lighting along common areas. Spacing and location will be evaluated during residential site plan review.
26. Riordan and Russell Avenues shall have a 12-foot curb pattern including a 5-foot sidewalk and 7-feet of landscaping.
27. Shepherd Avenue shall have a 30-foot curb pattern including a 12-foot landscaping strip, 8-foot sidewalk, and 10-foot landscaping behind sidewalk up to the block wall.
28. On the south side of the block fall facing the units, a 7-foot landscape buffer shall be installed.

Fire Department Conditions

(Gary Sawhill, Department Representative - 324-2224)

29. **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).
30. **Street Width for Single Family Residences:** Shall comply with Clovis Fire Standard #1.1
31. **Turning Radius:** All access way roads constructed shall be designed with a minimum outside turning radius of forty-five feet (45')
32. **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.
33. **All Weather Access:** 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 or #1.3.
34. **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, and perimeter walls.
35. **Address Numbers:** Address numbers shall be installed on every building as per adopted Clovis Fire Department Standard #1.8.

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38. Provide a copy of the approved stamped site plan from the Planning Division. Site Plan shall include all fire department notes to verify compliance with requirements. Site plans included with this plan submittal are subject to the conditions on the Planning Division approved set.

ENGINEERING / UTILITIES / SOLID WASTE DIVISION CONDITIONS

(Sean Smith, Engineering Division Representative – 324-2363)

(Paul Armendariz, Department Representative – 324-2649)

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42. 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 (1) digital copy to the City in PDF format.

General Provisions

43. 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.
44. 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.
45. 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.
46. 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.
47. 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.
48. 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.
49. The applicant shall provide and pay for all geotechnical services per City policy.
50. 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.

51. All existing overhead and new utility facilities located on-site or within the street right-of-way along the streets adjacent to this tract shall be undergrounded unless otherwise approved by the City Engineer.
52. 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.
53. The applicant shall contact and address Caltrans requirements. The applicant will be required to mitigate impacts to State Highway facilities as determined by the City Engineer.

Dedications and Street Improvements

54. 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. Shepherd Avenue – Along frontage, dedicate to provide right-of-way acquisition for 73' (exist varies) south of centerline, and improve with curb, gutter, sidewalk, street lights, fiber optic conduit, median island, median island landscaping and irrigation, 46' (30'+16') permanent paving, overlay as necessary to match the existing permanent pavement, 3' paved swale, and transitional paving as needed.
 - b. Riordan Avenue – Along frontage, dedicate to provide right-of-way acquisition for 30' (exist 20') north centerline, and improve with curb, gutter, sidewalk, permanent paving and overlay as necessary to match the existing permanent pavement, and transitional paving as needed.
 - c. Russell Avenue – Along frontage, dedicate to provide right-of-way acquisition for 27' (exist 14') west of centerline, and improve with curb, gutter, sidewalk, permanent paving and overlay as necessary to match the existing permanent pavement, and transitional paving as needed.
 - d. Preuss Avenue – The applicant shall provide for the abandonment of the Preuss Avenue right-of-way from Shepherd Avenue to Riordan Avenue.
 - e. Clovis Avenue – The applicant shall contribute their proportional share of the construction costs for the installation of a median "worm" at Riordan Avenue, which will be constructed at a later date at the determination of the City Engineer.
 - f. Interior Streets – Dedicate to provide for 50' or 54' right-of-way in conformance with the City policy of 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.

g. The applicant shall relinquish all access to Shepherd Avenue.

55. 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.
56. For new ADA paths of travel that connect to existing City sidewalk, the applicant shall replace enough sidewalk to provide a compliant landing with appropriate transitions to existing sidewalk grades.
57. The applicant shall not install any fences, temporary or permanent in public right-of-way.
58. The sideyard side of all corner lots shall have full width sidewalk except where planter strips or meandering sidewalk is proposed.
59. 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.

Sewer

60. The applicant shall identify and abandon all septic systems to City standards.
61. 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 the pending sewer study, 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 will require approval of the City Engineer and shall be supported by appropriate calculations.
62. Interior Streets – install 8" mains.
63. The applicant shall install one (1) 4" sewer service house branch to each lot within the tentative tract.
64. 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.
65. The applicant shall abandon the following sewer main stubs at the adjacent sewer manhole with brick and mortar, as approved by the City Engineer:
- a. Intersection of North Russell Avenue and Everglade Avenue
 - b. Intersection of Riordan Avenue and the North Pruess Avenue alignment

Water

66. The applicant shall identify and abandon all water wells to City standards.
67. 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 the pending water study, 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 will require approval of the City Engineer and shall be supported by appropriate calculations.
- a. Interior Streets – install 8" mains.
68. The applicant shall abandon the following water main stubs at main, as approved by the City Engineer:
- c. Intersection of North Russell Avenue and Everglade Avenue
 - d. Intersection of Riordan Avenue and the North Pruess Avenue alignment
69. 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.
70. 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.
71. 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.

Grading and Drainage

72. 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.
73. 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

74. 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 landscape strips along Shepherd Avenue, and the median island in Shepherd Avenue.
75. All park and landscape improvements shall be installed, accepted for maintenance by the City prior to issuance of 40% of the Tract's building permits. If the park improvements are not constructed on the Outlot for any reason within two (2) years of the recordation of the final map of Tract, City shall have the right to request from surety and receive upon City's demand, sufficient funding to complete the construction of improvements for the park. The two year period may be extended at City's sole option and discretion and upon such conditions as City shall determine.
76. 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 will 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 \$183.00, 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.

77. The applicant shall comply with the City of Clovis Water Efficient Landscape Requirements Ordinance.
78. 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.
79. 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.
80. 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.
81. 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

82. The applicant shall install street lights along the major streets 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 shall be maintained by an additional landscape maintenance assessment.
83. 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.
84. A deferment, modification, or waiver of any engineering conditions will require the express written approval of the City Engineer.
85. The conditions given herein are for the entire development. Additional requirements for individual phases may be necessary pending review by the City Engineer.

Fresno Irrigation District

(Chris Lundeen, FID Representative – 233-7161 ext. 7410)

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

Police Department Conditions

(Curtis Shurtliff, Department Representative - 324-3415)

87. The Applicant shall refer to the attached Clovis Police Department correspondence. If the list is not attached, please contact the Health Department for the list of requirements.

County of Fresno Health Department Conditions

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

88. 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.

Caltrans

(Jamaica Gentry, Caltrans Representative – 488-7307)

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

Clovis Unified School District

(Michael Johnston, CUSD Representative – 327-9000)

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

San Joaquin Valley Air Pollution Control District

(Carol Flores, SJVAPCD Representative – 230-5935)

91. The Applicant shall refer to the attached SJVAPCD correspondence. If the list is not attached, please contact the SJVAPCD for the list of requirements.

Fresno Metropolitan Flood Control District

(Robert Villalobos or Michael Maxwell, FMFCD Representative – 456-3292)

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

JUSITIFICATION LETTER

ATTACHMENT 6

LENNAR®

7/26/19

George Gonzalez, MPA
Long Range Planning
City of Clovis – Planning Division
1033 Fifth Street, Clovis, CA 93612
georgeg@cityofclovis.com
559.324.2383

RE: Tract 6263
South side of Shepherd Avenue between Clovis & Sunnyside Avenues
General Plan Amendment, Letter of Justification
APN: 560-031-23, 34,35

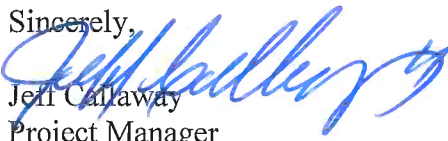
Dear Mr. Gonzalez,

We are pleased to provide this correspondence as fulfillment to the Letter of Justification requirement set forth in the City of Clovis General Plan Amendment provisions. Tract 6263, with its associated civil infrastructure improvements, calls for the development of lots ranging from 4,000 to 11,800sq.ft., with R-1-PRD zoning. This requested density range is currently outside the range with the provisions of the General Plan (2.1-4.0 du/ac). We would like to propose a General Plan amendment to modify the land use density and required zoning. Justification for these proposed amendments is as follows:

CHANGE THE GENERAL PLAN DENSITY DESIGNATION – We are proposing to change the density of the property to Medium Density Residential (4.1-7 du/ac) and change the zoning designation for the property from R-1-7500 to R-1-PRD. The current density designation is Low Density Residential (2-4 du/ac). The current density designation would allow for 93-homes, we are proposing 139-lots for this subdivision at a density of 5.9 du/ac. This new, higher density would allow for a very nice transition from the subdivision to the west, at 7.1 to 15 du/ac and the subdivision to the east, zoned R-1-7500 at 2.1 to 4du/ac, and the subdivision to the south which is 4.1 to 7 du/ac. This density change would also allow for a subdivision layout and street patterns that greatly enhance the connectivity between the existing surrounding neighborhoods, and trail adjacent to the project.

Please feel free to contact me should you need any additional information regarding this project.

Sincerely,


Jeff Callaway
Project Manager
Lennar Homes of California, Inc.
Jeff.callaway@lennar.com

8080 N. Palm Ave. • Suite 110 • Fresno, CA 93711 • Office: 559-447-3400 • Fax: 559-447-3404

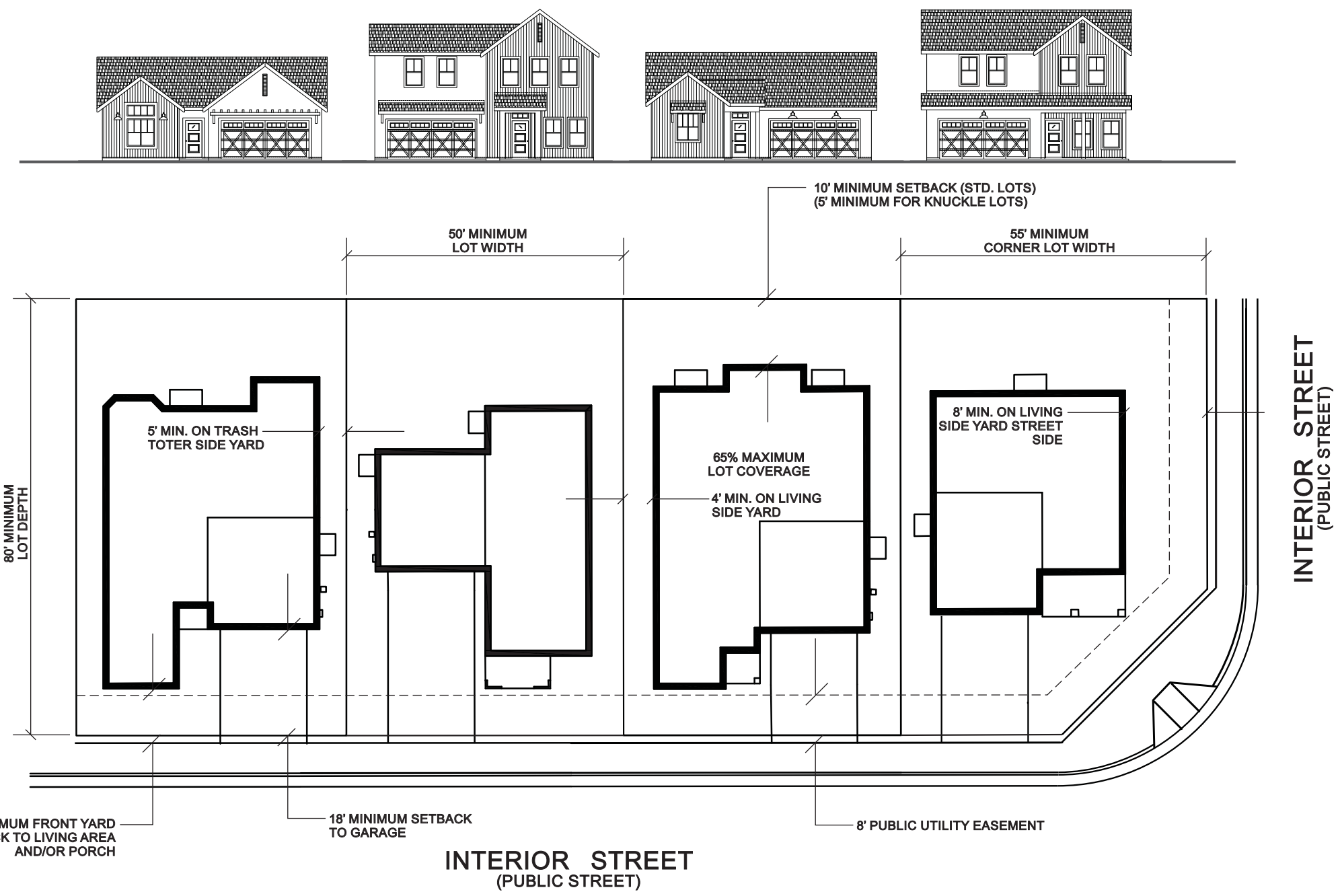
PROPOSED DEVELOPMENT STANDARDS

ATTACHMENT 7

TRACT NO. 6263

Residential Land Use Development Standards

LAND USE	DEVELOPMENT STANDARDS	
SINGLE-FAMILY RESIDENTIAL	STANDARD	NOTES
DESIGNATION		
Zone District	R-1-PRD	
GP Density Range	4.1 - 7.0 du/ac	Medium-High Density Residential
Dwelling Units	137	
BUILDING INTENSITY		
Minimum Lot Area	4,000 sq ft	
Minimum Lot Width	50'	
Minimum Lot Depth	80'	
Maximum Coverage	65%	
Maximum Height	35'	
Curved, Cul-de-sac or Corner Lot	36'min/50'min	For street frontage/For lot depth
BUILDING SETBACKS		
All setbacks measured from PL.		
Front Yard	18'min/10'min	To garage/living area, porch or projections
Side Yard	5'min/4' min	5' min garage side/4' min other side
Corner/Reversed Corner	8'min	
Rear Yard	5' min 10' min 15' min 20' min	Lots 32, 101 and 102 Lots 33 through 100, and Lots 103 through 137 Lots 8 through 31 Lots 1 through 7
GARAGES/STREETS/PARKING		
Garages	2-car	20'x20'min
Streets (Interior)	36' wide	Curb-to-curb
Parking	4 spaces/unit min	2 covered space per unit min 2 uncovered space per unit min
ACCESSORY USES		
General list of requirements and restrictions.		
Walls/Fences	6' min - 8' high max	
Trellises	12' high max	
Pools and Spas	3' min	Water portion to rear and side PLs. Pool and spa may not be located in front yard.
Equipment	Pool, spa and fountain equipment allowed in side yard setback.	
Covered Structures	12' high max	Covered structures and building additions are allowed subject to review by architectural committee and permitting by the City of Clovis, provided that lot coverage standards are not exceeded and that a rear yard encroachment permit is obtained if encroachment into rear yard occurs.
Accessory Buildings		



NOT TO SCALE

The illustrations shown p... intended for this neighbo... 150... mples of the architectural character

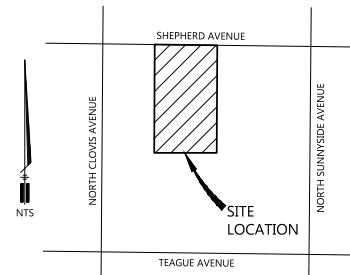
TM6263

ATTACHMENT 8

VESTING TENTATIVE SUBDIVISION MAP
TRACT NO. 6263
 IN THE CITY OF CLOVIS
 FRESNO COUNTY, CALIFORNIA

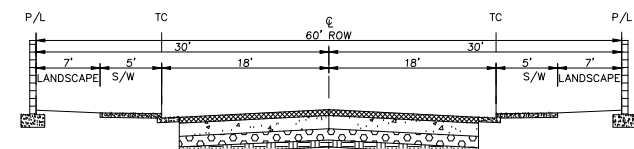
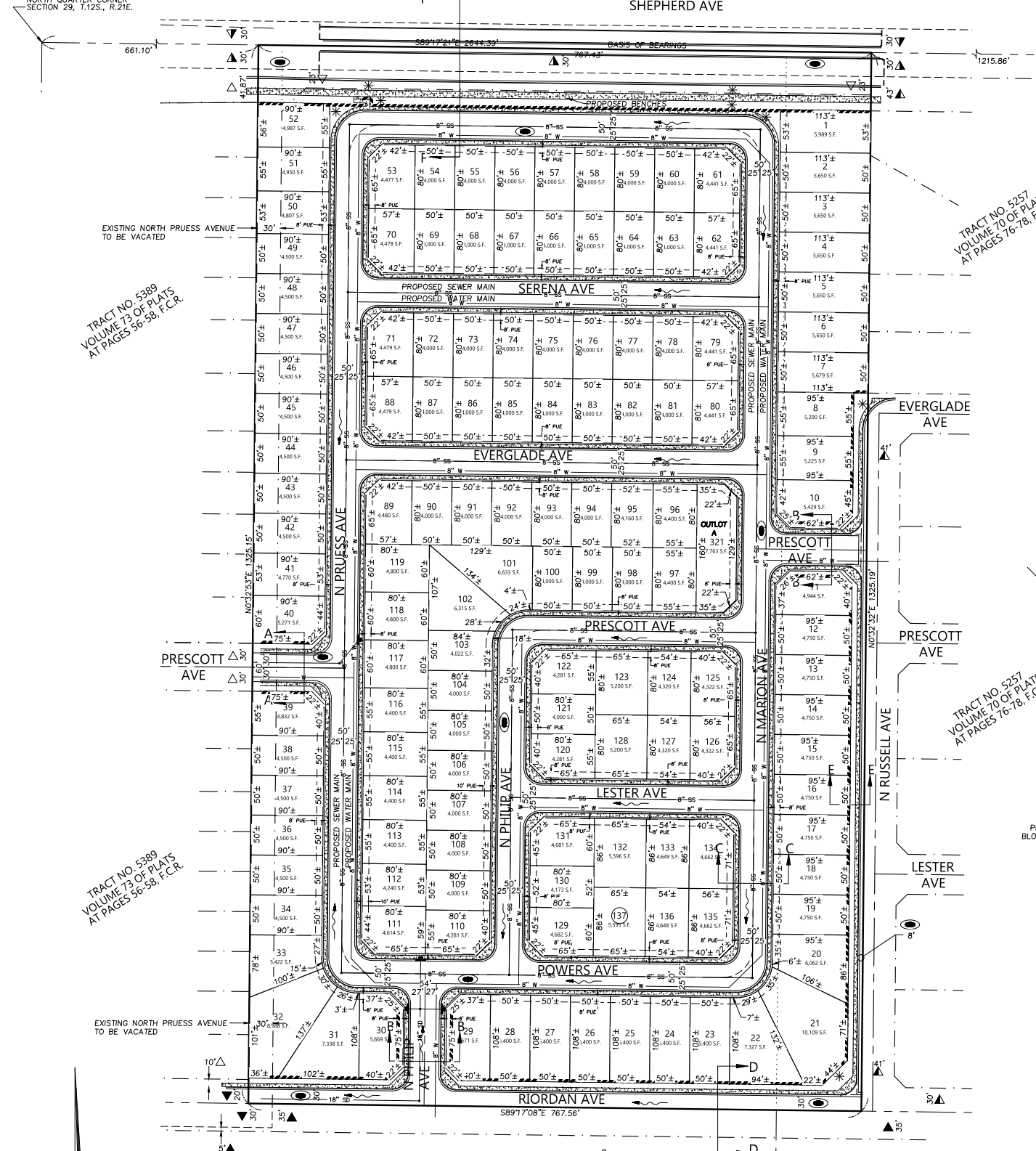
- LEGEND:**
- EXISTING PROPERTY LINE
 - - - PROPOSED PROPERTY LINE
 - - - EXISTING SECTION LINE
 - - - EXISTING EASEMENT LINE
 - - - EXISTING RIGHT-OF-WAY LINE
 - (16" W) - EXISTING WATER LINE (SIZE AS NOTED)
 - (SS) - EXISTING SEWER LINE (SIZE AS NOTED)
 - SS - PROPOSED SANITARY SEWER AND MANHOLE
 - SD - PROPOSED STORM DRAIN MAIN
 - W - PROPOSED WATER MAIN
 - - - EXISTING CONCRETE CURB, GUTTER & SIDEWALK
 - - - PROPOSED CONCRETE CURB, GUTTER & SIDEWALK
- SITE INFORMATION**
- ▲ EXISTING TREES TO BE REMOVED
 - △ EXISTING BUILDINGS TO BE REMOVED
 - EXISTING USE
 - LOW DENSITY RESIDENTIAL
 - MEDIUM DENSITY RESIDENTIAL
 - PROPOSED ZONING
 - R-1-PRD
 - EXISTING ZONING
 - R-1-7500
 - 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 NUMBERS
 - 560-031-235
 - 560-031-345
 - 560-031-355
 - SITE AREA
 - 23.35 AC. GROSS
 - 21.22 AC. NET
 - OWNER
 - SOBAAJE COMPANY INC.
 - 4655 EAST SHEPHERD AVENUE
 - CLOVIS, CA 93619
 - CONTACT: JOHN SOBAAJE
 - (559) 299-1036
 - MINIMUM LOT SIZE
 - 4,000 SQ.FT.
 - MAXIMUM LOT SIZE
 - 11,819 SQ.FT.
 - AVERAGE LOT SIZE
 - 4712 SQ.FT.

VICINITY MAP:

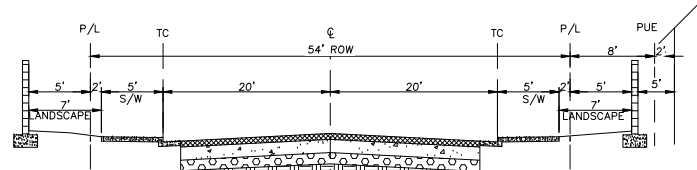


NORTH QUARTER CORNER SECTION 29, T.12S., R.21E.

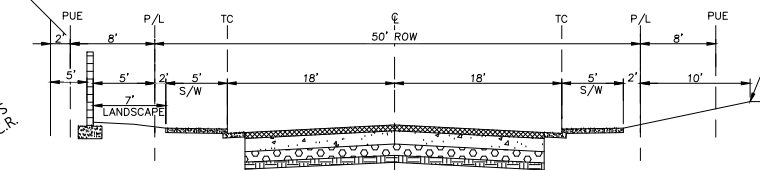
NORTHEAST CORNER SECTION 29, T.12S., R.21E.



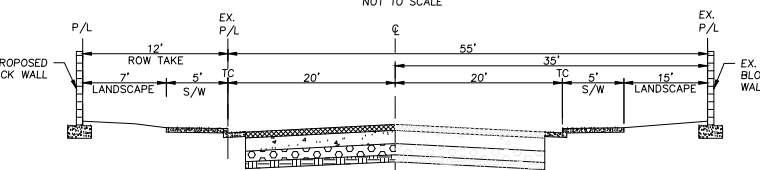
PRESCOTT AVE - 60' ROW ENTRY SECTION A-A
NOT TO SCALE



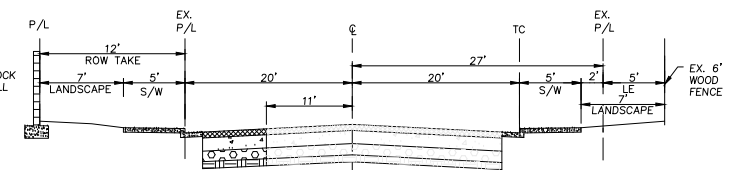
PHILIP AVE & PRESCOTT AVE - 54' ROW ENTRY SECTION B-B
NOT TO SCALE



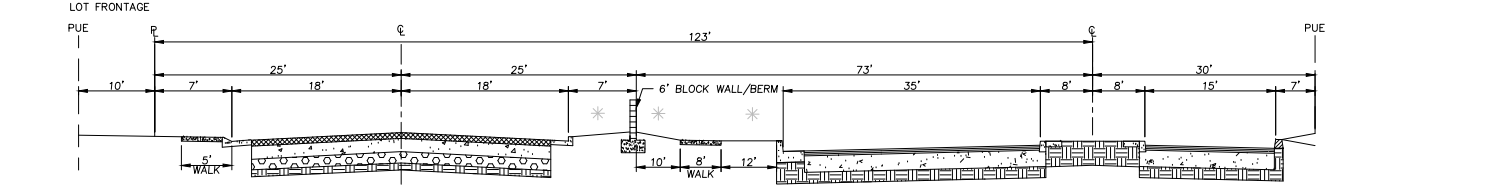
RESIDENTIAL STREET - 50' ROW SECTION C-C
NOT TO SCALE



RIORDAN AVE - 67' ROW SECTION D-D
NOT TO SCALE



RUSSELL AVE - 59' ROW SECTION E-E
NOT TO SCALE



RESIDENTIAL (FRONTAGE) SHEPHERD AVENUE CROSS-SECTION SECTION F-F
NOT TO SCALE

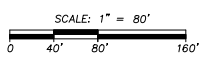
TRACT NO. 5389
VOLUME 73 OF PLATS
AT PAGES 56-58, F.C.R.

TRACT NO. 5257
VOLUME 70 OF PLATS
AT PAGES 76-78, F.C.R.

TRACT NO. 5257
VOLUME 70 OF PLATS
AT PAGES 76-78, F.C.R.

TRACT NO. 5389
VOLUME 73 OF PLATS
AT PAGES 56-58, F.C.R.

TRACT NO. 5192
VOLUME 72 OF PLATS
AT PAGES 47-49, F.C.R.



BASIS OF BEARINGS
THE GEODETIC OBSERVATION BETWEEN THE NORTH QUARTER CORNER AND THE NORTHEAST CORNER OF SECTION 29, TOWNSHIP 12 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN TAKEN AS SOUTH 89°17'21" EAST.

BASIS OF ELEVATION
BRASS CAP MONUMENT ON 4" X 4" CONCRETE POST, 39" NORTH OF CENTERLINE SHEPHERD, 17" WEST OF CENTERLINE OF SUNNYSIDE AT THE NORTHWEST CORNER SHEPHERD AND SUNNYSIDE WITH AN ELEVATION OF 389.439 FEET, AS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 IS THE BENCHMARK FOR THIS SURVEY.



APPROVALS		REVISIONS	
APPROVED (INITIALS)	DATE	DATE	APPROVED

CITY OF CLOVIS		PLANNING AND DEVELOPMENT SERVICES DEPARTMENT	
PROJECT TITLE	TRACT NO. CLOVIS AND SHEPHERD	V&H No.	18-378
SHEET DESCRIPTION	VESTING TENTATIVE TRACT MAP	Dr. By:	RBW
		Ch. By:	BB
		Date:	8/6/2019
		Project No.	
		Sheet No.	1
		of	1
		Sheets	

Correspondence

ATTACHMENT 9



CITY OF CLOVIS FIRE DEPARTMENT

1233 Fifth Street, Clovis, CA 93612 · (559) 324-2200

AGENDA ITEM NO. 10.



GPA 2019-001 TM 6263 COMMENTS

Lennar Homes

South side Shepard between Clovis & Sunnyside

Roads / Access

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).

Street Width for Single Family Residences: Shall comply with Clovis Fire Standard #1.1

Turning Radius: All access way roads constructed shall be designed with a minimum outside turning radius of forty-five feet (45')

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.

All Weather Access: 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 or #1.3.

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

Residential Fire Hydrant: The applicant shall install ___12___ 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.

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.

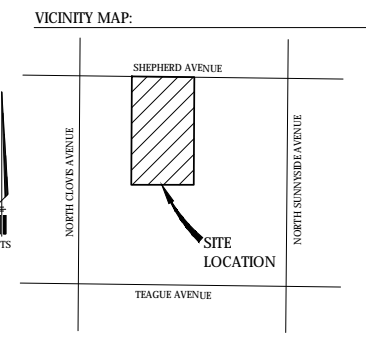
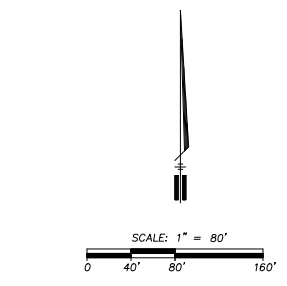
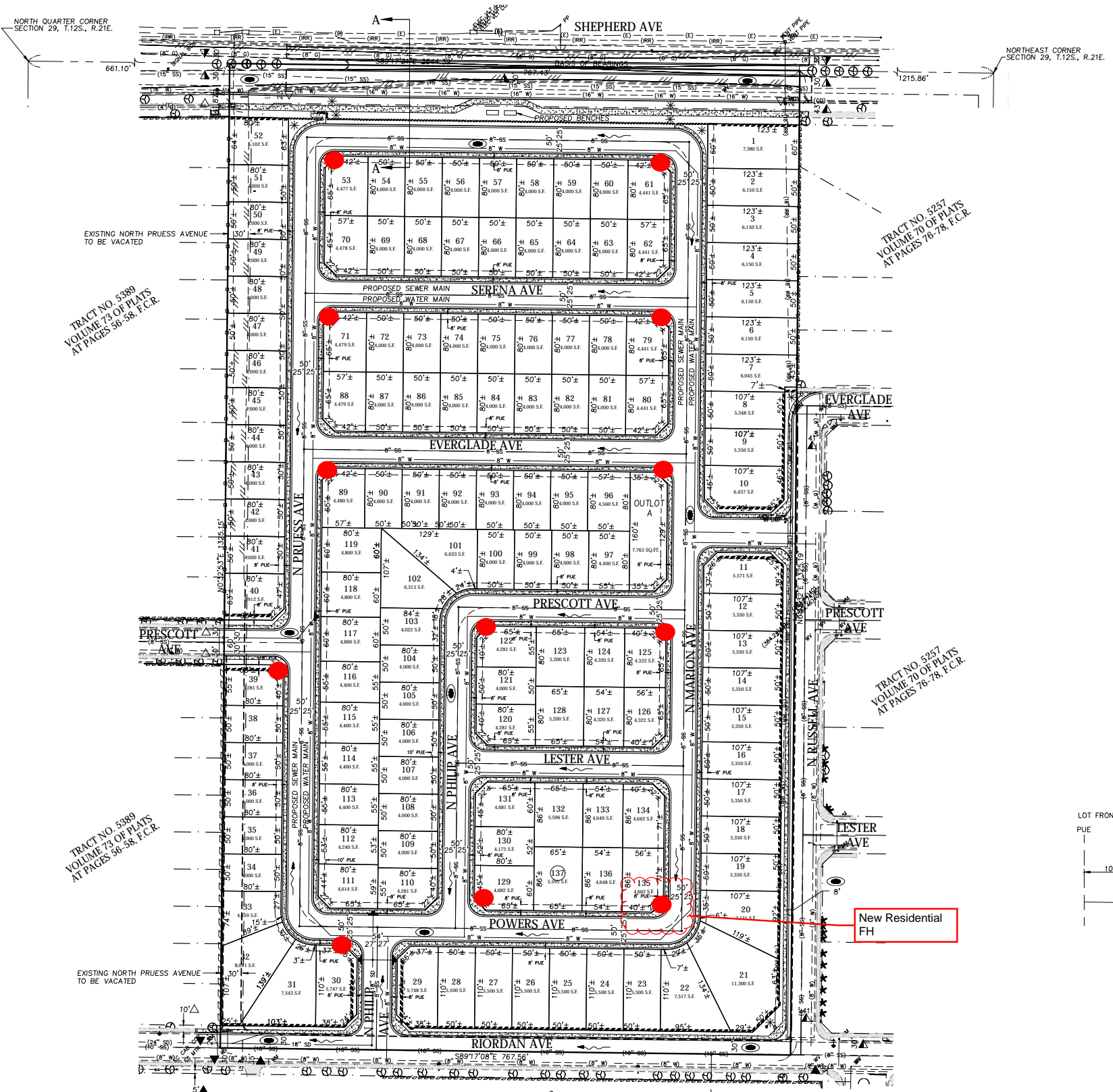
Other

Fire Department Comments on Plans: All Fire Department comments shall be on plans.

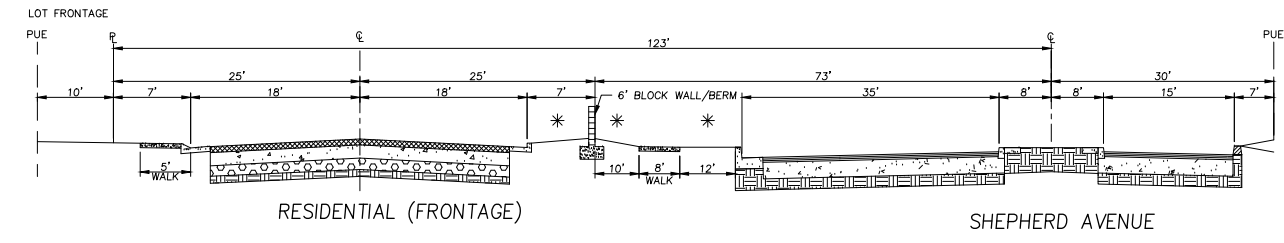
Plan Check Comments by:

Gary Sawhill
Deputy Fire Marshal
(559) 324-2224
sawhill@cityofclovis.com

VESTING TENTATIVE SUBDIVISION MAP
TRACT NO. 6263
 IN THE CITY OF CLOVIS
 FRESNO COUNTY, CALIFORNIA



- LEGEND:**
- EXISTING PROPERTY LINE
 - PROPOSED PROPERTY LINE
 - EXISTING SECTION LINE
 - EXISTING EASEMENT LINE
 - EXISTING RIGHT-OF-WAY LINE
 - (16" W) EXISTING WATER LINE (SIZE AS NOTED)
 - (SS) EXISTING SEWER LINE (SIZE AS NOTED)
 - SS PROPOSED SANITARY SEWER AND MANHOLE
 - SD PROPOSED STORM DRAIN MAIN
 - W PROPOSED WATER MAIN
 - EXISTING CONCRETE CURB, GUTTER & SIDEWALK
 - PROPOSED CONCRETE CURB, GUTTER & SIDEWALK
- SITE INFORMATION:**
- ▲ EXISTING TREES TO BE REMOVED
 - ▲ EXISTING BUILDINGS TO BE REMOVED
 - ▲ EXISTING USE
 - ▲ LOW DENSITY RESIDENTIAL PROPOSED USE
 - ▲ MEDIUM DENSITY RESIDENTIAL PROPOSED ZONING
 - ▲ R-1-PRD EXISTING ZONING
 - ▲ R-1-7500 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 NUMBERS
 - ▲ 560-031-235
 - ▲ 560-031-345
 - ▲ 560-031-355
 - ▲ SITE AREA
 - ▲ 23.35± AC. GROSS
 - ▲ 21.22± AC. NET
 - ▲ OWNER
 - ▲ SOBARE COMPANY INC.
 - ▲ 4655 EAST SHEPHERD AVENUE
 - ▲ CLOVIS, CA 95019
 - ▲ CONTACT: JOHN SOBARE
 - ▲ (559) 299-1036
 - ▲ MINIMUM LOT SIZE
 - ▲ 4,000 SQ.FT.
 - ▲ MAXIMUM LOT SIZE
 - ▲ 11,819 SQ.FT.
 - ▲ AVERAGE LOT SIZE
 - ▲ 4712 SQ.FT.
- BASIS OF BEARINGS:**
 THE GEODETIC OBSERVATION BETWEEN THE NORTH QUARTER CORNER AND THE NORTHEAST CORNER OF SECTION 29, TOWNSHIP 12 SOUTH RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN TAKEN AS SOUTH 89°17'21" EAST.
- BASIS OF ELEVATION:**
 BRASS CAP MONUMENT ON 4" X 4" CONCRETE POST, 39± NORTH OF CENTERLINE SHEPHERD, 17± WEST OF CENTERLINE OF SUNNYSIDE AT THE NORTHWEST CORNER SHEPHERD AND SUNNYSIDE WITH AN ELEVATION OF 389.439 FEET, AS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 IS THE BENCHMARK FOR THIS SURVEY.



SHEPHERD AVE. CROSS-SECTION
 SECTION 'A-A'
 NOT TO SCALE

		APPROVALS		REVISIONS		CITY OF CLOVIS		PLANNING AND DEVELOPMENT SERVICES DEPARTMENT	
		CONSTRUCTION MANAGEMENT TRAFFIC DEVELOPMENT REVIEW STREETS PARKS SOLID WASTE UTILITIES	APPROVED (INITIALS) _____ _____ _____ _____ _____	DATE APPROVED _____ _____ _____ _____ _____	PROJECT TITLE TRACT NO. CLOVIS AND SHEPHERD	Project No. _____	Y&H No. 18-378	Dr. By: RBW	Ch. By: BB



County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING
STEVEN E. WHITE, DIRECTOR

September 4, 2019

Ricky Caperton, Senior Planner
City of Clovis, Planning and Development Services Department
1033 Fifth Street
Clovis, CA 93612

SUBJECT: City of Clovis OAR, GPA2019-01, R2019-003, and TM6263

Dear Mr. Caperton:

The County of Fresno appreciates the opportunity to review and comment on the subject General Plan Amendment (GPA) Application No. 2019-01, requesting to amend the City of Clovis General Plan to redesignate approximately 21.52 acres from Low-Density Residential (21 to 4.0 DU/AC) to Medium-Density Residential (4.1 to 7.0 DU/AC), Rezone Application No. 2019-003 requesting to rezone approximately 21.52 acres from the R-1-7500 Zone District to an R-1-MD Zone District, and Tract Map (TM) Application No. 6263, proposing a 134-lot single-family residential development located on the south side of Shepherd Avenue, between Clovis and Sunnyside Avenue.

After review of the Traffic Impact Study (TIS) prepared for the project, the County of Fresno requests that the TIS be revised to include the intersection of Fowler Avenue and Shepherd Avenue as one of the Study Intersections, and also add a segment analysis for Fowler Avenue from Nees Avenue to Shepherd Avenue. Additionally, we request that the intersection of Shepherd Avenue and Sunnyside Avenue be signalized prior to development. For more information regarding these comments, please contact Brian Spaunhurst of the Design Division at (559)600-4532.

The Department of Public Health, Environmental Health Division has provided comments on the subject applications, a copy of which has been enclosed for your review.

If you have any questions, you may e-mail me at TKobayashi@FresnoCountyCA.gov or contact me at (559) 600-4224.

Sincerely,

Thomas Kobayashi, Planner
Development Services and Capital Projects Division

TK:ksn
G:\4360Devs&Pln\PROJSEC\PROJDOCS\Environmental\OAR\City of Clovis\GPA2019-01, R2019-03, TM6263\GPA2019-001, R2019-003, TM6263 Comment Letter.docx

Enclosure

cc. Steven E. White, Director
Bernard Jimenez, Assistant Director
John R. Thompson, Assistant Director
William M. Kettler, Development Services and Capital Projects Division
Chris Motta, Development Services and Capital Projects Division



Inter Office Memo

DATE: August 13, 2019 LU0019807
PE 2604

TO: Thomas Kobayashi, Development Services Division

FROM: Deep Sidhu, Environmental Health Division

SUBJECT: OAR- City of Clovis, GPA 2019-01, R2019-01, TM 6263. (APN: 560-031-23, 34, & 35)

PROJECT DESCRIPTION: GPA2019-01 request to amend the City of Clovis General Plan to redesignate approximately 21.52 acres of land from the Low Density Residential (2.1 to 4.0 DU/AC) to the Medium Density Residential General Plan Designation, R2019-03 requests to rezone approximately 21.52 acres of land from the R-1-7500 to the R-1-MD, and TM6263 proposes a 134-lot single –family residential development. The project site is located on an approximately 21.52-acre project site. All three applications are being processed concurrently. The City of Clovis for water and sewer services.

The following shall be included as project notes:

- 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 construction project and proximity to an existing thoroughfare has the potential to expose nearby residents and tenants 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.

Prior to destruction of agricultural wells, a sample of the upper most fluid in the water well column should be sampled for lubricating oil. The presence of oil staining around the water well may indicate the use of lubricating oil to maintain the well pump. Should lubricating oil be found in the well, the oil should be removed from the well prior to placement of fill material for destruction. The "oily water" removed from the well must be handled in accordance with federal, state and local government requirements.

- 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 Certified Unified Program Agency at (559) 600-3271 for more information.

The following comments pertain to the demolition of existing structures:

- Should the structures have an active rodent or insect infestation, the infestation should be abated prior to demolition of the structures in order to prevent the spread of vectors to adjacent properties.
- In the process of demolishing the existing structures, 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 structures were constructed prior to 1979 or if lead-based paint is suspected to have been used in these structures, then prior to demolition and/or remodel 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.
- Any construction materials deemed hazardous as identified in the demolition process must be characterized and disposed of in accordance with current federal, state, and local requirements.

cc. Aaron Baruti, Environmental Health Division

OAR- City of Clovis, GPA2019-01, R2019-01, TM6263.doc

Ricky Caperton

From: Kobayashi, Thomas <tkobayashi@fresnocountyca.gov>
Sent: Friday, September 6, 2019 4:25 PM
To: Dirk Poeschel
Cc: Mollring, Marianne; Spaunhurst, Brian
Subject: City of Clovis OAR, GPA2019-01, R2019-03, and TM6263

Good Afternoon,

This is in response to your inquiry for the comment letter sent to the City of Clovis for an OAR for GPA2019-01, R2019-03, and TM6263. I can confirm that the original scope of work when the TIS was being drafted was accepted by our Transportation Design Division.

The request for the addition of the intersection of Shepherd Avenue and Fowler Avenue was requested by the Road Maintenance and Operations Division. For more information about the request please contact Soutchai Vongsa (559)600-4264.

The request for signalization of Shepherd Avenue and Sunnyside Avenue was a request from both the Design Division and the Road Maintenance and Operations Division and also recommended in the Traffic Impact Study.

As with our comments for any OAR, the lead jurisdiction can take our comments into consideration and will make the final determination in implementing our request or omitting them. Please let me know if you have any questions or concerns. Thank you and have a great weekend.

Sincerely,



Thomas Kobayashi | Planner
Department of Public Works and Planning
Development Services and Capital Projects Division
 2220 Tulare St. 6th Floor Fresno, CA 93721
 Main Office: (559) 600-4078 Direct: (559) 600-4224
[Your input matters! Customer Service Survey](#)



AUG 29 2019

Ricky Caperton
City of Clovis
1033 Fifth St.
Clovis, CA 93612

Project: GPA2019-01, R2019-03, TM6263

District CEQA Reference No: 20191004

Dear Mr. Caperton:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the project referenced above consisting of amending the General Plan and rezoning to re-designate approximately 21.52 acres of land from Low Density Residential to Medium Density Residential and a vesting tentative tract map for a 134-lot single family residential development (Project) located on the south side of Shepherd Avenue, between Clovis and Sunnyside Avenues, in Clovis, CA. The District offers the following comments:

1. Significance Impact for Annual Criteria Pollutants Emissions – The Project specific annual emissions of criteria pollutants are not expected to exceed any of the following District significance thresholds: 100 tons per year of carbon monoxide (CO), 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), 27 tons per year of oxides of sulfur (SOx), 15 tons per year of particulate matter of 10 microns or less in size (PM10), or 15 tons per year of particulate matter of 2.5 microns or less in size (PM2.5). Therefore, the District concludes that the Project would have a less than significant impact on air quality when compared to the above-listed annual criteria pollutant emissions significance thresholds.
2. District Rule 9510 (Indirect Source Review) - District Rule 9510 is intended to mitigate a project's impact on air quality through project design elements or by payment of applicable off-site fees. The Project is subject to District Rule 9510 if it equals or exceeds 50 residential dwelling units and has or will receive a project-level discretionary approval from a public agency. If subject to the rule, an Air Impact Assessment (AIA) application is required prior to applying for project level approval

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

from a public agency. In this case, if not already done, please inform the project proponent to immediately submit an AIA application to the District to comply with District Rule 9510.

In the case the Project is subject to Rule 9510 an AIA application is required and the District recommends that demonstration of compliance with District Rule 9510, before issuance of the first building permit, be made a condition of Project approval. Information about how to comply with District Rule 9510 can be found online at: <http://www.valleyair.org/ISR/ISRHome.htm>. The AIA application form can be found online at: <http://www.valleyair.org/ISR/ISRFormsAndApplications.htm>.

3. District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants) - In the event an existing building will be renovated, partially demolished or removed, the Project may be subject to District Rule 4002. This rule requires a thorough inspection for asbestos to be conducted before any regulated facility is demolished or renovated. Information on how to comply with District Rule 4002 can be found online at: <http://www.valleyair.org/busind/comply/asbestosbultn.htm>.
4. Regulation VIII (Fugitive PM10 Prohibitions) - The Project will be subject to Regulation VIII. The project proponent is 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 District Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities*. Information on how to comply with Regulation VIII can be found online at: http://www.valleyair.org/busind/comply/PM10/compliance_PM10.htm
5. Other District Rules and Regulations – The above list of rules is neither exhaustive nor exclusive. For example, the Project may be subject to the following District rules, including: Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). To identify other District rules or regulations that apply to this Project or to obtain information on the District's permit requirements, such as an Authority to Construct (ATC), the Project proponent is strongly encouraged to contact the District's Small Business Assistance Office at (559) 230-5888 or e-mail SBA@valleyair.org. Current District rules can be found online at the District's website at: www.valleyair.org/rules/1ruleslist.htm.
6. Potential Air Quality Improvement Measures - The District encourages the following air quality improvement measures to further reduce Project related emissions from construction and operation. A complete list of potential air quality improvement

measures can be found online at:

<http://www.valleyair.org/ceqaconnected/aqimeasures.aspx>.


- a. Cleaner Off-Road Construction Equipment – This measure is to utilize off-road construction fleets that can achieve fleet average emissions equal to or cleaner than the Tier II emission standards. This can be achieved through any combination of uncontrolled engines and engines complying with Tier II and above engine standards.
- b. Improve Walkability Design – This measure is to improve design elements to enhance walkability and connectivity. Improved street network characteristics within a neighborhood include street accessibility, usually measured in terms of average block size, proportion of four-way intersections, or number of intersections per square mile. Design is also measured in terms of sidewalk coverage, building setbacks, street widths, pedestrian crossings, presence of street trees, and a host of other physical variables that differentiate pedestrian-oriented environments from auto-oriented environments.
- c. Improve Destination Accessibility – This measure is to locate the project in an area with high accessibility to destinations. Destination accessibility is measured in terms of the number of jobs or other attractions reachable within a given travel time, which tends to be highest at central locations and lowest at peripheral ones. The location of the project also increases the potential for pedestrians to walk and bike to these destinations and therefore reduces the (vehicle miles traveled) VMT.
- d. Increase Transit Accessibility – This measure is to locate the project with high density near transit which will facilitate the use of transit by people traveling to or from the Project site. The use of transit results in a mode shift and therefore reduced VMT. A project with a residential/commercial center designed around a rail or bus station, is called a transit-oriented development (TOD). The project description should include, at a minimum, the following design features:
 - A transit station/stop with high-quality, high-frequency bus service located within a 5-10 minute walk (or roughly ¼ mile from stop to edge of development), and/or
 - A rail station located within a 20 minute walk (or roughly ½ mile from station to edge of development)
 - Fast, frequent, and reliable transit service connecting to a high percentage of regional destinations

- Neighborhood designed for walking and cycling
- e. Voluntary Emission Reduction Agreement - Design elements, mitigation measures, and compliance with District rules and regulations may not be sufficient to reduce project-related impacts on air quality to a less than significant level. In such situation, project proponents may enter into a Voluntary Emission Reduction Agreement (VERA) with the District to reduce the project related impact on air quality to a less than significant level. A VERA is a mitigation measure by which the project proponent provides pound-for-pound mitigation of air emissions increases through a process that funds and implements emission reduction projects. A VERA can be implemented to address impacts from both construction and operational phases of a project.

The District recommends that a copy of the District's comment letter be provided to the Project proponent. District staff is available to meet with you and/or the applicant to further discuss the regulatory requirements that are associated with this Project. If you have any questions or require further information, please call Carol Flores at (559) 230-5935 or e-mail carol.flores@valleyair.org. When calling or emailing the District, please reference District CEQA number 20191004.

Sincerely,

Arnaud Marjollet
Director of Permit Services



Brian Clements
Program Manager

AM: cf



September 3, 2019

Ricky Caperton
Planning and Development Services Dept.
1033 Fifth St.
Clovis, CA 93612

SUBJECT: TM 6263, GPA2019-01
South side of Shepherd Avenue, between Clovis and Sunnyside Avenues
APN 560-031-23, 34 & 35

Dear Mr. Caperton:

The purpose of this letter is to provide school district information relative to the above-referenced development and to comply with Business and Professions Code section 11010, subdivision (b)(11)(A) regarding the provision of school-related information to the developer/owner and the State Department of Real Estate.

In regards to this project with GPA2019-01 the district has concern regarding the re-designation of the land located on the south side of Shepherd Avenue, between Clovis and Sunnyside Avenues. Currently this project site has a designation of Low Density Residential (2.1 to 4.0 DU/AC), the district does not feel confident in the ability to accommodate students associated with a re-designation to Medium Density Residential (4.1 to 7.0 DU/AC). The district would like to bring this concern to the attention of the planning department and owner/sub divider.

1. Elementary School Information:

- (a) The subject land is presently within the attendance area of the elementary school (grades K-6) listed below:

School Name: *Woods Elementary*
Address: *700 Teague Ave Clovis CA 93619-8342*
Telephone: *(559) 327-8800*
Capacity: *875*
Enrollment: *746 (CBEDS enrollment 2018-19 school year)*

- (b) Because of projected growth in the District and the District's plans for construction of new school facilities, it is possible that (1) adjustment of school attendance areas could occur in the future such that students residing in the project area may be required to attend an elementary school other than the school listed above, and (2) students residing in the project area may attend more than one elementary school within the District during their elementary school years.

Governing Board
Christopher Casado
Steven G. Fogg, M.D.
Susan K. Hatmaker
Ginny L. Hovsepian
Elizabeth J. Sandoval
Tiffany Stoker Madsen

Administration
Elmear O'Farrell, Ed.D.
Superintendent

Don Ulrich, Ed.D.
Deputy Superintendent

Norm Anderson
Associate Superintendent

Barry S. Jager, Jr.
Associate Superintendent

Michael Johnston
Associate Superintendent

Ricky Caperton
September 3, 2019
Page 2

2. Intermediate School Information:

School Name: *Alta Sierra Intermediate*
Address: *380 W Teague Ave Clovis CA 93619-8332*
Telephone: *(559) 327-3500*
Capacity: *1500*
Enrollment: *1376 (CBEDS enrollment 2018-19 school year)*

3. High School Information:

School Name: *Buchanan High School*
Address: *1560 N Minnewawa Ave Clovis CA 93619-7600*
Telephone: *(559) 327-3000*
Capacity: *3000*
Enrollment: *2726 (CBEDS enrollment 2018-19 school year)*

4. Bus transportation is currently provided for grades K-6 students residing further than one mile from school and for grades 7-12 students residing further than two and one-half miles from school. Transportation will be available for students attending the above-identified elementary, intermediate and high schools in accordance with District standards in effect at the time of enrollment.
5. The District currently levies a school facilities fee of \$5.15 per square foot (as of July 1, 2019) for residential development. The fee is adjusted periodically in accordance with law. New development on the subject property will be subject to the fee in place at the time fee certificates are obtained.

The District hereby requests that the information in this letter be provided by the owner/subdivider to all prospective purchasers of property within the project.

Thank you for the opportunity to comment on the project. Please contact me if you have any questions regarding this letter.

Sincerely,



Michael Johnston
Associate Superintendent
Administrative Services



DEPARTMENT OF PUBLIC HEALTH

David Pomaville, Director
Dr. Sara Goldgraben, Health Officer

January 4, 2019

LU0019807
2604

Courtney Thongsavath, Planning Volunteer
City of Clovis
Planning and Development Services Department
1033 Fifth Street
Clovis, CA 93612

Dear Ms. Thongsavath:

PROJECT NUMBER: **DRC2018-69**

DRC2018-69; 134-lot SFR that will include 28 lots with minimum of 55'x110' and 106 lots with minimum of 50'x80'. The property is currently planned for low density residential and is proposed for medium density residential.

APN: 560-031-23, -34, -35

ZONING: R-1-7500

ADDRESS: S/S Shepard Avenue btw. Clovis and Sunnyside 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 construction project and proximity to an existing thoroughfare has the potential to expose nearby residents and tenants 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.

Prior to destruction of agricultural wells, a sample of the upper most fluid in the water well column should be sampled for lubricating oil. The presence of oil staining around the water well may indicate the use of lubricating oil to maintain the well pump. Should lubricating oil be found in the well, the oil should be removed from the well prior to placement of fill material for destruction. The "oily water" removed from the well must be handled in accordance with federal, state and local government requirements.

Promotion, preservation and protection of the community's health

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

(559) 600-3271 • FAX (559) 600-7629

The County of Fresno is an Equal Employment Opportunity Employer

www.co.fresno.ca.us • www.fcdph.org

- 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 Certified Unified Program Agency at (559) 600-3271 for more information.

The following comments pertain to the demolition of existing structures:

- Should the structures have an active rodent or insect infestation, the infestation should be abated prior to demolition of the structures in order to prevent the spread of vectors to adjacent properties.
- In the process of demolishing the existing structures, 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 structures were constructed prior to 1979 or if lead-based paint is suspected to have been used in these structures, then prior to demolition and/or remodel 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.
- Any construction materials deemed hazardous as identified in the demolition process must be characterized and disposed of in accordance with current federal, state, and local requirements.

REVIEWED BY:

Kevin Tsuda

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

(559) 600-33271

KT

cc: Steven Rhodes- Environmental Health Division (CT. 55.22)
Yamabe & Horn Engineering- Applicant (bbroussard@yhmail.com)

CONDITIONS OF APPROVAL

01-14-19 REV

Entitlement: TM 6263
 Description: 137-Lot SFR
 Applicant: Lennar Homes of California, Inc.
 Property Location: SWA Shepherd and North Sunnyside Avenues
 APN: 560-031-23, -34, -35

ENGINEERING / PUBLIC UTILITIES CONDITIONS OF APPROVAL:

(see attached estimated fees)

(Sean Smith, Engineering Representative - 324-2363)
(Paul Armendariz, Public Utilities Representative – 324-2649)

Maps and Plans

1. 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.
2. 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. 18-61 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.
3. 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).
4. 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 (1) digital copy to the City in PDF format.

General Provisions

5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.
11. The applicant shall provide and pay for all geotechnical services per City policy.
12. 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.

13. All existing overhead and new utility facilities located on-site or within the street right-of-way along the streets adjacent to this tract shall be undergrounded unless otherwise approved by the City Engineer.
14. 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.
15. The applicant shall contact and address Caltrans requirements. The applicant will be required to mitigate impacts to State Highway facilities as determined by the City Engineer.

Dedications and Street Improvements

16. 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. Shepherd Avenue – Along frontage, dedicate to provide right-of-way acquisition for 73' (exist varies) south of centerline, and improve with curb, gutter, sidewalk, street lights, fiber optic conduit, median island, median island landscaping and irrigation, 46' (30'+16') permanent paving, overlay as necessary to match the existing permanent pavement, 3' paved swale, and transitional paving as needed.
 - b. Riordan Avenue – Along frontage, dedicate to provide right-of-way acquisition for 30' (exist 20') north centerline, and improve with curb, gutter, sidewalk, permanent paving and overlay as necessary to match the existing permanent pavement, and transitional paving as needed.
 - c. Russell Avenue – Along frontage, dedicate to provide right-of-way acquisition for 27' (exist 14') west of centerline, and improve with curb, gutter, sidewalk, permanent paving and overlay as necessary to match the existing permanent pavement, and transitional paving as needed.
 - d. Preuss Avenue – The applicant shall provide for the abandonment of the Preuss Avenue right-of-way from Shepherd Avenue to Riordan Avenue.
 - e. Clovis Avenue – The applicant shall contribute their proportional share of the construction costs for the installation of a median “worm” at Riordan Avenue, which will be constructed at a later date at the determination of the City Engineer.

- f. Interior Streets – Dedicate to provide for 50' or 54' right-of-way in conformance with the City policy of 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.
 - g. The applicant shall relinquish all access to Shepherd Avenue.
17. 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.
 18. For new ADA paths of travel that connect to existing City sidewalk, the applicant shall replace enough sidewalk to provide a compliant landing with appropriate transitions to existing sidewalk grades.
 19. The applicant shall not install any fences, temporary or permanent in public right-of-way.
 20. The sideyard side of all corner lots shall have full width sidewalk except where planter strips or meandering sidewalk is proposed.
 21. 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.

Sewer

22. The applicant shall identify and abandon all septic systems to City standards.
23. 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 the pending sewer study, 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 will require approval of the City Engineer and shall be supported by appropriate calculations.
 - a. Interior Streets – install 8" mains.
24. The applicant shall install one (1) 4" sewer service house branch to each lot within the tentative tract.
25. 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.

26. The applicant shall abandon the following sewer main stubs at the adjacent sewer manhole with brick and mortar, as approved by the City Engineer:
 - a. Intersection of North Russell Avenue and Everglade Avenue
 - b. Intersection of Riordan Avenue and the North Pruess Avenue alignment

Water

27. The applicant shall identify and abandon all water wells to City standards.
28. 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 the pending water study, 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 will require approval of the City Engineer and shall be supported by appropriate calculations.
 - a. Interior Streets – install 8" mains.
29. The applicant shall abandon the following water main stubs at main, as approved by the City Engineer:
 - c. Intersection of North Russell Avenue and Everglade Avenue
 - d. Intersection of Riordan Avenue and the North Pruess Avenue alignment
30. 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.
31. 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.
32. 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.

Grading and Drainage

33. 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.

34. 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

35. 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 landscape strips along Shepherd Avenue, and the median island in Shepherd Avenue.
36. All park and landscape improvements shall be installed, accepted for maintenance by the City prior to issuance of 40% of the Tract's building permits. If the park improvements are not constructed on the Outlot for any reason within two (2) years of the recordation of the final map of Tract, City shall have the right to request from surety and receive upon City's demand, sufficient funding to complete the construction of improvements for the park. The two year period may be extended at City's sole option and discretion and upon such conditions as City shall determine.
37. 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 will 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 \$183.00, 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, roundabouts, 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.

38. The applicant shall comply with the City of Clovis Water Efficient Landscape Requirements Ordinance.
39. 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.
40. 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.
41. 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.

42. 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

43. The applicant shall install street lights along the major streets 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 shall be maintained by an additional landscape maintenance assessment.
44. 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.

- 45. A deferment, modification, or waiver of any engineering conditions will require the express written approval of the City Engineer.
- 46. The conditions given herein are for the entire development. Additional requirements for individual phases may be necessary pending review by the City Engineer.

Subject: FW: Neighborhood Meeting for Tentative Tract Map No. 6263

From: Todd Yingling [mailto:taskying@att.net]
Sent: Friday, May 24, 2019 10:43 AM
To: Orlando Ramirez <OrlandoR@ci.clovis.ca.us>
Subject: Neighborhood Meeting for Tentative Tract Map No. 6263

Dear Mr. Ramirez,

Thank you for taking the time May 6, 2019 to listen to the concerns that our neighborhood has regarding the tentative tract map no. 6263. We were very disappointed to hear that this plan may include high density housing on a plot of land that was not designated for that purpose. Many concerns were voiced that night such as the impacted school (Woods Elementary), increased traffic, water issues (low pressure flow that already exists) that will further strain the area. We are in hopes that the City of Clovis will actually listen to these very important concerns as the evaluate this land for high density houses.

In regards to the plan that was submitted there were many concerns voiced regarding access points, the frontage road, and the grade differences on Pruess Avenue, and the lack of any green belt or park. The neighbors have spoken together regarding which concerns they have, and suggestions that may help this project fit with "The Clovis Way of Life" and our existing neighborhood. The suggestions were as follows:

No frontage road on Shepherd, keep the pattern of the wide sidewalk, and landscape consistent all the way down Shepherd.

No access into the existing neighborhood from Shepherd, we have never had access, and do not want it. The increase in traffic is something we would like to discourage so that our neighborhood stays as it currently is.

Along Russell Avenue they would like a block fence so that parking along Russell is discouraged, no sidewalk would be necessary on that side of the street, and just some simple landscape to soften the wall.

On Riordan Avenue they suggested keeping the landscape consistent with what already exists, and some type of circular planter with a tree and shrubs on Riordan at the entrance to the project so that traffic is forced to slow up the speeds that are already excessive (there is little traffic now so this has not been a concern).

On Pruess Avenue instead of backing the houses up to the existing development a Pedestrian/Bike pathway has been suggested that goes from Shepherd to Riordan, this could allow a wood fence for those homes not a block wall, and a circular type entrance on Prescott or another form of landscape to slow traffic into the new development. This would also solve the issue of the grade difference that is a very real concern to the existing homeowners. Pruess is a main walking area for the neighborhood and a great access to the sidewalks on Shepherd, we are in hopes that you would consider this option, it would also help kids that are accessing the school walking and riding bikes.

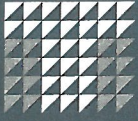
Everyone is very concerned that there is no small community park for young children within the neighborhood being proposed, this has been a wonderful asset in existing Clovis neighborhoods! The trailhead should remain

as it is, this is what it was intended for, a park there is a terrible idea for young children
canals, and traffic.

AGENDA ITEM NO.10.

Once again we thank you for allowing us to voice our concerns, we are in hopes you will consider some of the input the neighbors have had, it is a wonderful neighborhood and we would love to keep it that way. We look forward to hearing what the planning dept. decides to do with helping us continue to make Clovis a wonderful city. Please do not hesitate to call if you have any questions, or considerations/input that we could possibly help with.

Sincerely,
Todd and Suzanne Yingling
559-297-4242 Home



October 15, 2019

Mr. Dirk Poeschel, AICP
Land Development Services, Inc.
923 Van Ness Ave., Ste. 200
Fresno, CA 93721

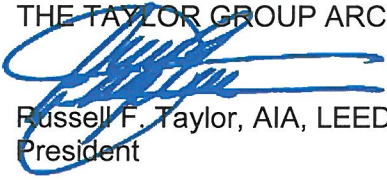
**Re: *The Well Community Church Acquisition of 52.86± Acres NWC
Minnewawa and Nees Avenues, Clovis, California***

Dear Dirk:

Per your request, my firm represents The Well Community Church who owns the subject 52.86± acre property identified above. The Well Community Church has sought a parcel with the subject site's characteristics for some time and will develop the property in phases. The first phase on this property represents approximately 18 acres of development and will be a church campus and does not include any residential development.

Should you have further questions, please do not hesitate to contact me.

Sincerely,
THE TAYLOR GROUP ARCHITECTS


Russell F. Taylor, AIA, LEED AP, CASp
President

cc: Pastor Brad Bell
Mr. Jeremy Vanderlinden

October 13, 2019

Members of the Planning Commission for the City of Clovis:

My name is Gary Oliver and I reside at 1810 N. Duke Ave having moved there as an original owner of the home in February of 2006 located in the Wilson Rivage Development. I am writing to you attempting to keep a completely open mind in regards to the proposed development of the 20+ acres that will be a topic for discussion in your proposed meeting on October 24, 2019. My hope is that you will approach this letter in the same spirit of open mindedness as to how this proposed development can best be incorporated into the existing communities that surround it. With a bit of historical perspective, I am a long term Clovis resident and my father was James E. Oliver. That may not resonate with many of you, but my father was one of five individuals who actually created the Clovis Unified School District and also served as its first board president. It was a tremendous accomplishment that has served this community well. They meticulously thought not just how the current districts would be impacted but attempted as much as possible to anticipate the future growth of this community. I am certain that some mistakes were made but even as a child I still remember many of those meetings taking place in my parent's home and I know they would be amazed at what their endeavors led to in creating one of the premier school districts in the state. The task before you as members of the planning commission is just as daunting but I want you to realize that I understand this. In the mid 80's I went with my parents along with the Riordan family (who have been long term friends for life) and attended the numerous meetings regarding the Herndon-Shepherd Specific Plan as both our families owned properties that would be impacted by the decisions made in that proposal. While I am not certain that any of you attended those meetings, the commission was encouraging community input towards the development of properties existing in the Shepherd to Herndon sphere of influence. As you know it was concluded through that commission that the R1 zoning was deemed the most appropriate utilization for the property in question and with that the estimated home per acre ranging in the 2.1 to 4.0 level. When I and numerous others in our community chose to purchase their homes in what is known as Kings Crossing or Rivage again built by Wilson Development, it was with the understanding that these zones would remain in place. I actually specifically talked with individuals in planning and engineering before purchasing in 2006 as did others in the community and made their decision to purchase based upon the City of Clovis and the planning commission keeping its commitment to the Herndon-Shepherd Specific Plan. You, as the planning commission are now faced with the possibility of going back on that commitment to the community by changing the zoning from approximately 2.1 to 4.0 homes per acre to an increased amount of 4.1 to 7.0 homes per acre with Lennar Inc. proposing an amendment to the R-1 Zoning. In rough measures that would be an increase from the originally proposed 86 homes in my estimation to a proposal if this zoning change occurs to roughly 137 homes which is over a 50% increase. This is well outside the HS plan and what was promised to us when we purchased our homes. While we realize sometimes things are forced to change due to changes that have occurred by state or other authorities that could compel revisions to current zoning ordinances this does not appear to be the case on this particular property. I also realize that the City of Clovis endeavors to make certain that new housing development provide for all sizes and valuations to create a diverse community and also add to the diversity of those attending our schools. However, if you look at our entire

community in this area between Kings Crossing, Rivage and the Centex development you already have quite a dichotomy of homes of differing lot sizes, valuations and also of its current residents that form this wonderful community. In fact the Centex development as well as Kings Crossing are zoned R-2 and thus are very densely populated. If you look at the entire land extending from Clovis and Shepherd Ave inward to the canal and running trail only the Rivage development is still under the original R-1 zoning. This proposed amendment of developing another 137 homes within this 21 acre area in question is totally beyond what was originally proposed. With an open mind I went to the first meeting with Lennar which was at Woods Elementary on the corner of Teague and Clovis. While the original design suggested by Lennar was close to 140 homes which the community was already concerned about, Lennar's first design at least (though it was against the HS proposal) permitted entrance and exit out of the development on Shepherd Ave. This same exit and entrance is available at other locations between Fowler and Locan as well as the other direction between Minnewawa and Willow so we were hoping that if this development did take place at least there would be this opening for this development as well despite Shepherd being called an expressway (which let's be honest.....they may have intended it but it is not). We presented our concerns in regard to schools, traffic, fear of the homes quickly being turned into rental properties and especially our concerns that these new homes despite the Shepherd access would create a real hardship for the current community as most of them would still have to either exit through the Centex Development or flood on to Riordan Ave in order to get out of the area as their original drawings indicated. They said they would take our suggestions and get back to us. This resulted in our final meeting with them at Buchanan HS. This design eliminated a few homes, added a SMALL green area equipped with a barbecue or two (how is that going to be of any benefit to a development with over 130 homes in it) and did address some other concerns but that major concern of exiting out the community was now made even worse. They now removed the Shepherd entrance and exit so that the only means of getting out of the development was again through the Centex development or everyone now pouring onto Riordan Ave. While this particular problem does not necessarily impact Kings Crossing as they have another direct exit point to Clovis Ave to the west, it severely impacts all of us in the other two communities. The individuals such as myself in Rivage have no other means of exiting on to Clovis Ave other than Riordan Ave. The Centex owners now will see more increased traffic pouring through their development as the owners of these 130+ homes exit. Having failed to address the traffic problem and making it worse they also did not bother as we indicated in the first meeting to talk to any of the local school leadership. A group from our community recently went to see the principal at Woods Elementary to discuss the impact on his school. He was not that concerned at first as he thought the proposed project was the one occurring to the North of Shepherd also built by Lennar Homes. Once we showed him where this proposed development is located he was bewildered why no one had spoken to him about the project either from Lennar or any representatives from the City of Clovis. He indicated his school was already severely overcrowded and already had in place two portables but had no other space available to locate others without sacrificing soccer fields etc. which are widely used by the community. In addition he told us that the classroom size per students was already in excess of 30+ students per teacher. It seemed odd that in even considering Lennar's proposal that no one ever talked to the main school in the area, especially since this housing project is principally designed with smaller lots thus creating a lower purchase price that would be designed especially for first time home owners with small children (and again we already have those types of homes in the community already). My assumption is that Lennar and the planning commission simply go to the CUSD office and get most of their data from them rather than talking directly to the source which is the schools that will be impacted which are already overcrowded. Our community went out of its way

to explain to Lennar again during the last meeting about our own endeavors of talking to the local schools, the traffic concerns etc. and honestly it was pretty much like talking to a wall. They honestly said that they were here as a means of courtesy and it was quite obvious that the individual who was speaking at that meeting for Lennar knew nothing about the prior meeting and new absolutely nothing about the existing community. It was merely an illusion of a meeting and we were pretty much told well guess we will see you on the 24th of October.

For brevity I am limiting those concerns to just traffic and overcrowding in the schools but trust me much more was brought up by the community in these two meetings. However this is the status of the issue which you will be facing on the 24th of this month and my crystal ball anticipates that even if you were to decide against the current proposal that we will at some point end up going before the City Council. That is not to sound negative.....just realistic. Lennar is a home developer out there to make a profit and that actually is understandable. What they are not is a developer of communities. That is in my view what the current owners of the homes in Centex, Kings Crossing and Rivage create by getting to know their neighbors and assisting each other for the common good. We look to you representatives of the planning commission to WORK WITH US in that endeavor to continue to make this area a strong, friendly and vibrant community.

You may not concur with my following statement but I honestly believe that the planning commission as well as the City Council have to take some responsibility for the problems we are currently facing with this 20+ acres. Mainly it is by not always abiding to the HS Specific Plan. You permitted Wilson to develop Rivage and Kings Crossing keeping Wilson to the R1 zoning only with regard to the Rivage development which was within the HS original proposal. However in allowing this development both the Planning Commission and the City Council played a big part in leaving all we homeowners located in Rivage in a land locked position with no other exit other than through Riordan Ave as by the HS plan Shepherd access was not permitted That was the beginning of the problem. I believe that you went counter to the HS Specific Plan when you permitted Centex to develop by changing the zoning from R1. Since they had direct access to Clovis Ave it did not really create a major traffic problem exiting for the rest of the community but it did put added pressure on the nearby schools. The new development is an HOA though and blended well with the rest of the community. However, you opened the door now for other developers to request a rezoning or in this case what you refer to as an AMENDMENT to the R-1 zoning which is exactly what is happening with Lennar today. Please do not make the same mistake. While that has worked thus far if you allow Lennar's most recent proposal to go through with no further conversations and adjustments you are just adding to the problems of traffic and school overcrowding in this community.

Thank you for hearing me out and I hope that you will concur that there are a great many issues that deserve a full hearing before any decision is reached. We realize and anticipate that this 20+ acres will be developed at some point. I believe Gary MacDonald homes tried previously to develop the property but failed in its attempt. I am not opposed to development of the property. However, the current proposal by Lennar which truly is their design with really no input from the existing community because they honestly had no intention of listening to any of our concerns is truly a case where a big housing developer

is trying to entice you into putting a huge square peg into a round hole.....it just does not fit. In all honesty I really feel that if Lennar was not already building across the street to the north of Shepherd Ave they would probably not even have been interested in developing this 21+ acres. The only reason they are interested now is because all of their equipment etc. is already on site across the street which makes the development of this property financially more feasible. That is an insufficient rationale for the planning commission to approve this amendment request, simply because it fits into their plans across the street and thus could be a more profitable venture. It is definitely insufficient to grant their request when so many residents in this community have poured their life savings into their homes, did the proper discovery of the zoning ordinance in effect at the time of purchase etc. to now have their lives disrupted by changing the provisions of the HS plan at the last minute. Please request that they go back to the drawing board, truly listen to the community around the designated area and I am certain collectively that we can come up with a project that they will be proud to build at a profit and that will be a true fit for the entire community as a whole. I think that is a reasonable request. Clovis always speaks about itself as being a "...way of life"....one that is community based and that makes it exceptional in comparison to many other locations in California. I trust with all my heart that this commission will remember that in the decision that they make concerning this development. In this world many things are readily up for sale.....I hope that the Clovis Way of Life will not be one of them.

Gary Oliver

1810 N Duke Ave

Clovis, Ca 93619

gospence@sbcglobal.net

Impact of student population at Woods Elementary School:

Average children per household: 1.95 US census 2000.

<https://www.census.gov/population/socdemo/hh-fam/tabST-F1-2000.pdf>

1.91-2 per insider.com

<https://www.insider.com/the-average-number-of-kids-per-family-in-every-state-2019-2>

Added this many homes would add potentially 274 children to the school, causing crowded classrooms, less playground space and major traffic issues around the school.

Traffic:

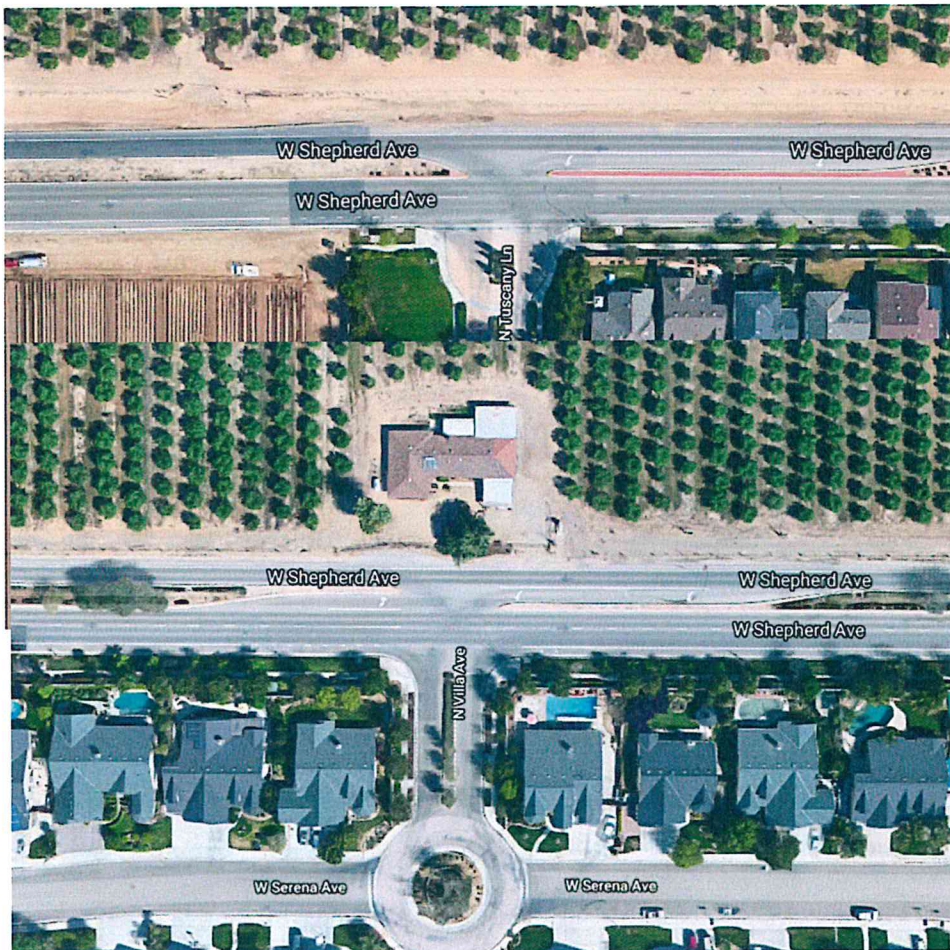
Another concern is the traffic which is going to only have 2 exits to N Clovis Av: Prescott Ln and Riordan Av. A reason given by Lennar was the City of Clovis cancelled the exit onto E Shepherd Av. There are 5 streets between N Willow Av and N Clovis Av which exit onto Shepherd Av. So there is already a precedent for traffic exiting from or onto Shepherd. (See below captured screen shots from Google maps.)

Crime:

Having these small residential lots outside a gated community only has the potential to add property crime to the area. There is little room to park vehicles, so they will be left parked on the streets and more than likely on Prescott or Riordan. Higher density population generally leads to more crime (apartment complex versus R-1 zoned neighborhood).

Green Space:

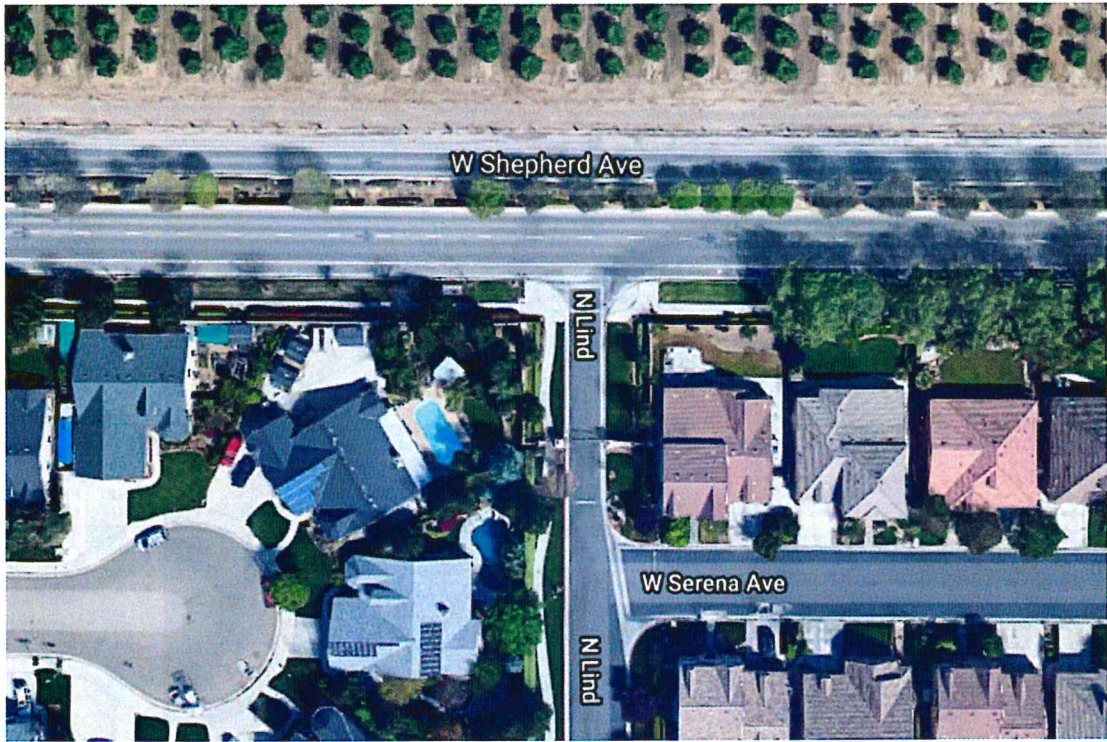
Lennar has a small green space, basically for dogs to go to the bathroom. They need a green space like those located in my gated community and at Lennar Park (Powers Av and N Dewitt Av).



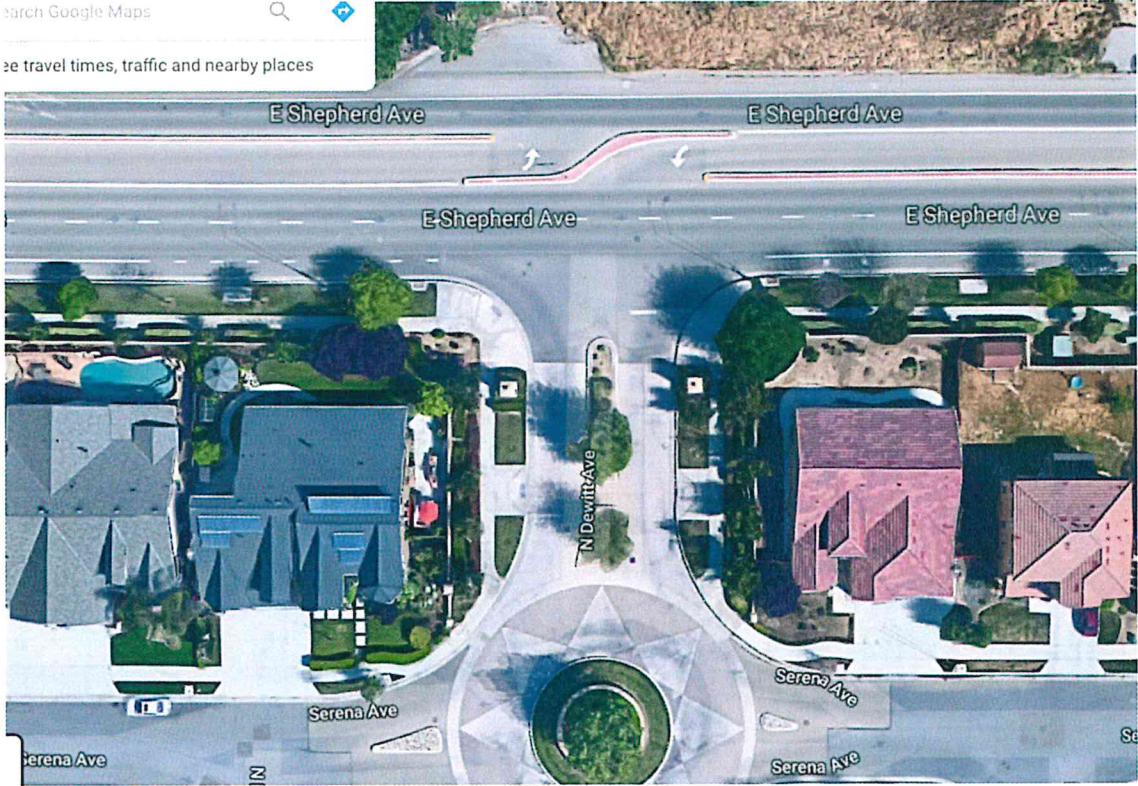
N VILLA & W SHEPHERD



SYLMAR AV & W SHEPHERD



N LIND & W SHEPHERD



N DEWITT & E SHEPHERD

From: snteevveetns@hotmail.com
Sent: Monday, November 11, 2019 10:28 AM
To: Ricky Caperton
Subject: Lennar tentative subdivision map t-6263

Good day Ricky,

I brought up my concern about the lack of green space proposed by Lennar at the planning commission meeting on 10-24-19. Does the City of Clovis have a ratio of homes per park? Also, it is noted on the signed entering the area at Sunnyside and Shepherd it is "Dry Creek Trailhead," not a park.

Did Lennar give a road survey/traffic impact survey for the increase of traffic on Prescott between Clovis Av and the new development? They said the numbers for Riorden and the intersections of Clovis/Shepherd and Clovis/Sunnyside, but I do not recall anything for Prescott.

Thank you in advance,
Steven Jacobson
812 Beauregard Ln

From: Robert Grote <robbieriver@gmail.com>
Sent: Friday, November 8, 2019 9:50 AM
To: jeff.callaway@lennar.com
Cc: Ricky Caperton
Subject: Lennar Homes Tract 6263 November 7th Meeting

Jeff, I would like to thank you for hosting the meeting held at Terry Broussard's Office on November 7th, 2019. I believe it truly showed willingness on the part of all attendees of which included you, Bill Walls and the many representatives from Lennar Homes, The City of Clovis's Ricky Caperton and Mr. Broussard. Further I would like to thank you for the invitation extended to Jerry Galvin, Gary Oliver and myself for our input as concerned neighbors from all three sides of the proposed development known as Tract 6263.

As was made aware in the meeting the primary concern remaining for the approximately 60 properties to the East of the project and the Approximately 76 homes to the South of the project was traffic and the removal from the proposed map of the exit/entrance to this new community from Sheppard Ave. As explained, to alleviate some traffic from Riorden Ave. and Prescott Ave. that the project should include an exit/entrance off of Sheppard Ave. as was in the original plan. I believe those two communities, stated above, were happy with the concessions that Lennar made to add a park, and add beautiful landscaping and block walls to the perimeter of Russell Ave. and Riordan Ave. these items provided an excellent buffer for their neighborhoods adjacent to this new tract. A buffer that included 110' deep lots on the Russell side of the project.

What was also discussed was how to improve the interface with the 133 homes that make up Lafayette Square to the West of tract 6263, by far the community with the most Clovis Tax base, based on my estimation, over the other two communities. What I brought up was there were no consideration given to this community, the community in which I live. After discussing many items the meeting focused on the three primary items that were requested in addition to the traffic concerns that impact Prescott Ave. and they were as follows:

1. Providing a Block Wall in replacement of the wood fence proposed by Lennar on the property line that meets the homes in Lafayette Square. A block wall will increase the continuity of the project and provide similar buffer as the other two neighborhoods were provided. The block wall can be erected in a "sandwich" fashion against the existing wood fence providing the homeowners of Lafayette Square "at their own expense" on that border to remove their existing wood fence to expose the block wall. What I am proposing provides a block wall as a buffer on what was agreed at the meeting provided a more equitable situation to all three communities.
2. Increase the lot depth of the 21 lots that border Lafayette Square by no less than 10'. The 10' increase will make the proposed 80' deep lots 90', pushing the homes 10' further East away from the existing homes and increasing the buffer to Lafayette Square homes in what was agreed by everyone to be a more equitable situation as compared to the other two communities that border the property.
3. Limit the 21 home sites that border Lafayette Square to only "Single Story Homes", further providing an increased buffer to Lafayette Square as agreed in the meeting to be a more equitable situation as compared to the other two communities.

In addition a question was addressed by Lennar as to the grade of the new tract compared to the homes at Lafayette Square. It was stated by Lennar that the grade in comparison would vary from equal to, down to 12" below starting from the north side moving South. I thank you for finding the answer to that question.

The feeling I received in the room was that these items created a fairness for all three neighboring communities in a truly objective way.

I sincerely appreciate all the time provided on this matter and look forward to these changes,

Home Owner - Lafayette Square
Robert J. Grote

PLANNING COMMISSION MINUTES

October 24, 2019

ATTACHMENT 10

CLOVIS PLANNING COMMISSION MINUTES
October 24, 2019

A regular meeting of the Clovis Planning Commission was called to order at 6:00 p.m. by Chair Hatcher in the Clovis Council Chamber.

Flag salute led by Chair Hatcher

Present: Commissioners Antuna, Bedsted, Cunningham, Hinkle, Chair Hatcher

Absent: None

Staff: David Merchen, City Planner
Orlando Ramirez, Deputy City Planner
Ricky Caperton, Senior Planner
Lily Cha, Assistant Planner
Sean Smith, Supervising Civil Engineer
Claudia Cazares, Management Analyst
Eric Aller, Parks Manager

MINUTES

1. The Commission approved the September 26, 2019, minutes by a vote of 5-0.

COMMISSION SECRETARY

Deputy City Planner Orlando Ramirez informed that the Landmark Commons Fresno County Library project needs to be scheduled for Planning Commission but cannot accommodate the December 21st meeting date. He inquired as to whether the Commission would consent to an additional, special meeting on December 5th and, on receiving assent, stated that this would become an action item during the November 21st meeting.

PLANNING COMMISSION MEMBERS COMMENTS

Commissioner Antuna reported, at the applicant's request, that on Monday, October 21st, she and Commissioner Bedsted met with Valley Coastal Development. However, no discussion regarding a decision on the project (Item X-3) had taken place with either the applicant or with Commissioner Bedsted.

Commissioner Cunningham reported that he had attended the Clovis Citizens Academy, expressed gratitude to Chad McCallum for allowing him to attend, as had Chair Hatcher and Commissioner Antuna previously. He expressed that it was very informative and time well-spent, encouraging the other commissioners to attend at the next opportunity.

COMMUNICATIONS AND REFERRALS

Items of correspondence related to Agenda Item X-3.

BUSINESS FROM THE FLOOR

None.

CONSENT CALENDAR

None.

PUBLIC HEARINGS

2. Consider items associated with approximately 21.52 acres of property located along the south side of Shepherd Avenue between Clovis and Sunnyside Avenues. John and Kristen Sobaje, owners; Lennar Homes of California, Inc., applicant; Yamabe & Horn Engineering, Inc., representative.
 - a. Consider Approval, Res. 19-40, A request to adopt an environmental finding of a Mitigated Negative Declaration for General Plan Amendment GPA2019-001, R2019-003, and Vesting Tentative Tract Map TM6263.
 - b. Consider Approval, Res. 19-41, **GPA2019-001**, A request to amend the General Plan and Herndon-Shepherd Specific Plan to re-designate from the Low Density Residential (2.1 to 4.0 DU/Ac) to the Medium Density Residential (4.1 to 7.0 DU/Ac) classification.
 - c. Consider Approval, Res. 19-42, **R2019-003**, A request to approve a rezone from the R-1-7500 (Single Family Residential – 7,500 Sq. Ft.) to the R-1-PRD (Single Family Planned Residential) Zone District.
 - d. Consider Approval, Res. 19-43, **TM6263**, A request to approve a vesting tentative tract map for a 137-lot Planned Residential Development.

Senior Planner Ricky Caperton presented the staff report.

Commissioner Antuna requested elaboration on the concerns and requests for a gated community. Senior Planner Caperton provided details.

Chair Hatcher followed up with an inquiry as to the presence of a police department condition requesting that the project be gated. Senior Planner Caperton responded that he had sent a supplement on Monday revising that condition, as it was mistakenly included and was intended for a different project.

Commissioner Hinkle sought and received confirmation, for the record, regarding which tract map is up for consideration tonight, as there appeared to be two, with one from the traffic control company and one from Planning staff.

Commissioner Hinkle inquired as to whether this project is already in the Community Facilities District. Senior Planner Caperton responded in the positive, providing an explanation.

Commissioner Hinkle sought and received confirmation that none of the existing homes currently on the properties are historic dwellings.

Commissioner Hinkle inquired regarding the movement of Pruess Avenue. Senior Planner Caperton provided an explanation.

At this point, the Chair opened the floor to the applicant.

Dirk Poeschel of 923 Van Ness Avenue, Fresno, on behalf of Lennar Homes, provided background on the applicant and the project.

Commissioner Hinkle inquired as to whether there would be charging stations for vehicles in all of the proposed home. He believes that there will be state requirements for such by the time this project is ready for construction. Mr. Poeschel responded that he believes that there will be such stations as there will be sockets in all garages. He also stated that car manufacturers are working on the technology, which means that it may have significantly changed by the time state legislation comes about.

Commissioner Hinkle sought and received confirmation that the driveways will be eighteen feet or more in length.

Commissioner Cunningham inquired as to the general price point for these homes. Mr. Poeschel responded that the houses will cost a minimum of \$200 per square foot, with the homes averaging 2,040 square feet in size. This will create expensive houses that many people in the Chamber will not be able afford.

Commissioner Cunningham explained that this is a concern to him, due to the current status of the northeast corner of this site as part of the City's Regional Housing Needs Allocation and to the recent filing of litigation. In addition, this is the first of two projects before the Planning Commission this evening that will ask to overlook this requirement. Even though there is currently a surplus of home sites, this surplus is finite. Therefore, he requested an explanation of the thought process behind removing that property from the RHNA allotment. Mr. Poeschel provided a detailed explanation.

Commissioner Cunningham followed up by expressing concern regarding the request to amend the General Plan, as such exists specifically to plan for expansion, and this is the first of two such requests before the Commission for this meeting. Mr. Poeschel responded with a brief explanation.

At this point, the Chair opened the floor to those in favor.

Steven Jacobsen of 812 Beauregard Land expressed concern regarding green space for this area, stating that the park proposed for this project appears too small to be anything more than essentially a dog park, especially in comparison to the HOA-maintained parks in his subdivision. The Lennar project park west of Clovis Avenue is significantly larger than this proposal. He also expressed concern regarding the impact on Clovis Unified schools as well as the difference between the applicant's numbers and those he found from census data. Another concern of his is traffic impacts and a potential increase in crime.

Chair Hatcher confirmed that Mr. Jacobsen was intending to speak in opposition rather than in favor, then requested others wait until the floor is opened for opposition.

There being none, the Chair opened the floor to those in opposition.

Steve Fitzgerald of 1123 Lester Avenue stated his opposition on the basis that the proposal for the project's green space is different than what had been promised previously, not meeting the General Plan, and the fact that the project concerned Clovis Unified School District. He objected to an increase in density and called for parks to be developed instead. He concluded with his belief that a gated community would make this a better project.

Joseph Smith of 1208 Everglade Avenue first provided the disclaimer that he had worked for Commissioner Cunningham in the Sheriff's office two decades ago. He objected to the density, stating while he understands the pressure State of California housing policy is exerting on the City of Clovis to increase housing density, but he moved to this area with the understanding that development of the subject site would be low density. As a member of law enforcement, he states that gating communities reduces crime, though he understands why Lennar would be reluctant to do so. After one of the neighborhood meetings with Lennar, he and a neighbor distributed flyers throughout the surrounding neighborhoods and was disheartened to hear that many people believed it would have no effect as the Planning Commission would side with the developer because of the financial impact to the City. Finally, he is concerned about how many students will actually be added to Woods Elementary School versus the number put forward by the applicant.

Gerry Galvin of 1097 Loyola Avenue expressed concern with the proposed density and the traffic problems it will create. As a law enforcement officer, he believes that more children walking on Clovis Avenue will be a problem as will the proposed circulation. He stated that the area has a low crime rate, which will be changed if the new community is not gated. He questioned Senior Planner Caperton regarding the average lot and home sizes of this project versus the Lennar project north of Clovis Avenue (TM6200) until Chair Hatcher intervened. Mr. Galvin concluded with an expressed wish to have larger lot sizes such as those in the other project, or at least more negotiation with Lennar.

Gary Oliver of 1810 N. Duke Avenue had been involved in the Herndon-Shepherd Specific Plan committee and had moved to this area based on the zoning outlined in the Plan. He expressed appreciation for Senior Planner Caperton's helpfulness in providing information, then objected

to the project based on lot size compared to the project on the north side of Shepherd Avenue (TM6200) and traffic concerns.

Commissioner Hinkle inquired as to whether Mr. Oliver would object to a project containing forty units per acre and standing forty feet high. Mr. Oliver responded that he likely would object as such is not likely consistent with the Herndon-Shepherd Specific Plan.

Tim Riordan of 1134 Riordan Avenue stated that the Herndon-Shepherd Specific Plan was created to guide the growth of the area, with previous project approvals making it possible for Lennar to put forward a proposal that needs more discussion due to how much it goes against the principles of the Plan. He urged the Planning Commission to stay committed to the Specific Plan and not breach the trust of the neighborhood community.

Kim Bigelow of 1850 N. Dupree Lane spoke against the project as she has not heard anything to assure her that the proposed houses will be in compliance with California Department of Forestry and Fire Department requirements regarding water storage and availability, or with the new Title 24 building codes taking effect in January regarding energy efficiency. She suggested possibly making the houses smaller than those proposed but make them more energy neutral.

Rich Nino of 1122 Lester Avenue expressed gratitude to the Planning Commission for taking the time to listen to the neighborhood, confusion over Mr. Poeschel's estimate for how many students this project will add to the school system, and his belief that precedent has already been set for either larger lots or gates (both of which he finds preferable to the current proposal) with the already existing developments in the area.

Chris Hansen of 1143 Lester Avenue expressed agreement with his neighbors' statements and informed that each time a project rezoning to the R-2 Zone District has been approved for this area previously, it created a gated community. He requested that this precedent be followed.

George Goddard of 1890 N. Duke Avenue expressed his admiration for Clovis then his belief that the heart of the neighborhood concerns is density. He stated that the small lot size will eventually lead to the project becoming a rental community, as happened with the Centex development, which will then lead to problems for the surrounding neighborhoods. He believes that gating the proposed community will resolve many of the neighbors' concerns such as traffic circulation.

Mike Elrod of 1299 Everglade Avenue explained that in the process of running along Shepherd Avenue, he has noticed that after Minnewawa Avenue communities have entries on Shepherd Avenue and is confused as to why this one cannot do the same. He expressed concern regarding traffic, child safety, and the impact to the local elementary school (and possible repercussions of such to the area families). He requested opportunity to continue conversation with Lennar in regards to several issues that have been previously mentioned.

At this point, the Chair reopened the floor to the applicant.

Mr. Poeschel addressed the various issues brought up by the speakers.

At this point, the Chair closed the public portion.

Commissioner Cunningham inquired as to the applicant's willingness to work with the neighborhood and the extent of such willingness. Mr. Poeschel assured that they are absolutely willing to do so, then elaborated on the extent of that willingness.

Commissioner Bedsted remarked that the neighborhood appears willing to concede on the proposed density if the project is gated and expressed his concern regarding the project density's impact on schools in the area. Mr. Poeschel reminded about the removal of a potential multifamily project from density calculations for the school district.

Commissioner Bedsted followed up with a statement that the Planning Commission desires accommodations between the public and developers, particularly with infill projects, then inquired as to the applicant's willingness to take this project back to the neighborhood in an attempt to reach further accommodations. Mr. Poeschel responded in the positive, with the caveat that discussions must be productive.

John Binaski, City of Clovis Fire Chief, provided a detailed explanation regarding Fire Department requirements for access points and water services in regards to gating the community and water capacity for the houses. He also informed that density issues in terms of call volume and crime had been considered extensively by staff in 2018.

Commissioner Hinkle assured that, though the Trailhead Park is different from Centennial Park, it is still a park. He informed that the state government is promoting higher density housing, such as that found in San Francisco, in particular on infill lots such as this one, and that if the project is held off for five or six months, then the developer could potentially come back with a high density proposal. The legislation would not only prohibit neighborhood concerns from affecting outcome, it would also prohibit the Planning Commission from reviewing the project at all by making it by-right. He expressed concern that some people hold the opinion that the Planning Commission will simply go along with whatever developers want, as they have previously stopped projects or made the developers change them. The Commission is under pressure to comply with state legislation while also trying to balance it with maintaining Clovis values.

Commissioner Cunningham endorsed Commissioner Hinkle's comments, expressed gratitude to the audience for participating, and informed that the commissioners are essentially ordinary citizen volunteers. He informed that the Regional Housing Needs Allocation is part of the housing legislation mentioned by Commissioner Hinkle, requiring higher density, multistory apartments and condominiums that are by-right, and therefore unstoppable by either the Planning Commission or the City Council. Such issues are why the Commission encourages developers and citizens to work together on accommodations, but that both sides must have respect for each other and be willing to compromise. He also expressed personal reservations regarding general plan amendments that will nevertheless not prevent him from voting for this project.

A member of the audience called out an inquiry as to what recourse the City has against such state legislation. Chair Hatcher recommended speaking to Senior Planner Caperton for such information at a later time, reminding that the public portion of the project presentation is closed. Commissioner Cunningham informed that another venue would be to attend a City Council and present the question during the time devoted to allow items not on the agenda to be brought forward.

Commissioner Antuna requested elaboration regarding why access is not being allowed on Shepherd Avenue. Supervising Civil Engineer Sean Smith provided an explanation.

Commissioner Antuna expressed gratitude to the audience for participating in this process and the Commission's desire to hear their opinions. She concurred with Commissioner Cunningham regarding the potential fate of the site portion designated for higher density and expressed her opinion that the developer choosing not to take that route is beneficial. She expressed that general plan amendments do not happen often, and that they are a mechanism to make accommodations, even in specific plan areas, for the way growth actually occurs in the decades following the creation of specific plans or designations by general plans. Commissioner Antuna noted that the Fire Chief explained the reasoning behind not gating the project, and Lennar proposed a good product, and therefore she is in support of this project.

Commissioner Bedsted echoed his fellow commissioners' statements then admitted to struggling with the uncertainty regarding the ability of further discussions between the developer and the community to solve all issues brought up by the speakers. In particular, the concern regarding the impact of growth and development on the school system is something that will not change in the near future and needs to be planned for by Clovis Unified School District. Though he would like to see if further concessions can be made in this project, he stated that nothing will get done if people are not prepared to compromise. He concluded by requesting the audience consider the risk of by-right multifamily development going forward.

Commissioner Hinkle expressed gratitude for the public coming out and exercising their right to speak their opinion, then reminded that there will be another chance to be heard by the City Council, regardless of the Planning Commission's decision. He remarked that there have been changes in how projects are presented within the last year and that a beneficial feature of this proposal is the prevalence of sidewalks. Presence or lack of sidewalks impact buyers after they have purchased a home, possibly forcing people to move later in life. He expressed his appreciation for the lack of multistory multifamily development in the northeast section of the project site, and that he is in support of what he believes is a good development.

Commissioner Antuna returned to Commissioner Bedsted's wish to potentially allow more discussion between the developer and the community before a vote by the Commission. The first issue, regarding gating the community, was addressed by the Fire Chief. The second concern raised, regarding density, was addressed in that the developer is not building at the highest density they potentially could. Finally, the school district concern is something that neither party has control over. Therefore, she is ready to vote.

Chair Hatcher inquired as to whether the project could be gated if a way was found for there to be two points of entry. Fire Chief Binaski provided details regarding the difficulty of such in this location and confirmed that the Fire Department would be fine if it is something that can be worked out and agreed on.

Chair Hatcher inquired as to whether the applicant would be willing to continue the project in order to engage in further discussions with the neighborhood or would prefer to have the Planning Commission vote to have it on the record. Senior Planner Caperton interjected with a reminder that as the project includes a general plan amendment, the applicant is required to have another neighborhood meeting before the project goes to the City Council. Commissioner Cunningham also reminded that the Commission's decision is only a recommendation to the City Council. Senior Planner Caperton also offered clarification regarding the generation rates for the school district. Mr. Poeschel stated that they would like to proceed with the vote with the caveat that they would like to meet with staff regarding circulation alternatives, including an ingress point into Shepherd Avenue, providing detail on how that would likely affect their project.

Commissioner Bedsted expressed gratitude to Senior Planner Caperton for clarifying the requirement of another neighborhood meeting and to Mr. Poeschel for his willingness to entertain the neighbors' concerns. He supports bringing it to a vote.

Chair Hatcher expressed gratitude to everyone for participating in the process, even when things got somewhat contentious, and her disturbance regarding statements from speakers that they believed the Planning Commission had already made up its decision and is 'owned' by the developers. She refuted both statements, stating that the commissioners are ordinary citizens who could in the future be replaced by one of the people in the audience. Though she personally does not prefer the proposed product, she is aware that it is what the housing market calls for. She also stated that when buying a house next to a vacant lot, no one can promise it will be zoned the same as your property, encouraging research. She does not necessarily believe that gating makes a community safer and has some concerns regarding density; however, in the Clovis Unified School District there is no guarantee that your child will go to the school nearest your property or will even stay in the same school for the duration of their education. She concluded that she does not believe access onto Shepherd Avenue is a good idea.

At this point, a motion was made by Commissioner Cunningham and seconded by Commissioner Hinkle to approve a finding of a Mitigated Negative Declaration for GPA2019-001, R2019-003, and TM6263. The motion was approved by a vote of 5-0.

At this point, a motion was made by Commissioner Cunningham and seconded by Commissioner Hinkle to approve GPA2019-001. The motion was approved by a vote of 4-1.

At this point, a motion was made by Commissioner Cunningham and seconded by Commissioner Bedsted to approve R2019-003. The motion was approved by a vote of 4-1.

At this point, a motion was made by Commissioner Cunningham and seconded by Commissioner Bedsted to approve TM6263. The motion was approved by a vote of 4-1.

INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

ATTACHMENT 11



State of California - Department of Fish and Wildlife

2018 ENVIRONMENTAL FILING FEE CASH RECEIPT

DFW 753.5a (Rev. 01/03/18) Previously DFG 753.5a

AGENDA ITEM NO. 10.

RECEIPT NUMBER: E201910000349
STATE CLEARINGHOUSE NUMBER (if applicable)

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY.

LEAD AGENCY CITY OF CLOVIS	LEAD AGENCY EMAIL	DATE 10/04/2019
COUNTY/STATE AGENCY OF FILING FRESNO COUNTY	DOCUMENT NUMBER E201910000349	

PROJECT TITLE
137 SINGLE FAMILY HOMES (LENNAR HOMES OF CALIFORNIA)

PROJECT APPLICANT NAME CITY OF CLOVIS	PROJECT APPLICANT EMAIL	PHONE NUMBER (559) 324-2347
PROJECT APPLICANT ADDRESS 1033 FIFTH STREET	CITY CLOVIS	STATE CA
		ZIP CODE 93612

PROJECT APPLICANT (Check appropriate box)

Local Public Agency School District Other Special District State Agency Private Entity

CHECK APPLICABLE FEES:

<input type="checkbox"/> Environmental Impact Report (EIR)	\$3,271.00 \$	<u>0.00</u>
<input type="checkbox"/> Mitigated/Negative Declaration (MND)(ND)	\$2,354.75 \$	<u>0.00</u>
<input checked="" type="checkbox"/> Certified Regulatory Program document (CRP)	\$1,077.00 \$	<u>0.00</u>


- Exempt from fee
 - Notice of Exemption (attach)
 - CDFW No Effect Determination (attach)
- Fee previously paid (attach previously issued cash receipt copy)

<input type="checkbox"/> Water Right Application or Petition Fee (State Water Resources Control Board only)	\$1,112.00 \$	<u>0.00</u>
<input type="checkbox"/> County documentary handling fee	\$50.00 \$	<u>0.00</u>
<input type="checkbox"/> Other	\$	<u>0.00</u>

PAYMENT METHOD:

- Cash Credit Check Other

TOTAL RECEIVED \$ 0.00

SIGNATURE X  Sonya Soy	AGENCY OF FILING PRINTED NAME AND TITLE Sonya Soy Deputy Clerk
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State of California - Department of Fish and Wildlife

2018 ENVIRONMENTAL FILING FEE CASH RECEIPT

DFW 753.5a (Rev. 01/03/18) Previously DFG 753.5a

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PROJECT APPLICANT NAME CITY OF CLOVIS	PROJECT APPLICANT EMAIL	PHONE NUMBER (559) 324-2347
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PROJECT APPLICANT ADDRESS 1033 FIFTH STREET	CITY CLOVIS	STATE CA	ZIP CODE 93612
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PROJECT APPLICANT (Check appropriate box)

- Local Public Agency
 School District
 Other Special District
 State Agency
 Private Entity

CHECK APPLICABLE FEES:

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<input checked="" type="checkbox"/> Certified Regulatory Program document (CRP)	\$1,077.00 \$	<u>0.00</u>

- Exempt from fee
 Notice of Exemption (attach)
 CDFW No Effect Determination (attach)
 Fee previously paid (attach previously issued cash receipt copy)

<input type="checkbox"/> Water Right Application or Petition Fee (State Water Resources Control Board only)	\$1,112.00 \$	<u>0.00</u>
<input type="checkbox"/> County documentary handling fee	\$50.00 \$	<u>0.00</u>
<input type="checkbox"/> Other	\$	<u>0.00</u>

PAYMENT METHOD:

- Cash
 Credit
 Check
 Other

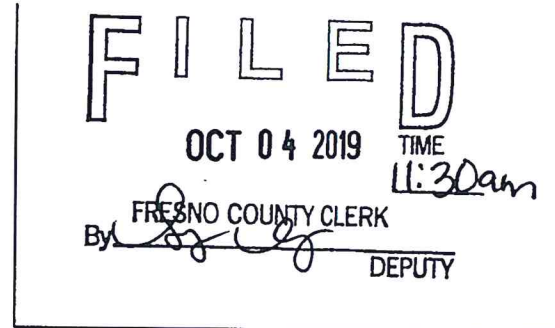
TOTAL RECEIVED \$ 0.00

SIGNATURE X  Sonya Soy	AGENCY OF FILING PRINTED NAME AND TITLE Sonya Soy Deputy Clerk
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CITY of CLOVIS
PLANNING & DEVELOPMENT
1033 FIFTH STREET • CLOVIS, CA 93612

E201910000349



For County Clerk Stamp

**NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
NOTICE OF PUBLIC HEARING
NOTICE OF PUBLIC REVIEW OF A PROPOSED MITIGATED NEGATIVE DECLARATION**

NOTICE IS HEREBY GIVEN that on **Thursday, October 24, 2019, at 6:00 p.m.**, a public hearing will be conducted in the Council Chamber of the Clovis Civic Center, 1033 Fifth Street, Clovis, CA 93612. The Clovis Planning Commission will consider the following item:

Consider items associated with approximately 21.52 acres of property located along the south side of Shepherd Avenue between Clovis and Sunnyside Avenues. John and Kristen Sobaje (Owners) / Lennar Homes of California, Inc. (Applicant) / Yamabe & Horn Engineering, Inc. (Representative).

1. GPA2019-001, A request to amend the General Plan and Herndon Shepherd Specific Plan to re-designate from Low Density Residential (2.1 to 4.0 DU/Ac) to Medium Density Residential (4.1 to 7.0 DU/Ac) classification.
2. R2019-003, A request to approve a rezone from the R-1-7500 (Single Family Residential – 7,500 Sq Ft) to the R-1-PRD (Single Family Planned Residential Development) Zone District.
3. TM6263, A request to approve a vesting tentative tract map for a 137-unit single-family residential development.

A Mitigated Negative Declaration has been completed for this project, pursuant to Section 15070 of CEQA. Recommendation of a proposed Mitigated Negative Declaration does not necessarily mean these projects will be approved. Hard copies and electronic copies of the proposed Mitigated Negative Declaration for this project may be reviewed and/or obtained at the City of Clovis Planning Division, 1033 Fifth Street, Clovis, California, Monday through Friday, between 8:00 a.m. and 4:00 p.m.

All interested parties are invited to comment in writing to the Planning Division by no later than 3:00 p.m. on October 24, 2019, and/or to appear at the hearing described above to present testimony in regard to the above listed requests. Questions regarding these items should be directed to Ricky Caperton, AICP, Senior Planner at (559) 324-2347 or email at rcaperton@cityofclovis.com.

If you would like to view the Planning Commission Agenda and Staff Reports, please visit the City of Clovis Website at www.cityofclovis.com. Select "Planning Commission Agendas" from right side of the main page under "Frequently Visited." Reports will be available approximately 72 hours prior to the meeting time.

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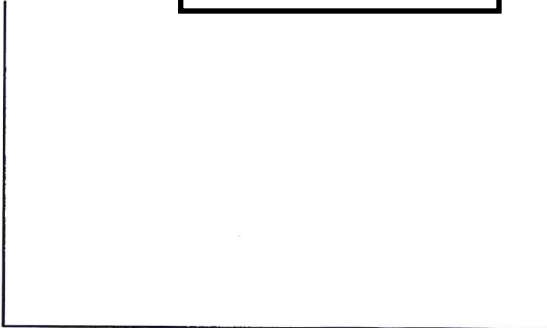
AGENDA ITEM NO.10.

If you challenge a project in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City at, or prior to, the public hearing.

Dwight D. Kroll, AICP, Planning and Development Services Director
PUBLISH: Wednesday, October 2, 2019, *The Business Journal*



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



For County Clerk Stamp

DRAFT MITIGATED NEGATIVE DECLARATION

Agency File No: GPA2019-001, R2019-003, TM6263

Finding: The City of Clovis has determined that the project described below will not have a significant effect on the environment with implementation of mitigation measures and therefore the preparation of an Environmental Impact Report is not required.

Lead Agency: City of Clovis is the Lead Agency for this project.

Project Title: 137 Single Family homes (Lennar Homes of California)

Project Location: South side of Shepherd Avenue between Clovis and Sunnyside Avenues in the City of Clovis, CA.

Project Description: Consider items associated with approximately 21.52 acres of property located along the south side of Shepherd Avenue between Clovis and Sunnyside Avenues. John and Kristen Sobaje (Owners) / Lennar Homes of California, Inc. (Applicant) / Yamabe & Horn Engineering, Inc. (Representative).

1. GPA2019-001, A request to amend the General Plan and Herndon Shepherd Specific Plan to re-designate from Low Density Residential (2.1 to 4.0 DU/Ac) to Medium Density Residential (4.1 to 7.0 DU/Ac) classification.
2. R2019-003, A request to approve a rezone from the R-1-7500 (Single Family Residential – 7,500 Sq Ft) to the R-1-PRD (Single Family Planned Residential Development) Zone District.
3. TM6263, A request to approve a vesting tentative tract map for a 137-unit single-family residential development.

Environmental Assessment: The Initial Study for this project is available for review at the City of Clovis, Planning and Development Services Department, 1033 Fifth Street, Clovis, CA, Monday through Friday from 8 a.m. to 4:00 p.m., except major holidays.

Justification for Mitigated Negative Declaration: The City of Clovis has completed the preparation of an Initial Study for the project described above. The Initial Study did not identify any potentially significant environmental effects that would result from the proposed activity. Accordingly, approval of a Mitigated Negative Declaration for the project is recommended. The City finds that the proposed activity can be adequately served by City public services. It will not have a negative aesthetic effect,

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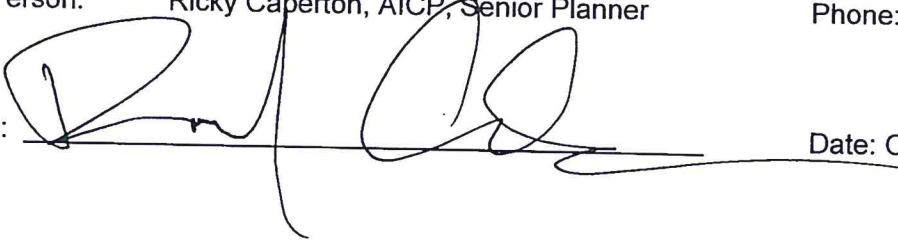
AGENDA ITEM NO.10.

will not affect any rare or endangered species of plant or animal or the habitat of such species, nor interfere with the movement of any resident or migratory fish or wildlife species. It will not adversely affect water quality, contaminate public water supplies, or cause substantial flooding, erosion, or siltation. It will not have a significant effect on air quality, climate change, transportation or circulation systems, noise, light and glare, and land use. No significant cumulative impacts will occur from this project.

Contact Person: Ricky Caperton, AICP, Senior Planner

Phone: (559) 324-2347

Signature:

A handwritten signature in black ink, appearing to be 'Ricky Caperton', written over a horizontal line. The signature is stylized with large loops and a long tail.

Date: October 4, 2019

Lennar Homes
GPA2019-001 / R2019-003 / TM6263
Initial Study and Mitigated Negative Declaration

October 2019

PREPARED BY:

Ricky Caperton, AICP
Senior Planner
Planning & Development Services
(559) 324-2347
rcaperton@cityofclovis.com



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
(GPA2019-001 / R2019-003 / TM6263)
- LEAD AGENCY NAME AND ADDRESS:** City of Clovis
Planning & Development Services
1033 Fifth Street
Clovis, CA 93612
- CONTACT PERSON AND PHONE NUMBER:** Ricky Caperton, AICP, Senior Planer
(559) 324-2347
rcaperton@cityofclovis.com
- PROJECT LOCATION:** South of E Shepherd and East of N Clovis
Aves.
Clovis, CA 93612
APN(s): 560-031-35S, 560-03134S, and 560-031-23S
- PROJECT SPONSOR'S NAME AND ADDRESS:** Jeff Callaway, Project Manger
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
- PROJECT DESCRIPTION** See page 7 of this Initial Study
- SURROUNDING LAND USES AND SETTING:** See page 6 of this Initial Study
- REQUIRED APPROVALS:** See page 9 of this Initial Study
- HAVE CALIFORNIA NATIVE AMERICAN TRIBES REQUESTED CONSULTATION? IF SO, HAS CONSULTATION BEGUN?** Yes

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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 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 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 environment, 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 environment, 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:


 Ricky Caperton, AICP, Senior Planner
 City of Clovis Planning & Development Services

10-2-19
 Date

Approved By:


 Dwight Kröll, AICP, Director
 City of Clovis Planning & Development Services

10.2.19
 Date

B. PROJECT OVERVIEW

Lennar Homes proposes the construction of 137 single-family homes and associated site improvements (i.e. landscape, parking, sidewalks, and utilities infrastructure) on approximately 21.52 total acres of mostly vacant and undeveloped land on the south side of East Shepherd Avenue and east of North Clovis Avenues in the City of Clovis, 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 along the south side of East Shepherd Avenue between North Clovis and North Sunnyside Avenues and consists of three (3) parcels totaling approximately 21.52 acres. Assessor’s Parcel Number (APN) 560-031-23S is approximately 15.52 acres, APN 560-031-34S is approximately 3.0 acres, and APN 560-031-35S is approximately 3.0 acres. The Project site is bound by East Shepherd Avenue to the north, Russell Avenue to the east, Riordan Avenue to the south, and North Preuss 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, and with the exception of the two existing single-family homes, the existing site is mostly vacant and undeveloped, consisting primarily of low-lying vegetation, grasses, shrubs, sparsely planted trees, and weeds. The site is generally flat, and includes a single-family home along Shepherd Avenue at the northwest corner of the Project site, as well as a home along Russel Avenue near the eastern edge of the site. With the exception of North Preuss Avenue, the existing site does not include any pedestrian or other vehicle circulation infrastructure.

2. SURROUNDING CONDITIONS

As referenced in Table 1 below, and shown on Figure 2, the Project site is surrounded by existing development consisting of single-family residential uses at varying densities to the east, south, and west. Further, north of the Project site, on the north side of Shepherd, single-family homes are currently under construction. With homes under construction to the north, there will be residential uses surrounding the Project site.

Table 1: Surrounding Land Uses

	Land Use Designation*	Zoning**	Existing Land Use
North	Medium Density Residential	R-1	Single-Family Residential (under construction)
East	Low Density Residential	R-1-7500	Single-Family Residential
South	Medium Density Residential	R-2	Single-Family Residential
West	Medium-High Density Residential	R-2	Single-Family Residential
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 (7.1-15 DU/Ac)			
**R-1 (Single-Family Residential-6,000 square feet), R-1-7500 (Single-Family Residential-7,500 square feet), R-2 (Low Density Multiple Family Residential)			

3. LAND USE DESIGNATION

As shown on Figure 3, the Project site has an existing General Plan Land Use designation Low Density Residential, which allows for a density range of 2.1 to 4.0 dwelling units per acre (DU/Ac). However, as part of the Project, the applicant is requesting General Plan Amendment to the Medium Density Residential Land Use designation, which allows for a density range of 4.1 to 7.0 DU/Ac. According to the

2014 Clovis General Plan, the Medium Density designation is intended for detached and attached single family homes, patio homes, or zero lot lines.

4. ZONING DESIGNATION

As shown on Figure 4, the Project site is currently within the R-1-7500 (Single-Family Residential-7,500 square feet) Zone District. However, as part of the Project, the applicant is requesting a rezone to the R-1-PRD (Single-Family Planned Residential Development) Zone District. 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 March 2020, with full buildout by January 2024. However, first occupancy is assumed to occur by April 2021. 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 demolition of existing structures, as well as the removal of trees and 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 mentioned above under the "Site Preparation" section, there are two existing single-family homes on the Project site that would be demolished as part of the Project. Additional entitlements, such as demolition permits may be required as part of the removal of the existing homes and ancillary structures.

SITE LAYOUT AND CIRCULATION

As shown in Figure 5, the Project proposes 137 individual single-family residential lots ranging in sizes from approximately 4,000 square-feet to 11,300 square-feet, with an average lot size of approximately 4,712 square-feet under Tract Map 6263 (TM6263). The Project also proposes a 7,763 lot at the entrance off North Russell Avenue for a community park.

The Project also includes a network of public roadways throughout the neighborhood, which includes ingress/egress off of North Russell Avenue to the east, Riordan Avenue to the South, and Prescott Avenue to the west. There would be no direct access to Shepherd Avenue as part of the Project. According to the Circulation Element of the 2014 Clovis General Plan,¹ the stretch of Shepherd Avenue bordering the Project along its north frontage is designated as an expressway, and therefore prohibits direct access to and from Shepherd Avenue at this location.

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

Other features of the Project include pedestrian sidewalks on both sides of the street network, as well as sidewalks along the frontage of the site along Shepherd Avenue, North Russell Avenue, Riordan Avenue, and portions of Prescott Avenue providing connection to the adjacent neighborhood to the west.

PLANNED RESIDENTIAL DEVELOPMENT

As part of the Project, a rezone from the R-1-7500 (Single-Family Residential-7,500 square feet) Zone District to the R-1-PRD (Single-Family Planned Residential Development) Zone District is proposed. Chapter 9.66, Planned Development Permits, of the Clovis Municipal Code (CMC or Code) 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 Code 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 a rezone to R-1-PRD, 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 TM6263. These development standards are provided as Figure 6.

PARKING

Each single-family home would have a two-car garage, as well as a driveway, typical of other single-family neighborhoods. The Clovis Municipal Code requires that single-family dwellings provide a minimum of two (2) covered spaces for each dwelling unit.² Each garage would be required to have an interior dimension of 20 feet by 20 feet.

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 front yard setback 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. Minor 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 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

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, September 11, 2019.

collection, and sewer collection 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:

- General Plan Amendment
- Rezone
- Vesting Tentative Tract Map
- Residential Site Plan Review
- Grading Permit(s)
- Building Permit(s)

Figure 1: Project Location

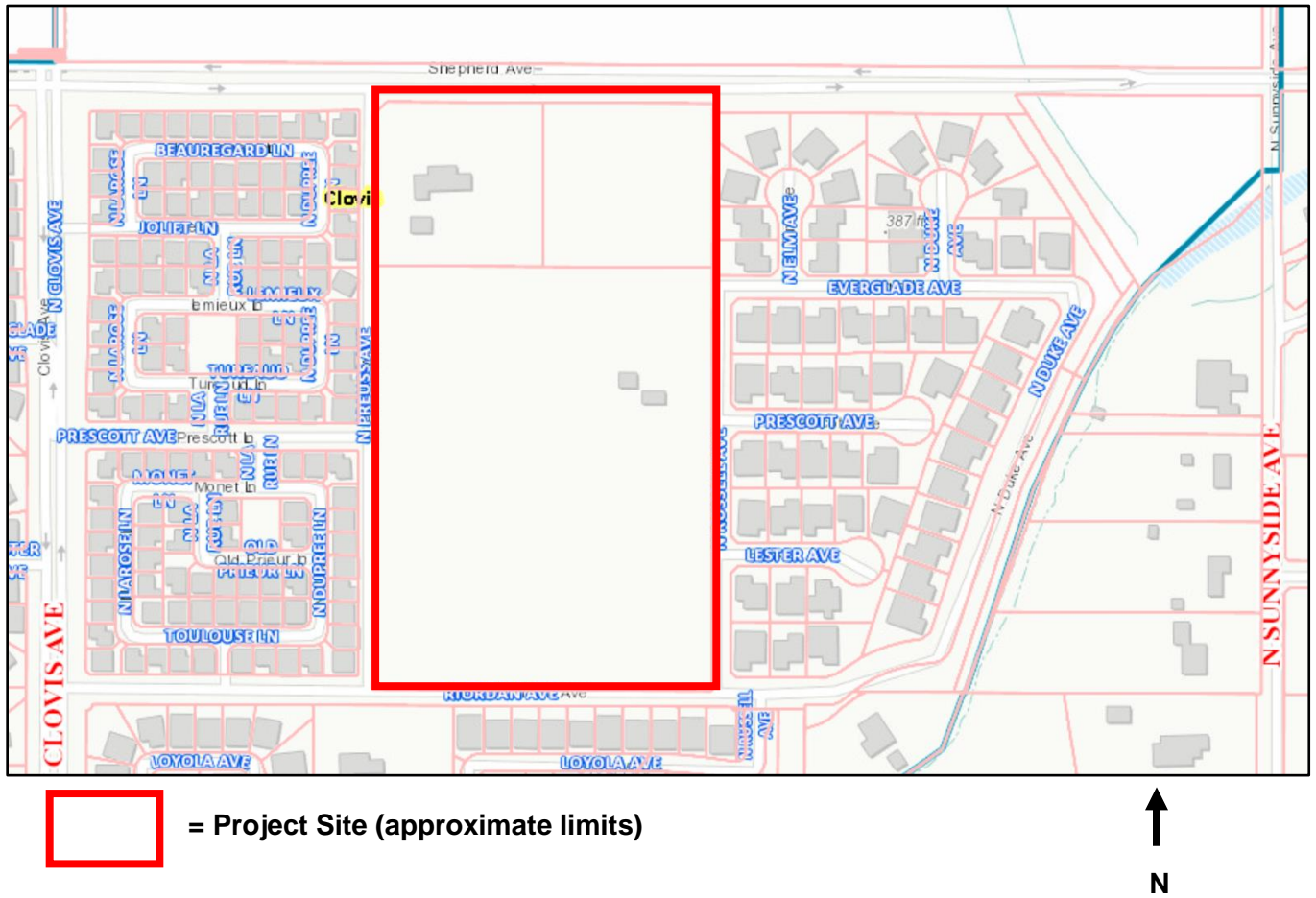


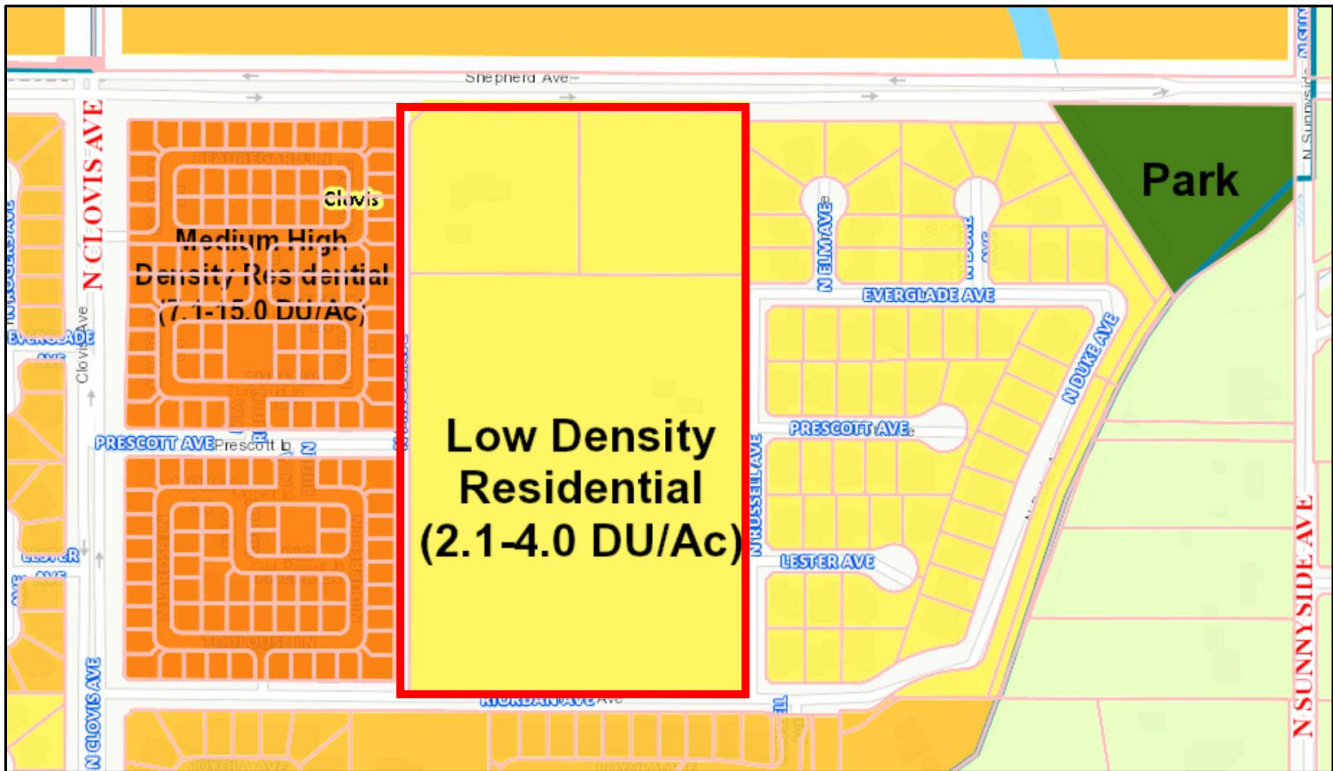
Figure 2: Aerial of Project Site



= Project Site (approximate limits)



Figure 3: Land Use Designation



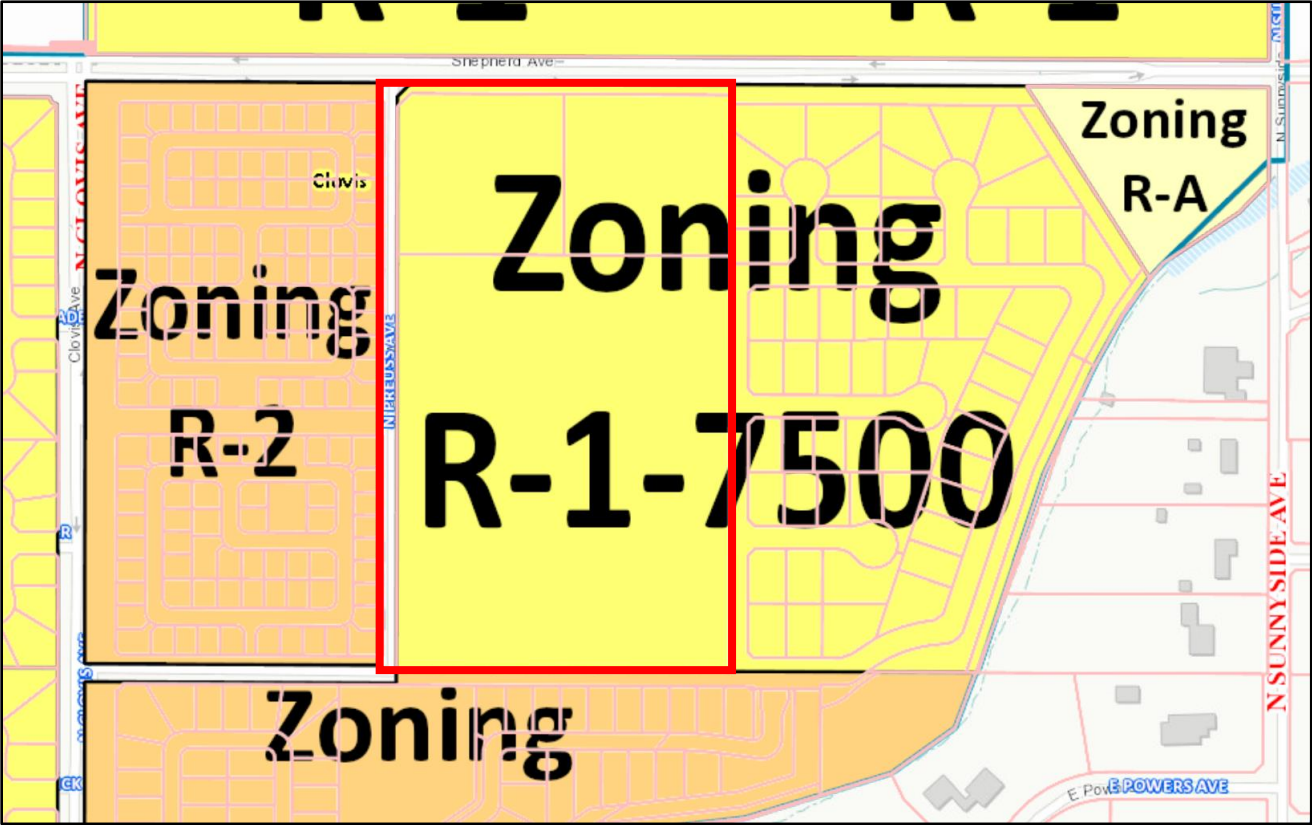
 = Project Site (approximate limits)



EXISTING DENSITY:
Low Density Residential

PROPOSED DENSITY:
Medium Density Residential

Figure 4: Zoning District



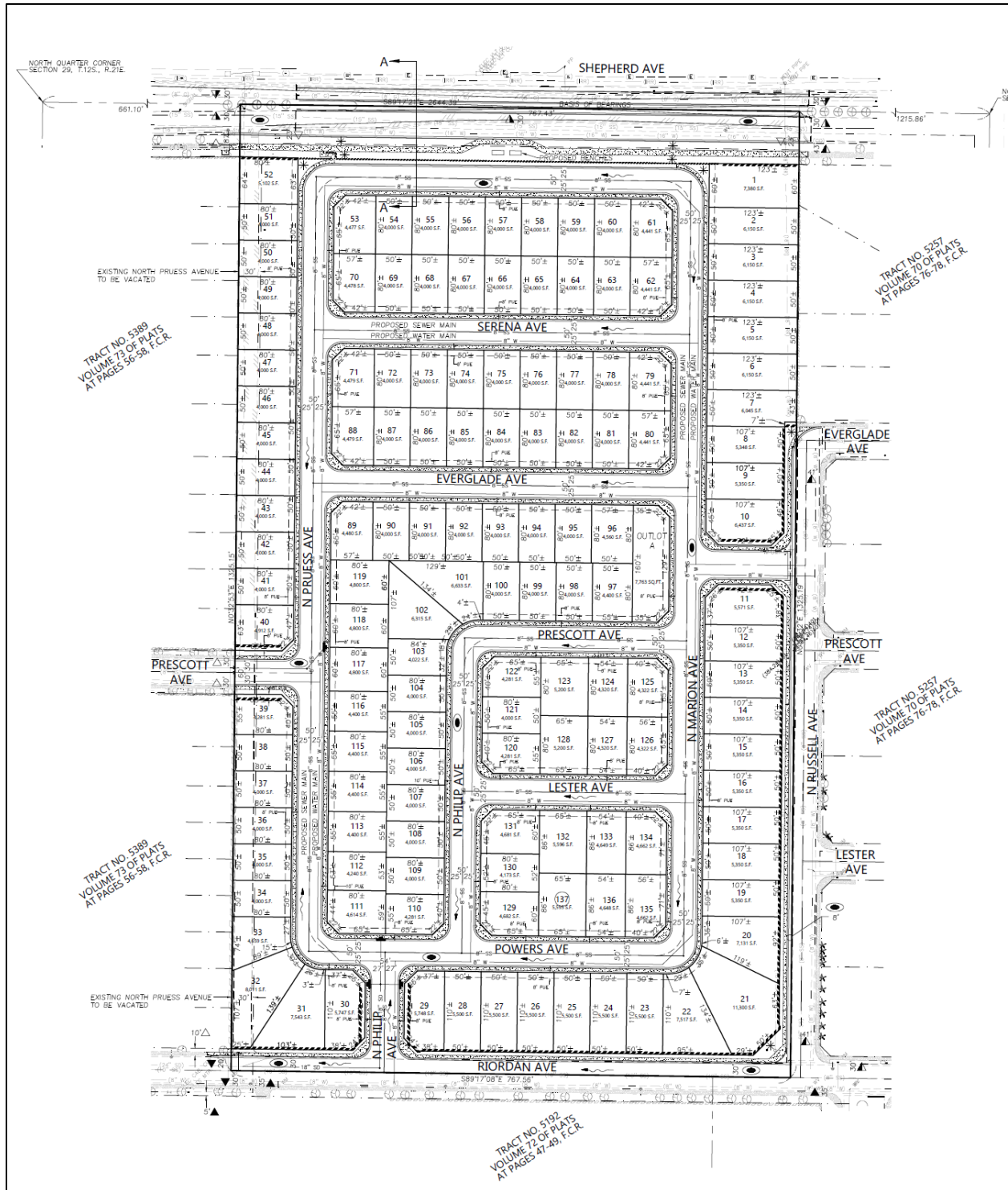
 = Project Site (approximate limits)



EXISTING ZONING:
R-1-7500

PROPOSED ZONING:
R-1-PRD

Figure 5: Proposed Site Plan



Approximate layout

Figure 6: Proposed Development Standards

LAND USE	DEVELOPMENT STANDARDS	
SINGLE-FAMILY RESIDENTIAL	STANDARD	NOTES
DESIGNATION		
Zone District	R-1-PRD	
GP Density Range	7.1 - 15.0 du/ac	Medium-High Density Residential
Dwelling Units	139	
BUILDING INTENSITY		
Minimum Lot Area	4,000 sq ft	
Minimum Lot Width	50'	
Minimum Lot Depth	80'	
Maximum Coverage	65%	
Maximum Height	35'	
Curved, Cul-de-sac or Corner Lot	36'min/50'min	For street frontage/For lot depth
BUILDING SETBACKS		
All setbacks measured from PL.		
Front Yard	18' min/10' min	To garage/living area, porch or projections
Side Yard	5' min/4' min	5' min garage side/4' min other side
Corner/Reversed Corner	10' min	
Rear Yard	5' min 10' min 20' min	Lots 32, 33, 103 and 104' min 5' Lots 34 through 102, and Lots 105 through 139 139 10' min Lots 1 through 31 min 20'
GARAGES/STREETS/PARKING		
Garages	2-car	20'x20'min or tandem 10'x38' min
Streets (Interior)	36' wide	Curb-to-curb
Parking	2 spaces/unit min	2 covered space per unit min
ACCESSORY USES		
General list of requirements and restrictions.		
Walls/Fences	6'min - 8'high max	
Trellises	12'high max	
Pools and Spas	3'min	Water portion to rear and side PLs. Pool and spa may not be located in front yard.
Equipment	Pool, spa and fountain equipment allowed in side yard setback.	
Covered Structures	12'high max	Covered structures and building additions are allowed subject to review by architectural committee and permitting by the City of Clovis, provided that lot coverage standards are not exceeded and that a rear yard encroachment permit is obtained if encroachment into rear yard occurs.
Accessory Buildings		

Proposed development standards only. Actual standards may change during the review process.

Figure 7: Conceptual Elevations



Conceptual elevation only. Final product may change during the review process.

G. 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.

As mentioned above in the Project Description, the site is located along Shepherd Avenue between Clovis and Sunnyside Avenues. In general, the Project site is within an urbanized area of the City surrounded by existing residential to the east, south, and west, as well as residential under construction to the north.

DISCUSSION

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

Less-Than-Significant 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 35 feet. This would be consistent with the height limits of the immediately surrounding area. Further, General Plan Policy 2.3 requires that public views of open spaces, parks, and natural features be maintained; however, the Project site is not within the immediate vicinity of these features. Therefore, because the Project would be constructed at a maximum height consistent with the area, and because there are no officially designated scenic vistas in the area, a **less-than-significant 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 within an urbanized area surrounded by residential uses of varying densities include medium-high, medium, and low. Thus, as a proposed medium-density residential project, the homes would fit within the character of the surrounding area. Further, the Project proposes a General Plan Amendment and Rezone, and if approved, the Project would be consistent with the applicable Zone District as R-1-PRD.

In addition to the Project being of a similar size and scale as surrounding development, 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, as a medium density, would serve as a good transition from the low density neighborhood to the east, and the medium-high density neighborhood to the west, which would comply with Policy 3.6 by resulting in a housing product that adds to the variety of housing stock within the City.

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

Further, the Project would undergo Residential Site Plan Review (RSPR) 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 Herndon-Shepherd Specific Plan, the Clovis Development Code, 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 137 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 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 is already surrounded by existing residential uses already resulting in similar sources and intensities of light and glare. This existing development has contributed to the urbanization of the area, therefore, lighting and glare are already being emitted in the vicinity. Sources of existing 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 Clovis Municipal Code (CMC or Development Code), 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 Development Code, 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 Shepherd Avenue between Clovis and Sunnyside Avenues, and is considered an in-fill property. The site is within an urbanized area of the City, and is surrounded by existing residential at varying densities.

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?*

Less-Than-Significant Impact. According to the 2016 Farmland Monitoring and Mapping Program (FMMP) maps from the California Department of Conservation,⁴ the Project site is considered Farmland of Local Importance, 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 is an in-fill site within an urbanized area of Clovis and has not been used for farming activities in recent years, nor is it zoned or designated for farming-related activities under the 2014 Clovis General Plan. Consequently, because the site is not considered Prime, Unique, or Farmland of Statewide Importance, a **less-than-significant** 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?*

⁴ Farmland Mapping and Monitoring Program, California Department of Conservation, 2016 Fresno County Map.

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 existing 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. With the exception of two existing residential homes and ancillary structures, the Project site is mostly 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 existing 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?*

Less-Than-Significant 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 site is considered an in-fill site and 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 **less-than-significant** impact with regards to this topic and no mitigation measure are required.

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	
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ENVIRONMENTAL SETTING

An Air Quality and Greenhouse Gas Analysis Report (AQ/GHG Report) was prepared by Mitchell Air Quality Consulting on April 3, 2019 (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 (western and central), Kings, Tulare, Madera, Merced, San Joaquin, and Stanislaus. 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 250 miles long and an average of 35 miles wide. It is bordered by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. There is a slight downward elevation gradient from Bakersfield in the southeast end (elevation 408 feet) to sea level at the northwest end where the valley opens to the San Francisco Bay at the Carquinez Straits. At its northern end is the Sacramento Valley, which comprises the northern half of California’s Central Valley. The bowl-shaped topography inhibits movement of pollutants out of the valley (SJVAPCD 2012a).

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. 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).

⁵ Air Quality and Greenhouse Gas Analysis Report, Mitchell Air Quality Consulting, page 9, April 16, 2019.

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 (SJVAPCD 2012a).

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 (PM_{2.5}), 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

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour	--	0.09 ppm
	8-Hour	0.07 ppm	0.07 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.03 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	0.03 ppm	--
	24-Hour	0.14 ppm	0.04 ppm
	3-Hour	0.5 ppm	
	1-Hour	0.075 ppm	0.25 ppm

PM ₁₀	Annual 24-Hour	-- 150 ug/m ³	20 ug/m ³ 50 ug/m ³
PM _{2.5}	Annual 24-Hour	12 ug/m ³ 35 ug/m ³	12 ug/m ³ --
Lead	30-Day Avg. 3-Month Avg.	-- 1.5 ug/m ³	1.5 ug/m ³ --
Notes: ppm = parts per million; ug/m ³ = micrograms per cubic meter. Source: California Air Resources Board, 2008. Ambient Air Quality Standards (4/01/08), http://www.arb.ca.gov/aqs/aaqs2.pdf .			

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 SIP. Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet the ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

At the federal level, the SJVAPCD is designated as extreme nonattainment for the 8-hour ozone standard, attainment for PM₁₀ and CO, and nonattainment for PM_{2.5}. At the state level, the SJVAB is designated nonattainment for the 8-hour ozone, PM₁₀, and PM_{2.5} standards. The SJVAB has not attained the federal 1-hour ozone, although this standard was revoked in 2005.

DISCUSSION

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

Less-Than-Significant Impact. 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) 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 the 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 SJVAPCDs significance thresholds. Based on the AQ/GHG Report, the Project would not exceed these thresholds from construction and operation of the homes.⁶

Lastly, the SJVAPCD provided a comment letter, dated August 29, 2019, 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 requires 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

⁶ Air Quality and Greenhouse Gas Analysis Report, Mitchell Air Quality Consulting, starting on page 76, April 3, 2019.

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.

- 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, and convalescent facilities. The nearest sensitive receptors to the Project site would be the existing residences adjacent to the site to the south, west, and east. Based the AQ/GHG Report, the Project would not exceed emission thresholds that would result in a significant impact⁷ based on compliance with SJVAPCD regulations and standards for construction and operation of this type of development. Therefore, a **less-than-significant** impact would occur.

- 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 includes commercial and residential uses. Although the Project proposes trash enclosures throughout the site, these enclosures were located south of the drive aisle along the north area of the property, as far away from the existing residences as possible, thus, would minimize or eliminate the possibility of odor emitting from the enclosures. 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.

4. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

⁷ Air Quality and Greenhouse Gas Analysis Report, Mitchell Air Quality Consulting, starting on page 89, April 3, 2019.

<p>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?</p>		X		
<p>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?</p>				X
<p>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?</p>				X
<p>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?</p>				X
<p>e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</p>				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?				
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ENVIRONMENTAL SETTING

A biological resources report (Biological Report) was prepared by Live Oak Associates, Inc. (LOA) in May 2019 (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 the California Environmental Quality Act. As part of the Biological Report, the Project area was surveyed in April 2019 for habitat, plants, and animals.

With exception of the two single-family homes, the existing Project site is generally vacant and undeveloped. Ground cover is mostly shrubs, and grasses with relatively low value for habitat as a result of previous agricultural activities that occurred in the past at this location.

The following analysis is based in part 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 April 4, 2019 by LOA. The survey consisted of driving and walking throughout the site to identify habitats, plant, and animal species. During the field survey, two biotic habitats and land uses were identified including ruderal/disturbed and residential. The habitat consisted largely of loose soils and generally void of vegetation. Areas that did contain vegetation consisted of non-native herbaceous plant species. As former agricultural lands, the site is considered to have limited value to wildlife.

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, the area was void of any potential for such species with the exception of the swainson’s hawk, western bat, San Joaquin Kit Fox, and pallid bat; however, presence of even these species is considered unlikely.⁸ While not likely, other migratory birds could potentially nest at the site as well.

Overall, due to the lack of presence of special-status plant and animal species, as well as the site being surrounded by existing urban development and having been previously disturbed by agricultural activities, it is not likely that the Project would have a substantial adverse effect to habitat supporting these special status species. Nevertheless, implementation of mitigation measures BIO-1 through BIO-3 would ensure that a **less-than-significant impact with mitigation** occurs.

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

Mitigation Measure BIO-1: Swainson's Hawk. If possible, construction activities should occur outside of the Swainson's hawk nesting season of March 1 to September 15. If that is not feasible, pre-construction surveys shall be conducted by a qualified biologist no more than 14 days prior to the start of construction and/or ground-disturbing activities and shall be conducted on the Project site, as well as adjacent lands within 1/2 –mile of the site to identify any nesting pairs of Swainson's hawks that may be present. If any active nests are discovered, an appropriate disturbance-free buffer shall be established based on local conditions and as suggested by a qualified biologist or governing agency. Any buffers shall be identified on the ground with flagging, fencing, and/or by other easily visible means, and shall be maintained until the biologist has determined that the young have fledged.

Mitigation Measure BIO-2: Migratory Birds and Raptors. If possible, construction activities should occur outside of the Swainson's hawk nesting season of February 1 to August 31. If that is not feasible, pre-construction surveys shall be conducted by a qualified biologist no more than 14 days prior to the start of construction and/or ground-disturbing activities and shall be conducted on the Project site. If any active nests are discovered, an appropriate disturbance-free buffer shall be established based on local conditions and as suggested by a qualified biologist or governing agency. Any buffers shall be identified on the ground with flagging, fencing, and/or by other easily visible means, and shall be maintained until the biologist has determined that the young have fledged.

Mitigation Measure BIO-3: Pallid and Western Mastiff Bat. If possible, the removal of residential trees and/or structures should occur outside of the period between April 15 and August 31, which is the time frame which colony-nesting bats generally assemble, give birth, nurse their young, and disperse. If that is not feasible, a qualified biologist shall survey trees/buildings for the presence of bats within 30 days prior to their removal, which may require the biologist to wait for nighttime emergence of bats from roost sites. If a non-breeding bat roost is found, the individuals shall be humanely removed via two-stage removal of trees under the direction of a qualified biologist to ensure that no harm or "take" of any bats occurs as a result of the Project. If a maternity colony is discovered during the pre-construction surveys, a disturbance-free buffer shall be established around the colony and remain in place until a qualified biologist determines that the nursery is no longer active. The buffer will range from a minimum of 50 feet to 100 feet, as determined by the biologist.

- 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?*

No Impact. As mentioned previously, the Project site is characterized by previously disturbed soils as a result of previous agricultural activities, as well as two existing single-family residences. According to the Biological Report, there were no natural communities of special concern, including wetlands and riparian habitat.⁹ Therefore, the Project would not result in a substantial adverse effect with respect to this threshold, and **no impact** would occur. 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. See discussion under Section 4b.

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

- 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. According to the Biological Report, the site does not contain features that would be likely to function as wildlife movement corridors.¹⁰ Wildlife corridors are typically considered to be valleys, rivers, and creeks supporting riparian vegetation and ridgelines. 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?*

Less-Than-Significant Impact. Although the Project would include development of an existing site that is mostly undeveloped, the site does not indicate the presence of any sensitive habitat or wildlife features that would be significantly impacted. Although Policy 2.6 of the Open Space and Conservation Element of the General Plan calls for the protection of biological resources, the Biological Report did not identify any such resources at the site due to its location and being surrounded by urban development. Further, the Clovis Development Code does include tree protection standards which would ensure the appropriate replacement of any trees removed during construction in compliance with this standard. Consequently, due to the lack of any identified sensitive species, and because compliance with existing City codes for the removal of any existing trees would ensure trees are replaced or in-lieu fee is assessed for the replacement of trees, the impact would be **less-than-significant** as the Project would not conflict with local policies or ordinances for protection biological resources.

- 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 Project site is not located within an adopted or approved Habitat Conservation Plan (HCP) or other conservation plan. However, the site is within the PG&E San Joaquin Valley Operation and Maintenance HCP, although the PG&E HCP applies only to PG&E construction and maintenance activities and does not apply to the site. Overall, **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		X		

¹⁰ Biological Evaluation Report for Tract 6263 prepared by Live Oak Associates, Inc., page 21, May 2019.

archaeological resource pursuant to §15064.5?				
c. Disturb any human remains, including those interred outside of formal cemeteries?		X		

ENVIRONMENTAL SETTING

The Project site is located on a mostly undeveloped infill site, with the exception of two single-family residences. The site is surrounded by existing residential development at varying densities.

A Cultural Resource Inventory and Evaluation (Cultural Report) was prepared by Applied EarthWorks, Inc. dated May 2019 (see Appendix C). This Cultural Report included a records search at the California Historical Resources Information System (CHRIS) Southern San Joaquin Valley Information Center (SSJVIC), as well as desktop archival research.

In addition to the Cultural Report, City staff conducted Native American Consultation in compliance with Senate Bill 18 (SB18) and Assembly Bill 52 (AB52). In compliance with AB52, invitations for consultation were mailed on June 12, 2019 which affords Native tribes thirty (30) days to respond and to request consultation. During this timeframe, no requests for consultations were received. In compliance with SB18, invitations for consultation were mailed on June 12, 2019 which affords Native tribes ninety (90) days to request consultation.

During that time, one (1) tribe requested consultation. On June 19, 2019, representatives from Table Mountain Rancheria met with City staff and the Project applicant to discuss the potential for cultural resources at the site. Following the meeting, staff, applicant, and representatives from Table Mountain Rancheria conducted a site visit on June 25, 2019 for field observations. Based on these observations, there were no discoveries or indication of the presence of artifacts; however, mitigation measures are included in the following analysis to ensure protection of such resources if any are discovered inadvertently.

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 Report, searches of the Historic Property Data File, National Register of Historic Places, California Register of Historical Resources, listings of California Historical Landmarks, California Inventory of Historic Resources, and California Points of Historical Interest were conducted. According to the results, there were no prehistoric or historic-era resources identified on the Project site.¹¹ Although one of structures appears to be of age for consideration as a historical resource, it was determined that it was not historically significant because the structure could not be associated with a person who is individually significant, is not representative of a unique or important physical design, and does not possess or convey information to the history of the region. Further, compliance with Policy 2.9 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.

¹¹ Cultural Resources Inventory and Evaluation for Tract 6263 prepared by Applied Earthworks, Inc., page 19, May 2019.

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 primarily undeveloped, with the exception of two existing single-family residences and ancillary structures. The site's ground has been previously disturbed as a result of some light grading and the mowing of weeds and shrubs, as well as previous agricultural activities. Further, the Cultural Report concluded that there was no evidence of prehistoric archaeological sites, isolated artifacts, or other archaeological features.¹² As mentioned above, the applicant, City staff, and representatives from Table Mountain Rancheria conducted a site visit during consultation to determine the likelihood for the presence of cultural resources. Although no resources were identified during that visit, 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 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: At least five (5) business days prior to any ground-disturbing activities during construction, such as grading and/or installation of utilities, the applicant and/or their contractor, shall notify cultural resources staff at Table Mountain Rancheria to invite them to monitor the site during such ground-disturbance. At the time of this notification, the applicant shall also provide grading plans to Table Mountain Rancheria for review. During this time, and prior to ground-disturbing activities, the Project applicant and their contractors shall allow Table Mountain Rancheria to hold a meeting to educate the contractors and the applicant on what to look out for during activities to ensure the protection of archaeological and tribal resources.

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, 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. During this time, Table Mountain Rancheria shall be contacted to determine if artifacts are culturally important. 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 and/or representatives from Table Mountain Rancheria 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

¹² Cultural Resources Inventory and Evaluation for Tract 6263 prepared by Applied Earthworks, Inc., page 31, May 2019.

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. The site is primarily undeveloped, with the exception of two existing single-family residences and ancillary structures. The site’s ground has been previously disturbed as a result of some light grading and the mowing of weeds and shrubs, as well as previous agricultural activities. The Cultural Report concluded that it would be unlikely to uncover any resources at the site as a result of its previous ground disturbance. 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. 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 is located on an infill site surrounded by existing residential uses of 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 137 single-family homes on approximately 21.52 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 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.

- 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 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.¹³ 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. 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 City Engineer 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?*

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 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.

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 Cultural Report concluded that the potential for uncovering of archaeological 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

¹³ 2014 Clovis General Plan EIR, Chapter 5: Geology and Soils, page 5.6-3.

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 California Air Resources Board (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 (representing a 25 percent reduction in emissions).

In April 2009, the California Office of Planning and Research published proposed revisions to the California Environmental Quality Act to address GHG emissions. The amendments to CEQA indicate the following:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation."
- OPR's emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.

- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

On December 30, 2009, the Natural Resources Agency adopted the proposed amendments to the CEQA Guidelines in the California Code of Regulations.

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.

Because BPS have not yet been adopted and identified for specific development projects, and because neither the ARB nor the City of Clovis has not yet adopted a plan for reduction of GHG with which the Project can demonstrate compliance, 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 and operation of 137-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. 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. Further, compliance with Title 24 energy efficient building codes would apply, which also help to reduce GHG emissions during 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 Report concluded that the Project, with implementation of required energy efficient standards, would reduce emissions versus business as usual scenarios and would exceed the minimum percentage reduction of emissions required by the State, SJVAPCD, and the Clovis General Plan EIR.¹⁴ 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 Report,¹⁵ the Project would include several features that would minimize GHG emissions, which are consistent with project-level strategies identified by the Air Resources Board Scoping Plan and the Clovis General Plan. As indicated in the discussion above under Section 8a, the Project would result in GHG reductions that meet or exceed minimum targets by complying with the latest energy efficient standards, and water conservation. Consequently, the AQ/GHG Report 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	

¹⁴ Air Quality and Greenhouse Gas Analysis Report, Mitchell Air Quality Consulting, page 110, April 3, 2019.

¹⁵ Air Quality and Greenhouse Gas Analysis Report, Mitchell Air Quality Consulting, starting on page 111, April 3, 2019.

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 just over one-quarter (1/4) 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 137 single-family homes on approximately 21.52 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.

- 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 mentioned above, the Project site is located just over one-quarter (1/4) mile from the nearest school, which is Woods Elementary 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, 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 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.¹⁶ 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.

¹⁶ California Department of Toxic Substance Control, EnviroStor Database, <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Clovis>, accessed on September 24, 2019.

- 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 department and other departments to ensure safe access to and from the area is maintained. Further, the site itself would 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.

- 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 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.

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			X	

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?				
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 Plan Area 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 Fresno Metropolitan Flood Control District (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 Fresno Irrigation District (FID) and the cities of Fresno and Clovis; such recharge totaled 29,575 acre feet during calendar year 2012 (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).

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 department, as well as outside agencies such as the Fresno Metropolitan Flood Control District (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 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**.

- 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. Further, some of the infrastructure surrounding the site, such as stormdrains are already in place from existing development. 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 department 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.

- d) *Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

Less-Than-Significant 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. However, approximately three-quarters the north, north-western portion of the Project site is designated as a Federal Emergency Management Agency (FEMA) Flood Zone “X” which is considered by FEMA as a non-special flood hazard area and that the risk of a flood is low-risk. A Flood Zone X has a 0.2 percent-annual-chance of flood (or a 500-year flood). Consequently, this is a low-risk area and as a result a **less-than-significant** 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 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. As of the writing of this Initial Study, the North Kings County GSA did not yet have an adopted groundwater management plan, as the public review draft is anticipated for release in June 2019, according to the North Kings GSA website. As such, there is not yet an adopted plan. Nevertheless, the Project would derive 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.

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,			X	

policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				
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ENVIRONMENTAL SETTING

As described above in the Project Description, the Project site is considered an in-fill site and is surrounded by existing residential development, including a development to the north currently under construction.

The Project requests a General Plan Amendment, Rezone, and Tract Map to be able to construct 137 single-family homes. The General Plan Amendment is required to increase the density, and the Rezone is to allow for deviations from standard development regulations. If approved, the Project would comply with the land use and zoning designated for the Project site.

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 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 Clovis General Plan and zoned for residential use. Also, the Project site is bordered by existing residential developments and would provide for greater connectivity between the surrounding neighborhoods by installing new sidewalks and roadways throughout the site. In particular, the sidewalks along Shepherd and Riordan Avenues at the site’s frontages would provide for connectivity among the neighborhoods.

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 complement and enhance the connectivity of the area 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, most of the Project site is currently zoned R-1-7500 and includes a general plan amendment and a request to rezone to R-1-PRD. If approved, the site would be designated Medium Density Residential and R-1-PRD which would allow for the proposed Project. Further, through the review and entitlement process, the Project is reviewed for compliance with applicable regulations, including those intended for avoiding or mitigation an environmental effect. For example, the Project would be required to comply applicable lighting, landscape, and noise standards, which are regulated through the Clovis Municipal Code to ensure minimal impacts to the environment as well as to neighboring properties.

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.

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.¹⁷ 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 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 12.a.

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		X		

¹⁷ 2014 Clovis General Plan EIR, Chapter 5: Mineral Resources, page 5.11-1.

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?				
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 located on a mostly undeveloped site surrounded by existing residential development, including a residential project currently under construction to the north. Further, the site is bound by existing roadways to the west, east, and south that were installed as part of the previous projects. 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. As a result of construction to the north, 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.

A noise study was prepared for the Project by WJV Acoustics (Noise Study) on July 29, 2019 and the analysis below is based in part on the study. As part of the Noise Study, noise monitoring was conducted on March 21, 2019 to measure noise levels along Shepherd Avenue. The Noise Study 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 137 single-family homes on a mostly 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 is infill and is already surrounded by existing residential development of varying densities. Therefore, while the Project would introduce new ambient noise from the construction and operation of the homes, these noises would be typical of that of the surrounding area and would not represent the

type of noise levels that would drastically differ from what already exists. Also, while increases in ambient noise would increase 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 City of Clovis Municipal Code 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 a.m. and 5:00 p.m. on weekends. However, between June 1 and September 15, construction may begin at 6 a.m. on weekdays.

In terms of noise following buildout of the Project, a masonry or other type of solid wall at least six (6) feet in height along the northern, eastern, southern, and western property lines would serve as a buffer between the Project and adjacent residential. In addition, landscaping would occur along the perimeter walls, as well as throughout the site, which would also serve to buffer noise from the Project. The Noise Study indicated that ambient noise levels could exceed the City standards for exterior and 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-1a: Exterior Noise. The Project shall include installation of a sound wall along Shepherd Avenue at least six (6) feet in height above grade. Suitable materials include concrete block, masonry, and/or stucco on both sides of a wood or steel stud wall. Other materials may be used if recommended and/or approved by a noise professional and within the standards of the City. Two-story homes shall not construct balconies facing Shepherd Avenue.

Mitigation Measure NOISE-1b: 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. Acoustic baffles shall be installed on the interior side of gable vents that face, or are perpendicular to Shepherd Avenue.

- b) *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Less-Than Significant Impact. The Project includes development of 137 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 Clovis Municipal Code 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 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 an in-fill site that has previously planned for residential use in the 2014 Clovis General Plan. As mentioned in the Project Description above, the Project proposes a general plan amendment from Low Density Residential (2.1 to 4.0 DU/Ac) to Medium Density Residential (4.1 to 7.0 DU/Ac). The Project site is approximately 22.50 acres and proposes 137 units for a density of approximately 6.1 DU/Ac.

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 result in a density of 6.1 DU/Ac which would be within the planned density range of the Medium Density land use designation, with approval of a general plan amendment. Further, the Project includes residential use on a site that is considered infill and previously 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. The Project site itself is an in-fill site, thus, the major infrastructure (i.e. road network, utilities, sidewalks, etc.) is already in place and would be able to serve the site, as planned for in the 2014 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?*

Less-Than-Significant Impact. The Project site is generally undeveloped with the exception of two single-family residences. Although construction of the Project would require the removal of these homes, this would not represent a substantial displacement of people or housing. Further, the Project itself would include the construction of 137 homes, therefore, construction of housing would occur in place of the

removal of the existing homes. Consequently, a **less-than-significant** 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 is located on an in-fill site within the City, surrounded by existing residential uses. 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 a short distance (approximately 2.25 miles) southwest of the site. The other closest fire station is Fire Station #1, located approximately 3 miles south 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 137 new residential units, the site is located in an urbanized area of the City already able to be served by the Clovis Fire Department. Also, the site itself is in close proximity to Fire Station’s #1 and #3, 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 sites 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 137 new residential units, the site is located in an urbanized area of the City already able to be served by the Clovis Police Department. The Clovis Police Department headquarters are located at 1233 Fifth Street, which is approximately 3.5 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. Also, the site is located in an already urbanized areas 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 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. Although the Project would result in 137 new residential units, the site is located in an urbanized area of the City within the Clovis Unified School District (CUSD). As part of the review process, 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. 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. Although the Project would result in 137 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 Project is located on an in-fill site surrounded by existing residential development. The nearest recreational site is Dry Creek Trailhead, located at the corner of Shepherd and Sunnyside Avenues, as well as a park in the neighborhood west of Clovis Avenue, a short distance from 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 137 new housing 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 park space within the neighborhood, thereby, providing areas of recreation within the site itself. The Project would also be required to comply with 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 open space areas and amenities, such as a park. Thus, it is not likely that the Project itself would 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 Clovis Municipal Code. As such, a **less-than-significant** impact would occur and no mitigation measures are required.

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 located in an area within a previously urbanized area in the City, surrounded by existing residential development at varying densities. The site is generally bounded by Shepherd Avenue to the north, Russell Avenue to the east, Riordan Avenue to the South, and existing single-family homes to the west. As an already urbanized area of the City, the circulation network serving the site and its vicinity is already in place, with the exception of internal site circulation which 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), Shepherd Avenue is classified as an “Expressway.” Clovis Avenue, west of the site, is classified as an “Arterial,” and Sunnyside, east of the site, is classified as a “Collector.” Collectors and arterials are streets generally intended to provide for relatively short distance travel between and within neighborhoods and that serve longer through trips. Local streets are intended to provide direct access to abutting land uses and serve short distance trips within neighborhoods.

A Traffic Impact Analysis (TIA) was prepared by JLB Traffic Engineering, Inc. on August 9, 2019 (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 With Mitigation. As mentioned above, the site is within an urbanized area of the City on land that was previously planned for residential use in the 2014 Clovis General Plan. As described in the Project Description above, the Project proposed a general plan amendment and rezone to increase the density from Low Density Residential to Medium Density Residential.

The TIA studied three (3) intersections: 1) Clovis Avenue/Shepherd Avenue; 2) Sunnyside Avenue/Shepherd Avenue; and 3) Clovis Avenue/Riordan Avenue for existing conditions, existing-plus-project conditions, near term with project conditions, and cumulative conditions to the year 2039. 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 86 trips in the a.m. peak hours of between 7 a.m. and 9 a.m. and 104 trips in the p.m. peak hours between 4 p.m. and 6 p.m., as well as a total of 1,356 daily vehicle trips.

Existing Traffic Conditions

Based on the TIA,¹⁸ existing traffic volumes were determined during morning peak hours of 7 a.m. to 9 a.m., and between evening peak hours of 4 p.m. and 6 p.m. on a weekday. According to the TIA, all intersections are operating at an acceptable Level of Service (LOS) based on City of Clovis standards.¹⁹

Existing-Plus-Project Conditions

Existing-Plus-Project conditions represent existing conditions plus buildout of the Project. According to the TIA, all intersections would operate at an acceptable LOS.²⁰ Although slight delays may occur during peak hours, namely at the intersection of Riordan and Clovis Avenues where the LOS would go from an LOS B to LOS C in the peak hours, LOS C is still within acceptable standards set by the City of Clovis.

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. For a list of the projects considered under this scenario, please refer to Table

¹⁸ Traffic Impact Analysis, Tentative Tract No. 6263, JLB Traffic Engineering, Inc., August 9, 2019, page 8.
¹⁹ Traffic Impact Analysis, Tentative Tract No. 6263, JLB Traffic Engineering, Inc., August 9, 2019, page 8.
²⁰ Traffic Impact Analysis, Tentative Tract No. 6263, JLB Traffic Engineering, Inc., August 9, 2019, page 14.

IV on page 18 of the TIA. Under this scenario, the intersection of Sunnyside and Shepherd Avenue would exceed acceptable LOS thresholds per City standards during peak hours.²¹

Cumulative 2039 Traffic Conditions

These conditions represent anticipated traffic volumes for the year 2040 using the Fresno Council of Governments (Fresno COG) travel model. As described in the TIS, the two study intersections would operate at unacceptable levels of service for the year 2040. However, implementation of Mitigation Measure TRAF-1 was found to adequately mitigate this potential impact.

Bicycle Facilities

With regards to bicycle facilities, Figure C-2 of the 2014 Clovis General Plan indicates an existing Class II bicycle lane along Shepherd Avenue fronting the Project at the north; however, the Project would not conflict operation of this bicycle lane because it does not propose ingress/egress along Shepherd Avenue.

Consequently, the Project itself would help to facilitate improved circulation by adding a pedestrian sidewalk along Shepherd Avenue fronting the site which would provide a complete connection of sidewalk between the two existing developments to the west and east of the Project. While the level of service at this intersection would be slightly exacerbated with the Project, Policy 2.1 in the Circulation Element of the General Plan allows exceptions to LOS on a case-by-case basis where a project would result in other public benefits. In the case of the Project, development of an infill property at a medium density would provide a public benefit by creating a pedestrian-friendly environment on a site that is primarily vacant and undeveloped. Further, Mitigation Measures TRAF-1 and TRAF-2, would ensure that a **less-than-significant with mitigation** impact would occur.

Mitigation Measure TRAF-1: The Project proponent and/or applicant shall contribute their share of development impact fees for the following improvements, which will be constructed and/or modified at the determination of the City Engineer: (1) signalization at the intersection of Shepherd and Sunnyside Avenues; (2) signalization at the intersection of Clovis and Shepherd Avenue; and (3) improvements to extend queuing lengths along Shepherd and Clovis Avenue.

Mitigation Measure TRAF-2: The Project proponent and/or applicant shall contribute their proportional share of the construction costs for the installation of a traffic “worm” median in Clovis Avenue at Riordan Avenue, which will be constructed at a later date at the determination of the City Engineer.

- b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Less-Than-Significant Impact. Under Senate Bill 743 (SB743), starting July 2020, projects will be required to assess traffic impacts based on Vehicle Miles Traveled (VMT), which is the amount and distance of automobile travel attributable to a project, as opposed to the existing Level of Service (LOS) method, which measures vehicle delays. As such, VMT is not required to be assessed until July 2020. However, the Project would serve to reduce VMT as it is an infill site and is consistent with General Plan Policy 1.4 of the Circulation Element, which encourages infill development for the purpose of reducing VMT. Overall, the Project, as an infill site, would result in a **less-than-significant** impact.

²¹ Traffic Impact Analysis, Tentative Tract No. 6263, JLB Traffic Engineering, Inc., August 9, 2019, page 19.

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. Further, the main roadway network (i.e. Shepherd Avenue, Clovis Avenue, and Riordan Avenue) was previously 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.

d) *Would the project result in inadequate emergency access?*

Less-Than-Significant Impact. The Project would include three ingress/egress access points to the proposed development, including access from Riordan Avenue, Russell Avenue, and Prescott Lane. 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 Clovis Municipal Code 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		X		

significance of the resource to a California Native American Tribe?				
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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, similar to SB18. However, unlike SB18, where consultation is required for all General Plan and Specific Plan Amendments, 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 Senate Bill 18 (SB18) and Assembly Bill 52 (AB52). In compliance with AB52, invitations for consultation were mailed on June 12, 2019 which affords Native tribes thirty (30) days to respond and to request consultation. During this timeframe, no requests for consultations were received. In compliance with SB18, invitations for consultation were mailed on June 12, 2019 which affords Native tribes ninety (90) days to request consultation.

During that time, one (1) tribe requested consultation. On June 19, 2019, representatives from Table Mountain Rancheria met with City staff and the Project applicant to discuss the potential for cultural resources at the site. Following the meeting, staff, applicant, and representatives from Table Mountain Rancheria conducted a site visit on June 25, 2019 for field observations. Based on these observations, there were no discoveries or indication of the presence of artifacts; however, mitigation measures are included in the following analysis to ensure protection of such resources if any are discovered inadvertently.

A Cultural Resource Inventory and Evaluation (Cultural Report) was prepared by Applied EarthWorks, Inc. dated May 2019 (see Appendix C). This Cultural Report included a records search at the California Historical Resources Information System (CHRIS) Southern San Joaquin Valley Information Center (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 previously disturbed as a result of some light grading and the mowing of weeds and shrubs, as well as previous agricultural activities. Further, the Cultural Report concluded that there was no evidence of prehistoric archaeological

sites, isolated artifacts, or other archaeological features.²² However, the applicant, City staff, and representatives from Table Mountain Rancheria conducted a site visit during consultation to determine the likelihood for the presence of cultural resources. Although no resources were identified during that visit, 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: At least five (5) business days prior to any ground-disturbing activities during construction, such as grading and/or installation of utilities, the applicant and/or their contractor, shall notify cultural resources staff at Table Mountain Rancheria to invite them to monitor the site during such ground-disturbance. At the time of this notification, the applicant shall also provide grading plans to Table Mountain Rancheria for review. During this time, and prior to ground-disturbing activities, the Project applicant and their contractors shall allow Table Mountain Rancheria to hold a meeting to educate the contractors and the applicant on what to look out for during activities to ensure the protection of archaeological and tribal resources.

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, 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. During this time, Table Mountain Rancheria shall be contacted to determine if artifacts are culturally important. 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 and/or representatives from Table Mountain Rancheria 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

²² Cultural Resources Inventory and Evaluation for Tract 6263 prepared by Applied Earthworks, Inc., page 31, May 2019.

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

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 Fresno Irrigation District (MID). 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 Fresno Metropolitan Flood Control District (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 137 residential units on an infill site. 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 approval of the general plan amendment and rezone. 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 is of the type of development previously accounted for in the 2014 Clovis General Plan, and is on an infill site surrounded with existing urban uses which are served adequately with City water. 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.

- 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**.

- 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 Clovis Municipal Code during construction. This section of the Clovis Municipal Code 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.²³ 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			X	

²³ Calrecycle, City of Clovis, <https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006>, accessed June 17, 2019.

temporary or ongoing impacts to the environment?				
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 generally flat and characterized primarily by low lying shrubs and grasses.

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 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 department and other departments to ensure safe access to and from the area is maintained. Further, the site itself would 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 flat and undeveloped and 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 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. 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. The site is located in an area previously developed with urban uses. 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.

- 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 associated 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 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 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.

- 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 through compliance with existing regulations from the SJVPACD. As such, future Projects in Clovis would be required to comply with those same regulations, ensuring adequate mitigation as development occurs. Lastly, while the Project would introduce 137 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.

- 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, the Project 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.

H. Report Preparation

LEAD AGENCY

Ricky Caperton, AICP

Senior Planner
City of Clovis
Planning & Development Services

TECHNICAL STUDIES

Air Quality and Greenhouse Gas Analysis Report

Lennar Central Valley Tract No. 6263
Dave Mitchell, Senior Air Quality Scientist
Mitchell Air Quality Consulting

Biological Evaluation Report

Lennar Tract 6263
Austin Pearson, Director of Ecological Services
Anna Godinho, Staff Ecologist
Live Oak Associates, Inc.

Cultural Resources Inventory and Evaluation

Lennar Tract 6263
Randy Ottenhoff, Annie McCausland, and Diane Dyste
Applied EarthWorks, Inc.

Acoustical Analysis (Noise Study)

Tentative Tract No. 6263
Walter J. Van Groningen, President
WJV Acoustics, Inc.

Traffic Impact Analysis

Tentative Tract No. 6263
Jose L. Benavidas, PE, TE
JLB Traffic Engineering, Inc.

MITIGATION MONITORING AND REPORTING PROGRAM
 GPA2019-001/R2019-003/TM6263

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
Biological Resources				
BIO-1	<p>Swainson’s Hawk. If possible, construction activities should occur outside of the Swainson’s hawk nesting season of March 1 to September 15. If that is not feasible, pre-construction surveys shall be conducted by a qualified biologist no more than 14 days prior to the start of construction and/or ground-disturbing activities and shall be conducted on the Project site, as well as adjacent lands within 1/2 –mile of the site to identify any nesting pairs of Swainson’s hawks that may be present. If any active nests are discovered, an appropriate disturbance-free buffer shall be established based on local conditions and as suggested by a qualified biologist or governing agency. Any buffers shall be identified on the ground with flagging, fencing, and/or by other easily visible means, and shall be maintained until the biologist has determined that the young have fledged.</p>	City of Clovis Planning	<i>Prior to Permits and During Construction</i>	
BIO-2	<p>Migratory Birds and Raptors. If possible, construction activities should occur outside of the Swainson’s hawk nesting season of February 1 to August 31. If that is not feasible, pre-construction surveys shall be conducted by a qualified biologist no more than 14 days prior to the start of construction and/or ground-disturbing activities and</p>			

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	<p>shall be conducted on the Project site. If any active nests are discovered, an appropriate disturbance-free buffer shall be established based on local conditions and as suggested by a qualified biologist or governing agency. Any buffers shall be identified on the ground with flagging, fencing, and/or by other easily visible means, and shall be maintained until the biologist has determined that the young have fledged.</p>			
BIO-3	<p>Pallid and Western Mastiff Bat. If possible, the removal of residential trees and/or structures should occur outside of the period between April 15 and August 31, which is the time frame which colony-nesting bats generally assemble, give birth, nurse their young, and disperse. If that is not feasible, a qualified biologist shall survey trees/buildings for the presence of bats within 30 days prior to their removal, which may require the biologist to wait for nighttime emergence of bats from roost sites. If a non-breeding bat roost is found, the individuals shall be humanely removed via two-stage removal of trees under the direction of a qualified biologist to ensure that no harm or “take” of any bats occurs as a result of the Project. If a maternity colony is discovered during the pre-construction surveys, a disturbance-free buffer shall be established around the colony and remain in place until a qualified biologist determines that the nursery is no longer active. The buffer will</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)
	range from a minimum of 50 feet to 100 feet, as determined by the biologist.			
Cultural Resources				
CULT-1	<p>At least five (5) business days prior to any ground-disturbing activities during construction, such as grading and/or installation of utilities, the applicant and/or their contractor, shall notify cultural resources staff at Table Mountain Rancheria to invite them to monitor the site during such ground-disturbance. At the time of this notification, the applicant shall also provide grading plans to Table Mountain Rancheria for review. During this time, and prior to ground-disturbing activities, the Project applicant and their contractors shall allow Table Mountain Rancheria to hold a meeting to educate the contractors and the applicant on what to look out for during activities to ensure the protection of archaeological and tribal resources.</p> <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, 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. During this time, Table Mountain Rancheria shall be contacted to determine if artifacts are culturally important. Cultural resource materials may include prehistoric resources such 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)
	<p>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 and/or representatives from Table Mountain Rancheria 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</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>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.</p>			
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, 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 determines that the discovery represents a potentially significant</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>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>			
Noise				
NOISE-1a	<p>Exterior Noise. The Project shall include installation of a sound wall along Shepherd Avenue at least six (6) feet in height above grade. Suitable materials include concrete block, masonry, and/or stucco on both sides of a wood or steel stud wall. Other materials may be used if recommended and/or approved by a noise professional and within the standards of the City. Two-story homes shall not construct balconies facing Shepherd Avenue.</p>	City of Clovis Planning	<i>During Construction and Prior to Occupancy</i>	
NOISE-1b	<p>Interior Noise. Mechanical ventilation or air conditioning shall be provided for all homes to enable windows and doors to remain closed for</p>	City of Clovis Planning	<i>During Construction and</i>	

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	sound insulation purposes. Acoustic baffles shall be installed on the interior side of gable vents that face, or are perpendicular to Shepherd Avenue.		<i>Prior to Occupancy</i>	
Transportation				
TRAF-1	The Project proponent and/or applicant shall contribute their share of development impact fees for the following improvements, which will be constructed and/or modified at the determination of the City Engineer: (1) signalization at the intersection of Shepherd and Sunnyside Avenues; (2) signalization at the intersection of Clovis and Shepherd Avenue; and (3) improvements to extend queuing lengths along Shepherd and Clovis Avenue.	City of Clovis Engineering	<i>Prior to Permits</i>	
TRAF-2	The Project proponent and/or applicant shall contribute their proportional share of the construction costs for the installation of a traffic “worm” median in Clovis Avenue at Riordan Avenue, which will be constructed at a later date at the determination of the City Engineer.	City of Clovis Engineering	<i>Prior to Permits</i>	
Tribal Cultural Resources				
TCR-1	At least five (5) business days prior to any ground-disturbing activities during construction, such as grading and/or installation of utilities, the applicant and/or their contractor, shall notify cultural resources staff at Table Mountain Rancheria to invite them to monitor the site during such ground-	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>disturbance. At the time of this notification, the applicant shall also provide grading plans to Table Mountain Rancheria for review. During this time, and prior to ground-disturbing activities, the Project applicant and their contractors shall allow Table Mountain Rancheria to hold a meeting to educate the contractors and the applicant on what to look out for during activities to ensure the protection of archaeological and tribal resources.</p> <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, 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. During this time, Table Mountain Rancheria shall be contacted to determine if artifacts are culturally important. 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 and/or representatives from Table Mountain Rancheria determines that the discovery represents a potentially significant cultural resource, additional investigations may be required to mitigate adverse</p>			

Proposed Mitigation	Summary of Measure	Monitoring Responsibility	Timing	Verification (Date and Initials)
	<p>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(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</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)
	regarding the discovery of human remains on the project site shall be submitted to the Lead Agency.			

APPENDIX A

Air Quality and Greenhouse Gas Analysis Report

Lennar Central Valley Tract No. 6263

July 22, 2019

Ricky Caperton, Senior Planner
 City of Clovis
 1033 5th Street
 Clovis, CA 93612

Subject: Lennar Central Valley Tract No. 6263 Air Quality and Greenhouse Gas Analysis Report Revised Unit Counts, Clovis, CA

Dear Mr. Caperton:

Mitchell Air Quality Consulting (MAQC) is the air quality consulting firm that prepared the Air Quality and Greenhouse Gas Analysis Report for Tentative Tract Map 6263. Revisions to the tract map resulted in an increase in the number of residential units that would ultimately be constructed at the project site. The City of Clovis requested that the technical studies for the project be updated to reflect the increased impact from the change from 137 lots to 139 lots. The effects of the change on the conclusions of the analysis are described below.

The Air Quality and Greenhouse Gas Analysis Report found all impacts to be less than significant with no mitigation measures required. The analysis compared the project’s criteria pollutant emissions with San Joaquin Valley Air Pollution Control District (SJVAPCD) thresholds of significance for regional and criteria pollutants. The results indicated that project emissions were well below the significance thresholds and screening thresholds. The emission models used for the project calculate emissions on a per unit basis; therefore, the increase in emissions is proportional with the increased number of units. An increase of 2 units results in a 1.5 percent increase in emissions. The following emission results tables show the effect of a 1.5 percent increase in emissions.

Table 1 provides the construction emission results for 137 units and with the increase for the additional two units. The threshold is based on the highest year of construction emissions for each pollutant. The size of the site has not changed, so no change in site preparation and grading would occur. Ground up construction activities would increase by 1.5 percent to construct the 2 additional units. The analysis assumes the additional units would be constructed during the year with the maximum impact.

Table 1: Construction Air Pollutant Emissions Summary (Unmitigated)

Year	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Construction 2019	0.04	0.37	0.23	0.02	0.02
Construction 2020	0.14	1.41	0.96	0.19	0.12

Table 1 (cont.): Construction Air Pollutant Emissions Summary (Unmitigated)

Year	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Construction 2021	0.15	1.34	1.25	0.13	0.08
Construction 2022	0.14	1.21	1.21	0.12	0.07
Construction 2023	1.10	0.86	0.98	0.08	0.05
Grand Total for All Years of Construction	1.56	5.19	4.63	0.54	0.32
<i>Highest Construction Emissions in Any Year</i>	1.10	1.41	1.25	0.19	0.12
Emissions with 2 Additional Units	1.12	1.43	1.27	0.19	0.12
Significance threshold (tons/year)	10	10	100	15	15
Exceed threshold—significant impact?	No	No	No	No	No
Notes: PM ₁₀ and PM _{2.5} emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM ₁₀ Prohibitions. ROG = reactive organic gases NO _x = nitrogen oxides PM ₁₀ and PM _{2.5} = particulate matter Calculations use unrounded numbers. Source: CalEEMod output (Appendix A).					

The project operational emissions based on the original 137 units and the revised 139 units are provided in Table 2. No threshold would be exceeded by increased impact from the revision, so no new significant impact would occur.

Table 2: Operational Air Pollutant Emissions (Unmitigated)

Source	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Area	1.52	0.13	5.36	0.71	0.71
Energy	0.02	0.17	0.07	0.01	0.01
Mobile	0.44	1.60	4.98	1.42	0.39
Total Project Emissions	1.97	1.90	10.41	2.14	1.12
Emissions with 2 Additional Units	2.00	1.93	10.57	2.17	1.14
Significance threshold	10	10	100	15	15
Notes: ROG = reactive organic gases NO _x = nitrogen oxides PM ₁₀ and PM _{2.5} = particulate matter Area source emissions include emissions from natural gas, landscape, and painting. Source: CalEEMod output (Appendix A).					

The SJVAPCD guidance provides screening thresholds to determine if localized emissions would result in emission concentrations that violate air quality standards or result in a significant increase in a pollutant that already exceeded the standard. The amount of construction that occurs on any given day of construction is not likely to increase with 2 additional units. The number of days of construction would likely increase slightly to build the additional units. Table 3 provides the maximum daily construction emissions from the report.

Table 3: Maximum Daily Air Pollutant Emissions during Construction

Maximum Daily Emissions Year and Activity	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Highest Emissions in Any Year	44.03	50.26	32.60	10.48	6.53
Screening Thresholds	100	100	100	100	100
Exceeds Threshold (Yes or No)	No	No	No	No	No
Notes: NO _x = nitrogen oxides CO = carbon monoxide PM ₁₀ and PM _{2.5} = particulate matter N/A = Not applicable Summer emissions were higher for CO and winter emissions were higher for NO _x . All other pollutants were equal during each season. There is no ambient air quality standard for ROG. Source: CalEEMod output (Appendix A).					

Maximum daily operational emissions would increase in proportion to the increase in units. Table 4 shows the increase in emissions with 2 additional units.

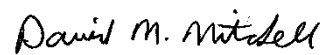
Table 4: Maximum Daily Air Pollutant Emissions during Operations (Mitigated)

Maximum Daily Emissions per Source Category and Phase	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Area	6.31	1.38	11.78	0.16	0.16
Energy	0.11	0.90	0.38	0.07	0.07
Mobile	0.22	0.61	2.03	0.52	0.14
Total	6.63	2.89	14.19	0.76	0.38
Emissions with 2 Additional Units	6.73	2.93	14.40	0.77	0.39
Screening threshold	100	100	100	100	100
Exceed screening threshold?	No	No	No	No	No
Notes: NO _x = nitrogen oxides CO = carbon monoxide PM ₁₀ and PM _{2.5} = particulate matter N/A = Not applicable Summer emissions used for all pollutants except for NO _x , which is higher in winter. There is no ambient air quality standard for ROG. Source: CalEEMod output (Appendix A).					

Greenhouse gas emission impacts are based on performance-based thresholds measured by the project's percentage emission reduction from business as usual. The addition of similar residential units meeting the same requirements does not change the percentage reduction. Therefore, adding 2 units to the project would not change the reductions achieved by the project and the greenhouse gas significance findings.

If you have any questions or concerns regarding this information, please contact me at 559.246.3732 or via email at dmitchell@mitchellaq.com. MAQC will expedite any request for additional information or clarification and is available to meet at any time to quickly resolve issues if they arise.

Sincerely,



David M. Mitchell
Owner/Senior Air Quality Scientist
Mitchell Air Quality Consulting
1164 E. Decatur Avenue
Fresno, CA 93720

Mitchell Air Quality Consulting

Air Quality and Greenhouse Gas Analysis Report Lennar Central Valley Tract No. 6263 City of Clovis, California

Prepared for:
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April 3, 2019

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ACRONYMS AND ABBREVIATIONS

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AB	Assembly Bill
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
BAU	Business as Usual
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CEQA	California Environmental Quality Act
CO	carbon monoxide
CO ₂	carbon dioxide
District	San Joaquin Valley Air Pollution Control District
DPM	diesel particulate matter
EMFAC	EMission FACTors Model
EPA	United States Environmental Protection Agency
Fresno COG	Fresno Council of Governments
GAMAQI	Guidance for Assessing and Mitigating Air Quality Impacts
GHG Rx	Greenhouse Gas Reduction Exchange
GHG(s)	greenhouse gas(es)
HAP	hazardous air pollutant
HRA	health risk assessment
IPCC	United Nations Intergovernmental Panel on Climate Change
MAQC	Mitchell Air Quality Consulting
MMTCO ₂ e	million metric tons of carbon dioxide equivalent
MTCO ₂ e	metric tons of carbon dioxide equivalent
NO _x	nitrogen oxides
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter
ppb	parts per billion
ppm	parts per million
ROG	reactive organic gases
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SJVAPCD	San Joaquin Valley Air Pollution Control District
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO _x	sulfur oxides
VOC	volatile organic compounds

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SECTION 1: EXECUTIVE SUMMARY

1.1—Purpose and Methods of Analysis

The following air quality and greenhouse gas (GHG) analysis was prepared to evaluate whether the estimated criteria air pollutants, toxic air contaminants (TACs), and GHG emissions generated from the development of Tract No. 6263 (project) would cause significant impacts to air resources in the project area. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The methodology follows the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) prepared by the San Joaquin Valley Air Pollution Control District (SJVAPCD or District) for quantification of emissions and evaluation of potential impacts to air resources (SJVAPCD 2015a) and the SJVAPCD's Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA (SJVAPCD 2009).

1.2—Project Description

The project consists of the construction and development of 137 single-family homes. The project would be constructed on 23.35 acres (gross) and 21.22 acres (net). The site is zoned R-1-7500 and the proposed zoning is R-1 MD. The average lot size would be 4,709 square feet. The project would be located on the south side of East Shepherd Avenue between North Clovis Avenue and North Sunnyside Avenue in Clovis, California. The Assessor's Parcel Numbers are 560-031-23S, 560-031-34S, and 560-031-35S. The site includes existing buildings and trees that would be removed.

The project's regional vicinity location is shown in Figure 1; an aerial view of the local vicinity is provided in Figure 2; and the Tentative Tract Map is provided in Figure 3.

1.3—Summary of Analysis Results

The following is a summary of the analysis results. As shown below, the project would result in less than significant impacts for all air quality and GHG impact criteria analyzed.

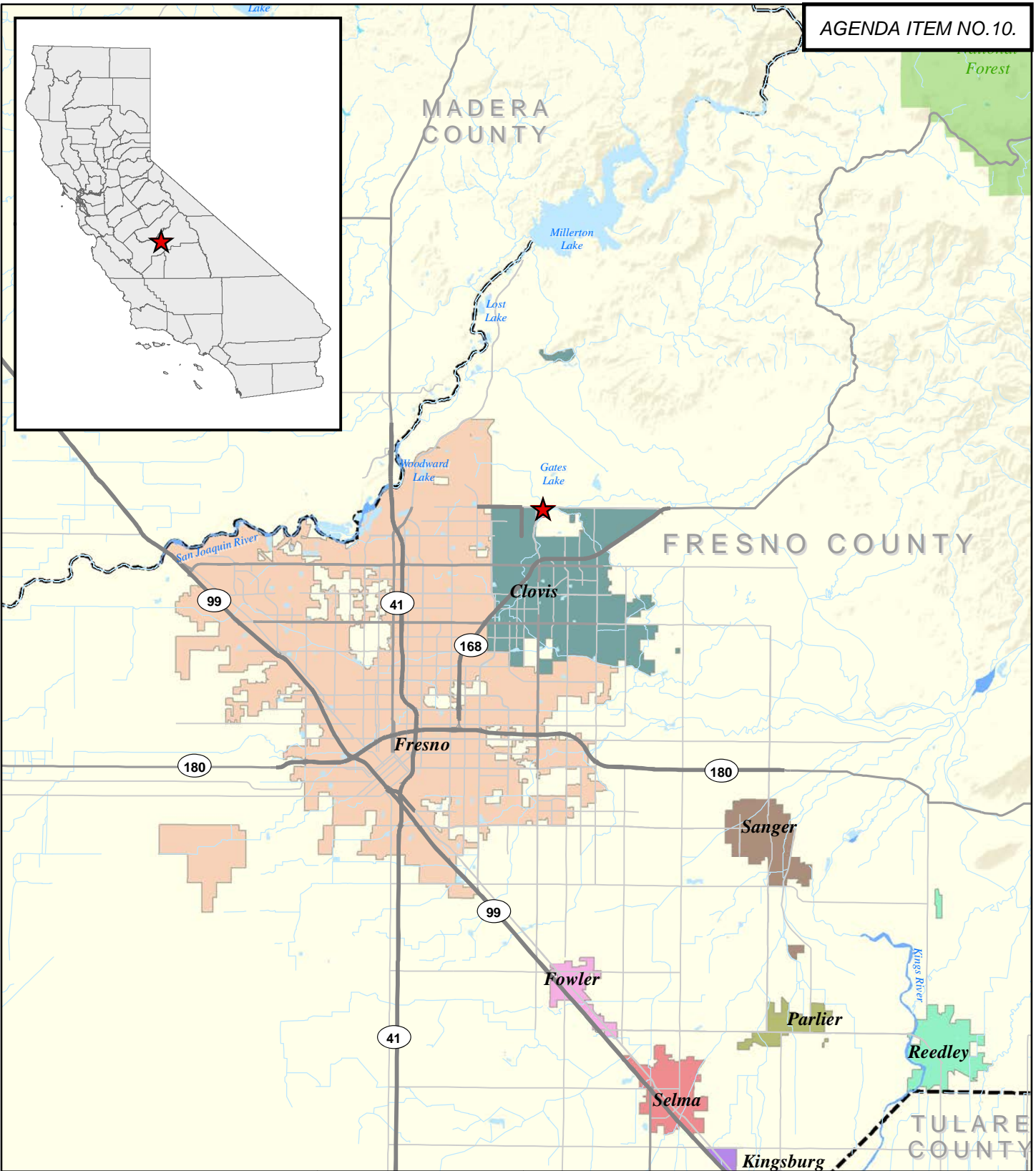
- Impact AIR-1:** The project would not conflict with or obstruct implementation of the applicable air quality plan. **Less than significant impact.**
- Impact AIR-2:** The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors). **Less than significant impact.**
- Impact AIR-3:** The project would not expose sensitive receptors to substantial pollutant concentrations. **Less than significant impact.**
- Impact AIR-4:** The project would not create objectionable odors affecting a substantial number of people. **Less than significant impact.**

Impact GHG-1: The project would not generate direct or indirect greenhouse gas emissions that would result in a significant impact on the environment. **Less than significant impact.**



Impact GHG-2: The project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of greenhouse gases. **Less than significant impact.**

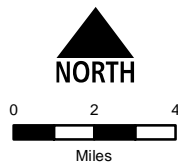
1.4—Standard Conditions and Mitigation Measures Applied to the Project

No mitigation measures beyond compliance with mandatory regulations were required to demonstrate that the project would have less than significant for air quality, health risk, and GHG impacts.



Legend

-  Project Location
-  County Boundary



1:300,000

LENNAR CENTRAL VALLEY
AIR QUALITY AND GREENHOUSE GAS ANALYSIS REPORT
CITY OF CLOVIS TRACT 6263

Figure 1. Regional Location Map

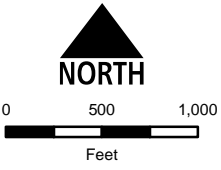
Sources: Fresno County GIS; Open StreetMap; CalAtlas. USFS. Map date: March 26, 2019.

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Legend

- Project Boundary
- Clovis City Limits

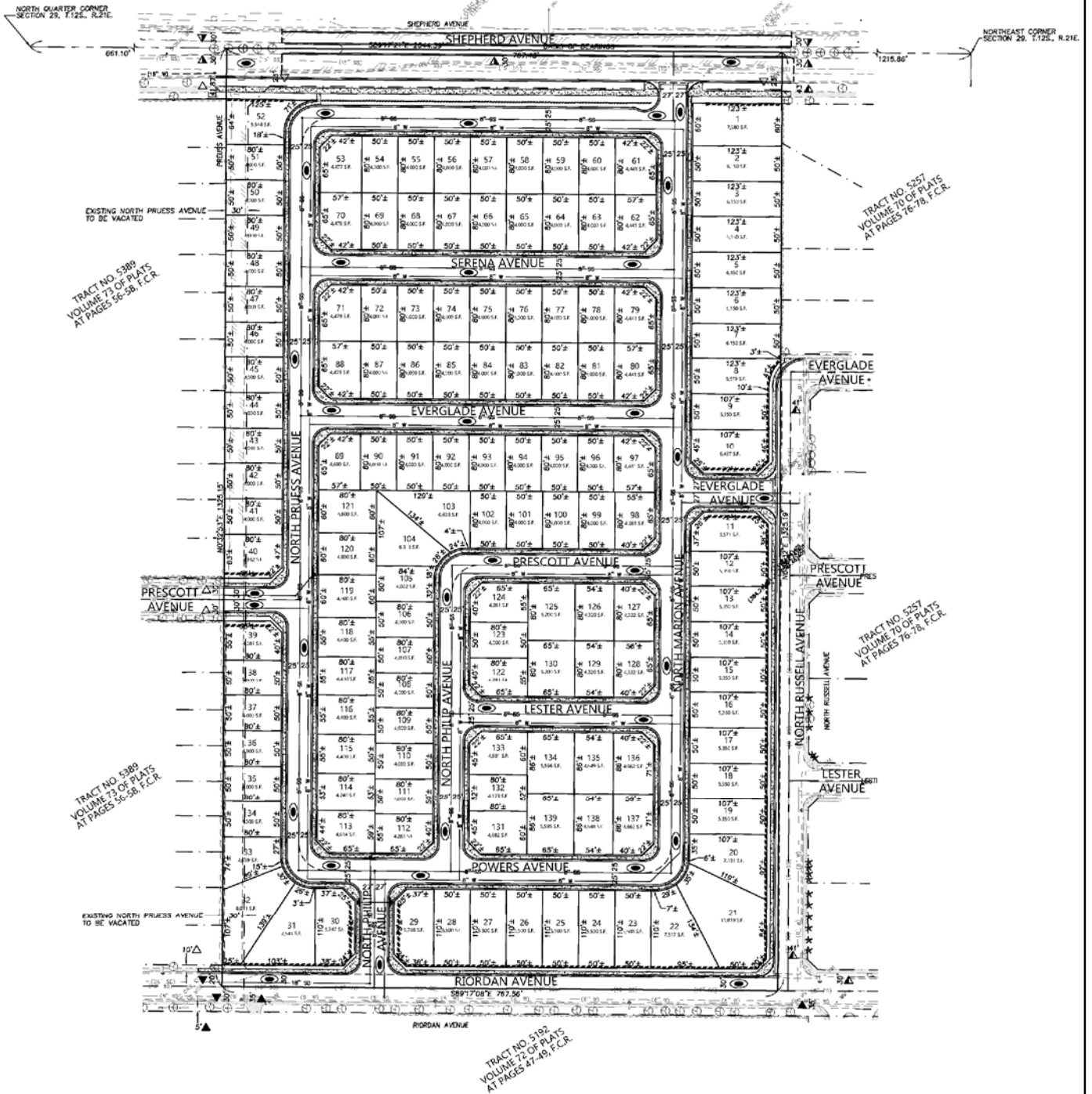


**LENNAR CENTRAL VALLEY
AIR QUALITY AND GREENHOUSE GAS ANALYSIS REPORT
CITY OF CLOVIS TRACT 6263**

Figure 2. Local Vicinity Map

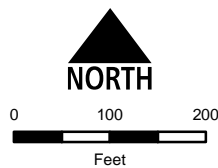
Sources: Fresno County, USGS NHD.
Map date: March 26, 2019.

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LENNAR CENTRAL VALLEY
AIR QUALITY AND GREENHOUSE GAS ANALYSIS REPORT
CITY OF CLOVIS TRACT 6263

Figure 3. Tract Map



Sources: Yamabe & Horn Engineering, Inc.
Vesting Tentative Subdivision Map Tract No. 6263
2/19/2019. Map date: March 26, 2019.

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SECTION 2: AIR QUALITY SETTING

2.1—Environmental Setting

Air quality impacts are both local and regional. Regional and local air quality is impacted by topography, dominant airflows, atmospheric inversions, location, and season. The project is located in the San Joaquin Valley Air Basin (Air Basin), which experiences some of the most challenging environmental conditions for air quality in the nation. The following section describes these conditions as they pertain to the Air Basin. The information in this section is primarily from the SJVAPCD's GAMAQI (SJVAPCD 2015a).

2.1.1 - San Joaquin Valley Air Basin

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 SJVAPCD covers the entirety of the Air Basin. The Air Basin 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 climate is important for air quality because of differences in the atmosphere's ability to trap pollutants close to the ground, which creates adverse air quality; inversely, the atmosphere's ability to rapidly disperse pollutants over a wide area prevents high concentrations from accumulating under different climatic conditions. The Air Basin has an "inland Mediterranean" climate and is characterized by long, hot, dry summers and short, foggy winters. Sunlight can be a catalyst in the formation of some air pollutants (such as ozone); the Air Basin averages over 260 sunny days per year.

Inversion layers are significant in determining pollutant concentrations. Concentration levels can be related to the amount of mixing space below the inversion. Temperature inversions that occur on the summer days are usually encountered 2,000 to 2,500 feet above the valley floor. In winter months, overnight inversions occur 500 to 1,500 feet above the valley floor.

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the Air Basin form natural horizontal barriers to the dispersion of air contaminants. The wind generally flows south-southeast through the valley, through the Tehachapi Pass and into the Mojave Desert Air Basin portion of Kern County. As the wind moves through the Air Basin, it mixes with the air pollution generated locally, generally transporting air pollutants from the north to the south in the summer and in a reverse flow in the winter.

The winds and unstable air conditions experienced during the passage of winter 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, which can lead to Tule fog. Wintertime conditions favorable to fog formation are also conditions favorable to high concentrations of PM_{2.5} and PM₁₀.

2.2—Regulatory Setting

Air pollutants are regulated to protect human health and for secondary effects such as visibility and building soiling. The Clean Air Act of 1970 tasks the United States Environmental Protection Agency (EPA) with setting air quality standards. The State of California also sets air quality standards, which are in some cases more stringent than federal standards, in addition to addressing additional pollutants. The following section describes these federal and state standards and the health effects of the regulated pollutants.

2.2.1 - Clean Air Act

Congress established much of the basic structure of the Clean Air Act (CAA) in 1970, and made major revisions in 1977 and 1990. Six common air pollutants (also known as criteria pollutants) are addressed in the CAA: particulate matter, ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. The EPA labels these pollutants as criteria air pollutants because they are regulated by developing human health-based and/or environmentally based criteria (science-based guidelines), which sets permissible levels. The set of limits based on human health are called primary standards. Another set of limits intended to prevent environmental and property damage are called secondary standards (EPA 2014). The federal standards are called National Ambient Air Quality Standards (NAAQS). The air quality standards provide benchmarks for determining whether air quality is healthy at specific locations and whether development activities will cause or contribute to a violation of the standards. The criteria pollutants are:

- Ozone
- Nitrogen dioxide (NO₂)
- Lead
- Particulate matter (PM₁₀ and PM_{2.5})
- Carbon monoxide (CO)
- Sulfur dioxide

The federal standards were set to protect public health, including that of sensitive individuals; thus, the EPA is tasked with updating the standards as more medical research is available regarding the health effects of the criteria pollutants. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health (ARB 2016).

2.2.2 - California Clean Air Act

The California Legislature enacted the California Clean Air Act (CCAA) in 1988 to address air quality issues of concern not adequately addressed by the federal CAA at the time. California's air quality problems were and continue to be some of the most severe in the nation, and required additional actions beyond the federal mandates. The California Air Resources Board (ARB) administers California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the CCAA. The 10 state air pollutants are the six federal standards listed above as well visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. The EPA authorized California to adopt its own regulations for motor vehicles and other sources that are more stringent than similar federal regulations implementing the CAA. Generally, the planning requirements of the CCAA are less

stringent than the federal CAA; therefore, consistency with the CAA will also demonstrate consistency with the CCAA.

2.2.3 - Toxic Air Contaminants

A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. There are no ambient air quality standards for TAC emissions. TACs are regulated in terms of health risks to individuals and populations exposed to the pollutants. The 1990 Clean Air Act Amendments significantly expanded the EPA's authority to regulate hazardous air pollutants (HAP). Section 112 of the Clean Air Act lists 187 hazardous air pollutants to be regulated by source category. Authority to regulate these pollutants was delegated to individual states. ARB and local air districts regulate TACs and HAPs in California.

2.2.4 - Air Pollutant Description and Health Effects

The federal and state ambient air quality standards, relevant effects, properties, and sources of the pollutants are summarized in Table 1.

Table 1: Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard ^a	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Ozone	1 Hour	0.09 ppm	—	Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; increased mortality risk; vegetation and property damage.	Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between volatile organic compounds (VOC), NO _x , and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind.	Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NO _x) are mobile sources (on-road and off-road vehicle exhaust).
	8 Hour	0.070 ppm	0.070 ppm ^f			
Carbon monoxide (CO)	1 Hour	20 ppm	35 ppm	Ranges depending on exposure: slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.	CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources.
	8 Hour	9.0 ppm	9 ppm			
Nitrogen dioxide ^b (NO ₂)	1 Hour	0.18 ppm	0.100 ppm	Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; contribution to atmospheric discoloration; increased visits to hospital for respiratory illnesses.	During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides—NO _x (NO, NO ₂ , NO ₃ , N ₂ O, N ₂ O ₃ , N ₂ O ₄ , and N ₂ O ₅). NO _x is a precursor to ozone, PM ₁₀ , and PM _{2.5} formation. NO _x can react with compounds to form nitric acid and related small particles and result in PM-related health effects.	NO _x is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. Nitrogen dioxide (NO ₂) forms quickly from NO _x emissions. NO ₂ concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.
	Annual	0.030 ppm	0.053 ppm			

Table 1 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard ^a	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfur dioxide ^c (SO ₂)	1 Hour	0.25 ppm	0.075 ppm	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.	Sulfur dioxide is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SO _x) include sulfur dioxide and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although sulfur dioxide concentrations have been reduced to levels well below state and federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM ₁₀ .	Human-caused sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The sulfur dioxide levels in the State are well below the maximum standards.
	3 Hour	—	0.5 ppm			
	24 Hour	0.04 ppm	0.14 (for certain areas)			
	Annual	—	0.030 ppm (for certain areas)			
Particulate matter (PM ₁₀)	24 Hour	50 µg/m ³	150 µg/m ³	<ul style="list-style-type: none"> Short-term exposure (hours/days): irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravates existing lung disease, causing asthma attacks and acute bronchitis; those with heart disease can suffer heart attacks and arrhythmias. Long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; death. 	Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM ₁₀ refers to particulate matter that is between 2.5 and 10 microns in diameter (1 micron is one-millionth of a meter). PM _{2.5} refers to particulate matter that is 2.5 microns or less in diameter, about one-thirtieth the size of the average human hair.	Stationary sources include fuel or wood combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal; and recycling. Mobile or transportation-related sources are from vehicle exhaust and road dust. Secondary particles form from reactions in the atmosphere.
	Mean	20 µg/m ³	—			
Particulate matter (PM _{2.5})	24 Hour	—	35 µg/m ³			
	Annual	12 µg/m ³	12.0 µg/m ³			
Visibility-reducing particles	8 Hour	See note below ^d				

Table 1 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard ^a	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfates	24 Hour	25 µg/m ³	—	(a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms; (c) aggravation of cardio-pulmonary disease; (d) vegetation damage; (e) degradation of visibility; (f) property damage.	The sulfate ion is a polyatomic anion with the empirical formula SO ₄ ²⁻ . Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.	Sulfates are particulates formed through the photochemical oxidation of sulfur dioxide. In California, the main source of sulfur compounds is combustion of gasoline and diesel fuel.
Lead ^e	30-day	1.5 µg/m ³	—	Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction, behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQ.	Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded state or federal standards at any monitoring station since 1982.	Lead ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering.
	Quarter	—	1.5 µg/m ³			
	Rolling 3-month average	—	0.15 µg/m ³			
Vinyl chloride ^e	24 Hour	0.01 ppm	—	Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.	Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, ARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.	Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.
Hydrogen sulfide	1 Hour	0.03 ppm	—	High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause	Hydrogen sulfide (H ₂ S) is a flammable, colorless, poisonous gas that smells like rotten eggs.	Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide.

Table 1 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard ^a	Most Relevant Effects from Pollutant Exposure	Properties	Sources
				headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema.		Anthropogenic sources include the combustion of sulfur-containing fuels (oil and coal).
Volatile organic compounds (VOC)		There are no state or federal standards for VOCs because they are not classified as criteria pollutants.		Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea; and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified as toxic air contaminants.	Reactive organic gases (ROG), or VOCs, are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROG and VOCs, the two terms are often used interchangeably.	Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM ₁₀ and lower visibility.
Diesel particulate matter (DPM)		There are no ambient air quality standards for DPM.		Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. 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. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.	DPM is a source of PM _{2.5} —diesel particles are typically 2.5 microns and smaller. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate matter mass, which consists of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, a number of which are found in diesel exhaust.	Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction vehicles, diesel electrical generators, and various pieces of stationary construction equipment.

Table 1 (cont.): Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard ^a	Most Relevant Effects from Pollutant Exposure	Properties	Sources
<p>Notes:</p> <p>ppm = parts per million (concentration) $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter Annual = Annual Arithmetic Mean 30-day = 30-day average Quarter = Calendar quarter</p> <p>^a Federal standard refers to the primary national ambient air quality standard, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3 Hour SO₂, which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.</p> <p>^b To attain the 1-hour NO₂ 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 parts per billion (ppb) (0.100 ppm).</p> <p>^c 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.</p> <p>^d Visibility-reducing particles: 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.</p> <p>^e 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.</p> <p>^f The EPA Administrator approved a revised 8-hour ozone standard of 0.07 ppb on October 1, 2015. The new standard went into effect 60 days after publication of the Final Rule in the Federal Register. The Final Rule was published in the Federal Register on October 26, 2015 and became effective on December 28, 2015.</p> <p>Source of effects, properties, and sources: South Coast Air Quality Management District 2007; California Environmental Protection Agency 2002; California Air Resources Board 2009a; U.S. Environmental Protection Agency 2003, 2009a, 2009b, 2010, 2011, 2012a and 2012b; National Toxicology Program 2011 and 2016.</p> <p>Source of standards: California Air Resources Board 2013a.</p>						

Several pollutants listed in Table 1 are not addressed in this analysis. Analysis of lead, hydrogen sulfide, sulfates, and vinyl chloride are not included in this report because no new sources of these pollutant emissions are anticipated with the project. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed as PM₁₀ and PM_{2.5}.

Toxic Air Contaminants Health Effects

A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. There are no ambient air quality standards for TAC emissions. TACs are regulated in terms of health risks to individuals and populations exposed to the pollutants. The 1990 Clean Air Act Amendments significantly expanded the EPA's authority to regulate hazardous air pollutants. Section 112 of the Clean Air Act lists 187 hazardous air pollutants to be regulated by source category. Authority to regulate these pollutants was delegated to individual states. ARB and local air districts regulate TACs and hazardous air pollutants in California.

Exposures to TACs emissions can have both chronic long-term (over a year or longer) and acute short-term (over a period of hours) health impacts. The TACs of greatest concern are those that cause serious health problems or affect many people. Health problems can include cancer, respiratory irritation, nervous system problems, and birth defects. Some health problems occur very soon after a person inhales a TAC. These immediate effects may be minor, such as watery eyes, or they may be serious, such as life-threatening lung damage. Other health problems may not appear until many months or years after a person's first exposure to the TAC. Cancer is one example of a delayed health problem.

A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. The California Almanac of Emissions and Air Quality—2009 Edition (ARB 2009b) presents the relevant concentration and cancer risk data for the ten TACs that pose the most substantial health risk in California based on available data. The ten TACs are acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (DPM).

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program (ARB 1998) demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. In addition to increased 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 a cough, 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.

DPM differs from other TACs in that it is not a single substance, but a complex mixture of hundreds of substances. Although DPM 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 TACs, however, no ambient monitoring data are available for DPM because no routine measurement method currently exists. The ARB has made preliminary concentration estimates based on a DPM exposure method. This method uses the ARB emissions inventory's PM₁₀ database, ambient PM₁₀ monitoring data, and the results from several studies to estimate concentrations of DPM.

Health risks attributable to the top 10 TACs listed above are available from the ARB as part of its California Almanac of Emissions and Air Quality. As shown therein for data collected at the First Street air monitoring station in Fresno, cancer risks attributable to all of the listed TACs above with the exception of DPM have declined about 70 percent from the mid-1990s to 2007. Risks associated with DPM emissions are provided only for the year 2000 and have not been updated in the Almanac. Although more recent editions of the Almanac do not provide estimated risk, they do provide emission inventories for DPM for later years. The 2013 Almanac provides emission inventory trends for DPM from 2000 through 2035. The same Almanac reports that DPM emissions were reduced in the SJVAB from 16 tons per day in 2000 to 11 tons per day in 2010, a 31 percent decrease. DPM emissions in the San Joaquin Valley are projected to decrease to 6 tons per day by 2015, a 62 percent reduction from year 2000 levels. ARB predicts a reduction to three tons per day by 2035, which would be an 81 percent reduction from year 2000 levels. Continued implementation of the ARB's Diesel Risk Reduction Plan is expected to provide continued reductions in DPM through 2020 and beyond through regulations on this source (ARB 2013b).

Asbestos

Asbestos is the name given to a number of naturally occurring fibrous silicate minerals that have been mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The three most common types of asbestos are chrysotile, amosite, and crocidolite. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings. Chrysotile makes up approximately 90 to 95 percent of all asbestos contained in buildings in the United States. Exposure to asbestos is a health threat; exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest, and abdominal cavity), and asbestosis (a non-cancerous lung disease that causes scarring of the lungs). Exposure to asbestos can occur during demolition or remodeling of buildings that were constructed prior to the 1977 ban on asbestos for use in buildings. Exposure to naturally occurring asbestos can occur during soil-disturbing activities in areas with deposits present. No naturally occurring asbestos is located near the project site.

2.3—Existing Air Quality Conditions

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. Table 2 summarizes 2014 through 2016 published monitoring data, which is the most recent three-year period available. The table displays data from the Clovis-North Villa Avenue monitoring station (located approximately 3.6 miles south-southwest of the project site), which is the closest monitoring station to the project site. The data shows that during the past few years, the

project area has exceeded the standards for ozone (state and national), PM₁₀ (state), and PM_{2.5} (national). The data in the table reflect the concentration of the pollutants in the air, measured using air monitoring equipment. This differs from emissions, which are calculations of a pollutant being emitted over a certain period. No recent monitoring data for Fresno County or the San Joaquin Valley Air Basin was available for CO or SO₂. Generally, no monitoring is conducted for pollutants that are no longer likely to exceed ambient air quality standards.

Table 2: Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2015	2016	2017
Ozone ¹	1 Hour	Max 1 Hour (ppm)	0.116	0.113	0.138
		Days > State Standard (0.09 ppm)	18	26	13
Ozone	8 Hour	Max 8 Hour (ppm)	0.098	0.095	0.100
		Days > State Standard (0.07 ppm)	51	63	50
		Days > National Standard (0.070 ppm)	50	62	47
Carbon monoxide (CO)	8 Hour	Max 8 Hour (ppm)	ND	ND	ND
		Days > State Standard (9.0 ppm)	ND	ND	ND
		Days > National Standard (9 ppm)	ND	ND	ND
Nitrogen dioxide (NO ₂) ¹	Annual	Annual Average (ppm)	0.010	ID	0.010
	1 Hour	Max 1 Hour (ppm)	0.0590	0.0498	0.0588
		Days > State Standard (0.18 ppm)	0	0	0
Sulfur dioxide (SO ₂)	Annual	Annual Average (ppm)	ND	ND	ND
	24 Hour	Max 24 Hour (ppm)	ND	ND	ND
		Days > State Standard (0.04 ppm)	ND	ND	ND
Inhalable coarse particles (PM ₁₀) ¹	Annual	Annual Average (µg/m ³)	33.7	32.7	36.2
	24 hour	24 Hour (µg/m ³)	101.3	74.9	103.2
		Days > State Standard (50 µg/m ³)	50.3	61.3	13
		Days > National Standard (150 µg/m ³)	0	0	0
Fine particulate matter (PM _{2.5}) ¹	Annual	Annual Average (µg/m ³)	13.0	11.6	13.2
	24 Hour	24 Hour (µg/m ³)	80.7	50.4	69.5
		Days > National Standard (35 µg/m ³)	15.4	8.2	19.2
<p>Notes:</p> <p>> = exceed ppm = parts per million µg/m³ = micrograms per cubic meter</p> <p>ID = insufficient data ND = no data max = maximum</p> <p>Bold = exceedance</p> <p>State Standard = California Ambient Air Quality Standard</p> <p>National Standard = National Ambient Air Quality Standard</p> <p>¹ Clovis-North Villa Avenue</p> <p>Source: California Air Resources Board 2017a: Clovis-N. Villa Avenue Station.</p>					

The health impacts of the various air pollutants of concern can be presented in a number of ways. The clearest of these is comparable with the state and federal ozone standards. If concentrations are below the standard, it is safe to say that no health impact would occur to anyone. When concentrations exceed the standard, impacts will vary based on the amount by which the standard is exceeded. The EPA developed the Air Quality Index (AQI) as an easy-to-understand measure of health impacts compared with concentrations in the air. Table 3 provides a description of the health impacts of ozone at different concentrations.

Table 3: Air Quality Index and Health Effects from Ozone

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
AQI 51–100—Moderate Concentration 55–70 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk. Health Effects Statements: Unusually sensitive individuals may experience respiratory symptoms. Cautionary Statements: Unusually sensitive people should consider limiting prolonged outdoor exertion.
AQI 101–150—Unhealthy for Sensitive Groups Concentration 71–85 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk. Health Effects Statements: Increasing likelihood of respiratory symptoms and breathing discomfort in active children and adults and people with respiratory disease, such as asthma. Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.
AQI 151–200—Unhealthy Concentration 86–105 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk. Health Effects Statements: Greater likelihood of respiratory symptoms and breathing difficulty in active children and adults and people with respiratory disease, such as asthma; possible respiratory effects in general population. Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
AQI 201–300—Very Unhealthy Concentration 106–200 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk. Health Effects Statements: Increasingly severe symptoms and impaired breathing likely in active children and adults and people with respiratory disease, such as asthma; increasing likelihood of respiratory effects in general population. Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.

Source: Air Now 2015.

The AQI for the 8-hour ozone standard was changed to reflect the current NAAQS of 70 parts per billion (ppb). Based on the AQI scale for the 8-hour ozone standard, the project area experienced no days in the last three years that would be categorized as very unhealthy (AQI 201–250), and as many as 159 days that were unhealthy (AQI 151–200) or unhealthy for sensitive groups (AQI 101–150), violating the 70-ppb standard as measured at the Clovis-North Villa Avenue monitoring station. The highest reading was 100 parts per billion (ppb) in 2017 (AQI 187), compared with the 105-ppb cutoff point for unhealthy (AQI 200). The most days over the standard were 62 days in 2016.

The other nonattainment pollutant of concern is PM_{2.5}. An AQI of 100 or lower is considered moderate and would be triggered by a 24-hour average concentration of 12.1 to 35.4 µg/m³. An AQI of 101 to 105 or 35.5-55.4 µg/m³ is considered unhealthy for sensitive groups. When concentrations reach this amount, it is considered an exceedance of the federal PM_{2.5} standard. The monitoring station nearest the project exceeded the standard on approximately 43 days in the three-year period spanning from 2015 to 2017. People with respiratory or heart disease, the elderly and children are the groups most at risk. Unusually sensitive people should consider reducing prolonged or heavy exertion. The AQI of 151 to 200 is classified as unhealthy for everyone. This AQI classification is triggered when PM_{2.5} concentration ranges from 55.4 to 150.4 µg/m³. At this concentration, there is increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease, and in the elderly. People with respiratory or heart disease, the elderly, and children should limit prolonged exertion. Everyone else should reduce prolonged or heavy exertion. The highest concentration recorded at the Clovis-North Villa Avenue monitoring station in the last three years was 80.7 µg/m³ (AQI 164) in 2015. At this concentration, increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly, and increased respiratory effects in general population would occur. People with respiratory or heart disease, the elderly, and children should avoid prolonged exertion; everyone else should limit prolonged exertion when the AQI exceeds this level. The relationship of the AQI to health effects is shown Table 4.

Table 4: Air Quality Index and Health Effects of Particulate Pollution

Air Quality Index/ PM _{2.5} Concentration	Health Effects Description
<p>AQI 51–100—Moderate</p> <p>Concentration 12.1–35.4 µg/m³</p>	<p>Sensitive Groups: Some people who may be unusually sensitive to particle.</p> <p>Health Effects Statements: Unusually sensitive people should consider reducing prolonged or heavy exertion.</p> <p>Cautionary Statements: Unusually sensitive people: Consider reducing prolonged or heavy exertion. Watch for symptoms such as coughing or shortness of breath. These are signs to take it easier.</p>
<p>AQI 101–150—Unhealthy for Sensitive Groups</p> <p>Concentration 35.5–55.4 µg/m³</p>	<p>Sensitive Groups: Sensitive groups include people with heart or lung disease, older adults, children, and teenagers.</p> <p>Health Effects Statements: Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease, and the elderly.</p> <p>If you have heart disease: Symptoms such as palpitations, shortness of breath, or unusual fatigue may indicate a serious problem. If you have any of these, contact your health care provider.</p>

Table 4 (cont.): Air Quality Index and Health Effects of Particulate Pollution

Air Quality Index/ PM _{2.5} Concentration	Health Effects Description
AQI 151–200—Unhealthy Concentration 55.5–150.4 µg/m ³	Sensitive Groups: Everyone Health Effects Statements: Increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increased respiratory effects in general population. Cautionary Statements: Sensitive groups: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling. Everyone else: Reduce prolonged or heavy exertion. Take more breaks during outdoor activities.
AQI 201–300—Very Unhealthy Concentration 150.5–250.4 µg/m ³	Sensitive Groups: Everyone Health Effects Statements: Significant aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; significant increase in respiratory effects in general population. Cautionary Statements: Sensitive groups: Avoid all physical activity outdoors. Move activities indoors or reschedule to a time when air quality is better. Everyone else: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling to a time when air quality is better.

2.3.1 - Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further designated marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

Each standard has a different definition, or “form” of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual PM_{2.5} standard is met if the three-year average of the annual average PM_{2.5} concentration is less than or equal to the standard.

The current attainment designations for the Air Basin are shown in Table 5. The Air Basin is designated nonattainment for ozone, PM₁₀, and PM_{2.5}.

Table 5: San Joaquin Valley Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone—One Hour	Nonattainment/Severe	No Standard
Ozone—Eight Hour	Nonattainment	Nonattainment/Extreme
Carbon monoxide	Attainment/Unclassified	Merced, Madera, and Kings Counties are unclassified; others are in Attainment
Nitrogen dioxide	Attainment	Attainment/Unclassified
Sulfur dioxide	Attainment	Attainment/Unclassified
PM ₁₀	Nonattainment	Attainment
PM _{2.5}	Nonattainment	Nonattainment
Lead	Attainment	No Designation/Classification
Source of State status: California Air Resources Board (ARB 2013c). Source of National status: U.S. Environmental Protection Agency (EPA 2016a). Source of additional status information (SJVAPCD 2017a).		

2.4—Air Quality Plans and Regulations

Air pollutants are regulated at the national, state, and air basin or county level, and each agency has a different level of regulatory responsibility: the EPA regulates at the national level, the ARB at the state level, and the SJVAPCD at the air basin level.

The EPA is responsible for national and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards—also known as the federal standards described earlier.

A State Implementation Plan (SIP) is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The SIP for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California’s SIP incorporates individual federal attainment plans for regional air districts; specifically, an air district prepares their federal attainment plan, which is sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms. The ARB then submits the SIP to the EPA for approval. After reviewing submitted SIPs, the EPA proposes to approve or disapprove all or part of each plan. The public has an opportunity to comment on the EPA’s proposed action. The EPA considers public input before taking final action on a state’s plan. If EPA approves all or part of a SIP, those control measures are enforceable in federal court. If a state fails to submit an approvable plan or if the EPA disapproves a plan, the EPA is required to develop a federal implementation plan (FIP). The SIP approval process often takes several years.

The most recent federally approved attainment plans for the SJVAPCD are the 2007 8-Hour Ozone Attainment Plan and the 2012 PM_{2.5} Plan for the 2006 PM_{2.5} standard. The EPA Administrator signed

the Final Rule revising the 8-hour ozone standard to 70 ppm on October 1, 2015. The Air Basin is designated an extreme ozone nonattainment area for the EPA's 2008 8-hour ozone standard of 75 ppb. The plan to address this standard was adopted by the SJVAPCD on June 16, 2016. The ARB approved the attainment demonstration plan for the San Joaquin Valley on July 21, 2016 and transmitted the plan to the EPA on August 24, 2016. The plan for areas designated extreme nonattainment must demonstrate attainment of the new ozone standard by December 31, 2031. The 2016 Ozone Plan predicts attainment of the 2008 standard by 2031. The 2016 PM_{2.5} The plan was approved by ARB on January 24, 2019. This plan provides the SJVAPCD strategy to achieve the 2012 PM_{2.5} standard.

Areas designated nonattainment must develop air quality plans and regulations to achieve standards by specified dates, depending on the severity of the exceedances. For much of the country, implementation of federal motor vehicle standards and compliance with federal permitting requirements for industrial sources are adequate to attain air quality standards on schedule. For many areas of California, however, additional state and local regulation is required to achieve the standards. Regulations adopted by California are described below.

2.4.1 - California Regulations

Low-Emission Vehicle Program

The ARB first adopted Low-Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represent continuing progress in emission reductions. As the State's passenger vehicle fleet continues to grow and more sport utility vehicles and pickup trucks are used as passenger cars rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 State Implementation Plan. In 2012, ARB adopted the LEV III amendments to California's Low-Emission Vehicle (LEV) regulations. These amendments, also known as the Advanced Clean Car Program include more stringent emission standards for model years 2017 through 2025 for both criteria pollutants and GHGs for new passenger vehicles (ARB 2012a).

On-Road Heavy-Duty Vehicle Program

The ARB has adopted standards for emissions from various types of new on-road heavy-duty vehicles. Section 1956.8, Title 13, California Code of Regulations contains California's emission standards for on-road heavy-duty engines and vehicles, as well as test procedures. ARB has also adopted programs to reduce emissions from in-use heavy-duty vehicles including the Heavy-Duty Diesel Vehicle Idling Reduction Program, the Heavy-Duty Diesel In-Use Compliance Program, the Public Bus Fleet Rule and Engine Standards, and the School Bus Program and others (ARB 2013b).

ARB Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the ARB adopted a regulation to reduce DPM and nitrous oxides (NO_x) emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. The ARB is enforcing that part of the rule with fines up to \$10,000 per day for each

vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_x emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements, making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501–5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

ARB Truck and Bus Regulation

The latest amendments to the Truck and Bus regulation became effective on December 31, 2014. The amended regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet PM filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent.

The regulation applies to nearly all privately and federally owned diesel-fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. The regulation provides a variety of flexibility options tailored to fleets operating low-use vehicles, fleets operating in selected vocations like agricultural and construction, and small fleets of three or fewer trucks (ARB 2015a).

ARB Regulation for Consumer Products

The ARB Consumer Products Regulation was last amended in January 2015. The ARB regulates the VOC content of a wide variety of consumer products sold and manufactured in California. The purpose of the regulation is to reduce the emission of ozone precursors, TACs, and GHG emissions in products that are used by homes and businesses. The regulated products include but are not limited to solvents, adhesives, air fresheners, soaps, aromatic compounds, windshield cleaners, charcoal lighter, dry cleaning fluids, floor polishes, and general cleaners and degreasers (ARB 2015b)

ARB Airborne Toxic Control Measure for Asbestos

In July 2001, the ARB approved an Air Toxic Control Measure for construction, grading, quarrying, and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of best management practices to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities. The measure establishes specific testing, notification and engineering controls prior to grading, quarrying, or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than one acre in size. These projects require the submittal of a "Dust Mitigation Plan" and approval by the air district prior to the start of a project.

Construction sometimes requires the demolition of existing buildings where construction occurs. The project includes demolition of two residences totaling approximately 6,728 square feet. Buildings often include materials containing asbestos. Asbestos is also found in a natural state, known as naturally occurring asbestos. Exposure and disturbance of rock and soil that naturally contain asbestos can result in the release of fibers into the air and consequent exposure to the public.

Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present.

The ARB has an Air Toxic Control Measure for construction, grading, quarrying, and surface mining operations, requiring the implementation of mitigation measures to minimize emissions of asbestos-laden dust. The measure applies to road construction and maintenance, construction and grading operations, and quarries and surface mines when the activity occurs in an area where naturally occurring asbestos is likely to be found. Areas are subject to the regulation if they are identified on maps published by the Department of Conservation as ultramafic rock units or if the Air Pollution Control Officer or owner/operator has knowledge of the presence of ultramafic rock, serpentine, or naturally occurring asbestos on the site. The measure also applies if ultramafic rock, serpentine, or asbestos is discovered during any operation or activity. Review of the Department of Conservation maps indicates that no ultramafic rock has been found near Clovis.

Diesel Risk Reduction Plan

The ARB's Diesel Risk Reduction Plan has led to the adoption of new state regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce DPM emissions by about 90 percent overall from year 2000 levels. The projected emission benefits associated with the full implementation of this plan, including federal measures, are reductions in DPM emissions and associated cancer risks of 75 percent by 2010, and 85 percent by 2020 (ARB 2000).

2.4.2 - San Joaquin Valley Air Pollution Control District

The District is responsible for controlling emissions primarily from stationary sources. The District, in coordination with the eight countywide transportation agencies, is also responsible for developing, updating, and implementing air quality attainment plans for the Air Basin. The District also has roles under CEQA.

Ozone Plans

The Air Basin is designated nonattainment of state and federal health-based air quality standards for ozone. To meet Clean Air Act requirements for the one-hour ozone standard, the District adopted an Extreme Ozone Attainment Demonstration Plan in 2004, with an attainment date of 2010. Although the EPA revoked the federal 1-hour ozone standard effective June 15, 2005 and replaced it with an 8-hour standard, the requirement to submit a plan for that standard remained in effect for the San Joaquin Valley.

The planning requirements for the 1-hour plan remain in effect until replaced by a federal 8-hour ozone attainment plan. On March 8, 2010, the EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan, including revisions to the plan, effective April 7, 2010. However, the Air Basin failed to attain the standard in 2010 and was subject to a \$29 million Clean Air Act penalty. The penalty is being collected through an additional \$12 motor vehicle registration surcharge for each passenger vehicle registered in the Air Basin that will be applied to pollution reduction programs in the region. The District also instituted a more robust ozone episodic program to reduce emissions on

days with the potential to exceed the ozone standards. On July 18, 2016, the EPA published in the Federal Register a final action determining that the San Joaquin Valley has attained the 1-hour ozone national ambient air quality standard. This determination is based on the most recent three-year period (2012-2014) of sufficient, quality-assured, and certified data. The penalty fees remain in place pending submittal of a demonstration that the San Joaquin Valley will maintain the 1-hour standard for 10 years (EPA 2016b).

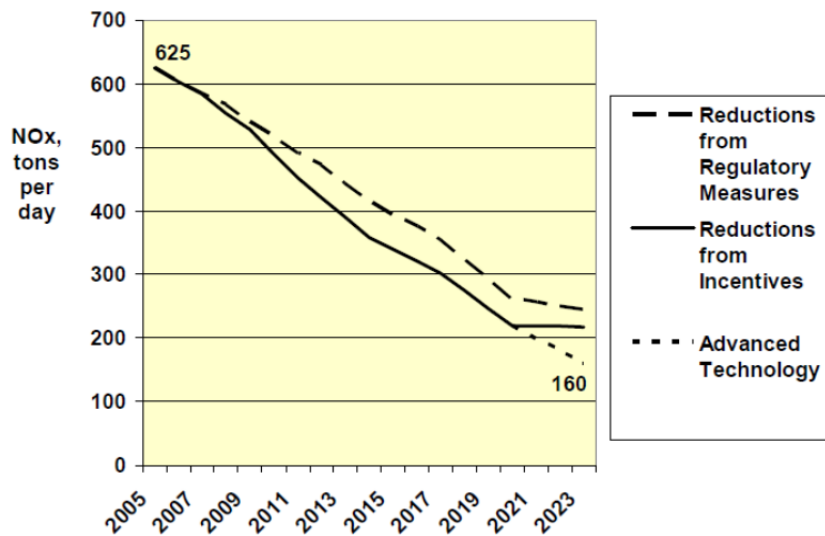
The EPA originally classified the Air Basin as serious nonattainment for the 1997 federal 8-hour ozone standard with an attainment date of 2013. On April 30, 2007, the District's Governing Board adopted the 2007 Ozone Plan, which contained analysis showing a 2013 attainment target to be infeasible. The 2007 Ozone Plan details the plan for achieving attainment on schedule with an "extreme nonattainment" deadline of 2024. At its adoption of the 2007 Ozone Plan, the District also requested a reclassification to extreme nonattainment. ARB approved the plan in June 2007, and the EPA approved the request for reclassification to extreme nonattainment on April 15, 2010.

The 2007 Ozone Plan contains measures to reduce ozone and particulate matter precursor emissions to bring the Basin into attainment with the federal 8-hour ozone standard. The 2007 Ozone Plan calls for a 75 percent reduction of NO_x and a 25 percent reduction of reactive organic gases (ROG). Figure 4 displays the anticipated NO_x reductions attributed in the 2007 Ozone Plan (Source: 2007 Ozone Plan). The plan, with innovative measures and a "dual path" strategy, assures expeditious attainment of the federal 8-hour ozone standard for all Air Basin residents. The District Governing Board adopted the 2007 Ozone Plan on April 30, 2007. The ARB approved the plan on June 14, 2007. The 2007 Ozone Plan requires yet to be determined "Advanced Technology" to achieve additional reductions after 2021, in order to attain the standard at all monitoring stations in the Air Basin by 2024 as allowed for areas designated extreme nonattainment by the federal Clean Air Act.

The Air Basin is designated an extreme ozone nonattainment area for the EPA's 2008 8-hour ozone standard of 75 ppb. The District's Governing Board approved the 2016 Plan for the 2008 8-Hour Ozone Standard on June 16, 2016. The comprehensive strategy in this plan will reduce NO_x emissions by over 60 percent between 2012 and 2031, and will bring the San Joaquin Valley into attainment of the EPA's 2008 8-hour ozone standard as expeditiously as practicable, no later than December 31, 2031. To ensure that the plan is approvable with the necessary contingencies, the plan includes a "Black Box" that will require implementation of new advanced technologies and controls prior to the 2031 deadline.

The EPA Administrator signed the Final Rule revising the 8-hour ozone standard to 70 ppm on October 1, 2015. The new standard will require the SJVAPCD to prepare a new attainment to achieve the more stringent emission level within 20 years from the effective date of designation (EPA 2018).

State ozone standards do not have an attainment deadline but require implementation of all feasible measures to achieve attainment at the earliest date possible. This is achieved through compliance with the federal deadlines and control measure requirements.

Figure 4: San Joaquin Valley NO_x Emissions Forecast

Particulate Matter Plans

The Air Basin was designated nonattainment of state and federal health-based air quality standards for PM₁₀. The Air Basin is also designated nonattainment of state and federal standards for PM_{2.5}.

To meet Clean Air Act requirements for the PM₁₀ standard, the District adopted a PM₁₀ Attainment Demonstration Plan (Amended 2003 PM₁₀ Plan and 2006 PM₁₀ Plan), which has an attainment date of 2010. The District adopted the 2007 PM₁₀ Maintenance Plan in September 2007 to assure the San Joaquin Valley's continued attainment of the EPA's PM₁₀ standard. The EPA designated the valley as an attainment/maintenance area for PM₁₀ on September 25, 2008. Although the San Joaquin Valley has exceeded the standard since then, those days were considered exceptional events that are not considered a violation of the standard for attainment purposes.

The 2008 PM_{2.5} Plan builds upon the comprehensive strategy adopted in the 2007 Ozone Plan to bring the Air Basin into attainment of the 1997 national standards for PM_{2.5}. The EPA has identified NO_x and SO₂ as precursors that must be addressed in air quality plans for the 1997 PM_{2.5} standards. The 2008 PM_{2.5} Plan is a continuation of the District's strategy to improve the air quality in the Air Basin. The EPA issued final approval of the 2008 PM_{2.5} Plan on November 9, 2011, which became effective on January 9, 2012. The EPA approved the emissions inventory, the reasonably available control measures/reasonably available control technology demonstration, reasonable further progress demonstration, attainment demonstration and associated air quality modeling, and the transportation conformity motor vehicle emissions budgets. The EPA also granted California's request to extend the attainment deadline for the San Joaquin Valley to April 5, 2015 and approved commitments to measures and reductions by the District and the ARB. Finally, it disapproved the State Implementation Plan's contingency provisions and issued a protective finding for transportation conformity determinations.

In December 2012, the District adopted the 2012 PM_{2.5} Plan to bring the San Joaquin Valley into attainment of the EPA's 2006 24-hour PM_{2.5} standard of 35 µg/m³. The ARB approved the District's 2012 PM_{2.5} Plan for the 2006 standard at a public hearing on January 24, 2013 (SJVAPCD 2012). This

plan seeks to bring the Valley into attainment with the standard by 2019, with the expectation that most areas will achieve attainment before that time.

The 2015 Plan for the 1997 PM_{2.5} Standard approved by the District Governing Board on April 16, 2015—will bring the Valley into attainment of the EPA’s 1997 PM_{2.5} standard as expeditiously as practicable, but no later than December 31, 2020. The plan was required to request reclassification to Serious nonattainment and to extend the attainment date from 2018 to 2020 (SJVAPCD 2015).

The 2016 Moderate Area Plan for the 2012 PM_{2.5} Standard was adopted on September 15, 2016. This plan includes an attainment impracticability demonstration and request for reclassification of the Valley from Moderate nonattainment to Serious nonattainment (SJVAPCD 2017b).

The SJVAPCD adopted the 2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards on November 15, 2018. This plan provides a combined strategy to address the EPA federal 1997 annual PM_{2.5} standard of 15 µg/m³ and 24-hour PM_{2.5} standard of 65 µg/m³; the 2006 24-hour PM_{2.5} standard of 35 µg/m³; and the 2012 annual PM_{2.5} standard of 12 µg/m³. This plan demonstrates attainment of the federal PM_{2.5} standards as expeditiously as practicable (SJVAPCD 2018b).

SJVAPCD Rules and Regulations

The SJVAPCD rules and regulations that may apply to projects that will occur during buildout of the project include, but are not limited to the following:

Rule 4102—Nuisance. The purpose of this rule is to protect the health and safety of the public, and applies to any source operation that emits or may emit air contaminants or other materials.

Rule 4601—Architectural Coatings. The purpose of this rule is to limit Volatile Organic Compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling.

Rule 4641—Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. If asphalt paving will be used, then the paving operations will be subject to Rule 4641.

Rule 4901—Wood-Burning Fireplaces and Wood-Burning Heaters. The purposes of this rule are to limit emissions of carbon monoxide and particulate matter from wood-burning fireplaces, wood-burning heaters, and outdoor wood-burning devices, and to establish a public education program to reduce wood-burning emissions. All development that includes wood-burning devices are subject to this rule.

Rule 4902—Residential Water Heaters. In 2009, the District amended Rule 4902 to strengthen the rule by lowering the limit to 10 nanograms per joule (ng/J) for new or replacement water heaters, and to a limit of 14 ng/J for instantaneous water heaters. Retailer compliance dates ranged from 2010 to 2012, depending on the unit type.

Regulation VIII—Fugitive PM₁₀ Prohibitions. Rules 8011–8081 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 trackout, etc. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules.

Rule 9510—Indirect Source Review. This rule reduces the impact of NO_x and PM₁₀ emissions from growth within the Air Basin. The rule places application and emission reduction requirements on development projects meeting applicability criteria in order to reduce emissions through on-site mitigation, off-site District-administered projects, or a combination of the two. This project must comply with Rule 9510 because it would develop more than 50 residential dwelling units.

CEQA

The District has three roles under CEQA:

1. **Lead Agency:** Responsible for preparing environmental analyses for its own projects (adoption of rules, regulations, or plans) or permit projects filed with the District where the District has primary approval authority over the project.
2. **Responsible Agency:** The discretionary authority of a responsible agency is more limited than a lead agency; having responsibility for mitigating or avoiding only the environmental effects of those parts of the project which it decides to approve, carry out, or finance. The District defers to the lead agency for preparation of environmental documents for land use projects that also have discretionary air quality permits, unless no document is prepared by the lead agency and potentially significant impacts related to the permit are possible. The District regularly submits comments on documents prepared by lead agencies to ensure that District concerns are addressed.
3. **Commenting Agency:** The District reviews and comments on air quality analyses prepared by other public agencies (such as the project).

The District also provides guidance and thresholds for CEQA air quality and GHG analyses. The result of this guidance, as well as state regulations to control air pollution, is an overall improvement in the Air Basin. In particular, the District's 2015 GAMAQI states the following:

1. The District's Air Quality Attainment Plans include measures to promote air quality elements in county and city general plans as one of the primary indirect source programs. The general plan is the primary long-range planning document used by cities and counties to direct development. Since air districts have no authority over land use decisions, it is up to cities and counties to ensure that their general plans help achieve air quality goals. Section 65302.1 of the California Government Code requires cities and counties in the San Joaquin Valley to amend appropriate elements of their general plans to include data, analysis, comprehensive goals, policies, and feasible implementation strategies to improve air quality in their next housing element revisions.
2. The Air Quality Guidelines for General Plans (AQGGP), adopted by the District in 1994 and amended in 2005, is a guidance document containing goals and policy examples that cities and counties may want to incorporate into their General Plans to satisfy Section 65302.1. When adopted in a general plan and implemented, the suggestions in the AQGGP can reduce vehicle trips and miles traveled and improve air quality. The specific suggestions in

the AQGGP are voluntary. The District strongly encourages cities and counties to use their land use and transportation planning authority to help achieve air quality goals by adopting the suggested policies and programs.

2.4.3 - Local

The City of Clovis adopted its 2014 General Plan in August 2014 (City of Clovis 2015a). The City's applicable air quality goals and policies from the Air Quality Element and Circulation Element are listed below.

City of Clovis Air Quality Goals and Policies

Air Quality Element

- **Goal 1:** A local environment that is protected from air pollution and emissions.
 - **Policy 1.1: Land use and transportation.** Reduce greenhouse gas and other local pollutant emissions through mixed use and transit-oriented development and well-designed transit, pedestrian, and bicycle systems.
 - **Policy 1.2: Sensitive land uses.** Prohibit the future siting of sensitive land uses within the distances of emission sources as defined by the California Air Resources Board, without sufficient mitigation.
 - **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 1.6: Alternative fuel infrastructure.** Encourage public and private activity and employment centers to incorporate electric charging and alternative fuel stations.
 - **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.
- **Goal 2:** A region with healthy air quality and lower greenhouse gas emissions.
 - **Policy 2.1: Regional coordination.** Support regional efforts to reduce air pollution (criteria air pollutants and greenhouse gas emissions) and collaborate with other agencies to improve air quality at the emission source and reduce vehicle miles traveled.
 - **Policy 2.2: Cross-jurisdictional issues.** Collaborate with regional agencies and surrounding jurisdictions to address cross-jurisdictional transportation and air quality issues.
 - **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.

Circulation Element

- **Goal 1:** A context-sensitive and “complete streets” transportation network that prioritizes effective connectivity and accommodates a comprehensive range of mobility needs.
 - **Policy 1.1: Multimodal network.** The City shall plan, design, and maintain the transportation network to promote safe and convenient travel for all users: pedestrian, bicyclists, transit riders, freight, and motorists.
 - **Policy 1.2: Transportation decisions.** Decisions should balance the comfort, convenience, and safety of pedestrian, bicyclists, and motorists.

- **Policy 1.4: Jobs and housing.** Encourage infill development that would provide jobs and services closer to housing, and vice versa, to reduce citywide vehicle miles traveled and effectively utilize the existing transportation infrastructure.
- **Policy 1.5: Neighborhood connectivity.** The transportation network shall provide multimodal access between neighborhoods and neighborhood-serving uses (educational, recreational, or neighborhood commercial uses).
- **Goal 3:** A multimodal transportation network that is safe and comfortable in the context of adjacent neighborhoods.
 - **Policy 3.11: Right-of-way design.** Design landscaped parkways, medians, and right-of-ways as aesthetic buffers to improve the community’s appearance and encourage non-motorized transportation.
- **Goal 5:** A complete system of trails and pathways accessible to all residents.
 - **Policy 5.1: Complete street amenities.** Upgrade existing streets and design new streets to include complete street amenities, prioritizing improvements to bicycle and pedestrian connectivity or safety (consistent with the Bicycle Transportation Master Plan and other master plans).
 - **Development-funded facilities.** Require development to fund and construct facilities as shown in the Bicycle Transportation Plan when facilities are in or adjacent to the development.
 - **Policy 5.3: Pathways.** Encourage pathways and other pedestrian amenities in Urban Centers and new development 10 acres or larger.
 - **Policy 5.5: Pedestrian access.** Require sidewalks, paths, and crosswalks to provide access to schools, parks, and other activity centers to provide general pedestrian connectivity throughout the city.

Land Use Element

- **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 3.9: Connected development.** New development in Urban Centers must fully improve roadway, pedestrian, and bicycle systems within and adjacent to the proposed project and connect to existing urbanized development.

Open Space and Conservation Element

- **Goal 3:** A built environment that conserves and protects the use and quality of water and energy resources.
 - **Policy 3.5: Energy and water conservation.** Encourage new development and substantial rehabilitation projects to exceed energy and water conservation and reduction standards set in the California Building Code.

City of Clovis General Plan Program EIR

The General Plan Program Environmental Impact Report (PEIR) (City of Clovis 2015b) includes the following mitigation measures and standard condition to reduce significant air quality impacts:

- **SC-1:** Prior to project approval, each applicant for individual, site-specific developments under the General Plan shall comply with the San Joaquin Valley Air Pollution Control District rules

and regulations, including, without limitation, Indirect Source Rule 9510. The applicant shall document, to the City's reasonable satisfaction, its compliance with this standard condition.

Mitigation Measures

- 3-1:** Prior to issuance of any construction permits, development project applicants shall prepare and submit to the City of Clovis Planning Division a technical assessment evaluating potential project construction-related air quality impacts. The evaluation shall be prepared in conformance with San Joaquin Valley Air Pollution Control District (SJVAPCD) methodology in assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the SJVAPCD adopted thresholds of significance, as identified in the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI), the City of Clovis Planning Division shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities to below these thresholds. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Planning Division.
- 3-2:** Prior to discretionary approval, applicants for phased development projects (i.e., construction would overlap operation/opening of the project) involving residential land uses shall coordinate with the San Joaquin Valley Air Pollution Control District (SJVAPCD) or the City of Clovis in conjunction with the SJVAPCD in preparation of a health risk assessment (HRA) for construction activities. If the HRA identifies risk impacts that exceed the standards as determined by the SVJAPCD at the time the project is considered, it shall identify measures to reduce these impacts to below these standards. Recommended measures may include those identified in Mitigation Measure 3-1. The recommendations of the HRA shall be incorporated into all construction management plans which shall be submitted to the City and verified by the City's Planning Division.
- 3-3:** Prior to project approval, development project applicants shall prepare and submit to the City of Clovis Planning Division a technical assessment evaluating potential project operation phase-related air quality impacts. The evaluation shall be prepared in conformance with San Joaquin Valley Air Pollution Control District (SJVAPCD) methodology in assessing air quality impacts. If operational-related criteria air pollutants are determined to have the potential to exceed the SJVAPCD adopted thresholds of significance—as identified in the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI)—the City of Clovis Planning Division shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the Standard Conditions of Approval.
- 3-4:** Prior to project approval, the City of Clovis Planning Division shall require applicants for individual, site-specific developments to consider establishing a Voluntary Emission Reduction Agreement (VERA) with the San Joaquin Valley Air Pollution Control District. Under this agreement, project proponents may enter into an agreement where funds are used to develop and implement emission reduction projects.

- 3-5:** Prior to discretionary project approval, the City of Clovis shall evaluate new development proposals for sensitive land uses (e.g., residential, schools, day care centers) within the City for potential incompatibilities with regard to the California Air Resources Board's Air Quality and Land Use Handbook: A Community Health Perspective (April 2005). Applicants for sensitive land uses that are within the recommended buffer distances shall submit a health risk assessment (HRA) to the City of Clovis prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment (OEHHA) and the San Joaquin Valley Air Pollution Control District. The latest OEHHA guidelines shall be used for the analysis, including age sensitivity factors, breathing rates, and body weights appropriate for children age 0 to 6 years. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06), the appropriate noncancer hazard index exceeds 1.0, or if the PM₁₀ or PM_{2.5} ambient air quality standard increment exceeds 2.5 µg/m³, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms.
- 3-6:** Prior to discretionary project approval, applicants for industrial or warehousing land uses shall coordinate with the San Joaquin Valley Air Pollution Control District (SJVAPCD) or the City of Clovis in conjunction with the SJVAPCD to determine the appropriate level of health risk assessment (HRA) required. All HRAs shall be submitted to the City of Clovis.

2.4.4 - Existing Sources of Toxic Emissions

No existing sources were identified that exceed ARB recommendations in its Air Quality Land Use Handbook for siting sensitive land uses impact the project.

2.4.5 - ARB Air Quality Land Use Handbook

Table 6 lists the following ARB advisory recommendations that address the issue of siting "sensitive land uses" near specific sources of air pollution (ARB 2005):

- High traffic freeways and roads
- Distribution centers
- Rail yards
- Ports
- Refineries
- Chrome plating facilities
- Dry cleaners
- Large gas dispensing facilities

The analysis examines the area around the site to determine if potential sources of TAC emissions may impact the project, based on the ARB recommended screening distances.

Table 6: Recommendations on Siting New Sensitive Land Uses

Source Category	Advisory Recommendations
Freeways and High-Traffic Roads	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 three 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.
<p>Note: 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.</p>	

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SECTION 3: CLIMATE CHANGE SETTING

3.1—Climate Change

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance, specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios (IPCC 2007a). The report also concluded that “[w]arming of the climate system is unequivocal,” and that “[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations.”

An individual project cannot generate enough GHG emissions to cause a discernible change in global climate. However, the project participates in the potential for global climate change by its incremental contribution of GHGs—and when combined with the cumulative increase of all other sources of GHGs—constitute potential influences on global climate change.

3.1.1 - Consequences of Climate Change in California

In California, climate change may result in consequences such as the following (from CCCC 2006 and Moser et al. 2009):

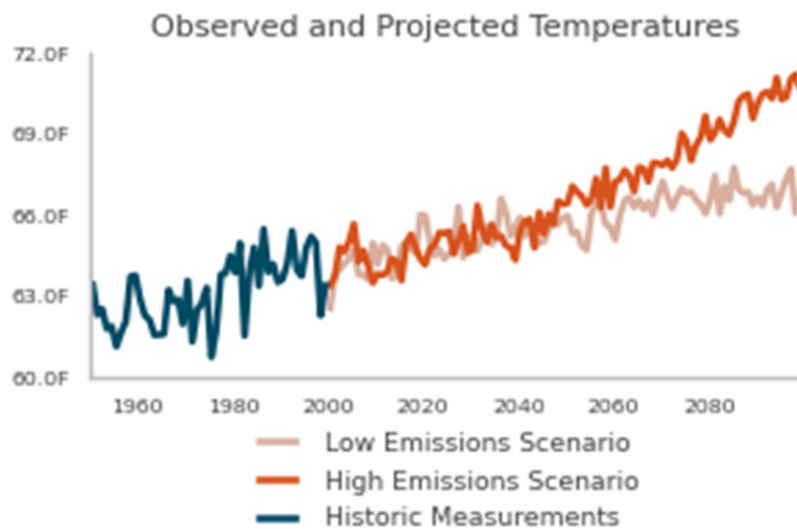
- **A reduction in the quality and supply of water from the Sierra snowpack.** If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.
- **Increased risk of large wildfires.** If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant “fuel” available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- **Reductions in the quality and quantity of certain agricultural products.** The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.

- **Exacerbation of air quality problems.** If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- **A rise in sea levels resulting in the displacement of coastal businesses and residences.** During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.
- **An increase in temperature and extreme weather events.** Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- **A decrease in the health and productivity of California's forests.** Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

Consequences of Climate Change in the Clovis Area

Figure 5 displays a chart of measured historical and projected annual average temperatures in the City of Clovis area. As shown in the figure, temperatures are expected to rise in the low and high GHG emissions scenarios. The results indicate that temperatures are predicted to increase by 3.7 degrees Fahrenheit (°F) under the low emission scenario and 6.5°F under the high emissions scenario (CalAdapt 2017).

Figure 5: Observed and Projected Temperatures for Climate Change in the City of Clovis Area



Source: CalAdapt 2017

Water Supply

The City of Clovis Public Utilities Department would provide water for the project. The City relies on groundwater and treated surface water for potable water supplies. The availability of surface water and the rate of groundwater recharge could decline if climate change were to result in reduced snowpack in the Sierra Nevada.

Wildfires

The project site is within an urbanizing area with limited fuels that would be subject to a wildfire. Foothill and mountain areas located to the north and east of the Clovis area subject to wildfire. The potential for increased temperatures and drought conditions due to climate change would result in increased risk from wildfire in those areas.

Human Health Effects of GHG Emissions

GHG emissions from development projects would not result in concentrations that would directly impact public health. However, the cumulative effects of GHG emissions on climate change have the potential to cause adverse effects to human health.

In its report, *Global Climate Change Impacts in the U.S.* (2009), the U.S. Global Change Research Program has analyzed the degree to which impacts on human health are expected to impact the United States.

Potential effects of climate change on public health include:

- **Direct Temperature Effects:** Climate change may directly affect human health through increases in average temperatures, which are predicted to increase the incidence of heat waves and hot extremes.
- **Extreme Events:** Climate change may affect the frequency and severity of extreme weather events, such as hurricanes and extreme heat and floods, which can be destructive to human health and well-being.
- **Climate-Sensitive Diseases:** Climate change may increase the risk of some infectious diseases, particularly those diseases that appear in warm areas and are spread by mosquitoes and other insects, such as malaria, dengue fever, yellow fever, and encephalitis.
- **Air Quality:** Respiratory disorders may be exacerbated by warming-induced increases in the frequency of smog (ground-level ozone) events and particulate air pollution (EPA 2009a).

Although there could be health effects resulting from changes in the climate and the consequences that can occur, inhalation of GHGs at levels currently in the atmosphere would not result in adverse health effects, with the exception of ozone and aerosols (particulate matter). The potential health effects of ozone and particulate matter are discussed in criteria pollutant analyses. At very high indoor concentrations (not at levels existing outside), carbon dioxide, methane, sulfur hexafluoride, and some chlorofluorocarbons can cause suffocation as the gases can displace oxygen (CDC 2010 and OSHA 2003).

3.2—Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as GHGs. The effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide, methane, NO_x, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit GHGs. The presence of GHGs in the atmosphere affects the earth's temperature. It is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Climate change is driven by forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. Positive forcing tends to warm the surface while negative forcing tends to cool it. Radiative forcing values are typically expressed in watts per square meter. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath which absorbs more radiation and causes more warming. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. The global warming potential of a gas is essentially a measurement of the radiative forcing of a GHG compared with the reference gas, CO₂.

Individual GHG compounds have varying global warming potential and atmospheric lifetimes. CO₂, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a GHG is a measure of how much a given mass of a GHG is estimated to contribute to global warming. To describe how much global warming a given type and amount of GHG may cause, the carbon dioxide equivalent is used. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent reference gas, CO₂. For example, CH₄'s warming potential of 21 indicates that CH₄ has 21 times greater warming effect than CO₂ on a molecule-per-molecule basis. A carbon dioxide equivalent is the mass emissions of an individual GHG multiplied by its global warming potential. GHGs defined by Assembly Bill (AB) 32 (see the Climate Change Regulatory Environment section for a description) include CO₂, CH₄, NO_x, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. They are described in Table 7. A seventh GHG, nitrogen trifluoride (NF₃), was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. The global warming potential amounts are from IPCC Second Assessment Report (SAR). IPCC Fourth Assessment Report (AR4) introduced updated global warming potentials. The new amounts have not been used in order to remain consistent with the amounts used to develop the ARB Scoping Plan and SJVAPCD thresholds.

Table 7: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (laughing gas) is a colorless GHG. It has a lifetime of 114 years. Its global warming potential is 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Methane	Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.

Table 7 (cont.): Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Carbon dioxide	Carbon dioxide (CO ₂) is an odorless, colorless, natural GHG. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chlorofluorocarbons	These are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987.
Perfluorocarbons	Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride (SF ₆) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential of 23,900.	This gas is man-made and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.
Nitrogen trifluoride	Nitrogen trifluoride (NF ₃) was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. It has a high global warming potential of 17,200.	This gas is used in electronics manufacture for semiconductors and liquid crystal displays.
Sources: Compiled from a variety of sources, primarily Intergovernmental Panel on Climate Change 2007a and 2007b.		

The State has begun addressing pollutants referred to as short-lived climate pollutants. Senate Bill (SB) 605, approved by the governor on September 14, 2014 required the ARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants by January 1, 2016. ARB was required to complete an emission inventory of these pollutants, identify research needs, identify existing and potential new control measures that offer co-benefits, and coordinated with other state agencies and districts to develop measures. The Short-Lived Climate Pollutant Strategy was approved by the ARB on March 24, 2017. The strategy calls for reductions of 50 percent from black carbon, 40 percent from methane, and 40 percent from HFCs from the 2030 Business as Usual (BAU) inventory for these pollutants (ARB 2017b).

The short-lived climate pollutants include three main components: black carbon, fluorinated gases, and methane. Fluorinated gases and methane are described in Table 7 and are already included in the California GHG inventory. Black carbon has not been included in past GHG inventories; however, ARB will include it in its comprehensive strategy (ARB 2015c).

Ozone is another short-lived climate pollutant that will be part of the strategy. Ozone affects evaporation rates, cloud formation, and precipitation levels. Ozone is not directly emitted, so its precursor emissions, volatile organic compounds (VOC) and oxides of nitrogen (NO_x) on a regional scale and CH₄ on a hemispheric scale will be subject of the strategy (ARB 2015c).

Black carbon is a component of fine particulate matter. Black carbon is formed by incomplete combustion of fossil fuels, biofuels, and biomass. Sources of black carbon within a jurisdiction may include exhaust from diesel trucks, vehicles, and equipment, as well as smoke from biogenic combustion. Biogenic combustion sources of black carbon include the burning of biofuels used for transportation, the burning of biomass for electricity generation and heating, prescribed burning of agricultural residue, and natural and unnatural wildfires. Black carbon is not a gas but an aerosol—particles or liquid droplets suspended in air. Black carbon only remains in the atmosphere for days to weeks, whereas other GHGs can remain in the atmosphere for years. Black carbon can be deposited on snow, where it absorbs sunlight, reduces sunlight reflectivity, and hastens snowmelt. Direct effects include absorbing incoming and outgoing radiation; indirectly, black carbon can also affect cloud reflectivity, precipitation, and surface dimming (cooling).

Global warming potentials for black carbon were not defined by the IPCC in its Fourth Assessment Report. The ARB has identified a global warming potential of 3,200 using a 20-year time horizon and 900 using a 100-year time horizon from the IPCC Fifth Assessment. Sources of black carbon are already regulated by ARB, and air district criteria pollutant and toxic regulations that control fine particulate emissions from diesel engines and other combustion sources (ARB 2015d). Additional controls on the sources of black carbon specifically for their GHG impacts beyond those required for toxic and fine particulates are not likely to be needed.

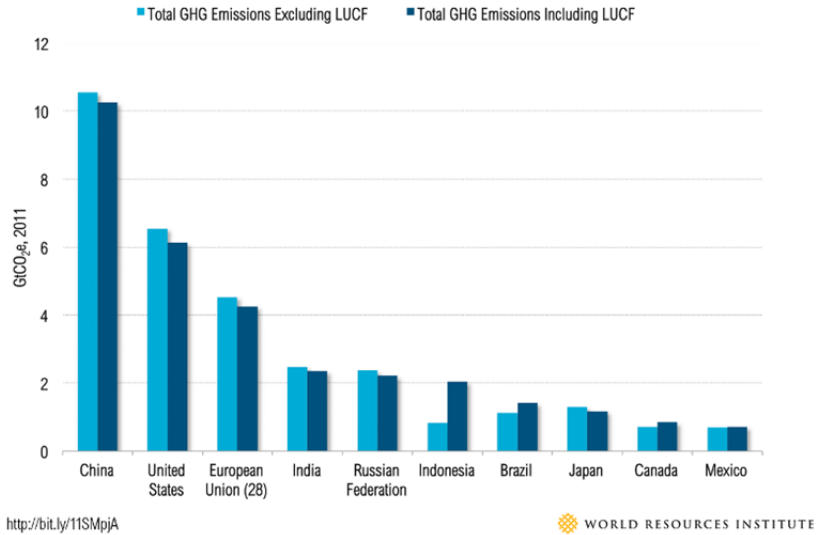
Water vapor is also considered a GHG. Water vapor is an important component of our climate system and is not regulated. Increasing water vapor leads to warmer temperatures, which causes more water vapor to be absorbed into the air. Warming and water absorption increase in a spiraling cycle. Water vapor feedback can also amplify the warming effect of other GHGs, such that the warming brought about by increased carbon dioxide allows more water vapor to enter the atmosphere (NASA 2015b).

3.2.1 - Emissions Inventories

An emissions inventory is a database that lists, by source, the amount of air pollutants discharged into the atmosphere of a geographic area during a given time period. Emissions worldwide were approximately 43,286 million metric tons of carbon dioxide equivalents (MMT_{CO₂e}) in 2012. As shown in Figure 6, China was the largest GHG emitter with over 10 billion metric tons of CO₂e, and the United States was the second-largest GHG emitter with over 6 billion metric tons of CO₂e (WRI 2014).

Figure 6: Greenhouse Gas Emissions by Geographic Area

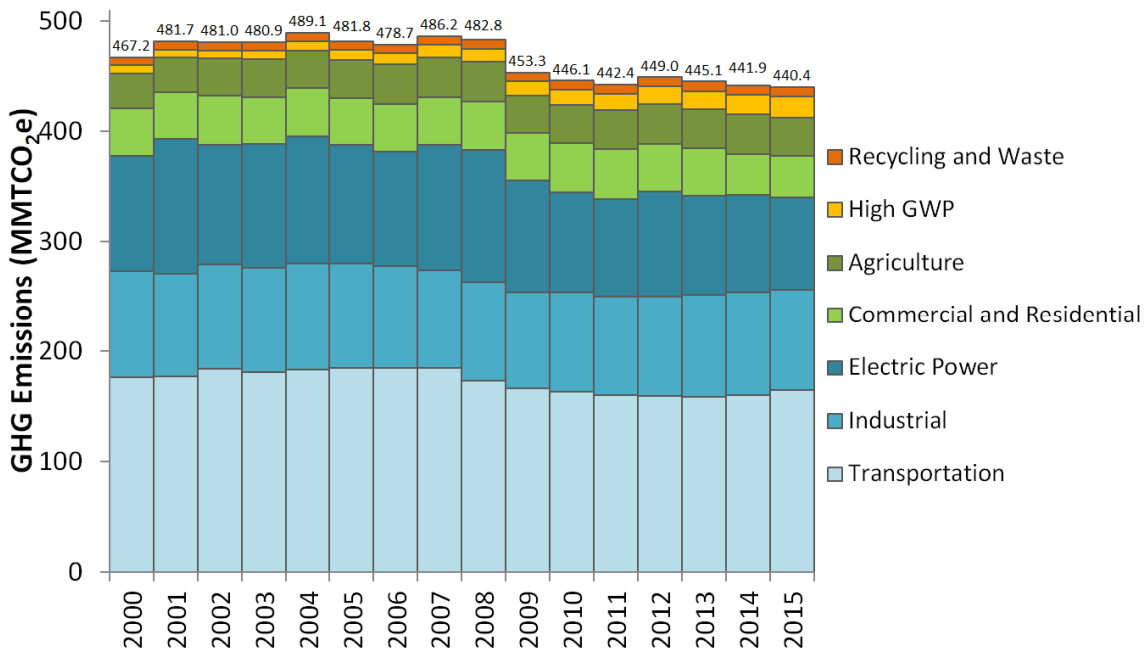
Top 10 Emitters



Source: WRI 2014.

Figure 7 shows the contributors of GHG emissions in California between years 2000 and 2015 by Scoping Plan category. The main contributor was transportation. The second highest sector was industrial, which includes sources from refineries, general fuel use, oil and gas extraction, cement plants, and cogeneration heat output. ARB reported that California’s GHG emissions inventory was 440.4 MMTCO₂e in 2015 (ARB 2016b).

Figure 7: Greenhouse Gas Emission Trends by Scoping Plan Category in California



Source: ARB 2016b.

3.3—Regulatory Environment

3.3.1 - International

International organizations, such as the ones discussed below, have made substantial efforts to reduce GHGs. Preventing human-induced climate change will require the participation of all nations in solutions to address the issue.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change. The panel was tasked with assessing the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations Framework Convention on Climate Change (Convention). On March 21, 1994, the United States joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at average of five percent against 1990 levels over the five-year period from 2008–2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of “common but differentiated responsibilities.”

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto. No binding agreement was reached in Copenhagen; however, the Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2°C above pre-industrial levels, subject to a review in 2015. The UN Climate Change Committee held additional meetings in Durban, South Africa in November 2011; Doha, Qatar in November 2012; and Warsaw, Poland in November 2013. The meetings are gradually gaining consensus among participants on individual climate change issues.

On September 23, 2014, more than 100 heads of state and government, along with leaders from the private sector and civil society met at the Climate Summit in New York hosted by the United Nations. At the Summit, heads of government, business, and civil society announced actions in areas that would have the greatest impact on reducing emissions, including: climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Paris Agreement. Parties to the United Nations Framework Convention on Climate Change (UNFCCC) reached a landmark agreement on December 12, 2015 in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating in a 4-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen those efforts in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts, and undergo international review.

The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st session of the UNFCCC Conference of the Parties, or COP 21. Together, the Paris Agreement and the accompanying COP decision:

- Reaffirm the goal of limiting global temperature increase well below 2 degrees Celsius, while urging efforts to limit the increase to 1.5 degrees;
- Establish binding commitments by all parties to make “nationally determined contributions” (NDCs), and to pursue domestic measures aimed at achieving them;
- Commit all countries to report regularly on their emissions and “progress made in implementing and achieving” their NDCs, and to undergo international review;
- Commit all countries to submit new NDCs every five years, with the clear expectation that they will “represent a progression” beyond previous ones;
- Reaffirm the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries too;
- Extend the current goal of mobilizing \$100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extend a mechanism to address “loss and damage” resulting from climate change, which explicitly will not “involve or provide a basis for any liability or compensation;”
- Require parties engaging in international emissions trading to avoid “double counting;” and
- Call for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country’s NDC (C2ES 2015a).

On June 1, 2017, President Trump announced the decision for the United States to withdraw from the Paris Climate Accord (White House 2017). California remains committed to combating climate change through programs designed to reduce GHGs.

3.3.2 - Federal Regulations

Prior to the last decade, there were no concrete federal regulations of GHGs or major planning for climate change adaptation. Since then, federal activity has increased. The following are actions regarding the federal government, GHGs, and fuel efficiency.

Greenhouse Gas Endangerment. *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four GHGs, including carbon dioxide, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act. The Court held that the Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section “Clean Vehicles” below. After a lengthy legal challenge, the United States Supreme Court declined to review an Appeals Court ruling upholding the EPA Administrator findings (EPA 2009c).

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation’s National Highway Safety Administration announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO₂ per mile, equivalent to 35.5 miles per gallon; that is, if the automobile industry were to meet this CO₂ level solely through fuel economy improvements. Together, these standards would cut CO₂ emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety Administration issued final rules on a second-phase joint rulemaking, establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012 (EPA 2012b). The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and medium duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO₂ in model year 2025, which is equivalent to 54.5 miles per gallon if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, which became effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that began in the 2014 model year and achieve up to a 20-percent reduction in CO₂ emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10-percent reduction for gasoline vehicles, and a 15-percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10-percent reduction in fuel consumption and CO₂ emissions from the 2014 to 2018 model years.

Mandatory Reporting of Greenhouse Gases. The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the United States, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the EPA.

New Source Review. The EPA issued a final rule on May 13, 2010 that establishes thresholds for GHGs, which will define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule “tailors” the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the federal code of regulations, the EPA states:

This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.

The EPA estimates that facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation’s largest GHG emitters—power plants, refineries, and cement production facilities.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric

Utility Generating Units. As required by a settlement agreement, the EPA proposed new performance standards for emissions of carbon dioxide for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts would be required to meet an output based standard of 1,000 pounds of carbon dioxide per megawatt-hour, based on the performance of widely used natural gas combined cycle technology. President Trump signed the Executive Order on Energy Independence (E.O. 13783), which calls for a review of the Clean Power Plan. On October 16, 2017, the EPA issued the proposed rule Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units an Energy Independence (EPA 2017).

Cap-and-Trade. Cap-and-trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap-and-trade.

The Regional Greenhouse Gas Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps carbon dioxide emissions from power plants, auctions carbon dioxide emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Currently only California and Quebec are participating in the cap-and-trade program (C2ES 2015).

3.3.3 - California

Legislative Actions to Reduce GHGs

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation such as the landmark AB 32 California Global Warming Solutions Act of 2006 was specifically enacted to address GHG emissions. Other legislation such as Title 24 and Title 20 energy standards were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. “Greenhouse gases” as defined under AB 32 include carbon dioxide, methane, NO_x, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. The ARB is the state agency charged with monitoring and regulating sources of GHGs. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts

of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB approved the 1990 GHG emissions level of 427 MMTCO₂e on December 6, 2007 (ARB 2007). Therefore, to meet the State's target, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO₂e. Emissions in 2020 in a BAU scenario were estimated to be 596 MMTCO₂e, which do not account for reductions from AB 32 regulations (ARB 2008a). At that rate, a 28 percent reduction was required to achieve the 427 MMTCO₂e 1990 inventory. In October 2010, ARB prepared an updated 2020 forecast to account for the effects of the 2008 recession and slower forecasted growth. The 2020 inventory without the benefits of adopted regulation is now estimated at 545 MMTCO₂e. Therefore, under the updated forecast, a 21.7 percent reduction from BAU is required to achieve 1990 levels (ARB 2010a).

Progress in Achieving AB 32 Targets and Remaining Reductions Required

The State has made steady progress in implementing AB 32 and achieving targets included in Executive Order S-3-05. The progress is shown in updated emission inventories prepared by ARB for 2000 through 2012 to show progress achieved to date (ARB 2014a). The State has also achieved the Executive Order S-3-05 target for 2010 of reducing GHG emissions to 2000 levels. The 2017 Scoping Plan Update includes projections indicating that the State will meet or exceed the reductions required for the 2020 target with adopted regulations (ARB 2017).

ARB 2008 Scoping Plan. The ARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 to comply with AB 32 (ARB 2008). The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and

- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between “capped” and “uncapped” strategies. Capped strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and-trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions (ARB 2008).

Cap-and-Trade Program. The Cap-and-Trade Program is a key element of the Scoping Plan. It sets a statewide limit on sources responsible for 85 percent of California's GHG emissions, and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The program is designed to provide covered entities the flexibility to seek out and implement the lowest cost options to reduce emissions. The program conducted its first auction in November 2012. Compliance obligations began for power plants and large industrial sources in January 2013. Other significant milestones include linkage to Quebec's cap-and-trade system in January 2014 and starting the compliance obligation for distributors of transportation fuels, natural gas, and other fuels in January 2015 (ARB 2015d).

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 statewide emission limit will not be exceeded. An inherent feature of the Cap-and-Trade program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are guaranteed only on an accumulative basis. As summarized by ARB in the First Update:

The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative (ARB 2014b).

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California's direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. Thus, the Cap-and-Trade Program assures that California will meet its 2020 GHG emissions reduction mandate:

The Cap-and-Trade Program establishes an overall limit on GHG emissions from most of the California economy—the “capped sectors.” Within the capped sectors, some of the reductions are being accomplished through direct regulations, such as improved building and appliance efficiency standards, the [Low Carbon Fuel Standard] LCFS, and the 33 percent [Renewables Portfolio Standard] RPS. Whatever additional reductions are needed to bring emissions within the cap is accomplished through price incentives posed by emissions allowance prices. Together, direct regulation and price incentives assure that emissions are brought down cost-effectively to the level of the overall cap. The Cap-and-Trade Regulation provides assurance that California’s 2020 limit will be met because the regulation sets a firm limit on 85 percent of California’s GHG emissions. In sum, the Cap-and-Trade Program will achieve aggregate, rather than site specific or project-level, GHG emissions reductions. Also, due to the regulatory architecture adopted by ARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State’s emissions forecasts and the effectiveness of direct regulatory measures (ARB 2014b).

AB 398. The Governor signed AB 398 on July 25, 2017 to extend the Cap-and-Trade Program to 2030. The legislation includes provisions to ensure that offsets used by sources are limited to 4 percent of their compliance obligation from 2021 through 2025 and 6 percent from 2026 through 2030. AB 398 also prevents Air Districts from adopting or implementing emission reduction rules from stationary sources that are also subject to the Cap-and-Trade Program (CAR 2017).

SB 32. The Governor signed SB 32 on September 8, 2016. SB 32 now gives ARB the statutory responsibility to include the 2030 target previously contained in Executive Order B-30-15 in the 2017 Scoping Plan Update. SB 32 states that “In adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by this division, the state [air resources] board shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030.” The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017. The major elements of the framework proposed to achieve the 2030 target are as follows:

1. SB 350
 - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
 - Doubling of energy efficiency savings by 2030.
2. Low Carbon Fuel Standard (LCFS)
 - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
3. Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
 - Maintaining existing GHG standards for light- and heavy-duty vehicles.
 - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
 - Increase ZEV buses, delivery and other trucks.

4. Sustainable Freight Action Plan
 - Improve freight system efficiency.
 - Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
 - Deploy over 100,000 zero-emission trucks and equipment by 2030.
5. Short-Lived Climate Pollutant (SLCP) Reduction Strategy
 - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
 - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
6. SB 375 Sustainable Communities Strategies
 - Increased stringency of 2035 targets.
7. Post-2020 Cap-and-Trade Program
 - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
 - ARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, ARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
8. 20 percent reduction in greenhouse gas emissions from the refinery sector.
9. By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink (ARB 2017c).

SB 375—The Sustainable Communities and Climate Protection Act of 2008. SB 375 was signed into law on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40 percent of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

Concerning CEQA, SB 375—as codified in Public Resources Code Section 21159.28—states that CEQA findings determinations for certain projects are not required to reference, describe, or discuss (1) growth-inducing impacts or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network if the project:

1. Is in an area with an approved Sustainable Communities Strategy or an alternative planning strategy that the ARB accepts as achieving the greenhouse gas emission reduction targets;
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies); and

3. Incorporates the mitigation measures required by an applicable prior environmental document.

The ARB has prepared the Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. The update includes an increase in the 2035 target for Fresno County from 10 percent to 13 percent (ARB 2018).

AB 1493 Pavley Regulations and Fuel Efficiency Standards. California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the by the U.S. District Court for the District of Columbia in 2011 (ARB 2013d).

The standards were phased in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards resulted in an approximately 22 percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards resulted in about a 30 percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation, rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant (ARB 2013e).

The second phase of the implementation for the Pavley bill was incorporated into Amendments to the Low-Emission Vehicle Program referred to as LEV III or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The rules will reduce pollutants from gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles, and hydrogen fuel cell cars. The regulations will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California (ARB 2011a).

SB 1368—Emission Performance Standards. In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29,

2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, of 1,100 lbs. CO₂ per megawatt-hour (MWh).

SB 1078—Renewable Electricity Standards. On September 12, 2002, Governor Gray Davis signed SB 1078, requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the ARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. The ARB approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23. In 2011, the state legislature adopted this higher standard in SB X1-2. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas.

SB 350—Clean Energy and Pollution Reduction Act of 2015. The legislature approved and the governor then signed SB 350 on October 7, 2015, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Provisions for a 50 percent reduction in the use of petroleum statewide were removed from the Bill because of opposition and concern that it would prevent the Bill's passage. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024, and 25 percent by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States (California Leginfo 2015).

SBX 7-7—The Water Conservation Act of 2009. The legislation directs urban retail water suppliers to set individual 2020 per capita water use targets and begin implementing conservation measures to achieve those goals. Meeting this statewide goal of 20 percent decrease in demand will result in a reduction of almost 2 million acre-feet in urban water use in 2020.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs through the use of executive orders. Although not regulatory, they set the tone for the State and guide the actions of state agencies.

Executive Order S-3-05. On June 1, 2005, former California Governor Arnold Schwarzenegger announced through Executive Order S-3-05, the following reduction targets for GHG emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order B-30-15. On April 29, 2015, Governor Edmund G. Brown Jr. issued an executive order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's executive order aligns California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris late 2015. The executive order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050, and directs the ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of MMTCO₂e. The executive order also requires the State's climate adaptation plan to be updated every three years and for the State to continue its climate change research program, among other provisions. As with Executive Order S-3-05, this executive order is not legally enforceable against local governments and the private sector. Legislation that would update AB 32 to provide post-2020 targets was signed by the Governor in 2016. SB 32 includes a 2030 mandate matching the requirements of the Executive Order.

Executive Order S-01-07—Low Carbon Fuel Standard. The governor signed Executive Order S 01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by California Energy Commission on December 24, 2007) and was submitted to ARB for consideration as an "early action" item under AB 32. The ARB adopted the Low Carbon Fuel Standard on April 23, 2009.

The Low Carbon Fuel Standard was subject to legal challenge in 2011. Ultimately, ARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-carbon fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. The Office of Administrative Law (OAL) approved the regulation on November 16, 2015 (ARB 2015e).

Executive Order S-13-08. Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009

California Climate Adaptation Strategy (California Natural Resources Agency 2009) was adopted, which is the “. . . first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States.” Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order B-55-18. Executive Order B-55-18 issued by Governor Brown on September 10, 2018 establishes a new statewide goal to achieve carbon neutrality as soon as possible, but no later than 2045, and achieve and maintain net negative emissions thereafter. The executive order directs ARB to work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California’s energy consumption relatively flat even with rapid population growth.

Title 20 Appliance Efficiency Regulations. California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4, Sections 1601–1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the State and those designed and sold exclusively for use in recreational vehicles or other mobile equipment (CEC 2018a).

Title 24 Energy Efficiency Standards. California Code of Regulations Title 24 Part 6: California’s Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California’s energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The most current 2016 Building Energy Efficiency Standards went into effect on January 1, 2017 (CEC 2016). The 2019 Building Energy Efficiency Standards are scheduled to go into effect on January 1, 2020 (CEC 2018b).

Title 24 California Green Building Standards Code (California Code of Regulations Title 24, Part 11 code) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect January 1, 2011. The code is updated on a regular basis, with the most recent update consisting of the 2016 California Green Building Code Standards that became effective January 1, 2017. Local jurisdictions are permitted to adopt more stringent requirements, as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy, which is generally enforced by the local building official.

The California Green Building Standards Code (California Code of Regulations Title 24, Part 11 code) requires:

- **Short-term bicycle parking.** If a commercial project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for five percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- **Long-term bicycle parking.** For buildings with over 10 tenant-occupants, provide secure bicycle parking for five percent of tenant-occupied motorized vehicle parking capacity, with a minimum of one space (5.106.4.1.2).
- **Designated parking.** Provide designated parking in commercial projects for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- **Recycling by Occupants.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling. (5.410.1).
- **Construction waste.** A minimum 50-percent diversion of construction and demolition waste from landfills, increasing voluntarily to 65 and 80 percent for new homes and 80-percent for commercial projects. (5.408.1, A5.408.3.1 [nonresidential], A5.408.3.1 [residential]). All (100 percent) of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled (5.408.3).
- **Wastewater reduction.** Each building shall reduce the generation of wastewater by one of the following methods:
 1. The installation of water-conserving fixtures or
 2. Using nonpotable water systems (5.303.4).
- **Water use savings.** Twenty percent mandatory reduction in indoor water use with voluntary goal standards for 30, 35, and 40 percent reductions (5.303.2, A5303.2.3 [nonresidential]).
- **Water meters.** Separate water meters for buildings in excess of 50,000 square feet or buildings projected to consume more than 1,000 gallons per day (5.303.1).
- **Irrigation efficiency.** Moisture-sensing irrigation systems for larger landscaped areas (5.304.3).
- **Materials pollution control.** Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particleboard (5.404).
- **Building commissioning.** Mandatory inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies (5.410.2).

Model Water Efficient Landscape Ordinance. The Model Water Efficient Landscape Ordinance (Ordinance) was required by AB 1881 Water Conservation Act. The bill required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. Reductions in water use of 20 percent consistent with (SBX-7-7) 2020 mandate

are expected for the ordinance. Governor Brown's Drought Executive Order of April 1, 2015 (EO B-29-15) directed DWR to update the ordinance through expedited regulation. The California Water Commission approved the revised ordinance on July 15, 2015, which became effective on December 15, 2015. New development projects that include landscaped areas of 500 square feet or more are subject to the ordinance. The update requires:

- More efficient irrigation systems
- Incentives for graywater usage
- Improvements in on-site stormwater capture
- Limiting the portion of landscapes that can be planted with high water use plants
- Reporting requirements for local agencies.

SB 97 and the CEQA Guidelines Update. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states: "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a)."

Section 21097 was also added to the Public Resources Code. This provided an exemption until January 1, 2010 for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006—in stating that the failure to analyze adequately the effects of GHGs would not violate CEQA. The Natural Resources Agency completed the approval process and the Amendments became effective on March 18, 2010. The Natural Resources Agency adopted additional amendments related to greenhouse gases in the 2019 CEQA Guidelines Update adopted on December 28, 2018.

The 2010 CEQA Amendments along with the 2019 CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of GHG emissions:

- The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or
- 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. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or

mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

Section 15064.4(c) states that a lead agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

The 2019 CEQA Guidelines include the following discussion regarding thresholds of significance.

(d) Using environmental standards as thresholds of significance promotes consistency in significance determinations and integrates environmental review with other environmental program planning and regulation. Any public agency may adopt or use an environmental standard as a threshold of significance. In adopting or using an environmental standard as a threshold of significance, a public agency shall explain how the particular requirements of that environmental standard reduce project impacts, including cumulative impacts, to a level that is less than significant, and why the environmental standard is relevant to the analysis of the project under consideration. For the purposes of this subdivision, an "environmental standard" is a rule of general application that is adopted by a public agency through a public review process and that is all of the following:

- (1) a quantitative, qualitative or performance requirement found in an ordinance, resolution, rule, regulation, order, plan or other environmental requirement;
- (2) adopted for the purpose of environmental protection;
- (3) addresses the environmental effect caused by the project; and,
- (4) applies to the project under review.

In addition, the 2019 amendments revised Appendix G Checklist questions to include a new question specifically on energy conservation.

CEQA emphasizes that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (see CEQA Guidelines Section 15130(f)).

California Supreme Court GHG Ruling

A November 30, 2015 ruling, the *California Supreme Court in Center for Biological Diversity (CBD) v. California Department of Fish and Wildlife (CDFW)* on the Newhall Ranch project, concluded that

whether the project was consistent with meeting statewide emission reduction goals is a legally permissible criterion of significance, but the significance finding for the project was not supported by a reasoned explanation based on substantial evidence. The Court offered potential solutions on pages 25 to 27 of the ruling to address this issue summarized below.

Specifically, the Court advised that:

- **Substantiation of Project Reductions from BAU.** A lead agency may use a BAU comparison based on the Scoping Plan’s methodology if it also substantiates the reduction a particular project must achieve to comply with statewide goals. The Court suggested a lead agency could examine the “data behind the Scoping Plan’s business-as-usual model” to determine the necessary project-level reductions from new land use development at the proposed location (p. 25).
- **Compliance with Regulatory Programs or Performance Based Standards.** “A lead agency might assess consistency with A.B. 32’s goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities. (See Final Statement of Reasons, supra, at p. 64 [greenhouse gas emissions ‘may be best analyzed and mitigated at a programmatic level.’].) To the extent a project’s design features comply with or exceed the regulations outlined in the Scoping Plan and adopted by the Air Resources Board or other state agencies, a lead agency could appropriately rely on their use as showing compliance with ‘performance based standards’ adopted to fulfill ‘a statewide . . . plan for the reduction or mitigation of greenhouse gas emissions.’ (CEQA Guidelines § 15064.4(a)(2), (b)(3); see also id., § 15064(h)(3) [determination that impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including ‘plans or regulations for the reduction of greenhouse gas emissions’].)” (p. 26).
- **Compliance with GHG Reduction Plans or Climate Action Plans (CAPs).** A lead agency may utilize “geographically specific GHG emission reduction plans” such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis (p. 26).
- **Compliance with Local Air District Thresholds.** A lead agency may rely on “existing numerical thresholds of significance for greenhouse gas emissions” adopted by, for example, local air districts (p. 27).

Therefore, consistent with CEQA Guidelines Appendix G, the three factors identified in CEQA Guidelines Section 15064.4 and the recently issued Newhall Ranch opinion, the GHG impacts would be considered significant if the project would:

- Conflict with a compliant GHG Reduction Plan if adopted by the lead agency;
- Exceed the SJVAPCD GHG Reduction Threshold; or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs.

3.3.4 - San Joaquin Valley Air Pollution Control District

Climate Change Action Plan

On August 21, 2008, the SJVAPCD Governing Board approved a proposal called the Climate Change Action Plan (CCAP). The CCAP began with a public process bringing together stakeholders, land use agencies, environmental groups, and business groups to conduct public workshops to develop comprehensive policies for CEQA guidelines, a carbon exchange bank, and voluntary GHG emissions mitigation agreements for the Board's consideration. The CCAP contains the following goals and actions:

- Develop GHG significance thresholds to address CEQA projects with GHG emission increases.
- Develop the San Joaquin Valley Carbon Exchange for banking and trading GHG reductions.
- Authorize use of the SJVAPCD's existing inventory reporting system to allow use for GHG reporting required by AB 32 regulations.
- Develop and administer GHG reduction agreements to mitigate proposed emission increases from new projects.
- Support climate protection measures that reduce greenhouse gas emissions as well as toxic and criteria pollutants. Oppose measures that result in a significant increase in toxic or criteria pollutant emissions in already impacted areas.

On December 17, 2009, the SJVAPCD Governing Board adopted "Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA," and the policy "District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency." The SJVAPCD concluded that the existing science is inadequate to support quantification of the impacts that project-specific GHG emissions have on global climatic change. The SJVAPCD found the effects of project-specific emissions to be cumulative, and without mitigation, their incremental contribution to global climatic change could be considered cumulatively considerable. The SJVAPCD found that this cumulative impact is best addressed by requiring all projects to reduce their GHG emissions, whether through project design elements or mitigation.

The SJVAPCD's approach is intended to streamline the process of determining if project-specific GHG emissions would have a significant effect. Projects exempt from the requirements of CEQA, and projects complying with an approved plan or mitigation program would be determined to have a less than significant cumulative impact. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources, and must have a certified final CEQA document.

For non-exempt projects, those projects for which there is no applicable approved plan or program, or those projects not complying with an approved plan or program, the lead agency must evaluate the project against performance-based standards and would require the adoption of design elements, known as a Best Performance Standard, to reduce GHG emissions. The Best Performance Standards (BPS) have not yet fully been established, though they must be designed to achieve a 29 percent reduction when compared with the BAU projections identified in ARB's AB 32 Scoping Plan.

BAU represents the emissions that would occur in 2020 if the average baseline emissions during the 2002–2004 period were grown to 2020 levels, without control. Thus, these standards would carry with them pre-quantified emissions reductions, eliminating the need for project-specific quantification. Therefore, projects incorporating BPS would not require specific quantification of GHG emissions, and automatically would be determined to have a less than significant cumulative impact for GHG emissions.

For stationary source permitting projects, BPS means, “The most stringent of the identified alternatives for control of GHG emissions, including type of equipment, design of equipment and operational and maintenance practices, which are achieved-in-practice for the identified service, operation, or emissions unit class.” The SJVAPCD has identified BPS for the following sources: boilers; dryers and dehydrators; oil and gas extraction; storage, transportation, and refining operations; cogeneration; gasoline dispensing facilities; volatile organic compound control technology; and steam generators.

For development projects, BPS means, “Any combination of identified GHG emission reduction measures, including project design elements and land use decisions that reduce project-specific GHG emission reductions by at least 29 percent compared with business as usual.”

Projects not incorporating BPS would require quantification of GHG emissions and demonstration that BAU GHG emissions have been reduced or mitigated by 29 percent. As stated earlier, ARB’s adjusted inventory reduced the amount required by the State to achieve 1990 emission levels from 29 percent to 21.7 percent to account for slower growth experienced since the 2008 recession. According to SJVAPCD guidance, quantification of GHG emissions would be required for all projects for which the lead agency has determined that an environmental impact report is required, regardless of whether the project incorporates BPS. The SJVAPCD has not yet adopted BPS for development projects, so quantification of project emissions is required.

San Joaquin Valley Carbon Exchange

The SJVAPCD initiated work on the San Joaquin Valley Carbon Exchange in November 2008. The purpose of the carbon exchange is to quantify, verify, and track voluntary GHG emissions reductions generated within the San Joaquin Valley. However, the SJVAPCD has pursued an alternative strategy that incorporates the GHG emissions into its existing Rule 2301—Emission Reduction Credit Offset Banking that formerly only addressed criteria pollutants. The SJVAPCD is also participating with the California Air Pollution Control Officers Association (CAPCOA), of which it is a member, in the CAPCOA Greenhouse Gas Reduction Exchange (GHG Rx). The GHG Rx is operated cooperatively by air districts that have elected to participate. Participating districts have signed a Memorandum of Understanding (MOU) with CAPCOA and agree to post only those credits that meet the Rx standards for quality. The objective is to provide a secure, low-cost, high-quality greenhouse gas exchange for credits created in California. The GHG Rx is intended to help fulfill compliance obligations or mitigation needs of local projects subject to environmental review, reducing the uncertainty of using credits generated in distant locations. The SJVAPCD currently has no credits posted to the GHG Rx website as of this writing (CAPCOA 2018).

Rule 2301

While the Climate Change Action Plan indicated that the GHG emission reduction program would be called the San Joaquin Valley Carbon Exchange, the District incorporated a method to register voluntary GHG emission reductions into its existing Rule 2301—Emission Reduction Credit Banking through amendments of the rule. Amendments to the rule were adopted on January 19, 2012. The purposes of the amendments to the rule include the following:

- Provide an administrative mechanism for sources to bank voluntary GHG emission reductions for later use.
- Provide an administrative mechanism for sources to transfer banked GHG emission reductions to others for any use.
- Define eligibility standards, quantitative procedures, and administrative practices to ensure that banked GHG emission reductions are real, permanent, quantifiable, surplus, and enforceable.

Fresno Council of Governments***Regional Transportation Plan***

The Fresno Council of Governments (Fresno COG) is the Regional Transportation Planning Agency (RTPA) for the Fresno County region. The Fresno COG adopted the 2014 Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS) that included the County's first Sustainable Community Strategy to comply with SB 375. The RTP is a planning document prepared in cooperation with the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), the California Department of Transportation (Caltrans), and other stakeholders, including transportation system users. The SCS is intended to show how integrated land use and transportation planning can lead to lower greenhouse gas (GHG) emissions from autos and light trucks. SB 375 includes the following four primary findings related to the RTP/SCS development process:

- SB 375 required the ARB to develop regional GHG emission reduction targets for cars and light trucks for each of the 18 MPOs in California, including Fresno COG. ARB approved targets for the San Joaquin Valley in January 2013. The target for Fresno is a per capita reduction in GHG emissions from passenger vehicle travel of five percent by 2020 and 10 percent by 2035 relative to 2005 levels. The 2018 RTP indicates that the County continues to pursue the 5 percent reduction by 2020 and 10 percent reduction by 2035 (Fresno COG 2018).
- SB 375 required the preparation of an SCS. Fresno COG included a SCS that specifies how the GHG emission reduction target set by ARB will be achieved in the RTP. If the target cannot be met through the SCS, then an Alternative Planning Strategy (APS) shall be prepared by Fresno COG. Chapter 4 of the 2014 RTP includes the SCS for Fresno COG. Chapter 3 of the 2018 RTP includes the updated SCS.
- SB 375 streamlines CEQA requirements for specific residential and mixed-use developments that are consistent with the Fresno County SCS or APS (as determined by ARB) to achieve regional GHG emissions reduction target.

The 2018 RTP/SCS was adopted by Fresno COG on July 26, 2018 and reflects its latest regional vehicle miles traveled (VMT) targets (Fresno COG 2018).

3.3.5 - Local

The City of Clovis does not currently have formal GHG emissions reduction plans or recommended emissions thresholds for determining significance associated with GHG emissions from development projects. However, the General Plan includes goals and policies to reduce GHG emissions that are listed below.

General Plan

The City of Clovis adopted its 2014 General Plan in August 2014 (City of Clovis 2015a). The 2014 General Plan includes the following applicable goals and policies related to improving air quality that may also co-benefit climate change impacts:

Air Quality Element

- **Goal 1:** A local environment that is protected from air pollution and emissions.
 - **Policy 1.1: Land use and transportation.** Reduce greenhouse gas and other local pollutant emissions through mixed use and transit-oriented development and well-designed transit, pedestrian, and bicycle systems.
 - **Policy 1.6: Alternative fuel infrastructure.** Encourage public and private activity and employment centers to incorporate electric charging and alternative fuel stations.
 - **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.
- **Goal 2:** A region with healthy air quality and lower greenhouse gas emissions.
 - **Policy 2.1: Regional coordination.** Support regional efforts to reduce air pollution (criteria air pollutants and greenhouse gas emissions) and collaborate with other agencies to improve air quality at the emission source and reduce vehicle miles traveled.
 - **Policy 2.2: Cross-jurisdictional issues.** Collaborate with regional agencies and surrounding jurisdictions to address cross-jurisdictional transportation and air quality issues.
 - **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.

Circulation Element

- **Goal 1:** A context-sensitive and “complete streets” transportation network that prioritizes effective connectivity and accommodates a comprehensive range of mobility needs.
 - **Policy 1.1: Multimodal network.** The City shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrian, bicyclists, transit riders, freight, and motorists.
 - **Policy 1.2: Transportation decisions.** Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists.
 - **Policy 1.4: Jobs and housing.** Encourage infill development that would provide jobs and services closer to housing, and vice versa, to reduce citywide vehicle miles traveled and effectively utilize the existing transportation infrastructure.

- **Policy 1.5: Neighborhood connectivity.** The transportation network shall provide multimodal access between neighborhoods and neighborhood-serving uses (educational, recreational, or neighborhood commercial uses).
- **Goal 3:** A multimodal transportation network that is safe and comfortable in the context of adjacent neighborhoods.
 - **Policy 3.11: Right-of-way design.** Design landscaped parkways, medians, and right-of-ways as aesthetic buffers to improve the community’s appearance and encourage non-motorized transportation.
- **Goal 5:** A complete system of trails and pathways accessible to all residents.
 - **Policy 5.1: Complete street amenities.** Upgrade existing streets and design new streets to include complete street amenities, prioritizing improvements to bicycle and pedestrian connectivity or safety (consistent with the Bicycle Transportation Master Plan and other master plans).
 - **Policy 5.2: Development-funded facilities.** Require development to fund and construct facilities as shown in the Bicycle Transportation Plan when facilities are in or adjacent to the development.
 - **Policy 5.3: Pathways.** Encourage pathways and other pedestrian amenities in urban centers and new development 10 acres or larger.
 - **Policy 5.4: Homeowner associations.** The city may require homeowner associations to maintain pathways and other bicycle and pedestrian facilities within the homeowner association area.
 - **Policy 5.5: Pedestrian access.** Require sidewalks, paths, and crosswalks to provide access to schools, parks, and other activity centers and to provide general pedestrian connectivity throughout the city.

Land Use Element

- **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 3.9: Connected development.** New development in urban centers must fully improve roadway, pedestrian, and bicycle systems within and adjacent to the proposed project and connect to existing urbanized development.

Open Space and Conservation Element

- **Goal 3:** A built environment that conserves and protects the use and quality of water and energy resources.
 - **Policy 3.4: Drought-tolerant landscaping.** Promote water conservation through use of drought-tolerant landscaping on existing and new residential properties. Require drought-tolerant landscaping for all new commercial and industrial development and city-maintained landscaping, unless used for recreation purposes.
 - **Policy 3.5: Energy and water conservation.** Encourage new development and substantial rehabilitation projects to exceed energy and water conservation and reduction standards set in the California Building Code.
 - **Policy 3.6: Renewable Energy.** Promote the use of renewable and sustainable energy sources to serve public and private sector development.

- **Policy 3.7: Construction and design.** Encourage new construction to incorporate energy efficient building and site design strategies.

City of Clovis General Plan Program EIR

The General Plan PEIR (City of Clovis 2015b) includes the following discussion regarding reducing GHG emissions associated with the General Plan Update:

Prior to issuance of construction permits, the City of Clovis Planning Division shall require that applicants for new development projects submit documentation showing that greenhouse gas (GHG) emissions meet a 29 percent reduction from BAU in accordance with the methodology identified by the San Joaquin Valley Air Pollution Control District (SJVAPCD). The documentation shall identify measures to be incorporated into the considered project that would reduce GHG emissions from BAU. Such measures include but are not limited to the following:

- Provide a pedestrian access network that internally links all uses and connects to existing external streets and pedestrian facilities.
- Provide the minimum number of parking spaces required.
- Create a shared parking program, as feasible.
- Provide bicycle end-of-trip facilities (e.g., bike parking, showers, and lockers).
- Develop rideshare and ride-matching assistance programs.
- For planned residential development, design and incorporate a neighborhood electric vehicle system.
- Design buildings to be electric vehicle charging-station-ready.
- Coordinate with the City of Clovis and/or the Fresno Area Express to install bus stops at or near the project site.
- Design buildings to be energy efficient beyond the requirements of Title 24.
- Design and orient structures to maximize shade in the summer and sun exposure in the winter.
- Install vegetative roofs that cover at least 50 percent of the roof area.
- Design buildings to incorporate passive solar design and solar heaters.
- Install solar panels on carports and parking areas.
- Limit nonessential idling of commercial vehicles beyond Air Toxic Control Measures idling restrictions.

Waste Diversion

With the passage of SB 1016, the Per Capita Disposal Measurement System, only per capita disposal rates are measured. Targets are based on the per capita disposal rates. For 2015, the target rate was

4.1 pounds per person. The City's disposal rates were well below the target rate of 4.7 pounds per person per day in 2015. The rate reported was 3.5 pounds per person per day in 2015. The City has met the per capita target on a per-resident basis for each year of the last 3 reporting years (CalRecycle 2016a).

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SECTION 4: MODELING PARAMETERS AND ASSUMPTIONS

4.1—Model Selection and Guidance

Air pollutant emissions can be estimated by using emission factors and a level of activity. Emission factors represent the emission rate of a pollutant given the activity over time; for example, grams of NO_x per horsepower-hour or grams of NO_x per vehicle mile traveled. The ARB has published emission factors for on-road mobile vehicles/trucks in the EMFAC mobile source emissions model and emission factors for off-road equipment and vehicles in the OFFROAD emissions model. An air emissions model (or calculator) combines the emission factors and the various levels of activity and outputs the emissions for the various pieces of equipment.

The California Emissions Estimator Model (CalEEMod) version 2016.3.2 was developed by the South Coast Air Quality Management District in cooperation with other air districts throughout the State. CalEEMod is designed as a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with construction and operation from a variety of land uses.

The modeling follows District guidance where applicable from its GAMAQI. The models used in this analysis are summarized as follows:

- Construction emissions: CalEEMod, version 2016.3.2
- Operational emissions: CalEEMod, version 2016.3.2

4.2—Air Pollutants and GHGs Assessed

4.2.1 - Criteria Pollutants Assessed

The following air pollutants are assessed in this analysis:

- Reactive organic gases (ROG)
- Nitrogen oxides (NO_x)
- Carbon monoxide (CO)
- Sulfur dioxide (SO_2)
- Particulate matter less than 10 microns in diameter (PM_{10})
- Particulate matter less than 2.5 microns in diameter ($\text{PM}_{2.5}$)

Note that the project would emit ozone precursors ROG and NO_x . However, the project would not directly emit ozone, since it is formed in the atmosphere during the photochemical reaction of ozone precursors. Other criteria pollutants such as vinyl chloride, hydrogen sulfide, lead, and sulfates were not included because of their low levels of emissions from the project.

As noted previously, the project would emit ultrafine particles. However, there is currently no standard separate from the $\text{PM}_{2.5}$ standards for ultrafine particles and there is no accepted methodology to quantify or assess the significance of such particles.

4.2.2 - Greenhouse Gases Assessed

This analysis is restricted to GHGs identified by AB 32, which include: carbon dioxide, methane, NO_x, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. The project would generate a variety of GHGs, including several defined by AB 32 such as carbon dioxide, methane, and NO_x.

The project may emit GHGs that are not defined by AB 32. For example, the project may generate aerosols through emissions of DPM from the vehicles and trucks that would access the project site. Aerosols are short-lived particles, as they remain in the atmosphere for about one week. Black carbon is a component of aerosol. Studies have indicated that black carbon has a high global warming potential; however, the Intergovernmental Panel on Climate Change states that it has a low level of scientific certainty (IPCC 2007a).

Water vapor could be emitted from evaporated water used for landscaping, but this is not a significant impact because water vapor concentrations in the upper atmosphere are primarily due to climate feedbacks rather than emissions from project-related activities.

The project would emit nitrogen oxides and volatile organic compounds, which are ozone precursors. Ozone is a GHG; however, unlike the other GHGs, ozone in the troposphere is relatively short-lived and can be reduced in the troposphere on a daily basis. Stratospheric ozone can be reduced through reactions with other pollutants.

Certain GHGs defined by AB 32 would not be emitted by the project. Perfluorocarbons and sulfur hexafluoride are typically used in industrial applications, none of which would be used by the project. Therefore, it is not anticipated that the project would emit perfluorocarbons or sulfur hexafluoride.

4.3—Construction Modeling Assumptions

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and prevailing weather conditions. Construction emissions result from on-site and off-site activities. On-site emissions principally consist of exhaust emissions from the activity levels of heavy-duty construction equipment, motor vehicle operation, and fugitive dust (mainly PM₁₀) from disturbed soil. Additionally, paving operations and application of architectural coatings would release VOC emissions. Off-site emissions are caused by motor vehicle exhaust from delivery vehicles, worker traffic, and road dust (PM₁₀ and PM_{2.5}).

4.3.1 - Project Schedule

The project was assumed to begin construction in December 2019 with full buildout completed in November 2023. The project was assumed to be completed in a single phase with the demolition, site preparation, and grading occurring over the entire site.

CalEEMod default schedule was revised to reflect the developer's estimated schedule for home buildout while maintaining the default hours of equipment used for each phase from CalEEMod. Site preparation, grading, road paving, and architectural coatings were based on CalEEMod default assumptions. The detailed construction schedule is provided in Appendix A.

CalEEMod default construction equipment and equipment activity are based on surveys of construction projects of various sizes conducted for development in Southern California and may overstate equipment use for larger project sites in regions outside of Southern California. The modeling assumptions can be reviewed in the modeling results included in Appendix A of this report.

4.3.2 - Construction Equipment Emission Factors

CalEEMod contains an inventory of construction equipment that incorporates estimates of the number of equipment, age, horsepower, and equipment emission control level or tier from which rates of emissions are developed. The CalEEMod default equipment assumptions were used in this analysis for the estimation of emissions from on-site construction equipment. CalEEMod's off-road emission factors and load factors are from the ARB OFFROAD model.

4.3.3 - Demolition

The project will require the removal of two houses and three outbuildings totaling approximately 11,417 square feet. CalEEMod default equipment assumptions based on square feet of buildings to be removed were used to calculate demolition emissions.

4.3.4 - Site Preparation

Site preparation involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading. During site preparation, emissions are generated from the use of diesel construction equipment. Fugitive dust is generated during soil-disturbing activities and truck loading and unloading.

4.3.5 - Grading

During grading activities, fugitive dust can be generated from the movement of dirt on the project site. CalEEMod estimates dust from dozers moving dirt around, dust from graders or scrapers leveling the land, and loading or unloading dirt into haul trucks. Each activity is calculated differently in CalEEMod, based on the number of acres traversed by the grading equipment.

Only some pieces of equipment generate fugitive dust in CalEEMod. The CalEEMod manual identifies various equipment and the acreage disturbed in an 8-hour day:

- Crawler tractors, graders, and rubber tired dozers: 0.5 acre per 8-hour day
- Scrapers: 1 acre per 8-hour day

Therefore, the following acres are the total quantities disturbed per day, per phase, according to the acreage disturbed quantities listed above:

- Demolition = 1 acre per day
- Site preparation = 3.5 acres per day
- Grading = 2.5 acres per day

It was assumed that soil would be balanced on-site so no additional haul truck trips were included in the analysis.

4.3.6 - Building Construction, Paving, and Architectural Coatings

The analysis uses the default modeling assumptions from CalEEMod for construction equipment during building construction, paving, and application of architectural coatings. As previously discussed, the equipment hours for the building construction phases were adjusted to retain the CalEEMod default-generated horsepower hours.

4.3.7 - Construction Off-site Trips

Worker trips are accounted for during the construction phases, based on 1.25 trips per piece of equipment (the CalEEMod default). The CalEEMod default worker trip length of 10.8 miles was retained. The CalEEMod default vehicle fleet (LD Mix) was used for employee trips.

Vendor trips for the building construction phase are calculated from a study performed by the Sacramento Metropolitan Air Quality Management District (SMAQMD) based on land use and size. The CalEEMod defaults for vendor trips, trip length, and vehicle fleet (Heavy Duty Truck Vehicle Fleet Mix) were used.

4.4—Operation

Operational emissions are those emissions that occur when the project is occupied by the future residents. The major sources are summarized below.

4.4.1 - Motor Vehicles

Motor vehicle emissions refer to exhaust and road dust emissions from the automobiles that would travel to and from the project residences.

The analysis uses trip generation rates from the *Institute of Transportation Engineers Trip Generation Manual, 10th Edition* instead of the CalEEMod default rates that are based on the previous edition.

A pass-by trip accounts for vehicles already on the roadway network that stop at the project site as they pass-by; the pass-by trips are existing vehicle trips in the community. CalEEMod default rates of three percent pass-by trips were used in this analysis.

The vehicle fleet mix is defined as the mix of motor vehicle classes active during the operation of the project. Emission factors are assigned to the expected vehicle mix as a function of vehicle class, speed, and fuel use (gasoline and diesel-powered vehicles). The CalEEMod default vehicle fleet mix overstates the percentage of heavy-duty trucks for residential development projects; therefore, the SJVAPCD-approved Residential Fleet Mix for each operational year was used in the analysis.

4.4.2 - Architectural Coatings (Painting)

Paints release VOC emissions during application and drying. The buildings in the project would be repainted on occasion. The project is required to comply with the SJVAPCD Rule 4601—Architectural Coatings. The rule requires flat paints to meet a standard of 50 grams per liter (g/l) and gloss paints 100 g/l by 2012 for an average rate of 65 g/l. Most of the coatings used for residential painting are flat paints.

4.4.3 - Consumer Products

Consumer products are various solvents used in non-industrial applications, which emit VOCs during their product use. “Consumer Product” means a chemically formulated product used by household and institutional consumers, including but not limited to: detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. It does not include other paint products, furniture coatings, or architectural coatings (ARB 2011b). The default emission factor developed for CalEEMod was used.

4.4.4 - Landscape Equipment

CalEEMod estimated the landscaping equipment using the default assumptions in the model.

4.4.5 - Electricity

Electricity used by the project (for lighting, etc.) would result in emissions from the power plants that would generate electricity distributed on the electrical power grid. Electricity emissions estimates are only used in the GHG analysis. CalEEMod was used to estimate these emissions from the project.

Electricity Emission Factor

The default CalEEMod emission factors for Pacific Gas & Electric (from the CEC’s year 2006 data) are as follows:

- Carbon dioxide: 641.35 pounds per megawatt hour (lbs/MWh)
- Methane: 0.029 lb/MWh
- Nitrous oxide: 0.006 lb/MWh

It is assumed that the Renewable Electricity Standards would have taken effect by 2020. The Renewable Electricity Standard requires that electricity providers include a minimum of 33 percent renewable energy in their portfolios by the year 2020. Pacific Gas & Electric provides estimates of its emission factor per megawatt hour of electricity delivered to its customers. The Pacific Gas and Electric Company (PG&E) emissions factor for 2020 for CO₂ is provided below. No projections have been made by PG&E for later years. The rates for methane and nitrous oxide are based on compliance with the Renewable Portfolio Standard.

- Carbon dioxide: 290 lbs/MWh
- Methane: 0.022 lb/MWh
- Nitrous oxide: 0.005 lb/MWh

4.4.6 - Electricity Consumption

CalEEMod has three categories for electricity consumption: electricity that is impacted by Title 24 regulations, non-Title 24 electricity, and lighting. The Title 24 uses are defined as the major building envelope systems covered by California’s Building Code Title 24 Part 6, such as space heating, space cooling, water heating, and ventilation. Lighting is separate since it can be both part and not part of Title 24. Since lighting is not considered as part of the building envelope energy budget, CalEEMod

does not consider lighting to have any further association with Title 24 references in the program. Non-Title 24 includes everything else such as appliances and electronics. Total electricity consumption in CalEEMod is divided into the three categories. The percentage for each category is determined by using percentages derived from the CalEEMod default electricity intensity factors. The percentages are then applied to the electricity consumption to result in the values used in the analysis.

4.4.7 - Natural Gas

The project would generate emissions from the combustion of natural gas for water heaters, heat, etc. CalEEMod has two categories for natural gas consumption: Title 24 and non-Title 24. CalEEMod defaults were used.

4.4.8 - Water and Wastewater

GHG emissions are emitted from the use of electricity to pump water to the project and to treat wastewater. CalEEMod defaults were used.

4.4.9 - Refrigerants

During operation, there may be leakage of refrigerants (hydrofluorocarbons) from air conditioners and the refrigeration system. Hydrofluorocarbons are typically used for refrigerants, which are long-lived GHGs. Residential uses of refrigerants are minor; therefore, they were not estimated.

4.4.10 - Solid Waste

GHG emissions would be generated from the decomposition of solid waste generated by the project. CalEEMod was used to estimate the GHG emissions from this source. The CalEEMod default for the mix of landfill types is as follows:

- Landfill no gas capture: 6%
- Landfill capture gas flare: 94%
- Landfill capture gas energy recovery: 0%

4.4.11 - Vegetation

There is currently some carbon sequestration occurring on-site from existing orchard agricultural uses. The project would plant trees and integrate landscaping into the project design, which would provide carbon sequestration. However, the number of trees to be planted is unknown and data are insufficient to accurately determine the impact that existing plants have on carbon sequestration. For this analysis, it was assumed that the loss and addition of carbon sequestration that are due to the project would be balanced; therefore, emissions due to carbon sequestration were not included.

SECTION 5: AIR QUALITY IMPACT ANALYSIS

This section calculates the expected emissions from construction and operation of the project as a necessary requisite for assessing the regulatory significance of project emissions on a regional and localized level.

5.1—CEQA Guidelines

The CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in the environment.” To determine if a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the project must be evaluated.

The following air quality significance thresholds are contained in Appendix G of the CEQA Guidelines effective December 28, 2018. A significant impact would occur if the project would:

- 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 nonattainment under an applicable national or state ambient air quality standard;
- c) Expose sensitive receptors to substantial pollutant concentrations; or
- d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people).

While the final determination of whether a project is significant is within the purview of the lead agency pursuant to Section 15064(b) of the CEQA Guidelines, the District recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the lead agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. The applicable District thresholds and methodologies are contained under each impact statement below.

5.2—Impact Analysis

5.2.1 - Consistency with Air Quality Plan

Impact AIR-1: **The project would not conflict with or obstruct implementation of the applicable air quality plan.**

Impact Analysis

The CEQA Guidelines indicate that a significant impact would occur if the project would conflict with or obstruct implementation of the applicable air quality plan. The GAMAQI does not provide specific guidance on analyzing conformity with the Air Quality Plan (AQP). Therefore, this document proposes the following criteria for determining project consistency with the current AQPs:

1. Will the project 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 or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the District for Regional and Local Air Pollutants.
2. Will the project comply with applicable control measures in the AQPs? The primary control measures applicable to development projects is Regulation VIII—Fugitive PM₁₀ Prohibitions and Rule 9510 Indirect Source Review.

Contribution to Air Quality Violations

A measure for determining if the project is consistent with the air quality plans is if the project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. Regional air quality impacts and attainment of standards are the result of the cumulative impacts of all emission sources within the air basin. Individual projects are generally not large enough to contribute measurably to an existing violation of air quality standards. Therefore, the cumulative impact of the project is based on its cumulative contribution. Because of the region's nonattainment status for ozone, PM_{2.5}, and PM₁₀—if project-generated emissions of either of the ozone precursor pollutants (ROG and NO_x), PM₁₀, or PM_{2.5} would exceed the District's significance thresholds—then the project would be considered to contribute to violations of the applicable standards and conflict with the attainment plans.

As discussed in Impact AIR-2 below, emissions of ROG, NO_x, PM₁₀, and PM_{2.5} associated with the construction and operation of the project would not exceed the District's significance thresholds. As shown in Impact AIR-2, the project would not result in CO hotspots that would violate CO standards. Therefore, the project would not contribute to air quality violations.

Compliance with Applicable Control Measures

The AQP contains a number of control measures, which are enforceable requirements through the adoption of rules and regulations. A description of rules and regulations that apply to this project is provided below.

SJVAPCD Rule 9510—Indirect Source Review is a control measure in the 2006 PM₁₀ Plan that requires NO_x and PM₁₀ emission reductions from development projects in the San Joaquin Valley. The NO_x emission reductions help reduce the secondary formation of PM₁₀ in the atmosphere (primarily ammonium nitrate and ammonium sulfate) and also reduce the formation of ozone. Reductions in directly emitted PM₁₀ reduce particles such as dust, soot, and aerosols. Rule 9510 is also a control measure in the 2016 Plan for the 2008 8-Hour Ozone Standard. Developers of projects subject to Rule 9510 must reduce emissions occurring during construction and operational phases through on-site measures, or pay off-site mitigation fees. The project is required to comply with Rule 9510.

Regulation VIII—Fugitive PM₁₀ Prohibitions is a control measure that is one main strategies from the 2006 PM₁₀ for reducing the PM₁₀ emissions that are part of fugitive dust. Projects over 10 acres are

required to file a Dust Control Plan (DCP) containing dust control practices sufficient to comply with Regulation VIII. The project is required to prepare a DCP to comply with Regulation VIII.

Other control measures that apply to the project are Rule 4641—Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operation that requires reductions in VOC emissions during paving and Rule 4601—Architectural Coatings that limits the VOC content of all types of paints and coatings sold in the San Joaquin Valley.

The project would comply with all applicable SJVAPCD rules and regulations. Therefore, the project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plan.

The applicable General Plan for the project is the City of Clovis General Plan, which was adopted in 2014 prior to adoption of the SJVAPCD's latest AQPs. The 2016 Plan for the 2008 8-Hour Ozone Standard was adopted in June 2016. The 2015 Plan for the 1997 PM_{2.5} Standard was adopted in April 2015 and the 2016 Moderate Area Plan for the 2012 PM_{2.5} Standard was adopted in September 2016. The site's land use designation in the City of Clovis General Plan is Low Density Residential, which allows for a density of 2.1 dwelling units (DU) per acre to 4.0 DU per acre. The proposed designation is Medium Density Residential, which allows a density of 4.1 DU per acre to 7.0 DU per acre. The project would construct 139 units on 21.22 acres net for a density of 6.6 DU per acre. Although the project requires a General Plan Amendment, the increased density provides a more efficient use of the land and helps achieve the density goals of the Fresno RTP/SCS.

The General Plan PEIR found that the growth allowed by the plan was inconsistent with the SJVAPCD AQP because the emissions at buildout exceeded the criteria pollutant emission thresholds (see Impact AIR-2) and thus, the City of Clovis found the impact to be significant and unavoidable and adopted a Statement of Overriding Considerations (SOC). Projects that are consistent with the General Plan policies and comply with the mitigation measures included in the General Plan and Development Code Update Draft PEIR mitigation measures are able to rely upon the SOC finding to address their cumulative air quality impacts. The General Plan PEIR indicates that application of SJVAPCD Rule 9510—Indirect Source Review and implementation of the General Plan policies and implementation actions would reduce impacts to the extent feasible. The project is required to comply with Rule 9510 and is consistent with General Plan policies and implementation actions as described in Table 8.

Table 8: Consistency with General Plan Policies

General Plan Policy	Project Consistency
<p>Air Quality Policy 1.1: Land use and transportation. Reduce greenhouse gas and other local pollutant emissions through mixed use and transit-oriented development and well-designed transit, pedestrian, and bicycle systems.</p>	<p>Consistent. Residents would have easy access to the existing bike lane on Shepherd Avenue that connects to destinations throughout the area. Enhancements to encourage walking and bicycling will reduce driving and related pollutant emissions. In addition, the project is approximately 1.2 mile northeast of Buchanan High School and 0.5 mile from Woods Elementary School.</p>

Table 8 (cont.): Consistency with General Plan Policies

General Plan Policy	Project Consistency
Air Quality Policy 1.2: Sensitive land uses. Prohibit the future siting of sensitive land uses within the distances of emission sources as defined by the California Air Resources Board, without sufficient mitigation.	Consistent. As discussed in Section 5.2.3—Sensitive Receptors, the project does not locate sensitive receptors within the distances of emission sources as defined by the California Air Resources Board.
Air Quality 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).	Consistent. The project will be required to comply with Regulation VIII—Fugitive PM ₁₀ Prohibitions.
Air Quality Policy 1.6: Alternative fuel infrastructure. Encourage public and private activity and employment centers to incorporate electric charging and alternative fuel stations.	Consistent. The project would not preclude future installment of electrical vehicle charging systems in individual residences.
Air Quality 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.	Consistent. The project would incorporate landscaping throughout the project site. The incorporated landscaping would provide shade, absorb carbon, improve oxygenation, slow stormwater runoff, and reduce the heat island effect.
Air Quality Policy 2.1: Regional coordination. Support regional efforts to reduce air pollution (criteria air pollutants and greenhouse gas emissions) and collaborate with other agencies to improve air quality at the emission source and reduce vehicle miles traveled.	Not applicable. However, residents can participate in educational and grant programs designed to reduce criteria pollutant emissions developed through regional coordination.
Air Quality Policy 2.2: Cross-jurisdictional issues. Collaborate with regional agencies and surrounding jurisdictions to address cross-jurisdictional transportation and air quality issues.	Not applicable. This measure applies to government agencies and not to individual development projects.
Air Quality 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.	Consistent. The project would comply with Rule 9510, which may include payment of mitigation fees that can be used for innovative mitigation measures that reduce criteria pollutants and GHG emissions.
Circulation Policy 1.1: Multimodal network. The City shall plan, design, and maintain the transportation network to promote safe and convenient travel for all users: pedestrian, bicyclists, transit riders, freight, and motorists.	Consistent. The project area includes a variety of features designed to provide safe and convenient travel for users of all modes of transportation. Residents will have easy access to an existing bike lane that runs along Shepherd Avenue.
Circulation Policy 1.2: Transportation decisions. Decisions should balance the comfort, convenience, and safety of pedestrian, bicyclists, and motorists.	Consistent. The project will have easy access to bike lanes that will provide convenience and safety for pedestrians and bicyclists.
Circulation Policy 1.4: Jobs and housing. Encourage infill development that would provide jobs and services closer to housing, and vice versa, to reduce citywide vehicle miles traveled and effectively utilize the existing transportation infrastructure.	Consistent. The project is residential development that will provide employees for jobs in existing business parks and jobs centers in Clovis. The project is situated less than 0.5 mile west of the nearest small commercial center and is within 2 miles of

Table 8 (cont.): Consistency with General Plan Policies

General Plan Policy	Project Consistency
	regional shopping and office development along Herndon Avenue.
Circulation Policy 1.5: Neighborhood connectivity. The transportation network shall provide multimodal access between neighborhoods and neighborhood-serving uses (educational, recreational, or neighborhood commercial uses).	Consistent. The project is within 2 miles of multiple existing educational, commercial, and business uses.
Circulation Policy 3.11: Right-of-way design. Design landscaped parkways, medians, and right-of-ways as aesthetic buffers to improve the community's appearance and encourage non-motorized transportation.	Consistent. The project will comply with City of Clovis design standards and landscaping requirements.
Circulation Policy 5.1: Complete street amenities. Upgrade existing streets and design new streets to include complete street amenities, prioritizing improvements to bicycle and pedestrian connectivity or safety (consistent with the Bicycle Transportation Master Plan and other master plans).	Consistent. The project would be required to upgrade existing streets fronting the property in accordance with city standards.
Circulation Policy 5.2: Development-funded facilities. Require development to fund and construct facilities as shown in the Bicycle Transportation Plan when facilities are in or adjacent to the development.	Not applicable. There are no new planned trails within or directly adjacent to the development. There are existing bike lanes on East Shepherd Avenue.
Circulation Policy 5.3: Pathways. Encourage pathways and other pedestrian amenities in urban centers and new development 10 acres or larger.	Consistent. Future residents will be able to utilize existing and planned sidewalks, bike lanes, and paths constructed in compliance with city requirements in this area.
Circulation Policy 5.5: Pedestrian access. Require sidewalks, paths, and crosswalks to provide access to schools, parks, and other activity centers to provide general pedestrian connectivity throughout the city.	Consistent. Future residents will be able to utilize sidewalks and paths constructed in compliance with city requirements in this area.
Land Use Policy 3.9: Connected development. New development in urban centers must fully improve roadway, pedestrian, and bicycle systems within and adjacent to the proposed project and connect to existing urbanized development.	Consistent. The project will provide required street improvements and connections to pedestrian and bicycle systems.
Open Space and Conservation Policy 3.5: Energy and water conservation. Encourage new development and substantial rehabilitation projects to exceed energy and water conservation and reduction standards set in the California Building Code.	Consistent. The project will meet or exceed energy and water conservation and reduction standards set in the California Building Code.
Source: City of Clovis General Plan 2014.	

The air quality mitigation measures and standard conditions from the General Plan PEIR and a discussion of project compliance with each measure are provided in Table 9.

Table 9: Compliance with General Plan PEIR Mitigation Measures

Mitigation Measure	Project Compliance
<p>SC-1: Prior to project approval, each applicant for individual, site-specific developments under the General Plan shall comply with the San Joaquin Valley Air Pollution Control District rules and regulations, including, without limitation, Indirect Source Rule 9510. The applicant shall document, to the City's reasonable satisfaction, its compliance with this standard condition.</p>	<p>The project is required to submit an Air Impact Assessment Application to the SJVAPCD to comply with Rule 9510.</p>
<p>3-1: Prior to issuance of any construction permits, development project applicants shall prepare and submit to the City of Clovis Planning Division a technical assessment evaluating potential project construction-related air quality impacts.</p>	<p>The analysis of construction emissions is included herein. No criteria pollutant construction emissions exceed SJVPACD thresholds with the application of mitigation measures.</p>
<p>The evaluation shall be prepared in conformance with San Joaquin Valley Air Pollution Control District (SJVAPCD) methodology in assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the SJVAPCD adopted thresholds of significance, as identified in the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI), the City of Clovis Planning Division shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities to below these thresholds. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Planning Division.</p>	<p>The air quality impact analysis prepared for this project utilizes SJVAPCD guidance and thresholds from the GAMAQI.</p>
<p>3-3: Prior to project approval, development project applicants shall prepare and submit to the City of Clovis Planning Division a technical assessment evaluating potential project operation phase-related air quality impacts. The evaluation shall be prepared in conformance with San Joaquin Valley Air Pollution Control District (SJVAPCD) methodology in assessing air quality impacts. If operational-related criteria air pollutants are determined to have the potential to exceed the SJVAPCD adopted thresholds of significance, as identified in the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI), the City of Clovis Planning Division shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities.</p>	<p>The analysis of project operational emissions is included herein. No criteria pollutant operational emissions exceed SJVAPCD thresholds.</p>

Table 9 (cont.): Compliance with General Plan PEIR Mitigation Measures

Mitigation Measure	Project Compliance
The identified measures shall be included as part of the Standard Conditions of Approval.	
3-4: Prior to project approval, the City of Clovis Planning Division shall require applicants for individual, site-specific developments to consider establishing a Voluntary Emission Reduction Agreement (VERA) with the San Joaquin Valley Air Pollution Control District. Under this agreement, project proponents may enter into an agreement where funds are used to develop and implement emission reduction projects.	The project does not exceed SJVAPCD significance thresholds; therefore, no VERA would be required to reduce project impacts.
3-5: Prior to discretionary project approval, the City of Clovis shall evaluate new development proposals for sensitive land uses (e.g., residential, schools, day care centers) within the City for potential incompatibilities with regard to the California Air Resources Board's Air Quality and Land Use Handbook: A Community Health Perspective (April 2005). Applicants for sensitive land uses that are within the recommended buffer distances shall submit a health risk assessment (HRA) to the City of Clovis prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment (OEHHA) and the San Joaquin Valley Air Pollution Control District. The latest OEHHA guidelines shall be used for the analysis, including age sensitivity factors, breathing rates, and body weights appropriate for children age 0 to 6 years. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06), the appropriate non-cancer hazard index exceeds 1.0, or if the PM ₁₀ or PM _{2.5} ambient air quality standard increment exceeds 2.5 µg/m ³ , the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and non-cancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms.	The impacts to sensitive receptors were evaluated herein. No sources of toxic emissions identified by the ARB Air Quality and Land Use Handbook were identified within the recommended buffer distances.
3-6: Prior to discretionary project approval, applicants for industrial or warehousing land uses shall coordinate with the San Joaquin Valley Air Pollution Control District (SJVAPCD) or the City of Clovis in conjunction with the SJVAPCD to determine the appropriate level of health risk assessment (HRA) required. All HRAs shall be submitted to the City of Clovis.	The project is a residential development. This mitigation measure is not applicable.

Air Quality Plan Control Measures

The AQP contains a number of control measures, which are enforceable requirements through the adoption of rules and regulations. A detailed description of rules and regulations that apply to this project is provided in Section 2.2, Regulatory Setting. The project would comply with all applicable SJVAPCD rules and regulations. Therefore, the project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plan.

Conclusion

The project's emissions are less than significant for all criteria pollutants and would not result in inconsistency with the AQP for this criterion. The project's proposed land use designation (Medium Density Residential 4.1-7.0 DU/Acre) would provide densities and development patterns consistent with the land use policies of the City of Clovis 2014 General Plan. The project complies with all applicable policies, implementation actions, and mitigation measures of the 2014 General Plan; therefore, the project is consistent with the AQP, and the impact would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

5.2.2 - Cumulative Criteria Pollutant Impacts

Impact AIR-2: **The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.**

Impact Analysis

To result in a less than significant impact, the following criteria must be true:

1. Regional analysis: emissions of nonattainment pollutants must be below the District's regional significance thresholds. This is an approach recommended by the District in its GAMAQI.
2. Summary of projections: the project must be consistent with current air quality attainment plans including control measures and regulations. This is an approach consistent with Section 15130(b) of the CEQA Guidelines.
3. Cumulative health impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants. This approach correlates the significance of the regional analysis with health effects, consistent with the court decision, *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219-20.

Regional Emissions

Air pollutant emissions have both regional and localized effects. This analysis assesses the regional effects of the project's criteria pollutant emissions in comparison to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the project. Localized emissions from project construction and operation are assessed under Impact AIR-3—Sensitive Receptors using concentration-based thresholds that determine if the project would result in a localized exceedance of any ambient air quality standards or would make a cumulatively considerable contribution to an existing exceedance.

The primary pollutants of concern during project construction and operation are ROG, NO_x, PM₁₀, and PM_{2.5}. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for CO, NO_x, ROG, SO_x, PM₁₀, and PM_{2.5}.

Ozone is a secondary pollutant that can be formed miles from the source of emissions, through reactions of ROG and NO_x emissions in the presence of sunlight. Therefore, ROG and NO_x are termed ozone precursors. The Air Basin often exceeds the state and national ozone standards. Therefore, if the project emits a substantial quantity of ozone precursors, the project may contribute to an exceedance of the ozone standard. The Air Basin also exceeds air quality standards for PM₁₀, and PM_{2.5}; therefore, substantial project emissions may contribute to an exceedance for these pollutants. The District's annual emission significance thresholds used for the project define the substantial contribution for both operational and construction emissions 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}

The project does not contain sources that would produce substantial quantities of SO₂ emissions during construction and operation. Modeling conducted for the project show that SO₂ emissions are well below the SJVAPCD GAMAQI thresholds, as shown in the modeling results contained in Appendix A. No further analysis of SO₂ is required.

Construction Emissions

Construction emissions associated with the project are shown for the years 2019 through 2023 in Table 10. The emissions from all phases of construction that would occur within one calendar year were added for comparison with the significance threshold. For assumptions in estimating the emissions, please refer to Section 4, Modeling Parameters and Assumptions. As shown in Table 10, the emissions are below the significance thresholds in each construction year. Therefore, the emissions are less than significant on a project basis.

Table 10: Construction Air Pollutant Emissions Summary (Unmitigated)

Year	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Construction 2019	0.04	0.37	0.23	0.02	0.02
Construction 2020	0.14	1.41	0.96	0.19	0.12

Table 10 (cont.): Construction Air Pollutant Emissions Summary (Unmitigated)

Year	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Construction 2021	0.15	1.34	1.25	0.13	0.08
Construction 2022	0.14	1.21	1.21	0.12	0.07
Construction 2023	1.10	0.86	0.98	0.08	0.05
Grand Total for All Years of Construction	1.56	5.19	4.63	0.54	0.32
<i>Highest Construction Emissions in Any Year</i>	1.10	1.41	1.25	0.19	0.12
Significance threshold (tons/year)	10	10	100	15	15
Exceed threshold—significant impact?	No	No	No	No	No
Notes: PM ₁₀ and PM _{2.5} emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM ₁₀ Prohibitions. ROG = reactive organic gases NO _x = nitrogen oxides PM ₁₀ and PM _{2.5} = particulate matter Calculations use unrounded numbers. Source: CalEEMod output (Appendix A).					

Operational Emissions

Operational emissions occur over the lifetime of the project and are from two main sources: area sources and motor vehicles, or mobile sources. Construction of the project is expected to begin in 2019 with full buildout completed in November 2023. First occupancy is expected as early as March 2021. The SJVAPCD considers construction and operational emissions separately when making significance determinations.

For assumptions in estimating the emissions, please refer to Section 4, Modeling Parameters and Assumptions. The emissions modeling results for project operation are summarized in Table 11.

As shown in Table 11, the emissions are below the SJVAPCD significance thresholds prior to application of mitigation measures or taking credit for project design features that would reduce project emissions and, therefore, would result in a less than significant impact.

Table 11: Operational Air Pollutant Emissions (Unmitigated)

Source	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Area	1.52	0.13	5.36	0.71	0.71
Energy	0.02	0.17	0.07	0.01	0.01
Mobile	0.44	1.60	4.98	1.42	0.39
Total Project Emissions	1.97	1.90	10.41	2.14	1.12
Significance threshold	10	10	100	15	15

Table 11 (cont.): Operational Air Pollutant Emissions (Unmitigated)

Source	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Exceed threshold—significant impact?	No	No	No	No	No
Notes: ROG = reactive organic gases NO _x = nitrogen oxides PM ₁₀ and PM _{2.5} = particulate matter Area source emissions include emissions from natural gas, landscape, and painting. Source: CalEEMod output (Appendix A).					

Step 2: Plan Approach

Section 15130(b) of the CEQA Guidelines states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

In accordance with CEQA Guidelines 15130(b), this analysis of cumulative impacts is based on a summary of projections analysis. The District attainment plans are based on a summary of projections that accounts for projected growth throughout the Air Basin, and the controls needed to achieve ambient air quality standards. This analysis considers the current CEQA Guidelines, which includes the amendments approved by the Natural Resources Agency, effective on December 28, 2018. The Air Basin is in nonattainment or maintenance status for ozone and particulate matter (PM₁₀ and PM_{2.5}), which means that concentrations of those pollutants currently exceed the ambient air quality standards for those pollutants, or that the standards have recently been attained in the case of pollutants with maintenance status. When concentrations of ozone, PM₁₀, or PM_{2.5} exceed the ambient air quality standard, then those sensitive to air pollution (such as children, the elderly, and the infirm) could experience health effects such as: decrease of pulmonary function and localized lung edema in humans and animals; increased mortality risk; and risk to public health, implied by altered connective tissue metabolism, altered pulmonary morphology in animals after long-term exposures, and pulmonary function decrements in chronically exposed humans. See Section 2.3—Existing Air Quality Conditions for additional correlation of the health impacts with the existing pollutant concentrations experienced in the Fresno area.

Under the CEQA Guidelines, cumulative impacts may be analyzed using other plans that evaluate relevant cumulative effects. The geographic scope for cumulative criteria pollution from air quality impacts is the Air Basin, because that is the area in which the air pollutants generated by the sources within the Air Basin circulate and are often trapped. The SJVAPCD is required to prepare and maintain air quality attainment plans and a State Implementation Plan to document the strategies and measures to be undertaken to reach attainment of ambient air quality standards. While the

SJVAPCD does not have authority over land use decisions, it is recognized that changes in land use and circulation planning would help the Air Basin achieve clean air mandates. The District evaluated emissions from land uses and transportation in the entire Air Basin when it developed its attainment plans. Emission inventories used to predict attainment of NAAQS must be based on the latest planning assumptions for mobile sources.

In accordance with CEQA Guidelines Section 15064, subdivision (h)(3), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously approved plan or mitigation program.

The history and development of the SJVAPCD's current Ozone Attainment Plan is described in Section 2.4, Air Quality Plans. The 2007 8-Hour Ozone Plan contains measures to achieve reductions in emissions of ozone precursors, and sets plans towards attainment of ambient ozone standards by 2023. The 2012 PM_{2.5} Plan and the 2015 PM_{2.5} Plan for the 1997 PM_{2.5} Standard require fewer NO_x reductions to attain the PM_{2.5} standard than the Ozone Plan, so the Ozone Plan is considered the applicable plan for reductions of the ozone precursors NO_x and ROG. The 2012 PM_{2.5} Plan requires reductions in directly emitted PM_{2.5} from combustion sources, such as diesel engines and fireplaces, and from fugitive dust to attain the ambient standard and is the applicable plan for PM_{2.5} emissions. PM_{2.5} is also formed in secondary reactions in the atmosphere involving NO_x and ammonia to form nitrate particles. Reductions in NO_x required for ozone attainment are also sufficient for PM_{2.5} attainment. As discussed in Impact AIR-1, the project is consistent with all applicable control measures in the air quality attainment plans. The project would comply with any District rules and regulations that may pertain to implementation of the AQPs. Therefore, impacts would be less than significant with regard to compliance with applicable rules and regulations.

The Clovis General Plan PEIR found cumulative impacts to be significant and unavoidable because the cumulative impacts of development in accordance with the General Plan and other projects and plans within the SJVAPCD are significant, and the projects implementing the General Plan make an incremental contribution to this impact that itself is cumulatively considerable. The application of SJVAPCD Rule 9510, and implementation of the General Plan air quality-related policies would reduce impacts to the extent feasible. Although the project requires a general plan amendment, the change from low-density residential to medium-density residential use would result more efficient land use and potentially fewer regional impacts per dwelling unit than the existing land use designation. For example, Policy 1.1 of the Air Quality Element focuses on reducing mobile source emissions through land use planning that would reduce overall VMT. In addition, the project fulfills other General Plan objectives by increasing development densities and providing infill development in an area surrounded by existing homes. This project does not exceed SJVAPCD thresholds and will reduce its cumulative impact through compliance with Rule 9510; therefore, the project is considered less than significant for this criterion.

Project Health Impacts

In the 5th District Court of Appeal case *Sierra Club v. County of Fresno (Friant Ranch, L.P.)*, the Court found the project EIR deficient because it did not identify specific health related effects resulting from the estimated amount of pollutants generated by the project. The ruling stated that the EIR should give a "sense of the nature and magnitude of the 'health and safety problems' caused by a project's air pollution. The EIR should translate the emission numbers into adverse impacts or to

understand why such translation is not possible at this time (and what limited translation is, in fact, possible).”

The standard measure of the severity of impact is the concentration of pollutant in the atmosphere compared to the ambient air quality standard for the pollutant for a specified period of time. The severity of the impact increases with the concentration and the amount of time that people are exposed to the pollutant. The change in health impacts with concentration is described in Table 3 and Table 4 using the EPA’s Air Quality Index. The pollutants of concern in the Friant Ranch ruling were regional criteria pollutants ozone, and PM₁₀. It is important to note that the potential for localized impacts can be addressed through dispersion modeling. The SJVAPCD includes screening criteria that if exceeded would require dispersion modeling to determine if project emissions would result in a significant health impact. For this project, no significant localized health impacts would occur. Regional pollutants require more complex modeling as described below.

Ozone concentrations are estimated using regional photochemical models because ozone formation is subject to temperature, inversion strength, sunlight, emissions transport over long distances, dispersion, and the regional nature of the precursor emissions. The emissions from individual projects are too small to produce a measurable change in ozone concentrations – it is the cumulative contribution of emissions from existing and new development that is accounted for in the photochemical model. Ozone concentrations vary widely throughout the day and year even with the same amount of daily emissions. The SJVAPCD indicated in an Amicus Brief on Friant Ranch that running the photochemical model with just Friant Ranch emissions (109.5 tons/year NO_x) is not likely to yield valid information given the relative scale involved. A copy of the SJVAPCD brief is included in Appendix B. The NO_x inventory for the San Joaquin Valley is 224 tons per day in 2019 or 81,760 tons per year. Friant Ranch would result in 0.13 percent increase in NO_x emissions. A project emitting at the SJVAPCD CEQA threshold of 10 tons per year would result in a 0.01 percent increase in NO_x emissions. Most project emissions are generated by motor vehicle travel distributed on regional roadways miles from the project site, and these emissions are not conducive to project-level modeling.

Emissions throughout the San Joaquin Valley are projected to markedly decline in the coming decade. The SJVAPCD 2016 Ozone Plan predicts NO_x emissions will decline to 103 tons per day by 2029 or 54 percent from 2019 levels through implementation of control measures included in the plan. This means that ozone health impacts to residents of the San Joaquin Valley will be lower than currently experienced and most areas of the San Joaquin Valley will have attained ozone air quality standards. The plan accounts for growth in population at rates projected by the State of California for the San Joaquin Valley, so only cumulative projects that would exceed regional growth projections would potentially delay attainment and prolong the time and the number of people would experience health impacts. It is unlikely that anyone would experience greater impacts from regional emissions than currently occur. The federal transportation conformity regulation provides a means of ensuring growth in emissions does not exceed emission budgets for each County. Regional Transportation Plans and Regional Transportation Improvement Plans must provide a conformity analysis based on the latest planning assumptions that demonstrates that budgets will be not be exceeded. If budgets are exceeded, the San Joaquin Valley may be subject to Clean Air Act sanctions until the deficiency is addressed.

Particulate emission impacts can be localized and regional. Particulates can be directly emitted and can be formed in the atmosphere with chemical reactions. Small directly emitted particles such as diesel emissions and other combustion emissions can remain in the atmosphere for a long time and can be transported over long distances. Large particles such as fugitive dust tend to be deposited a short distance from where emitted but can also travel long distances during periods of high winds. Particulates can be washed out of the atmosphere by rain and deposited on surfaces. Secondary particulates formed in the atmosphere such as ammonium nitrate require NO_x and ammonia, and they require low inversion levels and certain ranges of temperature and humidity to result in substantial concentrations. These complications make modeling project particulate emissions to determine concentration feasible only for directly emitted particles at receptor locations close to the project site. Regional particulate concentrations are modeled using a gridded inventory (emissions in tons/day are placed a 4-kilometer, three-dimensional grid to spatially allocate the emissions geographically) and an atmospheric chemistry component to simulate the chemical reactions. The model uses relative reduction factors to determine the amount of reductions of each PM component will be needed to attain the air quality standards on the days with the conditions most favorable to high particulate concentrations. A small project would not produce sufficient emissions to determine a project's individual contribution to the particulate concentration.

Step 3: Cumulative Health Impacts

The Air Basin is in nonattainment for ozone, PM_{10} (State only), and $\text{PM}_{2.5}$, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as children, the elderly, and the infirm). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience health effects that were described in Table 1. However, the health effects are a factor of the dose-response curve. Concentration of the pollutant in the air (dose), the length of time exposed, and the response of the individual are factors involved in the severity and nature of health impacts. If a significant health impact results from project emissions, it does not mean that 100 percent of the population would experience health effects. Table 2, Table 3, and Table 4 relate the pollutant concentration experienced by residents using air quality data for the nearest air monitoring station to the health impacts ascribed to those concentrations by the EPA Air Quality Index. This provides a more detailed look at the actual impacts currently experienced by area residents.

Since the Basin is nonattainment for ozone, PM_{10} , and $\text{PM}_{2.5}$, it is considered to have an existing significant cumulative health impact without the project. When this occurs, the analysis considers whether the project's contribution to the existing violation of air quality standards is cumulatively considerable. The SJVAPCD regional thresholds for NO_x , VOC, PM_{10} , or $\text{PM}_{2.5}$ are applied as cumulative contribution thresholds. Projects that exceed the regional thresholds would have a cumulatively considerable health impact. As shown in Table 10 and Table 11, the regional analysis of construction and operational emissions indicates that the project would not exceed the District's significance thresholds and the project is consistent with the applicable Air Quality

The SJVAPCD Air Quality Attainment Plans predict that nonattainment pollutant emissions will continue to decline each year as regulations adopted to reduce these emissions are implemented, accounting for growth projected for the region. Therefore, the cumulative health impact will also decline even with the project's emission contribution.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

5.2.3 - Sensitive Receptors

Impact AIR-3: **The project would not expose sensitive receptors to substantial pollutant concentrations.**

Impact Analysis***Sensitive Receptors***

Those who are sensitive to air pollution include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. The District considers a sensitive receptor a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The closest sensitive receptors are existing residences located adjacent to the north, south, and east of the project site.

Impacts to On-site Workers

The project is not a commercial or industrial operation that would have on-site workers. Therefore, a health risk assessment for on-site workers is not required or recommended.

Off-site Sensitive Receptors

Impacts to receptors located outside the project boundaries would occur primarily during project construction. Construction emissions commencing with the year 2019 out to the final construction emissions in 2023. For criteria pollutants, impacts to receptors located outside of the project is based on emissions during the construction year 2020, since the construction criteria pollutant emissions are highest during this year. Emissions are less than SJVAPCD screening criteria, so this impact is less than significant.

On-site Sensitive Receptors

The project is not a significant source of TAC emissions. Construction activities produce short-term emissions that would not contribute substantially to cancer risk, which is estimated on a 70-year exposure period. For criteria pollutants, impacts to receptors located outside the project focused on emissions during construction for comparison to SJVAPCD daily screening thresholds.

Construction: ROG

ROG is emitted during the application of architectural coatings (painting). The amount emitted is dependent on the amount of ROG (or VOC) in the paint. ROG emissions are typically an indoor air

quality health hazard concern rather than an outdoor air quality health hazard concern. Therefore, exposure to ROG during architectural coatings is a less than significant health impact.

There are three types of asphalt that are typically used in paving: asphalt cements, cutback asphalts, and emulsified asphalts. However, SJVAPCD Rule 4641 prohibits the use of the following types of asphalt: rapid cure cutback asphalt; medium cure cutback asphalt; slow cure asphalt that contains more than one-half (0.5) percent of organic compounds that evaporate at 500 degrees Fahrenheit (°F) or lower; and emulsified asphalt containing organic compounds, in excess of 3 percent by volume, that evaporate at 500°F or lower. An exception to this is medium cure asphalt when the National Weather Service official forecast of the high temperature for the 24-hour period following application is below 50°F.

The acute (short-term) health effects from worker direct exposure to asphalt fumes include irritation of the eyes, nose, and throat. Other effects include respiratory tract symptoms and pulmonary function changes. The studies were based on occupational exposure of fumes. Residents are not in the immediate vicinity of the fumes; therefore, they would not be subjected to concentrations high enough to evoke a negative response. In addition, the restrictions that are placed on asphalt in the San Joaquin Valley reduce ROG emissions from asphalt and exposure. The impact to nearby sensitive receptors from ROG during construction would be less than significant.

Localized Pollutant Screening Analysis

Localized Pollutant Analysis

Emissions occurring at or near the project have the potential to create a localized impact, also referred to as an air pollutant hotspot. Localized emissions are considered significant if, when combined with background emissions, they would result in exceedance of any health-based air quality standard. The impact from localized pollutants is based on the impact to the nearest sensitive receptor; therefore, the analysis of localized pollutants is included under Impact AIR-3: Sensitive Receptors.

The SJVAPCD's GAMAQI includes screening thresholds for identifying projects that need detailed analysis for localized impacts. Projects with on-site emission increases from construction activities or operational activities that exceed the 100 pounds per day screening level of any criteria pollutant after compliance with Rule 9510 and implementation of all enforceable mitigation measures would require preparation of an ambient air quality analysis. The criteria pollutants of concern for localized impact in the SJVAB are PM₁₀, PM_{2.5}, NO_x, and CO. There is no localized emission standard for ROG and most types of ROG are not toxic and have no health-based standard; however, ROG was included for informational purposes only.

The highest daily emissions occur during project grading activities except for ROG emissions, which are highest during application of architectural coatings. The results of the construction screening analysis with mitigation incorporated are presented in Table 12.

Table 12: Maximum Daily Air Pollutant Emissions during Construction

Maximum Daily Emissions Year and Activity	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Highest Emissions in Any Year	44.03	50.26	32.60	10.48	6.53
Screening Thresholds	100	100	100	100	100
Exceeds Threshold (Yes or No)	No	No	No	No	No
Notes: NO _x = nitrogen oxides CO = carbon monoxide PM ₁₀ and PM _{2.5} = particulate matter N/A = Not applicable Summer emissions were higher for CO and winter emissions were higher for NO _x . All other pollutants were equal during each season. There is no ambient air quality standard for ROG. Source: CalEEMod output (Appendix A).					

Maximum Daily Operational Emissions

An analysis of maximum daily emissions during operation was conducted to determine if emissions would exceed 100 pounds per day for any pollutant of concern. The maximum daily operational emissions would occur at project buildout in 2023. The built-out project was modeled for 2021, which is the year of first occupancy as a conservative assumption. Operational emissions include emissions generated on-site by area sources such as natural gas combustion and landscape maintenance, and off-site by motor vehicles accessing the project. Most motor vehicle emissions would occur distant from the site and would not contribute to a violation of ambient air quality standards; therefore, operational emissions only reflect the emissions within 0.5 mile of the project site. The results of the screening analysis are presented in Table 13.

Table 13: Maximum Daily Air Pollutant Emissions during Operations (Mitigated)

Maximum Daily Emissions per Source Category and Phase	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Area	6.31	1.38	11.78	0.16	0.16
Energy	0.11	0.90	0.38	0.07	0.07
Mobile	0.22	0.61	2.03	0.52	0.14
Total	6.63	2.89	14.19	0.76	0.38
Screening threshold	100	100	100	100	100
Exceed screening threshold?	No	No	No	No	No
Notes: NO _x = nitrogen oxides CO = carbon monoxide PM ₁₀ and PM _{2.5} = particulate matter N/A = Not applicable Summer emissions used for all pollutants except for NO _x , which is higher in winter. There is no ambient air quality standard for ROG. Source: CalEEMod output (Appendix A).					

The project would not exceed SJVAPCD screening thresholds for localized operational criteria pollutant impacts; therefore, the project's localized criteria pollutant impacts would be less than significant.

Operation: ROG

During operation, ROG would be emitted primarily from motor vehicles. Direct exposure to ROG from project motor vehicles would not result in health effects, because the ROG would be distributed across miles and miles of roadway and in the air. The concentrations would not be great enough to result in direct health effects.

Operation: PM₁₀, PM_{2.5}, CO, NO₂

As shown in Table 13, localized concentrations of PM₁₀, PM_{2.5}, CO, and NO₂ would not exceed the SJVAPCD screening thresholds at full project build-out. Residential development is an insignificant source of these pollutants, except for projects that allow woodburning devices that emit PM₁₀, PM_{2.5} in wood smoke. The project will include only natural gas-fueled fireplaces and inserts that are insignificant sources of PM_{2.5} and PM₁₀. Therefore, the project would not expose sensitive receptors to substantial criteria air pollutant concentrations during operation.

Carbon Monoxide Hot Spot Analysis

Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. The SJVAPCD provides screening criteria to determine when to quantify local CO concentrations based on impacts to the level of service (LOS) of intersections in the project vicinity.

The construction of the project would result in minor increases in traffic for the surrounding road network during the duration of construction. Motor vehicles accessing the site when it becomes operational would result in a minor increase in daily trips that would not substantially reduce the LOS. Furthermore, local roadways are not identified as operating at unacceptable conditions under existing and future buildout conditions, according to the City of Clovis General Plan. In addition, the highest background 8-hour average CO concentration during the latest year it was monitored is 2.06 ppm, which is 78 percent lower than the CAAQS of 9.0 ppm or the NAAQS of 9 ppm. Therefore, the project would not significantly contribute to an exceedance of state or federal CO standards.

Operation: Toxic Air Contaminants

The ARB Air Quality and Land Use Handbook contains recommendations that will “help keep California’s children and other vulnerable populations out of harm’s way with respect to nearby sources of air pollution” (ARB 2005), including recommendations for distances between sensitive receptors and certain land uses. In the *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) (Case No. S213478) the California Supreme Court held that “agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a projects’ future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project’s impact on the environment—and not the environment’s impact on the project—that compels an evaluation of how future residents or users could be affected by exacerbated conditions.” Although the Court ruled that impacts from the existing environment on projects are

not required to be addressed under CEQA, land uses such as gasoline stations, dry cleaners, distribution centers, and auto body shops can expose residents to high levels of TAC emissions if they are in proximity of the project site. Information regarding the location of existing TAC sources is provided for disclosure purposes only and not as a measure of the project's significance under CEQA.

Consistency with these recommendations is assessed as follows:

- Heavily traveled roads. ARB recommends avoiding new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. Epidemiological studies indicate that the distance from the roadway and truck traffic densities were key factors in the correlation of health effects, particularly in children. The project is located on the south side of East Shepherd Avenue. The traffic volume at East Shepherd Avenue east of Fowler Avenue was 6,210 trips per day in 2005. No roads serving the project would exceed this criterion (Fresno COG 2013).
- Distribution centers. ARB also recommends avoiding siting new sensitive land uses within 1,000 feet of a distribution center. The project is not located within 1,000 feet of a distribution center.
- Fueling stations. ARB recommends avoiding new sensitive land uses within 300 feet of a large fueling station (a facility with a throughput of 3.6 million gallons per year or greater). ARB recommends a 50-foot separation is recommended for typical gas dispensing facilities. The nearest gas station is approximately 2 miles south of the project site at the corner of Herndon and Clovis Avenues.
- Dry cleaning operations. ARB recommends avoiding siting new sensitive land uses within 300 feet of any dry-cleaning operation that uses perchloroethylene. For operations with two or more machines, ARB recommends a buffer of 500 feet. For operations with three or more machines, ARB recommends consultation with the local air district. The nearest dry-cleaning operation is approximately 2 miles south of the project site near the corner of Herndon and Sunnyside Avenues.
- Auto body shops. Auto body shops have the potential to emit TACs related to painting. The nearest auto body shop is approximately 2 miles south of the project site on Park Creek Avenue, which is beyond the distance that would result in a measurable impact.

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The San Joaquin Valley is considered an endemic area for Valley fever. By geographic region, hospitalizations for Valley fever in the San Joaquin Valley increased from 230 (6.9 per 100,000 population) in 2000 to 701 (17.7 per 100,000 population) in 2007. Within the region, Kern County reported the highest hospitalization rates, increasing from 121 (18.2 per 100,000 population) in 2000 to 285 (34.9 per 100,000 population) in 2007, and peaking in 2005 at 353 hospitalizations (45.8 per 100,000 population). The Centers for Disease Control and Prevention indicates that 752 of the 8,657

persons (8.7 percent) hospitalized in California between 2000 and 2007 for Valley fever died (CDC 2009). A total of 158 Valley Fever cases reported in Fresno County in 2014 (Fresno County 2014).

The distribution of *C. immitis* within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis* growth. Avoidance, when possible, of sites favorable for the occurrence of *C. immitis* is a prudent risk management strategy. Listed below are ecologic factors and sites favorable for the occurrence of *C. immitis*:

- 1) Rodent burrows (often a favorable site for *C. immitis*, perhaps because temperatures are more moderate and humidity higher than on the ground surface)
- 2) Old (prehistoric) Indian campsites near fire pits
- 3) Areas with sparse vegetation and alkaline soils
- 4) Areas with high salinity soils
- 5) Areas adjacent to arroyos (where residual moisture may be available)
- 6) Packrat middens
- 7) Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils
- 8) Sandy, well-aerated soil with relatively high water-holding capacities

Sites within endemic areas less favorable for the occurrence of *C. immitis* include:

- 1) Cultivated fields
- 2) Heavily vegetated areas (e.g. grassy lawns)
- 3) Higher elevations (above 7,000 feet)
- 4) Areas where commercial fertilizers (e.g. ammonium sulfate) have been applied
- 5) Areas that are continually wet
- 6) Paved (asphalt or concrete) or oiled areas
- 7) Soils containing abundant microorganisms
- 8) Heavily urbanized areas where there is little undisturbed virgin soil (USGS 2000).

The project site is situated in a city growth area. The project includes urbanization of a site that was formerly used for agricultural purposes. Therefore, implementation of the project would have a low probability of the site having *C. immitis* growth sites and exposure to the spores from disturbed soil.

Construction activities would generate fugitive dust that could contain *C. immitis* spores. The project will minimize the generation of fugitive dust during construction activities by complying with the District's Regulation VIII. Therefore, this regulation, combined with the relatively low probability of the presence of *C. immitis* spores, would reduce Valley fever impacts to less than significant.

During operations, dust emissions are anticipated to be negligible, because most of the project area would be occupied by buildings, pavement, and landscaped areas. This condition would preclude the possibility of the project from providing habitat suitable for *C. immitis* spores and for generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

Naturally Occurring Asbestos

According to a map of areas where naturally occurring asbestos in California are likely to occur (U.S. Geological Survey 2011), there are no such areas in the project area. Therefore, development of the project is not anticipated to expose receptors to naturally occurring asbestos. Impacts would be less than significant.

In summary, the project would not exceed SJVAPCD localized emission daily screening levels for any criteria pollutant. The project is not a significant source of TAC emissions during construction or operation. The project is not in an area with suitable habitat for Valley fever spores and is not in area known to have naturally occurring asbestos. Therefore, the project would not result in significant impacts to sensitive receptors.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

5.2.4 - Objectionable Odors

Impact AIR-4: **The project would not create objectionable odors affecting a substantial number of people.**

Impact Analysis

Thresholds of Significance

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. According to the *CBIA v. BAAQMD* ruling, impacts of existing sources of odors on the project are not subject to CEQA review. Therefore, the following analysis is provided for information only. The District has determined the common land use types that are known to produce odors in the Air Basin. These types are shown in Table 14.

Table 14: Screening Levels for Potential Odor Sources

Odor Generator	Screening Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting 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 shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
Source: SJVAPCD 2015a.	

According to the SJVAPCD GAMAQI, analysis of potential odor impacts should be conducted for the following two situations:

- **Generators:** projects that would potentially generate odorous emissions proposed to locate 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.

With the *CBIA v. BAAQMD* ruling, analysis of odor impacts on receivers is not required for CEQA compliance. Therefore, the following analysis is provided for information only.

Project Analysis

Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feed lots, coffee roasters, asphalt batch plants, and rendering plants. The project would not engage in any of these activities. Therefore, the project would not be considered a generator of objectionable odors during operations.

During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and would not likely be noticeable for extended periods of time beyond the project's site boundaries. The potential for diesel odor impacts would therefore be less than significant.

As a residential development, the project has the potential to place sensitive receptors near existing odor sources. There are no major odor-generating sources (as listed in Table 14) within screening distance of the site. Therefore, the uses in the vicinity of the project would not cause substantial odor impacts to the project.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

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SECTION 6: GREENHOUSE GAS IMPACT ANALYSIS

6.1—CEQA Guidelines

CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in the environment.” To determine if a project would have a significant impact on GHGs, the type, level, and impact of emissions generated by the project must be evaluated.

The following GHG significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the project would:

- (a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- (b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

6.2—Impact Analysis

6.2.1 - Greenhouse Gas Inventory

Impact GHG-1: **The project would generate direct and indirect greenhouse gas emissions; however, these emissions would not result in a significant impact on the environment.**

Impact Analysis

Threshold of Significance

Section 15064.4(b) of the CEQA Guidelines’ 2018 amendments for GHG emissions states that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions.

- **Consideration #1:** The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- **Consideration #2:** Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration #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. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project’s incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project’s consistency with the State’s long-term

climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

The City of Clovis has not adopted its own GHG thresholds or prepared a Climate Action Plan that can be used as a basis for determining project significance; however, General Plan PEIR Mitigation Measure 7-1 requires applicants to meet a 29 percent reduction from BAU in accordance with SJVAPCD methodologies. The SJVAPCD's *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* includes thresholds based on whether the project will reduce or mitigate GHG levels by 29 percent from BAU levels compared with 2005 levels by 2020 (SJVAPCD 2009b). This level of GHG reduction is based on the target established by ARB's AB 32 Scoping Plan, approved in 2008. First occupancy at the project site is expected to occur in 2021 with full buildout in 2023. This date is beyond the AB 32 2020 milestone year, so a new approach based on continued progress toward later goals is included in this analysis.

The General Plan PEIR GHG analysis based significance on achieving a reduction from BAU of 29 percent at project buildout in 2035. Mitigation Measure 7-1 does not differentiate between analysis of projects pre-2020 and post-2020 with its 29 percent reduction from BAU. Therefore, an analysis of the project's reduction from BAU based on emissions in 2030 compared with the 29 percent reduction as one measure of significance was prepared. This approach provides estimates of project emissions in the new milestone year with the existing threshold to address Considerations 1 and 2 above.

The State is on track to achieve the 2020 target with adopted regulations and has adopted the 2030 Scoping Plan Update on December 14, 2017 that provides the State's strategy to achieve the SB 32 2030 target of a 40 percent reduction in emissions compared to 1990 levels. The plan includes existing and new measures that when implemented are expected to achieve the SB 32 2030 target. The 2030 Scoping Plan achieves substantial reductions beyond 2020 through continued implementation of existing regulations. Other regulations will be adopted to implement recently enacted legislation including SB 350, which requires an increase in renewable energy from 33 percent to 50 percent and doubling the efficiency of existing buildings by 2030. The Legislature extended the Cap-and-Trade Program through 2030. Cap-and-Trade provides a mechanism to make up shortfalls in other strategies if they occur (ARB 2017c). In addition, the strategy relies on reductions achieved in implementing the ARB Short-Lived Climate Pollutant (SLCP) Reduction Strategy to reduce pollutants not previously controlled for climate change such as black carbon, methane, and hydrofluorocarbons (HFCs) (ARB 2017b).

The First Update to the Climate Change Scoping Plan adopted in May 2014 provided revised inventory projections to reflect slower growth in emissions during the recession and lower future year projections. The State's 2020 BAU inventory was reduced from 596 MMTCO₂e to 545 MMTCO₂e (ARB 2014b). The current GHG reduction level for the State to reach 1990 emission levels by 2020 is 21.7 percent from BAU in 2020. In addition, ARB reported that the California GHG inventory for 2016 was below the 2020 target for the first time (ARB 2018).

Although a lower percentage reduction (21.7 percent) would demonstrate consistency with AB 32, this analysis uses the 29 percent reduction from BAU as the basis of the threshold to demonstrate compliance with the Newhall Ranch decision described below which indicated that new development may need to provide more reductions than existing development to show consistency with State targets. The analysis prepared for the project also includes a qualitative assessment of compliance with Scoping Plan and General Plan measures to support GHG significance findings under Impact GHG-2.

Newhall Ranch

On November 30, 2015, the California Supreme Court issued its decision in *Newhall Ranch*, invalidating the GHG analysis for a large master planned residential development in Los Angeles County consisting of over 20,000 residential dwelling units and other uses. In particular, the Court upheld: (1) use of the statewide emissions reduction goal in AB 32 as a significance criterion (pp. 15–19), (2) use of the Scoping Plan’s BAU model “as a comparative tool for evaluating efficiency and conservation efforts” of the Project (pp. 18–19), and (3) a comparison of the project’s expected emissions to a BAU model rather than a baseline of pre-project conditions (pp. 15–19). The Court invalidated the GHG analysis on the grounds that the “administrative record discloses no substantial evidence that the Newhall Ranch’s project-level reduction of 31 percent in comparison to [BAU] is consistent with achieving AB 32’s statewide goal of a 29 percent reduction from [BAU].” The Court indicated that a lead agency may use a BAU comparison based on the Scoping Plan’s methodology if it also substantiates the reduction a particular project must achieve to comply with statewide goals. The Court suggested a lead agency could examine the “data behind the Scoping Plan’s business-as-usual model” to determine the necessary project-level reductions from new land use development at the proposed location (p. 25). A lead agency “might assess consistency with A.B. 32’s goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities.”

The substantial evidence needed to support a project BAU threshold can be derived from data used to develop the Scoping Plan inventory and control strategy, and from analysis conducted by the ARB to track progress in achieving the AB 32 2020 target. The critical factor in determining the appropriate project threshold is whether the State requires additional reductions beyond those achieved by existing regulations in order to achieve its target. If no additional reductions are required from individual projects, no nexus exists to require a project to mitigate its emissions. In that case, the percentage reductions achieved by projects through compliance with regulations is the amount needed to reach the AB 32 target.

The State’s regulatory program implementing the 2008 Scoping Plan is now fully mature. All regulations envisioned in the Scoping Plan have been adopted by the responsible agencies and the effectiveness of those regulations have been estimated by the agencies during the adoption process and then are tracked to verify their effectiveness after implementation. The combined effect of this successful effort is that the State now projects that it will meet the 2020 target and achieve continued progress toward meeting post-2020 targets. Governor Brown, in the introduction to Executive Order B-30-15, states “California is on track to meet or exceed the current target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32).”

The Supreme Court was concerned that new development may need to do more than existing development to reduce GHGs to demonstrate that it is doing its fair share of reductions. As will be

shown below, new development does do more than existing development and, because of the nature of the sources of GHG emissions related to development, existing development is equally responsible for reducing emissions from the most important sources of emissions. It is important to note that most of the State's regulatory program applies to both new and existing development.

The Scoping Plan reduction from BAU accounts for growth projected in the State and assumes that existing development would continue to emit GHGs at the same rate that occurred in the base year (2002-2004 average). The California Department of Finance (DOF) Report E-5 predicts that population growth in California from 2005 to 2020 will be 13.2 percent. This means that development that existed in 2005 will produce nearly 87 percent of the State's emissions in 2020. Conversely, new development is only responsible for about 13 percent of the emissions generated during this timeframe. If measures to reduce emissions from existing development were not available, new development could not provide sufficient reductions to reach the 2020 target even if their emissions were reduced to net zero. This continues to apply to the 2030 target. The DOF forecasts California's population will grow by 8.1 percent between 2020 and 2030, so existing development will be responsible for 92 percent of the emissions that occur in 2030.

The State's regulatory program is able to target both new and existing development because the two most important strategies—motor vehicle fuel efficiency and emissions from electricity generation—obtain reductions equally from existing and new sources. This is because all vehicle operators use cleaner low carbon fuels and buy vehicles subject to the fuel efficiency regulations, and all building owners or operators purchase cleaner energy from the grid that is produced by increasing percentages of renewable fuels. This includes regulations on mobile sources such as: The Pavley standards that apply to all vehicles purchased in California, the Low Carbon Fuel Standard (LCFS) that applies to all fuel used in California, and the Renewable Portfolio Standard and Renewable Energy Standard that apply to utilities providing electricity to all California homes and businesses. The reduction strategy where new development is required to do more than existing development is building energy efficiency and energy use related to water conservation regulations. For example, new projects are subject to Title 24 Energy Efficiency standards and CALGreen Code and Model Water Efficient Landscape Ordinance (MWELO) water conservation requirements. Residential buildings constructed to the 2013 Title 24 standards use 25 percent less energy than buildings complying with the 2008 standards. The newest version of Title 24 effective January 1, 2017 improves energy efficiency in residential buildings by 28 percent compared to the 2013 Title 24 standards and 46 percent compared with 2008 Title 24 standards. New buildings and landscapes are much more energy efficient and water efficient than the development that has been built over the past decades and will require much less energy. Title 24 is updated about every 3 years with the goal of reaching zero net energy from new residential buildings by 2020 and new commercial buildings by 2030. The project's residential buildings would be constructed after 2020 and would be required to comply with the regulations in effect at the time building permits are issued.

As described above, the State requires an average reduction from all sources of the emission inventory of 21.7 percent to achieve the 2020 target. The Scoping Plan strategy will achieve greater than average reductions from energy and mobile source sectors that are the primary sources related to development projects, and lower than average reductions from other sources such as agriculture. The amount of reduction estimated by the ARB for each sector was based on technical feasibility and cost effectiveness. Review of the 2008 Scoping Plan inventory and strategy shows that the reduction

from all development related sources is approximately 29 percent from BAU in order to make up for the below average sectors and achieve the required 21.7 percent average reduction. Achieving the SB 32 2030 target will require an approximate 40 percent reduction from 2020 levels assuming the State achieves the AB 32 target. The 2017 Scoping Plan Update identifies a range of reduction amounts expected from each emission sector, but an amount needed for development's fair share of reductions have not been determined.

As suggested by the Court, a project BAU analysis was prepared for this project that assesses "consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities." The analysis shows the extent to which the project complies with adopted regulations and the additional amount that will be achieved through project design features. At this point in time, no additional reductions are required from new development beyond regulations for the State to achieve its 2020 target. The recently adopted 2030 target will require a reduction from 431 MTCO₂e to 260 MTCO₂e or 40 percent from 1990 levels. After accounting for projected growth of approximately 0.8 percent per year an average decrease of 5.2 percent per year from the State GHG inventory will be required to achieve the target. The 2017 Scoping Plan Update includes a strategy for achieving the needed reductions, but does not identify an amount required specifically from new development. However, all GHG emission sources within development projects are subject to GHG regulations.

Therefore, this analysis demonstrates consistency with the existing 2020 target and shows progress toward achieving the 2030 target. The quantitative analysis prepared for the project provides the reduction from BAU in the 2030 target year to show the progress anticipated prior to applying reductions from new strategies contained in the 2017 Scoping Plan Update. The new reduction strategies from the Plan Update are designed to close the gap between existing commitments and those needed to achieve the 2030 target, but most strategies must go through a regulatory process to be implemented. Therefore, the amount of reductions needed from new development beyond regulations, if any, is uncertain.

The analysis prepared for the project also includes qualitative assessments of compliance with 2008 Scoping Plan, the 2017 Scoping Plan Update, and General Plan measures to support GHG significance findings under Impact GHG-2. There are no measures that identify specific requirements on development projects, but the analysis shows how the applicable measures affect project emission sources.

To determine significance, the analysis first quantifies project-related GHG emissions under a BAU scenario, and then compares these emissions with emissions that would occur when all project-related design features are accounted for, and when compliance with applicable regulatory measures is assumed. The standard and methodology is explained in further detail below.

Impact Analysis

Construction

Total GHG emissions generated during all phases of construction were combined and are presented in Table 15. The SJVAPCD does not recommend assessing the significance of construction-related emissions. However, other jurisdictions, such as the SCAQMD and the SMAQMD, have concluded that construction emissions should be included since they may remain in the atmosphere for years after construction is complete. In order to account for the construction emissions, amortization of

the total emissions generated during construction were based on the life of the development (residential—30 years) and added to the operational emissions.

Table 15: Construction Greenhouse Gas Emissions

Year	MTCO ₂ e per year
2019	37.95
2020	169.57
2021	243.19
2022	240.27
2023	186.87
Total	243.19
<i>Amortized over 30 years</i>	8.11
Notes: Calculation totals use unrounded numbers from CalEEMod output. MTCO ₂ e = metric tons of carbon dioxide equivalents Source: CalEEMod output (Appendix A).	

Operation

Operational or long-term emissions occur over the life of the project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation, and area sources, such as landscaping activities and residential wood burning.

Business As Usual Operational Emissions

Operational emissions under the BAU scenario were modeled using CalEEMod 2016.3.2. Modeling assumptions for the year 2005 were used to represent 2030 BAU conditions (without the benefit of regulations adopted to reduce GHG emissions). The SJVAPCD guidance recommends using emissions in 2002–2004 in the baseline scenario to represent conditions—as if regulations had not been adopted -to allow the effect of projected growth on achieving reduction targets to be clearly defined. CalEEMod defaults were used for project energy usage, water usage, waste generation, and area sources (architectural coating, consumer products, and landscaping). The vehicle fleet mix was revised to reflect the residential fleet mix approved by SJVAPCD for the year of first occupancy for each phase. First occupancy is expected to occur in 2021. Full assumptions and CalEEMod model outputs are provided in Appendix A.

2021 and 2030 Operational Emissions

Operational emissions were modeled for the 2021 and 2030 using CalEEMod. CalEEMod assumes compliance with some, but not all, applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other GHG reduction policies, as described in the CalEEMod User's Guide (SCAQMD 2017). The reductions obtained from each regulation and the source of the reduction amount used in the analysis are described below.

Emissions Accounting for Applicable Regulations

The following regulations are incorporated into the CalEEMod emission factors:

- Pavley I and Pavley II (LEV III) motor vehicle emission standards
- ARB Medium and Heavy-Duty Vehicle Regulation
- 2005, 2008, 2013, and 2016 Title 24 Energy Efficiency Standards

The following regulations have not been incorporated into the CalEEMod emission factors and require alternative methods to account for emission reductions provided by the regulations:

- Renewable Portfolio Standards (RPS)
- Low Carbon Fuel Standard (LCFS)
- Green Building Code Standards (indoor water use)
- California Model Water Efficient Landscape Ordinance (Outdoor Water)

Pavley II/LEV III standards have been incorporated in the latest version of CalEEMod. ARB estimates a 3 percent reduction in 2020 and a 19 percent reduction from the vehicle categories subject to the regulation by 2030 (ARB 2010b and ARB 2013d).

The ARB GHG Regulation for Medium and Heavy-Duty Engines and Vehicles applies to trucks that will be accessing the project site. The benefits of the regulation were incorporated into CalEEMod 2016.3.2. The ARB estimates that this regulation will reduce GHG emissions from the affected vehicles by 7.2 percent (ARB 2013f).

The Low Carbon Fuel Standard (LCFS) is estimated to achieve a 10 percent reduction in emissions by 2020 and an 18 percent reduction by 2030 (ARB 2010). CalEEMod does not include credit for the LCFS, so the reduction is calculated off-model.

Title 24 reductions for 2013 and 2016 updates were added to CalEEMod 2016.3.2. The California Energy Commission (CEC) estimates that 2013 Title 24 standards would result in an increase in energy efficiency of 25 percent in residential buildings compared to 2008 Title 24 (CEC 2014a). An additional 28 percent reduction from the 2008 standards have been claimed for compliance with 2016 Title 24. This results in a combined reduction of 46 percent (CEC 2015).

RPS is not accounted for in CalEEMod 2016.3.2. Reductions from RPS are addressed by revising the electricity emission intensity factor in CalEEMod to account for the utility RPS rate forecast for 2020 (CPUC 2016). PG&E provides emission factors for the electricity it provides to customers and projections for its energy portfolio for 2020 that is used to estimate project emissions. No data to reflect compliance in 2030 was included in the PG&E projections. The utilities will be required by new legislation to increase the use of renewable energy sources to 50 percent, but details on individual utility compliance have not been determined.

Energy savings from water conservation resulting from the Green Building Code Standards for indoor water use and California Model Water Efficient Landscape Ordinance for outdoor water use are not included in CalEEMod. The Water Conservation Act of 2009 mandates a 20 percent reduction in

urban water use that is implemented with these regulations (CDWR 2013). Benefits of the water conservation regulations are applied in the CalEEMod mitigation component.

Reductions in emissions from solid waste are based on the City achieving the CalRecycle 75 Percent Initiative by 2020 compared with a 50 percent baseline for 2005. Reductions are taken using the CalEEMod mitigation component.

Regulations applicable to project sources and the percent reduction anticipated from each source are shown in Table 16. The percentage reductions are only applied to the specific sources subject to the regulations. For example, the Pavley LEV Standards apply only to light duty cars and trucks.

Table 16: Reductions from Greenhouse Gas Regulations

Regulation	Project Applicability	Reduction Source	Percent Reduction in 2030
Pavley Low Emission Vehicle Standards	Light-duty cars and trucks accessing the site are subject to the regulation.	CalEEMod defaults (Pavley I)	25.1 ¹
		Adjusted GHG emission factor (Pavley II/LEV III) in CalEEMod.	19.5% ²
Truck and Bus Regulation	Heavy-duty trucks accessing the site for deliveries and services are subject to the regulation.	Adjusted GHG emission factors for the regulation in CalEEMod	7.2% ³
Low Carbon Fuel Standard (LCFS)	Vehicles accessing the site will use fuel subject to the LCFS	CalEEMod defaults	18% ¹
Title 24 Energy Efficiency Standards	Project buildings will be constructed to meet the latest version of Title 24 (currently 2016). Reduction applies only to energy consumption subject to the regulation.	CalEEMod defaults	46% ^{4,5}
Green Building Code Standards	The project will include water conservation features required by the standard	CalEEMod mitigation component	20% ⁶
Water Efficient Land Use Ordinance	The project landscaping will comply with the regulation	CalEEMod mitigation component	20% ⁷
Renewable Portfolio Standard (RPS)	Electricity purchased for use at the project site is subject to the 33 percent RPS mandate	CalEEMod adjusted energy intensity factors with PG&E emission factors that show the company will exceed the 33 percent mandate.	54.5% ⁸
Solid waste	The solid waste service provider will need to provide programs to increase diversion and recycling to meet the 75 percent mandate.	CalEEMod mitigation component	25% ⁹

Table 16 (cont.): Reductions from Greenhouse Gas Regulations

Regulation	Project Applicability	Reduction Source	Percent Reduction in 2030
Notes:			
Regulations are described in Section 2.3 Regulatory Environment. The source of the percentage reductions from each measure are from the following sources:			
¹ Pavley 1 + Low Carbon Fuel Standard Postprocessor Version 1.0 User's Guide (ARB 2010b)			
² ARB Staff Report for LEV III Amendments (ARB 2013e)			
³ ARB Staff Report for GHG Regulations for Medium and Heavy-Duty Engines and Vehicles (ARB 2013f)			
⁴ California Energy Commission News Release: New Title 24 Standards Will Cut Residential Energy Use by 25 Percent, Save Water, and Reduce Greenhouse Gas Emissions (CEC 2014b)			
⁵ California Energy Commission Adoption Hearing Presentation: 2016 Buildings Energy Efficiency Standards (CEC 2015)			
⁶ 2013 California Green Building Standards Code Section 5.303.2			
⁷ California Water Plan Update 2013 (CDWR 2013)			
⁸ Based on CalEEMod default PG&E rate for 2005 and PG&E projected emission factor for 2020			
⁹ CalRecycle 75 Percent Initiative: Defining the Future (2016b)			

In addition to rules and regulations, the project would incorporate design features and would obtain benefits from its location and infrastructure that would reduce project VMT compared with default values. The project would construct pedestrian infrastructure connecting to adjacent land uses. In addition, the project would provide electrical outlets for landscaping equipment that would be used in accordance with statewide usage rates for this type of equipment.

Note that CalEEMod nominally treats these design elements and conditions as “mitigation measures,” despite their inclusion in the project description. Therefore, reported operational emissions are considered to represent unmitigated project conditions. Full assumptions and model outputs are provided in Appendix A and results of this analysis for the 2021 are presented in Table 17. A second analysis for 2030 is presented in Table 18.

Table 17: Project Operational Greenhouse Gases 2021

Source	Emissions (MTCO ₂ e per year)		
	Business as Usual	2021 (with Regulation and Design Features)	Percent Reduction
Area	166.86	61.39	63.2%
Energy	542.81	351.31	35.3%
Mobile	1,681.51	1,170.97	30.4%
Waste	70.97	53.23	25.0%
Water	32.01	16.93	47.1%
Amortized Construction Emissions	8.11	8.11	0.0%
Total	2,502.25	1,661.93	33.6%
Reduction from BAU		840.33	—
Percent Reduction		33.6%	—
Significance Threshold		29.0%	—
Are emissions significant?		No	

Table 17 (cont.): Project Operational Greenhouse Gases 2021

Source	Emissions (MTCO ₂ e per year)		
	Business as Usual	2021 (with Regulation and Design Features)	Percent Reduction
Notes: MTCO ₂ e = metric tons of carbon dioxide equivalents The project achieves the SJVAPCD 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets. No new target has been set for 2030. Source: CalEEMod output (Appendix A).			

As shown in Table 17, the project would achieve a reduction of 33.6 percent from BAU by the year 2021 with regulations and design features incorporated. This is above the 29 percent reduction required by the SJVAPCD threshold and the Clovis General Plan, and the 21.7 percent average reduction from all sources of GHG emissions now required to achieve AB 32 targets. The ARB originally identified a reduction of 29 percent from BAU as needed to achieve AB 32 targets. The 2008 recession and slower growth in the years since 2008 have reduced the growth forecasted for 2020, and the amount needed to be reduced to achieve 1990 levels as required by AB 32. The California Department of Finance (DOF) population forecast for 2020 to 2030 predicts growth in the State of 8.1 percent by the 2030 target year or 0.8 percent per year (DOF 2017).

The project includes design features that would result in reductions in energy use and support walking and bicycling. Measures that are part of the project design do not require additional mitigation measures to ensure they are accomplished.

The 33.6 percent reduction from BAU is 11.9 percent beyond the average reduction required by the State from all sources to achieve the AB 32 2020 target and therefore addresses the concern expressed in Newhall Ranch that projects should likely do more than the average to ensure they are providing a fair share of emission reductions.

Since the project buildout would occur after 2020, additional analysis summarized in Table 18 was prepared to show consistency with SB 32 2030 target.

Table 18: Project Operational Greenhouse Gases 2030

Source	Emissions (MTCO ₂ e per year)		
	Business as Usual	2030 (with Regulation and Design Features)	Percent Reduction
Area	166.86	61.39	63.2%
Energy	542.81	351.31	35.3%
Mobile	1,681.51	821.90	51.1%
Waste	70.97	53.23	25.0%
Water	32.01	16.93	47.1%
Amortized Construction Emissions	8.11	8.11	0.0%

Table 18 (cont.): Project Operational Greenhouse Gases 2030

Source	Emissions (MTCO ₂ e per year)		
	Business as Usual	2030 (with Regulation and Design Features)	Percent Reduction
Total	2,502.25	1,312.86	47.5%
Reduction from BAU		1,189.39	—
Percent Reduction		47.5%	—
Significance Threshold		29.0%	—
Are emissions significant?	No		
Notes: MTCO ₂ e = metric tons of carbon dioxide equivalents The project achieves the SJVAPCD 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets. No new target has been set for 2030. Source: CalEEMod output (Appendix A).			

As shown in Table 18, the project would exceed the 21.7 percent reduction required by the State to achieve the 2020 target by 25.8 percent and the SJVAPCD 29.0 percent target by 18.5 percent. No new threshold has been adopted by the City of Clovis for the 2030 target, so in the interim the project must make continued progress toward the 2030 goal.

The analysis presented above does not include new strategies proposed in the 2030 Scoping Plan Update. The update was adopted in December 2017. The update provides alternatives in terms of their likelihood of implementation and ranges of reduction from the strategies. Measures already authorized by legislation are highly likely to be implemented, while measures requiring new legislation are less likely to go forward. The State is highly likely to incorporate zero net energy buildings in future updates to Title 24. A new round of motor vehicle fuel efficiency standards beyond 2025 when LEV III standards are at their maximum reduction level is highly likely. Changing heavy-duty trucks and off-road equipment to alternative fuels face greater technological hurdles and are less likely to provide dramatic reductions by 2030.

The 2030 emission limit is 260 MMTCO₂e. The ARB estimates that the 2030 BAU (reference) Inventory will be 392 MMTCO₂e—a reduction of 132 MMTCO₂e, including existing policies and programs but not including known commitments that are already underway. The 2030 Scoping Plan Update includes the estimated GHG emissions by sector compared with 1990 levels that is presented in Table 19. The proposed plan would achieve the bulk of the reductions from Electric Power, Industrial fuel combustion, and Transportation. Cap-and-Trade would provide between 10 to 20 percent of the required reductions depending on the amounts achieved by the other reduction measures.

Table 19: 2030 Scoping Plan Update Estimated Change in GHG Emissions by Sector

Scoping Plan Sector	Emissions (MMTCO ₂ e per year)		
	1990	2030 Proposed Plan Ranges	Percent Change form 1990
Agriculture	26	24–25	-4 to -8
Residential and Commercial	44	38–40	-9 to -14
Electric Power	108	42–62	-43 to -61
High GWP	3	8–11	167 to 267
Industrial	98	77–87	-11 to -21
Recycling and Waste	7	8–9	14 to 29
Transportation (including TCU)	152	103–111	-27 to -32
Net Sink	-7	TBD	TBD
Subtotal	431	300–345	-20 to -30
Cap-and-Trade Program	N/A	40–85	N/A
Total	431	260	-40
ARB 2030 Scoping Plan Update (ARB 2017)			

Although 2030 Scoping Plan Update focuses on state agency actions necessary to achieve the 2030 GHG limit, the ARB considers local governments essential partners in achieving California's goals to reduce GHG emissions. The 2030 target will require an increase in the rate of emission reductions compared to what was needed to achieve the 2020 limit, and this will require action and collaboration at all levels, including local government action to complement and support State-level actions. For individual projects, the 2030 Scoping Plan Update suggests that all new land use development implement all feasible measures to reduce GHG emissions. The Scoping Plan does not define all feasible measures or attribute an amount of reductions required from new development beyond compliance with regulations. When requiring mitigation of a project's fair share of a cumulative impact, the Lead Agency must show the nexus between the project contribution and its fair share of mitigation to reduce the impact to less than cumulatively considerable. A threshold based on local support and collaboration with State actions as described in the 2017 Scoping Plan Update does not lend itself to a quantitative determination of fair share. Requiring developers and future residents of the development to fully mitigate emissions without accounting for compliance with regulations would result in double mitigation, first by the developer and then by the residents purchasing electricity, fuel, and vehicles compliant with regulations in effect at the time of purchase and beyond that would violate constitutional nexus requirements.

In conclusion, the project would achieve reductions 25.8 percent beyond the ARB 2020 21.7 percent target and 18.5 percent beyond the SJVAPCD and City of Clovis General Plan PEIR 29 percent reduction from BAU requirements from adopted regulations and on-site design features. No new threshold has been adopted by the City for the SB 32 2030 target. Based on this progress and the strong likelihood that the measures included in the 2017 Scoping Plan Update will be implemented, it is reasonable to conclude that the project is consistent with the 2017 Scoping Plan and will

contribute a reasonable fair-share contribution to achieving the 2030 target. The fair share may very well be achieved through compliance with increasingly stringent State regulations that apply to new development, such as Title 24 and CALGreen; regulations on energy production, fuels, and motor vehicles that apply to both new and existing development; and voluntary actions to improve energy efficiency in existing development. In addition, compliance with the VMT targets adopted to comply with SB 375 and implemented through the RTP/SCS may be considered to adequately address GHG emissions from passenger cars and light-duty trucks. As shown in Table 19, the State strategy relies on the Cap-and-Trade Program to make up any shortfalls that may occur from the other regulatory strategies. The costs of Cap-and-Trade emission reductions will ultimately be passed on to the consumers of fuels, electricity and products produced by regulated industries which include future residents of development projects and other purchasers of products and services. Therefore, the impact in terms of Considerations #1 and #2 would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

6.2.2 - Greenhouse Gas Reduction Plans

Impact GHG-2: **The project would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce the emissions of greenhouse gases.**

Impact Analysis

The following analysis assesses the project's compliance with Consideration #3 regarding consistency with adopted plans to reduce GHG emissions. The City of Clovis has not adopted a GHG reduction plan. In addition, the City has not completed the GHG inventory, benchmarking, or goal-setting process required to identify a reduction target and take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97 and clarifications provided in the CEQA Guidelines amendments adopted on December 28 2018. The SJVAPCD has adopted a Climate Action Plan, but it does not contain measures that are applicable to development projects. Therefore, the SJVAPCD Climate Action Plan cannot be applied to the project. Since no other local or regional Climate Action Plan is in place, the project is assessed for its consistency with ARB's adopted Scoping Plans. This would be achieved with an assessment of the project's compliance with Scoping Plan measures contained in the 2008 Scoping Plan and the 2017 Scoping Plan Update.

Although the City of Clovis General Plan does not meet the CEQA Guidelines 15064.4(b)(3) requirements for an applicable plan to reduce GHG emissions, it contains policies intended to reduce vehicle travel and energy use that would provide GHG reductions. Therefore, the project's consistency with the General Plan policies is also assessed.

AB 32 Scoping Plan

The California State Legislature adopted AB 32 in 2006. AB 32 focuses on reducing GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the ARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan calls for an “ambitious but achievable” reduction in California’s GHG emissions, cutting approximately 30 percent from BAU emission levels projected for 2020, or about 10 percent from 2008 levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020. As stated earlier, the ARB has updated its emission inventory forecasts and now estimates a reduction of 21.7 percent is required from BAU in 2020 to achieve AB 32 targets.

The Scoping Plan contains a variety of strategies to reduce the State’s emissions. As shown in Table 20, the project is consistent with most of the strategies, while others are not applicable to the project. As discussed earlier, the 2017 Scoping Plan Update strategies primarily rely on increasing the stringency of existing regulations for which the project would continue to comply with and support through the project’s design and implementation of the General Plan goals and policies.

Table 20: Project Consistency with AB 32 Scoping Plan

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Transportation	California Cap-and-Trade Program Linked to Western Climate Initiative	Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanism October 20, 2015 (CCR 95800)	Consistent. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers. However, the regulation indirectly affects people who use the products and services produced by these industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period.
	California Light-Duty Vehicle Greenhouse Gas Standards	Pavley I 2005 Regulations to Control GHG Emissions from Motor Vehicles	Consistent. This measure applies to all new vehicles starting with model year 2012. The project would not conflict with its implementation as it would apply to all new passenger vehicles purchased in California. Passenger vehicles, model year 2012 and later, associated with construction and operation of the project would be required to comply with the Pavley emissions standards.
		2012 LEV III Amendments to the California Greenhouse Gas and Criteria Pollutant Exhaust and Evaporative Emission Standards	
Low Carbon Fuel Standard.	2009 readopted in 2015. Regulations to Achieve Greenhouse Gas Emission Reductions Subarticle 7. Low Carbon Fuel Standard CCR 95480	Consistent. This measure applies to transportation fuels utilized by vehicles in California. The project would not conflict with implementation of this measure. Motor vehicles associated with construction and operation of the project would utilize low carbon transportation fuels as required under this measure.	

Table 20 (cont.): Project Consistency with AB 32 Scoping Plan

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Transportation (<i>cont.</i>)	Regional Transportation-Related Greenhouse Gas Targets.	SB 375. Cal. Public Resources Code §§ 21155, 21155.1, 21155.2, 21159.28	Consistent. The project will provide residential development in the region that is consistent with the increased development densities promoted in the 2018 Regional Transportation Plan/Sustainable Communities Strategy (SCS). The project is not within an SCS priority area and so is not subject to requirements applicable to those areas.
	Goods Movement	Goods Movement Action Plan January 2007.	Not applicable. The project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
	Medium/Heavy-Duty Vehicles	2010 Amendments to the Truck and Bus Regulation, the Drayage Truck Regulation and the Tractor-Trailer Greenhouse Gas Regulation	Consistent. This measure applies to medium- and heavy-duty vehicles that operate in the State. The project would not conflict with implementation of this measure. Medium- and heavy-duty vehicles associated with construction and operation of the project would be required to comply with the requirements of this regulation.
	High Speed Rail	Funded under SB 862	Not applicable. This is a statewide measure that cannot be implemented by a project applicant or lead agency.
Electricity and Natural Gas	Energy Efficiency	Title 20 Appliance Efficiency Regulation	Consistent. The project would not conflict with implementation of this measure. The project will comply with the latest energy efficiency standards and incorporate applicable energy efficiency features designed to reduce project energy consumption.
		Title 24 Part 6 Energy Efficiency Standards for Residential and Non-Residential Building	
		Title 24 Part 11 California Green Building Code Standards	
	Renewable Portfolio Standard/Renewable Electricity Standard.	2010 Regulation to Implement the Renewable Electricity Standard (33% 2020)	Consistent. PG&E obtained 33 percent of its power supply from renewable sources such as solar and geothermal in 2017, and about 70 percent of the electricity it delivers is carbon-free, including nuclear and large hydroelectric facilities. The owners of residences within the project would purchase power that consists of a greater percentage of renewable sources and could install renewable solar power systems that will assist the utility in achieving exceeding the renewable mandate.
SB 350 Clean Energy and Pollution Reduction Act of 2015 (50% 2030)			

Table 20 (cont.): Project Consistency with AB 32 Scoping Plan

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
	Million Solar Roofs Program	Tax incentive program	Consistent. This measure is intended to increase solar throughout California by means of a variety of electricity providers and existing solar programs. Projects within the plan area will be able to take advantage of incentives that are in place at the time of construction. The project will meet the “solar ready” requirements of the Green Building Code Standards. Units constructed after the 2019 Title 24 Energy Efficiency Standards take effect will be required to install solar panels.
Water	Water	Title 24 Part 11 California Green Building Code Standards	Consistent. The project will comply with the California Green Building Standards Code, which requires a 20 percent reduction in indoor water use. The project will also comply with the MWELO as required by the City’s development code.
		SBX 7-7—The Water Conservation Act of 2009	
		Model Water Efficient Landscape Ordinance	
Green Buildings	Green Building Strategy	Title 24 Part 11 California Green Building Code Standards	Consistent. The State will increase the use of green building practices. The project would implement required green building strategies through existing regulation that requires the project to comply with various CALGreen requirements. The project includes sustainability design features that support the Green Building Strategy.
Industry	Industrial Emissions	2010 ARB Mandatory Reporting Regulation	Not applicable. The project is not an industrial land use.
Recycling and Waste Management	Recycling and Waste	Title 24 Part 11 California Green Building Code Standards	Consistent. The project would not conflict with implementation of these measures. The project is required to achieve the recycling mandates via compliance with the CALGreen code. The project would utilize City of Clovis recycling services. The City has consistently exceeded its state recycling mandates.
		AB 341 Statewide 75 Percent Diversion Goal	

Table 20 (cont.): Project Consistency with AB 32 Scoping Plan

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Forests	Sustainable Forests	Cap-and-Trade Offset Projects	Not applicable. The project site is in an area designated for urban uses. No forested lands exist on-site.
High Global Warming Potential	High Global Warming Potential Gases	ARB Refrigerant Management Program CCR 95380	Not applicable. The regulations are applicable to refrigerants used by large air conditioning systems and large commercial and industrial refrigerators and cold storage system. Homes do not use large systems subject to the refrigerant management regulations adopted by ARB.
Agriculture	Agriculture	Cap-and-Trade Offset Projects for Livestock and Rice Cultivation	Not applicable. The project site is designated for urban development. No grazing, feedlot, or other agricultural activities that generate manure occur currently exist on-site or are proposed to be implemented by the project.

Source of ARB Scoping Plan Reduction Measures: California Air Resources Board 2008.

General Plan Compliance

The City of Clovis updated and adopted its General Plan in August of 2014. The General Plan contains a limited number of goals or policies that relate directly to climate change. However, some of the policies in the Air Quality and Circulation Element would likely reduce GHG emissions as well as the other criteria pollutant emissions, because they attempt to reduce VMT and increase energy efficiency. As shown in Table 21, the project is consistent with the feasible and applicable policies.

Table 21: Consistency with General Plan Policies

General Plan Policy	Project Consistency
Air Quality Policy 1.1: Land use and transportation. Reduce greenhouse gas and other local pollutant emissions through mixed use and transit-oriented development and well-designed transit, pedestrian, and bicycle systems.	Consistent. Residents would have easy access to the existing bike lane on East Shepherd Avenue that connects to destinations throughout the area. Enhancements to encourage walking and bicycling will reduce driving and related pollutant emissions. In addition, the project is near existing primary and secondary schools.
Air Quality Policy 1.6: Alternative fuel infrastructure. Encourage public and private activity and employment centers to incorporate electric charging and alternative fuel stations.	Consistent. The project would not preclude future installment of electrical vehicle charging systems. Building codes require homes to be wired to allow future installations of charging equipment.
Air Quality 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.	Consistent. The project would incorporate landscaping throughout the project site. The incorporated landscaping would provide shade, absorb carbon, improve oxygenation, slow stormwater runoff, and reduce the heat island effect.
Air Quality Policy 2.1: Regional coordination. Support regional efforts to reduce air pollution (criteria air pollutants and greenhouse gas emissions) and collaborate with other agencies to improve air quality at the emission source and reduce vehicle miles traveled.	Not applicable. This measure applies to local government coordination and not project proponents or residents. However, future residents can participate in educational and grant programs designed to reduce criteria pollutant emissions developed through regional coordination.
Air Quality Policy 2.2: Cross-jurisdictional issues. Collaborate with regional agencies and surrounding jurisdictions to address cross-jurisdictional transportation and air quality issues.	Not applicable. This measure applies to local government coordination and not to project proponents or residents.
Air Quality 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.	Consistent. The project would comply with Rule 9510, which may include payment of mitigation fees that can be used for innovative mitigation measures that reduce criteria pollutants and GHG emissions. Residents can participate in educational and grant programs designed to reduce GHG emissions developed through regional coordination.
Circulation Policy 1.1: Multimodal network. The City shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrian, bicyclists, transit riders, freight, and motorists.	Consistent. The project area includes features designed to provide safe and convenient travel for users of all transportation modes. Residents will have easy access to an existing bike lane on East Shepherd Avenue and connects to the Clovis trail system.

Table 21 (cont.): Consistency with General Plan Policies

General Plan Policy	Project Consistency
<p>Circulation Policy 1.2: Transportation decisions. Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists.</p>	<p>Consistent. The project will comply with City of Clovis standards for street design that supports multiple modes of transportation. Residents will have easy access to the regional bikeways and the City of Clovis trail system, which will provide convenience and safety for pedestrians and bicyclists.</p>
<p>Circulation Policy 1.4: Jobs and housing. Encourage infill development that would provide jobs and services closer to housing, and vice versa, to reduce citywide vehicle miles traveled and effectively utilize the existing transportation infrastructure.</p>	<p>Consistent. The project is a residential development with 586 units that will provide employees for jobs in existing business parks and jobs centers in Clovis. The project is situated approximately 0.50 mile west of the nearest neighborhood commercial center and is within 2 miles of multiple medical facilities and regional commercial centers on Herndon Avenue.</p>
<p>Circulation Policy 1.5: Neighborhood connectivity. The transportation network shall provide multimodal access between neighborhoods and neighborhood-serving uses (educational, recreational, or neighborhood commercial uses).</p>	<p>Consistent. The project is within 1 to 2 miles of multiple existing educational, commercial, and businesses uses.</p>
<p>Circulation Policy 3.11: Right-of-way design. Design landscaped parkways, medians, and right-of-ways as aesthetic buffers to improve the community's appearance and encourage non-motorized transportation.</p>	<p>Consistent. The project will comply with City of Clovis design standards regarding landscaping and design of road improvements consistent with this policy.</p>
<p>Circulation Policy 5.1: Complete street amenities. Upgrade existing streets and design new streets to include complete street amenities, prioritizing improvements to bicycle and pedestrian connectivity or safety (consistent with the Bicycle Transportation Master Plan and other master plans).</p>	<p>Consistent. The project would be required to upgrade existing streets fronting the property in accordance with city standards. The project is located near bike lanes and trail systems, which provide access and safety for pedestrians and cyclists to jobs, schools, and shopping.</p>
<p>Circulation Policy 5.2: Development-funded facilities. Require development to fund and construct facilities as shown in the Bicycle Transportation Plan when facilities are in or adjacent to the development.</p>	<p>Not applicable. There are no planned trails within or directly adjacent to the development.</p>
<p>Circulation Policy 5.3: Pathways. Encourage pathways and other pedestrian amenities in urban centers and new development 10 acres or larger.</p>	<p>Consistent. The project will be served by bike lanes along the roads accessing the site.</p>
<p>Circulation Policy 5.4: Homeowner associations. The city may require homeowner associations to maintain pathways and other bicycle and pedestrian facilities within the homeowner association area.</p>	<p>Consistent. The project would comply with this policy if a homeowner's association is formed for the development.</p>
<p>Circulation Policy 5.5: Pedestrian access. Require sidewalks, paths, and crosswalks to provide access to schools, parks, and other activity centers to provide general pedestrian connectivity throughout the city.</p>	<p>Consistent. Future residents will be able to utilize sidewalks and paths constructed in compliance with city requirements in this area.</p>

Table 21 (cont.): Consistency with General Plan Policies

General Plan Policy	Project Consistency
Land Use Policy 3.9: Connected development. New development in urban centers must fully improve roadway, pedestrian, and bicycle systems within and adjacent to the proposed project and connect to existing urbanized development.	Not applicable. The project is not in an urban center, but it will provide required street improvements and connections to pedestrian and bicycle systems.
Open Space and Conservation Policy 3.4: Drought-tolerant landscaping. Promote water conservation through use of drought-tolerant landscaping on existing and new residential properties. Require drought-tolerant landscaping for all new commercial and industrial development and city-maintained landscaping, unless used for recreation purposes.	Consistent. The project will promote water conservation through use of drought-tolerant landscaping on new residential properties.
Open Space and Conservation Policy 3.5: Energy and water conservation. Encourage new development and substantial rehabilitation projects to exceed energy and water conservation and reduction standards set in the California Building Code.	Consistent: The project will, at a minimum, comply with the 2016 Title 24 energy efficiency standards, which are 28 percent more stringent than previous standards. The 2016 Title 24 energy efficiency standards went into effect in January 2017 and provide a 28 percent reduction in energy use compared with 2013 Title 24. 2019 Title 24 becomes effective on January 1, 2020.
Open Space and Conservation Policy 3.6: Renewable Energy. Promote the use of renewable and sustainable energy sources to serve public and private sector development	Consistent: The project will comply with Green Building Code requirements for solar-ready roofs.
Open Space and Conservation Policy 3.7: Construction and design. Encourage new construction to incorporate energy efficient building and site design strategies.	Consistent: The project will design homes to meet or exceed the latest most stringent energy standards.
Source: City of Clovis General Plan 2014	

In summary, the project incorporates a number of features that would minimize GHG emissions. These features are consistent with project-level strategies identified by the ARB's Scoping Plan and the City of Clovis General Plan. As demonstrated in the impact analysis above, the project would achieve an approximately 33.6 percent reduction from the BAU inventory by 2021 and a 47.5 percent reduction by 2030 and, therefore, would not significantly hinder or delay the State's ability to meet the reduction targets contained in AB 32 or SB32 or conflict with implementation of the Scoping Plan. The project promotes the goals of the Scoping Plan through implementation of design measures that reduce energy consumption, water consumption, and reduction in VMT. Therefore, the project does not conflict with any plans to reduce GHG emissions. The impact would be less than significant.

Consistency with Executive Orders S-3-05 and B-30-15

At the state level, Executive Orders S-3-05 and B-30-15 are orders from the State's executive branch for the purpose of reducing GHG emissions. The goal of Executive Order S-3-05 is to reduce GHG

emissions to 1990 levels by 2020 was codified by the Legislature as the 2006 Global Warming Solutions Act (AB 32). The project, as analyzed above, is consistent with AB 32. Therefore, the project does not conflict with this component of Executive Order S-3-05.

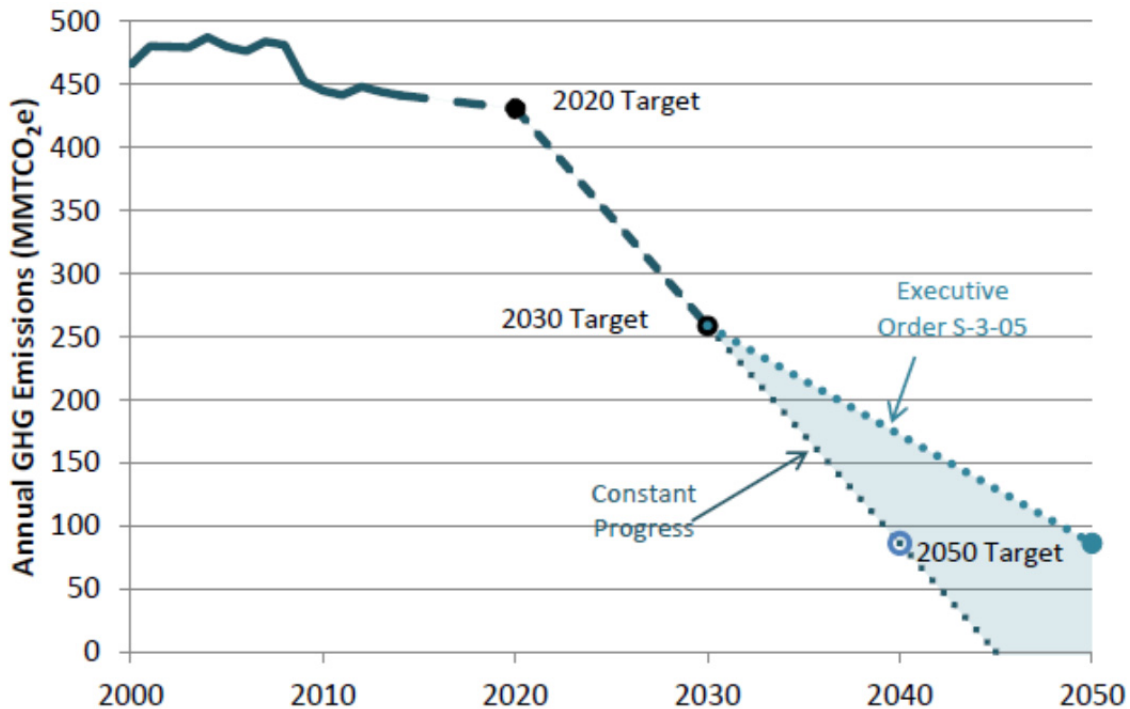
The Executive Orders also establish goals to reduce GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. The 2030 goal was recently codified under SB 32 and is now addressed by the 2017 Scoping Plan Update. The new plan provides a strategy that is capable of reaching the SB 32 target if the measures included in the plan are implemented and achieve reductions within the ranges expected. Under the Scoping Plan Update, local government plays a supporting role through its land use authority and control over local transportation infrastructure. The Plan Update includes reductions from implementation of SB 375 that applies to VMT from passenger vehicles. Fresno County targets for SB 375 are a 5 percent reduction by 2020 and a 10 percent reduction by 2035. SB 375 is implemented with the Fresno COG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The RTP/SCS envisions an increase in development density that would encourage fewer and shorter trips and more trips by transit, walking, and bicycling in amounts sufficient to achieve the SB 375 targets.

Now that the 2017 Scoping Plan has been adopted, new methodologies and threshold approaches are required to determine the fair-share contributions City development projects would need to make to achieve the 2030 target. In the meantime, however, the discussion under “Consistency with SB 32” below addresses the consistency of the proposed project with SB 32, which provides the statutory underpinning of the 2017 Scoping Plan. The SB 32 target requires GHG emissions to be reduced from 1990 levels.

Studies have shown that, in order to meet the 2050 targets, aggressive pursuit of technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. Because of the technological shifts required and the unknown parameters of the regulatory framework in 2050, quantitatively analyzing the proposed project’s impacts further relative to the 2050 goals is speculative for purposes of CEQA (ARB 2014).

The required emission trajectory to achieve the 2030 and the 2050 goal is shown in Figure 8.

Figure 8 California's Path to Achieving the 2050 Target



Source: ARB 2017 Scoping Plan Update (ARB 2017)

The 2008 Scoping Plan recognized that AB 32 established an emissions reduction trajectory that will allow California to achieve the more stringent 2050 target: “These [greenhouse gas emission reduction] measures also put the State on a path to meet the long-term 2050 goal of reducing California’s GHG emissions to 80 percent below 1990 levels. This trajectory is consistent with the reductions that are needed globally to stabilize the climate.” In addition, ARB’s First Update “lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050,” and many of the emission reduction strategies recommended by ARB would serve to reduce the proposed project’s post-2020 emissions level to the extent applicable by law:

- **Energy Sector:** Continued improvements in California’s appliance and building energy efficiency programs and initiatives, such as the State’s zero net energy building goals, would serve to reduce the proposed project’s emissions level. Additionally, further additions to California’s renewable resource portfolio would favorably influence the proposed project’s emissions level.
- **Transportation Sector:** Anticipated deployment of improved vehicle efficiency, zero emission technologies, lower carbon fuels, and improvement of existing transportation systems all will serve to reduce the proposed project’s emissions level.
- **Water Sector:** The proposed project’s emissions level will be reduced as a result of further desired enhancements to water conservation technologies.

- **Waste Management Sector:** Plans to further improve recycling, reuse and reduction of solid waste will beneficially reduce the proposed project's emissions level.

In his January 2015 inaugural address, Governor Brown expressed a commitment to achieve “three ambitious goals” that he would like to see accomplished by 2030 to reduce the State's GHG emissions:

- Increasing the State's Renewable Portfolio Standard from 33 percent in 2020 to 50 percent in 2030;
- Cutting the petroleum use in cars and trucks in half; and
- Doubling the efficiency of existing buildings and making heating fuels cleaner.

These expressions of executive branch policy may be manifested in adopted legislative or regulatory action through the state agencies and departments responsible for achieving the State's environmental policy objectives, particularly those relating to global climate change (Brown 2015). Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target (Energy and Economics 2015).

Given the proportional contribution of mobile source-related GHG emissions to the State's inventory, recent studies also show that relatively new trends—such as the increasing importance of web-based shopping, the emergence of different driving patterns by the “millennial” generation, and the increasing effect of web-based applications on transportation choices—are beginning to substantially influence transportation choices and the energy used by transportation modes. These factors have changed the direction of transportation trends in recent years and will require the creation of new models to effectively analyze future transportation patterns and the corresponding effect on GHG emissions. For the reasons described above, the proposed project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets.

Consistency with SB 32

The 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive Order S-3-05 and SB 32. The 2017 Scoping Plan includes the following summary of its overall strategy for reaching the 2030 target:

- SB 350
 - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
 - Doubling of energy efficiency savings by 2030.
- Low Carbon Fuel Standard (LCFS)
 - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).

- Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
 - Maintaining existing GHG standards for light- and heavy-duty vehicles.
 - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
 - Increase ZEV buses, delivery and other trucks.
- Sustainable Freight Action Plan
 - Improve freight system efficiency.
 - Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
 - Deploy over 100,000 zero-emission trucks and equipment by 2030.
- Short-Lived Climate Pollutant (SLCP) Reduction Strategy
 - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
 - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
- SB 375 Sustainable Communities Strategies
 - Increased stringency of 2035 targets.
- Post-2020 Cap-and-Trade Program
 - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
 - ARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, ARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
- By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Table 22 provides an analysis of the project's consistency with the 2017 Scoping Plan Update measures.

Table 22: Consistency with SB 32 2017 Scoping Plan Update

Scoping Plan Measure	Project Consistency
SB 350 50% Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030.	Consistent: The project will purchase electricity from a utility subject to the SB 350 Renewable Mandate.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels	Not Applicable. This measure applies to existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency until residential housing achieves zero net energy.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	Consistent. Vehicles accessing the project site will use fuel containing lower carbon content as the fuel standard is implemented.

Table 22 (cont.): Consistency with SB 32 2017 Scoping Plan Update

Scoping Plan Measure	Project Consistency
<p>Mobile Source Strategy (Cleaner Technology and Fuels Scenario) Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.</p>	<p>Consistent. Project residents can be expected to purchase increasing numbers of more fuel efficient and zero emission cars and trucks each year. The 2016 CALGreen Code requires electrical service in new single-family housing to be EV charger-ready. Home deliveries will be made by increasing numbers of ZEV delivery trucks.</p>
<p>Sustainable Freight Action Plan The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.</p>	<p>Not Applicable. The measure applies to owners and operators of trucks and freight operations. However, home deliveries are expected to be made by increasing number of ZEV delivery trucks.</p>
<p>Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.</p>	<p>Consistent. The project will include only natural gas hearths that produce very little black carbon compared to wood burning fireplaces and heaters.</p>
<p>SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled. The targets for Fresno County are</p>	<p>Consistent. The project will provide residential development in the region that is consistent with the Regional Transportation Plan/Sustainable Communities Strategy (SCS) strategy to increase development densities to reduce VMT. The project is not within an SCS priority area and so is not subject to requirements applicable to those areas.</p>
<p>Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.</p>	<p>Consistent. The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.</p>

Table 22 (cont.): Consistency with SB 32 2017 Scoping Plan Update

Scoping Plan Measure	Project Consistency
<p>Natural and Working Lands Action Plan. The ARB is working in coordination with several other agencies at the federal, state, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor’s Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California’s natural and working land.</p>	<p>Not Applicable. The project is residential development and will not be considered natural or working lands.</p>
<p>Source: ARB 2017 Scoping Plan Update.</p>	

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the project would comply with whatever measures are enacted that state lawmakers decide would lead to an 80 percent reduction below 1990 levels by 2050. In its 2008 Scoping Plan, ARB acknowledged that the “measures needed to meet the 2050 are too far in the future to define in detail.” In the First Scoping Plan Update; however, ARB generally described the type of activities required to achieve the 2050 target: “energy demand reduction through efficiency and activity changes; large scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately.” The 2017 Scoping Plan provides an intermediate target that is intended to achieve reasonable progress toward the 2050 target.

Accordingly, taking into account the proposed project’s emissions, project design features, and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the project would be consistent with State GHG Plans and would further the State’s goals of reducing GHG emissions to 1990 levels by 2020, 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

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Appendix A: CalEEMod Modeling Results

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Appendix A: Modeling Assumptions and Results

Modeling Assumptions for Lennar Tract 6163

Operational Schedule

Single Family Homes
 Rough Grading
 Ground Up
 First Occupancy
 Buildout

Construction Start

137
 12/2/2019
 1/6/2020
 10/14/2020
 3/1/2021
 11/1/2023

APN	560-031-23S	560-031-34S	560-031-35S
Acres (gross/net)		23.35	21.22
Zoning	R-1 MD		
Average Lot Size	4,709 SF		
Building Area			

PG&E Emission Factor for 2020	MTCO ₂ /MWh	
2020		290

PG&E Greenhouse Gas Emission Factors:
 Guidance for PG&E Customers
 November 2015

Distance to Downtown Clovis 3.9 Miles

Dry Cleaner	Regency Cleaners 1865 Herndon	2
Gas Station	Herndon and Clovis Ave	2.06
Auto Body Shop	Fresno Body Works 255 Park C	2

Demolition		
House 1		6525
Outbuilding 1		1379
Outbuilding 2		1414
House 2		1476
Outbuilding 3		623
		11417

Architectural Coatings		
Default Construction Days for Coatin		20
Units		137
Units per Day Default		6.85
Max Daily Units for Painting		3
Architectural Coatings Adjustment F:		0.438

Houses are constructed incrementally over several years.
 Max number of houses that would be ready for paint on a single day is estimated a 3 units

Construction Schedule and Equipment List

PhaseNumber	PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysWeek	NumDays
1	Demolition	Demolition	2019/12/02	2019/12/27	5	20
2	Site Preparation	Site Preparation	2020/01/06	2020/01/17	5	10
3	Grading	Grading	2020/01/18	2020/03/06	5	35
4	Building Construction	Building Construction	2020/03/07	2021/08/06	5	370
5	Paving	Paving	2021/08/07	2021/09/03	5	20
6	Architectural Coating	Architectural Coating	2021/09/04	2021/10/01	5	20

Equipment Usage Adjustment to Match Buildout Estimate

PhaseName	OffRoad Equipment Type	CalEEMod OffRoad		CalEEMod	CalEEMod	Adjusted Hours/Day	Horse Power	Load Factor
		Equipment Unit Amount	Default Usage Hours/day	Default Work Days	Adjusted Work Days			
Demolition	Concrete/Industrial Saws	1	8	20	20	8	247	0.4
Demolition	Excavators	3	8	20	20	8	97	0.37
Demolition	Rubber Tired Dozers	2	8	20	20	8	81	0.73
Site Preparation	Rubber Tired Dozers	3	8	10	10	8	158	0.38
Site Preparation	Tractors/Loaders/Backho	4	8	10	10	8	247	0.4
Grading	Excavators	2	8	35	35	8	158	0.38
Grading	Graders	1	8	35	35	8	187	0.41
Grading	Rubber Tired Dozers	1	8	35	35	8	247	0.4
Grading	Scrapers	2	8	35	35	8	367	0.48
Grading	Tractors/Loaders/Backho	2	8	35	35	8	97	0.37
Building Construction	Cranes	1	7	370	756	3.4	231	0.29
Building Construction	Forklifts	3	8	370	756	3.9	89	0.2
Building Construction	Generator Sets	1	8	370	756	3.9	84	0.74
Building Construction	Tractors/Loaders/Backho	3	7	370	756	3.4	97	0.37
Building Construction	Welders	1	8	370	756	3.9	46	0.45
Paving	Pavers	2	8	20	20	8	130	0.42
Paving	Paving Equipment	2	8	20	20	8	132	0.36
Paving	Rollers	2	8	20	20	8	80	0.38
Architectural Coating	Air Compressors	1	6	20	20	6	78	0.48

Ajdusted building construction date to match estimated ground up construction start and estimated buildout date of Nov 2023

Lennar Tract 6263 Emission Summary

Construction Emissions		Tons/Year					
		ROG	NOX	CO	SO2	PM10	PM2.5
	2019	0.04	0.37	0.23	0.00	0.02	0.02
	2020	0.14	1.41	0.96	0.00	0.19	0.12
	2021	0.15	1.34	1.25	0.00	0.13	0.08
	2022	0.14	1.21	1.21	0.00	0.12	0.07
	2023	1.10	0.86	0.98	0.00	0.08	0.05
Total		1.56	5.19	4.63	0.01	0.54	0.32
Highest Emissions in Any Year		1.10	1.41	1.25	0.00	0.19	0.12

Unmitigated Operational Emissions		Tons/Year					
		ROG	NOX	CO	SO2	PM10	PM2.5
Area		1.52	0.13	5.36	0.01	0.71	0.71
Energy		0.02	0.17	0.07	0.00	0.01	0.01
Mobile		0.44	1.60	4.98	0.02	1.42	0.39
Total		1.97	1.90	10.41	0.03	2.14	1.12

Mitigated Operational Emissions		Tons/Year					
		ROG	NOX	CO	SO2	PM10	PM2.5
Area		1.10	0.06	1.03	0.00	0.01	0.01
Energy		0.02	0.17	0.07	0.00	0.01	0.01
Mobile		0.43	1.54	4.72	0.01	1.32	0.36
Total		1.55	1.77	5.82	0.02	1.34	0.38

Construction Summer Daily Maximum Daily Emission		Pound/Day					
		ROG	NOX	CO	SO2	PM10	PM2.5
	2019	3.62	36.59	22.70	0.04	2.20	1.76
	2020	4.55	50.25	32.60	0.06	10.48	6.53
	2021	1.19	10.26	9.74	0.02	0.98	0.58
	2022	1.08	9.28	9.49	0.02	0.90	0.51
	2023	44.03	10.22	14.95	0.02	0.85	0.50
Max Daily any Year		44.03	50.25	32.60	0.06	10.48	6.53

Max ROG emissions from architectural coatings adjusted to reflect a maximum of 3 units being painted simultaneously.

Construction Winter Daily Maximum Daily Emission		ROG	NOX	Pound/Day CO	SO2	PM10	PM2.5
	2019	3.61	36.62	22.63	0.04	2.20	1.76
	2020	4.54	50.26	32.51	0.06	10.48	6.53
	2021	1.18	10.30	9.57	0.02	0.98	0.58
	2022	1.08	9.04	9.33	0.02	0.90	0.51
	2023	44.03	10.22	14.89	0.02	0.85	0.50
Max Daily Any Year		44.03	50.26	32.51	0.06	10.48	6.53

Max ROG emissions from architectural coatings adjusted to reflect a maximum of 3 units being painted simultaneously.

Operations 2021 Summer Maximum Daily Emissions		ROG	NOX	Pound/Day CO	SO2	PM10	PM2.5
Area		6.31	1.38	11.78	0.01	0.16	0.16
Energy		0.11	0.90	0.38	0.01	0.07	0.07
Mobile		0.22	0.58	2.03	0.01	0.52	0.14
Total		6.63	2.86	14.19	0.02	0.76	0.38

Mobile emissions reduced to count only localized emissions at the site using a 0.5 mile trip length and the default trip length 7.3 mi.

Localized Trip Length Fraction 0.07

Area emissions are from mitigated report to reflect no woodburning devices.

Operations 2021 Winter Maximum Daily Emissions		ROG	NOX	Pound/Day CO	SO2	PM10	PM2.5
Area		6.31	1.38	11.78	0.01	0.16	0.16
Energy		0.11	0.90	0.38	0.01	0.07	0.07
Mobile		0.15	0.61	1.84	0.01	0.52	0.14
		6.57	2.89	14.00	0.02	0.76	0.38

Mobile emissions reduced to count only localized emissions at the site using a 0.5 mile trip length and the default trip length 7.3 mi.

Localized Trip Length Fraction 0.068

Area emissions are from mitigated report to reflect no woodburning devices.

Construction GHG Emissions

Year	MTCO ₂ e
2019-2023 Total	243.19
Total	243.19
Amortized over 30 years	8.11

Operational GHG Emissions 2021

	BAU (MTCO ₂ e)	2021 (MTCO ₂ e)	Percent Reduction
Area	166.86	61.39	63.2%
Energy	542.81	351.31	35.3%
Mobile	1,681.51	1,170.97	30.4%
Waste	70.97	53.23	25.0%
Water	32.01	16.93	47.1%
Total	2,494.15	1,653.82	33.7%
Construction	8.11	8.11	0.0%
Total with Amortized Construction	2,502.25	1,661.93	33.6%
Reduction from BAU		840.33	

Operational GHG Emissions 2030

	BAU (MTCO ₂ e)	2030 (MTCO ₂ e)	Percent Reduction
Area	166.86	61.39	63.2%
Energy	542.81	351.31	35.3%
Mobile	1,681.51	821.90	51.1%
Waste	70.97	53.23	25.0%
Water	32.01	16.93	47.1%
Total	2,494.15	1,304.75	47.7%
Construction	8.11	8.11	0.0%
Total with Amortized Construction	2,502.25	1,312.86	47.5%
Reduction from BAU		1,189.39	

Mobile sources in 2021 are reduced by 10 percent for the LCFS

Mobile sources in 2030 are reduced by 18 percent for LCFS

Appendix A: CalEEMod Output

CalEEMod Output

Construction and Operations (Annual)

Lennar Tract 6263 - Fresno County, Annual

Lennar Tract 6263
Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	137.00	Dwelling Unit	23.35	246,600.00	392

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	290	CH4 Intensity (lb/MW hr)	0.025	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

Lennar Tract 6263 - Fresno County, Annual

Project Characteristics - PG&E Intensity Factor

Land Use - Site Plan Acreage

Construction Phase - Schedule adjusted to reflect estimated buildout date

Demolition -

Fleet Mix - SJVAPCD Residential Fleet Mix 2021

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation - Rule 4601 Architectural Coatings

Water Mitigation - CalGreen and MWELO compliance

Waste Mitigation - 75% recycling mandate by 2020

Off-road Equipment - Adjusted equipment hours to match default hours and longer schedule

Architectural Coating - Rule 4601 Architectural Coatings compliance

Vehicle Trips - ITE 10th Ed Trip Rates 9.44, 9.54, 8.55

Area Coating - Rule 4601 Architectural Coatings compliance

Woodstoves -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Residential_Exterior	150	65
tblAreaCoating	Area_EF_Residential_Interior	150	65
tblConstructionPhase	NumDays	370.00	756.00
tblConstructionPhase	PhaseEndDate	9/24/2021	11/1/2023
tblConstructionPhase	PhaseEndDate	7/30/2021	9/6/2023
tblConstructionPhase	PhaseEndDate	2/28/2020	3/6/2020
tblConstructionPhase	PhaseEndDate	8/27/2021	10/4/2023
tblConstructionPhase	PhaseEndDate	1/10/2020	1/17/2020

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tblConstructionPhase	PhaseStartDate	8/28/2021	10/5/2023
tblConstructionPhase	PhaseStartDate	2/29/2020	10/14/2020
tblConstructionPhase	PhaseStartDate	1/11/2020	1/18/2020
tblConstructionPhase	PhaseStartDate	7/31/2021	9/7/2023
tblConstructionPhase	PhaseStartDate	12/28/2019	1/6/2020
tblFleetMix	HHD	0.12	0.02
tblFleetMix	LDA	0.49	0.54
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.02	1.4000e-003
tblFleetMix	LHD2	4.7320e-003	9.0000e-004
tblFleetMix	MCY	5.1540e-003	2.6000e-003
tblFleetMix	MDV	0.12	0.05
tblFleetMix	MH	6.2900e-004	1.6000e-003
tblFleetMix	MHD	0.03	9.0000e-003
tblFleetMix	OBUS	2.3660e-003	0.00
tblFleetMix	SBUS	1.0970e-003	9.0000e-004
tblFleetMix	UBUS	1.5900e-003	4.4000e-003
tblLandUse	LotAcreage	44.48	23.35
tblOffRoadEquipment	UsageHours	7.00	3.40
tblOffRoadEquipment	UsageHours	8.00	3.90
tblOffRoadEquipment	UsageHours	8.00	3.90
tblOffRoadEquipment	UsageHours	7.00	3.40
tblOffRoadEquipment	UsageHours	8.00	3.90
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.025
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005

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tblVehicleTrips	HO_TTP	35.70	36.00
tblVehicleTrips	HS_TTP	15.90	16.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	ST_TR	9.91	9.54
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

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					
2019	0.0361	0.3661	0.2263	4.2000e-004	7.2600e-003	0.0180	0.0253	1.2900e-003	0.0167	0.0180	0.0000	37.7011	37.7011	9.8400e-003	0.0000	37.9472
2020	0.1372	1.4146	0.9600	1.9100e-003	0.2596	0.0649	0.3245	0.1173	0.0600	0.1773	0.0000	168.4197	168.4197	0.0458	0.0000	169.5657
2021	0.1522	1.3428	1.2475	2.7300e-003	0.0641	0.0618	0.1259	0.0173	0.0581	0.0754	0.0000	242.1181	242.1181	0.0428	0.0000	243.1888
2022	0.1370	1.2096	1.2127	2.7000e-003	0.0639	0.0520	0.1159	0.0173	0.0489	0.0662	0.0000	239.2197	239.2197	0.0421	0.0000	240.2729
2023	1.1018	0.8581	0.9816	2.1000e-003	0.0457	0.0364	0.0822	0.0124	0.0342	0.0466	0.0000	186.0216	186.0216	0.0339	0.0000	186.8697
Maximum	1.1018	1.4146	1.2475	2.7300e-003	0.2596	0.0649	0.3245	0.1173	0.0600	0.1773	0.0000	242.1181	242.1181	0.0458	0.0000	243.1888

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2.1 Overall Construction

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					
2019	0.0361	0.3661	0.2263	4.2000e-004	4.1700e-003	0.0180	0.0222	8.2000e-004	0.0167	0.0176	0.0000	37.7010	37.7010	9.8400e-003	0.0000	37.9471
2020	0.1372	1.4146	0.9600	1.9100e-003	0.1265	0.0649	0.1914	0.0554	0.0600	0.1154	0.0000	168.4195	168.4195	0.0458	0.0000	169.5655
2021	0.1522	1.3428	1.2475	2.7300e-003	0.0641	0.0618	0.1259	0.0173	0.0581	0.0754	0.0000	242.1179	242.1179	0.0428	0.0000	243.1886
2022	0.1370	1.2096	1.2127	2.7000e-003	0.0639	0.0520	0.1159	0.0173	0.0489	0.0662	0.0000	239.2195	239.2195	0.0421	0.0000	240.2728
2023	1.1018	0.8581	0.9815	2.1000e-003	0.0457	0.0364	0.0822	0.0124	0.0342	0.0466	0.0000	186.0215	186.0215	0.0339	0.0000	186.8696
Maximum	1.1018	1.4146	1.2475	2.7300e-003	0.1265	0.0649	0.1914	0.0554	0.0600	0.1154	0.0000	242.1179	242.1179	0.0458	0.0000	243.1886

	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	30.93	0.00	20.23	37.68	0.00	16.26	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	12-2-2019	3-1-2020	1.4345	1.4345
2	3-2-2020	6-1-2020	0.0979	0.0979
4	9-2-2020	12-1-2020	0.2214	0.2214
5	12-2-2020	3-1-2021	0.3814	0.3814
6	3-2-2021	6-1-2021	0.3765	0.3765
7	6-2-2021	9-1-2021	0.3763	0.3763

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8	9-2-2021	12-1-2021	0.3727	0.3727
9	12-2-2021	3-1-2022	0.3452	0.3452
10	3-2-2022	6-1-2022	0.3405	0.3405
11	6-2-2022	9-1-2022	0.3403	0.3403
12	9-2-2022	12-1-2022	0.3370	0.3370
13	12-2-2022	3-1-2023	0.3109	0.3109
14	3-2-2023	6-1-2023	0.3061	0.3061
15	6-2-2023	9-1-2023	0.3060	0.3060
16	9-2-2023	9-30-2023	0.1136	0.1136
		Highest	1.4345	1.4345

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	1.5761	0.1335	5.3628	0.0145		0.7148	0.7148		0.7148	0.7148	94.3976	61.0111	155.4086	0.4440	1.0900e-003	166.8338
Energy	0.0193	0.1651	0.0702	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	349.0230	349.0230	0.0173	6.2300e-003	351.3103
Mobile	0.4386	1.6033	4.9799	0.0151	1.4026	0.0136	1.4162	0.3755	0.0127	0.3882	0.0000	1,388.4435	1,388.4435	0.0961	0.0000	1,390.8466
Waste						0.0000	0.0000		0.0000	0.0000	28.6461	0.0000	28.6461	1.6929	0.0000	70.9695
Water						0.0000	0.0000		0.0000	0.0000	2.8318	8.9442	11.7760	0.2916	7.0200e-003	21.1593
Total	2.0341	1.9018	10.4130	0.0307	1.4026	0.7417	2.1443	0.3755	0.7408	1.1163	125.8755	1,807.4217	1,933.2972	2.5420	0.0143	2,001.1194

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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	1.0998	0.0629	1.0339	3.8000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003	0.0000	60.9961	60.9961	2.7200e-003	1.0900e-003	61.3885
Energy	0.0193	0.1651	0.0702	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	349.0230	349.0230	0.0173	6.2300e-003	351.3103
Mobile	0.4305	1.5389	4.7175	0.0141	1.3058	0.0128	1.3186	0.3496	0.0120	0.3615	0.0000	1,298.7787	1,298.7787	0.0919	0.0000	1,301.0760
Waste						0.0000	0.0000		0.0000	0.0000	21.4846	0.0000	21.4846	1.2697	0.0000	53.2271
Water						0.0000	0.0000		0.0000	0.0000	2.2655	7.1553	9.4208	0.2333	5.6200e-003	16.9274
Total	1.5496	1.7669	5.8216	0.0156	1.3058	0.0359	1.3417	0.3496	0.0350	0.3846	23.7500	1,715.9531	1,739.7031	1.6149	0.0129	1,783.9292

	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	23.82	7.10	44.09	49.20	6.90	95.17	37.43	6.90	95.27	65.55	81.13	5.06	10.01	36.47	9.76	10.85

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/2/2019	12/27/2019	5	20	
2	Site Preparation	Site Preparation	1/6/2020	1/17/2020	5	10	
3	Grading	Grading	1/18/2020	3/6/2020	5	35	
4	Building Construction	Building Construction	10/14/2020	9/6/2023	5	756	
5	Paving	Paving	9/7/2023	10/4/2023	5	20	
6	Architectural Coating	Architectural Coating	10/5/2023	11/1/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

Residential Indoor: 499,365; Residential Outdoor: 166,455; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	3.40	231	0.29
Building Construction	Forklifts	3	3.90	89	0.20
Building Construction	Generator Sets	1	3.90	84	0.74
Paving	Pavers	2	8.00	130	0.42
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
Building Construction	Tractors/Loaders/Backhoes	3	3.40	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	3.90	46	0.45

Trips and VMT

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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	52.00	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	49.00	15.00	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	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

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					5.6200e-003	0.0000	5.6200e-003	8.5000e-004	0.0000	8.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672
Total	0.0351	0.3578	0.2206	3.9000e-004	5.6200e-003	0.0180	0.0236	8.5000e-004	0.0167	0.0176	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672

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3.2 Demolition - 2019

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	2.2000e-004	7.8400e-003	1.0400e-003	2.0000e-005	4.4000e-004	3.0000e-005	4.8000e-004	1.2000e-004	3.0000e-005	1.5000e-004	0.0000	2.0035	2.0035	1.8000e-004	0.0000	2.0080
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	7.1000e-004	4.7000e-004	4.6700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0712	1.0712	3.0000e-005	0.0000	1.0720
Total	9.3000e-004	8.3100e-003	5.7100e-003	3.0000e-005	1.6400e-003	4.0000e-005	1.6900e-003	4.4000e-004	4.0000e-005	4.8000e-004	0.0000	3.0747	3.0747	2.1000e-004	0.0000	3.0800

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					2.5300e-003	0.0000	2.5300e-003	3.8000e-004	0.0000	3.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0351	0.3578	0.2206	3.9000e-004		0.0180	0.0180		0.0167	0.0167	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671
Total	0.0351	0.3578	0.2206	3.9000e-004	2.5300e-003	0.0180	0.0205	3.8000e-004	0.0167	0.0171	0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671

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3.2 Demolition - 2019

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	2.2000e-004	7.8400e-003	1.0400e-003	2.0000e-005	4.4000e-004	3.0000e-005	4.8000e-004	1.2000e-004	3.0000e-005	1.5000e-004	0.0000	2.0035	2.0035	1.8000e-004	0.0000	2.0080
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	7.1000e-004	4.7000e-004	4.6700e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0712	1.0712	3.0000e-005	0.0000	1.0720
Total	9.3000e-004	8.3100e-003	5.7100e-003	3.0000e-005	1.6400e-003	4.0000e-005	1.6900e-003	4.4000e-004	4.0000e-005	4.8000e-004	0.0000	3.0747	3.0747	2.1000e-004	0.0000	3.0800

3.3 Site Preparation - 2020

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	0.0204	0.2121	0.1076	1.9000e-004	0.0903	0.0110	0.1013	0.0497	0.0101	0.0598	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505

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3.3 Site Preparation - 2020

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	3.9000e-004	2.5000e-004	2.5000e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6227	0.6227	2.0000e-005	0.0000	0.6232
Total	3.9000e-004	2.5000e-004	2.5000e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6227	0.6227	2.0000e-005	0.0000	0.6232

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					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	0.0204	0.2121	0.1076	1.9000e-004	0.0407	0.0110	0.0516	0.0223	0.0101	0.0325	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505

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3.3 Site Preparation - 2020

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	3.9000e-004	2.5000e-004	2.5000e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6227	0.6227	2.0000e-005	0.0000	0.6232
Total	3.9000e-004	2.5000e-004	2.5000e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6227	0.6227	2.0000e-005	0.0000	0.6232

3.4 Grading - 2020

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					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0779	0.8785	0.5593	1.0900e-003		0.0380	0.0380		0.0350	0.0350	0.0000	95.3475	95.3475	0.0308	0.0000	96.1185
Total	0.0779	0.8785	0.5593	1.0900e-003	0.1518	0.0380	0.1898	0.0629	0.0350	0.0979	0.0000	95.3475	95.3475	0.0308	0.0000	96.1185

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3.4 Grading - 2020

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	1.5100e-003	9.6000e-004	9.7300e-003	3.0000e-005	2.8000e-003	2.0000e-005	2.8200e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4218	2.4218	6.0000e-005	0.0000	2.4234
Total	1.5100e-003	9.6000e-004	9.7300e-003	3.0000e-005	2.8000e-003	2.0000e-005	2.8200e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4218	2.4218	6.0000e-005	0.0000	2.4234

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					0.0683	0.0000	0.0683	0.0283	0.0000	0.0283	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0779	0.8785	0.5593	1.0900e-003		0.0380	0.0380		0.0350	0.0350	0.0000	95.3474	95.3474	0.0308	0.0000	96.1183
Total	0.0779	0.8785	0.5593	1.0900e-003	0.0683	0.0380	0.1063	0.0283	0.0350	0.0633	0.0000	95.3474	95.3474	0.0308	0.0000	96.1183

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3.4 Grading - 2020

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	1.5100e-003	9.6000e-004	9.7300e-003	3.0000e-005	2.8000e-003	2.0000e-005	2.8200e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4218	2.4218	6.0000e-005	0.0000	2.4234
Total	1.5100e-003	9.6000e-004	9.7300e-003	3.0000e-005	2.8000e-003	2.0000e-005	2.8200e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4218	2.4218	6.0000e-005	0.0000	2.4234

3.5 Building Construction - 2020

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	0.0294	0.2660	0.2337	3.7000e-004		0.0155	0.0155		0.0146	0.0146	0.0000	32.1203	32.1203	7.8300e-003	0.0000	32.3161
Total	0.0294	0.2660	0.2337	3.7000e-004		0.0155	0.0155		0.0146	0.0146	0.0000	32.1203	32.1203	7.8300e-003	0.0000	32.3161

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3.5 Building Construction - 2020

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	1.6000e-003	0.0530	8.4600e-003	1.2000e-004	2.8300e-003	2.8000e-004	3.1100e-003	8.2000e-004	2.7000e-004	1.0900e-003	0.0000	11.5291	11.5291	1.4200e-003	0.0000	11.5647
Worker	6.0300e-003	3.8200e-003	0.0388	1.1000e-004	0.0112	7.0000e-005	0.0112	2.9700e-003	7.0000e-005	3.0300e-003	0.0000	9.6629	9.6629	2.6000e-004	0.0000	9.6694
Total	7.6300e-003	0.0568	0.0473	2.3000e-004	0.0140	3.5000e-004	0.0144	3.7900e-003	3.4000e-004	4.1200e-003	0.0000	21.1920	21.1920	1.6800e-003	0.0000	21.2341

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	0.0294	0.2660	0.2337	3.7000e-004		0.0155	0.0155		0.0146	0.0146	0.0000	32.1203	32.1203	7.8300e-003	0.0000	32.3160
Total	0.0294	0.2660	0.2337	3.7000e-004		0.0155	0.0155		0.0146	0.0146	0.0000	32.1203	32.1203	7.8300e-003	0.0000	32.3160

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3.5 Building Construction - 2020

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	1.6000e-003	0.0530	8.4600e-003	1.2000e-004	2.8300e-003	2.8000e-004	3.1100e-003	8.2000e-004	2.7000e-004	1.0900e-003	0.0000	11.5291	11.5291	1.4200e-003	0.0000	11.5647
Worker	6.0300e-003	3.8200e-003	0.0388	1.1000e-004	0.0112	7.0000e-005	0.0112	2.9700e-003	7.0000e-005	3.0300e-003	0.0000	9.6629	9.6629	2.6000e-004	0.0000	9.6694
Total	7.6300e-003	0.0568	0.0473	2.3000e-004	0.0140	3.5000e-004	0.0144	3.7900e-003	3.4000e-004	4.1200e-003	0.0000	21.1920	21.1920	1.6800e-003	0.0000	21.2341

3.5 Building Construction - 2021

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	0.1207	1.1069	1.0527	1.7100e-003		0.0609	0.0609		0.0572	0.0572	0.0000	147.0944	147.0944	0.0355	0.0000	147.9810
Total	0.1207	1.1069	1.0527	1.7100e-003		0.0609	0.0609		0.0572	0.0572	0.0000	147.0944	147.0944	0.0355	0.0000	147.9810

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3.5 Building Construction - 2021

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	5.9100e-003	0.2203	0.0336	5.5000e-004	0.0130	5.9000e-004	0.0136	3.7500e-003	5.7000e-004	4.3100e-003	0.0000	52.2939	52.2939	6.3100e-003	0.0000	52.4516
Worker	0.0255	0.0156	0.1613	4.7000e-004	0.0511	3.2000e-004	0.0514	0.0136	2.9000e-004	0.0139	0.0000	42.7298	42.7298	1.0600e-003	0.0000	42.7562
Total	0.0314	0.2359	0.1948	1.0200e-003	0.0641	9.1000e-004	0.0650	0.0173	8.6000e-004	0.0182	0.0000	95.0237	95.0237	7.3700e-003	0.0000	95.2078

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	0.1207	1.1069	1.0527	1.7100e-003		0.0609	0.0609		0.0572	0.0572	0.0000	147.0942	147.0942	0.0355	0.0000	147.9809
Total	0.1207	1.1069	1.0527	1.7100e-003		0.0609	0.0609		0.0572	0.0572	0.0000	147.0942	147.0942	0.0355	0.0000	147.9809

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3.5 Building Construction - 2021

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	5.9100e-003	0.2203	0.0336	5.5000e-004	0.0130	5.9000e-004	0.0136	3.7500e-003	5.7000e-004	4.3100e-003	0.0000	52.2939	52.2939	6.3100e-003	0.0000	52.4516
Worker	0.0255	0.0156	0.1613	4.7000e-004	0.0511	3.2000e-004	0.0514	0.0136	2.9000e-004	0.0139	0.0000	42.7298	42.7298	1.0600e-003	0.0000	42.7562
Total	0.0314	0.2359	0.1948	1.0200e-003	0.0641	9.1000e-004	0.0650	0.0173	8.6000e-004	0.0182	0.0000	95.0237	95.0237	7.3700e-003	0.0000	95.2078

3.5 Building Construction - 2022

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	0.1080	0.9878	1.0353	1.7000e-003		0.0512	0.0512		0.0482	0.0482	0.0000	146.5864	146.5864	0.0351	0.0000	147.4638
Total	0.1080	0.9878	1.0353	1.7000e-003		0.0512	0.0512		0.0482	0.0482	0.0000	146.5864	146.5864	0.0351	0.0000	147.4638

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3.5 Building Construction - 2022

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	5.4800e-003	0.2080	0.0310	5.4000e-004	0.0129	5.1000e-004	0.0134	3.7300e-003	4.8000e-004	4.2200e-003	0.0000	51.5962	51.5962	6.1000e-003	0.0000	51.7486
Worker	0.0236	0.0139	0.1465	4.5000e-004	0.0509	3.1000e-004	0.0512	0.0135	2.8000e-004	0.0138	0.0000	41.0371	41.0371	9.4000e-004	0.0000	41.0606
Total	0.0291	0.2218	0.1774	9.9000e-004	0.0639	8.2000e-004	0.0647	0.0173	7.6000e-004	0.0180	0.0000	92.6333	92.6333	7.0400e-003	0.0000	92.8092

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	0.1080	0.9878	1.0353	1.7000e-003		0.0512	0.0512		0.0482	0.0482	0.0000	146.5862	146.5862	0.0351	0.0000	147.4636
Total	0.1080	0.9878	1.0353	1.7000e-003		0.0512	0.0512		0.0482	0.0482	0.0000	146.5862	146.5862	0.0351	0.0000	147.4636

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3.5 Building Construction - 2022

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	5.4800e-003	0.2080	0.0310	5.4000e-004	0.0129	5.1000e-004	0.0134	3.7300e-003	4.8000e-004	4.2200e-003	0.0000	51.5962	51.5962	6.1000e-003	0.0000	51.7486
Worker	0.0236	0.0139	0.1465	4.5000e-004	0.0509	3.1000e-004	0.0512	0.0135	2.8000e-004	0.0138	0.0000	41.0371	41.0371	9.4000e-004	0.0000	41.0606
Total	0.0291	0.2218	0.1774	9.9000e-004	0.0639	8.2000e-004	0.0647	0.0173	7.6000e-004	0.0180	0.0000	92.6333	92.6333	7.0400e-003	0.0000	92.8092

3.5 Building Construction - 2023

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	0.0681	0.6230	0.7036	1.1700e-003		0.0303	0.0303		0.0285	0.0285	0.0000	100.3897	100.3897	0.0239	0.0000	100.9863
Total	0.0681	0.6230	0.7036	1.1700e-003		0.0303	0.0303		0.0285	0.0285	0.0000	100.3897	100.3897	0.0239	0.0000	100.9863

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3.5 Building Construction - 2023

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	2.5700e-003	0.1113	0.0172	3.6000e-004	8.8500e-003	1.1000e-004	8.9500e-003	2.5600e-003	1.0000e-004	2.6600e-003	0.0000	34.4605	34.4605	2.8200e-003	0.0000	34.5312
Worker	0.0151	8.4900e-003	0.0915	3.0000e-004	0.0349	2.1000e-004	0.0351	9.2700e-003	1.9000e-004	9.4600e-003	0.0000	27.0411	27.0411	5.7000e-004	0.0000	27.0554
Total	0.0176	0.1198	0.1088	6.6000e-004	0.0437	3.2000e-004	0.0440	0.0118	2.9000e-004	0.0121	0.0000	61.5017	61.5017	3.3900e-003	0.0000	61.5866

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	0.0681	0.6230	0.7036	1.1700e-003		0.0303	0.0303		0.0285	0.0285	0.0000	100.3895	100.3895	0.0239	0.0000	100.9862
Total	0.0681	0.6230	0.7036	1.1700e-003		0.0303	0.0303		0.0285	0.0285	0.0000	100.3895	100.3895	0.0239	0.0000	100.9862

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3.5 Building Construction - 2023

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	2.5700e-003	0.1113	0.0172	3.6000e-004	8.8500e-003	1.1000e-004	8.9500e-003	2.5600e-003	1.0000e-004	2.6600e-003	0.0000	34.4605	34.4605	2.8200e-003	0.0000	34.5312
Worker	0.0151	8.4900e-003	0.0915	3.0000e-004	0.0349	2.1000e-004	0.0351	9.2700e-003	1.9000e-004	9.4600e-003	0.0000	27.0411	27.0411	5.7000e-004	0.0000	27.0554
Total	0.0176	0.1198	0.1088	6.6000e-004	0.0437	3.2000e-004	0.0440	0.0118	2.9000e-004	0.0121	0.0000	61.5017	61.5017	3.3900e-003	0.0000	61.5866

3.6 Paving - 2023

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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888

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3.6 Paving - 2023

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	5.2000e-004	2.9000e-004	3.1500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9301	0.9301	2.0000e-005	0.0000	0.9306
Total	5.2000e-004	2.9000e-004	3.1500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9301	0.9301	2.0000e-005	0.0000	0.9306

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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888

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3.6 Paving - 2023

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	5.2000e-004	2.9000e-004	3.1500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9301	0.9301	2.0000e-005	0.0000	0.9306
Total	5.2000e-004	2.9000e-004	3.1500e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9301	0.9301	2.0000e-005	0.0000	0.9306

3.7 Architectural Coating - 2023

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	1.0030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	1.0049	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571

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3.7 Architectural Coating - 2023

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	3.4000e-004	1.9000e-004	2.1000e-003	1.0000e-005	8.0000e-004	0.0000	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6201	0.6201	1.0000e-005	0.0000	0.6204
Total	3.4000e-004	1.9000e-004	2.1000e-003	1.0000e-005	8.0000e-004	0.0000	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6201	0.6201	1.0000e-005	0.0000	0.6204

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	1.0030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	1.0049	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571

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3.7 Architectural Coating - 2023

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	3.4000e-004	1.9000e-004	2.1000e-003	1.0000e-005	8.0000e-004	0.0000	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6201	0.6201	1.0000e-005	0.0000	0.6204
Total	3.4000e-004	1.9000e-004	2.1000e-003	1.0000e-005	8.0000e-004	0.0000	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6201	0.6201	1.0000e-005	0.0000	0.6204

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

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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
Category	tons/yr										MT/yr					
Mitigated	0.4305	1.5389	4.7175	0.0141	1.3058	0.0128	1.3186	0.3496	0.0120	0.3615	0.0000	1,298.7787	1,298.7787	0.0919	0.0000	1,301.0760
Unmitigated	0.4386	1.6033	4.9799	0.0151	1.4026	0.0136	1.4162	0.3755	0.0127	0.3882	0.0000	1,388.4435	1,388.4435	0.0961	0.0000	1,390.8466

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,293.28	1,306.98	1171.35	3,738,055	3,480,129
Total	1,293.28	1,306.98	1,171.35	3,738,055	3,480,129

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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	48.00	16.00	36.00	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	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000900	0.001600

5.0 Energy Detail

Historical Energy Use: N

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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	157.8793	157.8793	0.0136	2.7200e-003	159.0307
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	157.8793	157.8793	0.0136	2.7200e-003	159.0307
NaturalGas Mitigated	0.0193	0.1651	0.0702	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796
NaturalGas Unmitigated	0.0193	0.1651	0.0702	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796

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	3.5819e+006	0.0193	0.1651	0.0702	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796
Total		0.0193	0.1651	0.0702	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796

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5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas 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	3.5819e+006	0.0193	0.1651	0.0702	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796
Total		0.0193	0.1651	0.0702	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.20022e+006	157.8793	0.0136	2.7200e-003	159.0307
Total		157.8793	0.0136	2.7200e-003	159.0307

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.20022e+006	157.8793	0.0136	2.7200e-003	159.0307
Total		157.8793	0.0136	2.7200e-003	159.0307

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use only Natural Gas Hearths

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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
Category	tons/yr										MT/yr					
Mitigated	1.0998	0.0629	1.0339	3.8000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003	0.0000	60.9961	60.9961	2.7200e-003	1.0900e-003	61.3885
Unmitigated	1.5761	0.1335	5.3628	0.0145		0.7148	0.7148		0.7148	0.7148	94.3976	61.0111	155.4086	0.4440	1.0900e-003	166.8338

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	0.1003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9631					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.4819	0.1218	4.3434	0.0144		0.7091	0.7091		0.7091	0.7091	94.3976	59.3494	153.7470	0.4424	1.0900e-003	165.1319
Landscaping	0.0309	0.0118	1.0195	5.0000e-005		5.6200e-003	5.6200e-003		5.6200e-003	5.6200e-003	0.0000	1.6617	1.6617	1.6100e-003	0.0000	1.7019
Total	1.5762	0.1335	5.3628	0.0145		0.7148	0.7148		0.7148	0.7148	94.3976	61.0111	155.4086	0.4440	1.0900e-003	166.8338

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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	0.1003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9631					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.0000e-003	0.0513	0.0218	3.3000e-004		4.1400e-003	4.1400e-003		4.1400e-003	4.1400e-003	0.0000	59.3494	59.3494	1.1400e-003	1.0900e-003	59.7021
Landscaping	0.0305	0.0117	1.0121	5.0000e-005		5.5800e-003	5.5800e-003		5.5800e-003	5.5800e-003	0.0000	1.6467	1.6467	1.5900e-003	0.0000	1.6864
Total	1.0999	0.0629	1.0339	3.8000e-004		9.7200e-003	9.7200e-003		9.7200e-003	9.7200e-003	0.0000	60.9961	60.9961	2.7300e-003	1.0900e-003	61.3885

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.4208	0.2333	5.6200e-003	16.9274
Unmitigated	11.7760	0.2916	7.0200e-003	21.1593

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	8.9261 / 5.62732	11.7760	0.2916	7.0200e-003	21.1593
Total		11.7760	0.2916	7.0200e-003	21.1593

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	7.14088 / 4.50186	9.4208	0.2333	5.6200e-003	16.9274
Total		9.4208	0.2333	5.6200e-003	16.9274

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	21.4846	1.2697	0.0000	53.2271
Unmitigated	28.6461	1.6929	0.0000	70.9695

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	141.12	28.6461	1.6929	0.0000	70.9695
Total		28.6461	1.6929	0.0000	70.9695

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	105.84	21.4846	1.2697	0.0000	53.2271
Total		21.4846	1.2697	0.0000	53.2271

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

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
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11.0 Vegetation

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CalEEMod Output
Construction and Operations
(Summer Daily)

Lennar Tract 6263 - Fresno County, Summer

Lennar Tract 6263
Fresno County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	137.00	Dwelling Unit	23.35	246,600.00	392

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	290	CH4 Intensity (lb/MW hr)	0.025	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - PG&E Intensity Factor

Land Use - Site Plan Acreage

Construction Phase - Schedule adjusted to reflect estimated buildout date

Demolition -

Fleet Mix - SJVAPCD Residential Fleet Mix 2021

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation - Rule 4601 Architectural Coatings

Water Mitigation - CalGreen and MWELO compliance

Waste Mitigation - 75% recycling mandate by 2020

Off-road Equipment - Adjusted equipment hours to match default hours and longer schedule

Architectural Coating - Rule 4601 Architectural Coatings compliance

Vehicle Trips - ITE 10th Ed Trip Rates 9.44, 9.54, 8.55

Area Coating - Rule 4601 Architectural Coatings compliance

Woodstoves -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Residential_Exterior	150	65
tblAreaCoating	Area_EF_Residential_Interior	150	65
tblConstructionPhase	NumDays	370.00	756.00
tblConstructionPhase	PhaseEndDate	9/24/2021	11/1/2023
tblConstructionPhase	PhaseEndDate	7/30/2021	9/6/2023
tblConstructionPhase	PhaseEndDate	2/28/2020	3/6/2020
tblConstructionPhase	PhaseEndDate	8/27/2021	10/4/2023
tblConstructionPhase	PhaseEndDate	1/10/2020	1/17/2020

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tblConstructionPhase	PhaseStartDate	8/28/2021	10/5/2023
tblConstructionPhase	PhaseStartDate	2/29/2020	10/14/2020
tblConstructionPhase	PhaseStartDate	1/11/2020	1/18/2020
tblConstructionPhase	PhaseStartDate	7/31/2021	9/7/2023
tblConstructionPhase	PhaseStartDate	12/28/2019	1/6/2020
tblFleetMix	HHD	0.12	0.02
tblFleetMix	LDA	0.49	0.54
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.02	1.4000e-003
tblFleetMix	LHD2	4.7320e-003	9.0000e-004
tblFleetMix	MCY	5.1540e-003	2.6000e-003
tblFleetMix	MDV	0.12	0.05
tblFleetMix	MH	6.2900e-004	1.6000e-003
tblFleetMix	MHD	0.03	9.0000e-003
tblFleetMix	OBUS	2.3660e-003	0.00
tblFleetMix	SBUS	1.0970e-003	9.0000e-004
tblFleetMix	UBUS	1.5900e-003	4.4000e-003
tblLandUse	LotAcreage	44.48	23.35
tblOffRoadEquipment	UsageHours	7.00	3.40
tblOffRoadEquipment	UsageHours	8.00	3.90
tblOffRoadEquipment	UsageHours	8.00	3.90
tblOffRoadEquipment	UsageHours	7.00	3.40
tblOffRoadEquipment	UsageHours	8.00	3.90
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.025
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005

Lennar Tract 6263 - Fresno County, Summer

tblVehicleTrips	HO_TTP	35.70	36.00
tblVehicleTrips	HS_TTP	15.90	16.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	ST_TR	9.91	9.54
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2019	3.6162	36.5908	22.6985	0.0422	0.7307	1.7987	2.5294	0.1302	1.6733	1.8035	0.0000	4,169.2371	4,169.2371	1.0844	0.0000	4,196.3481
2020	4.5483	50.2485	32.6015	0.0637	18.2141	2.1983	20.4125	9.9699	2.0225	11.9924	0.0000	6,173.1639	6,173.1639	1.9470	0.0000	6,221.8376
2021	1.1919	10.2618	9.7362	0.0213	0.5042	0.4734	0.9776	0.1360	0.4451	0.5812	0.0000	2,085.9147	2,085.9147	0.3599	0.0000	2,094.9113
2022	1.0779	9.2805	9.4919	0.0212	0.5042	0.3999	0.9041	0.1360	0.3763	0.5123	0.0000	2,067.9163	2,067.9163	0.3553	0.0000	2,076.7978
2023	100.5282	10.2189	14.9508	0.0239	0.5042	0.5109	0.8482	0.1360	0.4700	0.5027	0.0000	2,320.0119	2,320.0119	0.7164	0.0000	2,337.9215
Maximum	100.5282	50.2485	32.6015	0.0637	18.2141	2.1983	20.4125	9.9699	2.0225	11.9924	0.0000	6,173.1639	6,173.1639	1.9470	0.0000	6,221.8376

Lennar Tract 6263 - Fresno County, Summer

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2019	3.6162	36.5908	22.6985	0.0422	0.4216	1.7987	2.2203	0.0835	1.6733	1.7568	0.0000	4,169.237 1	4,169.237 1	1.0844	0.0000	4,196.348 1
2020	4.5483	50.2485	32.6015	0.0637	8.2777	2.1983	10.4760	4.5080	2.0225	6.5305	0.0000	6,173.163 9	6,173.163 9	1.9470	0.0000	6,221.837 6
2021	1.1919	10.2618	9.7362	0.0213	0.5042	0.4734	0.9776	0.1360	0.4451	0.5812	0.0000	2,085.914 7	2,085.914 7	0.3599	0.0000	2,094.9113
2022	1.0779	9.2805	9.4919	0.0212	0.5042	0.3999	0.9041	0.1360	0.3763	0.5123	0.0000	2,067.916 3	2,067.916 3	0.3553	0.0000	2,076.797 8
2023	100.5282	10.2189	14.9508	0.0239	0.5042	0.5109	0.8482	0.1360	0.4700	0.5027	0.0000	2,320.0119	2,320.0119	0.7164	0.0000	2,337.921 5
Maximum	100.5282	50.2485	32.6015	0.0637	8.2777	2.1983	10.4760	4.5080	2.0225	6.5305	0.0000	6,173.163 9	6,173.163 9	1.9470	0.0000	6,221.837 6

	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	50.08	0.00	39.91	52.42	0.00	35.79	0.00	0.00	0.00	0.00	0.00	0.00

Lennar Tract 6263 - Fresno County, Summer

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	lb/day										lb/day					
Area	17.9227	3.1002	117.2627	0.3525		17.3582	17.3582		17.3582	17.3582	2,537.9395	1,615.9987	4,153.9383	11.9147	0.0293	4,460.5222
Energy	0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806
Mobile	3.1911	8.7363	31.3800	0.0920	8.0964	0.0764	8.1728	2.1627	0.0714	2.2341		9,297.3815	9,297.3815	0.6022		9,312.4353
Total	21.2196	12.7408	149.0276	0.4502	8.0964	17.5077	25.6041	2.1627	17.5027	19.6654	2,537.9395	12,067.9001	14,605.8396	12.5389	0.0504	14,934.3381

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	lb/day										lb/day					
Area	6.3114	1.3799	11.7775	8.5700e-003		0.1630	0.1630		0.1630	0.1630	0.0000	1,615.8154	1,615.8154	0.0500	0.0293	1,625.7835
Energy	0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806
Mobile	3.1419	8.3951	29.5942	0.0860	7.5378	0.0717	7.6095	2.0135	0.0670	2.0805		8,695.3733	8,695.3733	0.5744		8,709.7333
Total	9.5592	10.6793	41.7565	0.1003	7.5378	0.3079	7.8456	2.0135	0.3032	2.3167	0.0000	11,465.7086	11,465.7086	0.6466	0.0504	11,496.8975

Lennar Tract 6263 - Fresno County, Summer

	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	54.95	16.18	71.98	77.71	6.90	98.24	69.36	6.90	98.27	88.22	100.00	4.99	21.50	94.84	0.00	23.02

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	12/2/2019	12/27/2019	5	20	
2	Site Preparation	Site Preparation	1/6/2020	1/17/2020	5	10	
3	Grading	Grading	1/18/2020	3/6/2020	5	35	
4	Building Construction	Building Construction	10/14/2020	9/6/2023	5	756	
5	Paving	Paving	9/7/2023	10/4/2023	5	20	
6	Architectural Coating	Architectural Coating	10/5/2023	11/1/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

Residential Indoor: 499,365; Residential Outdoor: 166,455; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Lennar Tract 6263 - Fresno County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	3.40	231	0.29
Building Construction	Forklifts	3	3.90	89	0.20
Building Construction	Generator Sets	1	3.90	84	0.74
Paving	Pavers	2	8.00	130	0.42
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
Building Construction	Tractors/Loaders/Backhoes	3	3.40	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	3.90	46	0.45

Trips and VMT

Lennar Tract 6263 - Fresno County, Summer

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	52.00	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	49.00	15.00	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	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

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	lb/day										lb/day					
Fugitive Dust					0.5619	0.0000	0.5619	0.0851	0.0000	0.0851			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.899 4	3,816.899 4	1.0618		3,843.445 1
Total	3.5134	35.7830	22.0600	0.0388	0.5619	1.7949	2.3568	0.0851	1.6697	1.7548		3,816.899 4	3,816.899 4	1.0618		3,843.445 1

Lennar Tract 6263 - Fresno County, Summer

3.2 Demolition - 2019

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	lb/day										lb/day					
Hauling	0.0222	0.7644	0.0989	2.1200e-003	0.0455	3.0200e-003	0.0485	0.0125	2.8900e-003	0.0154		222.8457	222.8457	0.0187		223.3137
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
Worker	0.0807	0.0434	0.5395	1.3000e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		129.4920	129.4920	3.8900e-003		129.5893
Total	0.1029	0.8078	0.6384	3.4200e-003	0.1687	3.8100e-003	0.1726	0.0452	3.6200e-003	0.0488		352.3377	352.3377	0.0226		352.9030

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	lb/day										lb/day					
Fugitive Dust					0.2529	0.0000	0.2529	0.0383	0.0000	0.0383			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.2529	1.7949	2.0478	0.0383	1.6697	1.7080	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451

Lennar Tract 6263 - Fresno County, Summer

3.2 Demolition - 2019

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	lb/day										lb/day					
Hauling	0.0222	0.7644	0.0989	2.1200e-003	0.0455	3.0200e-003	0.0485	0.0125	2.8900e-003	0.0154		222.8457	222.8457	0.0187		223.3137
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
Worker	0.0807	0.0434	0.5395	1.3000e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		129.4920	129.4920	3.8900e-003		129.5893
Total	0.1029	0.8078	0.6384	3.4200e-003	0.1687	3.8100e-003	0.1726	0.0452	3.6200e-003	0.0488		352.3377	352.3377	0.0226		352.9030

3.3 Site Preparation - 2020

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	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	18.0663	2.1974	20.2637	9.9307	2.0216	11.9523		3,685.1016	3,685.1016	1.1918		3,714.8975

Lennar Tract 6263 - Fresno County, Summer

3.3 Site Preparation - 2020

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	lb/day										lb/day					
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
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
Worker	0.0884	0.0459	0.5789	1.5100e-003	0.1479	9.3000e-004	0.1488	0.0392	8.5000e-004	0.0401		150.5688	150.5688	4.0800e-003		150.6707
Total	0.0884	0.0459	0.5789	1.5100e-003	0.1479	9.3000e-004	0.1488	0.0392	8.5000e-004	0.0401		150.5688	150.5688	4.0800e-003		150.6707

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	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	8.1298	2.1974	10.3272	4.4688	2.0216	6.4904	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975

Lennar Tract 6263 - Fresno County, Summer

3.3 Site Preparation - 2020

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	lb/day										lb/day					
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
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
Worker	0.0884	0.0459	0.5789	1.5100e-003	0.1479	9.3000e-004	0.1488	0.0392	8.5000e-004	0.0401		150.5688	150.5688	4.0800e-003		150.6707
Total	0.0884	0.0459	0.5789	1.5100e-003	0.1479	9.3000e-004	0.1488	0.0392	8.5000e-004	0.0401		150.5688	150.5688	4.0800e-003		150.6707

3.4 Grading - 2020

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	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
Total	4.4501	50.1975	31.9583	0.0620	8.6733	2.1739	10.8472	3.5965	2.0000	5.5965		6,005.8653	6,005.8653	1.9424		6,054.4257

Lennar Tract 6263 - Fresno County, Summer

3.4 Grading - 2020

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	lb/day										lb/day					
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
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
Worker	0.0982	0.0510	0.6432	1.6800e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		167.2986	167.2986	4.5300e-003		167.4119
Total	0.0982	0.0510	0.6432	1.6800e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		167.2986	167.2986	4.5300e-003		167.4119

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	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
Total	4.4501	50.1975	31.9583	0.0620	3.9030	2.1739	6.0769	1.6184	2.0000	3.6184	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257

Lennar Tract 6263 - Fresno County, Summer

3.4 Grading - 2020

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	lb/day										lb/day					
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
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
Worker	0.0982	0.0510	0.6432	1.6800e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		167.2986	167.2986	4.5300e-003		167.4119
Total	0.0982	0.0510	0.6432	1.6800e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		167.2986	167.2986	4.5300e-003		167.4119

3.5 Building Construction - 2020

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	lb/day										lb/day					
Off-Road	1.0317	9.3349	8.1997	0.0131		0.5436	0.5436		0.5111	0.5111		1,242.3353	1,242.3353	0.3029		1,249.9079
Total	1.0317	9.3349	8.1997	0.0131		0.5436	0.5436		0.5111	0.5111		1,242.3353	1,242.3353	0.3029		1,249.9079

Lennar Tract 6263 - Fresno County, Summer

3.5 Building Construction - 2020

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	lb/day										lb/day					
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
Vendor	0.0552	1.8333	0.2748	4.3100e-003	0.1016	9.7700e-003	0.1114	0.0293	9.3500e-003	0.0386		451.8517	451.8517	0.0522		453.1564
Worker	0.2407	0.1250	1.5758	4.1200e-003	0.4025	2.5200e-003	0.4050	0.1068	2.3200e-003	0.1091		409.8817	409.8817	0.0111		410.1591
Total	0.2959	1.9583	1.8506	8.4300e-003	0.5042	0.0123	0.5165	0.1360	0.0117	0.1477		861.7334	861.7334	0.0633		863.3154

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	lb/day										lb/day					
Off-Road	1.0317	9.3349	8.1997	0.0131		0.5436	0.5436		0.5111	0.5111	0.0000	1,242.3353	1,242.3353	0.3029		1,249.9079
Total	1.0317	9.3349	8.1997	0.0131		0.5436	0.5436		0.5111	0.5111	0.0000	1,242.3353	1,242.3353	0.3029		1,249.9079

Lennar Tract 6263 - Fresno County, Summer

3.5 Building Construction - 2020

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	lb/day										lb/day					
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
Vendor	0.0552	1.8333	0.2748	4.3100e-003	0.1016	9.7700e-003	0.1114	0.0293	9.3500e-003	0.0386		451.8517	451.8517	0.0522		453.1564
Worker	0.2407	0.1250	1.5758	4.1200e-003	0.4025	2.5200e-003	0.4050	0.1068	2.3200e-003	0.1091		409.8817	409.8817	0.0111		410.1591
Total	0.2959	1.9583	1.8506	8.4300e-003	0.5042	0.0123	0.5165	0.1360	0.0117	0.1477		861.7334	861.7334	0.0633		863.3154

3.5 Building Construction - 2021

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	lb/day										lb/day					
Off-Road	0.9252	8.4817	8.0667	0.0131		0.4665	0.4665		0.4386	0.4386		1,242.4814	1,242.4814	0.2996		1,249.9706
Total	0.9252	8.4817	8.0667	0.0131		0.4665	0.4665		0.4386	0.4386		1,242.4814	1,242.4814	0.2996		1,249.9706

Lennar Tract 6263 - Fresno County, Summer

3.5 Building Construction - 2021

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	lb/day										lb/day					
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
Vendor	0.0445	1.6689	0.2369	4.2700e-003	0.1016	4.4600e-003	0.1061	0.0293	4.2600e-003	0.0335		447.6059	447.6059	0.0504		448.8664
Worker	0.2222	0.1113	1.4326	3.9700e-003	0.4025	2.4400e-003	0.4050	0.1068	2.2500e-003	0.1090		395.8274	395.8274	9.8800e-003		396.0743
Total	0.2667	1.7801	1.6695	8.2400e-003	0.5042	6.9000e-003	0.5111	0.1360	6.5100e-003	0.1425		843.4333	843.4333	0.0603		844.9407

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	lb/day										lb/day					
Off-Road	0.9252	8.4817	8.0667	0.0131		0.4665	0.4665		0.4386	0.4386	0.0000	1,242.4814	1,242.4814	0.2996		1,249.9706
Total	0.9252	8.4817	8.0667	0.0131		0.4665	0.4665		0.4386	0.4386	0.0000	1,242.4814	1,242.4814	0.2996		1,249.9706

Lennar Tract 6263 - Fresno County, Summer

3.5 Building Construction - 2021

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	lb/day										lb/day					
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
Vendor	0.0445	1.6689	0.2369	4.2700e-003	0.1016	4.4600e-003	0.1061	0.0293	4.2600e-003	0.0335		447.6059	447.6059	0.0504		448.8664
Worker	0.2222	0.1113	1.4326	3.9700e-003	0.4025	2.4400e-003	0.4050	0.1068	2.2500e-003	0.1090		395.8274	395.8274	9.8800e-003		396.0743
Total	0.2667	1.7801	1.6695	8.2400e-003	0.5042	6.9000e-003	0.5111	0.1360	6.5100e-003	0.1425		843.4333	843.4333	0.0603		844.9407

3.5 Building Construction - 2022

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	lb/day										lb/day					
Off-Road	0.8304	7.5982	7.9637	0.0131		0.3937	0.3937		0.3704	0.3704		1,242.9524	1,242.9524	0.2976		1,250.3920
Total	0.8304	7.5982	7.9637	0.0131		0.3937	0.3937		0.3704	0.3704		1,242.9524	1,242.9524	0.2976		1,250.3920

Lennar Tract 6263 - Fresno County, Summer

3.5 Building Construction - 2022

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	lb/day										lb/day					
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
Vendor	0.0414	1.5829	0.2193	4.2300e-003	0.1016	3.8300e-003	0.1055	0.0293	3.6600e-003	0.0329		443.3721	443.3721	0.0489		444.5938
Worker	0.2061	0.0994	1.3089	3.8300e-003	0.4025	2.3700e-003	0.4049	0.1068	2.1800e-003	0.1090		381.5918	381.5918	8.8100e-003		381.8121
Total	0.2475	1.6822	1.5282	8.0600e-003	0.5042	6.2000e-003	0.5104	0.1360	5.8400e-003	0.1419		824.9639	824.9639	0.0577		826.4058

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	lb/day										lb/day					
Off-Road	0.8304	7.5982	7.9637	0.0131		0.3937	0.3937		0.3704	0.3704	0.0000	1,242.9524	1,242.9524	0.2976		1,250.3920
Total	0.8304	7.5982	7.9637	0.0131		0.3937	0.3937		0.3704	0.3704	0.0000	1,242.9524	1,242.9524	0.2976		1,250.3920

Lennar Tract 6263 - Fresno County, Summer

3.5 Building Construction - 2022

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	lb/day										lb/day					
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
Vendor	0.0414	1.5829	0.2193	4.2300e-003	0.1016	3.8300e-003	0.1055	0.0293	3.6600e-003	0.0329		443.3721	443.3721	0.0489		444.5938
Worker	0.2061	0.0994	1.3089	3.8300e-003	0.4025	2.3700e-003	0.4049	0.1068	2.1800e-003	0.1090		381.5918	381.5918	8.8100e-003		381.8121
Total	0.2475	1.6822	1.5282	8.0600e-003	0.5042	6.2000e-003	0.5104	0.1360	5.8400e-003	0.1419		824.9639	824.9639	0.0577		826.4058

3.5 Building Construction - 2023

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	lb/day										lb/day					
Off-Road	0.7655	6.9995	7.9056	0.0131		0.3405	0.3405		0.3204	0.3204		1,243.3780	1,243.3780	0.2956		1,250.7677
Total	0.7655	6.9995	7.9056	0.0131		0.3405	0.3405		0.3204	0.3204		1,243.3780	1,243.3780	0.2956		1,250.7677

Lennar Tract 6263 - Fresno County, Summer

3.5 Building Construction - 2023

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	lb/day										lb/day					
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
Vendor	0.0284	1.2403	0.1801	4.1300e-003	0.1016	1.1900e-003	0.1028	0.0293	1.1300e-003	0.0304		432.5154	432.5154	0.0331		433.3421
Worker	0.1917	0.0890	1.1976	3.6900e-003	0.4025	2.3100e-003	0.4048	0.1068	2.1200e-003	0.1089		367.2640	367.2640	7.8600e-003		367.4605
Total	0.2201	1.3293	1.3777	7.8200e-003	0.5042	3.5000e-003	0.5077	0.1360	3.2500e-003	0.1393		799.7793	799.7793	0.0409		800.8025

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	lb/day										lb/day					
Off-Road	0.7655	6.9995	7.9056	0.0131		0.3405	0.3405		0.3204	0.3204	0.0000	1,243.3780	1,243.3780	0.2956		1,250.7677
Total	0.7655	6.9995	7.9056	0.0131		0.3405	0.3405		0.3204	0.3204	0.0000	1,243.3780	1,243.3780	0.2956		1,250.7677

Lennar Tract 6263 - Fresno County, Summer

3.5 Building Construction - 2023

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	lb/day										lb/day					
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
Vendor	0.0284	1.2403	0.1801	4.1300e-003	0.1016	1.1900e-003	0.1028	0.0293	1.1300e-003	0.0304		432.5154	432.5154	0.0331		433.3421
Worker	0.1917	0.0890	1.1976	3.6900e-003	0.4025	2.3100e-003	0.4048	0.1068	2.1200e-003	0.1089		367.2640	367.2640	7.8600e-003		367.4605
Total	0.2201	1.3293	1.3777	7.8200e-003	0.5042	3.5000e-003	0.5077	0.1360	3.2500e-003	0.1393		799.7793	799.7793	0.0409		800.8025

3.6 Paving - 2023

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	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

Lennar Tract 6263 - Fresno County, Summer

3.6 Paving - 2023

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	lb/day										lb/day					
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
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
Worker	0.0587	0.0272	0.3666	1.1300e-003	0.1232	7.1000e-004	0.1239	0.0327	6.5000e-004	0.0333		112.4277	112.4277	2.4100e-003		112.4879
Total	0.0587	0.0272	0.3666	1.1300e-003	0.1232	7.1000e-004	0.1239	0.0327	6.5000e-004	0.0333		112.4277	112.4277	2.4100e-003		112.4879

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	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Lennar Tract 6263 - Fresno County, Summer

3.6 Paving - 2023

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	lb/day										lb/day					
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
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
Worker	0.0587	0.0272	0.3666	1.1300e-003	0.1232	7.1000e-004	0.1239	0.0327	6.5000e-004	0.0333		112.4277	112.4277	2.4100e-003		112.4879
Total	0.0587	0.0272	0.3666	1.1300e-003	0.1232	7.1000e-004	0.1239	0.0327	6.5000e-004	0.0333		112.4277	112.4277	2.4100e-003		112.4879

3.7 Architectural Coating - 2023

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	lb/day										lb/day					
Archit. Coating	100.2975					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	100.4891	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Lennar Tract 6263 - Fresno County, Summer

3.7 Architectural Coating - 2023

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	lb/day										lb/day					
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
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
Worker	0.0391	0.0182	0.2444	7.5000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		74.9518	74.9518	1.6000e-003		74.9919
Total	0.0391	0.0182	0.2444	7.5000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		74.9518	74.9518	1.6000e-003		74.9919

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	lb/day										lb/day					
Archit. Coating	100.2975					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	100.4891	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Lennar Tract 6263 - Fresno County, Summer

3.7 Architectural Coating - 2023

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	lb/day										lb/day					
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
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
Worker	0.0391	0.0182	0.2444	7.5000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		74.9518	74.9518	1.6000e-003		74.9919
Total	0.0391	0.0182	0.2444	7.5000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		74.9518	74.9518	1.6000e-003		74.9919

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

Lennar Tract 6263 - Fresno County, Summer

	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	lb/day										lb/day					
Mitigated	3.1419	8.3951	29.5942	0.0860	7.5378	0.0717	7.6095	2.0135	0.0670	2.0805		8,695.373 3	8,695.373 3	0.5744		8,709.733 3
Unmitigated	3.1911	8.7363	31.3800	0.0920	8.0964	0.0764	8.1728	2.1627	0.0714	2.2341		9,297.381 5	9,297.381 5	0.6022		9,312.435 3

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,293.28	1,306.98	1171.35	3,738,055	3,480,129
Total	1,293.28	1,306.98	1,171.35	3,738,055	3,480,129

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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	48.00	16.00	36.00	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	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000900	0.001600

5.0 Energy Detail

Historical Energy Use: N

Lennar Tract 6263 - Fresno County, Summer

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	lb/day										lb/day					
NaturalGas Mitigated	0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806
NaturalGas Unmitigated	0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806

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	lb/day										lb/day					
Single Family Housing	9813.42	0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806
Total		0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806

Lennar Tract 6263 - Fresno County, Summer

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas 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	lb/day										lb/day					
Single Family Housing	9.81342	0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806
Total		0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use only Natural Gas Hearths

Lennar Tract 6263 - Fresno County, Summer

	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	lb/day										lb/day					
Mitigated	6.3114	1.3799	11.7775	8.5700e-003		0.1630	0.1630		0.1630	0.1630	0.0000	1,615.815 4	1,615.815 4	0.0500	0.0293	1,625.783 5
Unmitigated	17.9227	3.1002	117.2627	0.3525		17.3582	17.3582		17.3582	17.3582	2,537.939 5	1,615.998 7	4,153.938 3	11.9147	0.0293	4,460.522 2

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	lb/day										lb/day					
Architectural Coating	0.5496					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2772					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	11.7527	2.9694	105.9355	0.3519		17.2958	17.2958		17.2958	17.2958	2,537.939 5	1,595.647 1	4,133.586 6	11.8949	0.0293	4,439.677 5
Landscaping	0.3432	0.1308	11.3272	6.0000e-004		0.0624	0.0624		0.0624	0.0624		20.3517	20.3517	0.0197		20.8447
Total	17.9227	3.1001	117.2627	0.3525		17.3582	17.3582		17.3582	17.3582	2,537.939 5	1,615.998 7	4,153.938 3	11.9147	0.0293	4,460.522 2

Lennar Tract 6263 - Fresno County, Summer

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	lb/day										lb/day					
Architectural Coating	0.5496					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2772					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1463	1.2499	0.5319	7.9800e-003		0.1011	0.1011		0.1011	0.1011	0.0000	1,595.6471	1,595.6471	0.0306	0.0293	1,605.1292
Landscaping	0.3384	0.1299	11.2456	5.9000e-004		0.0620	0.0620		0.0620	0.0620		20.1684	20.1684	0.0194		20.6543
Total	6.3114	1.3799	11.7775	8.5700e-003		0.1630	0.1630		0.1630	0.1630	0.0000	1,615.8154	1,615.8154	0.0500	0.0293	1,625.7835

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Lennar Tract 6263 - Fresno County, Summer

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

CalEEMod Output
Construction and Operations
(Winter Daily)

Lennar Tract 6263 - Fresno County, Winter

**Lennar Tract 6263
Fresno County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	137.00	Dwelling Unit	23.35	246,600.00	392

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	290	CH4 Intensity (lb/MW hr)	0.025	N2O Intensity (lb/MW hr)	0.005

1.3 User Entered Comments & Non-Default Data

Lennar Tract 6263 - Fresno County, Winter

Project Characteristics - PG&E Intensity Factor

Land Use - Site Plan Acreage

Construction Phase - Schedule adjusted to reflect estimated buildout date

Demolition -

Fleet Mix - SJVAPCD Residential Fleet Mix 2021

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation - Rule 4601 Architectural Coatings

Water Mitigation - CalGreen and MWELO compliance

Waste Mitigation - 75% recycling mandate by 2020

Off-road Equipment - Adjusted equipment hours to match default hours and longer schedule

Architectural Coating - Rule 4601 Architectural Coatings compliance

Vehicle Trips - ITE 10th Ed Trip Rates 9.44, 9.54, 8.55

Area Coating - Rule 4601 Architectural Coatings compliance

Woodstoves -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Residential_Exterior	150	65
tblAreaCoating	Area_EF_Residential_Interior	150	65
tblConstructionPhase	NumDays	370.00	756.00
tblConstructionPhase	PhaseEndDate	9/24/2021	11/1/2023
tblConstructionPhase	PhaseEndDate	7/30/2021	9/6/2023
tblConstructionPhase	PhaseEndDate	2/28/2020	3/6/2020
tblConstructionPhase	PhaseEndDate	8/27/2021	10/4/2023
tblConstructionPhase	PhaseEndDate	1/10/2020	1/17/2020

Lennar Tract 6263 - Fresno County, Winter

tblConstructionPhase	PhaseStartDate	8/28/2021	10/5/2023
tblConstructionPhase	PhaseStartDate	2/29/2020	10/14/2020
tblConstructionPhase	PhaseStartDate	1/11/2020	1/18/2020
tblConstructionPhase	PhaseStartDate	7/31/2021	9/7/2023
tblConstructionPhase	PhaseStartDate	12/28/2019	1/6/2020
tblFleetMix	HHD	0.12	0.02
tblFleetMix	LDA	0.49	0.54
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.02	1.4000e-003
tblFleetMix	LHD2	4.7320e-003	9.0000e-004
tblFleetMix	MCY	5.1540e-003	2.6000e-003
tblFleetMix	MDV	0.12	0.05
tblFleetMix	MH	6.2900e-004	1.6000e-003
tblFleetMix	MHD	0.03	9.0000e-003
tblFleetMix	OBUS	2.3660e-003	0.00
tblFleetMix	SBUS	1.0970e-003	9.0000e-004
tblFleetMix	UBUS	1.5900e-003	4.4000e-003
tblLandUse	LotAcreage	44.48	23.35
tblOffRoadEquipment	UsageHours	7.00	3.40
tblOffRoadEquipment	UsageHours	8.00	3.90
tblOffRoadEquipment	UsageHours	8.00	3.90
tblOffRoadEquipment	UsageHours	7.00	3.40
tblOffRoadEquipment	UsageHours	8.00	3.90
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.025
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005

Lennar Tract 6263 - Fresno County, Winter

tblVehicleTrips	HO_TTP	35.70	36.00
tblVehicleTrips	HS_TTP	15.90	16.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	ST_TR	9.91	9.54
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2019	3.6111	36.6203	22.6342	0.0420	0.7307	1.7988	2.5294	0.1302	1.6734	1.8036	0.0000	4,148.4940	4,148.4940	1.0864	0.0000	4,175.6534
2020	4.5412	50.2575	32.5061	0.0635	18.2141	2.1983	20.4125	9.9699	2.0225	11.9924	0.0000	6,152.4863	6,152.4863	1.9464	0.0000	6,201.1465
2021	1.1783	10.2954	9.5666	0.0207	0.5042	0.4736	0.9777	0.1360	0.4453	0.5813	0.0000	2,022.9850	2,022.9850	0.3655	0.0000	2,032.1223
2022	1.0657	9.3090	9.3329	0.0206	0.5042	0.4001	0.9042	0.1360	0.3764	0.5125	0.0000	2,006.8091	2,006.8091	0.3609	0.0000	2,015.8313
2023	100.5256	10.2236	14.8925	0.0238	0.5042	0.5109	0.8482	0.1360	0.4700	0.5027	0.0000	2,306.1332	2,306.1332	0.7161	0.0000	2,324.0353
Maximum	100.5256	50.2575	32.5061	0.0635	18.2141	2.1983	20.4125	9.9699	2.0225	11.9924	0.0000	6,152.4863	6,152.4863	1.9464	0.0000	6,201.1465

Lennar Tract 6263 - Fresno County, Winter

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2019	3.6111	36.6203	22.6342	0.0420	0.4216	1.7988	2.2204	0.0835	1.6734	1.7568	0.0000	4,148.494 0	4,148.494 0	1.0864	0.0000	4,175.653 4
2020	4.5412	50.2575	32.5061	0.0635	8.2777	2.1983	10.4760	4.5080	2.0225	6.5305	0.0000	6,152.486 3	6,152.486 3	1.9464	0.0000	6,201.146 5
2021	1.1783	10.2954	9.5666	0.0207	0.5042	0.4736	0.9777	0.1360	0.4453	0.5813	0.0000	2,022.985 0	2,022.985 0	0.3655	0.0000	2,032.122 3
2022	1.0657	9.3090	9.3329	0.0206	0.5042	0.4001	0.9042	0.1360	0.3764	0.5125	0.0000	2,006.809 1	2,006.809 1	0.3609	0.0000	2,015.831 3
2023	100.5256	10.2236	14.8925	0.0238	0.5042	0.5109	0.8482	0.1360	0.4700	0.5027	0.0000	2,306.133 2	2,306.133 2	0.7161	0.0000	2,324.035 3
Maximum	100.5256	50.2575	32.5061	0.0635	8.2777	2.1983	10.4760	4.5080	2.0225	6.5305	0.0000	6,152.486 3	6,152.486 3	1.9464	0.0000	6,201.146 5

	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	50.08	0.00	39.91	52.42	0.00	35.79	0.00	0.00	0.00	0.00	0.00	0.00

Lennar Tract 6263 - Fresno County, Winter

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	lb/day										lb/day					
Area	17.9227	3.1002	117.2627	0.3525		17.3582	17.3582		17.3582	17.3582	2,537.9395	1,615.9987	4,153.9383	11.9147	0.0293	4,460.5222
Energy	0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806
Mobile	2.2395	9.2518	28.2237	0.0821	8.0964	0.0769	8.1733	2.1627	0.0719	2.2346		8,315.5107	8,315.5107	0.6086		8,330.7248
Total	20.2680	13.2563	145.8713	0.4404	8.0964	17.5083	25.6047	2.1627	17.5032	19.6660	2,537.9395	11,086.0293	13,623.9688	12.5454	0.0504	13,952.6277

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	lb/day										lb/day					
Area	6.3114	1.3799	11.7775	8.5700e-003		0.1630	0.1630		0.1630	0.1630	0.0000	1,615.8154	1,615.8154	0.0500	0.0293	1,625.7835
Energy	0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806
Mobile	2.1949	8.8724	26.8363	0.0768	7.5378	0.0723	7.6100	2.0135	0.0676	2.0811		7,777.8165	7,777.8165	0.5829		7,792.3880
Total	8.6121	11.1566	38.9986	0.0912	7.5378	0.3084	7.8462	2.0135	0.3037	2.3172	0.0000	10,548.1517	10,548.1517	0.6550	0.0504	10,579.5521

Lennar Tract 6263 - Fresno County, Winter

	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	57.51	15.84	73.27	79.30	6.90	98.24	69.36	6.90	98.26	88.22	100.00	4.85	22.58	94.78	0.00	24.18

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	12/2/2019	12/27/2019	5	20	
2	Site Preparation	Site Preparation	1/6/2020	1/17/2020	5	10	
3	Grading	Grading	1/18/2020	3/6/2020	5	35	
4	Building Construction	Building Construction	10/14/2020	9/6/2023	5	756	
5	Paving	Paving	9/7/2023	10/4/2023	5	20	
6	Architectural Coating	Architectural Coating	10/5/2023	11/1/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

Residential Indoor: 499,365; Residential Outdoor: 166,455; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Lennar Tract 6263 - Fresno County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	3.40	231	0.29
Building Construction	Forklifts	3	3.90	89	0.20
Building Construction	Generator Sets	1	3.90	84	0.74
Paving	Pavers	2	8.00	130	0.42
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
Building Construction	Tractors/Loaders/Backhoes	3	3.40	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	3.90	46	0.45

Trips and VMT

Lennar Tract 6263 - Fresno County, Winter

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	52.00	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	49.00	15.00	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	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

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	lb/day										lb/day					
Fugitive Dust					0.5619	0.0000	0.5619	0.0851	0.0000	0.0851			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.899 4	3,816.899 4	1.0618		3,843.445 1
Total	3.5134	35.7830	22.0600	0.0388	0.5619	1.7949	2.3568	0.0851	1.6697	1.7548		3,816.899 4	3,816.899 4	1.0618		3,843.445 1

Lennar Tract 6263 - Fresno County, Winter

3.2 Demolition - 2019

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	lb/day										lb/day					
Hauling	0.0229	0.7863	0.1124	2.0800e-003	0.0455	3.0800e-003	0.0486	0.0125	2.9500e-003	0.0154		218.0994	218.0994	0.0211		218.6269
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
Worker	0.0748	0.0511	0.4618	1.1400e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		113.4953	113.4953	3.4400e-003		113.5814
Total	0.0978	0.8373	0.5742	3.2200e-003	0.1687	3.8700e-003	0.1726	0.0452	3.6800e-003	0.0489		331.5946	331.5946	0.0245		332.2083

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	lb/day										lb/day					
Fugitive Dust					0.2529	0.0000	0.2529	0.0383	0.0000	0.0383			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	3.5134	35.7830	22.0600	0.0388	0.2529	1.7949	2.0478	0.0383	1.6697	1.7080	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451

Lennar Tract 6263 - Fresno County, Winter

3.2 Demolition - 2019

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	lb/day										lb/day					
Hauling	0.0229	0.7863	0.1124	2.0800e-003	0.0455	3.0800e-003	0.0486	0.0125	2.9500e-003	0.0154		218.0994	218.0994	0.0211		218.6269
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
Worker	0.0748	0.0511	0.4618	1.1400e-003	0.1232	7.9000e-004	0.1240	0.0327	7.3000e-004	0.0334		113.4953	113.4953	3.4400e-003		113.5814
Total	0.0978	0.8373	0.5742	3.2200e-003	0.1687	3.8700e-003	0.1726	0.0452	3.6800e-003	0.0489		331.5946	331.5946	0.0245		332.2083

3.3 Site Preparation - 2020

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	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	18.0663	2.1974	20.2637	9.9307	2.0216	11.9523		3,685.1016	3,685.1016	1.1918		3,714.8975

Lennar Tract 6263 - Fresno County, Winter

3.3 Site Preparation - 2020

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	lb/day										lb/day					
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
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
Worker	0.0820	0.0540	0.4930	1.3300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.5000e-004	0.0401		131.9590	131.9590	3.5900e-003		132.0487
Total	0.0820	0.0540	0.4930	1.3300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.5000e-004	0.0401		131.9590	131.9590	3.5900e-003		132.0487

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	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	8.1298	2.1974	10.3272	4.4688	2.0216	6.4904	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975

Lennar Tract 6263 - Fresno County, Winter

3.3 Site Preparation - 2020

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	lb/day										lb/day					
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
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
Worker	0.0820	0.0540	0.4930	1.3300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.5000e-004	0.0401		131.9590	131.9590	3.5900e-003		132.0487
Total	0.0820	0.0540	0.4930	1.3300e-003	0.1479	9.3000e-004	0.1488	0.0392	8.5000e-004	0.0401		131.9590	131.9590	3.5900e-003		132.0487

3.4 Grading - 2020

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	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.8653	6,005.8653	1.9424		6,054.4257
Total	4.4501	50.1975	31.9583	0.0620	8.6733	2.1739	10.8472	3.5965	2.0000	5.5965		6,005.8653	6,005.8653	1.9424		6,054.4257

Lennar Tract 6263 - Fresno County, Winter

3.4 Grading - 2020

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	lb/day										lb/day					
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
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
Worker	0.0911	0.0600	0.5478	1.4700e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		146.6211	146.6211	3.9900e-003		146.7208
Total	0.0911	0.0600	0.5478	1.4700e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		146.6211	146.6211	3.9900e-003		146.7208

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	lb/day										lb/day					
Fugitive Dust					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
Total	4.4501	50.1975	31.9583	0.0620	3.9030	2.1739	6.0769	1.6184	2.0000	3.6184	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257

Lennar Tract 6263 - Fresno County, Winter

3.4 Grading - 2020

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	lb/day										lb/day					
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
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
Worker	0.0911	0.0600	0.5478	1.4700e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		146.6211	146.6211	3.9900e-003		146.7208
Total	0.0911	0.0600	0.5478	1.4700e-003	0.1643	1.0300e-003	0.1653	0.0436	9.5000e-004	0.0445		146.6211	146.6211	3.9900e-003		146.7208

3.5 Building Construction - 2020

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	lb/day										lb/day					
Off-Road	1.0317	9.3349	8.1997	0.0131		0.5436	0.5436		0.5111	0.5111		1,242.3353	1,242.3353	0.3029		1,249.9079
Total	1.0317	9.3349	8.1997	0.0131		0.5436	0.5436		0.5111	0.5111		1,242.3353	1,242.3353	0.3029		1,249.9079

Lennar Tract 6263 - Fresno County, Winter

3.5 Building Construction - 2020

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	lb/day										lb/day					
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
Vendor	0.0577	1.8544	0.3266	4.1800e-003	0.1016	9.9800e-003	0.1116	0.0293	9.5500e-003	0.0388		437.7232	437.7232	0.0591		439.2014
Worker	0.2233	0.1469	1.3421	3.6100e-003	0.4025	2.5200e-003	0.4050	0.1068	2.3200e-003	0.1091		359.2216	359.2216	9.7700e-003		359.4660
Total	0.2809	2.0014	1.6687	7.7900e-003	0.5042	0.0125	0.5167	0.1360	0.0119	0.1479		796.9448	796.9448	0.0689		798.6673

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	lb/day										lb/day					
Off-Road	1.0317	9.3349	8.1997	0.0131		0.5436	0.5436		0.5111	0.5111	0.0000	1,242.3353	1,242.3353	0.3029		1,249.9079
Total	1.0317	9.3349	8.1997	0.0131		0.5436	0.5436		0.5111	0.5111	0.0000	1,242.3353	1,242.3353	0.3029		1,249.9079

Lennar Tract 6263 - Fresno County, Winter

3.5 Building Construction - 2020

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	lb/day										lb/day					
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
Vendor	0.0577	1.8544	0.3266	4.1800e-003	0.1016	9.9800e-003	0.1116	0.0293	9.5500e-003	0.0388		437.7232	437.7232	0.0591		439.2014
Worker	0.2233	0.1469	1.3421	3.6100e-003	0.4025	2.5200e-003	0.4050	0.1068	2.3200e-003	0.1091		359.2216	359.2216	9.7700e-003		359.4660
Total	0.2809	2.0014	1.6687	7.7900e-003	0.5042	0.0125	0.5167	0.1360	0.0119	0.1479		796.9448	796.9448	0.0689		798.6673

3.5 Building Construction - 2021

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	lb/day										lb/day					
Off-Road	0.9252	8.4817	8.0667	0.0131		0.4665	0.4665		0.4386	0.4386		1,242.4814	1,242.4814	0.2996		1,249.9706
Total	0.9252	8.4817	8.0667	0.0131		0.4665	0.4665		0.4386	0.4386		1,242.4814	1,242.4814	0.2996		1,249.9706

Lennar Tract 6263 - Fresno County, Winter

3.5 Building Construction - 2021

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	lb/day										lb/day					
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
Vendor	0.0468	1.6830	0.2846	4.1400e-003	0.1016	4.6400e-003	0.1063	0.0293	4.4300e-003	0.0337		433.5886	433.5886	0.0572		435.0195
Worker	0.2063	0.1307	1.2153	3.4800e-003	0.4025	2.4400e-003	0.4050	0.1068	2.2500e-003	0.1090		346.9150	346.9150	8.6900e-003		347.1322
Total	0.2531	1.8137	1.4999	7.6200e-003	0.5042	7.0800e-003	0.5112	0.1360	6.6800e-003	0.1427		780.5036	780.5036	0.0659		782.1517

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	lb/day										lb/day					
Off-Road	0.9252	8.4817	8.0667	0.0131		0.4665	0.4665		0.4386	0.4386	0.0000	1,242.4814	1,242.4814	0.2996		1,249.9706
Total	0.9252	8.4817	8.0667	0.0131		0.4665	0.4665		0.4386	0.4386	0.0000	1,242.4814	1,242.4814	0.2996		1,249.9706

Lennar Tract 6263 - Fresno County, Winter

3.5 Building Construction - 2021

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	lb/day										lb/day					
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
Vendor	0.0468	1.6830	0.2846	4.1400e-003	0.1016	4.6400e-003	0.1063	0.0293	4.4300e-003	0.0337		433.5886	433.5886	0.0572		435.0195
Worker	0.2063	0.1307	1.2153	3.4800e-003	0.4025	2.4400e-003	0.4050	0.1068	2.2500e-003	0.1090		346.9150	346.9150	8.6900e-003		347.1322
Total	0.2531	1.8137	1.4999	7.6200e-003	0.5042	7.0800e-003	0.5112	0.1360	6.6800e-003	0.1427		780.5036	780.5036	0.0659		782.1517

3.5 Building Construction - 2022

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	lb/day										lb/day					
Off-Road	0.8304	7.5982	7.9637	0.0131		0.3937	0.3937		0.3704	0.3704		1,242.9524	1,242.9524	0.2976		1,250.3920
Total	0.8304	7.5982	7.9637	0.0131		0.3937	0.3937		0.3704	0.3704		1,242.9524	1,242.9524	0.2976		1,250.3920

Lennar Tract 6263 - Fresno County, Winter

3.5 Building Construction - 2022

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	lb/day										lb/day					
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
Vendor	0.0436	1.5941	0.2637	4.1000e-003	0.1016	3.9900e-003	0.1056	0.0293	3.8200e-003	0.0331		429.3956	429.3956	0.0556		430.7849
Worker	0.1917	0.1167	1.1056	3.3600e-003	0.4025	2.3700e-003	0.4049	0.1068	2.1800e-003	0.1090		334.4611	334.4611	7.7300e-003		334.6544
Total	0.2353	1.7107	1.3692	7.4600e-003	0.5042	6.3600e-003	0.5105	0.1360	6.0000e-003	0.1420		763.8567	763.8567	0.0633		765.4393

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	lb/day										lb/day					
Off-Road	0.8304	7.5982	7.9637	0.0131		0.3937	0.3937		0.3704	0.3704	0.0000	1,242.9524	1,242.9524	0.2976		1,250.3920
Total	0.8304	7.5982	7.9637	0.0131		0.3937	0.3937		0.3704	0.3704	0.0000	1,242.9524	1,242.9524	0.2976		1,250.3920

Lennar Tract 6263 - Fresno County, Winter

3.5 Building Construction - 2022

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	lb/day										lb/day					
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
Vendor	0.0436	1.5941	0.2637	4.1000e-003	0.1016	3.9900e-003	0.1056	0.0293	3.8200e-003	0.0331		429.3956	429.3956	0.0556		430.7849
Worker	0.1917	0.1167	1.1056	3.3600e-003	0.4025	2.3700e-003	0.4049	0.1068	2.1800e-003	0.1090		334.4611	334.4611	7.7300e-003		334.6544
Total	0.2353	1.7107	1.3692	7.4600e-003	0.5042	6.3600e-003	0.5105	0.1360	6.0000e-003	0.1420		763.8567	763.8567	0.0633		765.4393

3.5 Building Construction - 2023

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	lb/day										lb/day					
Off-Road	0.7655	6.9995	7.9056	0.0131		0.3405	0.3405		0.3204	0.3204		1,243.3780	1,243.3780	0.2956		1,250.7677
Total	0.7655	6.9995	7.9056	0.0131		0.3405	0.3405		0.3204	0.3204		1,243.3780	1,243.3780	0.2956		1,250.7677

Lennar Tract 6263 - Fresno County, Winter

3.5 Building Construction - 2023

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	lb/day										lb/day					
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
Vendor	0.0299	1.2454	0.2109	4.0000e-003	0.1016	1.2100e-003	0.1029	0.0293	1.1600e-003	0.0304		418.9380	418.9380	0.0376		419.8779
Worker	0.1788	0.1044	1.0070	3.2300e-003	0.4025	2.3100e-003	0.4048	0.1068	2.1200e-003	0.1089		321.9268	321.9268	6.8900e-003		322.0990
Total	0.2087	1.3498	1.2180	7.2300e-003	0.5042	3.5200e-003	0.5077	0.1360	3.2800e-003	0.1393		740.8647	740.8647	0.0445		741.9769

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	lb/day										lb/day					
Off-Road	0.7655	6.9995	7.9056	0.0131		0.3405	0.3405		0.3204	0.3204	0.0000	1,243.3780	1,243.3780	0.2956		1,250.7677
Total	0.7655	6.9995	7.9056	0.0131		0.3405	0.3405		0.3204	0.3204	0.0000	1,243.3780	1,243.3780	0.2956		1,250.7677

Lennar Tract 6263 - Fresno County, Winter

3.5 Building Construction - 2023

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	lb/day										lb/day					
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
Vendor	0.0299	1.2454	0.2109	4.0000e-003	0.1016	1.2100e-003	0.1029	0.0293	1.1600e-003	0.0304		418.9380	418.9380	0.0376		419.8779
Worker	0.1788	0.1044	1.0070	3.2300e-003	0.4025	2.3100e-003	0.4048	0.1068	2.1200e-003	0.1089		321.9268	321.9268	6.8900e-003		322.0990
Total	0.2087	1.3498	1.2180	7.2300e-003	0.5042	3.5200e-003	0.5077	0.1360	3.2800e-003	0.1393		740.8647	740.8647	0.0445		741.9769

3.6 Paving - 2023

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	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

Lennar Tract 6263 - Fresno County, Winter

3.6 Paving - 2023

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	lb/day										lb/day					
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
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
Worker	0.0547	0.0320	0.3083	9.9000e-004	0.1232	7.1000e-004	0.1239	0.0327	6.5000e-004	0.0333		98.5490	98.5490	2.1100e-003		98.6017
Total	0.0547	0.0320	0.3083	9.9000e-004	0.1232	7.1000e-004	0.1239	0.0327	6.5000e-004	0.0333		98.5490	98.5490	2.1100e-003		98.6017

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	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Lennar Tract 6263 - Fresno County, Winter

3.6 Paving - 2023

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	lb/day										lb/day					
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
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
Worker	0.0547	0.0320	0.3083	9.9000e-004	0.1232	7.1000e-004	0.1239	0.0327	6.5000e-004	0.0333		98.5490	98.5490	2.1100e-003		98.6017
Total	0.0547	0.0320	0.3083	9.9000e-004	0.1232	7.1000e-004	0.1239	0.0327	6.5000e-004	0.0333		98.5490	98.5490	2.1100e-003		98.6017

3.7 Architectural Coating - 2023

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	lb/day										lb/day					
Archit. Coating	100.2975					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	100.4891	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Lennar Tract 6263 - Fresno County, Winter

3.7 Architectural Coating - 2023

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	lb/day										lb/day					
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
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
Worker	0.0365	0.0213	0.2055	6.6000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		65.6993	65.6993	1.4100e-003		65.7345
Total	0.0365	0.0213	0.2055	6.6000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		65.6993	65.6993	1.4100e-003		65.7345

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	lb/day										lb/day					
Archit. Coating	100.2975					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	100.4891	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Lennar Tract 6263 - Fresno County, Winter

3.7 Architectural Coating - 2023

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	lb/day										lb/day					
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
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
Worker	0.0365	0.0213	0.2055	6.6000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		65.6993	65.6993	1.4100e-003		65.7345
Total	0.0365	0.0213	0.2055	6.6000e-004	0.0822	4.7000e-004	0.0826	0.0218	4.3000e-004	0.0222		65.6993	65.6993	1.4100e-003		65.7345

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

Lennar Tract 6263 - Fresno County, Winter

	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	lb/day										lb/day					
Mitigated	2.1949	8.8724	26.8363	0.0768	7.5378	0.0723	7.6100	2.0135	0.0676	2.0811		7,777.8165	7,777.8165	0.5829		7,792.3880
Unmitigated	2.2395	9.2518	28.2237	0.0821	8.0964	0.0769	8.1733	2.1627	0.0719	2.2346		8,315.5107	8,315.5107	0.6086		8,330.7248

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,293.28	1,306.98	1171.35	3,738,055	3,480,129
Total	1,293.28	1,306.98	1,171.35	3,738,055	3,480,129

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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	48.00	16.00	36.00	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	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000900	0.001600

5.0 Energy Detail

Historical Energy Use: N

Lennar Tract 6263 - Fresno County, Winter

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	lb/day										lb/day					
NaturalGas Mitigated	0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806
NaturalGas Unmitigated	0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806

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	lb/day										lb/day					
Single Family Housing	9813.42	0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806
Total		0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806

Lennar Tract 6263 - Fresno County, Winter

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas 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	lb/day										lb/day					
Single Family Housing	9.81342	0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806
Total		0.1058	0.9044	0.3848	5.7700e-003		0.0731	0.0731		0.0731	0.0731		1,154.5199	1,154.5199	0.0221	0.0212	1,161.3806

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use only Natural Gas Hearths

Lennar Tract 6263 - Fresno County, Winter

	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	lb/day										lb/day					
Mitigated	6.3114	1.3799	11.7775	8.5700e-003		0.1630	0.1630		0.1630	0.1630	0.0000	1,615.815 4	1,615.815 4	0.0500	0.0293	1,625.783 5
Unmitigated	17.9227	3.1002	117.2627	0.3525		17.3582	17.3582		17.3582	17.3582	2,537.939 5	1,615.998 7	4,153.938 3	11.9147	0.0293	4,460.522 2

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	lb/day										lb/day					
Architectural Coating	0.5496					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2772					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	11.7527	2.9694	105.9355	0.3519		17.2958	17.2958		17.2958	17.2958	2,537.939 5	1,595.647 1	4,133.586 6	11.8949	0.0293	4,439.677 5
Landscaping	0.3432	0.1308	11.3272	6.0000e-004		0.0624	0.0624		0.0624	0.0624		20.3517	20.3517	0.0197		20.8447
Total	17.9227	3.1001	117.2627	0.3525		17.3582	17.3582		17.3582	17.3582	2,537.939 5	1,615.998 7	4,153.938 3	11.9147	0.0293	4,460.522 2

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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	lb/day										lb/day					
Architectural Coating	0.5496					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.2772					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1463	1.2499	0.5319	7.9800e-003		0.1011	0.1011		0.1011	0.1011	0.0000	1,595.6471	1,595.6471	0.0306	0.0293	1,605.1292
Landscaping	0.3384	0.1299	11.2456	5.9000e-004		0.0620	0.0620		0.0620	0.0620		20.1684	20.1684	0.0194		20.6543
Total	6.3114	1.3799	11.7775	8.5700e-003		0.1630	0.1630		0.1630	0.1630	0.0000	1,615.8154	1,615.8154	0.0500	0.0293	1,625.7835

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Lennar Tract 6263 - Fresno County, Winter

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

CalEEMod Output

GHG Business as Usual

Lennar Tract 6263 GHG BAU - Fresno County, Annual

Lennar Tract 6263 GHG BAU
Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	137.00	Dwelling Unit	23.35	246,600.00	392

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - PG&E Intensity Factor

Land Use - Site Plan Acreage

Construction Phase - Schedule adjusted to reflect estimated buildout date

Demolition -

Fleet Mix - SJVAPCD Residential Fleet Mix 2021

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation - Rule 4601 Architectural Coatings

Water Mitigation - CalGreen and MWELO compliance

Waste Mitigation - 75% recycling mandate by 2020

Off-road Equipment - Adjusted equipment hours to match default hours and longer schedule

Architectural Coating - Rule 4601 Architectural Coatings compliance

Vehicle Trips - ITE 10th Ed Trip Rates 9.44, 9.54, 8.55

Area Coating - Rule 4601 Architectural Coatings compliance

Woodstoves -

Off-road Equipment -

Trips and VMT - BAU Ops only

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	65
tblAreaCoating	Area_EF_Residential_Interior	250	65
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	PhaseEndDate	9/24/2021	8/30/2021

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tblFleetMix	HHD	0.11	0.02
tblFleetMix	LDA	0.42	0.54
tblFleetMix	LDT1	0.06	0.20
tblFleetMix	LDT2	0.15	0.17
tblFleetMix	LHD1	0.04	1.4000e-003
tblFleetMix	LHD2	6.9730e-003	9.0000e-004
tblFleetMix	MCY	5.2690e-003	2.6000e-003
tblFleetMix	MDV	0.18	0.05
tblFleetMix	MH	1.5690e-003	1.6000e-003
tblFleetMix	MHD	0.03	9.0000e-003
tblFleetMix	OBUS	2.0990e-003	0.00
tblFleetMix	SBUS	1.2120e-003	9.0000e-004
tblFleetMix	UBUS	1.7870e-003	4.4000e-003
tblLandUse	LotAcreage	44.48	23.35
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblVehicleTrips	HO_TTP	35.70	36.00
tblVehicleTrips	HS_TTP	15.90	16.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	ST_TR	9.91	9.54
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

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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					
2021											0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279
Maximum											0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279

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					
2021											0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279
Maximum											0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279

	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

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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											94.3976	61.0111	155.4086	0.4451	1.0900e-003	166.8601
Energy											0.0000	540.3019	540.3019	0.0195	6.7700e-003	542.8059
Mobile											0.0000	1,674.4936	1,674.4936	0.2805	0.0000	1,681.5051
Waste											28.6461	0.0000	28.6461	1.6929	0.0000	70.9695
Water											2.8318	19.7805	22.6123	0.2918	7.0500e-003	32.0078
Total											125.8755	2,295.5870	2,421.4625	2.7297	0.0149	2,494.1483

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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											0.0000	60.9961	60.9961	3.7600e-003	1.0900e-003	61.4143
Energy											0.0000	540.3019	540.3019	0.0195	6.7700e-003	542.8059
Mobile											0.0000	1,565.2747	1,565.2747	0.2693	0.0000	1,572.0075
Waste											21.4846	0.0000	21.4846	1.2697	0.0000	53.2271
Water											2.2655	15.8244	18.0898	0.2334	5.6400e-003	25.6063
Total											23.7500	2,182.3970	2,206.1471	1.7956	0.0135	2,255.0609

	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	81.13	4.93	8.89	34.22	9.46	9.59

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	8/28/2021	8/30/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 499,365; Residential Outdoor: 166,455; 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

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
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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3.2 Architectural Coating - 2021

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279
Total											0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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3.2 Architectural Coating - 2021

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279
Total											0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

	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											0.0000	1,565.2747	1,565.2747	0.2693	0.0000	1,572.0075
Unmitigated											0.0000	1,674.4936	1,674.4936	0.2805	0.0000	1,681.5051

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,293.28	1,306.98	1171.35	3,738,055	3,480,129
Total	1,293.28	1,306.98	1,171.35	3,738,055	3,480,129

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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	48.00	16.00	36.00	86	11	3

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000900	0.001600

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	349.1582	349.1582	0.0158	3.2700e-003	350.5263
Electricity Unmitigated											0.0000	349.1582	349.1582	0.0158	3.2700e-003	350.5263
NaturalGas Mitigated											0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796
NaturalGas Unmitigated											0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796

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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	3.5819e+006											0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796
Total												0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796

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	3.5819e+006											0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796
Total												0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.20022e+006	349.1582	0.0158	3.2700e-003	350.5263
Total		349.1582	0.0158	3.2700e-003	350.5263

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.20022e+006	349.1582	0.0158	3.2700e-003	350.5263
Total		349.1582	0.0158	3.2700e-003	350.5263

6.0 Area Detail

6.1 Mitigation Measures Area

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- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use only Natural Gas Hearths

	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											0.0000	60.9961	60.9961	3.7600e-003	1.0900e-003	61.4143
Unmitigated											94.3976	61.0111	155.4086	0.4451	1.0900e-003	166.8601

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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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											94.3976	59.3494	153.7470	0.4424	1.0900e-003	165.1319
Landscaping											0.0000	1.6616	1.6616	2.6600e-003	0.0000	1.7282
Total											94.3976	61.0111	155.4086	0.4451	1.0900e-003	166.8601

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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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											0.0000	59.3494	59.3494	1.1400e-003	1.0900e-003	59.7021
Landscaping											0.0000	1.6467	1.6467	2.6200e-003	0.0000	1.7122
Total											0.0000	60.9961	60.9961	3.7600e-003	1.0900e-003	61.4143

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.0898	0.2334	5.6400e-003	25.6063
Unmitigated	22.6123	0.2918	7.0500e-003	32.0078

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	8.9261 / 5.62732	22.6123	0.2918	7.0500e-003	32.0078
Total		22.6123	0.2918	7.0500e-003	32.0078

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	7.14088 / 4.50186	18.0898	0.2334	5.6400e-003	25.6063
Total		18.0898	0.2334	5.6400e-003	25.6063

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	21.4846	1.2697	0.0000	53.2271
Unmitigated	28.6461	1.6929	0.0000	70.9695

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	141.12	28.6461	1.6929	0.0000	70.9695
Total		28.6461	1.6929	0.0000	70.9695

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	105.84	21.4846	1.2697	0.0000	53.2271
Total		21.4846	1.2697	0.0000	53.2271

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

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CalEEMod Output

GHG 2030 Mitigated

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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	137.00	Dwelling Unit	23.35	246,600.00	392

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	CH4 Intensity (lb/MWhr)	0.025	N2O Intensity (lb/MWhr)	0.005

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - PG&E Intensity Factor

Land Use - Site Plan Acreage

Construction Phase - Schedule adjusted to reflect estimated buildout date

Demolition -

Fleet Mix - SJVAPCD Residential Fleet Mix 2021

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Area Mitigation - Rule 4601 Architectural Coatings

Water Mitigation - CalGreen and MWELO compliance

Waste Mitigation - 75% recycling mandate by 2020

Off-road Equipment - Adjusted equipment hours to match default hours and longer schedule

Architectural Coating - Rule 4601 Architectural Coatings compliance

Vehicle Trips - ITE 10th Ed Trip Rates 9.44, 9.54, 8.55

Area Coating - Rule 4601 Architectural Coatings compliance

Woodstoves -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	65.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	65.00
tblAreaCoating	Area_EF_Residential_Exterior	150	65
tblAreaCoating	Area_EF_Residential_Interior	150	65
tblFleetMix	HHD	0.13	0.02
tblFleetMix	LDA	0.52	0.54
tblFleetMix	LDT1	0.03	0.20
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	9.7000e-003	1.4000e-003
tblFleetMix	LHD2	3.4040e-003	9.0000e-004

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tblFleetMix	MCY	4.5630e-003	2.6000e-003
tblFleetMix	MDV	0.09	0.05
tblFleetMix	MH	4.3600e-004	1.6000e-003
tblFleetMix	MHD	0.03	9.0000e-003
tblFleetMix	OBUS	2.3060e-003	0.00
tblFleetMix	SBUS	9.9800e-004	9.0000e-004
tblFleetMix	UBUS	1.1850e-003	4.4000e-003
tblLandUse	LotAcreage	44.48	23.35
tblOffRoadEquipment	UsageHours	7.00	3.40
tblOffRoadEquipment	UsageHours	8.00	3.90
tblOffRoadEquipment	UsageHours	8.00	3.90
tblOffRoadEquipment	UsageHours	7.00	3.40
tblOffRoadEquipment	UsageHours	8.00	3.90
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.025
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	HO_TTP	35.70	36.00
tblVehicleTrips	HS_TTP	15.90	16.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	ST_TR	9.91	9.54
tblVehicleTrips	SU_TR	8.62	8.55
tblVehicleTrips	WD_TR	9.52	9.44

2.0 Emissions Summary

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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					
2019											0.0000	41.2465	41.2465	0.0109	0.0000	41.5197
2020											0.0000	316.4711	316.4711	0.0718	0.0000	318.2661
2021											0.0000	164.3233	164.3233	0.0315	0.0000	165.1101
Maximum											0.0000	316.4711	316.4711	0.0718	0.0000	318.2661

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					
2019											0.0000	41.2464	41.2464	0.0109	0.0000	41.5196
2020											0.0000	316.4709	316.4709	0.0718	0.0000	318.2659
2021											0.0000	164.3231	164.3231	0.0315	0.0000	165.1099
Maximum											0.0000	316.4709	316.4709	0.0718	0.0000	318.2659

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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)
		Highest		

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											94.3976	61.0111	155.4086	0.4440	1.0900e-003	166.8331
Energy											0.0000	349.0230	349.0230	0.0173	6.2300e-003	351.3103
Mobile											0.0000	1,069.6950	1,069.6950	0.0557	0.0000	1,071.0864
Waste											28.6461	0.0000	28.6461	1.6929	0.0000	70.9695
Water											2.8318	8.9442	11.7760	0.2916	7.0200e-003	21.1593
Total											125.8755	1,488.6732	1,614.5487	2.5015	0.0143	1,681.3585

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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											0.0000	60.9961	60.9961	2.7000e-003	1.0900e-003	61.3878
Energy											0.0000	349.0230	349.0230	0.0173	6.2300e-003	351.3103
Mobile											0.0000	1,000.9836	1,000.9836	0.0533	0.0000	1,002.3156
Waste											21.4846	0.0000	21.4846	1.2697	0.0000	53.2271
Water											2.2655	7.1553	9.4208	0.2333	5.6200e-003	16.9274
Total											23.7500	1,418.1580	1,441.9080	1.5763	0.0129	1,485.1681

	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	81.13	4.74	10.69	36.99	9.76	11.67

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/2/2019	12/27/2019	5	20	
2	Site Preparation	Site Preparation	12/28/2019	1/10/2020	5	10	
3	Grading	Grading	1/11/2020	2/28/2020	5	35	
4	Building Construction	Building Construction	2/29/2020	7/30/2021	5	370	
5	Paving	Paving	7/31/2021	8/27/2021	5	20	
6	Architectural Coating	Architectural Coating	8/28/2021	9/24/2021	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 0

Residential Indoor: 499,365; Residential Outdoor: 166,455; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	3.40	231	0.29
Building Construction	Forklifts	3	3.90	89	0.20
Building Construction	Generator Sets	1	3.90	84	0.74
Paving	Pavers	2	8.00	130	0.42
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
Building Construction	Tractors/Loaders/Backhoes	3	3.40	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	3.90	46	0.45

Trips and VMT

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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	52.00	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	49.00	15.00	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	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672
Total											0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8672

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3.2 Demolition - 2019

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	2.0035	2.0035	1.8000e-004	0.0000	2.0080
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.0712	1.0712	3.0000e-005	0.0000	1.0720
Total											0.0000	3.0747	3.0747	2.1000e-004	0.0000	3.0800

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671
Total											0.0000	34.6263	34.6263	9.6300e-003	0.0000	34.8671

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3.2 Demolition - 2019

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	2.0035	2.0035	1.8000e-004	0.0000	2.0080
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.0712	1.0712	3.0000e-005	0.0000	1.0720
Total											0.0000	3.0747	3.0747	2.1000e-004	0.0000	3.0800

3.3 Site Preparation - 2019

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	3.4169	3.4169	1.0800e-003	0.0000	3.4439
Total											0.0000	3.4169	3.4169	1.0800e-003	0.0000	3.4439

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3.3 Site Preparation - 2019

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.1285	0.1285	0.0000	0.0000	0.1286
Total											0.0000	0.1285	0.1285	0.0000	0.0000	0.1286

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	3.4169	3.4169	1.0800e-003	0.0000	3.4439
Total											0.0000	3.4169	3.4169	1.0800e-003	0.0000	3.4439

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3.3 Site Preparation - 2019

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.1285	0.1285	0.0000	0.0000	0.1286
Total											0.0000	0.1285	0.1285	0.0000	0.0000	0.1286

3.3 Site Preparation - 2020

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	13.3723	13.3723	4.3200e-003	0.0000	13.4804
Total											0.0000	13.3723	13.3723	4.3200e-003	0.0000	13.4804

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3.3 Site Preparation - 2020

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.4982	0.4982	1.0000e-005	0.0000	0.4985
Total											0.0000	0.4982	0.4982	1.0000e-005	0.0000	0.4985

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	13.3723	13.3723	4.3200e-003	0.0000	13.4804
Total											0.0000	13.3723	13.3723	4.3200e-003	0.0000	13.4804

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3.3 Site Preparation - 2020

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.4982	0.4982	1.0000e-005	0.0000	0.4985
Total											0.0000	0.4982	0.4982	1.0000e-005	0.0000	0.4985

3.4 Grading - 2020

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	95.3475	95.3475	0.0308	0.0000	96.1185
Total											0.0000	95.3475	95.3475	0.0308	0.0000	96.1185

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3.4 Grading - 2020

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	2.4218	2.4218	6.0000e-005	0.0000	2.4234
Total											0.0000	2.4218	2.4218	6.0000e-005	0.0000	2.4234

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	95.3474	95.3474	0.0308	0.0000	96.1183
Total											0.0000	95.3474	95.3474	0.0308	0.0000	96.1183

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3.4 Grading - 2020

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	2.4218	2.4218	6.0000e-005	0.0000	2.4234
Total											0.0000	2.4218	2.4218	6.0000e-005	0.0000	2.4234

3.5 Building Construction - 2020

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											0.0000	123.4095	123.4095	0.0301	0.0000	124.1618
Total											0.0000	123.4095	123.4095	0.0301	0.0000	124.1618

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3.5 Building Construction - 2020

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
Vendor											0.0000	44.2959	44.2959	5.4700e-003	0.0000	44.4328
Worker											0.0000	37.1260	37.1260	9.9000e-004	0.0000	37.1508
Total											0.0000	81.4219	81.4219	6.4600e-003	0.0000	81.5836

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											0.0000	123.4094	123.4094	0.0301	0.0000	124.1616
Total											0.0000	123.4094	123.4094	0.0301	0.0000	124.1616

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3.5 Building Construction - 2020

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
Vendor											0.0000	44.2959	44.2959	5.4700e-003	0.0000	44.4328
Worker											0.0000	37.1260	37.1260	9.9000e-004	0.0000	37.1508
Total											0.0000	81.4219	81.4219	6.4600e-003	0.0000	81.5836

3.5 Building Construction - 2021

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											0.0000	85.1006	85.1006	0.0205	0.0000	85.6136
Total											0.0000	85.1006	85.1006	0.0205	0.0000	85.6136

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3.5 Building Construction - 2021

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
Vendor											0.0000	30.2543	30.2543	3.6500e-003	0.0000	30.3456
Worker											0.0000	24.7211	24.7211	6.1000e-004	0.0000	24.7363
Total											0.0000	54.9754	54.9754	4.2600e-003	0.0000	55.0819

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											0.0000	85.1005	85.1005	0.0205	0.0000	85.6135
Total											0.0000	85.1005	85.1005	0.0205	0.0000	85.6135

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3.5 Building Construction - 2021

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
Vendor											0.0000	30.2543	30.2543	3.6500e-003	0.0000	30.3456
Worker											0.0000	24.7211	24.7211	6.1000e-004	0.0000	24.7363
Total											0.0000	54.9754	54.9754	4.2600e-003	0.0000	55.0819

3.6 Paving - 2021

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											0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854

Lennar Tract 6263 GHG 2030 - Fresno County, Annual

3.6 Paving - 2021

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.0023	1.0023	2.0000e-005	0.0000	1.0030
Total											0.0000	1.0023	1.0023	2.0000e-005	0.0000	1.0030

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											0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854

Lennar Tract 6263 GHG 2030 - Fresno County, Annual

3.6 Paving - 2021

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	1.0023	1.0023	2.0000e-005	0.0000	1.0030
Total											0.0000	1.0023	1.0023	2.0000e-005	0.0000	1.0030

3.7 Architectural Coating - 2021

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total											0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576

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3.7 Architectural Coating - 2021

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.6682	0.6682	2.0000e-005	0.0000	0.6686
Total											0.0000	0.6682	0.6682	2.0000e-005	0.0000	0.6686

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total											0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576

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3.7 Architectural Coating - 2021

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
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.6682	0.6682	2.0000e-005	0.0000	0.6686
Total											0.0000	0.6682	0.6682	2.0000e-005	0.0000	0.6686

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Destination Accessibility

Improve Pedestrian Network

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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
Category	tons/yr										MT/yr					
Mitigated											0.0000	1,000.9836	1,000.9836	0.0533	0.0000	1,002.3156
Unmitigated											0.0000	1,069.6950	1,069.6950	0.0557	0.0000	1,071.0864

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	1,293.28	1,306.98	1171.35	3,738,055	3,480,129
Total	1,293.28	1,306.98	1,171.35	3,738,055	3,480,129

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	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	48.00	16.00	36.00	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	0.537300	0.200000	0.167100	0.054200	0.001400	0.000900	0.009000	0.020600	0.000000	0.004400	0.002600	0.000900	0.001600

5.0 Energy Detail

Historical Energy Use: N

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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	157.8793	157.8793	0.0136	2.7200e-003	159.0307
Electricity Unmitigated											0.0000	157.8793	157.8793	0.0136	2.7200e-003	159.0307
NaturalGas Mitigated											0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796
NaturalGas Unmitigated											0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796

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	3.5819e+006											0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796
Total												0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796

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5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas 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	3.5819e+006											0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796
Total												0.0000	191.1437	191.1437	3.6600e-003	3.5000e-003	192.2796

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.20022e+006	157.8793	0.0136	2.7200e-003	159.0307
Total		157.8793	0.0136	2.7200e-003	159.0307

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	1.20022e+006	157.8793	0.0136	2.7200e-003	159.0307
Total		157.8793	0.0136	2.7200e-003	159.0307

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use only Natural Gas Hearths

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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
Category	tons/yr										MT/yr					
Mitigated											0.0000	60.9961	60.9961	2.7000e-003	1.0900e-003	61.3878
Unmitigated											94.3976	61.0111	155.4086	0.4440	1.0900e-003	166.8331

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											94.3976	59.3494	153.7470	0.4424	1.0900e-003	165.1319
Landscaping											0.0000	1.6616	1.6616	1.5800e-003	0.0000	1.7012
Total											94.3976	61.0111	155.4086	0.4440	1.0900e-003	166.8331

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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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											0.0000	59.3494	59.3494	1.1400e-003	1.0900e-003	59.7021
Landscaping											0.0000	1.6467	1.6467	1.5600e-003	0.0000	1.6857
Total											0.0000	60.9961	60.9961	2.7000e-003	1.0900e-003	61.3878

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.4208	0.2333	5.6200e-003	16.9274
Unmitigated	11.7760	0.2916	7.0200e-003	21.1593

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	8.9261 / 5.62732	11.7760	0.2916	7.0200e-003	21.1593
Total		11.7760	0.2916	7.0200e-003	21.1593

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	7.14088 / 4.50186	9.4208	0.2333	5.6200e-003	16.9274
Total		9.4208	0.2333	5.6200e-003	16.9274

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Lennar Tract 6263 GHG 2030 - Fresno County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	21.4846	1.2697	0.0000	53.2271
Unmitigated	28.6461	1.6929	0.0000	70.9695

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	141.12	28.6461	1.6929	0.0000	70.9695
Total		28.6461	1.6929	0.0000	70.9695

Lennar Tract 6263 GHG 2030 - Fresno County, Annual

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	105.84	21.4846	1.2697	0.0000	53.2271
Total		21.4846	1.2697	0.0000	53.2271

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Lennar Tract 6263 GHG 2030 - Fresno County, Annual

**Appendix B: San Joaquin Valley Air Pollution
Control District Amicus Brief on Friant
Ranch Supreme Court Decision**

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CASE NO. S219783

IN THE SUPREME COURT OF CALIFORNIA

SIERRA CLUB, REVIVE THE SAN JOAQUIN, and
LEAGUE OF WOMEN VOTERS OF FRESNO,
Plaintiffs and Appellants

v.

COUNTY OF FRESNO,
Defendant and Respondent

FRIANT RANCH, L.P.,
Real Party in Interest and Respondent

SUPREME COURT
FILED

APR 13 2015

Frank A. McGuire Clerk
Deputy

After a Decision by the Court of Appeal, filed May 27, 2014
Fifth Appellate District Case No. F066798

Appeal from the Superior Court of California, County of Fresno
Case No. 11CECG00726

**APPLICATION FOR LEAVE TO FILE AMICUS CURIAE BRIEF OF
SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT IN
SUPPORT OF DEFENDANT AND RESPONDENT, COUNTY OF FRESNO AND
REAL PARTY IN INTEREST AND RESPONDENT, FRIANT RANCH, L.P.**

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CASE NO. S219783

IN THE SUPREME COURT OF CALIFORNIA

SIERRA CLUB, REVIVE THE SAN JOAQUIN, and
LEAGUE OF WOMEN VOTERS OF FRESNO,
Plaintiffs and Appellants

v.

COUNTY OF FRESNO,
Defendant and Respondent

FRIANT RANCH, L.P.,
Real Party in Interest and Respondent

After a Decision by the Court of Appeal, filed May 27, 2014
Fifth Appellate District Case No. F066798

Appeal from the Superior Court of California, County of Fresno
Case No. 11CECG00726

**APPLICATION FOR LEAVE TO FILE AMICUS CURIAE BRIEF OF
SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT IN
SUPPORT OF DEFENDANT AND RESPONDENT, COUNTY OF FRESNO AND
REAL PARTY IN INTEREST AND RESPONDENT, FRIANT RANCH, L.P.**

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APPLICATION

Pursuant to California Rules of Court 8.520(f)(1), proposed Amicus Curiae San Joaquin Valley Unified Air Pollution Control District hereby requests permission from the Chief Justice to file an amicus brief in support of Defendant and Respondent, County of Fresno, and Defendant and Real Parties in Interest Friant Ranch, L.P. Pursuant to Rule 8.520(f)(5) of the California Rules of Court, the proposed amicus curiae brief is combined with this Application. The brief addresses the following issue certified by this Court for review:

Is an EIR adequate when it identifies the health impacts of air pollution and quantifies a project’s expected emissions, or does CEQA further require the EIR to *correlate* a project’s air quality emissions to specific health impacts?

As of the date of this filing, the deadline for the final reply brief on the merits was March 5, 2015. Accordingly, under Rule 8.520(f)(2), this application and brief are timely.

1. Background and Interest of San Joaquin Valley Unified Air Pollution Control District

The San Joaquin Valley Unified Air Pollution Control District (“Air District”) regulates air quality in the eight counties comprising the San Joaquin Valley (“Central Valley”): Kern, Tulare, Madera, Fresno, Merced, San Joaquin, Stanislaus, and Kings, and is primarily responsible for attaining air quality standards within its jurisdiction. After billions of dollars of investment by Central Valley businesses, pioneering air quality regulations, and consistent efforts by residents, the Central Valley air basin has made historic improvements in air quality.

The Central Valley’s geographical, topographical and meteorological features create exceptionally challenging air quality

conditions. For example, it receives air pollution transported from the San Francisco Bay Area and northern Central Valley communities, and the southern portion of the Central Valley includes three mountain ranges (Sierra, Tehachapi, and Coastal) that, under some meteorological conditions, effectively trap air pollution. Central Valley air pollution is only a fraction of what the Bay Area and Los Angeles produce, but these natural conditions result in air quality conditions that are only marginally better than Los Angeles, even though about ten times more pollution is emitted in the Los Angeles region. Bay Area air quality is much better than the Central Valley's, even though the Bay Area produces about six times more pollution. The Central Valley also receives air pollution transported from the Bay Area and northern counties in the Central Valley, including Sacramento, and transboundary anthropogenic ozone from as far away as China.

Notwithstanding these challenges, the Central Valley has reduced emissions at the same or better rate than other areas in California and has achieved unparalleled milestones in protecting public health and the environment:

- In the last decade, the Central Valley became the first air basin classified by the federal government under the Clean Air Act as a “serious nonattainment” area to come into attainment of health-based National Ambient Air Quality Standard (“NAAQS”) for coarse particulate matter (PM10), an achievement made even more notable given the Valley’s extensive agricultural sector. Unhealthy levels of particulate matter can cause and exacerbate a range of chronic and acute illnesses.
- In 2013, the Central Valley became the first air basin in the country to improve from a federal designation of “extreme” nonattainment to

actually attain (and quality for an attainment designation) of the 1-hour ozone NAAQS; ozone creates “smog” and, like PM10, causes adverse health impacts.

- The Central Valley also is in full attainment of federal standards for lead, nitrogen dioxide, sulfur dioxide, and carbon monoxide.
- The Central Valley continues to make progress toward compliance with its last two attainment standards, with the number of exceedences for the 8-hour ozone NAAQS reduced by 74% (for the 1997 standard) and 38% (for the 2008 standard) since 1991, and for the small particulate matter (PM2.5) NAAQS reduced by 85% (for the 1997 standard) and 61% (for the 2006 standard).

Sustained improvement in Central Valley air quality requires a rigorous and comprehensive regulatory framework that includes prohibitions (e.g., on wood-burning fireplaces in new residences), mandates (e.g., requiring the installation of best available pollution reduction technologies on new and modified equipment and industrial operations), innovations (e.g., fees assessed against residential development to fund pollution reduction actions to “offset” vehicular emissions associated with new residences), incentive programs (e.g., funding replacements of older, more polluting heavy duty trucks and school buses)¹, ongoing planning for continued air quality improvements, and enforcement of Air District permits and regulations.

The Air District is also an expert air quality agency for the eight counties and cities in the San Joaquin Valley. In that capacity, the Air District has developed air quality emission guidelines for use by the Central

¹ San Joaquin’s incentive program has been so successful that through 2012, it has awarded over \$ 432 million in incentive funds and has achieved 93,349 tons of lifetime emissions reductions. See SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 2012 PM2.5 PLAN, 6-6 (2012) available at <http://www.valleyair.org/Workshops/postings/2012/12-20-12PM25/FinalVersion/06%20Chapter%206%20Incentives.pdf>.

Valley counties and cities that implement the California Environment Quality Act (CEQA).² In its guidance, the Air District has distinguished between toxic air contaminants and criteria air pollutants.³ Recognizing this distinction, the Air District's CEQA Guidance has adopted distinct thresholds of significance for *criteria* pollutants (i.e., ozone, PM2.5 and their respective precursor pollutants) based upon scientific and factual data which demonstrates the level that can be accommodated on a cumulative basis in the San Joaquin Valley without affecting the attainment of the applicable NAAQS.⁴ For *toxic air* pollutants, the District has adopted different thresholds of significance which scientific and factual data demonstrates has the potential to expose sensitive receptors (i.e., children, the elderly) to levels which may result in localized health impacts.⁵

The Air District's CEQA Guidance was followed by the County of Fresno in its environment review of the Friant Ranch project, for which the Air District also served as a commenting agency. The Court of Appeal's holding, however, requiring correlation between the project's criteria

² See, e.g., SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, PLANNING DIVISION, GUIDE FOR ASSESSING AND MITIGATING AIR QUALITY IMPACTS (2015), available at http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf ("CEQA Guidance").

³ Toxic air contaminants, also known as hazardous air pollutants, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as birth defects. There are currently 189 toxic air contaminants regulated by the United States Environmental Protection Agency ("EPA") and the states pursuant to the Clean Air Act. 42 U.S.C. § 7412. Common TACs include benzene, perchloroethylene and asbestos. *Id.* at 7412(b).

In contrast, there are only six (6) criteria air pollutants: ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide and lead. Although criteria air pollutants can also be harmful to human health, they are distinguishable from toxic air contaminants and are regulated separately. For instance, while criteria pollutants are regulated by numerous sections throughout Title I of the Clean Air Act, the regulation of toxic air contaminants occurs solely under section 112 of the Act. Compare 42 U.S.C. §§ 7407 – 7411 & 7501 – 7515 with 42 U.S.C. § 7411.

⁴ See, e.g., CEQA Guidance at http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf, pp. 64-66, 80.

⁵ See, e.g., CEQA Guidance at http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf, pp. 66, 99-101.

pollutants and local health impacts, departs from the Air District's Guidance and approved methodology for assessing criteria pollutants. A close reading of the administrative record that gave rise to this issue demonstrates that the Court's holding is based on a misunderstanding of the distinction between toxic air contaminants (for which a local health risk assessment is feasible and routinely performed) and criteria air pollutants (for which a local health risk assessment is not feasible and would result in speculative results).⁶ The Air District has a direct interest in ensuring the lawfulness and consistent application of its CEQA Guidance, and will explain how the Court of Appeal departed from the Air District's long-standing CEQA Guidance in addressing criteria pollutants and toxic air contaminants in this amicus brief.

2. How the Proposed Amicus Curiae Brief Will Assist the Court

As counsel for the proposed amicus curiae, we have reviewed the briefs filed in this action. In addition to serving as a "commentary agency" for CEQA purposes over the Friant Ranch project, the Air District has a strong interest in assuring that CEQA is used for its intended purpose, and believes that this Court would benefit from additional briefing explaining the distinction between criteria pollutants and toxic air contaminants and the different methodologies employed by local air pollution control agencies such as the Air District to analyze these two categories of air pollutants under CEQA. The Air District will also explain how the Court of Appeal's opinion is based upon a fundamental misunderstanding of these two different approaches by requiring the County of Fresno to correlate the project's *criteria* pollution emissions with *local* health impacts. In doing

⁶ CEQA does not require speculation. *See, e.g., Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.*, 6 Cal. 4th 1112, 1137 (1993) (upholding EIR that failed to evaluate cumulative toxic air emission increases given absence of any acceptable means for doing so).

so, the Air District will provide helpful analysis to support its position that at least insofar as criteria pollutants are concerned, CEQA does not require an EIR to correlate a project's air quality emissions to specific health impacts, because such an analysis is not reasonably feasible.

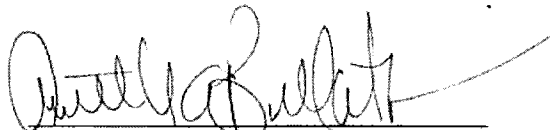
Rule 8.520 Disclosure

Pursuant to Cal. R. 8.520(f)(4), neither the Plaintiffs nor the Defendant or Real Party In Interest or their respective counsel authored this brief in whole or in part. Neither the Plaintiffs nor the Defendant or Real Party in Interest or their respective counsel made any monetary contribution towards or in support of the preparation of this brief.

CONCLUSION

On behalf of the San Joaquin Valley Unified Air Pollution Control District, we respectfully request that this Court accept the filing of the attached brief.

Dated: April 2, 2015



Annette A. Ballatore-Williamson
District Counsel
Attorney for Proposed Amicus Curiae

SAN JOAQUIN VALLEY UNIFIED
AIR POLLUTION CONTROL
DISTRICT

CASE NO. S219783

IN THE SUPREME COURT OF CALIFORNIA

SIERRA CLUB, REVIVE THE SAN JOAQUIN, and
LEAGUE OF WOMEN VOTERS OF FRESNO,
Plaintiffs and Appellants

v.

COUNTY OF FRESNO,
Defendant and Respondent

FRIANT RANCH, L.P.,
Real Party in Interest and Respondent

After a Decision by the Court of Appeal, filed May 27, 2014
Fifth Appellate District Case No. F066798

Appeal from the Superior Court of California, County of Fresno
Case No. 11CECG00726

**AMICUS CURIAE BRIEF OF
SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT IN
SUPPORT OF DEFENDANT AND RESPONDENT, COUNTY OF FRESNO AND
REAL PARTY IN INTEREST AND RESPONDENT, FRIANT RANCH, L.P.**

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I. INTRODUCTION.

The San Joaquin Valley Unified Air Pollution Control District (“Air District”) respectfully submits that the Court of Appeal erred when it held that the air quality analysis contained in the Environmental Impact Report (“EIR”) for the Friant Ranch development project was inadequate under the California Environmental Quality Act (“CEQA”) because it did not include an analysis of the correlation between the project’s criteria air pollutants and the potential adverse human health impacts. A close reading of the portion of the administrative record that gave rise to this issue demonstrates that the Court’s holding is based on a misunderstanding of the distinction between toxic air contaminants and criteria air pollutants.

Toxic air contaminants, also known as hazardous air pollutants, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as birth defects. There are currently 189 toxic air contaminants (hereinafter referred to as “TACs”) regulated by the United States Environmental Protection Agency (“EPA”) and the states pursuant to the Clean Air Act. 42 U.S.C. § 7412. Common TACs include benzene, perchloroethylene and asbestos. *Id.* at 7412(b).

In contrast, there are only six (6) criteria air pollutants: ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide and lead. Although criteria air pollutants can also be harmful to human health,

they are distinguishable from TACs and are regulated separately. For instance, while criteria pollutants are regulated by numerous sections throughout Title I of the Clean Air Act, the regulation of TACs occurs solely under section 112 of the Act. *Compare* 42 U.S.C. §§ 7407 – 7411 & 7501 – 7515 *with* 42 U.S.C. § 7411.

The most relevant difference between criteria pollutants and TACs for purposes of this case is the manner in which human health impacts are accounted for. While it is common practice to analyze the correlation between an individual facility’s TAC emissions and the expected localized human health impacts, such is not the case for criteria pollutants. Instead, the human health impacts associated with criteria air pollutants are analyzed and taken into consideration when EPA sets the national ambient air quality standard (“NAAQS”) for each criteria pollutant. 42 U.S.C. § 7409(b)(1). The health impact of a particular criteria pollutant is analyzed on a regional and not a facility level based on how close the area is to complying with (attaining) the NAAQS. Accordingly, while the type of individual facility / health impact analysis that the Court of Appeal has required is a customary practice for TACs, it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task.

It is clear from a reading of both the administrative record and the Court of Appeal’s decision that the Court did not have the expertise to fully

appreciate the difference between TACs and criteria air pollutants. As a result, the Court has ordered the County of Fresno to conduct an analysis that is not practicable and not likely yield valid information. The Air District respectfully requests that this portion of the Court of Appeal's decision be reversed.

II. THE COURT OF APPEAL ERRED IN FINDING THE FRIANT RANCH EIR INADEQUATE FOR FAILING TO ANALYZE THE SPECIFIC HUMAN HEALTH IMPACTS ASSOCIATED CRITERIA AIR POLLUTANTS.

Although the Air District does not take lightly the amount of air emissions at issue in this case, it submits that the Court of Appeal got it wrong when it required Fresno County to revise the Friant Ranch EIR to include an analysis correlating the criteria air pollutant emissions associated with the project with specific, localized health-impacts. The type of analysis the Court of Appeal has required will not yield reliable information because currently available modeling tools are not well suited for this task. Further, in reviewing this issue de novo, the Court of Appeal failed to appreciate that it lacked the scientific expertise to appreciate the significant differences between a health risk assessment commonly performed for toxic air contaminants and a similar type of analysis it felt should have been conducted for criteria air pollutants.

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A. Currently Available Modeling Tools are not Equipped to Provide a Meaningful Analysis of the Correlation between an Individual Development Project's Air Emissions and Specific Human Health Impacts.

In order to appreciate the problematic nature of the Court of Appeals' decision requiring a health risk type analysis for criteria air pollutants, it is important to understand how the relevant criteria pollutants (ozone and particulate matter) are formed, dispersed and regulated.

Ground level ozone (smog) is not directly emitted into the air, but is formed when precursor pollutants such as oxides of nitrogen (NOx) and volatile organic compounds (VOCs) are emitted into the atmosphere and undergo complex chemical reactions in the process of sunlight.¹ Once formed, ozone can be transported long distances by wind.² Because of the complexity of ozone formation, a specific tonnage amount of NOx or VOCs emitted in a particular area does not equate to a particular concentration of ozone in that area. In fact, even rural areas that have relatively low tonnages of emissions of NOx or VOCs can have high levels of ozone concentration simply due to wind transport.³ Conversely, the San Francisco Bay Area has six times more NOx and VOC emissions per square mile than the San Joaquin Valley, but experiences lower

¹ See United States Environmental Protection Agency, *Ground-level Ozone: Basic Information*, available at: <http://www.epa.gov/airquality/ozonepollution/basic.html> (visited March 10, 2015).

² *Id.*

³ *Id.*

concentrations of ozone (and better air quality) simply because sea breezes disperse the emissions.⁴

Particulate matter (“PM”) can be divided into two categories: directly emitted PM and secondary PM.⁵ While directly emitted PM can have a localized impact, the tonnage emitted does not always equate to the local PM concentration because it can be transported long distances by wind.⁶ Secondary PM, like ozone, is formed via complex chemical reactions in the atmosphere between precursor chemicals such as sulfur dioxides (SOx) and NOx.⁷ Because of the complexity of secondary PM formation, the tonnage of PM-forming precursor emissions in an area does not necessarily result in an equivalent concentration of secondary PM in that area.

The disconnect between the *tonnage* of precursor pollutants (NOx, SOx and VOCs) and the *concentration* of ozone or PM formed is important because it is not necessarily the tonnage of precursor pollutants that causes human health effects, but the concentration of resulting ozone or PM. Indeed, the national ambient air quality standards (“NAAQS”), which are statutorily required to be set by the United States Environmental Protection

⁴ *San Joaquin Valley Air Pollution Control District 2007 Ozone Plan*, Executive Summary p. ES-6, available at: http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Ozone_2007_Adopted/03%20Executive%20Summary.pdf (visited March 10, 2015).

⁵ United States Environmental Protection Agency, *Particulate Matter: Basic Information*, available at: <http://www.epa.gov/airquality/particlepollution/basic.html> (visited March 10, 2015).

⁶ *Id.*

⁷ *Id.*

Agency (“EPA”) at levels that are “requisite to protect the public health,” 42 U.S.C. § 7409(b)(1), are established as concentrations of ozone or particulate matter and not as tonnages of their precursor pollutants.⁸

Attainment of a particular NAAQS occurs when the concentration of the relevant pollutant remains below a set threshold on a consistent basis throughout a particular region. For example, the San Joaquin Valley attained the 1-hour ozone NAAQS when ozone concentrations remained at or below 0.124 parts per million Valley-wide on 3 or fewer days over a 3-year period.⁹ Because the NAAQS are focused on achieving a particular concentration of pollution region-wide, the Air District’s tools and plans for attaining the NAAQS are regional in nature.

For instance, the computer models used to simulate and predict an attainment date for the ozone or particulate matter NAAQS in the San Joaquin Valley are based on regional inputs, such as regional inventories of precursor pollutants (NO_x, SO_x and VOCs) and the atmospheric chemistry and meteorology of the Valley.¹⁰ At a very basic level, the models simulate future ozone or PM levels based on predicted changes in precursor

⁸ See, e.g., United States Environmental Protection Agency, *Table of National Ambient Air Quality Standards*, available at: <http://www.epa.gov/air/criteria.html#3> (visited March 10, 2015).

⁹ *San Joaquin Valley Unified Air Pollution Control District 2013 Plan for the Revoked 1-Hour Ozone Standard*, Ch. 2 p. 2-16, available at: http://www.valleyair.org/Air_Quality_Plans/OzoneOneHourPlan2013/02Chapter2ScienceTrendsModeling.pdf (visited March 10, 2015).

¹⁰ *Id.* at Ch. 2 p. 2-19 (visited March 12, 2015); *San Joaquin Valley Unified Air Pollution Control District 2008 PM2.5 Plan*, Appendix F, pp. F-2 – F-5, available at: http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Final_Adopted_PM2.5/20%20Appendix%20F.pdf (visited March 19, 2015).

emissions Valley wide.¹¹ Because the NAAQS are set levels necessary to protect human health, the closer a region is to attaining a particular NAAQS, the lower the human health impact is from that pollutant.

The goal of these modeling exercises is not to determine whether the emissions generated by a particular factory or development project will affect the date that the Valley attains the NAAQS. Rather, the Air District's modeling and planning strategy is regional in nature and based on the extent to which *all* of the emission-generating sources in the Valley (current and future) must be controlled in order to reach attainment.¹²

Accordingly, the Air District has based its thresholds of significance for CEQA purposes on the levels that scientific and factual data demonstrate that the Valley can accommodate without affecting the attainment date for the NAAQS.¹³ The Air District has tied its CEQA significance thresholds to the level at which stationary pollution sources permitted by the Air District must "offset" their emissions.¹⁴ This "offset"

¹¹ *Id.*

¹² Although the Air District does have a dispersion modeling tool used during its air permitting process that is used to predict whether a particular project's directly emitted PM will either cause an exceedance of the PM NAAQS or contribute to an existing exceedance, this model bases the prediction on a worst case scenario of emissions and meteorology and has no provision for predicting any associated human health impacts. Further, this analysis is only performed for stationary sources (factories, oil refineries, etc.) that are required to obtain a New Source Review permit from the Air District and not for development projects such as Friant Ranch over which the Air District has no preconstruction permitting authority. See San Joaquin Valley Unified Air Pollution Control District Rule 2201 §§ 2.0; 3.3.9; 4.14.1, available at: <http://www.valleyair.org/rules/currnrules/Rule22010411.pdf> (visited March 19, 2015).

¹³ *San Joaquin Valley Unified Air Pollution Control District Guide to Assessing and Mitigating Air Quality Impacts*, (March 19, 2015) p. 22, available at: <http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Jan%202002%20Rev.pdf> (visited March 30, 2015).

¹⁴ *Id.* at pp. 22, 25.

level allows for growth while keeping the cumulative effects of all new sources at a level that will not impede attainment of the NAAQS.¹⁵ In the Valley, these thresholds are 15 tons per year of PM, and 10 tons of NOx or VOC per year. *Sierra Club, supra*, 172 Cal.Rptr.3d at 303; AR 4554. Thus, the CEQA air quality analysis for criteria pollutants is not really a localized, project-level impact analysis but one of regional, “cumulative impacts.”

Accordingly, the significance thresholds applied in the Friant Ranch EIR (15 tons per year of PM and 10 tons of NOx or VOCs) are not intended to be indicative of any localized human health impact that the project may have. While the health effects of air pollution are of primary concern to the Air District (indeed, the NAAQS are established to protect human health), the Air District is simply not equipped to analyze whether and to what extent the criteria pollutant emissions of an individual CEQA project directly impact human health in a particular area. This is true even for projects with relatively high levels of emissions of criteria pollutant precursor emissions.

For instance, according to the EIR, the Friant Ranch project is estimated to emit 109.52 tons per year of ROG (VOC), 102.19 tons per year of NOx, and 117.38 tons per year of PM. Although these levels well

¹⁵ ¹⁵ *San Joaquin Valley Unified Air Pollution Control District Environmental Review Guidelines* (Aug. 2000) p. 4-11, available at: http://www.valleyair.org/transportation/CEQA%20Rules/ERG%20Adopted%20August%202000_.pdf (visited March 12, 2015).

exceed the Air District's CEQA significance thresholds, this does not mean that one can easily determine the concentration of ozone or PM that will be created at or near the Friant Ranch site on a particular day or month of the year, or what specific health impacts will occur. Meteorology, the presence of sunlight, and other complex chemical factors all combine to determine the ultimate concentration and location of ozone or PM. This is especially true for a project like Friant Ranch where most of the criteria pollutant emissions derive not from a single "point source," but from area wide sources (consumer products, paint, etc.) or mobile sources (cars and trucks) driving to, from and around the site.

In addition, it would be extremely difficult to model the impact on NAAQS attainment that the emissions from the Friant Ranch project may have. As discussed above, the currently available modeling tools are equipped to model the impact of *all* emission sources in the Valley on attainment. According to the most recent EPA-approved emission inventory, the NOx inventory for the Valley is for the year 2014 is 458.2 tons per day, or 167,243 tons per year and the VOC (or ROG) inventory is 361.7 tons per day, or 132,020.5 tons per year.¹⁶ Running the photochemical grid model used for predicting ozone attainment with the

¹⁶ *San Joaquin Valley Unified Air Pollution Control District 2007 Ozone Plan*, Appendix B pp. B-6, B-9, available at: http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Ozone_2007_Adopted/19%20Appendix%20B%20April%202007.pdf (visited March 12, 2015).

emissions solely from the Friant Ranch project (which equate to less than one-tenth of one percent of the total NOx and VOC in the Valley) is not likely to yield valid information given the relative scale involved.

Finally, even once a model is developed to accurately ascertain local increases in concentrations of photochemical pollutants like ozone and some particulates, it remains impossible, using today's models, to correlate that increase in concentration to a specific health impact. The reason is the same: such models are designed to determine regional, population-wide health impacts, and simply are not accurate when applied at the local level.

For these reasons, it is not the norm for CEQA practitioners, including the Air District, to conduct an analysis of the localized health impacts associated with a project's criteria air pollutant emissions as part of the EIR process. When the accepted scientific method precludes a certain type of analysis, "the court cannot impose a legal standard to the contrary." *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 717 n. 8. However, that is exactly what the Court of Appeal has done in this case. Its decision upends the way CEQA air quality analysis of criteria pollutants occurs and should be reversed.

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B. The Court of Appeal Improperly Extrapolated a Request for a Health Risk Assessment for Toxic Air Contaminants into a Requirement that the EIR contain an Analysis of Localized Health Impacts Associated with Criteria Air Pollutants.

The Court of Appeal’s error in requiring the new health impact analysis for criteria air pollutants clearly stems from a misunderstanding of terms of art commonly used in the air pollution field. More specifically, the Court of Appeal (and Appellants Sierra Club et al.) appear to have confused the health risk analysis (“HRA”) performed to determine the health impacts associated with a project’s toxic air contaminants (“TACs”), with an analysis correlating a project’s criteria air pollutants (ozone, PM and the like) with specific localized health impacts.

The first type of analysis, the HRA, is commonly performed during the Air District’s stationary source permitting process for projects that emit TACs and is, thus, incorporated into the CEQA review process. An HRA is a comprehensive analysis to evaluate and predict the dispersion of TACs emitted by a project and the potential for exposure of human populations. It also assesses and quantifies both the individual and population-wide health risks associated with those levels of exposure. There is no similar analysis conducted for criteria air pollutants. Thus, the second type of analysis (required by the Court of Appeal), is not currently part of the Air District’s process because, as outlined above, the health risks associated

with exposure to criteria pollutants are evaluated on a regional level based on the region's attainment of the NAAQS.

The root of this confusion between the types of analyses conducted for TACs versus criteria air pollutants appears to stem from a comment that was presented to Fresno County by the City of Fresno during the administrative process.

In its comments on the draft EIR, the City of Fresno (the only party to raise this issue) stated:

[t]he EIR must disclose the human health related effects of the Project's air pollution impacts. (CEQA Guidelines section 15126.2(a).) The EIR fails completely in this area. The EIR should be revised to disclose and determine the significance of TAC impacts, and of human health risks due to exposure to Project-related air emissions.

(AR 4602.)

In determining that the issue regarding the correlation between the Friant Ranch project's criteria air pollutants and adverse health impacts was adequately exhausted at the administrative level, the Court of Appeal improperly read the first two sentences of the City of Fresno's comment in isolation rather than in the context of the entire comment. *See Sierra Club v. County of Fresno* (2014) 172 Cal.Rptr.3d 271, 306. Although the comment first speaks generally in terms of "human health related effects" and "air pollution," it requests only that the EIR be revised to disclose "the significance of TACs" and the "human health risks due to exposure."

The language of this request in the third sentence of the comment is significant because, to an air pollution practitioner, the language would only have indicated only that a HRA for TACs was requested, and not a separate analysis of the health impacts associated with the project's criteria air pollutants. Fresno County clearly read the comment as a request to perform an HRA for TACs and limited its response accordingly. (AR 4602.)¹⁷ The Air District submits that it would have read the City's comment in the same manner as the County because the City's use of the terms "human health risks" and "TACs" signal that an HRA for TACs is being requested. Indeed, the Air District was also concerned that an HRA be conducted, but understood that it was not possible to conduct such an analysis until the project entered the phase where detailed site specific information, such as the types of emission sources and the proximity of the sources to sensitive receptors became available. (AR 4553.)¹⁸ The City of Fresno was apparently satisfied with the County's discussion of human health risks, as it did not raise the issue again when it commented on the final EIR. (AR 8944 – 8960.)

¹⁷ Appellants do not challenge the manner in which the County addressed TACs in the EIR. (Appellants' Answer Brief p. 28 fn. 7.)

¹⁸ Appellants rely on the testimony of Air District employee, Dan Barber, as support for their position that the County should have conducted an analysis correlating the project's criteria air pollutant emissions with localized health impacts. (Appellants Answer Brief pp. 10-11; 28.) However, Mr. Barber's testimony simply reinforces the Air District's concern that a risk assessment (HRA) be conducted once the actual details of the project become available. (AR 8863.) As to criteria air pollutants, Mr. Barber's comments are aimed at the Air District's concern about the amount of emissions and the fact that the emissions will make it "more difficult for Fresno County and the Valley to reach attainment which means that the health of Valley residents maybe [sic] adversely impacted." Mr. Barber says nothing about conducting a separate analysis of the localized health impacts the project's emissions may have.

The Court of Appeal's holding, which incorrectly extrapolates a request for an HRA for TACs into a new analysis of the localized health impacts of the project's criteria air pollutants, highlights two additional errors in the Court's decision.

First, the Court of Appeal's holding illustrates why the Court should have applied the deferential substantial evidence standard of review to the issue of whether the EIR's air quality analysis was sufficient. The regulation of air pollution is a technical and complex field and the Court of Appeal lacked the expertise to fully appreciate the difference between TACs and criteria air pollutants and tools available for analyzing each type of pollutant.

Second, it illustrates that the Court likely got it wrong when it held that the issue regarding the criteria pollutant / localized health impact analysis was properly exhausted during the administrative process. In order to preserve an issue for the court, '[t]he "exact issue" must have been presented to the administrative agency....' [Citation.] *Citizens for Responsible Equitable Environmental Development v. City of San Diego*, (2011) 196 Cal.App.4th 515, 527 129 Cal.Rptr.3d 512, 521; *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 535, 78 Cal.Rptr.3d 1, 13. "[T]he objections must be sufficiently specific so that the agency has the

opportunity to evaluate and respond to them.’ [Citation.]” *Sierra Club v. City of Orange*, 163 Cal.App.4th at 536.¹⁹

As discussed above, the City’s comment, while specific enough to request a commonly performed HRA for TACs, provided the County with no notice that it should perform a new type of analysis correlating criteria pollutant tonnages to specific human health effects. Although the parties have not directly addressed the issue of failure to exhaust administrative remedies in their briefs, the Air District submits that the Court should consider how it affects the issues briefed by the parties since “[e]xhaustion of administrative remedies is a jurisdictional prerequisite to maintenance of a CEQA action.” *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1199, 22 Cal.Rptr.3d 203.

III. CONCLUSION

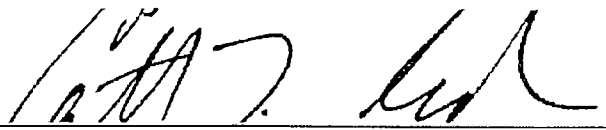
For all of the foregoing reasons, the Air District respectfully requests that the portion of the Court of Appeal’s decision requiring an analysis correlating the localized human health impacts associated with an individual project’s criteria air pollutant emissions be reversed.

¹⁹ *Sierra Club v. City of Orange*, is illustrative here. In that case, the plaintiffs challenged an EIR approved for a large planned community on the basis that the EIR improperly broke up the various environmental impacts by separate project components or “piecemealed” the analysis in violation of CEQA. In evaluating the defense that the plaintiffs had failed to adequately raise the issue at the administrative level, the Court held that comments such as “*the use of a single document for both a project-level and a program-level EIR [is] ‘confusing’*,” and “[t]he lead agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project,” were too vague to fairly raise the argument of piecemealing before the agency. *Sierra Club v. City of Orange*, 163 Cal.App.4th at 537.

correlating the localized human health impacts associated with an individual project's criteria air pollutant emissions be reversed.

Respectfully submitted,

Dated: April 2, 2015



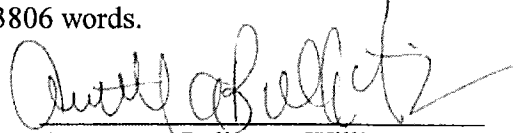
Catherine T. Redmond
Attorney for Proposed Amicus
Curiae

SAN JOAQUIN VALLEY
UNIFIED
AIR POLLUTION CONTROL
DISTRICT

CERTIFICATE OF WORD COUNT

Pursuant to Rule 8.204 of the California Rules of Court, I hereby certify that this document, based on the Word County feature of the Microsoft Word software program used to compose and print this document, contains, exclusive of caption, tables, certificate of word count, signature block and certificate of service, 3806 words.

Dated: April 2, 2015



Annette A. Ballatore-Williamson
District Counsel (SBN 192176)

Sierra Club et al, v. County of Fresno, et al
Supreme Court of California Case No.: S219783
Fifth District Court of Appeal Case No.: F066798
Fresno County Superior Court Case No.: 11CECG00726

PROOF OF SERVICE

I am over the age of 18 years and not a p[arty to the above-captioned action; that my business address is San Joaquin Valley Unified Air Pollution Control District located at 1990 E. Gettysburg Avenue, Fresno, California 93726.

On April 2, 2015, I served the document described below:

**APPLICATION FOR LEAVE TO FILE AMICUS CURIAE BRIEF OF
SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT IN
SUPPORT OF DEFENDANT AND RESPONDENT, COUNTY OF FRESNO**

On all parties to this action at the following addresses and in the following manner:

PLEASE SEE ATTACHED SERVICE LIST

- (XX) **(BY MAIL)** I caused a true copy of each document(s) to be laced in a sealed envelope with first-class postage affixed and placed the envelope for collection. Mail is collected daily at my office and placed in a United State Postal Service collection box for pick-up and delivery that same day.
- () **(BY ELECTRONIC MAIL)** I caused a true and correct scanned image (.PDF file) copy to be transmitted via electronic mail transfer system in place at the San Joaquin Valley Unified Air Pollution Control District ("District"), originating from the undersigned at 1990 E. Gettysburg Avenue, Fresno, CA, to the address(es) indicated below.
- () **(BY OVERNIGHT MAIL)** I caused a true and correct copy to be delivered via Federal Express to the following person(s) or their representative at the address(es) listed below.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that I executed this document on April 2, 2015, at Fresno, California.



Esthela Soto

SERVICE LIST

Sierra Club et al, v. County of Fresno, et al

Supreme Court of California Case No.: S219783

Fifth District Court of Appeal Case No.: F066798

Fresno County Superior Court Case No.: 11CECG00726

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<p>Jennifer L. Hernandez, Esq. HOLLAND & KNIGHT LLP 50 California Street, Suite 2800 San Francisco, California 94111</p>	<p>On behalf of Amicus Curiae, CEQA Research Council</p>

Telephone: (415) 743-6927 Facsimile: (415) 743-6910 Email: Jennifer.hernandez@hklaw.com	
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APPENDIX B

Biological Analysis Report

Lennar Tract 6263



LIVE OAK ASSOCIATES, INC.
an Ecological Consulting Firm

AGENDA ITEM NO. 10.

**LENNAR HOMES TRACT 6263
BIOLOGICAL EVALUATION REPORT
CITY OF CLOVIS, FRESNO COUNTY, CALIFORNIA**

By:

LIVE OAK ASSOCIATES, INC.

Austin Pearson, Director of Ecological Services
Anna Godinho, Staff Ecologist

For:

Jeff Callaway, Project Manager
Lennar Central Valley
8080 North Palm, Suite 110
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May 16, 2019

Project No. 2356-01

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EXECUTIVE SUMMARY

Lennar Central Valley proposes to subdivide an approximate 22-acre property (“project area”) into 139 lots (Tentative Tract Map No. 6263 or “project”) for future residential buildout. The project area is located in the City of Clovis in Fresno County, California. It is bounded by North Preuss Avenue to the west, Shepherd Ave to the north, Russell Avenue to the east, and Riodan Avenue to the south.

Live Oak Associates, Inc. (LOA) conducted an investigation of the biotic resources of the project area, and assessed potential project-related impacts to those resources pursuant to the California Environmental Quality Act (CEQA). The project area was surveyed in April 2019 for its biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law.

Two biotic habitat/land use types were identified within the project area during the field survey: ruderal/disturbed and residential. All habitats of the project area are disturbed and of relatively low quality for most native wildlife.

The project has the potential to result in significant impacts to Swainson’s hawk in the unlikely event that individuals of this species are nesting within or adjacent to the project area’s marginal habitats at the time of future construction. The project also has the potential to result in construction-related mortality/disturbance of other nesting birds protected under California Fish and Game Code and construction-related mortality/disturbance of roosting bats, including the special-status pallid bat and western mastiff bat. Mortality of any of these animals would be considered a significant impact of the project under CEQA. By undertaking future construction during lower-risk times of year for these species and avoiding active nests and roosts identified during preconstruction surveys, the magnitude of these potential impacts can be reduced to a less than significant level.

No other biological resources would be significantly impacted by the project as defined by CEQA. Impacts would be less than significant for all locally occurring special status plant species, fourteen locally occurring special status animal species that would not be expected to occur within the project area, two species that would use the project area for foraging only, wildlife movement corridors, designated critical habitat, Waters of the U.S., and local policies and habitat conservation plans. Loss of habitat for special status animal species would not be considered a significant impact of the project under CEQA.

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1.0 INTRODUCTION

Lennar Central Valley proposes to subdivide an approximate 22-acre parcel (“project area”) into 139 lots (Tentative Tract Map No. 6263 or “project”) for future residential buildout. The following technical report, prepared by Live Oak Associates, Inc. (LOA) in compliance with the California Environmental Quality Act (CEQA), describes the biotic resources of the project area, and evaluates potential impacts to those resources that could result from project development. The project area is located at the northern limit of the City of Clovis in eastern Fresno County. It is bounded by Shepherd Avenue to the north, Russell Avenue to the east, Riordan Avenue to the south, and North Preuss Avenue to the west (Figure 1). It can be found on the *Clovis* U.S. Geological Survey (USGS) 7.5 minute quadrangle within the northeastern 1/4 of Section 29 of Township 12 South, Range 21 East (Mt. Diablo Base and Meridian) (Figure 2).

1.1 PROJECT DESCRIPTION

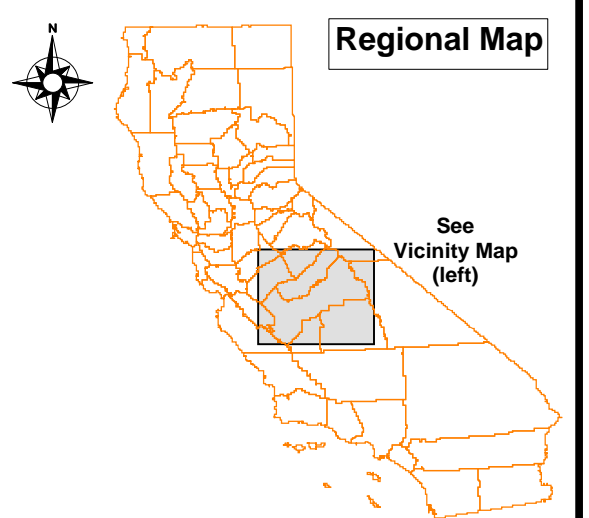
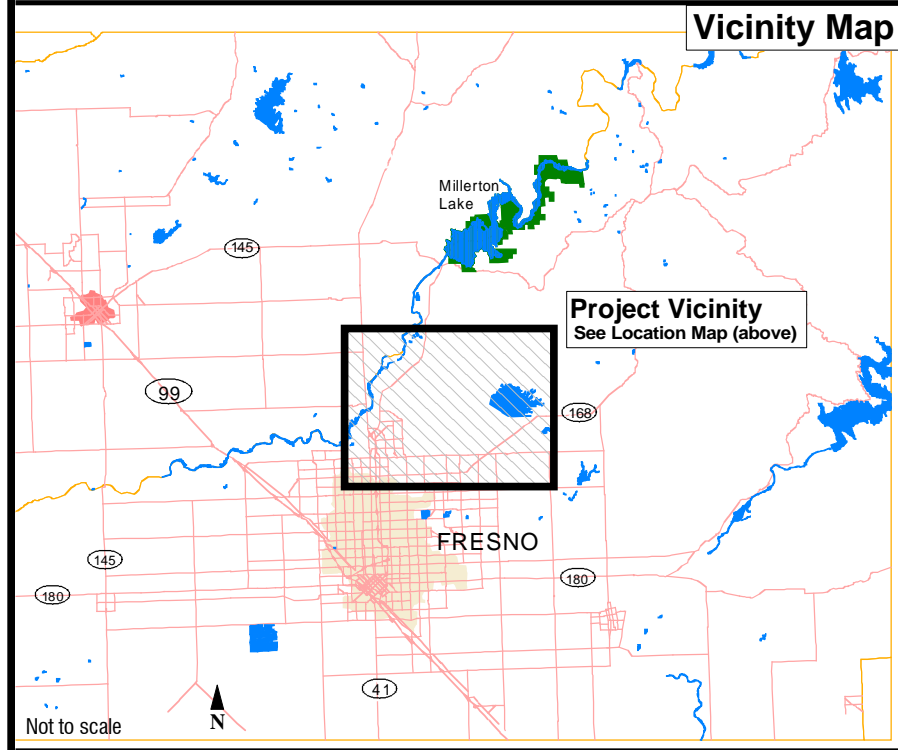
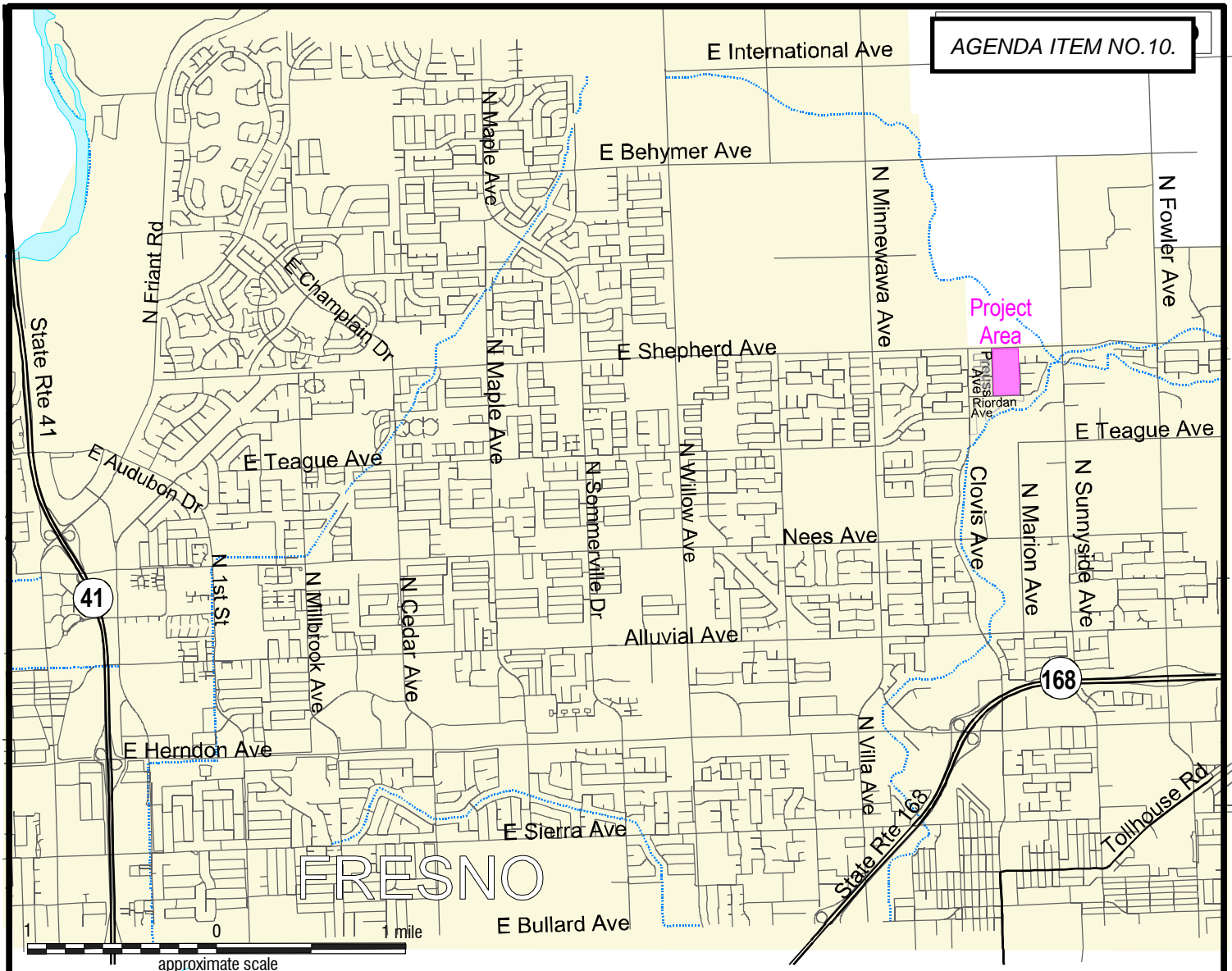
The project is a subdivision of an existing 22-acre parcel into 139 residential lots and associated roads. Following project completion, it is assumed that the lots will be sold and full residential buildout of the project area will occur. The entire project area will be permanently impacted by the project.


1.2 REPORT OBJECTIVES

Residential developments such as that proposed by Lennar Central Valley may damage or modify biotic habitats used by sensitive plant and animal species. In such cases, projects may be regulated by state or federal agencies, subject to provisions of CEQA, and/or subject to local policies and ordinances. In the case of Tract No. 6263, environmental review under CEQA is required.

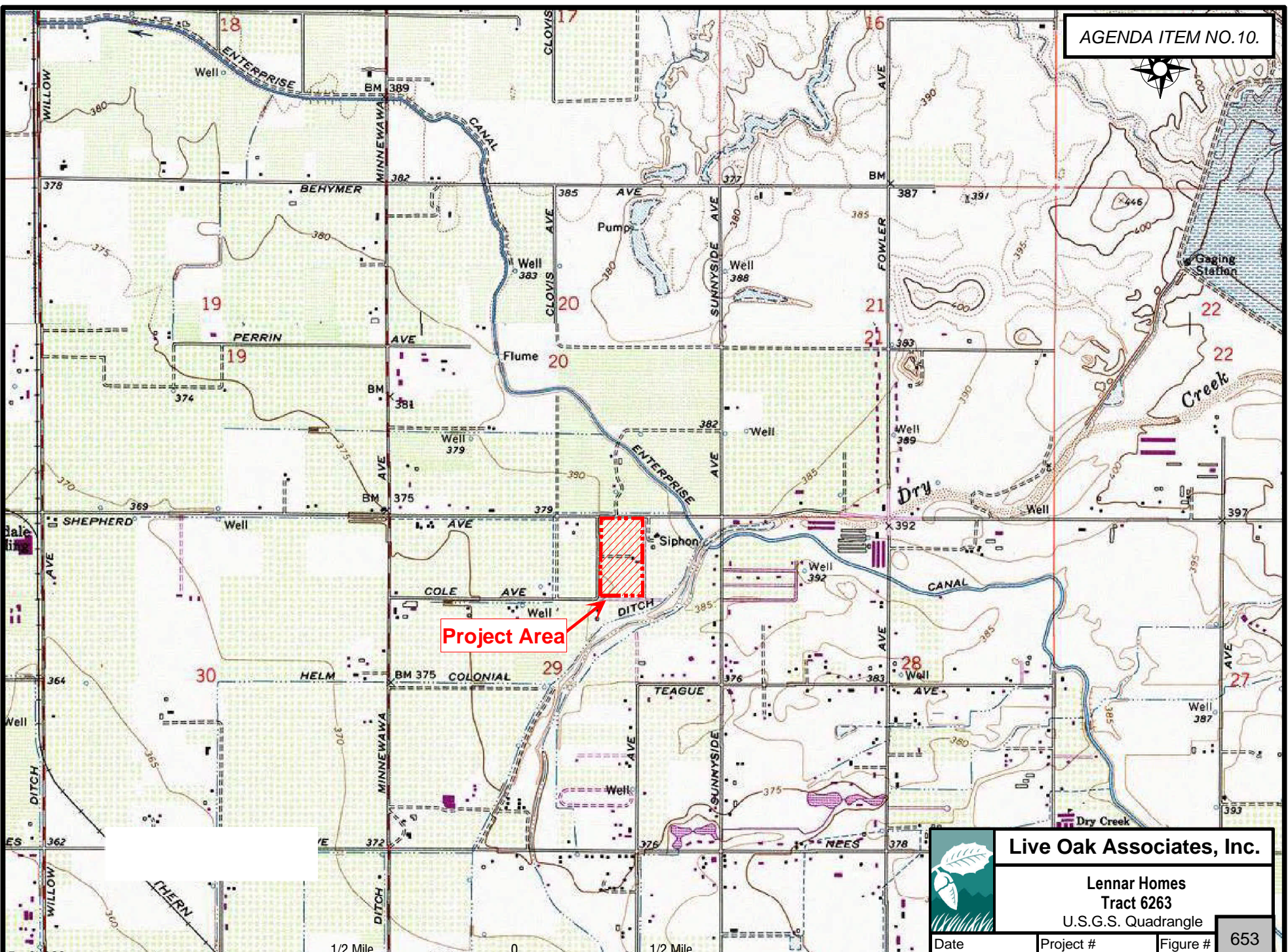
This report addresses issues related to: 1) sensitive biotic resources occurring in the project area; 2) the federal, state, and local laws regulating such resources; and 3) mitigation measures that may be required to reduce the magnitude of anticipated impacts and/or comply with permit requirements of state and federal resource agencies. As such, the objectives of this report are to:

- Summarize all site-specific information related to existing biological resources.



 Live Oak Associates, Inc.			
Lennar Homes Tract 6263 Site / Vicinity Map			
Date	Project #	Figure	
4/24/2019	2356-01	652	1

AGENDA ITEM NO. 10.



Project Area

From USGS
Clovis 7.5' Quadrangle 1990
Friant 7.5' Quadrangle 1964

1/2 Mile 0 1/2 Mile



approximate scale



Live Oak Associates, Inc.

Lennar Homes
Tract 6263
U.S.G.S. Quadrangle

Date	Project #	Figure #
4/24/2019	2356-01	653

- Make reasonable inferences about the biological resources that could occur on site based on habitat suitability and the proximity of the project area to a species' known range.
- Summarize all state and federal natural resource protection laws that may be relevant to project implementation.
- Identify and discuss project impacts to biological resources that may occur within the project area in the context of CEQA guidelines and relevant state and federal laws.
- Identify avoidance and mitigation measures that would reduce the magnitude of project impacts in a manner consistent with the requirements of CEQA and that are generally consistent with recommendations of the resource agencies regulating affected biological resources.

1.3 STUDY METHODOLOGY

A reconnaissance-level field survey of the project area was conducted on April 4, 2019 by LOA staff ecologist Anna Godinho. The survey consisted of driving and walking through the project area while identifying principal land uses and biotic habitats, identifying plant and animal species encountered, and assessing the suitability of the project area's habitats for special status species.

LOA conducted an analysis of potential project impacts based on the known and potential biotic resources of the project area. Sources of information used in the preparation of this analysis included: (1) the *California Natural Diversity Data Base* (CNDDDB) (CDFW 2019), (2) the *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2019), and (3) manuals, reports, and references related to plants and animals of the San Joaquin Valley region.

LOA's field investigation did not include a wetland delineation or focused surveys for special status species. The field survey was sufficient to generally describe those features of the project area that could be subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and/or the Regional Water Quality Control Board (RWQCB), and to assess the significance of possible biological impacts associated with development of the project area.

2.0 EXISTING CONDITIONS

2.1 REGIONAL SETTING

The project area is located in the San Joaquin Valley of California, at the northernmost limit of the City of Clovis and four to five miles southwest of the lowest Sierra foothills. The 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 2019). 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 passes within 350 feet southeast of the project area. Like many other natural drainages in Fresno County, Dry Creek within the project vicinity is heavily modified, having been channelized, realigned, dammed, and diverted to prevent flooding and to convey flows around developed areas. As such, it lacks many of its native characteristics. The project area is located approximately 0.2 miles southwest of the Enterprise Canal, an artificial waterway that conveys surface water from the Kings River to the cities of Fresno and Clovis. The Enterprise Canal intersects Dry Creek approximately 0.2 mile east of the project area, where it delivers excess storm water into the creek via a spillway.

The project area is located in the outskirts of the City 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. The closest natural lands are located several miles to the north and northeast, consisting of relatively undisturbed foothill grasslands used for grazing. Grassland habitats and associated wetlands may have once occurred in the project area itself, but would have

been eliminated when the native terrain was converted to agricultural and residential development.

At the time of the field survey, the project area was adjoined to the north by Shepherd Avenue and a former almond orchard undergoing conversion into a residential development and adjoined on all other sides by residential development.

2.2 PROJECT AREA

At the time of the April 2019 field survey, the project area comprised a disced field and two single-family residences and associated landscaping. The topography consisted of nearly level land with an elevation of approximately 385 feet National Geodetic Vertical Datum (NGVD).

Four soil mapping units from two soil series were identified within the project area (Table 1). All soils of the project area formed in granitic alluvium of the Kings River fan.

Table 1. Soils of the Lennar Tract 6263 Project Area.			
Soil Mapping Unit	Parent Material	Drainage Class	Hydric?
Atwater sandy loam, 0 to 3 percent slopes	Eolian deposits derived from granitic alluvium	Well drained	No
Hanford coarse sandy loam	Alluvium derived from granite	Well drained	No
Hanford sandy loam	Alluvium derived from granite	Well drained	No
Hanford fine sandy loam	Alluvium derived from granite	Well drained	No

Source: Soil Survey Division, Natural Resources Conservation Service, United States Department of Agriculture. Official Soil Series Descriptions [Online WWW]. Available URL: "<http://www.statlab.iastate.edu/soils/osd/>" [Accessed April 24, 2019], and Hydric Soil Lists, Fresno County, March 1992, USDA Soil Conservation Service, Davis, California

2.3 BIOTIC HABITATS/LAND USES

Two biotic habitat/land use types were identified within the project area during the April 2019 field survey: ruderal/disturbed and residential. A list of the vascular plant species observed within

the project area and the terrestrial vertebrates using, or potentially using, the site are provided in Appendices A and B, respectively. Photos of the project area are presented in Appendix C.

2.3.1 Ruderal / Disturbed

At the time of the field survey, the project area consisted largely of ruderal, or disturbed, lands including a vacant field and the Shepherd Avenue right-of-way. The vacant field was characterized by loose, disced soils mostly devoid of vegetation. Where present, vegetation was dominated by non-native herbaceous plant species such as broadleaf filaree (*Erodium botrys*), redstem filaree (*Erodium cicutarium*), annual yellow sweetclover (*Melilotus indicus*), and non-native grasses indicative of disturbed areas.

Regular discing and mowing of the site's ruderal field likely limit its value to wildlife; however, some wildlife species have the potential to occur here. Amphibians such as the Pacific chorus frog (*Pseudacris regilla*) and western toad (*Bufo boreas*) may disperse through the project area during periods of inundation of the adjacent Dry Creek and Enterprise Canal. Common reptiles such as the western fence lizard (*Sceloporus occidentalis*) and Pacific gopher snake (*Pituophis catenifer catenifer*) could potentially use ruderal habitats of the project area.

A variety of resident avian species including mourning doves (*Zenaida macroura*) (observed), northern mockingbirds (*Mimus polyglottos*), and Brewer's blackbirds (*Euphagus cyanocephalus*), among others, could be expected to occur on these ruderal lands, as could the disturbance-tolerant killdeer (*Charadrius vociferus*), which often nests on gravel or bare ground. Summer migrants such as the western kingbird (*Tyrannis verticalis*) and winter migrants such as the white-crowned sparrow (*Zonotrichia leucophrys*) could forage in ruderal areas of the project area.

Fossorial rodents such as the Botta's pocket gopher (*Thomomys bottae*) and California ground squirrel (*Otospermophilus beecheyi*) (observed) would burrow in the field during intervals between discing. At the time of the field survey, a number of rodent burrows and California ground squirrel were observed in this area. Other rodents expected to occur in the project area's ruderal habitat include the deer mouse (*Peromyscus maniculatus*), western harvest mouse (*Reithrodontomys megalotis*), and California vole (*Microtus californicus*). Common raptors such as the red-tailed hawk (*Buteo jamaicensis*), sharp-shinned hawk (*Accipiter striatus*) (observed),

and American kestrel (*Falco sparverius*), as well as various native bat species, may forage over the ruderal habitat from time to time. Mammalian predators expected to occur in this habitat include disturbance-tolerant species such as the raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and coyote (*Canis latrans*).

2.3.2 Residential

The project area includes two single-family residences and associated detached garage, carport, and storage sheds. Ornamental landscaping observed around the homes comprised turf and several large, mature trees and shrubs, including coastal redwood (*Sequoia sempervirens*), olive (*Olea* sp.), oleander (*Nerium oleander*), and California fan palm (*Washingtonia filifera*), among others.

The residences of the project area would attract a number of animal species that have become habituated to developed areas. Residential landscaping provides cover and nesting opportunities for resident birds such as California scrub jays (*Aphelocoma californica*), house finches (*Haemorhous mexicanus*)(observed), house sparrows (*Passer domesticus*), and northern mockingbirds. The cover provided by horticultural trees and shrubs can also be important to migrants passing through the area during spring and fall. Larger trees in this area provide nesting habitat for a number of common birds and raptors.

Small mammals expected to occur in the residential area include California ground squirrels, deer mice, Norway rats (*Rattus norvegicus*), and house mice (*Mus musculus*). Small mammal burrows were not observed in the residential area at the time of the field survey. Native bats of various species may roost in the residential buildings. Mammalian predators expected to occur in this area would be similar to those listed for ruderal habitats.

2.4 SPECIAL STATUS PLANTS AND ANIMALS

Several 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 3.1, state and federal laws have provided the California Department of Fish and Wildlife (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. Still others have been designated as “species of special concern” by the CDFW. The California Native Plant Society (CNPS) has developed its own lists of native plants considered rare, threatened or endangered (CNPS 2019). Collectively, these plants and animals are referred to as “special status species.”

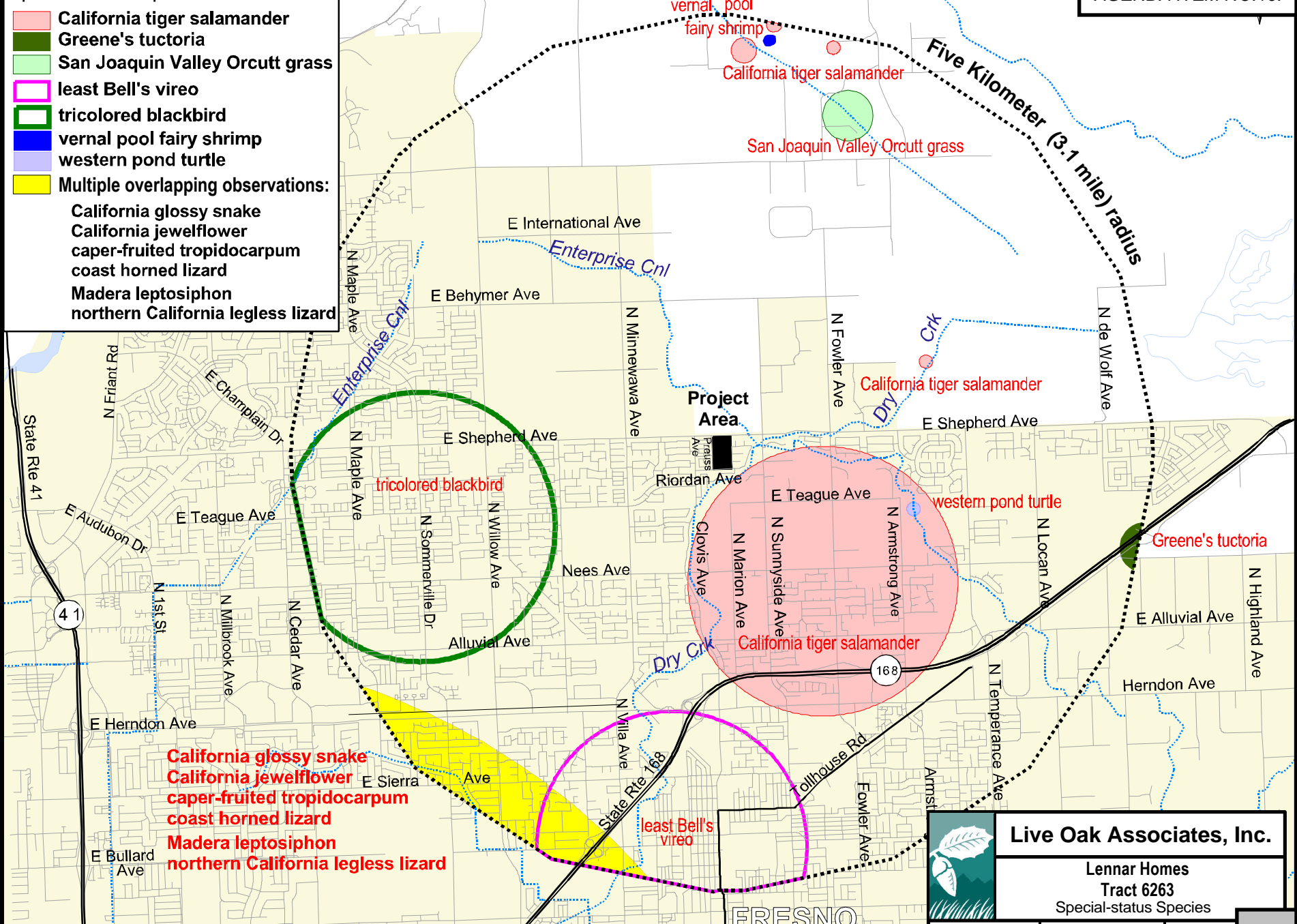
The California Natural Diversity Data Base (CDFW 2019) was queried for special status species occurrences in the nine USGS 7.5-minute quadrangles containing and immediately surrounding the project area (*Clovis, Lanes Bridge, Friant, Academy, Fresno North, Round Mountain, Fresno South, Malaga, and Sanger*). These species, and their potential to occur within the project area, are listed in Table 2 on the following pages. Sources of information for this table included *California’s Wildlife, Volumes I, II, and III* (Zeiner et. al 1988), *California Natural Diversity Data Base* (CDFW 2019), *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al 2012), the *California Native Plant Society’s Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2019), and Calflora.org.

Special status species occurrences within 5 kilometers (3.1 miles) of the project area are depicted in Figure 3, and Swainson’s hawk (*Buteo swainsoni*) nesting locations and San Joaquin kit fox (*Vulpes macrotis mutica*) occurrences within 10 miles of the project area are depicted in Figure 4.

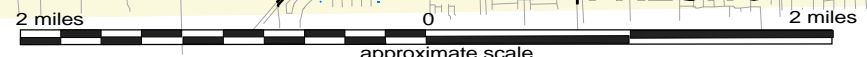
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Special status species observation

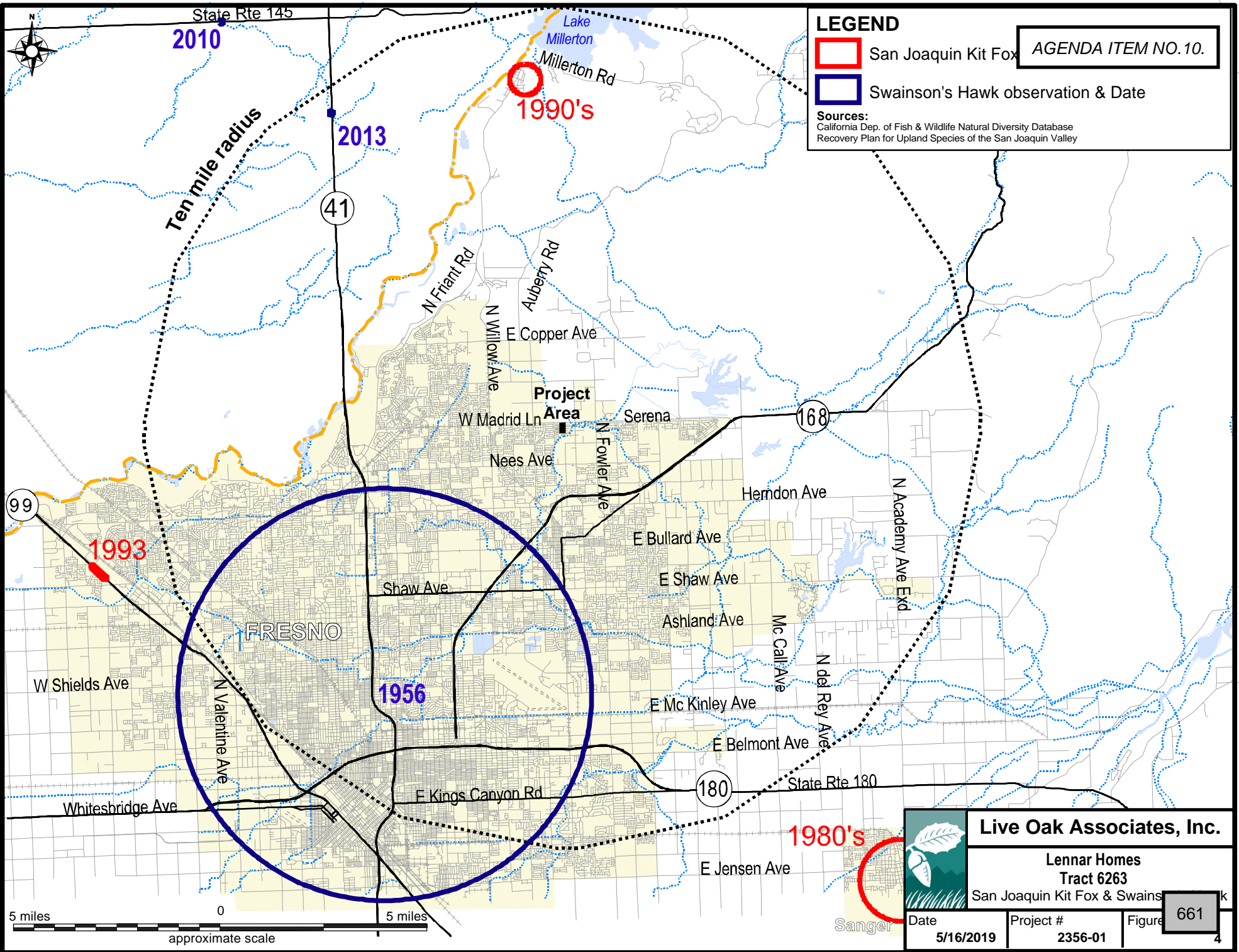
- California tiger salamander
- Greene's tuctoria
- San Joaquin Valley Orcutt grass
- least Bell's vireo
- tricolored blackbird
- vernal pool fairy shrimp
- western pond turtle
- Multiple overlapping observations:
 California glossy snake
 California jewelflower
 caper-fruited tropidocarpum
 coast horned lizard
 Madera leptosiphon
 northern California legless lizard



Sources:
 California Dep. of Fish & Wildlife Natural Diversity Database
 U.S. Fish & Wildlife Service



Live Oak Associates, Inc.			
Lennar Homes Tract 6263 Special-status Species			
Date	Project #	Figure #	660
4/24/2019	2356-01		



Live Oak Associates, Inc.

Lennar Homes
Tract 6263
 San Joaquin Kit Fox & Swainson's Hawk

Date	Project #	Figure
5/16/2019	2356-01	661

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (adapted from CDFW 2019 and CNPS 2019)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	Occurrence within the Project Area
Succulent Owl’s Clover (<i>Castilleja campestris</i> var. <i>succulenta</i>)	FT, CE, CNPS 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 area. Any suitable habitat that may have been present has been eliminated by intensive human use. The closest known occurrence of this species is a 1995 population in a swale-like vernal pool approximately 3.2 miles north of the project area; the pool has since been disced and planted to wheat, and the population is considered extirpated.
California Jewelflower (<i>Caulanthus californicus</i>)	FE, CE, CNPS 1B	Occurs in sandy, chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland up to 3,280 ft. in elevation. Blooms February-May.	Absent. Suitable habitat for this species is absent from the project area and adjacent lands. Any suitable habitat that may have been present has been eliminated by intensive human use.
San Joaquin Valley Orcutt Grass (<i>Orcuttia inaequalis</i>)	FT, CE CNPS 1B	Occurs in Central Valley vernal pools between 130 and 820 ft. in elevation. Requires deep pools with prolonged periods of inundation. Blooms April-September.	Absent. Suitable vernal pool habitat for this species is absent from the project area. Any suitable habitat that may have been present has been eliminated by intensive human use. The closest known occurrence of this species is 2.3 miles north of the project area; these historic vernal pools have since been eliminated due to an altered hydrologic regime, and the population is considered extirpated.
Hairy Orcutt Grass (<i>Orcuttia pilosa</i>)	FE, CE CNPS 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-September.	Absent. Suitable vernal pool habitat for this species is absent from the project area. Any suitable habitat that may have been present has been eliminated by intensive human use. The closest known occurrence of this species are two 2010 and one 2017 populations in a vernal pool and swale complex approximately 7 miles northwest of the project area.
Hartweg’s Golden Sunburst (<i>Pseudobahia bahiifolia</i>)	FE, CE CNPS 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 habitat and soils for this species are absent from the project area.
San Joaquin Adobe Sunburst (<i>Pseudobahia peirsonii</i>)	FT, CE, CNPS 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 habitat and soils for this species are absent from the project area.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (cont'd)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	Occurrence within the Project Area
Greene's Tuctoria (<i>Tuctoria greenei</i>)	FE, CR CNPS 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 area. The closest known occurrence of this species is a 1937 population in a vernal pool approximately 1 mile east of the project area. Habitat has since been eliminated; therefore, the population is considered extirpated.

CNPS Listed Plants

Species	Status	Habitat	Occurrence within the Project Area
Hoover's Calycadenia (<i>Calycadenia hooveri</i>)	CNPS 1B	Occurs in Valley grasslands and foothill woodlands between 200 and 980 ft. in elevation. Blooms June-September.	Absent. Suitable habitat for this species is absent from the project area. Any suitable habitat that may have been present has been eliminated by intensive human use.
Spiny-Sepaled Button-Celery (<i>Eryginum spinosepalum</i>)	CNPS 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 area. Any suitable habitat that may have been present has been eliminated by intensive human use. The closest known occurrences of this species are two 2010 populations in a vernal pool and swale complex approximately 7 miles northwest of the project area.
Forked Hare-Leaf (<i>Lagophylla dichotoma</i>)	CNPS 1B	Occurs in cismontane woodland and Valley and foothill grassland, sometimes in clay soils, between 165 and 3,150 ft. in elevation. Blooms April-May.	Absent. Suitable habitat for this species is absent from the project area and adjacent lands. Any suitable habitat that may have been present has been eliminated by intensive human use.
Madera Leptosiphon (<i>Leptosiphon serrulatus</i>)	CNPS 1B	Occurs in openings in cismontane woodland between 980 and 1,400 ft. in elevation. Blooms April-May.	Absent. Suitable habitat for this species is absent from the project area and adjacent lands. Moreover, the project area is situated outside of the elevational range for this species.
Sanford's Arrowhead (<i>Sagittaria sanfordii</i>)	CNPS 1B	Occurs in freshwater marshes, pond margins, sloughs, ditches, etc. of the Central Valley and low Sierra Nevada foothills below 4,165 ft. in elevation. Blooms May-October.	Absent. Suitable aquatic habitat for this species is absent from the project area.
Caper-Fruited Tropicocarpum (<i>Tropicocarpum capparideum</i>)	CNPS 1B	Occurs in alkaline clay soils of valley and foothill grassland below 1,490 ft. in elevation. Blooms March-April.	Absent. Suitable habitat for this species is absent from the project area. Any suitable habitat that may have been present has been eliminated by intensive human use.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS (adapted from CDFW 2019 and USFWS 2019)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	Occurrence within the Project Area
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 area. The closest known occurrence of this species is a 2002 population in annual grassland located approximately 2.9 miles north of the project area.
California Tiger Salamander (<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).	Absent. Although the project area contains rodent burrows structurally suitable for CTS aestivation, the nearest wetland features within which CTS could potentially breed are located in a disced field approximately 0.7 mile to the north, separated from the project area by a former almond orchard undergoing conversion into a residential development, the Enterprise Canal, and Shepherd Ave. Furthermore, the likelihood of CTS breeding in those wetland features is very low, given land use practices in the field and the field's isolation from suitable natural lands. The closest known CTS occurrence assumed to be extant was recorded approximately 1.5 miles east of the project area in 2006.
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 could theoretically nest in the residential trees within and adjacent to the project area, and forage in the project area's ruderal field. However, this species is uncommon in the project vicinity. The closest known nesting occurrence was mapped generally to the Fresno area in 1936.

TABLE 2. 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	Occurrence within the Project Area
Tricolored Blackbird (TRBL) (<i>Agelaius tricolor</i>)	CT, CCE	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 (TRBL) may occasionally pass through or forage within the project area, but suitable nesting habitat is absent. The CNDDDB lists eight documented nesting occurrences in the 9-quad vicinity of the project area; all but one is thought to be extirpated due to loss of habitat. The closest known occurrence, now considered extirpated, is a nesting colony documented 1.3 miles west of the project area in 1974. LOA observed a wintering flock of TRBL in grassland and rural residential lands 3-4 miles north and northeast of the project area in 2017.
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	Uncommon. Occurs in riparian habitat, especially dense, low-growing thickets of willow and mesquite, often with a taller overstory of willows, cottonwoods, and sycamores. Forages in adjacent chaparral and coastal sage scrub.	Absent. Suitable riparian habitat for this species is absent from the project area and adjacent lands. The closest known occurrence of this species is located approximately 2 miles south of the project area from 1906; this population is considered extirpated.
Fresno Kangaroo Rat (<i>Dipodomys nitratoides exilis</i>)	FE, CE	Frequents alkali scrub and herbaceous habitats with scattered shrubs in the southwestern San Joaquin Valley.	Absent. The project area does not provide suitable habitat for the Fresno kangaroo rat, and no known populations of this species remain in Fresno County. The closest known occurrence, historical or modern, is approximately 10 miles south of the project area from 1898; this population is considered extirpated.
San Joaquin Kit Fox (<i>Vulpes macrotis mutica</i>)	FE, CT	Frequents desert alkali scrub and annual grasslands and may forage in adjacent agricultural habitats. Utilizes enlarged (5 to 8 inches in diameter) ground squirrel burrows as denning habitat.	Unlikely. The highly disturbed habitats of the project area are marginal, at best, for this species, and the project area is situated in a mosaic of land uses that are generally incompatible with kit fox ecology. Moreover, there are no known natural occurrences of the SJKF in the project vicinity, historical or modern. 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 representing a kit fox that had been domesticated and transported from another part of the state.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS – cont’d.

State Species of Special Concern or California Fully Protected

Species	Status	Habitat	Occurrence within the Project Area
Hardhead (<i>Mylopharadon 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. Suitable aquatic habitat for this species is absent from the project area.
Western Spadefoot (<i>Spea hammondi</i>)	CSC	Mainly occurs in grasslands of San Joaquin Valley. Vernal pools or other temporary wetlands are required for breeding. Aestivates in underground refugia such as rodent burrows, typically within 1200 ft. of aquatic habitat.	Absent. Suitable breeding habitat is absent from the project area and adjacent lands, and potential on-site aestivation habitat is limited to a few rodent burrows in highly-maintained ruderal and residential areas. The closest known occurrence of this species is a 2001 breeding observation in a vernal swale approximately 3.2 miles north of the project area.
Western Pond Turtle (<i>Emys marmorata</i>)	CSC	Occurs in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with an abundance of vegetation, and either rocky or muddy bottoms in woodland, forest, and grasslands. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. This species nests in open areas, on a variety of soil types, and up to ¼ mile away from water.	Unlikely. Although absent from the project area itself, aquatic habitat occurs less than 0.2 mile away in the Enterprise Canal and Dry Creek. The intermittent flows of Dry Creek are unlikely to support pond turtles, but the CNDDB lists a 2016 occurrence of this species in the Enterprise Canal approximately 1.5 miles downstream of the project area. The project area’s ruderal field could theoretically be used for nesting; however, to access this field, pond turtles would have to cross a former almond orchard undergoing conversion into a residential development, Shepherd Avenue, and/or an existing residential development. This is considered a <u>highly unlikely scenario</u> .
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. Sometimes found in suburban gardens in southern California.	Unlikely. Any suitable habitat that may have been present has been eliminated by intensive human use.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS – cont’d.

State Species of Special Concern or California Fully Protected

Species	Status	Habitat	Occurrence within the Project Area
Coast Horned Lizard (<i>Phrynosoma blainvillii</i>)	CSC	Inhabits open areas of sandy soil and low vegetation in valleys, foothills, and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washed with scattered shrubs and along dirt roads, and frequently found near ant hills.	Unlikely. Any suitable habitat that may have been present has been eliminated by intensive human use. This species has not been observed in the project vicinity for over 100 years.
California Glossy Snake (<i>Arizona elegans occidentalis</i>)	CSC	Occurs in arid scrub, rocky washes, grasslands, and chaparral.	Absent. The project area is outside of the known range of this species.
Burrowing Owl (<i>Athene cucularia</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. Burrowing owls are not known from the near project vicinity, which is heavily influenced by residential development. The closest known occurrence of this species is approximately 6 miles southwest of the project area in a field at the Fresno Airport, where burrowing owls were sighted between 1981 and 1990, but not since. Although California ground squirrel burrows potentially suitable for burrowing owl occupation were observed within the disced field of the project area, regular disturbance of the project area, the lack of burrowing owl sign on site, and lack of detections in the vicinity suggest a low probability for occurrence on site.
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 project area provides suitable foraging habitat for this species. Roosting habitat is present in the residential buildings and tree cavities. The closest known occurrence of this species is located approximately 10 miles southwest of the project area from 1909.
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. Suitable roosting habitat is absent from the project area, although the species could forage in flight over the project area. The closest known occurrence of this species is located approximately 10 miles north of the project area in basalt cliffs along Millerton Lake.

TABLE 2. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS – cont’d.

State Species of Special Concern or California Fully Protected

Species	Status	Habitat	Occurrence within the Project Area
Western Mastiff Bat (<i>Eumops perotis 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 project area provides suitable foraging habitat for this species. Roosting habitat is present in the residential buildings of the project area. The closest known occurrence of this species is located approximately 8 miles southwest of the project area from 1958.
American Badger (<i>Taxidea taxus</i>)	CSC	Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils.	Unlikely. The highly disturbed habitats of the project area are marginal, at best, for this species, and the project area is situated in a matrix of land uses that are generally incompatible with badger ecology. The closest known occurrence was recorded in a residential area in Clovis in 1987; however, badgers do not typically occur in urban environments.

EXPLANATION OF 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 due to absence of suitable habitat

STATUS CODES

- FE Federally Endangered
- FT Federally Threatened
- FPE Federally Endangered (Proposed)
- FPT Federally Threatened (Proposed)
- FC Federal Candidate
- CE California Endangered
- CT California Threatened
- CCT California Threatened (Candidate)
- CFP California Fully Protected
- CSC California Species of Special Concern

CNPS LISTING

- 1A Plants Presumed Extinct in California
- 1B Plants Rare, Threatened, or Endangered in California and elsewhere
- 2 Plants Rare, Threatened, or Endangered in California, but more common elsewhere

2.5 ENDANGERED, THREATENED, OR SPECIAL STATUS PLANT AND ANIMAL SPECIES MERITING FURTHER DISCUSSION

2.5.1 Swainson's Hawk (*Buteo swainsoni*). Federal Listing Status: None; State Listing Status: Threatened.

Ecology of the species. Swainson's hawks are large, long-winged, broad-tailed hawks with a high degree of mate and territorial fidelity. They are breeding season migrants to California, arriving at their nesting sites in March or April. The young hatch sometime between March and July and fledge 4 to 6 weeks later. By October, most birds have left for wintering grounds in South America. In the Central Valley, Swainson's hawks typically nest in large trees along riparian systems, but may also nest in oak groves, or lone, mature trees in agricultural fields or along roadsides. Nest sites are typically located adjacent to suitable foraging habitat.

Swainson's hawks forage in large, open fields with abundant prey, including grasslands or lightly grazed pastures, alfalfa and other hay crops, and certain grain and row crops, primarily during or immediately after harvest (Estep 1989, Estep and Dinsdale 2012). In the Central Valley, California voles account for about 45% of non-insect prey taken by the Swainson's hawk, followed by ground birds (32%) and pocket gophers, deer mice, and other small mammals (20%) (Estep 1989). Insects comprise a large proportion of individual prey items, but a negligible proportion of total prey biomass. The designation of the Swainson's hawk as Threatened under the California Endangered Species Act is based on population decline due in part to loss of foraging habitat to urban development (CDFG 1994).

Potential to occur onsite. The project area contains several large residential trees that are structurally suitable for nesting by the Swainson's hawk, and individuals of this species could forage in the project area's ruderal field. However, the Swainson's hawk is uncommon in the project vicinity. There are only three occurrences listed by the CNDDB within the nine USGS 7.5-minute quadrangle area. The closest known nesting occurrence of this species was documented approximately 2.5 miles southwest of the project area in 1936, mapped generally to what is now municipal Fresno. Moreover, the project area is located in the outskirts of Clovis, in an area dominated by residential uses generally incompatible for this species. For these reasons, it is considered unlikely that Swainson's hawks would nest within the project area or adjoining

properties. Swainson's hawks may forage considerable distances from their nest trees, however, and could conceivably pass over or forage within the project area from time to time.

2.5.2 San Joaquin Kit Fox (*Vulpes macrotus mutica*). Federal Listing Status: Endangered; State Listing Status: Threatened.

Ecology of the species. By the time the San Joaquin kit fox (SJKF) was listed as federally endangered in 1967 and California threatened in 1971, it had been extirpated from much of its historic range. The smallest North American member of the dog family (Canidae), the kit fox historically occupied the dry plains of the San Joaquin Valley, from San Joaquin County to southern Kern County (Grinnell et al. 1937). Local surveys, research projects, and incidental sightings indicate that kit fox currently occupy available habitat on the San Joaquin Valley floor and in the surrounding foothills. Core SJKF populations are located in the natural lands of western Kern County, the Carrizo Plain Natural Area in San Luis Obispo County, and the Ciervo-Panoche Natural Area in western Fresno and eastern San Benito Counties (USFWS 1998).

The SJKF prefers habitats of open or low vegetation with loose soils. In the southern and central portion of the Central Valley, kit fox are found in valley sink scrub, valley saltbrush scrub, upper Sonoran subshrub scrub, and annual grassland (USFWS 1998). Kit fox may also be found in grazed grasslands, urban settings, and in areas adjacent to tilled or fallow fields (USFWS 1998). They require underground dens to raise pups, regulate body temperature, and avoid predators and other adverse environmental conditions (Golightly and Ohmart 1984). In the central portion of their range, they usually occupy burrows excavated by small mammals such as California ground squirrels. The SJKF is primarily carnivorous, feeding on black-tailed hares, desert cottontails, rodents, insects, reptiles, and some birds.

Potential to occur onsite. The project area's habitats are marginal, at best, for the kit fox due to high levels of anthropogenic disturbance. The project area is situated in a mosaic of residential development and intensive agricultural uses that are generally incompatible with kit fox ecology.

Moreover, there are no known natural occurrences of kit fox in the project vicinity. The CNDDDB lists a single SJKF occurrence within a 10-mile radius of the project area. This observation, made by CDFW employee Dale Mitchell in 1994, was located about 8 miles north of the project area at

the San Joaquin Fish Hatchery in Friant. Mr. Mitchell has since stated that the fox he saw had likely been domesticated and transported to Friant by oil workers from Coalinga, a city on the western margin of the San Joaquin Valley that supports an urban population of kit foxes. The fox was observed eating out of a cat food dish at the fish hatchery; the oil workers lived nearby (D. Mitchell, pers. comm.). The project area is situated over 100 miles from the nearest kit fox core population in the Ciervo-Panoche region, further reducing the likelihood of kit fox occurrence on site or in the vicinity.

2.6 NATURAL COMMUNITIES OF SPECIAL CONCERN

Natural communities of special concern are those that are of limited distribution, distinguished by significant biological diversity, home to special status plant and animal species, of importance in maintaining water quality or sustaining flows, etc. Examples of natural communities of special concern include various types of wetlands and riparian habitat.

Natural communities of special concern are absent from the project area.

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, rivers and creeks supporting riparian vegetation, and ridgelines.

The project area does not contain features that would be likely to function as wildlife movement corridors. However, the Pacific flyway, one of four major bird migration routes in North America, passes over the project area and much of the rest of California.

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 area.

3.0 IMPACTS AND MITIGATIONS

3.1 SIGNIFICANCE CRITERIA

CEQA

General plans, area plans, and specific projects are subject to the provisions of CEQA. The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are constructed. For example, site development may require the removal of some or all of its existing vegetation and animals associated with this vegetation could be destroyed or displaced. Disturbance-tolerant species adapted to humans, roads, buildings, pets, etc. may replace those species formerly occurring on a site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced while sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed. These impacts may or may not be considered significant. CEQA defines a “significant effect on the environment” as 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. Specific project impacts to biological resources may be considered “significant” if they will:

- 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 CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS.
- Have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, or coastal) 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 areas. Impacts would also be significant if they reduce substantially the habitat of a fish or wildlife species, including causing a fish or wildlife population to drop below self-sustaining levels or threaten to eliminate an animal community.
- 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, or other approved local, regional, or state habitat conservation plan.

Furthermore, CEQA Guidelines Section 15065 states that a project may trigger the requirement to make “mandatory findings of significance” if: “the project has the potential to subsequently 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, reduce the number or restrict the range on an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory.”

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 General Plan Policies

Cities and counties adopt general plans to guide future development and to protect and/or enhance natural and cultural resources. In general, projects must be consistent with the goals and policies of these general plans. The Tract 6263 Project is subject to the general plans of both the City of Clovis and the County of Fresno. 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 Fresno County General Plan includes goals concerning the conservation of wetlands and riparian areas, fish and wildlife habitats, and valuable vegetation resources. These goals are supported by numerous policies and implementation programs. Policies relevant to the Tract 6263 Project include: 1) 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, 2) 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, 3) if loss of important habitat for special status species or other valuable wildlife resources cannot be avoided, the County shall impose adequate mitigation, and 4) the County shall require adequate buffer zones between construction activities and significant wildlife resources.

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.

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).

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 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.

Although the USFWS and its parent administration, the U.S. Department of the Interior, have traditionally interpreted the FMBTA as prohibiting incidental as well as intentional “take” of birds, a January 2018 legal opinion issued by the Department of the Interior now states that incidental take of migratory birds while engaging in otherwise lawful activities is permissible under the FMBTA. However, 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.

3.2.4 Birds of Prey

Birds of prey are protected in California under provisions of the Fish and Game Code (Section 3503.5), which states that it is unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks and eagles) or Strigiformes (owls), as well as their nests and eggs. The bald eagle and golden eagle are afforded additional protection under the federal Bald and Golden Eagle Protection Act (16 USC 668), which makes it unlawful to kill birds or their eggs.

3.2.5 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), which the CWA defines as “the waters of the United States, including the territorial seas” (33 U.S.C. §1362(7)). The CWA does not provide a definition for waters of the U.S., and that has been the subject of considerable debate since the Act’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.

In 2015, the EPA and USACE jointly issued the Clean Water Rule (CWR), providing a synthesized definition of waters of the U.S. based on statute, science, and federal court decisions to date. Subsequent litigation delayed implementation of the CWR. However, in August 2018, the CWR was enjoined in 22 states including California.

The CWR defines waters of the U.S. to include the following:

(a)(1) Waters: All waters used in interstate or foreign commerce (also known as traditional navigable waters), including all waters subject to the ebb and flow of the tide;

(a)(2) Waters: All interstate waters including interstate wetlands;

(a)(3) Waters: The territorial seas;

(a)(4) Waters: All impoundments of Waters of the U.S.;

(a)(5) Waters: All tributaries of (a)(1)-(a)(4) waters, where “tributary” refers to a water (natural or constructed) that contributes flow to another water and is characterized by the physical indicators of a bed and bank and an ordinary high water (OHW) mark;

(a)(6) Waters: Adjacent waters, defined as either (a) located in whole or in part within 100 feet of the OHW mark of (a)(1)-(a)(5) waters, or (b) located in whole or in part within the 100-year floodplain and within 1,500 feet of the OHW mark of (a)(1)-(a)(5) waters;

(a)(7) Waters: Western vernal pools, prairie potholes, Carolina bays and Delmarva bays, pocosins, and Texas coastal prairie wetlands, if determined on a case-specific basis to have a significant nexus to (a)(1)-(a)(3) waters;

(a)(8) Waters: Waters that do not meet the definition of adjacency, but are determined on a case-specific basis to have a significant nexus to (a)(1)-(a)(3) waters, and are either located in whole or in part within the 100-year floodplain of (a)(1)-(a)(3) waters, or located within 4,000 feet of the OHW mark of (a)(1)-(a)(5) waters.

The CWR also redefines exclusions from jurisdiction, which include:

(b)(1) Waters: Waste treatment systems;

(b)(2) Waters: Prior converted cropland;

(b)(3) Waters: Three types of ditches. A ditch may be a water of the U.S. only if it meets the definition of “tributary” and is not otherwise excluded under the provisions below.

- (i) Ditches with ephemeral flow that are not a relocated or excavated tributary;
- (ii) Ditches with intermittent flow that are not a relocated or excavated tributary or that do not drain wetlands;
- (iii) Ditches that do not flow, either directly or through another water, to an (a)(1)-(a)(3) water.

(b)(4) Waters: Other aquatic features:

- Artificially irrigated areas that would revert to dry land should application of irrigation water to that area cease.
- Artificially constructed lakes or ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, log cleaning ponds, cooling ponds, or fields flooded for rice growing.
- Artificial reflecting pools or swimming pools created in dry land.
- Small ornamental waters created in dry land for primarily aesthetic reasons.
- Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand or gravel that fill with water.
- Erosional features, including gullies, rills and other ephemeral features that do not meet the definition of a tributary; non-wetland swales; and lawfully constructed grassed waterways.
- Puddles.

(b)(5) Waters: Groundwater and artificially constructed subsurface drainage systems in dry land;

(b)(6) Waters: Stormwater control features constructed to convey, treat, or store stormwater created in dry land. Does not include features that possess perennial flow, even if constructed in dry land.

All activities that involve the discharge of dredge or fill material into waters of the U.S. are subject to Section 404 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. No permit can be issued until the RWQCB issues a Section 401 Water

Quality Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards.

Under the Porter-Cologne Water Quality Control Act of 1969, the State Water Resources Control Board 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 certain federal permits, such as a Section 404 Clean Water Act permit. Discharges into all Waters of the State, even those that are not also Waters of the U.S., require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB. The RWQCB also administers the Construction Storm Water Program and the federal National Pollution Discharge Elimination System (NPDES) program. Projects that disturb one or more acres of soil must obtain a Construction General Permit under the Construction Storm Water Program. A prerequisite for this permit is the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Projects that discharge wastewater, storm water, or other pollutants into a Water of the U.S. may require a NPDES 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.

3.3. POTENTIALLY SIGNIFICANT PROJECT IMPACTS AND MITIGATIONS

As described in Section 1.0 of this report, the proposed project is the subdivision of a 22-acre property into 139 residential lots. Approval of the subdivision will facilitate development of the site for residential uses. This impact analysis assumes that the entirety of the project area will be permanently impacted by future buildout.

3.3.1 Potential Project-Related Impacts to Swainson's Hawk

Potential Impacts. As discussed in Section 2.5.3, Swainson's hawks are uncommon in the project vicinity, and it is considered unlikely that this species would nest within the project area or adjacent lands. However, in the improbable event that a pair is nesting within or adjacent to the project area at the time of construction, they may be disturbed by future project-related activities such that they would abandon their nest(s). Project-related activities that adversely affect the nesting success of Swainson's hawks would violate the California Endangered Species Act and other state laws (see Sections 3.2.2 and 3.2.3) and be considered a significant impact under CEQA.

The project area's ruderal field represents potential foraging habitat for the Swainson's hawk. The field will be lost to future development of the site for residential uses. However, given this species' limited presence in the project vicinity and the regional abundance of similar or higher quality foraging habitats, loss of this field is not expected to adversely affect individuals or populations of this species, and is not considered a significant impact of the project under CEQA.

Mitigation. The following measures will be implemented for the protection of the Swainson's hawk, in the unlikely event it nests within or adjacent to the project area.

Mitigation Measure 3.3.1a: (Avoidance). If feasible, future construction activities will occur outside the Swainson's hawk nesting season, typically defined as March 1 to September 15.

Mitigation Measure 3.3.1b: (Preconstruction Surveys). If future construction activities must occur during the nesting season, then preconstruction surveys for Swainson's hawk will be conducted by a qualified biologist no more than 14 days prior to starting construction. Preconstruction surveys will be conducted on the project area and adjacent

lands within ½ mile of the site to identify any nesting pairs of Swainson's hawks that may be present.

Mitigation Measure 3.3.1c: (Establish Buffers). Should any active nests be discovered, an appropriate disturbance-free buffer will be established based on local conditions and agency guidelines. Disturbance-free buffers will be identified on the ground with flagging, fencing, or by other easily visible means, and will be maintained until the biologist has determined that the young have fledged.

Implementation of the above measures will reduce potential project-related impacts to the Swainson's hawk to a less than significant level under CEQA, and will ensure that future construction activities are in compliance with state laws protecting this species.

3.3.2 Potential Project-Related Impacts to Nesting Migratory Birds and Raptors

Potential Impacts. A variety of common birds protected under California Fish and Game Code could be expected to nest on-site. For example, the killdeer may nest on bare dirt or gravel surfaces, and the mourning dove may nest in ground vegetation within the ruderal areas. The ornamental trees and shrubs associated with the on-site residences could be used by a number of common species including the American robin and northern mockingbird, and the buildings could be used by the black phoebe or house finch. If birds were to nest on or adjacent to the project area prior to future construction activities on site, ground disturbance or other project-related activities could result in the abandonment of active nests or direct mortality to birds. Such an activity would constitute a violation of state laws (see Section 3.2.2).

Mitigation. The following measures will be implemented for the protection of nesting migratory birds and raptors.

Measure 3.3.2a (Avoidance). If feasible, future construction activities will occur outside of the avian nesting season, typically defined as February 1 to August 31.

Measure 3.3.2b (Pre-construction Surveys). If vegetation removal, grading, or construction must occur between February 1 and August 31, a qualified biologist will conduct pre-construction surveys for active migratory bird nests within 14 days of the onset of these activities.

Mitigation 3.3.2c (Establish Buffers). 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.

Implementation of the above measures will reduce potential project-related impacts to nesting migratory birds and raptors to a less than significant level under CEQA and ensure compliance with state laws protecting these species.

3.3.3 Potential Project Impacts to Roosting Bats Including the Pallid Bat and Western Mastiff Bat

Potential Impacts. The project area's residential structures represent roosting habitat for two special status bat species, the pallid bat (*Antrozous pallidus*) and western mastiff bat (*Eumops perotis* spp. *californicus*), as well as a number of common bat species. The pallid bat and other native bats could also roost in the project area's ornamental trees. If trees or buildings removed during future construction activities contain bat maternity colonies, many individual bats could be killed. Such a mortality event would be considered a potentially significant impact of the project.

Mitigation. The following measures will be implemented prior to the removal of trees and buildings in the on-site residential areas.

Mitigation Measure 3.3.3a (Temporal Avoidance). To avoid potential impacts to maternity bat roosts, residential tree or building removal should occur outside of the period between April 15 and August 31, the time frame within which colony-nesting bats generally assemble, give birth, nurse their young, and ultimately disperse.

Mitigation Measure 3.3.3b (Pre-construction Surveys). If residential tree or building removal is to occur between April 15 and August 31 (general maternity bat roost season), a qualified biologist will survey trees/buildings for the presence of bats within 30 days prior to their removal. The biologist will look for individuals, guano, and staining, and will listen for bat vocalizations. If necessary, the biologist will wait for nighttime emergence of bats from roost sites. If no bats are observed to be roosting or breeding, then no further action would be required, and construction could proceed.

Mitigation Measure 3.3.3c (Minimization). If a non-breeding bat roost is found in disturbance areas, the individuals will be humanely evicted via two-stage removal of trees, under the direction of a qualified biologist to ensure that no harm or "take" of any bats occurs as a result of construction activities.

Mitigation Measure 3.3.3d (Avoidance of Maternity Roosts). If a maternity colony is detected during pre-construction surveys, a disturbance-free buffer will be established around the colony and remain in place until a qualified biologist determines that the nursery is no longer active. The disturbance-free buffer will range from 50 to 100 feet as determined by the biologist.

Implementation of the above measures will reduce potential project-related impacts to roosting bats to a less than significant level under CEQA.

3.4 LESS THAN SIGNIFICANT PROJECT IMPACTS

3.4.1 Project-Related Impacts to Special Status Plant Species

Potential Impacts. Thirteen special status plant species have been documented in the project vicinity (see Table 2). All of these species are considered absent from the project area due to past and ongoing disturbance, the absence of suitable habitat, and/or the project area's being situated outside of the elevational range of the species. Project impacts to these thirteen special status plant species are considered less than significant under CEQA.

Mitigation. Mitigation measures are not warranted.

3.4.2 Project-Related Impacts to Special Status Animal Species Absent from, or Unlikely to Occur within, the Project Area

Potential Impacts. Fourteen regionally occurring special status animal species are considered absent or unlikely to occur within the project area due to past and ongoing disturbance of the project area and surrounding lands, the absence of suitable habitat, and/or the project area's being situated outside of the species' known distribution. These comprise the vernal pool fairy shrimp (*Branchinecta lynchi*), California tiger salamander (*Ambystoma californiense*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), least Bell's vireo (*Vireo bellii pusillus*), Fresno kangaroo rat (*Dipodomys nitratoides exilis*), San Joaquin kit fox, hardhead (*Mylopharadon conocephalus*), western spadefoot (*Spea hammondi*), northern California legless lizard (*Anniella pulchra*), western pond turtle (*Emys marmorata*), coast horned lizard (*Phrynosoma blainvillii*), California glossy snake (*Arizona elegans occidentalis*), burrowing owl (*Athene cunicularia*), and American badger (*Taxidea taxus*). The project does not have the potential to significantly impact

these fourteen species through construction mortality or loss of habitat because there is little or no likelihood that they are present.

Mitigation. Mitigation is not warranted.

3.4.3 Project-Related Impacts to Special Status Animals that would Use the Project Area for Foraging Only

Two special status animal species, the tricolored blackbird (*Agelaius tricolor*) and spotted bat (*Euderma maculatum*), could forage within the project area, but would not nest or roost on site. Both species are highly mobile while foraging and would not be vulnerable to construction-related mortality. Although the project area's ruderal field would no longer be available as foraging habitat for the tricolored blackbird following residential buildout, tricolored blackbirds are expected to use this field infrequently under existing conditions given the project area's location within a residential matrix generally unsuitable for this species. Moreover, similar or higher quality habitats are regionally abundant. The spotted bat would be able to continue foraging over the project area after site buildout. The tricolored blackbird and spotted bat would not be substantially affected by future buildout of the project area, and project-related impacts to these species are considered less than significant under CEQA.

Mitigation. Mitigations are not warranted.

3.4.4 Project-Related Impacts to Wildlife Movement Corridors

Potential Impacts. The project area does not contain features likely to function as a wildlife movement corridor. Future buildout of the site will have no effect on the Pacific flyway; birds using the flyway will continue to do so during and following construction.

Mitigation. The project will have no effect on wildlife movement corridors. Mitigation is not warranted.

3.4.5 Project-Related Impacts to Critical Habitat

Potential Impacts. The project will have no effect on designated critical habitat because critical habitat is absent from the project area.

Mitigation. Mitigation is not warranted.

3.4.6 Potential Project-Related Impacts to Jurisdictional Waters

Potential Impacts. Waters of the U.S. and state are absent from the site.

Mitigation. Mitigations are not warranted.

3.4.7 Consistency with Local Policies or Habitat Conservation Plans

Potential Impacts. Proposed project design appears to be consistent with biological goals and policies of the City of Clovis General Plan and Fresno County General Plan. There are no Habitat Conservation Plans that include the project area.

Mitigation. No mitigation is required.

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APPENDIX A: VASCULAR PLANTS OF THE PROJECT AREA

APPENDIX A: VASCULAR PLANTS OF THE PROJECT AREA

The vascular plant species listed below were observed within the project area during a site survey conducted by Live Oak Associates, Inc. within Lennar Homes Tract 6263 on April 4, 2019. The U.S. Fish and Wildlife Service wetland indicator status of each plant has been shown following its common name.

- OBL - Obligate
- FACW - Facultative Wetland
- FAC - Facultative
- FACU - Facultative Upland
- UPL - Upland
- NR - No review
- NA - No agreement
- NI - No investigation

APOCYNACEAE – Dogbane Family		
<i>Nerium oleander</i>	Oleander	UPL
ARECACEAE – Palm Family		
<i>Washingtonia filifera</i>	California Fan Palm	FAC
ASTERACEAE – Sunflower Family		
<i>Helianthus annuus</i>	Common Sunflower`	FACU
<i>Lactuca serriola</i>	Prickly Lettuce	FACU
<i>Matricaria chamomilla</i>	Wild Chamomile	UPL
<i>Matricaria discoidea</i>	Pineapple Weed	FACU
<i>Pseudognaphalium luteoalbum</i>	Jersey Cudweed	FACW
<i>Senecio vulgaris</i>	Old-Man-In-The-Spring	FACU
<i>Sonchus arvensis</i>	Field Milk Thistle	FACU
<i>Sonchus oleraceus</i>	Common Sowthistle	UPL
<i>Taraxacum officinale</i>	Common Dandelion	FACU
BRASSICACEAE – Mustard Family		
<i>Capsella bursa-pastoris</i>	Shepherd’s Purse	FACU
<i>Lepidium nitium</i>	Shining Pepperweed	FAC
<i>Raphanus raphanistrum</i>	Radish	UPL
<i>Sisymbrium altissimim</i>	Tall Tumble-mustard	FACU
BORAGINACEAE – Borage Family		
<i>Amsinckia sp.</i>	Fiddlenck	FAC
BUXACEAE– Box Family		
<i>Buxus sp.</i>	Boxwood	UPL
CARYOPHYLLACEAE – Pink Family		
<i>Spergularia sp.</i>	Sand Spurry	-
CUPRESSACEAE – Cypress Family		
<i>Sequoia sempervirens</i>	Coastal Redwood	UPL
FABACEAE – Legume Family		
<i>Medicago polymorpha</i>	California Burclover	FACU

<i>Melilotus indicus</i>	Indian Sweet-clover	FACU
<i>Vicia villosa</i>	Hairy Vetch	UPL
GERANIACEAE – Geranium Family		
<i>Erodium botrys</i>	Broad Leaf Filaree	FACU
<i>Erodium cicutarium</i>	Redstem Filaree	UPL
LYTHRACEAE- Loosestrife Family		
<i>Lagerstromia sp.</i>	Crepe Myrtle	UPL
<i>Lythrum hyssopifolia</i>	Hyssop Loosestrife	OBL
MALVACEAE—Mallow Family		
<i>Malva parviflora</i>	Cheeseweed	UPL
OLEACEAE – Olive Family		
<i>Olea sp.</i>	Olive	UPL
ONAGRACEAE – Fuschia Family		
<i>Epilobium sp.</i>	Willow-herb	-
PHRYMACEAE – Monkey Flower Family		
<i>Eythranthe guttata</i>	Seep Monkey Flower	OBL
POACEAE – Grass Family		
<i>Avena fatua</i>	Wild Oats	UPL
<i>Bromus diandrus</i>	Ripgut Brome	UPL
<i>Bromus hordeaceus</i>	Soft Brome	UPL
<i>Festuca myuros</i>	Rat-tail Fescue	FACU
<i>Hordeum murinum ssp. leporinum</i>	Hare Barley	UPL
<i>Lolium multiflorum</i>	Italian Rye-grass	UPL
<i>Polypogon monspelienses</i>	Rabbit’s Foot Grass	FACW
<i>Schismus barbatus</i>	Common Mediterranean Grass	UPL
<i>Sorghum halepense</i>	Johnson Grass	FACU
<i>Triticum aestivatum</i>	Cultivated Wheat	UPL
ROSACEAE - Rose Family		
<i>Prunus sp.</i>	Stone Fruit	-
<i>Rosa sp.</i>	Rose	-
RUTACEAE- Citrus Family		
<i>Citrus sp.</i>	Citrus	-
TYPHACEAE – Cattail Family		
<i>Typha latifolia</i>	Broadleaf Cattail	OBL

**APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY
OCCUR ON THE PROJECT AREA**

**APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY
OCCUR WITHIN THE PROJECT AREA**

The species listed below are those that may reasonably be expected to use the habitats of the project area routinely or from time to time. The list was not intended to include birds that are vagrants or occasional transients. Terrestrial vertebrate species observed in or adjacent to the project area by LOA on April 4, 2019 have been noted with an asterisk.

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 melanoleucus*)

Common Kingsnake (*Lampropeltis getula*)

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*)

Snowy Egret (*Egretta thula*)

Cattle Egret (*Bubulcus ibis*)

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*)

Red-Shouldered Hawk (*Buteo lineatus*)

*Sharp-Shinned Hawk (*Accipiter striatus*)

Swainson's Hawk (*Buteo swainsoni*)

- 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*)
- FAMILY: STRIGIDAE (Typical Owls)**
 Great Horned Owl (*Bubo virginianus*)
- 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)**
 California Scrub Jay (*Aphelocoma californica*)
 *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: TROGLODYTIDAE (Wrens)**
 House Wren (*Troglodytes aedon*)
- FAMILY: TURDIDAE (Thrushes)**
 Western Bluebird (*Sialia mexicana*)
 American Robin (*Turdus migratorius*)
- FAMILY: MIMIDAE (Mockingbirds and Thrashers)**
 Northern Mockingbird (*Mimus polyglottos*)
- FAMILY: PARULIDAE (Wood Warblers and Relatives)**

Yellow-Rumped Warbler (*Dendroica coronata*)

FAMILY: STURNIDAE (Starlings and Allies)

European Starling (*Sturnus vulgaris*)

FAMILY: MOTACILLIDAE (Wagtails and Pipits)

American Pipit (*Anthus rubescens*)

FAMILY: EMBERIZIDAE (Emberizines)

Savannah Sparrow (*Passerculus sandwichensis*)

White-crowned Sparrow (*Zonotrichia leucophrys*)

Golden-crowned Sparrow (*Zonotrichia atricapilla*)

FAMILY: ICTERIDAE (Blackbirds, Orioles and Allies)

Western Meadowlark (*Sturnella neglecta*)

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*)

ORDER: PICIFORMES (Woodpeckers and relatives)

FAMILY: PICIDAE (Woodpeckers)

Northern Flicker (*Colaptes auratus*)

Nuttall's Woodpecker (*Picoides nuttallii*)

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 pallescens*)

Pallid Bat (*Antrozous pallidus*)

Spotted Bat (*Euderma maculatum*)

FAMILY: MOLOSSIDAE (Free-tailed Bat)

Brazilian Free-tailed Bat (*Tadarida brasiliensis*)

Western Mastiff Bat (*Eumops perotis*)

ORDER: LAGOMORPHA (Rabbits, Hares, and Pikas)

FAMILY: LEPORIDAE (Rabbits and Hares)

Desert Cottontail (*Sylvilagus audubonii*)

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)

Coyote (*Canis latrans*)

Red Fox (*Vulpes vulpes*)

Gray Fox (*Urocyon cinereoargenteus*)

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: SELECTED PHOTOGRAPHS OF THE PROJECT AREA



Photo 1 (above): Ruderal area comprising the Shepherd Avenue right-of-way and disced field.
Photo 2 (below): Looking east at the disced field, residence, and associated driveway.





Photo 3 (above): Detached garage and other structures associated with one of the residences surrounded by a vegetated ruderal area. **Photo 4 (below):** Small mammal burrows along the ruderal eastern and southern portions of the project area.





Photo 5 (above): The project area is adjoined by residential development to the east, south, and west. **Photo 6 (below):** Looking south at North Preuss Avenue, surrounding residential development, and mature trees along Dry Creek.



APPENDIX C

Cultural Resources Report

Lennar Tract 6263

Cultural Resource Inventory and Evaluation for the Lennar Tract 6263 Residential Development, City of Clovis, Fresno County, California

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May 2019

MANAGEMENT SUMMARY

Applied EarthWorks, Inc. (Æ) conducted a cultural resource inventory and evaluation for the proposed Residential Development Tract 6263 Project (Project) in the city of Clovis within Fresno County, California. The Project is just south of East Shepherd Avenue between North Clovis and North Sunnyside avenues. 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, and if so, whether impacts can be avoided or mitigated.

To fulfill the CEQA requirements and on behalf of Lennar Central Valley, Æ completed: (1) a records search at the California Historical Resources Information System (CHRIS) Southern San Joaquin Valley Information Center (SSJVIC) and desktop archival research; (2) nongovernmental Native American outreach; and (3) a pedestrian survey of the 20-acre Project area. No prehistoric archaeological sites, isolated artifacts, or features were identified during the pedestrian survey; however, Æ identified one historic-era swine farm and homestead (AE-4027-01) within the Project area. AE-4027-01 consists of a historical residence, associated driveway and various farm buildings and structures built more than 50 years ago. The property was evaluated by Æ for significance under California Register of Historical Resources (CRHR) Criteria 1–4 and recommended ineligible for inclusion in the CRHR.

If archaeological remains are discovered during construction, all work should halt until a qualified archaeologist can assess the find. Additionally, if human remains are exposed, the Fresno County Coroner is to be notified immediately to arrange for proper treatment and disposition. If the coroner determines the remains to be Native American, per California Health and Safety Code 7050.5 and Public Resources Code 5097.98, the coroner must notify the Native American Heritage Commission within 24 hours of discovery. In addition, during nongovernmental tribal outreach for the Project, the Kings River Choinumni Farm Tribe requested to be notified if prehistoric artifacts or human remains are discovered below 5 feet.

Field notes and photographs for the 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) performed a cultural resource inventory and evaluation for Lennar Central Valley's proposed 20-acre Residential Development Tract 6263 Project (Project). The Project is at the southeast corner of East Shepherd and North Preuss avenues in the city of Clovis within Fresno County, California (Figure 1-1). Specifically, the Project lies in the Northwest 1/4 of the Northeast 1/4 of Section 29, Township 12 South, Range 21 East, as shown on the U.S. Geological Survey Clovis, CA 7.5-minute topographic quadrangle (Figures 1-2 and 1-3). The Project would involve grading to achieve level ground surface, soil compaction, and ground disturbance related to vegetation grubbing and excavation for installation of utilities for the housing development.

The Project is subject to the California Environmental Quality Act (CEQA) statute (California Public Resources Code [PRC] Sections 21000–21189) and guidelines (Title 14, California Code of Regulations [CCR], Sections 15000–15387), which mandate that public agencies consider the impacts of discretionary projects on the environment. If a project has the potential to cause substantial adverse change in the characteristics of an important cultural resource or “historical resource” through demolition, destruction, relocation, alteration, or other means, then the project is judged to have a significant effect on the environment (14 CCR 15064.5[b]). Sections 15064.5(a)(1–3) of the CEQA Guidelines state that a historical resource is: (1) listed or determined eligible for listing in the California Register of Historical Resources (CRHR); (2) included in a local register of historical resources (pursuant to PRC Section 5020.1[k]) or identified as significant in a historical resource survey per the CRHR eligibility criteria (PRC 5024.1[c]); or (3) considered eligible by a lead agency under PRC 5020.1(j) or 5024.1. The definition subsumes a variety of resources, including prehistoric and historical archaeological sites, structures, buildings, and objects (14 CCR 15064.5[a][3] and 15064.5[c]).

To fulfill the CEQA requirements and on behalf of Lennar Central Valley, Æ conducted a cultural resource investigation that included: (1) a records search at the California Historical Resources Information System's (CHRIS) Southern San Joaquin Valley Information Center (SSJVIC) at California State University, Bakersfield, to identify reports and cultural resources previously recorded in the Project area and surrounding 0.5-mile area as well as desktop archival research to better understand land use and ownership in the Project area; (2) a search of the Native American Heritage Commission's (NAHC) Sacred Lands File and nongovernmental outreach to local tribes and individuals to ascertain the presence of sacred sites or areas of concern to tribes; and (3) a pedestrian survey of the Project area that identified one historic-era homestead (AE-4027-01) within the Project area. Æ also evaluated the significance of AE-4027-01 and assessed its eligibility for inclusion in the CRHR.

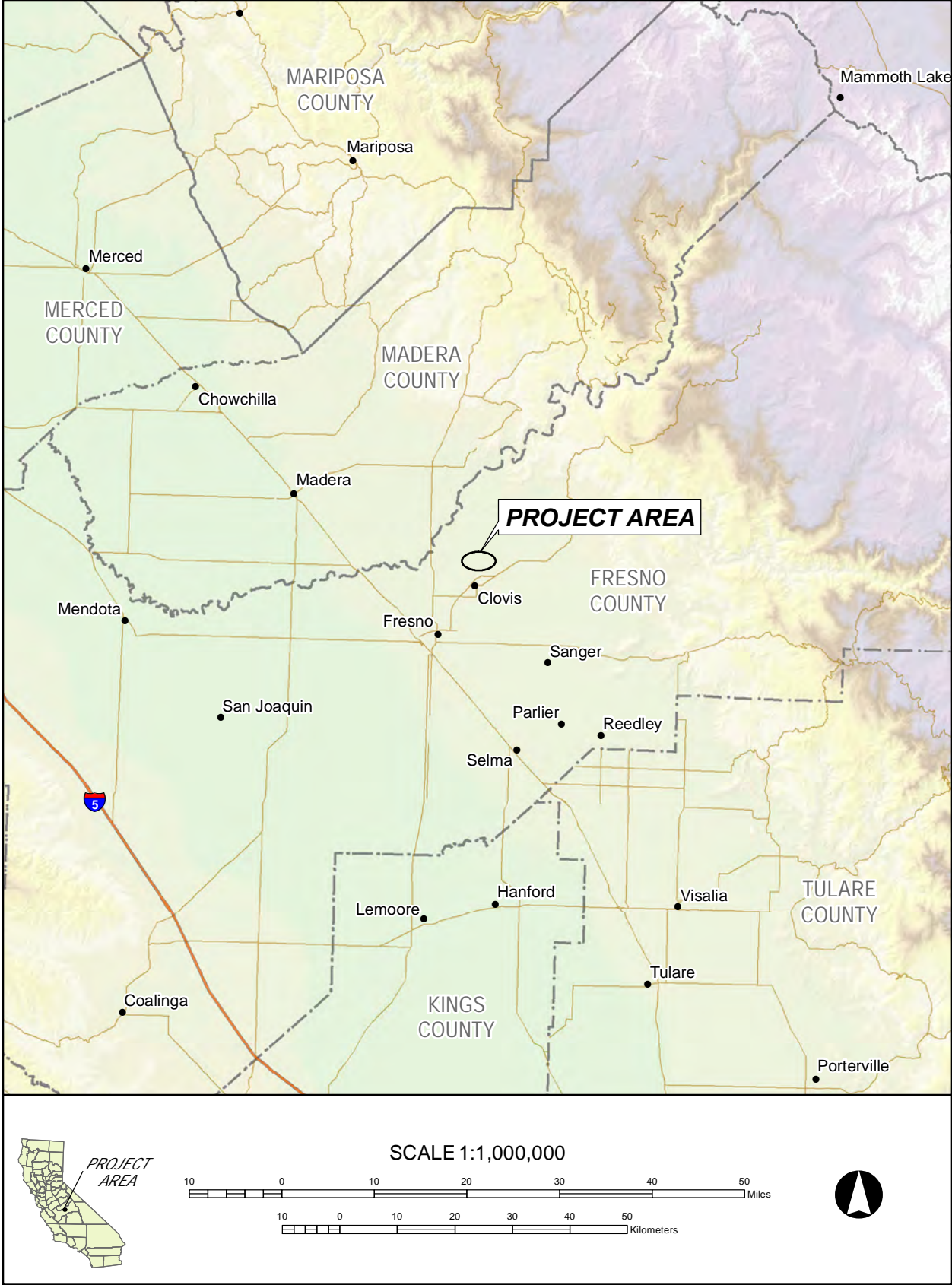


Figure 1-1 Project vicinity in Fresno County, California.

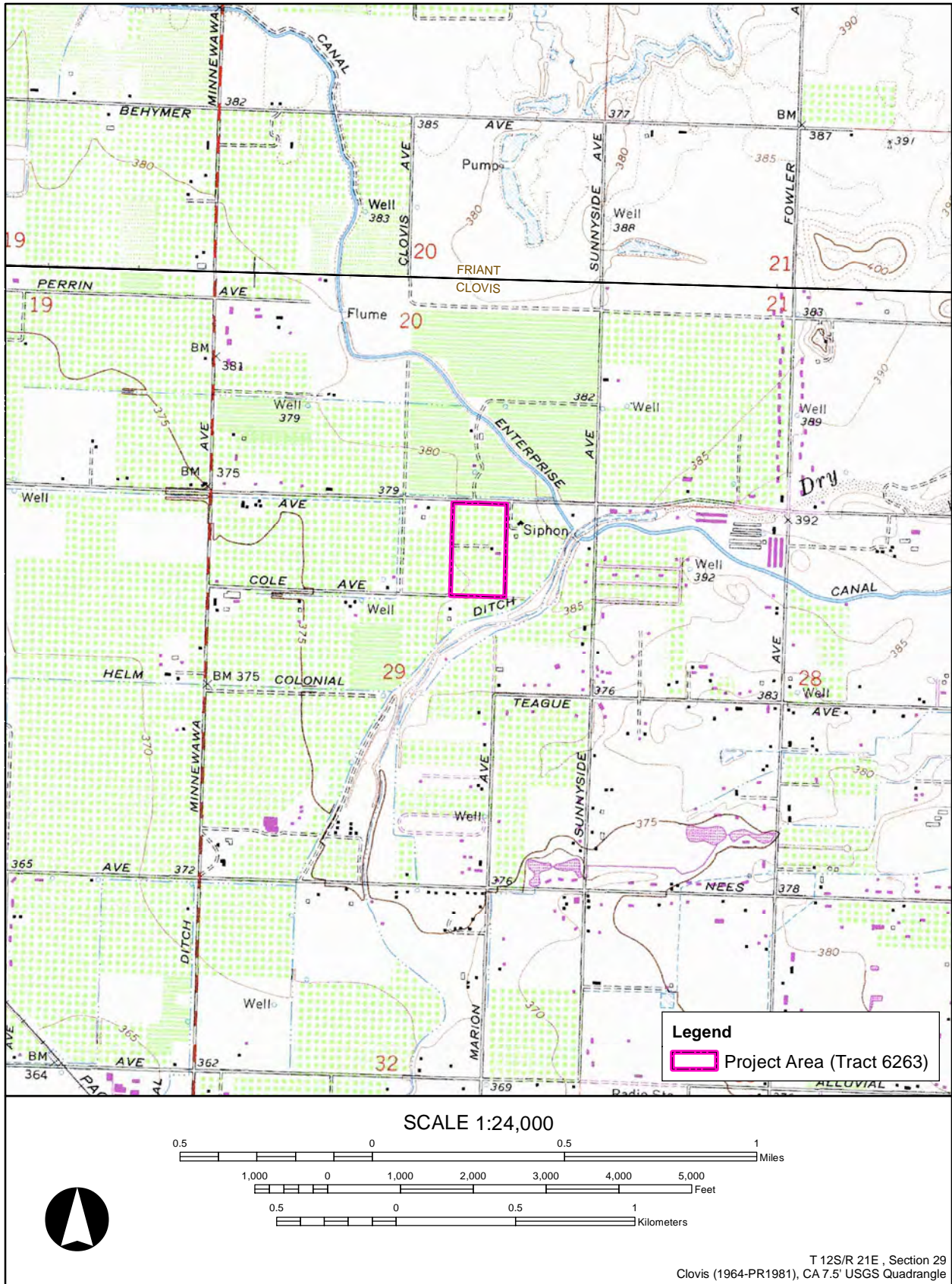


Figure 1-2 Project location on the USGS Clovis, CA 7.5-minute topographic quadrangle.



Figure 1-3 Aerial view of the Project area.

Æ Senior Archaeologist Diana T. Dyste (M.A.) a Registered Professional Archaeologist (RPA 39362477), served as project manager and co-author of this report, providing quality oversight and technical guidance. Æ Architectural Historian Annie McCausland (M.A.) conducted site-specific archival research and prepared the historic context and CRHR evaluation and eligibility recommendation for AE-4027-01. Æ Associate Archaeologist Randy Ottenhoff (Ph.D., RPA 17098) led the pedestrian survey, conducted Native American outreach, assisted with archival research, and served as primary author of the report. Staff Archaeologist Jessica Jones (B.A.) assisted with the pedestrian survey, archival research, and prepared maps, report graphics, and compiled the GIS data. Résumés for key personnel are provided in Appendix A.

2 PROJECT SETTING

2.1 PHYSICAL ENVIRONMENT

The Project area lies on the eastern margin of the San Joaquin Valley, also known as the Great Valley and Central Valley, and is near the base of the Sierra Nevada foothills. In general, the valley is bordered on the east by the Sierra Nevada range, on the west by the Coast Ranges, and on the south by the Tehachapi Mountains. 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 of the valley. Primary soils are developed by weathering of the underlying granitic parent material and 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 Holocene alluvial sediments cover most of the valley basin with sediment depths ranging between 5 and 30 feet (Meyer et al. 2010).

The natural vegetation of the valley has been altered as a result of farming and ranching. Originally, the area was covered with native annual and perennial grasses such as needlegrass and feathergrass (*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 freshwater fish and other aquatic species, as well as abundant small and medium-sized land mammals, provided a rich resource base for prehistoric hunter-gatherer subsistence. Historical and modern land use has greatly reduced the size and number of native habitats, eliminating numerous native species. Most commonly found in the Project vicinity today are jackrabbits, ground squirrels, field mice, amphibians, and reptiles, along with such birds as jays, mourning doves, crows, and red-tailed hawks.

The modern-day topography of the Project area is relatively flat at 380 feet above mean sea level. The natural watercourse closest to the Project area is Dry Creek, which flows along a northeast-southwest trajectory 130 meters south of the Project area. The area is sensitive for prehistoric archaeological resources due to its proximity to Dry Creek.

2.2 PREHISTORY AND ENVIRONMENT

The central valley prehistoric record is among the least understood of all regions in California. Reconstruction of past cultural patterns, particularly in the southern San Joaquin Valley, has been stymied by two key factors: geomorphology and human activity (Dillon 2002; Siefken 1999). The valley floor that encompasses the city of Clovis has been repeatedly inundated by thick alluvial deposits resulting from granitic and sedimentary outflow from the San Joaquin River, particularly during mass flood events. This pattern has continued for millennia and has resulted in the burial of early to middle Holocene archaeological sites, estimated to be buried as

deep as 10 meters (Moratto 1984:214). Thus, compared to other regions in the state, there is a paucity of research and a related lack of data from which to build a complete understanding of past human behavior specific to Fresno County.

In addition, archaeological sites buried in shallow deposits (i.e., less than 6 feet below the ground surface) have been heavily impacted by agricultural, transportation, and urban development since the historic period. Development has effectively removed mounds and shallow subsurface cultural deposits that once existed in great numbers across the valley floor (Rosenthal et al. 2007). Thus, geomorphology and recent human activity have created a challenge for archaeologists interested in gaining a clearer understanding of human behavioral change through time in the San Joaquin Valley.

Nevertheless, an increasing body of data is available for sites in valley lacustrine environs, which are helpful in broadly identifying key cultural changes in the central San Joaquin Valley. The summary of cultural traits presented below is based on a review of San Joaquin Valley lacustrine, riverine, and valley floor site data discussed in Rosenthal et al. (2007) as well as and foothill site data summarized by Lloyd et al. (2011). Cultural periods and accompanying dates (given as calibrated years before present [cal B.P.]) are based on Rosenthal et al. (2007:150–159), Moratto (1984:333), McGuire and Garfinkel (1980:49–53), and Fredrickson (1973, 1974).

The Paleo-Indian Period (13,500–10,500 cal B.P.) is represented by ephemeral lacustrine hunting sites dominated by atlatl and spear projectile points. The earliest evidence of distinct valley and foothill cultural patterns appears during the Lower Archaic Period (10,500–7450 cal B.P.). Valley sites of this period contain crescents and stemmed projectile points, and they indicate the consumption of freshwater fish, waterfowl, mussels, deer, and pronghorn. In contrast, foothill sites are dominated by dense ground stone and flaked stone assemblages with a diet narrowly focused on deer, bighorn sheep, and presumably nuts or seeds. The Middle Archaic (7450–2500 cal B.P.) includes the Lamont Phase (5950–3150 cal B.P.), a time when semipermanent villages first appear along riverbanks in tandem with larger, more established lacustrine villages. An abundance of stone tools exists in later prehistory, meanwhile ground stone tool kits and long-distance trade and exchange networks emerge focused on obsidian, shell beads, and ornaments. In the foothills, lithic and dietary patterns of the Early Archaic continue.

New cultural patterns emerge during the Upper Archaic Period (2500–850 cal B.P.), especially during the Canebrake Phase (3150–1350 cal B.P.) when a distinct shift in burial practices occurs and geographic differences in site and artifact types appear. Changes in the Sawtooth Phase (1350–650 cal B.P.) are marked by the sudden presence of mound sites in the valley. Widespread proliferation of specialized technology is evident, including new types of bone tools, projectile points, and ceremonial objects such as wands and blades. The use of labor-intensive and seasonally abundant resources occurs, including acorns, pine nuts, salmon, and shellfish.

Similarly, the Emergent Period (850 cal B.P.–Historic Era) is marked by continued variation in settlement and burial patterns across valley and foothill regions, coupled with the disappearance of atlatl and dart tool kits that are replaced with bow-and-arrow technology (i.e., small corner-notched and Desert Series points) at about 650 cal B.P. Fishing tool kits expand to include more efficient harpoons, bone fishhooks, and gorge hooks.

2.3 ETHNOGRAPHY

During the historic era, Yokuts resided in nearly all of the San Joaquin Valley as well as the lower Sierra Nevada foothills south of the Fresno and San Joaquin rivers (Moratto 1984). The Southern Valley Yokuts populated Tulare, Buena Vista, and Kern lakes, their connecting sloughs, and the lower portions of the Kings, Kaweah, Tule, and Kern rivers. At the beginning of the historic period, 15 tribelets of Southern Valley Yokuts occupied these river areas, each speaking a separate dialect of the Yokuts language, all of which have been assigned traditionally to the California Penutian linguistic stock (Moratto 1984; Wallace 1978). Kroeber (1939) estimated that Yokuts political units averaged 350 persons each, giving a total Native American population of 5,250 for the 15 tribelets of Southern Valley Yokuts. A much higher population estimate of 15,700 people was based on rough counts for various villages by Spanish expeditions exploring the area in the early nineteenth century (Cook 1955).

As recorded during the historic era, the Yokuts social organization comprised a husband, wife, and children, and each family was associated with a patrilineal totemic lineage (Wallace 1978:452). A child would receive the father's animal totem, and the mother's totem would be respected by the whole family (Wallace 1978:452). Marriages were often arranged for boys and girls before puberty occurred. Multiple wives were uncommon but could occur with some chiefs. After a death, Yokuts sometimes adopted levirate and sororate marriage patterns (Wallace 1978:454). Houses observed in the foothills during the historic era were made with a steep tule thatch roof and mats covering the walls. These houses were typically arranged in a row (Cook 1955; Wallace 1978:451). However, less permanent lean-to style thatch housing structures were observed along rivers in the valley. Tule was used for a large number of items, including baskets, boats, cradles, mats, and much more (Wallace 1978:451). Boats, called "balsas," could carry six passengers along a river course and were piloted using a long stick.

The Gashowu Yokuts were located between the San Joaquin and Kings rivers and occupied the foothills east of Clovis along Dry Creek and Little Dry Creek (Golla 2011:152; Latta 1999:163). The Gashowu language dialect recorded between 1903 and 1904 was unique to the tribe and was not well understood outside the Dry Creek and Little Dry Creek territory; it is believed to have become extinct sometime in the 1930s (Golla 2011:153–154). The ethnographic village of *Pohóneu* was approximately 13 miles north of Clovis (Latta 1999:163). Less than 10 miles north of the Project area is the ethnohistoric site of *Wámihlow* (Three Stone Women) (Latta 1999:163).

Southern Valley Yokuts tribal groups have survived into the present time and are represented by members registered with the Big Sandy Rancheria of Western Mono Indians, Cold Springs Rancheria, Dumna Wo-Wah Tribal Government, Traditional Choinumni Tribe, Wuksache Indian Tribe/Eshom Valley Band, Kings River Choinumni Farm Tribe, Santa Rosa Rancheria Tachi Yokut Tribe, North Fork Mono Tribe, and Table Mountain Rancheria. Many of these tribes have developed language apprenticeship programs and early childhood education centers to serve tribal members. Several Yokuts tribal groups are governed by elders' councils and operate auxiliary departments that serve local tribal populations in areas of healthcare, education, and cultural resource management.

2.4 HISTORIC CONTEXT

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 from the foothills into the valley (Clough and Secrest 1984:304). In 1853, L. L. Witt and William Harshfield established a small outpost in present-day northeastern Clovis at the current intersection of Shepherd and Thompson avenues. The outpost later became a stop along the Stockton to Los Angeles stage route (Elliott 1882:199; Smith 1991:31). For many years the lonely station, which eventually became known as Collins Corner, stood by itself with no other buildings in sight.

In 1856, the California Legislature created Fresno County from parts of Merced, Mariposa, and Tulare counties. The 1857 California State Register indicates that the Fresno economy was based on ranching and mining, with much of its tax revenue coming from the assessment of livestock and foreign miners’ fees (Clough and Secrest 1984:83). At the time, only 2,000 acres were under cultivation. The county’s first school districts were established in Millerton (on the south bank of the San Joaquin River), Scottsburg (present-day Centerville on the Kings River), and Kingston (near present-day Laton on the lower Kings River) (Sparks 1986:293).

At the time, the valley was not a particularly hospitable place for farming. The Alabama Settlement founded in 1868 just north of the San Joaquin River in present-day Madera County, quickly ended in disappointment after drought, lack of irrigation water, and free-roaming cattle spoiled the efforts of its residents to raise grain (Elliott 1882:118; Vandor 1919:170–171). In fact, during the 1860s and early 1870s, settlement along Dry Creek was focused on foothills areas rather than valley locations. Situated around the upper reaches of the stream, the Dry Creek School District was established in 1866 (Dow 1967:372). Three years later, members of Methodist Episcopal Church South built the first church in Fresno County at a location then known as Upper Dry Creek (Clough and Secrest 1984:94–95; Smith 1991:32). In 1872 the district constructed a new school, called “The Academy,” just east of the church (Clough and Secrest 1984:94–95; Smith 1991:32–33). Soon afterward the community adopted the name of the school as its moniker and has been called Academy ever since.

The quiet family-oriented atmosphere of communities like Academy and Clovis differed, both socially and economically, from the bawdy character of Millerton and Fresno. Millerton arose as a mining town during the gold rush and later served as the county seat and commercial hub until 1874 when the county’s political and economic leadership passed to the railroad town of Fresno. Notably, Fresno carried on the social legacy of its predecessor, serving as a “wide-open town” for drinking, gambling, and prostitution until the end of the nineteenth century, whereas “places where intoxicating liquors are sold” and saloons were banned in Clovis as early as 1912.

As elsewhere throughout the Central Valley, the county’s economic mainstay was drawn mostly from wheat and cattle. The Fresno County cattle industry grew until at least 1870, when, according to local historian Paul Vandor (1919:162), it reached its peak. Certainly, the 1874 California “no fence” law, which obligated ranchers and shepherds to sequester their previously free-roaming stock, greatly curtailed the overall profitability of the livestock industry, but by no means did the statute bring an end to ranching in the Central Valley. The cattle industry’s bellwether, the Miller & Lux Company, unwaveringly increased in size, breadth, and political

influence into the twentieth century, and many communities on both sides of the San Joaquin River continued to produce large quantities of wool decades after the “no fence” law. Nevertheless, the law was a clear political manifestation of the growing importance of agriculture in the state’s economy and signaled a shift that would greatly impact the valley’s settlement, demography, and landscape.

The driving force behind agriculture was (and remains) irrigation. From its modest beginnings in 1866, intensive irrigation in Fresno County expanded rapidly even by twenty-first century standards (Elliott 1882:102; Hall 1885; Mead 1901). By the end of the 1870s, three expansive bulk canals with several miles of distribution branches each delivered water to the farmlands east and south of Fresno (Baloian 2014). With the advent of a large-scale irrigation district in Fresno County still more than 40 years away, control of water rested in the hands of a few capitalists who held interest in the area’s agricultural colonies as well as the private irrigation companies servicing them. The concept behind the agricultural colony was simple: purchase a large tract of land, typically a cattle ranch or grain farm; subdivide it into parcels of 20, 10, or even 5 acres; provide irrigation to the parcels via a lateral from one of the bulk canals, thus increasing the value and marketability of the properties; and sell the lots to newly arriving homesteaders at a hefty profit (Hall 1986).

Colonization and irrigation led to numerous interrelated developments in Fresno County. First, a single tract of land that had been devoted to ranching or grain cultivation or that was simply unused could now support numerous small farms with vineyards or other premium crops like citrus, nut, and tree fruit orchards. Second, much like the flow of the irrigation canals themselves, economic opportunity in general moved westward from the foothills toward the plains and the railhead at Fresno. Third, because colonization created a checkerboard pattern of ownership that required access to each property, the county’s road grid vastly expanded in and around these subdivisions. Lastly, colonization not only brought more people to the county but increased the area’s demographic carrying capacity. The partitioning of the land meant more individual farmers could work their own land, and premium crops produced more income per acre than grain. Accordingly, greater productivity led to the creation of (or demand for) other attendant sectors of agriculture (shippers, packers, farm laborers, blacksmiths, hardware merchants, etc.) and public infrastructure (roads, education, hospitals, law enforcement, etc.) that supported a county population which, in time, would become the largest in the Central Valley.

It should be stressed that such developments reached different areas of Fresno County at different times (Willison 1980). The Enterprise Canal, one of the three major irrigation systems mentioned above and located roughly 100 feet east of the Project area, presently flows 36.5 miles from its head gate on the Gould Canal near the Kings River to the center of Fresno and is the source of irrigation water for the Project vicinity. There is, however, some question about when irrigation and colonization as well as their commensurate effects occurred in the Project area. Elliott (1882:199) remarks in his 1882 county history that Dry Creek was a “prosperous farming community” but that at the time, there were no provisions for irrigating the land. It is likely that water for crops and homesteads was drawn from Dry Creek and local wells. Additionally, a recent investigation and evaluation of the Enterprise Canal found that it was built in at least three successive episodes during the period 1875–1913 (Baloian 2014). Comparison of historical maps from the nineteenth century suggests that the second leg of the canal reached the Project vicinity sometime between 1885 and 1891.

As the number of homesteads grew following the creation of canal systems in Fresno County, swine production took on an important economic role. Swine (or hog) production has been a central livestock industry in California since the late nineteenth century. As was common across California homesteads during the historic era, most families maintained small drifts and sounders of hogs that were used for personal consumption, sale in local markets, gifting at church and social events, and maintaining levels of refuse and waste resulting from other agricultural and livestock by-products on the farm (Kindell 2006). However, from the late 1890s until just prior to the Great Depression, Fresno County farmers specialized in producing and refining the Duroc-Jersey breed, known for its rapid growth rate and excellent quality of muscle (National Swine Registry 2018). However, while the swine industry historically ranked in the top three profitable industries in California following cattle and dairy, it has since been displaced by chicken, turkey, and other exotic agricultural products such as avocados, pistachios, and wine grapes (California Department of Food and Agriculture 2014–2015; Johnston and McCalla 2004).

A central marker of successful colonization is the establishment of educational systems. The Garfield School District was organized in May 1883 just a few blocks northeast of the Project area, suggesting that settlement in the Project vicinity had sufficient density to support its own school district (Dow 1967:380). Enrollment in the Garfield School District likely came from the numerous homesteads surrounding the school. The original school was constructed of wood in 1883. Following adoption into the Clovis Unified School District in 1899, it was rebuilt in 1906 and a brick expansion of the building occurred in 1912. The school was at the northwest corner of East Shepherd Avenue and Minnewawa Avenue, but students began attending other nearby Clovis Unified School District campuses that were constructed in the mid-1950s (Baloian and Morlet 2014; Clovis Unified School District 2019). After being determined eligible for inclusion in the CRHR, the Garfield schoolhouse was destroyed by fire in 1990.

As Fresno County subdivision and colonization accelerated into the twentieth century, the 1891 and 1911 Fresno County atlases shows that land use within the Project vicinity appears to have been in a state of transition during this period (Thompson 1891:48; Figures 2-1 and 2-2). Although no formalized agricultural colonies are depicted in Township 12 South, Range 21 East, the eastern half of Section 29 and the northeast quarter of Section 32 was owned by Toliver L. Reel as shown in Figure 2-1. No homesteads are depicted on Reel's property. A few neighboring properties with visible homes were owned by the renowned Owen and Cole families, who are associated with early settlement in Clovis. First Bank of Clovis was established by 1911 less than a mile west of the Project area at the corner of Shepard and Minnewawa avenues (Figure 2-2).

Development of the Project vicinity no doubt received a boost in 1891 with the arrival of the San Joaquin Valley Railroad (Clough and Secrest 1984:281). The railroad 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 on a tract of land sold to Pollasky by Clovis Cole, namesake of the city of Clovis. Although Pollasky never fully materialized and the railway was eventually sold to the Southern Pacific Railroad, the new transportation link succeeded in creating opportunity in general as well as on the town of Clovis in particular. The Fresno Flume and Irrigation Company, a combination lumber and irrigation venture, constructed its sawmill on a 40-acre parcel along the railway (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, the mill employed 300–500 workers who took up residence

in and around the town (Clough and Secrest 1984:305; Johnston 1997). Maintaining an annual payroll of \$450,000, the Fresno Flume and Irrigation Company contributed a stable labor economy in Clovis until its sale to Ira Bennett in 1912 and ultimate closure in 1914 following the Shaver Lake flume's destruction after a heavy snowstorm (Wright et al. 2011).

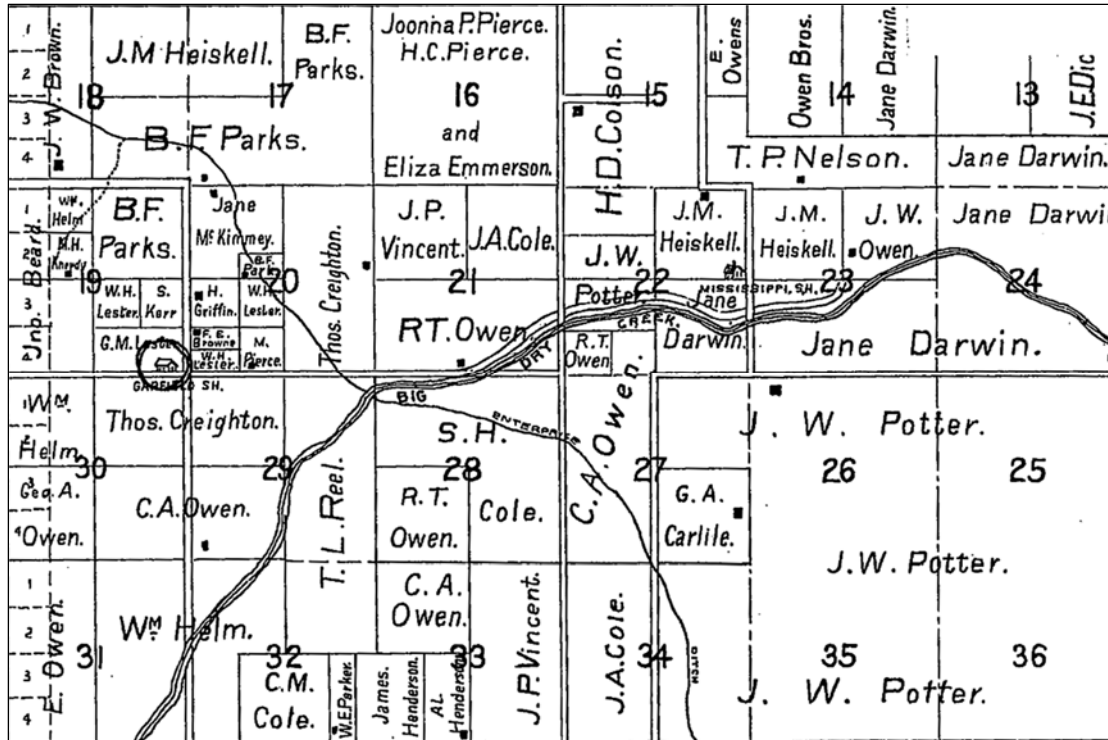


Figure 2-1 The south half of Township 12 South, Range 21 East (Thompson 1891:48), showing the Project area and surrounding vicinity. Dry Creek is a natural-flowing stream, and the future Enterprise Canal (deeded by property owners in 1907) remained an earthen ditch. The black squares denote homesteads.

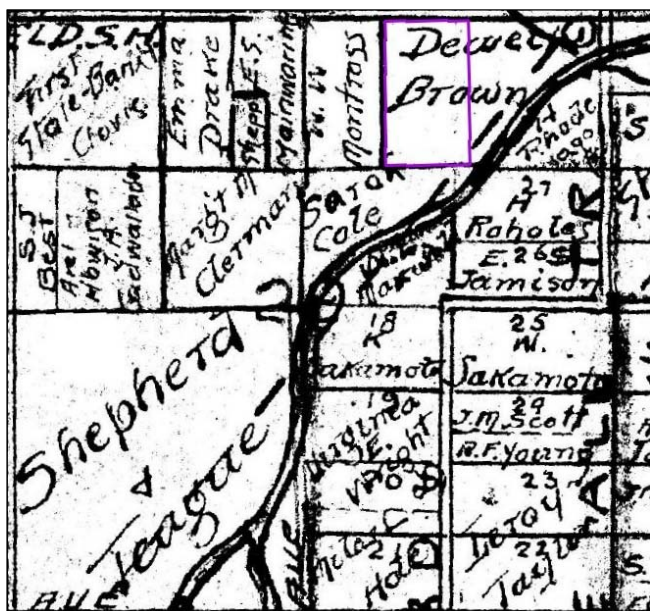


Figure 2-2 The south half of Township 12 South, Range 21 East (Thompson 1911), showing the Project area (outlined in purple) and surrounding vicinity. Black squares denote homesteads.

3 METHODS

3.1 RECORD SEARCH

At Æ's request, the CHRIS SSJVIC at California State University, Bakersfield, performed a records search of the Project area and surrounding 0.5-mile radius on May 4, 2019, to identify previously recorded resources and prior surveys within the Project area and immediate vicinity (Appendix B). SSJVIC staff completed searches of the Historic Property Data File, National Register of Historic Places, California Register of Historical Resources, listings of California Historical Landmarks, California Inventory of Historic Resources, and the California Points of Historical Interest.

3.2 ARCHIVAL RESEARCH

Æ's archival research met two objectives. First, it sought to gather general historical information about the Project vicinity to prepare a historic context. The context identifies the themes that will be used in evaluating the historic-era homestead and swine farm that occurs within the Project area. Second, it sought to obtain information on historical development within the subject property. Æ conducted archival research for the Project at repositories in Fresno. Research focused on historical maps, aerial images, atlases, photographs, written local histories, newspaper articles, and manuscripts. Specifically, Æ staff contacted or visited the following repositories:

- History Room, Fresno County Public Library, Fresno;
- Fresno County Assessor's Office and Recorder's Office, Fresno;
- Clovis-Big Dry Creek Historical Society, Clovis;

Specific sources of information for archival research are provided in Appendix B.

3.3 NATIVE AMERICAN OUTREACH

On March 18, 2019, Æ contacted the Native American Heritage Commission (NAHC) requesting a search of its Sacred Lands File and the contact information for local Native American representatives who may have information about the Project area. The NAHC responded on March 26, 2019, with its findings and attached a list of Native American tribes and individuals culturally affiliated with the Project area. Tribal representatives contacted include:

- Chairperson Elizabeth D. Kipp of Big Sandy Rancheria;
- Chairperson Carol Bill of the Cold Springs Rancheria of Mono Indians;
- Chairperson Robert Ledger Sr. of the Dumna Wo-Wah Tribal Government;
- Tribal Chair Benjamin Charley Jr., Dunlap Band of Mono Indians;

- Tribal Secretary Dick Charley, Dunlap Band of Mono Indians;
- Stan Alec of the Kings River Choinumni Farm Tribe;
- Chairperson Ron Goode of the North Fork Mono Tribe;
- Chairperson Rueben Barrios Sr. of the Santa Rosa Rancheria Tachi Yokut Tribe;
- Chairperson Leanne Walker-Grant of the Table Mountain Rancheria;
- Cultural Resources Director Bob Pennell of the Table Mountain Rancheria;
- Chairperson David Alvarez of the Traditional Choinumni Tribe;
- Cultural Resources Director Rick Osborne Traditional Choinumni Tribe; and,
- Chairperson Kenneth Woodrow Wuksache Indian Tribe/Eshom Valley Band

As part of Æ's best practices, on April 14, 2019, Æ sent a nongovernmental outreach letter to each of the contacts above. The letter was followed up with an e-mail or phone call on May 15, 2019, requesting a reply or comment. A record of correspondence is included in Appendix C.

3.4 SURVEY

On April 12, 2019, Æ archaeologists Randy Ottenhoff and Jessica Jones conducted an archaeological and built environment survey of the 20-acre Project area. Staff surveyed all open ground using 15–20 meter parallel transects. The field crew used an Olympus digital camera to document the environmental setting, ground visibility, and historic-era building and structures. Æ collected locational information using a Trimble Global Positioning System (GPS) unit and recorded all observations on a Survey Field Record form and California Department of Parks and Recreation (DPR) 523 cultural resource record forms (see Appendix D). Field records and photographs are archived at Æ's office in Fresno, California.

3.5 HISTORIC SITE EVALUATION

The purpose of evaluating the eligibility of an identified cultural resource for inclusion in the CRHR is to determine if the resource meets the criteria of a significant historical resource and, if so, to assess whether the Project will cause a significant impact to the resource. The National Park Service (NPS 1999) has established a process for identifying, evaluating, and assessing impacts to cultural resources.

The first threshold in this process is to ascertain whether an archaeological site or built environment resource is old enough to be considered a cultural resource and, accordingly, eligible for the state register. To be eligible for the CRHR, an archaeological or built environment resource must be 50 years old or older. Except under exceptional circumstances (NPS 2002:25–43), sites and properties less than 50 years old are dismissed from further consideration. If a cultural resource is found to meet this age criterion, the following sequential steps apply:

- Classifying the resource as a district, archaeological site, building, structure, or object;

- Determining the theme, context, and relevant thematic period of significance with which the resource is associated;
- Determining whether the resource is historically important under a set of significance criteria;
- If significant, determine whether the resource retains integrity; and
- Make a recommendation to the responsible state agency regarding the historical resource's eligibility for inclusion in the CRHR.

In California, cultural resources are usually classified according to *Instructions for Recording Historical Resources*, published by the California Department of Parks and Recreation Office of Historic Preservation (1995). This handbook contains listings of resource categories for historical and prehistoric sites as well as standing structures.

For historic-era resources, a historic context establishes the framework within which decisions about significance are based (NPS 2002:9). The evaluation process essentially weighs the relative importance of events, people, and places against the larger backdrop of history. Within this process, the context provides the comparative standards and/or examples as well as the theme(s) necessary for this assessment. According to the NPS (2002:9), a theme is a pattern or trend that has influenced the history of an area for a certain period. A theme is typically couched in geographic (i.e., local, state, or national) and temporal terms to focus and facilitate the evaluation process.

Significance is based on how well a subject resource represents one or more themes through its associations with important events or people and/or through its inherent qualities. A resource must demonstrate more than just association with a theme; it must be a good representative of the theme, capable of illustrating the various thematic elements of a particular time and place in history. According to the CEQA Guidelines, in order for a resource to be eligible for the CRHR, it must meet at least one of the criteria defined in California PRC 5024.1:

1. Is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
2. Is associated with the lives of persons important to local, California or national history.
3. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important to history or prehistory of the local area, California or the nation.

To be included in the CRHR, a resource must not only possess historical significance but also the physical means to convey such significance, that is, it must possess integrity. Integrity refers to

the degree to which a resource retains its original character. To facilitate this assessment, the NPS provides the following definition of the seven aspects of integrity [NPS 2002:44–45]:

1. Location is the place where the historic property was constructed or the place where the historic event occurred;
2. Design is the combination of elements that create the form, plan, space, structure, and style of a property;
3. Setting is the physical environment of a historic property;
4. Materials are 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 is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
6. Feeling is a property's expression of the aesthetic or historic sense of a particular period of time; and
7. Association is the direct link between an important historic event or person and a historic property.

4 FINDINGS

4.1 RECORDS SEARCH

SSJVIC Records Search No. 19-104 identified one prior cultural resource study intersecting the Project area and six additional studies completed within 0.5 mile of the Project area. No prehistoric or historic-era archaeological sites or built environment resources have been identified in the Project area; however, two historic-era linear structures, the West Branch of the Helm Colonial Ditch (P-10-005511) and the Enterprise Canal (P-10-005934), have been recorded within 0.5 mile of the Project area. Details of the records search are provided in Appendix B.

4.2 ARCHIVAL RESEARCH

Results of desktop research and in-person searches at repositories identified in Section 3.2 provided key information for this report, including historical data presented in Sections 2.4 and 4.4 and on the DPR forms in Appendix D. Specific sources and records consulted during archival research are identified in Appendix B.

4.3 NATIVE AMERICAN OUTREACH

On March 26, 2019, the NAHC stated that its search of the Sacred Lands File did not indicate any recorded places of tribal importance in the Project area or surrounding 0.5-mile area. The NAHC recommended follow-up with tribes having an ancestral connection to the vicinity of the Project area. Æ sent a letter describing the Project to each of the individuals and groups identified in the NAHC response. Æ has received one response to date. Stan Alec of the Kings River Choinumni Farm Tribe stated in a return phone call on April 15, 2019 that the tribe has no concerns about the proposed Project, but he requested that the tribe be notified immediately if any Native American artifacts are discovered below 5 feet or human remains are identified.

4.4 PEDESTRIAN SURVEY

During Æ's archaeological and built environment survey of the Project area on April 12, 2019, surveyors did not have access to a 1-acre fenced property in the northwest corner of the Project area containing a modern home owned by the Sobaje family. Æ archaeologists surveyed all of the remaining Project areas (19 acres) using pedestrian transects spaced 15–20 meters apart along an east-west trajectory (Figure 4-1). The archaeologists carefully examined the ground in areas that were shown to contain buildings or structures on 1937 and 1942 aerial images (Figure 4-2). Ground visibility was good to excellent (90–100 percent), as the Project area had been recently disked (Figure 4-3), but no evidence of historic-era occupation or use was observed in these areas. The field crew identified and recorded one extant historic-era building and associated structures in the Project area (AE-4027-01) but did not find any prehistoric archaeological sites, isolates, or features. There was modern debris such as broken bottles, tiles, unidentified metal, and plastic wrappers on the surface elsewhere within the Project area.



Figure 4-1 Archaeological and built environment survey coverage of Project area.

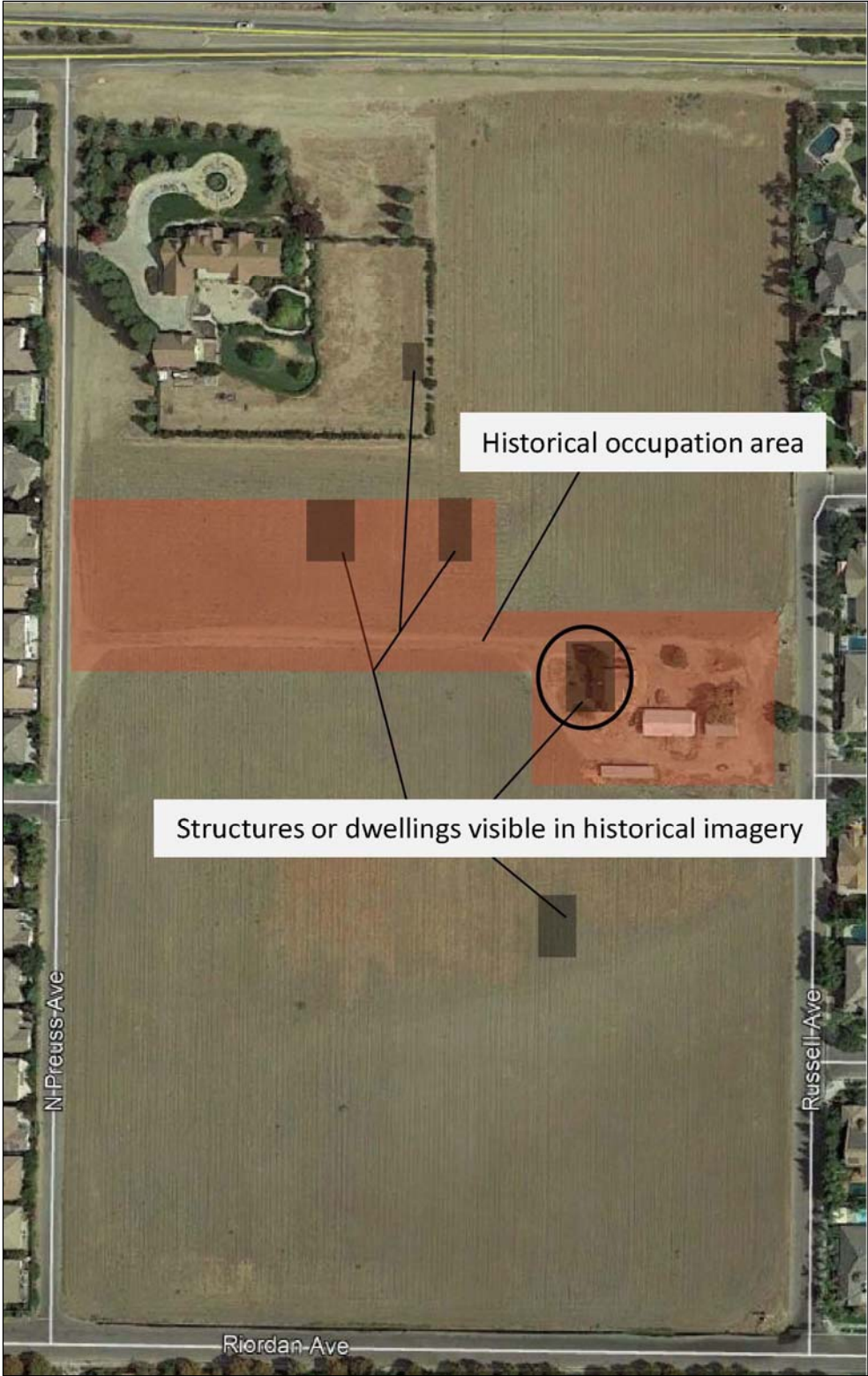


Figure 4-2 Modern aerial image showing areas of survey focus based on georeferenced 1937 and 1942 aerial images. The extant residence within AE-4027-01 is circled, and an associated historic-era driveway is visible trending westward from the historic-era residence toward North Preuss Avenue.



Figure 4-3 Ground visibility and survey conditions; view to the southwest.

4.5 CULTURAL RESOURCES WITHIN THE PROJECT AREA

4.5.1 AE-4027-01

4.5.1.1 Property Description

The residence and surrounding property (AE-4027-01) at 4707 North Preuss Avenue (Assessor's Parcel No. [APN] 560-031-23S) was historically a larger 21.52-acre agricultural property that included two adjacent 3-acre parcels to the north (APNs 560-031-35S and 560-031-34S) (Figure 4-1). The extant buildings and structures of AE-4027-01 are within APN 560-031-23S, which covers 15.52 acres, and consist of a 1,062-square-foot single-story American vernacular style dwelling (Figures 4-4–4-6) built in 1940 with later modifications and associated buildings and structures. These include a corrugated metal shed, a wood clad rectangular garage, a hog pen, a shade structure, a metal hoist and cable winch with a concrete foundation, a water pump, and various farming and water conveyance machinery, much of which is rusted and appears disused. The ages of these structures could not be confirmed based on imagery or other archival sources. An eroded asphalt driveway on a historical alignment extends east from North Preuss Avenue and provides access to the residence and other structures on the property. The structures are not fenced and are surrounded by a green lawn with several trees and shrubs on the north, east, and south façades. A modern electric meter is in the southeast corner of the Project area. The remainder of the parcel is mostly vacant land and is no longer being utilized as a farm.



Figure 4-4 North façade (principal face) of historical dwelling within AE-4027-01, looking south.



Figure 4-5 East façade of historical dwelling within AE-4027-01, looking west.



Figure 4-6 West façade of historical dwelling within AE-4027-01, looking northeast.

The wood-framed clapboard-wrapped dwelling rests on a concrete foundation and features a medium-pitched cross-gabled roof capped with composite shingles with a wide eave and exposed rafters. All but one window are double-panel metal-framed sliders that are not original to the house, but the openings have the shape and size one would expect in a house of this age.

The fenestration of the north façade (principal face) is asymmetrical (Figure 4-4). There is a three-panel vinyl slider window to the left of the eight-paneled wood front door, which is covered by a metal-framed screen door, and a double-panel metal-framed slider window to the right of the door. There is a slightly raised clapboard clad simple gable porch over the main entrance on the western façade. It has exposed rafters and is capped by a composite-shingle roof that matches the rest of the dwelling. The porch protects a raised cement slab that has a two-step approach from a short cement walkway. The front of the porch is supported by four square wood posts, two on each side of a center opening in the 3-foot-high clapboard fence that extends around both sides of the porch.

One-half of the east-facing façade projects from the main body of the house (Figure 4-5). This portion of the dwelling has a brick chimney and one double-panel metal-framed slider window. South of this, where the gable-front portion meets the eave-front main body of the dwelling, is the second half of the east façade that contains one offset double-panel metal slider window. A 192-square-foot room addition constructed is attached to the center of the southern façade. It is side-gabled and has clapboard siding that matches the rest of the building, enclosed eaves with

exposed rafters, and a roof capped with composite shingles. The east façade of the addition has a door, and each of the other two façades has a single double-panel metal-framed slider window. Electrical wiring attached to the southeastern corner of the roof is visible from the east façade.

On the southern façade of the original dwelling and on each side of the room addition is a single double-panel metal-framed slider window. The west façade contains two identical double-panel metal-framed slider windows (Figure 4-6). An air conditioner or fan system is visible on the roof of the western façade, along with a modern satellite dish. The concrete foundation of the dwelling has several air vents.

The historical east–west-trending dirt and asphalt driveway that is recorded as a feature of AE-4027-01 is 20 feet wide and 490 feet long with a berm of approximately 6 inches. The driveway was created through cut and fill. The asphalt has white pebble inclusions and is badly eroded with potholes that have been filled with gravel. The overall width of the driveway is 20 feet—the asphalt portion is 15 feet wide and the remainder consists of compact dirt. The driveway extends east from Preuss Avenue and stops 20 feet from the western façade of a house. Historical maps show the driveway alignment existed as early as 1923, and aerial images from 1937 show the driveway had become part of a farming access road system. At that time it was not a through connection to North Preuss Avenue, but rather connected to a driveway entering the property from East Shepard Avenue. Aerial images from 1967 show the driveway once circled the house, wrapping back upon itself in front of the western façade. Despite the eroding asphalt, the driveway prism is in overall good condition. No artifacts were observed along the driveway.

4.5.1.2 Archival Research and Interpretation

In 1874 a land patent was issued to Henry Reel and Toliver L. Reel for the cash sale of 80 acres within the North 1/2, Northeast 1/4 of Section 29, Township 12 South, Range 21 East, Mount Diablo Meridian (General Land Office 1874; see Figure 2-1). In 1875 they acquired another 80 acres of Section 29 (General Land Office 1875). By 1891, Toliver Reel owned the entire East 1/2 of Section 29 as well as the Northeast 1/4 of Section 32. A newspaper article in 1891 reports that Toliver Reel’s Fresno County land was worth \$13,680 (*Fresno Morning Republic* 1891:16). Toliver Reel raised stock and most likely used the subject property for cattle ranching between 1874 and 1900 (State of California 1867–1890, 1900–1912). In the 1900 federal census, Toliver Reel is listed as a stock raiser who resides as a boarder in the city of Fresno (U.S. Census Bureau 1900).

Dewey F. Brown acquired a portion of Reel’s land circa 1900 (U.S. Census Bureau 1900; see Figure 2-2). The 1900 federal census lists Dewey and his wife, Josephine, as farmers who owned their home within Township 12 of Fresno County. Dewey, a Michigan native, married Josephine, a California native, in 1898. Josephine, also known as “Josie,” was the paternal cousin of Clovis Cole, the namesake of the city of Clovis. In 1902, Dewey and Josephine had a son, Winifred Clair Brown (U.S. Census Bureau 1910). In 1907, D. F. Brown granted the Fresno Canal and Irrigation Company a portion of the property for the development of the Enterprise Canal (Fresno County Recorder 1907). The 1920 census lists the Brown family living east of Garfield School, north of Clovis, within Township 29 (U.S. Census Bureau 1920). Garfield School was roughly 1 mile west of the subject property on Shepherd Avenue as shown in various historical atlases. The 1923 historical USGS topographic map shows a building existed within the Brown

property. The house was located on what is now the adjacent parcel to the east of the Project area and is no longer extant.

Dewey Brown died in 1923, passing ownership of the western half of the property to his son, Winifred, and the eastern half to his wife, Josie. Her portion included the family home, and ownership later changed to her second husband, William Woods (Figure 4-7) (Progressive Map Service 1935; U.S. Census Bureau 1940). Winifred’s property encompasses the Project area, while the eastern half belonging to Josie lies outside. In 1931 Winifred undertook a mortgage with First National Bank of Clovis, which would have allowed him to further develop his property and prepare for marriage (Fresno County Recorder 1931). In 1932, Winifred married Christina Josephine Castro. By 1940 Winifred and Christina had four children living on the property (U.S. Census Bureau 1940).



Figure 4-7 Winifred and Christina Brown property within Section 29 (Progressive Map Service 1935).

Data from the U.S. Census Bureau (1940) and a 1937 aerial photograph reveal that Winifred’s property was utilized primarily as a swine farm but was a general-purpose working farm as well with several buildings, structures, and infrastructure present (Figure 4-8). Row crops visible in Figure 4-8 could have been cotton or wheat, as both were common crops on Clovis farms during this period. As visible in Figure 4-8, a driveway, which extended south from Shepherd Avenue, provided primary access to Winifred’s property and the various building and structures. Research identifies his property at 4707 East Shepherd Avenue. A 1937 aerial image shows a structure at the present location of AE-4027-01; however, other evidence shows that the building currently recorded as AE-4027-01 was constructed in 1940 (Fresno County Assessor 1940).

In 1947 Winifred Brown gave joint tenancy (i.e., ownership) to Forrest O. Roberts and Winona P. Roberts (Fresno County Recorder 1947). The Roberts in turn deeded joint tenancy to George Thomas Fagan Sr. and his wife, Mamie, in 1952 (Fresno County Recorder 1952). Fagan and his



Figure 4-8 Brown property in 1937 (U.S. Agricultural Adjustment Administration 1937).

family resided on the property and were primarily swine farmers but also maintained a cotton crop (Figure 4-9) (Fresno County Recorder 1955, 1956). Fagan received numerous awards for his success in Duroc-Jersey swine breeding over the decades, particularly with yearlings (*Bakersfield Californian* 1953).

Archival documents did not clarify which buildings and structures were occupied by the Brown, Roberts, and Fagan families, and it is uncertain if any of the families even lived at the subject property. The extant water pump was installed in 1963 when the Fagans owned the property (Fresno County Recorder 1963). By 1967, the buildings and infrastructure west of the subject property were demolished, and access to the residence was via a driveway extending east from North Preuss Avenue (Figure 4-10). On the 1957 aerial photograph, the property features a small citrus grove surrounding the central building. A more expansive grove is evident on the 1972 aerial imagery, but by 2005 the grove had been removed.

In 1985 the Fagan's gave joint tenancy to John M. Sobaje and his wife Kristen Sobaje (Fresno County Recorder 1985). By 1998 the Sobaje family built a new home on the northwest corner of the property. The Sobaje property is now a separate parcel (APN 560-031-35S; Figure 4-2).



Figure 4-9 AE-4027-01 as shown on a 1957 aerial image (U.S. Agricultural Stabilization and Conservation Service 1957); project area marked by purple line.



Figure 4-10 AE-4027-01 as shown on a 1967 aerial image (U.S. Agricultural Stabilization and Conservation Service 1967).

4.6 CRHR EVALUATION OF AE-4027-01

Under the guidelines of the Office of Historic Preservation (1995), AE-4027-01 is recorded as a historic-era property associated with twentieth-century agricultural and livestock farming activities undertaken by several families between 1900 and 1985. The evaluation below employs the NPS (2002) criteria and guidelines in evaluating the property's historical significance and considers the CRHR evaluation criteria.

4.6.1 Criterion 1

Criterion 1 considers the association of a property with an important event in history. However, the mere association with an important event does not by itself confer significance; a resource must also be a "good representative" of an aspect of history (NPS 2002:7, 12). In other words, a historically significant resource must serve as a vivid and physical manifestation of its related theme(s). Based on prior evaluations of similar agricultural and commercial properties in the San Joaquin Valley, a resource generally accrues significance under Criterion 1 if it: (1) was constructed during the formative period of the industry (i.e., a pioneer of the industry), (2) is associated with an important innovation in the industry, (3) is associated with the industry's leader or a dominant enterprise, and/or (4) is associated with developments that influenced history beyond or outside the agricultural industry.

The historic context (Section 2.4) identifies significant historical periods and themes in the Clovis region that potentially would impart historical significance under Criterion 1 to the subject resource under the four standards above. AE-4027-01 is a historic-era property utilized as a farm and cattle ranch from 1874 to 1900, and then as a swine and wheat/citrus farm from 1900 to 1985. The property represents pre-1920 settlement and agriculture as well as the agricultural boom after 1920; however, it does not measure up to the standards that would confirm significance under Criterion 1. Specifically, because the property was one of several in Fresno County during the latter part of the formative agricultural period, it is not representative of a pioneer in the livestock industry. Furthermore, there was no evidence found to suggest the property was the first of its type or associated with major developments in animal husbandry or crop farming that influenced history. For these reasons, AE-4027-01 is not historically significant at the local, regional, or national level under Criterion 1 for its association with agricultural and livestock development prior to 1920 or during the agricultural boom occurring after 1920.

4.6.2 Criterion 2

In order to be considered significant under Criterion 2, a resource must satisfy at least two conditions: (1) persons associated with the resource must be individually significant and (2) the resource must be associated with the person's productive life and be exemplary of his/her contributions to history (NPS 2002:15). AE-4027-01 was developed and operated by the Brown, Roberts, and Fagan families. Despite the latter's awards and recognition for quality of Duroc-Jersey yearlings, none of these families were particularly well known, nor were they associated with recorded events important in the local history or development of the community or region. Thus, AE-4027-01 is not historically significant under Criterion 2.

4.6.3 Criterion 3

Criterion 3 evaluates the physical design or construction of a resource, including such elements as architecture, landscape architecture, engineering, and aesthetics (NPS 2002:17–20). The building and associated structures demonstrate architecture, aesthetics, and engineering that is ubiquitous across the Central Valley during its period of significance. Therefore, AE-4027-01 does not embody distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values per Criterion 3. AE-4027-01 is not considered historically significant under Criterion 3.

4.6.4 Criterion 4

The significance of a resource under Criterion 4 is measured by the availability, or potential availability, of information important to the history of the region, California or nation. AE-4027-01 has not yielded, nor does it have the potential to yield, information important to the study of local, state, or national history, and it is therefore not historically significant under Criterion 4.

4.6.5 Assessment of Integrity

Because the property does not lend any information or physical evidence to further an understanding of important themes in history, it is not significant under any of the four CRHR criteria and does not require an assessment of integrity. AE-4027-01 is recommended ineligible for inclusion in the CRHR.

5

CONCLUSION AND RECOMMENDATIONS

Lennar Central Valley proposes to construct a residential development on 20 acres of agricultural property (Tract 6263) south of Shepherd Avenue between North Clovis and North Sunnyside avenues in the city of Clovis, California. Æ's inventory consisted of a records search at the CHRIS SSJVIC, additional archival research to identify property information, nongovernmental Native American outreach, a pedestrian survey, and an evaluation of one historic-era building (AE-4027-01). Æ did not observe evidence of prehistoric archaeological sites, isolated artifacts, or features on the ground surface within the Project area.

Æ's assessment of historic-era property AE-4027-01 found that it does not represent an important event in history (Criterion 1), could not be associated with a person who is individually significant (Criterion 2), is not representative of a unique or important physical design or construction event (Criterion 3), and does not have nor possess the potential to convey information important to the history of the region (Criterion 4). Therefore, AE-4027-01 is not significant under any of the four criteria and is recommended ineligible for inclusion in the CRHR.

During nongovernmental outreach to tribes identified by the NAHC as potentially having Project-specific information about important or sacred sites, Stan Alec of the Kings River Choinumni Farm Tribe requested immediate notification if any Native American artifacts or remains are discovered below 5 feet during Project development (Appendix C).

Consistent with state and federal statutes and regulations, Æ advises that in the event archaeological remains are encountered during Project development or ground-disturbing activities within any portion of the Project area, all work in the vicinity of the find should be halted until a qualified archaeologist can identify the discovery and assess its significance. In addition, if human remains are uncovered during construction, the Fresno County Coroner is to be notified to arrange their proper treatment and disposition. If the remains are identified on the basis of archaeological context, age, cultural associations, or biological traits 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 Descendent, 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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APPENDIX A

Personnel Qualifications

DIANA TERESA DYTE

Senior Archaeologist

Areas of Expertise

- Cultural resource management
- Ethnography
- Tribal consultation
- Zooarchaeological, paleoethnobotanical, and lithics analysis

Years of Experience

- 19

Education

Ph.D., Anthropology/Feminist Studies, University of California, Santa Barbara, in process

M.A., Anthropology (Archaeology/Cultural Resource Management emphasis), University of California, Santa Barbara, 2010

B.A., Anthropology, University of California, Santa Barbara, 2002

A.A., Liberal Arts and Sciences, Ventura College, 1999

Registrations/Certifications

- Registered Professional Archaeologist 39362477

Professional Affiliations

- American Anthropological Association
- American Cultural Resources Association
- Santa Barbara Museum of Natural History
- Society for American Archaeology
- Society for California Archaeology
- World Archaeological Congress

Professional Experience

- 2018– Senior Archaeologist, Applied EarthWorks, Inc., Fresno, California
- 2015–2018 Interim Cultural Resources Supervisor and Senior Archaeologist/Ethnographer, Aspen Environmental Group
- 2007–2009 Archaeologist (GS-9), U.S. Department of Agriculture, Los Padres National Forest
- 2005–2007 Archaeologist (GS-7), U.S. Department of Agriculture, Los Padres National Forest
- 2004–2005 Archaeological Contractor, Padre, Inc., Ventura, California
- 2000–2005 Archaeologist (GS-4/5), U.S. Department of Agriculture, Los Padres National Forest

Technical Qualifications

Ms. Dyste has 19 years of experience in cultural resources management and meets the Secretary of the Interior's qualification criteria as an archaeologist and ethnographer. She has extensive experience preparing environmental documents and managing complex projects pursuant to applicable federal, state, and local regulations. Her work includes senior review or prime authorship of cultural resources documents for National Historical Preservation Act Section 106, National Environmental Policy Act, and California Environmental Quality Act compliance, including public and tribal comment and response; development of research designs; design and implementation of cultural resources plans. Ms. Dyste is qualified to conduct archaeological survey, including the supervision of small to large sized field crews, as well as zooarchaeological, paleoethnobotanical, lithics, and ethnographic analyses. She is able to analyze cultural spatial patterns via use of Total Station and Geographic Information Systems software. Ms. Dyste's Assembly Bill 52 and NHPA Section 106 tribal consultation services are informed by her knowledge and training in Native American jurisprudence, cultural sensitivity training, and graduate seminars in Native American environmental law, indigenous research methodologies, and community-based Participatory Action Research with tribal and special interest groups. She has project experience in coastal, highlands, grasslands, desert, and remote mountain settings across the state of California, although her academic region of specialty is in central and southern California with a focus on Salinan, Esselen, northern/interior/coastal Chumash prehistoric and modern political tribal groups. Ms. Dyste is a native Spanish speaker and assists clients with the translation of English to Spanish signage and public notices.

RANDY L. OTTENHOFF
Associate Archaeologist

Areas of Expertise

- Cultural resource management
- Federal and CEQA regulations
- Design and implementation of pedestrian survey and subsurface site testing
- Rock art recordation and analysis
- Spatial analysis

Years of Experience

- 15

Education

Ph.D., Archaeology, University of Central Lancashire, 2015

B.A., Anthropology, University of California, Davis, 2004

A.A., Liberal Arts, American River College, Sacramento, 2001

Registrations/Certifications

- Registered Professional Archaeologist 17098
- Permitted Oregon Qualified Archaeologist

Professional Affiliations

- Society for American Archaeology
- Society for California Archaeology

Professional Experience

- 2018– Associate Archaeologist, Applied EarthWorks, Inc., Fresno, California
- 2017–2018 Cultural Resource Specialist II, ICF, Sacramento, California
- 2016–2017 Cultural Resource Specialist II, HDR Engineering, Inc., Sacramento, California
- 2010 Field Technician, Chambers Group, LLC, Reno, Nevada
- 2007–2010 Field Archaeologist, Pacific Legacy, Sacramento, California
- 2007–2009 Staff Archaeologist, Abercrombie’s Archaeology Consultants, Reno, Nevada
- 2004–2007 Field Archaeologist, Kautz Environmental, Reno, Nevada
- 2004 Field Technician, ASM Affiliates, Reno, Nevada

Technical Qualifications

Dr. Ottenhoff has 15 years of experience in cultural resource management and meets the Secretary of the Interior’s qualification standards as a professional archaeologist. He has extensive experience managing field projects pursuant to applicable federal, state, and local regulations for projects in California and Nevada, including projects with historic-period artifact scatters and mines as well as prehistoric sites. Dr. Ottenhoff has served as sole and co-author of numerous technical reports, including Class/Phase I Inventory and Class III federal reports, as well as letter reports summarizing the methods and results of project monitoring. He is familiar with National Historical Preservation Act, National Environmental Policy Act, and California Environmental Quality Act compliance; development of research designs; and design and implementation of cultural resource treatment plans. He is qualified to conduct archaeological survey, including the supervision of small to medium-sized field crews, as well as field and laboratory processing of prehistoric artifact assemblages using Access. Dr. Ottenhoff has project experience in coastal, highlands, grasslands, desert, and remote mountain settings across the state of California and is certified to conduct archaeological investigations in Oregon.

ANNIE L. MCCAUSLAND

Architectural Historian

Areas of Expertise

- Architectural history
- California history
- Archival research
- Public history
- Oral history
- Project management
- Technical writing

Years of Experience

- 5

Education

M.A., Arts in Public History,
California State University
Sacramento, 2015

B.A., Arts in History, Chapman
University, Orange, California, 2010

Professional Affiliations

- California Council for the
Promotion of History
- American Association for State
and Local History
- National Council on Public History
- California Preservation Foundation
- Los Angeles Conservancy
- Society of Architectural Historians

Professional Experience

- 2017– Associate Architectural Historian, Applied EarthWorks, Inc., Hemet, California
- 2016–2017 Archivist and Collections Registrar, Sonoma Valley Historical Society, Sonoma, California
- 2016 Park Aide, California State Parks, Bodie State Historic Park, California
- 2015–2016 Architectural Historian, Sapphos Environmental, Inc., Pasadena, California
- 2015 Museum Registration and Collections Management Intern, Academy of Motion Picture Arts and Sciences, Los Angeles, California
- 2014 Corporate Archives and Production Collections Intern, NBCUniversal, Universal City, California
- 2013–2014 Archives and Museum Collections Intern, Placer County Museum Archives and Research Center, Auburn, California
- 2010–2013 Volunteer Historian, California State Parks, Orange Coast District, San Clemente, California

Technical Qualifications

Ms. McCausland specializes in California history and architecture and has served as architectural historian for projects in California and she meets the Secretary of the Interior Professional Qualification Standards for Architectural History and History. Her expertise includes inventory, research, and significance evaluations, and she has completed numerous studies of residential, agricultural, commercial and industrial properties. Ms. McCausland has prepared technical reports for historical built environment resources to satisfy compliance requirements under National Historic Preservation Act Section 106 and the California Environmental Quality Act and to support preparation of both programmatic and project-specific environmental impact reports. She also has documented and evaluated built environment resources following California Department of Transportation (Caltrans) guidelines. Ms. McCausland has performed architectural surveys and significance evaluations on behalf of Los Angeles County Department of Parks and Recreation; other federal, state, and local agencies; and private-sector clients. Additional skills include archives and collections management, oral history, Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) documentation, agency consultation, exhibit curation, interpretation, and heritage tourism.

APPENDIX B

Records Search Results



4/4/2019

Mary Baloian
 Applied EarthWorks, Inc.
 1391 W. Shaw Ave., Suite C
 Fresno, CA 93711

Re: Tract 6263
 Records Search File No.: 19-104

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 0.5 mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: custom GIS maps shapefiles

Resources within project area:	None
Resources within 0.5 mile radius:	P-10-00511, 005934
Reports within project area:	FR-00107
Reports within 0.5 mile radius:	FR-01219, 01849, 01890, 02203, 02289, 02490

- 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 Historic Properties 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
<http://www.dot.ca.gov/hq/structur/strmaint/historic.htm>

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
<http://www.slc.ca.gov/Info/Shipwrecks.html>

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 19-104

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
FR-00107	NADB-R - 1141375	1977	Beck, Allen C.	Archeological Reconnaissance of the Proposed Sobaje land Development, Tentative Tract No. 4042; Environmental Assessment No. 3418	Consulting Archaeologist	
FR-01219		1993	Bissonnette, Linda Dick	Fresno Metropolitan Flood Control District Drainage Area "BY" Facilities	Cultural Resources Consulting	
FR-01849	Submitter - CV-607-C1	2000	Pastron, Allen G. and Brown, R. Keith	Historical and Cultural Resource Assessment for a Proposed Telecommunications Facility, Site No. CV-607-C1, 8901 Fowler Avenue, Fresno County, California	Brown & Mills, Inc.	
FR-01890		2002	Wren, Donald G.	A Cultural Resource Study for the Teague/Clovis Elementary School Project, Fresno County, California	Individual Consultant	
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-02490	Submitter - Project No. 10-SCAO-015	2009	Chotkowski, Michael A.	Section 106 Compliance for Enterprise Canal at Big Dry Creek Improvement Project, Fresno County, California	Bureau of Reclamation	

Resource List

SSJVIC Record Search 19-104

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-10-005511	CA-FRE-003344H	Resource Name - West Branch Helm Colonial Ditch	Structure	Historic	HP20	2005 (Wendy Nettles, Randy Baloian, Applied EarthWorks, Inc.)	FR-02123
P-10-005934	CA-FRE-003564H	Resource Name - Enterprise Canal	Structure	Historic	HP20	2007 (R. Baloian, Applied EarthWorks, Inc.); 2013 (Randy Baloian, Applied EarthWorks, Inc.)	FR-02615, FR-02919

Historical Topographic Maps and Aerial Images Consulted

Date	Name	Author	Reference	Notes
2010	N/A	N/A	Historic aerial photograph, http://www.histrociaerials.com , May 9, 2019.	Structure present.
1965	Clovis, CA 1:24,00	U.S. Geological Survey	1965 Clovis, Calif., 1:24,000 scale. U.S. National Geologic Map Database, Historical Topographic Map Collection (topoView), https://ngmdb.usgs.gov/topoview/ , accessed March 27, 2019.	A structure or building is shown on the map within the tract. The building is in the same place as the current house that is on the east side of the tract.
1937	13-ABI 48-25	Agricultural Adjustment Administration	1937 Fresno County, California, Aerial Survey No. 1937 13-ABI 48-25, http://cdmweb.lib.csufresno.edu/cdm/singleitem/collection/aerial/id/656/rec/1 , accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, March 27, 2019.	Buildings shown
1942	ABI-8B-96	Agricultural Adjustment Administration	1942 Fresno County, California, Aerial Survey No. 1942 ABI-8B-96, http://cdmweb.lib.csufresno.edu/cdm/singleitem/collection/aerial/id/656/rec/1 , accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, March 27, 2019.	Buildings shown
1957	ABI-53T-13	Agricultural Adjustment Administration	1957 Fresno County, California, Aerial Survey No. 1957 ABI-53T-13, http://cdmweb.lib.csufresno.edu/cdm/singleitem/collection/aerial/id/656/rec/1 , accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, March 27, 2019.	Buildings shown
1967	ABI-3HH-57	Agricultural Adjustment Administration	1967 Fresno County, California, Aerial Survey No. 1967 ABI-3HH-57, http://cdmweb.lib.csufresno.edu/cdm/singleitem/collection/aerial/id/656/rec/1 , accessed through Map and Aerial Locator Tool (MALT), Henry Madden Library, California State University, Fresno, March 27, 2019.	Buildings shown
2/1/1875	Flack Robert	General Land Office	1875 General Land Office Control Document Index, Township 12 South, Range 21 East, Mount Diablo Meridian, CDI ID 1778950. U.S. Department of the Interior, Bureau of Land Management General Land Office Records, https://glorerecords.blm.gov , accessed March 27, 2019.	Cash Land sell patent to Flack Robert for section 29.
11/10/1870	R. B. Freeman	General Land Office	1870 General Land Office Control Document Index, Township 12 South, Range 21 East, Mount Diablo Meridian, CDI ID 1778893. U.S. Department of the Interior, Bureau of Land Management General Land Office Records, https://glorerecords.blm.gov , accessed March 27, 2019.	Cash Land sell patent to R. B. Freeman for section 29.
4/8/1874	Henry Reel and Toliver L Reel	General Land Office	1874 General Land Office Patent, Township 12 South, Range 21 East, Mount Diablo Meridian, Patent ID CACAAA 121503. U.S. Department of the Interior, Bureau of Land Management General Land Office Records, https://glorerecords.blm.gov , accessed March 27, 2019.	No image is available for this cash land sell. Purchase of N 1/2, NE 1/4 of section 29.
10/15/1875	George A Bunch	General Land Office	1875 General Land Office Patent, Township 12 South, Range 21 East, Mount Diablo Meridian, Patent ID CACAAA 121632. U.S. Department of the Interior, Bureau of Land Management General Land Office Records, https://glorerecords.blm.gov , accessed March 27, 2019.	No image is available for this cash land sell. Purchase of SE 1/4 of section 29.

Historical Topographic Maps and Aerial Images Consulted

Date	Name	Author	Reference	Notes
6/15/1875	Henery Reel and Toliver L Reel	General Land Office	1875 General Land Office Patent , Township 12 South, Range 21 East, Mount Diablo Meridian, Patent ID CACAAA 121603. U.S. Department of the Interior, Bureau of Land Management General Land Office Records, https://glorerecords.blm.gov , accessed March 27, 2019.	No image is available for this cash land sell. Purchase of SE 1/4, NE1/4 of section 29.
6/15/1875	Henery Reel and Toliver L Reel	General Land Office	1875 General Land Office Patent , Township 12 South, Range 21 East, Mount Diablo Meridian, Patent ID CACAAA 121607. U.S. Department of the Interior, Bureau of Land Management General Land Office Records, https://glorerecords.blm.gov , accessed March 27, 2019.	No image is available for this cash land sell. Purchase of SW1/4, NE 1/4 of section 29.
1923	Clovis, CA 1:31,680	U.S. Geological Survey	1923 , <i>Clovis Calif.</i> , 1:31,680 scale. U.S. National Geologic Map Database, Historical Topographic Map Collection (topoView), https://ngmdb.usgs.gov/topoview/ , accessed March 27, 2019.	No structures, buildings, or roads shown on map.
1947	Clovis, CA 1:62,500	U.S. Geological Survey	1947 Clovis , <i>Calif.</i> , 1:62,500 scale. U.S. National Geologic Map Database, Historical Topographic Map Collection (topoView), https://ngmdb.usgs.gov/topoview/ , accessed March 27, 2019.	Project vicinity completely agricultural. Natomas drainage canal visible. Railroad visible, but railroad switchyard not visible. No Structures noted in project area.
1962	N/A	N/A	Historic aerial photograph, http://www.histrociaerials.com , May 9, 2019.	Structure present.
1972	N/A	N/A	Historic aerial photograph, http://www.histrociaerials.com , May 9, 2019.	Structure present.
1998	N/A	N/A	Historic aerial photograph, http://www.histrociaerials.com , May 9, 2019.	Structure present.
2002	N/A	N/A	Historic aerial photograph, http://www.histrociaerials.com , May 9, 2019.	Structure present.
2005	N/A	N/A	Historic aerial photograph, http://www.histrociaerials.com , May 9, 2019.	Structure present.
2009	N/A	N/A	Historic aerial photograph, http://www.histrociaerials.com , May 9, 2019.	Structure present.
2012	N/A	N/A	Historic aerial photograph, http://www.histrociaerials.com , May 9, 2019.	Structure present.
2014	N/A	N/A	Historic aerial photograph, http://www.histrociaerials.com , May 9, 2019.	Structure present.

APPENDIX C

Native American Outreach

STATE OF CALIFORNIA

Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: <http://www.nahc.ca.gov>
Twitter: @CA_NAHC



March 26, 2019

Mary Baloian
Applied EarthWorks, Inc.

VIA Email to: mbaloian@appliedearthworks.com

RE: Tract 6263, Fresno County.

Dear Ms. Baloian:

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 the NAHC. 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: katy.sanchez@nahc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Katy Sanchez".

KATY SANCHEZ
Associate Environmental Planner

Attachment

**Native American Heritage Commission
Native American Contacts List
3/25/2019**

AGENDA ITEM NO. 10.

Big Sandy Rancheria of Western Mono Indians Elizabeth D. Kipp, Chairperson PO. Box 337 Auberry, CA 93602 lkipp@bsrnation.com (559) 374-0066 (559) 374-0055	Western Mono	Kings River Choinumni Farm Tribe Stan Alec 3515 East Fedora Avenue Fresno, CA 93726 (559) 647-3227 Cell	Foothill Yokuts Choinumni
Cold Springs Rancheria Carol Bill, Chairperson P.O. Box 209 Tollhouse, CA 93667 coldsprgstriben@netptc.net (559) 855-5043 (559) 855-4445 Fax	Mono	North Fork Mono Tribe Ron Goode, Chairperson 13396 Tollhouse Road Clovis, CA 93619 rwgoode911@hotmail.com (559) 299-3729 Home (559) 355-1774 - cell	Mono
Dumna Wo-Wah Tribal Government Robert Ledger Sr., Chairperson 2191 West Pico Ave. Fresno, CA 93705 ledgerrobert@ymail.com (559) 540-6346	Dumna/Foothill Yokuts Mono	Santa Rosa Rancheria Tachi Yokut Tribe Rueben Barrios Sr., Chairperson P.O. Box 8 Lemoore, CA 93245 (559) 924-1278 (559) 924-3583 Fax	Tache Tachi Yokut
Dunlap Band of Mono Indians Benjamin Charley Jr., Tribal Chair P.O. Box 14 Dunlap, CA 93621 ben.charley@yahoo.com (760) 258-5244	Mono	Table Mountain Rancheria Leanne Walker-Grant, Chairperson P.O. Box 410 Friant, CA 93626 rpennell@tmr.org (559) 822-2587 (559) 822-2693 Fax	Yokuts
Dunlap Band of Mono Indians Dick Charley, Tribal Secretary 5509 E. McKenzie Avenue Fresno, CA 93727 dcharley2016@gmail.com (559) 554-5433	Mono	Table Mountain Rancheria Bob Pennell, Cultural Resources Director P.O. Box 410 Friant, CA 93626 rpennell@tmr.org (559) 325-0351 (559) 325-0394 Fax	Yokuts

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

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 Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed: Tract 6263, Fresno County.

**Native American Heritage Commission
Native American Contacts List
3/25/2019**

AGENDA ITEM NO. 10.

Traditional Choinumni Tribe
David Alvarez, Chairperson
2415 E. Houston Avenue
Fresno CA 93720
davealvarez@sbcglobal.net
(559) 217-0396 Cell

Choinumni

Traditional Choinumni Tribe Rick
Osborne, Cultural Resources
2415 E. Houston Avenue
Fresno CA 93720
(559) 324-8764
lemek@att.net

Choinumni

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas CA 93906
kwood8934@aol.com
(831) 443-9702

Foothill Yokuts
Mono
Wuksache

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

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 Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed: Tract 6263, Fresno County.



Native American Outreach Lennar Central Valley Tract 6263

Organization	Name	Position	Letter	E-mail	Phone	Summary of Contact
Native American Heritage Commission	Katy Sanchez	Assoc. Env. Pl.	03/26/19			Response received.
Big Sandy Rancheria	Elizabeth D. Kipp	Chairperson	04/16/19	05/15/19		No response was recieved from letter or email outreach.
Cold Springs Rancheria of Mono Indians	Carol Bill	Chairperson	04/16/19	05/15/19		No response was recieved from letter or email outreach.
Dumna Wo-Wah Tribal Government	Robert Ledger Sr.	Tribal Chairperson	04/16/19	05/15/19		No response was recieved from letter or email outreach.
Dunlap Band of Mono Indians	Benjamin Charley, Jr.	Tribal Chair				No outreach per Dick Charley's request.
Dunlap Band of Mono Indians	Dick Charley	Tribal Secretary			10/17/18	During telephone conversation Dick Charley asked not to be contacted due to the project area being outside their area of concern.
Kings River Choinumni Farm Tribe	Stan Alec		04/16/19		05/15/19	Mr. Stan Alec responded during phone conversation; Mr. Alec asked to be contacted if prehistoric artifacts are found below five feet or human remains are identified.
North Fork Mono Tribe	Ron Goode	Chairperson	04/16/19	05/15/19		No response was recieved from letter or email outreach.
Santa Rosa Rancheria Tachi Yokut Tribe	Rueben Barrios Sr.	Chairperson	04/16/19	05/15/19		No response was recieved from letter or email outreach.
Table Mountain Rancheria	Leanne Walker-Grant	Chairperson	04/16/19		5/15/2019 Voice message	No response was recieved from letter or email outreach.
Table Mountain Rancheria	Bob Pennell	Cultural Resources Director	04/16/19	05/15/19	5/15/2019 Voice message	No response was recieved from letter or email outreach.
Traditional Choinumni Tribe	David Alvarez	Chairperson	04/16/19	Email Failed	Phone not working	No response was recieved from letter or email outreach.
Traditional Choinumni Tribe	Rick Osborne	Cultural Resources	04/16/19	05/15/19		No response was recieved from letter or email outreach.
Wuksache Indian Tribe/Eshom Valley Band	Kenneth Woodrow	Chairperson	04/16/19	05/15/19		No response was recieved from letter or email outreach.

APPENDIX D

Cultural Resource Record Forms

State of California — The Resources Agency
 DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary HRI **AGENDA ITEM NO. 10.**

Trinomial
 NRHP Status Code 6Z

Other Listings
 Review Code

Reviewer

Date

Page 1 of 14

Resource Name or #: 4707 N. Preuss Avenue (AE-4027-01)

P1. Other Identifier: 4707 North Preuss Avenue (modern/historical); 4707 East Shepherd Avenue (historical)

***P2. Location: a. County:** Fresno

Not for Publication

Unrestricted

b. USGS 7.5' Quad: Clovis, CA **Date** 1981

T 12S, R 21E; Section 29 M.D. BM

c. Address: 4707 North Preuss Avenue, Clovis, CA 93619

d. UTM: NAD 83, Zone 11; 259528.00 mE / 4083265.00 mN

e. Other Locational Data: APN 560-031-23S, APN 560-031-35S, APN 560-031-34S

***P3a. Description:** The residence and surrounding property was historically a larger 21.52-acre agricultural operation that included two adjacent 3-acre parcels to the north (APNs 560-031-35S and 560-031-34S). The extant buildings and structures of AE-4027-01 are within APN 560-031-23S, which covers 15.52 acres, and consist of a 1,062-square-foot single-story American vernacular style dwelling built in 1940 with later modifications and associated buildings and structures. These include a corrugated metal shed, a wood clad rectangular garage, a hog pen, a shade structure, a metal hoist and cable winch with a concrete foundation, a water pump, and various farming and water conveyance machinery, much of which is rusted and appears disused. The ages of these structures could not be confirmed based on imagery or other archival sources. An eroded asphalt driveway on a historical alignment extends east from North Preuss Avenue and provides access to the residence and other structures on the property. The structures are not fenced and are surrounded by a green lawn with several trees and shrubs on the north, east, and south façades. A modern electric meter is in the southeast corner of the Project area. The remainder of the parcel is mostly vacant land and is no longer being utilized as a farm.

***P3b. Resource Attributes:** HP33: Farm / HP2: Single-family property

***P4. Resources Present:** Building Structure Object Site District Element of District Other:

***P5a. Photograph**



P5b. Description of Photo: East and north façades, looking southwest

***P6. Date Constructed/Age and Sources:**
 Prehistoric Historic Both
 1940 (Fresno County Assessor)

***P7. Owner and Address:**
 State of California

***P8. Recorded By:** Annie McCausland
 Applied EarthWorks, Inc.
 3550 E. Florida Ave., Suite H
 Hemet, CA 93401

***P9. Date Recorded:** April 2019

***P10. Survey Type:** Intensive
 Reconnaissance Other

Describe:

***P11. Report Citation:** Ottenhoff, Randy, Annie McCausland, and Diana T. Dyste
 2019 *Cultural Resource Inventory and Evaluation for the Lennar Tract 6263 Residential Development, City of Clovis, Fresno County, California.* Applied EarthWorks, Inc., Fresno, California. Prepared for Lennar Central Valley, Fresno, California.

***Attachments:** NONE Location Map Site/Sketch Map Continuation Sheet
 Building, Structure, and Object Record Archaeological Record District Record Linear Feature Record
 Photograph Record Milling Station Record Rock Art Record Artifact Record
 Other (list):

***P3a. Description Continued:** The wood-framed clapboard-wrapped dwelling rests on a concrete foundation and features a medium-pitched cross-gabled roof capped with composite shingles with a wide eave and exposed rafters. All but one window are double-panel metal-framed sliders that are not original to the house, but the openings have the shape and size one would expect in a house of this age.

The fenestration of the north façade (principal face) is asymmetrical. There is a three-panel vinyl slider window to the left of the eight-paneled wood front door, which is covered by a metal-framed screen door, and a double-panel metal-framed slider window to the right of the door. There is a slightly raised clapboard clad simple gable porch over the main entrance on the western façade. It has exposed rafters and is capped by a composite-shingle roof that matches the rest of the dwelling. The porch protects a raised cement slab that has a two-step approach from a short cement walkway. The front of the porch is supported by four square wood posts, two on each side of a center opening in the 3-foot-high clapboard fence that extends around both sides of the porch.

One-half of the east-facing façade projects from the main body of the house. This portion of the dwelling has a brick chimney and one double-panel metal-framed slider window. South of this, where the gable-front portion meets the eave-front main body of the dwelling, is the second half of the east façade that contains one offset double-panel metal slider window. A 192-square-foot room addition constructed is attached to the center of the southern façade. It is side-gabled and has clapboard siding that matches the rest of the building, enclosed eaves with exposed rafters, and a roof capped with composite shingles. The east façade of the addition has a door, and each of the other two façades has a single double-panel metal-framed slider window. Electrical wiring attached to the southeastern corner of the roof is visible from the east façade.

On the southern façade of the original dwelling and on each side of the room addition is a single double-panel metal-framed slider window. The west façade contains two identical double-panel metal-framed slider windows. An air conditioner or fan system is visible on the roof of the western façade, along with a modern satellite dish. The concrete foundation of the dwelling has several air vents.

The historical east–west-trending dirt and asphalt driveway that is recorded as a feature of AE-4027-01 is 20 feet wide and 490 feet long with a berm of approximately 6 inches. The driveway was created through cut and fill. The asphalt has white pebble inclusions and is badly eroded with potholes that have been filled with gravel. The overall width of the driveway is 20 feet—the asphalt portion is 15 feet wide and the remainder consists of compact dirt. The driveway extends east from Preuss Avenue and stops 20 feet from the western façade of a house. Historical maps show the driveway alignment existed as early as 1923, and aerial images from 1937 show the driveway had become part of a farming access road system. At that time it was not a through connection to North Preuss Avenue, but rather connected to a driveway entering the property from East Shepard Avenue. Aerial images from 1967 show the driveway once circled the house, wrapping back upon itself in front of the western façade. Despite the eroding asphalt, the driveway prism is in overall good condition.

Page 3 of 14

Resource Name or #: 4707 N. Preuss Avenue (AE-4027-01)

Continuation

Update

***P5a. Photograph (continued)**



P5b. Description of Photo: North façade (primary), looking south.



P5b. Description of Photo: East façade with chimney, looking west.

Page 4 of 14

Resource Name or #: 4707 N. Preuss Avenue (AE-4027-01)

Continuation

Update



P5b. Description of Photo: South and east facades, looking north.



P5b. Description of Photo: West façade, looking east.

Page 5 of 14

Resource Name or #: 4707 N. Preuss Avenue (AE-4027-01)

Continuation

Update



P5b. Description of Photo: Remains of asphalt road and vacant land, which was once a swine farm, looking south.



Description of Photo: East façade of corrugated metal storage shed, looking west.

Page 6 of 14

Resource Name or #: 4707 N. Preuss Avenue (AE-4027-01)

Continuation

Update



P5b. Description of Photo: Metal hoist and cable winch with concrete pad, looking west.



P5b. Description of Photo: Shade structure, looking southeast.



P5b. Description of Photo: Wood clad garage, looking south.



P5b. Description of Photo: Historic water pump and standpipe, looking southeast.

Page 8 of 14

Resource Name or #: 4707 N. Preuss Avenue (AE-4027-01)

Continuation

Update



P5b. Description of Photo: Historic water tank, looking north.

Page 9 of 14

Resource Name or #: 4707 N. Preuss Avenue (AE-4027-01)

B1. Historic Name:

B2. Common Name:

B3. Original Use: Farm

B4. Present Use: Single-family property

***B5. Architectural Style:** American Vernacular

***B6. Construction History (construction date, alterations, and dates of alterations):** The subject dwelling was constructed in 1940 (Fresno County Assessor 2019). The garage and shed were most likely constructed around the same time. The water pump was installed in 1963 (Fresno County Recorder 1963). The dwelling is in good condition and appears to have a later 192 sq. ft. addition on the south façade.

***B7. Moved?:** No Yes Unknown Date: Original Location:

***B8. Related Features:** none

B9. a. Architect: unknown **b. Builder:** unknown

***B10. Significance:** Theme: Agriculture Area: Clovis-Big Dry Creek
Period of Significance: 1923–1985 Property Type: Farm Applicable Criteria: n/a

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

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 from the foothills into the valley (Clough and Secrest 1984:304). At the time, the valley was not a particularly hospitable place for farming.

Early farming efforts were hampered by drought, lack of irrigation water, and free-roaming cattle. The driving force behind agriculture was (and remains) irrigation. The Enterprise Canal, one of the three major irrigation systems in Fresno County is roughly 100 feet east of AE-4027. The canal, which presently flows 36.5 miles from its head gate on the Gould Canal near the Kings River to the center of Fresno was built in at least three successive episodes during the period 1875–1913 (Baloian 2014). Historical maps from the nineteenth century suggest that the second leg of the canal reached the Project vicinity sometime between 1885 and 1891.

The number of homesteads in the Dry Creek area grew following the creation of canal systems in Fresno County, and swine production took on an important economic role. Swine (or hog) production has been a central livestock industry in California since the late nineteenth century. As was common across California homesteads during the historic era, most families maintained small drifts and sounders of hogs that were used for personal consumption, sale in local markets, gifting at church and social events, and maintaining levels of refuse and waste resulting from other agricultural and livestock by-products on the farm (Kindell 2006). However, from the late 1890s until just prior to the Great Depression, Fresno County farmers specialized in producing and refining the Duroc-Jersey breed, known for its rapid growth rate and excellent quality of muscle (National Swine Registry 2018). However, while the swine industry historically ranked in the top three profitable industries in California following cattle and dairy, it has since been displaced by chicken, turkey, and other exotic agricultural pursuits such as avocado, pistachio, and wine (California Department of Food and Agriculture 2014–2015; Johnston and McCalla 2004).

Sketch Map
(see attached)

This space reserved for official comments.

***B10. Significance (cont.):** AE-4027-01 is a historic-era property utilized as a swine and wheat/citrus farm from 1923 to 1985. The property represents pre-1920 settlement and agriculture as well as the agricultural boom after 1920; however, it does not measure up to the standards that would confirm significance under Criterion 1. Specifically, because the property was one of several in Fresno County during the latter part of the formative agricultural period, it is not representative of a pioneer in the livestock industry. Furthermore, there was no evidence found to suggest the property was the first of its type or associated with major developments in animal husbandry or crop farming that influenced history. For these reasons, AE-4027-01 is not historically significant at the local, regional, or national level under Criterion 1 for its association with agricultural and livestock development prior to 1920 or during the agricultural boom occurring after 1920.

AE-4027-01 was developed and operated by the Brown, Roberts, and Fagan families. Despite the latter's awards and recognition for quality of Duroc-Jersey yearlings, none of these families were particularly well known, nor were they associated with recorded events important in the local history or development of the community or region. Thus, AE-4027-01 is not historically significant under Criterion 2.

The building and associated structures demonstrate architecture, aesthetics, and engineering that is ubiquitous across the Central Valley during its period of significance. Therefore, AE-4027-01 does not embody distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values per Criterion 3. AE-4027-01 is not considered historically significant under Criterion 3.

The significance of a resource under Criterion 4 is measured by the availability, or potential availability, of information important to the history of the region, California or nation. AE-4027-01 has not yielded, nor does it have the potential to yield, information important to the study of local, state, or national history, and it is therefore not historically significant under Criterion 4.

Because the property does not lend any information or physical evidence to further an understanding of important themes in history, it is not significant under any of the four CRHR criteria and does not require an assessment of integrity. AE-4027-01 is recommended ineligible for inclusion in the CRHR.

B11. Additional Resource Attributes (list attributes and codes): None.

***B12. References:**

Baloian, Randy

2014 *Historical Resources Evaluation Report for Shepherd and Minnewawa Signal Light Project, City of Clovis, Fresno County, California*. Applied EarthWorks, Inc., Fresno, California. Prepared for the City of Clovis Planning Division, Clovis, California. Submitted to California Department of Transportation, District 6, Fresno.

California Department of Food and Agriculture

2014–2015 *Livestock and Dairy*. In *California Agricultural Statistics Review, 2014–2015*, <https://www.cdfa.ca.gov/statistics/PDFs/2015Report.pdf>, accessed May 25, 2019.

Clough, Charles W., and William B. Secrest Jr.

1984 *Fresno County—The Pioneer Years: From the Beginnings to 1900*. Panorama West Books, Fresno, California.

Fresno County Assessor

2019 Assessed Value Lookup, <https://www.co.fresno.ca.us/departments/assessor/assessed-value-lookup>, accessed May 10, 2019.

Fresno County Recorder

1963 Notice to Release of Legal Owner to Pumping Plant Installed on Real Property. Book 4819, p. 46.

Johnston, Warren E., and Alex F. McCalla

2004 *Whither California Agriculture: Up, Down or Out? Some Thoughts about the Future*. Giannini Foundation Special Report 04-1. Giannini Foundation of Agriculture and Economics, University of California.

Kindell, Alexandra

2006 *Settling the Sunset Land: California and Its Family Farmers, 1850s–1890s*. Ph.D. dissertation, History Department, Iowa State University.

***B12. References (cont.):**

National Swine Registry

2018 History of the Duroc Breed, <https://nationalswine.com/about/breeds/about-duroc.php>, accessed May 28, 2019.

B13. Remarks:

***B14. Evaluator:** Annie McCausland, M.A.
Applied EarthWorks, Inc.
Hemet, CA 93401

Date of Evaluation: May 2019

Page 12 of 14

Resource Name or #: 4707 N. Preuss Avenue (AE-4027-01)

L1. **Historic and/or Common Name:** 4707 North Preuss Avenue; 4707 East Shepherd Avenue

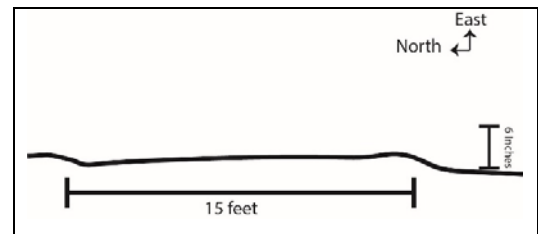
L2a. **Portion Described:** Entire Resource Segment Point Observation **Designation:**
 b. Location of point or segment:

L3. **Description:** This historic driveway has asphalt paving with white pebble inclusions. The asphalt is badly eroded and potholes have formed, which have been filled with gravel. The overall width of the roadway is 20 feet. The asphalt is 15 feet wide and stops abruptly on the north side of the driveway. Beyond the asphalt, 5 feet of road is cut on the surface. Based on equipment tracks, the 5-foot cut widens the driveway to allow passage of modern farm equipment. The driveway extends east from Preuss Avenue and the asphalt end 20 feet from the western façade of the dwelling. A dirt clearing continues to the north façade steps of the dwelling.

L4. **Dimensions:**

- a. **Top Width:** 20 feet
- b. **Bottom Width:**
- c. **Height or Depth:** 6 inch berm
- d. **Length of Segment:** 490 feet

L4e. **Sketch or Cross Section** attached **Facing:** East
 none



L5. **Associated Resources:** Historical dwelling and other structures related to historical farming activities at AE-4207-01.

L6. **Setting:** The driveway crosses an open flat agricultural field to its eastern terminus in front of the historical dwelling. Nearby is a modern residential development with ornamental landscaping.

L7. **Integrity Considerations:** The driveway appears to have been widened 5 feet on the north side, which may be a departure from the road's original width. Impacts from vehicles and natural erosion have caused potholes to form in the asphalt surface. The current open agricultural field may be very similar to the historic landscape, but the modern residential neighborhood interrupts the historical feeling of the late nineteenth and early- to mid-twentieth centuries when the land was occupied by various farmers. Despite the eroding asphalt, the roads prism is in overall good condition.

L8a. **Photo, Map, or Drawing:**

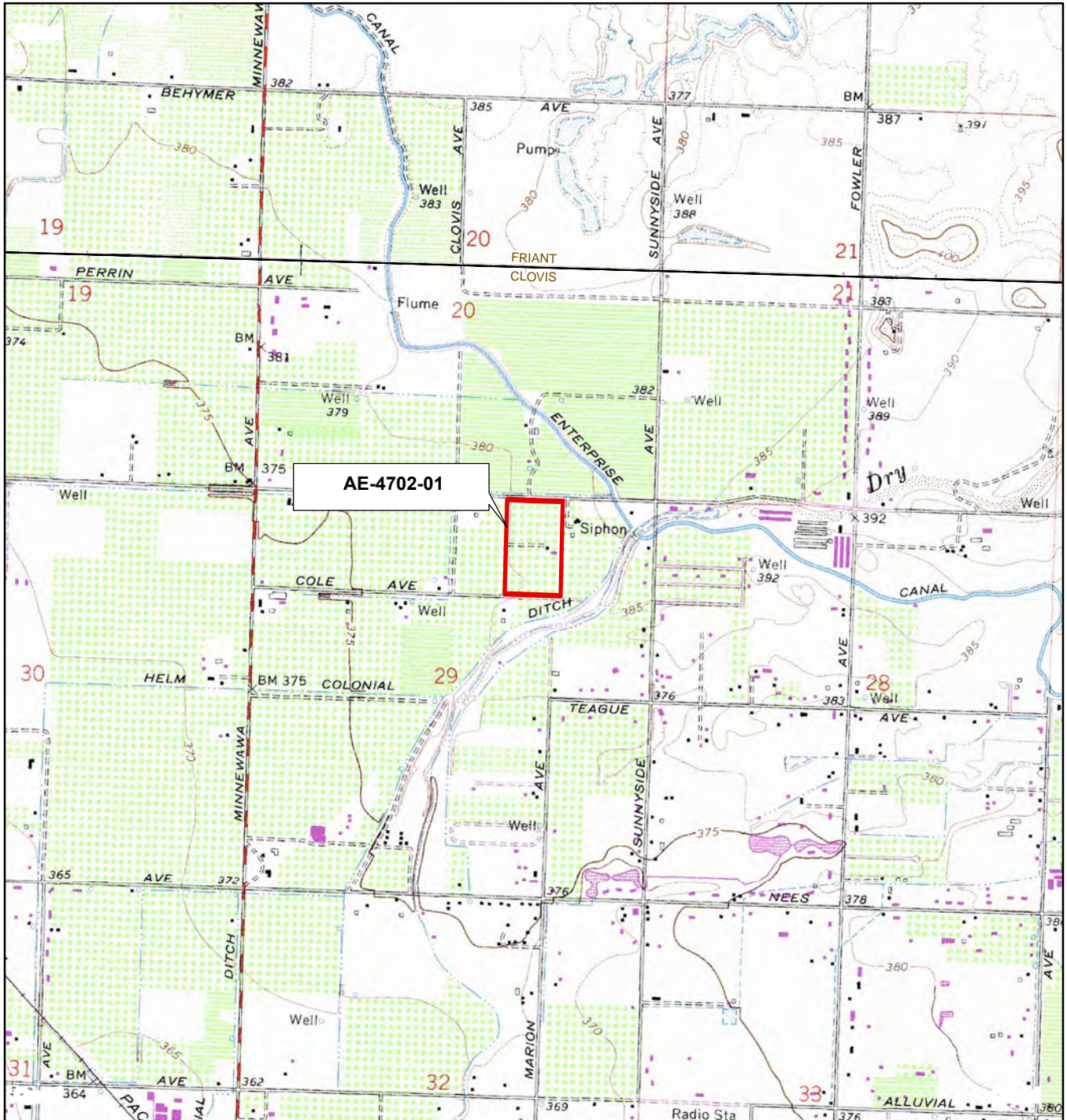


L8b. **Description of Photo, Map, or Drawing:** Road with eroding asphalt visible; view to the west.

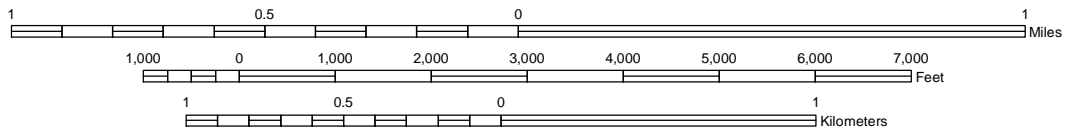
L9. **Remarks:**

L10. **Form Prepared By:** Randy Ottenhoff

L11. **Date:** 5/10/2019



SCALE 1:24,000



TRUE NORTH



APPENDIX D

Noise Study

Lennar Tract 6263

ACOUSTICAL ANALYSIS
TENTATIVE TRACT 6263
CLOVIS, CALIFORNIA

WJVA Project No. 19-008

PREPARED FOR

LENNAR HOMES OF CENTRAL CALIFORNIA
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PREPARED BY

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JULY 19, 2019

INTRODUCTION

The project is a proposed 139-lot single-family residential development to be located in Clovis, California. The project site is located south of Shepherd Avenue, between Preuss Avenue and Russel Avenue. The project site is adjacent to Riordan Avenue to the south. The project developer (Lennar Homes) 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 lot layout map provided by the project developer, traffic data provided by the Fresno Council of Governments (Fresno COG) and the findings of on-site noise level measurements. Revisions to the lot layout 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

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 transportation 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.).

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.

Additionally, the noise element requires that interior noise levels attributable to exterior transportation 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
TRANSPORTATION NOISE SOURCES
CITY OF CLOVIS GENERAL PLAN

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.

PROJECT SITE NOISE EXPOSURE

The project site is exposed traffic noise from vehicles associated with Shepherd Avenue, which is adjacent to the site to the north. The project site is bordered by Preuss Avenue to the west, Riordan Avenue to the south and Russel Avenue to the east. The distance from center of the backyards of the closest proposed lots to the centerline of Shepherd Avenue is approximately 100 feet.

Traffic Noise Exposure:

Noise exposure from traffic on Shepherd Avenue was calculated for existing and future (2035) conditions using the FHWA Traffic Noise Model and traffic data obtained from Fresno COG. The Fresno COG noise model does not provide traffic volumes for Riordan Avenue; therefore, a traffic noise analysis was not performed for Riordan Avenue. However, traffic volumes along Riordan Avenue would not be expected to result in noise levels that would exceed the City's noise level criteria.

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.

Noise level measurements and concurrent traffic counts were conducted by WJVA staff within the project site on March 21, 2018. The purpose of the measurements was to evaluate the accuracy of the FHWA Model in describing traffic noise exposure within the project site. The measurement site was located within the project site at a distance of approximately 100 feet from the centerline of Shepherd Avenue. The posted speed limit in the project vicinity was 50 mph (miles per hour). The project vicinity and noise monitoring site location are provided as Figure 2. A photo of the noise monitoring site is provided as Figure 3.

Noise monitoring equipment consisted of Larson-Davis Laboratories Model LDL-820 sound level analyzer equipped with a B&K Type 4176 1/2" microphone. The equipment complies with the specifications of the American National Standards Institute (ANSI) for Type I (Precision) sound level meters. The meter was calibrated in the field prior to use with a B&K Type 4230 acoustic calibrator to ensure the accuracy of the measurements. The microphone was located on a tripod at 5 feet above the ground. The project site presently consists of a tilled undeveloped soil.

Noise measurements were conducted in terms of the equivalent energy sound level (L_{eq}).

Measured L_{eq} values were compared to L_{eq} values calculated (predicted) by the FHWA Model using as inputs the traffic volumes, truck mix and vehicle speed observed during the noise measurements. The results of that comparison are shown in Table II.

From Table II it may be determined that the traffic noise level predicted by the FHWA Model were 0.1 dB higher than those measured for the traffic conditions observed at the time of the noise measurements. This is considered excellent agreement with the model and therefore no adjustments to the model are necessary.

TABLE II	
COMPARISON OF MEASURED AND PREDICTED (FHWA MODEL) NOISE LEVELS TENTATIVE TRACT 6263, SHEPHERD AVENUE, CLOVIS	
@100' Shepherd Avenue	
Measurement Date	March 21, 2019
Measurement Start Time	9:45 a.m.
Observed # Autos/Hr.	708
Observed # Medium Trucks/Hr.	36
Observed # Heavy Trucks/Hr.	0
Posted Speed (MPH)	50
Distance, ft. (from center of roadway)	100
L_{eq} , dBA (Measured)	62.6
L_{eq} , dBA (Predicted)	62.7
Difference between Measured and Predicted L_{eq} , dBA	+0.1
Note: FHWA "soft" site assumed for calculations. Source: WJV Acoustics, Inc.	

Annual Average Daily Traffic (AADT) data for Shepherd Avenue in the project vicinity was obtained from Fresno COG. Truck percentages and the day/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. Table III summarizes annual average traffic data used to model noise exposure within the project site.

TABLE III
TRAFFIC NOISE MODELING ASSUMPTIONS
TRACT 6263, SHEPHERD AVENUE
CLOVIS, CALIFORNIA

	Shepherd Avenue	
	Existing	2035
Annual Avenue Daily Traffic (AADT)	13,026	34,708
Day/Night Split (%)	90/10	
Assumed Vehicle Speed (mph)	50	
% Medium Trucks (% AADT)	2	
% Heavy Trucks (% AADT)	2	

Sources: Fresno COG
WJV Acoustics, Inc.

Using data from Table III, the FHWA Model, annual average traffic noise exposure was calculated for the closest proposed backyards from Shepherd Avenue. The calculated noise exposures for existing and future traffic conditions for the closest proposed setbacks to Shepherd Avenue were 64.1 dB CNEL and 68.3 dB CNEL, respectively. Future traffic conditions noise levels are above the applicable City of Clovis exterior noise level standard of 65 dB CNEL, and further mitigation is required.

NOISE MITIGATION

Exterior Noise Mitigation:

The City of Clovis Noise Element of the General Plan establishes a 65 dB CNEL criterion within outdoor activity areas (backyards) of single-family homes. The project site traffic noise exposure for future (2035) traffic conditions was calculated to be approximately 68 dB CNEL at the closest proposed residential setbacks to Shepherd Avenue. Such levels exceed the City of Clovis exterior noise level standards, and additional mitigation is therefore required.

To mitigate exterior traffic noise exposure along Shepherd Avenue it will be necessary to construct a sound wall along the roadway. The sound wall will provide acoustical shielding of backyards located closest to the roadway.

A sound wall insertion loss program based on the FHWA Model was used to calculate the insertion loss (noise reduction) provided by the proposed sound wall. The model calculates the insertion loss of a wall of given height based on the effective height of the noise source, height of the receiver, distance from the receiver to the wall, and distance from the noise source to the wall. The standard assumptions used in the sound wall calculations are effective source heights of 8, 2 and 0 feet above the roadway for heavy trucks, medium trucks and automobiles, respectively. The standard height of a residential receiver is five feet above the ground elevation. It was assumed by WJVA that the building pad elevations at the closest proposed homes to Shepherd Avenue will be approximately the same elevation as the roadway pavement.

Based upon the above-described assumptions and method of analysis, the noise level insertion loss values for sound walls of various heights were calculated. The calculations indicate that a sound wall along Shepherd Avenue constructed to a height of six (6) feet above project site grade would result in exterior noise levels of approximately 62 dB CNEL within the closest proposed backyards to Shepherd Avenue.

With the incorporation of the above-described sound wall, the projected future (2035) exterior noise exposure at the closest proposed setbacks along Shepherd Avenue will comply with the City's 65 dB CNEL standard within individual backyards of the proposed single-family homes. However, the sound wall would not provide acoustical shielding to any second-floor patio facing Shepherd Avenue and therefore second-floor balconies should be incorporated into the first row of homes facing Shepherd Avenue.

Interior Noise Exposure:

The City of Clovis interior noise level standard is 45 dB CNEL. With the above-described sound wall in place, the worst-case future noise exposure within the proposed residential development would be approximately 62 dB CNEL at first-floor receiver locations along Shepherd Avenue.

Exterior second-floor façade noise levels would not be shielded by the above-described 6-foot sound walls nor would ground absorption of traffic noise be a factor. Therefore, exterior future

conditions traffic noise exposure at second-floor receiver locations at the closest homes along Shepherd Avenue would be expected to be approximately 70 dB CNEL.

This means that the proposed residential construction must be capable of providing a minimum (worst-case scenario) outdoor-to-indoor noise level reduction (NLR) of approximately 25 dB (70-45=25).

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 a minimum of 25 dB if windows and doors are closed. This will be sufficient for compliance with the City's 45 dB CNEL interior standard at the closest proposed homes along Shepherd Avenue. 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

Exterior Noise Compliance:

The proposed 139-lot single-family residential development will comply with applicable City of Clovis exterior noise level requirements provided the following mitigation measures are incorporated into final project design.

1. A sound wall with a minimum height of six (6) feet above project-side grade is constructed along the lot property lines along Shepherd Avenue. Suitable construction materials include concrete blocks, masonry or stucco on both sides of a wood or steel stud wall.
2. Second-floor balconies should not be constructed facing Shepherd Avenue for the first row of homes closest to Shepherd Avenue.

Interior Noise Compliance:

The proposed single-family residential development will comply with applicable City of Clovis interior noise level requirements provided the following mitigation measures are incorporated into final project design.

1. Mechanical ventilation or air conditioning must be provided for all homes so that windows and doors can remain closed for sound insulation purposes.
2. Acoustic baffles should be installed on the interior side of gable vents that face, or are perpendicular to, Shepherd Avenue. An example of a suitable attic vent baffle is shown by Appendix C.

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 2: PROJECT SITE VICINITY AND NOISE MEASUREMENT SITE LOCATION

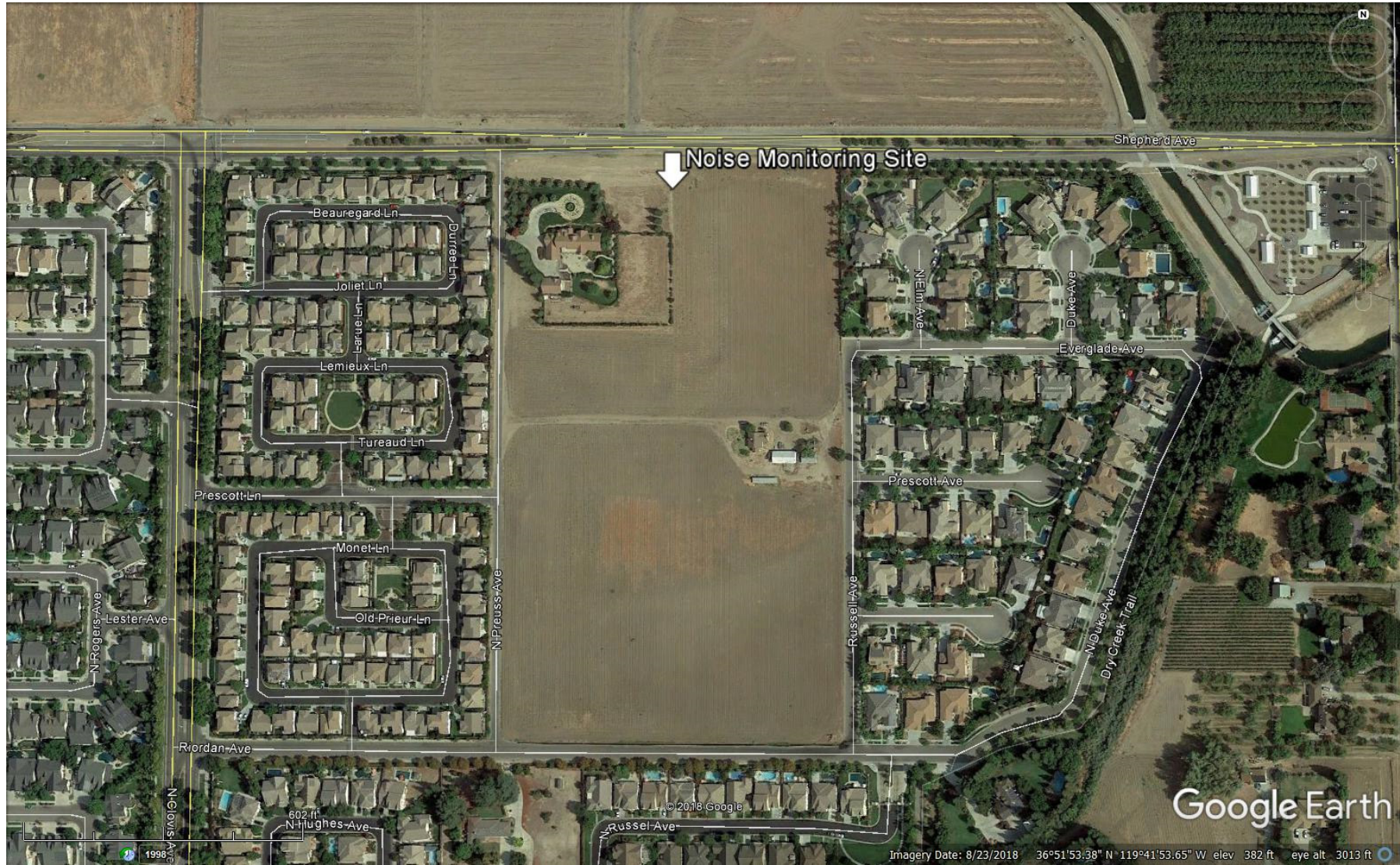


FIGURE 3: NOISE MEASUREMENT SITE



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.

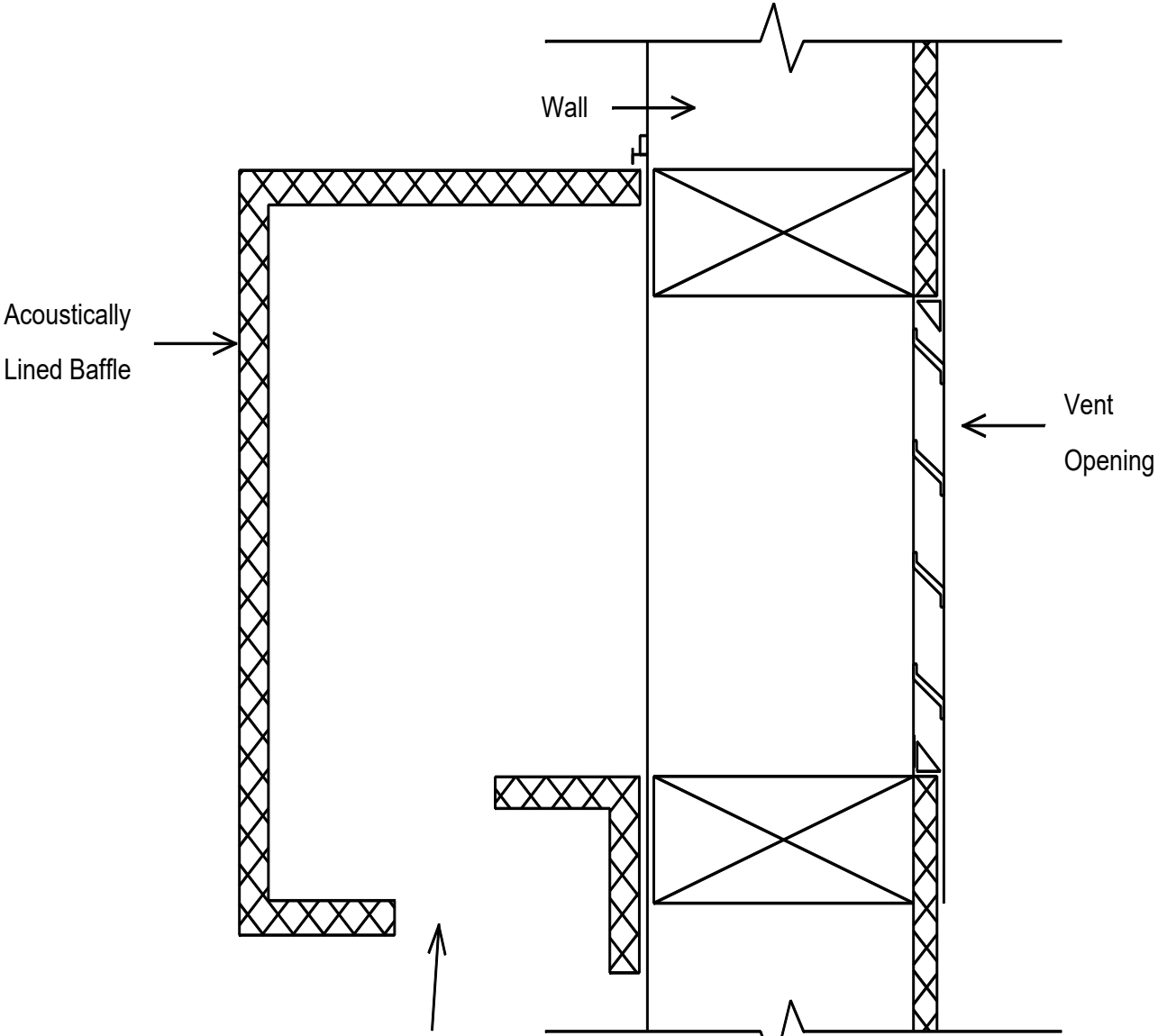
SOUND TRANSMISSION**CLASS (STC):**

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
TYPICAL OFFICE INTERIOR ▶	20 dB	VERY FAINT
SOFT RADIO MUSIC ▶	0 dB	
RESIDENTIAL INTERIOR ▶		
WHISPER @ 6 FT ▶		
HUMAN BREATHING ▶		

Appendix C
Example of Attic Vent Baffle Treatment



Opening should be large
enough to provide adequate
ventilation as required by
building codes

APPENDIX E

Traffic Impact Study

Lennar Tract 6263

Revised Traffic Impact Analysis

TT 6263

**Located on the Southeast Quadrant of
Clovis Avenue and Shepherd Avenue**

In the City of Clovis, California

Prepared for:

Yamabe & Horn Engineering, Inc.
2985 N. Burl Ave., #101
Fresno, CA 93727

August 9, 2019

Project No. 006-028



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Traffic Engineering, Transportation Planning, & Parking Solutions

Revised Traffic Impact Analysis

For TT 6263 located on the Southeast Quadrant of Clovis Avenue and Shepherd Avenue

In the City of Clovis, CA

August 9, 2019

This Revised Traffic Impact Analysis 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:

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Introduction and Summary

Introduction

This report describes a Revised Traffic Impact Analysis (TIA) prepared by JLB Traffic Engineering, Inc. (JLB) for the proposed Tentative Tract 6263 (Project) located in the City of Clovis. The TIA has been revised to account for a change in the Project Site Plan, namely the elimination of the proposed access to Shepherd Avenue and reduction of proposed units. The Project proposes to develop approximately 23.35 acres with up to 137 single-family detached housing units. Based on information provided to JLB, the Project will undergo a General Plan Amendment through the City of Clovis to modify the existing land use designation from Low Density Residential to Medium Density Residential. Figure 1 shows the location of the proposed Project site relative to the surrounding roadway network.

The purpose of the TIA is to evaluate the potential on-site and off-site traffic impacts, identify short-term roadway and circulation needs, determine potential mitigation measures, and identify any critical traffic issues that should be addressed in the on-going planning process. The TIA primarily focused on evaluating traffic conditions at study intersections that may potentially be impacted by the proposed Project. The Scope of Work was prepared via consultation with City of Clovis, City of Fresno, County of Fresno and Caltrans staff.

Summary

The potential traffic impacts of the proposed Project were evaluated in accordance with the standards set forth by the Level of Service (LOS) policy of the City of Clovis, County of Fresno and Caltrans.

Existing Traffic Conditions

- At present, all study intersections operate at an acceptable LOS during both peak periods.

Existing plus Project Traffic Conditions

- JLB analyzed the location of the proposed access points relative to the existing local roads and driveways in the Project's vicinity. A review of the Project's local driveways and streets to be constructed indicates that they are located at points that minimize traffic operational impacts to the existing roadway network.
- At buildout, the proposed Project is estimated to generate a maximum of 1,293 daily trips, 101 AM peak hour trips and 136 PM peak hour trips.
- It is recommended that the Project implement a Class II Bike Lane along its frontage to Shepherd Avenue.
- At present, all study intersections are projected to operate at an acceptable LOS during both peak periods.



Near Term plus Project Traffic Conditions

- The total trip generation for the Near Term Projects is 62,945 daily trips, 5,034 AM peak hour trips and 6,491 PM peak hour trips.
- Under this scenario, the intersection of Sunnyside Avenue and Shepherd Avenue is projected to exceed its LOS threshold during both peak periods. To improve the LOS at this intersection, it is recommended it be signalized with protective left-turn phasing in all directions. Additional details as to the recommended improvements for this intersection are presented later in this report.
- Between the Existing Traffic Conditions scenario and the Near Term plus Project Traffic Conditions scenario, the Project accounts for 2.0 percent of the daily trips, 2.0 percent of the AM peak hour trips and 2.1 percent of the PM peak hour trips of growth of traffic, while the rest of the growth is attributable to the Near Term Projects. Therefore, the mitigation measures presented under this scenario may not be necessary upon completion of the proposed Project.

Cumulative Year 2039 No Project Traffic Conditions

- Under this scenario, all study intersections are projected to exceed their LOS threshold during both peak periods. To improve the LOS at these intersections, the addition of lanes and modification of traffic control mechanisms are recommended. Additional details as to the recommended improvements for these intersections are presented later in this report.

Cumulative Year 2039 plus Project Traffic Conditions

- Under this scenario, all study intersections are projected to exceed their LOS threshold during both peak periods. To improve the LOS at these intersections, the addition of lanes and modification of traffic control mechanisms are recommended. Additional details as to the recommended improvements for these intersections are presented later in this report.

Queuing Analysis

- It is recommended that the City consider left-turn and right-turn lane storage lengths as indicated in the Queuing Analysis.

Project's Equitable Fair Share

- It is recommended that the Project contribute their equitable fair share as listed in Table IX for the future improvements necessary to maintain an acceptable LOS.



Scope of Work

The TIA primarily focused on evaluating traffic conditions at study intersections that may potentially be impacted by the proposed Project. On March 26, 2019, a Revised Draft Scope of Work for the preparation of a TIA for this Project was provided to the City of Clovis, City of Fresno, County of Fresno and Caltrans for their review and comment. The Revised Draft Scope of Work was based on communication with City of Clovis staff. Any comments to the proposed Scope of Work were to be provided by April 15, 2019.

On March 28, 2019, County of Fresno, City of Fresno, Caltrans, responded and approved the Draft Scope of Work as presented. On April 8, 2019, the City of Clovis responded to the Draft Scope of Work. The City of Clovis provided JLB with a list of Near Term Projects.

On July 18, 2019, the City of Clovis provided comments to the previously submitted TIA dated June 19, 2019. The City of Clovis requested that the TIA be updated to match the new site plan. Therefore, the TIA has been revised to account for the changes made to the Project Site Plan, namely the elimination of the proposed access to Shepherd Avenue and reduction of proposed units. The Draft Scope of Work and the comments received from the lead agency and responsible agencies are included in Appendix A.

Study Facilities

The existing peak hour turning movement volume counts were conducted at the study intersections in March 2019, while schools in the vicinity of the proposed Project were in session. The intersection turning movement counts included pedestrian volumes. The traffic counts for the existing study intersections are contained in Appendix B. The existing intersection turning movement volumes, intersection geometrics and traffic controls are illustrated in Figure 2.

Study Intersections

1. Clovis Avenue / Shepherd Avenue
2. Sunnyside Avenue / Shepherd Avenue
3. Clovis Avenue / Riordan Avenue

Project Only Trips to State Facilities

1. State Route 168 / Clovis Avenue

Study Scenarios

Existing Traffic Conditions

This scenario evaluates the Existing Traffic Conditions based on existing traffic volumes and roadway conditions from traffic counts and field surveys conducted in March 2019.



Existing plus Project Traffic Conditions

This scenario evaluates total traffic volumes and roadway conditions based on the Existing plus Project Traffic Conditions. The Existing plus Project traffic volumes were obtained by adding the 2019 Project Only Trips to the Existing Traffic Conditions scenario. The 2019 Project Only Trips to the study facilities were developed based on existing travel patterns, the Fresno COG Project Select Zone, the existing roadway network, engineering judgment, data provided by the developer, knowledge of the study area, existing residential and commercial densities, and the City of Clovis 2035 General Plan Circulation Element in the vicinity of the Project. The Fresno COG Models for the Project Select Zone are contained in Appendix C. It is worth noting that with the construction of the proposed Project, the Preuss Avenue access to Shepherd Avenue would be eliminated. As a result, vehicles currently utilizing Preuss Avenue are projected to utilize the Riordan Avenue and Prescott Avenue accesses to Clovis Avenue.

Near Term plus Project Traffic Conditions

This scenario evaluates total traffic volumes and roadway conditions based on the Near Term plus Project Traffic Conditions. The Near Term plus Project traffic volumes were obtained by adding the Near Term related trips to the Existing plus Project Traffic Conditions scenario. It should be noted that this scenario assumes that the north leg of Clovis Avenue and Shepherd Avenue is built.

Cumulative Year 2039 No Project Traffic Conditions

This scenario evaluates total traffic volumes and roadway conditions based on the Cumulative Year 2039 No Project Traffic Conditions. The Cumulative Year 2039 No Project traffic volumes were obtained by subtracting the 2035 Project Only Trips from the Cumulative Year 2035 plus Project Traffic Conditions scenario.

Cumulative Year 2039 plus Project Traffic Conditions

At the time of the preparation of this TIA, Fresno COG did not have a regional model for the year 2039. Therefore, JLB utilized the Fresno COG traffic model runs for Base Year 2019 and Cumulative Year 2035 along with existing traffic counts to determine the increment in traffic volumes. Furthermore, JLB utilized Base Year 2019 and Cumulative Year 2035 volumes along Shepherd Avenue and Clovis Avenue near the vicinity of the proposed Project site to determine an average annual growth rate of 5.7 percent. Therefore, JLB utilized an average annual growth rate of 5.7 percent to expand the 2035 increment volumes by four (4) years to arrive at the Cumulative Year 2039 plus Project traffic volumes. The Fresno COG Models are contained in Appendix C. The 2039 Project Only Trips to the study facilities were developed based on the changes to the roadway network, engineering judgment, knowledge of the study area, existing residential and commercial densities, and the City of Clovis 2035 General Plan Circulation Element in the vicinity of the Project.



Level of Service Analysis Methodology

Level of Service (LOS) is a qualitative index of the performance of an element of the transportation system. LOS is a rating scale running from “A” to “F”, with “A” indicating no congestion of any kind and “F” indicating unacceptable congestion and delays. LOS in this study describes the operating conditions for signalized and unsignalized intersections.

The *Highway Capacity Manual* (HCM) 6th Edition is the standard reference published by the Transportation Research Board and contains the specific criteria and methods to be used in assessing LOS. U-turn movements were analyzed using HCM 2000 methodologies and would yield more accurate results for the reason that HCM 6th Edition methodologies do not allow the analysis of U-turns. Synchro software was used to define LOS in this study. Details regarding these calculations are included in Appendix D.

Criteria of Significance

The City of Clovis 2035 General Plan has established LOS D as the acceptable level of traffic congestion on most major streets. Therefore, LOS D is used to evaluate the potential significance of LOS impacts to City of Clovis roadway facilities pursuant to the City of Clovis 2035 General Plan.

The County of Fresno has established LOS C as the acceptable level of traffic congestion on county roads and streets that fall entirely outside the Sphere of Influence (SOI) of a City. For those areas that fall within the SOI of a City, the LOS criteria of the City are the criteria of significance used in this report. LOS C is used to evaluate the potential significance of LOS impacts to Fresno County intersections that fall outside the City of Clovis SOI. In this case, all study facilities fall within the City of Clovis SOI, therefore, the City of Clovis LOS thresholds are utilized.

Caltrans endeavors to maintain a target LOS at the transition between LOS C and D on State highway facilities consistent with the *Caltrans Guide for the Preparation of Traffic Impact Studies* dated December 2002. However, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. In this TIA, however, all study facilities fall within the City of Clovis. Therefore, the City of Clovis LOS thresholds are utilized.



Operational Analysis Assumptions and Defaults

The following operational analysis values, assumptions and defaults were used in this study to ensure a consistent analysis of LOS among the various scenarios.

- Yellow time consistent with the California Manual of Uniform Traffic Control Devices (CA MUTCD) based on approach speeds
- Yellow time of 3.2 seconds for left-turn phases
- All-red clearance intervals of 1.0 second for all phases
- Walk intervals of 7.0 seconds
- Flashing Don't Walk based on 3.5 feet/second walking speed with yellow plus all-red clearance subtracted and 2.0 seconds added
- All new or modified signals utilize protective left-turn phasing
- A 3 percent heavy vehicle factor
- The number of observed pedestrians at existing intersections was utilized under all study scenarios
- An average of 3 pedestrian calls per hour at signalized intersections
- At existing intersections, the observed approach Peak Hour Factor (PHF) is utilized in the Existing, Existing plus Project, and Near Term plus Project scenarios.
- A PHF of 0.92, or the existing PHG if higher, is utilized for the Cumulative Year 2039 scenarios



Existing Traffic Conditions

Roadway Network

The Project site and surrounding study area are illustrated in Figure 1. Important roadways serving the Project are discussed below.

Clovis Avenue is an existing north-south four-lane divided arterial in the vicinity of the proposed Project. In this area, Clovis Avenue exists as a four-lane divided arterial between Shepherd Avenue and Sierra Avenue, a four-lane undivided arterial between Sierra Avenue and Eighth Street, a four-lane arterial divided by a two-way left-turn lane between Eighth Street and San Jose Avenue, a four- to six-lane divided arterial between San Jose Avenue and Shaw Avenue, and a six-lane divided arterial south of Shaw Avenue through the City of Clovis SOI and into the City of Fresno. The City of Clovis 2035 General Plan Circulation Element designates Clovis Avenue as an arterial south of Copper Avenue through the City of Clovis SOI.

Sunnyside Avenue is an existing north-south two-lane undivided collector in the vicinity of the proposed Project. In this area, Sunnyside Avenue exists as a two-lane undivided local roadway north of Shepherd Avenue, a two-lane undivided rural collector between Shepherd Avenue and Nees Avenue, a four- to three-lane undivided collector between Nees Avenue and Third Street, a two-lane collector divided by a two-way left-turn lane between Third Street and Fifth Street, and a four-lane undivided collector between Fifth Street and Gettysburg Avenue. The City of Clovis 2035 General Plan Circulation Element designates Sunnyside Avenue as a collector south of Perrin Road through the City of Clovis SOI.

Shepherd Avenue is an existing east-west two-lane undivided expressway in the vicinity of the proposed Project. In this area, Shepherd Avenue exists as a three-lane divided arterial between Willow Avenue and Clovis Avenue, a two-lane divided rural arterial between Clovis Avenue and Sunnyside Avenue, a two-lane undivided rural arterial between Sunnyside Avenue and Fowler Avenue, a three-lane divided expressway between Fowler Avenue and De Wolf Avenue, and a four-lane divided expressway between De Wolf Avenue and State Route 168. The City of Clovis 2035 General Plan Circulation Element designates Shepherd Avenue as an arterial between Willow Avenue and Clovis Avenue and an expressway between Clovis Avenue and State Route 168.

Riordan Avenue is an existing east-west two-lane undivided local roadway adjacent to the proposed Project. In this area, Riordan Avenue extends east of Clovis Avenue for approximately 0.32 miles before connecting to Duke Avenue. The City of Clovis 2035 General Plan Circulation Element designates Riordan Avenue as a local roadway east of Clovis Avenue.

State Route (SR) 168 is an existing four-lane freeway in the vicinity of the proposed Project. The City of Clovis relies primarily on State Route 168 for regional travel as it connects the City of Clovis to the City of Fresno via its connection to State Route 180, which also connects to State Route 41 and State Route 99.



Traffic Signal Warrants

Peak hour traffic signal warrants, as appropriate, were prepared for the unsignalized intersections in the Existing Traffic Conditions scenario. These warrants are found in Appendix J. The effects of right-turning traffic from the minor approach onto the major approach were taken into account using engineering judgement pursuant to the CA MUTCD guidelines for the preparation of traffic signal warrants. Under this scenario, the intersection of Sunnyside Avenue and Shepherd Avenue satisfies the peak hour signal warrant during both peak periods.

Based on the signal warrant and engineering judgement, signalization of the intersection of Sunnyside Avenue and Shepherd Avenue is not recommended, especially since this intersection operates at an acceptable LOS during both peak periods. It is worth noting that the CA MUTCD states “satisfaction of a signal warrant or warrants shall not in itself require the installation of a traffic signal.” Therefore, it is recommended that prior to the installation of a traffic signal, investigation of CA MUTCD warrants 1, 4 and 7, as applicable, be conducted for this intersection.

Results of Existing Level of Service Analysis

Figure 2 illustrates the Existing Traffic Conditions turning movement volumes, intersection geometrics and traffic controls. LOS worksheets for the Existing Traffic Conditions scenario are provided in Appendix E. Table I presents a summary of the Existing peak hour LOS at the study intersections.

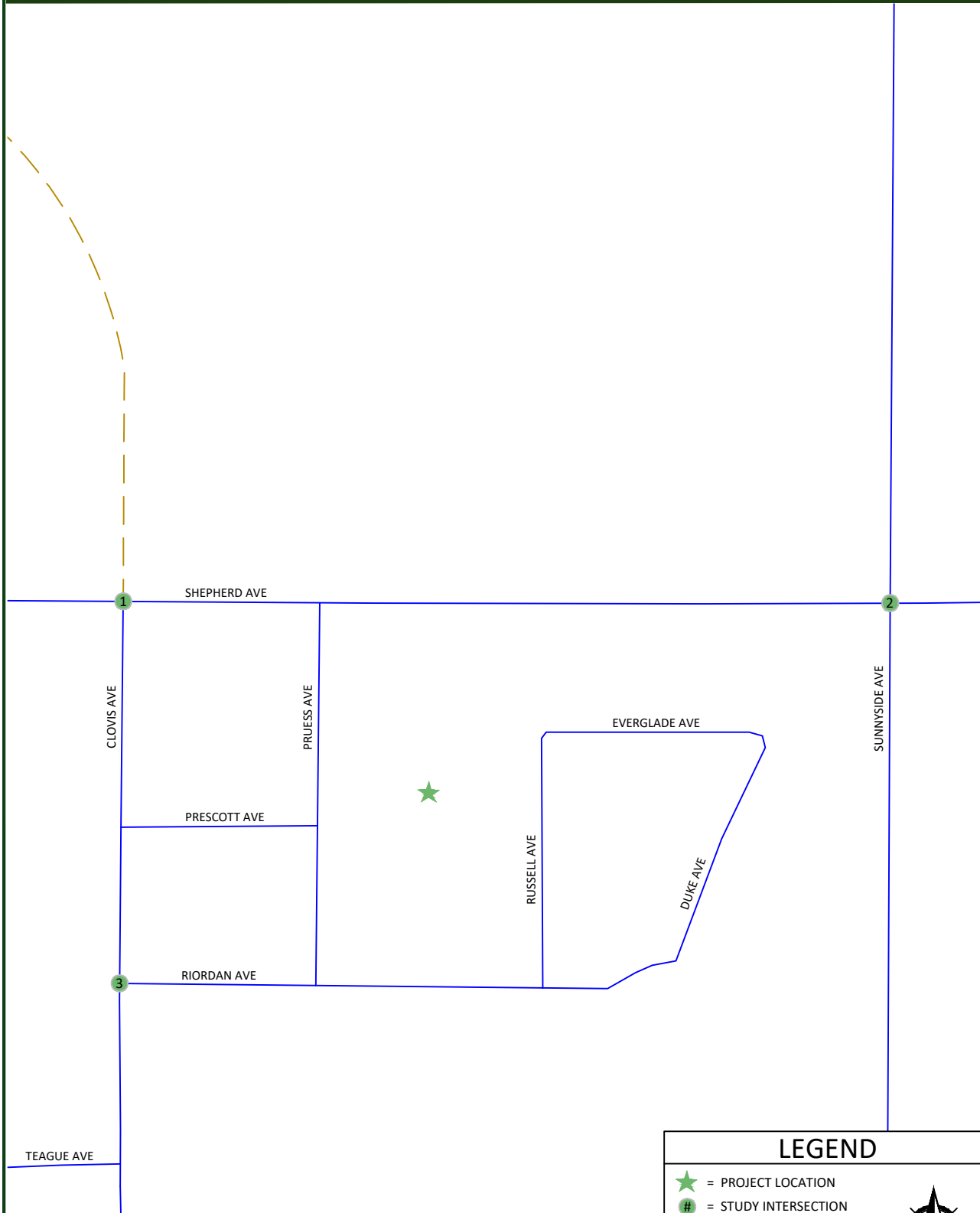
At present, all study intersections operate at an acceptable LOS during both peak periods.

Table I: Existing Intersection LOS Results




ID	Intersection	Intersection Control	AM (7-9) Peak Hour		PM (4-6) Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	Clovis Avenue / Shepherd Avenue	Signalized	10.3	B	11.1	B
2	Sunnyside Avenue / Shepherd Avenue	All-Way Stop	26.9	D	16.6	C
3	Clovis Avenue / Riordan Avenue	One-Way Stop	12.8	B	13.0	B

Note: LOS = Level of Service based on average delay on signalized intersections and All-Way STOP Controls
 LOS for two-way and one-way STOP controlled intersections are based on the worst approach/movement of the minor street.





LEGEND

-  = PROJECT LOCATION
-  = STUDY INTERSECTION
-  = FUTURE ROADWAY



Not To Scale

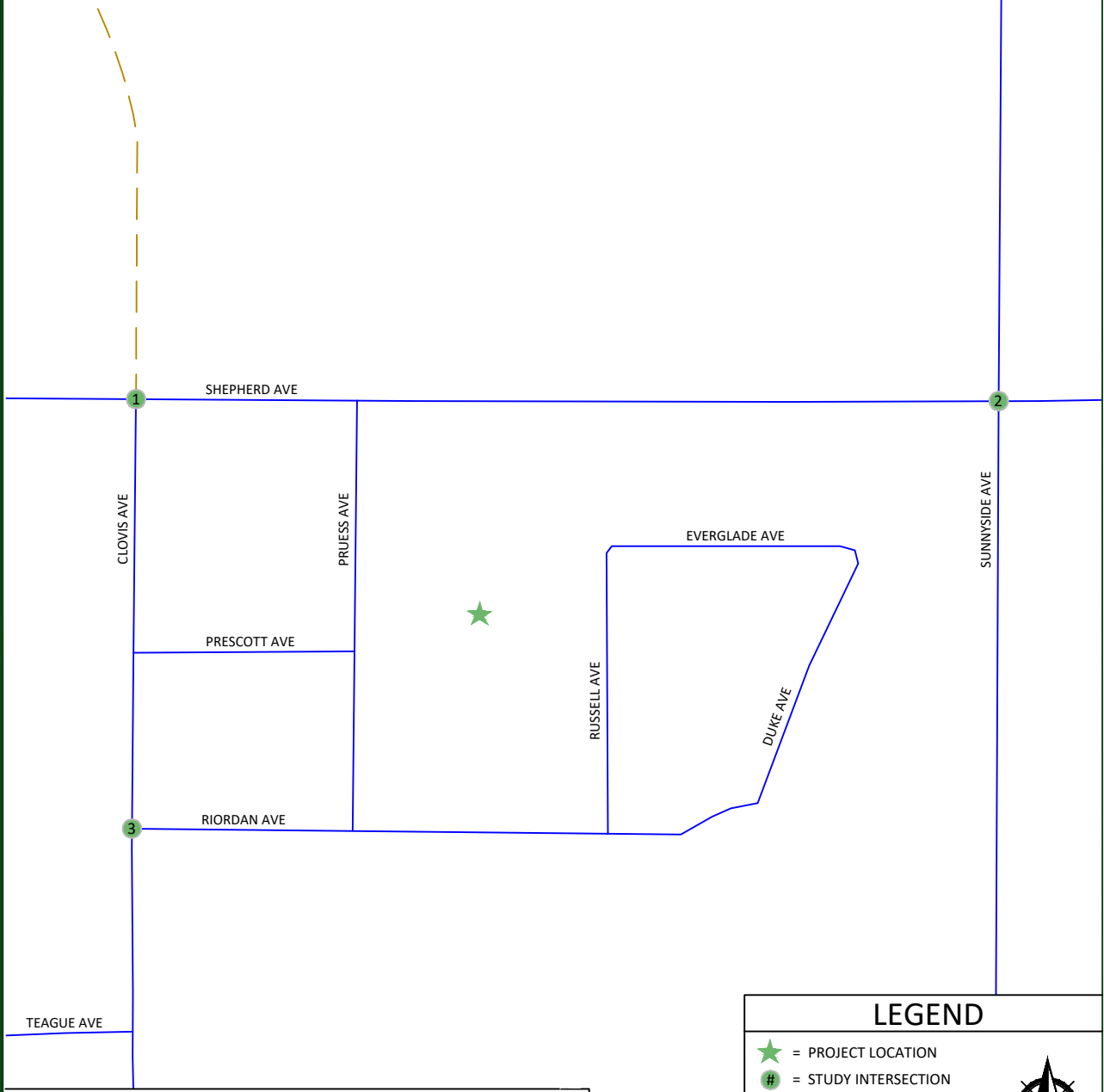


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TT 6263 - City of Clovis Existing - Traffic Volumes, Geometrics and Controls

Figure 2
AGENDA ITEM NO. 10.

<p>1. Clovis Ave & Shepherd Ave</p> <p>417(342) 94(51) Shepherd Ave</p> <p>1(1) 359(329) 138(80) Clovis Ave</p> <p>93(145) 54(105)</p>	<p>2. Sunnyside Ave & Shepherd Ave</p> <p>18(10) 15(9) 3(4) Sunnyside Ave</p> <p>8(5) 458(359) 12(16) Shepherd Ave</p> <p>11(12) 287(421) 119(81) Sunnyside Ave</p> <p>78(85) 9(12) 8(26)</p>	<p>3. Clovis Ave & Riordan Ave</p> <p>390(252) 8(15) 1(11) Clovis Ave</p> <p>5(2) 52(23) Riordan Ave</p> <p>154(316) 20(54) Clovis Ave</p>
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LEGEND

- = PROJECT LOCATION
- = STUDY INTERSECTION
- = FUTURE ROADWAY
- = AM PEAK HOUR TRIPS
- = PM PEAK HOUR TRIPS
- = SIGNALIZED INTERSECTION
- = STOP SIGN

Not To Scale

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Existing plus Project Traffic Conditions

Project Description

The Project proposes to develop approximately 23.35 acres with up to 137 single-family detached housing units. Based on information provided to JLB, the Project will undergo a General Plan Amendment through the City of Clovis to modify the existing land use designation from Low Density Residential to Medium Density Residential. Figure 3 illustrates the latest Project Site Plan.

Project Access

Based on latest Project Site Plan, access to and from the Project site will be from two (2) access points. One access point is located off Riordan Avenue. The intersection of Clovis Avenue and Riordan Avenue provides full access and is controlled by a one-way stop on Riordan Avenue. The other access point is aligned with Prescott Avenue. The intersection of Clovis Avenue and Prescott Avenue provides limited access (right-in, right-out only) and is controlled by a one-way stop on Prescott Avenue. JLB analyzed the location of the proposed access points relative to the existing local roads and driveways in the Project's vicinity. Based on the location of the Project's access points, the Project is anticipated to have little to no utilization of Russell Avenue between Riordan Avenue and Everglade Avenue. A review of the Project's local driveways and streets to be constructed indicates that they are located at points that minimize traffic operational impacts to the existing roadway network.

Trip Generation

Trip generation rates for the proposed Project at buildout were obtained from the 10th 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 137 Single-Family Detached Housing units. At buildout, the proposed Project is estimated to generate a maximum of 1,293 daily trips, 101 AM peak hour trips and 136 PM peak hour trips.

Table II: Proposed 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
						%						%				
Single-Family Detached Housing (210)	137	d.u.	9.44	1,293	0.74	25	75	25	76	101	0.99	63	37	86	50	136
Total Project Trips				1,293				25	76	101				86	50	136

Note: d.u. = Dwelling Units

Trip Distribution

The trip distribution assumptions were developed based on existing travel patterns, the Fresno COG Project Select Zone, the existing roadway network, engineering judgment, data provided by the developer, knowledge of the study area, existing residential and commercial densities, and the City of Clovis 2035 General Plan Circulation Element in the vicinity of the Project. Figure 4 illustrates the 2019 Project Only Trips to the study intersections.

Bikeways

Currently, Class II Bike Lanes exist in the vicinity of the proposed Project site along Shepherd Avenue. The City of Clovis 2035 General Plan recommends that Class II Bike Lanes be implemented on: 1) Shepherd Avenue between Willow Avenue and State Route 168 through the City of Clovis SOI, 2) Clovis Avenue south of Shepherd Avenue, and 3) Sunnyside Avenue south of Copper Avenue through the City of Clovis SOI. Furthermore, the City of Clovis 2035 General Plan recommends that a Class I Bike Path be implemented on Shepherd Avenue between Willow Avenue and Fowler Avenue. Therefore, it is recommended that the Project implement a Class II Bike Lane along its frontage to Shepherd Avenue.

Transit

Clovis Transit Stageline is the transit operator in the City of Clovis. At present, there are no Stageline Routes that operate in the vicinity of the proposed Project. The closest is Route 80 – Buchanan Education Center Express, which runs on Minnewawa Avenue and Teague Avenue, approximately 0.89 miles southwest of the proposed Project. Route 80 operates at 7:00 AM and 2:50 PM on weekdays only and its nearest stop to the Project is located on the south side of Teague Avenue approximately 525 feet west of Minnewawa Avenue. This Route provides a direct connection to Buchanan Education Complex, Alta Sierra, Walmart, Clovis Adult Education and Bicentennial Park. Retention of the existing and expansion of future transit routes is dependent on transit ridership demand and available funding.

Safe Routes to School

Kindergarten through 12th grade students from the Project will be served by the Clovis Unified School District (CUSD). The Clovis Unified School District provides transportation for students who live in excess of an established radius zone. The zone is a radius of 1.00 mile for grades Kindergarten through 6th and 2.50 miles for grades 7th through 12th.

Based on the attendance area boundaries at the time of the preparation of this TIA, elementary school students residing within the Project site would attend Woods Elementary School located on the southwest corner of Clovis Avenue and Teague Avenue. Woods Elementary School is located 0.25 and 0.50 miles from the nearest and farthest future home on the Project site. Therefore, it is anticipated that elementary school students residing within the Project site will need to walk, bike or be driven to school.

The most direct path from the Project site to the Woods Elementary School campus can begin from the intersection of Clovis Avenue and Riordan Avenue. The intersection of Clovis Avenue and Riordan Avenue is controlled by a one-way stop on Riordan Avenue and contains unmarked crosswalks on all approaches. Students may proceed to cross Riordan Avenue along the east side of Clovis Avenue and continue south along the east side of Clovis Avenue toward the intersection of Clovis Avenue and Teague Avenue. The intersection of Clovis Avenue and Teague Avenue is signalized and contains marked crosswalks on all approaches. Students may proceed to cross Clovis Avenue along the south side of Teague Avenue and continue west or south until reaching a campus entrance.



Based on the attendance area boundaries at the time of the preparation of this TIA, middle school students residing within the Project site would attend Alta Sierra Intermediate School located on the southeast corner of Peach Avenue and Teague Avenue. Alta Sierra Intermediate School is located 1.10 and 1.30 miles from the nearest and farthest future home on the Project site. Therefore, it is anticipated that middle school students residing within the Project site will need to walk, bike or be driven to school.

The most direct path from the Project site to the Alta Sierra Intermediate School campus can begin from the intersection of Clovis Avenue and Riordan Avenue. The intersection of Clovis Avenue and Riordan Avenue is controlled by a one-way stop on Riordan Avenue and contains unmarked crosswalks on all approaches. Students may proceed to cross Riordan Avenue along the east side of Clovis Avenue and continue south along the east side of Clovis Avenue toward the intersection of Clovis Avenue and Teague Avenue. The intersection of Clovis Avenue and Teague Avenue is signalized and contains marked crosswalks on all approaches. Students may proceed to cross Clovis Avenue along the south side of Teague Avenue and continue west toward the intersection of Minnewawa Avenue and Teague Avenue. The intersection of Minnewawa Avenue and Teague Avenue is signalized and contains marked crosswalks on all approaches. Students may proceed to cross Minnewawa Avenue along the south side of Teague Avenue and continue west until reaching a campus entrance.

Based on the attendance area boundaries at the time of the preparation of this TIA, high school students residing within the Project site would attend Buchanan High School located on the southwest corner of Minnewawa Avenue and Teague Avenue. Buchanan High School is located 0.86 and 1.08 miles from the nearest and farthest future home on the Project site. Therefore, it is anticipated that high school students residing within the Project site will need to walk, bike, drive or be driven to school.

The most direct path from the Project site to the Buchanan High School campus can begin from the intersection of Clovis Avenue and Riordan Avenue. The intersection of Clovis Avenue and Riordan Avenue is controlled by a one-way stop on Riordan Avenue and contains unmarked crosswalks on all approaches. Students may proceed to cross Riordan Avenue along the east side of Clovis Avenue and continue south along the east side of Clovis Avenue toward the intersection of Clovis Avenue and Teague Avenue. The intersection of Clovis Avenue and Teague Avenue is signalized and contains marked crosswalks on all approaches. Students may proceed to cross Clovis Avenue along the south side of Teague Avenue and continue west toward the intersection of Minnewawa Avenue and Teague Avenue. The intersection of Minnewawa Avenue and Teague Avenue is signalized and contains marked crosswalks on all approaches. Students may proceed to cross Minnewawa Avenue along the south side of Teague Avenue and continue west or south until reaching a campus entrance.



Traffic Signal Warrants

Peak hour traffic signal warrants, as appropriate, were prepared for the unsignalized intersections in the Existing plus Project Traffic Conditions scenario. These warrants are found in Appendix J. The effects of right-turning traffic from the minor approach onto the major approach were taken into account using engineering judgement pursuant to the CA MUTCD guidelines for the preparation of traffic signal warrants. Under this scenario, the intersection of Sunnyside Avenue and Shepherd Avenue is projected to satisfy the peak hour signal warrant during both peak periods.

Based on the signal warrant and engineering judgement, signalization of the intersection of Sunnyside Avenue and Shepherd Avenue is not recommended. It is worth noting that the CA MUTCD states “satisfaction of a signal warrant or warrants shall not in itself require the installation of a traffic signal.” Therefore, it is recommended that prior to the installation of a traffic signal, investigation of CA MUTCD warrants 1, 4 and 7, as applicable, be conducted for this intersection.

Existing plus Project Roadway Network

The Existing plus Project Traffic Conditions scenario assumes the same roadway geometrics and traffic controls as those assumed in the Existing Traffic Conditions scenario. However, the Project proposes to eliminate the existing segment of Preuss Avenue between Shepherd Avenue and Riordan Avenue. As a result, vehicles currently utilizing the Preuss Avenue right-in, right-out access to Shepherd Avenue have been shifted to utilize the Riordan Avenue and Prescott Avenue accesses to Clovis Avenue.

Results of Existing plus Project Level of Service Analysis

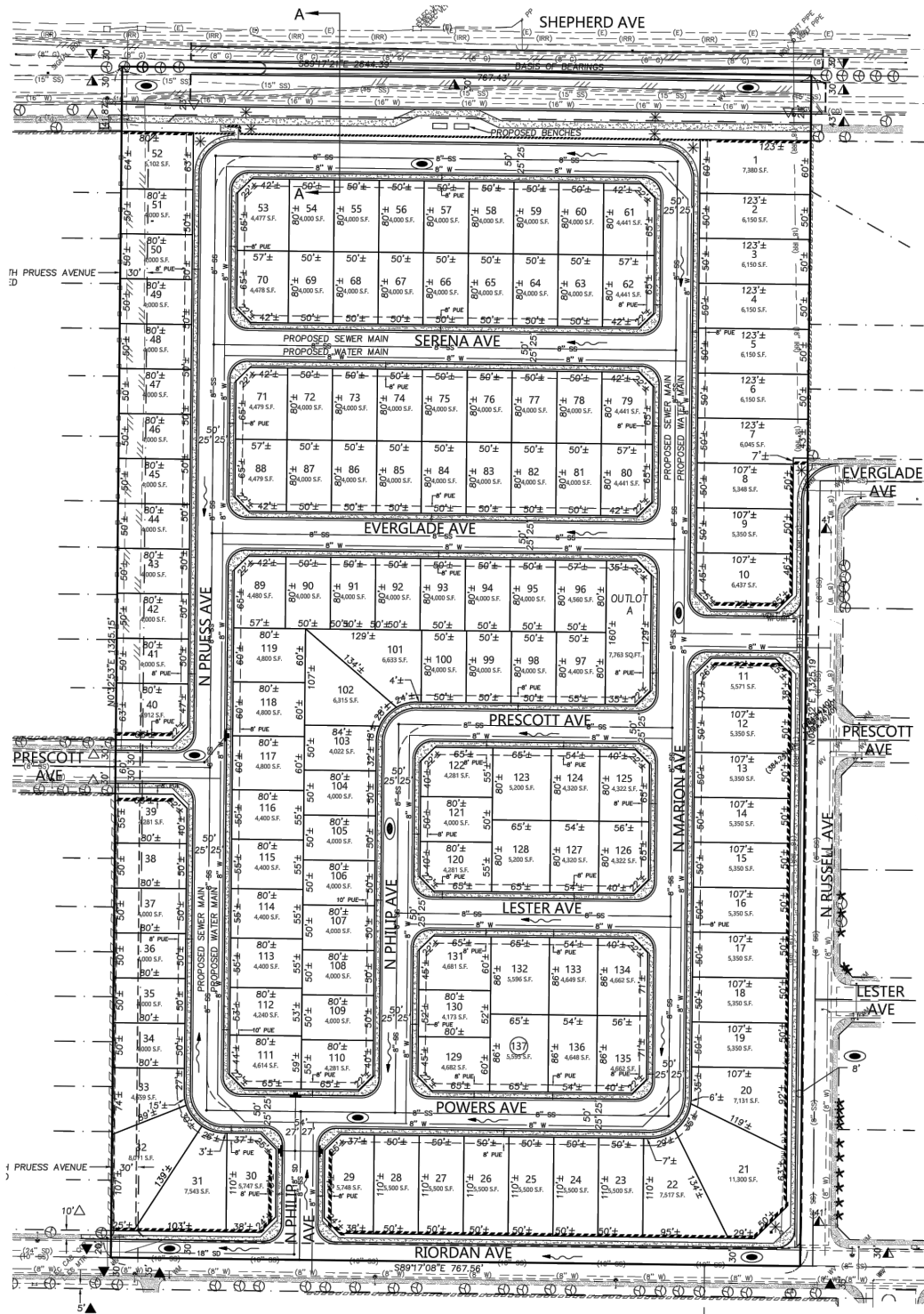
The Existing plus Project Traffic Conditions scenario assumes the same roadway geometrics and traffic controls as those assumed in the Existing Traffic Conditions scenario. Figure 5 illustrates the Existing plus Project turning movement volumes, intersection geometrics and traffic controls. LOS worksheets for the Existing plus Project Traffic Conditions scenario are provided in Appendix F. Table III presents a summary of the Existing plus Project peak hour LOS at the study intersections.

At present, all study intersections are projected to operate at an acceptable LOS during both peak periods.

Table III: Existing plus Project Intersection LOS Results

ID	Intersection	Intersection Control	AM (7-9) Peak Hour		PM (4-6) Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	Clovis Avenue / Shepherd Avenue	Signalized	10.8	B	11.7	B
2	Sunnyside Avenue / Shepherd Avenue	All-Way Stop	29.3	D	17.5	C
3	Clovis Avenue / Riordan Avenue	One-Way Stop	15.0	C	16.7	C

Note: LOS = Level of Service based on average delay on signalized intersections and All-Way STOP Controls
 LOS for two-way and one-way STOP controlled intersections are based on the worst approach/movement of the minor street.

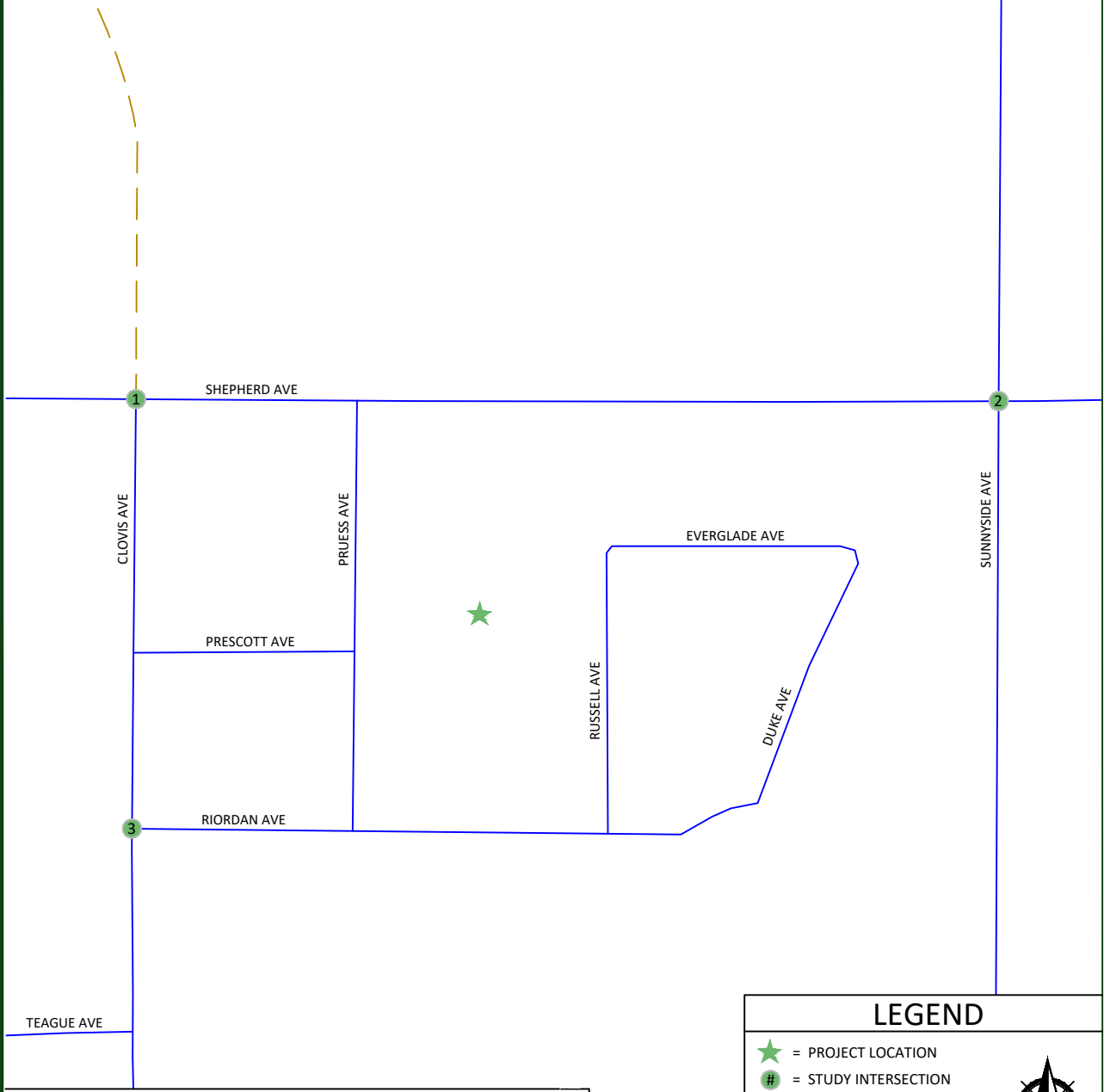


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Not To Scale

1. Clovis Ave & Shepherd Ave	2. Sunnyside Ave & Shepherd Ave	3. Clovis Ave & Riordan Ave



LEGEND

- = PROJECT LOCATION
- = STUDY INTERSECTION
- = FUTURE ROADWAY
- = AM PROJECT ONLY TRIPS
- = PM PROJECT ONLY TRIPS
- = SIGNALIZED INTERSECTION
- = STOP SIGN

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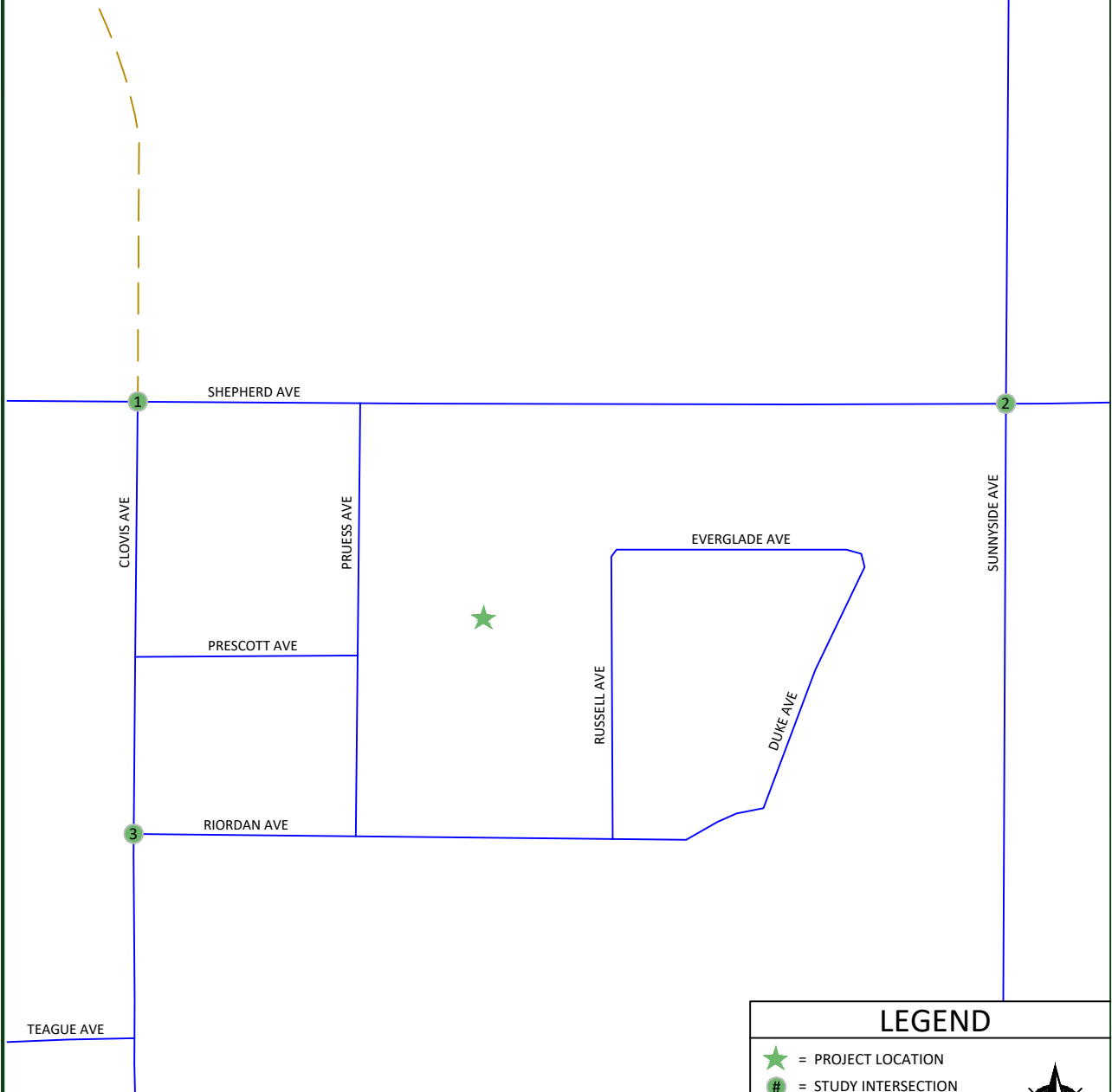
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TT 6263 - City of Clovis Existing plus Project - Traffic Volumes, Geometrics and Controls

Figure 5

AGENDA ITEM NO. 10.

<p>1. Clovis Ave & Shepherd Ave</p>	<p>2. Sunnyside Ave & Shepherd Ave</p>	<p>3. Clovis Ave & Riordan Ave</p>
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LEGEND

- = PROJECT LOCATION
- = STUDY INTERSECTION
- = FUTURE ROADWAY
- = AM PEAK HOUR TRIPS
- = PM PEAK HOUR TRIPS
- = SIGNALIZED INTERSECTION
- = STOP SIGN

Not To Scale



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Near Term plus Project Traffic Conditions

Description of Approved and Pipeline Projects

Approved and Pipeline Projects consist of developments that are either under construction, built but not fully occupied, are not built but have final site development review (SDR) approval, or for which the lead agency or responsible agencies have knowledge of. The City of Clovis, City of Fresno, County of Fresno and Caltrans staff were consulted throughout the preparation of this TIA regarding approved and/or known projects that could potentially impact the study intersections. JLB staff conducted a reconnaissance of the surrounding area to confirm the Near Term Projects. Subsequently, it was agreed that the projects listed in Table IV were approved, near approval, or in the pipeline within the proximity of the proposed Project.

The trip generation listed in Table IV is that which is anticipated to be added to the streets and highways by these projects between the time of the preparation of this report and five years from 2019. As shown in Table IV, the total trip generation for the Near Term Projects is 62,945 daily trips, 5,034 AM peak hour trips and 6,491 PM peak hour trips. Figure 6 illustrates the location of the approved, near approval, or pipeline projects and their combined trip assignment to the study intersections and segments under the Near Term plus Project Traffic Conditions scenario.

Table IV: Near Term Projects' Trip Generation

<i>Approved Project Location</i>	<i>Approved or Pipeline Project Name</i>	<i>Daily Trips</i>	<i>AM Peak Hour</i>	<i>PM Peak Hour</i>
A	TT 5546 (portion of) ¹	123	10	13
B	TT 5550 (portion of) ¹	66	5	7
C	TT 5720/A (portion of) ¹	94	7	10
D	TT 6109 (portion of) ²	2,105	165	221
E	TT 6128 (portion of) ¹	198	16	21
F	TT 6134A ¹	132	10	14
G	TT 6145 (portion of) ¹	500	39	52
H	TT 6154 ¹	897	70	94
I	TT 6180 ¹	557	44	58
J	TT 6190 (portion of) ²	255	20	27
K	TT 6200 ¹	5,390	423	565
L	Clovis Community Medical Center Expansion ²	30,008	1,622	2,652
M	Harlan Ranch Commerical ¹	4,687	105	407
N	Locan 35 ²	1,878	147	197
O	Research & Technology Park ³	16,055	2,351	2,153
Total Approved and Pipeline Project Trips		62,945	5,034	6,491

Note: 1 = Trip Generation prepared by JLB Traffic Engineering, Inc. based on readily available information
 2 = Trip Generation based on JLB Traffic Engineering, Inc. Traffic Impact Analysis Report
 3 = Trip Generation based on Peters Engineering Group Traffic Impact Analysis Report

Traffic Signal Warrants

Peak hour traffic signal warrants, as appropriate, were prepared for the unsignalized intersections in the Near Term plus Project Traffic Conditions scenario. These warrants are found in Appendix J. The effects of right-turning traffic from the minor approach onto the major approach were taken into account using engineering judgement pursuant to the CA MUTCD guidelines for the preparation of traffic signal warrants. Under this scenario, the intersection of Sunnyside Avenue and Shepherd Avenue is projected to satisfy the peak hour signal warrant during both peak periods.

Based on the signal warrants and engineering judgement, signalization of the intersection of Sunnyside Avenue and Shepherd Avenue is recommended, especially since this intersection is projected to exceed its LOS threshold during both peak periods and the addition of lanes is not projected to improve the LOS to an acceptable level.

Near Term plus Project Roadway Network

The Near Term plus Project Traffic Conditions scenario assumes the same roadway geometrics and traffic controls as those assumed in the Existing plus Project Traffic Conditions scenario. Furthermore, this scenario assumes that a portion of Clovis Avenue will exist north of Shepherd Avenue. Figure 7 illustrates the assumed intersection geometrics and traffic controls for the intersection of Clovis Avenue and Shepherd Avenue.

Results of Near Term plus Project Level of Service Analysis

The Near Term plus Project Traffic Conditions scenario assumes that a portion of Clovis Avenue will exist north of Shepherd Avenue. Figure 7 illustrates the Near Term plus Project turning movement volumes, intersection geometrics and traffic controls. LOS worksheets for the Near Term plus Project Traffic Conditions scenario are provided in Appendix G. Table V presents a summary of the Near Term plus Project peak hour LOS at the study intersections.

Under this scenario, the intersection of Sunnyside Avenue and Shepherd Avenue is projected to exceed its LOS threshold during both peak periods. To improve the LOS at this intersection, it is recommended that the following improvements be implemented.

- Sunnyside Avenue / Shepherd Avenue
 - Add an eastbound left-turn lane;
 - Modify the eastbound left-through-right lane to a through-right lane;
 - Add a westbound left-turn lane;
 - Modify the westbound left-through-right lane to a through-right lane;
 - Add a northbound left-turn lane;
 - Modify the northbound left-through-right lane to a through-right lane;
 - Add a southbound left-turn lane;
 - Modify the southbound left-through-right lane to a through-right lane;
 - Signalize the intersection with protective left-turn phasing in all directions; and
 - Modify the intersection to accommodate the added lanes.



Between the Existing Traffic Conditions scenario and the Near Term plus Project Traffic Conditions scenario, the Project accounts for 2.0 percent of the daily trips, 2.0 percent of the AM peak hour trips and 2.1 percent of the PM peak hour trips of growth of traffic, while the rest of the growth is attributable to the Near Term Projects. Therefore, the mitigation measures presented under this scenario may not be necessary upon completion of the proposed Project. However, if all of the Near Term Projects are developed close to the completion date of the proposed Project, the detailed recommended improvements presented above may be necessary in order to improve the LOS to an acceptable threshold.

Table V: Near Term plus Project Intersection LOS Results

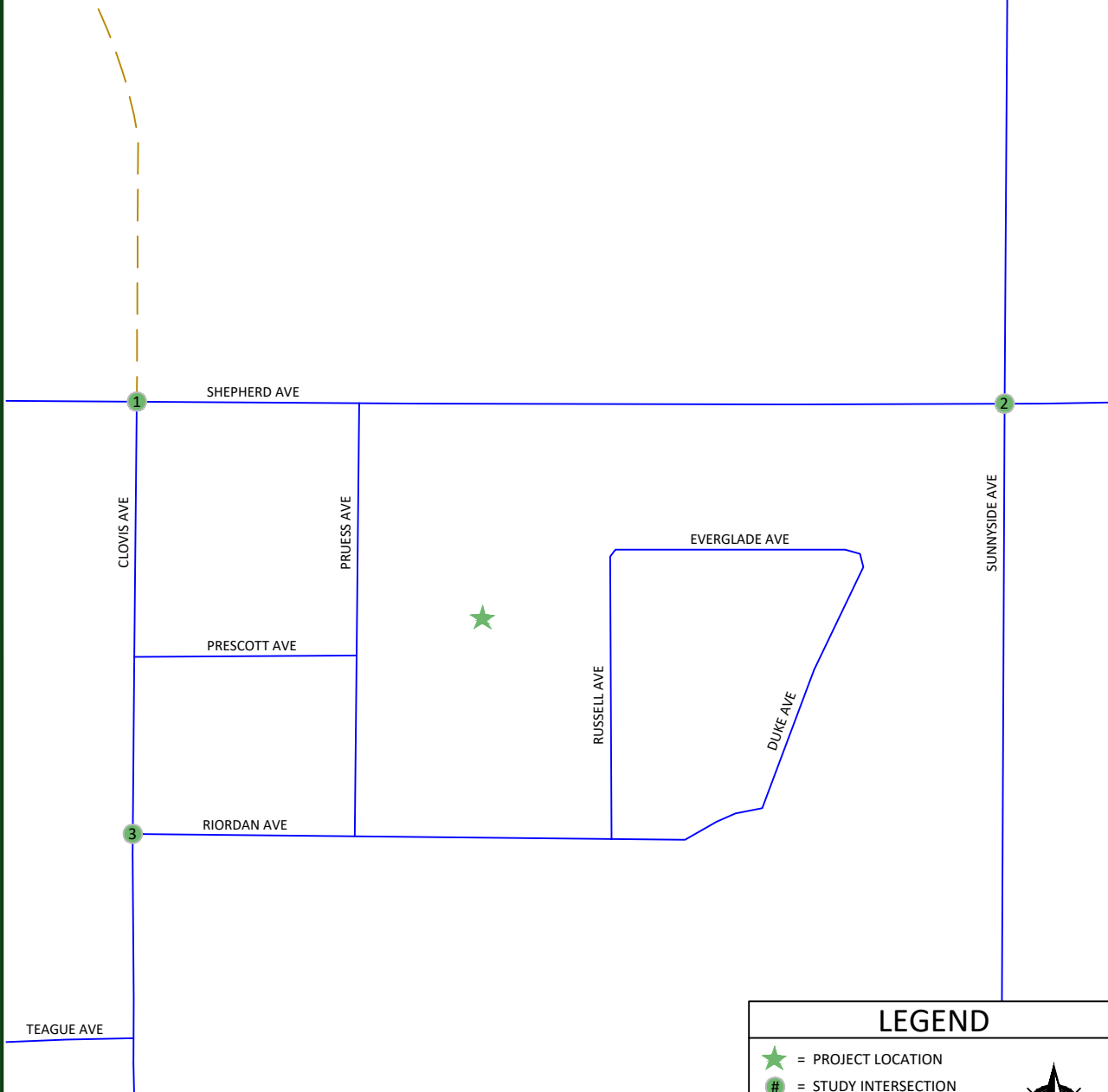
ID	Intersection	Intersection Control	AM (7-9) Peak Hour		PM (4-6) Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	Clovis Avenue / Shepherd Avenue	Signalized	21.9	C	26.3	C
3	Sunnyside Avenue / Shepherd Avenue	All-Way Stop	>120.0	F	>120.0	F
		Signalized (Mitigated)	31.3	C	26.5	C
4	Clovis Avenue / Riordan Avenue	One-Way Stop	15.8	C	18.7	C

Note: LOS = Level of Service based on average delay on signalized intersections and All-Way STOP Controls
 LOS for two-way and one-way STOP controlled intersections are based on the worst approach/movement of the minor street.

TT 6263 - City of Clovis Near Term Projects' Trip Assignment

Figure 6
AGENDA ITEM NO. 10.

1.	Clovis Ave & Shepherd Ave	2.	Sunnyside Ave & Shepherd Ave	3.	Clovis Ave & Riordan Ave



LEGEND

- = PROJECT LOCATION
- = STUDY INTERSECTION
- = FUTURE ROADWAY
- = AM NEAR TERM TRIPS
- = PM NEAR TERM TRIPS
- = SIGNALIZED INTERSECTION
- = STOP SIGN

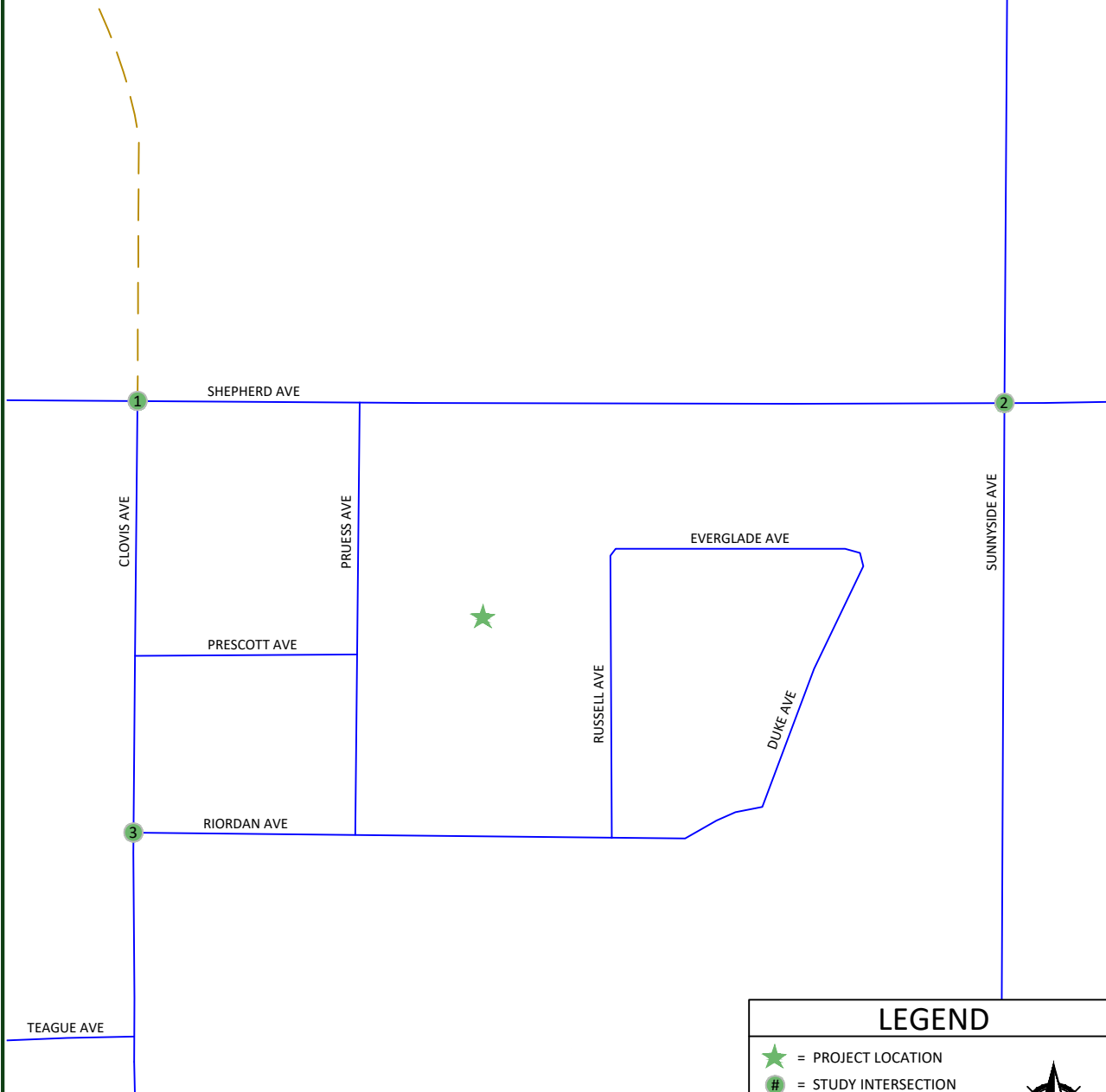
Not To Scale

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TT 6263 - City of Clovis Near Term plus Project - Traffic Volumes, Geometrics and Control

1. Clovis Ave & Shepherd Ave	2. Sunnyside Ave & Shepherd Ave	3. Clovis Ave & Riordan Ave



LEGEND

- = PROJECT LOCATION
- = STUDY INTERSECTION
- = FUTURE ROADWAY
- = AM PEAK HOUR TRIPS
- = PM PEAK HOUR TRIPS
- = SIGNALIZED INTERSECTION
- = STOP SIGN

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Cumulative Year 2039 No Project Traffic Conditions

Traffic Signal Warrants

Peak hour traffic signal warrants, as appropriate, were prepared for the unsignalized intersections in the Cumulative Year 2039 No Project Traffic Conditions scenario. These warrants are found in Appendix J. The effects of right-turning traffic from the minor approach onto the major approach were taken into account using engineering judgement pursuant to the CA MUTCD guidelines for the preparation of traffic signal warrants. Under this scenario, the intersection of Sunnyside Avenue and Shepherd Avenue is projected to satisfy the peak hour signal warrant during both peak periods.

Based on the signal warrants and engineering judgement, signalization of the intersection of Sunnyside Avenue and Shepherd Avenue is recommended, especially since this intersection is projected to exceed its LOS threshold during both peak periods and the addition of lanes is not projected to improve the LOS to an acceptable level.

Cumulative Year 2039 No Project Roadway Network

The Cumulative Year 2039 No Project Traffic Conditions scenario assumes the same roadway geometrics and traffic controls as those assumed in the Existing plus Project Traffic Conditions scenario. Furthermore, this scenario assumes that Clovis Avenue exists between Copper Avenue and Shepherd Avenue.

Results of Cumulative Year 2039 No Project Level of Service Analysis

The Cumulative Year 2039 No Project Traffic Conditions scenario assumes that Clovis Avenue exists between Copper Avenue and Shepherd Avenue. Figure 8 illustrates the Cumulative Year 2039 No Project turning movement volumes, intersection geometrics and traffic controls. LOS worksheets for the Cumulative Year 2039 No Project Traffic Conditions scenario are provided in Appendix H. Table VI presents a summary of the Cumulative Year 2039 No Project peak hour LOS at the study intersections.

Under this scenario, all study intersections are projected to exceed their LOS threshold during both peak periods. To improve the LOS at these intersections, it is recommended that the following improvements be implemented.

- Clovis Avenue / Shepherd Avenue
 - Open the second westbound through lane with a receiving lane west of Clovis Avenue;
 - Open the second northbound left-turn lane;
 - Add a second southbound through lane;
 - Modify the traffic signals to accommodate the added lanes;
 - Implement overlap phasing of the southbound left-turn with the westbound right-turn; and
 - Prohibit southbound to northbound U-turn movements.



- Sunnyside Avenue / Shepherd Avenue
 - Add an eastbound left-turn lane;
 - Add an eastbound through lane with a receiving lane east of Sunnyside Avenue;
 - Modify the eastbound left-through-right lane to a through-right lane;
 - Add a westbound left-turn lane;
 - Add a westbound through lane with a receiving lane west of Sunnyside Avenue;
 - Modify the westbound left-through-right lane to a through-right lane;
 - Add dual northbound left-turn lanes;
 - Modify the northbound left-through-right lane to a through-right lane;
 - Add a southbound left-turn lane;
 - Modify the southbound left-through-right lane to a through-right lane;
 - Signalize the intersection with protective left-turn phasing in all directions; and
 - Modify the intersection to accommodate the added lanes.
- Riordan Avenue / Clovis Avenue
 - Modify the Riordan Avenue full access to Clovis Avenue to limited left-in, right-in and right-out access only. To accomplish this, it is recommended that a raised median island be extended across the intersection along the center of Clovis Avenue. With the extension of the raised median island, westbound left-turns would need to be redirected. Westbound left-turning traffic from Riordan Avenue would need to make a right-turn onto Clovis Avenue, proceed to make a legal northbound to southbound U-turn on Clovis Avenue, and then continue southbound on Clovis Avenue past Riordan Avenue.

Table VI: Cumulative Year 2039 No Project Intersection LOS Results

ID	Intersection	Intersection Control	AM (7-9) Peak Hour		PM (4-6) Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	Clovis Avenue / Shepherd Avenue	Signalized	56.0	E	77.0	E
		Signalized (Mitigated)	43.6	D	47.5	D
2	Sunnyside Avenue / Shepherd Avenue	All-Way Stop	>120.0	F	>120.0	F
		Signalized (Mitigated)	24.2	C	27.7	C
3	Clovis Avenue / Riordan Avenue	One-Way Stop	31.0	D	47.4	E
		One-Way Stop (Mitigated)	11.1	B	12.3	B

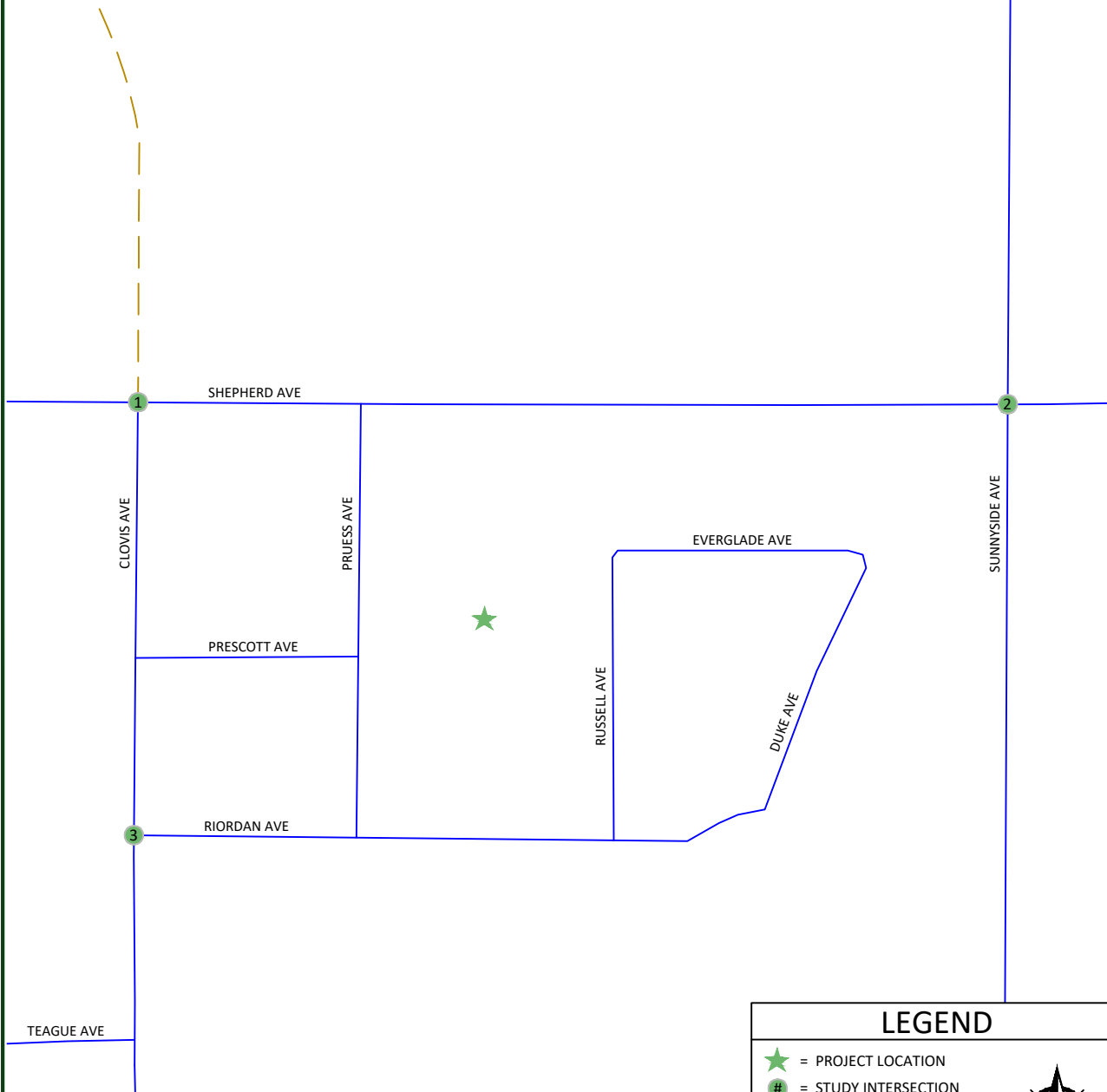
Note: LOS = Level of Service based on average delay on signalized intersections and All-Way STOP Controls.
 LOS for two-way STOP controlled intersections are based on the worst approach/movement of the minor street.



TT 6263 - City of Clovis Cumulative Year 2039 No Project - Traffic Volumes, Geometrics

Figure 8
AGENDA ITEM NO. 10.

1. Clovis Ave & Shepherd Ave	2. Sunnyside Ave & Shepherd Ave	3. Clovis Ave & Riordan Ave
<p> Clovis Ave 220(167) 258(330) 740(783) 936(999) 750(784) 244(180) 111(72) Shepherd Ave 1(1) 26(112) 690(587) 152(137) 119(164) 248(370) 194(280) </p>	<p> Sunnyside Ave 31(56) 15(9) 3(4) 8(5) 1513(1592) 48(72) Shepherd Ave 47(35) 974(1442) 412(289) 364(369) 9(12) 50(113) </p>	<p> Clovis Ave 848(743) 15(47) 8(32) 12(8) 61(28) Riordan Ave 549(864) 22(62) </p>



LEGEND

- = PROJECT LOCATION
- = STUDY INTERSECTION
- = FUTURE ROADWAY
- XX = AM PEAK HOUR TRIPS
- (XX) = PM PEAK HOUR TRIPS
- = SIGNALIZED INTERSECTION
- = STOP SIGN

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Cumulative Year 2039 plus Project Traffic Conditions

Traffic Signal Warrants

Peak hour traffic signal warrants, as appropriate, were prepared for the unsignalized intersections in the Cumulative Year 2039 plus Project Traffic Conditions scenario. These warrants are found in Appendix J. The effects of right-turning traffic from the minor approach onto the major approach were taken into account using engineering judgement pursuant to the CA MUTCD guidelines for the preparation of traffic signal warrants. Under this scenario, the intersection of Sunnyside Avenue and Shepherd Avenue is projected to satisfy the peak hour signal warrant during both peak periods, while the intersection of Riordan Avenue and Clovis Avenue is projected to satisfy the peak hour signal warrant during the AM peak period only.

Based on the signal warrants and engineering judgement, signalization of the intersections of Sunnyside Avenue and Shepherd Avenue is recommended, especially since this intersection is projected to exceed its LOS threshold during both peak periods and the addition of lanes is not projected to improve the LOS to an acceptable level. However, signalization of the intersection of Riordan Avenue and Clovis Avenue is not recommended. It is worth noting that the CA MUTCD states "satisfaction of a signal warrant or warrants shall not in itself require the installation of a traffic signal." Therefore, it is recommended that prior to the installation of a traffic signal, investigation of CA MUTCD warrants 1, 4 and 7, as applicable, be conducted for this intersection.

Cumulative Year 2039 plus Project Roadway Network

The Cumulative Year 2039 plus Project Traffic Conditions scenario assumes the same roadway geometrics and traffic controls as those assumed in the Cumulative Year 2039 No Project Traffic Conditions scenario. Considering the potential changes in the existing roadway network, it is projected that travel patterns and volumes will differ from what is anticipated for the immediate Project buildout. Therefore, Figure 9 illustrates the 2039 Project Only Trips to the study intersections. Figure 10 illustrates the assumed intersection geometrics and traffic controls for this intersection under this scenario.

Results of Cumulative Year 2039 plus Project Level of Service Analysis

The Cumulative Year 2039 plus Project Traffic Conditions scenario assumes that Clovis Avenue exists between Copper Avenue and Shepherd Avenue. Figure 10 illustrates the Cumulative Year 2039 plus Project turning movement volumes, intersection geometrics and traffic controls. LOS worksheets for the Cumulative Year 2039 plus Project Traffic Conditions scenario are provided in Appendix I. Table VII presents a summary of the Cumulative Year 2039 plus Project peak hour LOS at the study intersections.

Under this scenario, all study intersections are projected to exceed their LOS threshold during both peak periods. To improve the LOS at these intersections, it is recommended that the following improvements be implemented.



- Clovis Avenue / Shepherd Avenue
 - Open the second westbound through lane with a receiving lane west of Clovis Avenue;
 - Open the second northbound left-turn lane;
 - Add a second southbound through lane;
 - Modify the traffic signals to accommodate the added lanes;
 - Implement overlap phasing of the southbound left-turn with the westbound right-turn; and
 - Prohibit southbound to northbound U-turn movements.
- Sunnyside Avenue / Shepherd Avenue
 - Add an eastbound left-turn lane;
 - Add an eastbound through lane with a receiving lane east of Sunnyside Avenue;
 - Modify the eastbound left-through-right lane to a through-right lane;
 - Add a westbound left-turn lane;
 - Add a westbound through lane with a receiving lane west of Sunnyside Avenue;
 - Modify the westbound left-through-right lane to a through-right lane;
 - Add dual northbound left-turn lanes;
 - Modify the northbound left-through-right lane to a through-right lane;
 - Add a southbound left-turn lane;
 - Modify the southbound left-through-right lane to a through-right lane;
 - Signalize the intersection with protective left-turn phasing in all directions; and
 - Modify the intersection to accommodate the added lanes.
- Riordan Avenue / Clovis Avenue
 - Modify the Riordan Avenue full access to Clovis Avenue to limited left-in, right-in and right-out access only. To accomplish this, it is recommended that a raised median island be extended across the intersection along the center of Clovis Avenue. With the extension of the raised median island, westbound left-turns would need to be redirected. Westbound left-turning traffic from Riordan Avenue would need to make a right-turn onto Clovis Avenue, proceed to make a legal northbound to southbound U-turn on Clovis Avenue, and then continue southbound on Clovis Avenue past Riordan Avenue.

Table VII: Cumulative Year 2039 plus Project Intersection LOS Results

ID	Intersection	Intersection Control	AM (7-9) Peak Hour		PM (4-6) Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	Clovis Avenue / Shepherd Avenue	Signalized	65.2	E	94.2	F
		Signalized (Mitigated)	44.6	D	49.1	D
2	Sunnyside Avenue / Shepherd Avenue	All-Way Stop	>120.0	F	>120.0	F
		Signalized (Mitigated)	24.2	C	28.2	C
3	Clovis Avenue / Riordan Avenue	One-Way Stop	49.5	E	101.6	F
		One-Way Stop (Mitigated)	11.5	B	13.0	B

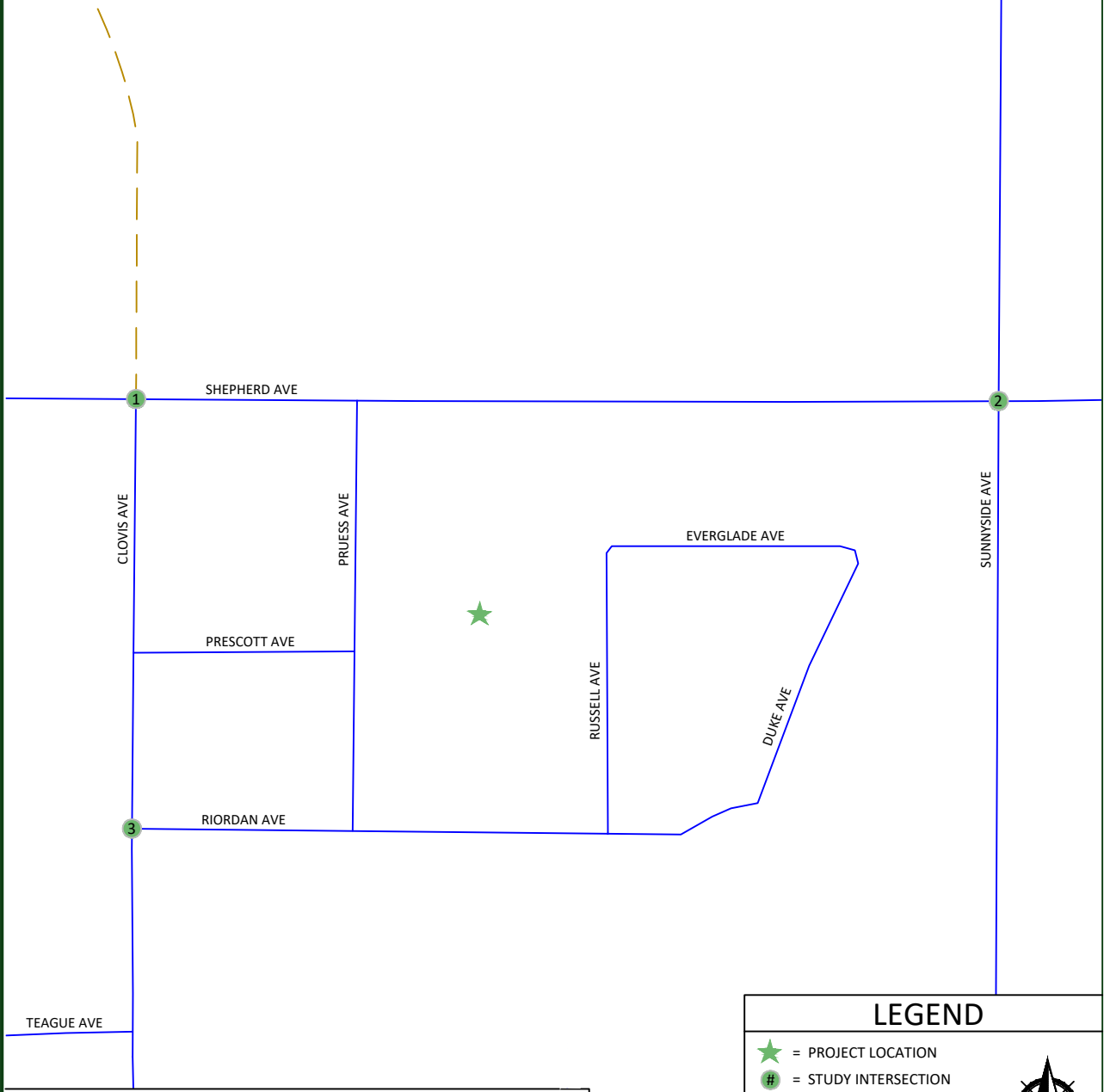
Note: LOS = Level of Service based on average delay on signalized intersections and All-Way STOP Controls.
 LOS for two-way STOP controlled intersections are based on the worst approach/movement of the minor street.

Project Only Trips to State Facilities

The Project Only Trips to the interchange of State Route 168 and Clovis Avenue are illustrated in Figure 11.



1. Clovis Ave & Shepherd Ave	2. Sunnyside Ave & Shepherd Ave	3. Clovis Ave & Riordan Ave



LEGEND

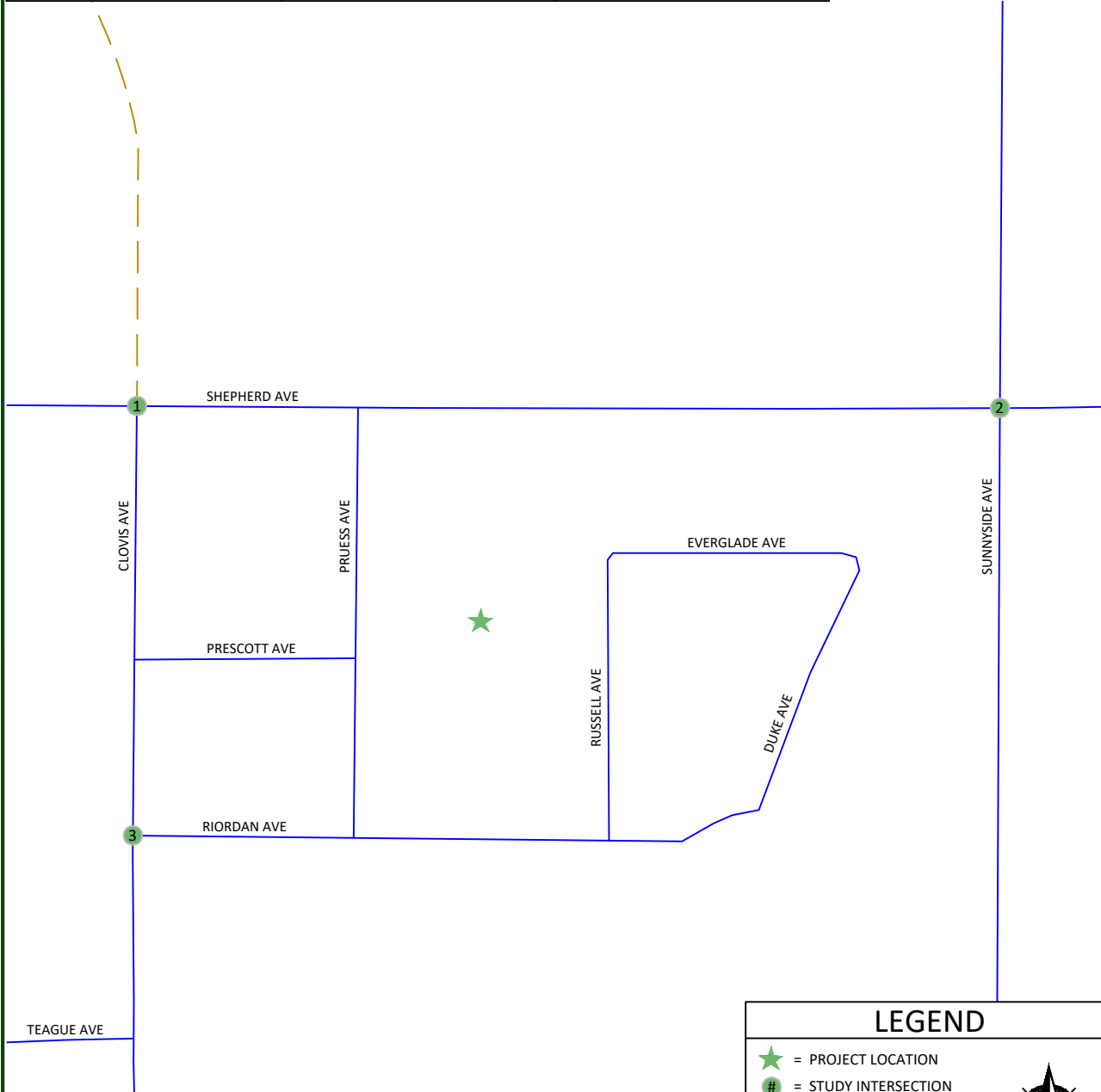
- = PROJECT LOCATION
- = STUDY INTERSECTION
- = FUTURE ROADWAY
- XX = AM PROJECT ONLY TRIPS
- (XX) = PM PROJECT ONLY TRIPS
- = SIGNALIZED INTERSECTION
- = STOP SIGN

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1. Clovis Ave & Shepherd Ave	2. Sunnyside Ave & Shepherd Ave	3. Clovis Ave & Riordan Ave
<p> Clovis Ave 220(167) 260(335) 740(783) 936(999) 750(784) 251(200) 111(72) Shepherd Ave 1(1) 26(112) 690(587) 157(146) 127(173) 252(374) 211(292) </p>	<p> Sunnyside Ave 31(56) 15(9) 3(4) 8(5) 1518(1606) 48(72) Shepherd Ave 47(35) 986(1451) 417(292) 366(375) 9(12) 50(113) </p>	<p> Clovis Ave 862(751) 25(71) 12(42) 12(8) 94(45) Riordan Ave Clovis Ave 555(890) 27(88) </p>



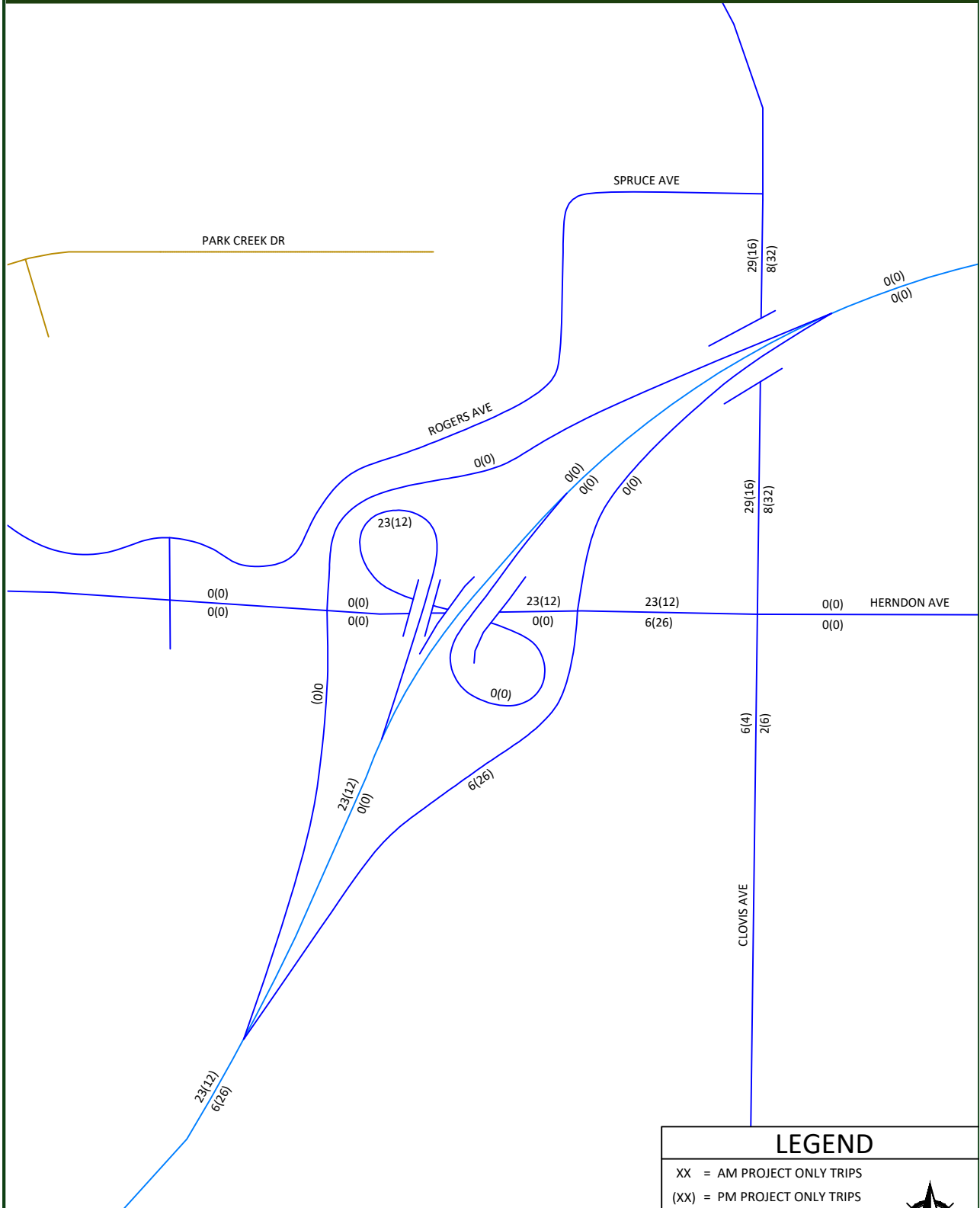
LEGEND

- = PROJECT LOCATION
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LEGEND

XX = AM PROJECT ONLY TRIPS
 (XX) = PM PROJECT ONLY TRIPS



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Queuing Analysis

Table VIII provides a queue length summary for left-turn and right-turn lanes at the study intersections under all study scenarios. The queuing analyses for the study intersections are contained in the LOS worksheets for the respective scenarios. Appendix D contains the methodologies used to evaluate these intersections. Queuing analyses were completed using Sim Traffic output information. Synchro provides both 50th and 95th percentile maximum queue lengths (in feet). According to the Synchro manual, “the 50th percentile maximum queue is the maximum back of queue on a typical cycle and the 95th percentile queue is the maximum back of queue with 95th percentile volumes.” The queues shown on Table VIII are the 95th percentile queue lengths for the respective lane movements.

The *Highway Design Manual* (HDM) provides guidance for determining deceleration lengths for the left-turn and right-turn lanes based on design speeds. Per the HDM criteria, “tapers for right-turn lanes are usually un-necessary since the main line traffic need not be shifted laterally to provide space for the right-turn lane. If, in some rare instances, a lateral shift were needed, the approach taper would use the same formula as for a left-turn lane.” Therefore, a bay taper length pursuant to the Caltrans HDM would need to be added, as necessary, to the recommended storage lengths presented in Table VIII.

Based on the SimTraffic output files and engineering judgement, it is recommended that the storage capacity for the following be considered for the Cumulative Year 2039 plus Project Traffic Conditions. At the remaining approaches of the study intersections, the existing storage capacity will be sufficient to accommodate the maximum queue.

- Clovis Avenue / Shepherd Avenue
 - Consider increasing the storage capacity of the eastbound right-turn lane to 150 feet.
 - While the storage capacity of the westbound right-turn lane is projected to exceed 450 feet, it is recommended that the storage capacity of this movement be set to 450 feet.
 - Consider setting the storage capacity of the northbound right-turn lane to 150 feet.
 - Consider setting the storage capacity of the southbound dual left-turn lanes to 400 feet.
 - Consider setting the storage capacity of the southbound right-turn lane to 100 feet.
- Sunnyside Avenue / Shepherd Avenue
 - Consider setting the storage capacity of the eastbound left-turn lane to 100 feet.
 - Consider setting the storage capacity of the westbound left-turn lane to 175 feet.
 - Consider setting the storage capacity of the northbound dual left-turn lanes to 275 feet.
 - Consider setting the storage capacity of the southbound left-turn lane to 75 feet.



Table VIII: Queuing Analysis

ID	Intersection	Existing Queue Storage Length (ft.)		Existing		Existing plus Project		Near Term plus Project		Cumulative Year 2039 No Project		Cumulative Year 2039 plus Project	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	Clovis Avenue / Shepherd Avenue	EB Left	250	8	0	10	0	*	*	*	*	*	*
		EB Dual Lefts	250	*	*	*	*	28	67	38	85	33	96
		EB Thru	>500	128	118	124	109	413	253	306	241	309	256
		EB Thru	>500	0	0	0	0	327	28	304	258	321	264
		EB Right	50	63	47	63	51	69	56	122	128	128	134
		WB Dual Lefts	250	52	45	70	46	192	133	193	189	216	185
		WB Thru	>300	97	83	80	81	299	400	248	2707	433	2612
		WB Thru	*	*	*	*	*	*	*	313	2737	773	2841
		WB Right	*	*	*	*	*	15	19	398	612	587	588
		NB Left	250	55	81	72	119	*	*	*	*	*	*
		NB Dual Lefts	250	*	*	*	*	141	101	87	94	79	128
		NB Thru	>500	*	*	*	*	36	54	120	194	150	174
		NB Thru	>500	*	*	*	*	12	54	188	260	194	217
		NB Right	*	26	42	31	40	35	42	131	131	134	142
		SB Dual Lefts	*	*	*	*	*	58	44	410	427	400	364
		SB Thru	*	*	*	*	*	28	12	2307	1492	1654	2499
SB Thru	*	*	*	*	*	*	*	2128	1342	1470	2437		
SB Right	*	*	*	*	*	34	28	104	109	77	81		
2	Sunnyside Avenue / Shepherd Avenue	EB Left-Thru-Right	>300	93	126	93	154	*	*	*	*	*	*
		EB Left	*	*	*	*	*	76	51	89	66	74	56
		EB Thru	*	*	*	*	*	*	*	319	350	291	307
		EB Thru-Right	*	*	*	*	*	276	339	373	410	330	340
		WB Left-Thru-Right	>500	124	96	119	120	*	*	*	*	*	*
		WB Left	*	*	*	*	*	29	51	174	239	156	116
		WB Thru	*	*	*	*	*	*	*	517	519	417	459
		WB Thru-Right	*	*	*	*	*	240	371	553	546	432	484
		NB Left-Thru-Right	>500	56	55	52	54	*	*	*	*	*	*
		NB Left	*	*	*	*	*	116	173	*	*	*	*
		NB Dual Lefts	*	*	*	*	*	*	*	221	278	270	201
		NB Thru-Right	*	*	*	*	*	45	63	122	214	161	159
		SB Left-Thru-Right	>500	43	40	42	39	*	*	*	*	*	*
SB Left	*	*	*	*	*	20	20	0	11	12	10		
SB Thru-Right	*	*	*	*	*	55	76	71	106	68	81		

Note: * = Does not exist or is not projected to exist



Table VIII: Queuing Analysis (cont.)

ID	Intersection	Existing Queue Storage Length (ft.)		Existing		Existing plus Project		Near Term plus Project		Cumulative Year 2039 No Project		Cumulative Year 2039 plus Project	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
3	Clovis Avenue / Riordan Avenue	WB Left-Right	>500	55	46	77	58	61	57	*	*	0	*
		WB Right	>500	*	*	*	*	*	*	58	44	75	58
		NB Thru	>500	0	0	9	0	0	0	10	0	9	0
		NB Thru-Right	>500	0	0	10	7	0	0	0	0	0	15
		SB Left	250	0	25	18	34	20	51	27	50	34	65
		SB Thru	>500	0	0	0	0	9	0	0	0	9	0
		SB Thru	>500	0	0	0	0	0	0	0	0	10	0

Note: * = Does not exist or is not projected to exist



Project's Pro-Rata Fair Share of Future Transportation Improvements

The Project's fair share percentage impacts of Project to study intersections projected to fall below their LOS threshold are provided in Table IX. The Project's fair share percentage impacts were calculated pursuant to the Caltrans Guide for the Preparation of Traffic Impact Studies. The Project's pro-rata fair shares were calculated utilizing the Existing volumes, 2039 Project Only Trips and Cumulative Year 2039 plus Project volumes. Figure 2 illustrates the Existing traffic volumes, Figure 9 illustrates the 2039 Project Only Trips, and Figure 10 illustrates the Cumulative Year 2039 plus Project traffic volumes. Since the critical peak period for the study facilities was determined to be during the PM peak, the PM peak volumes are utilized to determine the Project's pro-rata fair share.

It is recommended that the Project contribute its equitable fair share as listed in Table IX for the future improvements necessary to maintain an acceptable LOS. However, fair share contributions should only be made for those facilities, or portion thereof, currently not funded by the responsible agencies roadway impact fee program(s) or grant funded projects, as appropriate. For those improvements not presently covered by local and regional roadway impact fee programs or grant funding, it is recommended that the Project contribute its equitable fair share. Payment of the Project's equitable fair share in addition to the local and regional impact fee programs would satisfy the Project's traffic mitigation measures.

This study does not provide construction costs for the recommended mitigation measures; therefore, if the recommended mitigation measures are implemented, it is recommended that the developer work with the City of Clovis to develop the estimated construction cost.

Table IX: Project's Fair Share of Future Roadway Improvements

<i>ID</i>	<i>Intersection</i>	<i>Existing Traffic Volumes (PM Peak)</i>	<i>Cumulative Year 2039 plus Project Traffic Volumes (PM Peak)</i>	<i>2039 Project Only Trips (PM Peak)</i>	<i>Project's Fair Share (%)</i>
1	Clovis Avenue / Shepherd Avenue	1,053	5,024	59	1.49
2	Sunnyside Avenue / Shepherd Avenue	1,040	4,030	32	1.07
3	Clovis Avenue / Riordan Avenue	673	1,896	111	9.08

Note: Project Fair Share = ((2039 Project Only Trips) / (Cumulative Year 2039 + Project Traffic Volumes - Existing Traffic Volumes)) x 100

Conclusions and Recommendations

Conclusions and recommendations regarding the proposed Project are presented below.

Existing Traffic Conditions

- At present, all study intersections operate at an acceptable LOS during both peak periods.

Existing plus Project Traffic Conditions

- JLB analyzed the location of the proposed access points relative to the existing local roads and driveways in the Project's vicinity. A review of the Project's local driveways and streets to be constructed indicates that they are located at points that minimize traffic operational impacts to the existing roadway network.
- At buildout, the proposed Project is estimated to generate a maximum of 1,293 daily trips, 101 AM peak hour trips and 136 PM peak hour trips.
- It is recommended that the Project implement a Class II Bike Lane along its frontage to Shepherd Avenue.
- At present, all study intersections are projected to operate at an acceptable LOS during both peak periods.

Near Term plus Project Traffic Conditions

- The total trip generation for the Near Term Projects is 62,945 daily trips, 5,034 AM peak hour trips and 6,491 PM peak hour trips.
- Under this scenario, the intersection of Sunnyside Avenue and Shepherd Avenue is projected to exceed its LOS threshold during both peak periods. To improve the LOS at this intersection, it is recommended that the following improvements be implemented.
 - Sunnyside Avenue / Shepherd Avenue
 - Add an eastbound left-turn lane;
 - Modify the eastbound left-through-right lane to a through-right lane;
 - Add a westbound left-turn lane;
 - Modify the westbound left-through-right lane to a through-right lane;
 - Add a northbound left-turn lane;
 - Modify the northbound left-through-right lane to a through-right lane;
 - Add a southbound left-turn lane;
 - Modify the southbound left-through-right lane to a through-right lane;
 - Signalize the intersection with protective left-turn phasing in all directions; and
 - Modify the intersection to accommodate the added lanes.
- Between the Existing Traffic Conditions scenario and the Near Term plus Project Traffic Conditions scenario, the Project accounts for 2.0 percent of the daily trips, 2.0 percent of the AM peak hour trips and 2.1 percent of the PM peak hour trips of growth of traffic, while the rest of the growth is attributable to the Near Term Projects. Therefore, the mitigation measures presented under this scenario may not be necessary upon completion of the proposed Project.



Cumulative Year 2039 No Project Traffic Conditions

- Under this scenario, all study intersections are projected to exceed their LOS threshold during both peak periods. To improve the LOS at these intersections, it is recommended that the following improvements be implemented.
 - Clovis Avenue / Shepherd Avenue
 - Open the second westbound through lane with a receiving lane west of Clovis Avenue;
 - Open the second northbound left-turn lane;
 - Add a second southbound through lane;
 - Modify the traffic signals to accommodate the added lanes;
 - Implement overlap phasing of the southbound left-turn with the westbound right-turn; and
 - Prohibit southbound to northbound U-turn movements.
 - Sunnyside Avenue / Shepherd Avenue
 - Add an eastbound left-turn lane;
 - Add an eastbound through lane with a receiving lane east of Sunnyside Avenue;
 - Modify the eastbound left-through-right lane to a through-right lane;
 - Add a westbound left-turn lane;
 - Add a westbound through lane with a receiving lane west of Sunnyside Avenue;
 - Modify the westbound left-through-right lane to a through-right lane;
 - Add dual northbound left-turn lanes;
 - Modify the northbound left-through-right lane to a through-right lane;
 - Add a southbound left-turn lane;
 - Modify the southbound left-through-right lane to a through-right lane;
 - Signalize the intersection with protective left-turn phasing in all directions; and
 - Modify the intersection to accommodate the added lanes.
 - Riordan Avenue / Clovis Avenue
 - Modify the Riordan Avenue full access to Clovis Avenue to limited left-in, right-in and right-out access only. To accomplish this, it is recommended that a raised median island be extended across the intersection along the center of Clovis Avenue. With the extension of the raised median island, westbound left-turns would need to be redirected. Westbound left-turning traffic from Riordan Avenue would need to make a right-turn onto Clovis Avenue, proceed to make a legal northbound to southbound U-turn on Clovis Avenue, and then continue southbound on Clovis Avenue past Riordan Avenue.



Cumulative Year 2039 plus Project Traffic Conditions

- Under this scenario, all study intersections are projected to exceed their LOS threshold during both peak periods. To improve the LOS at these intersections, it is recommended that the following improvements be implemented.
 - Clovis Avenue / Shepherd Avenue
 - Open the second westbound through lane with a receiving lane west of Clovis Avenue;
 - Open the second northbound left-turn lane;
 - Add a second southbound through lane;
 - Modify the traffic signals to accommodate the added lanes;
 - Implement overlap phasing of the southbound left-turn with the westbound right-turn; and
 - Prohibit southbound to northbound U-turn movements.
 - Sunnyside Avenue / Shepherd Avenue
 - Add an eastbound left-turn lane;
 - Add an eastbound through lane with a receiving lane east of Sunnyside Avenue;
 - Modify the eastbound left-through-right lane to a through-right lane;
 - Add a westbound left-turn lane;
 - Add a westbound through lane with a receiving lane west of Sunnyside Avenue;
 - Modify the westbound left-through-right lane to a through-right lane;
 - Add dual northbound left-turn lanes;
 - Modify the northbound left-through-right lane to a through-right lane;
 - Add a southbound left-turn lane;
 - Modify the southbound left-through-right lane to a through-right lane;
 - Signalize the intersection with protective left-turn phasing in all directions; and
 - Modify the intersection to accommodate the added lanes.
 - Riordan Avenue / Clovis Avenue
 - Modify the Riordan Avenue full access to Clovis Avenue to limited left-in, right-in and right-out access only. To accomplish this, it is recommended that a raised median island be extended across the intersection along the center of Clovis Avenue. With the extension of the raised median island, westbound left-turns would need to be redirected. Westbound left-turning traffic from Riordan Avenue would need to make a right-turn onto Clovis Avenue, proceed to make a legal northbound to southbound U-turn on Clovis Avenue, and then continue southbound on Clovis Avenue past Riordan Avenue.

Queuing Analysis

- It is recommended that the City consider left-turn and right-turn lane storage lengths as indicated in the Queuing Analysis.

Project's Equitable Fair Share

- It is recommended that the Project contribute their equitable fair share as listed in Table IX for the future improvements necessary to maintain an acceptable LOS.



Study Participants

JLB Traffic Engineering, Inc. Personnel:

Jose Luis Benavides, PE, TE	Project Manager
Susana Maciel, EIT	Engineer I/II
Matthew Arndt, EIT	Engineer I/II
Javier Rios	Engineer I/II
Jove Alcazar	Engineer I/II
Dennis Wynn	Sr. Engineering Technician
Jesus Garcia	Engineering Aide
Adrian Benavides	Engineering Aide

Persons Consulted:

Jeff Callaway	Lennar Central Valley
Brandon Broussard	Yamabe & Horn Engineering, Inc.
Sean Smith	City of Clovis
Gene Abella	City of Clovis
Harmanjit Dhaliwal	City of Fresno
Brian Spaunhurst	County of Fresno
David Padilla	Caltrans
Kai Han	Fresno COG
Lang Yu	Fresno COG

References

1. City of Clovis, *2035 General Plan*.
2. County of Fresno, *2000 General Plan*.
3. *Guide for the Preparation of Traffic Impact Studies*, Caltrans, dated December 2002.
4. *Trip Generation*, 10th Edition, Washington D.C., Institute of Transportation Engineers, 2017.
5. *2014 California Manual on Uniform Traffic Control Devices*, Caltrans, November 7, 2014.



Appendix A: Scope of Work



Traffic Engineering, Transportation Planning, & Parking Solutions

<http://www.JLBtraffic.com>

info@JLBtraffic.com

516 W. Shaw Ave., Ste. 103

Fresno, CA 93704

(559) 570-8991

March ~~25~~26, 2019

Sean Smith, RCE, QSD
Associate Engineer
City of Clovis
1033 Fifth Street
Clovis, CA 93612

Via E-mail Only: seans@cityofclovis.com

Subject: Revised Draft Scope of Work for the Preparation of a Traffic Impact Analysis for Tract 6263 located on the Southeast Quadrant of Shepherd Avenue and Clovis Avenue in the City of Clovis (JLB Project 006-028)

Dear Mr. Smith,

JLB Traffic Engineering, Inc. (JLB) hereby submits this Revised Draft Scope of Work for the preparation of a Traffic Impact Analysis (TIA) for the Project described below. This Draft Scope of Work has been revised to correct the description of the trip generation and to add a discussion on the proposed Project Access points. Tract 6263 (Project) proposes to develop approximately 23.35 acres with up to 139 single family residential units. Furthermore, Tract 6263 proposes to include a right-in, right-out access point to the south side of Shepherd Avenue. The right-in, right-out access is proposed at a point approximately 1,300 feet east of Clovis Avenue. Based on information provided to JLB, the Project will undergo a General Plan Amendment to reclassify the designation of Shepherd Avenue between Clovis Avenue to Sunnyside Avenue from an Expressway to an "Expressway with Limited Access" and to modify the existing land use from Low Density Residential to Medium Density Residential under the R-1-MD zoning.

The purpose of this TIA is to evaluate the potential traffic impacts, identify short-term roadway and circulation needs, determine potential mitigation measures and identify any critical traffic issues that should be addressed in the on-going planning process. To prepare this TIA, JLB proposes the following Draft Scope of Work.

Scope of Work

- Request a Fresno Council of Governments (Fresno COG) traffic forecast model run for the Project (Select Zone Analysis) which will include the Project and the streets to be analyzed. The Fresno COG traffic forecasting model will be used to forecast traffic volumes for the Base Year (2019) and Cumulative Year (2039) Scenarios. To arrive at the Cumulative Year 2039 traffic volumes, JLB will utilize the projected annual growth rate in traffic between the Base Year (2019) and Cumulative Year (2035) Fresno COG models to expand the 2035 cumulative year traffic volumes for four (4) years.
- JLB will evaluate existing and forecast levels of service (LOS) at the study intersection(s). JLB will use HCM 6 or HCM 2000 methodologies (as appropriate) within Synchro to perform this analysis for the AM and PM peak hours.



Traffic Engineering, Inc.

Traffic Engineering, Transportation Planning, & Parking Solutions

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1300 E. Shaw Ave., Ste. 103

Fresno, CA 93710

(559) 570-8991

Page | 1

- JLB will identify the causes of poor LOS and proposed improvement measures (if any).
- Evaluate onsite circulation and provide recommendations, as necessary, to improve circulation to the site and within the Project site.
- As necessary, schedule and conduct new traffic counts at the study facility(ies).
- Perform a site visit to observe existing traffic conditions, especially during the AM and PM peak hours. Existing roadway conditions, including geometrics and traffic controls, will be verified.
- Forecast trip distribution based on turn count information, input from Fresno COG staff, school boundaries, and knowledge of the existing and planned circulation network in the Project's vicinity.
- Prepare California Manual on Uniform Traffic Control Devices (CA MUTCD) peak hour signal warrants for un-signalized study intersections.
- JLB will conduct a qualitative safe routes to school evaluation from the Project site to the K-12 school(s) which would most likely serve the Project on opening day.
- JLB will qualitatively analyze existing and planned transit routes in the Project's vicinity.
- JLB will qualitatively analyze existing and planned bikeways in the Project's vicinity.

Study Scenarios:

1. Existing traffic conditions with needed improvements (if any);
2. Existing plus Project traffic conditions with proposed mitigation measures (if any);
3. Near Term plus Project, plus Approved and Pending Developments traffic conditions with proposed mitigation measures (if any);
4. Cumulative Year 2039 No Project traffic conditions with proposed improvement measures (if any); and
5. Cumulative Year 2039 plus Project Buildout traffic conditions with proposed mitigation measures (if any).

Weekday peak hours to be analyzed:

1. 7 - 9 AM peak hour
2. 4 - 6 PM peak hour

Study Intersections:

1. Shepherd Avenue / Clovis Avenue
2. Shepherd Avenue / Marion Avenue (Right-in and Right-out Access)
3. Shepherd Avenue / Sunnyside Avenue
4. Riordan Avenue / Clovis Avenue

Queuing analysis is included in the proposed scope of work for the study intersection(s) listed above under all study scenarios. This analysis will be utilized to recommend minimum storage lengths for left- and right-turn lanes at all study intersections.

Study Segments:

1. None

Project Only Trip Assignment to Caltrans Facilities:

1. SR 168 / Clovis Avenue



Project Trip Generation

Table I presents the trip generation for ~~the portion of~~ Tract 6263 ~~which would have access to the proposed right in and right out to Shepherd Avenue.~~ The trip generation is pursuant to the 10th Edition of the Trip Generation Manual with trip generation rates for an Single-Family Detached Housing. At build-out, Tract 6263 is estimated to generate a maximum of 1,312 daily trips, 103 AM peak hour trips and 138 PM peak hour trips.

Table I: Project Only 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
Single-Family Detached Housing (210)	139	d.u.	9.44	1,312	0.74	25	75	26	77	103	0.99	63	37	87	51	138
Gross Total Project Trips				1,312				26	77	103				87	51	138

Note: d.u. = dwelling units

Access to the Project

Access to and from the Project site will be provided from three (3) access points. The first access point will be a full access located along the east side of Clovis Avenue at its intersection with Riordan Avenue. The second access point will be limited to right-in, and right-out along the east side of Clovis Avenue at its intersection with Prescott Lane. The third access point will be limited to right-in, right-out only off Marion Avenue to be located along the south side of Shepherd Avenue approximately 1,200 feet east of Clovis Avenue. The third access point in effect relocates the existing right-in, right-out access to Shepherd Avenue from Preuss Avenue. Additional Project details are found on Exhibit B.

Near Term Projects to be Included

Based on our local knowledge of the study area, JLB proposes to include projects in the vicinity of the proposed Project under the Near Term plus Project Analysis. The projects proposed to be included in the Near Term Scenario are:

<u>Project Name</u>	<u>General Location</u>
1. Tract 6200	NE Corner of Clovis/Shepherd
2. Larsen Tract	NW corner of Teague/Locan
3. Locan 35	NE quadrant of Teague/Locan
4. Tract 6190	NE corner of Cook/Locan
5. Tract 6145	NW quadrant of Owens Mountain/DeWolf
6. Tract 6128	SE corner of Teague/Locan
7. Other Near Term Projects the City, County or Caltrans has knowledge and for which it is anticipated that said project(s) is/are projected to be whole or partially built by the Near Term Project Year 2022. City, County and Caltrans as appropriate would provide JLB with project details such as a project description, location, proposed land uses with breakdowns and type of residential units and amount of square footages for non-residential uses.	

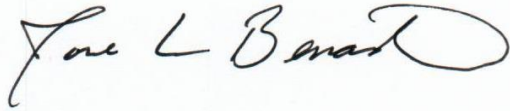


Mr. Smith
Tract 6263 TIA Draft Scope of Work
March 26~~25~~, 2019

AGENDA ITEM NO. 10.

The above scope of work is based on our understanding of this Project and our experience with similar Traffic Impact Analysis Projects. In the absence of comments by April 15, 2019, it will be assumed that the above scope of work is acceptable to the agency(ies) that have not submitted any comments to the proposed TIA Scope of Work. If you have any questions or require additional information, please contact me by phone at (559) 570-8991 or by e-mail at jbenavides@JLBtraffic.com.

Sincerely,



Jose Luis Benavides, P.E., T.E.
President

CC: Harmanjit Dhaliwal, PE, City of Fresno
Brian Spaunhurst, County of Fresno
David Padilla, Caltrans

~~Z:\01 Projects\006 Clovis\006-028 Tract 6263 TIA\Draft Scope of Work\L03262019 Draft Scope of Work.docx~~
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Traffic Engineering, Inc.

Traffic Engineering, Transportation Planning, & Parking Solutions

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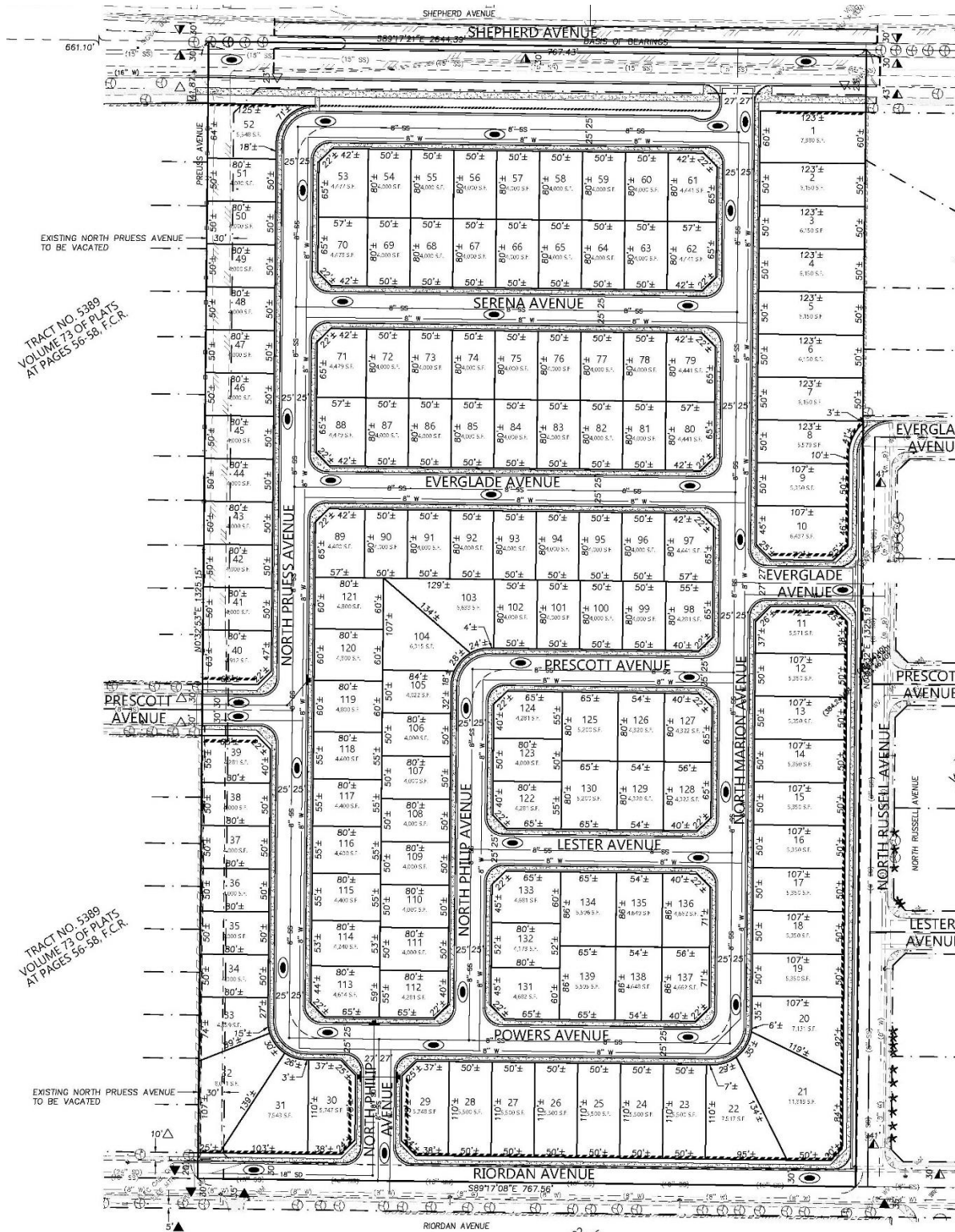
(559) 570-8991

Page | 4

Exhibit A – Aerial



Exhibit B – Tract Site Plan



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Page | 6

Jose Benavides

From: Spaunhurst, Brian <bspaunhurst@fresnocountyca.gov>
Sent: Thursday, March 28, 2019 8:33 AM
To: Jose Benavides; Sean Smith
Cc: Harmanjit Dhaliwal; 'David Padilla'
Subject: RE: Tract 6263 TIA Draft Scope of Work

Good Morning Jose,

County is satisfied with the proposed SOW.

Respectfully,



Brian Spaunhurst | Planner II

Department of Public Works and Planning | Design Division

2220 Tulare St. 6th Floor Fresno, CA 93721

Main Office: (559) 600-4532 | Direct: (559) 600-4532

Email: bspaunhurst@FresnoCountyCa.gov

[Your input matters! Customer Service Survey](#)

From: Jose Benavides <jbenavides@jlbtraffic.com>

Sent: Tuesday, March 26, 2019 11:52 AM

To: Sean Smith <SeanS@ci.clovis.ca.us>

Cc: Harmanjit Dhaliwal <Harmanjit.Dhaliwal@fresno.gov>; Spaunhurst, Brian <bspaunhurst@fresnocountyca.gov>; 'David Padilla' <dave_padilla@dot.ca.gov>

Subject: Tract 6263 TIA Draft Scope of Work

County of Fresno

Internal Services Department (ISD) - IT Services

Service Desk 600-5900 (Help Desk)

CAUTION!!!

This email has been flagged as containing one or more attachments from an outside source.

Please check the senders email address carefully.

If you were not expecting to receive an email with attachments, please **DO NOT** open the file.

Forward the email to SPAM "SPAM@fresnocountyca.gov" and delete it.

Good afternoon,

Attached you will find a Revised Draft Scope of Work that has been prepared for Tract 6263 (Single-Family Residential) Project to be located at the southeast quadrant of Clovis Avenue and Shepherd Avenue in the City of Clovis for your review and comment. This Draft Scope of Work has been revised to correct the description of the trip generation and to add a discussion on the proposed Project Access points.

We kindly ask that you take a moment to review and comment on the proposed Scope of Work comments by April 15, 2019, it will be assumed that the proposed Scope of Work is acceptable if you have not submitted any comments. AGENDA ITEM NO. 10.

If you have any questions or require additional information, please contact us at (559) 570-8991 or by e-mail. We sincerely appreciate your time and attention to this matter and look forward to hearing from all of you soon. Thanks.

Sincerely,

Jose Luis Benavides, P.E., T.E.
President



Traffic Engineering, Transportation Planning and Parking Solutions
Certified Disadvantaged Business Enterprise (DBE) and Small Business Enterprise (SBE)

1300 E. Shaw Ave., Ste. 103
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Direct: (559) 317-6249
Main: (559) 570-8991
Cell: (559) 694-6000
Fax: (559) 317-6854
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Jose Benavides

From: Harmanjit Dhaliwal <Harmanjit.Dhaliwal@fresno.gov>
Sent: Thursday, March 28, 2019 8:45 AM
To: Jose Benavides
Cc: Spaunhurst, Brian; 'David Padilla'; Jill Gormley; Sean Smith
Subject: RE: Tract 6263 TIA Draft Scope of Work

Good Morning Jose,

The City of Fresno has no comments on the SOW as it will not impact any City of Fresno Intersections.

Thanks,

Harmanjit Dhaliwal, PE



Public Works Department

Traffic Operations & Planning Division

2600 Fresno Street, Room 4064

Fresno, CA 93721

Ph: (559) 621-8694

Harmanjit.Dhaliwal@fresno.gov

From: Jose Benavides [mailto:jbenavides@jlbtraffic.com]
Sent: Tuesday, March 26, 2019 11:52 AM
To: Sean Smith
Cc: Harmanjit Dhaliwal; Spaunhurst, Brian; 'David Padilla'
Subject: Tract 6263 TIA Draft Scope of Work

Good afternoon,

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Sincerely,

Jose Luis Benavides, P.E., T.E.
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Jose Benavides

From: Padilla, Dave@DOT <dave.padilla@dot.ca.gov>
Sent: Thursday, March 28, 2019 9:26 AM
To: Jose Benavides; Sean Smith
Cc: Harmanjit Dhaliwal; Spaunhurst, Brian
Subject: RE: Tract 6263 TIA Draft Scope of Work

Good Morning Jose,

We have no concerns with the scope of work.

Thank you

DAVID PADILLA

Associate Transportation Planner
 Caltrans
 Office of Planning & Local Assistance
 1352 W. Olive Avenue
 Fresno, CA 93778-2616
 Office: (559) 444-2493, Fax: (559) 445-5875

From: Jose Benavides <jbenavides@jlbtraffic.com>
Sent: Tuesday, March 26, 2019 11:52 AM
To: Sean Smith <SeanS@ci.clovis.ca.us>
Cc: Harmanjit Dhaliwal <Harmanjit.Dhaliwal@fresno.gov>; Spaunhurst, Brian <bspaunhurst@fresnocountyca.gov>; Padilla, Dave@DOT <dave.padilla@dot.ca.gov>
Subject: Tract 6263 TIA Draft Scope of Work

Good afternoon,

Attached you will find a Revised Draft Scope of Work that has been prepared for Tract 6263 (Single-Family Residential) Project to be located at the southeast quadrant of Clovis Avenue and Shepherd Avenue in the City of Clovis for your review and comment. This Draft Scope of Work has been revised to correct the description of the trip generation and to add a discussion on the proposed Project Access points.

We kindly ask that you take a moment to review and comment on the proposed Scope of Work. In the absence of comments by April 15, 2019, it will be assumed that the proposed Scope of Work is acceptable to the agency(ies) that have not submitted any comments.

If you have any questions or require additional information, please contact us at (559) 570-8991 or by e-mail. We sincerely appreciate your time and attention to this matter and look forward to hearing from all of you soon. Thanks.

Sincerely,

Jose Luis Benavides, P.E., T.E.
 President



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Direct: (559) 317-6249
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Cell: (559) 694-6000
Fax: (559) 317-6854
www.JLBtraffic.com

From: [Gene Abella](#)
To: [Jose Benavides](#)
Cc: [Sean Smith](#)
Subject: T6263 (SEA Clovis/Shepherd, Lennar) - TIA Scope of Work
Date: Monday, April 8, 2019 12:28:39 PM

Jose,

Please add the following to the scope:

1. Include the option of no Shepherd access and analyze how that impacts traffic.
2. Add TM 6154, TM 6109, TM 6180, TM 6190, TM 6134A as near term
3. Add the CUSD site at Minnewawa and International Avenues as near term.

Once added, please proceed with the TIA.

Gene G. Abella
Assistant Engineer
City of Clovis
1033 Fifth Street
Clovis, CA 93612
(559) 324-2373 Voice
(559) 324-2843 Fax
genea@cityofclovis.com



CITY *of* CLOVIS

PLANNING & DEVELOPMENT

1033 FIFTH STREET • CLOVIS, CA 93612

July 18, 2019

Bill Walls

Lennar Homes of California, Inc.
8080 N. Palm Avenue, Suite #110
Fresno, CA 93711

Subject: Follow-Up request for materials for General Plan Amendment GPA2019-01, Rezone R2019-03, and Tentative Tract Map TM6263 for the properties located on the south side of Shepherd Avenue, between Clovis and Sunnyside Avenues.

Dear Mr. Walls:

Thank you for your submittal of an application and various materials for a general plan amendment, rezone, and tentative tract map for the properties located on the south side of Shepherd Avenue, between Clovis and Sunnyside Avenues. Unfortunately, staff finds that the applications are still incomplete, requiring additional supporting materials. Please be advised, that in order to be considered a complete application, staff must have on file the following materials and documents:

- Hard copy of the completed, updated City of Clovis Planning Division Master Application (please revise to indicate the intended zoning of R-1-PRD as declared to staff, and clarify that the number of lots is 139)
- Land Use Standards
- Matrix or explanation of amenities provided for the subdivision
- Updated studies for consistency showing the latest site plan having no access to Shepherd Avenue, rezoning to R-1-PRD, and 139-lots (i.e. traffic study, air quality study, noise study)

In order to facilitate processing of this application, it is recommended that you please submit this information and materials at your earliest convenience. Please note that additional supporting materials and/or modified exhibits may be required during the processing of an application.

Your cooperation in this matter will be greatly appreciated. The project manager assigned to your application is Ricky Caperton. Should you have any questions, please feel free to contact me at (559) 324-2347 or email at rcaperton@cityofclovis.com.

City Manager 559.324.2060 • Community Services 559.324.2095 • Engineering 559.324.2350
Finance 559.324.2130 • Fire 559.324.2200 • General Services 559.324.2060 • Personnel/Risk Management 559.324.2725
Planning & Development Services 559.324.2340 • Police 559.324.2400 • Public Utilities 559.324.2600 • TTY-711

www.cityofclovis.com

Sincerely,

Ricky Caperton

Ricky Caperton, AICP
Senior Planner

Cc: Dirk Poeschel, Dirk Poeschel Land Development Services, Inc.

Appendix B: Traffic Counts



Traffic Engineering, Inc.

<http://www.JLBtraffic.com>

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Fresno, CA 93704

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Traffic Engineering, Transportation Planning, & Parking Solutions

info@JLBtraffic.com

JLB Traffic Engineering, Inc.

AGENDA ITEM NO.10.

1300 E. Shaw Ave., Ste. 103

Fresno, CA 93710

(559) 570-8991

Traffic Engineering, Transportation Planning & Parking Solutions

www.JLBtraffic.com

File Name : Clovis at Shepherd

Site Code : 00000000

Start Date : 3/20/2018

Page No : 1

Groups Printed- Unshifted

Start Time	SHEPHERD Westbound					CLOVIS Northbound				SHEPHERD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	U-turn	Thru	Right	Peds	App. Total	
07:00 AM	7	71	0	0	78	20	5	0	25	0	62	22	1	85	188
07:15 AM	18	112	0	0	130	27	13	0	40	1	64	34	1	100	270
07:30 AM	32	133	0	0	165	27	8	0	35	0	90	30	0	120	320
07:45 AM	33	88	0	0	121	14	23	0	37	0	116	41	0	157	315
Total	90	404	0	0	494	88	49	0	137	1	332	127	2	462	1093
08:00 AM	11	84	0	0	95	25	10	0	35	0	89	33	0	122	252
08:15 AM	14	77	0	0	91	24	7	0	31	0	57	36	1	94	216
08:30 AM	7	95	0	0	102	26	9	0	35	0	70	20	1	91	228
08:45 AM	2	72	0	0	74	20	6	0	26	0	57	18	0	75	175
Total	34	328	0	0	362	95	32	0	127	0	273	107	2	382	871

04:00 PM	8	81	0	0	89	31	12	0	43	0	53	26	1	80	212
04:15 PM	3	80	1	0	84	37	22	0	59	0	67	20	0	87	230
04:30 PM	9	87	0	0	96	23	18	0	41	0	85	15	1	101	238
04:45 PM	11	78	0	0	89	31	19	0	50	1	87	16	0	104	243
Total	31	326	1	0	358	122	71	0	193	1	292	77	2	372	923
05:00 PM	10	91	0	0	101	46	25	0	71	0	92	12	2	106	278
05:15 PM	20	68	0	0	88	33	30	0	63	0	92	25	0	117	268
05:30 PM	8	94	0	0	102	35	19	0	54	0	85	13	0	98	254
05:45 PM	13	89	0	0	102	31	31	0	62	1	60	30	0	91	255
Total	51	342	0	0	393	145	105	0	250	1	329	80	2	412	1055
Grand Total	206	1400	1	0	1607	450	257	0	707	3	1226	391	8	1628	3942
Apprch %	12.8	87.1	0.1	0		63.6	36.4	0		0.2	75.3	24	0.5		
Total %	5.2	35.5	0	0	40.8	11.4	6.5	0	17.9	0.1	31.1	9.9	0.2	41.3	

JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103

Fresno, CA 93710

(559) 570-8991

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AGENDA ITEM NO.10.

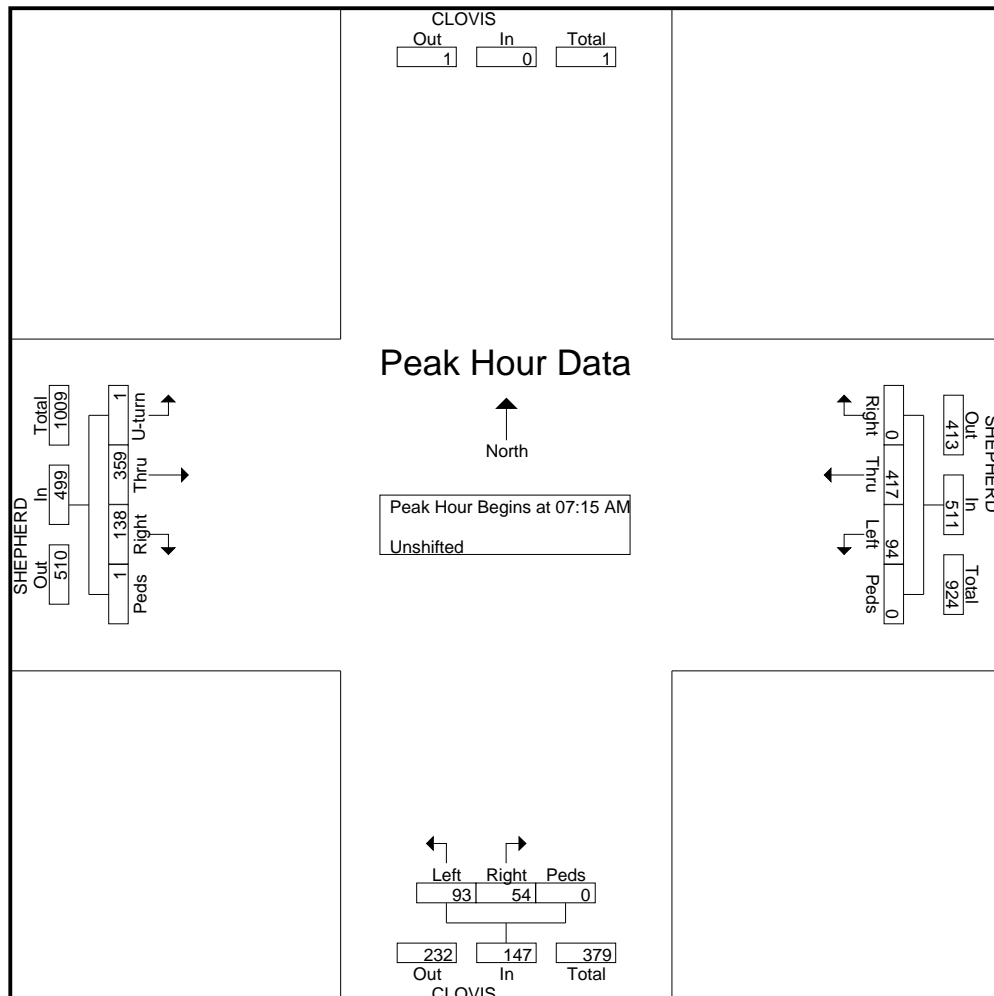
File Name : Clovis at Shepherd

Site Code : 00000000

Start Date : 3/20/2018

Page No : 2

Start Time	SHEPHERD Westbound					CLOVIS Northbound				SHEPHERD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	U-turn	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1															
Peak Hour for Entire Intersection Begins at 07:15 AM															
07:15 AM	18	112	0	0	130	27	13	0	40	1	64	34	1	100	270
07:30 AM	32	133	0	0	165	27	8	0	35	0	90	30	0	120	320
07:45 AM	33	88	0	0	121	14	23	0	37	0	116	41	0	157	315
08:00 AM	11	84	0	0	95	25	10	0	35	0	89	33	0	122	252
Total Volume	94	417	0	0	511	93	54	0	147	1	359	138	1	499	1157
% App. Total	18.4	81.6	0	0		63.3	36.7	0		0.2	71.9	27.7	0.2		
PHF	.712	.784	.000	.000	.774	.861	.587	.000	.919	.250	.774	.841	.250	.795	.904



JLB Traffic Engineering, Inc.

1300 E. Shaw Ave., Ste. 103

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AGENDA ITEM NO.10.

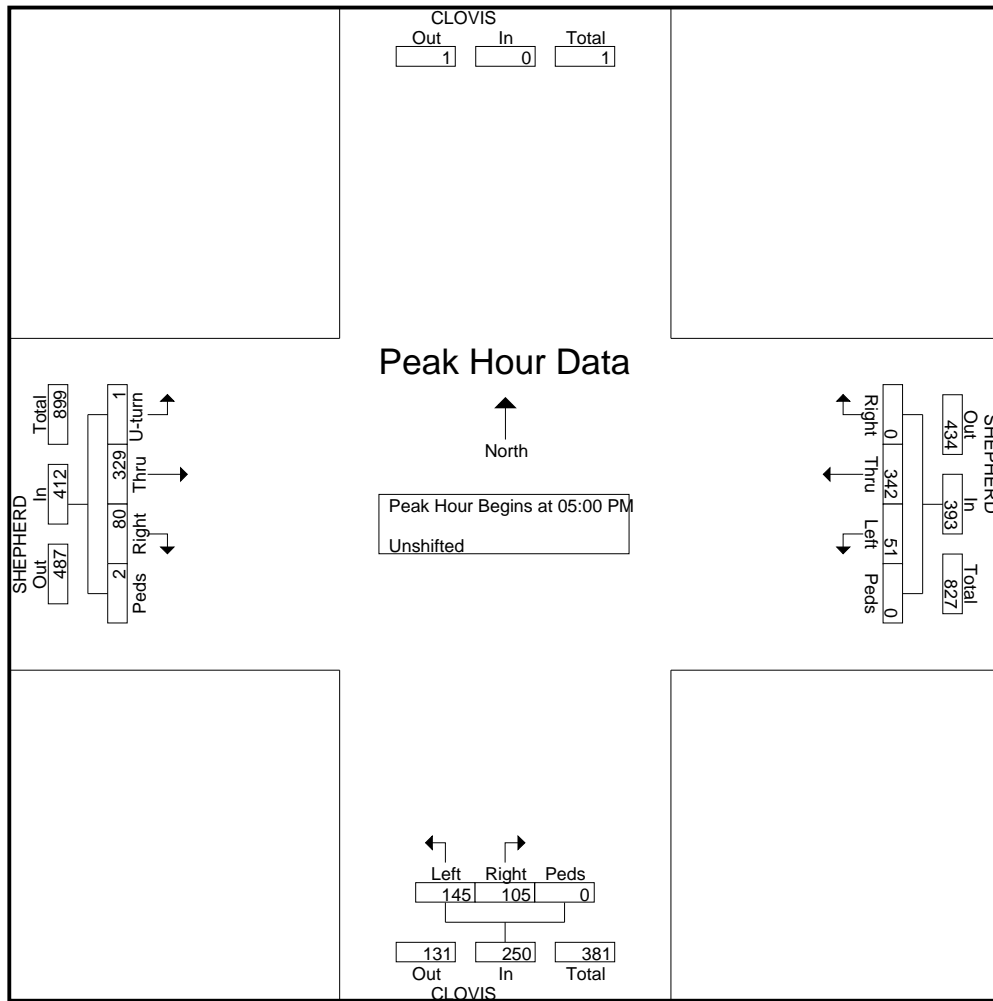
File Name : Clovis at Shepherd

Site Code : 00000000

Start Date : 3/20/2018

Page No : 3

Start Time	SHEPHERD Westbound					CLOVIS Northbound				SHEPHERD Eastbound					Int. Total	
	Left	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	U-turn	Thru	Right	Peds	App. Total		
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 05:00 PM																
05:00 PM	10	91	0	0	101	46	25	0	71	0	92	12	2	106	278	
05:15 PM	20	68	0	0	88	33	30	0	63	0	92	25	0	117	268	
05:30 PM	8	94	0	0	102	35	19	0	54	0	85	13	0	98	254	
05:45 PM	13	89	0	0	102	31	31	0	62	1	60	30	0	91	255	
Total Volume	51	342	0	0	393	145	105	0	250	1	329	80	2	412	1055	
% App. Total	13	87	0	0		58	42	0		0.2	79.9	19.4	0.5			
PHF	.638	.910	.000	.000	.963	.788	.847	.000	.880	.250	.894	.667	.250	.880	.949	



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File Name : Shepherd at Sunnyside

Site Code : 00000000

Start Date : 3/15/2018

Page No : 1

Groups Printed- Unshifted

Start Time	SUNNYSIDE Southbound					SHEPHERD Westbound					SUNNYSIDE Northbound					SHEPHERD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	3	3	0	6	5	68	0	0	73	12	0	0	1	13	0	39	13	0	52	144
07:15 AM	0	3	5	0	8	1	134	2	0	137	16	0	0	0	16	0	44	11	0	55	216
07:30 AM	1	4	7	0	12	5	150	2	0	157	30	5	0	0	35	4	88	29	0	121	325
07:45 AM	1	5	3	0	9	1	97	3	0	101	11	2	2	0	15	5	95	52	0	152	277
Total	2	15	18	0	35	12	449	7	0	468	69	7	2	1	79	9	266	105	0	380	962
08:00 AM	1	3	3	0	7	5	77	1	0	83	21	2	6	0	29	2	60	27	0	89	208
08:15 AM	4	4	2	0	10	5	79	0	0	84	14	1	3	0	18	2	46	20	0	68	180
08:30 AM	0	1	2	0	3	2	66	3	0	71	15	4	2	0	21	1	44	13	0	58	153
08:45 AM	0	2	0	0	2	4	65	1	0	70	17	0	4	0	21	3	34	10	0	47	140
Total	5	10	7	0	22	16	287	5	0	308	67	7	15	0	89	8	184	70	0	262	681

04:00 PM	1	1	1	0	3	4	61	0	0	65	13	3	6	0	22	1	68	10	0	79	169
04:15 PM	0	3	2	0	5	4	70	2	0	76	23	1	5	0	29	2	84	19	0	105	215
04:30 PM	0	1	2	0	3	7	82	4	0	93	28	1	2	0	31	1	87	22	0	110	237
04:45 PM	1	1	1	0	3	3	87	2	0	92	35	3	2	0	40	4	92	16	0	112	247
Total	2	6	6	0	14	18	300	8	0	326	99	8	15	0	122	8	331	67	0	406	868
05:00 PM	0	1	2	0	3	3	87	0	0	90	21	6	6	0	33	3	108	24	0	135	261
05:15 PM	2	4	4	0	10	7	93	3	0	103	18	1	10	0	29	3	105	22	0	130	272
05:30 PM	1	3	3	0	7	3	92	0	0	95	11	2	8	0	21	2	116	19	0	137	260
05:45 PM	0	3	3	0	6	5	73	0	0	78	15	5	6	0	26	3	105	17	0	125	235
Total	3	11	12	0	26	18	345	3	0	366	65	14	30	0	109	11	434	82	0	527	1028
Grand Total	12	42	43	0	97	64	1381	23	0	1468	300	36	62	1	399	36	1215	324	0	1575	3539
Apprch %	12.4	43.3	44.3	0		4.4	94.1	1.6	0		75.2	9	15.5	0.3		2.3	77.1	20.6	0		
Total %	0.3	1.2	1.2	0	2.7	1.8	39	0.6	0	41.5	8.5	1	1.8	0	11.3	1	34.3	9.2	0	44.5	

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AGENDA ITEM NO. 10.

File Name : Shepherd at Sunnyside

Site Code : 00000000

Start Date : 3/15/2018

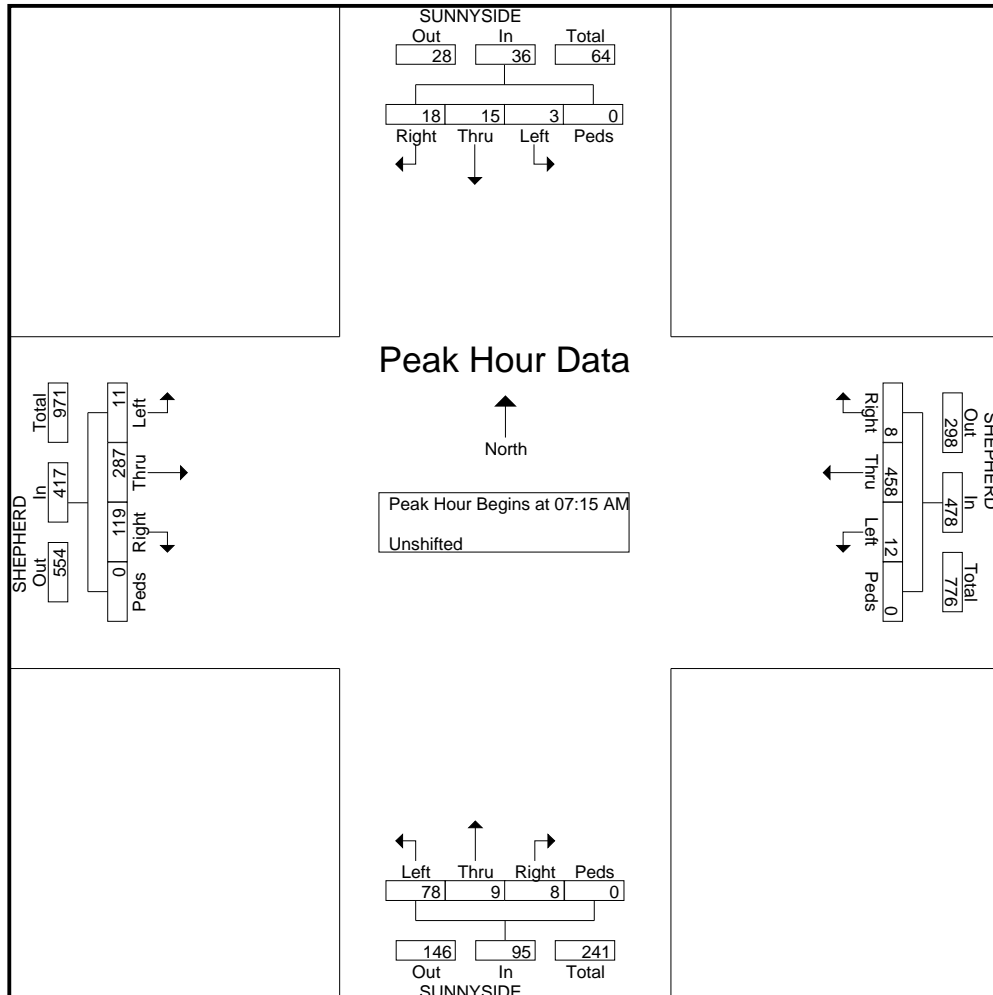
Page No : 2

Start Time	SUNNYSIDE Southbound					SHEPHERD Westbound					SUNNYSIDE Northbound					SHEPHERD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

07:15 AM	0	3	5	0	8	1	134	2	0	137	16	0	0	0	16	0	44	11	0	55	216
07:30 AM	1	4	7	0	12	5	150	2	0	157	30	5	0	0	35	4	88	29	0	121	325
07:45 AM	1	5	3	0	9	1	97	3	0	101	11	2	2	0	15	5	95	52	0	152	277
08:00 AM	1	3	3	0	7	5	77	1	0	83	21	2	6	0	29	2	60	27	0	89	208
Total Volume	3	15	18	0	36	12	458	8	0	478	78	9	8	0	95	11	287	119	0	417	1026
% App. Total	8.3	41.7	50	0		2.5	95.8	1.7	0		82.1	9.5	8.4	0		2.6	68.8	28.5	0		
PHF	.750	.750	.643	.000	.750	.600	.763	.667	.000	.761	.650	.450	.333	.000	.679	.550	.755	.572	.000	.686	.789



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AGENDA ITEM NO.10.

File Name : Shepherd at Sunnyside

Site Code : 00000000

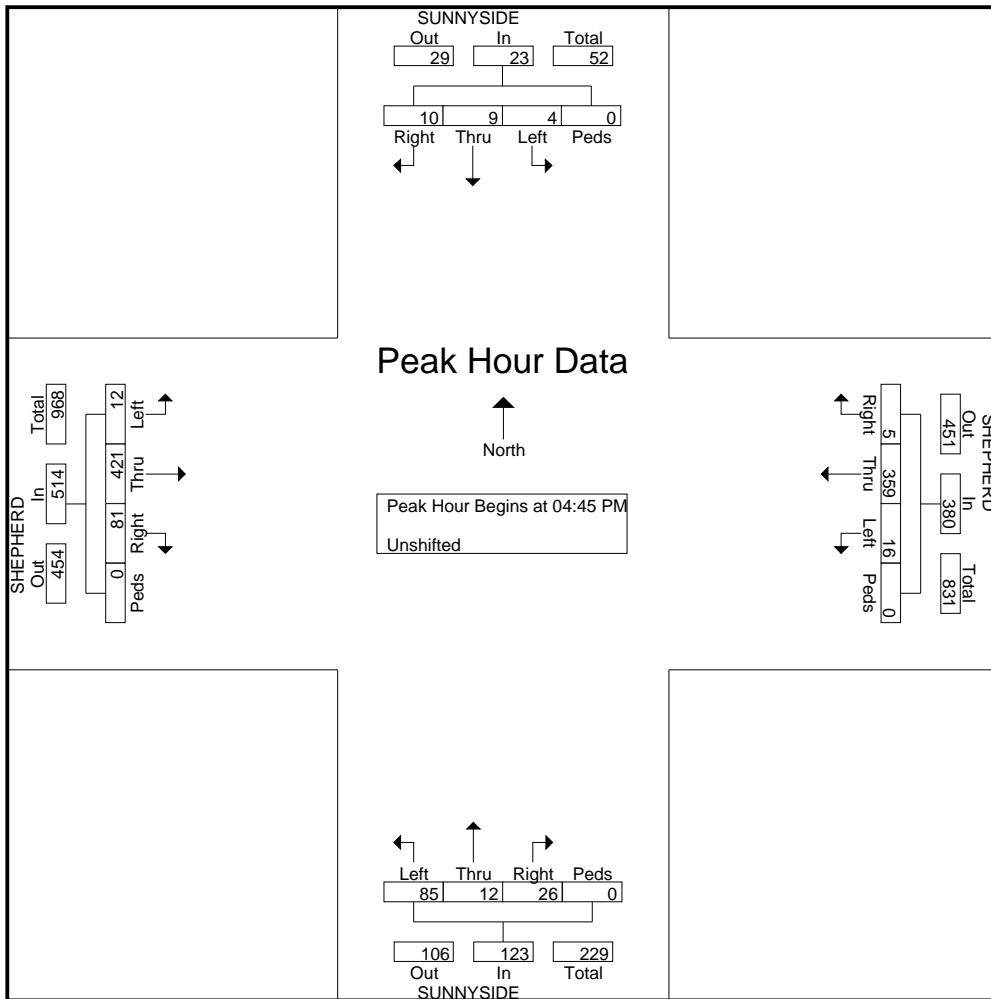
Start Date : 3/15/2018

Page No : 3

Start Time	SUNNYSIDE Southbound					SHEPHERD Westbound					SUNNYSIDE Northbound					SHEPHERD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
04:45 PM	1	1	1	0	3	3	87	2	0	92	35	3	2	0	40	4	92	16	0	112	247
05:00 PM	0	1	2	0	3	3	87	0	0	90	21	6	6	0	33	3	108	24	0	135	261
05:15 PM	2	4	4	0	10	7	93	3	0	103	18	1	10	0	29	3	105	22	0	130	272
05:30 PM	1	3	3	0	7	3	92	0	0	95	11	2	8	0	21	2	116	19	0	137	260
Total Volume	4	9	10	0	23	16	359	5	0	380	85	12	26	0	123	12	421	81	0	514	1040
% App. Total	17.4	39.1	43.5	0		4.2	94.5	1.3	0		69.1	9.8	21.1	0		2.3	81.9	15.8	0		
PHF	.500	.563	.625	.000	.575	.571	.965	.417	.000	.922	.607	.500	.650	.000	.769	.750	.907	.844	.000	.938	.956

Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:45 PM



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File Name : Clovis at Riordan

Site Code : 00000000

Start Date : 3/21/2019

Page No : 1

Groups Printed- Unshifted - Bank 1 (U-turns)

Start Time	CLOVIS Southbound			RIORDAN Westbound			CLOVIS Northbound			Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	
07:00 AM	8	62	0	9	1	0	22	0	0	102
07:15 AM	0	110	0	16	1	0	38	3	0	168
07:30 AM	4	123	0	15	3	0	46	4	1	196
07:45 AM	4	69	0	8	0	1	28	5	3	118
Total	16	364	0	48	5	1	134	12	4	584
08:00 AM	0	88	0	13	1	0	42	8	2	154
08:15 AM	3	65	0	14	2	0	57	11	4	156
08:30 AM	4	51	0	7	2	0	31	4	0	99
08:45 AM	1	29	0	7	3	0	31	2	2	75
Total	8	233	0	41	8	0	161	25	8	484

04:00 PM	0	48	0	3	1	0	63	8	1	124
04:15 PM	3	51	0	4	0	0	74	12	0	144
04:30 PM	4	38	0	7	2	0	71	7	2	131
04:45 PM	5	46	0	14	0	0	59	6	1	131
Total	12	183	0	28	3	0	267	33	4	530
05:00 PM	2	55	0	4	2	0	74	18	0	155
05:15 PM	4	58	0	9	0	0	89	11	0	171
05:30 PM	3	66	0	7	0	0	81	12	3	172
05:45 PM	6	73	0	3	0	0	72	13	1	168
Total	15	252	0	23	2	0	316	54	4	666
Grand Total	51	1032	0	140	18	1	878	124	20	2264
Apprch %	4.7	95.3	0	88.1	11.3	0.6	85.9	12.1	2	
Total %	2.3	45.6	0	6.2	0.8	0	38.8	5.5	0.9	
Unshifted	25	1032	0	140	18	1	878	124	20	2238
% Unshifted	49	100	0	100	100	100	100	100	100	98.9
Bank 1 (Pedestrians)	26	0	0	0	0	0	0	0	0	26
% Bank 1 (Pedestrians)	51	0	0	0	0	0	0	0	0	1.1

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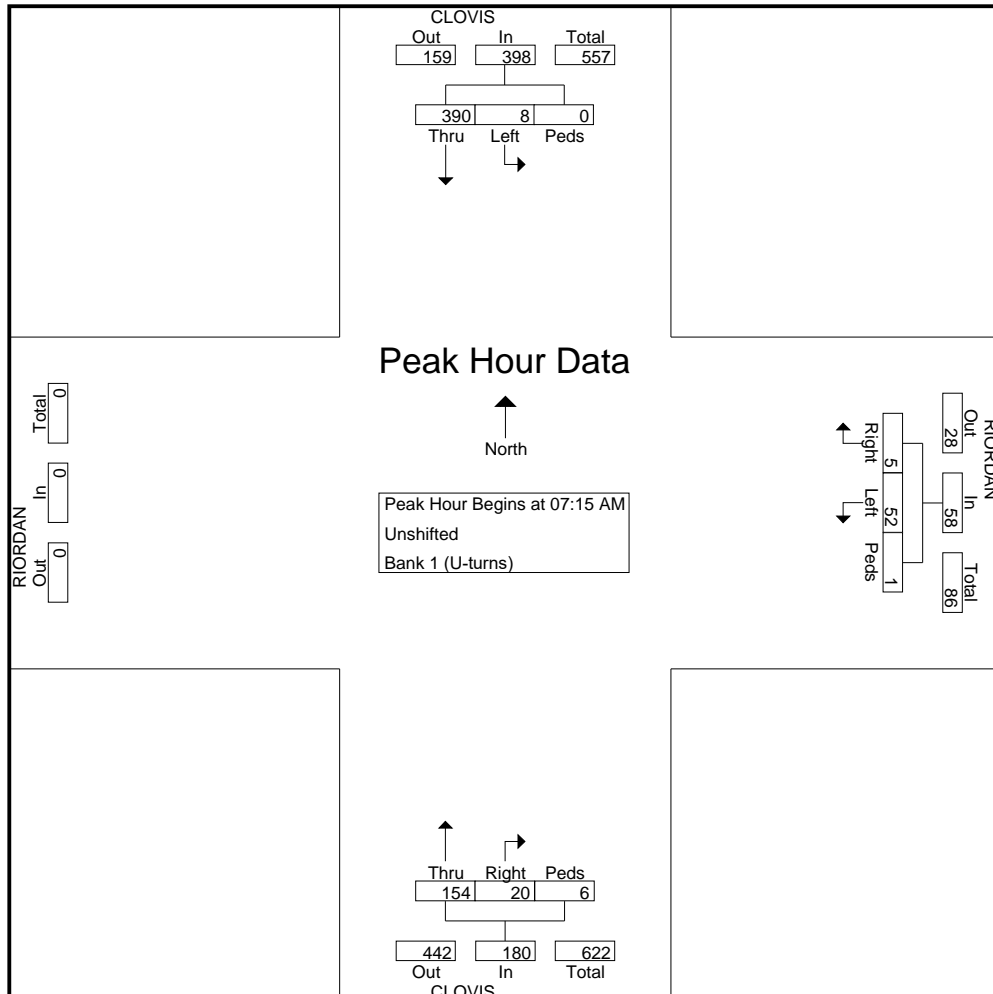
File Name : Clovis at Riordan

Site Code : 00000000

Start Date : 3/21/2019

Page No : 2

Start Time	CLOVIS Southbound				RIORDAN Westbound				CLOVIS Northbound				Int. Total
	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	110	0	110	16	1	0	17	38	3	0	41	168
07:30 AM	4	123	0	127	15	3	0	18	46	4	1	51	196
07:45 AM	4	69	0	73	8	0	1	9	28	5	3	36	118
08:00 AM	0	88	0	88	13	1	0	14	42	8	2	52	154
Total Volume	8	390	0	398	52	5	1	58	154	20	6	180	636
% App. Total	2	98	0		89.7	8.6	1.7		85.6	11.1	3.3		
PHF	.500	.793	.000	.783	.813	.417	.250	.806	.837	.625	.500	.865	.811



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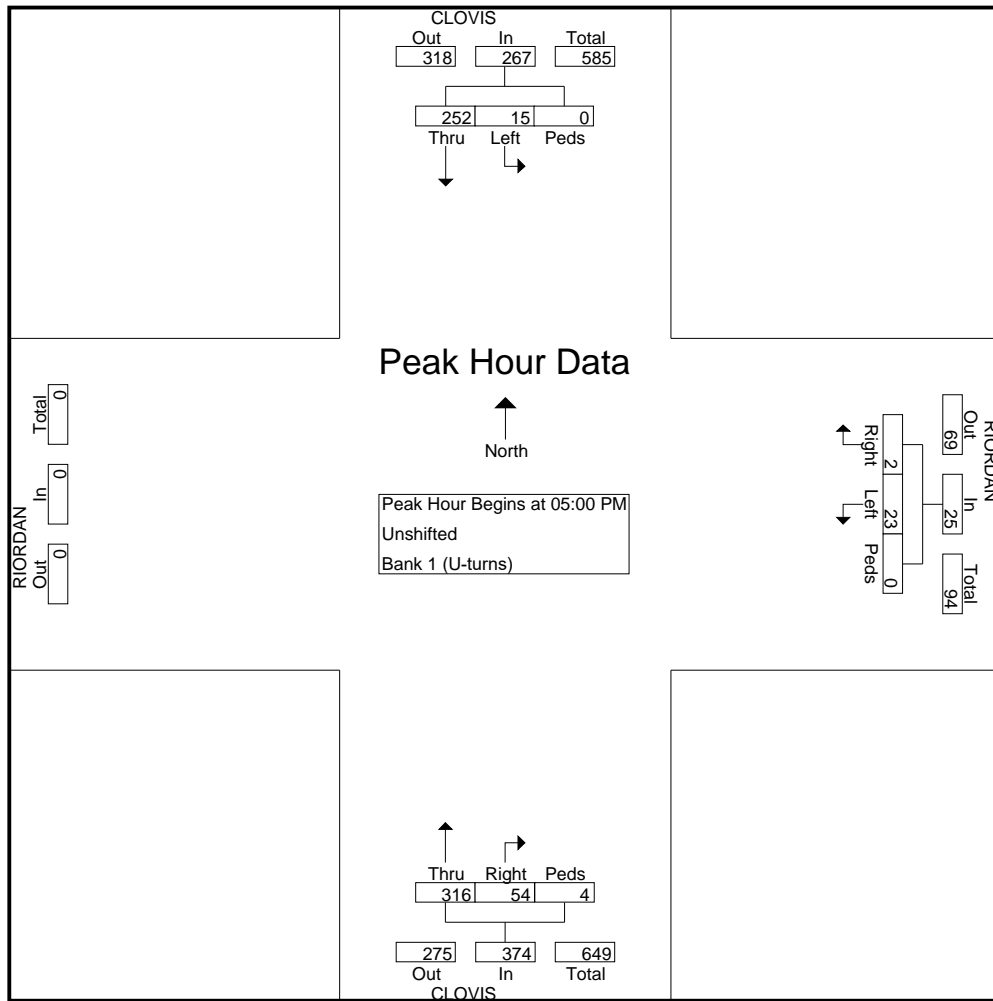
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File Name : Clovis at Riordan
 Site Code : 00000000
 Start Date : 3/21/2019
 Page No : 3

Start Time	CLOVIS Southbound				RIORDAN Westbound				CLOVIS Northbound				Int. Total
	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	2	55	0	57	4	2	0	6	74	18	0	92	155
05:15 PM	4	58	0	62	9	0	0	9	89	11	0	100	171
05:30 PM	3	66	0	69	7	0	0	7	81	12	3	96	172
05:45 PM	6	73	0	79	3	0	0	3	72	13	1	86	168
Total Volume	15	252	0	267	23	2	0	25	316	54	4	374	666
% App. Total	5.6	94.4	0		92	8	0		84.5	14.4	1.1		
PHF	.625	.863	.000	.845	.639	.250	.000	.694	.888	.750	.333	.935	.968



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File Name : Clovis at Riordan
 Site Code : 00000000
 Start Date : 3/21/2019
 Page No : 1

Groups Printed- Bank 1 (U-turns)

Start Time	CLOVIS Southbound			RIORDAN Westbound			CLOVIS Northbound			Int. Total
	Left	Thru	Peds	Left	Right	Peds	Thru	Right	Peds	
07:00 AM	7	0	0	0	0	0	0	0	0	7

07:45 AM	1	0	0	0	0	0	0	0	0	1
Total	8	0	0	0	0	0	0	0	0	8

08:30 AM	4	0	0	0	0	0	0	0	0	4

Total	4	0	0	0	0	0	0	0	0	4

04:30 PM	1	0	0	0	0	0	0	0	0	1
04:45 PM	2	0	0	0	0	0	0	0	0	2
Total	3	0	0	0	0	0	0	0	0	3
05:00 PM	1	0	0	0	0	0	0	0	0	1
05:15 PM	2	0	0	0	0	0	0	0	0	2
05:30 PM	3	0	0	0	0	0	0	0	0	3
05:45 PM	5	0	0	0	0	0	0	0	0	5
Total	11	0	0	0	0	0	0	0	0	11
Grand Total	26	0	0	0	0	0	0	0	0	26
Apprch %	100	0	0	0	0	0	0	0	0	
Total %	100	0	0	0	0	0	0	0	0	

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AGENDA ITEM NO.10.

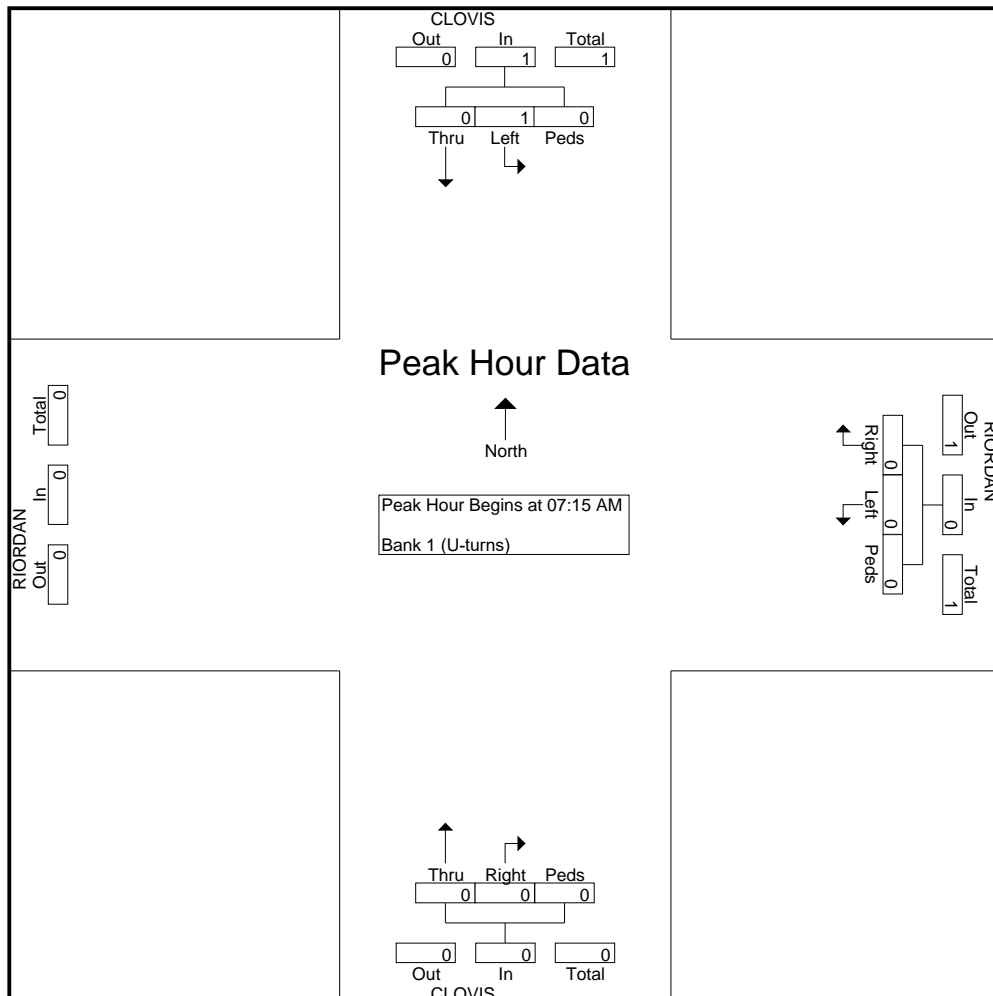
File Name : Clovis at Riordan

Site Code : 00000000

Start Date : 3/21/2019

Page No : 2

Start Time	CLOVIS Southbound				RIORDAN Westbound				CLOVIS Northbound				Int. Total
	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	1
% App. Total	100	0	0		0	0	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250



JLB Traffic Engineering, Inc.

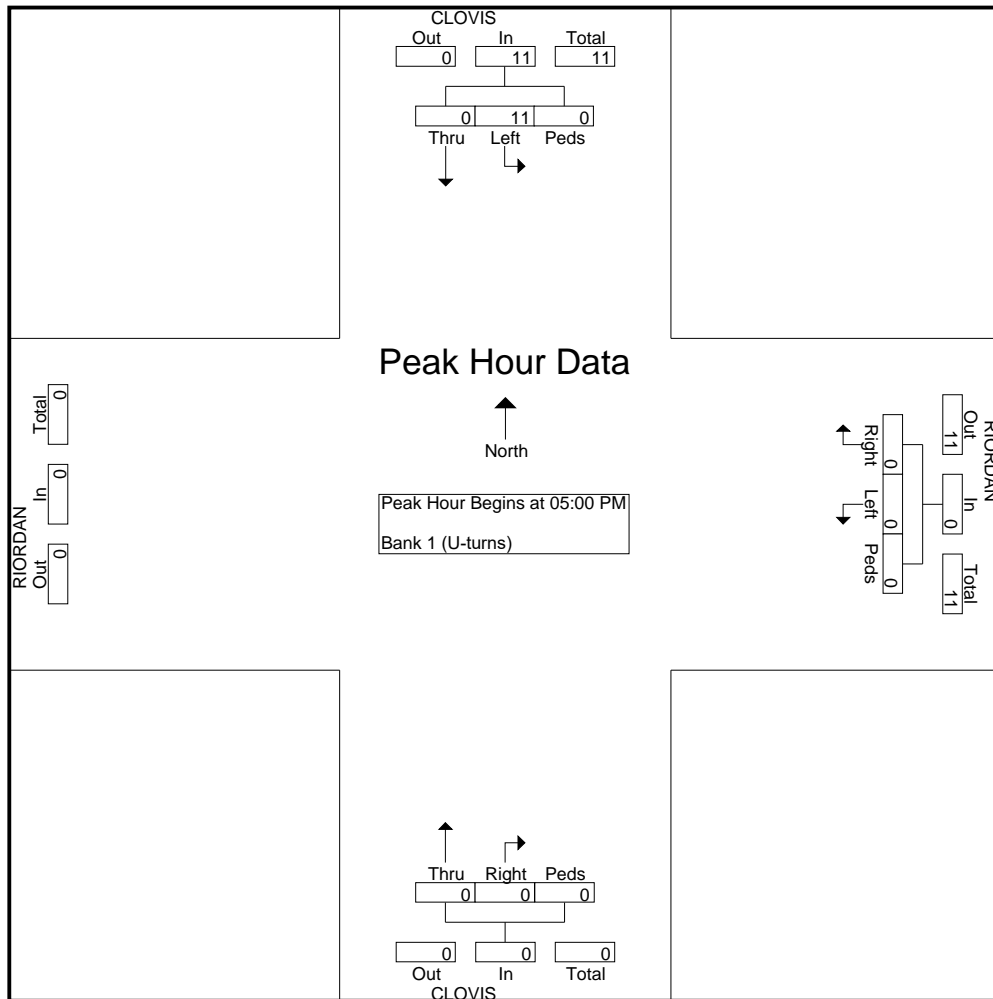
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AGENDA ITEM NO.10.

File Name : Clovis at Riordan
 Site Code : 00000000
 Start Date : 3/21/2019
 Page No : 3

Start Time	CLOVIS Southbound				RIORDAN Westbound				CLOVIS Northbound				Int. Total
	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
05:15 PM	2	0	0	2	0	0	0	0	0	0	0	0	2
05:30 PM	3	0	0	3	0	0	0	0	0	0	0	0	3
05:45 PM	5	0	0	5	0	0	0	0	0	0	0	0	5
Total Volume	11	0	0	11	0	0	0	0	0	0	0	0	11
% App. Total	100	0	0		0	0	0		0	0	0		
PHF	.550	.000	.000	.550	.000	.000	.000	.000	.000	.000	.000	.000	.550



Appendix C: Traffic Modeling



Traffic Engineering, Inc.

<http://www.JLBtraffic.com>

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Page | C

March 26, 2019

Kai Han, TE
 Council of Fresno County Governments
 2035 Tulare Street, Suite 201
 Fresno, CA 93721

Via E-mail Only: khan@fresnocog.org

Subject: Traffic Modeling Request for the Preparation of a Traffic Impact Analysis for Tract 6263 Located on the Southeast Quadrant of Shepherd Avenue and Clovis Avenue in the City of Clovis (JLB Project 006-028)

Dear Mr. Han,

JLB Traffic Engineering, Inc. (JLB) hereby requests traffic modeling for the preparation of a Traffic Impact Analysis (TIA) for the Project described below. Tract 6263 (Project) proposes to develop approximately 23.35 acres with up to 139 single family residential units. Furthermore, Tract 6263 proposes to include a right-in, right-out access point to the south side of Shepherd Avenue. The right-in, right-out access is proposed at a point approximately 1,300 feet east of Clovis Avenue. Based on information provided to JLB, the Project will undergo a General Plan Amendment to reclassify the designation of Shepherd Avenue between Clovis Avenue to Sunnyside Avenue from an Expressway to an "Expressway with Limited Access" and to modify the existing land use from Low Density Residential to Medium Density Residential under the R-1-MD zoning. An aerial of the Project vicinity and the Project site plan are shown in Exhibits A and B, respectively.

The purpose of this TIA is to evaluate the potential traffic impacts, identify short-term roadway and circulation needs, determine potential mitigation measures and identify any critical traffic issues that should be addressed in the on-going planning process.

Scenarios:

The following scenarios are requested:

1. Base Year 2019 (with Link and TAZ modifications)
2. Cumulative Year 2035 plus Project Select Zone (with Link and TAZ modifications)
3. Differences between model runs 2 and 1 above.

Changes and/or additions to the Model Network or TAZ's

JLB reviewed the Fresno COG model network for the Base Year 2019 and Cumulative Year 2035. Based on this review, JLB requests the following link and TAZ Network modifications. Details on the requested Link and TAZ modifications for the Base Year 2019 and Cumulative Year 2035 are illustrated in Exhibit C.



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LINK and TAZ MODIFICATIONS (For Base Year 2019 Project Select Zone Scenario Only):

1. Modify Shepherd Avenue as follows:
 - A. Reduce the lanes between Node 4927 to Node 6835 from two lanes to one lane in the eastbound direction.

LINK and TAZ MODIFICATIONS (For Base Year 2019 and Cumulative Year 2035 plus Project Select Zone Scenarios):

1. Modify Clovis Avenue to increase the speed limit between Shepherd Avenue and Nees Avenue from 40 MPH to 45 MPH in each direction.
2. Create Sunnyside Avenue between Node 6835 to Node 6960.
 - A. Classification: Collector
 - B. Lanes: One in each direction
 - C. Speed: 45 MPH
3. Modify TAZ 1815 as follows:
 - A. Split TAZ 1815 into two TAZ's, 1815A and 1815B as illustrated in Exhibit D.
 - i. TAZ 1815A shall have two connectors, one north to Shepherd Avenue and another west to Clovis Avenue.
 - ii. TAZ 1815B shall have one connector east to Sunnyside Avenue.

LINK and TAZ ZONE MODIFICATIONS (For Cumulative Year 2035 plus Project Select Zone Scenario Only):

1. Create Project TAZ A. TAZ A shall have two TAZ connectors, one west to Clovis Avenue and another north to Shepherd Avenue.

TAZ A Project Only Trip Generation (For Cumulative Year 2035 plus Project Select Zone Scenario Only)

Table I presents the trip generation for Tract 6263. The trip generation is pursuant to the 10th Edition of the Trip Generation Manual with trip generation rates for a Single-Family Detached Housing. At build-out, Tract 6263 is estimated to generate a maximum of 1,312 daily trips, 103 AM peak hour trips and 138 PM peak hour trips.

Table I: TAZ A Project Only 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
Single-Family Detached Housing (210)	139	d.u.	9.44	1,312	0.74	25	75	26	77	103	0.99	63	37	87	51	138
Gross Total Project Trips				1,312				26	77	103				87	51	138

Note: d.u. = dwelling units

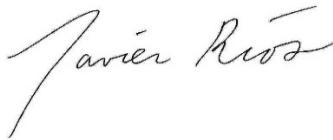


Access to the Project

Access to and from the Project site will be provided from three (3) access points. The first access point will be a full access located along the east side of Clovis Avenue at its intersection with Riordan Avenue. The second access point will be limited to right-in, and right-out along the east side of Clovis Avenue at its intersection with Prescott Lane. The third access point will be limited to right-in, right-out only off Marion Avenue to be located along the south side of Shepherd Avenue approximately 1,200 feet east of Clovis Avenue. The third access point in effect relocates the existing right-in, right-out access to Shepherd Avenue from Preuss Avenue. Additional Project details are found on Exhibit B.

Please invoice JLB Traffic Engineering, Inc. and reference JLB Project No. 006-028 on the invoice. If you have any questions or require additional information, please do not hesitate to contact me by phone at (559) 317-6245 or by e-mail at jrrios@JLBtraffic.com.

Sincerely,



Javier Rios
Engineer I/II

cc: Lang Yu, Fresno COG
Jose Benavides, JLB Traffic Engineering, Inc.

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Exhibit A – Project Site Aerial



Exhibit B – Project Site Plan

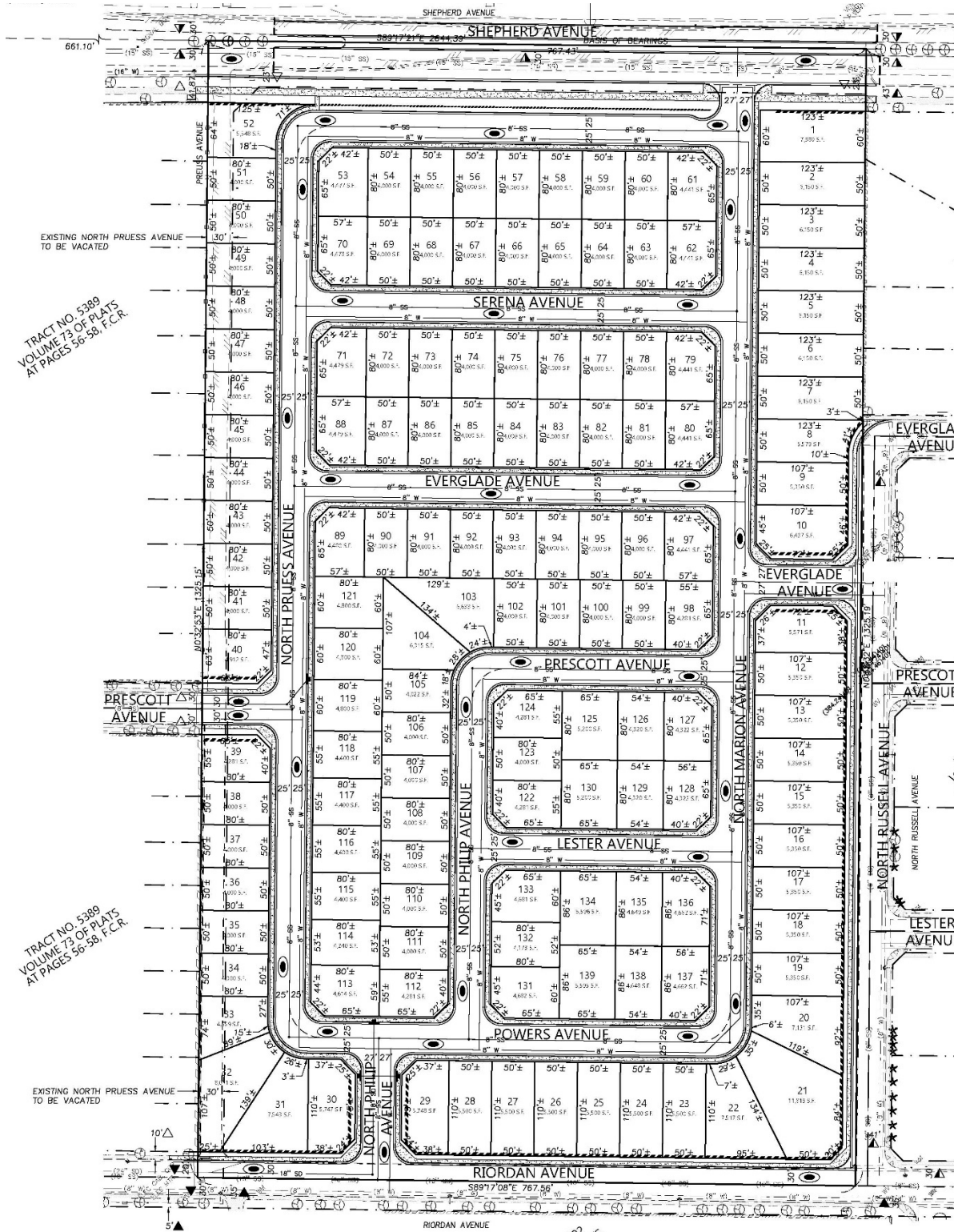
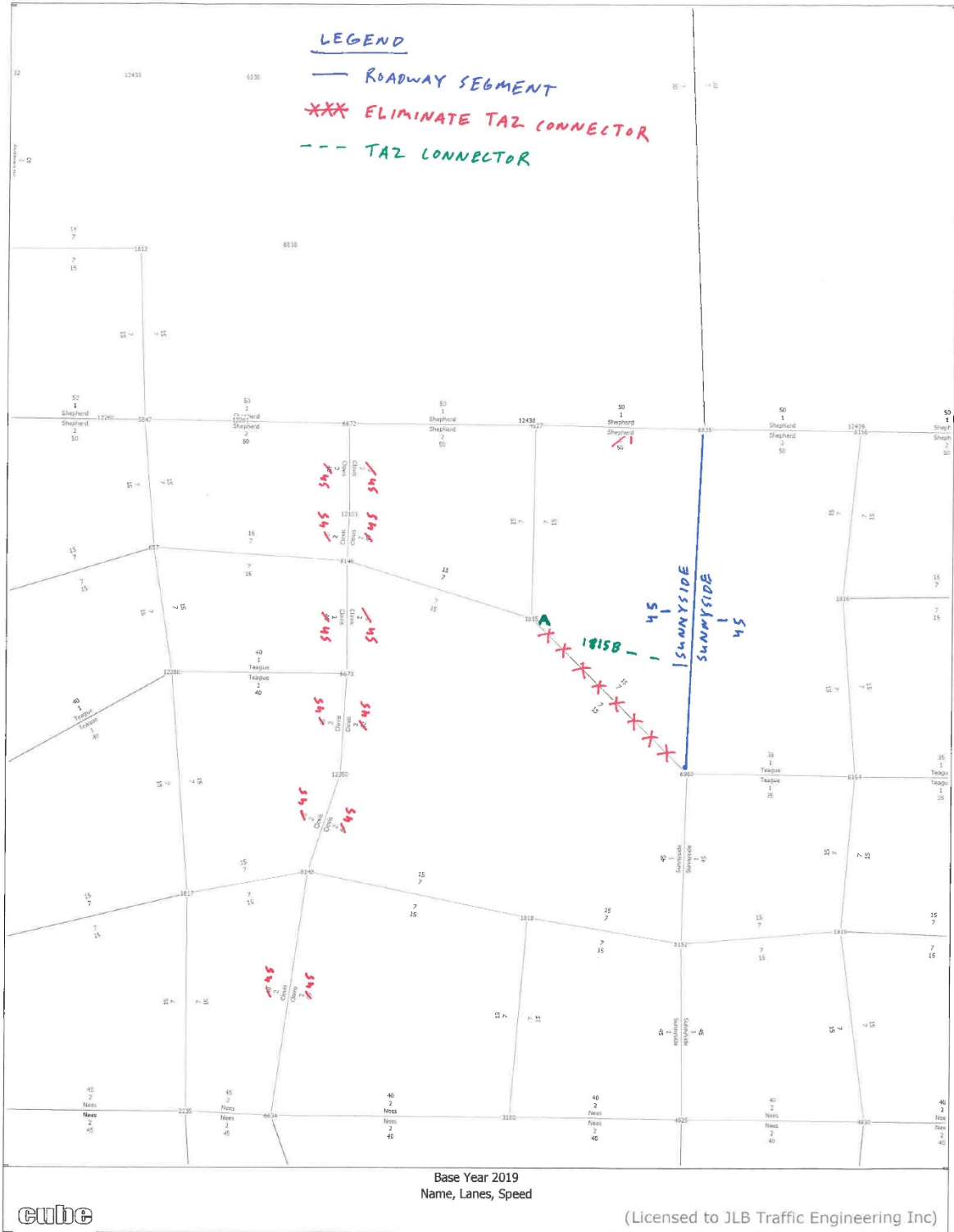


Exhibit C – Model Link and TAZ Modifications



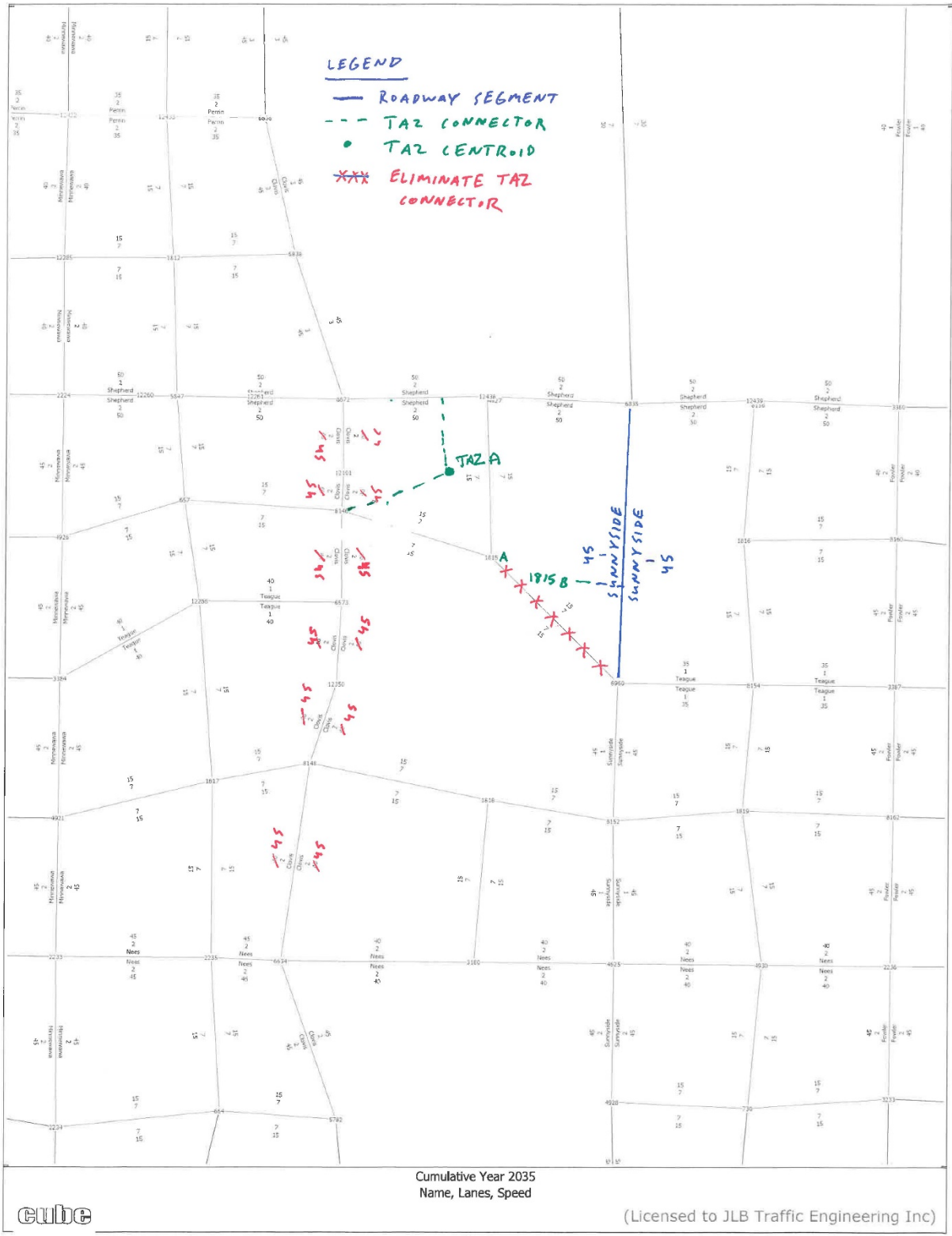
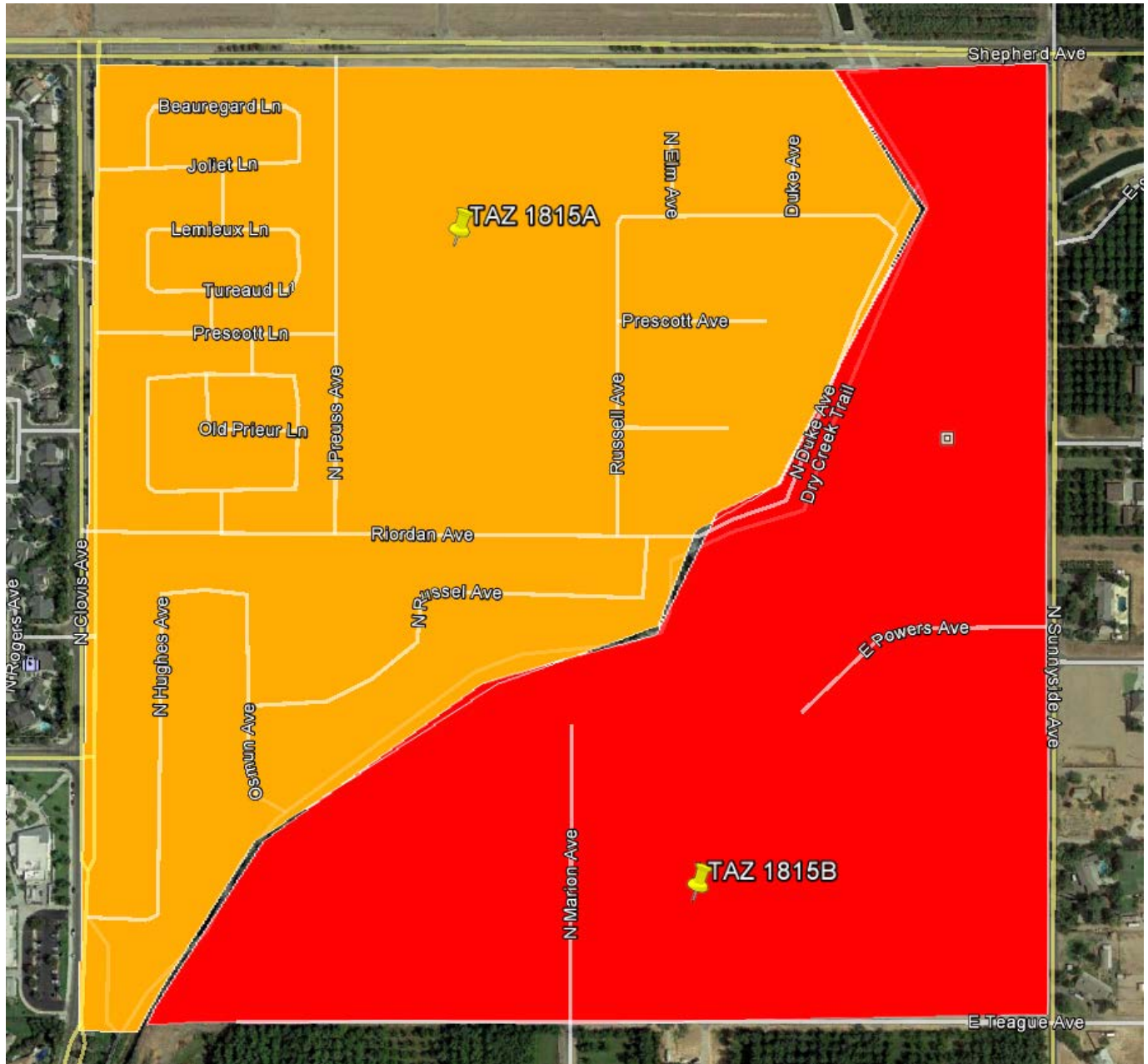
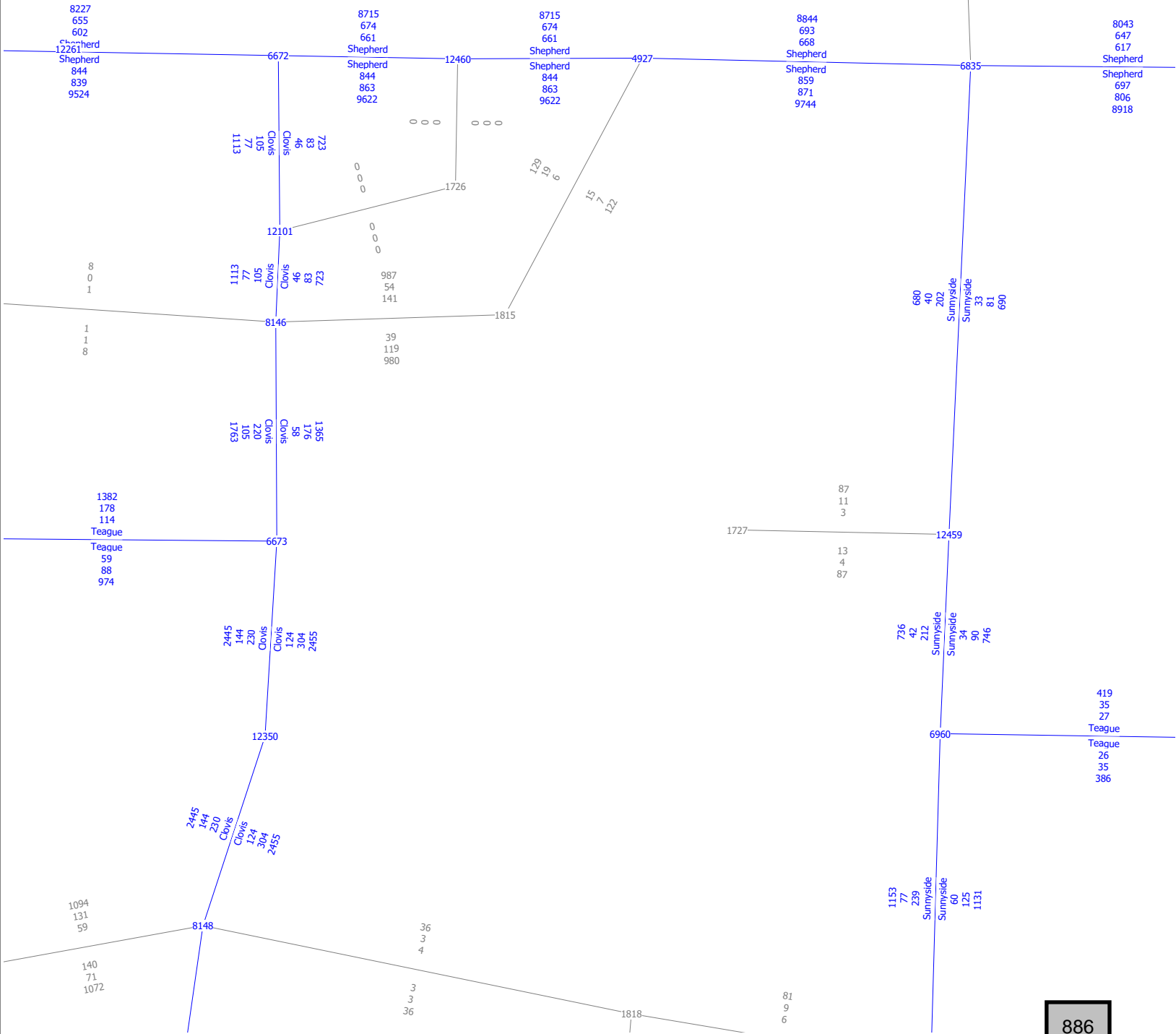


Exhibit D – TAZ 1815 Modification



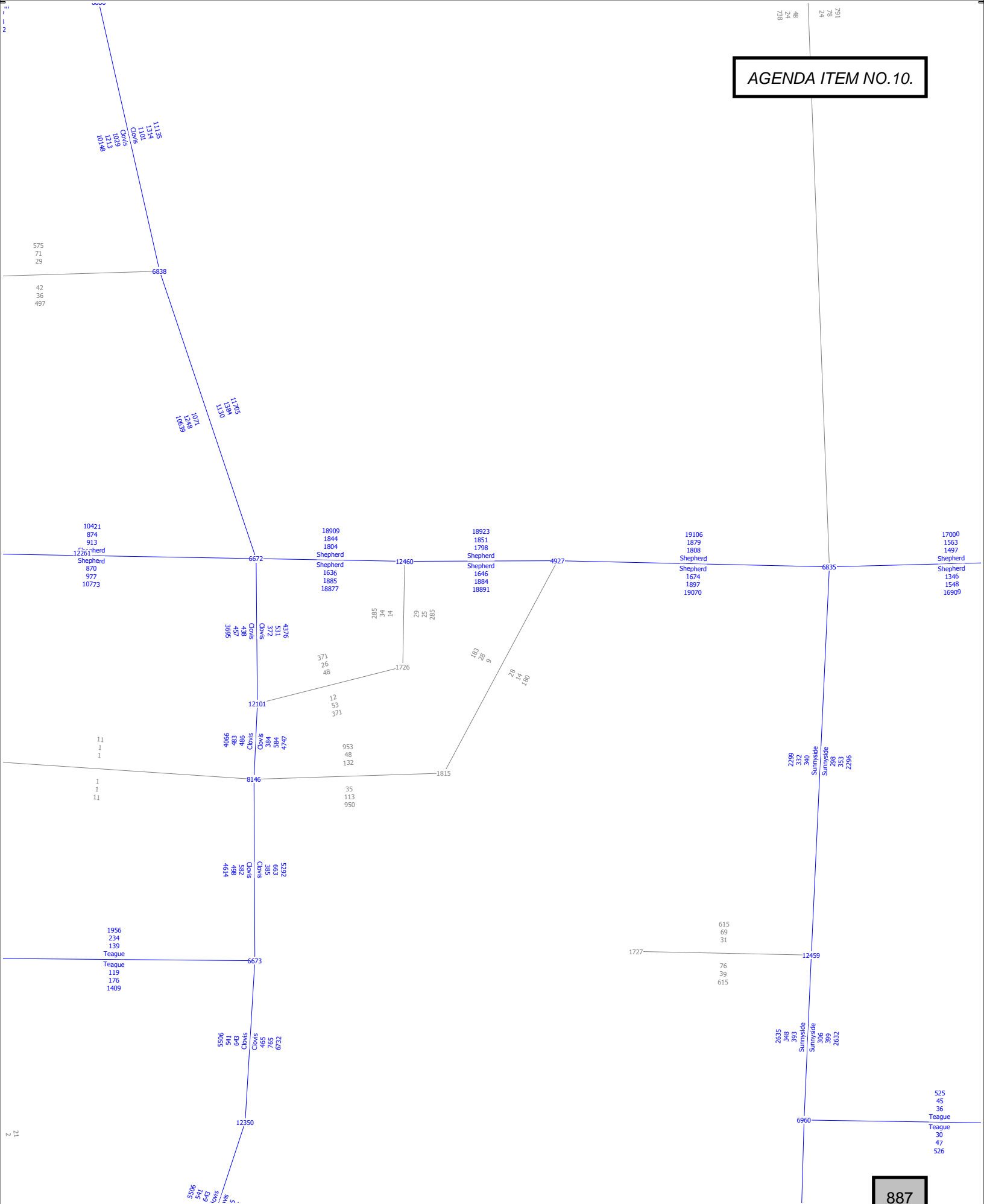
6838



BASE YEAR 2019
AM, PM & DAILY VOLUMES



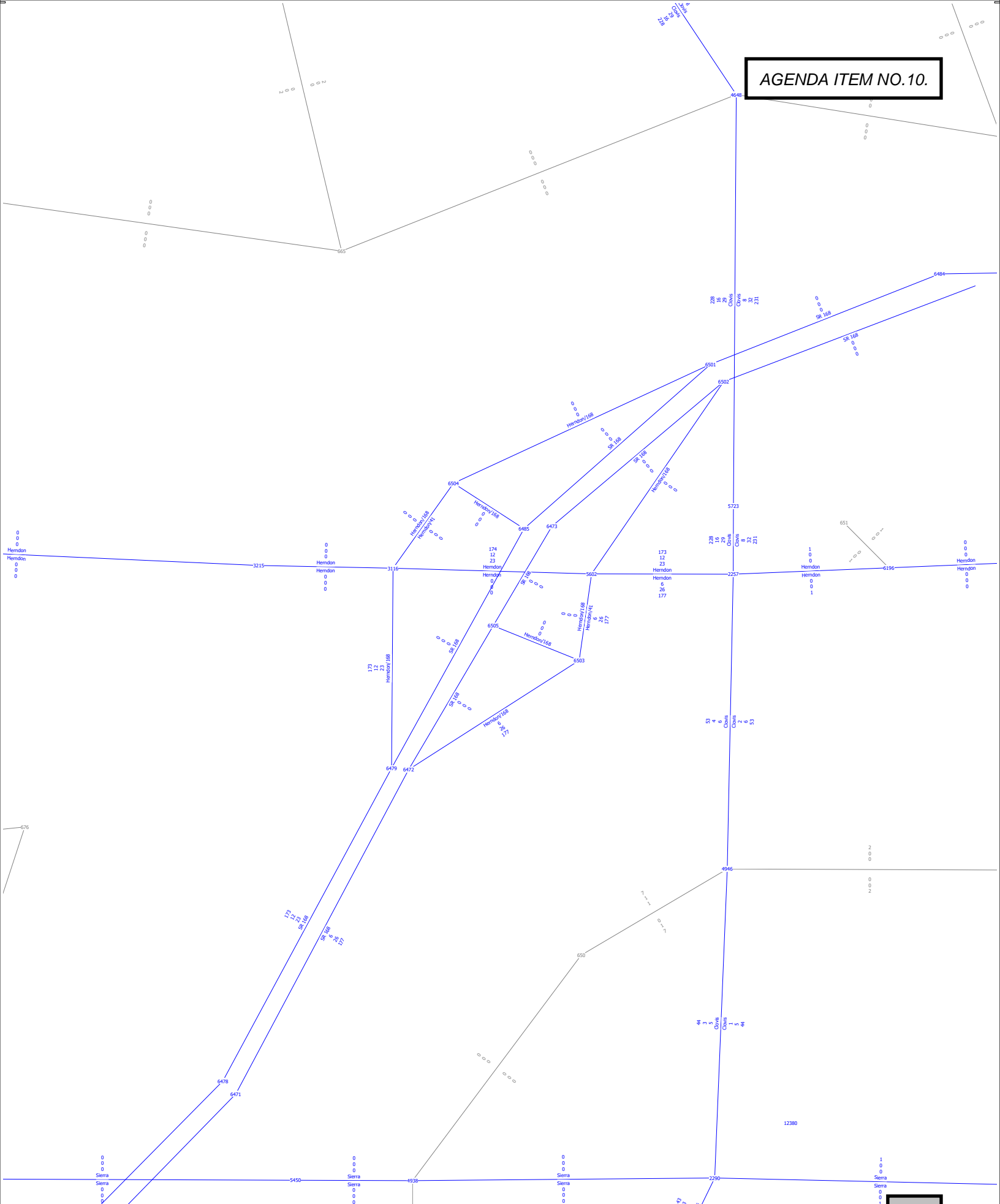
AGENDA ITEM NO. 10.



CUMULATIVE YEAR 2035
AM, PM & DAILY VOLUMES



AGENDA ITEM NO. 10.



CUMULATIVE YEAR 2035
AM, PM & DAILY VOLUMES
SELECT ZONE 1

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Appendix D: Methodology



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Levels of Service Methodology

The description and procedures for calculating capacity and level of service (LOS) are found in the Transportation Research Board, Highway Capacity Manual (HCM). The HCM 2010 represents the research on capacity and quality of service for transportation facilities.

Quality of service requires quantitative measures to characterize operational conditions within a traffic stream. Level of service is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience.

Six levels of service are defined for each type of facility that has analysis procedures available. Letters designate each level of service (LOS), from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each LOS represents a range of operating conditions and the driver's perception of these conditions. Safety is not included in the measures that establish a LOS.

Urban Streets (Automobile Mode)

The term "urban streets" refers to urban arterials and collectors, including those in downtown areas. Arterial streets are roads that primarily serve longer through trips. However, providing access to abutting commercial and residential land uses is also an important function of arterials. Collector streets provide both land access and traffic circulation within residential, commercial and industrial areas. Their access function is more important than that of arterials, and unlike arterials their operation is not always dominated by traffic signals. Downtown streets are signalized facilities that often resemble arterials. They not only move through traffic but also provide access to local businesses for passenger cars, transit buses, and trucks. Pedestrian conflicts and lane obstructions created by stopping or standing taxicabs, buses, trucks and parking vehicles that cause turbulence in the traffic flow are typical of downtown streets.

Flow Characteristics

The speed of vehicles on urban streets is influenced by three main factors, street environment, interaction among vehicles and traffic control.

The street environment includes the geometric characteristics of the facility, the character of roadside activity, and adjacent land uses. Thus, the environment reflects the number and width of lanes, type of median, driveway/access point density, spacing between signalized intersections, existence of parking, level of pedestrian and bicyclist activity and speed limit.

The interaction among vehicles is determined by traffic density, the proportion of trucks and buses, and turning movements. This interaction affects the operation of vehicles at intersections and, to a lesser extent, between signals.

Traffic controls (including signals and signs) forces a portion of all vehicles to slow or stop. The delays and speed changes caused by traffic control devices reduce vehicle speeds; however, such controls are needed to establish right-of-way.



Levels of Service (automobile Mode)

The average travel speed for through vehicles along an urban street is the determinant of the operating level of service (LOS). The travel speed along a segment, section or entire length of an urban street is dependent on the running speed between signalized intersections and the amount of control delay incurred at signalized intersections.

LOS A describes primarily free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal. Travel speeds exceed 85 of the base free flow speed (FFS).

LOS B describes reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted and control delay at the boundary intersections is not significant. The travel speed is between 67 and 85 percent of the base FFS.

LOS C describes stable operations. The ability to maneuver and change lanes in midblock location may be more restricted than at LOS B. Longer queues at the boundary intersections may contribute to lower travel speeds. The travel speed is between 50 and 67 percent of the base FFS.

LOS D indicates a less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volumes, inappropriate signal timing, at the boundary intersections. The travel speed is between 40 and 50 percent of the base FFS.

LOS E is characterized unstable operation and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the boundary intersections. The travel speed is between 30 and 40 percent of the base FFS.

LOS F is characterized by street flow at extremely low speed. Congestion is likely occurring at the boundary intersections, as indicated by high delay and extensive queuing. The travel speed is 30 percent or less of the base FFS.

Table A-1: Urban Street Levels of Service (Automobile Mode)

Travel Speed as a Percentage of Base Free-Flow Speed (%)	LOS by Critical Volume-to-Capacity Ratio ^a	
	≤1.0	>1.0
>85	A	F
>67 to 85	B	F
>50 to 67	C	F
>40 to 50	D	F
>30 to 40	E	F
≤30	F	F

a = The Critical volume-to-capacity ratio is based on consideration of the through movement-to-capacity ratio at each boundary intersection in the subject direction of travel. The critical volume-to-capacity ratio is the largest ratio of those considered. Source: Highway Capacity Manual 2010, Exhibit 16-4. Urban Street LOS Criteria (Automobile Mode)

Intersection Levels of Service

One of the more important elements limiting, and often interrupting the flow of traffic on a highway is the intersection. Flow on an interrupted facility is usually dominated by points of fixed operation such as traffic signals, stop and yield signs.

Signalized Intersections – Performance Measures

For signalized intersections the performance measures include automobile volume-to-capacity ratio, automobile delay, queue storage length, ratio of pedestrian delay, pedestrian circulation area, pedestrian perception score, bicycle delay, and bicycle perception score. LOS is also considered a performance measure. For the automobile mode average control delay per vehicle per approach is determined for the peak hour. A weighted average of control delay per vehicle is then determined for the intersection. A LOS designation is given to the weighted average control delay to better describe the level of operation. A description of LOS for signalized intersections is found in Table A-2.

Table A-2: Signalized Intersection Level of Service Description (Automobile Mode)

Level of Service	Description	Average Control Delay (seconds per vehicle)
A	Operations with a control delay of 10 seconds/vehicle or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when volume-to-capacity ratio is and either progression is exceptionally favorable or the cycle length is very short. If it's due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Operations with control delay between 10.1 to 20.0 seconds/vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.	>10.0 to 20.0
C	Operations with average control delays between 20.1 to 35.0 seconds/vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 to 35
D	Operations with control delay between 35.1 to 55.0 seconds/vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop, and individual cycle failures are noticeable.	>35 to 55
E	Operations with control delay between 55.1 to 80.0 seconds/vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.	>55 to 80
F	Operations with unacceptable control delay exceeding 80.0 seconds/vehicle and a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80

Source: Highway Capacity Manual 2010

Unsignalized Intersections

The HCM 2010 procedures use control delay as a measure of effectiveness to determine level of service. Delay is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, i. e., in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Control delay is the increased time of travel for a vehicle approaching and passing through an unsignalized intersection, compared with a free-flow vehicle if it were not required to slow or stop at the intersection.



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All-Way Stop Controlled Intersections

All-way stop controlled intersections is a form of traffic controls in which all approaches to an intersection are required to stop. Similar to signalized intersections, at all-way stop controlled intersections the average control delay per vehicle per approach is determined for the peak hour. A weighted average of control delay per vehicle is then determined for the intersection as a whole. In other words the delay measured for all-way stop controlled intersections is a measure of the average delay for all vehicles passing through the intersection during the peak hour. A LOS designation is given to the weighted average control delay to better describe the level of operation.

Two-Way Stop Controlled Intersections

Two-way stop controlled (TWSC) intersections in which stop signs are used to assign the right-of-way, are the most prevalent type of intersection in the United States. At TWSC intersections the stop-controlled approaches are referred as the minor street approaches and can be either public streets or private driveways. The approaches that are not controlled by stop signs are referred to as the major street approaches.

The capacity of movements subject to delay are determined using the "critical gap" method of capacity analysis. Expected average control delay based on movement volume and movement capacity is calculated. A LOS for TWSC intersection is determined by the computed or measured control delay for each minor movement. LOS is not defined for the intersection as a whole for three main reasons: (a) major-street through vehicles are assumed to experience zero delay; (b) the disproportionate number of major-street through vehicles at the typical TWSC intersection skews the weighted average of all movements, resulting in a very low overall average delay from all vehicles; and (c) the resulting low delay can mask important LOS deficiencies for minor movements. Table A-3 provides a description of LOS at unsignalized intersections.

Table A-3: Unsignalized Intersection Level of Service Description (Automobile Mode)

Control Delay (seconds per vehicle)	LOS by Volume-to-Capacity Ratio	
	$v/c \leq 1.0$	$v/c > 1.0$
≤10	A	F
>10 to 15	B	F
>15 to 25	C	F
>25 to 35	D	F
>35 to 50	E	F
>50	F	F

Source: HCM 2010 Exhibit 19-1.



Appendix E: Existing Traffic Conditions



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HCM Signalized Intersection Capacity Analysis

1: Clovis Avenue & Shepherd Avenue



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↑↑	↱	↰↱	↑	↱	↱
Traffic Volume (vph)	1	359	138	94	417	93	54
Future Volume (vph)	1	359	138	94	417	93	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	5.7	5.7	4.2	5.7	4.2	4.2
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.99	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1564	3433	1863	1770	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1564	3433	1863	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1	399	153	104	463	103	60
RTOR Reduction (vph)	0	0	83	0	0	0	49
Lane Group Flow (vph)	1	399	70	104	463	103	11
Confl. Peds. (#/hr)			1				
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	7	4		3	8	2	
Permitted Phases			4				2
Actuated Green, G (s)	0.5	22.3	22.3	3.4	25.2	8.6	8.6
Effective Green, g (s)	0.5	22.3	22.3	3.4	25.2	8.6	8.6
Actuated g/C Ratio	0.01	0.46	0.46	0.07	0.52	0.18	0.18
Clearance Time (s)	4.2	5.7	5.7	4.2	5.7	4.2	4.2
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	18	1630	720	241	969	314	281
v/s Ratio Prot	0.00	0.11		c0.03	c0.25	c0.06	
v/s Ratio Perm			0.05				0.01
v/c Ratio	0.06	0.24	0.10	0.43	0.48	0.33	0.04
Uniform Delay, d1	23.7	7.9	7.4	21.6	7.4	17.4	16.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	0.1	0.1	1.2	0.4	0.6	0.1
Delay (s)	25.0	8.0	7.4	22.8	7.8	18.0	16.5
Level of Service	C	A	A	C	A	B	B
Approach Delay (s)		7.9			10.5	17.5	
Approach LOS		A			B	B	

Intersection Summary			
HCM 2000 Control Delay	10.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	48.4	Sum of lost time (s)	14.1
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th AWSC
2: Sunnyside Avenue & Shepherd Avenue

Intersection												
Intersection Delay, s/veh 26.9												
Intersection LOS D												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	287	119	12	458	8	78	9	8	3	15	18
Future Vol, veh/h	11	287	119	12	458	8	78	9	8	3	15	18
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	363	151	15	580	10	99	11	10	4	19	23
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	22.9	34.6	12.1	10.6
HCM LOS	C	D	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	82%	3%	3%	8%
Vol Thru, %	9%	69%	96%	42%
Vol Right, %	8%	29%	2%	50%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	417	478	36
LT Vol	78	11	12	3
Through Vol	9	287	458	15
RT Vol	8	119	8	18
Lane Flow Rate	120	528	605	46
Geometry Grp	1	1	1	1
Degree of Util (X)	0.231	0.761	0.881	0.087
Departure Headway (Hd)	6.913	5.192	5.24	6.905
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	516	691	690	522
Service Time	4.998	3.248	3.293	4.905
HCM Lane V/C Ratio	0.233	0.764	0.877	0.088
HCM Control Delay	12.1	22.9	34.6	10.6
HCM Lane LOS	B	C	D	B
HCM 95th-tile Q	0.9	7.1	10.8	0.3

HCM 6th TWSC
3: Clovis Avenue & Riordan Avenue

Intersection							
Int Delay, s/veh	1.3						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations	Y ^T		↑↑			↓	↑↑
Traffic Vol, veh/h	52	5	154	20	1	8	390
Future Vol, veh/h	52	5	154	20	1	8	390
Conflicting Peds, #/hr	0	1	0	6	0	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	64	6	190	25	1	10	481

Major/Minor	Minor1	Major1	Major2				
Conflicting Flow All	472	115	0	0	215	221	0
Stage 1	209	-	-	-	-	-	-
Stage 2	263	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	521	916	-	-	1047	1345	-
Stage 1	806	-	-	-	-	-	-
Stage 2	757	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	514	910	-	-	1296	1296	-
Mov Cap-2 Maneuver	514	-	-	-	-	-	-
Stage 1	795	-	-	-	-	-	-
Stage 2	757	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	534	1296
HCM Lane V/C Ratio	-	-	0.132	0.009
HCM Control Delay (s)	-	-	12.8	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0

HCM Signalized Intersection Capacity Analysis

1: Clovis Avenue & Shepherd Avenue



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑↑	↗	↖↗	↑	↖	↗
Traffic Volume (vph)	1	329	80	51	342	145	105
Future Volume (vph)	1	329	80	51	342	145	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	5.7	5.7	4.2	5.7	4.2	4.2
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1563	3433	1863	1770	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1563	3433	1863	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	346	84	54	360	153	111
RTOR Reduction (vph)	0	0	49	0	0	0	83
Lane Group Flow (vph)	1	346	35	54	360	153	28
Confl. Peds. (#/hr)			2				
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	7	4		3	8	2	
Permitted Phases			4				2
Actuated Green, G (s)	0.5	19.1	19.1	1.7	20.3	11.5	11.5
Effective Green, g (s)	0.5	19.1	19.1	1.7	20.3	11.5	11.5
Actuated g/C Ratio	0.01	0.41	0.41	0.04	0.44	0.25	0.25
Clearance Time (s)	4.2	5.7	5.7	4.2	5.7	4.2	4.2
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	19	1456	643	125	815	438	392
v/s Ratio Prot	0.00	0.10		c0.02	c0.19	c0.09	
v/s Ratio Perm			0.02				0.02
v/c Ratio	0.05	0.24	0.05	0.43	0.44	0.35	0.07
Uniform Delay, d1	22.7	8.9	8.2	21.9	9.1	14.4	13.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.2	0.1	0.0	2.4	0.4	0.5	0.1
Delay (s)	23.9	9.0	8.2	24.3	9.5	14.9	13.4
Level of Service	C	A	A	C	A	B	B
Approach Delay (s)		8.9			11.4	14.3	
Approach LOS		A			B	B	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	46.4	Sum of lost time (s)	14.1
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th AWSC
 2: Sunnyside Avenue & Shepherd Avenue

Intersection												
Intersection Delay, s/veh 16.6												
Intersection LOS C												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	421	81	16	359	5	85	12	26	4	9	10
Future Vol, veh/h	12	421	81	16	359	5	85	12	26	4	9	10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	439	84	17	374	5	89	13	27	4	9	10
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	19.8	14.5	11	9.6
HCM LOS	C	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	69%	2%	4%	17%
Vol Thru, %	10%	82%	94%	39%
Vol Right, %	21%	16%	1%	43%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	123	514	380	23
LT Vol	85	12	16	4
Through Vol	12	421	359	9
RT Vol	26	81	5	10
Lane Flow Rate	128	535	396	24
Geometry Grp	1	1	1	1
Degree of Util (X)	0.221	0.727	0.561	0.042
Departure Headway (Hd)	6.215	4.889	5.106	6.281
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	577	744	705	568
Service Time	4.264	2.889	3.139	4.341
HCM Lane V/C Ratio	0.222	0.719	0.562	0.042
HCM Control Delay	11	19.8	14.5	9.6
HCM Lane LOS	B	C	B	A
HCM 95th-tile Q	0.8	6.4	3.5	0.1

HCM 6th TWSC
 3: Clovis Avenue & Riordan Avenue

Intersection							
Int Delay, s/veh	0.8						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	23	2	316	54	11	15	252
Future Vol, veh/h	23	2	316	54	11	15	252
Conflicting Peds, #/hr	0	1	0	4	0	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	24	2	326	56	11	15	260

Major/Minor	Minor1	Major1	Major2				
Conflicting Flow All	540	196	0	0	381	386	0
Stage 1	358	-	-	-	-	-	-
Stage 2	182	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	472	812	-	-	823	1169	-
Stage 1	678	-	-	-	-	-	-
Stage 2	831	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	457	808	-	-	990	990	-
Mov Cap-2 Maneuver	457	-	-	-	-	-	-
Stage 1	657	-	-	-	-	-	-
Stage 2	831	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	473	990
HCM Lane V/C Ratio	-	-	0.054	0.027
HCM Control Delay (s)	-	-	13	8.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	U	T	R	L	L	T	L	R
Maximum Queue (ft)	26	148	76	51	74	155	67	40
Average Queue (ft)	1	70	33	9	39	41	30	13
95th Queue (ft)	8	128	63	35	68	97	55	26
Link Distance (ft)		2563				316	1227	1227
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	250		50	250	250			
Storage Blk Time (%)			1					
Queuing Penalty (veh)			2					

Intersection: 2: Sunnyside Avenue & Shepherd Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	99	151	74	54
Average Queue (ft)	68	74	32	25
95th Queue (ft)	93	124	56	43
Link Distance (ft)	406	776	2613	2625
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Clovis Avenue & Riordan Avenue

Movement	WB
Directions Served	LR
Maximum Queue (ft)	56
Average Queue (ft)	25
95th Queue (ft)	55
Link Distance (ft)	1367
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 2

Queuing and Blocking Report
Baseline

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	R	L	L	T	L	R
Maximum Queue (ft)	207	54	31	53	98	90	60
Average Queue (ft)	57	20	9	31	48	48	22
95th Queue (ft)	118	47	30	60	83	81	42
Link Distance (ft)	2563				316	1227	1227
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	50		250	250			
Storage Blk Time (%)	0						
Queuing Penalty (veh)	0						

Intersection: 2: Sunnyside Avenue & Shepherd Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	189	117	56	53
Average Queue (ft)	77	65	35	16
95th Queue (ft)	126	96	55	40
Link Distance (ft)	406	776	2613	2625
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Clovis Avenue & Riordan Avenue

Movement	WB	SB
Directions Served	LR	UL
Maximum Queue (ft)	51	31
Average Queue (ft)	21	7
95th Queue (ft)	46	25
Link Distance (ft)	1367	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	250	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 0

Appendix F: Existing plus Project Traffic Conditions



Traffic Engineering, Inc.

<http://www.JLBtraffic.com>

516 W. Shaw Ave., Ste. 103

Fresno, CA 93704

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Traffic Engineering, Transportation Planning, & Parking Solutions

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HCM Signalized Intersection Capacity Analysis
1: Clovis Avenue & Shepherd Avenue



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰	↑↑	↱	↰↱	↑	↱	↱
Traffic Volume (vph)	1	354	150	101	417	105	78
Future Volume (vph)	1	354	150	101	417	105	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	5.7	5.7	4.2	5.7	4.2	4.2
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.99	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1564	3433	1863	1770	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1564	3433	1863	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1	393	167	112	463	117	87
RTOR Reduction (vph)	0	0	95	0	0	0	71
Lane Group Flow (vph)	1	393	72	112	463	117	16
Confl. Peds. (#/hr)			1				
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	7	4		3	8	2	
Permitted Phases			4				2
Actuated Green, G (s)	0.5	21.0	21.0	4.8	25.3	8.8	8.8
Effective Green, g (s)	0.5	21.0	21.0	4.8	25.3	8.8	8.8
Actuated g/C Ratio	0.01	0.43	0.43	0.10	0.52	0.18	0.18
Clearance Time (s)	4.2	5.7	5.7	4.2	5.7	4.2	4.2
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	18	1526	674	338	967	319	286
v/s Ratio Prot	0.00	0.11		c0.03	c0.25	c0.07	
v/s Ratio Perm			0.05				0.01
v/c Ratio	0.06	0.26	0.11	0.33	0.48	0.37	0.05
Uniform Delay, d1	23.9	8.9	8.3	20.5	7.5	17.5	16.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.3	0.1	0.1	0.6	0.4	0.7	0.1
Delay (s)	25.2	9.0	8.3	21.0	7.9	18.2	16.6
Level of Service	C	A	A	C	A	B	B
Approach Delay (s)		8.8			10.4	17.5	
Approach LOS		A			B	B	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	48.7	Sum of lost time (s)	14.1
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection												
Intersection Delay, s/veh	29.3											
Intersection LOS	D											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	299	124	12	463	8	80	9	8	3	15	18
Future Vol, veh/h	11	299	124	12	463	8	80	9	8	3	15	18
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	378	157	15	586	10	101	11	10	4	19	23
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	25.7	37.4	12.3	10.7
HCM LOS	D	E	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	82%	3%	2%	8%
Vol Thru, %	9%	69%	96%	42%
Vol Right, %	8%	29%	2%	50%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	97	434	483	36
LT Vol	80	11	12	3
Through Vol	9	299	463	15
RT Vol	8	124	8	18
Lane Flow Rate	123	549	611	46
Geometry Grp	1	1	1	1
Degree of Util (X)	0.238	0.797	0.899	0.089
Departure Headway (Hd)	6.992	5.226	5.292	7.01
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	510	687	685	514
Service Time	5.085	3.287	3.349	5.01
HCM Lane V/C Ratio	0.241	0.799	0.892	0.089
HCM Control Delay	12.3	25.7	37.4	10.7
HCM Lane LOS	B	D	E	B
HCM 95th-tile Q	0.9	8	11.4	0.3

Intersection							
Int Delay, s/veh	2.2						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations	Y		↑↑			↑↑	↑↑
Traffic Vol, veh/h	85	5	160	25	5	23	404
Future Vol, veh/h	85	5	160	25	5	23	404
Conflicting Peds, #/hr	0	1	0	6	0	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	105	6	198	31	6	28	499

Major/Minor	Minor1	Major1	Major2				
Conflicting Flow All	538	122	0	0	228	235	0
Stage 1	220	-	-	-	-	-	-
Stage 2	318	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	473	906	-	-	1028	1329	-
Stage 1	795	-	-	-	-	-	-
Stage 2	710	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	457	900	-	-	1255	1255	-
Mov Cap-2 Maneuver	457	-	-	-	-	-	-
Stage 1	768	-	-	-	-	-	-
Stage 2	710	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	470	1255
HCM Lane V/C Ratio	-	-	0.236	0.028
HCM Control Delay (s)	-	-	15	7.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.9	0.1

HCM Signalized Intersection Capacity Analysis
1: Clovis Avenue & Shepherd Avenue



Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↑↑	↗	↘↗	↑	↖	↖
Traffic Volume (vph)	1	309	114	71	342	158	124
Future Volume (vph)	1	309	114	71	342	158	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	5.7	5.7	4.2	5.7	4.2	4.2
Lane Util. Factor	1.00	0.95	1.00	0.97	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.99	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1563	3433	1863	1770	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1563	3433	1863	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	325	120	75	360	166	131
RTOR Reduction (vph)	0	0	73	0	0	0	99
Lane Group Flow (vph)	1	325	47	75	360	166	32
Confl. Peds. (#/hr)			2				
Turn Type	Prot	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	7	4		3	8	2	
Permitted Phases			4				2
Actuated Green, G (s)	0.5	18.9	18.9	3.1	21.5	11.7	11.7
Effective Green, g (s)	0.5	18.9	18.9	3.1	21.5	11.7	11.7
Actuated g/C Ratio	0.01	0.40	0.40	0.06	0.45	0.24	0.24
Clearance Time (s)	4.2	5.7	5.7	4.2	5.7	4.2	4.2
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	18	1399	618	222	837	433	387
v/s Ratio Prot	0.00	0.09		c0.02	c0.19	c0.09	
v/s Ratio Perm			0.03				0.02
v/c Ratio	0.06	0.23	0.08	0.34	0.43	0.38	0.08
Uniform Delay, d1	23.4	9.6	9.0	21.4	9.0	15.0	13.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.02
Incremental Delay, d2	1.3	0.1	0.1	0.9	0.4	0.6	0.1
Delay (s)	24.7	9.7	9.1	22.3	9.3	15.6	14.2
Level of Service	C	A	A	C	A	B	B
Approach Delay (s)		9.6			11.6	15.0	
Approach LOS		A			B	B	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	47.8	Sum of lost time (s)	14.1
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection												
Intersection Delay, s/veh	17.5											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	430	84	16	373	5	91	12	26	4	9	10
Future Vol, veh/h	12	430	84	16	373	5	91	12	26	4	9	10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	448	88	17	389	5	95	13	27	4	9	10
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	21.1	15.3	11.3	9.7
HCM LOS	C	C	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	71%	2%	4%	17%
Vol Thru, %	9%	82%	95%	39%
Vol Right, %	20%	16%	1%	43%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	526	394	23
LT Vol	91	12	16	4
Through Vol	12	430	373	9
RT Vol	26	84	5	10
Lane Flow Rate	134	548	410	24
Geometry Grp	1	1	1	1
Degree of Util (X)	0.235	0.748	0.588	0.043
Departure Headway (Hd)	6.301	4.917	5.16	6.388
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	568	734	698	558
Service Time	4.349	2.947	3.194	4.45
HCM Lane V/C Ratio	0.236	0.747	0.587	0.043
HCM Control Delay	11.3	21.1	15.3	9.7
HCM Lane LOS	B	C	C	A
HCM 95th-tile Q	0.9	6.9	3.9	0.1

Intersection							
Int Delay, s/veh	1.8						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	40	2	342	80	21	59	260
Future Vol, veh/h	40	2	342	80	21	59	260
Conflicting Peds, #/hr	0	1	0	4	0	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	41	2	353	82	22	61	268

Major/Minor	Minor1	Major1	Major2				
Conflicting Flow All	698	223	0	0	435	439	0
Stage 1	398	-	-	-	-	-	-
Stage 2	300	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	375	780	-	-	761	1117	-
Stage 1	647	-	-	-	-	-	-
Stage 2	725	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	342	776	-	-	992	992	-
Mov Cap-2 Maneuver	342	-	-	-	-	-	-
Stage 1	591	-	-	-	-	-	-
Stage 2	725	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.7	0	2.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	351	992
HCM Lane V/C Ratio	-	-	0.123	0.083
HCM Control Delay (s)	-	-	16.7	9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.4	0.3

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	U	T	R	UL	L	T	L	R
Maximum Queue (ft)	29	152	77	76	71	96	82	43
Average Queue (ft)	1	64	34	24	36	40	35	17
95th Queue (ft)	10	124	63	60	60	80	72	31
Link Distance (ft)		2563				316	1227	1227
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	250		50	250	250			
Storage Blk Time (%)			1					
Queuing Penalty (veh)			2					

Intersection: 2: Sunnyside Avenue & Shepherd Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	103	136	74	32
Average Queue (ft)	68	80	32	23
95th Queue (ft)	93	119	52	42
Link Distance (ft)	406	776	2613	2625
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Clovis Avenue & Riordan Avenue

Movement	WB	NB	NB	SB
Directions Served	LR	T	TR	UL
Maximum Queue (ft)	103	28	30	28
Average Queue (ft)	40	1	1	3
95th Queue (ft)	77	9	10	18
Link Distance (ft)	1367	1260	1260	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				250
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 2

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	R	UL	L	T	L	R
Maximum Queue (ft)	123	78	31	53	74	136	57
Average Queue (ft)	61	24	13	29	43	60	21
95th Queue (ft)	109	51	36	56	81	119	40
Link Distance (ft)	2563				316	1227	1227
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	50		250	250			
Storage Blk Time (%)	0						
Queuing Penalty (veh)	1						

Intersection: 2: Sunnyside Avenue & Shepherd Avenue

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	187	139	56	32
Average Queue (ft)	85	76	37	17
95th Queue (ft)	154	120	54	39
Link Distance (ft)	406	776	2613	2625
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Clovis Avenue & Riordan Avenue

Movement	WB	NB	SB
Directions Served	LR	TR	UL
Maximum Queue (ft)	55	22	31
Average Queue (ft)	31	1	12
95th Queue (ft)	58	7	34
Link Distance (ft)	1367	1260	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 1

Appendix G: Near Term plus Project Traffic Conditions



Traffic Engineering, Inc. <http://www.JLBtraffic.com>

516 W. Shaw Ave., Ste. 103

Fresno, CA 93704

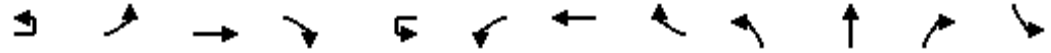
(559) 570-8991

Traffic Engineering, Transportation Planning, & Parking Solutions

info@JLBtraffic.com

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HCM Signalized Intersection Capacity Analysis
1: Clovis Avenue & Shepherd Avenue



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↘ ↙	↑ ↑	↗		↘ ↙	↑	↗	↘	↑ ↑	↗	↘ ↙
Traffic Volume (vph)	1	26	690	150	111	150	555	15	105	23	78	47
Future Volume (vph)	1	26	690	150	111	150	555	15	105	23	78	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	5.7	5.7		4.2	5.7	5.7	4.2	5.3	5.3	4.2
Lane Util. Factor		0.97	0.95	1.00		0.97	1.00	1.00	1.00	0.95	1.00	0.97
Frbp, ped/bikes		1.00	1.00	0.99		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3433	3539	1563		3433	1863	1583	1770	3539	1583	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3433	3539	1563		3433	1863	1583	1770	3539	1583	3433
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1	29	767	167	123	167	617	17	117	26	87	52
RTOR Reduction (vph)	0	0	0	74	0	0	0	9	0	0	73	0
Lane Group Flow (vph)	0	30	767	93	0	290	617	8	117	26	14	52
Confl. Peds. (#/hr)				1								
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases	7	7	4		3	3	8		5	2		1
Permitted Phases				4				8			2	
Actuated Green, G (s)		1.5	26.0	26.0		6.4	30.9	30.9	6.5	10.5	10.5	2.6
Effective Green, g (s)		1.5	26.0	26.0		6.4	30.9	30.9	6.5	10.5	10.5	2.6
Actuated g/C Ratio		0.02	0.40	0.40		0.10	0.48	0.48	0.10	0.16	0.16	0.04
Clearance Time (s)		4.2	5.7	5.7		4.2	5.7	5.7	4.2	5.3	5.3	4.2
Vehicle Extension (s)		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		79	1417	626		338	887	753	177	572	256	137
v/s Ratio Prot		0.01	0.22			c0.08	c0.33		c0.07	0.01		0.02
v/s Ratio Perm				0.06				0.01			c0.01	
v/c Ratio		0.38	0.54	0.15		0.86	0.70	0.01	0.66	0.05	0.05	0.38
Uniform Delay, d1		31.2	14.9	12.4		28.8	13.3	9.0	28.1	23.0	23.0	30.4
Progression Factor		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		3.0	0.4	0.1		18.9	2.4	0.0	8.9	0.0	0.1	1.8
Delay (s)		34.3	15.3	12.5		47.7	15.7	9.0	37.1	23.0	23.1	32.1
Level of Service		C	B	B		D	B	A	D	C	C	C
Approach Delay (s)			15.4				25.6			30.2		
Approach LOS			B				C			C		
Intersection Summary												
HCM 2000 Control Delay			21.9			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			64.9			Sum of lost time (s)				19.4		
Intersection Capacity Utilization			59.5%			ICU Level of Service				B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 1: Clovis Avenue & Shepherd Avenue



Movement	SBT	SBR
Lane Configurations	↑	↑
Traffic Volume (vph)	20	55
Future Volume (vph)	20	55
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.3	5.3
Lane Util. Factor	1.00	1.00
Frbp, ped/bikes	1.00	1.00
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1863	1583
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1863	1583
Peak-hour factor, PHF	0.90	0.90
Adj. Flow (vph)	22	61
RTOR Reduction (vph)	0	55
Lane Group Flow (vph)	22	6
Confl. Peds. (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	6.6	6.6
Effective Green, g (s)	6.6	6.6
Actuated g/C Ratio	0.10	0.10
Clearance Time (s)	5.3	5.3
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	189	160
v/s Ratio Prot	c0.01	
v/s Ratio Perm		0.00
v/c Ratio	0.12	0.04
Uniform Delay, d1	26.5	26.3
Progression Factor	1.00	1.00
Incremental Delay, d2	0.3	0.1
Delay (s)	26.8	26.4
Level of Service	C	C
Approach Delay (s)	28.7	
Approach LOS	C	
Intersection Summary		

Intersection												
Intersection Delay, s/veh	60.2											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	47	697	183	12	585	8	104	9	8	3	15	31
Future Vol, veh/h	47	697	183	12	585	8	104	9	8	3	15	31
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	882	232	15	741	10	132	11	10	4	19	39
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	388.5	132.5	16.2	13.7
HCM LOS	F	F	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	86%	5%	2%	6%
Vol Thru, %	7%	75%	97%	31%
Vol Right, %	7%	20%	1%	63%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	121	927	605	49
LT Vol	104	47	12	3
Through Vol	9	697	585	15
RT Vol	8	183	8	31
Lane Flow Rate	153	1173	766	62
Geometry Grp	1	1	1	1
Degree of Util (X)	0.317	1.815	1.207	0.128
Departure Headway (Hd)	9.03	5.955	6.71	9.306
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	401	622	551	388
Service Time	7.03	3.955	4.71	7.306
HCM Lane V/C Ratio	0.382	1.886	1.39	0.16
HCM Control Delay	16.2	388.5	132.5	13.7
HCM Lane LOS	C	F	F	B
HCM 95th-tile Q	1.3	67.7	24	0.4

Intersection							
Int Delay, s/veh	2.2						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	85	5	183	25	5	23	424
Future Vol, veh/h	85	5	183	25	5	23	424
Conflicting Peds, #/hr	0	1	0	6	0	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	105	6	226	31	6	28	523

Major/Minor	Minor1	Major1	Major2				
Conflicting Flow All	578	136	0	0	257	263	0
Stage 1	248	-	-	-	-	-	-
Stage 2	330	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	446	888	-	-	986	1298	-
Stage 1	770	-	-	-	-	-	-
Stage 2	701	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	430	882	-	-	1222	1222	-
Mov Cap-2 Maneuver	430	-	-	-	-	-	-
Stage 1	743	-	-	-	-	-	-
Stage 2	701	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.8	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	443	1222
HCM Lane V/C Ratio	-	-	0.251	0.028
HCM Control Delay (s)	-	-	15.8	8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1	0.1

HCM Signalized Intersection Capacity Analysis
1: Clovis Avenue & Shepherd Avenue

Near Term plan AGENDA ITEM NO. 10.



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↘ ↙	↕	↗		↘ ↙	↕	↗	↘ ↙	↕	↗	↘ ↙
Traffic Volume (vph)	1	95	443	114	72	104	723	22	158	82	124	39
Future Volume (vph)	1	95	443	114	72	104	723	22	158	82	124	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	5.7	5.7		4.2	5.7	5.7	4.2	5.3	5.3	4.2
Lane Util. Factor		0.97	0.95	1.00		0.97	1.00	1.00	1.00	0.95	1.00	0.97
Frbp, ped/bikes		1.00	1.00	0.99		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3433	3539	1562		3433	1863	1583	1770	3539	1583	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3433	3539	1562		3433	1863	1583	1770	3539	1583	3433
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	100	466	120	76	109	761	23	166	86	131	41
RTOR Reduction (vph)	0	0	0	66	0	0	0	11	0	0	107	0
Lane Group Flow (vph)	0	101	466	54	0	185	761	12	166	86	24	41
Confl. Peds. (#/hr)				2								
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases	7	7	4		3	3	8		5	2		1
Permitted Phases				4				8			2	
Actuated Green, G (s)		5.2	39.3	39.3		9.7	43.8	43.8	11.7	16.2	16.2	2.7
Effective Green, g (s)		5.2	39.3	39.3		9.7	43.8	43.8	11.7	16.2	16.2	2.7
Actuated g/C Ratio		0.06	0.45	0.45		0.11	0.50	0.50	0.13	0.19	0.19	0.03
Clearance Time (s)		4.2	5.7	5.7		4.2	5.7	5.7	4.2	5.3	5.3	4.2
Vehicle Extension (s)		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		204	1593	703		381	934	794	237	656	293	106
v/s Ratio Prot		0.03	0.13			c0.05	c0.41		c0.09	c0.02		0.01
v/s Ratio Perm				0.03				0.01			0.02	
v/c Ratio		0.50	0.29	0.08		0.49	0.81	0.01	0.70	0.13	0.08	0.39
Uniform Delay, d1		39.8	15.2	13.7		36.5	18.3	10.9	36.1	29.7	29.4	41.5
Progression Factor		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.01	1.00
Incremental Delay, d2		1.9	0.1	0.0		1.0	5.5	0.0	9.0	0.1	0.1	2.3
Delay (s)		41.7	15.3	13.7		37.4	23.9	10.9	45.1	29.9	29.9	43.8
Level of Service		D	B	B		D	C	B	D	C	C	D
Approach Delay (s)			18.9				26.1			36.5		
Approach LOS			B				C			D		
Intersection Summary												
HCM 2000 Control Delay			26.3			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.71									
Actuated Cycle Length (s)			87.3			Sum of lost time (s)				19.4		
Intersection Capacity Utilization			71.3%			ICU Level of Service				C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 1: Clovis Avenue & Shepherd Avenue



Movement	SBT	SBR
Lane Configurations	↑	↑
Traffic Volume (vph)	13	36
Future Volume (vph)	13	36
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.3	5.3
Lane Util. Factor	1.00	1.00
Frbp, ped/bikes	1.00	1.00
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1863	1583
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1863	1583
Peak-hour factor, PHF	0.95	0.95
Adj. Flow (vph)	14	38
RTOR Reduction (vph)	0	35
Lane Group Flow (vph)	14	3
Confl. Peds. (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	7.2	7.2
Effective Green, g (s)	7.2	7.2
Actuated g/C Ratio	0.08	0.08
Clearance Time (s)	5.3	5.3
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	153	130
v/s Ratio Prot	0.01	
v/s Ratio Perm		0.00
v/c Ratio	0.09	0.02
Uniform Delay, d1	37.0	36.8
Progression Factor	1.00	1.00
Incremental Delay, d2	0.3	0.1
Delay (s)	37.3	36.9
Level of Service	D	D
Approach Delay (s)	40.0	
Approach LOS	D	
Intersection Summary		

Intersection												
Intersection Delay, s/veh	183											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	612	124	16	804	5	164	12	26	4	9	56
Future Vol, veh/h	35	612	124	16	804	5	164	12	26	4	9	56
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	638	129	17	838	5	171	13	27	4	9	58
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	186.2	234.5	18.3	13.9
HCM LOS	F	F	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	81%	5%	2%	6%
Vol Thru, %	6%	79%	97%	13%
Vol Right, %	13%	16%	1%	81%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	202	771	825	69
LT Vol	164	35	16	4
Through Vol	12	612	804	9
RT Vol	26	124	5	56
Lane Flow Rate	210	803	859	72
Geometry Grp	1	1	1	1
Degree of Util (X)	0.435	1.342	1.457	0.153
Departure Headway (Hd)	8.762	6.632	6.589	9.28
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	415	554	559	389
Service Time	6.762	4.632	4.589	7.28
HCM Lane V/C Ratio	0.506	1.449	1.537	0.185
HCM Control Delay	18.3	186.2	234.5	13.9
HCM Lane LOS	C	F	F	B
HCM 95th-tile Q	2.2	31.8	38.9	0.5

Intersection							
Int Delay, s/veh	1.7						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	40	2	424	80	21	59	273
Future Vol, veh/h	40	2	424	80	21	59	273
Conflicting Peds, #/hr	0	0	0	4	0	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	41	2	437	82	22	61	281

Major/Minor	Minor1	Major1	Major2				
Conflicting Flow All	789	264	0	0	520	523	0
Stage 1	482	-	-	-	-	-	-
Stage 2	307	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	328	734	-	-	672	1040	-
Stage 1	587	-	-	-	-	-	-
Stage 2	719	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	297	731	-	-	906	906	-
Mov Cap-2 Maneuver	297	-	-	-	-	-	-
Stage 1	531	-	-	-	-	-	-
Stage 2	719	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.7	0	2.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	306	906
HCM Lane V/C Ratio	-	-	0.141	0.091
HCM Control Delay (s)	-	-	18.7	9.4
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.5	0.3

HCM 6th Signalized Intersection Summary
2: Sunnyside Avenue & Shepherd Avenue

Near Term plan AGENDA ITEM NO. 10.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	697	183	12	585	8	104	9	8	3	15	31
Future Volume (veh/h)	47	697	183	12	585	8	104	9	8	3	15	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	59	882	232	15	741	10	132	11	10	4	19	39
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	986	259	29	1223	17	131	114	104	9	27	55
Arrive On Green	0.04	0.69	0.69	0.02	0.66	0.66	0.07	0.13	0.13	0.01	0.05	0.05
Sat Flow, veh/h	1781	1427	375	1781	1841	25	1781	902	820	1781	547	1122
Grp Volume(v), veh/h	59	0	1114	15	0	751	132	0	21	4	0	58
Grp Sat Flow(s),veh/h/ln	1781	0	1803	1781	0	1866	1781	0	1723	1781	0	1668
Q Serve(g_s), s	3.9	0.0	60.1	1.0	0.0	27.1	8.8	0.0	1.3	0.3	0.0	4.1
Cycle Q Clear(g_c), s	3.9	0.0	60.1	1.0	0.0	27.1	8.8	0.0	1.3	0.3	0.0	4.1
Prop In Lane	1.00		0.21	1.00		0.01	1.00		0.48	1.00		0.67
Lane Grp Cap(c), veh/h	76	0	1245	29	0	1239	131	0	217	9	0	82
V/C Ratio(X)	0.78	0.00	0.89	0.51	0.00	0.61	1.01	0.00	0.10	0.43	0.00	0.71
Avail Cap(c_a), veh/h	101	0	1245	74	0	1239	131	0	356	74	0	292
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.9	0.0	15.0	58.5	0.0	11.3	55.6	0.0	46.4	59.5	0.0	56.2
Incr Delay (d2), s/veh	23.4	0.0	10.1	13.3	0.0	2.2	81.6	0.0	0.2	28.7	0.0	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	2.2	0.0	22.6	0.5	0.0	10.3	6.8	0.0	0.6	0.2	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.3	0.0	25.2	71.8	0.0	13.5	137.2	0.0	46.6	88.2	0.0	67.0
LnGrp LOS	F	A	C	E	A	B	F	A	D	F	A	E
Approach Vol, veh/h		1173			766			153				62
Approach Delay, s/veh		28.0			14.7			124.7				68.4
Approach LOS		C			B			F				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	20.5	6.2	88.6	14.1	11.2	9.3	85.4				
Change Period (Y+Rc), s	* 4.2	5.3	* 4.2	5.7	5.3	* 5.3	* 4.2	* 5.7				
Max Green Setting (Gmax), s	* 5	24.8	* 5	65.8	8.8	* 21	* 6.8	* 64				
Max Q Clear Time (g_c+I1), s	2.3	3.3	3.0	62.1	10.8	6.1	5.9	29.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.5	0.0	0.2	0.0	5.5				

Intersection Summary												
HCM 6th Ctrl Delay				31.3								
HCM 6th LOS				C								

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
2: Sunnyside Avenue & Shepherd Avenue

Near Term plan AGENDA ITEM NO. 10.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	612	124	16	804	5	164	12	26	4	9	56
Future Volume (veh/h)	35	612	124	16	804	5	164	12	26	4	9	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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	36	638	129	17	838	5	171	12	27	4	9	58
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	945	191	34	1138	7	182	80	180	9	13	84
Arrive On Green	0.03	0.63	0.63	0.02	0.61	0.61	0.10	0.16	0.16	0.01	0.06	0.06
Sat Flow, veh/h	1781	1510	305	1781	1857	11	1781	512	1151	1781	217	1401
Grp Volume(v), veh/h	36	0	767	17	0	843	171	0	39	4	0	67
Grp Sat Flow(s),veh/h/ln	1781	0	1815	1781	0	1868	1781	0	1663	1781	0	1618
Q Serve(g_s), s	2.0	0.0	27.4	0.9	0.0	31.8	9.5	0.0	2.0	0.2	0.0	4.1
Cycle Q Clear(g_c), s	2.0	0.0	27.4	0.9	0.0	31.8	9.5	0.0	2.0	0.2	0.0	4.1
Prop In Lane	1.00		0.17	1.00		0.01	1.00		0.69	1.00		0.87
Lane Grp Cap(c), veh/h	56	0	1136	34	0	1145	182	0	260	9	0	97
V/C Ratio(X)	0.64	0.00	0.68	0.51	0.00	0.74	0.94	0.00	0.15	0.43	0.00	0.69
Avail Cap(c_a), veh/h	89	0	1136	89	0	1145	182	0	436	89	0	340
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.9	0.0	12.1	48.6	0.0	13.7	44.6	0.0	36.4	49.6	0.0	46.1
Incr Delay (d2), s/veh	11.4	0.0	3.2	11.4	0.0	4.2	49.9	0.0	0.3	27.9	0.0	8.6
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	1.0	0.0	9.8	0.5	0.0	12.4	6.6	0.0	0.8	0.2	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.3	0.0	15.4	60.0	0.0	17.9	94.5	0.0	36.7	77.5	0.0	54.7
LnGrp LOS	E	A	B	E	A	B	F	A	D	E	A	D
Approach Vol, veh/h		803			860			210				71
Approach Delay, s/veh		17.3			18.7			83.7				56.0
Approach LOS		B			B			F				E
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	20.9	6.1	68.3	14.4	11.3	7.4	67.0				
Change Period (Y+Rc), s	* 4.2	5.3	* 4.2	5.7	* 4.2	5.3	* 4.2	* 5.7				
Max Green Setting (Gmax), s	* 5	26.2	* 5	44.4	* 10	21.0	* 5	* 45				
Max Q Clear Time (g_c+I1), s	2.2	4.0	2.9	29.4	11.5	6.1	4.0	33.8				
Green Ext Time (p_c), s	0.0	0.1	0.0	4.3	0.0	0.2	0.0	4.2				

Intersection Summary												
HCM 6th Ctrl Delay			26.5									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	B17	NB	NB
Directions Served	UL	L	T	T	R	UL	L	T	R	T	L	T
Maximum Queue (ft)	30	52	500	522	88	174	292	384	22	136	189	45
Average Queue (ft)	1	17	257	83	34	105	97	161	3	6	75	13
95th Queue (ft)	10	46	413	327	69	164	220	299	15	48	141	36
Link Distance (ft)			2563	2563				293	293	242		1227
Upstream Blk Time (%)							0	2				
Queuing Penalty (veh)							0	6				
Storage Bay Dist (ft)	250	250			50	250	250				250	
Storage Blk Time (%)			12		2		0	2				
Queuing Penalty (veh)			3		6		0	6				

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	NB	NB	SB	SB	SB	SB
Directions Served	T	R	L	L	T	R
Maximum Queue (ft)	22	40	94	56	39	35
Average Queue (ft)	2	19	28	14	9	13
95th Queue (ft)	12	35	65	50	28	34
Link Distance (ft)	1227				2532	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		60	250	250		60
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Sunnyside Avenue & Shepherd Avenue

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	76	310	31	281	133	74	26	67
Average Queue (ft)	43	148	9	127	68	13	5	27
95th Queue (ft)	76	276	29	240	116	45	20	55
Link Distance (ft)		495		770		2607		2619
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	250		250		250		250	
Storage Blk Time (%)		1		0				
Queuing Penalty (veh)		1		0				

Intersection: 3: Clovis Avenue & Riordan Avenue

Movement	WB	SB	SB
Directions Served	LR	UL	T
Maximum Queue (ft)	79	31	28
Average Queue (ft)	36	4	1
95th Queue (ft)	61	20	9
Link Distance (ft)	1367		1227
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		250	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 22

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	B17	B17	NB
Directions Served	UL	L	T	T	R	UL	L	T	R	T	T	L
Maximum Queue (ft)	45	106	277	61	89	174	288	362	25	254	242	217
Average Queue (ft)	19	55	159	4	27	70	61	234	4	38	8	112
95th Queue (ft)	45	89	253	28	56	125	141	400	19	165	80	202
Link Distance (ft)			2563	2563				290	290	242	242	
Upstream Blk Time (%)							0	8		0	0	
Queuing Penalty (veh)							0	43		1	0	
Storage Bay Dist (ft)	250	250			50	250	250					250
Storage Blk Time (%)			1	0	1			11				
Queuing Penalty (veh)			1	0	2			19				

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	NB	NB	NB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	R
Maximum Queue (ft)	64	66	43	62	40	15	52
Average Queue (ft)	28	21	23	24	9	3	8
95th Queue (ft)	54	54	42	53	35	12	28
Link Distance (ft)	1227	1227				2531	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			60	250	250		60
Storage Blk Time (%)		0	0				0
Queuing Penalty (veh)		0	0				0

Intersection: 2: Sunnyside Avenue & Shepherd Avenue

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	52	396	70	430	185	72	30	92
Average Queue (ft)	23	175	20	208	121	30	4	46
95th Queue (ft)	51	339	51	371	173	63	20	76
Link Distance (ft)		498		770		2607		2619
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	250		250		250		250	
Storage Blk Time (%)		4		5				
Queuing Penalty (veh)		2		1				

Intersection: 3: Clovis Avenue & Riordan Avenue

Movement	WB	SB
Directions Served	LR	UL
Maximum Queue (ft)	78	55
Average Queue (ft)	25	23
95th Queue (ft)	57	51
Link Distance (ft)	1367	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		250
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 69

Appendix H: Cumulative Year 2039 No Project Traffic Conditions



Traffic Engineering, Inc. <http://www.JLBtraffic.com>

Traffic Engineering, Transportation Planning, & Parking Solutions

info@JLBtraffic.com

516 W. Shaw Ave., Ste. 103

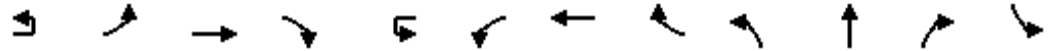
Fresno, CA 93704

(559) 570-8991

HCM Signalized Intersection Capacity Analysis
1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 N

AGENDA ITEM NO. 10.



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔↔	↕↕	↗		↔↔	↕	↗	↖	↕↕	↗	↖↖
Traffic Volume (vph)	1	26	690	152	111	244	750	936	119	248	194	740
Future Volume (vph)	1	26	690	152	111	244	750	936	119	248	194	740
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	5.7	5.7		4.2	5.7	5.7	4.2	5.3	5.3	4.2
Lane Util. Factor		0.97	0.95	1.00		0.97	1.00	1.00	1.00	0.95	1.00	0.97
Frbp, ped/bikes		1.00	1.00	0.99		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3433	3539	1562		3433	1863	1583	1770	3539	1583	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3433	3539	1562		3433	1863	1583	1770	3539	1583	3433
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	28	750	165	121	265	815	1017	129	270	211	804
RTOR Reduction (vph)	0	0	0	96	0	0	0	310	0	0	127	0
Lane Group Flow (vph)	0	29	750	69	0	386	815	707	129	270	84	804
Confl. Peds. (#/hr)				1								
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases	7	7	4		3	3	8		5	2		1
Permitted Phases				4				8			2	
Actuated Green, G (s)		2.8	43.0	43.0		18.0	58.2	58.2	14.0	17.2	17.2	31.0
Effective Green, g (s)		2.8	43.0	43.0		18.0	58.2	58.2	14.0	17.2	17.2	31.0
Actuated g/C Ratio		0.02	0.33	0.33		0.14	0.45	0.45	0.11	0.13	0.13	0.24
Clearance Time (s)		4.2	5.7	5.7		4.2	5.7	5.7	4.2	5.3	5.3	4.2
Vehicle Extension (s)		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		74	1183	522		480	843	716	192	473	211	827
v/s Ratio Prot		0.01	0.21			c0.11	0.44		0.07	0.08		c0.23
v/s Ratio Perm				0.04				c0.45			0.05	
v/c Ratio		0.39	0.63	0.13		0.80	0.97	0.99	0.67	0.57	0.40	0.97
Uniform Delay, d1		62.1	36.2	29.8		53.6	34.3	34.8	55.1	52.2	51.0	48.4
Progression Factor		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		3.4	1.1	0.1		9.5	22.9	30.1	8.9	1.7	1.2	24.5
Delay (s)		65.5	37.3	29.9		63.0	57.2	64.9	64.0	53.9	52.2	72.9
Level of Service		E	D	C		E	E	E	E	D	D	E
Approach Delay (s)			36.9			61.7				55.4		
Approach LOS			D			E				E		
Intersection Summary												
HCM 2000 Control Delay			56.0			HCM 2000 Level of Service				E		
HCM 2000 Volume to Capacity ratio			0.94									
Actuated Cycle Length (s)			128.6			Sum of lost time (s)				19.4		
Intersection Capacity Utilization			87.8%			ICU Level of Service				E		
Analysis Period (min)			15									
c Critical Lane Group												



Movement	SBT	SBR
Lane Configurations	↑	↑
Traffic Volume (vph)	258	220
Future Volume (vph)	258	220
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.3	5.3
Lane Util. Factor	1.00	1.00
Frbp, ped/bikes	1.00	1.00
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1863	1583
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1863	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	280	239
RTOR Reduction (vph)	0	84
Lane Group Flow (vph)	280	155
Confl. Peds. (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	34.2	34.2
Effective Green, g (s)	34.2	34.2
Actuated g/C Ratio	0.27	0.27
Clearance Time (s)	5.3	5.3
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	495	420
v/s Ratio Prot	c0.15	
v/s Ratio Perm		0.10
v/c Ratio	0.57	0.37
Uniform Delay, d1	40.8	38.4
Progression Factor	1.00	1.00
Incremental Delay, d2	1.5	0.5
Delay (s)	42.3	39.0
Level of Service	D	D
Approach Delay (s)	60.3	
Approach LOS	E	
Intersection Summary		

Intersection

Intersection Delay, s/veh 16.1
Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	47	974	412	48	1513	8	364	9	50	3	15	31
Future Vol, veh/h	47	974	412	48	1513	8	364	9	50	3	15	31
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	51	1059	448	52	1645	9	396	10	54	3	16	34
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	962.6	1128.5	73.5	28.5
HCM LOS	F	F	F	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	86%	3%	3%	6%
Vol Thru, %	2%	68%	96%	31%
Vol Right, %	12%	29%	1%	63%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	423	1433	1569	49
LT Vol	364	47	48	3
Through Vol	9	974	1513	15
RT Vol	50	412	8	31
Lane Flow Rate	460	1558	1705	53
Geometry Grp	1	1	1	1
Degree of Util (X)	0.949	3.074	3.446	0.134
Departure Headway (Hd)	11.368	10.714	10.363	22.1
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	322	358	375	164
Service Time	9.368	8.714	8.363	20.1
HCM Lane V/C Ratio	1.429	4.352	4.547	0.323
HCM Control Delay	73.5	962.6	1128.5	28.5
HCM Lane LOS	F	F	F	D
HCM 95th-tile Q	9.7	91.4	110.3	0.5

Intersection							
Int Delay, s/veh	1.7						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	61	12	549	22	8	15	848
Future Vol, veh/h	61	12	549	22	8	15	848
Conflicting Peds, #/hr	0	1	0	6	0	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	66	13	597	24	9	16	922

Major/Minor	Minor1	Major1	Major2				
Conflicting Flow All	1126	318	0	0	621	627	0
Stage 1	615	-	-	-	-	-	-
Stage 2	511	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	199	678	-	-	580	951	-
Stage 1	502	-	-	-	-	-	-
Stage 2	567	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	191	673	-	-	769	769	-
Mov Cap-2 Maneuver	191	-	-	-	-	-	-
Stage 1	483	-	-	-	-	-	-
Stage 2	567	-	-	-	-	-	-

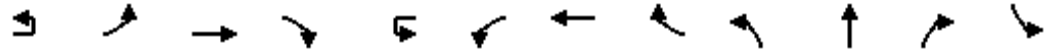
Approach	WB	NB	SB
HCM Control Delay, s	31	0	0.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	216	769
HCM Lane V/C Ratio	-	-	0.367	0.033
HCM Control Delay (s)	-	-	31	9.8
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	1.6	0.1

HCM Signalized Intersection Capacity Analysis
1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 N

AGENDA ITEM NO. 10.



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔↔	↕↕	↗		↔↔	↕	↗	↖	↕↕	↗	↖↖
Traffic Volume (vph)	1	112	587	137	72	180	784	999	164	370	280	783
Future Volume (vph)	1	112	587	137	72	180	784	999	164	370	280	783
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	5.7	5.7		4.2	5.7	5.7	4.2	5.3	5.3	4.2
Lane Util. Factor		0.97	0.95	1.00		0.97	1.00	1.00	1.00	0.95	1.00	0.97
Frbp, ped/bikes		1.00	1.00	0.99		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3433	3539	1560		3433	1863	1583	1770	3539	1583	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3433	3539	1560		3433	1863	1583	1770	3539	1583	3433
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	118	618	144	76	189	825	1052	173	389	295	824
RTOR Reduction (vph)	0	0	0	92	0	0	0	283	0	0	123	0
Lane Group Flow (vph)	0	119	618	52	0	265	825	769	173	389	172	824
Confl. Peds. (#/hr)				2								
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases	7	7	4		3	3	8		5	2		1
Permitted Phases				4				8			2	
Actuated Green, G (s)		5.0	48.8	48.8		15.1	58.9	58.9	16.7	22.1	22.1	29.9
Effective Green, g (s)		5.0	48.8	48.8		15.1	58.9	58.9	16.7	22.1	22.1	29.9
Actuated g/C Ratio		0.04	0.36	0.36		0.11	0.44	0.44	0.12	0.16	0.16	0.22
Clearance Time (s)		4.2	5.7	5.7		4.2	5.7	5.7	4.2	5.3	5.3	4.2
Vehicle Extension (s)		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		126	1276	562		383	811	689	218	578	258	758
v/s Ratio Prot		c0.03	0.17			0.08	0.44		0.10	0.11		c0.24
v/s Ratio Perm				0.03				c0.49			0.11	
v/c Ratio		0.94	0.48	0.09		0.69	1.02	1.12	0.79	0.67	0.67	1.09
Uniform Delay, d1		65.0	33.5	28.6		57.9	38.2	38.2	57.6	53.2	53.1	52.7
Progression Factor		1.00	1.00	1.00		1.00	1.00	1.00	1.01	1.01	1.03	1.00
Incremental Delay, d2		62.6	0.3	0.1		5.3	36.0	70.8	17.7	3.1	6.4	58.9
Delay (s)		127.6	33.8	28.7		63.2	74.2	109.0	75.7	57.1	61.0	111.6
Level of Service		F	C	C		E	E	F	E	E	E	F
Approach Delay (s)			45.6				89.9			62.2		
Approach LOS			D				F			E		
Intersection Summary												
HCM 2000 Control Delay			77.0				HCM 2000 Level of Service			E		
HCM 2000 Volume to Capacity ratio			1.04									
Actuated Cycle Length (s)			135.3				Sum of lost time (s)			19.4		
Intersection Capacity Utilization			94.2%				ICU Level of Service			F		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 N

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Movement	SBT	SBR
Lane Configurations	↑	↑
Traffic Volume (vph)	330	167
Future Volume (vph)	330	167
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.3	5.3
Lane Util. Factor	1.00	1.00
Frbp, ped/bikes	1.00	1.00
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1863	1583
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1863	1583
Peak-hour factor, PHF	0.95	0.95
Adj. Flow (vph)	347	176
RTOR Reduction (vph)	0	85
Lane Group Flow (vph)	347	91
Confl. Peds. (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	35.3	35.3
Effective Green, g (s)	35.3	35.3
Actuated g/C Ratio	0.26	0.26
Clearance Time (s)	5.3	5.3
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	486	413
v/s Ratio Prot	c0.19	
v/s Ratio Perm		0.06
v/c Ratio	0.71	0.22
Uniform Delay, d1	45.4	39.2
Progression Factor	1.00	1.00
Incremental Delay, d2	4.9	0.3
Delay (s)	50.3	39.5
Level of Service	D	D
Approach Delay (s)	86.4	
Approach LOS	F	
Intersection Summary		

Intersection												
Intersection Delay, s/v ⁴ 74.5												
Intersection LOS F												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	1442	289	72	1592	5	369	12	113	4	9	56
Future Vol, veh/h	35	1442	289	72	1592	5	369	12	113	4	9	56
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	1502	301	75	1658	5	384	13	118	4	9	58
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	1268.6	1198.5	107.1	35.4
HCM LOS	F	F	F	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	75%	2%	4%	6%
Vol Thru, %	2%	82%	95%	13%
Vol Right, %	23%	16%	0%	81%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	494	1766	1669	69
LT Vol	369	35	72	4
Through Vol	12	1442	1592	9
RT Vol	113	289	5	56
Lane Flow Rate	515	1840	1739	72
Geometry Grp	1	1	1	1
Degree of Util (X)	1.064	3.751	3.593	0.183
Departure Headway (Hd)	12.141	11.764	12.12	26.512
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	304	331	330	137
Service Time	10.141	9.764	10.12	24.512
HCM Lane V/C Ratio	1.694	5.559	5.27	0.526
HCM Control Delay	107.1	1268.6	1198.5	35.4
HCM Lane LOS	F	F	F	E
HCM 95th-tile Q	12.1	109.2	100.3	0.6

Intersection							
Int Delay, s/veh	1.6						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	28	8	864	62	32	47	743
Future Vol, veh/h	28	8	864	62	32	47	743
Conflicting Peds, #/hr	0	0	0	4	0	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	29	8	891	64	33	48	766

Major/Minor	Minor1	Major1	Major2				
Conflicting Flow All	1472	482	0	0	955	959	0
Stage 1	927	-	-	-	-	-	-
Stage 2	545	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	118	530	-	-	355	713	-
Stage 1	346	-	-	-	-	-	-
Stage 2	545	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	99	528	-	-	501	501	-
Mov Cap-2 Maneuver	99	-	-	-	-	-	-
Stage 1	289	-	-	-	-	-	-
Stage 2	545	-	-	-	-	-	-

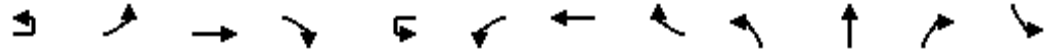
Approach	WB	NB	SB
HCM Control Delay, s	47.4	0	1.3
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	121	501
HCM Lane V/C Ratio	-	-	0.307	0.163
HCM Control Delay (s)	-	-	47.4	13.6
HCM Lane LOS	-	-	E	B
HCM 95th %tile Q(veh)	-	-	1.2	0.6

HCM Signalized Intersection Capacity Analysis
1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 N

AGENDA ITEM NO. 10.



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔↔	↕↕	↗		↔↔	↕↕	↗	↔↔	↕↕	↗	↔↔
Traffic Volume (vph)	1	26	690	152	111	244	750	936	119	248	194	740
Future Volume (vph)	1	26	690	152	111	244	750	936	119	248	194	740
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	5.7	5.7		4.2	5.7	4.2	4.2	5.3	5.3	4.2
Lane Util. Factor		0.97	0.95	1.00		0.97	0.95	1.00	0.97	0.95	1.00	0.97
Frbp, ped/bikes		1.00	1.00	0.99		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3433	3539	1563		3433	3539	1583	3433	3539	1583	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3433	3539	1563		3433	3539	1583	3433	3539	1583	3433
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	28	750	165	121	265	815	1017	129	270	211	804
RTOR Reduction (vph)	0	0	0	97	0	0	0	111	0	0	163	0
Lane Group Flow (vph)	0	29	750	68	0	386	815	906	129	270	48	804
Confl. Peds. (#/hr)				1								
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	pm+ov	Prot	NA	Perm	Prot
Protected Phases	7	7	4		3	3	8	1	5	2		1
Permitted Phases				4				8			2	
Actuated Green, G (s)		6.2	33.9	33.9		21.8	49.5	77.0	8.7	17.4	17.4	27.5
Effective Green, g (s)		6.2	33.9	33.9		21.8	49.5	77.0	8.7	17.4	17.4	27.5
Actuated g/C Ratio		0.05	0.28	0.28		0.18	0.41	0.64	0.07	0.14	0.14	0.23
Clearance Time (s)		4.2	5.7	5.7		4.2	5.7	4.2	4.2	5.3	5.3	4.2
Vehicle Extension (s)		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		177	999	441		623	1459	1015	248	513	229	786
v/s Ratio Prot		0.01	c0.21			0.11	0.23	c0.20	0.04	c0.08		c0.23
v/s Ratio Perm				0.04				0.37			0.03	
v/c Ratio		0.16	0.75	0.15		0.62	0.56	0.89	0.52	0.53	0.21	1.02
Uniform Delay, d1		54.4	39.2	32.3		45.3	26.9	18.0	53.6	47.5	45.2	46.2
Progression Factor		1.00	1.00	1.00		0.88	0.76	1.47	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.4	5.2	0.7		1.3	1.1	7.2	2.0	1.0	0.5	38.0
Delay (s)		54.9	44.4	33.0		41.0	21.5	33.8	55.6	48.5	45.7	84.3
Level of Service		D	D	C		D	C	C	E	D	D	F
Approach Delay (s)			42.7				30.5			49.0		
Approach LOS			D				C			D		
Intersection Summary												
HCM 2000 Control Delay			43.6		HCM 2000 Level of Service				D			
HCM 2000 Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			120.0		Sum of lost time (s)				19.4			
Intersection Capacity Utilization			86.1%		ICU Level of Service				E			
Analysis Period (min)			15									
c Critical Lane Group												



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	258	220
Future Volume (vph)	258	220
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.3	5.3
Lane Util. Factor	0.95	1.00
Frbp, ped/bikes	1.00	1.00
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	3539	1583
Flt Permitted	1.00	1.00
Satd. Flow (perm)	3539	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	280	239
RTOR Reduction (vph)	0	107
Lane Group Flow (vph)	280	132
Confl. Peds. (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	36.2	36.2
Effective Green, g (s)	36.2	36.2
Actuated g/C Ratio	0.30	0.30
Clearance Time (s)	5.3	5.3
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	1067	477
v/s Ratio Prot	0.08	
v/s Ratio Perm		0.08
v/c Ratio	0.26	0.28
Uniform Delay, d1	31.8	31.9
Progression Factor	1.00	1.00
Incremental Delay, d2	0.1	0.3
Delay (s)	31.9	32.2
Level of Service	C	C
Approach Delay (s)	63.8	
Approach LOS	E	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis
2: Sunnyside Avenue & Shepherd Avenue

Cumulative Year 2039 N

AGENDA ITEM NO. 10.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (vph)	47	974	412	48	1513	8	364	9	50	3	15	31
Future Volume (vph)	47	974	412	48	1513	8	364	9	50	3	15	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	5.7		4.2	5.3		4.2	5.3		4.2	5.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	1.00		1.00	0.87		1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3381		1770	3536		3433	1627		1770	1673	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3381		1770	3536		3433	1627		1770	1673	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	51	1059	448	52	1645	9	396	10	54	3	16	34
RTOR Reduction (vph)	0	34	0	0	0	0	0	43	0	0	31	0
Lane Group Flow (vph)	51	1473	0	52	1654	0	396	21	0	3	19	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	4.7	66.4		7.7	69.8		16.0	25.5		1.0	10.5	
Effective Green, g (s)	4.7	66.4		7.7	69.8		16.0	25.5		1.0	10.5	
Actuated g/C Ratio	0.04	0.55		0.06	0.58		0.13	0.21		0.01	0.09	
Clearance Time (s)	4.2	5.7		4.2	5.3		4.2	5.3		4.2	5.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	69	1870		113	2056		457	345		14	146	
v/s Ratio Prot	c0.03	0.44		c0.03	c0.47		c0.12	0.01		0.00	c0.01	
v/s Ratio Perm												
v/c Ratio	0.74	0.79		0.46	0.80		0.87	0.06		0.21	0.13	
Uniform Delay, d1	57.0	21.2		54.1	19.7		51.0	37.7		59.1	50.5	
Progression Factor	0.93	0.36		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	20.7	2.0		3.0	3.5		15.7	0.1		7.6	0.4	
Delay (s)	74.0	9.7		57.1	23.2		66.7	37.8		66.7	50.9	
Level of Service	E	A		E	C		E	D		E	D	
Approach Delay (s)		11.8			24.2			62.7			51.8	
Approach LOS		B			C			E			D	

Intersection Summary

HCM 2000 Control Delay	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.4
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection							
Int Delay, s/veh	0.6						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations		↗	↕			↘	↕
Traffic Vol, veh/h	0	73	549	22	8	15	909
Future Vol, veh/h	0	73	549	22	8	15	909
Conflicting Peds, #/hr	0	1	0	6	0	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	-	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	0	79	597	24	9	16	988

Major/Minor	Minor1	Major1	Major2				
Conflicting Flow All	-	318	0	0	621	627	0
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	0	678	-	-	580	951	-
Stage 1	0	-	-	-	-	-	-
Stage 2	0	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	-	673	-	-	734	734	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	673	734
HCM Lane V/C Ratio	-	-	0.118	0.034
HCM Control Delay (s)	-	-	11.1	10.1
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0.4	0.1

HCM Signalized Intersection Capacity Analysis
1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 N

AGENDA ITEM NO. 10.



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔↔	↕↕	↗		↔↔	↕↕	↗	↔↔	↕↕	↗	↔↔
Traffic Volume (vph)	1	112	587	137	72	180	784	999	164	370	280	783
Future Volume (vph)	1	112	587	137	72	180	784	999	164	370	280	783
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	5.7	5.7		4.2	5.7	4.2	4.2	5.3	5.3	4.2
Lane Util. Factor		0.97	0.95	1.00		0.97	0.95	1.00	0.97	0.95	1.00	0.97
Frbp, ped/bikes		1.00	1.00	0.99		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3433	3539	1561		3433	3539	1583	3433	3539	1583	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3433	3539	1561		3433	3539	1583	3433	3539	1583	3433
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	118	618	144	76	189	825	1052	173	389	295	824
RTOR Reduction (vph)	0	0	0	98	0	0	0	59	0	0	158	0
Lane Group Flow (vph)	0	119	618	46	0	265	825	993	173	389	137	824
Confl. Peds. (#/hr)				2								
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	pm+ov	Prot	NA	Perm	Prot
Protected Phases	7	7	4		3	3	8	1	5	2		1
Permitted Phases				4				8			2	
Actuated Green, G (s)		8.1	32.8	32.8		16.2	40.9	71.5	10.4	21.0	21.0	30.6
Effective Green, g (s)		8.1	32.8	32.8		16.2	40.9	71.5	10.4	21.0	21.0	30.6
Actuated g/C Ratio		0.07	0.27	0.27		0.13	0.34	0.60	0.09	0.18	0.18	0.26
Clearance Time (s)		4.2	5.7	5.7		4.2	5.7	4.2	4.2	5.3	5.3	4.2
Vehicle Extension (s)		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		231	967	426		463	1206	943	297	619	277	875
v/s Ratio Prot		0.03	c0.17			0.08	0.23	c0.27	0.05	c0.11		0.24
v/s Ratio Perm				0.03				0.36			0.09	
v/c Ratio		0.52	0.64	0.11		0.57	0.68	1.05	0.58	0.63	0.50	0.94
Uniform Delay, d1		54.1	38.4	32.6		48.7	34.0	24.2	52.7	45.9	44.7	43.8
Progression Factor		1.00	1.00	1.00		1.04	0.84	0.91	1.00	1.01	1.03	1.00
Incremental Delay, d2		1.9	3.2	0.5		1.1	2.1	38.9	2.9	2.0	1.4	17.9
Delay (s)		56.0	41.6	33.2		51.7	30.7	61.1	55.9	48.3	47.3	61.7
Level of Service		E	D	C		D	C	E	E	D	D	E
Approach Delay (s)			42.2			48.2				49.5		
Approach LOS			D			D				D		
Intersection Summary												
HCM 2000 Control Delay			47.5			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.94									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)				19.4		
Intersection Capacity Utilization			89.7%			ICU Level of Service				E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 N

AGENDA ITEM NO. 10.



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	330	167
Future Volume (vph)	330	167
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.3	5.3
Lane Util. Factor	0.95	1.00
Frbp, ped/bikes	1.00	1.00
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	3539	1583
Flt Permitted	1.00	1.00
Satd. Flow (perm)	3539	1583
Peak-hour factor, PHF	0.95	0.95
Adj. Flow (vph)	347	176
RTOR Reduction (vph)	0	100
Lane Group Flow (vph)	347	76
Confl. Peds. (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	41.2	41.2
Effective Green, g (s)	41.2	41.2
Actuated g/C Ratio	0.34	0.34
Clearance Time (s)	5.3	5.3
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	1215	543
v/s Ratio Prot	0.10	
v/s Ratio Perm		0.05
v/c Ratio	0.29	0.14
Uniform Delay, d1	28.7	27.2
Progression Factor	1.00	1.00
Incremental Delay, d2	0.1	0.1
Delay (s)	28.8	27.3
Level of Service	C	C
Approach Delay (s)	48.7	
Approach LOS	D	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis
2: Sunnyside Avenue & Shepherd Avenue

Cumulative Year 2039 N

AGENDA ITEM NO. 10.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (vph)	35	1442	289	72	1592	5	369	12	113	4	9	56
Future Volume (vph)	35	1442	289	72	1592	5	369	12	113	4	9	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	5.7		4.2	5.3		4.2	5.3		4.2	5.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.86		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3451		1770	3538		3433	1611		1770	1621	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3451		1770	3538		3433	1611		1770	1621	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	36	1502	301	75	1658	5	384	12	118	4	9	58
RTOR Reduction (vph)	0	12	0	0	0	0	0	95	0	0	53	0
Lane Group Flow (vph)	36	1791	0	75	1663	0	384	36	0	4	14	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	4.4	68.6		7.8	72.4		13.8	23.2		1.0	10.4	
Effective Green, g (s)	4.4	68.6		7.8	72.4		13.8	23.2		1.0	10.4	
Actuated g/C Ratio	0.04	0.57		0.06	0.60		0.12	0.19		0.01	0.09	
Clearance Time (s)	4.2	5.7		4.2	5.3		4.2	5.3		4.2	5.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	64	1972		115	2134		394	311		14	140	
v/s Ratio Prot	0.02	c0.52		0.04	c0.47		c0.11	c0.02		0.00	0.01	
v/s Ratio Perm												
v/c Ratio	0.56	0.91		0.65	0.78		0.97	0.12		0.29	0.10	
Uniform Delay, d1	56.9	22.9		54.8	17.8		52.9	39.9		59.1	50.5	
Progression Factor	1.03	0.49		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.3	5.3		12.5	2.9		38.3	0.2		10.9	0.3	
Delay (s)	65.9	16.4		67.3	20.7		91.3	40.1		70.1	50.8	
Level of Service	E	B		E	C		F	D		E	D	
Approach Delay (s)		17.4			22.7			78.2			51.9	
Approach LOS		B			C			E			D	

Intersection Summary

HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.4
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection							
Int Delay, s/veh	0.9						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations		↗	↕			↘	↕
Traffic Vol, veh/h	0	36	864	62	32	47	771
Future Vol, veh/h	0	36	864	62	32	47	771
Conflicting Peds, #/hr	0	0	0	4	0	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	-	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	0	37	891	64	33	48	795

Major/Minor	Minor1	Major1	Major2				
Conflicting Flow All	-	482	0	0	955	959	0
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	0	530	-	-	355	713	-
Stage 1	0	-	-	-	-	-	-
Stage 2	0	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	-	528	-	-	485	485	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	528	485
HCM Lane V/C Ratio	-	-	0.07	0.168
HCM Control Delay (s)	-	-	12.3	13.9
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0.2	0.6

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	UL	L	T	T	R	UL	L	T	T	R	L	L
Maximum Queue (ft)	49	69	332	363	100	201	195	289	516	499	93	112
Average Queue (ft)	9	14	209	206	59	138	125	149	171	207	39	51
95th Queue (ft)	33	42	306	304	122	196	189	248	313	398	84	90
Link Distance (ft)			2552	2552				2534	2534			
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250			50	250	250			350	250	250
Storage Blk Time (%)			4	53	1			1		3		
Queuing Penalty (veh)			1	80	3			4		11		

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	R
Maximum Queue (ft)	157	252	120	325	400	1979	1872	149
Average Queue (ft)	86	97	83	307	367	1030	850	50
95th Queue (ft)	120	188	131	362	458	2307	2128	104
Link Distance (ft)	1221	1221				2521	2521	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			60	250	250			250
Storage Blk Time (%)		10	20	39	55			
Queuing Penalty (veh)		19	25	50	71			

Intersection: 2: Sunnyside Avenue & Shepherd Avenue

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	L	L	TR	TR
Maximum Queue (ft)	114	444	566	369	634	699	283	260	261	95
Average Queue (ft)	45	147	192	71	271	294	123	152	39	34
95th Queue (ft)	89	319	373	174	517	553	217	224	122	71
Link Distance (ft)		2534	2534		764	764			2595	2607
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250			250			250	250		
Storage Blk Time (%)		4			9		0	0	0	
Queuing Penalty (veh)		2			4		0	0	0	

Intersection: 3: Clovis Avenue & Riordan Avenue

Movement	WB	NB	SB
Directions Served	R	T	UL
Maximum Queue (ft)	74	30	27
Average Queue (ft)	33	1	8
95th Queue (ft)	58	10	27
Link Distance (ft)	1367	1266	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			250
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 270

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	UL	L	T	T	R	UL	L	T	T	R	L	L
Maximum Queue (ft)	111	106	259	287	100	178	369	2553	2546	500	99	113
Average Queue (ft)	36	54	176	173	65	101	107	1174	1362	475	47	63
95th Queue (ft)	74	95	241	258	128	170	208	2707	2737	612	91	97
Link Distance (ft)			2552	2552				2534	2534			
Upstream Blk Time (%)								0	1			
Queuing Penalty (veh)								1	14			
Storage Bay Dist (ft)	250	250			50	250	250			350	250	250
Storage Blk Time (%)			0	45	2			6	1	59		
Queuing Penalty (veh)			1	62	6			15	8	233		

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	R
Maximum Queue (ft)	235	404	120	325	400	1746	1683	141
Average Queue (ft)	112	122	79	302	366	658	526	49
95th Queue (ft)	194	260	131	381	473	1492	1342	109
Link Distance (ft)	1221	1221				2521	2521	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			60	250	250		250	
Storage Blk Time (%)	0	23	18	41	52			
Queuing Penalty (veh)	0	63	34	67	85			

Intersection: 2: Sunnyside Avenue & Shepherd Avenue

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	L	TR	L	TR
Maximum Queue (ft)	74	431	479	369	594	617	265	291	307	26	117
Average Queue (ft)	34	213	245	108	266	293	178	197	82	1	55
95th Queue (ft)	66	350	410	239	519	546	273	282	214	11	106
Link Distance (ft)		2534	2534		764	764			2589		2601
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	250			250			250	250		250	
Storage Blk Time (%)		7			11		0	5	1		
Queuing Penalty (veh)		2			8		1	6	2		

Intersection: 3: Clovis Avenue & Riordan Avenue

Movement	WB	SB
Directions Served	R	UL
Maximum Queue (ft)	54	78
Average Queue (ft)	14	23
95th Queue (ft)	44	50
Link Distance (ft)	1367	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		250
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 609

Appendix I: Cumulative Year 2039 plus Project Traffic Conditions



Traffic Engineering, Inc.

<http://www.JLBtraffic.com>

516 W. Shaw Ave., Ste. 103

Fresno, CA 93704

(559) 570-8991

Traffic Engineering, Transportation Planning, & Parking Solutions

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HCM Signalized Intersection Capacity Analysis
 1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 plus

AGENDA ITEM NO. 10.



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔↗	↕↗	↗		↔↗	↕	↗	↗	↕↕	↗	↗↗
Traffic Volume (vph)	1	26	690	157	111	251	750	936	127	252	211	740
Future Volume (vph)	1	26	690	157	111	251	750	936	127	252	211	740
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	5.7	5.7		4.2	5.7	5.7	4.2	5.3	5.3	4.2
Lane Util. Factor		0.97	0.95	1.00		0.97	1.00	1.00	1.00	0.95	1.00	0.97
Frbp, ped/bikes		1.00	1.00	0.99		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3433	3539	1563		3433	1863	1583	1770	3539	1583	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3433	3539	1563		3433	1863	1583	1770	3539	1583	3433
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	28	750	171	121	273	815	1017	138	274	229	804
RTOR Reduction (vph)	0	0	0	126	0	0	0	350	0	0	128	0
Lane Group Flow (vph)	0	29	750	45	0	394	815	667	138	274	101	804
Confl. Peds. (#/hr)				1								
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases	7	7	4		3	3	8		5	2		1
Permitted Phases				4				8			2	
Actuated Green, G (s)		2.8	27.1	27.1		20.1	44.4	44.4	15.9	16.9	16.9	20.1
Effective Green, g (s)		2.8	27.1	27.1		20.1	44.4	44.4	15.9	16.9	16.9	20.1
Actuated g/C Ratio		0.03	0.26	0.26		0.19	0.43	0.43	0.15	0.16	0.16	0.19
Clearance Time (s)		4.2	5.7	5.7		4.2	5.7	5.7	4.2	5.3	5.3	4.2
Vehicle Extension (s)		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		92	925	408		666	798	678	271	577	258	666
v/s Ratio Prot		0.01	0.21			c0.11	c0.44		c0.08	0.08		c0.23
v/s Ratio Perm				0.03				0.42			0.06	
v/c Ratio		0.32	0.81	0.11		0.59	1.02	0.98	0.51	0.47	0.39	1.21
Uniform Delay, d1		49.5	35.8	29.1		38.0	29.6	29.2	40.3	39.3	38.8	41.8
Progression Factor		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		2.0	5.5	0.1		1.4	37.3	30.2	1.5	0.6	1.0	107.0
Delay (s)		51.4	41.3	29.2		39.4	66.9	59.4	41.8	39.9	39.7	148.7
Level of Service		D	D	C		D	E	E	D	D	D	F
Approach Delay (s)			39.4				58.6			40.3		
Approach LOS			D				E			D		
Intersection Summary												
HCM 2000 Control Delay			65.2				HCM 2000 Level of Service			E		
HCM 2000 Volume to Capacity ratio			0.96									
Actuated Cycle Length (s)			103.6				Sum of lost time (s)			19.4		
Intersection Capacity Utilization			87.9%				ICU Level of Service			E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 plus

AGENDA ITEM NO. 10.



Movement	SBT	SBR
Lane Configurations	↑	↑
Traffic Volume (vph)	260	220
Future Volume (vph)	260	220
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.3	5.3
Lane Util. Factor	1.00	1.00
Frbp, ped/bikes	1.00	1.00
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1863	1583
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1863	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	283	239
RTOR Reduction (vph)	0	130
Lane Group Flow (vph)	283	109
Confl. Peds. (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	21.1	21.1
Effective Green, g (s)	21.1	21.1
Actuated g/C Ratio	0.20	0.20
Clearance Time (s)	5.3	5.3
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	379	322
v/s Ratio Prot	0.15	
v/s Ratio Perm		0.07
v/c Ratio	0.75	0.34
Uniform Delay, d1	38.7	35.3
Progression Factor	1.00	1.00
Incremental Delay, d2	7.8	0.6
Delay (s)	46.5	35.9
Level of Service	D	D
Approach Delay (s)	106.6	
Approach LOS	F	
Intersection Summary		

Intersection												
Intersection Delay, s/veh	27.2											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	47	986	417	48	1518	8	366	9	50	3	15	31
Future Vol, veh/h	47	986	417	48	1518	8	366	9	50	3	15	31
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	51	1072	453	52	1650	9	398	10	54	3	16	34
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	981.1	1135.8	74.4	28.8
HCM LOS	F	F	F	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	86%	3%	3%	6%
Vol Thru, %	2%	68%	96%	31%
Vol Right, %	12%	29%	1%	63%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	425	1450	1574	49
LT Vol	366	47	48	3
Through Vol	9	986	1518	15
RT Vol	50	417	8	31
Lane Flow Rate	462	1576	1711	53
Geometry Grp	1	1	1	1
Degree of Util (X)	0.953	3.115	3.462	0.134
Departure Headway (Hd)	11.376	10.752	10.437	22.333
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	323	362	376	162
Service Time	9.376	8.752	8.437	20.333
HCM Lane V/C Ratio	1.43	4.354	4.551	0.327
HCM Control Delay	74.4	981.1	1135.8	28.8
HCM Lane LOS	F	F	F	D
HCM 95th-tile Q	9.7	92.7	110.2	0.5

Intersection							
Int Delay, s/veh	3.5						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	94	12	555	27	12	25	862
Future Vol, veh/h	94	12	555	27	12	25	862
Conflicting Peds, #/hr	0	1	0	6	0	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	102	13	603	29	13	27	937

Major/Minor	Minor1	Major1	Major2				
Conflicting Flow All	1173	323	0	0	633	638	0
Stage 1	624	-	-	-	-	-	-
Stage 2	549	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	185	673	-	-	570	942	-
Stage 1	496	-	-	-	-	-	-
Stage 2	542	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	174	669	-	-	769	769	-
Mov Cap-2 Maneuver	174	-	-	-	-	-	-
Stage 1	467	-	-	-	-	-	-
Stage 2	542	-	-	-	-	-	-

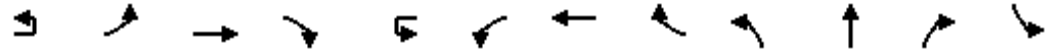
Approach	WB	NB	SB
HCM Control Delay, s	49.5	0	0.4
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	190	769
HCM Lane V/C Ratio	-	-	0.606	0.052
HCM Control Delay (s)	-	-	49.5	9.9
HCM Lane LOS	-	-	E	A
HCM 95th %tile Q(veh)	-	-	3.4	0.2

HCM Signalized Intersection Capacity Analysis
 1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 pl

AGENDA ITEM NO. 10.



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔↔	↕↕	↗		↔↔	↕	↗	↖	↕↕	↗	↖↖
Traffic Volume (vph)	1	112	587	146	72	200	784	999	173	374	292	783
Future Volume (vph)	1	112	587	146	72	200	784	999	173	374	292	783
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	5.7	5.7		4.2	5.7	5.7	4.2	5.3	5.3	4.2
Lane Util. Factor		0.97	0.95	1.00		0.97	1.00	1.00	1.00	0.95	1.00	0.97
Frbp, ped/bikes		1.00	1.00	0.99		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3433	3539	1561		3433	1863	1583	1770	3539	1583	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3433	3539	1561		3433	1863	1583	1770	3539	1583	3433
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	118	618	154	76	211	825	1052	182	394	307	824
RTOR Reduction (vph)	0	0	0	103	0	0	0	302	0	0	112	0
Lane Group Flow (vph)	0	119	618	51	0	287	825	750	182	394	195	824
Confl. Peds. (#/hr)				2								
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	Perm	Prot	NA	Perm	Prot
Protected Phases	7	7	4		3	3	8		5	2		1
Permitted Phases				4				8			2	
Actuated Green, G (s)		5.0	36.5	36.5		12.5	44.0	44.0	15.7	21.7	21.7	19.9
Effective Green, g (s)		5.0	36.5	36.5		12.5	44.0	44.0	15.7	21.7	21.7	19.9
Actuated g/C Ratio		0.05	0.33	0.33		0.11	0.40	0.40	0.14	0.20	0.20	0.18
Clearance Time (s)		4.2	5.7	5.7		4.2	5.7	5.7	4.2	5.3	5.3	4.2
Vehicle Extension (s)		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		156	1174	517		390	745	633	252	698	312	621
v/s Ratio Prot		0.03	0.17			c0.08	0.44		c0.10	0.11		c0.24
v/s Ratio Perm				0.03				c0.47			0.12	
v/c Ratio		0.76	0.53	0.10		0.74	1.11	1.19	0.72	0.56	0.63	1.33
Uniform Delay, d1		51.9	29.8	25.4		47.2	33.0	33.0	45.1	39.9	40.4	45.0
Progression Factor		1.00	1.00	1.00		1.00	1.00	1.00	1.01	1.01	1.02	1.00
Incremental Delay, d2		19.6	0.4	0.1		7.1	66.4	98.7	9.8	1.1	3.9	158.1
Delay (s)		71.5	30.2	25.5		54.2	99.4	131.7	55.3	41.4	45.0	203.1
Level of Service		E	C	C		D	F	F	E	D	D	F
Approach Delay (s)			34.9				109.1			45.5		
Approach LOS			C				F			D		

Intersection Summary			
HCM 2000 Control Delay	94.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	19.4
Intersection Capacity Utilization	94.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
 1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 plus

AGENDA ITEM NO. 10.



Movement	SBT	SBR
Lane Configurations	↑	↑
Traffic Volume (vph)	335	167
Future Volume (vph)	335	167
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.3	5.3
Lane Util. Factor	1.00	1.00
Frbp, ped/bikes	1.00	1.00
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	1863	1583
Flt Permitted	1.00	1.00
Satd. Flow (perm)	1863	1583
Peak-hour factor, PHF	0.95	0.95
Adj. Flow (vph)	353	176
RTOR Reduction (vph)	0	114
Lane Group Flow (vph)	353	62
Confl. Peds. (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	25.9	25.9
Effective Green, g (s)	25.9	25.9
Actuated g/C Ratio	0.24	0.24
Clearance Time (s)	5.3	5.3
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	438	372
v/s Ratio Prot	c0.19	
v/s Ratio Perm		0.04
v/c Ratio	0.81	0.17
Uniform Delay, d1	39.7	33.5
Progression Factor	1.00	1.00
Incremental Delay, d2	10.4	0.2
Delay (s)	50.1	33.7
Level of Service	D	C
Approach Delay (s)	141.1	
Approach LOS	F	
Intersection Summary		

Intersection												
Intersection Delay, s/v	4085.6											
Intersection LOS	F											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	1451	292	72	1606	5	375	12	113	4	9	56
Future Vol, veh/h	35	1451	292	72	1606	5	375	12	113	4	9	56
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	1511	304	75	1673	5	391	13	118	4	9	58
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	1280	1212.7	111.5	35.9
HCM LOS	F	F	F	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	75%	2%	4%	6%
Vol Thru, %	2%	82%	95%	13%
Vol Right, %	23%	16%	0%	81%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	500	1778	1683	69
LT Vol	375	35	72	4
Through Vol	12	1451	1606	9
RT Vol	113	292	5	56
Lane Flow Rate	521	1852	1753	72
Geometry Grp	1	1	1	1
Degree of Util (X)	1.078	3.776	3.624	0.183
Departure Headway (Hd)	12.152	11.869	12.218	26.955
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	302	333	316	134
Service Time	10.152	9.869	10.218	24.955
HCM Lane V/C Ratio	1.725	5.562	5.547	0.537
HCM Control Delay	111.5	1280	1212.7	35.9
HCM Lane LOS	F	F	F	E
HCM 95th-tile Q	12.5	109.2	100.6	0.6

Intersection							
Int Delay, s/veh	3.7						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	45	8	890	88	42	71	751
Future Vol, veh/h	45	8	890	88	42	71	751
Conflicting Peds, #/hr	0	0	0	4	0	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	46	8	918	91	43	73	774

Major/Minor	Minor1	Major1	Major2				
Conflicting Flow All	1587	509	0	0	1008	1013	0
Stage 1	968	-	-	-	-	-	-
Stage 2	619	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	99	509	-	-	328	680	-
Stage 1	329	-	-	-	-	-	-
Stage 2	499	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	75	507	-	-	481	481	-
Mov Cap-2 Maneuver	75	-	-	-	-	-	-
Stage 1	249	-	-	-	-	-	-
Stage 2	499	-	-	-	-	-	-

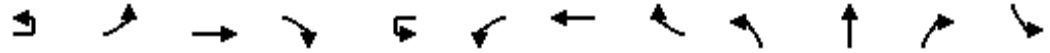
Approach	WB	NB	SB
HCM Control Delay, s	101.6	0	1.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	86	481
HCM Lane V/C Ratio	-	-	0.635	0.242
HCM Control Delay (s)	-	-	101.6	14.9
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	3	0.9

HCM Signalized Intersection Capacity Analysis
 1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 pl

AGENDA ITEM NO. 10.



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔	↕	↗		↔	↕	↗	↔	↕	↗	↘
Traffic Volume (vph)	1	26	690	157	111	251	750	936	127	252	211	740
Future Volume (vph)	1	26	690	157	111	251	750	936	127	252	211	740
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	5.7	5.7		4.2	5.7	4.2	4.2	5.3	5.3	4.2
Lane Util. Factor		0.97	0.95	1.00		0.97	0.95	1.00	0.97	0.95	1.00	0.97
Frbp, ped/bikes		1.00	1.00	0.99		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3433	3539	1563		3433	3539	1583	3433	3539	1583	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3433	3539	1563		3433	3539	1583	3433	3539	1583	3433
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	28	750	171	121	273	815	1017	138	274	229	804
RTOR Reduction (vph)	0	0	0	98	0	0	0	109	0	0	163	0
Lane Group Flow (vph)	0	29	750	73	0	394	815	908	138	274	66	804
Confl. Peds. (#/hr)				1								
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	pm+ov	Prot	NA	Perm	Prot
Protected Phases	7	7	4		3	3	8	1	5	2		1
Permitted Phases				4				8			2	
Actuated Green, G (s)		6.2	33.3	33.3		22.4	49.5	76.9	9.1	17.5	17.5	27.4
Effective Green, g (s)		6.2	33.3	33.3		22.4	49.5	76.9	9.1	17.5	17.5	27.4
Actuated g/C Ratio		0.05	0.28	0.28		0.19	0.41	0.64	0.08	0.15	0.15	0.23
Clearance Time (s)		4.2	5.7	5.7		4.2	5.7	4.2	4.2	5.3	5.3	4.2
Vehicle Extension (s)		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		177	982	433		640	1459	1014	260	516	230	783
v/s Ratio Prot		0.01	c0.21			0.11	0.23	c0.20	0.04	c0.08		c0.23
v/s Ratio Perm				0.05				0.37			0.04	
v/c Ratio		0.16	0.76	0.17		0.62	0.56	0.90	0.53	0.53	0.29	1.03
Uniform Delay, d1		54.4	39.7	32.9		44.8	26.9	18.2	53.4	47.5	45.7	46.3
Progression Factor		1.00	1.00	1.00		0.86	0.77	1.62	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.4	5.6	0.8		1.2	1.1	7.3	2.1	1.1	0.7	39.2
Delay (s)		54.9	45.4	33.7		39.9	21.7	36.7	55.5	48.5	46.4	85.5
Level of Service		D	D	C		D	C	D	E	D	D	F
Approach Delay (s)			43.6				31.8			49.2		
Approach LOS			D				C			D		
Intersection Summary												
HCM 2000 Control Delay			44.6				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			19.4		
Intersection Capacity Utilization			87.3%				ICU Level of Service			E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 plus

AGENDA ITEM NO. 10.



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	260	220
Future Volume (vph)	260	220
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.3	5.3
Lane Util. Factor	0.95	1.00
Frbp, ped/bikes	1.00	1.00
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	3539	1583
Flt Permitted	1.00	1.00
Satd. Flow (perm)	3539	1583
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	283	239
RTOR Reduction (vph)	0	107
Lane Group Flow (vph)	283	132
Confl. Peds. (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	35.8	35.8
Effective Green, g (s)	35.8	35.8
Actuated g/C Ratio	0.30	0.30
Clearance Time (s)	5.3	5.3
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	1055	472
v/s Ratio Prot	0.08	
v/s Ratio Perm		0.08
v/c Ratio	0.27	0.28
Uniform Delay, d1	32.1	32.2
Progression Factor	1.00	1.00
Incremental Delay, d2	0.1	0.3
Delay (s)	32.2	32.5
Level of Service	C	C
Approach Delay (s)	64.6	
Approach LOS	E	
Intersection Summary		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕↔		↔	↕↔		↔↔	↔		↔	↕↔	
Traffic Volume (vph)	47	986	417	48	1518	8	366	9	50	3	15	31
Future Volume (vph)	47	986	417	48	1518	8	366	9	50	3	15	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	5.7		4.2	5.3		4.2	5.3		4.2	5.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	1.00		1.00	0.87		1.00	0.90	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3382		1770	3536		3433	1627		1770	1673	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3382		1770	3536		3433	1627		1770	1673	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	51	1072	453	52	1650	9	398	10	54	3	16	34
RTOR Reduction (vph)	0	34	0	0	0	0	0	43	0	0	31	0
Lane Group Flow (vph)	51	1491	0	52	1659	0	398	21	0	3	19	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	4.6	67.0		7.2	70.0		15.9	25.4		1.0	10.5	
Effective Green, g (s)	4.6	67.0		7.2	70.0		15.9	25.4		1.0	10.5	
Actuated g/C Ratio	0.04	0.56		0.06	0.58		0.13	0.21		0.01	0.09	
Clearance Time (s)	4.2	5.7		4.2	5.3		4.2	5.3		4.2	5.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	67	1888		106	2062		454	344		14	146	
v/s Ratio Prot	0.03	0.44		c0.03	c0.47		c0.12	0.01		0.00	c0.01	
v/s Ratio Perm												
v/c Ratio	0.76	0.79		0.49	0.80		0.88	0.06		0.21	0.13	
Uniform Delay, d1	57.2	20.9		54.6	19.6		51.1	37.8		59.1	50.5	
Progression Factor	0.89	0.36		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	24.4	2.0		3.5	3.5		17.1	0.1		7.6	0.4	
Delay (s)	75.1	9.6		58.2	23.1		68.2	37.9		66.7	50.9	
Level of Service	E	A		E	C		E	D		E	D	
Approach Delay (s)		11.7			24.1			64.0			51.8	
Approach LOS		B			C			E			D	
Intersection Summary												
HCM 2000 Control Delay			24.2				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			19.4		
Intersection Capacity Utilization			68.2%				ICU Level of Service			C		
Analysis Period (min)			15									

c Critical Lane Group

Intersection							
Int Delay, s/veh	1						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations		↗	↕			↘	↕
Traffic Vol, veh/h	0	106	555	27	12	25	956
Future Vol, veh/h	0	106	555	27	12	25	956
Conflicting Peds, #/hr	0	1	0	6	0	6	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	-	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	0	115	603	29	13	27	1039

Major/Minor	Minor1	Major1	Major2				
Conflicting Flow All	-	323	0	0	633	638	0
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	0	673	-	-	570	942	-
Stage 1	0	-	-	-	-	-	-
Stage 2	0	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	-	669	-	-	716	716	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	669	716
HCM Lane V/C Ratio	-	-	0.172	0.056
HCM Control Delay (s)	-	-	11.5	10.3
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0.6	0.2

HCM Signalized Intersection Capacity Analysis
 1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 plus

AGENDA ITEM NO. 10.



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations		↔	↕	↗		↔	↕	↗	↔	↕	↗	↘
Traffic Volume (vph)	1	112	587	146	72	200	784	999	173	374	292	783
Future Volume (vph)	1	112	587	146	72	200	784	999	173	374	292	783
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.2	5.7	5.7		4.2	5.7	4.2	4.2	5.3	5.3	4.2
Lane Util. Factor		0.97	0.95	1.00		0.97	0.95	1.00	0.97	0.95	1.00	0.97
Frbp, ped/bikes		1.00	1.00	0.99		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85		1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (prot)		3433	3539	1561		3433	3539	1583	3433	3539	1583	3433
Flt Permitted		0.95	1.00	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95
Satd. Flow (perm)		3433	3539	1561		3433	3539	1583	3433	3539	1583	3433
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	118	618	154	76	211	825	1052	182	394	307	824
RTOR Reduction (vph)	0	0	0	100	0	0	0	57	0	0	157	0
Lane Group Flow (vph)	0	119	618	54	0	287	825	995	182	394	150	824
Confl. Peds. (#/hr)				2								
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA	pm+ov	Prot	NA	Perm	Prot
Protected Phases	7	7	4		3	3	8	1	5	2		1
Permitted Phases				4				8			2	
Actuated Green, G (s)		8.0	31.3	31.3		17.6	40.9	71.5	10.6	21.1	21.1	30.6
Effective Green, g (s)		8.0	31.3	31.3		17.6	40.9	71.5	10.6	21.1	21.1	30.6
Actuated g/C Ratio		0.07	0.26	0.26		0.15	0.34	0.60	0.09	0.18	0.18	0.26
Clearance Time (s)		4.2	5.7	5.7		4.2	5.7	4.2	4.2	5.3	5.3	4.2
Vehicle Extension (s)		3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		228	923	407		503	1206	943	303	622	278	875
v/s Ratio Prot		0.03	c0.17			0.08	0.23	c0.27	0.05	c0.11		0.24
v/s Ratio Perm				0.03				0.36			0.09	
v/c Ratio		0.52	0.67	0.13		0.57	0.68	1.05	0.60	0.63	0.54	0.94
Uniform Delay, d1		54.2	39.7	34.0		47.7	34.0	24.2	52.7	45.9	45.0	43.8
Progression Factor		1.00	1.00	1.00		0.91	0.81	1.26	1.00	1.01	1.03	1.00
Incremental Delay, d2		2.2	3.9	0.7		1.0	2.1	39.5	3.3	2.1	2.0	17.9
Delay (s)		56.3	43.6	34.6		44.3	29.5	70.0	56.2	48.4	48.4	61.7
Level of Service		E	D	C		D	C	E	E	D	D	E
Approach Delay (s)			43.7				51.1			50.0		
Approach LOS			D				D			D		
Intersection Summary												
HCM 2000 Control Delay			49.1				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.94									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			19.4		
Intersection Capacity Utilization			91.0%				ICU Level of Service			F		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 1: Clovis Avenue & Shepherd Avenue

Cumulative Year 2039 plus

AGENDA ITEM NO. 10.



Movement	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	335	167
Future Volume (vph)	335	167
Ideal Flow (vphpl)	1900	1900
Total Lost time (s)	5.3	5.3
Lane Util. Factor	0.95	1.00
Frbp, ped/bikes	1.00	1.00
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	3539	1583
Flt Permitted	1.00	1.00
Satd. Flow (perm)	3539	1583
Peak-hour factor, PHF	0.95	0.95
Adj. Flow (vph)	353	176
RTOR Reduction (vph)	0	101
Lane Group Flow (vph)	353	75
Confl. Peds. (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	41.1	41.1
Effective Green, g (s)	41.1	41.1
Actuated g/C Ratio	0.34	0.34
Clearance Time (s)	5.3	5.3
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	1212	542
v/s Ratio Prot	0.10	
v/s Ratio Perm		0.05
v/c Ratio	0.29	0.14
Uniform Delay, d1	28.8	27.2
Progression Factor	1.00	1.00
Incremental Delay, d2	0.1	0.1
Delay (s)	28.9	27.4
Level of Service	C	C
Approach Delay (s)	48.7	
Approach LOS	D	
Intersection Summary		

HCM Signalized Intersection Capacity Analysis Cumulative Year 2039 plus **AGENDA ITEM NO. 10.**
 2: Sunnyside Avenue & Shepherd Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1451	292	72	1606	5	375	12	113	4	9	56
Future Volume (vph)	35	1451	292	72	1606	5	375	12	113	4	9	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.2	5.7		4.2	5.3		4.2	5.3		4.2	5.3	
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	1.00		1.00	0.86		1.00	0.87	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3450		1770	3538		3433	1611		1770	1621	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3450		1770	3538		3433	1611		1770	1621	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	36	1511	304	75	1673	5	391	12	118	4	9	58
RTOR Reduction (vph)	0	12	0	0	0	0	0	95	0	0	53	0
Lane Group Flow (vph)	36	1803	0	75	1678	0	391	36	0	4	14	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	3.1	68.8		7.6	73.7		13.8	23.2		1.0	10.4	
Effective Green, g (s)	3.1	68.8		7.6	73.7		13.8	23.2		1.0	10.4	
Actuated g/C Ratio	0.03	0.57		0.06	0.61		0.12	0.19		0.01	0.09	
Clearance Time (s)	4.2	5.7		4.2	5.3		4.2	5.3		4.2	5.3	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	45	1978		112	2172		394	311		14	140	
v/s Ratio Prot	0.02	c0.52		c0.04	0.47		c0.11	c0.02		0.00	0.01	
v/s Ratio Perm												
v/c Ratio	0.80	0.91		0.67	0.77		0.99	0.12		0.29	0.10	
Uniform Delay, d1	58.1	22.9		55.0	17.0		53.0	39.9		59.1	50.5	
Progression Factor	0.92	0.49		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	46.8	5.4		14.2	2.7		43.1	0.2		10.9	0.3	
Delay (s)	100.2	16.5		69.1	19.7		96.2	40.1		70.1	50.8	
Level of Service	F	B		E	B		F	D		E	D	
Approach Delay (s)		18.2			21.9			82.1			51.9	
Approach LOS		B			C			F			D	
Intersection Summary												
HCM 2000 Control Delay			28.2				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.82									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			19.4		
Intersection Capacity Utilization			83.6%				ICU Level of Service			E		
Analysis Period (min)			15									

c Critical Lane Group

Intersection							
Int Delay, s/veh	1.2						
Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations		↗	↕			↘	↕
Traffic Vol, veh/h	0	53	890	88	42	71	796
Future Vol, veh/h	0	53	890	88	42	71	796
Conflicting Peds, #/hr	0	0	0	4	0	4	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	-	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	0	55	918	91	43	73	821

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	509	0	0	1008	1013
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	6.44	4.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.52	2.22
Pot Cap-1 Maneuver	0	509	-	-	328	680
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	-	507	-	-	456	456
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	507	456
HCM Lane V/C Ratio	-	-	0.108	0.255
HCM Control Delay (s)	-	-	13	15.6
HCM Lane LOS	-	-	B	C
HCM 95th %tile Q(veh)	-	-	0.4	1

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	UL	L	T	T	R	UL	L	T	T	R	L	L
Maximum Queue (ft)	27	48	322	336	100	248	257	678	1064	500	90	112
Average Queue (ft)	7	14	200	198	67	144	129	199	325	331	34	47
95th Queue (ft)	25	41	309	321	128	224	207	433	773	587	73	85
Link Distance (ft)			2552	2552				2534	2534			
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250	250			50	250	250			350	250	250
Storage Blk Time (%)			4	53	2	0	0	0		18		
Queuing Penalty (veh)			1	83	8	0	1	1		67		

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	R
Maximum Queue (ft)	173	215	120	325	400	1432	1364	80
Average Queue (ft)	105	117	82	318	385	953	662	38
95th Queue (ft)	150	194	134	348	452	1654	1470	77
Link Distance (ft)	1221	1221				2521	2521	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			60	250	250		250	
Storage Blk Time (%)		21	14	56	68			
Queuing Penalty (veh)		45	18	72	88			

Intersection: 2: Sunnyside Avenue & Shepherd Avenue

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	L	TR	L	TR
Maximum Queue (ft)	92	387	398	369	511	487	304	334	350	30	73
Average Queue (ft)	36	139	175	52	213	240	159	187	44	2	38
95th Queue (ft)	74	291	330	156	417	432	253	286	161	12	68
Link Distance (ft)		2534	2534		764	764			2595		2607
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	250			250			250	250		250	
Storage Blk Time (%)		3			6		2	3	1		
Queuing Penalty (veh)		1			3		1	2	4		

Intersection: 3: Clovis Avenue & Riordan Avenue

Movement	WB	NB	SB	SB	SB
Directions Served	R	T	UL	T	T
Maximum Queue (ft)	97	27	29	29	30
Average Queue (ft)	44	1	13	1	1
95th Queue (ft)	75	9	34	9	10
Link Distance (ft)	1367	1266		1221	1221
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			250		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Zone Summary

Zone wide Queuing Penalty: 396

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB
Directions Served	UL	L	T	T	R	UL	L	T	T	R	L	L
Maximum Queue (ft)	111	113	262	308	100	194	195	2506	2525	500	141	155
Average Queue (ft)	46	55	191	190	79	116	115	1188	1559	474	75	86
95th Queue (ft)	90	102	256	264	134	189	180	2612	2841	588	120	135
Link Distance (ft)			2552	2552				2534	2534			
Upstream Blk Time (%)									0			
Queuing Penalty (veh)									1			
Storage Bay Dist (ft)	250	250			50	250	250			350	250	250
Storage Blk Time (%)			0	48	3			2		57		
Queuing Penalty (veh)			0	70	9			4		224		

Intersection: 1: Clovis Avenue & Shepherd Avenue

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	R
Maximum Queue (ft)	198	277	120	325	400	2526	2510	105
Average Queue (ft)	121	132	106	324	399	1441	1291	42
95th Queue (ft)	174	217	142	327	401	2499	2437	81
Link Distance (ft)	1221	1221				2521	2521	
Upstream Blk Time (%)						0	0	
Queuing Penalty (veh)						0	0	
Storage Bay Dist (ft)			60	250	250			250
Storage Blk Time (%)		25	27	65	73			
Queuing Penalty (veh)		73	51	108	122			

Intersection: 2: Sunnyside Avenue & Shepherd Avenue

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	L	TR	L	TR
Maximum Queue (ft)	53	316	341	138	539	559	187	222	199	26	94
Average Queue (ft)	28	192	218	64	249	278	126	150	75	1	44
95th Queue (ft)	56	307	340	116	459	484	190	211	159	10	81
Link Distance (ft)		2534	2534		764	764			2589		2601
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	250			250			250	250		250	
Storage Blk Time (%)		3			9						
Queuing Penalty (veh)		1			6						

Intersection: 3: Clovis Avenue & Riordan Avenue

Movement	WB	NB	SB
Directions Served	R	TR	UL
Maximum Queue (ft)	56	23	74
Average Queue (ft)	37	3	37
95th Queue (ft)	58	15	65
Link Distance (ft)	1367	1266	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			250
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 670

Appendix J: Signal Warrants



Traffic Engineering, Inc. <http://www.JLBtraffic.com>

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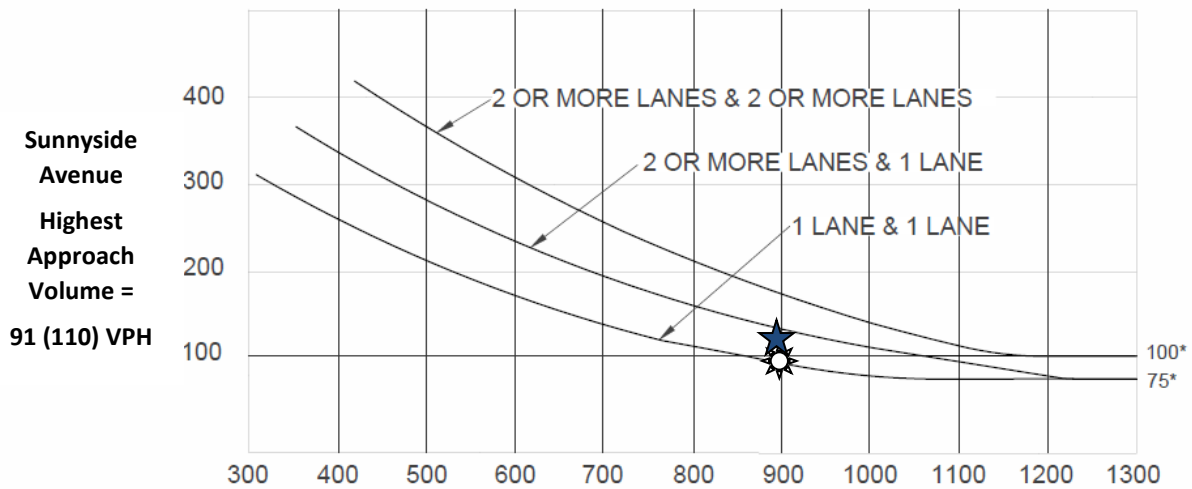
Fresno, CA 93704

(559) 570-8991

Warrant 3: Peak Hour (Rural)



**Existing Traffic Conditions
2. Sunnyside Avenue / Shepherd Avenue
AM (PM) Peak Hour**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



**Shepherd Avenue Total of Both Approaches =
895 (894) VPH**

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.

-  **AM Peak Hour – Signal Warrant is Met**
-  **PM Peak Hour – Signal Warrant is Met**

Source: California Manual of Uniform Traffic Control Devices (CA MUTCD 2014 Edition)
Chapter 4C: Traffic Control Signal Needs Studies
Part 4: Highway Traffic Signals
November 7, 2014



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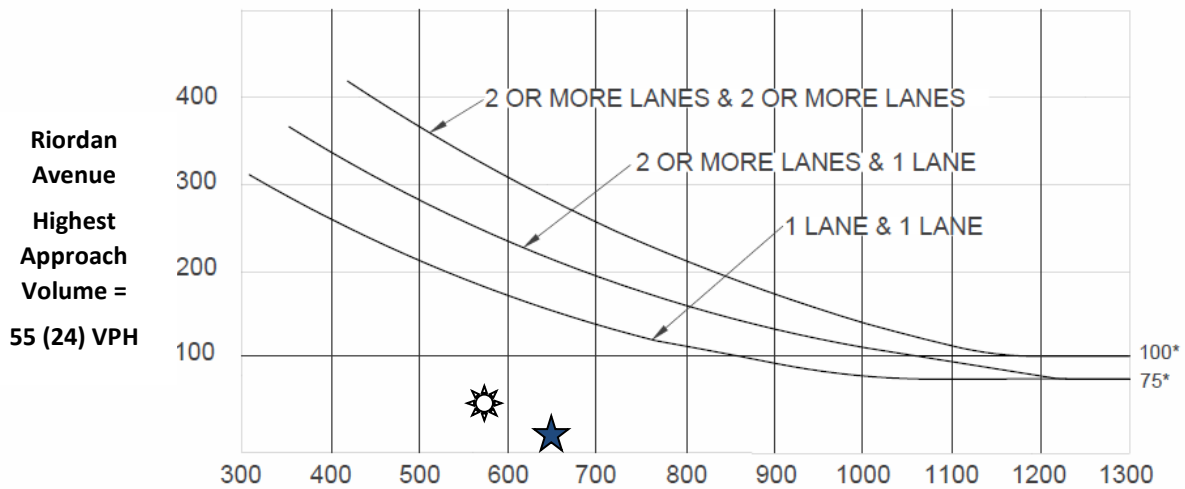
Fresno, CA 93704

(559) 570-8991

Warrant 3: Peak Hour (Rural)



Existing Traffic Conditions
3. Clovis Avenue / Riordan Avenue
AM (PM) Peak Hour

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



Clovis Avenue Total of Both Approaches =
573 (648) VPH

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.

-  **AM Peak Hour – Signal Warrant is Not Met**
-  **PM Peak Hour – Signal Warrant is Not Met**

Source: California Manual of Uniform Traffic Control Devices (CA MUTCD 2014 Edition)
 Chapter 4C: Traffic Control Signal Needs Studies
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 November 7, 2014



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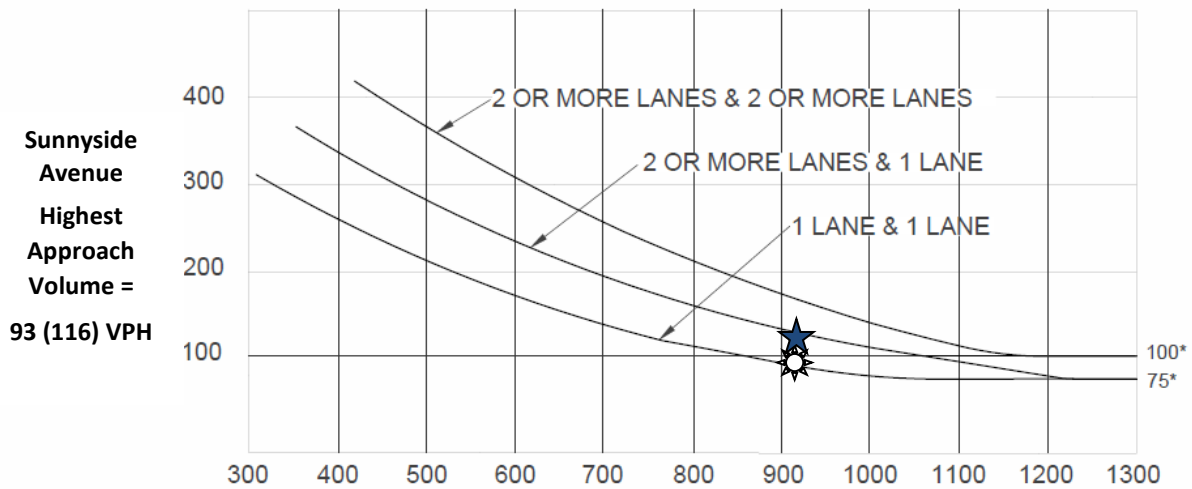
Fresno, CA 93704

(559) 570-8991

Warrant 3: Peak Hour (Rural)

Existing plus Project Traffic Conditions
2. Sunnyside Avenue / Shepherd Avenue
AM (PM) Peak Hour



(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



Sunnyside Avenue Highest Approach Volume = 93 (116) VPH

Shepherd Avenue Total of Both Approaches = 917 (920) VPH

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.

-  AM Peak Hour – Signal Warrant is Met
-  PM Peak Hour – Signal Warrant is Met

Source: California Manual of Uniform Traffic Control Devices (CA MUTCD 2014 Edition)
 Chapter 4C: Traffic Control Signal Needs Studies
 Part 4: Highway Traffic Signals
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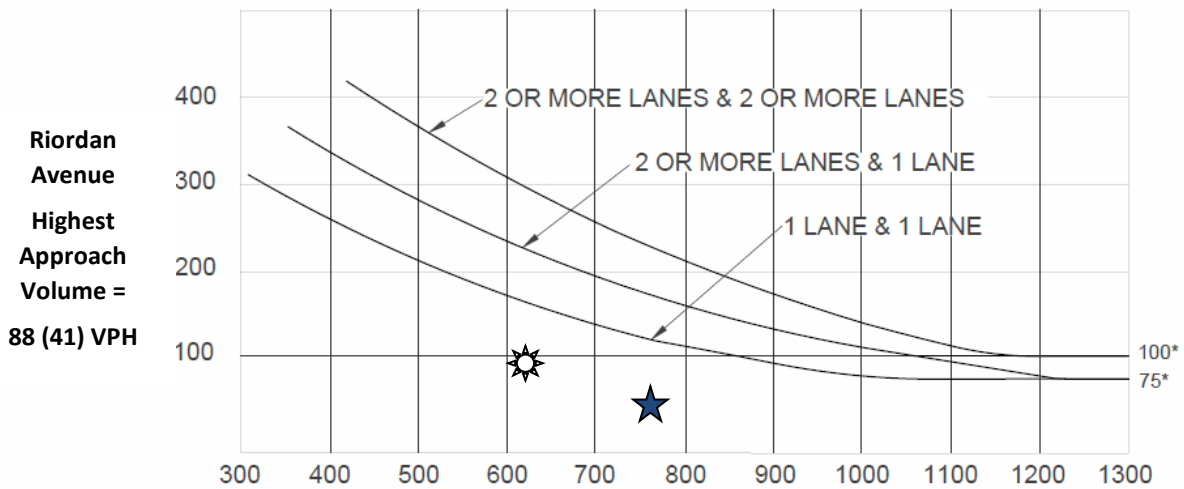
Fresno, CA 93704

(559) 570-8991

Warrant 3: Peak Hour (Rural)



**Existing plus Project Traffic Conditions
3. Clovis Avenue / Riordan Avenue
AM (PM) Peak Hour**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



**Clovis Avenue Total of Both Approaches =
617 (762) VPH**

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.

-  **AM Peak Hour – Signal Warrant is Not Met**
-  **PM Peak Hour – Signal Warrant is Not Met**

Source: California Manual of Uniform Traffic Control Devices (CA MUTCD 2014 Edition)
Chapter 4C: Traffic Control Signal Needs Studies
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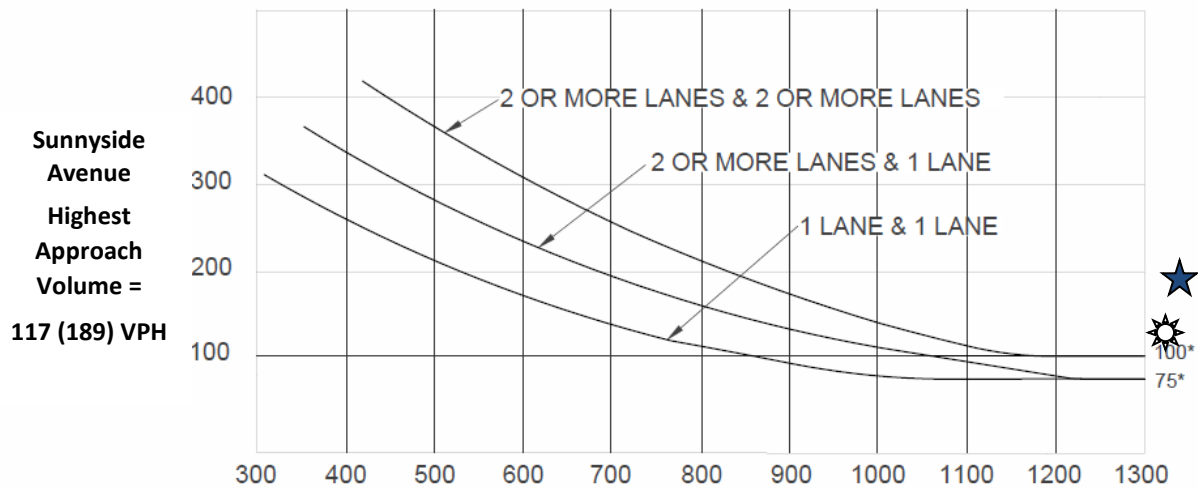
Fresno, CA 93704

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Warrant 3: Peak Hour (Rural)

Near Term plus Project Traffic Conditions
2. Sunnyside Avenue / Shepherd Avenue
AM (PM) Peak Hour



(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



Sunnyside Avenue
 Highest Approach
 Volume =
 117 (189) VPH

Shepherd Avenue Total of Both Approaches =
 1532 (1596) VPH

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.

-  AM Peak Hour – Signal Warrant is Met
-  PM Peak Hour – Signal Warrant is Met

Source: California Manual of Uniform Traffic Control Devices (CA MUTCD 2014 Edition)
 Chapter 4C: Traffic Control Signal Needs Studies
 Part 4: Highway Traffic Signals
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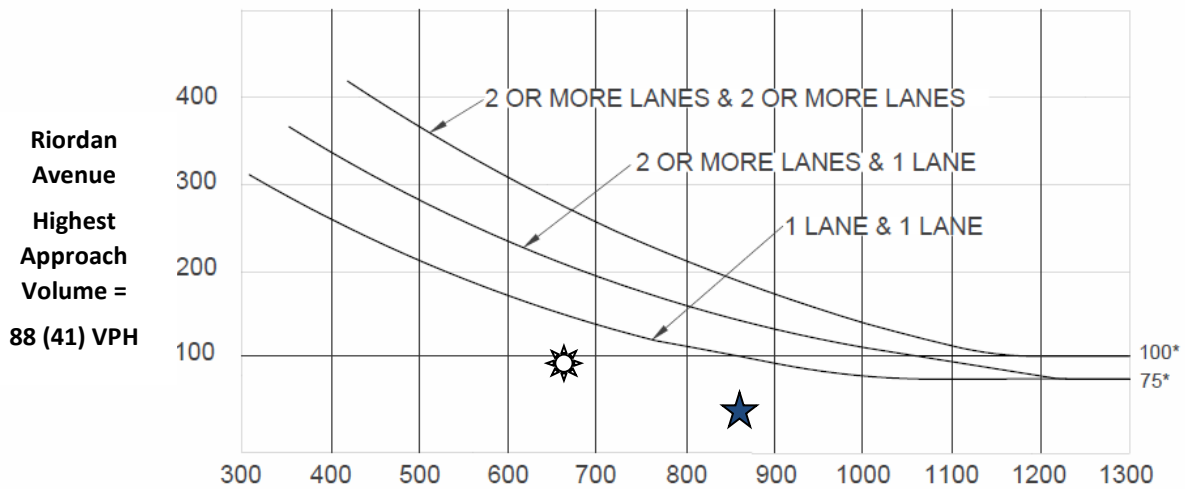
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Warrant 3: Peak Hour (Rural)

**Near Term plus Project Traffic Conditions
3. Clovis Avenue / Riordan Avenue
AM (PM) Peak Hour**



(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



Riordan Avenue Highest Approach Volume = 88 (41) VPH

Clovis Avenue Total of Both Approaches = 660 (857) VPH

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.

-  AM Peak Hour – Signal Warrant is Not Met
-  PM Peak Hour – Signal Warrant is Not Met

Source: California Manual of Uniform Traffic Control Devices (CA MUTCD 2014 Edition)
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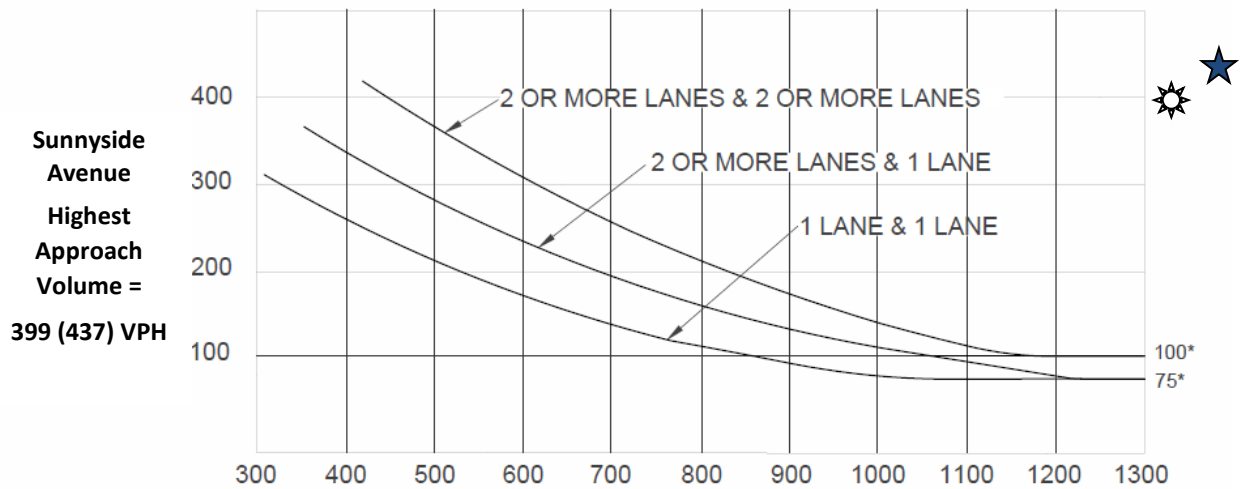
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Warrant 3: Peak Hour (Rural)

Cumulative Year 2039 No Project Traffic Conditions
2. Sunnyside Avenue / Shepherd Avenue
AM (PM) Peak Hour

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



Sunnyside Avenue
 Highest Approach
 Volume =
399 (437) VPH

Shepherd Avenue Total of Both Approaches =
3002 (3435) VPH

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.



AM Peak Hour – Signal Warrant is Met

PM Peak Hour – Signal Warrant is Met

Source: California Manual of Uniform Traffic Control Devices (CA MUTCD 2014 Edition)
 Chapter 4C: Traffic Control Signal Needs Studies
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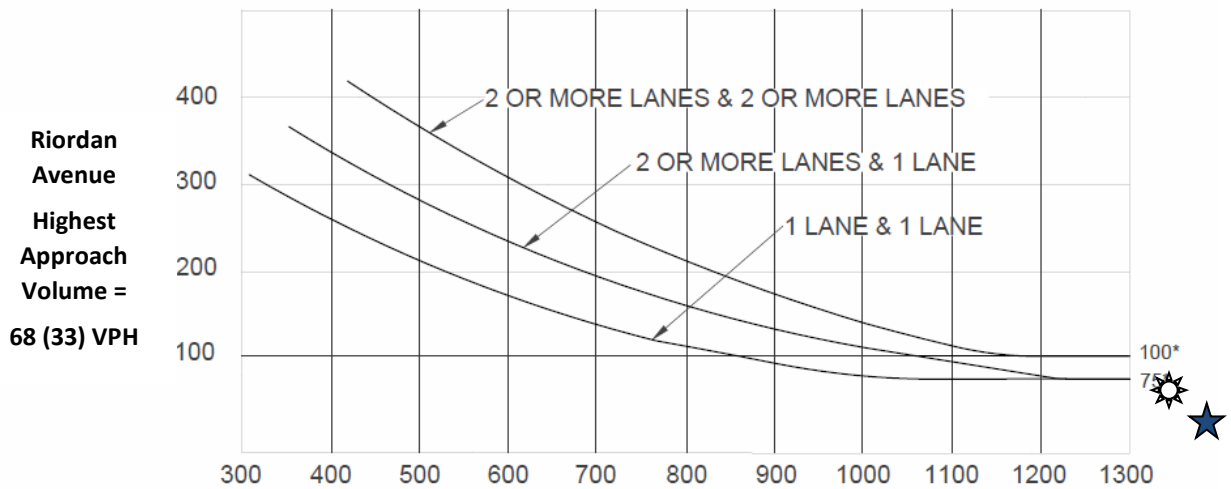
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Warrant 3: Peak Hour (Rural)



**Cumulative Year 2039 No Project Traffic Conditions
3. Clovis Avenue / Riordan Avenue
AM (PM) Peak Hour**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



**Clovis Avenue Total of Both Approaches =
1443 (1749) VPH**

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.

-  **AM Peak Hour – Signal Warrant is Not Met**
-  **PM Peak Hour – Signal Warrant is Not Met**

Source: California Manual of Uniform Traffic Control Devices (CA MUTCD 2014 Edition)
Chapter 4C: Traffic Control Signal Needs Studies
Part 4: Highway Traffic Signals
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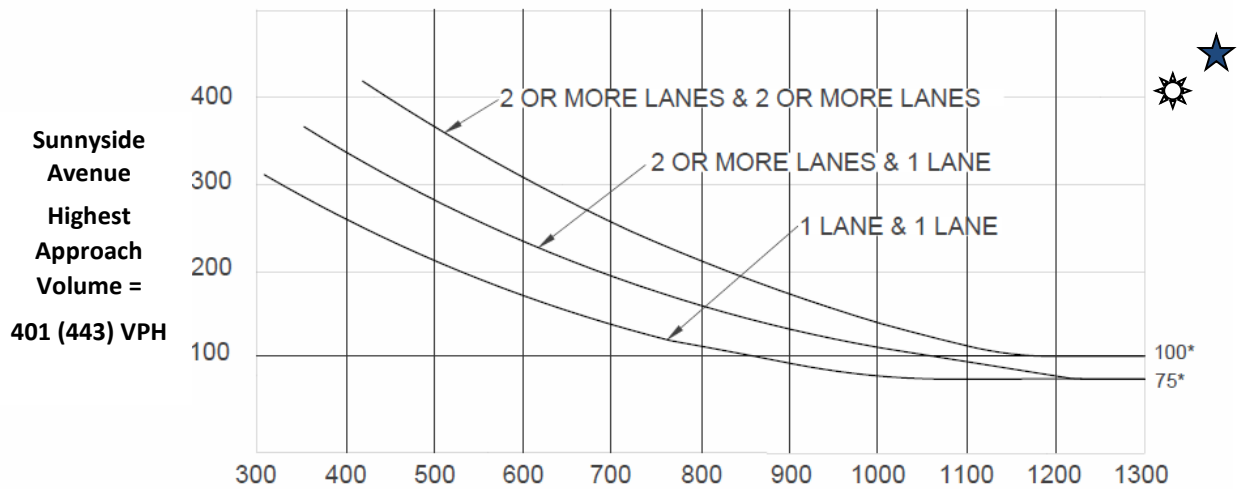
Warrant 3: Peak Hour (Rural)

Cumulative Year 2039 plus Project Traffic Conditions

3. Sunnyside Avenue / Shepherd Avenue

AM (PM) Peak Hour

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



Shepherd Avenue Total of Both Approaches =

3024 (3461) VPH

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.



AM Peak Hour – Signal Warrant is Met



PM Peak Hour – Signal Warrant is Met

Source: California Manual of Uniform Traffic Control Devices (CA MUTCD 2014 Edition)
 Chapter 4C: Traffic Control Signal Needs Studies
 Part 4: Highway Traffic Signals
 November 7, 2014



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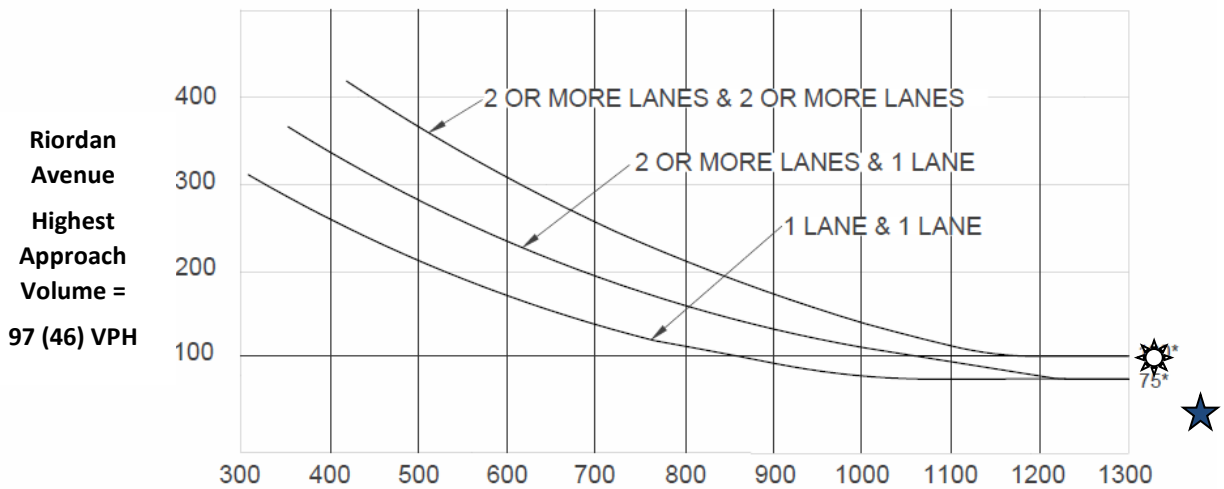
Warrant 3: Peak Hour (Rural)

Cumulative Year 2039 plus Project Traffic Conditions

4. Clovis Avenue / Riordan Avenue

AM (PM) Peak Hour

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



Clovis Avenue Total of Both Approaches =

1458 (1765) VPH

*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.



AM Peak Hour – Signal Warrant is Met



PM Peak Hour – Signal Warrant is Not Met

Source: California Manual of Uniform Traffic Control Devices (CA MUTCD 2014 Edition)
 Chapter 4C: Traffic Control Signal Needs Studies
 Part 4: Highway Traffic Signals
 November 7, 2014



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CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Planning and Development Services Department

DATE: December 9, 2019

SUBJECT: Consider Approval – Bid Award for CIP 16-20, Owens Mountain and Temperance Roundabout, and; Authorize the City Manager to execute the contract on behalf of the City.

Staff: Michael Harrison, City Engineer

Recommendation: Approve

ATTACHMENT: 1. Vicinity Map

CONFLICT OF INTEREST

None

RECOMMENDATION

1. For the City Council to award a contract for CIP 16-20, Owens Mountain and Temperance Roundabout to Emmett's Excavation, Inc. in the amount of \$2,568,471.90, and;
2. For the City Council to authorize the City Manager to execute the contract on behalf of the City.

EXECUTIVE SUMMARY

Staff is recommending that City Council authorize the City Manager to award and execute the contract to Emmett's Excavation, Inc. who was the lowest responsible bidder from a bid opening that took place on November 19, 2019.

The project consists of replacing the existing signalized intersection with a two-lane roundabout at the intersection of Temperance Avenue and Owens Mountain Parkway /

Alluvial Avenue. The work, in general, consists of demolition, HMA pavement, curb, curb and gutter, sidewalk, truck apron, landscaping irrigation, sidewalk, signing and striping, and street and area lighting.

BACKGROUND

The following is a summary of the bid results of November 19, 2019:

BIDDERS	BASE BIDS
Emmett’s Excavation	\$2,568,471.90
Granite Construction	\$2,599,182.00
Avison Construction, Inc.	\$2,607,150.05
DOD Construction	\$2,916,505.60
Don Berry Construction Inc.	\$3,132,853.40
Eslick Construction, Inc.	\$3,191,962.17
American Paving CO.	\$3,348,504.30
 ENGINEER’S ESTIMATE	 \$2,099,091.36

All bids were examined and the bidder’s submittals were found to be in order with the exception of some minor mathematical errors that did not affect the order of bidders. Emmett’s Excavation, Inc. is the lowest apparent bidder. Staff has validated the lowest bidder contractor’s license status and completeness of federal funding paperwork.

A bid was also received by Bush Engineering, Inc. and read aloud during the bid opening, but it was later clarified by staff that the bid was received past the due time and was disqualified.

This is the second time advertising for bids on this project. The last bids were received on April 16, 2019 and only two bids were submitted, with the lowest bid at \$2,834,524.10. With such low interest in the project, staff did not feel that there was adequate competition and thought that the bids were high as a result. These bids were rejected. Staff and the project consultant, Peters Engineering Group, have since reviewed and modified the project estimate and made modifications to the project bid documents in an attempt to lower the cost. With the number of bids received this time and the small disparity between the three lowest bidders, the results display a more accurate account of a competitive bidding climate. The low bid is approximately 22% higher than the engineer’s estimate, but the bids received seem to reflect the likely cost of this project due to the competitive climate for the bid.

FISCAL IMPACT

This project was budgeted in the 2019-2020 Community Investment Program. Funding for this project is from the Federal Congestion Mitigation and Air Quality Improvements Program (CMAQ) and local funds. The City currently has Congestion Mitigation and Air Quality

funding of just under 2.1 million for construction. The remaining funding will come from other street funding sources.

REASON FOR RECOMMENDATION

Emmett's Excavation, Inc. is the lowest responsible bidder. There are sufficient funds available for the anticipated cost of this project.

ACTIONS FOLLOWING APPROVAL

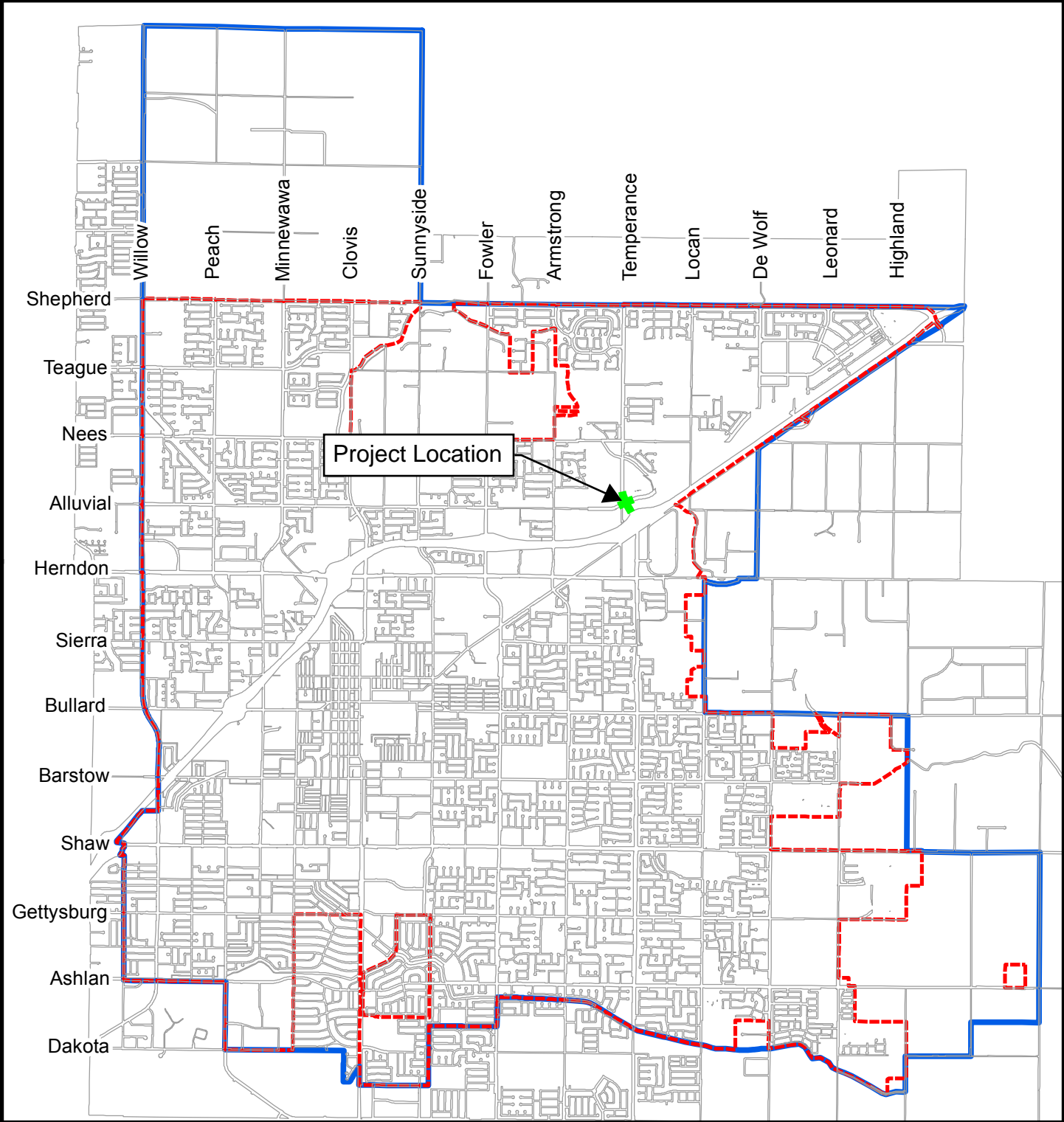
1. The contract will be prepared and executed, subject to the Contractor providing performance security that is satisfactory to the City.
2. Construction will begin approximately five (5) weeks after contract execution and shall be completed in one hundred-sixty (160) working days thereafter.

Prepared by: Fernando Copetti, Civil Engineer

Reviewed by: City Manager *JH*

VICINITY MAP

AGENDA ITEM NO.11.



ATTACHMENT 1



 CITY LIMITS  SPHERE OF INFLUENCE



CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council
 FROM: Finance Department
 DATE: December 9, 2019
 SUBJECT: Consider Approval - 2018-19 Comprehensive Annual Financial Report

Staff: Jay Schengel, Finance Director

Recommendation: Approve

ATTACHMENTS: 1. 2018-19 Comprehensive Annual Financial Report (CAFR)
 2. Statement on Auditing Standards Letter

CONFLICT OF INTEREST

None.

RECOMMENDATION

That the Council receive and file the 2018-19 Comprehensive Annual Financial Report (CAFR).

EXECUTIVE SUMMARY

Financial reports are a primary objective source of information to most persons concerned about a government's financial condition. Taxpayers are interested in the amount of revenues and expenditures. Investors and bond-rating agencies are interested in the ability of a jurisdiction to meet its debt obligations. For the City Council, the financial reports provide an opportunity to determine compliance with budgetary appropriations as well as the status of the government's assets and liabilities and the financial condition of the City.

The City of Clovis' financial report was audited and received an unqualified opinion from The Pun Group LLP, a firm of independent, licensed certified public accountants, which means the financial statements for the fiscal year ending June 30, 2019 are free of material misstatement and are fairly presented in conformity with Generally Accepted Accounting Principles (GAAP).

BACKGROUND

2018-19 Comprehensive Annual Financial Report - The Comprehensive Annual Financial Report has been prepared in conformance with the financial reporting model as prescribed by the Governmental Accounting Standards Board (GASB) Statement No. 34,

Basic Financial Statements - and Management's Discussion and Analysis - for State and Local Governments.

Two Kinds of Financial Statements - Two distinct forms of information are provided in the basic financial statements:

Government-wide statements. These are consolidated financial statements for all of a city's operations on a full accrual basis of accounting. They are not presented on a fund basis; instead, fiscal operations are organized into two major activities: governmental and business-type. They will have a "net position" focus, and exclude interfund transactions (such as internal serviced funds) and fiduciary funds. Expenses (which may include allocated "indirect costs") are shown both gross and net of related revenues such as fees and grants (see page 31).

Fund statements. In meeting stewardship and accountability concerns, financial statements are also presented on a fund basis - but not using the same basis of accounting as the government-wide statements for governmental funds (see pages 32-43).

Because there are differences in the basis of accounting and scope of transactions, there are significant differences between these two financial statements - but they are not obvious. For this reason, a detailed reconciliation between them is required as part of the audited basic financial statements (see page 34).

Basic Financial Statements - The Comprehensive Annual Financial Report is presented in three sections: Introductory, Financial, and Single Audit. The introductory section includes the transmittal letter, the City's organizational chart and a list of principal officials. The financial section includes: the independent auditors' report; management's discussion and analysis; the basic financial statements, which include the government-wide statements, fund financial information; required supplemental information; the combining and individual fund statements and schedules; schedules of revenues, expenditures and changes in fund balances-budget and actual; the various combining statements; and the statistical section. The City is required to undergo an annual single audit in conformity with the provisions of Title 2 U.S. *Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Information related to the single audit is included in the single audit section, including the schedule of federal financial assistance, and the auditors' reports on the internal control structure and compliance with applicable laws and regulations. Also included in the single audit section are the auditors' reports on compliance based on an audit of the basic financial statements as related to the Local Transportation Purpose Funds and the agreed-upon procedures applied to the appropriations limit schedule.

The CAFR includes all funds of the City. In addition to the City's funds, the Clovis Successor Agency, a private purpose trust fund separate from the City, is reported in the CAFR.

Included as a part of the Financial Section is the auditors' report. The auditors also provide a report on the supplementary schedule of expenditures of federal awards (single audit). The

audit provides reasonable assurance that the City has complied with legal requirements and regulations, that the information is presented fairly and in accordance with GAAP, and that internal controls are adequate. The City's auditors, The Pun Group LLP, have audited the figures submitted in the CAFR and their opinion letter is included on pages 13 - 14. The auditors have prepared the Statement on Auditing Standards (SAS114) letter (attachment B) that was submitted subsequent to the completion of the financial report.

This is the thirty-second year that the City's Finance Department has prepared the Comprehensive Annual Financial Report. The previous thirty-one reports prepared by the Finance Department (1987-88 through 2017-18) were submitted to the Government Finance Officers Association (GFOA) for consideration of the GFOA Certificate of Achievement Program. The City subsequently received the Certificate of Achievement for Excellence in Financial Reporting presented by the GFOA for each of these years. We believe the report for 2018-19 continues to meet the requirements of the Certificate of Achievement Program and will be submitted to GFOA for review

FISCAL IMPACT

This information provided in the Comprehensive Annual Financial Report is important to the Council, public, and financial institutions to affirm that the City's financial activity is accounted for in accordance with generally accepted accounting principles (GAAP). In addition, the CAFR includes all necessary disclosures to provide an understanding of the City's financial activities and fiscal condition.

REASON FOR RECOMMENDATION

The Comprehensive Annual Financial Report is formally being submitted to the Council.

ACTIONS FOLLOWING APPROVAL

After receipt by the Council, the CAFR will be distributed to interested parties, other agencies, financial institutions, bond-rating services, and copies will be made available for public review. In addition, the CAFR will be submitted to the Government Finance Officers Association (GFOA) for consideration of the GFOA Certificate of Achievement Program.

Prepared by: Gina Daniels, Assistant Finance Director

Reviewed by: City Manager LS

**COMPREHENSIVE ANNUAL
FINANCIAL REPORT**

**FOR THE FISCAL YEAR ENDED
JUNE 30, 2019**

**CITY OF CLOVIS
CALIFORNIA**



DREW BESSINGER, MAYOR

**JOSE FLORES, MAYOR PRO-TEM
LYNNE ASHBECK, COUNCILMEMBER
VONG MOUANOUTOUA, COUNCILMEMBER
ROBERT WHALEN, COUNCILMEMBER**

LUKE SERPA, CITY MANAGER

Prepared by City of Clovis Finance Department

Jay Schengel, Finance Director

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CITY *of* CLOVIS

1033 FIFTH STREET • CLOVIS, CA 93612

November 13, 2019

To the Honorable Mayor, Members of the City Council, and Citizens of the City of Clovis:

It is with pleasure that I present to you the City of Clovis Comprehensive Annual Financial Report. This year's report has been formatted to comply with the financial reporting model as prescribed by the Governmental Accounting Standards Board (GASB). These statements have been audited in accordance with Generally Accepted Auditing Standards (GAAS) by a firm of licensed certified public accountants as required by State law. Pursuant to that requirement, we hereby issue the comprehensive annual financial report of the City of Clovis of the fiscal year ended June 30, 2019.

This report consists of management's representations concerning the finances of the City of Clovis. Consequently, management assumes full responsibility for the completeness and reliability of all of the information presented in this report. To provide a reasonable basis for making these representations, management of the City of Clovis has established a comprehensive internal control framework that is designed both to protect the government's assets from loss, theft, or misuse and to compile sufficient reliable information for the preparation of the City of Clovis' financial statements in conformity with Generally Accepted Accounting Principles (GAAP). Because the cost of internal controls should not outweigh their benefits, the City of Clovis' comprehensive framework of internal controls has been designed to provide reasonable rather than absolute assurance that the financial statements will be free from material misstatements. As management, we assert that, to the best of our knowledge and belief, this financial report is complete and reliable in all material respects.

The City of Clovis' financial statements have been audited by The Pun Group LLP. The goal of the independent audit was to provide reasonable assurance that the financial statements of the City of Clovis for the fiscal year ended June 30, 2019, are free of material misstatement. The independent audit involved examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; assessing the accounting principles used and significant estimates made by management; and evaluating the overall financial statement presentation. The independent auditor concluded, based upon the audit, that there was reasonable basis for rendering an unmodified opinion that the City of Clovis' financial statements for the fiscal year ended June 30, 2019, are fairly presented in conformity with GAAP. The independent auditor's report is presented as the first component of the financial section of this report.

The independent audit of the financial statements of the City of Clovis was federally mandated “Single Audit” designed to meet the special needs of federal grantor agencies. The standards governing Single Audit engagements require the independent auditor to report not only on the fair presentation of the financial statements, but also on the audited government’s internal controls and compliance with legal requirements, with special emphasis on internal controls and legal requirements involving the administration of federal awards. These reports are presented in the Single Audit section of this comprehensive annual financial report.

GAAP require that management provide a narrative introduction, overview and analysis to accompany the basic financial statements in the form of Management’s Discussion and Analysis (MD&A). This letter of transmittal is designed to complement MD&A and should be read in conjunction with it. The City of Clovis’ MD&A can be found immediately following the report of the independent auditors.

Profile of the Government

The City of Clovis, incorporated in 1912, as a general law City of the State of California, is located near the middle of the state in the San Joaquin Valley. The Central Valley is considered to be a national and world leader in the agricultural industry. The City of Clovis currently occupies over 24 square miles and serves a population of 117,003.

The City of Clovis operates under the council-manager form of government. Policy-making and legislative authority are vested in a governing council consisting of the mayor and four other members. The council is elected on a non-partisan basis. Council members serve four-year staggered terms, with two council members elected in one election and three elected in another election, separated by two years. The mayor is selected from among the council members by the council members and serves a two-year term. All five members of the governing board are elected at large. The council is responsible, among other things, for passing ordinances, adopting the budget, appointing committees, and hiring the City’s manager and attorney. The City manager is responsible for carrying out the policies and ordinances of the governing council, for overseeing the day-to-day operations of the government, and for appointing the heads of the various departments.

The City of Clovis provides a full range of services, including police and fire protection; the construction, maintenance, and cleaning of streets and other infrastructure; planning and development services; water service; refuse collection, disposal, and recycling services; sewer service; storm drainage; transit services; recreation activities and cultural events; and general administration.

The annual budget serves as the foundation for the City’s financial planning and control. All departments of the City are required to submit requests for appropriations to the City manager during the second week of March each year. The City manager uses these requests along with input from the council to develop a proposed budget. By the second Monday in May the proposed budget is presented to the City council for review. The council is required to hold public hearings on the proposed budget and to adopt a final budget by no later than June 30, the close of the City of Clovis’ fiscal year. The appropriated budget is prepared by fund and department. The City manager may make transfers of appropriations between departments within a specific fund of up to \$5,000 and up to \$2,500 from reserves. Transfers in excess of those amounts require council action. Budget-to-actual comparisons

are provided in this report for each individual governmental fund for which an annual budget has been adopted. For the general fund, the budget-to-actual comparison is presented on page 35 as part of the basic financial statements. For all other governmental funds with appropriated annual budgets, other than the general fund, this comparison is presented in the governmental fund subsection of this report, which starts on page 86.

Factors Affecting Financial Condition

The information presented in the financial statements is perhaps best understood when it is considered from the broader perspective of the specific environment within which the City of Clovis operates.

Local economy. The local economy is experiencing economic growth. Property values experienced a small increase from the prior year and are expected to improve further during the next year. Sales taxes experienced increases from the prior year and are expected to grow at approximately 5% during the next year due to the improving economy. Building activity is continuing to beat the 10-year average and is expected to remain the next year. The City's unemployment rate still ranks one of the lowest in the area at 3.7%, lower than the Fresno County rate of 5.3%, though still higher than the national average of 3.3% and the State of California average of 3.5%.

The City experienced a 2.7% growth in population in 2019 compared to the 10-year average growth rate of 2.1%. The City has three major retail centers; Costco relocated and expanded by 30% more square footage this year along with doubled their fuel island; and two large retail spaces are being redeveloped by home good retailers including Hobby Lobby and At Home. In addition, the City saw one hotel complete construction, 3 more under construction, and two more receive entitlements. This will more than double the room count in the City in the next few years. Clovis Community Hospital completed a cancer research facility and is currently in the process to add another bed tower, medical offices, a heart and lung institute and a skilled nursing facility. This expansion continues to be one of the biggest job creation projects in Fresno County in recent years. Also, California Health Sciences University is nearing completion of its first building that will house a medical doctoral program near the hospital. The City is also seeing a boost in office and industrial development with Cabinet Connections, a cabinet manufacturer moving to Clovis, along with many other small professional offices and industrial users. The County of Fresno is also moving 2,000 employees into the City of Clovis.

Major employers include Alorica with over 700 employees, Clovis Community Hospital with over 1,900 employees, Wawona Frozen Foods with 500 employees, Anlin Industries with over 300 employees and the largest employer, Clovis Unified School District with over 8,300 employees. Of the 34,743 total jobs in Clovis, 14,100 jobs are generated by the top ten employers.

The expansion to the Dry Creek Industrial Park added 44 lots on 30 acres bringing the total park to approximately 64 lots on 60 acres. Demand has been high for the space in the park and is expected to add to employment growth in the City as buildings are now underway with several completed. The California Health Sciences University has announced its permanent campus will be located on 80 acres in the City's Central Valley Research and Technology Park with plans for 2,000 students and several hundred employees. The School will offer additional areas of discipline as it expands. The first building is now under construction. The

City has entered into a contract to sell 14 acres to an industrial developer. The industrial developer has received building permits to construct 400,000 of industrial space in the Clovis Industrial Park.

The City of Clovis is part of the Fresno/Clovis Metropolitan Area. This includes the City of Clovis, City of Fresno and developed areas of the County of Fresno in and around the cities of Clovis and Fresno. The population of Fresno County is 1,018,241 as of January 1, 2019. There are approximately 431,700 jobs in Fresno County. The county-wide unemployment rate is 5.3%, which is a decrease from last year. Normally the area experiences higher rates than other counties since Fresno County has a high agricultural employment sector. The City of Clovis has an unemployment rate of 3.7% with 53,500 employed out of a workforce of 55,600.

Long-term financial planning. As part of the City of Clovis land use planning process, the City completed a new General Plan which is at the top of the City's land use regulation hierarchy. It is the foundation for most of the Council's budgeting decisions in terms of capital facilities, staffing, programs, utility infrastructure, and levels of service; it establishes a land use pattern for lands beyond the City limit; it provides the vision and guidance for capital improvements and the development of City infrastructure; and it is used to create development impact fees and provides the basis for environmental analysis of the growth of the City. The plan is intended to guide development for a period of ten years and will be the basis of the City's annual 5 year operating and capital forecast.

Part of the previous current plan was the construction of a wastewater treatment plant to serve the needs of the new growth area. The plant is expected to accommodate growth through 2023 when construction of phase two of the facility is anticipated. The wastewater treatment plant creates approximately 2.4 million gallons of disinfected recycled water each day and distributes this water through a "purple pipe" distribution system for landscape irrigation throughout the east side of the City. The reuse of this water will help conserve and manage a limited water supply. The City also obtained long-term financing for the purchase of various fire vehicles, police vehicles and for the installation of LED lighting in City facilities. The City considers long-term financing appropriate to provide funding for larger Community Improvement Projects.

Also, to finance current growth, the City has in place a variety of user and developer fees to pay for streets, parks, water wells and lines, and sewer lines. The City reviews these fees on an annual basis to assure that the fee structure is in line with the cost of construction. The Water and Sewer Funds have approved annual increases of 3% into the future if necessary. The Community Sanitation Fund has approved annual increases of 4% into the future if needed. For fiscal year 2019/20, the City implemented a 3% increase in water rates, a 4% increase in recycling and green-waste rates and a 2% increase in refuse and disposal rates. Sewer will not have a rate increase and \$3.65, half of the \$7.30 bond surcharge, will continue to be rebated.

Structurally Balanced Budget Policy. Prior to the economic recession, in fiscal year 2006/07, the City Council utilized the emergency reserve when budgetary demand for services exceeded available resources. However, in the fall of 2007 when the decline in building activity began, the Council acted quickly to cut costs and services in an attempt to balance the budget. Although it was necessary in 2007/08 to utilize additional funds from the emergency reserve, the efforts of the Council to develop a "structurally balanced budget" has

paid off and the reserve has been rebuilt from 5.5% of expenditures in 2019/20 the 2019/20 general fund budgeted expenditures. The Council is determined to maintain a structurally balanced budget where current estimated expenditures are within projected current revenues in order to provide budgetary stability for all operating budgets.

Assigned for Emergencies. The City currently has a policy to assign a portion of its fund balance for emergencies. These emergencies can range from major catastrophic incidents to significant economic downturns. The City Council annually considers an increase in the fund balance assigned for emergencies whenever there is unexpected or one-time revenue or expenditure savings are realized. The use of the assigned fund balance must be approved by 4/5ths of the Council.

Awards and Acknowledgements

The Government Finance Officers Association (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the City of Clovis for its Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2018. This was the thirtieth consecutive year that the City has received this prestigious award. In order to be awarded a Certificate of Achievement, the City published an easily readable and efficiently organized CAFR. This report satisfied both GAAP and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

In addition, the City also received the GFOA's Distinguished Budget Presentation Award for its annual budget document dated July 1, 2019. In order to qualify for the Distinguished Budget Presentation Award, the governments' budget document was judged to be proficient in several categories, including as a policy document, a financial plan, an operations guide, and a communications device.

The preparation of this report has been accomplished with the efficient and dedicated service of the City's Finance Department. I would like to express my appreciation to everyone who assisted in its preparation, especially, Gina Daniels, Jeff Blanks, Susan Evans, Calvin Campbell, and Jose Reynoso.

Respectfully submitted,



Jay Schengel, CPA
Finance Director



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

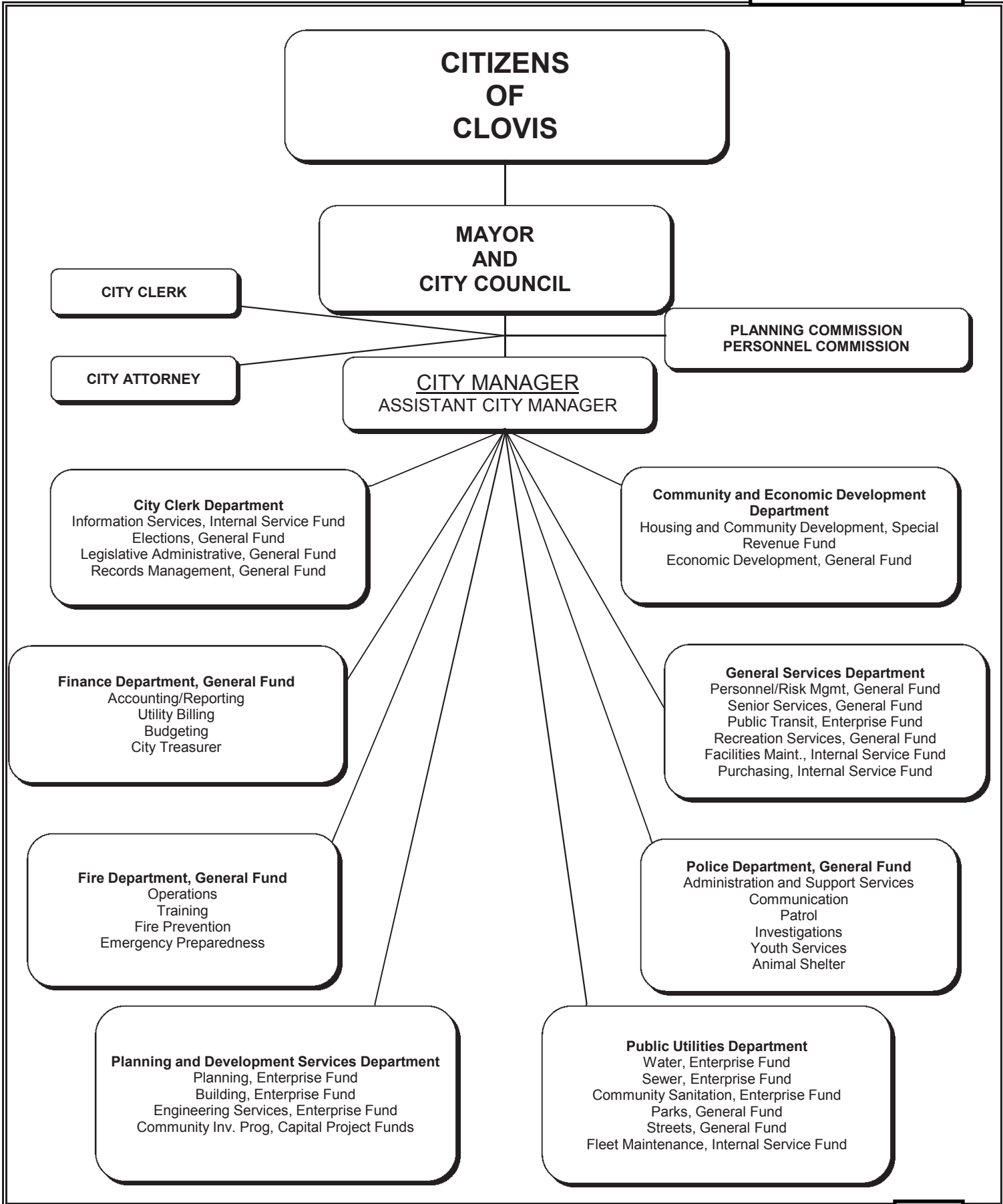
City of Clovis
California

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2018

Christopher P. Morill

Executive Director/CEO



CITY OF CLOVIS
LIST OF PRINCIPAL OFFICIALS
JUNE 30, 2019

<u>Title</u>	<u>Name</u>
<i>City Manager</i>	<i>Luke Serpa</i>
<i>Assistant City Manager/City Clerk</i>	<i>John Holt</i>
<i>Community & Economic Development Director</i>	<i>Andrew Haussler</i>
<i>Finance Director/City Treasurer</i>	<i>Jay Schengel</i>
<i>Fire Chief</i>	<i>John Binaski</i>
<i>General Services Director</i>	<i>Shonna Halterman</i>
<i>Planning & Development Services Director</i>	<i>Dwight Kroll</i>
<i>Police Chief</i>	<i>Matt Basgall</i>
<i>Public Utilities Director</i>	<i>Scott Redelfs</i>

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INDEPENDENT AUDITORS' REPORT

To the Honorable Mayor and Members of City Council
of the City of Clovis
Clovis, California

Report on Financial Statements

We have audited the accompanying financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City of Clovis, California (the "City"), as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the City's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City as of June 30, 2019, and the respective changes in financial position, and, where applicable, cash flows, and the respective budgetary comparison for the General Fund, thereof for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Budgetary Comparison Schedules, and Schedules of Changes in Net Pension Liability and Related Ratios be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

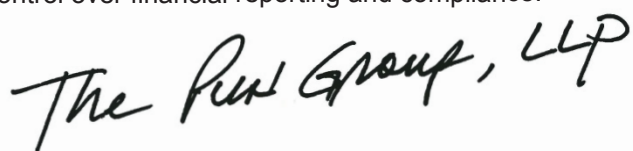
Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the City's basic financial statements as a whole. The Introductory Section, Combining and Individual Nonmajor Fund Financial Statements, Budget Comparison Schedules, and Statistical Section, are presented for purposes of additional analysis and are not a required part of the financial statements. The accompanying Schedule of Expenditures of Federal Awards is presented for purposes of additional analysis as required by Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, and is also not a required part of the basic financial statements.

The Combining and Individual Nonmajor Fund Financial Statements, the Budgetary Comparison Schedules, and the Schedule of Expenditures of Federal Awards are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

The Introductory and Statistical Sections have not been subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated November 13, 2019 on our consideration of the City's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the City's internal control over financial reporting and compliance.



San Diego, California
November 13, 2019

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This discussion and analysis of the City of Clovis' financial performance provides an overview of the City's financial activities for the fiscal year ended June 30, 2019. Please read it in conjunction with the accompanying transmittal letter, the basic financial statements and the accompanying notes to those financial statements.

Financial Highlights

The City's government-wide total assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources (net position) at the close of the fiscal year by \$814 million, which is 7% more than 2018. Of this amount, \$55 million, 22% more than 2018, is in unrestricted net position, which is available to meet the City's ongoing commitments to citizens and creditors.

The City's General Fund, including Landscape Maintenance, Parking and Business Improvement (PBIA), and Supplemental Law Enforcement, ended the year with a fund balance of \$23 million, which represents a net increase of \$3 million from the previous year. The unassigned balance of \$4 million is available for carryover to fund future general fund expenditures.

During the year, previously approved rate increases of 4% were implemented for recycling and green waste programs along with a 2% increase in the refuse collection and disposal program. A 3% increase in the Water Fund was also implemented during the 2018/19 fiscal year. In addition, Council voted to rebate the sewer bond charge at a rate of one-half times the rate previously charged for a total rebate of \$3.65 per month.

Overview of the Financial Statements

This annual report consists of a series of financial statements. These statements include all activities of the City of Clovis, using the integrated approach as prescribed by GASB Statement No. 34. The Statement of Net Position and Statement of Activities provide information about the activities of the City as a whole and present a longer-term view of the City's finances. Fund financial statements tell how these services are financed in the short term as well as what remains for future spending. Fund financial statements also report the City's operations in more detail than the government-wide statements by providing information about the City's most significant funds. The remaining statements provide financial information about activities for which the City acts solely as a trustee or agent for the benefit of those outside the Government.

Reporting the City as a Whole

Government-wide financial statements. The government-wide financial statements are designed to provide readers with a broad overview of the City's finances. These statements include all assets and liabilities of the City using the *accrual basis of accounting*, which is similar to the accounting method used by most private sector companies. All of the current year's revenues and expenses are taken into account regardless of when cash is received or paid out.

The *statement of net position* presents information on all the City's assets the difference between the two reported as *net position*. Over time, increase in net position may serve as one indicator of whether the City's financial position is improving or deteriorating.

The *statement of activities* presents information showing how the City's net position changed in the most recent fiscal year. All changes of net position are reported as soon as the underlying event giving rise to the change occurs. Thus, revenues and expenses are reported on this statement for some items that will result in cash flows in future fiscal periods (e.g. earned but unused vacation leave).

The government-wide financial statements of the City are divided as follows:

Governmental Activities: Most of the City's basic services are included here such as public safety, transportation (street and roads), community development, culture and recreation and general government. These services are primarily financed by property and sales taxes and federal and state grants.

Business-type Activities: The City charges fees to customers to cover the costs of services provided. The City's utilities, water, sewer, community sanitation (refuse and street cleaning), planning and development services as well as public transit services are included here.

The government-wide financial statements can be found on pages 30-31 of this report.

Fund financial statements. The fund financial statements provide more detailed information about the City's most significant funds, not the City as a whole. A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. Some funds are required to be established by State Law or by bond covenants. Management establishes other funds to control and manage money for particular purposes or to show the City is meeting legal responsibilities for using certain taxes, grants, and other money. All the funds of the City can be classified into three categories: governmental funds, proprietary funds, and fiduciary funds.

Governmental Funds. Governmental funds are used to account for essentially the same functions reported as governmental activities in the government-wide financial statements. However, unlike the government-wide financial statements, governmental fund financial statements focus on the near-term inflows and outflows of spendable resources, as well as on balances of spendable resources available at the end of the fiscal year. These funds are reported using an accounting method called *modified accrual* accounting, which measures cash and all other financial assets that can readily be converted to cash. Such information is useful in evaluating a government's near-term financing requirements.

Because the focus of the governmental funds is narrower than that of the government-wide financial statements, it is useful to compare the information presented for the governmental funds with similar information presented for *governmental activities* in the government-wide financial statements. By doing so, readers may better understand the long-term impact of the government's near-term financing decisions. Both the governmental fund balance sheet and the governmental fund statement of revenues, expenditures, and changes in fund balances provide reconciliation between governmental funds and governmental activities. This reconciliation explains the relationship (or differences) between the fund statements and the government-wide statements.

The City of Clovis maintains seven individual governmental funds. Information is presented separately in the governmental funds' balance sheet and in the government-wide statement of revenues, expenditures, and changes in fund balances for the General Fund and the Local Transportation Fund, both of which are considered to be major funds. Data from the other five funds are combined into a single aggregated presentation. Individual fund data for each of these nonmajor governmental funds is provided in the form of combining statements elsewhere in this report.

The City adopts an annual appropriated budget for the General Fund. A budgetary comparison statement has been provided for the General Fund to demonstrate compliance to this budget. The basic governmental fund financial statements can be found on pages 32-35 of this report.

Proprietary funds. The City has two different types of proprietary funds, enterprise funds and internal service funds. Enterprise funds are used to report the same functions represented as business-type activities in the government-wide financial statements. The City utilizes enterprise funds to account for those activities that are supported primarily by user charges to external users, and includes community sanitation, sewer disposal, water, transit and planning and development services. Internal service funds are used to account for activities that are supported by user charges primarily to the City's other programs and activities and include employee benefits, general services, self-insurance and fleet services. Because all of these services predominantly benefit governmental rather than business-type functions, they have been included within governmental activities in the government-wide financial statements.

Proprietary funds provide the same type of information as the government-wide financial statements, only in more detail. The proprietary fund financial statements provide separate information for each of the enterprise funds since they are all major funds. All of the internal service funds are combined into a single, aggregated presentation in the fund financial statements. Individual fund data for the internal service funds is provided in the form of combining statements elsewhere in this report. The basic proprietary fund financial statements can be found on pages 36-41 of this report.

Fiduciary funds. Fiduciary funds are used to account for resources held for the benefits of parties outside the city. Fiduciary funds are **not** reflected in the government-wide financial statements because the City cannot use these funds to finance its operations. The basic fiduciary fund financial statements can be found on pages 42-43 of this report.

Notes to the financial statements. The notes provide additional information that is essential to a full understanding of the data provided in the government-wide and fund statements. The notes to the financial statements can be found on pages 44-76 of this report.

Government-wide Financial Analysis

AGENDA ITEM NO. 12.

Below is a table showing the City's net position for the fiscal year ended July 31, 2019, and comparative data for the fiscal year ended June 30, 2018.

City of Clovis' Net Position

	Governmental activities		Business-type activities		Total	
	2019	2018	2019	2018	2019	2018
Current and other assets	\$ 123,262,714	\$ 102,665,702	\$ 139,358,314	\$ 124,581,759	\$ 262,621,028	\$ 227,247,461
Capital and intangible assets	585,768,735	557,071,882	284,593,783	280,450,679	870,362,518	837,522,561
Total assets	709,031,449	659,737,584	423,952,097	405,032,438	1,132,983,546	1,064,770,022
Deferred Outflows of Resources	27,119,431	32,505,405	182,946	204,056	27,302,377	32,709,461
Long-term liabilities outstanding	196,682,015	186,223,344	129,792,832	134,154,812	326,474,847	320,378,156
Other liabilities	7,455,340	6,116,393	8,246,024	7,383,538	15,701,364	13,499,931
Total liabilities	204,137,355	192,339,737	138,038,856	141,538,350	342,176,211	333,878,087
Deferred Inflows of Resources	2,130,191	1,702,515	2,221,017	2,361,247	4,351,208	4,063,762
Net Position:						
Net investment in capital assets	562,740,281	533,810,016	162,937,537	153,012,661	725,677,818	686,822,677
Restricted	33,325,828	27,825,701	934	24,821	33,326,762	27,850,522
Unrestricted	(66,182,775)	(63,434,980)	120,936,699	108,299,415	54,753,924	44,864,435
Total net position	\$ 529,883,334	\$ 498,200,737	\$ 283,875,170	\$ 261,336,897	\$ 813,758,504	\$ 759,537,634

As of June 30, 2019, the City's government-wide total assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources (net position) by \$814 million. Governmental activities finished the year with a positive net position balance of \$530 million, an increase of \$32 million, or 6%, over 2018. Business-type activities finished the year with a positive balance of \$284 million, an increase of \$23 million, or 9%, over 2018. Net position, as noted earlier, may serve over time as a useful indicator of the City's financial position.

Of the total net position, \$726 million, or 89%, is the City's net investment in capital assets (e.g. land, buildings and improvements, machinery and equipment and the road network) less any related debt used to acquire those assets that is still outstanding. The City's investment in capital assets increased \$39 million, restricted net position increased by \$5 million and unrestricted net position increased \$10 million, accounting for the increase in total net position of \$54 million. This is primarily due to the City's investment in the road network, buildings and related improvements, and machinery and equipment.

The majority of the City's long-term liabilities relate to the City's net pension liability and the acquisition of capital assets. Some of those assets include the City's corporation yard, fire stations, police vehicles and sewer and water infrastructure including the surface water treatment plant and the sewer treatment-water reuse facility. These capital assets are utilized to provide services to citizens and are not available for future spending. The repayment of the debt on these assets must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities.

Restricted net position is \$33 million, which represents 4% of the total net position. Restricted net position represents those resources that are subject to external restrictions on how they may be used. These restrictions are established by bond covenants or restrictions on the use of funds by state or federal regulations.

Unrestricted net position represents those resources which may be used for ongoing commitments to citizens and creditors. Government-wide unrestricted net position was \$55 million, or 7% of the total net position, which is an increase of \$10 million, or 22%, from the previous year. Governmental activities have a negative \$(66) million unrestricted net position, which is a decrease of \$3 million compared to last year. Business-type activities have \$121 million in unrestricted net position, an increase of \$13 million, or 12%, compared to last year.

Governmental activities. Governmental activities account for \$530 million, or 65%, of the total Government-wide net position. This is an increase of \$32 million, or 6%, over June 30, 2018. Donated and constructed assets increased by \$29 million while the amounts available for debt service, street and road construction and community development increased by \$5 million. Additionally, the amount accumulated during the year for normal activities, unrestricted net position, decreased by \$3 million.

The following lists key components of this increase:

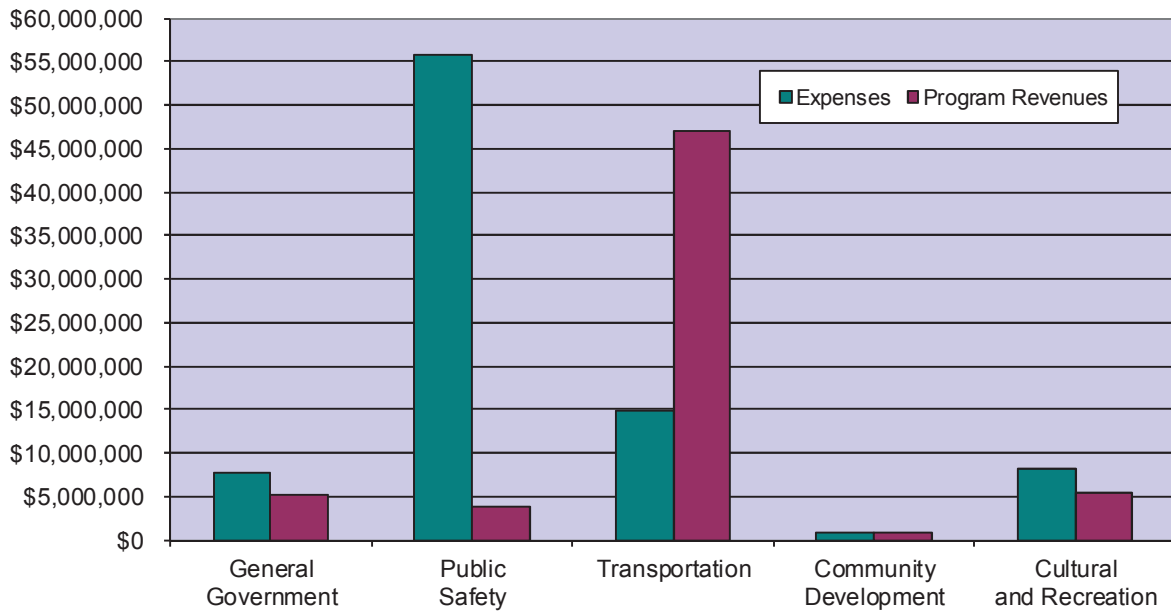
City of Clovis' Changes in Net Position

	Governmental activities		Business-type activities		Total	
	2019	2018	2019	2018	2019	2018
Revenues:						
Program revenues:						
Charges for services	\$ 29,395,585	\$ 22,128,997	\$ 79,669,525	\$ 72,891,553	\$ 109,065,110	\$ 95,020,550
Operating grants and contributions	393,171	381,034	5,462,374	4,589,657	5,855,545	4,970,691
Capital grants and contributions	32,240,993	18,215,852	7,301,993	2,853,971	39,542,986	21,069,823
General revenues:						
Property taxes	26,667,913	24,832,576			26,667,913	24,832,576
Sales taxes	21,597,179	20,431,902			21,597,179	20,431,902
Business Lic/Franchise	5,788,765	6,891,105			5,788,765	6,891,105
Other taxes	2,895,987	2,870,536			2,895,987	2,870,536
Grants and contributions not restricted to specific programs	503,692	186,048			503,692	186,048
Unrestricted investment earnings	1,476,382	566,255	2,734,008	1,442,114	4,210,390	2,008,369
Total revenues	120,959,667	96,504,305	95,167,900	81,777,295	216,127,567	178,281,600
Expenses:						
General government	\$7,729,961	6,480,960			\$7,729,961	6,480,960
Public safety	55,860,055	54,528,587			55,860,055	54,528,587
Transportation	14,883,165	14,056,945			14,883,165	14,056,945
Community development	751,389	1,983,664			751,389	1,983,664
Cultural and recreation	8,117,581	7,211,933			8,117,581	7,211,933
Interest and other charges	754,919	804,933			754,919	804,933
Community Sanitation			20,204,394	18,501,509	20,204,394	18,501,509
Sewer			18,737,639	18,861,666	18,737,639	18,861,666
Water			17,463,133	16,806,758	17,463,133	16,806,758
Transit			6,961,315	6,280,255	6,961,315	6,280,255
Planning & Development Services			10,443,146	9,410,463	10,443,146	9,410,463
Total expenses	88,097,070	85,067,022	73,809,627	69,860,651	161,906,697	154,927,673
Increase in net position before transfers	32,862,597	11,437,283	21,358,273	11,916,644	54,220,870	23,353,927
Transfers	(1,180,000)	(506,700)	1,180,000	506,700	0	0
Increase in net position	31,682,597	10,930,583	22,538,273	12,423,344	54,220,870	23,353,927
Net position-beginning	498,200,737	487,270,154	261,336,897	248,913,553	759,537,634	736,183,707
Net position - ending	\$ 529,883,334	\$ 498,200,737	\$ 283,875,170	\$ 261,336,897	\$ 813,758,504	\$ 759,537,634

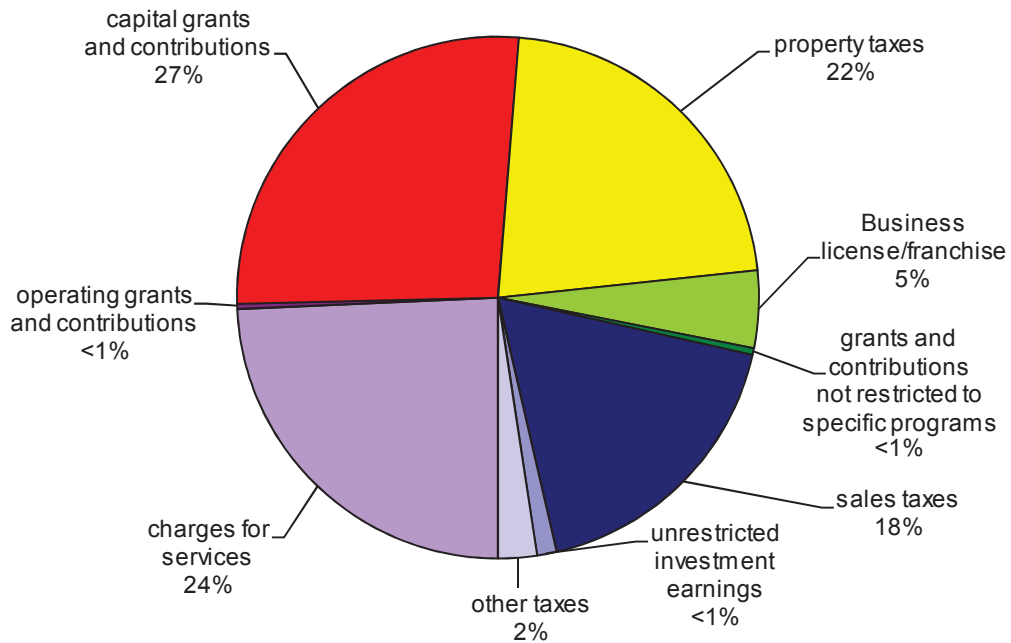
Total governmental revenues for the year were \$121 million, which is \$24 million, or 25%, more than in 2018. The majority of this increase is attributable to capital grants and contributions and represents increases in funding for streets and roads. Taxes, including property, sales, business license/franchise, and other taxes, account for \$57 million, or 47%, of the City's governmental activities revenue and increased \$2 million, or 3%, from 2018. Property taxes increased by \$2 million due to higher property values and the shift of former redevelopment tax increment to the City. Sales taxes only increased \$1 million mainly due to slight increases in automobile sales and general retail sales. Business taxes decreased by \$1 million and Other taxes had a nominal increase.

Total governmental expenses for the year were \$88 million, an increase of from 2018. Public Safety, which includes police and fire, accounts for \$56 million, the total governmental activities expenses. Public Safety expenses increased \$1 million, or 2%, from 2018 primarily due to increases in salary and benefit costs and the increased costs of services, materials and supplies. Community development expenses decreased by \$1 million, or 62%, from 2018 as a result of decrease in loans for home repairs, the down-payment loan program and grants for home improvements. General government expenses were \$8 million, an increase of 19% from 2018 resulting from the increase in retirement costs. Transportation expenses were \$15 million, or greater by 6% when compared to 2018. Cultural and Recreation expenses were \$8 million, or greater by 13% when compared to 2018.

Expenses and Program Revenues-Governmental Activities



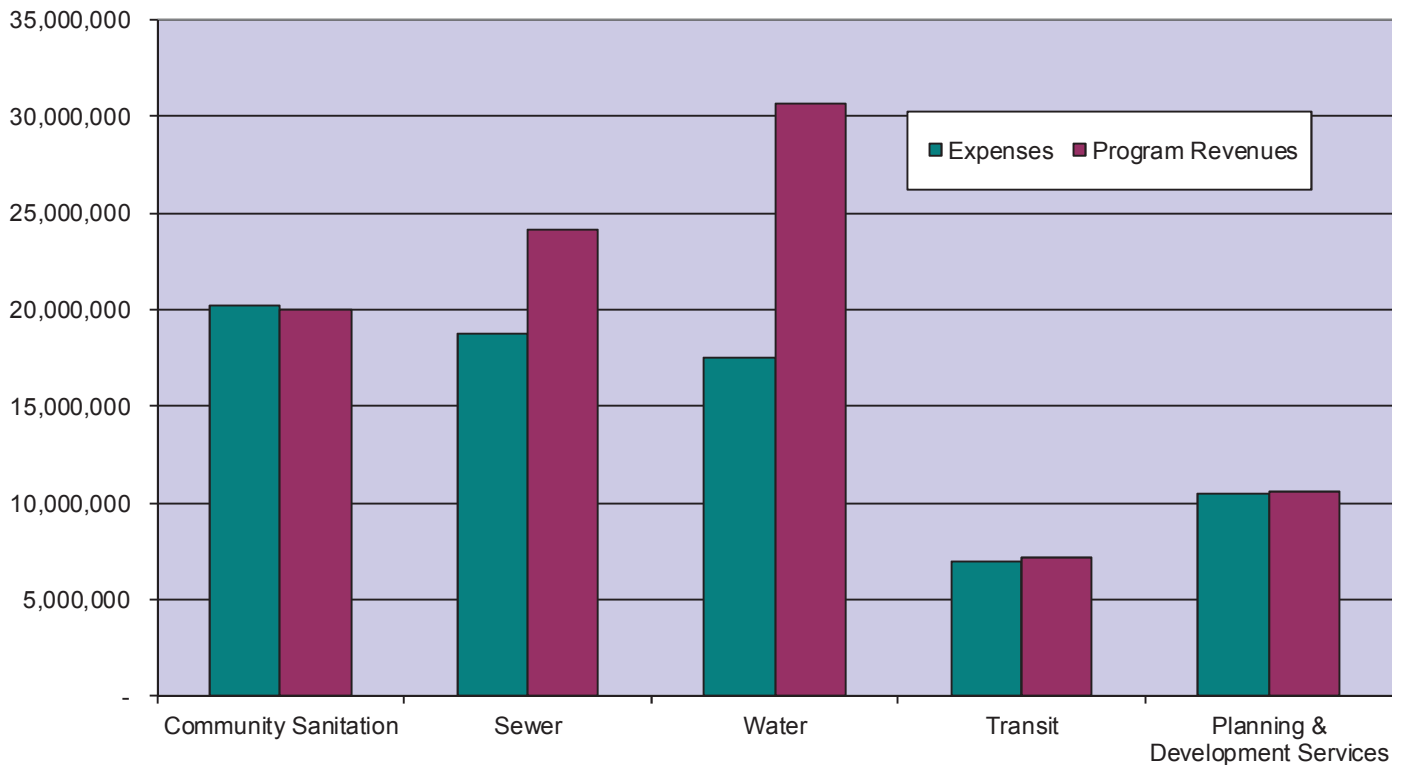
Revenues by Source-Governmental Activities



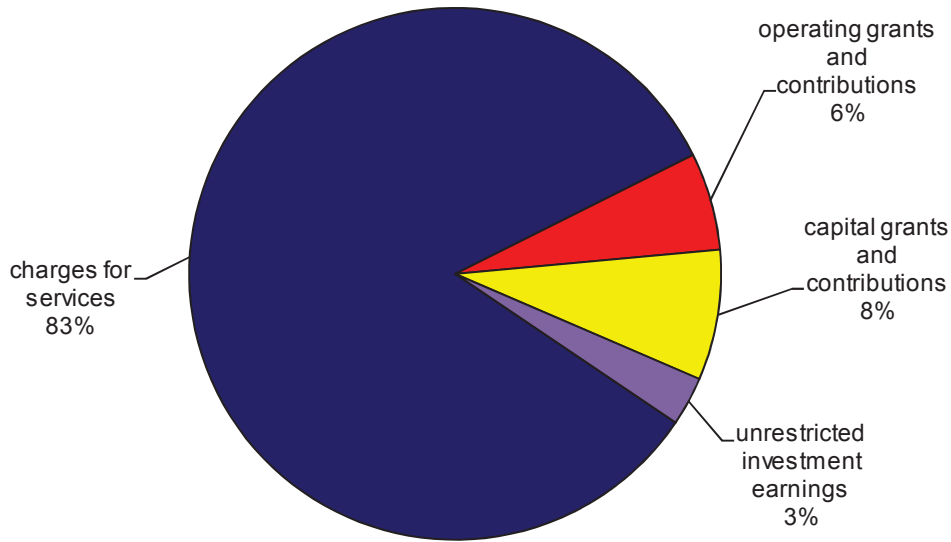
Program revenues that include charges for services and grants specific to were \$62 million, or 52% of the total governmental activity revenue. The a to fully fund the governmental activity programs are made up of “general” revenues such as taxes, interest, and grants and contributions.

Business-type Activities. Business-type activities account for \$284 million, or 35% of the total Government-wide net position. This is an increase of \$23 million, or 9%, from June 30, 2018. The component, “Net Investment in Capital Assets” accounts for \$163 million, or 57% of the total net position, and is an increase of \$10 million from 2018. The amount of restricted net position represents less than 1% of the total net position. The amount of net position that is unrestricted, \$121 million, or 43%, increased \$13 million from 2018. Charges for current services were \$80 million, or 83% of the total business-type activity revenue, and increased \$7 million from 2018. Grants and contributions of \$13 million represent \$7 million in contributions of sewer and water mains from developers and \$6 million in state transit assistance.

Expenses and Program Revenues-Business-type Activities



Revenues by Source-Business-type Activities



Included in charges for current services are development fees relating to the construction of capital improvements for sewer disposal and water operations. The revenues generated by these development fees are normally accumulated until such time as there are sufficient reserves to construct or acquire capital assets or to pay debt service on previously incurred debt. Debt service payments of principal are not considered a program expense and are, therefore, not reflected in this chart.

Financial Analysis of the City's Funds

As noted earlier, the City uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements.

Governmental funds. Fund balance is defined in five categories: nonspendable, restricted, committed, assigned and unassigned. Nonspendable fund balances cannot be spent because of their form. Restricted fund balance has limitations imposed externally by creditors, grantors, contributors, or laws and regulations of other governments. Committed fund balance has self-imposed limitations set in place prior to the end of the period. Assigned fund balance is the amount left available for appropriation at the City's discretion within the fund's purpose.

All of the City's governmental funds ended the year with positive fund balances. The ending fund balance for all funds is \$55 million, which is an \$8 million increase from the previous year. Of the total fund balance, \$4 million or 8% is unassigned, which, within the limitations of the fund's purpose, is available for spending at the City's discretion. The remainder of the fund balance is not available for new spending because it is either in a form not able to be spent or has already been restricted, assigned or committed for the following: (in millions)

Capital Projects	\$16.3
Community Development	10.9
Debt service	0.4
Landscape Maintenance	4.9
Parking and Business Improvement	<0.1
Law Enforcement	<0.1
Services materials and supplies	0.8
Capital Outlay	4.2
Emergencies	12.7

The general fund is the chief operating fund of the City. As of June 30, 2019, the *total* fund balance (including all categories) of the general fund was \$22.8 million, an increase of \$2.5 million from June 30, 2018. The total fund balance of \$22.8 million includes restricted balances of \$5.0 million, assigned balances of \$13.5 million, and an unassigned balance of \$4.3 million.

The general fund *restricted* balances of \$5.0 million increased by \$0.7 million over 2018 due to an increase in the amount restricted for the landscape maintenance. The *assigned* balance for unforeseen expenditures stayed relatively static, which represents 17.9% of the 2018/19 actual expenditures in order to reach the 20%-25% level established by Council policy. The *unassigned* fund balance increased \$0.7 million when compared to June 30, 2018. The \$4.4 million unassigned portion is the amount carried over to offset the impact of revenue shortfall that may occur in the next year due to economic uncertainty and is \$3.3 million more than the amount projected at the time the 2019/20 budget was prepared.

Revenues exceeded expenditures by \$3.6 million excluding landscape maintenance where revenues exceeded expenditures by a little under \$0.8 million. "Other taxes" revenues came in under budgeted amounts by \$0.5 million, revenue "From other agencies" came in over budgeted amounts by \$1.0 million, "Property taxes" came in over budgeted amounts by \$0.6 million, "Business license/Franchise fee" came in \$0.1 million over budgeted amounts, "Sales taxes," came in over budget by \$0.2 million; "Licenses and permits" came in over budget by \$0.2 million; and "Other revenues" came in over budget by less than \$0.1 million. The decrease in "Other taxes" revenue was due to construction delays of two hotels opening. The increase in "From other agencies" revenue represents reimbursements from the State for fire assistance. The increase in "Property taxes" represents an increase in properties and property values within the City. The increase in "Business license/Franchise fee" stems from new businesses. The increase in "Sales taxes" represents the delay in funds not received in prior years due to the State's new reporting system. The increase in "Licenses and permits" represents the increase in card room fees.

Several departments experienced expenditure savings including "Manager," \$0.2 million, "General Services", \$0.1 million, "Finance," \$0.6 million, and "Police," \$0.9 million. Most of the expenditure savings in the departments were savings achieved by staffing vacancies, savings in services and supplies and postponed capital expenditures. Most savings attributed to "projects" that were not commenced before the end of the fiscal year are included in the "Assigned for Services, Materials and Supplies" or the "Assigned for Capital" amount and will be spent in the next fiscal year.

The local transportation fund, used to account for all street construction projects, incurred less than budgeted expenditures as a result of several large projects awarded towards

end of the fiscal year and limited staff resources. The ending fund balance \$2.9 million more than June 30, 2018.

Proprietary funds. As indicated in the description of proprietary funds, there are two types of funds, enterprise and internal service funds. All of the City’s enterprise funds ended the year with positive unrestricted net position.

All the internal service funds finished with positive unrestricted net position with the exception of the Employee Benefits Fund. The Employee Benefits Fund ended the year with a deficit unrestricted net position of \$110.3 million. This deficit balance is attributable to the liability of CalPERS pension funds and workers’ compensation program claims. The net pension liability is \$134 million. This liability is long-term in nature, not requiring current resources, and is not being funded separately from PERS at this time. The current liability for workers’ compensation claims is \$9.6 million. The City funds the current year workers’ compensation expenditures with charges to City programs. The City has also funded approximately \$2.5 million of the accrued liability through charges to City programs in prior years. The balance of the liability is of a long-term nature, not requiring current resources, and therefore has not been funded.

General Fund Budgetary Highlights

Throughout the fiscal year it was necessary to adjust the original General Fund budget. The Statement of Revenues, Expenditures, and Change in Fund Balance-Budget to Actual, General Fund, on page 35 shows the original budget and final budget. Below is a summary of the primary amendments:

- \$ 200,000 City Attorney-unanticipated legal expenses
- \$ 5,100 City Clerk-Unanticipated employee benefit costs

Capital Assets and Debt Administration

Capital Assets. The City’s capital assets for its governmental and business-type activities as of June 30, 2019, amount to \$870 million (net of depreciation/amortization), an increase of \$32 million over 2018. Capital assets include land, buildings and improvements, machinery and equipment, and road network and intangible capacity rights for water and sewer.

Major capital asset additions this year include the following:

Road network improvements and land acquisitions	\$ 39 million
Buildings and improvements	\$ 13 million
Machinery and equipment	\$ 6 million

During the year the City made improvements to various streets and received developer donated infrastructure. The sewer system improvements include the City’s share of capital projects for the Fresno-Clovis regional waste water treatment plant. Additional information on the City’s capital assets can be found in note IV.E on pages 59-60.

CITY OF CLOVIS'
Capital Assets
(net of depreciation)

	Governmental activities		Business-type activities		Total	
	2019	2018	2019	2018	2019	2018
Land	\$ 251,365,470	\$ 234,071,518	\$ 37,349,873	\$ 36,624,392	\$ 288,715,343	\$ 270,695,910
Buildings and improvements	86,722,063	86,600,441	215,169,809	212,790,283	301,891,872	299,390,724
Machinery and equipment	12,773,690	12,996,724	3,785,770	2,246,093	16,559,460	15,242,817
Road network	234,907,512	223,403,199			234,907,512	223,403,199
Intangibles			28,288,331	28,789,911	28,288,331	28,789,911
Total	\$ 585,768,735	\$ 557,071,882	\$ 284,593,783	\$ 280,450,679	\$ 870,362,518	\$ 837,522,561

Long-term Debt. The City's long-term debt as of June 30, 2019, was \$143 million, with governmental activities accounting for \$23 million, or 16%, and business-type activities accounting for \$120 million, or 84%.

CITY OF CLOVIS'
Outstanding Bonds, Capitals Leases, Loans and Contracts

	Governmental activities		Business-type activities		Total	
	2019	2018	2019	2018	2019	2018
Capital leases	\$ 11,284,736	\$ 22,066,356			\$ 11,284,736	\$ 22,066,356
Loans payable	2,745,885	1,195,510			2,745,885	1,195,510
Notes from Direct Placements	8,997,833	-	-	-	8,997,833	-
Revenue bonds			\$ 114,115,888	\$ 118,831,052	114,115,888	118,831,052
Contracts payable			5,502,287	6,449,775	5,502,287	6,449,775
Total	\$ 23,028,454	\$ 23,261,866	\$ 119,618,175	\$ 131,587,104	\$ 142,646,629	\$ 148,542,693

General obligation debt are direct obligations of the City and are backed by the full faith and credit of the City requiring voter approval, and may have a tax rate set to cover repayment. State statutes limit the amount of general obligation debt to 15% of the City's total assessed valuation. The City of Clovis' debt limit is \$1.6 billion. The City currently has no general obligation debt outstanding. Detailed information on the City's long-term debt activity can be found in Note F. of the notes to the financial statements.

Economic Factors and Next Year's Budgets and Rates

The City is closely watching the national economy and keeping up with the state's budget issues and the impact these have on Clovis. During the budget development process for the 2019/20 fiscal year, the City was able to increase general fund expenditures by \$4.1 million compared to the estimated 2018/19 expenditures. This increase is due to vacancies being filled, increasing costs of benefits, a 2% cost-of-living salary increase, debt service on safety equipment and communications as well as increased costs for services, materials and supplies.

Economic forecasts for the Central Valley and Fresno County indicate continued economic recovery when compared to the rest of California and the nation. The good news is the local economy is improving. Taxable sales are projected to increase by nearly 5.4% compared to the previous year due to the improving economy. The City of Clovis experienced a 2.7% growth in population in 2019 compared to the 10-year average growth rate of 2.1%. The City's unemployment rate still ranks as one of the lowest in the area at 4.1%, lower than

Fresno County rate of 7.0% and the State of California average of 4.2%, than the national average of 3.7%.

Residential building activity has returned to greater than the 10-year average and is expected to remain robust over the next few years. The City of Clovis continues to be a premier city with one of the best school districts in the county and, as such, there is still demand for new homes in the city and the new smaller, more affordable product lines being built by local developers have been well received by home buyers. The City has seen increased interest from new businesses wanting to locate in Clovis and several major economic development projects are underway. The Clovis Community Medical Center continues to grow and expand. The Center recently completed an additional medical office building and is nearing completion on a cancer research facility. The hospital is beginning the process to add another bed tower. The Center's expansion continues to be one of the biggest job creation projects in Fresno County in recent years.

Total city-wide expenditures, excluding capital expenditures, were projected to increase approximately 9% due to filling vacancies, increasing salary and benefit costs, and the rising costs of services, materials and supplies.

The steady economic recovery offers opportunities to adjust and prepare for the changes occurring in the business environment. The City completed the General Plan update keeping in mind sustainability. The City recognizes the need to encourage private sector businesses and industries to develop and expand within the City. This will benefit our citizens and support the desired quality of life this community prefers.

At June 30, 2019, the General Fund has an assigned fund balance of \$12.8 million, or 17.9% of budgeted expenditures, set aside for unforeseen emergencies.

The Council determined that it was necessary for the Community Sanitation Fund to implement a rate increase of 4% for the green waste and recycling programs and to implement a rate increase of 2% for the refuse collection and disposal program for the 2019/20 fiscal year. Furthermore, the Council determined that a 3% increase was necessary for the Water Fund. The Sewer Fund will have no rate increase, and \$3.65, half of the \$7.30 bond surcharge, will be reinstated.

Requests for Information

This financial report is designed to provide our citizens, taxpayers, customers, investors and creditors with a general overview of the City of Clovis' finances and to demonstrate the City's accountability for the money it receives. If you have any questions about this report or need additional financial information, contact the Finance Director, City of Clovis, 1033 Fifth Street, Clovis, CA, 93612.

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City of Clovis
Statement of Net Position
June 30, 2019

	Primary Government		
	Governmental Activities	Business-type Activities	Total
ASSETS			
Cash and investments	\$ 106,607,720	\$ 128,363,685	\$ 234,971,405
Receivables	6,070,491	8,871,001	14,941,492
Internal balances	(785,083)	785,083	
Due from other governments	9,784,512	1,337,611	11,122,123
Inventories	810,000		810,000
Restricted assets:			
Cash and investments	775,074	934	776,008
Capital assets, not being depreciated	251,365,470	37,349,873	288,715,343
Capital assets (net of accumulated depreciation)	334,403,265	218,955,579	553,358,844
Intangible assets (net of accumulated amortization)		28,288,331	28,288,331
Total assets	<u>709,031,449</u>	<u>423,952,097</u>	<u>1,132,983,546</u>
DEFERRED OUTFLOWS OF RESOURCES			
Pension related deferred outflows	27,119,431		27,119,431
Deferred loss on bond refunding		182,946	182,946
	<u>27,119,431</u>	<u>182,946</u>	<u>27,302,377</u>
LIABILITIES			
Accounts payable	4,648,693	4,680,478	9,329,171
Unearned revenue	2,806,647	3,565,546	6,372,193
Noncurrent liabilities:			
Due within one year	32,301,475	10,312,900	42,614,375
Due in more than one year	164,380,540	119,479,932	283,860,472
Total liabilities	<u>204,137,355</u>	<u>138,038,856</u>	<u>342,176,211</u>
DEFERRED INFLOWS OF RESOURCES			
Pension related deferred inflows	2,130,191		2,130,191
Deferred gain on bond refunding		2,221,017	2,221,017
	<u>2,130,191</u>	<u>2,221,017</u>	<u>4,351,208</u>
NET POSITION			
Net investment in capital assets	562,740,281	162,937,537	725,677,818
Restricted for:			
Debt service	1,173,230	934	1,174,164
Streets and roads	16,253,367		16,253,367
Community development	10,988,877		10,988,877
Landscape maintenance	4,910,354		4,910,354
Unrestricted (deficit)	(66,182,775)	120,936,699	54,753,924
Total net position	<u>\$ 529,883,334</u>	<u>\$ 283,875,170</u>	<u>\$ 813,758,504</u>

The notes to the financial statements are an integral part of this statement.

**City of Clovis
Statement of Activities
For the Year Ended June 30, 2019**

Function/Programs	Program Revenues				Net (Expense) Revenue and Changes in Net Position		
	Expenses	Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions	Primary Government		
					Governmental Activities	Business-type Activities	Total
Primary government:							
Governmental activities:							
General government	\$ 7,729,961	\$ 5,137,287			\$ (2,592,674)		\$ (2,592,674)
Public safety	55,860,055	3,267,806	\$ 231,595	\$ 197,259	(52,163,395)		(52,163,395)
Transportation	14,883,165	15,896,931		31,031,612	32,045,378		32,045,378
Community development	751,389	456,082	135,576	315,894	156,163		156,163
Cultural and recreation	8,117,581	4,637,479	26,000	696,228	(2,757,874)		(2,757,874)
Interest and other charges	754,919				(754,919)		(754,919)
Total governmental activities	<u>88,097,070</u>	<u>29,395,585</u>	<u>393,171</u>	<u>32,240,993</u>	<u>(26,067,321)</u>	<u>0</u>	<u>(26,067,321)</u>
Business-type activities:							
Community sanitation	20,204,394	20,022,146				\$ (182,248)	(182,248)
Sewer disposal	18,737,639	21,280,470		2,810,753		5,353,584	5,353,584
Water	17,463,133	26,115,293		4,491,240		13,143,400	13,143,400
Transit	6,961,315	1,729,284	5,445,384			213,353	213,353
Planning & Development Services	10,443,146	10,522,332	16,990			96,176	96,176
Total business-type activities	<u>73,809,627</u>	<u>79,669,525</u>	<u>5,462,374</u>	<u>7,301,993</u>	<u>0</u>	<u>18,624,265</u>	<u>18,624,265</u>
Total primary government	<u>\$ 161,906,697</u>	<u>\$ 109,065,110</u>	<u>\$ 5,855,545</u>	<u>\$ 39,542,986</u>	<u>(26,067,321)</u>	<u>18,624,265</u>	<u>(7,443,056)</u>
General revenues:							
Property taxes					26,667,913		26,667,913
Sales taxes					21,597,179		21,597,179
Business License/Franchise Fees					5,788,765		5,788,765
Other taxes					2,895,987		2,895,987
Grants and contributions not restricted to specific programs					503,692		503,692
Unrestricted investment earnings					1,476,382	2,734,008	4,210,390
Transfers					(1,180,000)	1,180,000	0
Total general revenues and transfers					<u>57,749,918</u>	<u>3,914,008</u>	<u>61,663,926</u>
Changes in net position					<u>31,682,597</u>	<u>22,538,273</u>	<u>54,220,870</u>
Net position-beginning					<u>498,200,737</u>	<u>261,336,897</u>	<u>759,537,634</u>
Net position-ending					<u>\$ 529,883,334</u>	<u>\$ 283,875,170</u>	<u>\$ 813,758,504</u>

The notes to the financial statements are an integral part of this statement.

**City of Clovis
Balance Sheet
Governmental Funds
June 30, 2019**

	Major Funds		Other Governmental Funds	Total Governmental Funds
	General	Local Transportation		
ASSETS				
Cash and investments	\$ 17,569,862	\$ 38,628,595	\$ 12,372,243	\$ 68,570,700
Cash with agents-restricted		24,000		24,000
Receivables	1,983,299	434,466	3,448,731	5,866,496
Due from other governments	4,264,828	4,685,686	829,882	9,780,396
Total assets	\$ 23,817,989	\$ 43,772,747	\$ 16,650,856	\$ 84,241,592
LIABILITIES AND FUND BALANCES				
Liabilities:				
Accounts payable	\$ 726,375	\$ 1,699,818	\$ 945,314	\$ 3,371,507
Due to other governments	34,916			34,916
Deposits and other liabilities	99,223	24,953,030	9,200	25,061,453
Unearned revenue	51,500	935,311		986,811
Total liabilities	912,014	27,588,159	954,514	29,454,687
Fund balances:				
Restricted for:				
Capital projects		16,184,588	68,779	16,253,367
Community development			10,938,407	10,938,407
Debt service			422,156	422,156
Landscape maintenance	4,910,354			4,910,354
Parking and business improvement	50,204			50,204
Law enforcement	266			266
Assigned for:				
Services, materials and supplies	752,000			752,000
Capital			4,267,000	4,267,000
Emergencies	12,760,000			12,760,000
Unassigned, reported in:				
General fund	4,433,151			4,433,151
Total fund balances	22,905,975	16,184,588	15,696,342	54,786,905
Total liabilities and fund balances	\$ 23,817,989	\$ 43,772,747	\$ 16,650,856	

Reconciliation of the Governmental Fund Balances to the Governmental Activities Net Position

Amounts reported for governmental activities in the statement of net position are different because:	
Capital assets used in governmental activities are not financial resources and therefore, are not reported in the funds. (Net of \$83,607,959 of internal service fund capital assets)	502,160,776
Internal service funds are used by management to charge the costs of fleet management, employee benefits, liability and property insurance and general services to individual funds. The assets and liabilities of the internal service funds are included in governmental activities in the statement of net position. (Net of \$785,083 allocated to business-type activities)	(24,284,347)
Long-term liabilities, including bonds payable, are not due and payable in the current period and therefore are not reported in the funds.	(2,780,000)
Net Position of Governmental Activities	\$ 529,883,334

The notes to the financial statements are an integral part of this statement.

City of Clovis
Statement of Revenues, Expenditures, and Changes in Fund Balances
Governmental Funds
For the Year Ended June 30, 2019

	Major Funds		Other Governmental Funds	Total Governmental Funds
	General	Local Transportation		
REVENUES				
Property taxes	\$ 26,667,913			\$ 26,667,913
Sales taxes	21,597,179			21,597,179
Business license/Franchise fee	5,788,765			5,788,765
Other taxes	2,895,987			2,895,987
Licenses and permits	778,319			778,319
Fines and forfeitures	195,146			195,146
Use of money and property	327,416	\$ 584,651	\$ 222,885	1,134,952
From other agencies	4,039,326	10,179,191	1,568,915	15,787,432
Charges for current services	5,966,532	103,966	3,550,104	9,620,602
Other revenues	5,745,508	140	85,803	5,831,451
Total revenue	74,002,091	10,867,948	5,427,707	90,297,746
EXPENDITURES				
Current:				
General government	6,818,113			6,818,113
Public safety	52,034,209			52,034,209
Transportation	4,506,493			4,506,493
Community development	104		686,147	686,251
Cultural and recreation	6,993,547			6,993,547
Capital outlays		8,182,744	1,635,346	9,818,090
Total expenditures	70,352,466	8,182,744	2,321,493	80,856,703
Excess (deficiency) of revenues over (under) expenditures	3,649,625	2,685,204	3,106,214	9,441,043
OTHER FINANCING SOURCES (USES)				
Transfers in		156,000		156,000
Transfers out	(1,095,000)		(880,000)	(1,975,000)
Total other financing sources (uses)	(1,095,000)	156,000	(880,000)	(1,819,000)
Net change in fund balances	2,554,625	2,841,204	2,226,214	7,622,043
Fund balances-beginning	20,351,350	13,343,384	13,470,128	47,164,862
Fund balances-ending	\$ 22,905,975	\$ 16,184,588	\$ 15,696,342	\$ 54,786,905

The notes to the financial statements are an integral part of this statement.

City of Clovis
Reconciliation of the Statement of Revenues,
Expenditures, and Changes in Fund Balances of Governmental Funds
To the Government-Wide Statement of Activities
For the Year Ended June 30, 2019

<i>AGENDA ITEM NO. 12.</i>

Amounts reported for governmental activities in the statement of activities (page 31) are different because:

Net change in fund balances-total governmental funds (page 33)	\$ 7,622,043
Governmental funds report capital outlays as expenditures. However, in the statement of activities the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense. This is the amount by which depreciation exceeded capital outlays in the current period.	(1,446,972)
The net effect of donations and miscellaneous transactions involving capital assets (i.e., sales and trade-ins) is to increase net position.	29,941,596
Some expenses reported in the statement of activities do not require the use of current financial resources and, therefore, are not reported as expenditures in governmental funds.	81,000
Internal service funds are used by management to charge the costs of fleet maintenance, employee benefits, liability and property insurance and general services to individual funds. The net revenue of certain activities of internal service funds is reported with governmental activities. Net of \$1,424,103 allocated to business-type activities.	(4,515,070)
Change in net position of governmental activities (page 31)	<hr style="border: 0.5px solid black;"/> <u>\$ 31,682,597</u>

The notes to the financial statements are an integral part of this statement.

City of Clovis
Statement of Revenues, Expenditures, and Change in Fund Balance-Budget and Actual
General Fund
For the Year Ended June 30, 2019

	<u>Budgeted Amounts</u>		<u>Actual Amounts</u>	<u>Variance with Final Budget- Positive (Negative)</u>
	<u>Original</u>	<u>Final</u>		
REVENUE				
Property taxes	\$ 26,067,000	\$ 26,067,000	\$ 26,667,913	\$ 600,913
Sales taxes	21,370,000	21,370,000	21,597,179	227,179
Business license/Franchise fee	5,645,000	5,645,000	5,788,765	143,765
Other taxes	3,359,000	3,359,000	2,895,987	(463,013)
Licenses and permits	582,000	582,000	778,319	196,319
Fines and forfeitures	185,000	185,000	195,146	10,146
Use of money and property	90,000	90,000	327,416	237,416
From other agencies	2,449,000	3,000,000	4,039,326	1,039,326
Charges for current services	5,877,808	5,938,808	5,966,532	27,724
Other revenues	5,715,500	5,715,500	5,745,508	30,008
Total revenues	<u>71,340,308</u>	<u>71,952,308</u>	<u>74,002,091</u>	<u>2,049,783</u>
EXPENDITURES				
Council	322,400	322,400	320,258	2,142
Clerk	431,900	437,000	436,962	38
Attorney	831,600	1,031,600	1,030,762	838
Manager	1,714,200	1,714,200	1,493,002	221,198
General services	2,292,700	2,302,700	2,181,237	121,463
Finance/Treasurer	3,487,839	3,487,839	2,868,662	619,177
Police	37,068,488	37,683,488	36,739,653	943,835
Fire	15,151,267	15,348,167	15,294,557	53,610
Public utilities	9,992,469	9,992,469	9,987,373	5,096
Total expenditures	<u>71,292,863</u>	<u>72,319,863</u>	<u>70,352,466</u>	<u>1,967,397</u>
Excess (deficiency) of revenues over expenditures	47,445	(367,555)	3,649,625	4,017,180
OTHER FINANCING SOURCES (USES)				
Transfers Out	(300,000)	(1,095,000)	(1,095,000)	
Total other financing sources (uses)	<u>(300,000)</u>	<u>(1,095,000)</u>	<u>(1,095,000)</u>	<u>0</u>
Net change in fund balance	(252,555)	(1,462,555)	2,554,625	4,017,180
Fund balance-beginning	20,351,350	20,351,350	20,351,350	
Fund balance-ending	<u>\$ 20,098,795</u>	<u>\$ 18,888,795</u>	<u>\$ 22,905,975</u>	<u>\$ 4,017,180</u>

The notes to the financial statements are an integral part of this statement.

**City of Clovis
Statement of Net Position
Proprietary Funds
June 30, 2019**

	Business-Type Activities-Enterprise Funds						Governmental Activities Internal Service Funds
	Major Enterprise Funds				Nonmajor		
	Community Sanitation	Sewer Disposal	Water	Planning & Development Services	Transit	Totals	
ASSETS							
Current assets:							
Cash and investments	\$ 16,518,671	\$ 35,234,186	\$ 61,916,097	\$ 12,541,117	\$ 2,153,614	\$ 128,363,685	\$ 38,037,020
Receivables	3,353,853	2,569,826	2,874,638	53,701	18,983	8,871,001	203,995
Due from other governments				6,990	1,330,621	1,337,611	4,116
Inventories						0	810,000
Total current assets	<u>19,872,524</u>	<u>37,804,012</u>	<u>64,790,735</u>	<u>12,601,808</u>	<u>3,503,218</u>	<u>138,572,297</u>	<u>39,055,131</u>
Noncurrent assets:							
Restricted cash and investments:							
Cash with fiscal agent-bond accounts		874	60			934	751,074
Total restricted assets	<u>0</u>	<u>874</u>	<u>60</u>	<u>0</u>	<u>0</u>	<u>934</u>	<u>751,074</u>
Capital assets:							
Land	18,809,325	4,527,312	14,013,236			37,349,873	11,482,400
Buildings and improvements	6,519,918	168,590,263	126,773,751			301,883,932	94,594,210
Machinery and equipment	2,385,842	839,517	1,521,070	55,081	5,616,675	10,418,185	44,981,255
Less accumulated depreciation	(2,709,672)	(48,876,744)	(38,108,004)	(14,011)	(3,638,107)	(93,346,538)	(67,449,906)
Total capital assets (net of accumulated depreciation)	<u>25,005,413</u>	<u>125,080,348</u>	<u>104,200,053</u>	<u>41,070</u>	<u>1,978,568</u>	<u>256,305,452</u>	<u>83,607,959</u>
Intangible assets		39,602,020	10,118,786			49,720,806	
Less accumulated amortization		(19,140,827)	(2,291,648)			(21,432,475)	
Total intangible assets (net of accumulated amortization)		<u>20,461,193</u>	<u>7,827,138</u>			<u>28,288,331</u>	
Total noncurrent assets	<u>25,005,413</u>	<u>145,542,415</u>	<u>112,027,251</u>	<u>41,070</u>	<u>1,978,568</u>	<u>284,594,717</u>	<u>84,359,033</u>
Total assets	<u>44,877,937</u>	<u>183,346,427</u>	<u>176,817,986</u>	<u>12,642,878</u>	<u>5,481,786</u>	<u>423,167,014</u>	<u>123,414,164</u>
DEFERRED OUTFLOWS OF RESOURCES							
Pension related deferred outflows						0	27,119,431
Deferred loss on bond refunding			182,946			182,946	
Total deferred outflows of resources	<u>0</u>	<u>0</u>	<u>182,946</u>	<u>0</u>	<u>0</u>	<u>182,946</u>	<u>27,119,431</u>

	Business-Type Activities-Enterprise Funds						Governmental Activities Internal Service Funds
	Major Enterprise Funds				Nonmajor		
	Community Sanitation	Sewer Disposal	Water	Planning & Development Services	Transit	Totals	
LIABILITIES							
Current liabilities:							
Accounts payable	642,017	2,629,159	1,351,008	45,189	8,900	4,676,273	1,242,269
Claims and judgments payable						0	2,548,000
Due to other governments					4,205	4,205	
Accrued compensated absences	88,900	22,400	70,000	122,800	36,700	340,800	1,087,100
Deposits and other liabilities			2,703,389	2,171,454		4,874,843	414,865
Unearned revenue				272,863	3,292,683	3,565,546	1,819,836
Capital leases-current						0	1,871,048
Direct placements-currrent						0	1,005,432
Loans payable-current						0	313,578
Revenue bonds-current		2,135,000	1,965,000			4,100,000	
Contracts payable-current		997,257				997,257	
Total current liabilities	<u>730,917</u>	<u>5,783,816</u>	<u>6,089,397</u>	<u>2,612,306</u>	<u>3,342,488</u>	<u>18,558,924</u>	<u>10,302,128</u>
Noncurrent liabilities:							
Claims and judgments payable						0	7,114,000
Accrued compensated absences	239,566	60,250	188,948	331,339	99,071	919,174	151,386
Capital leases						0	9,413,688
Direct placements						0	7,992,401
Loans payable						0	2,432,307
Revenue bonds (net of discount/premium)		88,968,118	21,047,770			110,015,888	
Contracts payable		4,505,030				4,505,030	
Landfill closure	4,039,840					4,039,840	
Net pension liability						0	134,496,758
Total noncurrent liabilities	<u>4,279,406</u>	<u>93,533,398</u>	<u>21,236,718</u>	<u>331,339</u>	<u>99,071</u>	<u>119,479,932</u>	<u>161,600,540</u>
Total liabilities	<u>5,010,323</u>	<u>99,317,214</u>	<u>27,326,115</u>	<u>2,943,645</u>	<u>3,441,559</u>	<u>138,038,856</u>	<u>171,902,668</u>
DEFERRED INFLOWS OF RESOURCES							
Pension related deferred inflows						0	2,130,191
Deferred gain on bond refunding, net		2,221,017				2,221,017	
Total deferred inflows of resources	<u>0</u>	<u>2,221,017</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2,221,017</u>	<u>2,130,191</u>
NET POSITION							
Net investment in capital assets	25,005,413	46,715,119	89,197,367	41,070	1,978,568	162,937,537	60,579,505
Restricted for debt service		874	60			934	751,074
Unrestricted (deficit)	14,862,201	35,092,203	60,477,390	9,658,163	61,659	120,151,616	(84,829,843)
Total net position	<u>\$39,867,614</u>	<u>\$ 81,808,196</u>	<u>\$ 149,674,817</u>	<u>\$ 9,699,233</u>	<u>\$ 2,040,227</u>	<u>283,090,087</u>	<u>\$ (23,499,264)</u>
Adjustments to reflect the consolidation of internal service fund activities related to enterprise funds.						785,083	
Net position of business-type activities						<u>\$ 283,875,170</u>	

The notes to the financial statements are an integral part of this statement.

City of Clovis
Statement of Revenues, Expenses, and Changes in Net Position
Proprietary Funds
For the Year Ended June 30, 2019

	Business-Type Activities-Enterprise Funds						Governmental Activities Internal Service Funds
	Major Enterprise Funds				Nonmajor		
	Community Sanitation	Sewer Disposal	Water	Planning & Development Services	Transit	Totals	
Operating revenues:							
Charges for services	\$ 19,963,791	\$ 20,976,258	\$ 25,857,278	\$ 10,522,332	\$ 191,115	\$ 77,510,774	\$ 48,236,786
From other agencies				16,990	1,538,068	1,555,058	136,816
Other revenues	58,355	304,212	15,456		101	378,124	1,710,690
Total operating revenues	<u>20,022,146</u>	<u>21,280,470</u>	<u>25,872,734</u>	<u>10,539,322</u>	<u>1,729,284</u>	<u>79,443,956</u>	<u>50,084,292</u>
Operating expenses:							
Salaries and benefits	6,303,857	1,314,600	4,311,042	7,079,039	3,394,729	22,403,267	5,503,362
Services, materials and supplies	10,398,168	6,572,385	6,446,786	955,843	1,922,729	26,295,911	43,693,604
Administration	2,771,400	2,239,800	2,588,229	1,959,800	1,065,700	10,624,929	1,404,217
Depreciation/amortization	251,002	4,931,947	2,778,994	9,760	422,562	8,394,265	5,434,771
Total operating expenses	<u>19,724,427</u>	<u>15,058,732</u>	<u>16,125,051</u>	<u>10,004,442</u>	<u>6,805,720</u>	<u>67,718,372</u>	<u>56,035,954</u>
Operating income (loss)	<u>297,719</u>	<u>6,221,738</u>	<u>9,747,683</u>	<u>534,880</u>	<u>(5,076,436)</u>	<u>11,725,584</u>	<u>(5,951,662)</u>
Nonoperating revenues (expenses):							
Interest income	322,860	894,547	1,245,347	230,207	41,047	2,734,008	665,138
Interest expense		(3,652,647)	(1,006,014)			(4,658,661)	(754,919)
State transit funding					5,445,384	5,445,384	
Legal settlement			242,559			242,559	
Gain (loss) on sale of capital assets				(1,074)	(7,417)	(8,491)	96,270
Total nonoperating revenue (expense)	<u>322,860</u>	<u>(2,758,100)</u>	<u>481,892</u>	<u>229,133</u>	<u>5,479,014</u>	<u>3,754,799</u>	<u>6,489</u>
Income before contributions and transfers	620,579	3,463,638	10,229,575	764,013	402,578	15,480,383	(5,945,173)
Capital contributions		2,810,753	4,491,240			7,301,993	
Transfers in	880,000			300,000		1,180,000	6,000
Changes in net position	1,500,579	6,274,391	14,720,815	1,064,013	402,578	23,962,376	(5,939,173)
Total net position-beginning	38,367,035	75,533,805	134,954,002	8,635,220	1,637,649		(17,560,091)
Total net position-ending	<u>\$ 39,867,614</u>	<u>\$ 81,808,196</u>	<u>\$ 149,674,817</u>	<u>\$ 9,699,233</u>	<u>\$ 2,040,227</u>		<u>\$ (23,499,264)</u>
Adjustments to reflect the consolidation of internal service fund activities related to enterprise funds.						(1,424,103)	
Change in net position of business-type activities (page 31)						<u>\$ 22,538,273</u>	

The notes to the financial statements are an integral part of this statement.

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**City of Clovis
Statement of Cash Flows
Proprietary Funds
For the Year Ended June 30, 2019**

	Business-Type Activities-Enterprise Funds						Governmental Activities- Internal Service Funds
	Major Enterprise Funds				Nonmajor		
	Community Sanitation	Sewer Disposal	Water	Planning & Development Services	Transit	Totals	
CASH FLOW FROM OPERATING ACTIVITIES							
Receipts from customers and users	\$19,732,473	\$20,542,239	\$25,866,118	\$11,284,155	\$ 203,811	\$ 77,628,796	
Receipts for interfund services							\$48,264,714
Payments to suppliers	(12,757,251)	(8,555,045)	(9,169,610)	(2,960,813)	(3,009,864)	(36,452,583)	(44,198,958)
Payments to employees	(6,271,428)	(1,306,059)	(4,290,889)	(7,001,560)	(3,395,373)	(22,265,309)	3,406,376
Other revenues	58,355	304,212	258,015		1,538,169	2,158,751	1,861,966
Net cash provided/(used) by operating activities	<u>762,149</u>	<u>10,985,347</u>	<u>12,663,634</u>	<u>1,321,782</u>	<u>(4,663,257)</u>	<u>21,069,655</u>	<u>9,334,098</u>
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES							
Transfers-in from other funds	880,000			300,000		1,180,000	6,000
Transportation funding-State					4,859,215	4,859,215	
Net cash provided by noncapital financing activities	<u>880,000</u>	<u>0</u>	<u>0</u>	<u>300,000</u>	<u>4,859,215</u>	<u>6,039,215</u>	<u>6,000</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES							
Acquisition and construction of capital assets	(845,410)	(1,626,639)	(1,771,017)	(12,567)	(1,017,056)	(5,272,689)	(5,698,125)
Principal paid on loans, bonds, and capital leases		(3,022,488)	(1,890,000)			(4,912,488)	(3,198,448)
Interest paid on loans, bonds and capital leases		(4,296,867)	(1,176,440)			(5,473,307)	(766,240)
Proceeds from capital leases						0	2,965,035
Proceeds from sale of capital assets					28,822	28,822	225,595
Net cash used by capital and related financing activities	<u>(845,410)</u>	<u>(8,945,994)</u>	<u>(4,837,457)</u>	<u>(12,567)</u>	<u>(988,234)</u>	<u>(15,629,662)</u>	<u>(6,472,183)</u>
CASH FLOWS FROM INVESTING ACTIVITIES							
Interest and dividends on investments	296,988	843,425	1,164,745	209,747	38,205	2,553,110	615,947
Net cash provided by investing activities	<u>296,988</u>	<u>843,425</u>	<u>1,164,745</u>	<u>209,747</u>	<u>38,205</u>	<u>2,553,110</u>	<u>615,947</u>
Net change in cash and cash equivalents	<u>1,093,727</u>	<u>2,882,778</u>	<u>8,990,922</u>	<u>1,818,962</u>	<u>(754,071)</u>	<u>14,032,318</u>	<u>3,483,862</u>
Cash and cash equivalents-beginning of year	15,424,944	32,352,282	52,925,235	10,722,155	2,907,685	114,332,301	35,304,232
Cash and cash equivalents-end of year	<u>\$16,518,671</u>	<u>\$35,235,060</u>	<u>\$61,916,157</u>	<u>\$12,541,117</u>	<u>\$ 2,153,614</u>	<u>\$ 128,364,619</u>	<u>\$38,788,094</u>

Reconciliation of operating income (loss) to net cash provided/(used) by operating activities:

Operating income/(loss)	\$ 297,719	\$ 6,221,738	\$ 9,747,683	\$ 534,880	\$ (5,076,436)	\$ 11,725,584	\$ (5,951,662)
Adjustments to reconcile operating income (loss) to net cash provided (used) by operating activities:							
Depreciation/amortization expense	251,002	4,931,947	2,778,994	9,760	422,562	8,394,265	5,434,771
Landfill closure expense	264,500					264,500	
Legal settlement			242,559			242,559	
(Increase)/decrease in accounts receivable	(231,318)	(404,419)	(144,065)	(6,017)	15,159	(770,660)	(2,667)
(Increase)/decrease in due from other governments						0	7,313
(Increase)/decrease in inventories						0	(36,000)
(Increase)/decrease in deferred outflows - pension						0	5,385,974
Increase/(decrease) in accounts payable	147,817	257,140	(134,595)	(45,170)	(21,435)	203,757	49,863
Increase/(decrease) in due to other governments					(2,463)	(2,463)	
Increase/(decrease) in accrued compensated absences	32,429	8,541	20,153	77,479	(644)	137,958	(14,124)
Increase/(decrease) in unearned revenue		(29,600)		5,541		(24,059)	
Increase/(decrease) in claims and judgments payable						0	885,000
Increase/(decrease) in deposits			152,905	745,309		898,214	37,742
Increase/(decrease) in net pension liability						0	3,110,212
Increase/(decrease) in deferred outflows - pension						0	427,676
Total adjustments	464,430	4,763,609	2,915,951	786,902	413,179	9,344,071	15,285,760
Net cash provided/(used) by operating activities	\$ 762,149	\$10,985,347	\$12,663,634	\$ 1,321,782	\$ (4,663,257)	\$ 21,069,655	\$ 9,334,098

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Noncash investing, capital, and financing activities:

During the year the Sewer Disposal Fund, an enterprise fund, received \$2,810,753 in donated assets.

During the year the Water Fund, an enterprise fund, received \$4,491,240 in donated assets.

The notes to the financial statements are an integral part of this statement.

City of Clovis
Statement of Fiduciary Net Position
Fiduciary Funds
June 30, 2019

AGENDA ITEM NO. 12.

	Redevelopment Successor Agency Private- purpose Trust Fund	Agency Funds
ASSETS		
Cash and investments	\$ 820,966	\$ 1,965,591
Cash with agent-restricted	1,074,126	
Receivables		2,142
Prepaid items	178,646	
Capital Assets (net of accumulated depreciation)	10,974,157	
Total assets	13,047,895	\$ 1,967,733
 LIABILITIES		
Accrued payroll		\$ 1,668,693
Accounts payable	239,560	
Agency funds payable		219,387
Due to bondholders		79,653
Tax Allocation Bonds Payable	12,690,915	
Total liabilities	12,930,475	\$ 1,967,733
 NET POSITION		
Held in trust for Redevelopment Successor Agency Fund	\$ 117,420	

The notes to the financial statements are an integral part of this statement.

City of Clovis
Statement of Changes in Fiduciary Net Position
For the Year Ended June 30, 2019

<i>AGENDA ITEM NO. 12.</i>

	Redevelopment Successor Agency Private-purpose Trust Fund
ADDITIONS	
Property Taxes	\$ 1,264,453
Transfers in	685,000
Total additions	1,949,453
DEDUCTIONS	
Services, materials and supplies	132,000
Administration	118,500
Depreciation/amortization	77,103
Interest and other fiscal charges	612,488
Transfers out	52,000
Total deductions	992,091
Change in net position	957,362
Net position-Beginning	(839,942)
Net position-Ending	\$ 117,420

The notes to the financial statements are an integral part of this statement.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

I. Summary of significant accounting policies

A. Reporting entity

The City of Clovis, California (City) was incorporated on February 27, 1912 as a general law city of the State of California, and as such can exercise the powers specified by the constitution and laws of the State of California. The City is governed by an elected five-member City Council under the administration of an appointed City Manager. The accompanying financial statements present the government and its component units, entities for which the government is considered to be financially accountable. Blended component units, although legally separate entities, are, in substance, part of the government's operations.

1. Blended component units

Although the following are legally separate from the City, they have been "blended" as though they are part of the City because the component unit's governing body is substantially the same as the City's and there is a financial benefit or burden relationship between the City and the component unit; management of the City has operational responsibilities for the component unit; and/or the component units provide services entirely, or almost entirely, to the City or otherwise exclusively, or almost exclusively, benefits the City, even though it does not provide services directly.

The Clovis Municipal Development Corporation (Corporation) was established by the Clovis City Council in January 1985 to handle the City's and the Clovis Community Development Agency's development of property. There were no assets, liabilities, equity or activity to report for the current or prior fiscal years.

The Clovis Public Financing Authority (Authority) was established by the Clovis City Council in July 1991 to facilitate the issuance of the City's debt. There were no assets, liabilities, equity or other activity to report for the current or prior fiscal years.

B. Government-wide and fund financial statements

The government-wide financial statements (i.e., the statement of net position and the statement of activities) report information on all of the non-fiduciary activities of the primary government and its components units. The effects of interfund activity have been removed from these statements. Governmental activities, which normally are supported by taxes and intergovernmental revenues, are reported separately from business-type activities, which rely to a significant extent on fees and charges for support.

The statement of activities demonstrates the degree to which the direct expenses of a given function or segment are offset by program revenues. Direct expenses are those that are clearly identifiable with a specific function of a segment. Program revenues include 1) charges to customers or applicants who purchase, use, or directly benefit from goods, services, or privileges provided by a given function or segment and 2) grants and contributions that are restricted to meeting the operational or capital requirements of a particular function or segment. Taxes and other items not properly included among program revenues are reported instead as general revenues.

Separate financial statements are provided for governmental funds, proprietary funds, and fiduciary funds, even though the latter are excluded from the government-wide financial statements. Major individual governmental funds and major individual enterprise funds are reported as separate columns in the fund financial statements.

C. Measurement focus, basis of accounting, and financial statement presentation

The statement of net position reports separate sections for Deferred Outflows of Resources, and Deferred Inflows of Resources, when applicable.

Deferred Outflows of Resources – This amount represents outflows of resources (consumption of position) that apply to future periods and that, therefore, will not be recognized as an expense until that ti

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

Deferred Inflows of Resources – This amount represents inflows of resources (acquisition of net position) that apply to future periods and that, therefore, are not recognized as a revenue until that time.

The government-wide and proprietary fund financial statements are reported using the “*economic resources*” measurement focus and the accrual basis of accounting. Fiduciary fund financial statements are reported using the accrual basis of accounting but do not have a measurement focus since agency funds and private-purpose funds are the only fiduciary funds the City reports. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Property taxes are recognized as revenue in the year for which they are levied. Grants and similar items are recognized as revenue as soon as all eligibility requirement imposed by the provider have been met.

Governmental fund financial statements are reported using the “*current financial resources*” measurement focus and the modified accrual basis of accounting. Revenues are recognized as soon as they are both measurable and available. Revenues are considered to be available when they are collected within the current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the City considers revenues to be available if they are collected within 60 days of “the end of the current fiscal period.” Expenditures generally are recorded when a liability is incurred. However, debt service expenditures as well as expenditures related to compensated absences and claims and judgments, are recorded only when payment is due.

Property taxes, franchise taxes, licenses and interest associated with the current fiscal period are all considered to be susceptible to accrual and so have been recognized as revenues of the current fiscal period. All other revenue items are considered to be measurable and available only when cash is received by the government.

The City reports the following major governmental funds:

The general fund is the government’s primary operating fund. It accounts for all financial resources of the general government, except those required to be accounted for in another fund.

The local transportation fund accounts for the City’s share of Transportation Development Act (SB 325) funds allocated by the State that are restricted to expenditures for capital street improvements and maintenance and for the deposits by developers for special street improvement projects.

The City reports the following major proprietary funds:

The community sanitation fund accounts for the activities of the City’s refuse collection and disposal operations, landfill operations and street sweeping operations.

The sewer disposal fund accounts for the activities of the City’s sanitary sewer system operations.

The water fund accounts for the activities of the City’s water production and distribution operations.

The planning and development services fund accounts for the activities of the City’s engineering operations.

Additionally, the City reports the following fund types:

Internal service funds account for general liability and property damage insurance, fleet management services, retirement, workers’ compensation, and health, unemployment and Medicare insurance, facility maintenance and enhancement, telecommunication and information technology, and other general services provided to other departments or agencies of the City on cost reimbursement bases.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

Agency funds account for assets held by the City as an agent for special senior activities, certain special assessments collected and distributed on behalf of the districts, payroll taxes collected and distributed to other governments and collections from the State of California for assets forfeited.

Private-purpose trust funds are used to account for the assets of the former Clovis Community Development Agency during the wind down period.

As a general rule the effect of interfund activity has been eliminated from the government-wide financial statements. The exception to this general rule is payments-in-lieu of taxes. Elimination of these charges would distort the direct costs and program revenues reported for the various functions concerned.

Amounts reported as program revenues include 1) charges to customers or applicants for goods, services, or privileges provided, 2) operating grants and contributions, and 3) capital grants and contributions, including special assessments. Internally dedicated resources are reported as general revenues rather than as program revenues. Likewise, general revenues include all taxes.

Proprietary funds distinguish operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the proprietary fund's principal ongoing operations. The principal operating revenues of the community sanitation enterprise fund, of the sewer enterprise fund, of the water enterprise fund and of the City's internal service funds are charges to customers for sales and services. The sewer enterprise fund and the water enterprise fund also recognize as operating revenue the portion of developer fees intended to recover the cost of connecting new customers to the system. Operating expenses for enterprise funds and internal service funds include the cost of sales and services, administrative expenses and depreciation on capital assets: All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

When both restricted and unrestricted resources are available for use, it is the government's policy to use restricted resources first, then unrestricted resources as they are needed.

D. Assets, liabilities, and net position or equity

1. Cash and investments

The City maintains a cash and investment pool that is available for use by all funds. This pool utilizes investments authorized by the Government Code and is further defined by the City's investment policy that is reviewed annually by the City Council.

Highly liquid market investments with maturities of 1 year or less at the time of purchase are stated at amortized cost. All other investments are stated at fair value. Market value is used as fair value for the securities for which market quotations are readily available.

Authorized investments include deposits in the State of California administered Local Agency Investment Fund, insured certificates of deposits, collateralized certificates of deposits, commercial paper, bankers acceptances, medium term notes, money market mutual funds and securities backed by the U.S. Government. All investments are stated at fair value.

Interest income earned as a result of pooling is distributed to the appropriate funds based on month end cash balances in each fund. Interest income from cash and investments with fiscal agents and deferred compensation is credited directly to the related fund.

For purposes of the statement of cash flows, the City considers short term and highly liquid investments (including restricted assets) to be cash and cash equivalents.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

The City invests its excess cash principally in U.S. Government Securities, U.S. Treasuries and the State of California Local Agency Investment Fund (LAIF). Investments in the LAIF are available for withdrawal on demand.

The City is also required to deposit funds with fiscal agents under the provisions of Revenue Bonds, Contracts and/or Lease Agreements. These funds are invested by the fiscal agent in instruments generally more restrictive than the City's investment policy.

U.S. GAAP defines fair values, establishes a framework for measuring fair value and establishes disclosures about fair value measurement. Investments, unless otherwise specified, recorded fair value in the Statement of Net Position/Balance Sheet, are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Levels of inputs are as follows:

Level 1 – Inputs are unadjusted, quoted prices for identical assets and liabilities in active markets at the measurement date.

Level 2 – Inputs, other than quoted prices included in Level 1, that are observable for the assets or liabilities through corroboration with market data at the measurement date.

Level 3 – Unobservable inputs that reflect management's best estimate of what market participants would use in pricing the assets or liabilities at the measurement date.

2. Receivables

Billed but unpaid services provided to individuals or non-governmental entities are recorded as "receivables." Services provided to other governmental entities are recorded as "due from other governments." The City's utility enterprise funds include an estimated amount for services rendered but not yet billed as of June 30, 2019, determined by prorating the July 2019 bi-monthly billing.

The City has not experienced any material write-off of receivables; and therefore, an "allowance for bad debts" is not included on the City's balance sheet or statement of net position.

3. Interfund receivables/payables

During the course of operations, interfund receivables and payables transactions arise. These receivables and payables are classified as "due from other funds" or "due to other funds" on the fund financial statements. On the government-wide statement of net position, the "internal balances" represents the amounts receivable/payable between business-type activities and governmental activities. All other interfund transactions have been eliminated on the statement of net position.

4. Inventories

Inventories, consisting of fuel and vehicle parts, are valued at cost.

5. Capital assets/intangible assets

Capital assets, which include property, plant, equipment, and infrastructure assets (roadways), are reported in the applicable governmental or business-type activities columns in the government-wide financial statements. Capital assets are defined by the City as assets with an initial, individual cost of more than \$10,000, and an estimated useful life of at least three years. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated assets are recorded at estimated acquisition value at the date donated. Intangible assets are valued at historical cost.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

The cost of normal maintenance and repairs that do not add to the value of the asset or materially extend assets lives are not capitalized.

Intangible assets include the purchase of sewer capacity rights and water entitlement rights. The City purchased sewer capacity rights from the City of Fresno at the Fresno Regional Waste Water Treatment Plant. The total amount of \$39,602,020 is reported in the City's Sewer Disposal Enterprise Fund. The City purchased water entitlement rights from the Fresno Irrigation District for surface water. The total amount of \$10,118,786 reported in the City's Water Enterprise Fund.

Donated assets include developer donated land as well as the improvements on the land including streets, curbs and gutters, sidewalks, street lighting and landscaping. Included in the total amount of capital grants and contributions on the government-wide statement of activities is \$29,941,596 of developer donated assets.

Property, plant and equipment of the primary government is depreciated over the estimated useful lives using the straight-line method, half-year convention. Estimated useful lives are as follows:

Distribution Systems	50 years
Roadways	50
Buildings	20-40
Vehicles	5-20
Other Equipment	3-10

Amortization of intangibles is computed over 40 years using the straight-line method, half-year convention. As the life of the rights have a life of 40 years.

6. Compensated absences

The liability for vested leave (vacation, compensated time off, holiday) earned but not used in governmental funds is expensed and established as a liability and is reported in the government-wide statement of net position in the governmental activities column. Vested leave of proprietary funds is recorded as an expense and liability of those funds as the benefits accrue. No liability is recorded for non-vesting leave such as sick leave.

7. Long-term liabilities

In the government-wide financial statements, and proprietary fund types in the fund financial statements, long-term debt and other long-term obligations are reported as liabilities in the applicable governmental activities, business-type activities, or proprietary fund type statement of net position. Bond premiums and discounts are deferred and amortized over the life of the bonds using the effective interest method. Bonds payable are reported net of the applicable bond premium or discount. Bond issuance costs are expensed when incurred.

In the fund financial statements, governmental fund types recognize bond premiums and discounts, as well as bond issuance costs, during the current period. The face amount of debt issued is reported as other financing sources. Premiums received on debt issuances are reported as other financing sources while discounts not withheld from the actual debt proceeds received are reported as debt service expenditures. Discounts withheld from the debt proceeds are reported as other financing uses.

8. Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the plans and additions to/deductions from the plans' fiduciary net position have been determined on the same basis as they are reported by the plans. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with benefit terms. Plan investments are reported at fair value.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

The following timeframes are used for pension plan reporting:

CalPERS

Valuation Date	June 30, 2017
Measurement Date	June 30, 2018
Measurement Period	July 1, 2017 to June 30, 2018

Gains and losses related to changes in total pension liability and fiduciary net position are recognized in pension expense systematically over time. The first amortized amounts are recognized in pension expense for the year the gain or loss occurs. The remaining amounts are categorized as deferred outflows and deferred inflows of resources related to pensions and are to be recognized in future pension expense. The amortization period differs depending on the source of the gain or loss. The difference between projected and actual earnings is amortized straight-line over 5 years. All other amounts are amortized straight-line over the average expected remaining service lives of all members that are provided with benefits (active, inactive, and retired) as of the beginning of the measurement period.

9. Fund balances

In the fund financial statements, governmental funds report components of fund balance based on constraints on the specific purposes for which amounts can be spent. "Nonspendable" fund balance is not in a spendable form or has a requirement to maintain intact. "Restricted" fund balance has externally enforceable limitations on its use such as restrictions from outside parties such as creditors, grantors, contributors, laws or regulations of other governments or imposed by law through constitutional provisions or enabling legislation. "Committed" fund balance is constrained by limits imposed by the government's highest level of decision-making and can only be removed or modified by a formal action by that authority. "Assigned" fund balance is limited by City Council, the City Manager or the designated department head as delegated by City Council. "Unassigned" fund balance is the residual net resources.

The general fund is the only fund that reports a positive unassigned fund balance amount. In other governmental funds, it is not appropriate to report a positive unassigned fund balance amount. However, in governmental funds other than the general fund, if expenditures incurred for specific purposes exceed the amounts that are restricted, committed or assigned to those purposes, it may be necessary to report a negative unassigned fund balance in that fund.

The City will spend the funds restricted for their purpose within those funds first followed by assigned funds for their intended purposes prior to spending any unassigned funds. The City Council has established a target of a minimum unassigned fund balance for any operational fund is 10% of the budgeted expenditures with the goal for unassigned fund balance of up to 15% of budgeted expenditures unless capital borrowing or extraordinary fiscal conditions require higher levels of unassigned fund balance be maintained.

The local transportation fund is the City's only major special revenue fund. This fund accounts for the capital street projects paid for out of the City's share of Transportation Development Act (SB 325) funds allocated by the state, 1/2 cent sales tax for transportation, Special Gas Tax Select Street funds, and federal funding sources under the Federal Intermodal Surface Transportation Efficiency Act. In addition, funds are transferred from the Developer Trust Fund as reimbursements are made for developer-financed projects.

10. Net Position

In the government-wide financial statements and proprietary fund financial statements, net position is classified as follows:

Net Investment in Capital Assets – This component of net position consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of debt, net of deferred refunding, that are attributable to the acquisition, construction, or improvement of those assets.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

Restricted – This component of net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets.

Unrestricted – This component of net position is the amount of the assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted component of net position.

When expenses are incurred for purposes for which both restricted and unrestricted components of net position are available, the City's policy is to apply the restricted component of net position first, then the unrestricted component of net position as needed.

11. Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

12. Implementation of New GASB Pronouncements

The requirements of the following accounting standards are effective for the purpose of implementation, if applicable to the City, for the year ended June 30, 2019. The financial statements included herein apply the requirements and provisions of these statements, including necessary retroactive adjustments to financial statement classifications and presentations.

GASB Statement No. 83

In November 2016, GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. This Statement establishes criteria for determining the timing and pattern of recognition of a liability and a corresponding deferred outflow of resources for asset retirement obligations (ARO). This Statement requires that recognition occur when the liability is both incurred and reasonably estimable. The determination of when the liability is incurred should be based on the occurrence of external laws, regulations, contracts, or court judgments, together with the occurrence of an internal event that obligates a government to perform asset retirement activities. Laws and regulations may require governments to take specific actions to retire certain tangible capital assets at the end of the useful lives of those capital assets, such as decommissioning nuclear reactors and dismantling and removing sewage treatment plants. Other obligations to retire tangible capital assets may arise from contracts or court judgments. Internal obligating events include the occurrence of contamination, placing into operation a tangible capital asset that is required to be retired, abandoning a tangible capital asset before it is placed into operation, or acquiring a tangible capital asset that has an existing ARO. Application of this statement is effective for the City's fiscal year ending June 30, 2019. This pronouncement did not have a material effect on the financial statements of the City.

GASB Statement No. 88

In April 2018, GASB issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*. This Statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. The statement also defines debt for purposes of disclosure in notes to financial statements as a liability that arises from a contractual obligation to pay cash (or other assets that may be used in lieu of cash) in one or more payments to settle an amount that is fixed at the date the contractual obligation is established. In addition the statement requires that additional essential information related to debt be disclosed in notes to financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences, significant termination events with finance-related consequences, and significant subjective acceleration clauses. The financial statements have been revised to reflect for the direct placement that the City holds.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

Upcoming Governmental Accounting Standards Implementation

The City is currently analyzing its accounting practices to determine the potential impact on the financial statements for the following GASB statements:

GASB Statement No. 84

In January 2017, GASB issued Statement No. 84, *Fiduciary Activities*. This Statement establishes criteria for identifying fiduciary activities of all state and local governments. The focus of the criteria generally is on (1) whether a government is controlling the assets of the fiduciary activity and (2) the beneficiaries with whom a fiduciary relationship exists. Separate criteria are included to identify fiduciary component units and postemployment benefit arrangements that are fiduciary activities. Application of this statement is effective for the City's fiscal year ending June 30, 2020.

GASB Statement No. 87

In June 2017, GASB issued Statement No. 87, *Leases*. This Statement increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information about governments' leasing activities. Application of this statement is effective for the City's fiscal year ending June 30, 2021.

GASB Statement No. 89

In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. This Statement establishes accounting requirements for interest cost incurred before the end of a construction period. Such interest cost includes all interest that previously was accounted for in accordance with the requirements of paragraphs 5–22 of Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, which are superseded by this Statement. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. Application of this statement is effective for the City's fiscal year ending June 30, 2021.

GASB Statement No. 90

In August 2018, GASB issued Statement No. 90, *Majority Equity Interests— An Amendment of GASB Statements No. 14 and No. 61*. This Statement improves the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. It defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. A majority equity interest that meets the definition of an investment should be measured using the equity method, unless it is held by a special-purpose government engaged only in fiduciary activities, a fiduciary fund, or an endowment (including permanent and term endowments) or permanent fund. Those governments and funds should measure the majority equity interest at fair value. Application of this statement is effective for the City's fiscal year ending June 30, 2020.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

GASB Statement No. 91

In May 2019, GASB issued Statement No. 91, *Conduit Debt Obligations*. The primary objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. This Statement achieves those objectives by clarifying the existing definition of a conduit debt obligation; establishing that a conduit debt obligation is not a liability of the issuer; establishing standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improving required note disclosures. Application of this statement is effective for the City's fiscal year ending June 30, 2022.

II. Reconciliation of government-wide and fund financial statements

A. Explanation of certain differences between the governmental fund balance sheet and the government-wide statement of net position

The governmental fund balance sheet includes a reconciliation between *fund balance-total governmental funds* and *net position-governmental activities* as reported in the government-wide statement of net position. One element of that reconciliation explains that "long-term liabilities, including bonds payable, are not due and payable in the current period and therefore are not reported in the funds." The details of this (\$2,780,000) difference are as follows:

Accrued compensated absences of \$4,018,486 (net of \$1,238,486 reported in Internal Service Funds)	\$ 2,780,000
Net adjustment to reduce <i>fund balance-total governmental funds</i> to arrive at <i>net position-governmental activities</i>	\$ 2,780,000

B. Explanation of certain differences between the governmental fund statement of revenues, expenditures, and changes in fund balances and the government-wide statement of activities

The governmental fund statement of revenues, expenditures, and changes in fund balances includes a reconciliation between *net changes in fund balances-total governmental funds* and *changes in net position of governmental activities* as reported in the government-wide statement of activities. One element of that reconciliation explains "Governmental funds report capital outlays as expenditures. However, in the statement of activities the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense."

The details of this \$(1,446,972) difference are as follows:

Capital Outlay	\$ 9,449,463
Depreciation expense (net of \$5,434,771 reported in Internal Service Funds)	(10,896,435)
Net adjustment to increase <i>net changes in fund balance-total governmental</i> funds to arrive at <i>changes in net position-governmental activities</i>	\$ (1,446,972)

Another element of that reconciliation states that "The net effect of various miscellaneous transactions involving capital assets (i.e., sales, trade-ins, and donations) is to increase net position." Donated capital assets increase net position in the statement of activities, but do not appear in the governmental funds because they are not financial resources.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

The details of this \$9,449,463 difference are as follows:

General government capital asset additions	\$	45,089,184
Internal service fund capital asset additions		(5,698,125)
Donated capital asset additions		<u>(29,941,596)</u>
 Net capital outlay	 \$	 <u><u>9,449,463</u></u>

Another element of that reconciliation states that “Some expenses reported in the statement of activities do not require the use of current financial resources and therefore are not reported as expenditures in governmental funds.” The details of this \$81,000 difference are as follows:

Compensated absences (Net of (\$14,124)) reported in Internal Service Fund)	\$	<u>81,000</u>
 Net adjustment to decrease <i>net changes in fund balance-total governmental funds</i> to arrive at <i>changes in net position-governmental activities</i>	 \$	 <u><u>81,000</u></u>

III. Stewardship, compliance, and accountability

A. Budgetary information

Annual budgets are adopted on a basis consistent with generally accepted accounting principles for all governmental funds. All annual appropriations lapse at fiscal year-end.

On or before the second week of March of each year, all departments of the City submit request for appropriations to the City Manager so that a budget may be prepared. On or before the third Monday in May, the proposed budget is presented to the City council for review. The council holds public hearings and a final budget must be adopted no later than June 30.

The appropriated budget is prepared by fund and department. The City Manager may make transfers of appropriations between departments within a specific fund of up to \$5,000 and up to \$2,500 from any established reserves. Transfers in excess of those amounts require council action. No action is required at any level lower than the department level. The legal level of budgetary control is the department level. During the year, supplementary appropriations approved by the council were necessary for some departments.

B. Deficit fund equity

Government-Wide Financial Statements

At June 30, 2019, deficit unrestricted net position was reported for governmental activities in the amount of \$(66,182,775). The deficit is the result of reporting net pension liabilities of \$134,496,758 in the government-wide financial statement. City management believes the present cash aggregate position of the General Fund is adequate to meet current needs.

Internal Service Funds

The Employee Benefits internal service fund has deficit net position of \$(110,318,847) as of June 30, 2019. The deficit is the result of reporting net pension liabilities of \$134,496,758 in the government-wide financial statement. City management believes the present cash aggregate position of the General Fund is adequate to meet current needs.

The Employee Benefits internal service fund incurred expenses that were in excess of the amount allocated to the funds for workers compensation accrued liability. Due to the long-term nature of the liability for workers’ compensation the City will fund an amount equal to the current year expense for worker’s compensation benefits.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

IV. Detailed notes on all funds

A. Cash and investments

Cash and investments as of June 30, 2019 are classified in the accompanying financial statements as follows:

Primary Government:	
Cash and investments	\$ 234,971,405
Cash and investments - restricted	776,008
Restricted Fiduciary funds:	
Cash and investments	2,786,557
Cash and investments with agent - restricted	1,074,126
Total cash and investments	\$ 239,608,096

Fair value of cash and investments based on quoted market prices. The table below presents the fair value measurements of investments recognized in the accompany statements of net position/balance sheet measured at fair value on recurring basis and the level within GASB 72 fair value hierarchy in which the fair value measurements fall at June 30, 2019:

	Fair Value	Measurement Input
Cash on hand	\$ 8,185	N/A
Deposit with financial institution	4,051,870	
Investments:		
Money Market Funds	31,967,930	N/A
Certificates of Deposit	12,670,000	N/A
U.S. Agency Securities	124,059,977	Level 2
Local Agency Investment Fund (LAIF)	65,000,000	N/A
Held by Bond Trustee:		
Money Market Funds	1,850,134	N/A
Total	\$ 239,608,096	

Investments Authorized by the California Government Code and the City's Investment Policy. The table below identifies the investment types that are authorized for the City of Clovis by the California Government Code (or the City of Clovis investment policy, where more restrictive). The table also identifies certain provisions of the California Government Code (or the City of Clovis Investment Policy, where more restrictive) that address interest rate risk, credit risk and concentration of credit risk. This table does not address investments of debt proceeds held by bond trustee that are governed by the provisions of debt agreements of the City of Clovis, rather than the general provisions of the California Government Code or the City of Clovis' investment policy.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

Authorized Investment Type	Maximum Maturity	Maximum Percentage of Portfolio or Amount*	Maximum Investment or One Issuer or Amount
U.S. Treasury Obligations	3 years	None	None
U.S. Agency Securities	3 years	None	None
Bankers Acceptances	180 days	30%	30%
Commercial Paper	270 days	15%	10%
Negotiable Certificates of Deposit	3 years	30%	Legal Limit
Repurchase Agreements	1 year	None	None
Medium-Term Notes	3 years	30%	None
Qualified Mutual Funds	N/A	\$2,000,000	\$2,000,000
Money Market Accounts	N/A	\$10,000,000	\$10,000,000
Local Agency Investment Fund (LAIF)	N/A	None	None

* Excluding amounts held by bond trustee that are not subject to California Government Code restrictions.

Investments Authorized by Debt Agreements. Investment of debt proceeds held by bond trustee are governed by provisions of the debt agreements, rather than the general provisions of the California Government Code or the City of Clovis' investment policy. The table below identifies the investment types that are authorized for investments held by bond trustee. The table also identifies certain provisions of these debt agreements that address interest rate risk, credit risk, and concentration of credit risk.

Authorized Investment Type	Maximum Maturity	Maximum Percentage of Portfolio	Maximum Investment or One Issuer
U.S. Treasury Obligations	5 years	None	None
U.S. Agency Securities	5 years	None	None
Bankers Acceptances	180 days	30%	30%
Commercial Paper	270 days	15%	10%
Qualified Mutual Funds	N/A	None	None
Money Market Accounts	N/A	None	None
Local Agency Investment Fund (LAIF)	N/A	None	None

Disclosures Relating to Interest Rate Risk. Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. One of the ways that the City of Clovis manages its exposure to interest rate risk is by purchasing a combination of shorter term and longer term investments and by timing cash flows from maturities so that a portion of the portfolio is maturing or coming close to maturity evenly over time as necessary to provide the cash flow and liquidity needed for operations. The City of Clovis monitors the interest rate risk inherent in its portfolio by measuring the weighted average maturity of its portfolio. The City of Clovis investment policy states that no investment can have a maturity in excess of three years unless approved by the City Manager.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

Investment Type	Amount	Weighted Average Maturity (in years)
Money Market Funds	\$ 31,967,930	N/A
Certificates of Deposit	12,670,000	1.45
U.S. Agency Securities	124,059,977	1.55
Local Agency Investment Fund (LAIF)	65,000,000	N/A
Held by Bond Trustee:		
Money Market Funds	1,850,134	N/A
Total	\$ 235,548,041	

Investments with Fair Values Highly Sensitive to Interest Rate Fluctuations. The City of Clovis' investments do not include any investments that are highly sensitive to interest rate fluctuations (to a greater degree than already indicated in the information provided above).

Disclosures Relating to Credit Risk. Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the minimum rating required by (where applicable) the California Government Code, the City of Clovis' investment policy, or debt agreements, and the actual rating as of year-end for each investment type.

Investment Type	Rating	Amount	Minimum Rating Required	Ratings as of Year End	
				AAA	Not Rated
Money Market		\$ 31,967,930	N/A		\$ 31,967,930
Certificates of Deposit		12,670,000	N/A		12,670,000
U.S. Agency Securities		124,059,977	N/A	\$ 124,059,977	
LAIF		65,000,000	N/A		65,000,000
Held by Bond Trustee:					
Money Market Funds		1,850,134	N/A		1,850,134
Total		\$ 235,548,041		\$ 124,059,977	\$ 111,488,064

Concentration of Credit Risk. The investment policy of the City of Clovis contains no limitations on the amount that can be invested in any one issuer beyond that stipulated by the California Government Code. Investments in any one issuer (other than U.S. Treasury securities and external investment pools) that represent 5% or more of total City of Clovis' investments are as follows:

Issuer	Investment Type	Reported Amount	Percent of Total Invested
FFCB	Federal Agency Securities	\$ 33,508,498	14.23%
FHLMC	Federal Agency Securities	17,412,989	7.39%
FHLB	Federal Agency Securities	32,571,909	13.83%
FNMA	Federal Agency Securities	31,597,416	13.41%

Custodial Credit Risk. Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the broker or dealer to a transaction, a government will not be able to recover the value of its investments or collateral securities that are in the possession of another party. The California Government Code and the City of Clovis' investment policy do not contain legal or policy requirements

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

would limit the exposure to custodial credit risk for deposits or investments, other than the following provisions for deposits: The California Government Code requires that a financial institution secure deposits made by state or local government units by pledging securities in an undivided collateral pool held by a depository regulated under state law (unless so waived by the governmental unit). The market value of the pledged securities in the collateral pool must equal at least 110% of the total amount deposited by the public agencies. California law also allows financial institutions to secure City deposits by pledging first trust deed mortgage notes having a value of 150% of the secured public deposits.

As of June 30, 2019, no City of Clovis' deposits with financial institutions in excess of federal depository insurance limits were held in uncollateralized accounts. In addition, as of June 30, 2019, no investments were held by the same broker dealer (counterparty) that was used by the City of Clovis to purchase the securities.

Disclosures Relating to Interest Rate Risk. Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. As of year-end, the average life-month end maturity of the investments contained in the LAIF investment pool is approximately 173.

Investment in State Investment Pool. The City's investments with Local Agency Investment Fund (LAIF) at June 30, 2019 included a portion of the pooled funds invested in Structured Notes and Assets-Backed Securities. These investments included the following:

Structured Notes are debt securities (other than asset-backed securities) whose cash flow characteristics (coupon rate, redemption amount, or stated maturity) depend upon one or more indices and/or that have embedded forwards or options.

Asset-Backed Securities, the bulk of which are mortgage-backed securities, entitle their purchasers to receive a share of the cash flows from a pool of assets such as principal and interest repayments from a pool of mortgages (such as CMO's) or credit card receivables.

As of June 30, 2019, the City had \$65,000,000 invested in LAIF, which had invested 1.49% of the pool investment funds in Structured Notes and Asset-Backed Securities and 0.28% of pool investment funds in Short-term Asset-Backed Commercial Paper.

The fair value of the City's position in the LAIF pool is the same as the value of the pool shares.

The Pooled Money Investment Board provides oversight to the State Treasurer's pooled investment program. The purpose of the board is to design and administer an effective cash management and investment program, using all monies flowing through the State Treasurer's Office bank accounts and keeping all available funds invested in a manner consistent with the goals of safety, liquidity, and yield. The Pooled Money Investment Board is comprised of the State Treasurer as chair, the State Controller, and the Director of Finance. The investment program is not registered with the Securities and Exchange Commission as an investment company.

The State Treasurer's Office reports its investments at fair value. The fair value of securities in the State Treasurer's pooled investment program generally is based on quoted market prices. The value of the deposits in the State Treasurer's pooled investment program, including the Local Agency Investment Fund, is equal to the dollars deposited in the program.

Certain funds have elected to participate in the pooled investment program even though they have the authority to make their own investments. Others may be required by legislation to participate in the program; as a result, the deposits of these funds or accounts may be considered involuntary. However, these funds or accounts are part of the State's reporting entity. The remaining participation in the pool, the Local Agency Investment Fund, is voluntary.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

B. Property taxes

Secured property taxes become a lien on the property as of January 1 and are levied in two equal installments: the first due November 1 and delinquent on December 11, and the second due February 1 and delinquent April 11. Property taxes on unsecured property are due on the lien date of March 1 and become delinquent on September 1. The County of Fresno is responsible for the assessment, collection and apportionment for all jurisdictions within the County, including the City of Clovis.

C. Receivables

Receivables as of June 30, 2019 for the City's individual major funds and nonmajor, internal service, and fiduciary funds in the aggregate, are as follows:

	General	Local Transportation	Nonmajor & Other Funds	Total Governmental Funds	Internal Service Funds	Fiduciary Funds
Interest	\$ 72,597	\$ 162,014	\$ 48,193	\$ 282,804	\$ 135,653	\$ 2,142
Taxes	558,049			558,049		
Loans		88,143	3,400,538	3,488,681	47,090	
Accounts	1,352,653	184,309		1,536,962	21,252	
	<u>\$ 1,983,299</u>	<u>\$ 434,466</u>	<u>\$ 3,448,731</u>	<u>\$ 5,866,496</u>	<u>\$ 203,995</u>	<u>\$ 2,142</u>
	Community Sanitation	Sewer Disposal	Water	Planning & Development Services	Transit	Total Proprietary Funds
Interest	\$ 67,298	\$ 135,943	\$ 248,361	\$ 49,224	\$ 10,555	\$ 511,381
Loans		20,537	8,663			29,200
Accounts	3,286,555	2,413,346	2,617,614	4,477	8,428	8,330,420
	<u>\$ 3,353,853</u>	<u>\$ 2,569,826</u>	<u>\$ 2,874,638</u>	<u>\$ 53,701</u>	<u>\$ 18,983</u>	<u>\$ 8,871,001</u>

D. Interfund receivables, payables and transfers

Interfund balances for the purpose of the government-wide financial statements have been eliminated. The composition of interfund balances in the fund level statements as of June 30, 2019, is as follows:

Interfund transfers:

Transfers In	Transfers Out	Purpose	Amount
Enterprise Fund	Capital Project Fund	development capital cost	\$ 880,000
Local Transportation	Successor Agency	capital project	52,000
Local Transportation	General Fund	capital project	104,000
General Services	General Fund	capital project	6,000
Successor Agency	General Fund	capital project	685,000
Enterprise Fund	General Fund	operating cost	300,000
	Total transfers		<u>\$ 2,027,000</u>

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

E. Capital assets and intangible assets

Summary of change in capital assets for the year ended June 30, 2019 was as follows:

	Beginning Balance	Additions	Retirements/ Adjustments	Ending Balance
Government activities:				
Capital assets, not being depreciated:				
Land	\$ 234,071,518	\$ 17,293,952		\$ 251,365,470
Capital assets, being depreciated:				
Buildings and improvements	130,159,298	3,849,601		134,008,899
Machinery and equipment	46,090,246	2,688,854	\$ (929,999)	47,849,101
Road network	341,877,921	21,256,777		363,134,698
Total capital assets being depreciated	518,127,465	27,795,232	(929,999)	544,992,698
Less accumulated depreciation for				
Buildings and improvements	(43,558,857)	(3,727,979)		(47,286,836)
Machinery and equipment	(33,093,522)	(2,850,763)	868,874	(35,075,411)
Road network	(118,474,722)	(9,752,464)		(128,227,186)
Total accumulated depreciation	(195,127,101)	(16,331,206)	868,874	(210,589,433)
Total capital assets, being depreciated, net	323,000,364	11,464,026	(61,125)	334,403,265
Governmental activities capital assets, net	\$ 557,071,882	\$ 28,757,978	\$ (61,125)	\$ 585,768,735
	Beginning Balance	Additions	Retirements	Ending Balance
Business-type activities:				
Capital assets, not being depreciated:				
Land	\$ 36,624,392	\$ 725,481		\$ 37,349,873
Capital assets, being depreciated:				
Buildings and improvements	293,081,502	8,802,430		301,883,932
Machinery and equipment	8,936,819	2,219,807	\$ (738,441)	10,418,185
Total capital assets being depreciated	302,018,321	11,022,237	(738,441)	312,302,117
Less accumulated depreciation for				
Buildings and improvements	(80,291,219)	(6,422,904)		(86,714,123)
Machinery and equipment	(6,690,726)	(642,817)	701,128	(6,632,415)
Total accumulated depreciation	(86,981,945)	(7,065,721)	701,128	(93,346,538)
Total capital assets, being depreciated, net	215,036,376	3,956,516	(37,313)	218,955,579
Intangible assets, being amortized	48,893,842	826,964		49,720,806
Less accumulated amortization	(20,103,931)	(1,328,544)		(21,432,475)
Business-type activities intangible assets, net	28,789,911	(501,580)		28,288,331
Business-type activities capital assets, net	\$ 280,450,679	\$ 4,180,417	\$ (37,313)	\$ 284,593,783

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

Depreciation/amortization expense was charged to functions as follows:

Governmental activities depreciation expense:	
General government	\$ 64,923
Public safety	53,266
Transportation	9,844,499
Community Development	58,506
Cultural and recreation	875,241
Capital assets held by the government's internal service funds are charged to the various functions based on their usage of the asset	5,434,771
Total governmental activities depreciation expense	\$ 16,331,206
Business-type activities depreciation/amortization:	
Community Sanitation	\$ 251,002
Sewer Disposal	4,931,947
Water	2,778,994
Planning & Development Services	9,760
Transit	422,562
Total business-type activities depreciation/amortization expense	\$ 8,394,265

Donated assets to governmental activities consisted of \$29,941,596 of which the majority is donated to the City by developers for streets. Donated assets to business-type activities consisted of \$7,301,993 which represents sewer and water infrastructure donated by developers.

Fiduciary funds capital assets

	Beginning Balance	Additions	Retirements	Ending Balance
Capital assets, not being depreciated:				
Land	\$ 9,087,336			\$ 9,087,336
Capital assets, being depreciated:				
Buildings and improvements	2,687,521			2,687,521
Total capital assets being depreciated	2,687,521			2,687,521
Less accumulated depreciation for				
Buildings and improvements	(723,597)	\$ (77,103)		(800,700)
Total accumulated depreciation	(723,597)	(77,103)		(800,700)
Total capital assets, being depreciated, net	1,963,924	(77,103)		1,886,821
Fiduciary funds capital assets, net	\$ 11,051,260	\$ (77,103)		\$ 10,974,157

Depreciation expense for the year ended June 30, 2019 was \$77,103.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

F. Long-term debt

Summary of changes in long-term debt for the year ended June 30, 2019 was as follows:

	Balance			Balance June 30, 2019	Classification	
	July 1, 2018	Additions	Reductions		Due in One Year	Due in more than One Year
Governmental Activities:						
Capital leases	\$ 12,094,614	\$ 1,125,000	\$ (1,934,878)	\$ 11,284,736	\$ 1,871,048	\$ 9,413,688
Loans payable	1,195,510	1,840,035	(289,660)	2,745,885	313,578	2,432,307
Direct placements	9,971,742		(973,909)	8,997,833	1,005,432	7,992,401
Deposits & other liabilities:						
Developer deposits	18,232,259	8,942,322	(2,255,701)	24,918,880	24,918,880	
Other deposits & liabilities	452,063	366,248	(260,874)	557,437	557,437	
Total deposits & other liabilities	18,684,322	9,308,570	(2,516,575)	25,476,317	25,476,317	0
Claims and judgments	8,777,000	3,780,323	(2,895,323)	9,662,000	2,548,000	7,114,000
Compensated absences	4,113,610	2,056,098	(2,151,222)	4,018,486	1,087,100	2,931,386
Net pension liability	131,386,546	3,110,212		134,496,758		134,496,758
Total governmental activities	\$ 186,223,344	\$ 21,220,238	\$ (10,761,567)	\$ 196,682,015	\$ 32,301,475	\$ 164,380,540

	Balance			Balance June 30, 2019	Classification	
	July 1, 2018	Additions	Reductions		Due in One Year	Due in more than One Year
Business-Type Activities:						
Revenue bonds	\$ 106,075,000		\$ (3,965,000)	\$ 102,110,000	\$ 4,100,000	\$ 98,010,000
Less deferred amounts:						
(Discounts)/premiums	12,756,052		(750,164)	12,005,888		12,005,888
Total bonds payable	118,831,052		(4,715,164)	114,115,888	4,100,000	110,015,888
Contracts payable	6,449,775		(947,488)	5,502,287	997,257	4,505,030
Landfill closure	3,775,340	\$ 264,500		4,039,840		4,039,840
Compensated absences	1,122,016	1,020,182	(882,224)	1,259,974	340,800	919,174
Deposits & other liabilities	3,976,629	1,835,526	(937,312)	4,874,843	4,874,843	
Total business-type activities	\$ 134,154,812	\$ 3,120,208	\$ (7,482,188)	\$ 129,792,832	\$ 10,312,900	\$ 119,479,932

Internal service funds predominantly serve the governmental funds. Accordingly, long-term liabilities for them are included as part of the above totals for governmental activities. At year end \$1,238,486 of internal service funds compensated absences are included in the above amounts. Included in deposits and other liabilities in business-type activities are utility customer deposits of \$2,452,110 and miscellaneous deposits and other liabilities of \$2,422,733. For the governmental activities, accrued compensated absences are generally liquidated by the general fund. In addition, in prior years the employee benefit fund has been used to liquidate pension liabilities.

Governmental activities long-term debt

1. Capital leases

The City has entered into multiple lease agreements for financing the acquisition of a fire station, fire trucks, fire equipment (non-capitalized), communication equipment (non-capitalized), refuse replacement trucks, police vehicles, and new and replacement landfill equipment. These lease agreements qualify as capital leases for accounting purposes. These leases are secured by the right to any proceeds from the sale of the leased property. These leases have interest rates varying from 1.86% to 4.95% and the final payment on these leases is scheduled for May 2036.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

Capital leases at June 30, 2019, consisted of the following:

	Balance			Balance June 30, 2019	Classification	
	July 1, 2018	Additions	Reductions		Due in One Year	Due in more than One Year
2007 fire station #1	\$ 1,754,675		\$ (476,768)	\$ 1,277,907	\$ 496,032	\$ 781,875
2011 solar project	1,850,326		(104,387)	1,745,939	109,618	1,636,321
2011 fire truck	209,915		(67,657)	142,258	69,946	72,312
2013 animal shelter	2,395,614		(124,745)	2,270,869	129,785	2,141,084
2014 safety vehicle	665,662		(295,675)	369,987	71,277	298,710
2014 CAD dispatch	240,946		(77,976)	162,970	80,292	82,678
2015 network & AV	204,287		(80,665)	123,622	82,061	41,561
2015 PD/fire comm tower	1,396,283		(172,362)	1,223,921	176,430	1,047,491
2015 solar project	1,818,704		(77,012)	1,741,692	79,715	1,661,977
2016 safety vehicle	985,202		(245,188)	740,014	250,531	489,483
2018 safety vehicle	573,000		(107,879)	465,121	111,139	353,982
2019 safety vehicle		\$ 1,125,000	(104,564)	1,020,436	214,222	806,214
Total capital leases	\$ 12,094,614	\$ 1,125,000	\$ (1,934,878)	\$ 11,284,736	\$ 1,871,048	\$ 9,413,688

Governmental Activities

Year ending June 30,	Leases Payable		
	Principal	Interest	Total
2020	\$ 1,871,048	\$ 384,886	\$ 2,255,934
2021	1,890,167	323,847	2,214,014
2022	1,262,468	263,546	1,526,014
2023	1,029,123	225,776	1,254,899
2024	814,786	193,112	1,007,898
2025-2029	2,534,842	638,766	3,173,608
2030-2034	1,679,925	175,339	1,855,264
2035-2039	202,377	7,083	209,460
Total	\$ 11,284,736	\$ 2,212,355	\$ 13,497,091

The following is an analysis of the land, structures, and equipment leased as of June 30, 2019:

Land, structures and equipment	\$ 22,066,356
Less accumulated depreciation	<u>(7,820,979)</u>
Total	<u>\$ 14,245,377</u>

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

2. Loans payable

Loans payable at June 30, 2019, consisted of the following:

	Balance			Balance June 30, 2019	Classification	
	July 1, 2018	Additions	Reductions		Due in One Year	Due in more than One Year
R&T park loan payable	\$ 148,659		\$ (48,067)	\$ 100,592	\$ 49,537	\$ 51,055
2010 energy loan payable	158,666		(105,516)	53,150	53,150	
2011 energy loan payable	604,623		(67,947)	536,676	69,960	466,716
2012 energy loan payable	79,699		(22,771)	56,928	22,771	34,157
2013 energy loan payable	9,076		(9,076)	0		
2014 energy loan payable	48,142		(7,825)	40,317	7,903	32,414
2016 energy loan payable	128,183		(19,227)	108,956	19,227	89,729
2017 energy loan payable	18,462		(9,231)	9,231	9,231	
2019 energy loan payable		\$ 1,840,035		1,840,035	81,799	1,758,236
Total loans payable	\$ 1,195,510	\$ 1,840,035	\$ (289,660)	\$ 2,745,885	\$ 313,578	\$ 2,432,307

The annual debt service requirements for the loans payable outstanding at June 30, 2019, are as follows:

Year ending June 30,	Loans Payable		Total
	Principal	Interest	
2020	\$ 313,578	\$ 63,321	\$ 376,899
2021	282,364	31,862	314,226
2022	223,279	27,727	251,006
2023	215,327	24,294	239,621
2024	218,783	20,838	239,621
2025-2029	757,528	59,077	816,605
2030-2034	609,444	23,180	632,624
2035-2039	125,582	944	126,526
Total	\$ 2,745,885	\$ 251,243	\$ 2,997,128

The following is an analysis of the assets acquired with the proceeds as of June 30, 2019:

Buildings and improvements	\$ 2,446,360
Less accumulated depreciation	(706,183)
Total	\$ 1,740,177

Research and Technology Park loan payable

In April 2001, the City entered into an agreement with the California infrastructure and economic development bank for improvements at the City's Research and Technology Park. The agreement has an interest rate of 3.06% and the final payment is scheduled for August 2021. The City has pledged Building B at 1033 Fifth Street as collateral on the lease. In September 2002, the City received the first draw down of this loan. The balance outstanding as of June 30, 2019, was \$100,592.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

2010 Energy project loan payable

In January 2010, the City entered into an agreement with the California Energy Commission for the purchase of lighting efficiency upgrades and heating, ventilating, and air conditioning equipment replacement. The agreement has an interest rate of 1.0% and the final payment is scheduled for December 2019. The balance outstanding as of June 30, 2019, was \$53,150.

2011 Energy project loan payable

In April 2011, the City entered into an agreement with the California Energy Commission for the installation of solar panels on City properties including public safety headquarters and fire station #1 and #5. The agreement has an interest rate of 3.0% and the final payment is scheduled for June 2026. The balance outstanding as of June 30, 2019, was \$536,676.

2012 PG&E Energy loan payable

In April 2012, the City entered into an agreement with Pacific Gas & Electric for the retrofit of 436 street lights with LED fixtures. The agreement has an interest rate of 0% and the final payment is scheduled for December 2021. The balance outstanding as of June 30, 2019, was \$56,928.

2013 PG&E Energy loan payable

In August 2012, the City entered into an agreement with Pacific Gas & Electric for the purchase and installation of four pre-coolers on the Public Safety Facility's four HVAC Units. The agreement has an interest rate of 0% and the final payment is scheduled for June 2019. The balance outstanding as of June 30, 2019, was \$0.

2014 PG&E Energy loan payable

In October 2014, the City entered into an agreement with Pacific Gas & Electric for the retrofit of LED street lights. The agreement has an interest rate of 1% and the final payment is scheduled for June 2024. The balance outstanding as of June 30, 2019, was \$40,317.

2016 PG&E Energy loan payable

In May 2017, the City entered into an agreement with Pacific Gas & Electric as "On Bill Financing" for the retrofit of LED lighting at the Corp Yard. The agreement has an interest rate of 0% and the final payment is scheduled for February 2025. The balance outstanding as of June 30, 2019, was \$108,956.

2017 PG&E Energy loan payable

In September 2017, the City entered into an agreement with Pacific Gas and Electric to provide and install LED lighting at Clovis Rotary Skate Park at Letterman Park. The agreement has an interest rate of 0% and the final payment is scheduled for June 2020. The balance outstanding as of June 30, 2019, was \$9,231.

2019 Energy project loan payable

In July 2018, the City entered into an agreement with the California Energy Commission for the installation of LED lighting in City buildings. The agreement has an interest rate of 1.0% and the final payment is scheduled for June 2034. The balance outstanding as of June 30, 2019, was \$1,840,035.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

3. Notes from Direct Placements

The City has entered into a direct placement agreement for financing the acquisition of a fleet yard. The direct placement is secured by the right to any proceeds from the sale of the fleet yard property. The direct placement has an interest rate of 3.10% and the final payment on these leases is scheduled for March 2027.

Notes from direct placements at June 30, 2019, consisted of the following:

	Balance July 1, 2018	Additions	Reductions	Balance June 30, 2019	Classification	
					Due in One Year	Due in more than One Year
2014 corp yard	\$ 9,971,742		\$ (973,909)	\$ 8,997,833	\$ 1,005,432	\$ 7,992,401
Total direct placements	<u>\$ 9,971,742</u>	<u>\$ 0</u>	<u>\$ (973,909)</u>	<u>\$ 8,997,833</u>	<u>\$ 1,005,432</u>	<u>\$ 7,992,401</u>

Year ending June 30,	Direct Placements		
	Principal	Interest	Total
2020	\$ 1,005,432	\$ 271,141	\$ 1,276,573
2021	1,040,270	239,702	1,279,972
2022	1,072,014	207,208	1,279,222
2023	1,102,231	173,741	1,275,972
2024	1,140,950	139,272	1,280,222
2025-2029	3,636,936	199,732	3,836,668
Total	<u>\$ 8,997,833</u>	<u>\$ 1,230,796</u>	<u>\$ 10,228,629</u>

The following is an analysis of the land, structures, and equipment of the direct placement as of June 30, 2019:

Land, structures and equipment	\$ 2,057,359
Less accumulated depreciation	<u>(360,038)</u>
Total	<u>\$ 1,697,321</u>

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

Business-type activities long-term debt

1. Revenue bonds

Revenue bonds at June 30, 2019, consisted of the following:

	Balance			Balance June 30, 2019	Classification	
	July 1, 2018	Additions	Reductions		Due in One Year	Due in more than One Year
2013 wastewater bonds	\$ 10,605,000		\$ (515,000)	\$ 10,090,000	\$ 535,000	\$ 9,555,000
2015 wastewater bonds	21,300,000		(160,000)	21,140,000	165,000	20,975,000
2017 wastewater bonds	50,710,000		(1,400,000)	49,310,000	1,435,000	47,875,000
2014 water bonds	23,460,000		(1,890,000)	21,570,000	1,965,000	19,605,000
Total revenue bonds	\$ 106,075,000	\$ 0	\$ (3,965,000)	\$ 102,110,000	\$ 4,100,000	\$ 98,010,000

The annual debt service requirements for the revenue bonds outstanding at June 30, 2019, are as follows:

Year ending June 30,	Revenue Bonds		Total
	Principal	Interest	
2020	\$ 4,100,000	\$ 4,804,307	\$ 8,904,307
2021	4,260,000	4,647,217	8,907,217
2022	4,475,000	4,443,394	8,918,394
2023	4,695,000	4,217,769	8,912,769
2024	4,940,000	3,979,894	8,919,894
2025-2029	34,085,000	15,014,771	49,099,771
2030-2034	19,795,000	8,262,247	28,057,247
2034-2038	25,760,000	3,304,913	29,064,913
Total	\$ 102,110,000	\$ 48,674,512	\$ 150,784,512

The following is an analysis of the improvements made with the proceeds of these bonds through June 30, 2019:

Land, structures and equipment	\$ 140,291,752
Less accumulated depreciation	<u>(41,401,533)</u>
Total	<u>\$ 98,890,219</u>

2013 wastewater revenue bonds

In July 2013, The City issued wastewater revenue refunding bonds in the amount of \$12,500,000. The net proceeds of \$12,698,281 (after the original issue premium of \$596,726 and payment of \$398,445 in underwriting fees, insurance, and other issuance costs) from the bonds were used to refund the \$13,745,000 aggregate principal amount outstanding on the City's 1998 wastewater bonds. The aggregate debt service payments of the new debt are \$2,519,935 less than the old debt. The bonds have interest rates varying from 0.75% to 4.73% and the final payment is scheduled for August 2028. The issuance of the new debt and refunding of the old debt resulted in an economic gain (the difference between the net present value of the old debt and new debt service payments) of approximately \$644,000.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

2015 wastewater revenue bonds

In August 2015, The City refinanced the 2005 wastewater revenue bonds and issued 2015 wastewater revenue bonds in the amount of \$21,600,000. The net proceeds of \$22,881,723 (after the original issue premium of \$1,652,032 and payment of \$370,309 in underwriting fees, insurance, and other issuance costs) from the bonds were used to refund the \$24,885,000 aggregate principal amount outstanding on the City's 2005 wastewater bonds. The aggregate debt service payments of the new debt are \$10,852,200 less than the old debt. The bonds have interest rates varying from 2.0% to 3.75% and the final payment is scheduled for August 2035. The issuance of the new debt and refunding of the old debt resulted in an economic gain (the difference between the net present value of the old debt and new debt service payments) of approximately \$4,410,265.

2017 wastewater revenue bonds

In August 2017, The City refinanced the 2007 wastewater revenue bonds and issued 2017 wastewater revenue bonds in the amount of \$50,710,000. The net proceeds of \$59,836,790 (after the original issue premium of \$9,687,427 and payment of \$560,637 in underwriting fees, insurance, and other issuance costs) from the bonds were used to refund the \$59,620,000 aggregate principal amount outstanding on the City's 2007 wastewater bonds. The aggregate debt service payments of the new debt are \$18,669,931 less than the old debt. The bonds have interest rates varying from 2.0% to 5.0% and the final payment is scheduled for August 2038. The issuance of the new debt and refunding of the old debt resulted in an economic gain (the difference between the net present value of the old debt and new debt service payments) of approximately \$8,750,978.

2014 water refunding revenue bond

In July 2013, The City issued water revenue refunding bonds in the amount of \$31,810,000. The net proceeds of \$33,780,909 (after the original issue premium of \$2,427,739 and payment of \$456,830 in underwriting fees, insurance, and other issuance costs) from the bonds were used to refund the \$33,895,000 aggregate principal amount outstanding on the City's 2003 water revenue bonds. The aggregate debt service payments of the new debt are \$4,614,844 less than the old debt. The issuance of the new debt and refunding of the old debt resulted in an economic gain (the difference between the present value of the old debt and new debt service payments) of approximately \$2,651,000.

2. Contracts payable

Contracts payable at June 30, 2019, consisted of the following:

	Balance			Balance June 30, 2019	Classification	
	July 1, 2018	Additions	Reductions		Due in One Year	Due in more than One Year
1993 wastewater renovation	\$ 6,449,775		\$ (947,488)	\$ 5,502,287	\$ 997,257	\$ 4,505,030
Total contracts payable	<u>\$ 6,449,775</u>	<u>\$ 0</u>	<u>\$ (947,488)</u>	<u>\$ 5,502,287</u>	<u>\$ 997,257</u>	<u>\$ 4,505,030</u>

1993 wastewater renovation

The City has entered into a contract with the City of Fresno to purchase capacity rights in the form of participation in the cost of sewer system improvements. These improvements include the renovation and expansion of the Fresno Clovis Regional Wastewater Treatment Plant. The 1993 contract is for the City's share of the 1993 renovation of the Fresno Clovis Regional Wastewater Treatment Plant. The underlying City of Fresno 1993 Revenue Bonds on which the City of Clovis' contract payable amount is based have interest rates varying from 3.50%-6.25% and the final payments are scheduled for September 2023. The City's \$12,423,873 share of the renovation is capitalized as an intangible asset in the Sewer Disposal Fund, an enterprise fund, as disclosed in Note I. D. 6.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

The 1993 waste water renovation contract debt service requirements to maturity are as follows:

Year ending June 30,	Contracts Payable		Total
	Principal	Interest	
2020	\$ 997,257	\$ 234,278	\$ 1,231,535
2021	1,049,843	183,166	1,233,009
2022	1,099,612	132,117	1,231,729
2023	1,151,729	80,087	1,231,816
2024	1,203,846	27,087	1,230,933
Total	\$ 5,502,287	\$ 656,735	\$ 6,159,022

Fiduciary funds long-term debt

1. Tax allocation bonds payable

2008 Tax allocation bonds

The former Clovis Community Development Agency issued tax allocation bonds in the amount of \$19,100,000 in April 2008. The interest rates on the 2008 tax allocation bonds vary from 3.00% to 4.75% and the final payment is scheduled for August 2037. Bonds outstanding at January 31, 2012 were \$17,445,000 and were transferred to the Successor Agency on February 1, 2012 due to the dissolution of the Agency. The balance outstanding at June 30, 2019 is \$12,835,000 and is held in the City's Redevelopment Successor Agency Private-purpose Trust Fund.

Tax allocation bonds at June 30, 2019, consisted of the following:

				Classification		
	Balance July 1, 2018	Additions	Reductions	Balance June 30, 2019	Due in One Year	Due in more than One Year
2008 tax allocation bonds	\$ 13,570,000		\$ (735,000)	\$ 12,835,000	\$ 770,000	\$ 12,065,000
Less (discounts) on bonds	(152,053)		7,968	(144,085)		(144,085)
Total tax allocation bonds	\$ 13,417,947	\$ 0	\$ (727,032)	\$ 12,690,915	\$ 770,000	\$ 11,920,915

The annual debt service requirements for the tax allocation bonds outstanding at June 30, 2019, are as follows:

Year ending June 30,	Tax Allocation Bonds		
	Principal	Interest	Total
2020	\$ 770,000	\$ 569,901	\$ 1,339,901
2021	805,000	535,251	1,340,251
2022	845,000	498,951	1,343,951
2023	880,000	461,001	1,341,001
2024	915,000	421,511	1,336,511
2025-2029	5,250,000	1,422,075	6,672,075
2030-2034	2,190,000	451,210	2,641,210
2034-2038	1,180,000	115,188	1,295,188
Total	\$ 12,835,000	\$ 4,475,088	\$ 17,310,088

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

G. Landfill closure

The City has recorded liabilities for landfill closure, post-closure maintenance and for landfill corrective action in the Community Sanitation Fund, an enterprise fund. The State of California performs an annual analysis to determine estimated total cost of the landfill closure, post-closure care costs, total capacity and remaining life. The City's landfill closure liability, based on landfill capacity used to date, is recorded based on the information provided by their analysis. The landfill corrective action liability is based on the estimated cost of known or reasonably foreseeable corrective action that may be required at the facility.

The City is currently estimating at June 30, 2019 that the capacity of the landfill used is approximately 34%, the estimated remaining life is approximately 30 years and the estimated remaining cost to be recognized is \$18,163,230. The estimated capacity remaining is 6,506,431 cubic yards and the estimated landfill closure liability is \$4,039,840. The current estimated cost of known and/or reasonably foreseeable corrective action is \$2,444,931 and the City currently has \$1,000,000 set aside for this purpose. These estimates are based on a closure and post-closure maintenance plan and corrective action plan. The estimates have been adjusted for inflation and other factors such as technology and laws and regulations.

H. Pension Plans

General Information about the Pension Plan

Plan Description

The City contributes to the California Public Employees' Retirement System (CalPERS), an agent multiple-employer public employee defined benefit pension plan. CalPERS acts as a common investment and administrative agent for participating public entities within the State of California. Benefit provisions and all other requirements are established by state statute and City ordinance. A full description of the pension plan regarding number of employees covered, benefit provisions, assumptions (for funding, but not accounting purposes), and membership information are listed in the June 30, 2017 Annual Actuarial Valuation Report. This report and CalPERS' audited financial statements are publicly available reports that can be obtained at CalPERS' website under Forms and Publications.

Benefit Provided

CalPERS provides retirement and disability benefits, annual cost-of-living adjustments, and death benefits to plan members and beneficiaries. A classic miscellaneous member becomes eligible for Service Retirement upon attainment of age 55 with at least 5 years of credited service. PEPRAs miscellaneous members become eligible for service retirement upon attainment of age 62 with at least 5 years of service. A classic safety member becomes eligible for Service Retirement upon attainment of age 50 with at least 5 years of credited service. PEPRAs safety members become eligible for service retirement upon attainment of age 57 with at least 5 years of service. The service retirement benefit is a monthly allowance equal to the product of the benefit factor, years of service, and final compensation. The final compensation is the monthly average of the member's highest 36 or 12 consecutive months' full-time equivalent monthly pay. Retirement benefits for classic miscellaneous employees are calculated as 2.7% of the average final 12 months compensation. Retirement benefits for PEPRAs miscellaneous employees are calculated as 2% of the highest average annual compensation over a three-year period. Retirement benefits for classic safety employees are calculated as 3% of the average highest 12 months compensation. Retirement benefits for PEPRAs safety employees are calculated as 2.7% of the average highest 36 months compensation.

Participants are eligible for non-industrial disability retirement if they become disabled and have at least 5 years of credited service. There is no special age requirement. The standard non-industrial disability retirement benefit is a monthly allowance equal to 1.8 percent of final compensation, multiplied by service. Industrial disability benefits are not offered to miscellaneous employees. The City provides industrial disability retirement benefits to safety employees. The industrial disability retirement benefit is a monthly allowance equal to 50 percent of highest compensation.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

An employee's beneficiary may receive the basic death benefit if the employee dies while actively employed. The employee must be actively employed with the City to be eligible for this benefit. An employee's survivor who is eligible for any other pre-retirement death benefit may choose to receive that death benefit instead of this basic death benefit. The basic death benefit is a lump sum in the amount of the employee's accumulated contributions, where interest is currently credited at 7.5 percent per year, plus a lump sum in the amount of one month's salary for each completed year of current service, up to a maximum of six months' salary. For purposes of this benefit, one month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.

Benefit terms provide for annual cost-of-living adjustments to each employee's retirement allowance. Beginning the second calendar year after the year of retirement, retirement and survivor allowances will be annually adjusted by 2 percent applied to the original retirement allowance.

Employees Covered by Benefit Terms

At June 30, 2018, the measurement date, the following employees were covered by the benefit terms:

	Plans	
	Miscellaneous	Safety
Active employees	470	160
Transferred and terminated employees	621	59
Retired Employees and Beneficiaries	287	176
Total	1,378	395

Contributions

Section 20814(c) of the California Public Employees' Retirement Law ("PERL") requires that the employer contribution rates for all public employers be determined on an annual basis by the actuary and shall be effective on the July 1 following notice of a change in the rate. The total plan contributions are determined through CalPERS' annual actuarial valuation process. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. The employer is required to contribute the difference between the actuarially determined rate and the contribution rate of employees. The contributions for the measurement period were as follows:

	Miscellaneous	Safety	Aggregate Total
Contributions - employer	\$ 3,326,932	\$ 5,062,611	\$ 8,389,543

Actuarial Methods and Assumptions Used to Determine Total Pension Liability

For the measurement period ended June 30, 2018, the total pension liability was determined by rolling forward the June 30, 2017 total pension liability. The June 30, 2018 total pension liability was based on the following actuarial methods and assumptions:

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

Actuarial Cost Method	Entry Age Normal
Actuarial Assumptions:	
Discount Rate	7.15%
Inflation	2.75%
Salary Increases	Varies by Entry Age and Service
Investment Rate of Return	7.5% Net of Pension Plan Investment and Administrative Expenses; includes Inflation
Mortality Rate Table	Derived using CalPERS' Membership Data for all Funds
Post Retirement Benefit Increase	Contract COLA up to 2.50% until Purchasing Power Protection Allowance Floor on Purchasing Power applies, 2.50% thereafter

The Experience Study report can be obtained at CalPERS' website under Forms and Publications.

Discount Rate

In Fiscal Year 2016-17, the financial reporting discount rate was lowered from 7.65 percent to 7.15 percent. In December 2016, the CalPERS Board approved lowering the funding discount rate from 7.50 percent to 7.00 percent, which is to be phased-in over a three-year period (7.50 percent to 7.375 percent, 7.375 percent to 7.25 percent, and 7.25 percent to 7.00 percent) beginning with the June 30, 2016, valuation reports. The funding discount rate includes a 15 basis-point reduction for administrative expenses, and the remaining decrease is consistent with the change in the financial reporting discount rate.

Long-term Expected Real Rates of Return by Asset Class

The table below reflects long-term expected real rates of return by asset class. The rates of return were calculated using the capital market assumptions applied to determine the discount rate and asset allocation. These geometric rates of return are net of administrative expenses.

Asset Class ¹	Assumed Asset Allocation	Real Return Years 1 - 10 ²	Real Return Years 11+ ³
Global Equity	50.00%	4.80%	5.98%
Global Fixed Income	28.00%	1.00%	2.62%
Inflation Assets	0.00%	0.77%	1.81%
Private Equity	8.00%	6.30%	7.23%
Real Estate	13.00%	3.75%	4.93%
Liquidity	1.00%	0.00%	-0.92%

¹ In the Basic Financial Statements, Fixed Income is included in Global Debt Securities; Liquidity is included in Short-Term Investments; Inflation Assets are included in both Global Equity Securities and Global Debt Securities.

² An expected inflation of 2.00% used for this period.

³ An expected inflation of 2.92% used for this period.

Pension Expense

The Net Pension Expense for the year ended June 30, 2019 is itemized as follows:

	Net Pension Expense
Miscellaneous Plan	\$ 4,416,058
Safety Plan	4,507,804
	\$ 8,923,862

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

Changes in the Net Pension Liability

The following table shows the changes in net pension liability recognized over the measurement period.

Miscellaneous Plan

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/(Asset)
Balance at June 30, 2017 (Valuation Date)	\$ 191,571,342	\$ 134,583,954	\$ 56,987,388
Changes Recognized for the Measurement Period:			
Service Cost	4,786,244		4,786,244
Interest on the total pension liability	13,670,020		13,670,020
Changes of assumptions	(1,271,290)		(1,271,290)
Differences between expected and actual experience	2,414,711		2,414,711
Contributions from the employer		3,326,932	(3,326,932)
Contributions from employees		4,295,547	(4,295,547)
Net investment income		11,445,035	(11,445,035)
Benefit payments, including refunds of employee contributions	(7,837,606)	(7,837,606)	0
Net plan to plan resource movement		(337)	337
Administrative expense		(209,719)	209,719
Other miscellaneous Income/(Expense) ¹		(398,260)	398,260
Net Changes during July 1, 2017 to June 30, 2018	\$ 11,762,079	\$ 10,621,592	\$ 1,140,487
Balance at June 30, 2018 (Measurement Date)	\$ 203,333,421	\$ 145,205,546	\$ 58,127,875

Safety Plan

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/(Asset)
Balance at June 30, 2017 (Valuation Date)	\$ 205,476,206	\$ 131,077,048	\$ 74,399,158
Changes Recognized for the Measurement Period:			
Service Cost	5,400,076		5,400,076
Interest on the total pension liability	14,583,496		14,583,496
Changes of assumptions	(626,378)		(626,378)
Differences between expected and actual experience	1,258,478		1,258,478
Contributions from the employer		5,062,611	(5,062,611)
Contributions from employees		3,107,991	(3,107,991)
Net investment income		11,067,806	(11,067,806)
Benefit payments, including refunds of employee contributions	(9,686,731)	(9,686,731)	0
Net plan to plan resource movement		(325)	325
Administrative expense		(204,254)	204,254
Other miscellaneous Income/(Expense) ¹		(387,882)	387,882
Net Changes during July 1, 2017 to June 30, 2018	\$ 10,928,941	\$ 8,959,216	\$ 1,969,725
Balance at June 30, 2018 (Measurement Date)	\$ 216,405,147	\$ 140,036,264	\$ 76,368,883

¹ During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions (GASB 75), CalPERS reported its proportionate share of activity related to postemployment benefits for participation in the State of California's agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75.

Additionally, CalPERS employees participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded a correction to previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68).

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the Plan as of the measurement date, calculated using the discount rate of 7.15 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage-point lower (6.15 percent) or 1 percentage-point higher (8.15 percent) than the current rate:

	Plan's Net Pension Liability/(Asset)		
	Discount Rate - 1%	Current Discount	Discount Rate + 1%
	(6.15%)	Rate (7.15%)	(8.15%)
Miscellaneous Plan	\$ 86,144,541	\$ 58,127,875	\$ 34,980,669
Safety Plan	\$ 106,547,293	\$ 76,368,883	\$ 51,543,881
Aggregate Total	\$ 192,691,834	\$ 134,496,758	\$ 86,524,550

Pension Plan Fiduciary Net Position

Detailed information about the plan's fiduciary net position is available in the separately issued CalPERS financial report.

Deferred Outflows and Deferred Inflows of Resources Related to Pensions

Deferred Outflows of Resources

	Deferred employer pension contributions made after measurement date	Changes in assumptions	Investment earnings less than expected earnings	Differences between actual versus expected experience	Total pension-related deferred outflows
Miscellaneous Plan	\$ 4,048,805	\$ 4,503,404	\$ 179,642	\$ 2,184,091	\$ 10,915,942
Safety Plan	5,912,775	7,180,920	295,813	2,813,981	16,203,489
Total	\$ 9,961,580	\$ 11,684,324	\$ 475,455	\$ 4,998,072	\$ 27,119,431

Deferred Inflows of Resources

	Changes in assumptions	Total pension-related deferred inflows
Miscellaneous Plan	\$ 918,154	\$ 918,154
Safety Plan	1,212,037	1,212,037
Total	\$ 2,130,191	\$ 2,130,191

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

Amortization of deferred outflows/(inflows) of resources

Amounts reported as deferred outflows and deferred inflows of resources related to pensions will be recognized in future pension expense as follows:

Measurement Period Ended June 30	Deferred Outflows/(Inflows) of Resources	
	Miscellaneous Plan	Safety Plan
2019	\$ 5,462,937	\$ 4,264,727
2020	2,029,596	3,320,336
2021	(1,172,525)	1,448,166
2022	(371,025)	33,053
2023	0	12,395
	\$ 5,948,983	\$ 9,078,677

Payable to Pension Plan

At June 30, 2019, the City reported a payable of \$0 for the outstanding amount of contributions to the pension plan required for the year ended June 30, 2019.

I. Tax Abatements

The City has not entered into any tax abatement agreements as of June 30, 2019. However, the County of Fresno (County) has provided certain tax abatements that affect the property tax revenues of the City.

The County provides property tax abatements through the California Land Conservation (Williamson) Act of 1965. The program enrolls land in Williamson Act or Farmland Security Zone contracts within established agricultural preserves, whereby the land is restricted to agricultural or qualified recreational uses in exchange for reduced property tax assessments. The Williamson Act Program is administered according to the statute and the County's Interim Program Guidelines adopted by the County's Board of Supervisors. The County's Assessor administers the property tax reduction that parcels enrolled in the program receive. Parcels enrolled in the Williamson Act Program are assessed for property tax purposes at a rate consistent with their actual use, rather than the market value of the property. The minimum contract term for the Williamson Act is ten years and for the Farmland Security Zone is twenty years. Both, the Williamson Act and the Farmland Security Zone contracts automatically renew until a notice of non-renewal or a certificate of cancellation is recorded. Under the non-renewal process, the annual tax assessment gradually increases over a defined period of time until the assessment reflects the market value of the property. Under the cancellation process, a onetime cancellation fee is assessed based upon a certain percentage of the unrestricted, current fair market value of the property.

For the fiscal year ended June 30, 2019, the County's Williamson Act Program tax abatements were \$40,673,954. The City's affected portion of property tax revenues (approximately 1.9%) is, therefore, \$772,800.

V. Other information

A. Self insurance

The City is self-insured for general liability, automobile liability, workers' compensation, group dental and group vision programs. The City is responsible for all claims up to \$2,000 per occurrence for automobile liability, \$5,000 per occurrence for property, \$250,000 per occurrence for workers' compensation, and \$100,000 per occurrence on general liability. The dental and vision programs have no individual per occurrence stop-loss and no aggregate annual stop-loss. Excess insurance for all amounts in excess of the self-insured retention in the workers' compensation program is purchased from Local Agency Workers' Compensation Excess JPA (LAWCX). Consistent with the LAWCX Memorandum of Coverage, LAWCX provides coverage for the City above its self-insured retention of \$250,000 up to \$5,000,000. LAWCX purchases excess insurance which covers the pool for losses from \$5,000,000 to statutory limits.

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

The City is a member of the Central San Joaquin Valley Risk Management Authority (RMA) for the purpose of pooling general liability coverage under a retrospectively rated Memorandum of Coverage. Deposit premiums to the RMA are based on actuarially determined claims costs, including incurred but not reported claims, and expenses. Premiums are accrued based on the ultimate cost determined by the experience to date of the pool's member cities. The risk pool covers the City above its self-insured retention of \$100,000 up to \$1,000,000. The Authority purchases excess insurance which covers the pool for losses from \$1,000,001 to \$29,000,000. Pool Members may receive rebates when declared by RMA or, in the event excess liability claims against RMA exceed available resources, may be required to make additional contributions through a retrospective adjustment process.

The City accounts for the self-insurance programs in the Self-Insurance Fund and Employee Benefits Fund, both internal service funds. Charges to user departments are reported as interfund transactions.

Incurred but not reported claims have been accrued as a liability for the workers' compensation and dental programs as required in the amount of \$3,364,900 based on previous claims experience and actuarial studies.

There were no reductions in insurance coverage from the prior year and there were no settlements that exceeded insurance coverage for the past three fiscal years. Following is a reconciliation of the changes in the City's aggregate liabilities for claims for the current and prior fiscal year:

	Workers' Compensation	Dental	Total
Balance, 06/30/17	\$ 8,250,000	\$ 48,000	\$ 8,298,000
Claims provision	3,673,548	366,903	4,040,451
Claims paid	(3,194,548)	(366,903)	(3,561,451)
Balance, 06/30/18	\$ 8,729,000	\$ 48,000	\$ 8,777,000
Claims provision	3,410,375	369,948	3,780,323
Claims paid	(2,525,375)	(369,948)	(2,895,323)
Balance, 06/30/19	\$ 9,614,000	\$ 48,000	\$ 9,662,000

B. Deferred compensation

The City has established a deferred compensation plan in accordance with Internal Revenue Code Section 457. The plan, available to all full time employees, permits them to defer a portion of their salary until future years. Participation in the plan is optional. The deferred compensation is not available to employees until termination, retirement, death or unforeseeable emergency. All amounts deferred under the plan and all income attributable to those amounts are solely the property and rights of the plan participants.

Semi-monthly the City forwards all contributions to the plan administrator, the ICMA Retirement Corporation. Plan participants may choose from investment options which are managed by the plan trustee. The City has no liability for losses under the plan. As of January 1, 1998 ICMA Retirement Corporation amended the agreement with the City to comply with IRC Section 457 regulations. The assets and related liabilities are not reported on the City's financial statements in accordance with Governmental Accounting Standards Board Statement No. 32 - "Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans."

CITY OF CLOVIS
Notes to Financial Statements
For the Year Ended June 30, 2019

AGENDA ITEM NO.12.

C. Postretirement benefits

The City allows its retirees who retire under provisions of a regular service retirement and who have five years of service the opportunity to continue enrollment in the City's health insurance program until age 65. The retirees have the same choice of insurance plans as those of current employees. The retirees are pooled together separately from the active employee pool and pay the full cost of the insurance premiums without cost to the City.

D. Contingent liabilities

The City participates in a number of federally assisted grant programs, including those from the U.S. Department of Housing and Urban Development, U.S. Department of Justice, U.S. Department of Transportation, U.S. Department of Labor, U.S. Department of Health and Human Services and the U.S. Department of Homeland Security. Receipts from these grant programs are subject to audit to determine if the monies were expended in accordance with the appropriate statutes, grant terms and regulations. The City believes no significant liabilities will result.

Although the outcome of other lawsuits and claims is not determinable, it is the opinion of the City Attorney that the resolution of these matters will not have a material adverse effect on the financial condition of the City.

E. Subsequent events

Subsequent events have been evaluated through November 13, 2019, the date in which the financial statements have been issued. No items have been identified subsequent to June 30, 2019 that require reporting.

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REQUIRED SUPPLEMENTARY INFORMATION
Schedule of Changes in Net Pension Liability and Related Ratios

AGENDA ITEM NO. 12.

California Public Employees' Retirement System (CalPERS) - Miscellaneous Plan
 Last Ten Fiscal Years

Measurement period	2017-18	2016-17	2015-16
Total pension liability			
Service Cost	\$ 4,786,244	\$ 4,581,081	\$ 4,019,807
Interest on the total pension liability	13,670,020	12,863,057	12,118,925
Changes of assumptions	(1,271,290)	10,936,836	
Difference between expected and actual experience	2,414,711	812,258	898,210
Benefit pmts, including refunds of employee contributions	(7,837,606)	(6,970,312)	(6,395,433)
Net change in total pension liability	11,762,079	22,222,920	10,641,509
Total pension liability - beginning	191,571,342	169,348,422	158,706,913
Total pension liability - ending (a)	\$ 203,333,421	\$ 191,571,342	\$ 169,348,422
Plan fiduciary net position			
Contributions - employer	\$ 3,326,932	\$ 3,204,896	\$ 2,918,817
Contributions - employee	4,295,547	4,080,143	4,002,625
Net investment income	11,445,035	13,602,008	705,624
Benefit pmts, including refunds of employee contributions	(7,837,606)	(6,970,312)	(6,395,433)
Net Plan to plan resource movement	(337)		
Administrative expense	(209,719)	(178,420)	(72,943)
Other miscellaneous income/(expense) ¹	(398,260)		
Net change in fiduciary net position	10,621,592	13,738,315	1,158,690
Plan fiduciary net position - beginning ²	134,583,954	120,845,639	119,686,949
Plan fiduciary net position - ending (b)	\$ 145,205,546	\$ 134,583,954	\$ 120,845,639
Plan net pension liability - ending (a) - (b)	\$ 58,127,875	\$ 56,987,388	\$ 48,502,783
Plan fiduciary net position as a percentage of the total pension liability	71.41%	70.25%	71.36%
Covered payroll	\$ 26,661,340	\$ 25,396,835	\$ 24,405,359
Plan net pension liability/(asset) as a % of covered payroll	218.02%	224.39%	198.74%

¹ During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions (GASB 75), CalPERS reported its proportionate share of activity related to postemployment benefits for participation in the State of California's agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75. Additionally, CalPERS employees participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded a correction to previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68).

² Includes any beginning of year adjustment

Notes to Schedule of Changes in Net Pension Liability and Related Ratios:

Benefit Changes: The figures above do not include any liability impact that may have resulted from plan changes which occurred after the June 30, 2017 valuation date. This applies for voluntary benefit changes as well as any offers of Two Years Additional Service Credit (a.k.a. Golden Handshakes).

Changes of Assumptions: In 2018, demographic assumptions and inflation rate were changed in accordance to the CalPERS Experience Study and Review of Actuarial Assumptions December 2017. There were no changes in the discount rate. In 2017, the discount rate was reduced from 7.65 percent to 7.15 percent. In 2016, there were no changes. In 2015, amounts reported reflect an adjustment of the discount rate from 7.5 percent (net of administrative expense) to 7.65 percent (without a reduction for pension plan administrative expense.) In 2014, amounts reported were based on a 7.5 percent discount rate.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Net Pension Liability and Related Ratios, Con

AGENDA ITEM NO. 12.

California Public Employees' Retirement System (CalPERS) - Miscellaneous Plan
Last Ten Fiscal Years

Measurement period	2014-15	2013-14
Total pension liability		
Service Cost	\$ 3,839,364	\$ 3,770,553
Interest on the total pension liability	11,339,870	10,627,308
Changes of assumptions	(2,825,475)	
Difference between expected and actual experience	265,438	
Benefit pmts, including refunds of employee contributions	(5,572,456)	(5,099,721)
Net change in total pension liability	7,046,741	9,298,140
Total pension liability - beginning	151,660,172	142,362,032
Total pension liability - ending (a)	\$ 158,706,913	\$ 151,660,172
Plan fiduciary net position		
Contributions - employer	\$ 3,275,626	\$ 3,096,889
Contributions - employee	3,097,353	2,553,852
Net investment income	2,655,292	17,261,431
Benefit pmts, including refunds of employee contributions	(5,572,456)	(5,099,721)
Net Plan to plan resource movement		
Administrative expense	(134,636)	
Other miscellaneous income/(expense) ¹		
Net change in fiduciary net position	3,321,179	17,812,451
Plan fiduciary net position - beginning ²	116,365,770	98,553,319
Plan fiduciary net position - ending (b)	\$ 119,686,949	\$ 116,365,770
Plan net pension liability - ending (a) - (b)	\$ 39,019,964	\$ 35,294,402
Plan fiduciary net position as a percentage of the total pension liability	75.41%	76.73%
Covered payroll	\$ 22,815,330	\$ 21,224,617
Plan net pension liability/(asset) as a % of covered payroll	171.03%	166.29%

¹ During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions (GASB 75), CalPERS reported its proportionate share of activity related to postemployment benefits for participation in the State of California's agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75. Additionally, CalPERS employees participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded a correction to previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68).

² Includes any beginning of year adjustment

Notes to Schedule of Changes in Net Pension Liability and Related Ratios:

Benefit Changes: The figures above do not include any liability impact that may have resulted from plan changes which occurred after the June 30, 2017 valuation date. This applies for voluntary benefit changes as well as any offers of Two Years Additional Service Credit (a.k.a. Golden Handshakes).

Changes of Assumptions: In 2018, demographic assumptions and inflation rate were changed in accordance to the CalPERS Experience Study and Review of Actuarial Assumptions December 2017. There were no changes in the discount rate. In 2017, the discount rate was reduced from 7.65 percent to 7.15 percent. In 2016, there were no changes. In 2015, amounts reported reflect an adjustment of the discount rate from 7.5 percent (net of administrative expense) to 7.65 percent (without a reduction for pension plan administrative expense.) In 2014, amounts reported were based on a 7.5 percent discount rate.

REQUIRED SUPPLEMENTARY INFORMATION
Schedule of Changes in Net Pension Liability and Related Ratios, Con

AGENDA ITEM NO. 12.

California Public Employees' Retirement System (CalPERS) - Safety Plan
 Last Ten Fiscal Years

	2017-18	2016-17	2015-16
Measurement period			
Total pension liability			
Service Cost	\$ 5,400,076	\$ 5,070,624	\$ 4,128,912
Interest on the total pension liability	14,583,496	13,834,596	13,060,555
Changes of assumptions	(626,378)	11,813,770	
Difference between expected and actual experience	1,258,478	1,747,504	1,309,944
Benefit pmts, including refunds of employee contributions	(9,686,731)	(8,769,084)	(8,144,855)
Net change in total pension liability	10,928,941	23,697,410	10,354,556
Total pension liability - beginning	205,476,206	181,778,796	171,424,240
Total pension liability - ending (a)	\$ 216,405,147	\$ 205,476,206	\$ 181,778,796
Plan fiduciary net position			
Contributions - employer	\$ 5,062,611	\$ 4,872,316	\$ 4,263,677
Contributions - employee	3,107,991	2,967,546	2,806,615
Net investment income	11,067,806	13,334,234	611,274
Benefit pmts, including refunds of employee contributions	(9,686,731)	(8,769,084)	(8,144,855)
Net Plan to plan resource movement	(325)		
Administrative expense	(204,254)	(175,470)	(72,758)
Other miscellaneous income/(expense) ¹	(387,882)		
Net change in fiduciary net position	8,959,216	12,229,542	(536,047)
Plan fiduciary net position - beginning ²	131,077,048	118,847,506	119,383,553
Plan fiduciary net position - ending (b)	\$ 140,036,264	\$ 131,077,048	\$ 118,847,506
Plan net pension liability - ending (a) - (b)	\$ 76,368,883	\$ 74,399,158	\$ 62,931,290
Plan fiduciary net position as a percentage of the total pension liability	64.71%	63.79%	65.38%
Covered payroll	\$ 17,992,455	\$ 16,912,791	\$ 15,361,676
Plan net pension liability/(asset) as a % of covered payroll	424.45%	439.90%	409.66%

¹ During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions (GASB 75), CalPERS reported its proportionate share of activity related to postemployment benefits for participation in the State of California's agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75. Additionally, CalPERS employees participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded a correction to previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68).

² Includes any beginning of year adjustment

Notes to Schedule of Changes in Net Pension Liability and Related Ratios:

Benefit Changes: The figures above do not include any liability impact that may have resulted from plan changes which occurred after the June 30, 2017 valuation date. This applies for voluntary benefit changes as well as any offers of Two Years Additional Service Credit (a.k.a. Golden Handshakes).

Changes of Assumptions: In 2018, demographic assumptions and inflation rate were changed in accordance to the CalPERS Experience Study and Review of Actuarial Assumptions December 2017. There were no changes in the discount rate. In 2017, the discount rate was reduced from 7.65 percent to 7.15 percent. In 2016, there were no changes. In 2015, amounts reported reflect an adjustment of the discount rate from 7.5 percent (net of administrative expense) to 7.65 percent (without a reduction for pension plan administrative expense.) In 2014, amounts reported were based on the 7.5 percent discount rate.

REQUIRED SUPPLEMENTARY INFORMATION
Schedule of Changes in Net Pension Liability and Related Ratios, Con

AGENDA ITEM NO. 12.

California Public Employees' Retirement System (CalPERS) - Safety Plan
 Last Ten Fiscal Years

	2014-15	2013-14
Measurement period		
Total pension liability		
Service Cost	\$ 3,953,791	\$ 3,803,175
Interest on the total pension liability	12,319,585	11,633,302
Changes of assumptions	(3,070,074)	
Difference between expected and actual experience	936,342	
Benefit pmts, including refunds of employee contributions	(7,825,158)	(7,071,659)
Net change in total pension liability	6,314,486	8,364,818
Total pension liability - beginning	165,109,754	156,744,936
Total pension liability - ending (a)	\$ 171,424,240	\$ 165,109,754
Plan fiduciary net position		
Contributions - employer	\$ 4,110,362	\$ 3,752,858
Contributions - employee	2,157,404	1,915,171
Net investment income	2,616,436	17,731,050
Benefit pmts, including refunds of employee contributions	(7,825,158)	(7,071,659)
Net Plan to plan resource movement		
Administrative expense	(134,357)	
Other miscellaneous income/(expense) ¹		
Net change in fiduciary net position	924,687	16,327,420
Plan fiduciary net position - beginning ²	118,458,866	102,131,446
Plan fiduciary net position - ending (b)	\$ 119,383,553	\$ 118,458,866
Plan net pension liability - ending (a) - (b)	\$ 52,040,687	\$ 46,650,888
Plan fiduciary net position as a percentage of the total pension liability	69.64%	71.75%
Covered payroll	\$ 14,732,611	\$ 13,667,214
Plan net pension liability/(asset) as a % of covered payroll	353.23%	341.33%

¹ During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions (GASB 75), CalPERS reported its proportionate share of activity related to postemployment benefits for participation in the State of California's agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75. Additionally, CalPERS employees participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded a correction to previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB Statement No. 68, Accounting and Financial Reporting for Pensions (GASB 68).

² Includes any beginning of year adjustment

Notes to Schedule of Changes in Net Pension Liability and Related Ratios:

Benefit Changes: The figures above do not include any liability impact that may have resulted from plan changes which occurred after the June 30, 2017 valuation date. This applies for voluntary benefit changes as well as any offers of Two Years Additional Service Credit (a.k.a. Golden Handshakes).

Changes of Assumptions: In 2018, demographic assumptions and inflation rate were changed in accordance to the CalPERS Experience Study and Review of Actuarial Assumptions December 2017. There were no changes in the discount rate. In 2017, the discount rate was reduced from 7.65 percent to 7.15 percent. In 2016, there were no changes. In 2015, amounts reported reflect an adjustment of the discount rate from 7.5 percent (net of administrative expense) to 7.65 percent (without a reduction for pension plan administrative expense.) In 2014, amounts reported were based on 7.5 percent discount rate.

REQUIRED SUPPLEMENTARY INFORMATION

AGENDA ITEM NO. 12.

Schedule of Pension Contributions

California Public Employees' Retirement System (CalPERS) - Miscellaneous Plan
Last Ten Fiscal Years

	2018-19 ¹	2017-18 ¹	2016-17 ¹	2015-16 ¹	2014-15 ¹	2013-14 ¹
Actuarially determined contribution ²	\$ 4,048,805	\$ 3,326,932	\$ 3,204,896	\$ 2,918,817	\$ 3,275,626	\$ 3,096,889
Contributions to actuarially determined contribution ²	<u>(4,048,805)</u>	<u>(3,326,932)</u>	<u>(3,204,896)</u>	<u>(2,918,817)</u>	<u>(3,275,626)</u>	<u>(3,096,889)</u>
Contribution deficiency (excess)	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>
Covered payroll ³	\$ 26,943,502	\$ 26,158,740	\$ 25,396,835	\$ 24,405,359	\$ 22,815,330	\$ 21,224,617
Contributions as a percentage of covered payroll ³	15.03%	12.72%	12.62%	11.96%	14.36%	14.59%

¹ As prescribed in GASB 68, paragraph 46, the information presented in the Schedule of Plan Contributions should also be presented as of the employer's most recent fiscal year-end. The employer is responsible for determining this information as prescribed by the standard as this data is not available to CalPERS.

² Employers are assumed to make contributions equal to the actuarially determined contributions. However, some employers may choose to make additional contributions towards their unfunded liability. Employer contributions for such plans exceed the actuarially determined contributions.

³ Includes one year's payroll growth using 2.75 percent payroll assumption for fiscal year ended June 30, 2018; 3.00 percent payroll assumption for fiscal years ended June 30, 2014-17.

Valuation Date:

The actuarial methods and assumptions used to set the actuarially determined contributions for Fiscal Year 2017-18 were derived from the June 30, 2015 funding valuation report.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry Age Normal Cost Method
Amortization method/Period	For details, see June 30, 2015 Funding Valuation Report
Asset valuation method	Market Value of Assets. For details, see June 30, 2015 Funding Valuation Report.
Inflation	2.75%
Salary increases	Varies by Entry Age and Service
Payroll Growth	3.00%
Investment rate of return	7.50%, net of pension plan investment & admin exps; includes inflation.
Retirement age	The probabilities of retirement are based on the 2014 CalPERS Experience study for the period from 1997 to 2011.
Mortality	The probabilities of mortality are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011. Pre-retirement and Post-retirement mortality rates include 20 years of projected mortality improvement using Scale BB published by the Society of Actuaries.

REQUIRED SUPPLEMENTARY INFORMATION

AGENDA ITEM NO. 12.

Schedule of Pension Contributions, Continued

California Public Employees' Retirement System (CalPERS) - Safety Plan
Last Ten Fiscal Years

	2018-19 ¹	2017-18 ¹	2016-17 ¹	2015-16 ¹	2014-15 ¹	2013-14 ¹
Actuarially determined contribution ²	\$ 5,912,775	\$ 5,062,611	\$ 4,872,316	\$ 4,263,677	\$ 4,110,362	\$ 3,752,858
Contributions to actuarially determined contribution ²	<u>(5,912,775)</u>	<u>(5,062,611)</u>	<u>(4,872,316)</u>	<u>(4,263,677)</u>	<u>(4,110,362)</u>	<u>(3,752,858)</u>
Contribution deficiency (excess)	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>	<u>\$ 0</u>
Covered payroll ³	\$ 18,532,229	\$ 17,992,455	\$ 16,912,791	\$ 15,361,676	\$ 14,732,611	\$ 13,667,214
Contributions as a percentage of covered payroll ³	31.91%	28.14%	28.81%	27.76%	27.90%	27.46%

¹ As prescribed in GASB 68, paragraph 46, the information presented in the Schedule of Plan Contributions should also be presented as of the employer's most recent fiscal year-end. The employer is responsible for determining this information as prescribed by the standard as this data is not available to CalPERS.

² Employers are assumed to make contributions equal to the actuarially determined contributions. However, some employers may choose to make additional contributions towards their unfunded liability. Employer contributions for such plans exceed the actuarially determined contributions.

³ Includes one year's payroll growth using 2.75 percent payroll assumption for fiscal year ended June 30, 2018; 3.00 percent payroll assumption for fiscal years ended June 30, 2014-17.

Valuation Date:

The actuarial methods and assumptions used to set the actuarially determined contributions for Fiscal Year 2017-18 were derived from the June 30, 2015 funding valuation report.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry Age Normal Cost Method
Amortization method/Period	For details, see June 30, 2015 Funding Valuation Report
Asset valuation method	Market Value of Assets. For details, see June 30, 2015 Funding Valuation Report.
Inflation	2.75%
Salary increases	Varies by Entry Age and Service
Payroll Growth	3.00%
Investment rate of return	7.50%, net of pension plan investment & admin exps; includes inflation.
Retirement age	The probabilities of retirement are based on the 2014 CalPERS Experience study for the period from 1997 to 2011.
Mortality	The probabilities of mortality are based on the 2014 CalPERS Experience Study for the period from 1997 to 2011. Pre-retirement and Post-retirement mortality rates include 20 years of projected mortality improvement using Scale BB published by the Society of Actuaries.

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Nonmajor Governmental Funds

Special Revenue Funds

Special revenue funds are used to account for specific revenues that are legally restricted for particular purposes.

Off Highway Use Fund - This fund is used to account for the revenue received from the off-highway users fee since the fee can only be used for off-road facilities.

Housing & Community Development Fund - This fund is used to account for the revenue and expenses for the Community Development Block Grant operational activities.

Debt Service Funds

The debt service fund is used to account for the accumulation of resources and payment of bond principal and interest when the government is obligated in some manner for the payment.

1976 Fire and Sewer Bond Fund - This fund is used to account for the proceeds of the 1976 Fire and Sewer Bond sale and the annual debt service.

Capital Projects Funds

Capital projects funds are used to account for the acquisition and construction of major capital facilities other than those financed by proprietary funds and trust funds.

Park and Recreation Improvement Fund - This fund is used to account for capital improvements for parks, including acquisition of property. Revenues come from developer fees and grants.

Refuse Equipment Reserve Fund - This fund is used to account for the revenue generated by developer fees for the acquisition of equipment for refuse collection and disposal.

**City of Clovis
Combining Balance Sheet
Nonmajor Governmental Funds
June 30, 2019**

<i>AGENDA ITEM NO.12.</i>

	Off Highway Use	Special Revenue Housing & Comm Development	Total
ASSETS			
Cash and investments	\$ 68,507	\$ 1,940,828	\$ 2,009,335
Receivables	272	3,408,038	3,408,310
Due from other governments		104,702	104,702
Total assets	\$ 68,779	\$ 5,453,568	\$ 5,522,347
LIABILITIES			
Accounts payable		\$ 206,301	\$ 206,301
Deposits and other liabilities			0
Total Liabilities	\$ 0	206,301	206,301
FUND BALANCES			
Restricted for:			
Capital projects	68,779		68,779
Community Development		5,247,267	5,247,267
Debt service			
Assigned for:			
Capital			
Total fund balances	68,779	5,247,267	5,316,046
Total liabilities and fund balances	\$ 68,779	\$ 5,453,568	\$ 5,522,347

**City of Clovis
Combining Balance Sheet
Nonmajor Governmental Funds
June 30, 2019**

AGENDA ITEM NO. 12.

Debt Service		Capital Projects		Total Nonmajor Governmental Funds
1976 Fire and Sewer	Park and Recreation	Refuse Equipment	Total	
\$ 420,451	\$ 8,905,163	\$ 1,037,294	\$ 9,942,457	\$ 12,372,243
1,705	34,498	4,218	38,716	3,448,731
	725,180		725,180	829,882
<u>\$ 422,156</u>	<u>\$ 9,664,841</u>	<u>\$ 1,041,512</u>	<u>\$10,706,353</u>	<u>\$ 16,650,856</u>
	\$ 739,013		\$ 739,013	\$ 945,314
	9,200		9,200	9,200
<u>\$ 0</u>	<u>748,213</u>	<u>\$ 0</u>	<u>748,213</u>	<u>954,514</u>
				68,779
	4,649,628	1,041,512	5,691,140	10,938,407
422,156				422,156
	4,267,000		4,267,000	4,267,000
<u>422,156</u>	<u>8,916,628</u>	<u>1,041,512</u>	<u>9,958,140</u>	<u>15,696,342</u>
<u>\$ 422,156</u>	<u>\$ 9,664,841</u>	<u>\$ 1,041,512</u>	<u>\$10,706,353</u>	<u>\$ 16,650,856</u>

City of Clovis

AGENDA ITEM NO. 12.

**Combining Statement of Revenues, Expenditures, and Changes in Fund Balances
Nonmajor Governmental Funds
For the Year Ended June 30, 2019**

	Special Revenue		
	Off Highway Use	Housing & Comm Development	Total
REVENUES			
Use of money and property	\$ 1,330	\$ 34,561	\$ 35,891
From other agencies		598,006	598,006
Charges for current services			
Other revenues		85,758	85,758
Total revenue	<u>1,330</u>	<u>718,325</u>	<u>719,655</u>
EXPENDITURES			
Current:			
Community development		686,147	686,147
Capital outlays			
Total expenditures	<u>0</u>	<u>686,147</u>	<u>686,147</u>
Excess (deficiency) of revenues over (under) expenditures	<u>1,330</u>	<u>32,178</u>	<u>33,508</u>
OTHER FINANCING SOURCES (USES)			
Transfers out			
Total other financing sources (uses)	<u>0</u>	<u>0</u>	<u>0</u>
Net change in fund balances	1,330	32,178	33,508
Fund balances-beginning	<u>67,449</u>	<u>5,215,089</u>	<u>5,282,538</u>
Fund balances-ending	<u>\$ 68,779</u>	<u>\$ 5,247,267</u>	<u>\$ 5,316,046</u>

City of Clovis
Combining Statement of Revenues, Expenditures, and Changes in Fund Balances
Nonmajor Governmental Funds
For the Year Ended June 30, 2019

Debt Service	Capital Projects		Total Nonmajor Governmental Funds	
1976 Fire and Sewer	Park and Recreation	Refuse Equipment	Total	
\$ 7,848	\$ 155,276	\$ 23,870	\$ 179,146	\$ 222,885
	970,909		970,909	1,568,915
	3,166,326	383,778	3,550,104	3,550,104
	45		45	85,803
<u>7,848</u>	<u>4,292,556</u>	<u>407,648</u>	<u>4,700,204</u>	<u>5,427,707</u>
				686,147
	1,635,346		1,635,346	1,635,346
<u>0</u>	<u>1,635,346</u>	<u>0</u>	<u>1,635,346</u>	<u>2,321,493</u>
<u>7,848</u>	<u>2,657,210</u>	<u>407,648</u>	<u>3,064,858</u>	<u>3,106,214</u>
		(880,000)	(880,000)	(880,000)
<u>0</u>	<u>0</u>	<u>(880,000)</u>	<u>(880,000)</u>	<u>(880,000)</u>
7,848	2,657,210	(472,352)	2,184,858	2,226,214
414,308	6,259,418	1,513,864	7,773,282	13,470,128
<u>\$ 422,156</u>	<u>\$ 8,916,628</u>	<u>\$ 1,041,512</u>	<u>\$ 9,958,140</u>	<u>\$ 15,696,342</u>

City of Clovis
Schedule of Revenues, Expenditures, and Change in Fund Balance-Budget and Actual
Local Transportation Capital Projects Fund
For the Year Ended June 30, 2019

	<u>Budgeted Amounts</u>		<u>Actual Amounts</u>	<u>Variance with Final Budget- Positive (Negative)</u>
	<u>Original</u>	<u>Final</u>		
REVENUE				
Use of money and property	\$ 0	\$ 0	\$ 584,651	\$ 584,651
From other agencies	34,064,000	34,064,000	10,179,191	(23,884,809)
Charges for services	2,899,000	2,899,000	103,966	(2,795,034)
Other revenues	0	0	140	140
Total revenues	<u>36,963,000</u>	<u>36,963,000</u>	<u>10,867,948</u>	<u>(26,095,052)</u>
EXPENDITURES				
Capital Outlay	40,747,932	48,565,932	8,182,744	40,383,188
Total expenditures	<u>40,747,932</u>	<u>48,565,932</u>	<u>8,182,744</u>	<u>40,383,188</u>
Excess (deficiency) of revenues over expenditures	(3,784,932)	(11,602,932)	2,685,204	14,288,136
OTHER FINANCING SOURCES (USES)				
Transfers In	0	0	156,000	156,000
Total other financing sources (uses)	<u>0</u>	<u>0</u>	<u>156,000</u>	<u>156,000</u>
Fund balance-beginning	13,343,384	13,343,384	13,343,384	
Fund balance-ending	<u>\$ 9,558,452</u>	<u>\$ 1,740,452</u>	<u>\$ 16,184,588</u>	<u>\$ 14,444,136</u>

City of Clovis
Schedule of Revenues, Expenditures, and Change in Fund Balance-Budget and Actual
Off Highway Use Special Revenue Fund
For the Year Ended June 30, 2019

	Budgeted Amounts		Actual Amounts	Variance with Final Budget- Positive (Negative)
	Original	Final		
REVENUE				
Use of money and property	\$ 0	\$ 0	\$ 1,330	\$ 1,330
Total revenues	0	0	1,330	1,330
EXPENDITURES				
Capital Outlay	0	0	0	0
Total expenditures	0	0	0	0
Excess (deficiency) of revenues over expenditures	0	0	1,330	1,330
Fund balance-beginning	67,449	67,449	67,449	
Fund balance-ending	\$ 67,449	\$ 67,449	\$ 68,779	\$ 1,330

City of Clovis
Schedule of Revenues, Expenditures, and Change in Fund Balance-Budget and Actual
Housing and Community Development Special Revenue Fund
For the Year Ended June 30, 2019

	Budgeted Amounts		Actual Amounts	Variance with Final Budget- Positive (Negative)
	Original	Final		
REVENUE				
Use of money and property	\$ 0	\$ 0	\$ 34,561	\$ 34,561
From other agencies	518,000	518,000	598,006	80,006
Other revenues	0	0	85,758	85,758
Total revenues	518,000	518,000	718,325	200,325
EXPENDITURES				
Community development	1,437,100	1,437,100	686,147	750,953
Total expenditures	1,437,100	1,437,100	686,147	750,953
Excess (deficiency) of revenues over expenditures	(919,100)	(919,100)	32,178	951,278
Fund balance-beginning	5,215,089	5,215,089	5,215,089	
Fund balance-ending	\$ 4,295,989	\$ 4,295,989	\$ 5,247,267	\$ 951,278

City of Clovis
Schedule of Revenues, Expenditures, and Change in Fund Balance-Budget and Actual
1976 Fire and Sewer Debt Service Fund
For the Year Ended June 30, 2019

	Budgeted Amounts		Actual Amounts	Variance with Final Budget- Positive (Negative)
	Original	Final		
REVENUE				
Use of money and property	\$ 0	\$ 0	\$ 7,848	\$ 7,848
Total revenues	0	0	7,848	7,848
EXPENDITURES				
Debt service:	0	0	0	0
Total expenditures	0	0	0	0
Excess (deficiency) of revenues over expenditures	0	0	7,848	7,848
Fund balance-beginning	414,308	414,308	414,308	
Fund balance-ending	\$ 414,308	\$ 414,308	\$ 422,156	\$ 7,848

City of Clovis
Schedule of Revenues, Expenditures, and Change in Fund Balance-Budget and Actual
Park and Recreation Capital Project Fund
For the Year Ended June 30, 2019

	Budgeted Amounts		Actual Amounts	Variance with Final Budget- Positive (Negative)
	Original	Final		
REVENUE				
Use of money and property	\$ 0	\$ 0	\$ 155,276	\$ 155,276
From other agencies	855,000	855,000	970,909	115,909
Charges for current services	2,573,000	2,573,000	3,166,326	593,326
Other revenues	0	0	45	45
Total revenues	3,428,000	3,428,000	4,292,556	864,556
EXPENDITURES				
Capital outlays	4,120,000	6,420,000	1,635,346	4,784,654
Total expenditures	4,120,000	6,420,000	1,635,346	4,784,654
Excess (deficiency) of revenues over expenditures	(692,000)	(2,992,000)	2,657,210	5,649,210
Fund balance-beginning	6,259,418	6,259,418	6,259,418	
Fund balance-ending	\$ 5,567,418	\$ 3,267,418	\$ 8,916,628	\$ 5,649,210

**Schedule of Revenues, Expenditures, and Change in Fund Balance-Budget and Actual
 Refuse Equipment Capital Project Fund
 For the Year Ended June 30, 2019**

	Budgeted Amounts		Actual Amounts	Variance with Final Budget- Positive (Negative)
	Original	Final		
REVENUE				
Use of money and property	\$ 0	\$ 0	\$ 23,870	\$ 23,870
Charges for current services	0	0	383,778	383,778
Total revenues	0	0	407,648	407,648
EXPENDITURES				
Capital outlays	0	0	0	0
Total expenditures	0	0	0	0
Excess (deficiency) of revenues over expenditures	0	0	407,648	407,648
OTHER FINANCING SOURCES (USES)				
Transfers Out	(880,000)	(880,000)	(880,000)	0
Total other financing sources (uses)	(880,000)	(880,000)	(880,000)	0
Net change in fund balance	(880,000)	(880,000)	(472,352)	407,648
Fund balance-beginning	1,513,864	1,513,864	1,513,864	
Fund balance-ending	\$ 633,864	\$ 633,864	\$ 1,041,512	\$ 407,648

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Internal Service Funds

Internal service funds are used to account for the financing of goods or services provided by one department of the agency to other departments or agencies of the government and to other government units, on a cost reimbursement basis.

Self Insurance Fund - This fund is used to account for the cost of general liability and property damage insurance. It is funded by a charge to all operating departments.

Fleet Fund - This fund is used to account for rental charges to all operating departments for maintenance and replacement cost for equipment and vehicles.

Employee Benefit Fund - This fund is used to account for the cost of employee benefits including retirement, workers' compensation, health insurance, unemployment insurance and medicare insurance. It is funded by a charge to all operating departments.

General Services - This fund is used to account for the centralized support provided to other departments and for government facility enhancements and acquisitions.

City of Clovis
Combining Statement of Net Position
Internal Service Funds
June 30, 2019

AGENDA ITEM NO. 12.

	Self Insurance	Fleet	Employee Benefits	General Services	Total
ASSETS					
Current assets:					
Cash and investments	\$ 1,674,018	\$ 11,569,060	\$ 10,153,382	\$ 14,640,560	\$ 38,037,020
Receivables	7,286	41,154	93,312	62,243	203,995
Due from other governments				4,116	4,116
Inventories		810,000			810,000
Total current assets	1,681,304	12,420,214	10,246,694	14,706,919	39,055,131
Noncurrent assets:					
Restricted cash and investments:					
Cash with fiscal agent-bond accounts				751,074	751,074
Total restricted assets	0	0	0	751,074	751,074
Capital assets:					
Land				11,482,400	11,482,400
Buildings and improvements		940,271		93,653,939	94,594,210
Machinery and equipment		36,486,710		8,494,545	44,981,255
Less accumulated depreciation		(25,277,729)		(42,172,177)	(67,449,906)
Total capital assets (net of accumulated depreciation)	0	12,149,252	0	71,458,707	83,607,959
Total noncurrent assets	0	12,149,252	0	72,209,781	84,359,033
Total assets	1,681,304	24,569,466	10,246,694	86,916,700	123,414,164
DEFERRED OUTFLOW OF RESOURCES					
Pension related deferred outflows	0	0	27,119,431	0	27,119,431
LIABILITIES					
Current liabilities:					
Accounts payable	15,121	375,302	365,023	486,823	1,242,269
Claims and judgements payable			2,548,000		2,548,000
Accrued compensated absences		19,300	1,031,000	36,800	1,087,100
Deposits and other liabilities				414,865	414,865
Unearned revenue				1,819,836	1,819,836
Capital leases-current		717,115		1,153,933	1,871,048
Direct placements-current				1,005,432	1,005,432
Loans payable-current				313,578	313,578
Total current liabilities	15,121	1,111,717	3,944,023	5,231,267	10,302,128
Noncurrent liabilities:					
Claims and judgements payable			7,114,000		7,114,000
Accrued compensated absences		52,234		99,152	151,386
Capital leases		2,020,701		7,392,987	9,413,688
Direct placements				7,992,401	7,992,401
Loans payable				2,432,307	2,432,307
Net pension liability			134,496,758		134,496,758
Total noncurrent liabilities	0	2,072,935	141,610,758	17,916,847	161,600,540
Total liabilities	15,121	3,184,652	145,554,781	23,148,114	171,902,668
DEFERRED INFLOW OF RESOURCES					
Pension deferred inflows			2,130,191		2,130,191
NET POSITION					
Net investment in capital assets		9,411,436		51,168,069	60,579,505
Restricted for debt service				751,074	751,074
Unrestricted (deficit)	1,666,183	11,973,378	(110,318,847)	11,849,443	(84,899,843)
Total net position	\$ 1,666,183	\$ 21,384,814	\$ (110,318,847)	\$ 63,768,586	\$ (61,109,844)

City of Clovis
Combining Statement of Revenues, Expenses, and Changes in Fund
Internal Service Funds
For the Year Ended June 30, 2019

AGENDA ITEM NO. 12.

	Self Insurance	Fleet	Employee Benefits	General Services	Total
Operating revenues:					
Charges for services	\$2,562,100	\$ 9,641,941	\$ 25,047,645	\$10,985,100	\$ 48,236,786
From other agencies				136,816	136,816
Other revenues	95,546			1,615,144	1,710,690
Total operating revenues	<u>2,657,646</u>	<u>9,641,941</u>	<u>25,047,645</u>	<u>12,737,060</u>	<u>50,084,292</u>
Operating expenses:					
Salaries and benefits	209,676	1,989,933	411,661	2,892,092	5,503,362
Services, materials and supplies	2,298,632	4,132,763	32,378,981	4,883,228	43,693,604
Administration	43,800	952,500	70,300	337,617	1,404,217
Depreciation		2,556,700		2,878,071	5,434,771
Total operating expenses	<u>2,552,108</u>	<u>9,631,896</u>	<u>32,860,942</u>	<u>10,991,008</u>	<u>56,035,954</u>
Operating income (loss)	<u>105,538</u>	<u>10,045</u>	<u>(7,813,297)</u>	<u>1,746,052</u>	<u>(5,951,662)</u>
Nonoperating revenues (expenses):					
Interest income	26,280	205,282	94,097	339,479	665,138
Interest expense		(78,850)		(676,069)	(754,919)
Gain (loss) on sale of capital assets		98,420		(2,150)	96,270
Total nonoperating revenue (expense)	<u>26,280</u>	<u>224,852</u>	<u>94,097</u>	<u>(338,740)</u>	<u>6,489</u>
Income before contributions and transfers	<u>131,818</u>	<u>234,897</u>	<u>(7,719,200)</u>	<u>1,407,312</u>	<u>(5,945,173)</u>
Transfers in				6,000	6,000
Changes in net position	<u>131,818</u>	<u>234,897</u>	<u>(7,719,200)</u>	<u>1,413,312</u>	<u>(5,939,173)</u>
Total net position-beginning	<u>1,534,365</u>	<u>21,149,917</u>	<u>(102,599,647)</u>	<u>62,355,274</u>	<u>(17,560,091)</u>
Total net position-ending	<u>\$1,666,183</u>	<u>\$21,384,814</u>	<u>\$ (110,318,847)</u>	<u>\$63,768,586</u>	<u>\$ (23,499,264)</u>

City of Clovis
Combining Statement of Cash Flows
Internal Service Funds
For the Year Ended June 30, 2019

AGENDA ITEM NO. 12.

	Self Insurance	Fleet	Employee Benefits	General Services	Total
CASH FLOW FROM OPERATING ACTIVITIES					
Receipts for interfund services	\$2,562,100	\$ 9,641,941	\$25,038,856	\$11,021,817	\$ 48,264,714
Payments to suppliers	(2,334,418)	(5,015,879)	(31,394,470)	(5,454,191)	(44,198,958)
Payments to employees	(209,676)	(1,988,456)	8,541,201	(2,936,693)	3,406,376
Other operating revenues	102,693			1,759,273	1,861,966
Net cash provided by operating activities	120,699	2,637,606	2,185,587	4,390,206	9,334,098
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES					
Transfers-in from other funds				6,000	6,000
Net cash provided by noncapital financing activities	0	0	0	6,000	6,000
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES					
Acquisition and construction of capital assets		(2,501,293)		(3,196,832)	(5,698,125)
Principal paid on loans, bonds and capital leases		(820,962)		(2,377,486)	(3,198,448)
Interest paid on loans, bonds and capital leases		(75,106)		(691,134)	(766,240)
Proceeds from capital leases and loans		1,125,000		1,840,035	2,965,035
Proceeds from sale of property and equipment		157,395		68,200	225,595
Net cash (used in) capital and related financing activities	0	(2,114,966)	0	(4,357,217)	(6,472,183)
CASH FLOWS FROM INVESTING ACTIVITIES					
Interest and dividends on investments	24,827	191,712	82,580	316,828	615,947
Net cash provided by investing activities	24,827	191,712	82,580	316,828	615,947
Net change in cash and cash equivalents	145,526	714,352	2,268,167	355,817	3,483,862
Cash and cash equivalents-beginning of year	1,528,492	10,854,708	7,885,215	15,035,817	35,304,232
Cash and cash equivalents-end of year	\$1,674,018	\$11,569,060	\$10,153,382	\$15,391,634	\$ 38,788,094
Reconciliation of operating income/(loss) to net cash provided by operating activities:					
Operating income/(loss)	\$ 105,538	\$ 10,045	\$ (7,813,297)	\$ 1,746,052	\$ (5,951,662)
Adjustments to reconcile operating income to net cash provided by operating activities:					
Depreciation/amortization expense		2,556,700		2,878,071	5,434,771
(Increase)/decrease in accounts receivable	7,147		(8,789)	(1,025)	(2,667)
(Increase)/decrease in due from other governments				7,313	7,313
(Increase)/decrease in inventories		(36,000)			(36,000)
(Increase)/decrease in deferred outflows - pension			5,385,974		5,385,974
Increase/(decrease) in accounts payable	8,014	105,384	169,811	(233,346)	49,863
Increase/(decrease) in accrued compensated absences		1,477	29,000	(44,601)	(14,124)
Increase/(decrease) in claims and judgments payable			885,000		885,000
Increase/(decrease) in unearned revenue				37,742	37,742
Increase/(decrease) in net pension liability			3,110,212		3,110,212
Increase/(decrease) in deferred outflows - pension			427,676		427,676
Total adjustments	15,161	2,627,561	9,998,884	2,644,154	15,285,760
Net cash provided by operating activities	\$ 120,699	\$ 2,637,606	\$ 2,185,587	\$ 4,390,206	\$ 9,334,098

Fiduciary Funds

Agency funds are used to account for assets held by the government as an agent for individuals, private organizations, other governments and/or other funds.

Senior Citizens Memorial Fund - This fund is used to account for revenue and expenditures related to special programs within the Senior Services Program.

Blackhorse Assessment Fund - This fund is used to account for revenue and expenditures related to the maintenance within the Blackhorse III (95-1) Assessment District such as streets, curb & gutter, street lighting, sidewalks and gates.

Payroll Tax and Withholding Fund - This fund is used to account employee withholding deductions prior to submittal to state or federal agencies.

Temperance/Barstow Assessment Fund - This fund is used to account for the receipts and disbursements of the Temperance Barstow Assessment District.

Shepherd/Temperance Assessment Fund - This fund is used to account for the receipts and disbursements of the Shepherd Temperance Assessment District.

Asset Forfeiture Fund - This fund is used to account for the receipts and disbursements of money received from seized assets.

City of Clovis
Combining Statement of Fiduciary Net Position
Fiduciary Funds
June 30, 2019

AGENDA ITEM NO.12.

	Agency Funds						Total
	Senior Citizen Memorial	Blackhorse Assessment	Payroll Tax and Withholdings	Temperance Barstow Assessment	Shepherd Temperance Assessment	Asset Forfeiture	
ASSETS							
Cash and investments	\$ 51,670	\$ 143,493	\$ 1,667,638	\$ 73,740	\$ 5,602	\$ 23,448	\$ 1,965,591
Receivables	204	482	1,055	292	19	90	2,142
Total assets	<u>\$ 51,874</u>	<u>\$ 143,975</u>	<u>\$ 1,668,693</u>	<u>\$ 74,032</u>	<u>\$ 5,621</u>	<u>\$ 23,538</u>	<u>\$ 1,967,733</u>
LIABILITIES							
Accrued payroll			\$ 1,668,693				\$ 1,668,693
Agency funds payable	\$ 51,874	\$ 143,975				\$ 23,538	219,387
Due to bondholders				\$ 74,032	\$ 5,621		79,653
Total liabilities	<u>\$ 51,874</u>	<u>\$ 143,975</u>	<u>\$ 1,668,693</u>	<u>\$ 74,032</u>	<u>\$ 5,621</u>	<u>\$ 23,538</u>	<u>\$ 1,967,733</u>

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City of Clovis
Combining Statement of Changes in Assets and Liabilities
Agency Funds
For the Year Ended June 30, 2019

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Deductions</u>	<u>Ending Balance</u>
Senior Citizen Memorial				
Assets				
Cash and investments	\$ 50,603	\$ 1,845	\$ 778	\$ 51,670
Receivables	135	723	654	204
Total assets	<u>\$ 50,738</u>	<u>\$ 2,568</u>	<u>\$ 1,432</u>	<u>\$ 51,874</u>
Liabilities				
Agency funds payable	\$ 50,738	\$ 2,568	\$ 1,432	\$ 51,874
Total liabilities	<u>\$ 50,738</u>	<u>\$ 2,568</u>	<u>\$ 1,432</u>	<u>\$ 51,874</u>
Blackhorse Assessment				
Assets				
Cash and investments	\$ 132,233	\$ 77,104	\$ 65,844	\$ 143,493
Receivables	325	5,983	5,826	482
Total assets	<u>\$ 132,558</u>	<u>\$ 83,087</u>	<u>\$ 71,670</u>	<u>\$ 143,975</u>
Liabilities				
Agency funds payable	\$ 132,558	\$ 83,087	\$ 71,670	\$ 143,975
Total liabilities	<u>\$ 132,558</u>	<u>\$ 83,087</u>	<u>\$ 71,670</u>	<u>\$ 143,975</u>
Payroll Tax and Withholding				
Assets				
Cash and investments	\$ 701,831	\$ 1,667,638	\$ 701,831	\$ 1,667,638
Receivables	4,205		3,150	1,055
Total assets	<u>\$ 706,036</u>	<u>\$ 1,667,638</u>	<u>\$ 704,981</u>	<u>\$ 1,668,693</u>
Liabilities				
Accrued Payroll	\$ 706,036	\$ 1,667,638	\$ 704,981	\$ 1,668,693
Total liabilities	<u>\$ 706,036</u>	<u>\$ 1,667,638</u>	<u>\$ 704,981</u>	<u>\$ 1,668,693</u>

Temperance/Barstow Assessment

Assets

Cash and investments	\$ 72,403	\$ 2,451	\$ 1,114	\$ 73,740
Receivables	194	1,036	938	292
Total assets	<u>\$ 72,597</u>	<u>\$ 3,487</u>	<u>\$ 2,052</u>	<u>\$ 74,032</u>

Liabilities

Due to bondholders	\$ 72,597	\$ 3,487	\$ 2,052	\$ 74,032
Total liabilities	<u>\$ 72,597</u>	<u>\$ 3,487</u>	<u>\$ 2,052</u>	<u>\$ 74,032</u>

Shepherd/Temperance Assessment

Assets

Cash and investments	\$ 5,519	\$ 150	\$ 67	\$ 5,602
Receivables	11	62	54	19
Total assets	<u>\$ 5,530</u>	<u>\$ 212</u>	<u>\$ 121</u>	<u>\$ 5,621</u>

Liabilities

Due to bondholders	\$ 5,530	\$ 212	\$ 121	\$ 5,621
Total liabilities	<u>\$ 5,530</u>	<u>\$ 212</u>	<u>\$ 121</u>	<u>\$ 5,621</u>

Asset Forfeiture

Assets

Cash and investments	\$ 19,483	\$ 4,273	\$ 308	\$ 23,448
Receivables	27	298	235	90
Total assets	<u>\$ 19,510</u>	<u>\$ 4,571</u>	<u>\$ 543</u>	<u>\$ 23,538</u>

Liabilities

Agency funds payable	\$ 19,510	\$ 4,571	\$ 543	\$ 23,538
Total liabilities	<u>\$ 19,510</u>	<u>\$ 4,571</u>	<u>\$ 543</u>	<u>\$ 23,538</u>

Grand Total All Agency Funds

Assets

Cash and investments	\$ 982,072	\$ 1,753,461	\$ 769,942	\$ 1,965,591
Receivables	4,897	8,102	10,857	2,142
Total assets	<u>\$ 986,969</u>	<u>\$ 1,761,563</u>	<u>\$ 780,799</u>	<u>\$ 1,967,733</u>

Liabilities

Accrued payroll	\$ 706,036	\$ 1,667,638	\$ 704,981	\$ 1,668,693
Agency funds payable	202,806	90,226	73,645	219,387
Due to bondholders	78,127	3,699	2,173	79,653
Total liabilities	<u>\$ 986,969</u>	<u>\$ 1,761,563</u>	<u>\$ 780,799</u>	<u>\$ 1,967,733</u>

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Statistical Section

This part of the City of Clovis' Comprehensive Annual Financial Report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the government's overall financial health.

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Statistical Section

Contents	Page
Financial Trends	109
These schedules contain trend information to help the reader understand how the government's financial performance and well-being have changed over time.	
Revenue Capacity	117
These schedules contain information to help the reader assess the governments' most significant local revenue source, the property tax.	
Debt Capacity	121
These schedules present information to help the reader assess the affordability of the government's current levels of outstanding debt and the government's ability to issue additional debt in the future.	
Demographic and Economic Information	127
These schedules offer demographic and economic indicators to help the reader understand the environment within which the government's financial activities take place.	
Operating Information	130
These schedules contain service and infrastructure data to help the reader understand how the information in the government's financial report relates to the services the government provides and the activities it performs.	

CITY OF CLOVIS
NET POSITION BY COMPONENT
LAST TEN FISCAL YEARS

(accrual basis of accounting)
(in thousands)

		Fiscal Year Ended June 30,									
		2010	2011	2012	2013	2014	2015*	2016	2017	2018	2019
Governmental activities:											
Net investment in capital assets	\$	414,755	\$ 436,785	\$ 469,871	\$ 481,729	\$ 490,722	\$ 509,567	\$ 523,881	\$ 524,625	\$ 533,810	\$ 562,740
Restricted		35,940	33,283	21,302	19,810	24,266	23,997	25,843	20,681	27,826	33,325
Unrestricted		13,991	16,121	13,688	16,070	21,548	(67,159)	(67,081)	(54,927)	(63,435)	(66,182)
Total net position	\$	464,686	\$ 486,189	\$ 504,861	\$ 517,609	\$ 536,536	\$ 466,405	\$ 482,643	\$ 490,379	\$ 498,201	\$ 529,883
Business-type activities:											
Net investment in capital assets	\$	107,065	\$ 111,939	\$ 125,253	\$ 130,123	\$ 132,872	\$ 137,520	\$ 142,658	\$ 147,265	\$ 153,013	\$ 162,938
Restricted		7,706	5,269	5,292	4,794	3,365	3,377	906	953	25	1
Unrestricted		43,031	44,638	38,660	51,584	60,855	72,977	82,271	103,531	108,299	120,937
Total net position	\$	157,802	\$ 161,846	\$ 169,205	\$ 186,501	\$ 197,092	\$ 213,874	\$ 225,835	\$ 251,749	\$ 261,337	\$ 283,876
Total Primary government:											
Net investment in capital assets	\$	521,820	\$ 548,724	\$ 595,124	\$ 611,852	\$ 623,594	\$ 647,087	\$ 666,540	\$ 671,890	\$ 686,823	\$ 725,678
Restricted		43,646	38,552	26,594	24,604	27,631	27,374	26,748	21,634	27,851	33,326
Unrestricted		57,022	60,759	52,348	67,654	82,403	5,818	15,190	48,604	44,864	54,755
Total net position	\$	622,488	\$ 648,035	\$ 674,066	\$ 704,110	\$ 733,628	\$ 680,279	\$ 708,478	\$ 742,128	\$ 759,538	\$ 813,759

*It should be noted that, due to the implementation of GASB 68 in fiscal year 2015, unrestricted net position in the Governmental Activities area was severely impacted, which is why the amount decreased by approximately \$88 million in one fiscal year (and remains negative through the current fiscal year)

**CITY OF CLOVIS
CHANGES IN NET POSITION
LAST TEN FISCAL YEARS
(accrual basis of accounting)
(in thousands)**

For the Fiscal Year Ended June 30,

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Expenses:										
Governmental activities:										
General government	\$ 4,282	\$ 4,684	\$ 4,952	\$ 5,948	\$ 5,642	\$ 5,587	\$ 5,577	\$ 6,218	\$ 6,481	\$ 7,730
Public safety	31,345	33,331	35,185	37,106	38,736	39,460	42,027	46,258	54,529	55,860
Transportation	10,123	9,869	10,803	11,160	11,251	12,686	12,232	13,307	14,057	14,883
Community development	11,289	10,931	8,925	930	310	909	637	1,742	1,984	751
Cultural and recreation	4,659	5,585	5,435	5,790	6,370	6,272	6,196	6,703	7,212	8,118
Interest and other charges							925	886	805	755
Special assessment										
Total governmental activities expenses	61,698	64,400	65,300	60,934	62,309	64,914	67,593	75,114	85,068	88,097
Business-type activities:										
Refuse	13,793	13,097	13,617	14,057	14,857	15,654	16,207	16,574	18,502	20,205
Sewer	19,631	17,139	18,207	17,555	19,883	18,011	18,553	18,235	18,862	18,738
Water	14,098	13,352	14,114	14,587	13,626	14,486	14,487	15,604	16,807	17,463
Transit	3,980	4,226	4,419	4,749	4,946	4,884	5,016	5,098	6,280	6,961
Planning & Development Services				6,826	7,226	7,558	7,780	8,555	9,410	10,443
Street Cleaning	944									
Total business-type activities expenses	52,446	47,814	50,357	57,774	60,538	60,592	62,044	64,066	69,861	73,810
Total primary government expenses	114,144	112,214	115,657	118,708	122,847	125,506	129,637	139,180	154,929	161,907
Program revenues:										
Governmental activities:										
Charges for services:										
General Government	3,005	3,765	3,224	4,271	4,378	4,995	4,875	4,640	4,497	5,137
Public Safety	1,906	2,094	2,071	1,700	2,195	2,209	2,521	2,079	3,414	3,268
Transportation	6,558	7,637	8,586	6,818	9,916	6,788	6,061	7,411	7,901	15,897
Community development	6,735	6,153	7,961	578	352	1,231	301	865	307	456
Cultural and recreation	4,349	4,171	4,025	4,509	5,901	4,909	5,540	5,653	6,010	4,638
Special assessment										
Operating grants and contributions	1,115	1,524	1,963	1,100	527	639	737	630	381	393
Capital grants and contributions	19,652	21,427	22,262	15,859	15,292	20,516	16,638	11,537	18,216	32,241
Total governmental activities program revenues	43,320	46,771	50,092	34,835	38,561	41,281	6,673	32,815	40,726	62,030

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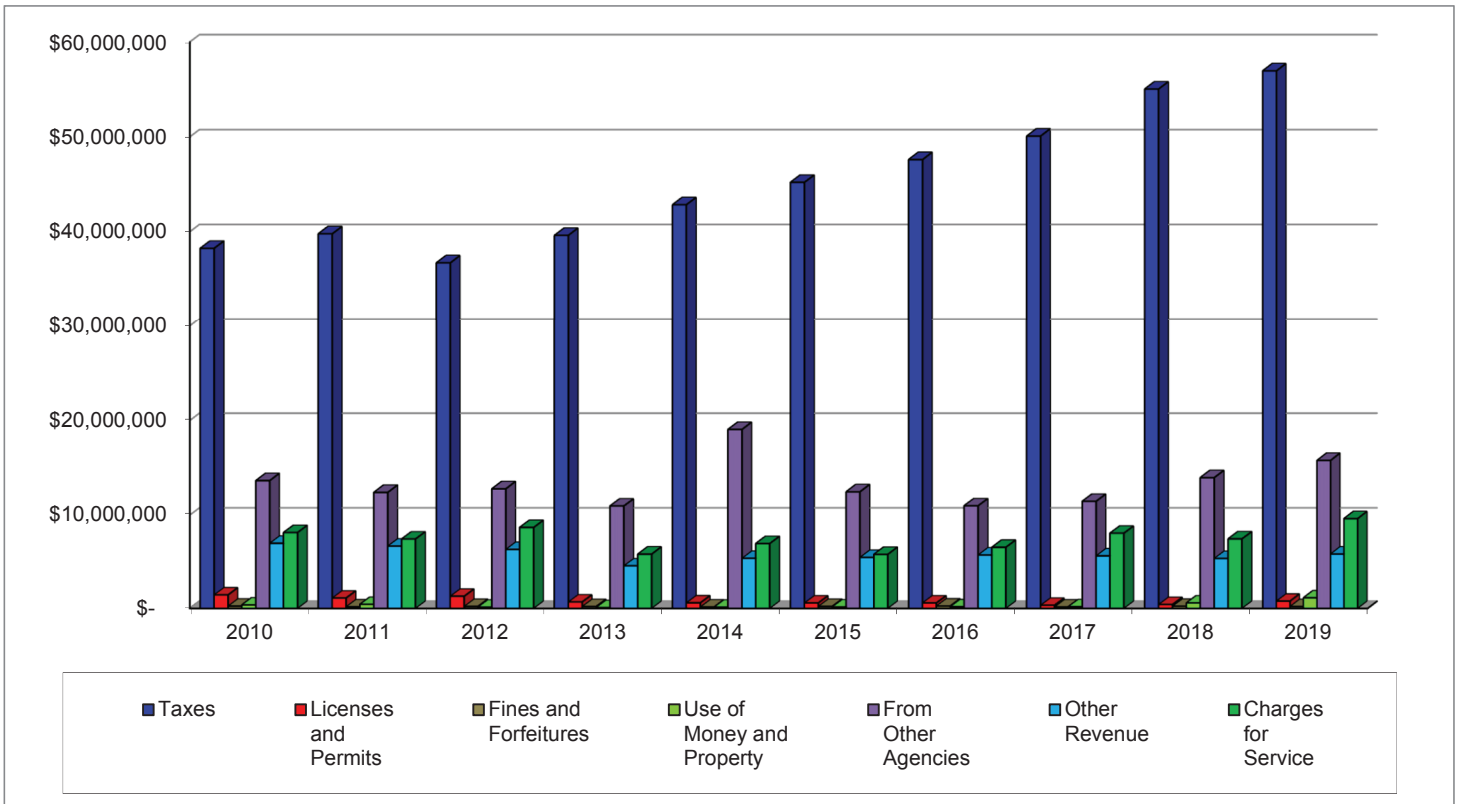
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Business-type activities:										
Charges for services:										
Community Sanitation	16,405	16,592	16,576	17,784	17,240	17,608	17,692	18,083	19,235	20,022
Sewer	9,265	14,027	16,295	18,340	18,130	21,974	21,167	18,942	21,214	21,281
Water	10,870	13,874	16,550	21,243	18,580	19,050	16,599	34,174	20,923	26,115
Transit	3,535	3,841	3,950	4,361	1,473	1,541	1,608	1,597	1,692	1,729
Planning & Development Services				7,720	8,630	8,159	8,807	9,619	9,828	10,522
Operating grants and contributions			48	102	2,879	4,247	4,056	4,464	4,590	5,463
Capital grants and contributions	2,800	3,177	4,829	4,639	3,535	4,059	2,721	1,935	2,854	7,302
Total business-type activities program revenues	42,875	51,511	58,248	74,189	70,467	76,638	72,650	88,814	80,336	92,434
Total primary government program revenues	86,195	98,282	108,340	109,024	109,028	117,925	109,323	121,629	121,062	154,464
Net revenues (expenses):										
Governmental activities	(18,378)	(17,629)	(15,208)	(26,099)	(23,748)	(23,627)	(30,920)	(42,299)	(44,342)	(26,067)
Business-type activities	(9,571)	3,697	7,891	16,415	9,929	16,047	10,606	24,748	10,475	18,624
Total net revenues (expenses)	(27,949)	(13,932)	(7,317)	(9,684)	(13,819)	(7,580)	(20,314)	(17,551)	(33,867)	(7,443)
General revenues and other changes in net position										
Governmental activities:										
Taxes:										
Property taxes	19,944	20,159	15,294	17,961	19,159	19,842	20,649	22,392	24,833	26,668
Sales tax	12,406	13,121	13,853	15,049	16,923	18,039	19,120	19,676	20,432	21,597
Business Lic/Franchise	4,045	4,081	4,184	4,386	4,664	4,984	5,271	5,300	6,891	5,789
Other taxes	1,163	1,602	1,740	1,935	2,097	2,327	2,551	2,705	2,871	2,896
Grants and contributions not restricted	446	628	190	175	131	172	183	178	186	504
Unrestricted investment earnings	473	475	148	61	138	163	234	272	566	1,476
Transfers	(49)	(49)	727	(720)	(437)	(461)	(850)	(488)	(507)	(1,180)
Total governmental activities	38,428	40,017	36,136	38,847	42,675	45,067	47,159	50,035	55,272	57,750
Business-type activities:										
Unrestricted investment earnings	664	298	195	161	224	274	506	679	1,442	2,734
Transfers	49	49	(727)	720	437	461	850	488	507	1,180
Total business-type activities	713	347	(532)	881	661	735	1,356	1,167	1,949	3,914
Total primary government	39,141	40,364	35,604	39,728	43,336	45,802	48,515	51,202	57,221	61,664
Extraordinary Item-Dissolution of CCDA			(2,257)							
Changes in net position										
Governmental activities	20,050	22,388	18,671	12,748	18,927	21,441	16,240	7,736	10,930	31,683
Business-type activities	(8,858)	4,044	7,359	17,296	10,590	16,782	11,961	25,915	12,424	22,538
Total primary government	\$ 11,192	\$ 26,432	\$ 26,030	\$ 30,044	\$ 29,517	\$ 38,223	\$ 28,201	\$ 33,651	\$ 23,354	\$ 54,221

CITY OF CLOVIS
GENERAL GOVERNMENT REVENUES BY SOURCE
LAST TEN FISCAL YEARS

AGENDA ITEM NO. 12.

Fiscal Year Ended June 30,	Taxes	Licenses and Permits	Fines and Forfeitures	Use of Money and Property	From Other Agencies	Charges for Service	Other Revenue	Total
2010	\$ 38,232,859	\$ 1,454,196	\$ 240,622	\$ 371,328	\$ 13,649,374	\$ 8,129,216	\$ 6,969,861	\$ 69,047,456
2011	39,776,909	1,113,238	166,010	433,979	12,418,299	7,432,331	6,671,487	68,012,253
2012	36,715,550	1,305,849	208,227	125,071	12,799,825	8,676,798	6,318,419	66,149,739
2013	39,611,753	688,001	192,636	83,549	10,963,343	5,819,507	4,554,963	61,913,752
2014	42,837,215	593,886	148,495	122,725	19,056,135	6,945,717	5,368,776	75,072,949
2015	45,191,980	583,060	207,358	144,328	12,484,156	5,794,337	5,469,201	69,874,420
2016	47,591,661	584,412	253,841	170,213	10,990,248	6,544,320	5,730,691	71,865,386
2017	50,072,582	330,336	140,193	173,524	11,473,015	8,060,073	5,634,697	75,884,420
2018	55,019,558	412,460	227,831	585,707	13,962,855	7,442,164	5,358,986	83,009,561
2019	56,949,844	778,319	195,146	1,134,952	15,787,432	9,620,602	5,831,451	90,297,746

Note: Includes all governmental fund types (General, Special Revenue, Debt Service and Capital Projects Funds).

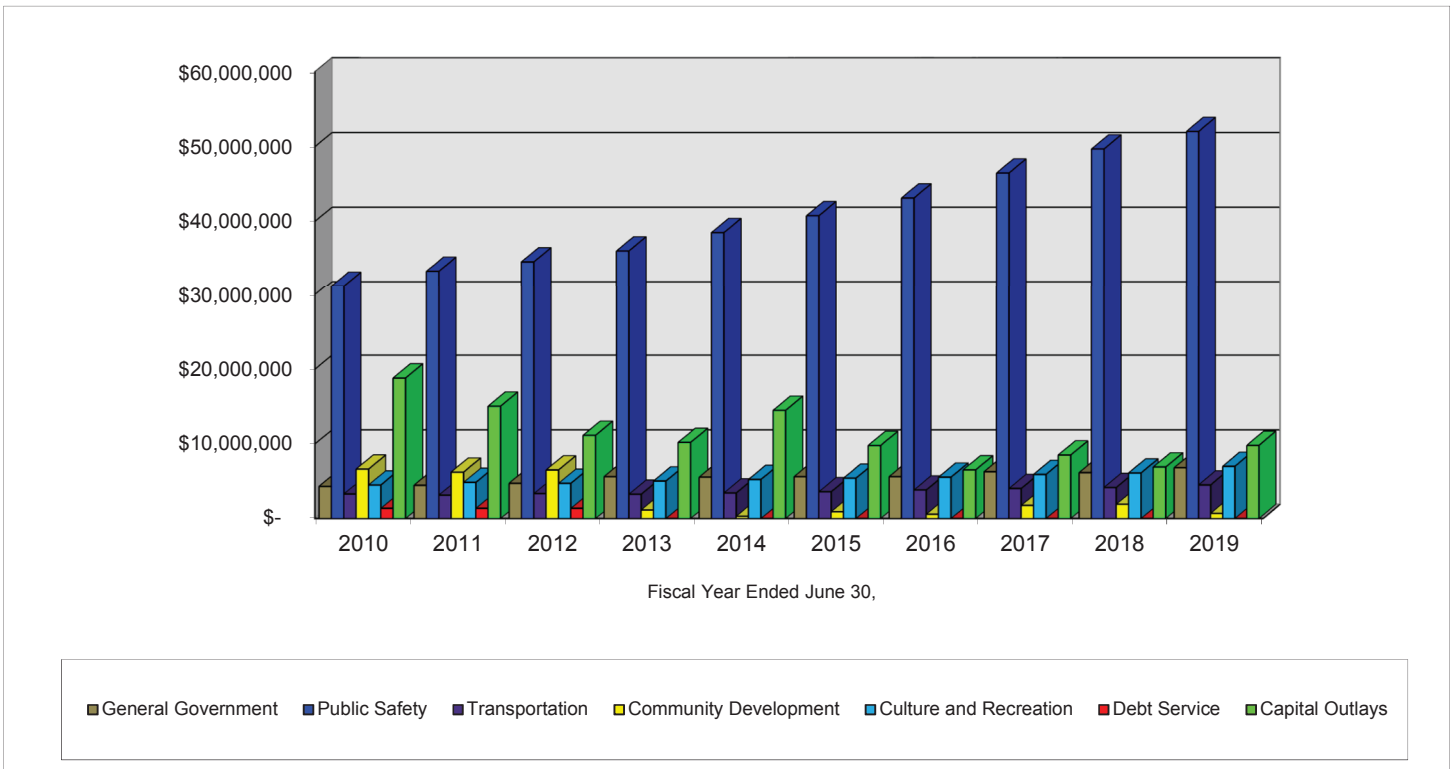


CITY OF CLOVIS
GENERAL GOVERNMENT EXPENDITURES BY FUNCTION
LAST TEN FISCAL YEARS

AGENDA ITEM NO. 12.

Fiscal Year Ended June 30.	General Government	Public Safety	Transportation	Community Development	Culture and Recreation	Debt Service	Capital Outlays	Total
2010	\$ 4,317,898	\$ 31,289,958	\$ 3,288,404	\$ 6,622,952	\$ 4,496,927	\$ 1,361,979	\$ 18,825,875	\$ 70,203,993
2011	4,468,062	33,303,647	3,134,317	6,223,288	4,843,250	1,364,129	15,066,781	68,403,474
2012	4,726,595	34,576,576	3,333,681	6,514,706	4,719,477	1,364,378	11,167,421	66,402,834
2013	5,620,526	36,043,170	3,256,789	1,150,395	5,024,870	0	10,205,465	61,301,215
2014	5,546,340	38,498,881	3,430,068	302,091	5,235,028	0	14,510,295	67,522,703
2015	5,622,192	40,767,185	3,595,841	917,702	5,409,366	0	9,800,799	66,113,085
2016	5,620,922	43,136,838	3,828,619	577,483	5,541,908	0	6,523,827	65,229,597
2017	6,287,114	46,476,211	4,032,061	1,757,867	5,914,052	0	8,516,678	72,983,983
2018	6,163,620	49,688,800	4,169,509	1,913,909	6,108,769	0	6,907,009	74,951,616
2019	6,818,113	52,034,209	4,506,493	686,251	6,993,547	0	9,818,090	80,856,703

Notes: Includes all governmental fund types (General, Special Revenue, Debt Service and Capital Projects Funds).



CITY OF CLOVIS
CHANGES IN FUND BALANCES OF GOVERNMENTAL FUNDS
LAST TEN FISCAL YEARS
(modified accrual basis of accounting)

AGENDA ITEM NO. 12.

	For the Fiscal Year Ended June 30, 2019				
	2010	2011	2012	2013	2014
Revenues:					
Property taxes	\$ 20,425,109	\$ 20,764,779	\$ 16,653,534	\$ 17,961,308	\$ 19,159,555
Sales taxes	12,404,059	13,329,533	14,076,648	15,284,968	16,916,615
Business license/Franchise	4,054,563	4,080,924	4,183,484	4,331,760	4,664,123
Other taxes	1,349,128	1,601,673	1,801,884	2,033,716	2,096,922
Licenses and permits	1,454,196	1,113,238	1,305,849	688,001	593,886
Fines and forfeitures	240,622	166,010	208,227	192,636	148,495
Use of money and property	371,328	433,979	125,071	83,549	122,725
From other agencies	13,649,374	12,418,299	12,799,825	10,963,343	19,056,135
Charges for current services	8,129,216	7,432,331	8,676,798	5,819,507	6,945,717
Other revenues	6,969,861	6,671,487	6,318,419	4,554,963	5,368,776
Total revenues	<u>69,047,456</u>	<u>68,012,253</u>	<u>66,149,739</u>	<u>61,913,751</u>	<u>75,072,949</u>
Expenditures					
Current:					
General government	4,317,898	4,468,062	4,726,595	5,620,526	5,546,340
Public safety	31,289,958	33,303,647	34,576,576	36,043,170	38,498,881
Transportation	3,288,404	3,134,317	3,333,681	3,256,789	3,430,068
Community development	6,622,952	6,223,288	6,514,706	1,150,395	302,091
Cultural and recreation	4,496,927	4,843,250	4,719,477	5,024,870	5,235,028
Debt service:					
Principal	530,000	550,000	575,000		
Interest and fiscal charges	831,979	814,129	789,378		
Bond issue costs					
Capital outlays	14,095,728	11,574,183	9,465,085	9,966,973	14,510,295
Total expenditures	<u>65,473,846</u>	<u>64,910,876</u>	<u>64,700,498</u>	<u>61,062,723</u>	<u>67,522,703</u>
Excess (deficiency) of revenues over (under) expenditures	<u>3,573,610</u>	<u>3,101,377</u>	<u>1,449,241</u>	<u>851,028</u>	<u>7,550,246</u>
Other financing sources (uses):					
Transfers in	1,350,000	1,388,000	1,531,696	30,000	18,995
Transfers out	(1,399,000)	(2,487,000)	(1,599,696)	(1,265,000)	(1,256,080)
Total other financing sources (uses)	<u>(49,000)</u>	<u>(1,099,000)</u>	<u>(68,000)</u>	<u>(1,235,000)</u>	<u>(1,237,085)</u>
Extraordinary item-Dissolution of CCDA			(11,551,717)		
Net change in Fund balances	<u>\$ 3,524,610</u>	<u>\$ 2,002,377</u>	<u>\$ (10,170,476)</u>	<u>\$ (383,972)</u>	<u>\$ 6,313,161</u>
Debt service as a percentage of noncapital expenditures	2.7%	2.6%	2.5%	0.0%	0.0%

CITY OF CLOVIS
CHANGES IN FUND BALANCES OF GOVERNMENTAL FUNDS
LAST TEN FISCAL YEARS

AGENDA ITEM NO. 12.

(modified accrual basis of accounting)

	For the Fiscal Year Ended June 30, 2019				
	2015	2016	2017	2018	2019
Revenues:					
Property taxes	\$ 19,842,732	\$ 20,649,898	\$ 22,391,753	\$ 24,832,576	\$ 26,667,913
Sales taxes	18,037,581	19,119,633	19,675,483	20,425,341	21,597,179
Business license/Franchise	4,929,246	5,271,321	5,300,062	6,891,105	5,788,765
Other taxes	2,382,421	2,550,809	2,705,284	2,870,536	2,895,987
Licenses and permits	583,060	584,412	330,336	412,460	778,319
Fines and forfeitures	207,358	253,841	140,193	227,831	195,146
Use of money and property	144,328	170,213	173,524	585,707	1,134,952
From other agencies	12,484,156	10,990,248	11,473,015	13,962,855	15,787,432
Charges for current services	5,794,337	6,544,320	8,060,073	7,442,164	9,620,602
Other revenues	5,469,201	5,730,691	5,634,697	5,358,986	5,831,451
Total revenues	69,874,420	71,865,386	75,884,420	83,009,561	90,297,746
Expenditures					
Current:					
General government	5,622,192	5,620,922	6,287,114	6,163,620	6,818,113
Public safety	40,767,185	43,136,838	46,476,211	49,688,800	52,034,209
Transportation	3,595,841	3,828,619	4,032,061	4,169,509	4,506,493
Community development	917,702	577,483	1,757,867	1,913,909	686,251
Cultural and recreation	5,409,366	5,541,908	5,914,052	6,108,769	6,993,547
Debt service:					
Principal					
Interest and fiscal charges					
Bond issue costs					
Capital outlays	9,800,799	6,523,827	8,516,678	6,907,009	9,818,090
Total expenditures	66,113,085	65,229,597	72,983,983	74,951,616	80,856,703
Excess (deficiency) of revenues over (under) expenditures	3,761,335	6,635,789	2,900,437	8,057,945	9,441,043
Other financing sources (uses):					
Transfers in	0	0	0	0	156,000
Transfers out	(1,211,000)	(4,050,000)	(3,188,000)	(506,700)	(1,975,000)
Total other financing sources (uses)	(1,211,000)	(4,050,000)	(3,188,000)	(506,700)	(1,819,000)
Extraordinary item-Dissolution of CCDA					
Net change in Fund balances	\$ 2,550,335	\$ 2,585,789	\$ (287,563)	\$ 7,551,245	\$ 7,622,043
Debt service as a percentage of noncapital expenditures	0.0%	0.0%	0.0%	0.0%	0.0%

CITY OF CLOVIS
FUND BALANCES OF GOVERNMENTAL FUNDS
LAST TEN FISCAL YEARS

AGENDA ITEM NO. 12.

(modified accrual basis of accounting)

General Fund

Fiscal Year Ended June 30,	Nonspendable	Restricted	Assigned	Unassigned	Total
2010	\$ 855,000	\$ 3,278,491	\$ 5,320,000	\$ 1,209,788	\$ 10,663,279
2011	855,000	2,984,719	6,565,000	544,966	10,949,685
2012	855,000	2,767,463	7,208,000	556,206	11,386,669
2013	855,000	2,383,432	7,883,000	1,135,539	12,256,971
2014	855,000	2,188,316	9,451,000	1,611,802	14,106,118
2015	855,000	2,368,439	10,000,000	3,702,156	16,925,595
2016	0	2,738,023	11,779,000	2,925,095	17,442,118
2017	0	3,189,504	12,152,000	708,019	16,049,523
2018	0	4,309,112	12,424,000	3,618,238	20,351,350
2019	0	4,960,824	13,512,000	4,433,151	22,905,975

All Other Governmental Funds

Fiscal Year Ended June 30,	Nonspendable	Restricted	Assigned	Unassigned	Total
2010	\$ 11,082,808	\$ 22,186,756	\$ 2,498,000		\$ 35,767,564
2011	9,010,607	20,907,638	3,187,900		33,106,145
2012	6,850,436	10,683,943	3,261,970		20,796,349
2013	7,155,675	8,795,952	3,351,955		19,303,582
2014	6,762,061	8,115,950	8,889,586		23,767,597
2015	6,865,628	6,349,429	10,283,400		23,498,457
2016	0	16,002,504	4,423,900		20,426,404
2017	7,528,473	18,886,282	258,000		26,672,755
2018	0	26,555,512	258,000		26,813,512
2019	0	27,613,930	4,267,000		31,880,930

CITY OF CLOVIS
ASSESSED AND ESTIMATED ACTUAL VALUE OF PROPERTY
LAST TEN FISCAL YEARS

AGENDA ITEM NO. 12.

Fiscal Year Ended June 30,	Real Property		Personal Property		Exemptions		Net		Total Direct Tax Rate
	Assessed Value	Estimated Actual Value	Assessed Value	Estimated Actual Value	Homeowners	Assessed	Estimated Actual		
2010	\$ 7,244,885,892	\$ 7,244,885,892	\$ 214,587,308	\$ 214,587,308	\$ 104,305,200	\$ 7,355,168,000	\$ 7,459,473,200	0%	
2011	7,201,539,162	7,201,539,162	215,795,027	215,795,027	104,977,700	7,312,356,489	7,417,334,189	0%	
2012	7,133,083,317	7,133,083,317	205,900,352	205,900,352	104,273,160	7,234,710,509	7,338,983,669	0%	
2013	7,024,285,314	7,024,285,314	201,775,479	201,775,479	101,603,300	7,124,457,493	7,226,060,793	0%	
2014	7,507,886,552	7,507,886,552	198,810,435	198,810,435	103,378,700	7,603,318,287	7,706,696,987	0%	
2015	8,158,612,400	8,158,612,400	204,592,938	204,592,938	101,969,400	8,261,235,938	8,363,205,338	0%	
2016	8,696,361,855	8,696,361,855	213,125,102	213,125,102	100,450,200	8,809,036,757	8,909,486,957	0%	
2017	9,179,714,485	9,179,714,485	214,596,488	214,596,488	99,120,700	9,295,190,273	9,394,310,973	0%	
2018	10,033,990,678	10,033,990,678	221,666,625	221,666,625	97,686,900	10,157,970,403	10,255,657,303	0%	
2019	10,593,683,186	10,593,683,186	212,862,653	212,862,653	96,576,100	10,709,969,739	10,806,545,839	0%	

Note: Effective fiscal year 1981-82 and fiscal years thereafter, assessed value is 100% of market value.
The rate applied to the assessed value for county wide property tax is 1%.

Source: Fresno County Auditor Controller/Treasurer Tax Collector FY2018-19 Tax Rate Book

CITY OF CLOVIS
PROPERTY TAX RATES - DIRECT AND OVERLAPPING GOVERNMENT
LAST TEN FISCAL YEARS

AGENDA ITEM NO.12.

<u>Fiscal Year Ended June 30,</u>	<u>City of Clovis</u>	<u>Clovis Unified School District Bond</u>	<u>State Center General Obligation Bond</u>	<u>County Wide</u>	<u>Total</u>
2010	0.000000	0.197500	0.013294	1.000000	1.210794
2011	0.000000	0.186740	0.010050	1.000000	1.196790
2012	0.000000	0.155352	0.007070	1.000000	1.162422
2013	0.000000	0.155350	0.009358	1.000000	1.164708
2014	0.000000	0.155350	0.009602	1.000000	1.164952
2015	0.000000	0.155346	0.009308	1.000000	1.164654
2016	0.000000	0.155350	0.008064	1.000000	1.163414
2017	0.000000	0.155350	0.008480	1.000000	1.163830
2018	0.000000	0.398998	0.025934	1.000000	1.424932
2019	0.000000	0.155350	0.022966	1.000000	1.178316

Note: The basis for the tax rates is per \$100 assessed valuation.

Source: Fresno County Auditor Controller/Treasurer Tax Collector FY2018-19 Tax Rate Book

**CITY OF CLOVIS
PRINCIPAL PROPERTY TAX PAYERS
CURRENT YEAR AND TEN YEARS AGO**

AGENDA ITEM NO.12.

Taxpayer	2019			2010		
	Taxable Assessed Value (1)	Rank	Percent of Total City Taxable Assessed Value	Taxable Assessed Value (1)	Rank	Percent of Total City Taxable Assessed Value
Fresno Community Hospital & Med CTR	\$ 89,558	1	0.83%			
Prindiville Dennis Trustee	49,122	2	0.46%	\$ 60,893	2	0.80%
Rlo LLC	39,823	3	0.37%			
Ltc West Inc	35,285	4	0.33%	87,383	1	1.14%
Winterfell Yosemite Gardens L P	26,545	5	0.25%			
Clovis-Herndno Center II LLC	26,504	6	0.25%			
Wal-Mart Real Estate Business Trust	25,928	7	0.24%			
GSF Sunnyside Clovis Investors L P	23,798	8	0.22%	22,438	5	0.29%
Copper Beech Townhome Communities	22,000	9	0.20%			
Clovis Apartment Group LLC	20,927	10	0.20%			
Regency Cahan-Clovis LLC				37,500	3	0.49%
Fletcher K LLC				35,250	4	0.46%
Anlin Industries				21,235	6	0.28%
Brown Garold C Family LTD Partnership				18,003	8	0.24%
Vons Companies Inc				16,635	10	0.22%
Kaiser Foundation Health Plan Inc				17,114	9	0.22%
Winco Foods LLC				18,447	7	0.24%
	\$ 359,490		3.35%	\$ 334,898		4.38%

(1) Amounts in thousands

Source: City of Clovis-GIS
Fresno County Assessor

**CITY OF CLOVIS
PROPERTY TAX LEVIES AND COLLECTIONS
LAST TEN FISCAL YEARS**

AGENDA ITEM NO.12.

<u>Fiscal Year Ended June 30,</u>	<u>Total Tax Levy</u>	<u>Current Tax Collections</u>	<u>Percent of Current Taxes Collected</u>	<u>Delinquent Tax Collections₁</u>	<u>Total Tax Collections</u>	<u>Ratio of Total Tax Collections to Total Tax Levy</u>	<u>Current Delinquent Taxes</u>	<u>Ratio of Current Delinquent Taxes to Total Tax Levy₂</u>
2010	\$ 9,510,716	\$ 8,756,447	92.1	\$ 274,402	\$ 9,030,849	95.0	\$ 307,101	3.229
2011	9,158,780	8,702,520	95.0	448,065	9,150,585	99.9	243,624	2.660
2012	9,176,983	8,787,604	95.8	298,162	9,085,766	99.0	185,100	2.017
2013	9,209,497	8,867,999	96.3	270,584	9,138,583	99.2	150,299	1.632
2014	9,957,414	9,627,588	96.7	216,607	9,844,195	98.9	148,664	1.493
2015	10,824,263	10,592,809	97.9	202,176	10,794,985	99.7	155,869	1.440
2016	11,475,064	11,371,562	99.1	111,527	11,483,089	100.1	159,503	1.390
2017	12,116,560	11,966,405	98.8	160,797	12,127,202	100.1	169,390	1.398
2018	13,366,204	13,159,337	98.5	268,359	13,427,695	100.5	187,528	1.403
2019	14,248,564	13,928,737	97.8	138,109	14,066,846	98.7	196,915	1.382

- Notes: Amounts include only General Fund tax collections.
- ₁ Includes prior year delinquent tax collections.
- ₂ The ratio of current delinquent taxes represents the Fresno County wide rate as the County of Fresno is unable to provide the City of Clovis' delinquent tax ratio.

Sources: Fresno County Assessor's Office
Fresno County Auditor Controller

CITY OF CLOVIS
RATIOS OF OUTSTANDING DEBT BY TYPE
LAST TEN FISCAL YEARS

AGENDA ITEM NO. 12.

Fiscal Year Ended June 30,	Tax Allocation Bonds (1)	Special Assessment Bonds (1)	Lease Revenue Bonds (1)	Revenue Bonds (1)	Capital Leases (1)	Loans/Contracts Payable (1)	Notes/Direct Placements Payable (1)	Total	Debt Per AV	Debt Per Capita
Governmental Activities										
2010	\$17,733,557	\$ 0	\$ 0	\$ 15,683,638	\$ 7,140,369	\$ 1,346,309	\$ 0	\$ 41,903,873	\$0.006	\$ 433
2011	17,213,457	0	0	15,082,836	10,123,390	1,309,095	0	43,728,778	0.006	450
2012	0	0	0	14,447,032	10,099,702	2,343,196	0	26,889,930	0.004	273
2013	0	0	0	13,786,231	11,740,045	2,198,243	0	27,724,519	0.004	277
2014	0	0	0	0	26,255,248	2,120,278	0	28,375,526	0.004	278
2015	0	0	0	0	23,655,822	1,805,112	0	25,460,934	0.003	244
2016	0	0	0	0	26,850,329	1,724,379	0	28,574,708	0.004	274
2017	0	0	0	0	24,154,921	1,480,623	0	25,635,544	0.003	231
2018	0	0	0	0	22,066,356	1,195,510	0	23,261,866	0.002	204
2019	0	0	0	0	11,284,736	2,745,885	8,997,833	23,028,454	0.002	197
Business-type Activities										
2010	\$ 0	\$ 0	\$ 0	\$ 155,265,239	\$ 0	\$ 14,359,233	\$ 0	\$ 169,624,472	\$0.023	\$ 1,751
2011	0	0	0	153,136,546	0	12,818,719	0	165,955,265	0.023	1,707
2012	0	0	0	149,682,848	0	11,181,113	0	160,863,961	0.023	1,631
2013	0	0	0	146,013,411	0	10,503,598	0	156,517,009	0.022	1,565
2014	0	0	0	141,888,294	0	9,783,356	0	151,671,650	0.020	1,484
2015	0	0	0	137,462,213	0	9,018,510	0	146,480,723	0.018	1,404
2016	0	0	0	130,540,195	0	8,205,774	0	138,745,969	0.017	1,330
2017	0	0	0	125,639,953	0	7,350,311	0	132,990,264	0.014	1,201
2018	0	0	0	118,831,052	0	6,449,775	0	125,280,827	0.012	1,100
2019	0	0	0	114,115,888	0	5,502,287	0	119,618,175	0.011	1,022
Total Primary Government										
2010	\$17,733,557	\$ 0	\$ 0	\$ 170,948,877	\$ 7,140,369	\$ 15,705,542	\$ 0	\$ 211,528,345	\$0.029	\$ 2,184
2011	17,213,457	0	0	168,219,382	10,123,390	14,127,814	0	209,684,043	0.029	2,157
2012	0	0	0	164,129,880	10,099,702	13,524,309	0	187,753,891	0.026	1,904
2013	0	0	0	159,799,642	11,740,045	12,701,841	0	184,241,528	0.026	1,843
2014	0	0	0	141,888,294	26,255,248	11,903,634	0	180,047,176	0.024	1,762
2015	0	0	0	137,462,213	23,655,822	10,823,622	0	171,941,657	0.021	1,648
2016	0	0	0	130,540,195	26,850,329	9,930,153	0	167,320,677	0.021	1,604
2017	0	0	0	125,639,953	24,154,921	8,830,934	0	158,625,808	0.017	1,432
2018	0	0	0	118,831,052	22,066,356	7,645,285	0	148,542,693	0.015	1,304
2019	0	0	0	114,115,888	11,284,736	8,248,172	8,997,833	142,646,629	0.013	1,219

(1) Presented net of original issuance discounts and premiums
Source: City of Clovis Finance Department

CITY OF CLOVIS

AGENDA ITEM NO.12.

**RATIO OF NET GENERAL OBLIGATION BONDED DEBT
TO ASSESSED VALUE AND NET GENERAL OBLIGATION BONDED DEBT PER CAPITAL
LAST TEN FISCAL YEARS**

Fiscal Year	Estimated	Assessed	Gross Bonded	Less Debt	Net	Ratio of Net	Net
Ended	Population	Valuation	Debt (1)	Service Fund	Bonded Debt	Bonded Debt to	Bonded Debt
June 30,						Assessed Value	Per Capita
2010	96,868	\$ 7,244,885,892	\$ 0	\$ 0	\$ 0	0.00%	\$ 0
2011	97,218	7,201,539,162	0	0	0	0.00%	0
2012	98,611	7,133,083,317	0	0	0	0.00%	0
2013	99,983	7,024,285,314	0	0	0	0.00%	0
2014	102,188	7,507,886,552	0	0	0	0.00%	0
2015	104,339	8,158,612,400	0	0	0	0.00%	0
2016	108,039	8,696,361,855	0	0	0	0.00%	0
2017	110,762	9,179,714,485	0	0	0	0.00%	0
2018	113,883	10,157,970,403	0	0	0	0.00%	0
2019	117,003	10,709,969,739	0	0	0	0.00%	0

(1) Amount does not include special assessment bonds.

Source: Fresno County Auditor Controller/Treasurer Tax Collector

CITY OF CLOVIS
RATIO OF ANNUAL DEBT SERVICE EXPENDITURES
FOR GENERAL OBLIGATION BONDED DEBT
TO TOTAL GENERAL GOVERNMENTAL EXPENDITURES
LAST TEN FISCAL YEARS

Fiscal Year Ended June 30,	<u>Principal</u>	<u>Interest</u>	<u>Total Debt Service</u>	<u>Total General Governmental Expenditures (1)</u>	<u>Ratio of Debt Service to General Government Expenditures</u>
2010	\$ 0	\$ 0	\$ 0	\$ 70,203,993	0.0
2011	0	0	0	68,403,474	0.0
2012	0	0	0	66,402,834	0.0
2013	0	0	0	61,301,215	0.0
2014	0	0	0	67,522,703	0.0
2015	0	0	0	66,113,085	0.0
2016	0	0	0	65,229,597	0.0
2017	0	0	0	72,983,983	0.0
2018	0	0	0	74,951,616	0.0
2019	0	0	0	80,856,703	0.0

(1) Includes all governmental fund types (General, Special Revenue, Debt Service and Capital Projects Funds).

CITY OF CLOVIS
COMPUTATION OF DIRECT AND OVERLAPPING GOVERNMENTAL ACTIVITIES DEBT
JUNE 30, 2019

AGENDA ITEM NO. 12.

2018-2019 Assessed Valuation: \$ 10,806,545,839

<u>Direct and Overlapping Debt:</u>	<u>% Applicable*</u>	<u>Debt</u>
Direct Debt:		
City of Clovis Capital Leases	100.00%	\$ 11,284,736
City of Clovis Loans Payable	100.00%	2,745,885
City of Clovis Notes from Direct Placements	100.00%	8,997,833
Total Net Direct Debt		23,028,454
Total Net Direct and Direct Bonded Debt		\$ 23,028,454
Overlapping Bonded Debt:		
Fresno County General Fund Obligations	13.763%	\$ 5,112,266
Fresno County Pension Obligations	13.763%	35,133,877
State Center Community College District	12.636%	22,047,925
Clovis Unified School District	41.253%	154,009,388
Clovis Unified School District Certificates of Participation	41.253%	1,924,452
Clovis Memorial District General Fund Obligations	44.061%	1,528,917
Fresno Unified School District	2.112%	10,543,512
Fresno Unified School District General Fund Obligations	2.112%	303,706
Sanger Unified School District	0.142%	215,569
Sanger Unified School District Certificates of Participation	0.142%	56,821
Total Gross Overlapping Bonded Debt		230,876,433
Overlapping Tax Increment Debt:		
Total Gross Overlapping Tax Increment Debt	100.00%	12,835,000
Total Gross Overlapping Debt		\$ 243,711,433
Total Net Direct and Overlapping Bonded Debt		\$ 266,739,887 (1)

(1) Excludes tax and revenue anticipation notes, enterprise revenue, mortgage revenue and tax allocation bonds and non-bonded capital lease obligations.

Ratios to Assessed Valuation:

Total Overlapping Tax and Assessment Debt	2.26%
Total Direct and Direct Bonded Debt	0.21%
Combined Total Debt	2.47%

Ratios to Redevelopment Incremental Valuation \$850,512,099

Total Overlapping Tax Increment Debt	1.51%
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Share of Authorized and Unsold Bonds:

City of Clovis	\$ 2,000,000
	Hasn't changed since 1995.

Source: California Municipal Statistics & City of Clovis

*The percentage of overlapping debt applicable to the City is estimated using taxable assessed property value. Applicable percentages were estimated by determining the portion of the overlapping district's assessed value that is within the boundaries of the City divided by the district's total assessed value.

**CITY OF CLOVIS
LEGAL DEBT MARGIN INFORMATION
LAST TEN FISCAL YEARS**

AGENDA ITEM NO. 12.

Fiscal Year Ended June 30.	Debt Limit	Total Net Debt Applicable to Limit	Legal Debt Margin	Total Net Debt Applicable to the Limit As a Percentage of Debt Limit
2010	\$ 1,118,920,980	\$ 0	\$ 1,118,920,980	0%
2011	1,112,600,128	0	1,112,600,128	0
2012	1,100,847,550	0	1,100,847,550	0
2013	1,083,909,119	0	1,083,909,119	0
2014	1,156,004,548	0	1,156,004,548	0
2015	1,254,480,801	0	1,254,480,801	0
2016	1,336,423,044	0	1,336,423,044	0
2017	1,409,146,646	0	1,409,146,646	0
2018	1,538,348,595	0	1,538,348,595	0
2019	1,620,981,876	0	1,620,981,876	0

LEGAL DEBT MARGIN CALCULATION FOR FISCAL YEAR 2019

Assessed Valuations:

Assessed Value	\$ 10,709,969,739
Add back exempt property	96,576,100

Total Assessed Value	\$ 10,806,545,839
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Legal Debt Margin:

Debt Limitation-15 percent of total assessed value	\$ 1,620,981,876
--	------------------

Debt applicable to Limitation:

Total bonded debt	\$ 0
Less: Amount in debt service funds available for payment of principal	0

Total debt applicable to Limitation	0
-------------------------------------	---

Legal Debt Margin:	\$ 1,620,981,876
--------------------	------------------

**CITY OF CLOVIS
REVENUE BOND COVERAGE
LAST TEN FISCAL YEARS**

AGENDA ITEM NO. 12.

REFUSE DISPOSAL FUND

Fiscal Year Ended <u>June 30,</u>	Gross Revenues (1)	Operating Expenses (2)	Net Revenue	Debt Service Requirements (3)			Coverage
			Available for Debt Service	Principal	Interest	Total	
2010	\$ 15,519,039	\$ 12,275,661	\$ 3,243,378	\$ 490,000	\$ 287,628	\$ 777,628	4.17
2011	15,691,270	11,526,394	4,164,876	515,000	262,089	777,089	5.36
2012	16,515,045	11,747,301	4,767,744	540,000	235,299	775,299	6.15
2013	16,584,300	12,478,604	4,105,696	565,000	207,260	772,260	5.32
2014	16,106,761	13,524,511	2,582,250	595,000	177,763	772,763	3.34
2015	16,612,320	14,612,658	1,999,662	625,000	146,765	771,765	2.59
2016	16,684,608	15,578,895	1,105,713	655,000	114,268	769,268	1.44
2017	16,883,872	15,600,372	1,283,500	690,000	80,063	770,063	1.67
2018	18,030,852	16,042,168	1,988,684	725,000	12,511	737,511	2.70
2019	19,172,744	18,301,846	870,898	0	0	0	N/A

SEWER SERVICE FUND

Fiscal Year Ended <u>June 30,</u>	Gross Revenues (4)	Operating Expenses (2)	Net Revenue	Debt Service Requirements (3)			Coverage
			Available for Debt Service	Principal	Interest	Total	
2010	\$ 9,633,733	\$ 9,213,349	\$ 420,384	\$ 130,000	\$ 5,206,043	\$ 5,336,043	0.08
2011	14,193,351	6,819,675	7,373,676	140,000	5,199,784	5,339,784	1.38
2012	16,378,861	7,806,516	8,572,345	1,385,000	5,162,329	6,547,329	1.31
2013	18,420,785	7,329,635	11,091,150	1,440,000	5,081,716	6,521,716	1.70
2014	18,219,581	8,360,501	9,859,080	1,345,000	4,902,681	6,247,681	1.58
2015	22,072,796	8,248,142	13,824,654	1,870,000	4,801,933	6,671,933	2.07
2016	21,366,761	8,813,564	12,553,197	1,930,000	4,575,379	6,505,379	1.93
2017	19,205,582	9,069,315	10,136,267	1,480,000	2,837,163	4,317,163	2.35
2018	21,721,290	9,450,348	12,270,942	2,185,000	4,006,507	6,191,507	1.98
2019	22,175,017	10,126,785	12,048,232	2,075,000	3,806,133	5,881,133	2.05

WATER SERVICE FUND

Fiscal Year Ended <u>June 30,</u>	Gross Revenues (4)	Operating Expenses (2)	Net Revenue	Debt Service Requirements (3)			Coverage
			Available for Debt Service	Principal	Interest	Total	
2010	\$ 11,049,053	\$ 10,090,509	\$ 958,544	\$ 1,390,000	\$ 1,836,111	\$ 3,226,111	0.30
2011	13,936,677	9,231,283	4,705,394	1,440,000	1,786,880	3,226,880	1.46
2012	16,645,199	9,953,181	6,692,018	1,495,000	1,733,364	3,228,364	2.07
2013	22,908,215	10,460,126	12,448,089	1,555,000	1,676,634	3,231,634	3.85
2014	19,996,964	10,730,310	9,266,654	1,455,000	1,454,062	2,909,062	3.19
2015	19,133,751	10,860,381	8,273,370	1,630,000	1,367,074	2,997,074	2.76
2016	16,769,010	10,955,394	5,813,616	1,685,000	1,301,145	2,986,145	1.95
2017	18,717,047	11,977,373	6,739,674	1,755,000	1,232,816	2,987,816	2.26
2018	21,537,742	12,618,522	8,919,220	1,825,000	1,161,688	2,986,688	2.99
2019	27,118,081	13,346,057	13,772,024	1,890,000	1,087,826	2,977,826	4.62

- (1) Total revenues, including interest.
- (2) Total operating expenses exclusive of depreciation.
- (3) Includes principal and interest of revenue bonds only. It does not include the other debt reported in the refuse and sewer funds.
- (4) Total revenues, including interest and capital contributed by developers. The amount contributed by developers is available for payment of annual debt service and is therefore included in gross revenue for the purposes of this schedule.

Note: This schedule does not represent legal bond covenants.

**CITY OF CLOVIS
DEMOGRAPHICS STATISTICS
LAST TEN FISCAL YEARS**

AGENDA ITEM NO.12.

Fiscal Year Ended June 30,	City Population	% Change	City Unemployment Rate	Fresno County Population	City Population as % of County Population	Fresno County Unemployment Rate
2010	96,868	1.83	12.50	953,761	10.16	16.00
2011	97,218	0.36	12.90	940,220	10.34	16.80
2012	98,611	1.43	11.70	945,711	10.43	15.20
2013	99,983	1.39	10.00	952,166	10.50	12.30
2014	102,188	2.21	8.50	964,040	10.60	10.40
2015	104,339	2.10	7.50	972,297	10.73	9.30
2016	108,039	3.55	7.20	984,541	10.97	9.30
2017	110,762	2.52	5.80	995,975	11.12	8.10
2018	113,883	2.82	4.40	1,007,229	11.31	7.60
2019	117,003	2.74	4.10	1,018,241	11.49	7.00

Sources: County of Fresno
Labor market Info EDD

Note: Per capita income and total personal income information not available.

**CITY OF CLOVIS
PRINCIPAL EMPLOYERS
CURRENT YEAR AND TEN YEARS AGO**

AGENDA ITEM NO. 12.

<u>Employer</u>	<u>2019</u>			<u>2010</u>		
	<u>Number of Employees</u>	<u>Rank</u>	<u>Percent of Total Employment*</u>	<u>Number of Employees</u>		<u>Percent of Total Employment*</u>
Clovis Unified School District	8,369	1	15.38%	5,200	1	11.95
Clovis Community Hospital	1,939	2	3.56%	1,023	3	2.35
Alorica	720	3	1.32%	339	6	0.78
City of Clovis	671	4	1.23%	781	4	1.80
Wal-Mart	620	5	1.14%	239	7	0.55
Wawona Frozen Foods	540	6	0.99%			
Costco	368	7	0.68%	205	8	0.47
Target	325	8	0.60%	420	5	0.97
Anlin Industries	320	9	0.59%			
Savemart	234	10	0.43%	268	6	0.62
Lowe's				176	10	0.40
Pelco				2,029	2	4.66
Von's				202	9	0.46

* "Total Employment" as used above represents the total employment of all employers located within City limits based on a projection for June 2019.

Source: Employment Development Department or employer provided

**CITY OF CLOVIS
FULL-TIME CITY EMPLOYEES
LAST TEN FISCAL YEARS**

<u>Function</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
<u>Governmental Activities</u>										
General Government	24.100	36.550	38.050	39.050	43.150	41.850	43.850	44.850	46.850	46.650
Public Safety										
Police	146.000	146.000	148.000	152.000	156.000	163.000	168.000	175.000	175.000	176.000
Fire	60.500	66.500	64.500	66.000	66.000	66.000	66.000	67.000	67.000	67.000
Transportation	13.500	13.800	13.800	14.800	14.800	14.950	13.950	14.000	14.040	14.140
Community Development	52.250	41.500	40.000	0.500	0.400		1.000	1.000	1.000	0.850
Culture & Recreation	30.500	30.500	28.100	23.100	24.700	24.200	26.000	25.750	26.630	26.630
Internal Service	26.525	26.525	26.525	26.525	27.525	29.225	30.225	31.225	31.235	30.435
Total Governmental Activities	<u>353.375</u>	<u>361.375</u>	<u>358.975</u>	<u>321.975</u>	<u>332.575</u>	<u>339.225</u>	<u>349.025</u>	<u>358.825</u>	<u>361.755</u>	<u>361.705</u>
<u>Business-Type Activities</u>										
Refuse	39.610	41.860	41.860	41.860	42.560	44.310	44.310	43.960	45.060	49.060
Sewer	10.750	11.250	11.250	11.250	11.250	11.250	11.250	11.250	12.230	12.780
Water	34.350	34.600	34.600	34.600	34.300	34.300	35.300	36.850	37.890	39.040
Street Cleaning	4.790	4.790	4.790	4.790	4.790	6.790	6.790	6.790	6.740	6.740
Transit	22.125	22.125	22.525	22.525	22.525	24.125	25.325	25.325	25.325	25.325
Planning & Dev Services*				37.000	43.000	45.000	45.000	45.000	47.000	53.350
Total Business-Type Activities	<u>111.625</u>	<u>114.625</u>	<u>115.025</u>	<u>152.025</u>	<u>158.425</u>	<u>165.775</u>	<u>167.975</u>	<u>169.175</u>	<u>174.245</u>	<u>186.295</u>
Total Full-Time Employees	<u><u>465.000</u></u>	<u><u>476.000</u></u>	<u><u>474.000</u></u>	<u><u>474.000</u></u>	<u><u>491.000</u></u>	<u><u>505.000</u></u>	<u><u>517.000</u></u>	<u><u>528.000</u></u>	<u><u>536.000</u></u>	<u><u>548.000</u></u>

Source: City of Clovis

Notes: Decimals represent the portions of employees performing duties in two or more functions.

Internal Service Functions have been included in Governmental Activities.

*The Planning and Development Services Fund was created beginning July 1, 2012. Employees in this business-type activity were formerly in the governmental activities.

**CITY OF CLOVIS
CAPITAL ASSET STATISTICS
BY FUNCTION
LAST TEN FISCAL YEARS**

AGENDA ITEM NO.12.

	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Public Safety										
Police:										
Stations	1	1	1	1	1	1	1	1	1	1
Fire:										
Fire stations	5	5	5	5	5	5	5	5	5	5
Public utilities:										
Streets (miles)	315	359	362	369	380	384	391	410	415	419
Streetlights	8,938	9,567	9,576	9,587	10,308	10,461	10,479	11,022	11,088	11,692
Cultural and recreation:										
Parks	53	54	55	58	59	62	63	64	66	67
Community centers	1	1	1	1	1	1	1	1	1	1
Water:										
Water mains (miles)	475	479	484	490	499	508	514	521	535	546
Sewer										
Sanitary sewers (miles)	352	356	358	361	367	373	379	385	396	405

Source: City of Clovis

**CITY OF CLOVIS
OPERATING INDICATORS BY FUNCTION
LAST TEN FISCAL YEARS**

AGENDA ITEM NO. 12.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Police:										
Arrests	4,396	4,503	4,612	4,936	5,135	4,046	4,326	4,145	3,868	3,718
Parking citations issued	878	797	513	972	1,343	954	982	1,369	1,245	1,307
Fire:										
Number of emergency calls	8,135	6,970	8,945	9,958	8,290	10,098	10,069	9,661	9,974	10,399
Parks and recreation:										
Number of recreation classes	63	86	93	94	95	119	130	138	151	169
Number of facility rentals	18	18	13	13	13	32	32	32	48	68
Water:										
New connections	325	543	282	793	779	636	837	936	1,067	1,068
Average daily consumption (thousands of gallons)	22,889	21,918	22,453	23,917	23,840	20,684	16,883	19,083	20,849	19,929
Sewer:										
New connections	350	352	425	667	721	639	509	801	1,170	1,037
Average daily sewage treatment (thousands of gallons)	7,279	7,269	6,996	6,914	6,949	6,862	6,543	6,776	6,928	7,618

Source: City of Clovis

**CITY OF CLOVIS
BUILDING PERMIT VALUATIONS
LAST TEN YEARS**

AGENDA ITEM NO. 12.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Valuation (in Thousands)										
Residential	\$ 118,545	\$ 99,320	\$ 110,041	\$ 136,224	\$ 226,295	\$ 237,913	\$ 206,930	\$ 265,411	\$ 322,495	\$ 236,689
Non-residential	74,849	31,386	45,056	60,451	89,672	85,728	104,839	55,061	43,024	131,442
Total	\$ 193,394	\$ 130,706	\$ 155,097	\$ 196,675	\$ 315,967	\$ 323,641	\$ 311,769	\$ 320,472	\$ 365,519	\$ 368,131
New Dwelling Units										
Single Family	474	370	378	501	703	815	709	925	1,046	848
Multiple Family	0	60	100	60	32	209	0	58	304	0
Total	474	430	478	561	735	1,024	709	983	1,350	848

Source: City of Clovis Building Department

CITY OF CLOVIS
MISCELLANEOUS STATISTICS
June 30, 2019

AGENDA ITEM NO. 12.

Date of Incorporation	February 27, 1912
Form of Government	Council/Manager
Number of Employees (full-time and part-time)	671
Area (square miles)	25.5
Miles of Streets	419
Number of Street Lights	11,692
Fire Protection:	
Number of Stations	5
Number of Firefighters and Officers	67
Police Protection:	
Number of Police Officers and Other Sworn Personnel	176
Water Department:	
Number of Water Services	36,893
Miles of Water Mains	546
Sewers:	
Miles of Sanitary Sewers	405

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**REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND
OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN
ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

Independent Auditors' Report

To the Honorable Mayor and Members of City Council
of the City of Clovis
Clovis, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, business-type activities, each major fund, and the aggregate remaining fund information of the City of Clovis, California (the "City") as of and for the year ended June 30, 2019, and the related notes to the basic financial statements, which collectively comprise the City's basic financial statements, and have issued our report thereon dated November 13, 2019.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the City's internal control over financial reporting ("internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control. Accordingly, we do not express an opinion on the effectiveness of the City's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the City's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in black ink that reads "The PwC Group, LLP". The signature is written in a cursive, flowing style.

San Diego, California
November 13, 2019

**REPORT ON COMPLIANCE FOR EACH MAJOR FEDERAL PROGRAM AND
ON INTERNAL CONTROL OVER COMPLIANCE REQUIRED BY THE UNIFORM GUIDANCE**

Independent Auditors' Report

To the Honorable Mayor and Members of City Council
of the City of Clovis
Clovis, California

Report on Compliance for Each Major Program

We have audited the City of Clovis, California's (the "City") compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of the City's major federal programs for the year ended June 30, 2019. The City's major federal programs are identified in the summary of the auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations, and the terms and conditions of its federal awards applicable to its federal programs.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for each of the City's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the City's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the City's compliance.

Opinion on Each Major Federal Program

In our opinion, the City complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2019.

Report on Internal Control over Compliance

Management of the City is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the City's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the City's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.



San Diego, California
November 13, 2019

City of Clovis
Schedule of Expenditures of Federal Awards
For the Year Ended June 30, 2019

AGENDA ITEM NO. 12.

Federal Grantor/Pass-Through Grantor/Program or Cluster Title	Federal CFDA Number	Pass-Through Entity Identifying Number	Federal Expenditures
U.S. Department of Housing and Urban Development			
<i>Direct Program:</i>			
<i>CDBG Entitlement Grants Cluster:</i>			
Community Development Block Grant - Entitlement	14.218	B-17-MC-06-0062	\$ 4,967
Community Development Block Grant - Entitlement	14.218	B-17-MC-06-0062	4,010
Community Development Block Grant - Entitlement	14.218	B-18-MC-06-0062	105,576
Community Development Block Grant - Entitlement	14.218	B-18-MC-06-0062	153,444
Community Development Block Grant - Entitlement	14.218	B-18-MC-06-0062	100,000
Community Development Block Grant - Entitlement	14.218	B-18-MC-06-0062	20,155
Community Development Block Grant - Entitlement	14.218	B-18-MC-06-0062	94,800
<i>CDBG Entitlement Grants Cluster</i>			482,952
Total U.S. Department of Housing and Urban Development			482,952
U.S. Department of Transportation			
<i>Passed-Through California State Department of Transportation:</i>			
<i>Highway Planning and Construction Cluster:</i>			
Highway Planning and Construction	20.205	06-5208	1,070,649
<i>Highway Planning and Construction Cluster</i>			1,070,649
<i>Passed-Through California Office of Traffic Safety:</i>			
<i>Highway Safety Cluster:</i>			
State and Community Highway Safety	20.600	PT18028	80,187
<i>Highway Safety Cluster</i>			80,187
Total U.S. Department of Transportation			1,150,836
U.S. Department of Health and Human Services			
<i>Passed-Through Fresno-Madera Area Agency on Aging:</i>			
<i>Aging Cluster:</i>			
Special Programs for the Aging, Title III, Part C	93.045	19-0051	26,000
<i>Aging Cluster</i>			26,000
Total U.S. Department of Health and Human Services			26,000
U.S. Department of Homeland Security			
<i>Passed-Through County of Fresno:</i>			
Homeland Security Program (SHSP)	97.067	97-067	48,023
Total U.S. Department of Homeland Security			48,023
Total Expenditures of Federal Awards			\$ 1,707,811

City of Clovis
Notes to the Schedule of Expenditures of Federal Awards
For the Year Ended June 30, 2019

Note 1 – Reporting Entity

The financial reporting entity consists of (a) the primary government, City of Clovis, California (the “City”), (b) organizations for which the primary government is financially accountable, including the Clovis Community Development Agency (dissolved on February 1, 2012 and established a Successor Agency, which is reported as a private-purpose trust fund in the City’s financial statements), Clovis Municipal Development Corporation, and Clovis Public Financing Authority, and (c) other organizations for which the primary government is not accountable, but for which the nature and significance of their relationship with the primary government are such that exclusion would cause the reporting entity’s financial statements to be misleading or incomplete.

Note 2 – Summary of Significant Accounting Policies

Basis of Accounting

Funds received under the various grant programs have been recorded within governmental fund types of the City. The City utilizes the modified accrual method of accounting for the governmental fund type. The accompanying Schedule of Expenditures of Federal Awards (“Schedule”) has been prepared on the modified accrual basis of accounting and is presented in accordance with the requirements of Title 2 *U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (“Uniform Guidance”). Therefore, some amounts presented in the schedule may differ from amounts presented in, or used in, the preparation of the City’s basic financial statements.

Schedule of Expenditures of Federal Awards

The accompanying Schedule presents the activity of all federal financial assistance programs of the City. Federal financial assistance received directly from federal agencies as well as federal financial assistance passed through the State of California, County of Fresno, and/or City of Fresno is included in the Schedule.

The Schedule was presented only from the accounts of various grant programs and, therefore, does not present the financial position or results of operations of the City.

Note 3 – Indirect Cost Rate

The City did not elect to use the 10-percent de minimis indirect rate as allowed under the Uniform Guidance.

City of Clovis
Schedule of Findings and Questioned Costs
For the Year Ended June 30, 2019

AGENDA ITEM NO. 12.

SECTION I – SUMMARY OF AUDIT RESULTS

Financial Statements

Type of report the auditors issued on whether the financial statements audited were prepared in accordance with GAAP: Unmodified

Internal control over financial reporting:

- Material weakness(es) identified? No
- Significant deficiency(ies) identified? None Reported

Noncompliance material to financial statements noted? No

Federal Awards

Internal control over major programs:

- Material weakness(es) identified? No
- Significant deficiency(ies) identified? None Reported

Type of auditor’s report issued on compliance for major programs Unmodified

Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)? No

Identification of major programs:

	Federal CFDA Number	Federal Expenditures
Major Programs:		
Highway Planning and Construction Cluster	20.205	\$ 1,070,649
Total Major Program Expenditures		\$ 1,070,649
Total Expenditures of Federal Awards		\$ 1,707,811
Percentage of Total Expenditures of Federal Awards		62.69%

Dollar threshold used to distinguish between type A and type B programs \$750,000

Auditee qualified as low-risk auditee in accordance with 2 CFR 200.520? No

City of Clovis
Schedule of Findings and Questioned Costs (Continued)
For the Year Ended June 30, 2019

SECTION II – FINANCIAL STATEMENT FINDINGS

A. Current Year Financial Statement Findings

No financial statement findings were noted for the year ended June 30, 2019.

B. Prior Year Financial Statement Findings

Finding 2018-001 Restatement of Beginning Balances

Criteria:

Management is responsible for the preparation and fair presentation of its financial statements, including notes disclosures, in accordance with accounting principles generally accepted in the United States of America. This includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error. As part of satisfying that responsibility, staff should possess that skills, knowledge, and experience necessary to complete year-end close and diligently employ that skills, knowledge, and experience to produce reliable and accurate financial information.

Based on Committee of Sponsoring Organizations of the Treadway Commission (“COSO”) framework, the following are some of the internal control components and principles that stress the need for policies and procedures to promote effective internal control over financial reporting for an entity.

- *Control Environment* – Establish structures, reporting lines, authorities and responsibilities
- *Control Activities* – Select and develop control activities that mitigate risks through policies and procedures
- *Information and Communication* – Communicate internal control information internally

In essence, accounting policies and procedures would aid the Finance Department in providing training for accounting personnel, communicating and providing a source of reference to approved policies, and maintaining consistency of recording financial transactions.

Condition and Context:

During the audit, two prior period adjustments were recorded. The first was to the Housing and Community Development Non-Major Special Revenue Fund in the amount of \$3,108,661 and was to remove other assets (property held for resale) which had previously been donated or contributed to other entities.

The second prior period adjustment was to the Transit Non-Major Enterprise Fund to record unearned Transportation Development Act (“TDA”) funds in the amount of \$2,836,099 which had previously been recorded as revenue.

Cause:

In the case of the prior period adjustment of \$3,108,661 to the Housing and Community Development Fund, property held for resale was donated or contributed to other entities for \$0 in proceeds. There were no proceeds from sales of the properties so the finance department was not made aware of these transactions and did not remove the assets from the general ledger.

In the case of the prior period adjustment of \$2,836,099 to the Transit Non-Major Enterprise Fund, the City failed to incur enough expenditures of TDA funds in prior years to be able to fully recognize revenues for TDA funds received. Year-end reconciliations to record unearned revenues for TDA funds received but unspent were not performed.

Identification as a Repeat Finding, if Applicable:

Not applicable.

City of Clovis
Schedule of Findings and Questioned Costs, Continued
For the Year Ended June 30, 2019

AGENDA ITEM NO.12.

SECTION II – FINANCIAL STATEMENT FINDINGS (Continued)

B. Prior Year Financial Statement Findings (Continued)

Finding 2018-001 Restatement of Beginning Balances (Continued)

Effect:

The Other Governmental Funds, Statement of Revenues, Expenditures, and Changes in Fund Balances – Governmental Funds, beginning net position, was overstated by \$ 3,2018,661 and the Non-Major Transit Enterprise Fund Statement of Revenues, Expenses, and Changes in Net Position – Proprietary Funds, beginning net position, was overstated by \$2,836,099.

Recommendation:

The City should enhance its review processes over transactions arising from the recording of the donation/contribution of other assets and the revenue recognition process for Transportation Development Act funds to ensure that they are thoroughly evaluated, reviewed and recorded in order to facilitate the accurate and complete year-end closing of the general ledger and the preparation of its basic financial statements.

Status:

Implemented.

City of Clovis
Schedule of Findings and Questioned Costs, Continued
For the Year Ended June 30, 2019

SECTION III – FEDERAL AWARDS FINDINGS AND QUESTIONED COSTS

A. Current Year Findings and Questioned Costs – Major Federal Award Program Audit

No findings or questioned costs were noted on major federal award programs for the year ended June 30, 2019.

B. Prior Year Findings and Questioned Costs – Major Federal Award Program Audit

No findings or questioned costs were noted on major federal award programs for the year ended June 30, 2018.

**REPORT ON COMPLIANCE AND OTHER MATTERS
AND ON INTERNAL CONTROL OVER FINANCIAL REPORTING BASED ON AN AUDIT OF THE
FINANCIAL STATEMENTS IN RELATION TO THE LOCAL TRANSPORTATION PURPOSE FUNDS
PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

Independent Auditors' Report

To the Honorable Mayor and Members of City Council
of the City of Clovis
Clovis, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City of Clovis, California (the "City"), as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the City's basic financial statements, and have issued our report thereon dated November 13, 2019.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the City's internal control over financial reporting ("internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control. Accordingly, we do not express an opinion on the effectiveness of the City's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the City's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grants, including the requirements of the California Public Utilities Code Section 142257 regulations as it applies to Local Transportation Purpose Funds noncompliance, with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with such provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance that are required to be reported herein under the California Public Utilities Code Section 142257 regulations as applies to Local Transportation Purpose Funds and *Government Auditing Standards*.

Restriction on Use

This report is intended for the information of the management, City Council, and officials of applicable federal and state awarding agencies, and is not intended to be and should not be used by anyone other than these specified parties.

The PwC Group, LLP

San Diego, California
November 13, 2019

**INDEPENDENT ACCOUNTANTS' REPORT ON
APPLYING AGREED-UPON PROCEDURES**

To the Honorable Mayor and Members of City Council
of the City of Clovis
Clovis, California

We have performed the procedures enumerated below to the accompanying Appropriations Limit Schedule of the City of Clovis, California (City) for the year ended June 30, 2019. These procedures, which were agreed to by the City and the League of California Cities (as presented in the publication entitled *Agreed-upon Procedures Applied to the Appropriations Limitation Prescribed by Article XIII-B of the California Constitution*), were performed solely to assist you in meeting the requirements of Section 1.5 of Article XIII-B of the California Constitution. The City management is responsible for the Appropriations Limit Schedule. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of those parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or any other purpose.

The procedures performed and our findings are described below:

1. We obtained the completed worksheets used by the City to calculate its appropriations limit for the year ended June 30, 2019, and determined that the limit and annual calculation factors were adopted by resolution of City Council. We also determined that the population and inflation options were selected by a recorded vote of the City Council.
Finding: No exceptions were noted as a result of our procedures.
2. For the accompanying Appropriations Limit Schedule, we added the prior year's limit to the total adjustments, and agreed the resulting amount to the current year's limit.
Finding: No exceptions were noted as a result of our procedures.
3. We agreed the current year information presented in the accompanying Appropriations Limit Schedule to corresponding information in worksheets used by the City.
Finding: No exceptions were noted as a result of our procedures.
4. We agreed the appropriations limit presented in the accompanying Appropriations Limit Schedule to the appropriations limit adopted by the City Council.
Finding: No exceptions were noted as a result of our procedures.

We were not engaged to and did not conduct an examination, the objective of which would be the expression of an opinion on the accompanying Appropriation Limit Schedule. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you. No procedures have been performed with respect to the determination of the appropriation limit for the base year, as defined by Article XIII-B of the California Constitution.

This report is intended solely for the information and use of the City Council and management of the City and is not intended to be and should not be used by anyone other than these specified parties.



San Diego, California
November 13, 2019

City of Clovis
Appropriations Limit Schedule
For the Year Ended June 30, 2019

<i>AGENDA ITEM NO. 12.</i>

	Amount	Source
A. Appropriations Limit FY 2018	\$ 247,817,348	Prior year
B. Calculation Factors:		
1) Population increase %	1.0303	State Department of Finance
2) Inflation increase %	1.0493	City Building Department
3) Total adjustment %	1.0811	(B1*B2)
C. Annual Adjustment Increase	20,096,448	[A*(B3-1)]
D. Other Adjustments:		
1) Loss responsibility (-)	-	N/A
2) Transfer to private (-)	-	N/A
3) Transfer to fees (-)	-	N/A
4) Assumed responsibility (+)	-	N/A
E. Total Adjustments	20,096,448	(C+D)
F. Appropriations Limit FY 2019	\$ 267,913,796	(A+E)

City of Clovis
Notes to Appropriations Limit Schedule
For the Year Ended June 30, 2019

AGENDA ITEM NO.12.

Note 1 – Purpose of Limited Procedures Review

Under Article XIII B of the California Constitution (the Gann Spending Limitation Initiative), California governmental agencies are restricted as to the amount of annual appropriations from proceeds of taxes. Effective for years beginning on or after July 1, 1990, under Section 1.5 of Article XIII B, the annual calculation of the appropriations limit is subject to a limited procedures review in connection with the annual audit.

Note 2 – Method of Calculation

Under Section 10.5 of Article XIII B, for fiscal years beginning on or after July, 1990, the appropriations limit is required to be calculated based on the limit for the fiscal year 1986-87, adjusted for the inflation and population factors discussed in Notes 3 and 4 below.

Note 3 – Population Factors

A California governmental agency may use as its population factor either the annual percentage change of the jurisdiction's own population or the annual percentage change in population of the county where the jurisdiction is located. The factor adopted by the City for fiscal year 2019 represents the annual percentage change in population for the City.

Note 4 – Inflation Factors

A California governmental agency may use as its inflation factor either the annual percentage change in the 4th quarter per capita personal income (which percentage is supplied by the State Department of Finance) or the percentage change in the local assessment roll from the preceding year due to the change of local nonresidential construction. The factor adopted by the City for fiscal year 2019 represents the annual percentage change in the local assessment roll from the preceding year due to the change in local nonresidential construction.

Note 5 – Other Adjustments

A California government agency may be required to adjust its appropriations limit when certain events occur, such as the transfer of responsibility for municipal services to, or from, another government agency or private entity. The City had no such adjustments for fiscal year 2019.

(The End)

November 13, 2019

To the Honorable Mayor and Members of the City Council
of the City of Clovis
Clovis, California

We have audited the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City of Clovis (the "City") for the year ended June 30, 2019, and have issued our report thereon dated November 13, 2019. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards, as well as certain information related to the scope and timing of our audit. We have communicated such information in our letter to you dated June 10, 2019. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the City are described in Note 1 to the basic financial statements. No new accounting policies were adopted and the application of existing policies was not changed during the year ended June 30, 2019. We noted no transactions entered into by the City during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the City's financial statements were:

- Investments valuation
- Depreciation on capital assets
- Landfill post-closure obligation
- Claims payable
- Net pension liability

Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. The most sensitive disclosures affecting the financial statements were:

- Note I – Summary of Significant Accounting Policies
- Note II – Reconciliation of Government-Wide and Fund Financial Statements
- Note IV-H – Pension Plans

The financial statement disclosures are neutral, consistent, and clear.

To the Honorable Mayor and Members of the City Council
of the City of Clovis
Clovis, California
Page 2

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management has corrected all such misstatements. In addition, none of the misstatements detected as a result of audit procedures and corrected by management were material, either individually or in the aggregate, to each opinion unit's financial statements taken as a whole.

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated November 13, 2019.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the governmental unit's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the governmental unit's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Other Matters

We applied certain limited procedures to the MD&A, Budgetary Comparison Schedules for General Fund and Major Special Revenue Funds, the Schedules of Changes of in Net Pension Liability and Related Ratios for CalPERS, and the Schedules of Pension Contributions for CalPERS, which are RSI that supplement the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

To the Honorable Mayor and Members of the City Council
of the City of Clovis
Clovis, California
Page 3

We were engaged to report on the Combining and Individual Fund Financial Statements and the Budgetary Comparison Schedules, which accompany the financial statements but are not RSI. With respect to this supplementary information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

We were not engaged to report on the Introductory and Statistical Sections, which accompany the financial statements but are not RSI. We did not audit or perform other procedures on this other information and we do not express an opinion or provide any assurance on it.

Restriction on Use

This information is intended solely for the use of the City Council and management of the City and is not intended to be, and should not be, used by anyone other than these specified parties.

Very truly yours,

The PwC Group, LLP

San Diego, California



CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Finance Department

DATE: December 9, 2019

SUBJECT: Consider Approval - Res 19-____, Final Amendments to the 2018-19 Budget in conformance with the Budget Ordinance, and Receive and File – Year end report for all funds as of June 30, 2019.

Staff: Jay Schengel, Finance Director

Recommendation: Approve

ATTACHMENTS: 1. Res. 19-____, Final Amendments to the 2018-19 Budget in conformance with the Budget Ordinance.

CONFLICT OF INTEREST

None.

RECOMMENDATION

That the Council approve Resolution 19-____, final amendments to the 2018-19 budget in conformance with the budget ordinance, and receive and file the year end report for all funds as of June 30, 2019.

EXECUTIVE SUMMARY

Each fiscal year, after the year end closing entries are completed, an analysis is prepared comparing actual fund balances against those projected during the budget process and presented to Council for adoption during the June 2019 budget hearings. The following is the summary of the actual results compared to estimates for the 2018-19 fiscal year end.

BACKGROUND

During the preparation of the 2019-20 budget, estimates were made for 2018-19 revenues and expenditures to establish the estimated June 30, 2019 fund balances that are expected to be available for appropriation in the 2019-20 fiscal year. This report compares the variances between actual revenues and expenditures versus the estimates established during the budget process.

The basis for this report is different from the information presented in the Comprehensive Annual Financial Report (CAFR), which compares actual data against the Council approved

budget, as amended from time to time during the year. The Council adopted budget, as amended, is normally higher than the estimated budget used during the budget process. All departments were within or close to their estimates to close.

General Fund

The “available for appropriation” General Fund balance at June 30, 2019 is \$4 million and is \$1.3 million more than projected during the preparation of the 2019-20 budget. Revenues were \$0.3 million less than projected and expenditures were \$1.6 million less than projected during the preparation of the 2019-20 budget.

General Fund expenditures, when taking into account encumbrances and reappropriations, finished the year \$0.8 million or 1% lower than projected at the time of budget preparation, with most of the savings achieved in the Police Department at \$0.5 million; the Finance Department at \$0.2 million and the City Manager Department at \$0.1 million. The remaining departments were within their estimates prepared during the budget process. Savings in the Police Department were mainly due to salary savings resulting from the lag between staff retiring and filling the vacant positions. The savings in the other departments were due to savings in professional services and other services. Expenditures in the General Fund were originally budgeted to end the year at \$71.9 million and ended the year at \$71.1 million after accounting for encumbrances and reappropriations.

The expenditure savings in the General Fund is mostly related to one-time events and will not result in continued annual savings.

Revenues in the General Fund finished the year at \$0.3 million less than projected at the time of budget preparation. The decrease was due to receiving less than projected sales and other taxes. Revenues were estimated to end the year at \$73.5 million and ended the year at \$73.2 million.

Under current Council policy, the emergency reserve was set at a minimum level with the goal to increase the amount as soon as possible. The City’s General Fund Emergency Reserve is set at a minimum of 15% of budgeted expenditures, with the goal to reach a more prudent reserve of 25% of budgeted expenditures. The emergency reserve was increased from \$11.7 million to \$12.8 million, or 16.7% of 2019-20 budgeted expenditures at June 30, 2019 to meet the goal of increasing the reserve to 25%.

These additional emergency reserve funds derived from budget savings in the prior fiscal year will be available to help offset any future impact that the City may experience with reduced funding due to slower than projected activity or adverse State actions. Recent statistics show that economic growth is expected to continue at a moderate pace throughout 2019-20 and 2020-21.

Enterprise Funds

This analysis is conducted for the enterprise operating funds and is prepared on a budgetary basis including encumbrances and reappropriations.

The Community Sanitation Fund, including Refuse and Street Cleaning activities, ended the 2018-19 fiscal year with an available balance of \$14 million. This balance is \$5 million more than originally anticipated due to deferred capital expenditures and slightly more revenue than estimated.

The Sewer Enterprise Fund ended the 2018-19 fiscal year with an available balance of \$18 million which was \$0.3 million more than anticipated as a result of savings in expenditures, mainly from savings in services, materials, and supplies. Of the available balance, \$10 million of rate stabilization funds are included to assist with meeting bond covenants if necessary.

The Water Enterprise Fund finished the 2018-19 fiscal year with an ending available balance of \$26 million, which was \$2 million more than anticipated. Revenues were slightly more than anticipated but most of the difference was due to savings in expenditures mainly in services, materials and supplies.

The Transit Enterprise Fund ended the 2018-19 fiscal year with an available balance of \$0.1 million. This balance is close to what was originally anticipated due to revenues being less than projected from other agencies offset from savings in services, materials, and supplies expenditures.

The Planning and Development Services Enterprise Fund ended the 2018-2019 fiscal year with an available balance of \$8 million which is slightly less than anticipated as a result of less than expected revenue from licenses and permits offset slightly by a savings in expenditures mainly in services, materials and supplies.

Other Operating Funds

The Housing and Community Development Fund (HCD) took over the housing activities of the former Redevelopment Agency. The HCD Fund ended with a \$2 million balance which was slightly less than anticipated mainly due to the timing of grant reimbursements.

The internal service funds, which provide services primarily to other City operations and funds, ended the 2018-19 fiscal year as reported below:

- The Liability and Property Fund ended with a balance of \$2 million, which is close to what was projected.
- The Fleet Maintenance Fund ended with a balance of \$12 million which is \$2 million more than projected due to deferred capital expenditures.

- The Employee Benefits Fund ended with a balance of \$6 million which is close to what was projected.
- The General Government Service Fund ended with a balance of \$12 million which is \$5 million more than anticipated. This is a result of expenditure savings which were due to the carryover of capital projects to next year.

Budget Resolution

The report is normally for information only; however, this year there is a need to make final budget adjustments to conform to the requirements of the Budget Ordinance. As indicated earlier, the above analysis was a comparison of actual results against the “Estimate to Close Budget” that was developed in conjunction with preparation of the 2018-19 budget. The following action contained in the attached Resolution is needed to bring the working budget into legal compliance.

The amounts listed below were analyzed against the Council approved budget as amended. All of these overages were taken into account in the “Estimate to Close” budget.

<u>Fund</u>	
General – City Clerk.....	\$ 5,100
General – City Attorney.....	200,000

The City Clerk budget exceeded the budget due to unanticipated employee benefit costs and the City Attorney budget exceeded the budget due to unanticipated legal expenses.

The amounts listed below were analyzed against the Council approved budget as amended. The differences in these transfers were analyzed and are appropriate as described.

<u>Additional Amount</u>	<u>From</u>	<u>To</u>	<u>Purpose</u>
\$ 27,000	Sewer Cap-Dev	Sewer Service	Developer Share of WWTP Debt Service
1,500,000	Water Cap-Dev	Water Service	Repayment from Developer for Water Banking Project
685,000	General Fund	Successor Agency	Reimbursement for Dry Creek Business Park Project
104,000	PBIA	Local Transportation	To Fund PBIA Improvements
6,000	PBIA	General Govt Svs	To Fund PBIA Improvements
52,000	Successor Agency	Local Transportation	To Fund City Improvements

The budget amendment resolution includes the schedule of transfers to allow for transfers described above to be brought into budgetary compliance.

FISCAL IMPACT

The General Fund budget will be increased by \$205,100; \$5,100 for the City Clerk Department and \$200,000 for the City Attorney Department. The transfer amount of \$2,374,000 will bring the City into compliance with the adopted budget.

REASON FOR RECOMMENDATION

The budget report is a status report and no action is required; however, action is required by the Council to approve the Resolution amending the 2018-19 budget for expenditures and transfers.

ACTIONS FOLLOWING APPROVAL

The report will be filed and the budget amendment for expenditures and transfers will be posted.

Prepared by: Gina Daniels, Assistant Finance Director

Reviewed by: City Manager LS

RESOLUTION NO. 19-

AGENDA ITEM NO. 13.

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CLOVIS
APPROVING FINAL AMENDMENTS TO THE FISCAL YEAR 2018-19 ANNUAL BUDGET
AMENDING THE SCHEDULE OF TRANSFERS AND EXPENDITURES BY DEPARTMENT AND
ASSIGNING GENERAL FUND UNALLOCATED FUND BALANCE TO THE CONTINGENCY
RESERVE**

WHEREAS, the City Council adopted the fiscal year 2018-19 Annual Budget on June 11, 2018;
and

WHEREAS, the annual audit has been completed and an analysis has been prepared of the actual results of the 2018-19 fiscal year end and there are two departments that exceeded the amended budget for 2018-19; and

WHEREAS, the adjustments are for unanticipated expenditures in those departments and the City Council finds that it is necessary to appropriate the funds for the budget amendments; and

WHEREAS, the working budget included transfers for loans from the sewer developer fund to the sewer service fund and from the water service fund to the water developer fund to cover debt service costs as sewer service fees and water developer fees exceeded estimates and those transfers may be increased and reversed respectively; and

WHEREAS, the Council finds it necessary to transfer funds to cover general services, successor agency and local transportation capital improvements; and

WHEREAS, the changes to the budgets for the General Fund are necessary to be in conformance with the City’s Budget Ordinance; and

WHEREAS, there is additional revenue or available fund balance to make the appropriations and transfers.

NOW, THEREFORE BE IT RESOLVED, the City of Clovis approves the budget amendments as shown in the “Summary of Expenditures by Department”, “Summary of Expenditures by Fund”, and “Summary of Transfers” as attached as Attachment A of Attachment 1:

* * * * *

The foregoing resolution was introduced and adopted at a regular meeting of the City Council of the City of Clovis held on December 9, 2019 by the following vote, to wit.

- AYES:
- NOES:
- ABSENT:
- ABSTAIN:

DATED: December 9, 2019

Mayor

City Clerk

SUMMARY OF EXPENDITURES BY DEPARTMENT 2018-19

Department	
City Clerk	\$ 5,100
City Attorney	200,000
Total	<u>\$ 205,100</u>

SUMMARY OF EXPENDITURES BY FUND 2018-19

Fund	
General	\$ 205,100
Total	<u>\$ 205,100</u>

SUMMARY OF TRANSFERS BY FUND 2018-19

Transfer In

Fund	
Water Service	\$ 1,500,000
Successor Agency	685,000
Local Transportation	156,000
General Government Services	6,000
Sewer Service	27,000
Total	<u>\$ 2,374,000</u>

Transfer Out

Fund	
Water Cap-Development	\$ 1,500,000
General Fund	685,000
PBIA	110,000
Successor Agency	52,000
Sewer Cap-Development	27,000
Total	<u>\$ 2,374,000</u>