WORK SESSION

TOWN HALL COUNCIL CHAMBERS

MONDAY, JANUARY 27, 2025 AT 6:00 PM

AGENDA

CALL TO ORDER

DISCUSSION ITEMS

1. Text Amendment for Owner-occupied homes (*Travis Morgan)*
2. Industrial Conditional Zoning Permit (*Travis Morgan*)
3. New Employee Handbook Pay Policies (*Linda Gaddy*)
4. Finance Report for FY25 and FY26 Budget Calendar - (*Chris Tucker*)
5. Coyotes discussion
6. Parking on Town Roads discussion

ADJOURN

If you require any type of reasonable accommodation as a result of physical, sensory, or mental disability in order to participate in this meeting, please contact Lisa Snyder, Clerk of Council, at 704-889-2291 or lsnyder@pinevillenc.gov. Three days' notice is required.

Workshop Meeting

Pineville
PLANNING & ZONING

To: Town Council

From: Travis Morgan

Date: 1/27/2025

Re: **Stumpf Text Amendment for Accessory Dwelling Units (***Information Item***)**

REQUEST:
Michael Stumpf requests your consideration for a text amendment to revise the Zoning Ordinance owner occupied restrictions for secondary dwelling units (otherwise called mother-in-law suites or accessory dwelling units)

PLANNING BOARD RECOMMENDATION:
We are working of wording of the recommendation. Planning Board recommended the Accessory Dwelling Unit name change text amendment and recommended the revision of the owner occupant definition and section (F) of the below ordinance to "The property owner(s) shall occupy at least one (1) of the dwelling units on the premises unless the property owner has resided on the property for a period of not less than twenty-four (24) consecutive months." Planning Board expressed concern over having both primary home and accessory dwelling being for rent and recommended Town Council also discuss with legal counsel about what possible options and legal compliance were available. No other text changes such as dwelling size, location, or existing ordinance wording related to the ordinance were recommended.

STAFF COMMENT:

The request began as a complaint received and code enforcement item at 1005 Cone Avenue. There is primary home and secondary garage dwelling conversion on the property. Housing and rentals have been a perpetual item of interest and concern in the community. I support accessory dwellings as a neighborhood stability tool that allows for more housing options that keep existing homes rather than demolitions and subdivisions for smaller homes on bigger lots for instance.

I've read some background from the school of government on the matter. Digging deeper into zoning case law for North Carolina I have asked the Towns Legal Council to review what the options are with the Ordinance. It may be that the owner live on the property requirement may not be an enforceable criteria. I will update with legal feedback as soon as it is available but we will need feedback and text amendment recommendation either way to update the Ordinance. I recommend changing the terminology to accessory dwelling unit as that is the most common industry standard language now.

We can take this opportunity to review the ordinance for accessory dwelling maximum sizes, applicability implications on smaller lots vs. larger lots, and similar.

SUMMARY:
Zoning ordinance section 3.3 and 6.5.35

Existing Text:

P. 60 Definitions

Dwelling, ~~Secondary~~Accessory Dwelling Unit

An accessory dwelling either attached or part of the principal residential use or separate from the principal use in the form of a guest house or garage apartment provided that such dwelling meets this ordinance and provided that no accessory building containing such use is constructed on a lot until the construction of the main building has commenced. Secondary dwellings shall be inseparable from the principal residential use for the purposes of subdivision or sale~~. The principal dwelling on the lot containing the private residential quarters shall be owner-occupied.~~

6.5.35 Dwelling, ~~Secondary~~Accessory Dwelling Unit

Secondary dwelling units or "in-law suites" within residential districts are permitted to meet housing needs following the requirements of this section and within this ordinance.

A) Any secondary dwelling unit shall be located in the rear yard or above a garage of a single-family residential lot or single-family residential use and be subordinate in height and size to the primary dwelling.

B) Secondary dwelling units may be created behind or as a second story within detached garages provided that the height of the accessory unit and/or garage does not exceed the height of the principal structure on the lot. Not more than one (1) secondary dwelling unit is permitted. There shall be a two (2) story height maximum.

C) The secondary dwelling unit may not be larger than fifty (50) percent of the gross heated floor area of the principal structure or eight hundred (800) square feet, whichever is less.

D) At least one (1) additional parking space shall be provided.

E) Secondary dwelling units shall be located, designed, constructed, landscaped and decorated in such a manner to match the appearance of the principal building.

~~F) The property owner(s) on which the secondary dwelling unit is to be located shall occupy at least one (1) of the dwelling units on the premises.~~

PROCEDURE:

This is a workshop meeting to hear the initial applicant's request and to offer feedback. This follows regular legislative process. A public hearing in needed before any vote.

Good Afternoon,

As I read the caselaw, and the NC SOG's article, and the state legislation and Stumph's zoning application(he did a good job), I believe that the zoning ordinance, as it currently reads, is beyond the power of the zoning authority as its taking into consideration the land ownership, verses solely concentrating on the land use impacts.

If we are allowing the accessory apartments, whether occupied by an owner or renter, will not change the impact which is what the zoning authority is designed to regulate.

See more recent comments below from Adam Lovelady with the School of Government regarding regulation based on ownership:

From: Lovelady, Adam Sent: Monday, May 16, 2022 4:10 PM Subject: RE: Regulations Based on Ownership of Adjacent Lots Regulation based on ownership or structure of ownership are dicey. In North Carolina, local governments may use development regulations to regulate the use and division of land, but not to regulate the ownership of land. In Graham Court Assocs. v. Town Council of Chapel Hill, 53 N.C. App. 543, 281 S.E.2d 418 (1981), the North Carolina Court of Appeals ruled that zoning may regulate land use, but not the form of ownership. In that case, the town's ordinance regulated multifamily rental apartments distinctly from multifamily owner-occupied condominiums. After a property owner was denied a permit to convert an apartment to a condominium, they challenged the ordinance. The court ruled that the multifamily development would have the same impacts whether it is occupied by renters or owners. As such, zoning cannot legally distinguish between the two, nor require extra permits to change from renter-occupied to owner-occupied. The North Carolina Court of Appeals reaffirmed that rule in City of Wilmington v. Hill, 189 N.C. App. 173, 657 S.E.2d 670 (2008). A Wilmington ordinance required that, in order for a residential property to have an accessory apartment (e.g., a garage apartment or in-law suite), the owner of the property must reside on site, either in the principal residence or the accessory residence. The court ruled the requirement for owner-occupancy was an unconstitutional regulation of ownership and beyond the scope of delegated zoning authority.

Let me know, if you have other questions or concerns.

Janelle

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Attorney at Law

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Post Office Box 30787, Charlotte, NC 28230

Pineville
PLANNING & ZONING

Submit to Planning Department, 200 Dover St, Pineville, NC 28134
Phone (704) 889-2291 Fax (704) 889-2293

Office Use Only: Application #:

Payment Method: Cash___ Check___ Credit Card___ Amount $_____ Date Paid_____

Zoning Application

Note: Application will not be considered until all required submittal components listed have been completed

Applicant's Name: Michael Stumpf Phone: 704-299-0605

Applicant's Mailing Address: 3219 Bannock Drive, Fort Mill SC 29715

Property Information:

Property Location: 1005 Cone Ave, Pineville NC 28134

Property Owner's Mailing Address: 3219 Bannock Drive, Fort Mill SC 29715

Property Owner Name: Michael Stumpf Phone: 704-299-0605

Tax Map and Parcel Number: 22104304 Existing Zoning: Residential

Which are you applying (Check all that apply):

Rezoning by Right _____ Conditional Zoning _____ Conditional Rezoning _____ Text Amendment _____

Fill out section(s) that apply:

Rezoning by Right:

Proposed Rezoning Designation _____

~~**Conditional Zoning:**~~

Proposed Conditional Use _____

Acreage _____ Square Feet _____ Approximate Height _____ # of Rooms _____

Parking Spaces Required _____ Parking Spaces Provided _____ ****Please Attach Site Specific Conditional Plan**

Conditional Rezoning:

Proposed Conditional Rezoning Designation _____

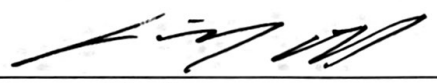
Text Amendment:

Section 3.3 ; Page 60 Reason Please see "Stumpf_Ordinance Change Request" in the Attachment.

Dwelling, Secondary

Proposed Text Change (Attach if needed) Remove: The principal dwelling on the lot containing the private residential quarters shall be owner-occupied.

I do hereby certify that all information which I have provided for this application is, to the best of my knowledge, correct.



Signature of Applicant 9/18/2024 Date

Signature of Property Owner (If not Applicant) Date

Signature of Town Official Date

A Case for Change: Removing the Owner-Occupancy Requirement in Pineville, NC's Secondary Dwelling Ordinance

Introduction

Pineville, North Carolina, like many growing suburban areas, faces a mounting housing crisis. Population growth in the Charlotte metropolitan area has placed increasing pressure on smaller towns like Pineville to provide affordable and accessible housing options. One solution is to encourage the construction of secondary dwellings, such as guest houses or garage apartments, which can serve as rental units. However, Pineville's current zoning ordinance, specifically Section 3.3, contains a requirement that restricts the potential of these secondary dwellings: the primary residence on the lot must be owner-occupied.

This proposal argues that the owner-occupancy requirement should be removed. The restriction not only limits the housing supply at a time when it is desperately needed but also infringes upon property owners' rights to lease their property. By removing this requirement, Pineville would align with recent trends across the state, as evidenced by North Carolina House Bill DRH10198-MQ-72, which encourages municipalities to adopt less restrictive zoning regulations. This proposal explores the housing shortage in Pineville, the mobility of homeowners, the legal argument surrounding property rights, and case studies from cities that have successfully removed similar restrictions.

Background on Pineville's Secondary Dwelling Ordinance

The specific ordinance in question is located on page 60, Section 3.3 of Pineville's zoning regulations. It defines secondary dwellings as accessory units that may be either attached or separate from the principal residential building, provided they meet the town's zoning regulations. However, it imposes an owner-occupancy requirement, meaning the homeowner must reside in the primary dwelling to rent out a secondary dwelling.

This provision likely originated as a way to maintain neighborhood stability and prevent absentee landlords from operating multiple rental properties on a single lot. However, as Pineville's housing needs have evolved, this restriction has become a barrier to efficient land use. Removing the owner-occupancy requirement would allow homeowners to rent secondary dwellings more freely, thus contributing to the town's housing supply.

An analysis into the likely Intent Behind the Owner-Occupancy Requirement and Rebuttals

Maintaining Neighborhood Character

Intent: The assumption is that if the homeowner lives on-site, they will be more invested in maintaining the property and ensuring that it integrates smoothly with the surrounding neighborhood. The fear is that absentee landlords might not care for the property, leading to a decline in neighborhood standards.

Rebuttal: This concern is increasingly outdated in modern housing markets. Many landlords, including myself, maintain high standards for their rental properties, regardless of whether they live on-site or not, because neglecting property results in financial losses. In fact, studies have shown that there is little difference in property upkeep between on-site owners and absentee landlords who hire professional management companies to oversee their properties (Journal of Urban Economics).

Preventing the Proliferation of Absentee Landlords

Intent: The concern may be that removing the owner-occupancy requirement will lead to an influx of absentee landlords, changing the character of the neighborhood by increasing the number of rental properties.

Rebuttal: There is no evidence to suggest that removing the owner-occupancy requirement will lead to a dramatic increase in absentee landlords. In fact, many cities that have removed similar restrictions, such as Austin and Nashville, have not seen an overwhelming influx of absentee landlords. Instead, they have seen a modest increase in rental units, which provides much-needed housing options while maintaining neighborhood character. Occupancy limits or rental duration restrictions are still applicable where the unit is a rental or owner-occupied dwelling.

Encouraging Stable Communities

Intent: The owner-occupancy requirement may be seen as a way to promote stable, long-term communities by ensuring that owners are more likely to stay in the area and maintain their property.

Rebuttal: While stability is important for communities, homeowners tend to move frequently, as evidenced by the statistic that the average homeowner moves every seven years (National Association of Realtors). This means that even with an owner-occupancy requirement, the homeowner may move, leaving the secondary dwelling vacant and unused. Removing this requirement would not destabilize communities; rather, it would allow more efficient use of properties, providing valuable rental options for others in the community. Additionally, renters themselves can contribute to a stable, vibrant neighborhood, and long-term rental agreements can foster community bonds similar to those of homeowners.

Ensuring Accountability for Tenants

Intent: The idea behind this is that a homeowner living on-site would provide better oversight and ensure tenants are accountable for their behavior, thus maintaining peace and order in the neighborhood.

Rebuttal: Accountability can be ensured through proper leasing agreements, tenant screening, and local ordinances related to noise, nuisance, and other behaviors. Landlords have a strong financial incentive to manage tenant behavior, as disruptive or irresponsible tenants can cause damage to property and reduce its rental value. As part of the Insurance requirements for rental properties, policy issuers require landlords to conduct background checks and credit check on tenants to secure policies.

Housing Shortage in Pineville

Pineville, NC, is currently facing a housing shortage. As a town situated within the rapidly growing Charlotte metropolitan area, Pineville has experienced a population increase that has outpaced the available housing stock. This has contributed to the scarcity of rental housing units, particularly in the affordable housing sector.

Several factors contribute to this shortage:

1. Population Growth: Pineville's proximity to Charlotte and the overall economic growth in the region have spurred an influx of new residents, which has increased demand for housing. However, housing development has not kept up with this growth, exacerbating the shortage.
2. Limited Housing Supply: Although new residential construction projects, such as townhome developments and apartment complexes, are underway, they have not yet been sufficient to meet the current housing demand in Pineville.
3. Affordable Housing: Like many areas in North Carolina, Pineville is affected by the statewide affordable housing shortage. There is a particular deficit in affordable rental units, leaving many low-income residents struggling to find suitable housing options. This challenge is part of a broader regional and state-level housing crisis.

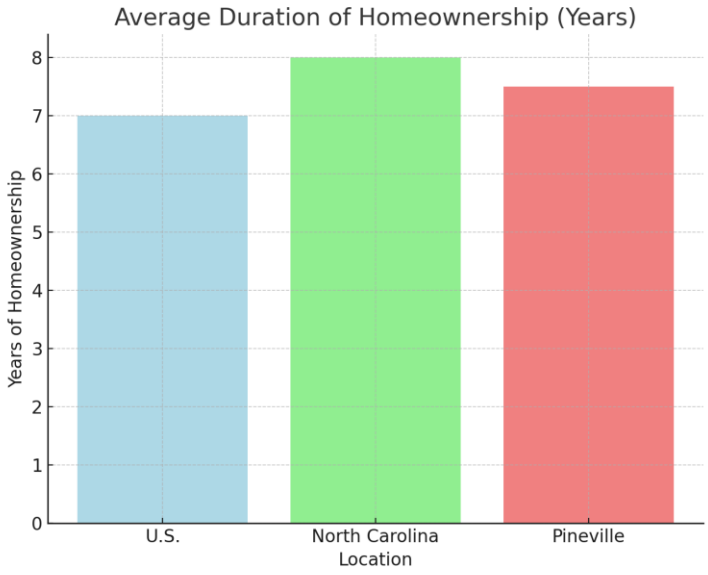
Secondary dwellings, such as ADUs, provide a practical solution to the housing shortage. However, Pineville's owner-occupancy requirement limits the availability of these units. By removing the restriction, the town could unlock a new supply of rental housing without having to develop large new housing complexes, preserving the residential character of existing neighborhoods.

Homeowner Mobility and Vacancy Risks

Homeowners in the United States tend to move frequently, with national statistics showing that the average homeowner moves every seven years (National Association of Realtors). In Pineville, this trend likely holds true. With such frequent mobility, enforcing an owner-occupancy requirement could result in secondary dwellings being left vacant when the homeowner moves. These secondary units, which could otherwise provide valuable rental housing, remain off the market because of the ordinance.

Vacant properties have been shown to contribute to increased crime rates in neighborhoods. According to a study by the Urban Institute, areas with higher numbers of vacant units experience a 3% to 6% increase in crime rates, particularly property crimes like burglary and vandalism (Urban Institute, 2018). Additionally, The National Vacant Properties Campaign reported that properties left vacant for extended periods are often targets for illegal activities such as squatting, arson, and drug-related offenses (National Vacant Properties Campaign, 2020). The presence of vacant properties can lead to a decline in the neighborhood's overall safety and community well-being.

If Pineville were to remove the owner-occupancy requirement, homeowners would have the flexibility to rent their secondary dwellings even if they no longer live on the property. This would not only increase the housing supply but also provide a potential source of income for homeowners who are no longer in a position to occupy the property themselves. Reducing vacancies by making secondary dwellings available for rent would help prevent potential crime issues associated with vacant properties and create a more secure environment for the community.



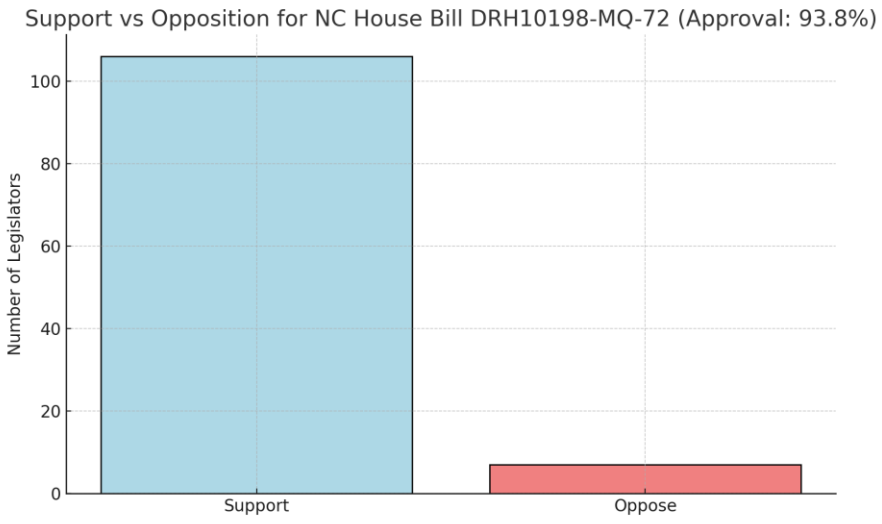
Infringement on Landowners' Rights

The concept of the 'bundle of rights' in property law refers to the legal rights that come with property ownership, including the right to lease, sell, and control property. By enforcing an owner-occupancy requirement, Pineville is restricting property owners' ability to fully utilize their land. Specifically, the ordinance infringes upon the right to lease property freely, limiting how homeowners can manage their secondary dwellings.

For many homeowners, the ability to rent out a secondary dwelling represents an important source of income, whether to offset mortgage payments or to fund future investments. By preventing homeowners from renting their property unless they live on-site, Pineville is removing a potential income stream for property owners. This infringes on the landowners' rights to make the most efficient use of their property and hampers their financial independence.

Bipartisan Support for House Bill DRH10198-MQ-72

North Carolina House Bill DRH10198-MQ-72 passed with a 93.8% approval rate, receiving overwhelming bipartisan support in the General Assembly. The strong majority of 106 votes in favor versus 7 against demonstrates that flexible housing policies are widely recognized as essential to addressing the housing crisis. Pineville can follow the lead of state lawmakers by removing the owner-occupancy requirement, thus aligning its local policies with broader statewide efforts.



Case Studies from Other Cities that have Removed Restrictions

Austin, Texas

Austin removed the owner-occupancy requirement in 2015 as part of a broader strategy to address its housing shortage. Since the change, ADU construction has increased significantly, providing additional rental housing options in a city where demand is high (City of Austin Development Services).

Phoenix, Arizona

In 2019, Phoenix adopted new legislation that relaxed owner-occupancy requirements for ADUs. This change has resulted in a rise in ADU development, helping the city meet growing demand for affordable housing (Arizona State Legislature).

Nashville, Tennessee

Nashville revised its zoning laws in 2019, allowing ADUs in more areas and lifting the owner-occupancy requirement in certain zones. This move has led to an increase in ADU construction, providing much-needed rental housing (Metropolitan Government of Nashville and Davidson County).

Salt Lake City, Utah

Salt Lake City lifted owner-occupancy requirements in 2018 to promote ADU construction. The policy change has been successful, with a significant rise in ADU permits and increased housing availability (Salt Lake City Planning Division).

Boise, Idaho

Boise updated its zoning regulations in 2020 to encourage ADU construction. Removing the owner-occupancy requirement has helped the city manage its growing population and housing demand (City of Boise Planning and Development Services).

Conclusion

Pineville, North Carolina, faces a housing shortage, and the owner-occupancy requirement in the town's zoning ordinance only exacerbates the problem. By removing this restriction, Pineville can unlock the potential of secondary dwellings, providing more affordable rental units and offering homeowners greater flexibility. The success of cities like Austin, Phoenix, Nashville, Salt Lake City, and Boise shows that lifting owner-occupancy requirements leads to a significant increase in ADU construction and rental availability.

Moreover, North Carolina House Bill DRH10198-MQ-72 provides strong state-level support for this proposed change. With bipartisan backing, the bill encourages municipalities like Pineville to adopt more flexible zoning policies that address housing needs. By aligning with this state legislation, Pineville can ensure that its zoning regulations are consistent with the direction of housing reform across North Carolina.

I have invested significant time and resources into converting the garage located at 1005 Cone Ave, into an ADU. This has included the pulling of permits, payment of all applicable fees, and ultimately ended with the obtainment of the certificate of occupancy. The ADU has been fully approved, yet due to the owner-occupancy requirement, the property cannot be rented out freely. I ask the council, what would you have me do with a fully approved and ready-to-occupy ADU if I am unable to live onsite? This situation highlights the unnecessary burden placed on homeowners who are willing and able to provide additional housing, which could alleviate Pineville's housing shortage.

I am proud to own property in the city of Pineville where we invest in infrastructure, provide clean parks, create learning opportunities in our new library with community center, where we host fairs and other community events. This sense of community lives in the town regardless of owner-occupied vs rental units (as proven by the statistic from AreaVibes; where 57.6% of the housing supply is renter-occupied). I understand that large scale projects are in development / seeking approval to add supply to the community; these include: Miller Farm Subdivision (242 Single family Homes and 98 Townhomes), Preston Park (299 Single Family Homes), Coventry Downs (166 townhomes), Cranford development (18 townhomes) and Livano Pineville LIV Development (Proposed 65 apartments with retail space, and an additional 172 apartments). I however am not a developer with large access to private and institutional funding; I am simply a former proud Pineville resident who invested his life savings into an approved ADU conversion; but my mission is the same: provide affordable, safe, and reliable housing to our beautiful Pineville community.

The time for change is now. Removing the owner-occupancy requirement is a practical and necessary step toward addressing Pineville's housing shortage, restoring property rights, and promoting long-term growth. The removal of the owner occupancy requirement would not negate other restrictions Pineville has in place for allowing the construction of ADUs (Minimum Setbacks, Height restrictions, and Size). I sincerely hope you take my request into consideration. I look forward to hearing from you.

References

City of Austin, Development Services Department. Accessory Dwelling Units: Zoning Updates and Impacts. City of Austin, 2015, www.austintexas.gov/development/adu-zoning-updates.

Arizona State Legislature. Zoning Law Revisions for ADUs in Phoenix. Arizona State Legislature, 2019, www.azleg.gov/adu-zoning-law.

Metropolitan Government of Nashville and Davidson County. Zoning Ordinance Changes for Accessory Dwelling Units. Nashville Planning Department, 2019, www.nashville.gov/planning/adu-changes.

Salt Lake City Planning Division. Accessory Dwelling Units Zoning Reforms. Salt Lake City Planning Division, 2018, www.slcgov.com/planning/adu-zoning-reform.

City of Boise, Planning and Development Services. ADU Zoning Updates and Implementation. City of Boise, 2020, www.cityofboise.org/adu-zoning-updates.

National Association of Realtors. Homeownership and Mobility Trends, 2023.

North Carolina Housing Coalition. State of Housing: Affordable Housing in North Carolina, 2022.

Legal Information Institute, Cornell Law School. Bundle of Rights in Property Law, 2022.

North Carolina General Assembly. House Bill DRH10198-MQ-72, 2024.

Urban Institute. The Impact of Vacant Properties on Crime in Urban Areas, 2018.

National Vacant Properties Campaign. Vacancy and Crime: The Link Between Vacant Properties and Neighborhood Safety, 2020.

Areavibes. Renter occupied households. https://www.areavibes.com/pineville-nc/housing/

UNC SCHOOL OF GOVERNMENT

Coates' Canons NC Local Government Law

Can We Consider Ownership in a Zoning Decision?

Published: 08/14/12

Author: David Owens

The heart of zoning ordinances are rules on land uses – rules on what uses can go where, standards on building setbacks, the size of structures, required parking, size of signs, and so forth. Sometimes, however, a question is raised about who is proposing a development. Is the identity of the applicant or the owner of the property a relevant consideration in zoning? Is this a legitimate factor that can be considered in a zoning decision?

Consider these situations –

1. The planning board has recommended a set of zoning amendments to promote more housing options and affordability. One proposal is an amendment to allow accessory apartments as a permitted use in all single-family zoning districts, provided some conditions are met regarding parking and setbacks. After hearing concerns raised at the public hearing, Mayor Juanita Beasley observes that this proposal could be a good thing in many instances. Given the increase in density it would allow in older neighborhoods where the houses are already pretty close together, she notes appropriate on-site management may well be needed to assure this works out to everyone's benefit. She asks staff if the proposed text could be amended to allow accessory apartments only if either the principal house or the accessory apartment is owner-occupied.

2. Rafe Hollister and Charlene Darling have proposed opening a brew pub/nightclub in a neighborhood shopping center. Darling will own the building and manage the club while Hollister will own and manage the brewing operation. A club at this location requires a special use permit under the town zoning ordinance. Near the close of the town council hearing on the application, Councilor Floyd Lawson raises a question. "It's clear from the testimony we've heard that this business will be a great thing for our small town. I've known **Charlene and her brothers** all my life. I'm sure she'll run this business in a way that will be absolutely first rate. Everybody around here is already familiar with Rafe's special home brews and they'd go great with some **local music**.

But Charlene, like me, is getting on in years. In the wrong hands this club could turn into a real problem. We have joints in town that are just a mess – fights, noise, drugs, all sort of bad things. Charlene's retired and will really look after this business, but without her around, this club could be a real nuisance. Can we add a condition to the permit that live entertainment can be offered only as long as Ms. Darling is the owner or that they'd have to come back and get a permit amendment if she sells the club to someone else?"

Is it legally permissible for the town do either of these things?

In a word, the answer to both is no.

In North Carolina the courts have long held that development regulations may not be used to control the ownership—as opposed to the use—of property. A leading case on this point arose three decades ago in Chapel Hill. The council amended the zoning ordinance to require a special use permit for the conversion of multi-family rental housing to condominiums. The owners of an apartment complex built in 1928 – two buildings with twelve apartments each – wanted to convert their apartments to condos. The buildings did not meet current zoning setbacks and parking requirements, but it was a lawful nonconforming use since the buildings were there before zoning was adopted. The town council voted 7-1 to deny their special use permit. The owners promptly sued the town and won. In Graham Court Assocs. v. Town Council of Chapel Hill, 53 N.C. App. 543, 281 S.E.2d 418 (1981), the court held zoning can regulate land use, but not the form of ownership. The multifamily housing would have the same land use impacts whether occupied by renters or owners, so the zoning ordinance cannot legally distinguish between the two or require regulatory approval to change from one to the other.

More broadly, the courts have emphasized that land use regulations must be based on the land use impacts of property use, not the identity of the users of the property. In Gregory v. County of Harnett, 128 N.C. App. 161, 493 S.E.2d 786 (1997), the court invalidated a rezoning that moved property from a zoning district that allowed manufactured-home parks to a district that did not. The court held that the rezoning was arbitrary after the record disclosed that it was based on undocumented concerns about crime committed by residents of manufactured-home parks and the "type of people" who reside therein, with no evidence showing any consideration of the character of the land, the suitability of the land for various uses, the provisions of the zoning plan, or changing conditions in the area.

Land use regulations must be based on land use impacts, not the identity of the land owner or applicant. Land use permits are parcel-specific – they are attached to that parcel and are not personal rights of the applicant that can be freely transferred to other parcels.

These general principles preclude use of either of the two options raised above.

In fact, the court has ruled directly on the first question. In City of Wilmington v. Hill, 189 N.C. App. 173, 657 S.E.2d 670 (2008), the court held that a zoning ordinance may not provide that an accessory apartment is permissible only if it or the principal residence is owner-occupied. The city's development regulations permitted a garage apartment as an accessory use in a single-family zoning district, provided the property owner lived in either the main residence or the accessory apartment. The court held the ownership requirement unconstitutional as an impermissible regulation of ownership rather than a permissible regulation of land use. The court also held that the owner-occupant requirement was beyond the scope of delegated zoning powers.

So what about the concern about proper management of the night club raised in our second question above?

Proper management and operation of a land use is certainly a legitimate consideration in zoning decisions. For example, in Petersilie v. Boone Board of Adjustment, 94 N.C. App. 764, 381 S.E.2d 349 (1989), the court upheld the denial of a special use permit for an apartment building in a neighborhood of single-family homes. The court ruled that although the applicant submitted sufficient evidence to support the issuance of the permit, there had also been competent evidence before the board of adjustment regarding problems of noise, traffic congestion, crime, vandalism, and effects on property values to justify the denial of the permit. But, very importantly, these were potential problems posed by any multi-family housing at that particular site, be it occupied by renters or by owners.

How a sensitive use that is subject to a special use permit requirement is managed certainly has a bearing on what types of land use impacts the use will have. The council members in our second example have a legitimate concern. The proper management of a nightclub can undoubtedly affect how well it fits with its neighbors. But the land use regulatory decision has to focus on land use impacts. Is there adequate parking? Is there an appropriate buffer for nearby residences? Can the site handle the anticipated traffic? Is this the right location for this type of business? If the operation does not comply with land use regulations, enforcement actions can be brought and the

town could consider permit revocation. The town can also adopt and apply rules that address proper operation of the club, such as a noise ordinance. The town can work with law enforcement to address any criminal activity and to enforce alcohol regulations. A public nuisance action could be initiated if serious problems arise.

But the town cannot use zoning to regulate who owns the nightclub despite the long-standing interest in this type of regulation. In fact, one of the cases cited approvingly by the court in the Graham Court case dealt with a similar situation and reflects. In 1947 the City of Moscow, Idaho adopted an ordinance that required zoning approval for a change in ownership of a pool hall, card room, or beer parlor by declaring any change in ownership to be a new business that required zoning approval. The Idaho court found such a requirement to be an arbitrary, unreasonable, and thus unconstitutional use of the city's regulatory authority. O'Connor v. City of Moscow, 202 P.2d 401 (Id. 1949). The Idaho court found, and the North Carolina court concurred, that zoning must address land uses, not ownership. So a town cannot tie a special use permit to a particular owner. It cannot require a new or amended special use permit when the ownership changes. The zoning authority is simply not broad enough to address those ownership issues.

There are a few instances where ownership is relevant for land use regulatory decisions. It is permissible to require an application to develop property be from the owner of the property, a duly authorized agent of the owner, or someone who has a legal right to undertake the proposed development. In the zoning realm, it is permissible to treat contiguous nonconforming lots that are in common ownership as a single "lot" for zoning purposes. Another example would be where the statutes explicitly allow recent relevant past violations of an applicant to be considered in permit decisions, such as with G.S. 113A-120(b1) for CAMA permits. But there are very few instances where land ownership or the identity of the applicant will be a relevant factor.

While it is not unusual for a planning board or governing board to be curious about the identity of an applicant or land owner, that is rarely relevant to a zoning decision. Zoning decisions need to focus on what the potential land use impacts will be, not who is generating them.

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Coates' Canons NC Local Government Law

Limits on "Down-Zoning"

Published: 12/20/24

Author: Adam Lovelady

The North Carolina General Assembly amended state law to greatly restrict local government discretion to amend local zoning ordinances. The statutory provision, amended as part of the Disaster Recovery Act of 2024 – Part III, Session Law 2024-57 (S.B. 382), broadly defines "down-zoning" and provides that local governments cannot adopt a down-zoning without written consent from all impacted owners.

The precise interpretation and breadth of impact of this law are not perfectly clear. There are many questions. One thing is clear: the law dramatically alters the authority for local governments to amend local zoning ordinances.

This blog seeks to decipher the meaning and scope of the new limits on down-zoning. The blog outlines the amended statutory language; it investigates the meaning and scope of "down-zoning" as defined by state law; and it identifies some of the ways that local zoning administration may be impacted by the new limits.

Property Rights and Ordinance Changes

State and local law has long addressed this question of fairness that is central to land use regulations: To what extent should new regulations apply to existing development? Vested rights allow a property owner to develop land pursuant to an approved development permit even if the regulations are changed after the permit is issued. The permit choice rule ensures that if a property owner has already applied for a development approval (but not yet received approval) and then the regulations are changed, the property owner can choose for the permit to be reviewed under the old rules or reviewed under the new rules. As for existing development, local ordinance provisions about nonconforming situations generally allow existing land uses and development to continue, even if new regulations would not allow that existing development if it was proposed as new

development. All of these rules—vested rights, permit choice, and nonconformity provisions—provide protection for property owners against regulatory changes that might otherwise limit planned and existing development.

Additionally, North Carolina law has limited down-zonings by third parties. The prior version of G.S. 160D-601(d) prevented an individual from requesting to reduce the development rights on their neighbor's property without consent from the neighbor. The old law, though, maintained local government authority to make decisions about rezoning property and adjusting zoning standards. The local legislative body—the town council or county commission—had authority under prior law to make local legislation decisions to adjust rules according to local needs and priorities.

New legislation goes much further: It prohibits local government-initiated down-zoning and it broadens the definition of down-zoning. Session Law 2024-57 (S.B. 382), Section 3K.1.(a), amends G.S. 160D-601(d) to reads as follows (strike-throughs show text that was cut and underlines show text added):

> (d) Down-Zoning. – No amendment to zoning regulations or a zoning map that down-zones property shall be ~~initiated nor is it enforceable~~ initiated, enacted, or enforced without the written consent of all property owners whose property is the subject of the down-zoning ~~amendment, unless the down-zoning amendment is initiated by the local government.~~ amendment. For purposes of this section, "down-zoning" means a zoning ordinance that affects an area of land in one of the following ways:
>
> 1. By decreasing the development density of the land to be less dense than was allowed under its previous usage.
> 2. By reducing the permitted uses of the land that are specified in a zoning ordinance or land development regulation to fewer uses than were allowed under its previous usage.
> 3. By creating any type of nonconformity on land not in a residential zoning district, including a nonconforming use, nonconforming lot, nonconforming structure, nonconforming improvement, or nonconforming site element.

It should be noted that there are media reports that the General Assembly may revisit this topic in a future legislative session. For now, though, it is law.

Applicability

Section 3K.1.(c) of the session law states that the limits on down-zoning are effective upon adoption and apply retroactively to any "down-zoning" adopted after June 14, 2024. Here's the language:

> "This section is effective when it becomes law [December 11, 2024] and applies to local government ordinances adopted on or after that date and any local government ordinance enacting down-zoning of property during the 180 days prior to the date this section becomes effective [i.e., zoning amendments adopted after June 14, 2024]. Ordinances adopted in violation of this section shall be void and unenforceable."

This retroactive application means that some previous local government zoning actions—including actions that property owners and developers have relied upon—may be unenforceable without written consent from all affected property owners.

"Down-Zoning" Defined Broadly

In land use law generally, "down-zoning" refers to rezoning a property to a new zoning district that is less intense or less dense than the prior district. Rezoning property from an industrial zoning district to a residential zoning district, for example, is a down-zoning. North Carolina law, however, defines down-zoning much more broadly.

To be clear, two of the three provisions discussed below were already in state law. But, those provisions are much more impactful now that they apply to local government-initiated amendments, not just third-party requests.

Let's consider each of the three ways in which the state law would consider a zoning amendment to be a down-zoning.

DENSITY
"By decreasing the development density of the land to be less dense than was allowed under its previous usage."

Under the new law, an amendment to the zoning text or map may not reduce the density of development unless the owner consents to it.

Zoning ordinances commonly regulate the density of residential units in each residential zoning district. Plainly a zoning ordinance amendment or rezoning that reduced the residential density would be prohibited under the new law unless the owner consented to the reduction. For example, a local government can no longer rezone a corridor or small area of properties from multifamily zoning to single family zoning without the consent of all the owners within the corridor or area. Beyond that, other regulatory provisions could be implicated. Setbacks, buffers, and open space requirements limit the amount of a lot that can be developed. Does increasing such requirements decrease the development density of the land? Potentially. If so, then changes to such development standards may be limited by the new law.

USES
"By reducing the permitted uses of the land that are specified in a zoning

ordinance or land development regulation to fewer uses than were allowed under its previous usage."

Under the new law, an amendment to the zoning text or map may not reduce the permitted uses of the land unless the owner consents to it.

The phrasing of this provision suggests two different aspects of a zoning amendment that might trigger the down-zoning limits: *substantively* prohibiting a use that was previously allowed ("reducing the permitted uses") and *numerically* reducing the number of uses allowed ("to fewer uses"). Moreover, this new law applies to text amendments *and* map amendments, so the two different aspects could come up through a text change to a use table or through a rezoning.

A common understanding of down-zoning would suggest that this provision should be interpreted to focus on the substantive uses allowed, but the language is not clear. Under the new law, is a zoning amendment a down-zoning when it prohibits a use that was previously allowed? Or is it a downzoning when the number of permitted uses is less than the number previously allowed (regardless of the substantive uses allowed)?

Here's a simplified scenario to explore the potential implications. Consider a zoning ordinance use table that includes these districts and permitted uses.

R-1, Residential	**NC, Neighborhood Commercial**	**HC, Highway Commercial**
Single-family residential	Retail and restaurant	Gas station
Two-family residential	Multifamily residential	Truck stop
Bed and Breakfast	Religious assembly	Large format retail
Religious assembly	Gas station	
~~Short-term rental~~		
[Three-unit residential]		
[Four-unit residential]		

First, consider a text amendment. Suppose a local government is amending the zoning ordinance to

strike "short-term rental" from the permitted uses for R-1. Such an action would "reduc[e] the permitted uses," so potentially that could not be "initiated, enacted, or enforced without the written consent of all property owners whose property is the subject of the down-zoning amendment." (Such consent would be nearly impossible across an entire jurisdiction.) Alternatively, suppose the text amendment struck "Short-term rental," but added "Three-unit residential" and "Four-unit residential" as permitted uses. In this case, the text amendment would result in more permitted uses, not less. Under the statutory language, arguably that is not a down-zoning.

Next, consider how this plays out for a rezoning action. Imagine that the town is seeking to encourage commercial development along a highway corridor, so the town seeks to amend the zoning map so properties along the corridor are rezoned from the Neighborhood Commercial zoning district to the Highway Commercial zoning district. Such action would allow for more intense uses (commonly thought of as "up-zoning"), but fewer uses. Additionally, some of the uses permitted under Neighborhood Commercial would no longer be permitted. Substantively and numerically that would be a down-zoning under the law.

The phrasing of this provision raises two more questions worth exploring: What is included in "permitted uses"? And, what is meant by "previous usage"?

The phrase "permitted uses" raises questions. Surely principal land uses listed on the use table as allowed are permitted uses. What about uses allowed with special development standards? What about uses allowed by a special use permit? If a use is moved from "permitted" to "permitted by special use permit" is that a down-zoning? What about temporary uses or accessory uses? Are they permitted uses? It is not clear.

With regard to "previous usage," the statute refers to "fewer uses than were allowed under its *previous usage*." Is *previous usage* referring to how the property was actually used (it's usage)? Or is that referring to the *previous regulation* or *previous district*? It is not clear.

NONCONFORMITIES

"By creating any type of nonconformity on land not in a residential zoning district, including a nonconforming use, nonconforming lot,

nonconforming structure, nonconforming improvement, or nonconforming site element."

Under the new law, an amendment to the zoning text or map may not create nonconforming situations in non-residential zoning districts unless the owner consents to it.

A bit of context may be helpful. Most zoning ordinances allow for nonconforming situations to continue. So, when an ordinance is revised in a way that makes a current building, activity, or lot out-of-compliance, the property owner is allowed to continue that situation as a lawful nonconformity. In other words, the ordinance would not allow that building, activity, or lot if the property owner proposed it new, but since the situation was already there before the ordinance changed, the owner is allowed to continue.

There is no general state law requirement for nonconforming provisions, but local zoning ordinances typically include them. Commonly an ordinance will require that a nonconforming use cannot be expanded or intensified, and that if the use is ceased for a period of time (12 months, for example) the owner loses status as a lawful nonconformity and must come into compliance with the new rules.

There are circumstances when a local government requires immediate compliance rather than alllowing a situation to continue as a lawful nonconformity. These typically arise for public health and safety reasons. For example, consider if a town ordinance did not address camping and the owner of a vacant lot near downtown began hosting dozens of individuals sleeping in tents. The town might adopt requirements to address sanitation and crowding, and the ordinance might require property owner compliance right away. In other words, the use would not continue as a lawful nonconformity.

The new legislation against down-zoning clouds the rules for nonconforming provisions and situations. Outside of residential zoning districts, a zoning amendment cannot create any type of nonconformity. That plainly prohibits the common approach of allowing situations to continue as a lawful nonconformity. Interestingly, the law leaves open the possibility of requiring immediate compliance.

As discussed more below under Amending Development Standards, this provision on nonconformities will greatly impact local government updates to an array development standards like parking, setbacks, landscaping, signage, and more.

What about vacant land? In some cases new development standards might apply to vacant land without triggering a "down-zoning." In order to create a nonconformity, there must be development that becomes nonconforming. For vacant land, though, new rules may not create a nonconformity so it might not amount to a down-zoning under the law.

What about old nonconformities? It appears that nonconformities existing prior to June 14, 2024, will continue unaffected by the new law. Local nonconforming provisions will still apply to those situations.

Implications for Local Zoning

So, what does this broad definition of down-zoning mean for local zoning ordinances? Here are some topics and considerations.

Rezonings Requested by Property Owners

A standard rezoning—where the property owner requests for property to change from one zoning district to another—will be unaffected, generally, by the new law because the property owner will be inclined to consent to the change. A local government will want to obtain written consent to the rezoning, especially if it falls within the broad definition of "down-zoning." An application for rezoning might be implied consent to the change, but local governments would be wise to obtain clear, written consent to the down-zoning.

Conditional zoning already requires consent from the property owner. Given that the new legislation greatly limits authority for generalized amendments and updates to zoning, local governments may be inclined to shift rezonings toward conditional rezoning to ensure consent and to address standards for development.

Addressing New Uses

North Carolina is home to creative folks. They come up with all kinds of new, entrepreneurial uses for property. Additionally, industries are constantly evolving and seeking new ways to operate. Zoning ordinances cannot address any and all future land uses. They must be amended from time to time. Recent examples are food trucks, solar farms, backyard chicken coops, short-term rentals, crypto-mining operations, and vape shops. As new uses arise, local governments must determine if current ordinance provisions address the use sufficiently or if new regulations are needed.

The rule against down-zoning will complicate the process of addressing new uses. Ordinance amendments addressing new uses commonly restrict uses and add development standards. Such actions likely will be down-zonings.

Amending Development Standards

Zoning ordinances have a wide range of development standards: parking requirements, vegetative buffering, setbacks, height limits, and more. The limits on down-zoning will complicate the process of amending development standards. Amendments to these development standards may amount to a "down-zoning" under the new law if the new development standard limits development density on any property *or* creates a nonconformity on property in non-residential zoning districts.

Going forward, local governments may consider re-characterizing how rules apply so that rules are not creating nonconformities in non-residential districts: in other words, making new ordinance rules only apply to development occurring after the effective date of the ordinance. So, for example, new parking rules do not apply to existing development, but do apply to applications for new development. Such action would not be "creating any type of nonconformity on land not in a residential zoning district." Existing development conforms with the rules applicable at the time of that existing development. And new development must conform with the new rules.

While such an approach may avoid the terminology "nonconformity," it is accomplishing similar ends to typical nonconforming provisions, so it may still run afoul of the new law. Additionally, it may prove difficult for local governments to keep track of which development standards apply to new developments and which apply to old development.

Changes in Jurisdiction

Jurisdictional boundaries change commonly: the general assembly might de-annex property from a town, a town might extend (or relinquish) extraterritorial jurisdiction, or a new survey might correct a county boundary. Regardless of the reason for the change, whenever property changes jurisdiction the local government receiving the property must take action to apply zoning rules to the property. My colleague, Jim Joyce, has written on this topic in the blog, What Happens When Property Changes Jurisdiction? Essentially, the local government must go through a rezoning process to amend the zoning map and apply the zoning regulations to the new property.

The limits on down-zoning will complicate the process of applying zoning after a change in jurisdiction. Without consent from the owner, an action to apply zoning to property that is newly

added to the jurisdiction cannot reduce density or reduce uses, and for nonresidential districts, the action cannot create nonconformities. In cases of voluntary annexation, this may be a nonissue (the owner is requesting the new jurisdiction and presumably will provide written consent to the down-zoning), but in many other cases of changed jurisdiction, the owner may oppose the jurisdictional change and/or oppose the new zoning.

New Ordinances and New Maps

Local governments commonly adopt updated or overhauled zoning ordinances and unified development ordinances. Along with that, they commonly adopt wholly new zoning maps to align the zoning map with the new ordinance and districts.

The limits on down-zoning will complicate the process. Given the broad definition of "down-zoning," ordinance updates and adoption of new maps will surely be impacted. Consent from every owner is impractical and unlikely. A local government potentially could allow for parallel zoning regulations (whereby the old rules are still available, but an owner could opt into the new rules), but such a system is unwieldy.

Even short of a comprehensive re-write or map update, any general changes to a zoning ordinance or map will be challenging. Imagine a new highway corridor district or gateway district overlay. Even if only one property was more restricted by the change, the law would require "written consent of all property owners whose property is the subject of the down-zoning amendment."

Incorporating Maps by Reference

G.S. 160D-105 authorizes local governments to "incorporate by reference flood insurance rate maps, watershed boundary maps, or other maps officially adopted or promulgated by State and federal agencies." As part of that, a local ordinance may be "automatically amended to remain consistent with changes in the officially promulgated State or federal maps." The limits on down-zoning likely will conflict with such automatic updates since maps with altered boundaries are likely to impose use and density limits as well as create nonconformities.

Compliance with Federal and State requirements

Local governments implement a range of state and federal requirements through zoning and related development regulations. The limit on down-zoning will complicate the process of implementing such requirements.

The National Flood Insurance Program requires that local governments must adopt minimum standards for flood damage prevention in order to participate in the program and for property owners to have access to federal flood insurance. The state Water Supply Watershed Program requires development regulations at the local level to protect drinking water supplies for North Carolina communities. When the standards are revised or the maps are updated, local governments must take action to update local ordinances accordingly. Such action could amount to a down-zoning, and the local government may be caught between the federal or state requirement and adhering to the limits on down-zoning.

What about related development ordinances? What about floodplain regulations?

The language of G.S. 160D-601(d) is focused on zoning ("No amendment to *zoning* regulations or a *zoning* map . . ."). The heading of the subsection ("Down-Zoning") suggests this is about zoning. And "down-zoning" is defined to be "a zoning ordinance that affects an areas of land . . . ." Other provisions of Article 6 of Chapter 160D also distinguish between zoning and other development regulations. G.S. 160D-604 requires planning board review for *zoning amendments* and allows planning board review for amendments to other *development regulations*. With all of that, it seems that the limitation on "down-zoning" applies only to zoning ordinances, not other development regulations.

There is some statutory language and some practical implications that suggest that the limit may apply more broadly. Section 160D-601 itself is titled "Procedure for adopting, amending, or repealing *development regulations*." Moreover, subsection (d)(2) refers to permitted land uses "that are specified in a zoning ordinance *or land development regulation.*" So perhaps the limit on down-zoning applies further than the zoning ordinance.

Floodplain regulations are a particularly tricky topic here. Floodplain regulations are authorized separately from zoning (G.S. 143-215.51 through -215.61 and G.S. 160D-923). Floodplain regulations, however, are zoning-like—maps identify different regulatory districts and land uses and development densities are regulated in those districts. Floodplain regulations commonly are incorporated into zoning regulations or are very closely related to the zoning ordinance. A floodplain ordinance that is adopted as part of a zoning ordinance would be subject to the limitations on down-zoning. For a floodplain ordinance that is adopted as stand-alone development

regulation, perhaps the down-zoning limitations of G.S. 160D-601(d) do not apply. Even then, the floodplain ordinance is establishing districts and regulating land uses, so it may be viewed as zoning anyway.

Presuming that the limits on down-zoning do apply to floodplain regulations, that could create significant problems for compliance with the National Flood Insurance Program (NFIP). As noted above, NFIP regulations require that local governments adopt certain minimum regulations for flood damage prevention and those regulations must align with the federal floodplain mapping. If a local government failed to maintain an adequate ordinance or adopt current maps, residents may lose access to federal flood insurance. For more on floodplain rules, check out these FAQs.

Conclusion

G.S. 160D-601(d), as amended, sets a new, broader definition of "down-zoning" and greatly limits local government authority to amend zoning ordinances and maps without property owner consent. Many questions remain about the precise meaning of the law, the breadth of the implications, and whether the General Assembly may revisit the legislation.

In the meantime, here is a simple list of questions for evaluating "down-zonings."

Is it a "down-zoning"?

- Is the change an amendment to the zoning text or map?
  - If yes, continue to next question. If no, evaluate if the amendment is effectively a zoning amendment (like in the case of floodplain ordinances).
- Does the text or map amendment reduce development density?
  - If yes, it's a "down-zoning" (jump down to next section). If no, continue to next question.
- Does the text or map amendment limit a use that was previously permitted and/or reduce the number of uses allowed? (Reminder: There is ambiguity as to whether this is substantive, numeric, or both.)
  - If yes, it's a "down-zoning" (jump down to next section). If no, continue to next question.
- Does the text or map amendment affect property in a nonresidential zoning district?

- If yes, continue to next question. If no, it likely is not a "down-zoning."

- For text or map amendments affecting nonresidential zoning districts, does the text or map amendment create a nonconforming situation?
  - If yes, it's a "down-zoning" (jump down to next section). If no, it likely is not a "down-zoning."

If it is a "down-zoning":

- Can the local government get written consent from all affected property owners?
  - If yes, then the amendment may proceed with proper written consent. If no, then the amendment cannot be initiated, enacted, or enforced.

Pineville
NORTH CAROLINA

TOWN COUNCIL AGENDA ITEM

MEETING DATE: January 27, 2025

Agenda Title/Category:	**Discussion items**			
Staff Contact/Presenter:	**Travis Morgan**			
Meets Strategic Initiative or Approved Plan:	**Yes**	**No**	If yes, list:	"Create clusters of industrial uses that capitalize on existing infrastructure."
	X			
Background:	**2018 Industrial Conditional Zoning Update for Last Lot**			
Discussion:	**Sidewalks going into property? Expected completion date?**			
Fiscal impact:	**Additional Property Tax. Additional Town Road Added Upon Completion**			
Attachments:	**Zoning Application and site drawing, report, and similar**			
Recommended Motion to be made by Council:	**Recommended approval dependent on plan compliance.**			

ZONING CODE SUMMARY

OWNER:	CONCORD CALIFORNIA ASSOCIATES, LLC 11062 WINNETKA AVE CHATSWORTH, CA 91311
TAX PARCEL NO:	205-07-120
TOTAL SITE AREA:	±15.00 AC.
ZONING:	G-I
EXISTING USE:	VACANT
PROPOSED USE:	INDUSTRIAL (192,400 SF)
FRONT YARD SETBACK:	15' (MEASURED FROM SIDEWALK)
REAR YARD SETBACK:	10'
SIDE YARD SETBACK:	10'
PARKING CALCULATIONS:	OFFICE: 1 SPACE/350 SF 500 SF/350 SF = 2 SPACES WAREHOUSE: 1 SPACE/4,000 SF 191,900 SF/4,000 SF = 48 SPACES
TOTAL PARKING REQUIRED:	50 SPACES
TOTAL PARKING PROVIDED:	±185 SPACES (6 ACCESSIBLE, 1 VAN INCLUDED)
WATERSHED:	SUGAR

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAG MEN, ETC. AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION AND TOWN OF PINEVILLE UTILITY DEPARTMENT SPECIFICATIONS.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

NOT FOR CONSTRUCTION

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ICONIC EQUITIES
1508 BAY ROAD, UNIT 1105
MIAMI BEACH, FL 33139

DATE	REVISION DESCRIPTION

DATE	12/18/2024
DRAWN BY	E. SCANLON
DESIGNED BY	E. SCANLON
CHECKED BY	A. ALLISON
SCALE	1" = 50'

TIMMONS GROUP
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NORTH CAROLINA LICENSE NO. C-1652

PINEVILLE DISTRIBUTION STREET - LOT 4
PINEVILLE, NORTH CAROLINA
CONDITIONAL ZONING SITE PLAN

JOB NO. 70628
SHEET NO. C-100

Workshop Meeting

Pineville
PLANNING & ZONING

To: Town Council

From: Travis Morgan

Date: 3/27/2025

Re: **Iconic Equities Warehouse Conditional Zoning Request** *(Information Item)*

PROPOSAL:
Turner Fortin on behalf of Iconic Equities seeks your consideration and approval for a new warehouse withing the prior 2018 conditional zoning industrial subdivision. Request is for a new 194,382 square foot warehouse on Lot 4 (the last remaining unbuilt parcel) in the subdivision.

BACKGROUND and INFORMATION:
This proposal seeks to update the prior March 2018 conditional zoning approved plan lead by the Lance warehouse and industrial subdivision located along Pineville Distribution Street. Conditional approval is needed for users over 100,000 square feet. Lance warehouse was the only large warehouse in the prior approval.

General site information:

Address:	10203 Pineville Distribution Street
Tax Parcel:	20507120
Property Acres:	15 acres
Square Feet:	194,382 square foot warehouse and distribution (no manufacturing)
Parking Min:	(stated 50 spaces) 1 space per 4000 sqft of warehouse plus 1 per 350 office
Parking Provided:	185

Traffic Study:
Previous subdivision plan had a traffic study and road improvements consisting of additional turn lane stacking from North Polk back Westward to the railroad tracks. Sealed transportation engineer analysis update is included and notes traffic generation from the development to be within the scope of the prior traffic study.

STAFF COMMENTS:
The overall proposal seems consistent the original subdivision approval. The property is a flag shape with a long driveway and property line is approximately 1,400 linear feet to the closest house in Preston Park though mature forest and big Sugar Creek floodplain area. Upon completion of this lot Pineville Distribution Street can be completed/inspected and turned over to the Town and greenway area can be dedicated.

PROCEDURE:
This is a standard legislative process workshop meeting to hear the initial request. A public hearing is needs to be scheduled before any vote.

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December 9th, 2024

Turner Fortin
Director of Acquisitions & Development
Iconic Equities
Mobile 404-863-9931
1508 Bay Road
Unit 1105
Miami Beach, FL 33139

RE: Pineville Industrial Lot 4 Trip Generation Memorandum

Dear Mr. Fortin,

This trip generation memorandum is a supplement to the Pineville Industrial Development TIA (completed by Timmons Group sealed 01/12/2018). The purpose of this memorandum is to determine if the current proposed build-out (up to and including Lot 4) exceeds trip generation values assumed in the TIA.

Per the approved TIA, Phase 1 of the subject development included 510,000 square feet (SF) of warehousing. Additionally, Phase 2 of the subject development included 340,000 SF of general light industrial.

Lot 4 will consist of 194,382 SF of general light industrial. Per aerial imagery, 510,000 SF of warehousing and 97,406 SF of general light industrial has already been constructed. Following the construction of Lot 4, the Pineville Industrial Development will consist of 510,000 SF of warehousing and 291,788 SF of general light industrial.

Table 1 summarizes the Pineville Industrial trip generation as outlined in the TIA.

Table 1: Pineville Industrial TIA Phases I – II Trip Generation Summary

ITE Land Use Code	Size	ADT	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
510 – Warehousing	510,000 SF	1,816	121	32	153	41	122	163
110 – General Light Industrial	340,000 SF	2,438	274	37	311	39	289	328
Total:		4,254	395	69	464	80	411	491

SOURCE: Pineville Industrial TIA (completed by Timmons Group sealed 01/12/2018)

Table 2 summarizes the cumulative Pineville Industrial trip generation (including Lot 4). These values were determined by applying the projected percent buildouts to the assumed TIA trip generation shown in **Table 1**.

Table 2: Pineville Industrial Lot 4 Trip Generation Summary

ITE Land Use Code	Size	% Buildout	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
510 – Warehousing	510,000 SF	100%	1,816	121	32	153	41	122	163
110 – General Light Industrial	291,788 SF	86%	2,097	236	31	267	34	248	282
Total:			3,913	357	63	420	75	370	445

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www.timmons.com

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As shown in **Tables 1** & **2**, with the construction of Lot 4, trips are not projected to exceed trip generation values assumed in the Pineville Industrial Development TIA. Therefore, no TIA update is required due to the development's construction.

Should you have any questions regarding this memorandum, do not hesitate to contact me.

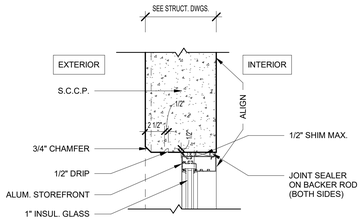
Sincerely.

NORTH CAROLINA PROFESSIONAL SEAL 043203 ENGINEER CLIFTON E. LAWSON

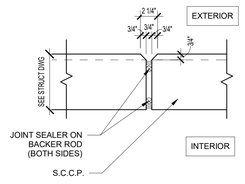
DocuSigned by:
Cliff Lawson
A71C57A8A9564D7...

12/9/2024

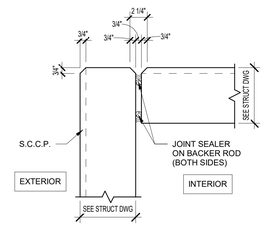
Cliff Lawson, PE, PTOE
Senior Project Manager | Transportation



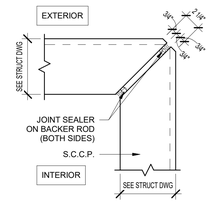
5 TYPICAL S.C.C.P./ SF DETAIL
SCALE: 1 1/2" = 1'-0"



4 TYPICAL S.C.C.P. JOINT DETAIL
SCALE: 1 1/2" = 1'-0"



3 TYPICAL S.C.C.P. CORNER DETAIL
SCALE: 1 1/2" = 1'-0"



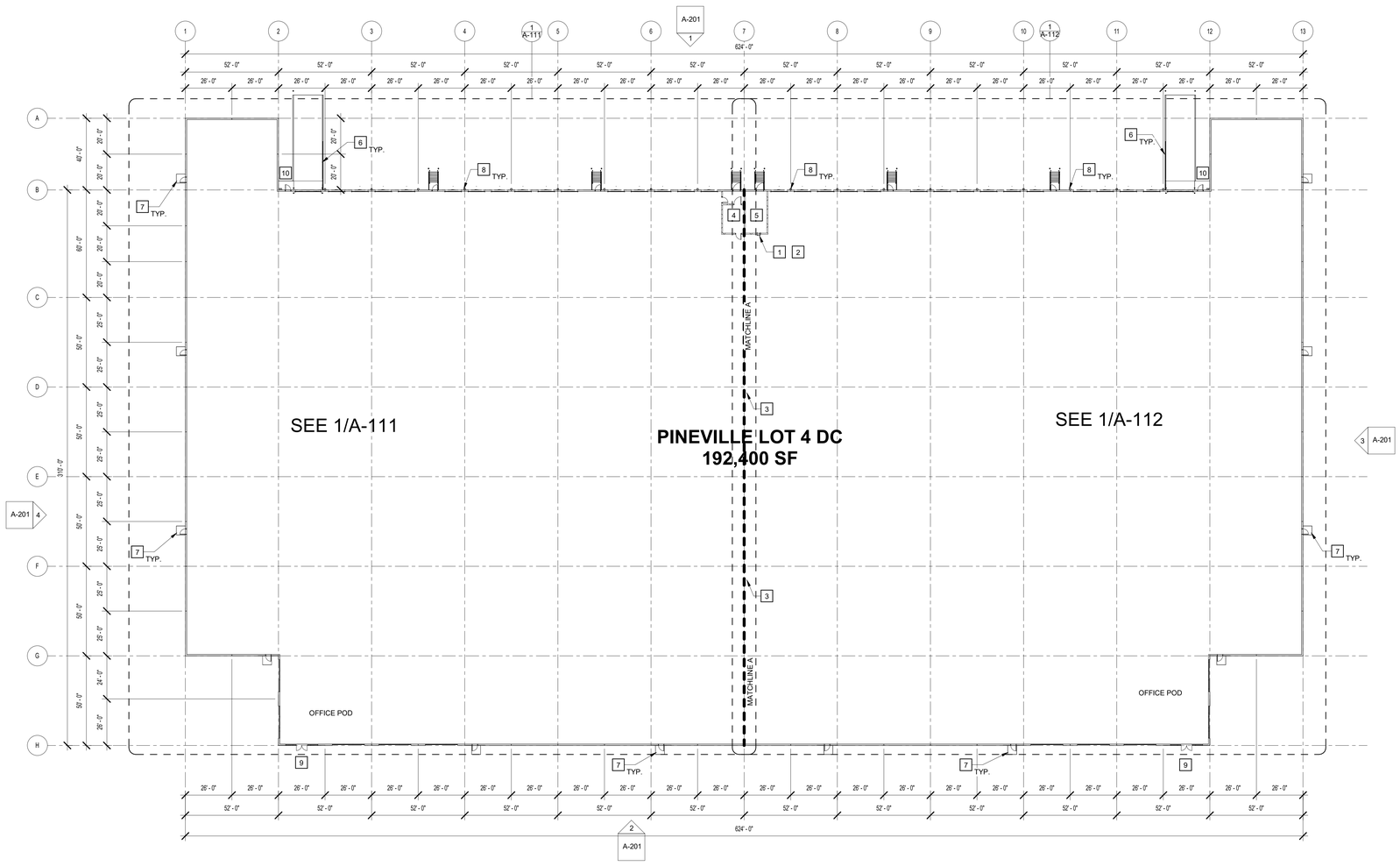
2 TYP. S.C.C.P. MITERED CORNER
SCALE: 1 1/2" = 1'-0"

KEYNOTES

1. ACCESS LADDER TO CONCRETE ROOF OF ELECTRICAL ROOM - SEE ENLARGED PLANS.
2. 3'-0" X 3'-0" ROOF HATCH WITH ACCESS LADDER FROM CONCRETE ROOF AT ELECTRICAL ROOF BELOW. G.C. TO COORDINATE WITH STRUCTURE. PAINTED SAFETY YELLOW - SEE ENLARGED PLANS AND ROOF PLAN.
3. BRACING DOWN TO 14' A.F.F. - SEE STRUCTURAL
4. ELECTRICAL ROOM - 1 HOUR RATED
5. FIRE PUMP ROOM - 1 HOUR RATED
6. RAMP GUARDRAIL - SEE DETAILS 4, 12 & 13 ON A-401
7. 5' X 5' CONCRETE PAD, SLOPE AWAY FROM BUILDING AT 1/4" PER FT. MAX.
8. 9" X 9" 24 GAUGE METAL DOWNSPOUTS WITH KYNAR FINISH
9. RECESSED CAN LIGHT IN SOFFIT ABOVE
10. DOUBLE DOWNSPOUT TO BE CONNECTED TO HUB DRAIN AND PIPPED UNDER RAMP AND DAYLIGHTED ON TRUCK COURT. PROVIDE BIRD SCREEN AT RAMP WALL OPENING.

GENERAL NOTES

1. BUILDING TO BE 32' CLEAR JUST PAST THE FIRST COLUMN LINE IN FROM THE DOCK WALL.
2. SLAB CONTROL JOINTS TO BE SAWCUT AND NOT TO EXCEED 15' - 0" ON CENTER. SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB CONTROL JOINTS. EPOXY JOINT FILLER —USE MM80 A TWO COMPONENT, HEAVY DUTY SEMI-RIGID EPOXY JOINT FILLER DESIGNED TO FILL AND PROTECT CONTRACTION AND CONSTRUCTION JOINTS. USE IN ENTIRE FACILITY/SPEED BAY FLOORS ONLY.
3. SLAB CONSTRUCTION JOINTS TO HAVE SMOOTH DOWELS AT 24" O.C. OR STEEL DIAMOND PLATES - SEE STRUCTURAL DRAWINGS. CAULK AROUND COLUMN DIAMOND/SLEEVE.
4. SLAB WILL BE CURED WITH A WATER-BASED DISSIPATIVE CURING COMPOUND AND WILL RECEIVE TWO COATS OF ASHFORD FORMULA FLOOR HARDENER.
5. SLAB ON GRADE WILL BE PRE-TREATED WITH TERMITICIDE.
6. 10-MIL CLASS 'A' VAPOR BARRIER TO BE PROVIDED BELOW THE SLAB ON GRADE THROUGHOUT. ALL SEAMS AND PENETRATIONS TO BE SEALED AND TAPED.
7. 6" THICK UNREINFORCED, 4,000 PSI CONCRETE SLAB BEARING ON 6" GAB OR 10" SOIL CEMENT. VERIFY SUB-GRADE WITH GEOTECH REPORT. SLAB TO RECEIVE HARD TROWEL FINISH AND LASER SCREED SHALL BE UTILIZED TO ATTAIN MINIMUM LOCAL & OVERALL SLAB TOLERANCE OF FF 40/FL 30.
8. PROVIDE A ESFR SPRINKLER SYSTEM THROUGHOUT.
9. PROVIDE PORTABLE FIRE EXTINGUISHERS OF THE QUANTITY AND AT THE LOCATIONS AS INDICATED OR AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. EXTINGUISHERS SHALL BE EQUAL TO J.L. INDUSTRIES COSMIC 10E, 10 POUND, 4A-60BC. TO BE COORDINATED WITH OWNERS LAYOUT.
10. METAL ROOF DECK SHALL BE 1-1/2" TYPE "B" WIDE RIB DECKING SHOP PRIMED WHITE ON THE UNDERSIDE/INSIDE FACE - SEE STRUCTURAL DRAWINGS.
11. RACKING, FLOOR STORAGE AND EQUIPMENT BY OTHERS.
12. SEE ELEVATIONS FOR GLASS SCHEDULE.
13. ALL BOLLARDS TO BE PAINTED SAFETY YELLOW. (PROVIDE BOLLARDS AT ALL DRIVE-IN OVERHEAD DOOR JAMBS, FIRE PROTECTION RISERS, ELECTRICAL TRANSFORMERS AND EXPOSED ELECTRICAL PANELS).
14. ALL BOLLARDS SHALL BE 6" O.D. SCHEDULE 80 STEEL PIPE SET MINIMUM 2'-0" DEEP IN 2'-0" DIAMETER CONCRETE FOOTING WITH PIPE EXTENDED 4'-0" ABOVE PAVING OR FLOOR. FILL PIPE WITH CONCRETE AND CAP WITH PRECAST CONCRETE DOME TOP - FOOTING TO BE IN SONOTUBE.
15. ROOF ASSEMBLY: SINGLE PLY 45 MIL. WHITE TPO MEMBRANE SYSTEM MECHANICALLY FASTENED OVER R-15 ROOF INSULATION OVER 1-1/2" METAL DECK. 10-YEAR NDL WARRANTY. R-25 OVER OFFICE AREA.
16. ALL STAIRS AND RAILINGS TO BE GALVANIZED. ALL MISC. STEEL TO BE HD GALVANIZED FOR EXTERIOR APPLICATIONS. SHOP DE-BURR UNDERSIDE OF HANDRAILS. USE GALVANIZED PAINT TO TOUCH-UP FIELD WELDING AND SCRATCHES.
17. ALL SITE CAST CONCRETE PANEL WIDTHS ARE TO CENTERLINE OF CONCRETE PANEL VERTICAL JOINT U.N.O.
18. ALL TILT WALL PANELS SHALL BE CAULKED TO FULL HEIGHT, BOTH SIDES, WITH MASTERSEAL NP-2 POLYURETHANE SEALANT OR EQUAL WITH BACKER ROD BEHIND THE CAULK.
19. (EXTERIOR) ALL S.C.C.P. SHALL RECEIVE A TEXTURED ACRYLIC COATING SIMILAR TO SHERWIN WILLIAMS ULTRACRETE (MEDIUM TEXTURE) WITH ACCENT STRIPING. SEE ELEVATIONS.
20. (INTERIOR) ALL S.C.C.P. PANELS WILL BE HARD TROWEL FINISHED WITH CAPPED PICK AND BRACE POINTS. G.C. TO PROVIDE PRICING TO PAINT INTERIOR WALLS WITH ONE COAT OF LATEX PAINT - SW 7006 EXTRA WHITE.
21. PERSONNEL DOORS AND MISC. METALS SHALL RECEIVE ONE (1) PRIMER COAT AND ONE (1) FINISH COAT OF ENAMEL.PROVIDE FIRE DEPARTMENT ACCESS SIGNAGE PER DETAIL 9/A.002 AT EACH PERSONNEL DOOR.
22. TEST AND CONFIRM COMPLIANCE WITH THE INTERNATIONAL FIRE CODE SECTION 510 FOR EMERGENCY RESPONDER RADIO COVERAGE. IF REQUIRED BY TEST, PROVIDE AND INSTALL AN APPROVED SYSTEM BY A FCC LICENSED RADIO CONTRACTOR.



1 OVERALL FLOOR PLAN
SCALE: 1" = 30'-0"

PROJECT TRUE NORTH NORTH

ATLAS COLLABORATIVE

PINEVILLE DC - LOT 4

PINEVILLE, NC

Print Record
09 DECEMBER 2024 DESIGN REVIEW

Revisions

Issue Date 12/09/2024
Job No. pineville-lot4

Sheet Title
OVERALL FLOOR PLAN

Sheet No.
A-101

NOT ISSUED FOR CONSTRUCTION

SHEET NAME: OVERALL FLOOR PLAN SHEET NUMBER:A-101 PROJECT NAME:PINEVILLE DC - LOT 4

FILE PATH: Autodesk Docs://24 - Pineville_Lot4_Iconic/24-PINEVILLE_LOT4.rvt

SHEET NAME: ENTRY VIEW SHEET NUMBER:A-200 PROJECT NAME:PINEVILLE DC - LOT 4

FILE PATH: Autodesk Docs://24 - Pineville_Lot4_Ionic/24-PINEVILLE_LOT4.rvt

ATLAS COLLABORATIVE

PINEVILLE DC - LOT 4

PINEVILLE, NC

Print Record

09 DECEMBER 2024	DESIGN REVIEW

Revisions

Issue Date	*Job No.*
12/09/2024	pineville-lot4

Sheet Title

ENTRY VIEW

Sheet No.

A-200

NOT ISSUED FOR CONSTRUCTION

GLASS SCHEDULE

(A) 1" INSULATED	(B) 1" INSULATED	(C) 1" INSULATED
INNER PANE 1/4"	INNER PANE 1/4"	INNER PANE 1/4"
OUTER PANE 1/4"	OUTER PANE 1/4"	OUTER PANE 1/4"
INNER PANE HEAT STRENGTHENED	INNER PANE TEMPERED	INNER PANE TEMPERED
OUTER PANE HEAT STRENGTHENED	OUTER PANE TEMPERED	OUTER PANE TEMPERED
FABRICATOR: GUARDIAN GLASS	FABRICATOR: GUARDIAN GLASS	FABRICATOR: GUARDIAN GLASS
STYLE: SUNGUARD SN 68	STYLE: SUNGUARD SN 68	STYLE: SUNGUARD SN 68 WITH DECO HT
COLOR: GRAY-CLEAR	COLOR: GRAY-CLEAR	COLOR: GRAY-CLEAR
COATINGS: Low-E ON #2 SURFACE	COATINGS: Low-E ON #2 SURFACE	COATINGS: Low-E ON #2 SURFACE WITH #4 SURFACE BLACK SPANDREL
U-VALUE: .29	U-VALUE: .29	U-VALUE: -
SHGC: .25	SHGC: .25	SHGC: -

NOTE: PROJECTS LOCATED WITHIN A MILE OF THE COASTAL MEAN HIGH WATER LINE AND HAVE DESIGN WIND SPEEDS OVER 130 MPH ARE TO BE CONSIDERED WIND-BORNE DEBRIS REGIONS. PROVIDE IMPACT RATED GLASS IN WIND-BORNE DEBRIS REGIONS. G.C. TO CONFIRM.

EXTERIOR FINISH SCHEDULE

101	EXTERIOR TEXTURE COATING: PAINTED CONCRETE SHERWIN WILLIAMS ULTRACRETE OR EQUAL. MEDIUM TEXTURE. COLOR: TBD	COLOR LEGEND SEE ELEVATION
102	EXTERIOR TEXTURE COATING: PAINTED CONCRETE SHERWIN WILLIAMS ULTRACRETE OR EQUAL MEDIUM TEXTURE. COLOR: TBD	COLOR LEGEND SEE ELEVATION
103	EXTERIOR TEXTURE COATING: PAINTED CONCRETE SHERWIN WILLIAMS ULTRACRETE OR EQUAL MEDIUM TEXTURE. COLOR: TBD	COLOR LEGEND SEE ELEVATION
104	PRE-FINISHED METAL GRAVEL STOP, GUTTER, COPING, AND DOWNSPOUTS COLOR: PAC-CLAD - TBD	
105	ALUMINUM STOREFRONT/CURTAIN WALL AS MANUFACTURED BY KAWNEER COLOR: CLEAR ANODIZED	
106	JOINT SEALER: ALUM. STOREFRONT TREMCO DYMERIC 240FC OR EQUAL COLOR: ANODIZED ALUMINUM	
107	JOINT SEALER: S.C.C.P. JOINTS MASTERSEAL NP-2 POLYURETHANE OR EQUAL COLOR: TBD	
108	EXPOSED METAL DOORS & FRAMES COLOR: PAINTED TO MATCH (102)	
109	PRE-ENGINEERED METAL CANOPY COLOR: TBD	
110	PRE-ENGINEERED BULLNOSE CANOPY COLOR: PAC-CLAD - TBD	

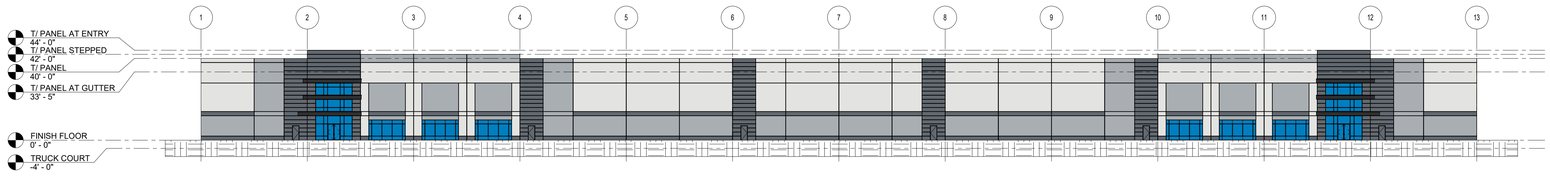
GENERAL NOTES

1. ALL GLASS TO BE TYPE "A" U.N.O. ALL GLASS IN DOORS TO BE TEMPERED.
2. ALL GLASS WITHIN 2' OF DOOR SWING TO BE TEMPERED.
3. KAWNEER TRI-FAB 451 BASIS OF DESIGN FOR STOREFRONT.
4. STOREFRONT SYSTEMS TO BE DESIGNED TO MEET ALL LOCAL AND DESIGN LOADS. SEE STRUCTURAL DRAWINGS FOR DESIGN LOAD REQUIREMENTS.
5. EXTERIOR WALL PACKS ARE INCLUDED - SEE ELECTRICAL DRAWINGS FOR LOCATIONS.
6. REVEALS SHALL WRAP EXPOSED PANEL EDGES AND EXPOSED BACK SIDES U.N.O.

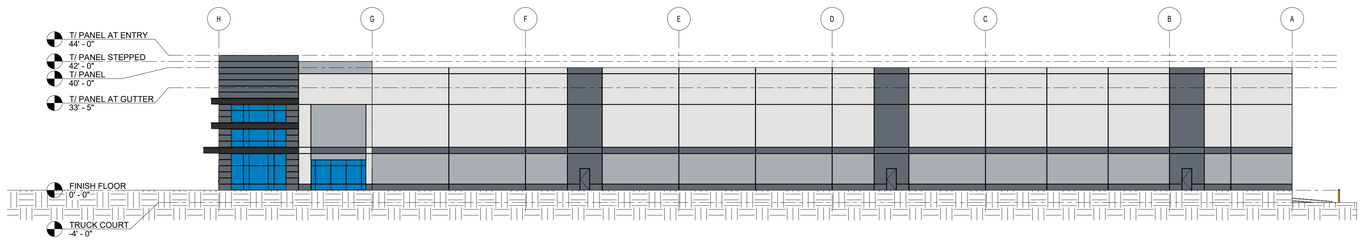
KEYNOTES

- E1 CONCRETE SERVICE RAMP, SEE 12/A-401
- E2 STAIR AND GUARDRAIL, TYP. SEE 6/A-401, 8/A-401, 10/A-401
- E3 DOCK BUMPER - SEE WALL SECTIONS
- E4 PIPE DOWNSPOUTS THRU RAMP TO TRUCK COURT. PROVIDE BIRD SCREEN AT RAMP WALL
- E5 LOUVER - SEE MECHANICAL DRAWINGS
- E6 LED WALL PACK - SEE ELECTRICAL DRAWINGS

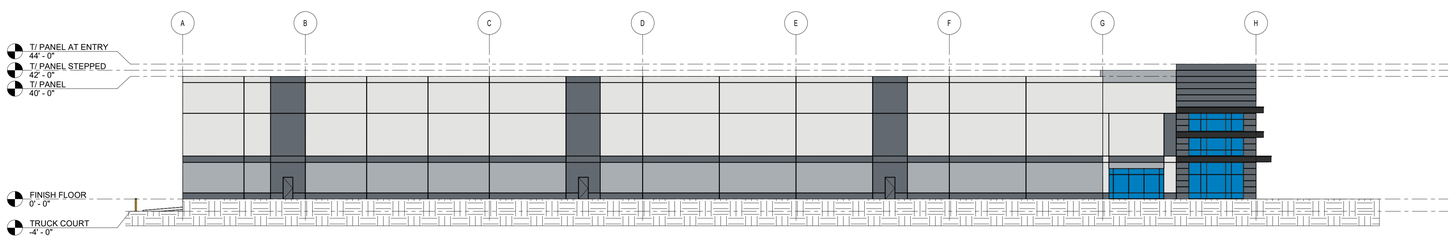
1 OVERALL NORTH ELEVATION
SCALE: 1" = 30'-0"



2 OVERALL SOUTH ELEVATION
SCALE: 1" = 30'-0"



3 OVERALL EAST ELEVATION
SCALE: 1" = 20'-0"



4 OVERALL WEST ELEVATION
SCALE: 1" = 20'-0"

ATLAS COLLABORATIVE

PINEVILLE DC - LOT 4

PINEVILLE, NC

Print Record

09 DECEMBER 2024 DESIGN REVIEW

Revisions

Issue Date 12/09/2024

Job No. pineville-lot4

Sheet Title

EXTERIOR ELEVATIONS

Sheet No.

A-201

NOT ISSUED FOR CONSTRUCTION

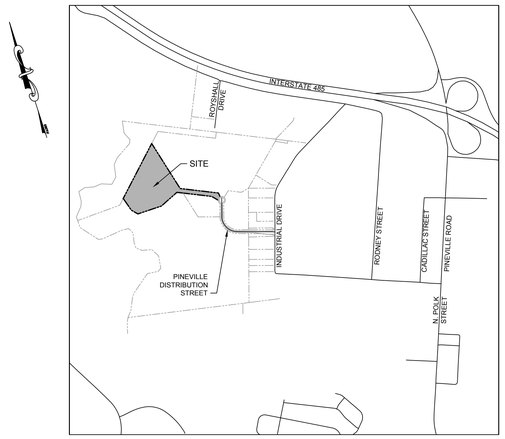
SHEET NAME: EXTERIOR ELEVATIONS SHEET NUMBER:A-201 PROJECT NAME:PINEVILLE DC - LOT 4

FILE PATH: Autodesk Docs://24 - Pineville_Lot4_Iconic/24-PINEVILLE_LOT4.rvt

PINEVILLE DISTRIBUTION LOT 4
CONDITIONAL ZONING PLAN

PINEVILLE, NORTH CAROLINA

ACCELA



VICINITY MAP

SCALE: 1" = 1,000'

Sheet List Table

Sheet Number	Sheet Title
C-000	COVER
V-100	SURVEY
C-100	CONDITIONAL ZONING SITE PLAN
L-100	LANDSCAPE PLAN
LI-100	LIGHTING PLAN

DEVELOPER

ICONIC EQUITIES
1508 BAY ROAD, UNIT 1105
MIAMI BEACH, FL 33139
CONTACT: TURNER FORTIN
PHONE: 404.863.9931
EMAIL: TURNER@ICONICEQUITIESGROUP.COM

PROPERTY OWNERS

PARCEL ID: 20507120
CONCORD CALIFORNIA ASSOCIATES, LLC
11062 WINNETKA AVE
CHATSWORTH, CA 91311

CIVIL/LANDSCAPE

TIMMONS GROUP
610 E. MOREHEAD STREET, SUITE 250
CHARLOTTE, NC 28202
ENGINEER OF RECORD: ANDREW ALLISON, P.E.
PHONE: 704.227.1564
EMAIL: ANDREW.ALLISON@TIMMONS.COM

NOT FOR CONSTRUCTION

THIS DRAWING PREPARED AT THE
CHARLOTTE OFFICE
610 E. Morehead Street, Suite 250 | Charlotte, NC 28202
TEL 704.602.8600 FAX 704.376.1076 www.timmons.com
North Carolina License No. C-1652

ICONIC EQUITIES
1508 BAY ROAD, UNIT 1105
MIAMI BEACH, FL 33139

REVISION DESCRIPTION

DATE

DATE: 12/18/2024
DRAWN BY: E. SCANLON
DESIGNED BY: E. SCANLON
CHECKED BY: A. ALLISON
SCALE: AS SHOWN

YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

PINEVILLE DISTRIBUTION STREET - LOT 4

PINEVILLE, NORTH CAROLINA

COVER

JOB NO. 70628

SHEET NO. C-000

North Carolina 811 www.nc811.org

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAG MEN, ETC. AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION AND TOWN OF PINEVILLE UTILITY DEPARTMENT SPECIFICATIONS.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

UTILITIES:

POWER
DUKE ENERGY
1-800-777-9898

TELEPHONE
BELL SOUTH TELECOMMUNICATIONS
1-888-757-6500

WATER & SEWER
CHAR.-MECK. UTILITY DEPT. (CMUD)
(704) 336-2564 WATER
(704) 357-6064 SEWER

GAS
PIEDMONT NATURAL GAS CO.
1-800-752-7504

CABLE TELEVISION
TIME WARNER CABLE
1-800-892-2253

811 Know what's below. Call before you dig.

NOTES:

1. *THIS PLAT IS NOT FOR RECORDATION AS PER G.S. 47-30 AS AMENDED.*
2. *ALL CORNERS MONUMENTED AS SHOWN.*
3. *NO RECOVERABLE NGS MONUMENT LOCATED WITHIN 2,000 FEET OF SUBJECT PROPERTY.*
4. *THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS MAP IS APPROXIMATE, BASED ON INFORMATION PROVIDED BY OTHERS OR BY FIELD LOCATION. UTILITY LOCATIONS AS SHOWN HEREON ARE INTENDED FOR PLANNING ONLY. ACTUAL LOCATION, SIZE, OR DEPTH OF LINE SHOULD BE VERIFIED WITH THE INDIVIDUAL UTILITY COMPANY BEFORE CONSTRUCTION.*
5. *ELEVATIONS BASED ON N.G.S. MONUMENT "LOWES", ELEVATION = 630.58 FEET, NAVD 88.*
6. *BROKEN LINES UNLESS THEY HAVE A METES AND BOUNDS DESCRIPTION, INDICATE PROPERTY LINES NOT SURVEYED.*
7. *THE OFF-SITE RIGHT-OF-WAY SHOWN HEREON IS FOR ILLUSTRATIVE PURPOSES ONLY. THE UNDERSIGNED CERTIFIES ONLY TO THE RIGHT-OF-WAYS SURVEYED, AND DOES NOT CERTIFY TO THE RIGHT OF WAY WIDTH OF ANY ADJACENT PROPERTIES.*
8. *THIS SURVEY WAS PERFORMED WITHOUT BENEFIT OF A TITLE COMMITMENT REPORT. R.B. PHARR & ASSOCIATES, P.A. DOES NOT CLAIM THAT ALL MATTERS OF RECORD WHICH MAY OR MAY NOT AFFECT THE SUBJECT PROPERTY ARE SHOWN HEREON.*
9. *THE PURPOSE OF THIS MAP IS TO SHOW TOPOGRAPHIC AND PHYSICAL IMPROVEMENTS ONLY. NO BOUNDARY SURVEY WAS COMPLETED OR CERTIFIED TO AT THE DATE OF THIS SURVEY. ALL BOUNDARY INFORMATION SHOWN HERON IS PER MAP BOOK 65, PAGE 794 (R.B.PHARR & ASSOCIATES JOB NOS. 88717 & 89393).*
10. *ALL TOPOGRAPHIC AND PHYSICAL IMPROVEMENTS AS SHOWN HEREON ARE BASED ON A SURVEY BY R.B.PHARR & ASSOCIATES DATED OCTOBER 8, 2017 (JOB NO. 87009).*

LINE LEGEND:

EASEMENT
FENCE
GUARD RAIL
PROPERTY LINE (PER RECORDS)
ADJACENT PROPERTY LINE (PER RECORDS)
RIGHT-OF-WAY
RIGHT-OF-WAY (NOT SURVEYED)
SETBACK
CABLE TV LINE
FIBER OPTIC LINE
GAS LINE
POWER LINE
POWER LINE (UNDERGROUND)
SANITARY SEWER PIPE
STORM DRAIN PIPE
STORM DRAIN PIPE >12"
TELEPHONE LINE
TELEPHONE LINE (UNDERGROUND)
WATER LINE
WOOD FENCE

ZONING:

SUBJECT PROPERTY ZONED: G-1 (GENERAL INDUSTRIAL DISTRICT)

TO BE DEVELOPED IN ACCORDANCE TO APPROVED CONDITIONAL PLAN 5.8.18.

FOR FURTHER INFORMATION CONTACT THE TOWN OF PINEVILLE ZONING DEPARTMENT AT 704-889-2202.

LEGEND:

C&G - CURB & GUTTER
CB - CATCH BASIN
CMP - CORRUGATED METAL PIPE
CP - CALCULATED POINT
CPP - CORRUGATED PLASTIC PIPE
C/O - CLEAN OUT
D.B. - DEED BOOK
DI - DROP INLET
DIP - DUCTILE IRON PIPE
ECM - EXISTING CONCRETE MONUMENT
EIP - EXISTING IRON PIPE
EIR - EXISTING IRON ROD
EMM - EXISTING METAL MONUMENT
EN - EXISTING NAIL
EU - END UNKNOWN
FFE - FINISHED FLOOR ELEVATION
FH - FIRE HYDRANT
GDP - GUARD POST
GM - GAS METER
GP - GATE POST
GV - GAS VALVE
GW - GUY WIRE
HVAC - HEATING, VENTILATION, AIR COND.
HW - HEADWALL
ICV - IRRIGATION CONTROL VALVE
JBX - JUNCTION BOX
LMP - LAMP POST
LP - LIGHT POLE
(M) - MEASURED
MBX - MAILBOX
M.B. - MAP BOOK
N.G.S. - NATIONAL GEODETIC SURVEY
NIR - NEW IRON ROD
NN - NEW NAIL
O/HANG - OVERHANG
PB - POWER BOX
PIN - PARCEL IDENTIFICATION NUMBER
PM - POWER METER
PP - POWER POLE
PG. - PAGE
PVC - PLASTIC PIPE
(R) - RECORDED
R/W - RIGHT-OF-WAY
RCP - REINFORCED CONCRETE PIPE
SDMH - STORM DRAIN MANHOLE
SSMH - SANITARY SEWER MANHOLE
(T) - TOTAL
TB - TELEPHONE BOX
TERR. - TERRACOTTA PIPE
WB - WATER BOX
WM - WATER METER
WV - WATER VALVE

VICINITY MAP
NOT TO SCALE

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

GPS CERTIFICATION:

I, C. CLARK NEILSON, CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

(1) CLASS OF SURVEY: A(1:10,000)
(2) POSITIONAL ACCURACY: HORZ. NORTH=0.00055, EAST=0.01185, VERT.=0.00925
(3) TYPE OF GPS FIELD PROCEDURE: REAL-TIME KINEMATIC
(4) DATES OF SURVEY: 11/30/2016
(5) DATUM/EPOCH: NAD 83
(6) PUBLISHED/FIXED-CONTROL USE: NGS MONUMENT "LOWES"
(7) GEOID MODEL: GEOID12B(CONUS)
(8) COMBINED GRID FACTOR(S): 0.99984905
(9) UNITS: US SURVEY FEET

FLOOD CERTIFICATION

THIS IS TO CERTIFY THAT THE SUBJECT PROPERTY IS PARTIALLY LOCATED IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON MAPS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FEDERAL INSURANCE ADMINISTRATION, DATED SEPTEMBER 2, 2015 *MAP NUMBER:* 3710443900L *ZONE "AE" & "X"*

THIS IS TO CERTIFY THAT ON THE 3RD *DAY OF* FEBRUARY 20 23 *THIS MAP WAS PREPARED UNDER MY SUPERVISION AND THAT NO BOUNDARY WAS PERFORMED IN ITS PREPARATION. THE PURPOSE OF THIS MAP IS TO SHOW TOPOGRAPHICAL AND PHYSICAL FEATURES ONLY, AND IT DOES NOT MEET THE MINIMUM STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA, BOARD RULE .1600 (21 NCAC 56), AND IS NOT INTENDED TO BE USED FOR RECORDATION, CONVEYANCES, OR SALES. HOWEVER THE POSITIONAL AND VERTICAL ACCURACY OF THE PHYSICAL AND TOPOGRAPHICAL FEATURES SHOWN ARE RELIABLE AND MEET THE ACCURACY STANDARDS OF THE AFORESAID STANDARDS OF PRACTICE.*

SIGNED C. Clark Nelson

NORTH CAROLINA PROFESSIONAL LAND SURVEYOR SEAL L-3212 C. CLARK NEILSON

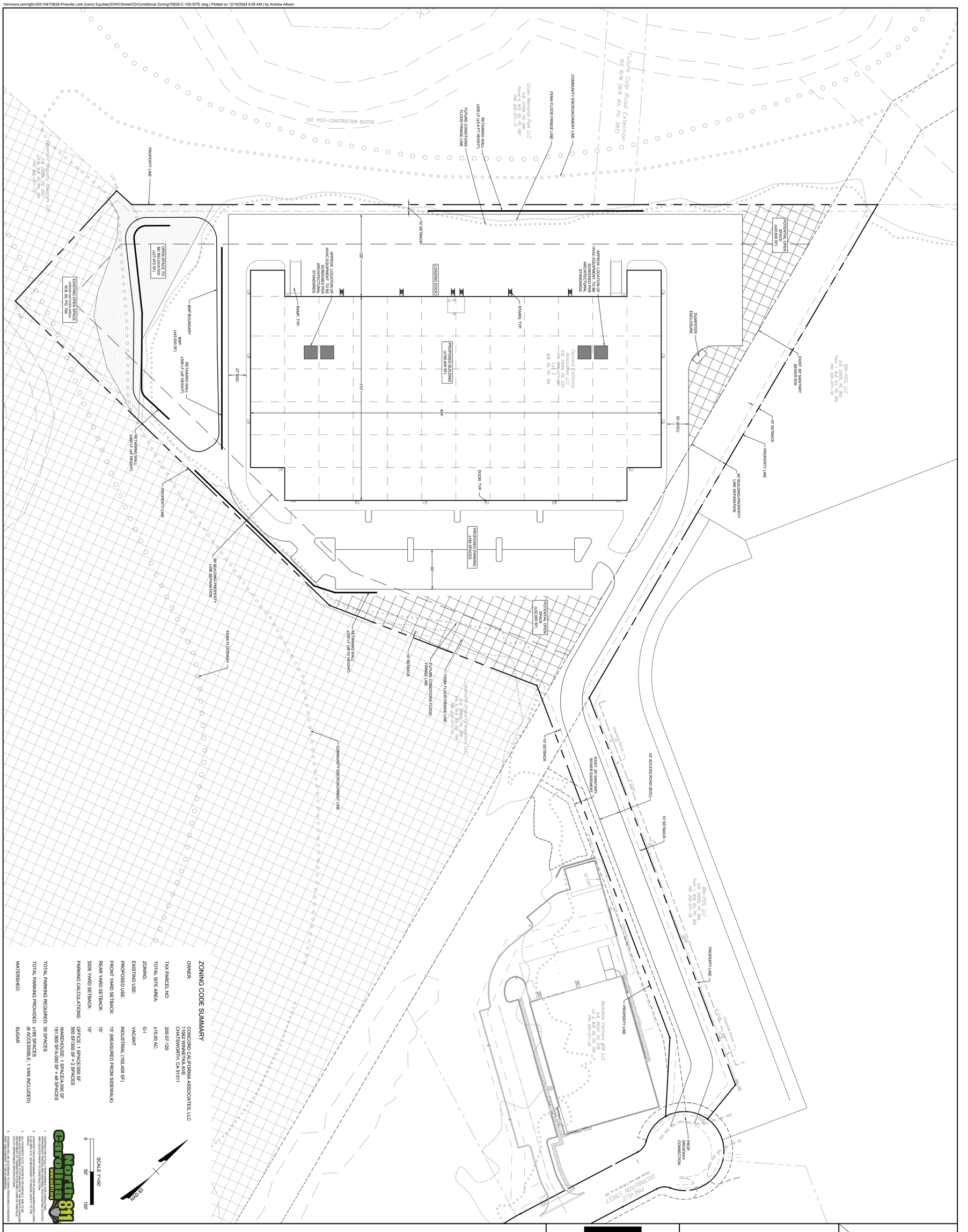
REVISIONS
2/10/23 TO REMOVE 20' UTILITY EASEMENT.
7/3/24: TO ADD ADDITIONAL PHYSICAL IMPROVEMENTS & TOPO.

TOPOGRAPHIC SURVEY PREPARED FOR:
FICUS PARTNERS
PINEVILLE DISTRIBUTION STREET
TOWN OF PINEVILLE, MECKLENBURG COUNTY, NC
DEED REFERENCE: BOOK 33946, PAGE 533
MAP REFERENCE: BOOK 65, PAGE 794
TAX PARCEL NO: 205-071-20

R.B. PHARR & ASSOCIATES, P.A.
SURVEYING & MAPPING
LICENSURE NO. C-1477
969 E. 7TH STREET, SUITE 100, CHARLOTTE, N.C. 28204 ~ TEL. (704) 376-2186

CREW:	DRAWN:	REVISED:	SCALE:	DATE:	JOB NO.
NC/MH	NJM	NJM	1" = 60'	FEB 3, 2023	95956

PLOTTED: 2/10/23
C:\CARLSON PROJECTS\95\95956\DWG\95956.DWG



ZONING CODE SUMMARY

OWNER:	CONCORD CALIFORNIA ASSOCIATES, LLC 11082 WINNETKA AVE CHATSWORTH, CA 91311
TAX PARCEL NO:	205-071-20
TOTAL SITE AREA:	±15.00 AC.
ZONING:	G-I
EXISTING USE:	VACANT
PROPOSED USE:	INDUSTRIAL (192,400 SF)
FRONT YARD SETBACK:	15' (MEASURED FROM SIDEWALK)
REAR YARD SETBACK:	10'
SIDE YARD SETBACK:	10'
PARKING CALCULATIONS:	OFFICE: 1 SPACE/350 SF 500 SF/350 SF = 2 SPACES WAREHOUSE: 1 SPACE/4,000 SF 191,900 SF/4,000 SF = 48 SPACES
TOTAL PARKING REQUIRED:	50 SPACES
TOTAL PARKING PROVIDED:	±185 SPACES (6 ACCESSIBLE, 1 VAN INCLUDED)
WATERSHED:	SUGAR

1. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL APPROPRIATE UTILITY COMPANIES AND ASCERTAINING THE EXISTENCE OF ANY UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR FLAGGING IMPROVEMENTS USING PAINT, STAKES, ETC. AS NECESSARY TO ENSURE SAFETY TO THE PUBLIC.
3. BEARINGS ACCORDING TO NAD83/2011 NORTH CAROLINA STATE PLANE COORDINATES AS ESTABLISHED BY THE NORTH CAROLINA GEODETIC SURVEY. ELEVATIONS ARE BASED ON THE TOWN OF PINEVILLE UTILITY DEPARTMENT SPECIFICATIONS.
4. BOUNDARY SURVEY PERFORMED BY TIMMONS GROUP. SEE SURVEY FOR ADDITIONAL INFORMATION.

North Carolina 811 www.nc811.org

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

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ICONIC EQUITIES
1508 BAY ROAD, UNIT 1105
MIAMI BEACH, FL 33139

THIS DRAWING PREPARED AT THE
CHARLOTTE OFFICE
610 E. Morehead Street, Suite 250 | Charlotte, NC 28202
TEL 704.602.8600 FAX 704.376.1076 www.timmons.com
North Carolina License No. C-1652

NOT FOR CONSTRUCTION

PINEVILLE DISTRIBUTION STREET - LOT 4

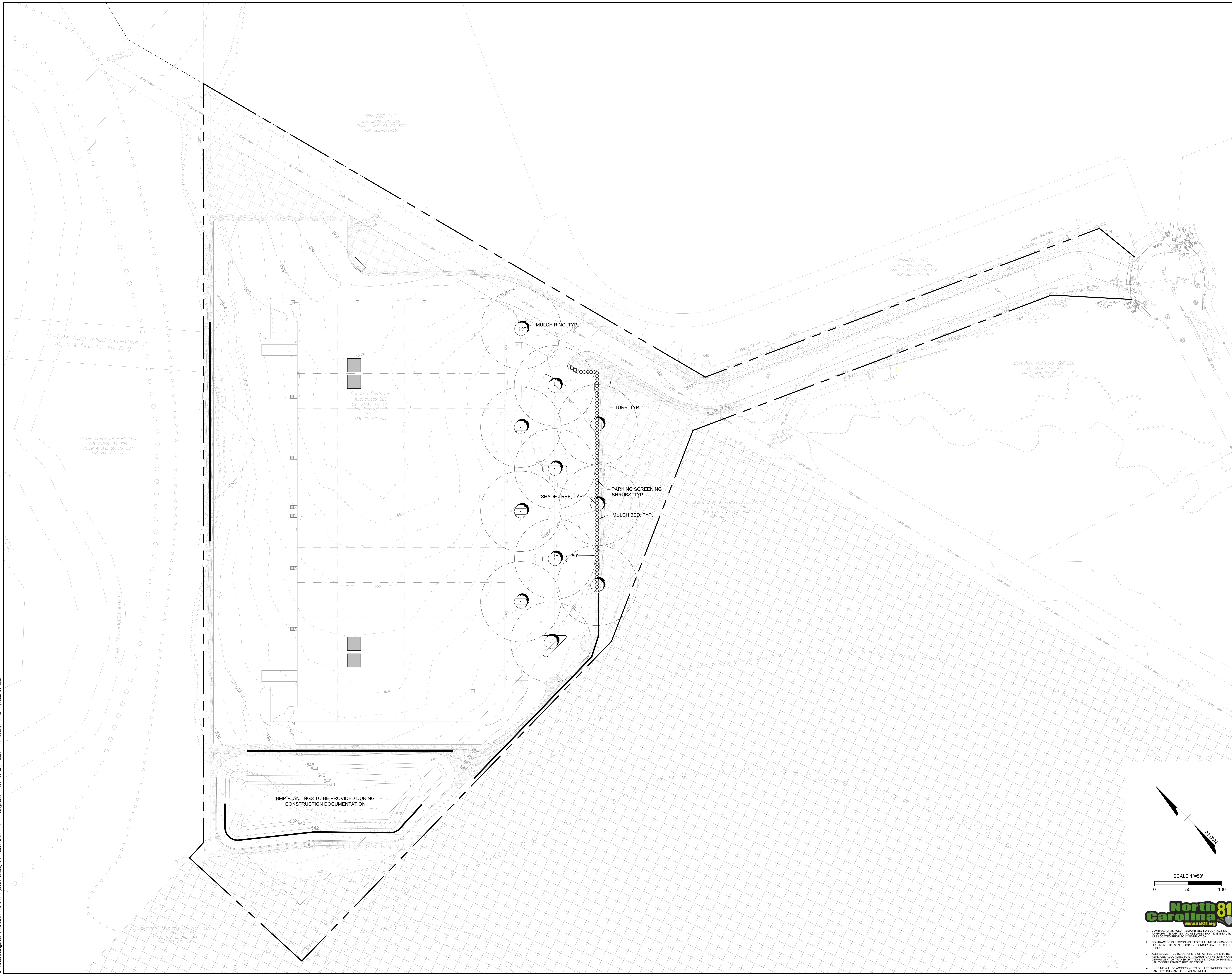
PINEVILLE, NORTH CAROLINA

CONDITIONAL ZONING SITE PLAN

SHEET NO.	C-100
JOB NO.	70628
SCALE	1" = 50'
CHECKED BY	A. ALLISON
DESIGNED BY	E. SCANLON
DRAWN BY	E. SCANLON
DATE	12/18/2024

DATE	REVISION DESCRIPTION

Item 2



SCALE 1"=50'
0 50' 100'

www.nc811.org

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAG MEN, ETC. AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION AND TOWN OF PINEVILLE UTILITY DEPARTMENT SPECIFICATIONS.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

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ICONIC EQUITIES
1508 BAY ROAD, UNIT 1105
MIAMI BEACH, FL 33139

DATE	REVISION DESCRIPTION

DATE: 12/18/2024
DRAWN BY: E. SCANLON
DESIGNED BY: E. SCANLON
CHECKED BY: A. ALLISON
SCALE: 1" = 50'

TIMMONS GROUP
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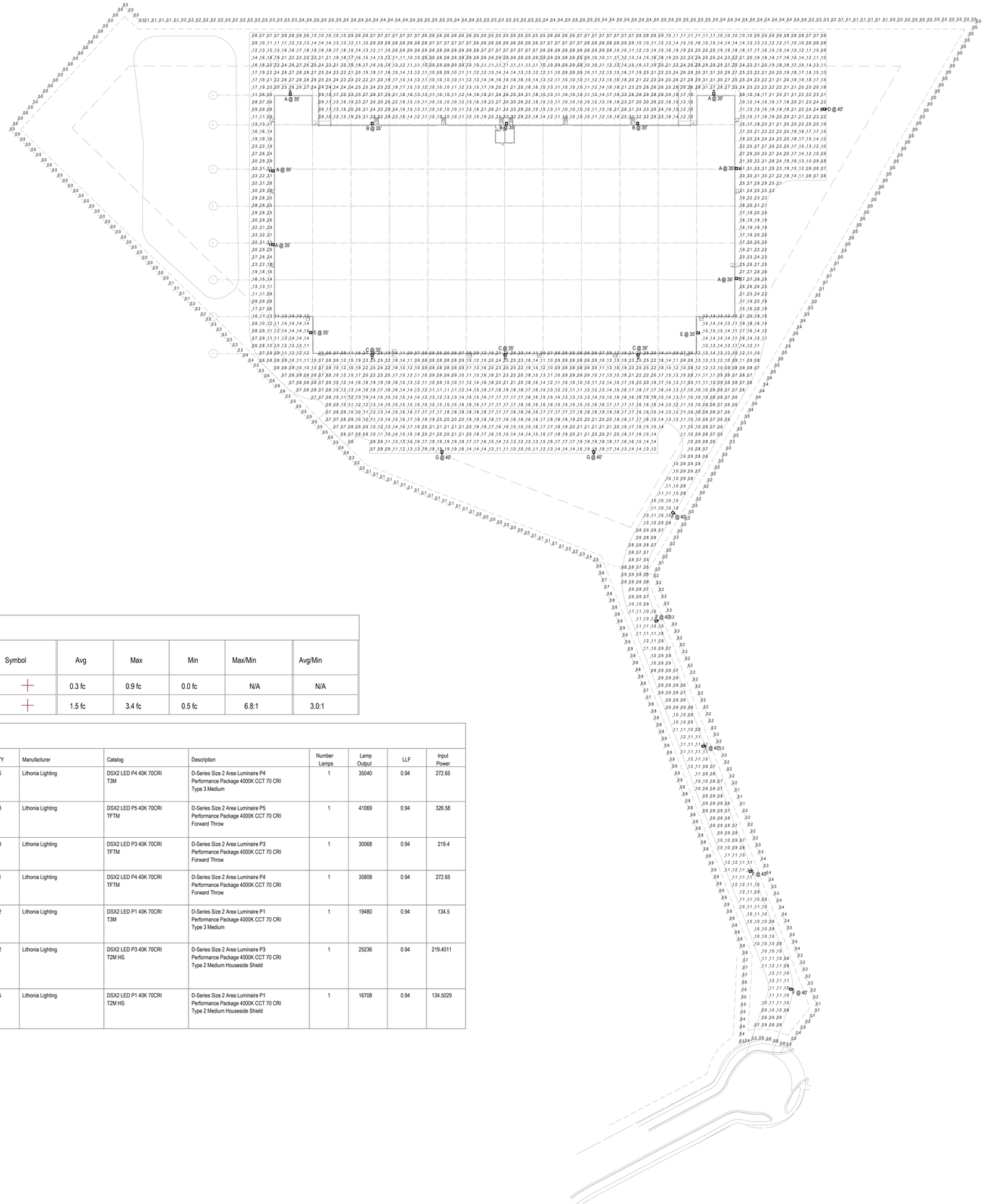
NORTH CAROLINA LICENSE NO. C-1652

PINEVILLE DISTRIBUTION STREET - LOT 4
PINEVILLE, NORTH CAROLINA
LANDSCAPE PLAN

JOB NO. 70628
SHEET NO. L-100



Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
property line	+	0.3 fc	0.9 fc	0.0 fc	N/A	N/A
PARKING	+	1.5 fc	3.4 fc	0.5 fc	6.8:1	3.0:1

Schedule

Symbol	Label	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power
	A	6	Lithonia Lighting	DSX2 LED P4 40K 70CRI T3M	D-Series Size 2 Area Luminaire P4 Performance Package 4000K CCT 70 CRI Type 3 Medium	1	35040	0.94	272.65
	B	3	Lithonia Lighting	DSX2 LED P5 40K 70CRI TFTM	D-Series Size 2 Area Luminaire P5 Performance Package 4000K CCT 70 CRI Forward Throw	1	41069	0.94	326.58
	C	3	Lithonia Lighting	DSX2 LED P3 40K 70CRI TFTM	D-Series Size 2 Area Luminaire P3 Performance Package 4000K CCT 70 CRI Forward Throw	1	30068	0.94	219.4
	D	1	Lithonia Lighting	DSX2 LED P4 40K 70CRI TFTM	D-Series Size 2 Area Luminaire P4 Performance Package 4000K CCT 70 CRI Forward Throw	1	35808	0.94	272.65
	E	2	Lithonia Lighting	DSX2 LED P1 40K 70CRI T3M	D-Series Size 2 Area Luminaire P1 Performance Package 4000K CCT 70 CRI Type 3 Medium	1	19480	0.94	134.5
	G	2	Lithonia Lighting	DSX2 LED P3 40K 70CRI T2M HS	D-Series Size 2 Area Luminaire P3 Performance Package 4000K CCT 70 CRI Type 2 Medium Houseside Shield	1	25236	0.94	219.4011
	F	5	Lithonia Lighting	DSX2 LED P1 40K 70CRI T2M HS	D-Series Size 2 Area Luminaire P1 Performance Package 4000K CCT 70 CRI Type 2 Medium Houseside Shield	1	16708	0.94	134.5029

1 SITE PHOTOMETRICS

SCALE: 1" = 60'-0"

Jordan & Skala Engineers
4275 Shackleford Rd., ● Suite 200
Norcross, GA 30093-2997
p. 770.447.5547 ● f. 770.448.0262

Project Number:24010779
Drawn By:XXX Checked By:XXX

PINEVILLE
LOT 4

PRINT RECORD

DATE	ISSUED FOR
12/17/24	ISSUED FOR REVIEW

REVISIONS

⚠	DATE	DESCRIPTION

SHEET TITLE
SITE PHOTOMETRICS

SHEET NUMBER
E-101P

ISSUED FOR REFERENCE ONLY

Pineville
PLANNING & ZONING

Submit to Planning Department, 200 Dover St, Pineville, NC 28134
Phone (704) 889-2291 Fax (704) 889-2293

Office Use Only:

Application #:

Payment Method: Cash___ Check___ Credit Card___ Amount $_____ Date Paid_____

Zoning Application

Note: Application will not be considered until all required submittal components listed have been completed

Applicant's Name: Iconic Equities attn: Turner Fortin Phone: 404.863.9931

Applicant's Mailing Address: 1508 Bay Road, Unit 1105, Miami Beach, FL 33139

Property Information:

Property Location: 10203 Pineville Distribution St, Pineville, NC 28134

Property Owner's Mailing Address: 11062 Winnetka Ave, Chatsworth, CA 91311

Property Owner Name: Concord California Associates, LLC (Rishi Kapadia) Phone: 818.230.7609

Tax Map and Parcel Number: 20507120 Existing Zoning: G-I

Which are you applying (Check all that apply):

Rezoning by Right _____ Conditional Zoning X Conditional Rezoning _____ Text Amendment _____

Fill out section(s) that apply:

Rezoning by Right:

Proposed Rezoning Designation _____

Conditional Zoning:

Proposed Conditional Use Industrial

Acreage 15.0 Square Feet 194,382 Approximate Height 44 # of Rooms N/A

Parking Spaces Required 50 Parking Spaces Provided 185 **Please Attach Site Specific Conditional Plan

Conditional Rezoning:

Proposed Conditional Rezoning Designation _____

Text Amendment:

Section _____ Reason _____

Proposed Text Change (Attach if needed) _____

I do hereby certify that all information which I have provided for this application is, to the best of my knowledge, correct.

Turner Fat
Signature of Applicant — 12/11/2024 Date

Kishan Kapadia
Signature of Property Owner (If not Applicant) — 12/11/2024 Date

_____
Signature of Town Official — Date

Pineville Industrial Development

Traffic Impact Analysis

Pineville, North Carolina

January 12, 2018

Prepared for:

MPV Properties, LLC

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS

Contact: Cliff Lawson, PE, PTOE

5410 Trinity Road, Suite 102 • Raleigh, NC 27607
(919) 866-4951 phone • (919) 859-5663 fax
www.timmons.com

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APPENDICES

1 INTRODUCTION

This report presents the findings of the traffic impact analysis for the proposed Pineville Industrial Development (Phases I and II). The development will be located off Industrial Drive, in Pineville, NC (see **Figure 1-1**) and will consist of a 510,000 square-foot (SF) warehousing building to be constructed in 2019 as part of Phase I and a 340,000 SF industrial building to be constructed in 2024 as part of Phase II.

Analyses were completed for the 2017 Existing traffic volumes and the 2019 and 2024 (Phases I & II) Background and Build traffic volumes (background + site trips). The purpose of this assessment is as follows:

1. Verify that the existing geometry provided within the study area is sufficient to accommodate the projected traffic volumes; and

2. Determine what, if any, improvements are necessary at the proposed site driveway connection to Industrial Drive, the intersections of Industrial Drive / Pineville Road / Polk Street and Industrial Drive / Rodney Street, as well as the two railroad crossings of Industrial Drive.

The following steps were taken to determine the potential traffic impacts associated with this project:

1. Data Collection – AM (7:00 – 9:00) and PM (4:00 – 6:00) peak hour turning movement counts were collected in May and October 2017 at the following four (4) intersections / crossings:

   - Industrial Drive / Pineville Road / Polk Street (signalized);
   - Industrial Drive / Rodney Street (unsignalized);
   - Industrial Drive / Northern Railroad Crossing* (unsignalized); and
   - Industrial Drive / Southern Railroad Crossing*(signalized);

*Railroad Crossings of Industrial Drive.

2. Trip Generation/Future Traffic – Traffic generated by the proposed development was estimated using the 9th edition of the Institute of Transportation Engineers' *Trip Generation Manual*. Trip generation was calculated using the total square footage (510,000 SF & 340,000 SF respectively) as the independent variable, as well as the average rate and the equation (per NCDOT guidelines). Projected future traffic volumes were calculated using a 2% ambient growth rate and site trips from the adjacent residential development

3. Trip Distribution and Projections – The distribution of site-generated trips was based on the distribution of existing area traffic. It was assumed, for purposes of analysis, that projected trips would follow the same patterns as existing traffic.

4. Traffic Capacity Analysis – Level of service analyses were performed using SYNCHRO Version 9.1 (Build 912, Rev 4) for the following intersections:

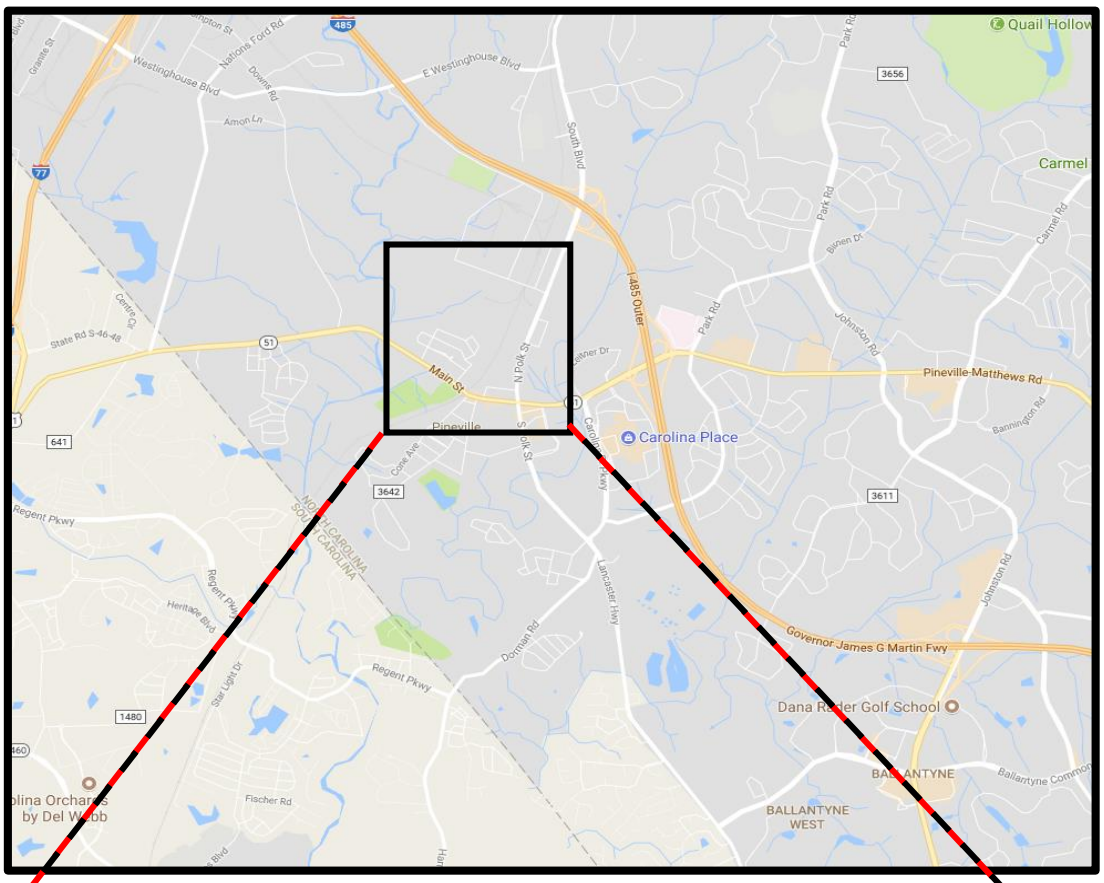
   - Industrial Drive / Pineville Road / Polk Street;
   - Industrial Drive / Rodney Street; and
   - Site Driveway #1 / Industrial Drive.

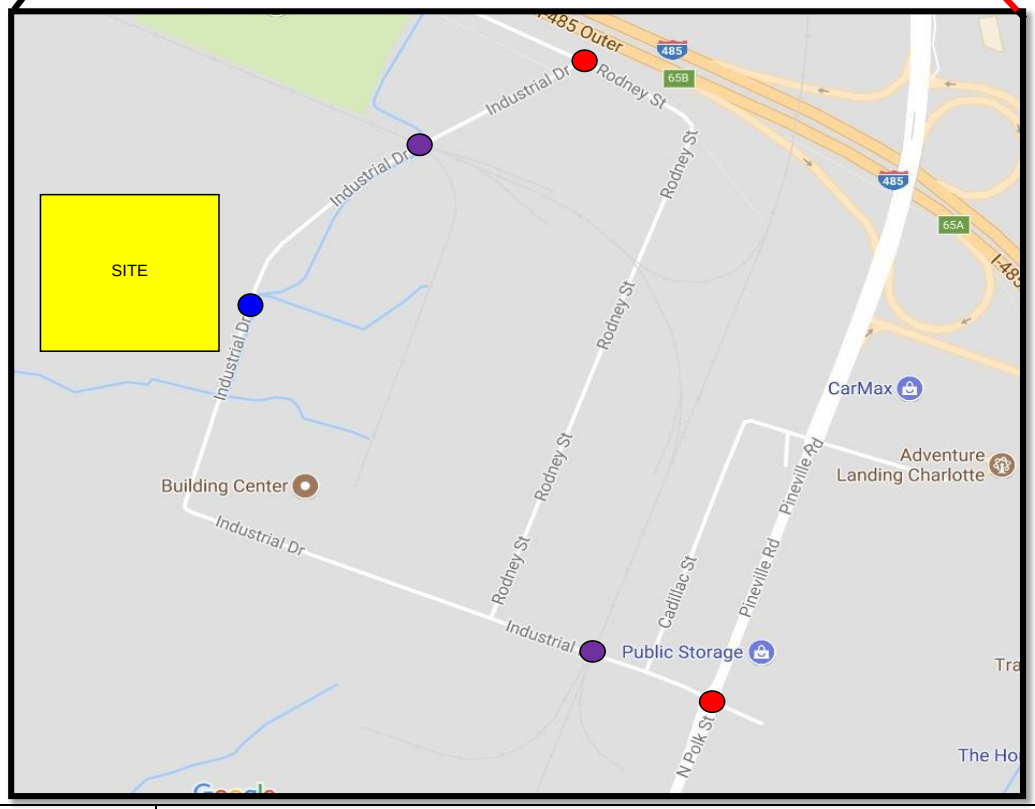
Additionally, queue lengths along industrial drive were observed / recorded to determine if there were any impacts to the two railroad crossings with Industrial Drive.

5. Queuing Analysis – The 95th percentile queue lengths from the capacity analyses were analyzed at the intersections listed above.

6. Review of Proposed Improvements – Roadway / railroad crossing improvements proposed to accommodate projected site-generated traffic were evaluated (if applicable).

NOT TO SCALE





Legend

- = Study Area Intersection
- = Driveway Intersection
- = Railroad Crossing

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Pineville Industrial Development Traffic Impact Analysis

Site Location Map

Figure 1-1

2 EXISTING INFORMATION

The proposed development will be located off Industrial Drive west of Polk Street / Pineville Road, in Pineville, NC, as shown on **Figure 1-1**.

2.1 STUDY LIMITS

Access to the proposed site will be provided through one site driveway connection to the outside roadway network made via Industrial Drive (Site Driveway #1). Site Driveway #1 will be located approximately 2,500' (C/L to C/L) south of Rodney Street, approximately 1,650' (C/L to C/L) south of the northern railroad crossing, and approximately 2,715' (C/L to C/L) northwest of the southern railroad crossing. The northern railroad crossing is located approximately 875' (C/L to C/L) south of Rodney Street. Finally, the southern railroad crossing is located approximately 600' (C/L to C/L) west of Pineville Road / Polk Street.

The proposed entrance is shown graphically on **Figure 2-1** (all figures are located at the end of their respective chapter). **Figure 2-2** includes the preliminary site layout for the industrial development.

The study limits include the following five (5) intersections / crossings:

1. Industrial Drive / Pineville Road / Polk Street
2. Industrial Drive / Rodney Street
3. Industrial Drive / Southern Railroad Crossing*
4. Industrial Drive / Northern Railroad Crossing*
5. Site Driveway #1 / Industrial Drive

*Existing railroad crossing of Industrial Drive.

2.2 EXISTING ROADWAYS

SR 4982 (Polk Street / Pineville Road) is a four-lane facility that runs north-south, east of the project study area. The facility has a posted 45-mph speed limit and serves residential and commercial developments as well as commuter traffic. Polk Street / Pineville Road stretches from downtown Charlotte (beginning as Caldwell Street) southward to US-521 (changing names to Lancaster Highway).

Industrial Drive is a two-lane facility that runs approximately north-south in front of the proposed site before turning east-west to intersect Pineville Road / Polk Street. The facility has a posted 35-mph speed limit and primarily services the existing industrial park. Industrial Drive runs from Rodney Street to the northwest to Polk Street / Pineville Road to the east.

Rodney Street is a two-lane facility that runs approximated east-west, north of the project study area. The facility has a posted 35-mph speed limit and primarily services the existing industrial park. Rodney Street runs from Industrial Drive in the south to E Westinghouse Boulevard in the northwest.

2.3 EXISTING INTERSECTIONS / RAILROAD CROSSINGS

Using available aerial imagery and site visits, Timmons Group compiled the existing geometry for each of the study area intersections. The existing intersection geometry is shown on **Figure 2-3** and used throughout all analyses.

Polk Street / Pineville Road / Industrial Drive is an eight-phase signalized intersection with protected / permitted left-turn phasing for all four approaches. The north and southbound intersection approaches each include an exclusive left-turn lane, a through lane, and a shared through / right-turn lane. The east

and westbound approaches each include an exclusive left-turn lane and a shared through / right-turn lane.

Industrial Drive / Rodney Street is an unsignalized T-intersection with the northbound Industrial Drive approach encountering the stopped condition. The northbound approach consists of a shared left / right-turn lane. The eastbound approach consists of a shared through / right-turn lane. The westbound approach consists of a shared left-turn / through lane.

Industrial Drive / Northern Railroad Crossing is an unsignalized crossing including cross-buck signage denoting the crossing. At the crossing, Industrial Drive consists of a two-lane roadway section.

Industrial Drive / Southern Railroad Crossing is a signalized crossing including overhead flashers, gates, and cross-buck signage. At the crossing, Industrial Drive consists of a two-lane roadway section.

2.4 TRAFFIC VOLUMES

Timmons Group calculated peak hour volumes for the study area intersections using the AM (7:00 – 9:00) and PM (4:00 – 6:00) peak period turning movement counts undertaken in May and October 2017. Traffic count data is summarized in **Figure 2-4**. The complete traffic count data can be found in **Appendix A**.

2.5 AREA SAFETY REVIEW

Crash data for the past five-year period (2012 –2017) was provided by the NCDOT. Per **Table 2-1** below, the intersection of Industrial Drive / Pineville Road / Polk Street had 18 reported accidents. Crash data for the intersection of Industrial Drive / Rodney Street, was provided in December and showed only one accident occurring in 2005. No fatal crashes were reported at the intersection of Polk Street / Pineville Road / Industrial Drive or Industrial / Rodney Street. A crash summary (provided in **Appendix B**) has been included in **Table 2-1** below summarizing the number of crashes, type of crash (injury / property damage), and year of occurrence.

Table 2-1: Crash Information

Location	2012	2013	2014	2015	2016	2017	Injury	Property Damage
Polk Street / Pineville Road / Industrial Drive	2	4	7	8	4	3	10	18
Industrial Drive / Rodney Street	0	0	0	1	0	0	0	1

2.6 CAPACITY ANALYSIS

Using field observations, aerial photography, and traffic count data, traffic operations were analyzed during 2017 (existing) and 2019 / 2024 (without and with the proposed development site trips for Phases I & II).

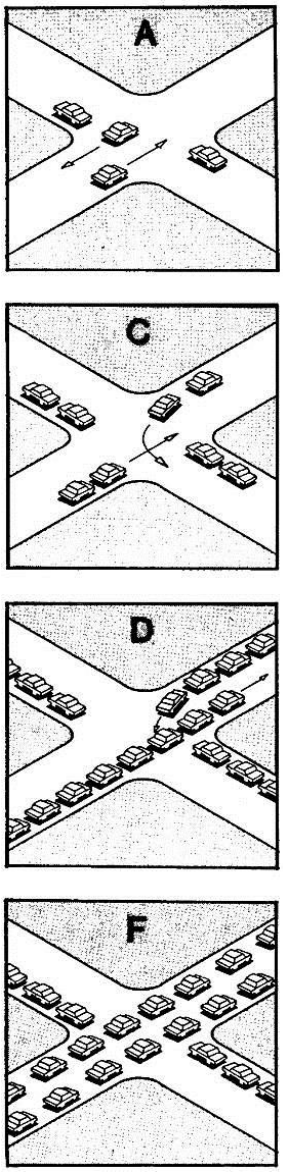
Capacity analysis allows traffic engineers to determine the impacts of traffic on the surrounding roadway network. The Transportation Research Board's (TRB) *Highway Capacity Manual* (HCM) methodologies govern how the capacity analyses are conducted and how the results are interpreted. There are six letter grades of Levels of Service (LOS) from A to F, with LOS A representing the best operating conditions and LOS F the worst operating conditions. At signalized intersections, an overall intersection LOS E is generally considered unacceptable. At unsignalized intersections, a LOS E is generally considered acceptable only

if the side street encounters delay. Nevertheless, side streets typically function at a LOS F during peak traffic periods, because the traffic volumes often do not warrant a traffic signal to assist side street traffic. **Table 2-2** shows in detail how each of these levels of service are interpreted.

Table 2-2: Level of Service Definitions

Level of Service	Roadway Segments or Controlled Access Highways	Intersections
A	Free flow, low traffic density.	No vehicle waits longer than one signal indication.
B	Delay is not unreasonable, stable traffic flow.	On a rare occasion motorists wait through more than one signal indication.
C	Stable condition, movements somewhat restricted due to higher volumes, but not objectionable for motorists.	Intermittently drivers wait through more than one signal indication, and occasionally backups may develop behind left turning vehicles, traffic flow still stable and acceptable.
D	Movements more restricted, queues and delays may occur during short peaks, but lower demands occur often enough to permit clearing, thus preventing excessive backups.	Delays at intersections may become extensive with some, especially left-turning vehicles waiting two or more signal indications, but enough cycles with lower demand occur to permit periodic clearance, thus preventing excessive backups.
E	Actual capacity of the roadway invloves delay to all motorists due to congestion.	Very long queues may create lengthly delays, especially for left-turning vehicles.
F	Forced flow with demand volumes greater than capacity resulting in complete congestion. Volumes drop to zero in extreme cases.	Backups from locations downstream restrict or prevent movement of vehicles out of approach creating a storage ares during part or all of an hour.

SOURCE: *"A Policy on Design of Design of Urban Highways and Arterial Streets"* - AASHTO, 1973 based upon material published in *"Highway Capacity Manual"*, National Academy of Sciences, 1965.



For signalized and unsignalized intersections, level of service is defined in terms of **delay**, a measure of driver discomfort, frustration, fuel consumption and lost travel time. **Table 2-3** summarizes the delay associated with each LOS category:

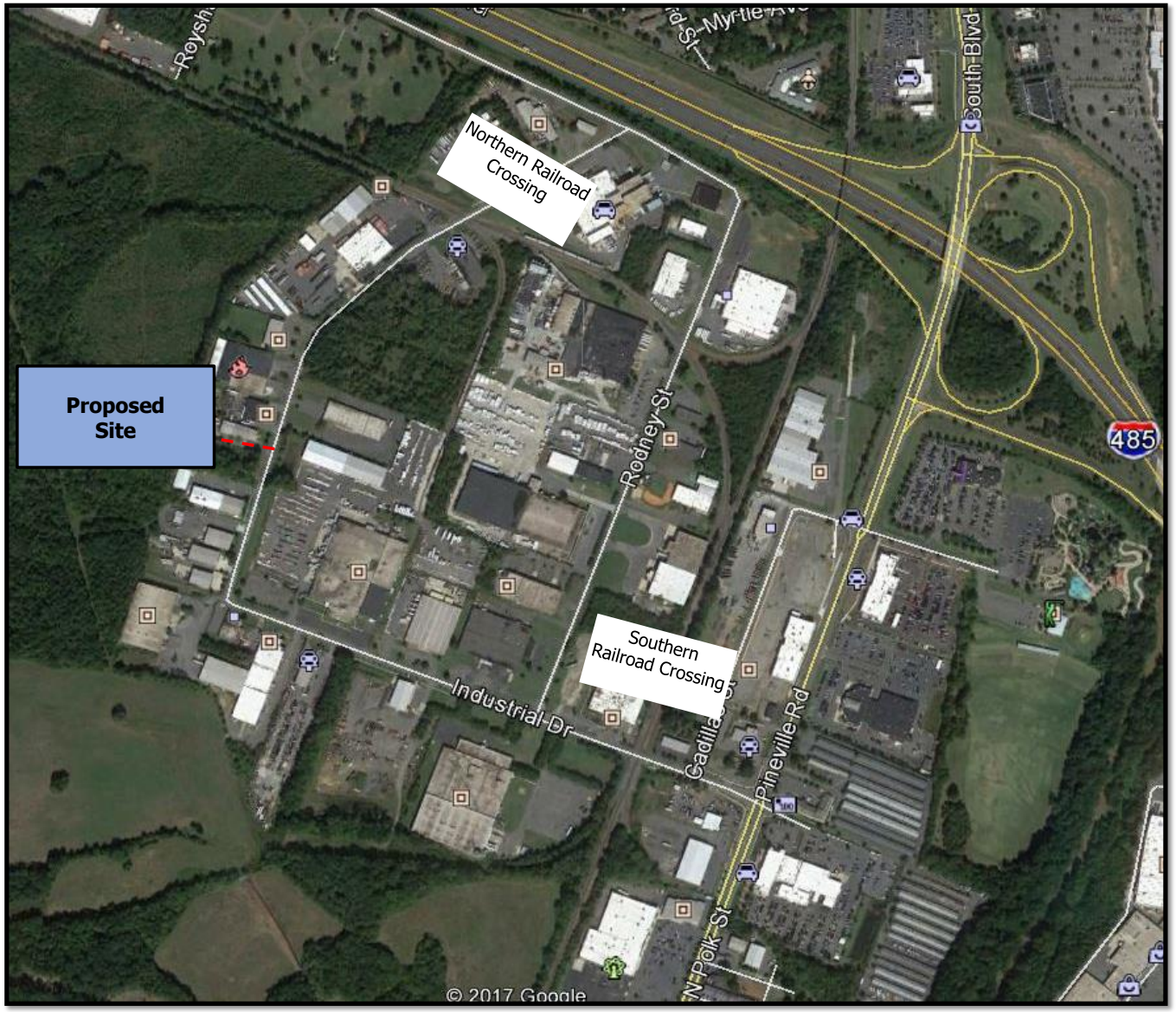
Table 2-3: Signalized and Unsignalized Intersection Level of Service Criteria

Signalized Intersections		Unsignalized Intersections	
Level of Service	Control Delay per Vehicle (sec/veh)	Level of Service	Average Control Delay (sec/veh)
A	≤ 10	A	0 to 10
B	> 10 to ≤ 20	B	> 10 to ≤ 15
C	> 20 to ≤ 35	C	> 15 to ≤ 25
D	> 35 to ≤ 55	D	> 25 to ≤ 35
E	> 55 to ≤ 80	E	> 35 to ≤ 50
F	> 80	F	> 50

Source: Exhibit 16-2 and Exhibit 17-2 from TRB's "Highway Capacity Manual 2000"

Capacity analyses were performed to assess operational conditions. Study area intersections were analyzed using SYNCHRO Version 9.1 (Build 912, Rev 4) based on Highway Capacity Manual (HCM) methodologies with the following assumptions:

- Existing grades;
- 12-foot lane widths;
- No parking activity, bus stops, or pedestrians;
- Peak hour factor (PHF) of 0.90;
- Heavy vehicle percentages 2%; and
- Existing green splits with timing values found in the provided traffic signal plans (see **Appendix C**).



N

NOT TO SCALE

LEGEND:
- Existing Road
- Proposed Road
- Proposed Site
- Adjacent Site

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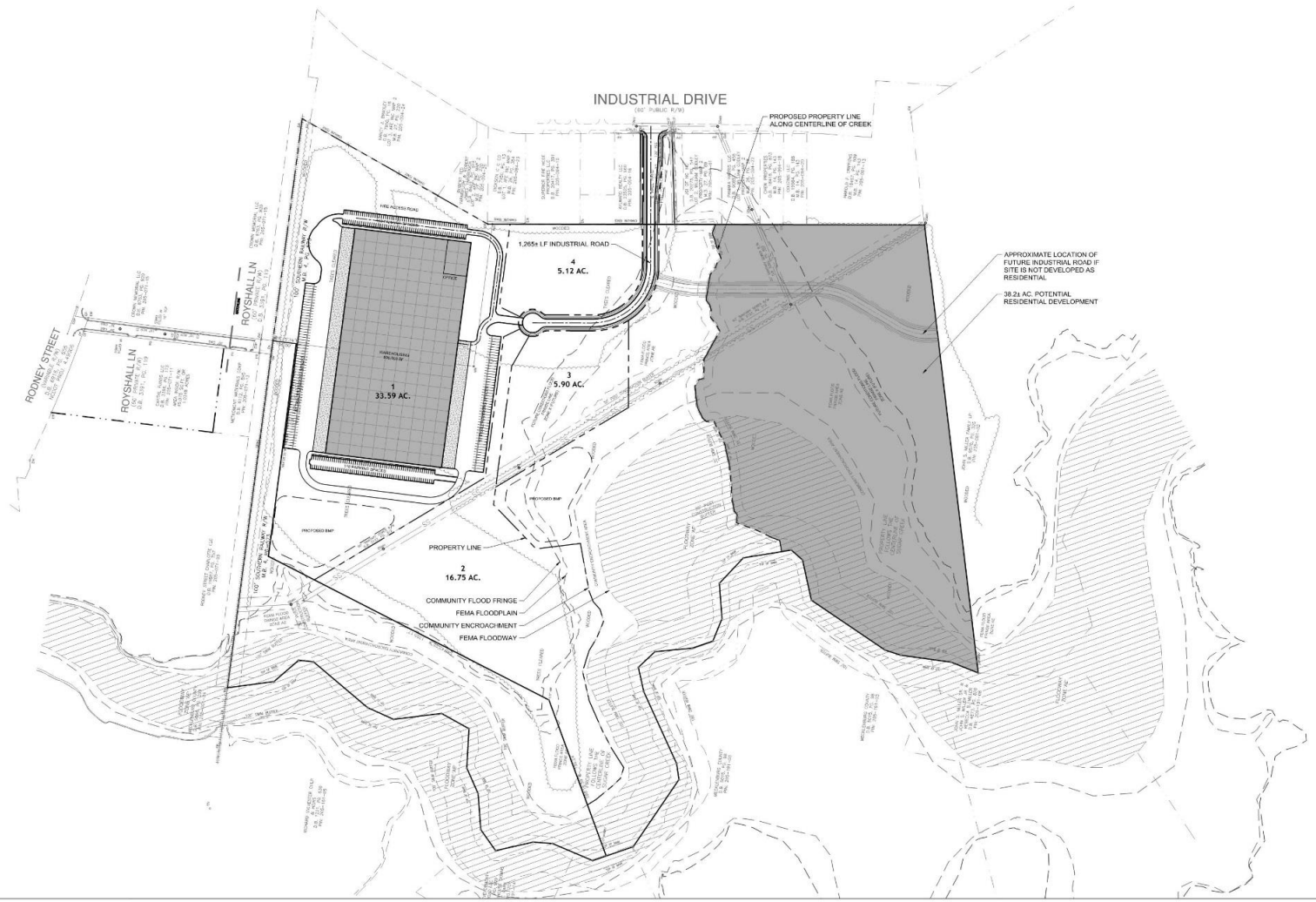
Pineville Industrial Development
Traffic Impact Analysis
Surrounding Road Network

Figure 2-1



SITE PLAN

Industrial Drive - June 23, 2017

0 400 800 Feet

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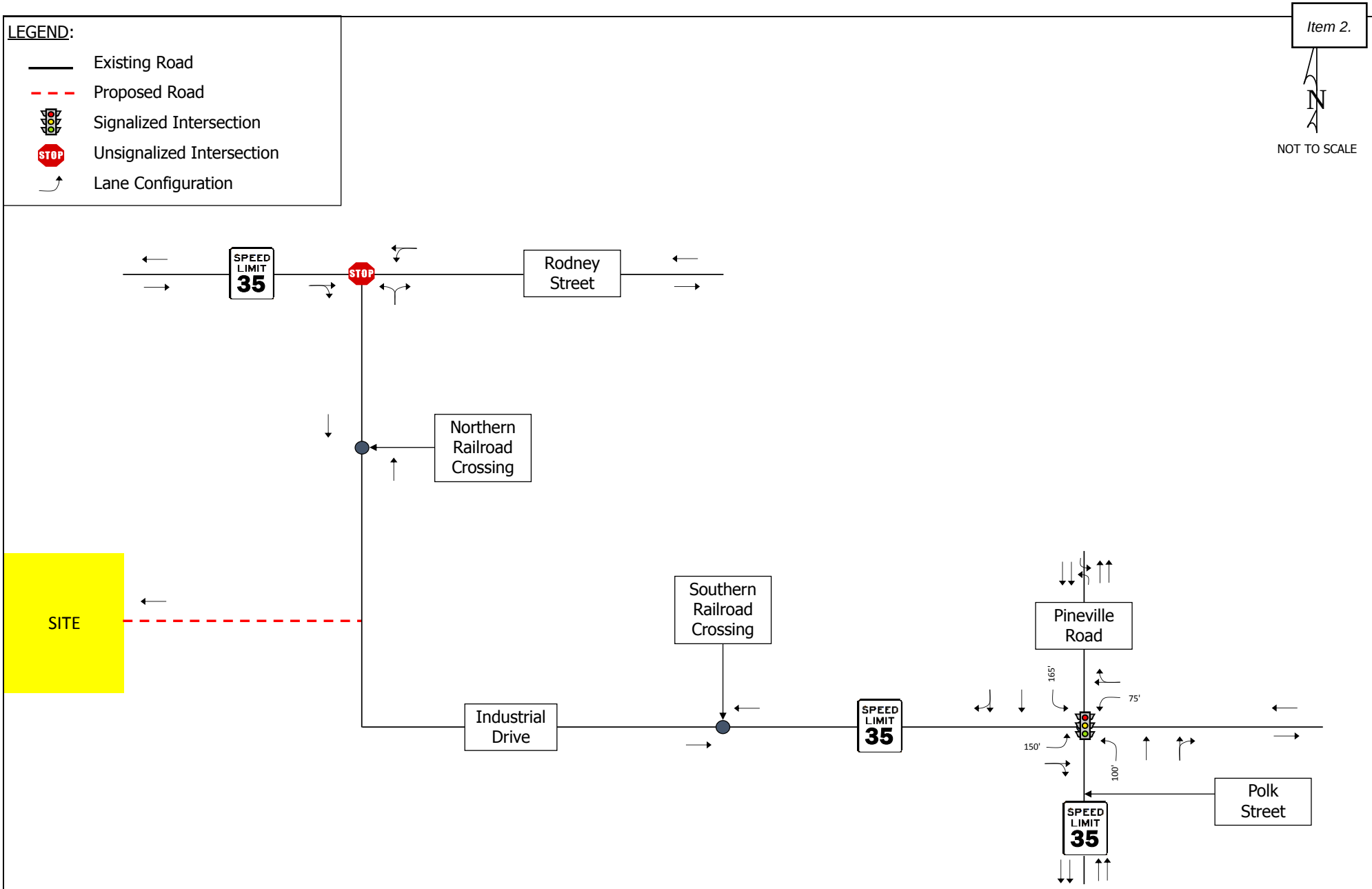
Pineville Industrial Development
Traffic Impact Analysis
Preliminary Site Layout

Figure 2-2



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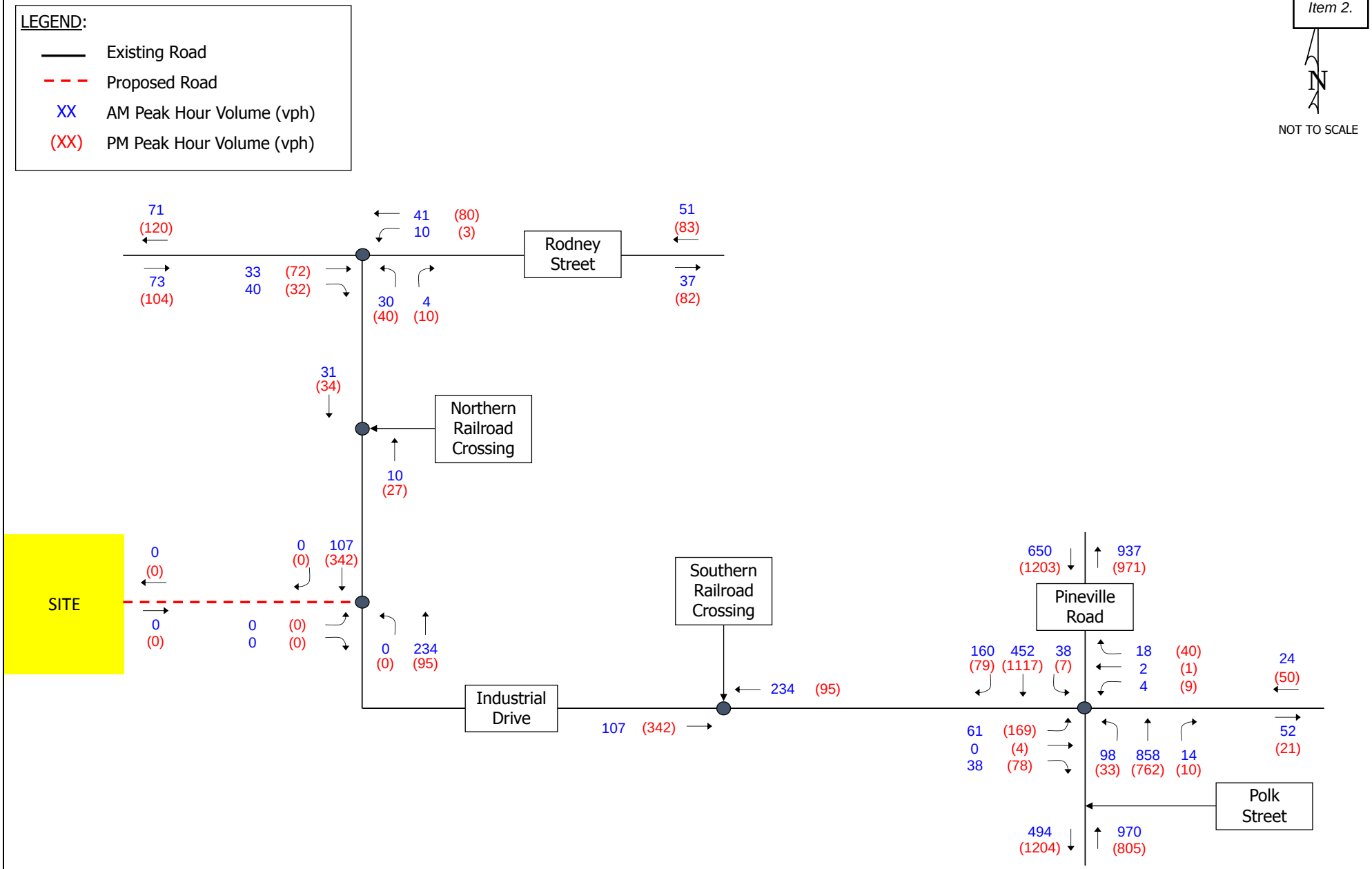
Pineville Industrial Development
Traffic Impact Analysis
2017 Existing Lane Configuration

Figure 2-3



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Pineville Industrial Development
Traffic Impact Analysis
2017 Existing Traffic Volumes

Figure 2-4

3 EXISTING AND BACKGROUND CONDITIONS AND ANALYSIS

3.1 2017 EXISTING ANALYSES

Table 3-1 summarizes the 2017 Existing intersection LOS, delay, and 95th percentile queue lengths based on the geometry shown on **Figure 2-3** and the 2017 Existing traffic volumes shown on **Figure 2-4**. The corresponding SYNCHRO output is included in **Appendix D**.

The signalized intersection of Polk Street / Pineville Road / Industrial Drive is currently operating at a LOS B during both the AM and PM peak hours. During the PM peak hour, Synchro projects that the 95th percentile queue length for the eastbound left-turn lane (170-feet) exceeds available storage (150-feet). Existing turn-lane storage is adequate to handle all remaining 95th percentile queue lengths.

All unsignalized intersection movements at the intersection of Industrial Drive / Rodney Street are currently operating at a LOS A during the AM and PM peak hours.

Table 3-1: Intersection Level of Service, Delay and 95th Percentile Queue Summary
2017 Existing Traffic Volumes

Intersection and Type of Control	Movement and Approach	Turn Lane Storage (ft)	AM PEAK HOUR			PM PEAK HOUR		
			Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)
1. Polk Street /	EB Left	150	19.4	B	55	33.2	C	170
Pineville Road (N-S)	EB Thru/Right		24.1	C	48	32.1	C	106
at Industrial Drive (E-W)	*EB Approach*		21.2	C	--	32.9	C	--
Signalized	WB Left	75	19.2	B	8	27.1	C	18
	WB Thru/Right		29.4	C	32	41.3	D	63
	WB Approach		27.9	C	--	38.7	D	--
	NB Left	100	6.9	A	43	7.9	A	20
	NB Thru/Right		11.7	B	263	11.0	B	242
	NB Approach		11.3	B	--	10.9	B	--
	SB Left	165	6.8	A	21	7.1	A	7
	SB Thru/Right		14.2	B	179	19.7	B	444
	SB Approach		13.7	B	--	19.6	B	--
	Overall		13.0	B	--	18.4	B	--
2. Industrial Drive (N-S)	EB Thru/Right		0.0	A	0	0.0	A	0
at Rodney Street (E-W)	*EB Approach*		†	†	--	†	†	--
Unsignalized	WB Left/Thru		1.5	A	1	0.3	A	0
	WB Approach		†	†	--	†	†	--
	NB Left/Right		9.3	A	3	9.7	A	5
	NB Approach		†	†	--	†	†	--

† SYNCHRO does not provide level of service or delay for unsignalized movements with no conflicting volumes.

- 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m - Volume for 95th percentile queue is metered by upstream signal.

3.2 2021 BACKGROUND TRAFFIC VOLUMES

Currently there is one approved development in the project study area that will be partially or fully built-out by 2019 and 2024, respectively: Cranford Drive Residential Development (see **Appendix E**). Listed below is the approved development, site trip distribution assumptions, and proposed offsite improvements.

- Cranford Drive Residential Development
  - TIA completed by Timmons Group (sealed 8/25/17)
  - Located off Main Street in Pineville, NC
  - Assumed to be fully constructed prior to the Pineville Industrial Development*
  - 170 detached single-family residential units and 155 townhomes – Land Use Codes (LUC) 210 and 230
  - One site driveway connection to Industrial Drive
  - Trip distribution found in existing TIA
  - No assumed offsite improvements

*The build analysis year for the Cranford Drive Residential TIA was 2021; however, to provide a more conservative analysis, it was assumed the development would be fully constructed prior to 2019.

Projected and distributed trips from the approved development (see **Appendix E**) were totaled and are shown in **Figure 3-1**. These trips were added to the 2019 ambient volumes (existing traffic volumes multiplied by a 2% growth factor – found in TIAs for adjacent studies) to determine the 2019 Phase I Background traffic volumes (see **Figure 3-2**). Similarly, approved development trips were added to the 2024 ambient volumes and 2019 Phase I Trip Distribution traffic volumes (see **Figure 4-1**) to determine the 2024 Phase II Background traffic volumes (see **Figure 3-3**).

3.3 2021 BACKGROUND ANALYSIS

Table 3-2a summarizes the 2019 Phase I Background intersection LOS, delay, and 95th percentile queue lengths based on the geometry shown in **Figure 2-3** and the 2019 Phase I Background traffic volumes shown in **Figure 3-2**. The corresponding SYNCHRO output is included in **Appendix D**.

The signalized intersection of Polk Street / Pineville Road / Industrial Drive is projected to operate at a LOS B during the 2019 Phase I Background AM peak hour and LOS C during the PM peak hour. During the PM peak hour, Synchro projects that the 95th percentile queue length for the eastbound left-turn lane (238-feet) will exceed available storage (150-feet). Existing turn-lane storage is adequate to handle all remaining 95th percentile queue lengths.

All unsignalized intersection movements at the intersection of Industrial Drive / Rodney Street are projected to operate at a LOS A during the 2019 Phase I Background AM and PM peak hours.

Table 3-2a: Intersection Level of Service, Delay and 95th Percentile Queue Summary 2019 Phase I Background Traffic Volumes

Intersection and Type of Control	Movement and Approach	Turn Lane Storage (ft)	AM PEAK HOUR			PM PEAK HOUR		
			Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)
1. Polk Street /	EB Left	150	23.1	C	89	43.3	D	#238
Pineville Road (N-S)	EB Thru/Right		26.0	C	67	37.2	D	133
at Industrial Drive (E-W)	*EB Approach*		24.1	C	--	41.3	D	--
Signalized	WB Left	75	20.5	C	9	29.9	C	20
	WB Thru/Right		32.0	C	34	45.1	D	71
	WB Approach		30.3	C	--	42.5	D	--
	NB Left	100	7.8	A	48	8.2	A	26
	NB Thru/Right		15.1	B	282	10.6	B	261
	NB Approach		14.3	B	--	10.4	B	--
	SB Left	165	7.3	A	22	7.1	A	8
	SB Thru/Right		15.6	B	196	22.7	C	527
	SB Approach		15.1	B	--	22.6	C	--
	Overall		15.7	B	--	21.1	C	--
2. Industrial Drive (N-S)	EB Thru/Right		0.0	A	0	0.0	A	0
at Rodney Street (E-W)	*EB Approach*		†	†	--	†	†	--
Unsignalized	WB Left/Thru		1.4	A	1	0.3	A	0
	WB Approach		†	†	--	†	†	--
	NB Left/Right		9.4	A	5	9.8	A	6
	NB Approach		†	†	--	†	†	--

† SYNCHRO does not provide level of service or delay for unsignalized movements with no conflicting volumes.

- 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m - Volume for 95th percentile queue is metered by upstream signal.

Table 3-2b summarizes the 2024 Phase II Background intersection LOS, delay, and 95th percentile queue lengths based on the geometry shown in **Figure 2-3** and the 2024 Phase II Background traffic volumes shown in **Figure 3-3**. The corresponding SYNCHRO output is included in **Appendix D**.

The signalized intersection of Polk Street / Pineville Road / Industrial Drive is projected to operate at a LOS B during the 2024 Phase II Background AM peak hour and LOS C during the PM peak hour. During the PM peak hour, Synchro projects that the 95th percentile queue length for the eastbound left-turn lane (279-feet) will exceed available storage (150-feet). Existing turn-lane storage is adequate to handle all remaining 95th percentile queue lengths.

All unsignalized intersection movements at the intersection of Industrial Drive / Rodney Street are projected to operate at a LOS B or better during the 2019 Phase II Background AM and PM peak hours.

All unsignalized intersection movements at the intersection of Industrial Drive / Site Driveway #1 are projected to operate at a LOS B or better during the 2024 Phase II Background AM and PM peak hours.

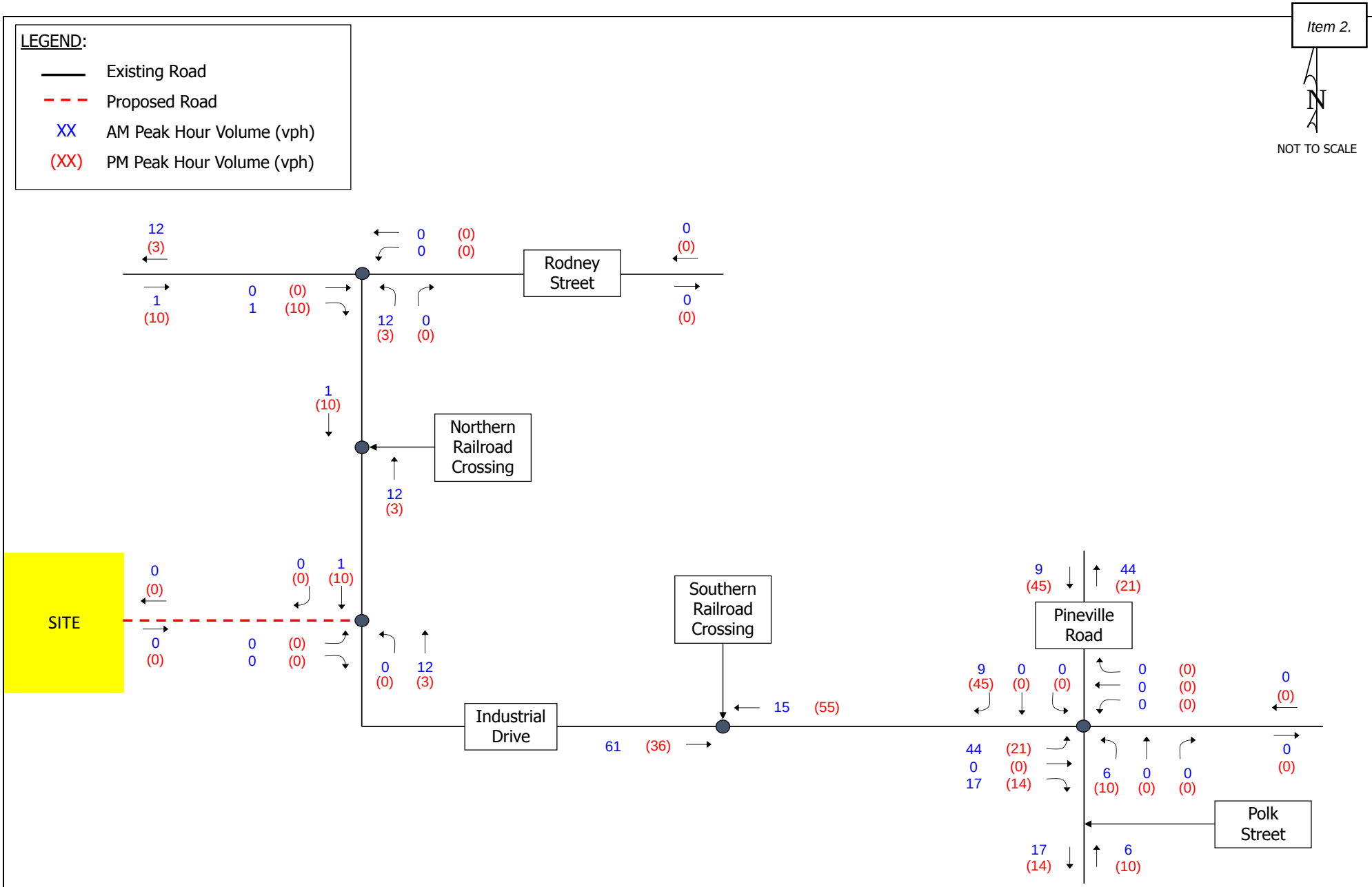
Table 3-2b: Intersection Level of Service, Delay and 95th Percentile Queue Summary 2024 Phase II Background Traffic Volumes

Intersection and Type of Control	Movement and Approach	Turn Lane Storage (ft)	AM PEAK HOUR			PM PEAK HOUR		
			Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)
1. Polk Street /	EB Left	150	28.0	C	117	64.5	E	#279
Pineville Road (N-S)	EB Thru/Right		29.2	C	84	44.3	D	248
at Industrial Drive (E-W)	*EB Approach*		28.4	C	--	56.5	E	--
Signalized	WB Left	75	23.0	C	12	32.9	C	21
	WB Thru/Right		34.6	C	37	50.6	D	76
	WB Approach		32.4	C	--	47.5	D	--
	NB Left	100	10.8	B	81	10.3	B	38
	NB Thru/Right		16.3	B	331	11.4	B	300
	NB Approach		15.4	B	--	11.3	B	--
	SB Left	165	7.7	A	24	7.0	A	8
	SB Thru/Right		20.3	C	248	27.5	C	674
	SB Approach		19.6	B	--	27.4	C	--
	Overall		18.3	B	--	26.9	C	--
2. Industrial Drive (N-S)	EB Thru/Right		0.0	A	0	0.0	A	0
at Rodney Street (E-W)	*EB Approach*		†	†	--	†	†	--
Unsignalized	WB Left/Thru		1.9	A	1	0.4	A	0
	WB Approach		†	†	--	†	†	--
	NB Left/Right		9.6	A	6	10.1	B	8
	NB Approach		†	†	--	†	†	--
3. Industrial Drive (N-S)	EB Thru/Right		9.5	A	3	13.0	B	22
at Site Driveway #1 (E-W)	*EB Approach*		†	†	--	†	†	--
Unsignalized	NB Left/Thru		2.8	A	7	2.3	A	3
	NB Approach		†	†	--	†	†	--
	SB Thru/Right		0.0	A	0	0.0	A	0
	SB Approach		†	†	--	†	†	--

† SYNCHRO does not provide level of service or delay for unsignalized movements with no conflicting volumes.

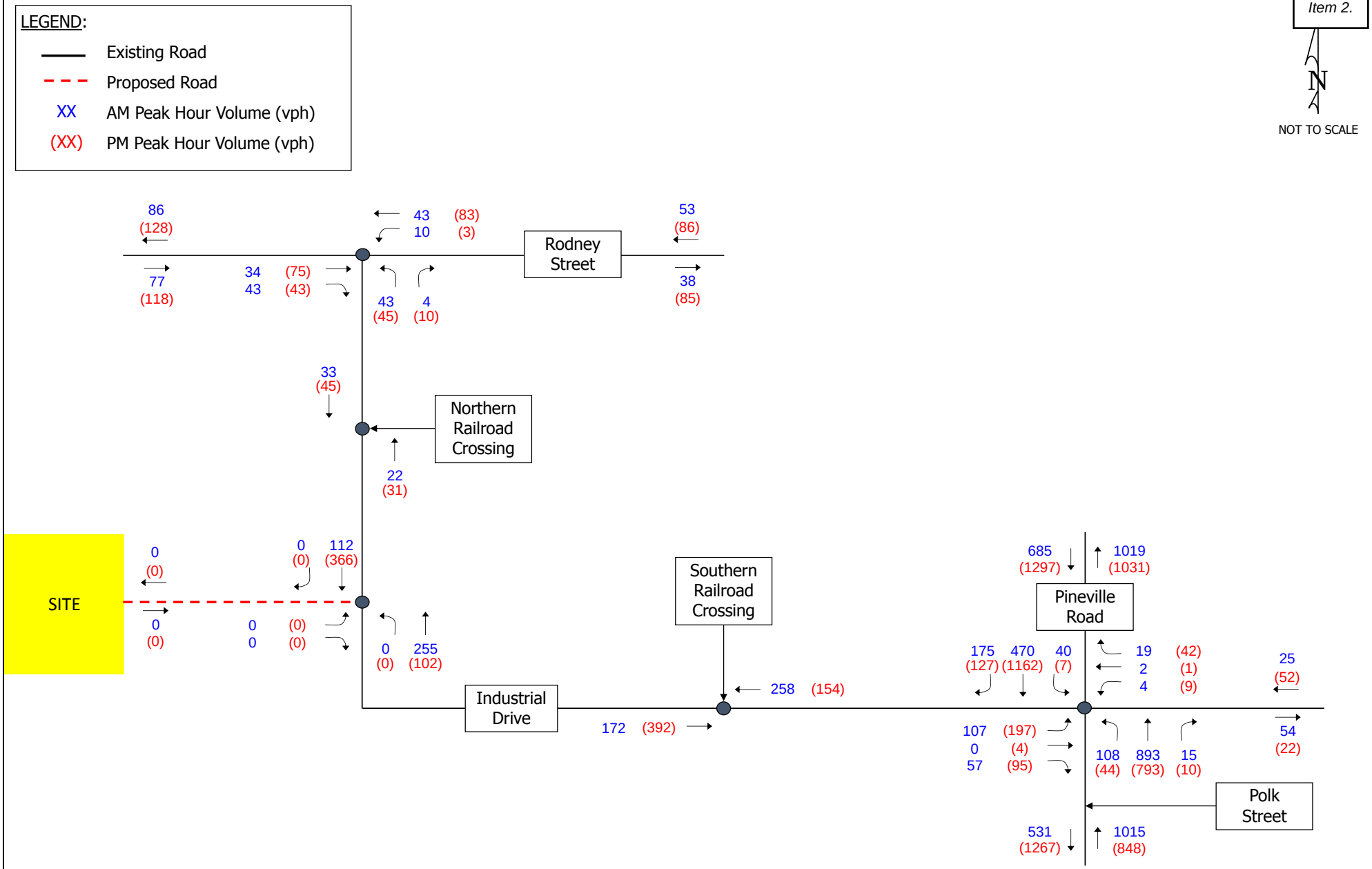
- 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m - Volume for 95th percentile queue is metered by upstream signal.



Pineville Industrial Development
Traffic Impact Analysis
Approved Development Traffic Volumes

Figure 3-1



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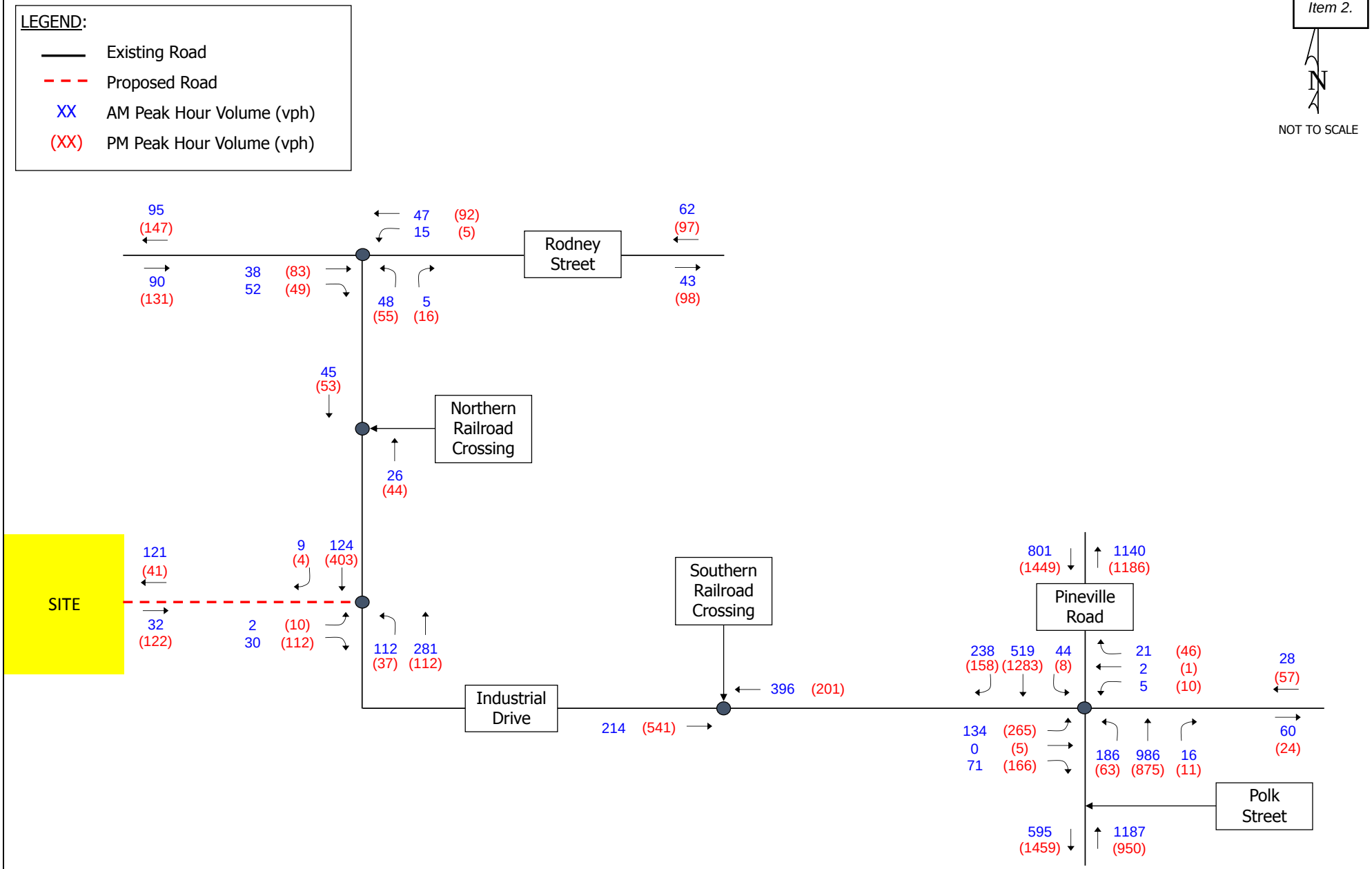
Pineville Industrial Development
Traffic Impact Analysis
2019 Phase I Background Traffic Volumes

Figure 3-2



Pineville Industrial Development
Traffic Impact Analysis
2024 Phsae II Background Traffic Volumes

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Figure 3-3

4 SITE TRIP GENERATION AND DISTRIBUTION

Site trips for the Pineville Industrial Development were estimated based on the proposed land use supplied by the developer and subsequently distributed onto the surrounding roadway network for each phase of construction.

4.1 TRIP GENERATION

The traffic generation potential of the proposed development was determined using the *ITE Trip Generation Manual* (Institute of Transportation Engineers, 9th Edition, 2012). **Tables 4-1a** and **4-1b** below list the ITE Land Use Code (LUC) and independent variable used for the development during Phase I and Phase II. Trip generation values were calculated using the total square footage (510,000 SF & 340,000 SF respectively) as the independent variable as well as the average rate and the equation (per NCDOT guidelines).

Table 4-1a: Phase I Trip Generation Summary

ITE Land Use Code	Independent Variable	Daily			AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
510 – Warehousing	510,000 SF	908	908	1,816	121	32	153	41	122	163

SOURCE: Institute of Transportation Engineers' *Trip Generation Manual* 9th Edition (2012)

Phase I AM peak hour trips generated totaled 121 incoming and 32 outgoing where PM peak hour trips totaled 41 incoming and 122 outgoing. Average daily traffic (ADT) volumes generated by the development totaled 1,816 vehicles per day. No reduction in trips was included due to internal capture and/or pass-by trips.

Table 4-2b: Phase II Trip Generation Summary

ITE Land Use Code	Independent Variable	Daily			AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
510 – Warehousing	510,000 SF	908	908	1,816	121	32	153	41	122	163
110 – General Light Industrial	340,000 SF	1219	1219	2,438	274	37	311	39	289	328
Total:		2,127	2,127	4,254	395	69	464	80	411	491

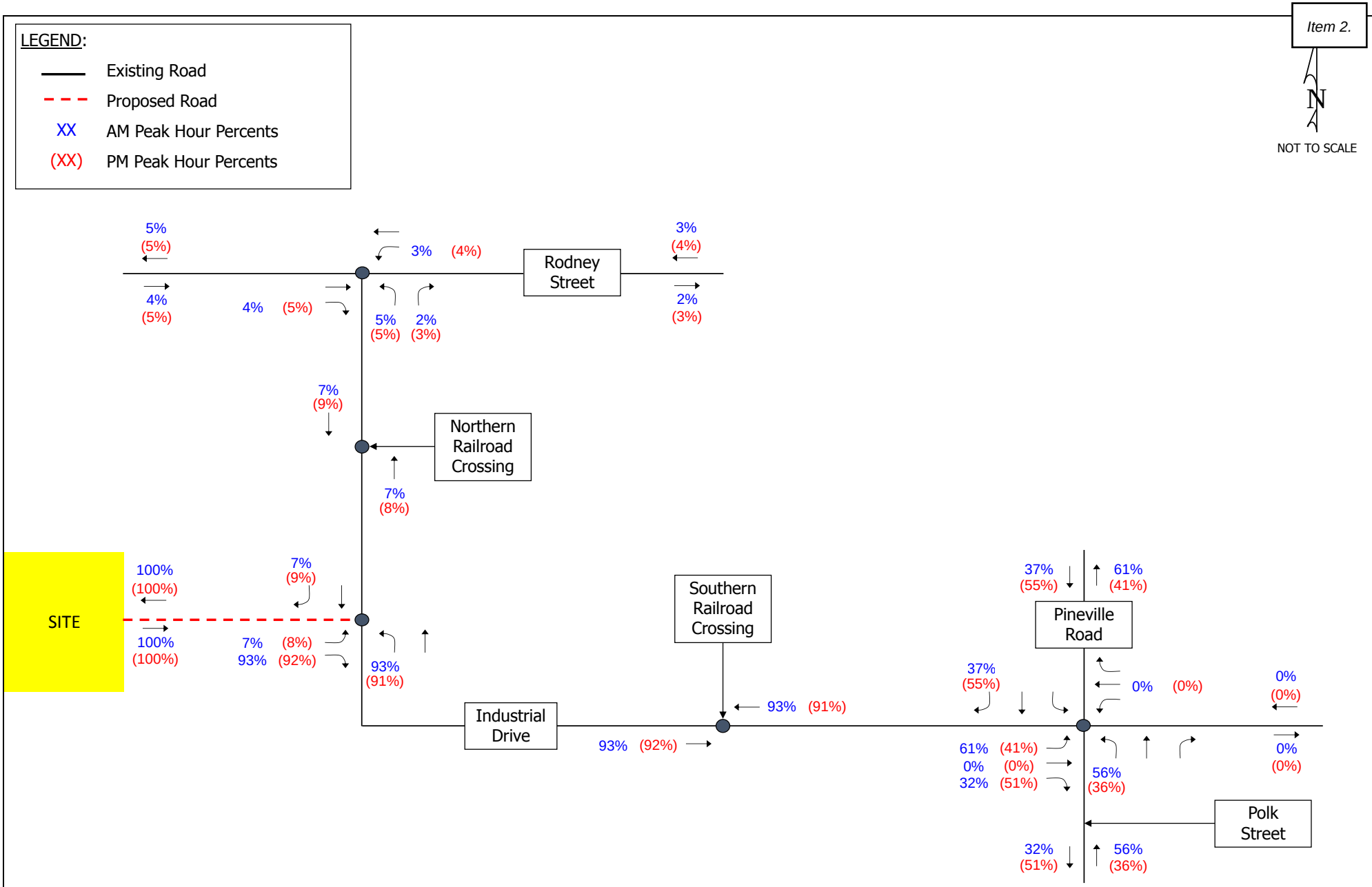
SOURCE: Institute of Transportation Engineers' *Trip Generation Manual* 9th Edition (2012)

Phase II AM peak hour trips generated totaled 395 incoming and 69 outgoing where PM peak hour trips totaled 80 incoming and 411 outgoing. Average daily traffic (ADT) volumes generated by the development totaled 4,254 vehicles per day. No reduction in trips was included due to internal capture and/or pass-by trips.

4.2 TRIP DISTRIBUTION

The directional traffic patterns, or trip distribution, of the site-generated traffic was determined using the existing AM and PM peak hour traffic characteristics. It was assumed, for purposes of this study, that all site traffic would enter and exit the study area in the same manner as the existing traffic. Area trip distribution is based on traffic counts performed by Timmons Group. Total trips into and out of the study area using Rodney Street, Industrial Drive, Polk Street, and Pineville Road form the basis for the percentage distribution. Distribution percentages into and out of the study area were calculated using existing traffic volumes entering and exiting the study area. The percentages were routed, via shortest path, to and from the proposed development. The distribution percentages were then applied to the generated trips to predict routes and project traffic volumes for the 2019 Phase I and 2024 Phase II build-

out scenarios. **Figure 4-1** shows the trip distribution percentages and **Figures 4-2** and **4-3** show the 2019 and 2024 Phases I and II site trip distribution volumes, respectively. 2019 Phase I Build traffic volumes were determined by applying the Phase I site trip distribution volumes to the 2019 Phase I Background traffic volumes (see **Figure 3-2**). Similarly, 2024 Phase II Build traffic volumes were determined by applying the Phase II site trip distribution volumes to the 2024 Phase II Background traffic volumes (see **Figure 3-3**).



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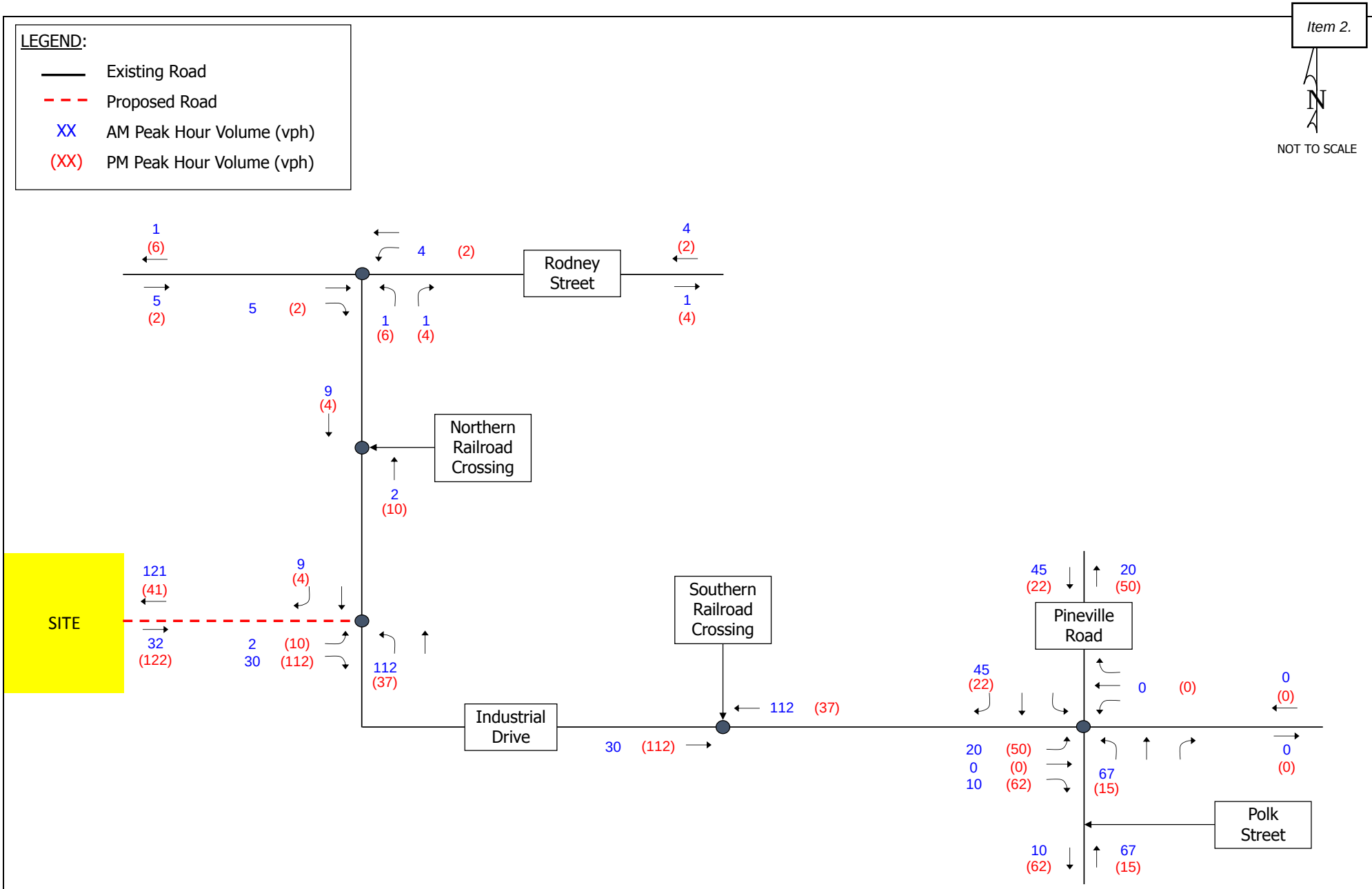
Pineville Industrial Development
Traffic Impact Analysis
2019 Trip Distribution Percentages

Figure 4-1



Pineville Industrial Development
Traffic Impact Analysis
2019 Phase I Trip Distribution Traffic Volumes

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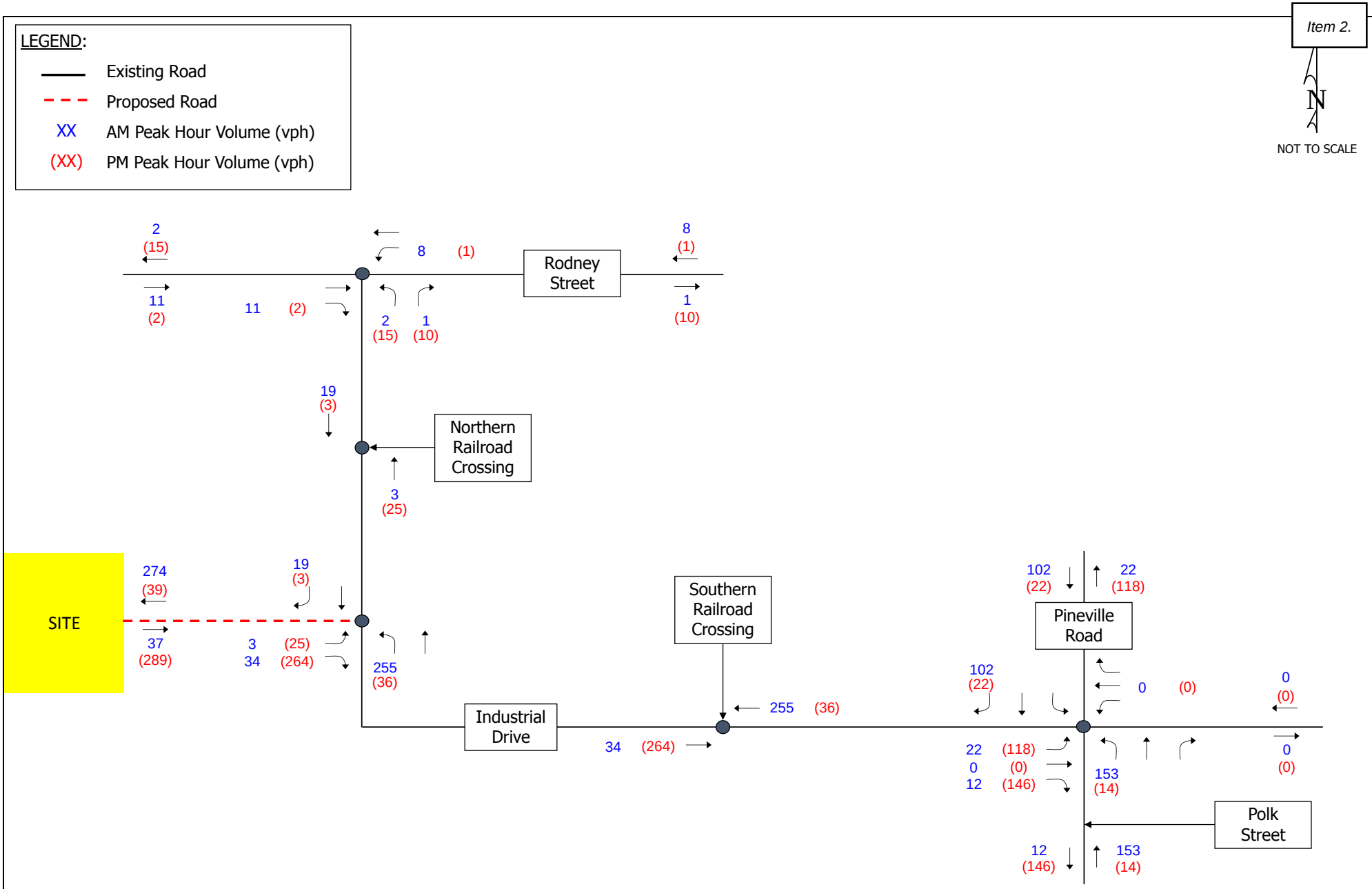
Figure 4-2



Pineville Industrial Development
Traffic Impact Analysis

2024 Phase II Trip Distribution Traffic Volumes

Figure 4-3

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5 PHASE I & II BUILD CONDITION AND ANALYSIS

To complete the 2019 Phase I and 2024 Phase II Build analyses (including the proposed development), the estimated site trips were added to the 2019 Phase I and 2024 Phase II Background traffic volumes, respectively. The projected total volumes, along with the existing intersection geometry, were used to complete the capacity and turn lane warrant analyses.

5.1 PHASE I & II BUILD TRAFFIC VOLUMES

The 2019 Phase I Background traffic volumes from **Figure 3-2** were added to the Phase I projected site trips from the Pineville Industrial Development (**Figure 4-2**) to generate the 2019 Phase I Build traffic volumes (background + site) shown on **Figure 5-1**. Similarly, the 2024 Phase II Background traffic volumes from **Figure 3-3** were added to the Phase II projected site trips (**Figure 4-3**) to generate the 2024 Phase II Build traffic volumes shown on **Figure 5-2**.

5.2 PHASE I & II BUILD ANALYSIS

Table 5-1a summarizes the 2019 Phase I Build intersection LOS, delay, and 95th percentile queue lengths based on 2019 Phase I Build traffic volumes (shown on **Figure 5-1**).

The signalized intersection of Polk Street / Pineville Road / Industrial Drive is projected to operate at a LOS B during the 2019 Phase I Build AM peak hour and LOS C during the PM peak hour. During the PM peak hour, Synchro projects that the 95th percentile queue length for the eastbound left-turn lane (267-feet) will exceed available storage (150-feet). Existing turn-lane storage is adequate to handle all remaining 95th percentile queue lengths. Because this intersection is projected to operate at acceptable levels of service during both peak hours, no improvement recommendations are necessary to help mitigate intersection congestion due to the construction of Phase I of the proposed development.

All unsignalized intersection movements at the intersection of Industrial Drive / Rodney Street are projected to operate at a LOS A during the 2019 Phase I Build AM and PM peak hours. Because all intersection movements are projected to operate at acceptable levels of service during both peak hours, no improvement recommendations are necessary to help mitigate intersection congestion due to the construction of Phase I of the proposed development.

All unsignalized intersection movements at the intersection of Industrial Drive / Site Driveway #1 are projected to operate at a LOS A during the 2019 Phase I Build AM and PM peak hours. No improvements are recommended to help mitigate future capacity concern at the proposed site driveway due to the construction of Phase I of the proposed development. Although Industrial Drive is not an NCDOT owned facility, Timmons Group followed standard NCDOT practices to determine the need for an exclusive turn-lane into the proposed site. Per standard NCDOT Policy on Street and Driveway Access to North Carolina Highways Manual:

"Generally left and right turn lanes and tapers shall be considered when:

- *In accordance with G.S. 136-18(29), the average daily traffic meets or exceeds 4,000 vehicles per day on any secondary route (the average daily traffic should include both the existing traffic plus traffic generated by the proposed development)"*

With the projected AADT volumes along Industrial Drive not expecting to exceed 4,000 VPD, the construction of turn lanes is not warranted.

Table 5-1a: Intersection Level of Service, Delay and 95th Percentile Queue Summary 2019 Phase I Build Traffic Volumes

Intersection and Type of Control	Movement and Approach	Turn Lane Storage (ft)	AM PEAK HOUR			PM PEAK HOUR		
			Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)
1. Polk Street /	EB Left	150	24.1	C	104	53.3	D	#267
Pineville Road (N-S)	EB Thru/Right		26.3	C	76	41.5	D	#224
at Industrial Drive (E-W)	*EB Approach*		24.8	C	--	48.6	D	--
Signalized	WB Left	75	20.8	C	9	30.7	C	20
	WB Thru/Right		32.0	C	34	46.2	D	72
	WB Approach		30.3	C	--	43.5	D	--
	NB Left	100	9.4	A	76	8.9	A	33
	NB Thru/Right		15.2	B	286	10.7	B	265
	NB Approach		14.3	B	--	10.5	B	--
	SB Left	165	7.5	A	22	7.1	A	8
	SB Thru/Right		19.2	B	220	24.3	C	571
	SB Approach		18.5	B	--	24.3	C	--
	Overall		17.0	B	--	23.9	C	--
2. Industrial Drive (N-S)	EB Thru/Right		0.0	A	0	0.0	A	0
at Rodney Street (E-W)	*EB Approach*		†	†	--	†	†	--
Unsignalized	WB Left/Thru		1.9	A	1	0.5	A	0
	WB Approach		†	†	--	†	†	--
	NB Left/Right		9.5	A	5	9.9	A	8
	NB Approach		†	†	--	†	†	--
3. Industrial Drive (N-S)	EB Thru/Right		9.4	A	3	12.4	B	21
at Site Driveway #1 (E-W)	*EB Approach*		†	†	--	†	†	--
Unsignalized	NB Left/Thru		2.9	A	7	2.4	A	3
	NB Approach		†	†	--	†	†	--
	SB Thru/Right		0.0	A	0	0.0	A	0
	SB Approach		†	†	--	†	†	--

† SYNCHRO does not provide level of service or delay for unsignalized movements with no conflicting volumes.

- 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m - Volume for 95th percentile queue is metered by upstream signal.

Table 5-1b summarizes the 2024 Phase II Build intersection LOS, delay, and 95th percentile queue lengths based on 2024 Phase II Build traffic volumes (shown on **Figure 5-2**).

The signalized intersection of Polk Street / Pineville Road / Industrial Drive is projected to operate at a LOS C during the 2024 Phase II Build AM peak hour and LOS D during the PM peak hour. During the PM peak hour, Synchro projects that the 95th percentile queue length for the eastbound left-turn lane (508-feet) will exceed available storage (150-feet). Additionally, Synchro projects that the 95th percentile queue length for the northbound left-turn lane (363-feet) will exceed available storage (100-feet) during the AM peak hour. Existing turn-lane storage is adequate to handle all remaining 95th percentile queue lengths. Because this intersection is projected to operate at acceptable levels of service during both peak hours, no improvement recommendations are necessary to help mitigate intersection congestion due to the construction of Phase II of the proposed development.

All unsignalized intersection movements at the intersection of Industrial Drive / Rodney Street are projected to operate at a LOS B or better during the 2024 Phase II Build AM and PM peak hours. Because all intersection movements are projected to operate at acceptable levels of service during both peak hours, no improvement recommendations are necessary to help mitigate intersection congestion due to the construction of Phase II of the proposed development.

All unsignalized intersection movements at the intersection of Industrial Drive / Site Driveway #1 are projected to operate at a LOS D or better during the 2024 Phase II Build AM and PM peak hours. No improvements are recommended to help mitigate future capacity concern at the proposed site driveway due to the construction of Phase II of the proposed development. Although Industrial Drive is not an NCDOT owned facility, Timmons Group followed standard NCDOT practices to determine the need for an exclusive turn-lane into the proposed site. Per standard NCDOT Policy on Street and Driveway Access to North Carolina Highways Manual:

"Generally left and right turn lanes and tapers shall be considered when:

- *In accordance with G.S. 136-18(29), the average daily traffic meets or exceeds 4,000 vehicles per day on any secondary route (the average daily traffic should include both the existing traffic plus traffic generated by the proposed development)"*

With the projected AADT volumes along Industrial Drive not expecting to exceed 4,000 VPD, the construction of turn lanes is not warranted.

Table 5-2b: Intersection Level of Service, Delay and 95th Percentile Queue Summary 2024 Phase II Build Traffic Volumes

Intersection and Type of Control	Movement and Approach	Turn Lane Storage (ft)	AM PEAK HOUR			PM PEAK HOUR		
			Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	95th Percentile Queue Length (ft)
1. Polk Street /	EB Left	150	30.9	C	136	142.8	F	#508
Pineville Road (N-S)	EB Thru/Right		30.3	C	96	73.9	E	#546
at Industrial Drive (E-W)	*EB Approach*		30.7	C	--	111.6	F	--
Signalized	WB Left	75	23.2	C	12	33.6	C	21
	WB Thru/Right		34.9	C	37	52.2	D	76
	WB Approach		32.6	C	--	49.0	D	--
	NB Left	100	46.7	D	#363	14.5	B	57
	NB Thru/Right		16.0	B	338	11.6	B	300
	NB Approach		23.8	C	--	11.9	B	--
	SB Left	165	7.8	A	25	7.0	A	8
	SB Thru/Right		22.8	C	301	29.7	C	#697
	SB Approach		22.1	C	--	29.6	C	--
	Overall		23.9	C	--	42.6	D	--
2. Industrial Drive (N-S)	EB Thru/Right		0.0	A	0	0.0	A	0
at Rodney Street (E-W)	*EB Approach*		†	†	--	†	†	--
Unsignalized	WB Left/Thru		2.6	A	1	0.5	A	0
	WB Approach		†	†	--	†	†	--
	NB Left/Right		9.8	A	6	10.3	B	12
	NB Approach		†	†	--	†	†	--
3. Industrial Drive (N-S)	EB Thru/Right		11.7	B	11	31.5	D	193
at Site Driveway #1 (E-W)	*EB Approach*		†	†	--	†	†	--
Unsignalized	NB Left/Thru		6.2	A	30	3.8	A	6
	NB Approach		†	†	--	†	†	--
	SB Thru/Right		0.0	A	0	0.0	A	0
	SB Approach		†	†	--	†	†	--

† SYNCHRO does not provide level of service or delay for unsignalized movements with no conflicting volumes.

- 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m - Volume for 95th percentile queue is metered by upstream signal.

5.3 RAILROAD CROSSING

Due to the proximity of multiple railroad crossings (along Industrial Drive) to the proposed site, Timmons Group evaluated the need for any crossing improvements due to the construction of the proposed site. Currently, there are two railroad crossings within close proximity of the proposed development.

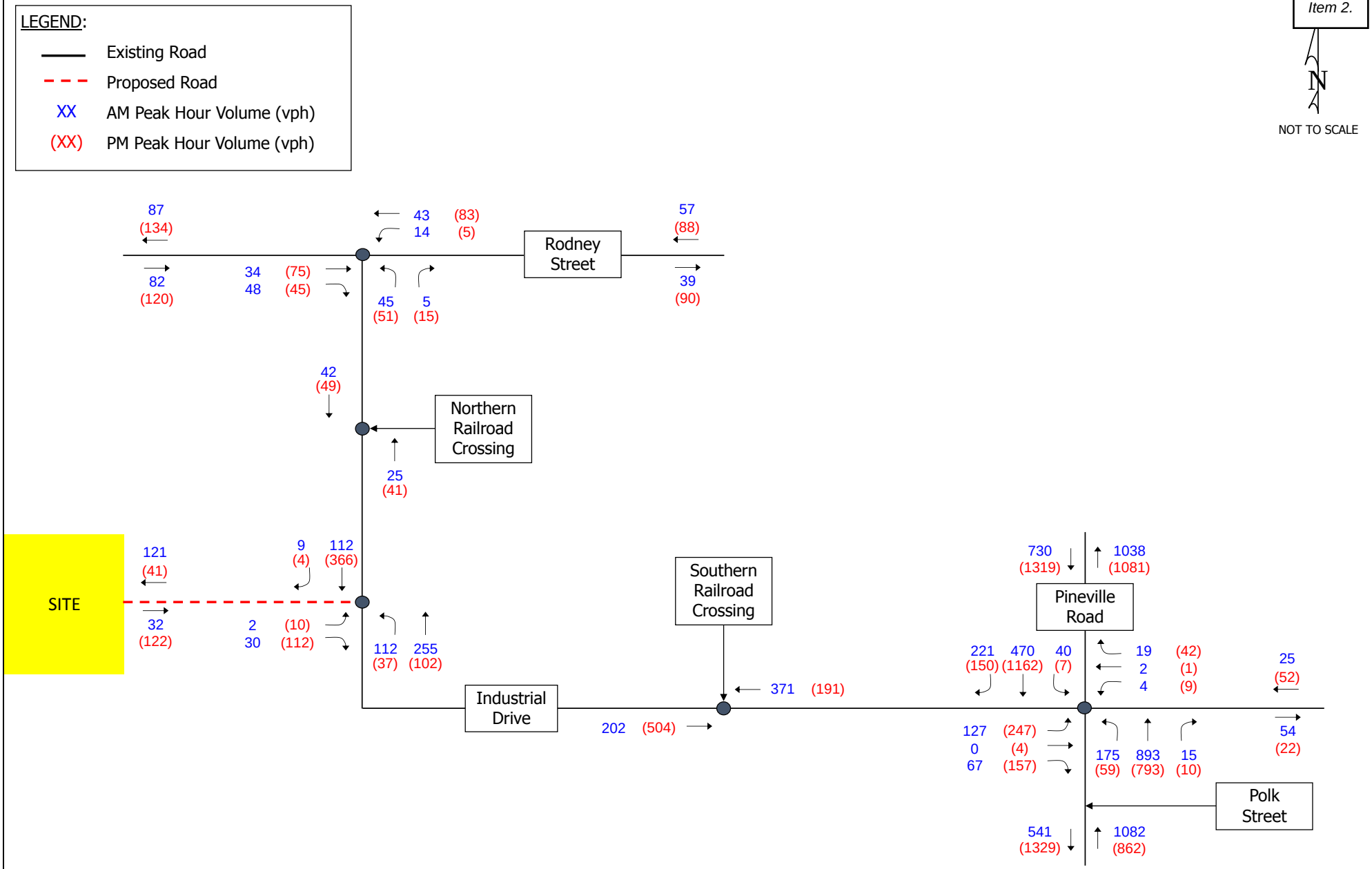
As mentioned earlier in the document, the unsignalized northern railroad crossing includes cross-buck signage for north and southbound drivers to denote the existing crossing. The signalized southern railroad crossing includes overhead flashers, gates, and cross-buck signage for east and westbound drivers to denote the existing crossing. Site Driveway #1 will be located approximately 1,650' (C/L to C/L) south of the northern railroad crossing and approximately 2,715' (C/L to C/L) northwest of the southern railroad crossing. The northern railroad crossing is located approximately 875' (C/L to C/L) south of Rodney Street. Finally, the southern railroad crossing is located approximately 600' (C/L to C/L) west Pineville Road / Polk Street.

Per **Tables 5-1a** and **5-1b**, Synchro projects that the following:

- Site Driveway #1 / Industrial Drive
  - Shared northbound left-turn / through movement 95th percentile queue length projected not to exceed 6-feet during any peak hour for Phases I and II.
  - Shared southbound through / right-turn movement 95th percentile queue length projected to be 0-feet during both peak hours for Phases I and II.
- Industrial Drive / Rodney
  - Shared northbound left/right-turn movement 95th percentile queue length projected not to exceed 12-feet during any peak hour for Phases I and II.
- Industrial Drive / Pineville Road / Polk Street
  - Exclusive eastbound left-turn movement 95th percentile queue length projected not to exceed 508-feet during any peak hour for Phases I and II.
  - Shared eastbound through / right-turn movement 95th percentile queue length projected not to exceed 546-feet during any peak hour for Phases I and II.

Even though the queuing adjacent to the northern railroad crossing is expected to be minimal (northbound queues at Rodney Street or southbound queues at Site Driveway #1), it is recommended that stop bars be repainted and additional warning signs be placed at the existing crossing to help mitigate any potential safety concerns due to the construction of the proposed development.

Because Synchro projects that eastbound vehicles could (potentially) spillback (from Pineville Road / Polk Street) to the southern railroad crossing, it is recommended that stop bars be repainted and additional warning signs be placed at the existing crossing to help mitigate any potential safety concerns due to the construction of the proposed development. As mentioned earlier, the southern railroad crossing currently has significant enhancements (overhead flashing, crossing gates, etc.). Following the improvements mentioned above, adequate protection should exist for both vehicles and trains to allow for the crossing to operate safely and efficiently.



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Pineville Industrial Development
Traffic Impact Analysis
2019 Phase I Build Traffic Volumes

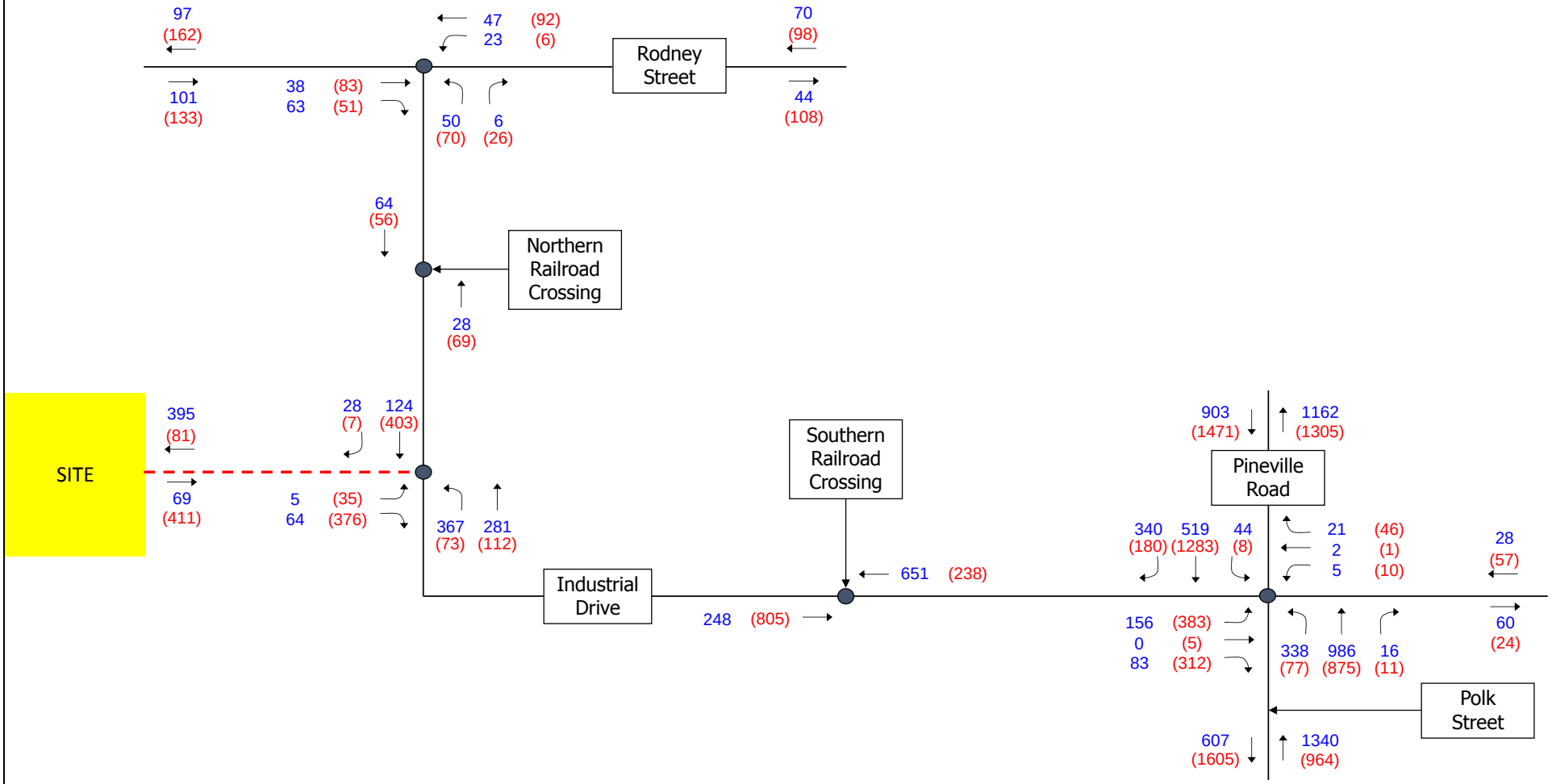
Figure 5-1

LEGEND:

- Existing Road
- Proposed Road
- XX AM Peak Hour Volume (vph)
- (XX) PM Peak Hour Volume (vph)

N

NOT TO SCALE



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Pineville Industrial Development Traffic Impact Analysis

2024 Phase II Build Traffic Volumes

Figure 5-2

6 CONCLUSIONS AND RECOMMENDATIONS

Capacity analyses were performed for 2017 Existing, 2019 Phase I Background (existing + ambient growth + approved development trips), 2024 Phase II Background (existing + ambient growth + Phase I site trips + approved development trips), 2019 Phase I Build (Phase I Background + site trips), and 2024 Phase II Build (Phase II Background + site trips) traffic volumes.

Based on the operational analyses the following is offered:

- The signalized intersection of Polk Street / Pineville Road / Industrial Drive is projected to operate at a LOS D or better during the 2019 Phase I and 2024 Phase II Build AM and PM peak hours. No improvements are recommended to help mitigate future capacity concern at the proposed site driveway.

- All unsignalized intersection movements at the intersection of Industrial Drive / Rodney Street are projected to operate at a LOS B or better during the 2019 Phase I and 2024 Phase II Build AM and PM peak hours. No improvements are recommended to help mitigate future capacity concern at the proposed site driveway.

- All unsignalized intersection movements at Industrial Drive / Site Driveway #1 are projected to operate at a LOS D or better during the 2019 Phase I and 2024 Phase II AM and PM peak hours. No improvements are recommended to help mitigate future capacity concern at the proposed site driveway.

- Queuing is not projected to affect operations at the Industrial Drive / Northern Railroad crossing.

- Queueing is projected to affect operations at Industrial Drive / Southern Railroad crossing.

In closing, the following improvements are recommended in conjunction with the construction of the proposed development:

- Industrial Drive / Northern Railroad Crossing:
    - Installation of stop bars (Phase I); and
    - Installation of additional warning signage (Phase I).

- Industrial Drive / Southern Railroad Crossing:
    - Installation of stop bars (Phase I); and
    - Installation of additional warning signage (Phase I).

Appendix A – Traffic Counts

Burns Service Inc.

1202 Langdon Terrace Drive
Raleigh, NC, 27615

File Name : Pineville(Industrial and Polk) AM Peak
Site Code :
Start Date : 5/25/2017
Page No : 1

Groups Printed- Cars + - Trucks

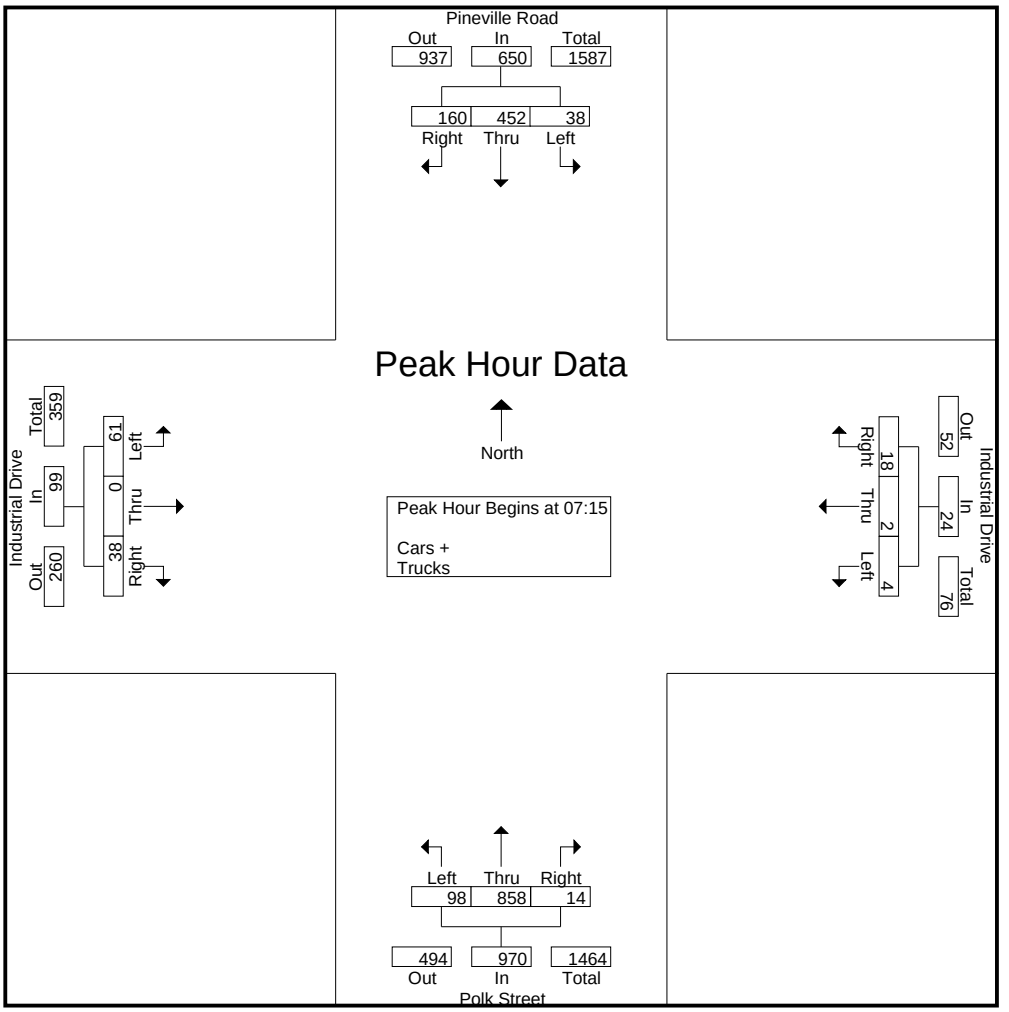
	Pineville Road Southbound				Industrial Drive Westbound				Polk Street Northbound				Industrial Drive Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00	40	66	3	109	2	0	1	3	5	160	19	184	15	1	26	42	338
07:15	38	129	11	178	10	0	1	11	4	222	36	262	10	0	12	22	473
07:30	24	93	7	124	1	1	0	2	5	219	13	237	9	0	19	28	391
07:45	51	129	16	196	3	0	2	5	4	235	34	273	6	0	14	20	494
Total	153	417	37	607	16	1	4	21	18	836	102	956	40	1	71	112	1696
08:00	47	101	4	152	4	1	1	6	1	182	15	198	13	0	16	29	385
08:15	29	150	3	182	6	1	1	8	2	210	11	223	12	1	26	39	452
08:30	13	109	8	130	2	0	0	2	2	180	15	197	4	1	15	20	349
08:45	26	132	9	167	6	1	0	7	3	138	12	153	9	6	20	35	362
Total	115	492	24	631	18	3	2	23	8	710	53	771	38	8	77	123	1548
Grand Total	268	909	61	1238	34	4	6	44	26	1546	155	1727	78	9	148	235	3244
Apprch %	21.6	73.4	4.9		77.3	9.1	13.6		1.5	89.5	9		33.2	3.8	63		
Total %	8.3	28	1.9	38.2	1	0.1	0.2	1.4	0.8	47.7	4.8	53.2	2.4	0.3	4.6	7.2	
Cars +	248	905	61	1214	33	4	6	43	26	1543	153	1722	77	9	128	214	3193
% Cars +	92.5	99.6	100	98.1	97.1	100	100	97.7	100	99.8	98.7	99.7	98.7	100	86.5	91.1	98.4
Trucks	20	4	0	24	1	0	0	1	0	3	2	5	1	0	20	21	51
% Trucks	7.5	0.4	0	1.9	2.9	0	0	2.3	0	0.2	1.3	0.3	1.3	0	13.5	8.9	1.6

Burns Service Inc.

1202 Langdon Terrace Drive
Raleigh, NC, 27615

File Name : Pineville(Industrial and Polk) AM Peak
Site Code :
Start Date : 5/25/2017
Page No : 2

	Pineville Road Southbound				Industrial Drive Westbound				Polk Street Northbound				Industrial Drive Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	**38**	129	11	178	10	0	1	11	4	222	36	262	10	0	12	22	473
07:30	24	93	7	124	1	**1**	0	2	**5**	219	13	237	9	0	**19**	28	391
07:45	**51**	129	**16**	**196**	3	0	**2**	5	4	**235**	34	**273**	6	0	14	20	**494**
08:00	47	101	4	152	4	1	1	6	1	182	15	198	**13**	0	16	**29**	385
Total Volume	160	452	38	650	18	2	4	24	14	858	98	970	38	0	61	99	1743
% App. Total	24.6	69.5	5.8		75	8.3	16.7		1.4	88.5	10.1		38.4	0	61.6		
PHF	.784	.876	.594	.829	.450	.500	.500	.545	.700	.913	.681	.888	.731	.000	.803	.853	.882



Burns Service Inc.

1202 Langdon Terrace Drive
Raleigh, NC, 27615

File Name : Pineville(Industrial and Polk) PM Peak
Site Code :
Start Date : 5/25/2017
Page No : 1

Groups Printed- Cars + - Trucks

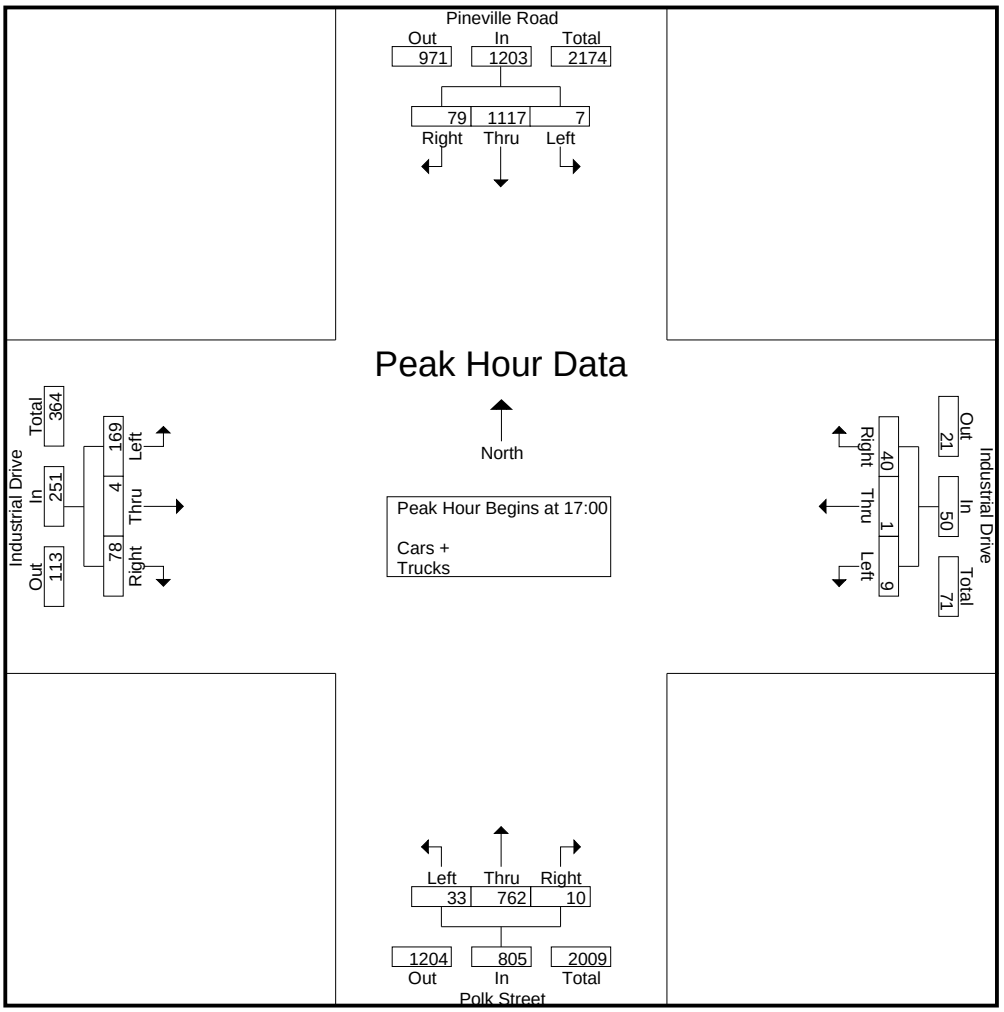
	Pineville Road Southbound				Industrial Drive Westbound				Polk Street Northbound				Industrial Drive Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
16:00	21	193	2	216	13	2	1	16	3	158	9	170	21	3	43	67	469
16:15	18	251	2	271	6	0	3	9	3	137	3	143	27	4	35	66	489
16:30	11	241	6	258	11	0	0	11	1	158	11	170	43	1	76	120	559
16:45	7	261	3	271	7	0	1	8	1	155	4	160	28	0	50	78	517
Total	57	946	13	1016	37	2	5	44	8	608	27	643	119	8	204	331	2034
17:00	20	255	2	277	13	1	4	18	2	220	8	230	31	0	59	90	615
17:15	16	277	1	294	12	0	3	15	3	213	10	226	15	3	45	63	598
17:30	24	282	3	309	11	0	0	11	2	152	9	163	19	1	49	69	552
17:45	19	303	1	323	4	0	2	6	3	177	6	186	13	0	16	29	544
Total	79	1117	7	1203	40	1	9	50	10	762	33	805	78	4	169	251	2309
Grand Total	136	2063	20	2219	77	3	14	94	18	1370	60	1448	197	12	373	582	4343
Apprch %	6.1	93	0.9		81.9	3.2	14.9		1.2	94.6	4.1		33.8	2.1	64.1		
Total %	3.1	47.5	0.5	51.1	1.8	0.1	0.3	2.2	0.4	31.5	1.4	33.3	4.5	0.3	8.6	13.4	
Cars +	125	2060	20	2205	76	3	14	93	18	1366	59	1443	196	12	363	571	4312
% Cars +	91.9	99.9	100	99.4	98.7	100	100	98.9	100	99.7	98.3	99.7	99.5	100	97.3	98.1	99.3
Trucks	11	3	0	14	1	0	0	1	0	4	1	5	1	0	10	11	31
% Trucks	8.1	0.1	0	0.6	1.3	0	0	1.1	0	0.3	1.7	0.3	0.5	0	2.7	1.9	0.7

Burns Service Inc.

1202 Langdon Terrace Drive
Raleigh, NC, 27615

File Name : Pineville(Industrial and Polk) PM Peak
Site Code :
Start Date : 5/25/2017
Page No : 2

	Pineville Road Southbound				Industrial Drive Westbound				Polk Street Northbound				Industrial Drive Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 17:00																	
17:00	**20**	**255**	**2**	**277**	13	1	4	18	2	**220**	8	**230**	**31**	0	**59**	**90**	**615**
17:15	16	277	1	294	12	0	3	15	**3**	213	**10**	226	15	**3**	45	63	598
17:30	**24**	282	**3**	309	11	0	0	11	2	152	9	163	19	1	49	69	552
17:45	19	**303**	1	**323**	4	0	2	6	3	177	6	186	13	0	16	29	544
Total Volume	79	1117	7	1203	40	1	9	50	10	762	33	805	78	4	169	251	2309
% App. Total	6.6	92.9	0.6		80	2	18		1.2	94.7	4.1		31.1	1.6	67.3		
PHF	.823	.922	.583	.931	.769	.250	.563	.694	.833	.866	.825	.875	.629	.333	.716	.697	.939



Burns Service Inc.

1202Langdon Terace Drive
Indian Trail, NC, 28079

File Name : Pineville(Industrial N and Rodney)AM Peak
Site Code :
Start Date : 10/24/2017
Page No : 1

Groups Printed- Cars + - Trucks

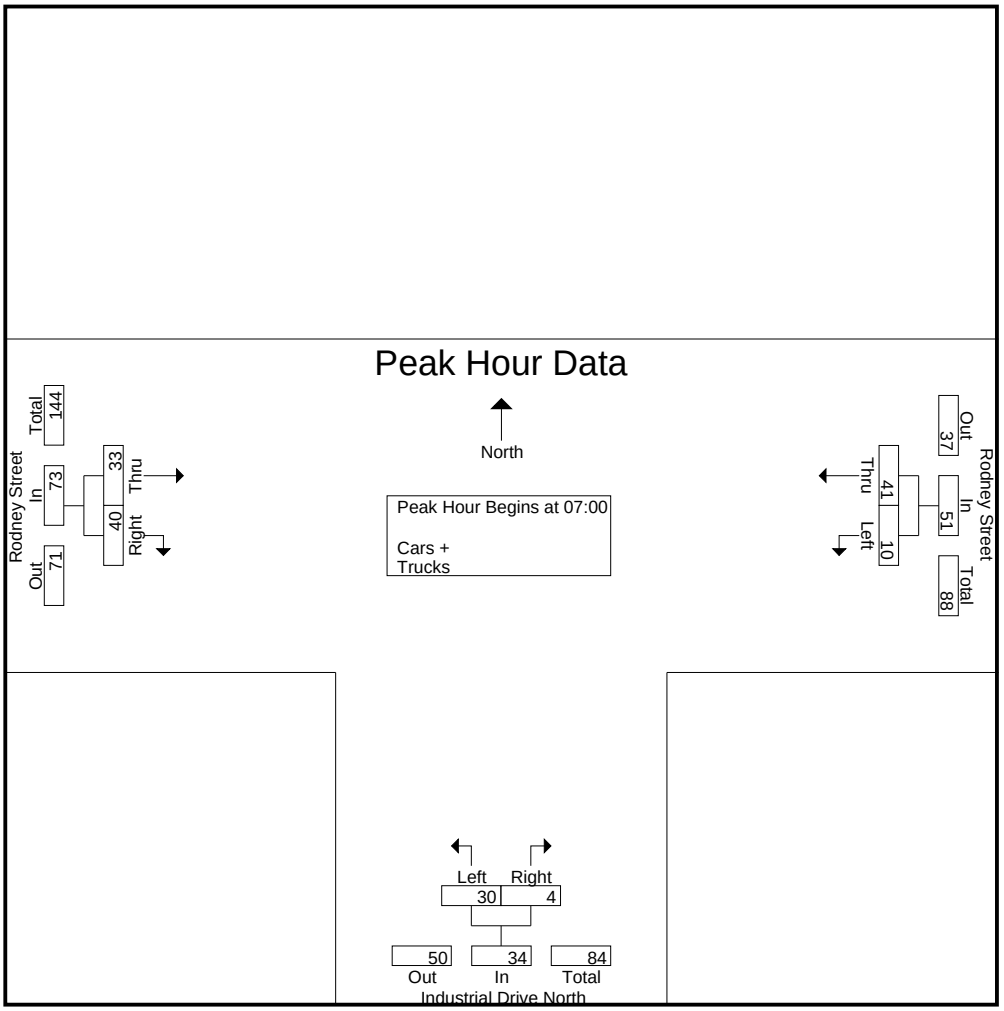
	Rodney Street Westbound			Industrial Drive North Northbound			Rodney Street Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
07:00	8	4	12	2	2	4	15	4	19	35
07:15	11	2	13	1	0	1	5	10	15	29
07:30	11	0	11	0	25	25	14	8	22	58
07:45	11	4	15	1	3	4	6	11	17	36
Total	41	10	51	4	30	34	40	33	73	158
08:00	5	6	11	0	2	2	11	3	14	27
08:15	5	3	8	0	5	5	8	10	18	31
08:30	8	2	10	1	0	1	12	5	17	28
08:45	4	4	8	1	5	6	3	9	12	26
Total	22	15	37	2	12	14	34	27	61	112
Grand Total	63	25	88	6	42	48	74	60	134	270
Apprch %	71.6	28.4		12.5	87.5		55.2	44.8		
Total %	23.3	9.3	32.6	2.2	15.6	17.8	27.4	22.2	49.6	
Cars +	61	24	85	5	40	45	71	57	128	258
% Cars +	96.8	96	96.6	83.3	95.2	93.8	95.9	95	95.5	95.6
Trucks	2	1	3	1	2	3	3	3	6	12
% Trucks	3.2	4	3.4	16.7	4.8	6.2	4.1	5	4.5	4.4

Burns Service Inc.

1202Langdon Terace Drive
Indian Trail, NC, 28079

File Name : Pineville(Industrial N and Rodney)AM Peak
Site Code :
Start Date : 10/24/2017
Page No : 2

	Rodney Street Westbound			Industrial Drive North Northbound			Rodney Street Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00										
07:00	8	**4**	12	**2**	2	4	**15**	4	19	35
07:15	**11**	2	13	1	0	1	5	10	15	29
07:30	11	0	11	0	**25**	**25**	14	8	**22**	**58**
07:45	11	4	**15**	1	3	4	6	**11**	17	36
Total Volume	41	10	51	4	30	34	40	33	73	158
% App. Total	80.4	19.6		11.8	88.2		54.8	45.2		
PHF	.932	.625	.850	.500	.300	.340	.667	.750	.830	.681



Burns Service Inc.

1202Langdon Terace Drive
Indian Trail, NC, 28079

File Name : Pineville(Industrial N and Rodney)PM Peak
Site Code :
Start Date : 10/24/2017
Page No : 1

Groups Printed- Cars + - Trucks

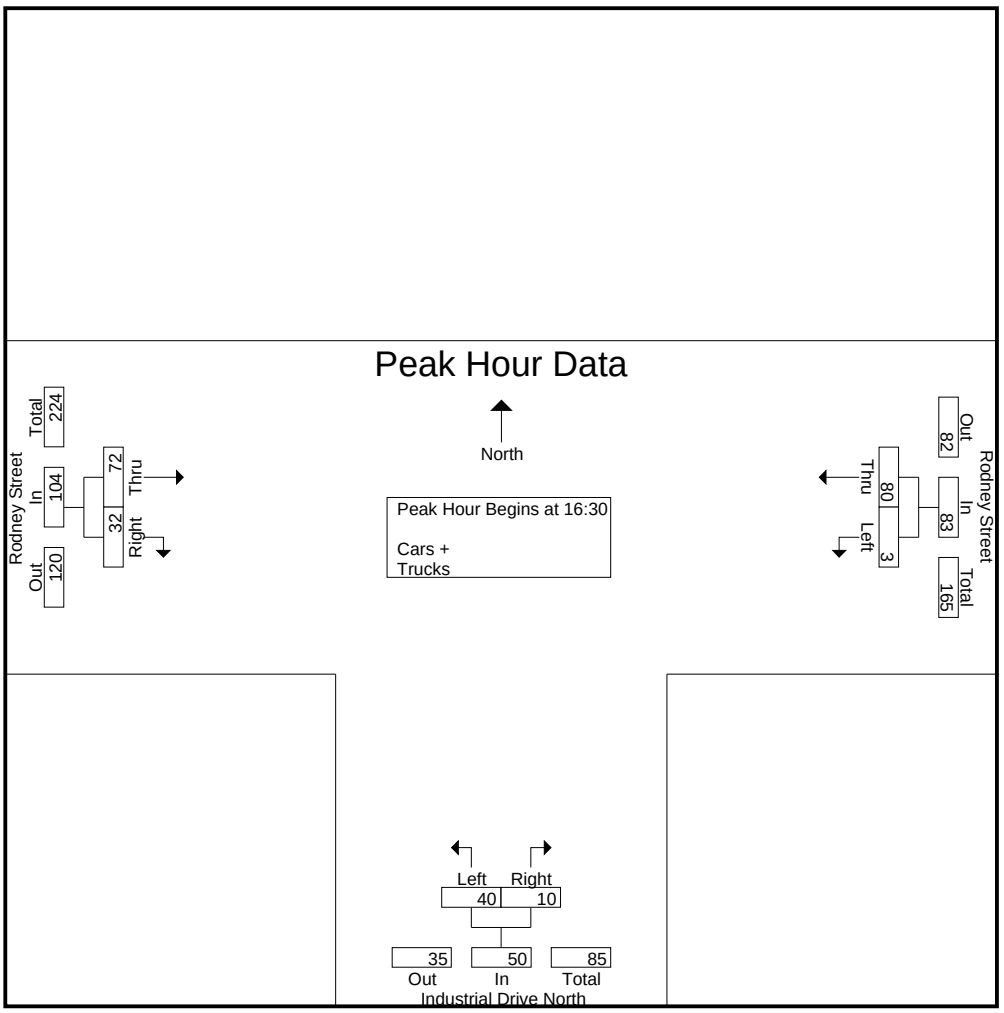
	Rodney Street Westbound			Industrial Drive North Northbound			Rodney Street Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
16:00	23	4	27	7	5	12	3	10	13	52
16:15	8	3	11	5	7	12	6	12	18	41
16:30	37	1	38	3	8	11	5	15	20	69
16:45	12	1	13	4	15	19	5	15	20	52
Total	80	9	89	19	35	54	19	52	71	214
17:00	18	0	18	1	6	7	13	23	36	61
17:15	13	1	14	2	11	13	9	19	28	55
17:30	6	1	7	0	9	9	5	13	18	34
17:45	8	1	9	0	3	3	4	12	16	28
Total	45	3	48	3	29	32	31	67	98	178
Grand Total	125	12	137	22	64	86	50	119	169	392
Apprch %	91.2	8.8		25.6	74.4		29.6	70.4		
Total %	31.9	3.1	34.9	5.6	16.3	21.9	12.8	30.4	43.1	
Cars +	124	11	135	22	61	83	41	115	156	374
% Cars +	99.2	91.7	98.5	100	95.3	96.5	82	96.6	92.3	95.4
Trucks	1	1	2	0	3	3	9	4	13	18
% Trucks	0.8	8.3	1.5	0	4.7	3.5	18	3.4	7.7	4.6

Burns Service Inc.

1202Langdon Terace Drive
Indian Trail, NC, 28079

File Name : Pineville(Industrial N and Rodney)PM Peak
Site Code :
Start Date : 10/24/2017
Page No : 2

	Rodney Street Westbound			Industrial Drive North Northbound			Rodney Street Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 16:30										
16:30	**37**	**1**	**38**	3	8	11	5	15	20	**69**
16:45	12	1	13	**4**	**15**	**19**	5	15	20	52
17:00	18	0	18	1	6	7	**13**	**23**	**36**	61
17:15	13	1	14	2	11	13	9	19	28	55
Total Volume	80	3	83	10	40	50	32	72	104	237
% App. Total	96.4	3.6		20	80		30.8	69.2		
PHF	.541	.750	.546	.625	.667	.658	.615	.783	.722	.859



Burns Service Inc.

1202Langdon Terace Drive
Indian Trail, NC, 28079

File Name : Pineville(Industrial Northern RR Crossing)AM Peak
Site Code :
Start Date : 10/24/2017
Page No : 1

Groups Printed- Cars + - Trucks

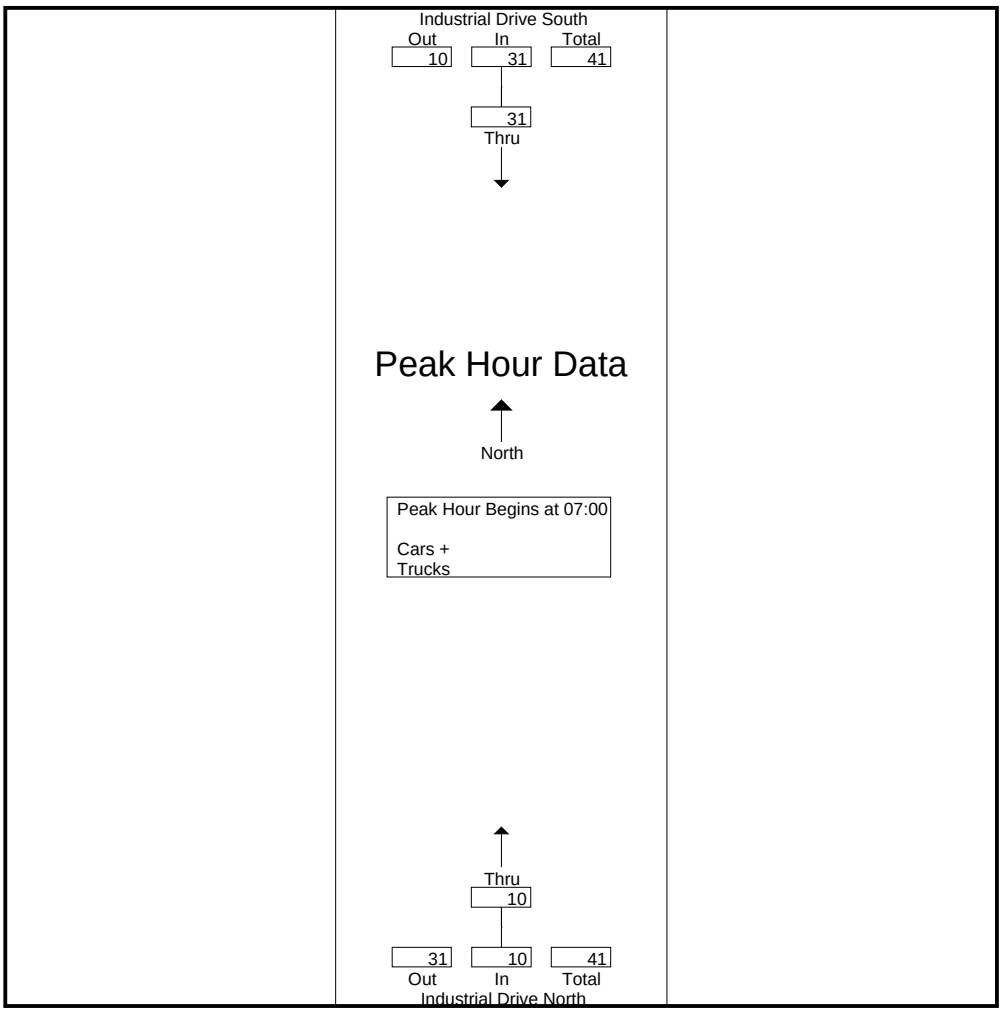
	Industrial Drive South Southbound		Industrial Drive North Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
07:00	9	9	5	5	14
07:15	8	8	0	0	8
07:30	11	11	2	2	13
07:45	3	3	3	3	6
Total	31	31	10	10	41
08:00	11	11	1	1	12
08:15	5	5	5	5	10
08:30	8	8	1	1	9
08:45	7	7	3	3	10
Total	31	31	10	10	41
Grand Total	62	62	20	20	82
Apprch %	100		100		
Total %	75.6	75.6	24.4	24.4	
Cars +	60	60	18	18	78
% Cars +	96.8	96.8	90	90	95.1
Trucks	2	2	2	2	4
% Trucks	3.2	3.2	10	10	4.9

Burns Service Inc.

1202Langdon Terace Drive
Indian Trail, NC, 28079

File Name : Pineville(Industrial Northern RR Crossing)AM Peak
Site Code :
Start Date : 10/24/2017
Page No : 2

	Industrial Drive South Southbound		Industrial Drive North Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1					
Peak Hour for Entire Intersection Begins at 07:00					
07:00	9	9	**5**	**5**	**14**
07:15	8	8	0	0	8
07:30	**11**	**11**	2	2	13
07:45	3	3	3	3	6
Total Volume	31	31	10	10	41
% App. Total	100		100		
PHF	.705	.705	.500	.500	.732



Burns Service Inc.

1202Langdon Terace Drive
Indian Trail, NC, 28079

File Name : Pineville(Industrial Northern RR Crossing)PM Peak
Site Code :
Start Date : 10/24/2017
Page No : 1

Groups Printed- Cars + - Trucks

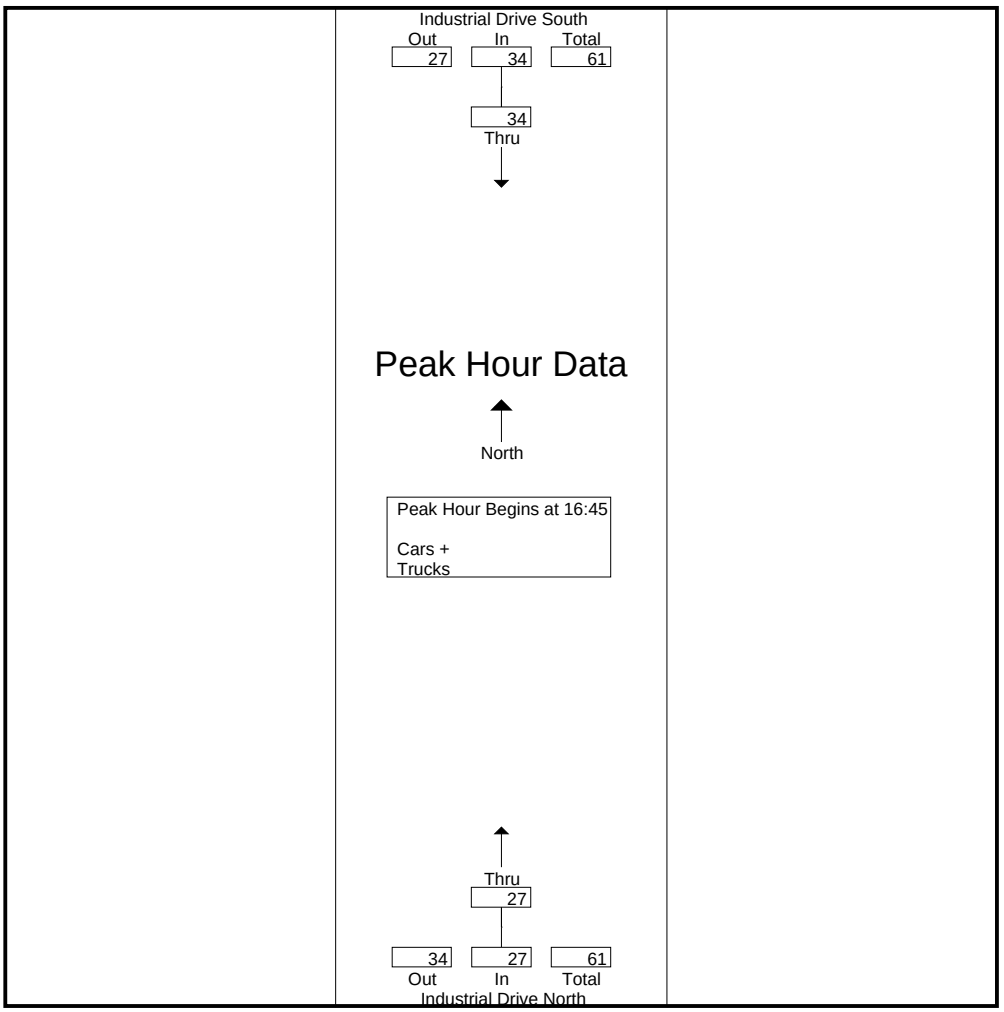
	Industrial Drive South Southbound		Industrial Drive North Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
16:00	0	0	0	0	0
16:15	3	3	4	4	7
16:30	2	2	2	2	4
16:45	6	6	10	10	16
Total	11	11	16	16	27
17:00	14	14	2	2	16
17:15	9	9	5	5	14
17:30	5	5	10	10	15
17:45	2	2	2	2	4
Total	30	30	19	19	49
Grand Total	41	41	35	35	76
Apprch %	100		100		
Total %	53.9	53.9	46.1	46.1	
Cars +	34	34	35	35	69
% Cars +	82.9	82.9	100	100	90.8
Trucks	7	7	0	0	7
% Trucks	17.1	17.1	0	0	9.2

Burns Service Inc.

1202Langdon Terace Drive
Indian Trail, NC, 28079

File Name : Pineville(Industrial Northern RR Crossing)PM Peak
Site Code :
Start Date : 10/24/2017
Page No : 2

	Industrial Drive South Southbound		Industrial Drive North Northbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1					
Peak Hour for Entire Intersection Begins at 16:45					
16:45	6	6	**10**	**10**	**16**
17:00	**14**	**14**	2	2	16
17:15	9	9	5	5	14
17:30	5	5	10	10	15
Total Volume	34	34	27	27	61
% App. Total	100		100		
PHF	.607	.607	.675	.675	.953



Burns Service Inc.

1202Langdon Terace Drive
Indian Trail, NC, 28079

File Name : Pineville(Industrial Southern RR Crossing)AM Peak
Site Code :
Start Date : 10/24/2017
Page No : 1

Groups Printed- Cars + - Trucks

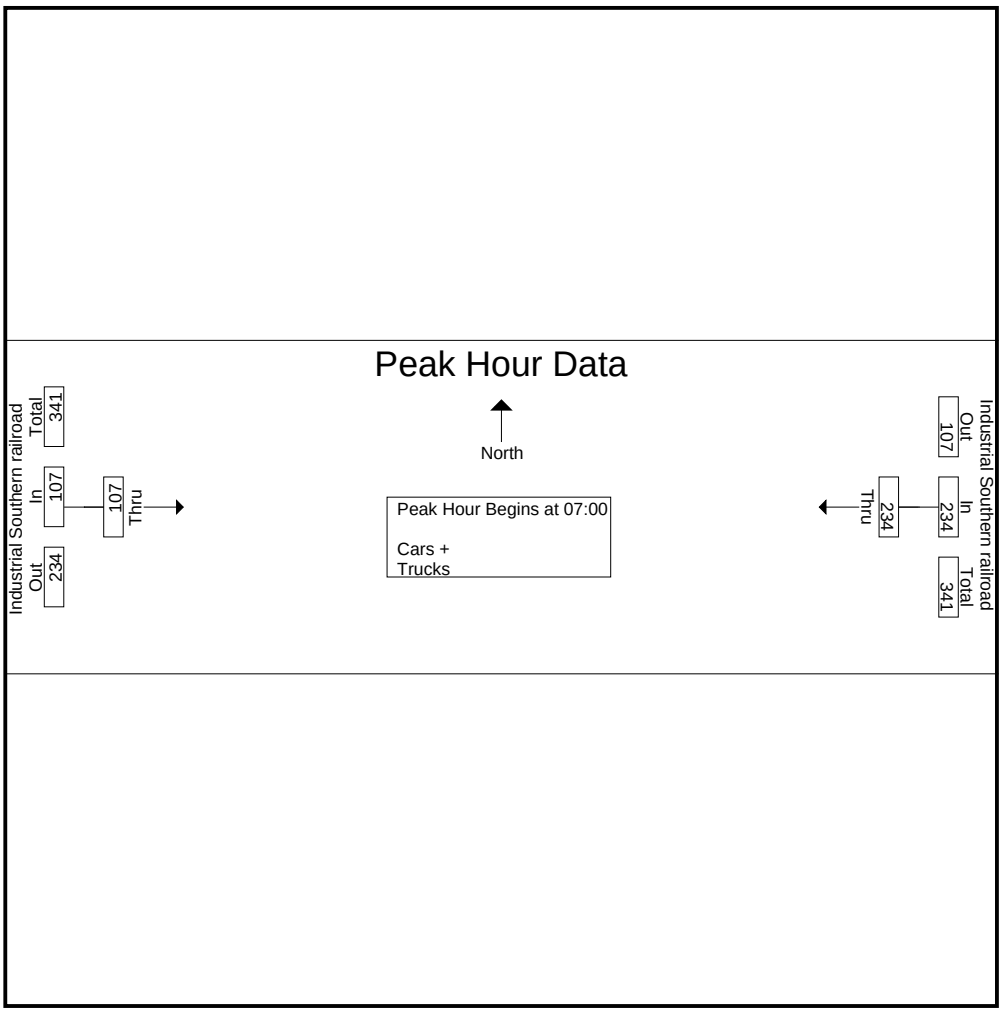
	Industrial Southern railroad Westbound		Industrial Southern railroad Eastbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
07:00	63	63	38	38	101
07:15	54	54	28	28	82
07:30	48	48	17	17	65
07:45	69	69	24	24	93
Total	234	234	107	107	341
08:00	66	66	19	19	85
08:15	54	54	20	20	74
08:30	36	36	30	30	66
08:45	34	34	25	25	59
Total	190	190	94	94	284
Grand Total	424	424	201	201	625
Apprch %	100		100		
Total %	67.8	67.8	32.2	32.2	
Cars +	402	402	184	184	586
% Cars +	94.8	94.8	91.5	91.5	93.8
Trucks	22	22	17	17	39
% Trucks	5.2	5.2	8.5	8.5	6.2

Burns Service Inc.

1202Langdon Terace Drive
Indian Trail, NC, 28079

File Name : Pineville(Industrial Southern RR Crossing)AM Peak
Site Code :
Start Date : 10/24/2017
Page No : 2

	Industrial Southern railroad Westbound		Industrial Southern railroad Eastbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1					
Peak Hour for Entire Intersection Begins at 07:00					
07:00	63	63	**38**	**38**	**101**
07:15	54	54	28	28	82
07:30	48	48	17	17	65
07:45	**69**	**69**	24	24	93
Total Volume	234	234	107	107	341
% App. Total	100		100		
PHF	.848	.848	.704	.704	.844



Burns Service Inc.

1202Langdon Terace Drive
Indian Trail, NC, 28079

File Name : Pineville(Industrial Southern RR Crossing)PM Peak
Site Code :
Start Date : 10/24/2017
Page No : 1

Groups Printed- Cars + - Trucks

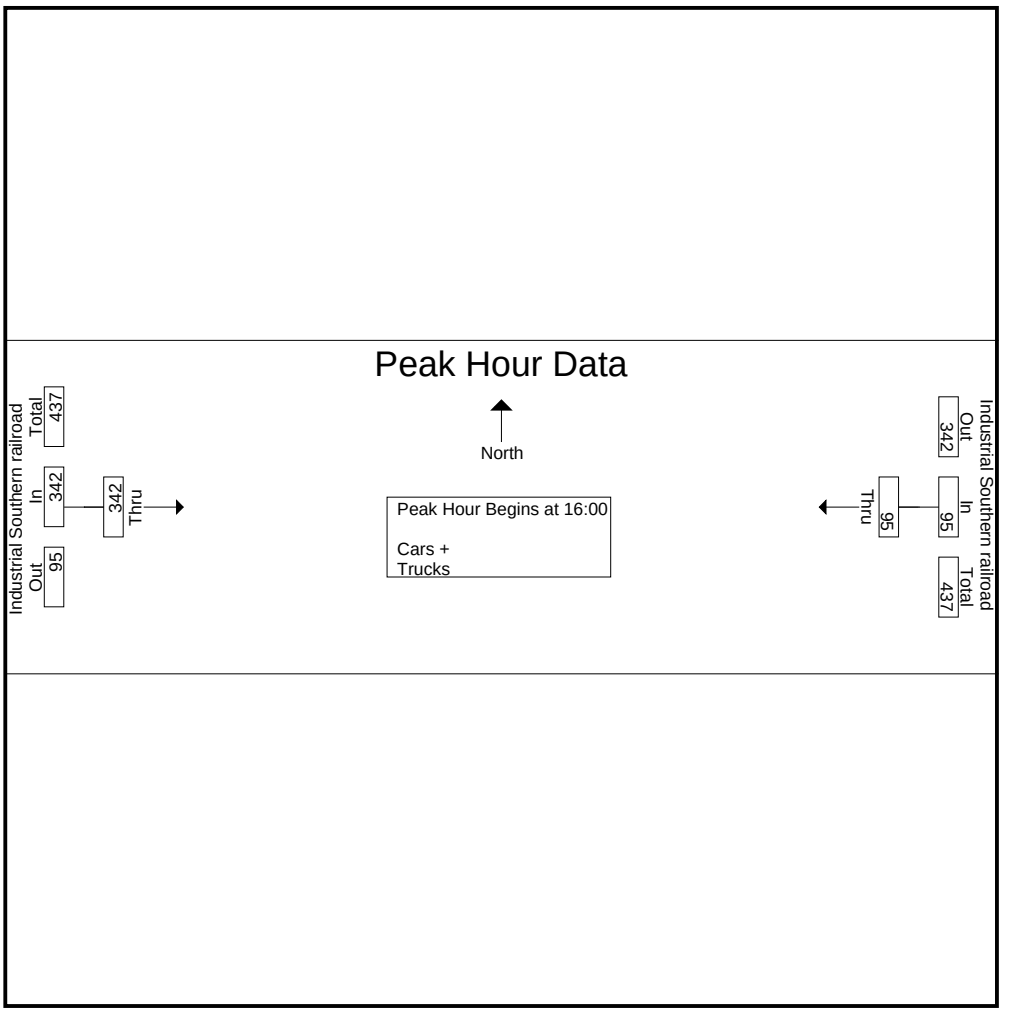
	Industrial Southern railroad Westbound		Industrial Southern railroad Eastbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
16:00	28	28	96	96	124
16:15	24	24	66	66	90
16:30	23	23	114	114	137
16:45	20	20	66	66	86
Total	95	95	342	342	437
17:00	23	23	96	96	119
17:15	22	22	66	66	88
17:30	19	19	38	38	57
17:45	21	21	44	44	65
Total	85	85	244	244	329
Grand Total	180	180	586	586	766
Apprch %	100		100		
Total %	23.5	23.5	76.5	76.5	
Cars +	158	158	564	564	722
% Cars +	87.8	87.8	96.2	96.2	94.3
Trucks	22	22	22	22	44
% Trucks	12.2	12.2	3.8	3.8	5.7

Burns Service Inc.

1202Langdon Terace Drive
Indian Trail, NC, 28079

File Name : Pineville(Industrial Southern RR Crossing)PM Peak
Site Code :
Start Date : 10/24/2017
Page No : 2

	Industrial Southern railroad Westbound		Industrial Southern railroad Eastbound		
Start Time	Thru	App. Total	Thru	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1					
Peak Hour for Entire Intersection Begins at 16:00					
16:00	**28**	**28**	96	96	124
16:15	24	24	66	66	90
16:30	23	23	**114**	**114**	**137**
16:45	20	20	66	66	86
Total Volume	95	95	342	342	437
% App. Total	100		100		
PHF	.848	.848	.750	.750	.797



Appendix B – Accident Data

North Carolina Department of Transportation
Traffic Engineering Accident Analysis System
Fiche, Intersection, and Strip Reports Code Index

T - Type of Accident Codes

0 = UNKNOWN
1 = RAN OFF ROAD - RIGHT
2 = RAN OFF ROAD - LEFT
3 = RAN OFF ROAD - STRAIGHT
4 = JACKKNIFE
5 = OVERTURN/ROLLOVER
13 = OTHER NON-COLLISION
14 = PEDESTRIAN
15 = PEDALCYCLIST
16 = RR TRAIN, ENGINE
17 = ANIMAL
18 = MOVABLE OBJECT
19 = FIXED OBJECT
20 = PARKED MOTOR VEHICLE
21 = REAR END, SLOW OR STOP
22 = REAR END, TURN
23 = LEFT TURN, SAME ROADWAY
24 = LEFT TURN, DIFFERENT ROADWAYS
25 = RIGHT TURN, SAME ROADWAY
26 = RIGHT TURN, DIFFERENT ROADWAYS
27 = HEAD ON
28 = SIDESWIPE, SAME DIRECTION
29 = SIDESWIPE, OPPOSITE DIRECTION
30 = ANGLE
31 = BACKING UP
32 = OTHER COLLISION WITH VEHICLE

F - Road Feature Codes

0 = NO SPECIAL FEATURE
1 = BRIDGE
2 = BRIDGE APPROACH
3 = UNDERPASS
4 = DRIVEWAY, PUBLIC
5 = DRIVEWAY, PRIVATE
6 = ALLEY INTERSECTION
7 = FOUR-WAY INTERSECTION
8 = T-INTERSECTION
9 = Y-INTERSECTION
10 = TRAFFIC CIRCLE/ROUNDABOUT
11 = FIVE-POINT, OR MORE
12 = RELATED TO INTERSECTION
13 = NON-INTERSECTION MEDIAN CROSSING
14 = END OR BEGINNING - DIVIDED HIGHWAY
15 = OFF RAMP ENTRY
16 = OFF RAMP PROPER
17 = OFF RAMP TERMINAL ON CROSSROAD
18 = MERGE LANE BETWEEN ON AND OFF RAMP
19 = ON RAMP ENTRY
20 = ON RAMP PROPER
21 = ON RAMP TERMINAL ON CROSSROAD
22 = RAILROAD CROSSING
23 = TUNNEL
24 = SHARED-USE PATHS OR TRAILS
25 = OTHER

R - Road Condition Codes

1 = DRY
2 = WET
3 = WATER (STANDING, MOVING)
4 = ICE
5 = SNOW
6 = SLUSH
7 = SAND, MUD, DIRT, GRAVEL
8 = FUEL, OIL
9 = OTHER
10 = UNKNOWN

L - Light Condition Codes

1 = DAYLIGHT
2 = DUSK
3 = DAWN
4 = DARK - LIGHTED ROADWAY
5 = DARK - ROADWAY NOT LIGHTED
6 = DARK - UNKNOWN LIGHTING
7 = OTHER
8 = UNKNOWN

W - Weather Condition Codes

1 = CLEAR
2 = CLOUDY
3 = RAIN
4 = SNOW
5 = FOG, SMOG, SMOKE
6 = SLEET, HAIL, FREEZING RAIN/DRIZZLE
7 = SEVERE CROSSWINDS
8 = BLOWING SAND, DIRT, SNOW
9 = OTHER

S - Accident Severity Codes

K = FATAL
A = A-LEVEL INJURY
B = B-LEVEL INJURY
C = C-LEVEL INJURY
O = PROPERTY DAMAGE ONLY

Ch - Road Character

1 = STRAIGHT, LEVEL
2 = STRAIGHT, HILLCREST
3 = STRAIGHT, GRADE
4 = STRAIGHT, BOTTOM (SAG)
5 = CURVE, LEVEL
6 = CURVE, HILLCREST
7 = CURVE, GRADE
8 = CURVE, BOTTOM (SAG)
9 = OTHER

Op - Traffic Control Operating

1 = YES
2 = NO
3 = UNKNOWN

North Carolina Department of Transportation
Traffic Engineering Accident Analysis System
Fiche, Intersection, and Strip Reports Code Index

Veh Mnvr - Vehicle Maneuver Codes

1 = STOPPED IN TRAVEL LANE
2 = PARKED OUT OF TRAVEL LANES
3 = PARKED IN TRAVEL LANES
4 = GOING STRAIGHT AHEAD
5 = CHANGING LANES OR MERGING
6 = PASSING
7 = MAKING RIGHT TURN
8 = MAKING LEFT TURN
9 = MAKING U-TURN
10 = BACKING
11 = SLOWING OR STOPPING
12 = STARTING IN ROADWAY
13 = PARKING
14 = LEAVING PARKED POSITION
15 = AVOIDING OBJECT IN ROAD

Dv - Traffic Control Device

0 = NO CONTROL PRESENT
1 = STOP SIGN
2 = YIELD SIGN
3 = STOP AND GO SIGNAL
4 = FLASHING SIGNAL WITH STOP SIGN
5 = FLASHING SIGNAL WITHOUT STOP SIGN
6 = RR GATE AND FLASHER
7 = RR FLASHER
8 = RR CROSSBUCKS ONLY
9 = HUMAN CONTROL
10 = WARNING SIGN
11 = SCHOOL ZONE SIGNS
12 = FLASHING STOP AND GO SIGNAL
13 = DOUBLE YELLOW LINE, NO PASSING ZONE
14 = OTHER

Alchl/Drgs - Driver Alcohol/Drugs Suspected Status Codes

0 = NO
1 = YES - ALCOHOL, IMPAIRMENT SUSPECTED
2 = YES - ALCOHOL, NO IMPAIRMENT DETECTED
3 = YES - OTHER DRUGS, IMPAIRMENT SUSPECTED
4 = YES - OTHER DRUGS, NO IMPAIRMENT DETECTED
5 = YES - ALCOHOL AND OTHER DRUGS, IMPAIRMENT SUSPECTED
6 = YES - ALCOHOL AND OTHER DRUGS, NO IMPAIRMENT DETECTED
7 = UNKNOWN

Ped Actn - Pedestrian Action Codes

1 = ENTERING OR CROSSING SPECIFIED LOCATION
2 = WALKING, RIDING, RUNNING/JOGGING WITH TRAFFIC
3 = WALKING, RIDING, RUNNING/JOGGING AGAINST TRAFFIC
4 = WORKING
5 = PUSHING VEHICLE
6 = APPROACHING OR LEAVING VEHICLE
7 = PLAYING
8 = STANDING
9 = OTHER

Ci - Roadway Contributing Circumstances

0 = NONE (NO UNUSUAL CONDITIONS)
1 = ROAD SURFACE CONDITION
2 = DEBRIS
3 = RUT, HOLES, BUMPS
4 = WORK ZONE (CONSTRUCTION, MAINTENANCE, UTILITY)
5 = WORN TRAVEL-POLISHED SURFACE
6 = OBSTRUCTION IN ROADWAY
7 = TRAFFIC CONTROL DEVICE INOPERATIVE, NOT VISIBLE OR MISSING
8 = SHOULDERS LOW, SOFT OR HIGH
9 = NO SHOULDERS
10 = NON-HIGHWAY WORK
11 = OTHER
12 = UNKNOWN

North Carolina Department of Transportation
Traffic Engineering Accident Analysis System
Fiche, Intersection, and Strip Reports Code Index

Obj Strk - Object Struck Codes

14 = PEDESTRIAN
15 = PEDALCYCLIST
17 = ANIMAL
18 = MOVABLE OBJECT
20 = PARKED MOTOR VEHICLE
33 = TREE
34 = UTILITY POLE
35 = LUMINAIRE POLE NON-BREAKAWAY
36 = LUMINAIRE POLE BREAKAWAY
37 = OFFICIAL HIGHWAY SIGN NON-BREAKAWAY
38 = OFFICIAL HIGHWAY SIGN BREAKAWAY
39 = OVERHEAD SIGN SUPPORT
40 = COMMERCIAL SIGN
41 = GUARDRAIL END ON SHOULDER
42 = GUARDRAIL FACE ON SHOULDER
43 = GUARDRAIL END IN MEDIAN
44 = GUARDRAIL FACE IN MEDIAN
45 = SHOULDER BARRIER END
46 = SHOULDER BARRIER FACE
47 = MEDIAN BARRIER END
48 = MEDIAN BARRIER FACE
49 = BRIDGE RAIL END
50 = BRIDGE RAIL FACE
51 = OVERHEAD PART UNDERPASS
52 = PIER ON SHOULDER OF UNDERPASS
53 = PIER IN MEDIAN OF UNDERPASS
54 = ABUTMENT OF UNDERPASS
55 = TRAFFIC ISLAND CURB OR MEDIAN
56 = CATCH BASIN OR CULVERT ON SHOULDER
57 = CATCH BASIN OR CULVERT ON MEDIAN
58 = DITCH
59 = EMBANKMENT
60 = MAILBOX
61 = FENCE OR FENCE POST
62 = CONTRUCTION BARRIER
63 = CRASH CUSHION
64 = OTHER FIXED OBJECT

Unit # - Vehicle Style Codes

1 = PASSENGER CAR
2 = PICKUP
3 = LIGHT TRUCK (MINI-VAN, PANEL)
4 = SPORT UTILITY
5 = VAN
6 = COMMERCIAL BUS
7 = SCHOOL BUS
8 = ACTIVITY BUS
9 = OTHER BUS
10 = SINGLE UNIT TRUCK (2-AXLE, 6-TIRE)
11 = SINGLE UNIT TRUCK (3 OR MORE AXLES)
12 = TRUCK/TRAILER
13 = TRUCK/TRACTOR
14 = TRACTOR/SEMI-TRAILER
15 = TRACTOR/DOULBES
16 = UNKNOWN HEAVY TRUCK
17 = TAXICAB
18 = FARM EQUIPMENT
19 = FARM TRACTOR
20 = MOTORCYCLE
21 = MOPED
22 = MOTOR SCOOTER OR MOTOR BIKE
23 = PEDALCYCLE
24 = PEDESTRIAN
25 = MOTOR HOME/RECREATIONAL VEHICLE
26 = OTHER
27 = ALL TERRAIN VEHICLE (ATV)
28 = FIRETRUCK
29 = EMS VEHICLE, AMBULANCE, RESCUE SQUAD
30 = MILITARY
31 = POLICE
32 = UNKNOWN

North Carolina Department of Transportation
Traffic Engineering Accident Analysis System
Intersection Analysis Report

Study Criteria Summary

County: MECKLENBURG **City:** All and Rural
Date: 05/01/2012 **to** 04/30/2017 **Study:** 41000047242
Location: US 521 (Polk St-Pineville Rd) at SR 3542 (Industrial Dr). **Crash rates contained in this analysis should not be used**

Report Details

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
1	**103473281**	05/23/2012 15:13	REAR END, SLOW OR STOP	$ 2000	0	0	0	0	1	1	1	1	0	3	1
Unit	**1 : 1**	**Alchl/Drgs:** 0	**Speed:** 10 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 11					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 0 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 11					**Obj Strk:**						
2	**103600255**	10/27/2012 10:30	REAR END, SLOW OR STOP	$ 11200	0	0	0	2	1	1	2	1	0	3	1
Unit	**1 : 1**	**Alchl/Drgs:** 0	**Speed:** 35 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 25 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 11					**Obj Strk:** 20						
Unit	**3 : 1**	**Alchl/Drgs:** 7	**Speed:** 0 MPH **Dir:** W	**Veh Mnvr / Ped Actn:** 2					**Obj Strk:** 20						
3	**103720686**	02/15/2013 22:34	ANGLE	$ 3400	0	0	0	0	1	5	1	1	0	3	1
Unit	**1 : 4**	**Alchl/Drgs:** 0	**Speed:** 20 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
Unit	**2 : 10**	**Alchl/Drgs:** 0	**Speed:** 15 MPH **Dir:** E	**Veh Mnvr / Ped Actn:** 7					**Obj Strk:**						
4	**103751319**	04/29/2013 13:01	LEFT TURN, SAME ROADWAY	$ 7500	0	0	0	0	1	1	2	3	0	3	1
Unit	**1 : 1**	**Alchl/Drgs:** 0	**Speed:** 5 MPH **Dir:** W	**Veh Mnvr / Ped Actn:** 8					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 35 MPH **Dir:** SW	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
5	**103918119**	10/17/2013 17:53	REAR END, SLOW OR STOP	$ 7000	0	0	0	2	2	1	3	1	0		
Unit	**1 : 1**	**Alchl/Drgs:** 0	**Speed:** 25 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
Unit	**2 : 5**	**Alchl/Drgs:** 0	**Speed:** 0 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 1					**Obj Strk:**						
6	**103983348**	12/27/2013 17:37	REAR END, SLOW OR STOP	$ 1200	0	0	0	0	1	4	1	1	0	0	
Unit	**1 : 4**	**Alchl/Drgs:** 0	**Speed:** 5 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 12					**Obj Strk:**						
Unit	**2 : 4**	**Alchl/Drgs:** 0	**Speed:** 5 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 1					**Obj Strk:**						
7	**104009922**	02/08/2014 16:24	REAR END, SLOW OR STOP	$ 2500	0	0	0	0	1	1	1	1	0		
Unit	**1 : 1**	**Alchl/Drgs:** 0	**Speed:** 25 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 5 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 11					**Obj Strk:**						
8	**104028058**	03/08/2014 10:22	REAR END, SLOW OR STOP	$ 3250	0	0	0	0	1	1	1	1	0	3	1
Unit	**1 : 4**	**Alchl/Drgs:** 0	**Speed:** 40 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						

North Carolina Department of Transportation
Traffic Engineering Accident Analysis System
Intersection Analysis Report

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 40 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 11					**Obj Strk:**						
9	**104144964**	07/18/2014 08:37	RIGHT TURN, SAME ROADWAY	$ 7200	0	0	0	0	1	1	1	1	0	3	1
Unit	**1 : 14**	**Alchl/Drgs:** 0	**Speed:** 8 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 7					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 5 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 7					**Obj Strk:**						
10	**104156148**	08/12/2014 17:27	REAR END, SLOW OR STOP	$ 3200	0	0	0	1	1	1	1	1	0	3	1
Unit	**1 : 1**	**Alchl/Drgs:** 0	**Speed:** 20 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 11					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 20 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 11					**Obj Strk:**						
Unit	**3 : 2**	**Alchl/Drgs:** 0	**Speed:** 20 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 1					**Obj Strk:**						
11	**104244597**	11/08/2014 22:36	REAR END, SLOW OR STOP	$ 1000	0	0	0	0	1	4	1	1	0		
Unit	**1 : 4**	**Alchl/Drgs:** 1	**Speed:** 35 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 11					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 0 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 1					**Obj Strk:**						
12	**104246853**	12/17/2014 17:50	ANGLE	$ 600	0	0	0	0	1	4	1	1	0	3	1
Unit	**1 : 1**	**Alchl/Drgs:** 0	**Speed:** 0 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 8					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 10 MPH **Dir:** NW	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
13	**104281833**	12/19/2014 16:03	REAR END, SLOW OR STOP	$ 1050	0	0	0	0	1	1	1	1	0		
Unit	**1 : 4**	**Alchl/Drgs:** 0	**Speed:** 20 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 11					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 15 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 1					**Obj Strk:**						
14	**104271217**	01/17/2015 19:17	RAN OFF ROAD - LEFT	$ 15100	0	0	0	1	1	4	1	1	0	0	
Unit	**1 : 2**	**Alchl/Drgs:** 0	**Speed:** 47 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 5					**Obj Strk:** 55						
15	**104298852**	02/19/2015 18:42	REAR END, SLOW OR STOP	$ 1500	0	0	0	0	1	4	1	1	0	0	
Unit	**1 : 1**	**Alchl/Drgs:** 0	**Speed:** 15 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 11					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 10 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 1					**Obj Strk:**						
16	**104438671**	07/18/2015 13:19	REAR END, SLOW OR STOP	$ 2000	0	0	0	0	1	1	1	1	0	0	
Unit	**1 : 4**	**Alchl/Drgs:** 7	**Speed:** 25 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 7	**Speed:** 0 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 1					**Obj Strk:**						
17	**104441323**	07/24/2015 14:37	REAR END, SLOW OR STOP	$ 2200	0	0	0	1	1	1	1	1	0	3	1
Unit	**1 : 5**	**Alchl/Drgs:** 0	**Speed:** 20 MPH **Dir:** NW	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
Unit	**2 : 4**	**Alchl/Drgs:** 0	**Speed:** 0 MPH **Dir:** NW	**Veh Mnvr / Ped Actn:** 1					**Obj Strk:**						

North Carolina Department of Transportation
Traffic Engineering Accident Analysis System
Intersection Analysis Report

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
18	**104448464**	07/30/2015 12:05	RAN OFF ROAD - RIGHT	$ 1805	0	0	0	1	1	1	1	1	0	5	1
Unit	**1 : 2**	**Alchl/Drgs:** 0	**Speed:** 35 MPH **Dir:** NE	**Veh Mnvr / Ped Actn:** 8					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 35 MPH **Dir:** SW	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:** 18						
19	**104508930**	10/05/2015 11:48	REAR END, SLOW OR STOP	$ 9500	0	0	0	1	1	1	2	1	0	3	1
Unit	**1 : 5**	**Alchl/Drgs:** 0	**Speed:** 30 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
Unit	**2 : 2**	**Alchl/Drgs:** 7	**Speed:** 0 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 1					**Obj Strk:**						
20	**104554191**	11/12/2015 20:10	LEFT TURN, DIFFERENT ROADWAYS	$ 2000	0	0	0	0	1	4	1	1	0	3	1
Unit	**1 : 4**	**Alchl/Drgs:** 0	**Speed:** 35 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 15 MPH **Dir:** E	**Veh Mnvr / Ped Actn:** 8					**Obj Strk:**						
21	**104606113**	12/04/2015 23:27	ANGLE	$ 4000	0	0	0	2	1	4	1	1	0	3	1
Unit	**1 : 4**	**Alchl/Drgs:** 0	**Speed:** 35 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
Unit	**2 : 5**	**Alchl/Drgs:** 0	**Speed:** 4 MPH **Dir:** E	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
22	**104630745**	02/01/2016 14:20	ANGLE	$ 9000	0	0	0	1	1	1	1	3	0	3	1
Unit	**1 : 1**	**Alchl/Drgs:** 0	**Speed:** 35 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
Unit	**2 : 2**	**Alchl/Drgs:** 0	**Speed:** 5 MPH **Dir:** W	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
23	**104889056**	10/25/2016 15:06	LEFT TURN, SAME ROADWAY	$ 9000	0	0	0	0	1	1	1	1	0	3	1
Unit	**1 : 1**	**Alchl/Drgs:** 0	**Speed:** 8 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 8					**Obj Strk:**						
Unit	**2 : 2**	**Alchl/Drgs:** 0	**Speed:** 30 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
24	**104912808**	11/10/2016 08:31	REAR END, SLOW OR STOP	$ 3000	0	0	0	0	1	1	1	1	0	0	
Unit	**1 : 1**	**Alchl/Drgs:** 0	**Speed:** 15 MPH **Dir:** E	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
Unit	**2 : 3**	**Alchl/Drgs:** 7	**Speed:** 0 MPH **Dir:** E	**Veh Mnvr / Ped Actn:** 1					**Obj Strk:**						
25	**104932924**	11/29/2016 11:53	BACKING UP	$ 1500	0	0	0	0	2	1	2	1	0	3	1
Unit	**1 : 2**	**Alchl/Drgs:** 7	**Speed:** 2 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 10					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 0	**Speed:** 1 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 1					**Obj Strk:**						
26	**104964447**	01/03/2017 13:19	ANGLE	$ 1500	0	0	0	0	1	1	2	1	0	3	1
Unit	**1 : 14**	**Alchl/Drgs:** 0	**Speed:** 20 MPH **Dir:** E	**Veh Mnvr / Ped Actn:** 8					**Obj Strk:**						
Unit	**2 : 1**	**Alchl/Drgs:** 7	**Speed:** 0 MPH **Dir:** W	**Veh Mnvr / Ped Actn:** 1					**Obj Strk:**						

North Carolina Department of Transportation
Traffic Engineering Accident Analysis System
Intersection Analysis Report

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
27	**105035958**	03/04/2017 15:43	REAR END, SLOW OR STOP	$ 5500	0	0	0	0	1	1	1	1	0	3	1
Unit	**1 : 1**	**Alchl/Drgs:** 0	**Speed:** 25 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
Unit	**2 : 2**	**Alchl/Drgs:** 0	**Speed:** 0 MPH **Dir:** N	**Veh Mnvr / Ped Actn:** 1					**Obj Strk:**						
28	**105064867**	04/11/2017 08:33	ANGLE	$ 15500	0	0	1	0	1	1	1	1	0	3	1
Unit	**1 : 2**	**Alchl/Drgs:** 0	**Speed:** 35 MPH **Dir:** S	**Veh Mnvr / Ped Actn:** 4					**Obj Strk:**						
Unit	**2 : 3**	**Alchl/Drgs:** 0	**Speed:** 35 MPH **Dir:** W	**Veh Mnvr / Ped Actn:** 8					**Obj Strk:** 20						
Unit	**3 : 1**	**Alchl/Drgs:** 7	**Speed:** 0 MPH **Dir:** W	**Veh Mnvr / Ped Actn:** 2					**Obj Strk:** 20						
Unit	**4 : 1**	**Alchl/Drgs:** 7	**Speed:** 0 MPH **Dir:** W	**Veh Mnvr / Ped Actn:** 2					**Obj Strk:** 20						

Legend for Report Details:

Acc No - Accident Number
Injuries: F - Fatal, A - Class A, B - Class B, C - Class C
Condition: R - Road Surface, L - Ambient Light, W - Weather
Rd Ch - Road Character
Rd Ci - Roadway Contributing Circumstances
Trfc Ctl - Traffic Control: Dv - Device, Op - Operating
Alchl/Drgs - Alcohol Drugs Suspected
Veh Mnvr/Ped Actn - Vehicle Maneuver/Pedestrian Action
Obj Strk - Object Struck

Summary Statistics

High Level Crash Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	28	100.00
Fatal Crashes	0	0.00
Non-Fatal Injury Crashes	10	35.71
Total Injury Crashes	10	35.71
Property Damage Only Crashes	18	64.29
Night Crashes	8	28.57
Wet Crashes	2	7.14
Alcohol/Drugs Involvement Crashes	1	3.57

Crash Severity Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	28	100.00
Fatal Crashes	0	0.00
Class A Crashes	0	0.00
Class B Crashes	1	3.57
Class C Crashes	9	32.14
Property Damage Only Crashes	18	64.29

Vehicle Exposure Statistics

Annual ADT = 999999

Total Vehicle Exposure = 1826 (MEV)

Crash Rate	Crashes Per 100 Million Vehicles Entered
Total Crash Rate	1.53
Fatal Crash Rate	0.00
Non Fatal Crash Rate	0.55
Night Crash Rate	0.44
Wet Crash Rate	0.11
EPDO Rate	5.59

Miscellaneous Statistics

Severity Index =	3.64
EPDO Crash Index =	102.00
Estimated Property Damage Total = $	134205.00

Accident Type Summary

Accident Type	Number of Crashes	Percent of Total
ANGLE	6	21.43
BACKING UP	1	3.57
LEFT TURN, DIFFERENT ROADWAYS	1	3.57
LEFT TURN, SAME ROADWAY	2	7.14
RAN OFF ROAD - LEFT	1	3.57
RAN OFF ROAD - RIGHT	1	3.57
REAR END, SLOW OR STOP	15	53.57
RIGHT TURN, SAME ROADWAY	1	3.57

Injury Summary

Injury Type	Number of Injuries	Percent of Total
Fatal Injuries	0	0.00
Class A Injuries	0	0.00
Class B Injuries	1	7.69
Class C Injuries	12	92.31
Total Non-Fatal Injuries	13	100.00
Total Injuries	13	100.00

Monthly Summary

Month	Number of Crashes	Percent of Total
Jan	2	7.14
Feb	4	14.29
Mar	2	7.14
Apr	2	7.14
May	1	3.57
Jun	0	0.00
Jul	4	14.29
Aug	1	3.57
Sep	0	0.00
Oct	4	14.29
Nov	4	14.29
Dec	4	14.29

Daily Summary

Day	Number of Crashes	Percent of Total
Mon	3	10.71
Tue	5	17.86
Wed	2	7.14
Thu	5	17.86
Fri	6	21.43
Sat	7	25.00
Sun	0	0.00

Hourly Summary

Hour	Number of Crashes	Percent of Total
0000-0059	0	0.00
0100-0159	0	0.00
0200-0259	0	0.00
0300-0359	0	0.00
0400-0459	0	0.00
0500-0559	0	0.00
0600-0659	0	0.00
0700-0759	0	0.00
0800-0859	3	10.71
0900-0959	0	0.00
1000-1059	2	7.14
1100-1159	2	7.14
1200-1259	1	3.57
1300-1359	3	10.71
1400-1459	2	7.14
1500-1559	3	10.71
1600-1659	2	7.14
1700-1759	4	14.29
1800-1859	1	3.57
1900-1959	1	3.57
2000-2059	1	3.57
2100-2159	0	0.00
2200-2259	2	7.14
2300-2359	1	3.57

Light and Road Conditions Summary

Condition	Dry	Wet	Other	Total
Day	18	2	0	20
Dark	8	0	0	8
Other	0	0	0	0
Total	26	2	0	28

Object Struck Summary

Object Type	Times Struck	Percent of Total
MOVABLE OBJECT	1	14.29
PARKED MOTOR VEHICLE	5	71.43
TRAFFIC ISLAND CURB OR MEDIAN	1	14.29

Vehicle Type Summary

Vehicle Type	Number Involved	Percent of Total
LIGHT TRUCK (MINI-VAN, PANEL)	2	3.39
PASSENGER CAR	31	52.54
PICKUP	9	15.25
SINGLE UNIT TRUCK (2-AXLE, 6-TIRE)	1	1.69
SPORT UTILITY	10	16.95
TRACTOR/SEMI-TRAILER	2	3.39
VAN	4	6.78

Yearly Totals Summary

Accident Totals

Year	Total Accidents	Fatal Accidents	Injury Accidents	Property Damage Only Accidents
2012	2	0	1	1
2013	4	0	1	3
2014	7	0	1	6
2015	8	0	5	3
2016	4	0	1	3
2017	3	0	1	2
Total	28	0	10	18

Injury Totals

Year	Fatal Injuries	Class A, B, or C Injuries
2012	0	2
2013	0	2
2014	0	1
2015	0	6
2016	0	1
2017	0	1
Total	0	13

Miscellaneous Totals

Year	Property Damage	EPDO Index
2012	$ 13200	9.40
2013	$ 19100	11.40
2014	$ 18800	14.40
2015	$ 38105	45.00
2016	$ 22500	11.40
2017	$ 22500	10.40
Total	$ 134205	102.00

Type of Accident Totals

Year	Left Turn	Right Turn	Rear End	Run Off Road & Fixed Object	Angle	Side Swipe	Other
2012	0	0	2	0	0	0	0
2013	1	0	2	0	1	0	0
2014	0	1	5	0	1	0	0

Year	Left Turn	Right Turn	Rear End	Run Off Road & Fixed Object	Angle	Side Swipe	Other
2015	1	0	4	2	1	0	0
2016	1	0	1	0	1	0	1
2017	0	0	1	0	2	0	0
Total	3	1	15	2	6	0	1

Study Criteria

Study Name	Log No.	PH No.	TIP No.	K/A Cf.	B/C Cf.	ADT	ADT Route
41000047242	41000047242			76.8	8.4	999999	

Request Date	Courier Service	Phone No.	Ext.	Fax No.

County			Municipality					
Name	Code	Div.	Name	Code	Y-Line Ft.	Begin Date	End Date	Years
MECKLENBURG	60	10	All and Rural		150	05/01/2012	04/30/2017	5.00

Location Text	Requestor
US 521 (Polk St-Pineville Rd) at SR 3542 (Industrial Dr). **Crash rates contained in this analysis should not be used**	Cliff Lawson, PE Timmons Group

Included Accidents

103473281
105064867
104156148

Excluded Accidents

103719919
103983408
104009927
104055797
104154613
104185058
104215370
104216414
104242062
104271374
104299565
104372680
104421037

Fiche Roads

Name	Code
US 521	20000521
POLK	50024505
PINEVILLE	50024239
SOUTH	50028612
SR 3542	40003542

Study Criteria Summary

County: MECKLENBURG **City:** All and Rural
Date: 11/1/2012 **to** 10/31/2017 **Study:** 41000050292
Location: Industrial Dr at Rodney St

Report Details

Acc No	Crash ID	Date	Accident Type	Total Damage	Injuries F	A	B	C	Condition R	L	W	Road Ch	Ci	Trfc Ctl Dv	Op
1	**104283821**	02/02/2015 08:26	RAN OFF ROAD - RIGHT	$ 100	0	0	0	0	2	1	2	3	0	0	

Unit 1 : 14 **Alchl/Drgs:** 0 **Speed:** 1 MPH **Dir:** NE **Veh Mnvr / Ped Actn:** 7 **Obj Strk:** 40

Legend for Report Details:
Acc No - Accident Number
Injuries: F - Fatal, A - Class A, B - Class B, C - Class C
Condition: R - Road Surface, L - Ambient Light, W - Weather
Rd Ch - Road Character
Rd Ci - Roadway Contributing Circumstances
Trfc Ctl - Traffic Control: Dv - Device, Op - Operating
Alchl/Drgs - Alcohol Drugs Suspected
Veh Mnvr/Ped Actn - Vehicle Maneuver/Pedestrian Action
Obj Strk - Object Struck

Summary Statistics

High Level Crash Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	1	100.00
Fatal Crashes	0	0.00
Non-Fatal Injury Crashes	0	0.00
Total Injury Crashes	0	0.00
Property Damage Only Crashes	1	100.00
Night Crashes	0	0.00
Wet Crashes	1	100.00
Alcohol/Drugs Involvement Crashes	0	0.00

Crash Severity Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	1	100.00
Fatal Crashes	0	0.00
Class A Crashes	0	0.00
Class B Crashes	0	0.00
Class C Crashes	0	0.00
Property Damage Only Crashes	1	100.00

Vehicle Exposure Statistics

Annual ADT = 3300

Total Vehicle Exposure = 6.03 (MEV)

Crash Rate	Crashes Per 100 Million Vehicles Entered
Total Crash Rate	16.60
Fatal Crash Rate	0.00
Non Fatal Crash Rate	0.00
Night Crash Rate	0.00
Wet Crash Rate	16.60
EPDO Rate	16.60

Miscellaneous Statistics

Severity Index =	1.00
EPDO Crash Index =	1.00
Estimated Property Damage Total = $	100.00

Accident Type Summary

Accident Type	Number of Crashes	Percent of Total
RAN OFF ROAD - RIGHT	1	100.00

Injury Summary

Injury Type	Number of Injuries	Percent of Total
Fatal Injuries	0	0.00
Class A Injuries	0	0.00
Class B Injuries	0	0.00
Class C Injuries	0	0.00
Total Non-Fatal Injuries	0	0.00
Total Injuries	0	0.00

Monthly Summary

Month	Number of Crashes	Percent of Total
Jan	0	0.00
Feb	1	100.00
Mar	0	0.00
Apr	0	0.00
May	0	0.00
Jun	0	0.00
Jul	0	0.00
Aug	0	0.00
Sep	0	0.00
Oct	0	0.00
Nov	0	0.00
Dec	0	0.00

Daily Summary

Day	Number of Crashes	Percent of Total
Mon	1	100.00
Tue	0	0.00
Wed	0	0.00
Thu	0	0.00
Fri	0	0.00
Sat	0	0.00
Sun	0	0.00

Hourly Summary

Hour	Number of Crashes	Percent of Total
0000-0059	0	0.00
0100-0159	0	0.00
0200-0259	0	0.00
0300-0359	0	0.00
0400-0459	0	0.00
0500-0559	0	0.00
0600-0659	0	0.00
0700-0759	0	0.00
0800-0859	1	100.00
0900-0959	0	0.00
1000-1059	0	0.00
1100-1159	0	0.00
1200-1259	0	0.00
1300-1359	0	0.00
1400-1459	0	0.00
1500-1559	0	0.00
1600-1659	0	0.00
1700-1759	0	0.00
1800-1859	0	0.00
1900-1959	0	0.00
2000-2059	0	0.00
2100-2159	0	0.00
2200-2259	0	0.00
2300-2359	0	0.00

Light and Road Conditions Summary

Condition	Dry	Wet	Other	Total
Day	0	1	0	1
Dark	0	0	0	0
Other	0	0	0	0
Total	0	1	0	1

Object Struck Summary

Object Type	Times Struck	Percent of Total
COMMERCIAL SIGN	1	100.00

Vehicle Type Summary

Vehicle Type	Number Involved	Percent of Total
TRACTOR/SEMI-TRAILER	1	100.00

Yearly Totals Summary

Accident Totals

Year	Total Accidents	Fatal Accidents	Injury Accidents	Property Damage Only Accidents
2012	0	0	0	0
2013	0	0	0	0
2014	0	0	0	0
2015	1	0	0	1
2016	0	0	0	0
2017	0	0	0	0
Total	1	0	0	1

Injury Totals

Year	Fatal Injuries	Class A, B, or C Injuries
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0
2017	0	0
Total	0	0

Miscellaneous Totals

Year	Property Damage	EPDO Index
2012	$ 0	0.00
2013	$ 0	0.00
2014	$ 0	0.00
2015	$ 100	1.00
2016	$ 0	0.00
2017	$ 0	0.00
Total	$ 100	1.00

Type of Accident Totals

Year	Left Turn	Right Turn	Rear End	Run Off Road & Fixed Object	Angle	Side Swipe	Other
2012	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0

Year	Left Turn	Right Turn	Rear End	Run Off Road & Fixed Object	Angle	Side Swipe	Other
2015	0	0	0	1	0	0	0
2016	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0

North Carolina Department of Transportation
Traffic Engineering Accident Analysis System
Intersection Analysis Report

Study Criteria

Study Name	Log No.	PH No.	TIP No.	K/A Cf.	B/C Cf.	ADT	ADT Route
41000050292	41000050292			76.8	8.4	3300	

Request Date	Courier Service	Phone No.	Ext.	Fax No.

County			Municipality					
Name	Code	Div.	Name	Code	Y-Line Ft.	Begin Date	End Date	Years
MECKLENBURG	60	10	All and Rural		150	11/1/2012	10/31/2017	5.00

Location Text	Requestor
Industrial Dr at Rodney St	

Excluded Accidents

105035691
104501387
104185059
104155626
104009919
103926165

Fiche Roads

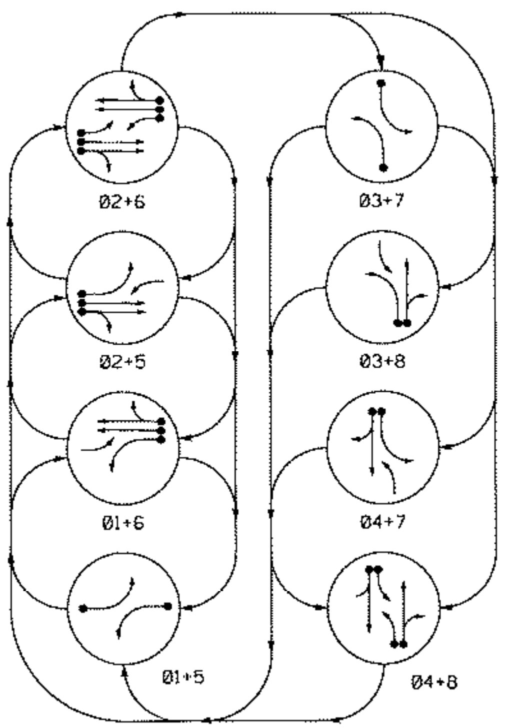
Name	Code
RODNEY	50026333
INDUSTRIAL	50014936
SR 5436	40005436

Intersection Road Combinations

Name	Code	Code	Name
RODNEY	50026333	50014936	INDUSTRIAL

Appendix C – Traffic Signal Plans

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

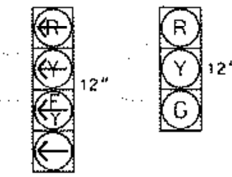
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø3+7	Ø3+8	Ø4+7	Ø4+8	FLASH
11	←	←	←F/Y	←F/Y	←R	←R	←R	←R	←Y
21, 22	R	R	G	G	R	R	R	R	Y
31	←R	←R	←R	←R	←	←	←F/Y	←F/Y	←R
41,42	R	R	R	R	R	R	G	G	R
51	←	←F/Y	←	←F/Y	←R	←R	←R	←R	←Y
61, 62	R	G	R	G	R	R	R	R	Y
71	←R	←R	←R	←R	←	←F/Y	←	←F/Y	←R
81,82	R	R	R	R	R	G	R	G	R

SIGNAL FACE I.D.

All Heads L.E.D.



11	21, 22
31	41, 42
51	61, 62
71	81, 82

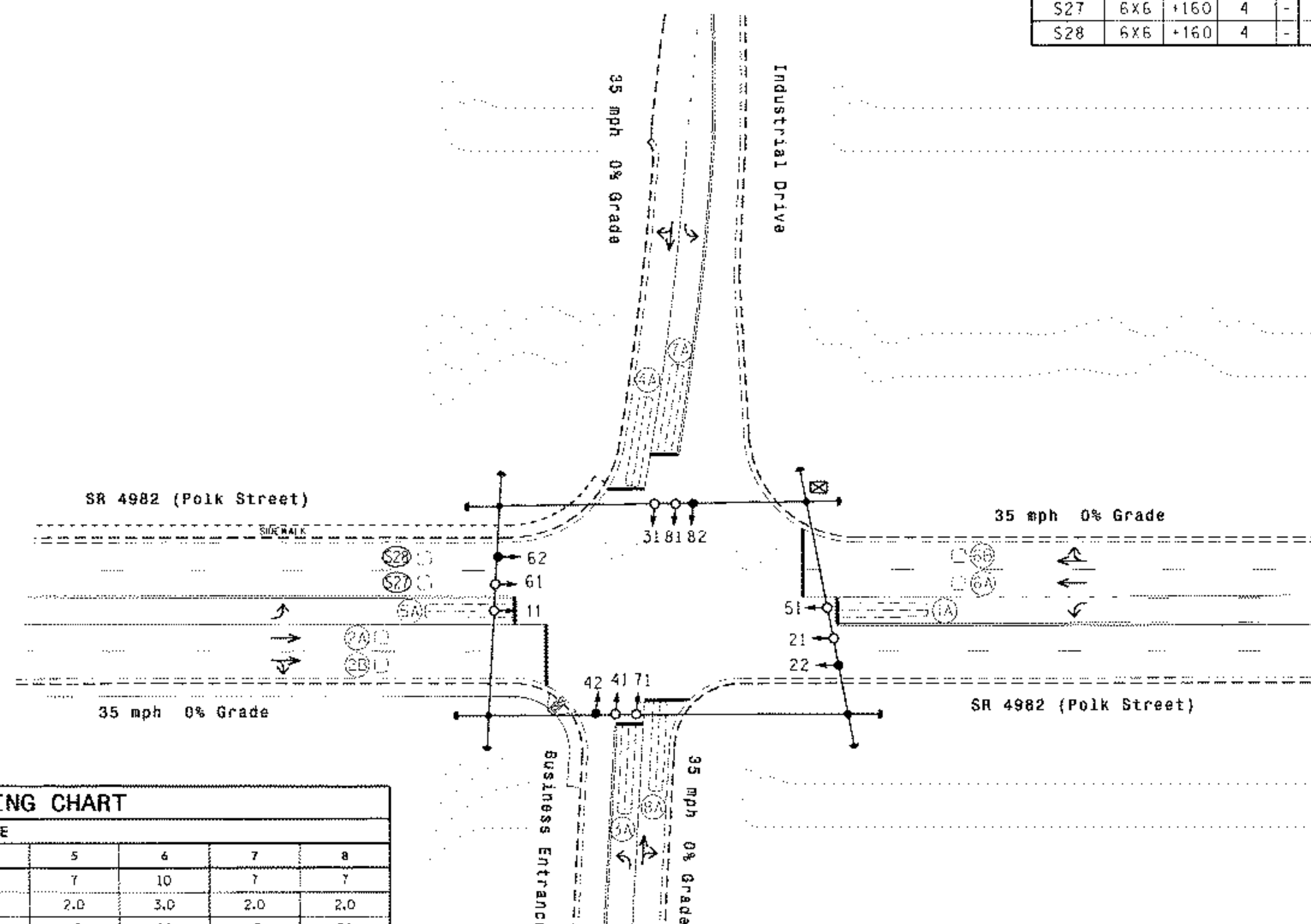
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS: LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING: PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X40	0	2-4-2	-	1	Y	Y	-	-	15	-	Y
					6	Y	Y	-	-	-	-	Y
2A	6X6	70	3	-	2	Y	Y	-	-	-	-	Y
2B	6X6	70	3	-	2	Y	Y	-	-	-	-	Y
3A	6X40	0	2-4-2	-	3	Y	Y	-	-	15	-	Y
					8	Y	Y	-	-	3	-	Y
4A	6X40	0	2-4-2	-	4	Y	Y	-	-	10	-	Y
5A	6X40	0	2-4-2	-	5	Y	Y	-	-	15	-	Y
					2	Y	Y	-	-	-	-	Y
6A	6X6	70	3	-	6	Y	Y	-	-	-	-	Y
6B	6X6	70	3	-	6	Y	Y	-	-	-	-	Y
7A	6X40	0	2-4-2	-	7	Y	Y	-	-	15	-	Y
					4	Y	Y	-	-	3	-	Y
8A	6X40	0	2-4-2	-	8	Y	Y	-	-	10	-	Y
S27	6X6	+160	4	-	-	-	-	-	-	-	Y	Y
S28	6X6	+160	4	-	-	-	-	-	-	-	Y	Y

8 Phase
Fully Actuated
NC 51 (Pineville-Matthews Rd./
SR 4982 (Polk Street) CLS

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 3 and/or phase 7 may be lagged.
4. Phase 3 and/or phase 7 may be lagged.
5. Reposition existing signal heads numbered # 22.42.62.& 82.
6. Set all detector units to presence mode.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
8. Pavement markings are existing.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
10. Closed loop system data: Controller Asset # 0966.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	

OASIS 2070L TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8
Min Green 1 *	7	10	7	7	7	10	7	7
Extension 1 *	2.0	3.0	2.0	2.0	2.0	3.0	2.0	2.0
Max Green 1 *	15	60	15	30	15	60	15	30
Yellow Clearance	3.0	3.8	3.0	3.8	3.0	3.8	3.0	3.8
Red Clearance	3.3	2.5	2.4	2.0	2.6	2.5	2.8	2.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-	-	-
Seconds Per Actuation *	-	-	-	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-	-	-	-
Time To Reduce *	-	-	-	-	-	-	-	-
Minimum Gap	-	-	-	-	-	-	-	-
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL	-	-
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW	-	-
Dual Entry	-	-	-	ON	-	-	-	ON
Simultaneous Gap	ON	ON	ON	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

PROJECT REFERENCE NO. N/A | SHEET NO.

Item 2.

Signal Upgrade

Prepared in the Offices of: Transportation Mobility and Safety Division, Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

SR 4982 (Polk Street) at Industrial Drive / Business Entrance

Division 10 Mecklenburg County Pineville

PLAN DATE: September 2013 | REVIEWED BY: P.L.A.
PREPARED BY: C. Pierce | REVIEWED BY:

SCALE 0 40 1"=40'

REVISIONS | INIT. | DATE

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 24393 TIMOTHY J. WILLIAMS

SIGNATURE

SIG. INVENTORY NO. 10-0966

Appendix D – Synchro Analysis Outputs

2017 Existing Traffic Volumes

Pineville Industrial TIA
966: N Polk Street/Pineville Road & Industrial Drive/Driveway

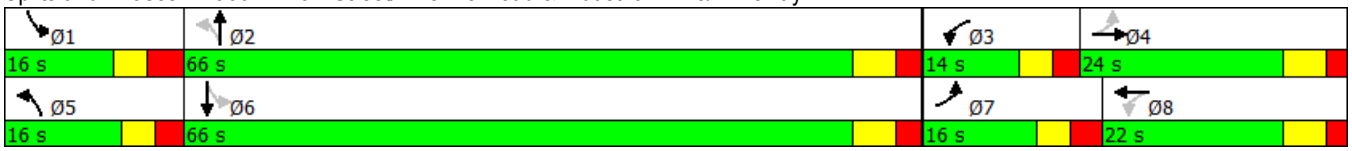
11/03/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	0	38	4	2	18	98	858	14	38	452	160
Future Volume (vph)	61	0	38	4	2	18	98	858	14	38	452	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.864			0.998			0.961	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1609	0	1770	3532	0	1770	3401	0
Flt Permitted	0.597						0.299			0.257		
Satd. Flow (perm)	1112	1583	0	1863	1609	0	557	3532	0	479	3401	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			1652			1043	
Travel Time (s)		38.2			5.2			32.2			20.3	
Peak Hour Factor	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)	68	0	42	4	2	20	109	953	16	42	502	178
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	42	0	4	22	0	109	969	0	42	680	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	16.0	24.0		14.0	22.0		16.0	66.0		16.0	66.0	
Total Split (%)	13.3%	20.0%		11.7%	18.3%		13.3%	55.0%		13.3%	55.0%	
Maximum Green (s)	10.2	18.2		8.6	16.2		10.4	59.7		9.7	59.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	12.9	11.6		10.9	9.2		34.1	35.1		31.3	26.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.25	0.22		0.21	0.18		0.66	0.68		0.61	0.50	
v/c Ratio	0.17	0.12		0.01	0.08		0.19	0.40		0.08	0.40	
Control Delay	19.4	24.1		19.2	29.4		6.9	11.7		6.8	14.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.4	24.1		19.2	29.4		6.9	11.7		6.8	14.2	
LOS	B	C		B	C		A	B		A	B	
Approach Delay		21.2			27.9			11.3			13.7	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	15	9		1	5		10	57		4	76	
Queue Length 95th (ft)	55	48		8	32		43	263		21	179	
Internal Link Dist (ft)		1881			186			1572			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	506	696		440	621		677	3256		634	3135	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.13	0.06		0.01	0.04		0.16	0.30		0.07	0.22	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 51.7			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.40			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 52.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	33	40	10	41	30	4
Future Volume (Veh/h)	33	40	10	41	30	4
Sign Control	Free			Free	Stop	
Grade	2%			-1%	5%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	37	44	11	46	33	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			81		127	59
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			81		127	59
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		96	100
cM capacity (veh/h)			1517		861	1007

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	81	57	37
Volume Left	0	11	33
Volume Right	44	0	4
cSH	1700	1517	875
Volume to Capacity	0.05	0.01	0.04
Queue Length 95th (ft)	0	1	3
Control Delay (s)	0.0	1.5	9.3
Lane LOS		A	A
Approach Delay (s)	0.0	1.5	9.3
Approach LOS			A

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	19.4%	ICU Level of Service	A
Analysis Period (min)	15		

Pineville Industrial TIA
966: N Polk Street/Pineville Road & Industrial Drive/Driveway

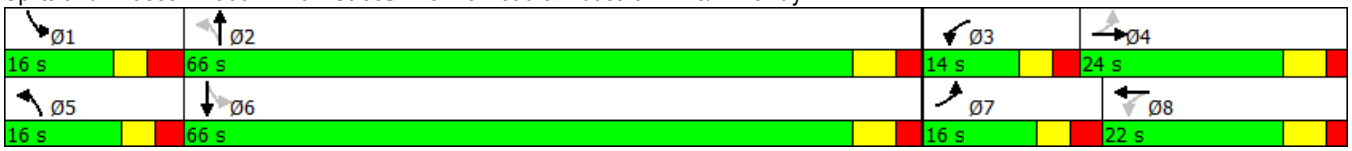
11/03/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	4	78	9	1	40	33	762	10	7	1117	79
Future Volume (vph)	169	4	78	9	1	40	33	762	10	7	1117	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.857			0.853			0.998			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1596	0	1770	1589	0	1770	3532	0	1770	3504	0
Flt Permitted	0.414			0.698			0.098			0.273		
Satd. Flow (perm)	771	1596	0	1300	1589	0	183	3532	0	509	3504	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			1652			1043	
Travel Time (s)		38.2			5.2			32.2			20.3	
Peak Hour Factor	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)	188	4	87	10	1	44	37	847	11	8	1241	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	91	0	10	45	0	37	858	0	8	1329	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	16.0	24.0		14.0	22.0		16.0	66.0		16.0	66.0	
Total Split (%)	13.3%	20.0%		11.7%	18.3%		13.3%	55.0%		13.3%	55.0%	
Maximum Green (s)	10.2	18.2		8.6	16.2		10.4	59.7		9.7	59.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	18.5	16.9		13.2	10.0		42.9	41.8		41.5	37.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.25	0.23		0.18	0.14		0.58	0.57		0.56	0.51	
v/c Ratio	0.54	0.25		0.03	0.21		0.12	0.43		0.02	0.75	
Control Delay	33.2	32.1		27.1	41.3		7.9	11.0		7.1	19.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	33.2	32.1		27.1	41.3		7.9	11.0		7.1	19.7	
LOS	C	C		C	D		A	B		A	B	
Approach Delay		32.9			38.7			10.9			19.6	
Approach LOS		C			D			B			B	
Queue Length 50th (ft)	80	37		4	23		7	115		2	316	
Queue Length 95th (ft)	170	106		18	63		20	242		7	444	
Internal Link Dist (ft)		1881			186			1572			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	376	517		331	425		382	2795		513	2773	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.18		0.03	0.11		0.10	0.31		0.02	0.48	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 73.9			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 18.4		Intersection LOS: B	
Intersection Capacity Utilization 57.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	72	32	3	80	40	10
Future Volume (Veh/h)	72	32	3	80	40	10
Sign Control	Free			Free	Stop	
Grade	2%			-1%	5%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	80	36	3	89	44	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			116		193	98
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			116		193	98
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		94	99
cM capacity (veh/h)			1473		794	958

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	116	92	55
Volume Left	0	3	44
Volume Right	36	0	11
cSH	1700	1473	822
Volume to Capacity	0.07	0.00	0.07
Queue Length 95th (ft)	0	0	5
Control Delay (s)	0.0	0.3	9.7
Lane LOS		A	A
Approach Delay (s)	0.0	0.3	9.7
Approach LOS			A

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	16.6%	ICU Level of Service	A
Analysis Period (min)	15		

2019 Phase I Background Traffic Volumes

Pineville Industrial TIA
966: N Polk Street/Pineville Road & Industrial Drive/Driveway

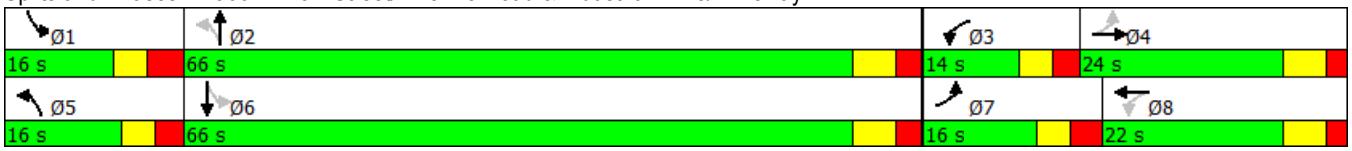
11/03/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	0	57	4	2	19	108	893	15	40	470	175
Future Volume (vph)	107	0	57	4	2	19	108	893	15	40	470	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.863			0.997			0.959	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1608	0	1770	3529	0	1770	3394	0
Flt Permitted	0.471						0.294			0.202		
Satd. Flow (perm)	877	1583	0	1863	1608	0	548	3529	0	376	3394	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			1652			1043	
Travel Time (s)		38.2			5.2			32.2			20.3	
Peak Hour Factor	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)	119	0	63	4	2	21	120	992	17	44	522	194
Shared Lane Traffic (%)												
Lane Group Flow (vph)	119	63	0	4	23	0	120	1009	0	44	716	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	16.0	24.0		14.0	22.0		16.0	66.0		16.0	66.0	
Total Split (%)	13.3%	20.0%		11.7%	18.3%		13.3%	55.0%		13.3%	55.0%	
Maximum Green (s)	10.2	18.2		8.6	16.2		10.4	59.7		9.7	59.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	13.8	12.2		10.7	8.9		34.8	32.3		33.4	28.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.24	0.21		0.19	0.15		0.60	0.56		0.58	0.50	
v/c Ratio	0.33	0.19		0.01	0.09		0.23	0.51		0.10	0.42	
Control Delay	23.1	26.0		20.5	32.0		7.8	15.1		7.3	15.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.1	26.0		20.5	32.0		7.8	15.1		7.3	15.6	
LOS	C	C		C	C		A	B		A	B	
Approach Delay		24.1			30.3			14.3			15.1	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	34	18		1	6		12	137		4	85	
Queue Length 95th (ft)	89	67		9	34		48	282		22	196	
Internal Link Dist (ft)		1881			186			1572			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	436	609		387	536		604	3197		531	3075	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.27	0.10		0.01	0.04		0.20	0.32		0.08	0.23	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 57.8			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 15.7		Intersection LOS: B	
Intersection Capacity Utilization 56.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	34	43	10	43	43	4
Future Volume (Veh/h)	34	43	10	43	43	4
Sign Control	Free			Free	Stop	
Grade	2%			-1%	5%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	38	48	11	48	48	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			86		132	62
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			86		132	62
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		94	100
cM capacity (veh/h)			1510		855	1003

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	86	59	52
Volume Left	0	11	48
Volume Right	48	0	4
cSH	1700	1510	865
Volume to Capacity	0.05	0.01	0.06
Queue Length 95th (ft)	0	1	5
Control Delay (s)	0.0	1.4	9.4
Lane LOS		A	A
Approach Delay (s)	0.0	1.4	9.4
Approach LOS			A

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	19.5%	ICU Level of Service	A
Analysis Period (min)	15		

Pineville Industrial TIA
966: N Polk Street/Pineville Road & Industrial Drive/Driveway

11/03/2017

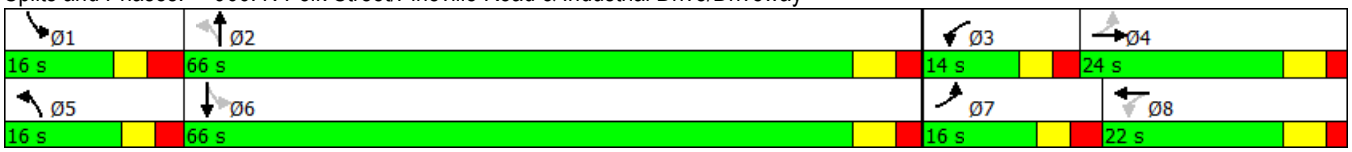
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	4	95	9	1	42	44	793	10	7	1162	127
Future Volume (vph)	197	4	95	9	1	42	44	793	10	7	1162	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.855			0.853			0.998			0.985	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1593	0	1770	1589	0	1770	3532	0	1770	3486	0
Flt Permitted	0.431			0.686			0.082			0.278		
Satd. Flow (perm)	803	1593	0	1278	1589	0	153	3532	0	518	3486	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			1652			1043	
Travel Time (s)		38.2			5.2			32.2			20.3	
Peak Hour Factor	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)	219	4	106	10	1	47	49	881	11	8	1291	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	219	110	0	10	48	0	49	892	0	8	1432	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	16.0	24.0		14.0	22.0		16.0	66.0		16.0	66.0	
Total Split (%)	13.3%	20.0%		11.7%	18.3%		13.3%	55.0%		13.3%	55.0%	
Maximum Green (s)	10.2	18.2		8.6	16.2		10.4	59.7		9.7	59.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	19.4	17.8		13.8	10.5		51.0	49.7		48.2	42.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.23	0.21		0.17	0.13		0.62	0.60		0.58	0.51	
v/c Ratio	0.67	0.32		0.04	0.24		0.18	0.42		0.02	0.81	
Control Delay	43.3	37.2		29.9	45.1		8.2	10.6		7.1	22.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	43.3	37.2		29.9	45.1		8.2	10.6		7.1	22.7	
LOS	D	D		C	D		A	B		A	C	
Approach Delay		41.3			42.5			10.4			22.6	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	105	50		4	26		10	123		2	363	
Queue Length 95th (ft)	#238	133		20	71		26	261		8	527	
Internal Link Dist (ft)		1881			186			1572			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	346	466		304	380		345	2611		507	2555	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.63	0.24		0.03	0.13		0.14	0.34		0.02	0.56	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 82.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 21.1 Intersection LOS: C
Intersection Capacity Utilization 62.5% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	75	43	3	83	45	10
Future Volume (Veh/h)	75	43	3	83	45	10
Sign Control	Free			Free	Stop	
Grade	2%			-1%	5%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	83	48	3	92	50	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			131		205	107
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			131		205	107
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		94	99
cM capacity (veh/h)			1454		781	947

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	131	95	61
Volume Left	0	3	50
Volume Right	48	0	11
cSH	1700	1454	807
Volume to Capacity	0.08	0.00	0.08
Queue Length 95th (ft)	0	0	6
Control Delay (s)	0.0	0.3	9.8
Lane LOS		A	A
Approach Delay (s)	0.0	0.3	9.8
Approach LOS			A

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	16.8%	ICU Level of Service	A
Analysis Period (min)	15		

2024 Phase II Background Traffic Volumes

Pineville Industrial TIA
966: N Polk Street/Pineville Road & Industrial Drive/Driveway

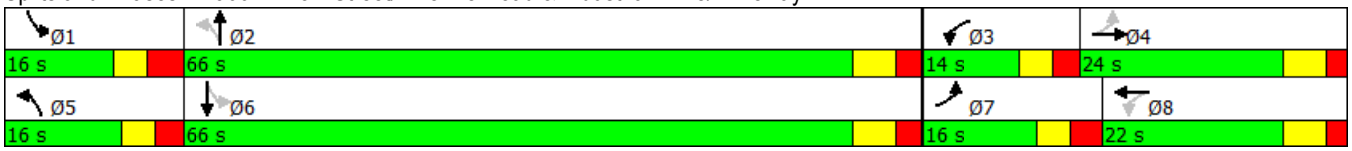
11/03/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	0	71	5	2	21	186	986	16	44	519	238
Future Volume (vph)	134	0	71	5	2	21	186	986	16	44	519	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.862			0.998			0.953	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1606	0	1770	3532	0	1770	3373	0
Flt Permitted	0.449						0.186			0.178		
Satd. Flow (perm)	836	1583	0	1863	1606	0	346	3532	0	332	3373	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			1652			1043	
Travel Time (s)		38.2			5.2			32.2			20.3	
Peak Hour Factor	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)	149	0	79	6	2	23	207	1096	18	49	577	264
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	79	0	6	25	0	207	1114	0	49	841	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	16.0	24.0		14.0	22.0		16.0	66.0		16.0	66.0	
Total Split (%)	13.3%	20.0%		11.7%	18.3%		13.3%	55.0%		13.3%	55.0%	
Maximum Green (s)	10.2	18.2		8.6	16.2		10.4	59.7		9.7	59.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	14.5	12.9		10.7	8.7		39.0	33.5		33.6	24.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.22	0.20		0.16	0.13		0.59	0.51		0.51	0.38	
v/c Ratio	0.45	0.26		0.02	0.12		0.48	0.62		0.13	0.66	
Control Delay	28.0	29.2		23.0	34.6		10.8	16.3		7.7	20.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	28.0	29.2		23.0	34.6		10.8	16.3		7.7	20.3	
LOS	C	C		C	C		B	B		A	C	
Approach Delay		28.4			32.4			15.4			19.6	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	53	27		2	9		24	168		5	123	
Queue Length 95th (ft)	117	84		12	37		81	331		24	248	
Internal Link Dist (ft)		1881			186			1572			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	370	511		338	447		462	3095		443	2956	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.40	0.15		0.02	0.06		0.45	0.36		0.11	0.28	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 65.8			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 18.3		Intersection LOS: B	
Intersection Capacity Utilization 60.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	38	52	15	47	48	5
Future Volume (Veh/h)	38	52	15	47	48	5
Sign Control	Free			Free	Stop	
Grade	2%			-1%	5%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	42	58	17	52	53	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			100		157	71
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			100		157	71
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		94	99
cM capacity (veh/h)			1493		824	991

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	100	69	59
Volume Left	0	17	53
Volume Right	58	0	6
cSH	1700	1493	839
Volume to Capacity	0.06	0.01	0.07
Queue Length 95th (ft)	0	1	6
Control Delay (s)	0.0	1.9	9.6
Lane LOS		A	A
Approach Delay (s)	0.0	1.9	9.6
Approach LOS			A

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	20.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	30	112	281	124	9
Future Volume (Veh/h)	2	30	112	281	124	9
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	2	33	124	312	138	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	703	143	148			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	703	143	148			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	96	91			
cM capacity (veh/h)	369	905	1434			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	35	436	148
Volume Left	2	124	0
Volume Right	33	0	10
cSH	835	1434	1700
Volume to Capacity	0.04	0.09	0.09
Queue Length 95th (ft)	3	7	0
Control Delay (s)	9.5	2.8	0.0
Lane LOS	A	A	
Approach Delay (s)	9.5	2.8	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		

Pineville Industrial TIA
966: N Polk Street/Pineville Road & Industrial Drive/Driveway

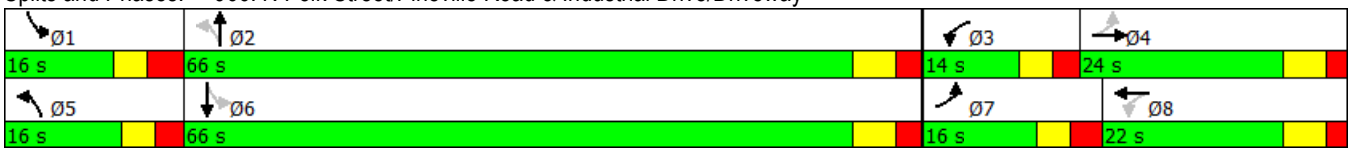
11/03/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	265	5	166	10	1	46	63	875	11	8	1283	158
Future Volume (vph)	265	5	166	10	1	46	63	875	11	8	1283	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.855			0.853			0.998			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1593	0	1770	1589	0	1770	3532	0	1770	3483	0
Flt Permitted	0.488			0.638			0.070			0.242		
Satd. Flow (perm)	909	1593	0	1188	1589	0	130	3532	0	451	3483	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			1652			1043	
Travel Time (s)		38.2			5.2			32.2			20.3	
Peak Hour Factor	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)	294	6	184	11	1	51	70	972	12	9	1426	176
Shared Lane Traffic (%)												
Lane Group Flow (vph)	294	190	0	11	52	0	70	984	0	9	1602	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	16.0	24.0		14.0	22.0		16.0	66.0		16.0	66.0	
Total Split (%)	13.3%	20.0%		11.7%	18.3%		13.3%	55.0%		13.3%	55.0%	
Maximum Green (s)	10.2	18.2		8.6	16.2		10.4	59.7		9.7	59.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	23.1	21.3		15.7	10.6		59.5	57.7		55.7	49.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.24	0.23		0.17	0.11		0.63	0.61		0.59	0.53	
v/c Ratio	0.88	0.53		0.04	0.29		0.28	0.46		0.02	0.87	
Control Delay	64.5	44.3		32.9	50.6		10.3	11.4		7.0	27.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	64.5	44.3		32.9	50.6		10.3	11.4		7.0	27.5	
LOS	E	D		C	D		B	B		A	C	
Approach Delay		56.5			47.5			11.3			27.4	
Approach LOS		E			D			B			C	
Queue Length 50th (ft)	175	107		6	33		15	143		2	458	
Queue Length 95th (ft)	#279	#248		21	76		38	300		8	674	
Internal Link Dist (ft)		1881			186			1572			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	335	415		282	321		296	2490		448	2304	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.88	0.46		0.04	0.16		0.24	0.40		0.02	0.70	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 94.4			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 26.9		Intersection LOS: C	
Intersection Capacity Utilization 80.2%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	83	49	5	92	55	16
Future Volume (Veh/h)	83	49	5	92	55	16
Sign Control	Free			Free	Stop	
Grade	2%			-1%	5%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	92	54	6	102	61	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			146		233	119
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			146		233	119
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		92	98
cM capacity (veh/h)			1436		752	933

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	146	108	79
Volume Left	0	6	61
Volume Right	54	0	18
cSH	1700	1436	786
Volume to Capacity	0.09	0.00	0.10
Queue Length 95th (ft)	0	0	8
Control Delay (s)	0.0	0.4	10.1
Lane LOS		A	B
Approach Delay (s)	0.0	0.4	10.1
Approach LOS			B

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	19.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	112	37	112	403	4
Future Volume (Veh/h)	10	112	37	112	403	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	124	41	124	448	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	656	450	452			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	656	450	452			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	80	96			
cM capacity (veh/h)	414	609	1109			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	135	165	452
Volume Left	11	41	0
Volume Right	124	0	4
cSH	587	1109	1700
Volume to Capacity	0.23	0.04	0.27
Queue Length 95th (ft)	22	3	0
Control Delay (s)	13.0	2.3	0.0
Lane LOS	B	A	
Approach Delay (s)	13.0	2.3	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	46.9%	ICU Level of Service	A
Analysis Period (min)	15		

2019 Phase I Build Traffic Volumes

Pineville Industrial TIA
966: N Polk Street/Pineville Road & Industrial Drive/Driveway

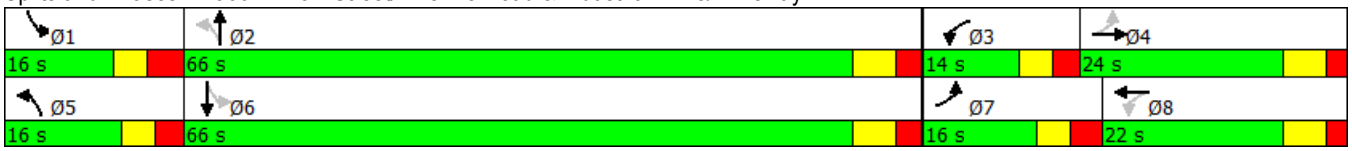
11/03/2017

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	0	67	4	2	19	175	893	15	40	470	221
Future Volume (vph)	127	0	67	4	2	19	175	893	15	40	470	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.863			0.997			0.952	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1608	0	1770	3529	0	1770	3369	0
Flt Permitted	0.465						0.215			0.232		
Satd. Flow (perm)	866	1583	0	1863	1608	0	400	3529	0	432	3369	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			1652			1043	
Travel Time (s)		38.2			5.2			32.2			20.3	
Peak Hour Factor	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)	141	0	74	4	2	21	194	992	17	44	522	246
Shared Lane Traffic (%)												
Lane Group Flow (vph)	141	74	0	4	23	0	194	1009	0	44	768	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	16.0	24.0		14.0	22.0		16.0	66.0		16.0	66.0	
Total Split (%)	13.3%	20.0%		11.7%	18.3%		13.3%	55.0%		13.3%	55.0%	
Maximum Green (s)	10.2	18.2		8.6	16.2		10.4	59.7		9.7	59.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	14.3	12.8		10.9	9.1		36.1	33.0		31.3	21.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.24	0.22		0.19	0.16		0.61	0.56		0.53	0.37	
v/c Ratio	0.38	0.22		0.01	0.09		0.40	0.51		0.10	0.62	
Control Delay	24.1	26.3		20.8	32.0		9.4	15.2		7.5	19.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.1	26.3		20.8	32.0		9.4	15.2		7.5	19.2	
LOS	C	C		C	C		A	B		A	B	
Approach Delay		24.8			30.3			14.3			18.5	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	41	21		1	7		22	142		5	102	
Queue Length 95th (ft)	104	76		9	34		76	286		22	220	
Internal Link Dist (ft)		1881			186			1572			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	434	606		388	533		543	3188		539	3043	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.32	0.12		0.01	0.04		0.36	0.32		0.08	0.25	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 58.7			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 17.0		Intersection LOS: B	
Intersection Capacity Utilization 57.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	34	48	14	43	45	5
Future Volume (Veh/h)	34	48	14	43	45	5
Sign Control	Free			Free	Stop	
Grade	2%			-1%	5%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	38	53	16	48	50	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			91		144	64
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			91		144	64
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		94	99
cM capacity (veh/h)			1504		839	1000

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	91	64	56
Volume Left	0	16	50
Volume Right	53	0	6
cSH	1700	1504	853
Volume to Capacity	0.05	0.01	0.07
Queue Length 95th (ft)	0	1	5
Control Delay (s)	0.0	1.9	9.5
Lane LOS		A	A
Approach Delay (s)	0.0	1.9	9.5
Approach LOS			A

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	19.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	30	112	255	112	9
Future Volume (Veh/h)	2	30	112	255	112	9
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	2	33	124	283	124	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	660	129	134			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	660	129	134			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	96	91			
cM capacity (veh/h)	391	921	1451			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	35	407	134
Volume Left	2	124	0
Volume Right	33	0	10
cSH	855	1451	1700
Volume to Capacity	0.04	0.09	0.08
Queue Length 95th (ft)	3	7	0
Control Delay (s)	9.4	2.9	0.0
Lane LOS	A	A	
Approach Delay (s)	9.4	2.9	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	39.4%	ICU Level of Service	A
Analysis Period (min)	15		

Pineville Industrial TIA
966: N Polk Street/Pineville Road & Industrial Drive/Driveway

11/03/2017

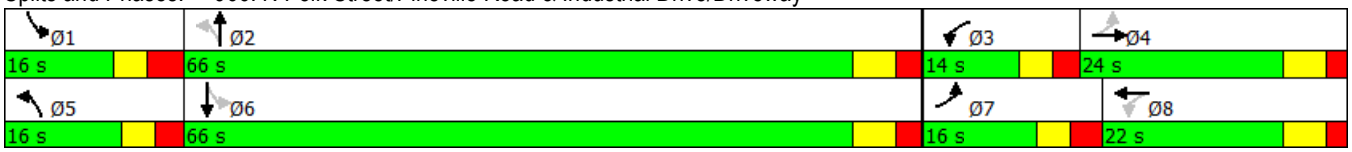
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	247	4	157	9	1	42	59	793	10	7	1162	150
Future Volume (vph)	247	4	157	9	1	42	59	793	10	7	1162	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.853			0.853			0.998			0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1589	0	1770	1589	0	1770	3532	0	1770	3479	0
Flt Permitted	0.435			0.645			0.079			0.280		
Satd. Flow (perm)	810	1589	0	1201	1589	0	147	3532	0	522	3479	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			1652			1043	
Travel Time (s)		38.2			5.2			32.2			20.3	
Peak Hour Factor	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)	274	4	174	10	1	47	66	881	11	8	1291	167
Shared Lane Traffic (%)												
Lane Group Flow (vph)	274	178	0	10	48	0	66	892	0	8	1458	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	16.0	24.0		14.0	22.0		16.0	66.0		16.0	66.0	
Total Split (%)	13.3%	20.0%		11.7%	18.3%		13.3%	55.0%		13.3%	55.0%	
Maximum Green (s)	10.2	18.2		8.6	16.2		10.4	59.7		9.7	59.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	20.6	19.1		13.9	10.4		53.1	51.5		49.4	43.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.24	0.22		0.16	0.12		0.62	0.60		0.58	0.51	
v/c Ratio	0.81	0.50		0.04	0.25		0.24	0.42		0.02	0.83	
Control Delay	53.3	41.5		30.7	46.2		8.9	10.7		7.1	24.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	53.3	41.5		30.7	46.2		8.9	10.7		7.1	24.3	
LOS	D	D		C	D		A	B		A	C	
Approach Delay		48.6			43.5			10.5			24.3	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	140	87		4	27		13	123		2	380	
Queue Length 95th (ft)	#267	#224		20	72		33	265		8	571	
Internal Link Dist (ft)		1881			186			1572			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	340	441		288	360		328	2588		495	2501	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.81	0.40		0.03	0.13		0.20	0.34		0.02	0.58	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 85.7
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 23.9 Intersection LOS: C
Intersection Capacity Utilization 75.6% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	75	45	5	83	51	15
Future Volume (Veh/h)	75	45	5	83	51	15
Sign Control	Free			Free	Stop	
Grade	2%			-1%	5%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	83	50	6	92	57	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			133		212	108
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			133		212	108
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		93	98
cM capacity (veh/h)			1452		773	946

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	133	98	74
Volume Left	0	6	57
Volume Right	50	0	17
cSH	1700	1452	807
Volume to Capacity	0.08	0.00	0.09
Queue Length 95th (ft)	0	0	8
Control Delay (s)	0.0	0.5	9.9
Lane LOS		A	A
Approach Delay (s)	0.0	0.5	9.9
Approach LOS			A

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	18.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	112	37	102	366	4
Future Volume (Veh/h)	10	112	37	102	366	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	11	124	41	113	407	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	604	409	411			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	604	409	411			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	81	96			
cM capacity (veh/h)	445	642	1148			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	135	154	411
Volume Left	11	41	0
Volume Right	124	0	4
cSH	620	1148	1700
Volume to Capacity	0.22	0.04	0.24
Queue Length 95th (ft)	21	3	0
Control Delay (s)	12.4	2.4	0.0
Lane LOS	B	A	
Approach Delay (s)	12.4	2.4	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

2024 Phase II Build Traffic Volumes

Pineville Industrial TIA
966: N Polk Street/Pineville Road & Industrial Drive/Driveway

11/03/2017

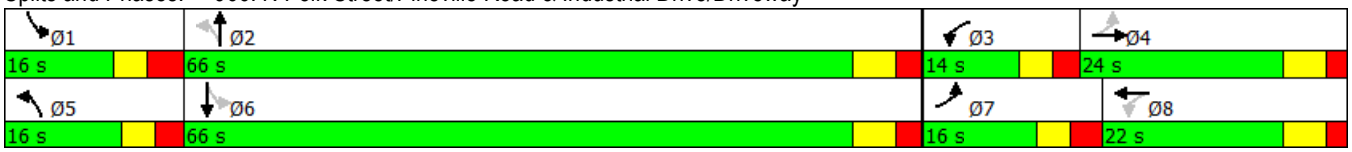
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	0	83	5	2	21	338	986	16	44	519	340
Future Volume (vph)	156	0	83	5	2	21	338	986	16	44	519	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.862			0.998			0.941	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1583	0	1770	1606	0	1770	3532	0	1770	3330	0
Flt Permitted	0.435						0.141			0.191		
Satd. Flow (perm)	810	1583	0	1863	1606	0	263	3532	0	356	3330	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			1652			1043	
Travel Time (s)		38.2			5.2			32.2			20.3	
Peak Hour Factor	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)	173	0	92	6	2	23	376	1096	18	49	577	378
Shared Lane Traffic (%)												
Lane Group Flow (vph)	173	92	0	6	25	0	376	1114	0	49	955	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	16.0	24.0		14.0	22.0		16.0	66.0		16.0	66.0	
Total Split (%)	13.3%	20.0%		11.7%	18.3%		13.3%	55.0%		13.3%	55.0%	
Maximum Green (s)	10.2	18.2		8.6	16.2		10.4	59.7		9.7	59.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	14.8	13.2		10.8	8.7		42.2	36.3		35.3	26.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.21	0.19		0.16	0.13		0.61	0.53		0.51	0.39	
v/c Ratio	0.54	0.30		0.02	0.12		0.91	0.60		0.14	0.75	
Control Delay	30.9	30.3		23.2	34.9		46.7	16.0		7.8	22.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	30.9	30.3		23.2	34.9		46.7	16.0		7.8	22.8	
LOS	C	C		C	C		D	B		A	C	
Approach Delay		30.7			32.6			23.8			22.1	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	64	33		2	9		88	168		5	151	
Queue Length 95th (ft)	136	96		12	37		#363	338		25	301	
Internal Link Dist (ft)		1881			186			1572			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	348	478		324	416		414	3073		434	2897	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.50	0.19		0.02	0.06		0.91	0.36		0.11	0.33	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 69
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 23.9 Intersection LOS: C
Intersection Capacity Utilization 71.8% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	38	63	23	47	50	6
Future Volume (Veh/h)	38	63	23	47	50	6
Sign Control	Free			Free	Stop	
Grade	2%			-1%	5%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	42	70	26	52	56	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			112		181	77
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			112		181	77
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		93	99
cM capacity (veh/h)			1478		794	984

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	112	78	63
Volume Left	0	26	56
Volume Right	70	0	7
cSH	1700	1478	811
Volume to Capacity	0.07	0.02	0.08
Queue Length 95th (ft)	0	1	6
Control Delay (s)	0.0	2.6	9.8
Lane LOS		A	A
Approach Delay (s)	0.0	2.6	9.8
Approach LOS			A

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	20.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	64	367	281	124	28
Future Volume (Veh/h)	5	64	367	281	124	28
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	71	408	312	138	31
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1282	154	169			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1282	154	169			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	92	71			
cM capacity (veh/h)	130	892	1409			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	77	720	169
Volume Left	6	408	0
Volume Right	71	0	31
cSH	612	1409	1700
Volume to Capacity	0.13	0.29	0.10
Queue Length 95th (ft)	11	30	0
Control Delay (s)	11.7	6.2	0.0
Lane LOS	B	A	
Approach Delay (s)	11.7	6.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	5.5		
Intersection Capacity Utilization	57.6%	ICU Level of Service	B
Analysis Period (min)	15		

Pineville Industrial TIA
966: N Polk Street/Pineville Road & Industrial Drive/Driveway

11/03/2017

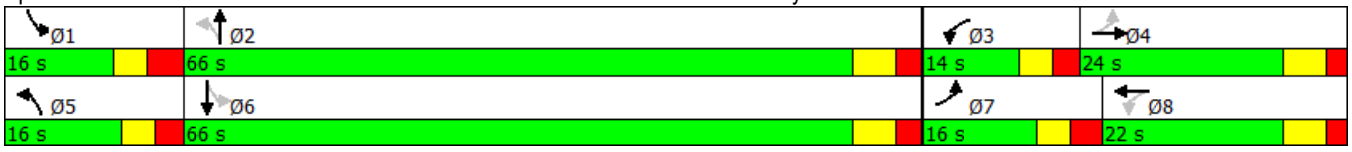
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	383	5	312	10	1	46	77	875	11	8	1283	180
Future Volume (vph)	383	5	312	10	1	46	77	875	11	8	1283	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		75	100		0	165		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.853			0.853			0.998			0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1589	0	1770	1589	0	1770	3532	0	1770	3476	0
Flt Permitted	0.494			0.400			0.067			0.242		
Satd. Flow (perm)	920	1589	0	745	1589	0	125	3532	0	451	3476	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1961			266			1652			1043	
Travel Time (s)		38.2			5.2			32.2			20.3	
Peak Hour Factor	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)	426	6	347	11	1	51	86	972	12	9	1426	200
Shared Lane Traffic (%)												
Lane Group Flow (vph)	426	353	0	11	52	0	86	984	0	9	1626	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0		7.0	10.0	
Minimum Split (s)	14.0	20.0		14.0	20.0		14.0	21.0		14.0	21.0	
Total Split (s)	16.0	24.0		14.0	22.0		16.0	66.0		16.0	66.0	
Total Split (%)	13.3%	20.0%		11.7%	18.3%		13.3%	55.0%		13.3%	55.0%	
Maximum Green (s)	10.2	18.2		8.6	16.2		10.4	59.7		9.7	59.7	
Yellow Time (s)	3.0	3.8		3.0	3.8		3.0	3.8		3.0	3.8	
All-Red Time (s)	2.8	2.0		2.4	2.0		2.6	2.5		3.3	2.5	
Lost Time Adjust (s)	-0.8	-0.8		-0.4	-0.8		-0.6	-1.3		-1.3	-1.3	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)	25.4	23.5		15.4	10.2		62.0	60.1		57.6	51.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Actuated g/C Ratio	0.26	0.24		0.16	0.10		0.63	0.61		0.58	0.52	
v/c Ratio	1.18	0.93		0.06	0.32		0.36	0.46		0.02	0.89	
Control Delay	142.8	73.9		33.6	52.2		14.5	11.6		7.0	29.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	142.8	73.9		33.6	52.2		14.5	11.6		7.0	29.7	
LOS	F	E		C	D		B	B		A	C	
Approach Delay		111.6			49.0			11.9			29.6	
Approach LOS		F			D			B			C	
Queue Length 50th (ft)	~390	238		6	34		18	143		2	483	
Queue Length 95th (ft)	#508	#546		21	76		57	300		8	#697	
Internal Link Dist (ft)		1881			186			1572			963	
Turn Bay Length (ft)	150						100			165		
Base Capacity (vph)	360	378		229	291		273	2500		429	2269	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.18	0.93		0.05	0.18		0.32	0.39		0.02	0.72	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 98.6
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.18
Intersection Signal Delay: 42.6 Intersection LOS: D
Intersection Capacity Utilization 87.4% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 966: N Polk Street/Pineville Road & Industrial Drive/Driveway



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	83	51	6	92	70	26
Future Volume (Veh/h)	83	51	6	92	70	26
Sign Control	Free			Free	Stop	
Grade	2%			-1%	5%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	92	57	7	102	78	29
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			149		236	120
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			149		236	120
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		90	97
cM capacity (veh/h)			1432		748	931

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	149	109	107
Volume Left	0	7	78
Volume Right	57	0	29
cSH	1700	1432	790
Volume to Capacity	0.09	0.00	0.14
Queue Length 95th (ft)	0	0	12
Control Delay (s)	0.0	0.5	10.3
Lane LOS		A	B
Approach Delay (s)	0.0	0.5	10.3
Approach LOS			B

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	21.9%	ICU Level of Service	A
Analysis Period (min)	15		

Pineville Industrial TIA
3: Industrial Drive & Site Driveway #1

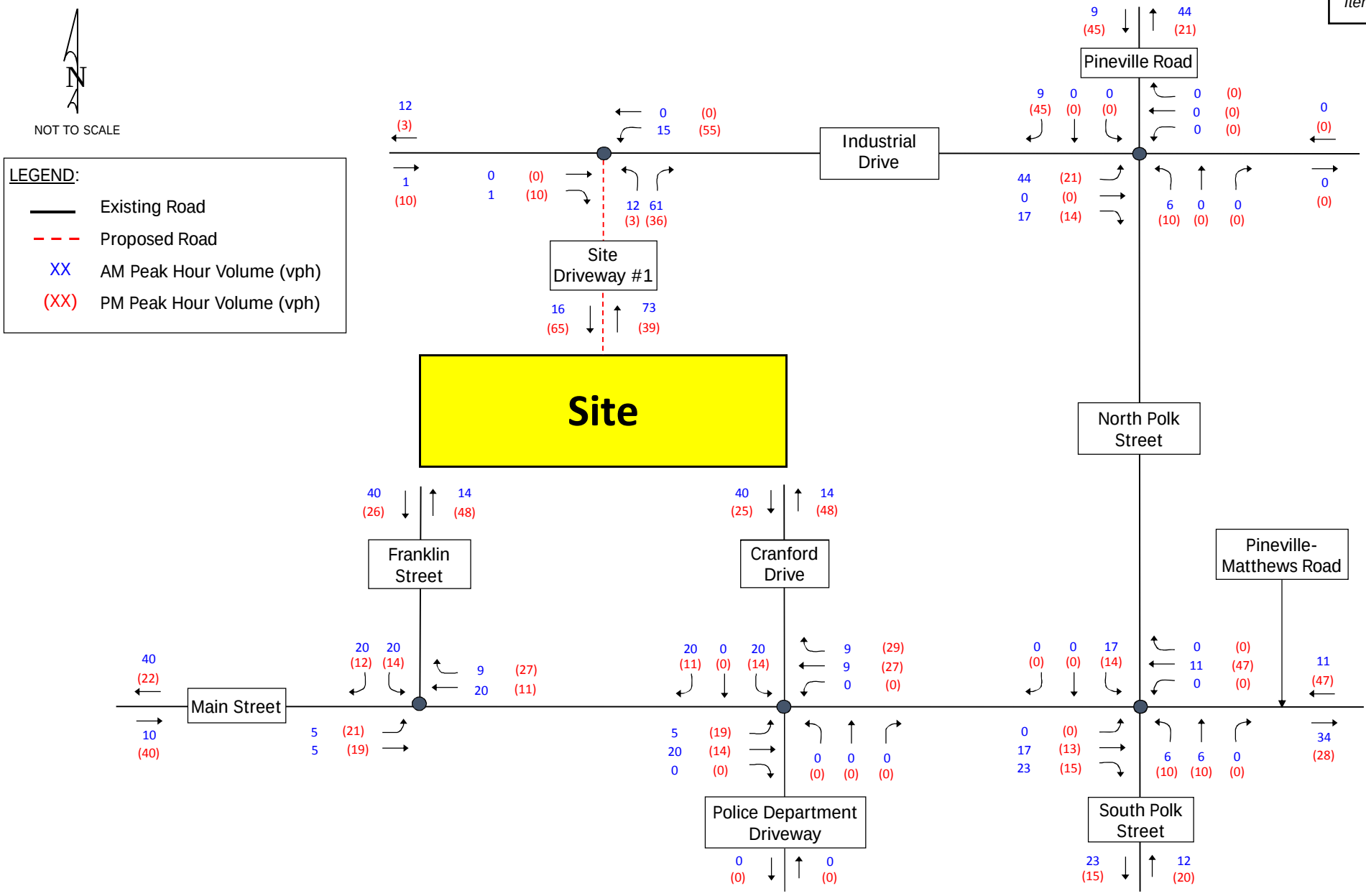
11/03/2017

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	35	376	73	112	403	7
Future Volume (Veh/h)	35	376	73	112	403	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	39	418	81	124	448	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	738	452	456			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	738	452	456			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	31	93			
cM capacity (veh/h)	357	608	1105			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	457	205	456
Volume Left	39	81	0
Volume Right	418	0	8
cSH	573	1105	1700
Volume to Capacity	0.80	0.07	0.27
Queue Length 95th (ft)	193	6	0
Control Delay (s)	31.5	3.8	0.0
Lane LOS	D	A	
Approach Delay (s)	31.5	3.8	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	13.6		
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		

Appendix E – Approved Developments



Cranford Drive
Traffic Impact Analysis
2021 Trip Distribution Volumes

Figure 4-2

Pineville
NORTH CAROLINA

TOWN COUNCIL AGENDA ITEM

MEETING DATE: 01/27/2025

Agenda Title/Category:	**New Employee Handbook Pay Policies**			
Staff Contact/Presenter:	**Linda Gaddy**			
Meets Strategic Initiative or Approved Plan:	**Yes**	**No**	If yes, list:	
		X		
Background:	**New pay plans were approved based on the compensation study just conducted. Now, policies surrounding the new plans and the changes need to be revised to match.**			
Discussion:	**Review the proposed changes in preparation for adopting them in February.**			
Fiscal impact:	**Within budget, these changes do not increase costs, and one reduces costs**			
Attachments:	**1. Overview of proposed policy changes - Pay** **2. Policies for Compensation 2025 sheet** **3. Pay plans (3)**			
Recommended Motion to be made by Council:	**discussion**			

Human Resources
Linda Gaddy, SHRM-CP PHR
lgaddy@pinevillenc.gov
(704) 889-2362

To: Town Council

From: Linda Gaddy

Date: 01/27/2025

Re: New Employee Handbook Pay Policies

Dear Council members,

I am presenting to you today the policies that are deemed necessary to match the newly adopted pay plans. There are significant changes in the pay plans that change how and when we will compensate to match the new pay structures and how they are designed to work.

The significant changes to pay plans resulted in a need, and an opportunity to do a deeper dive into our pay policies practices, likely much deeper than has been done in many years. This has resulted in not only the necessary changes to align with the new plans, but also to improvements to some policies or practices that have not worked as well as we would have liked in the past.

A big thought to keep in mind is that the lower end of the pay ranges has increased and is now very competitive. So, some old pay practices that were used to compensate for lower starting pay rates are now not needed. Specifically, the 6-month introductory period increases are not needed and would now move people up the pay scale too quickly.

Also, the sworn personnel are the ones who are eligible for additional incentive pay for education degrees, and certificates. Some of these were just introduced last year. We are changing the way we pay these by clearly keeping them identified as separate from their pay rate based on Step progression. With less Steps, we need folks to not move through them too quickly.

There is only one item that research shows that we are paying more than is customary in other municipalities, and that is the Law Enforcement certificates. For this, we will go to flat rates paid once per year and grandfather in those who are already getting a percentage that is higher than the new flat rate.

I will outline for you the changes reasons for such, and answer any questions you have now or in the coming weeks before these are finalized.

Sincerely,

Linda Gaddy
Human Resources Director

Policies for Compensation 2025

		CURRENT	NEW	Grandfather in?	Handook Policy
Pay premiums					
Premiums for certs		**Police sworn**: One step for Intermeditate Law Enforcement Certificate, two steps for Advanced (or only one additonal step if already received credit for Intermediate)	$1250/yr Intermediate Law Certificate $2500/yr Advanced Law Certificate* *if credit already given for Intermediate, only $1250 wil be added for total $2500 *granted every year at annual review*	Yes 14 people	*Add: flat amount awarded once per year at annual evaluation*
Premiums for educ		**General**: none **Police sworn**: Two steps for Associates Degree, two more or 4 total for bachleors degree	**General**: none **Police sworn:** 5% for Associates 10% for Bachelors* *if credit already given for Associates, only 5% for a total of 10%	N/A	*in each paycheck* Add: Sworn officers will receive a premium for Associates or Bachelors degrees completed added to their Grade/Step pay rate.
Premiums for language		5% for general employees, 2 steps for Police Officers	5% premium for one language only, 5% premium for Police Officers	N/A	*in each paycheck*
Promotion Practices		*includes 6 month introductory period*			
General		5% to 10% unless moving greater than 2 grades considered on an individual basis	5% to 10% unless moving more than 2 grades considered on an individual basis, and consistent with internal equity** shoud genreally be at 5% increase for each grade movement.	N/A	NEW EMPLOYEE INTRODUCTORY PAY INCREASES p12 Delete N/A. Add: Promotion evaluation at 6 months without pay increase. Annual eval date is next Aug..
Police		Incumbent is promoted to a higher grade, they receive the equivalent of a 7.5% increase and placed into the corresponding step of the new grade. If the 7.5% increase is less than the minimum salary for the new position, the incumbent will move to Step 1 of the new grade. At the completion of the introductory period in the new position, he/she is eligible for another one step increase (for a total max increase of 10% at the conclusion of the introductory process). **Police Officer to Detective and Detective to Police Officer considered Lateral Move and will move to the corresponding step to keep the same pay.*	Move to the new grade one step lower for Officer to Corporal, 1 step lower for Officer to Sergeant. Other moves follow similiar pattern dependent on how many grades they are moving up. If the increase is less than the minimum salary for the new position, the incumbent will move to Step 1 of the new grade. **Police Officer to Detective and Detective to Police Officer considered Lateral move. Move to same Step on new Grade.* **A six-month introductory period will apply to promotions. A performance evaluation will be conducted at six months in the new positon, but no pay increase is granted.	N/A	EFFECTS ON SALARY RATE p 12 Promotion Evaluation conducted at 6 months without pay increase. Annual eval date is one year from sworn in date with elgibility to move one step with acceptable performance review score.
Fire		At the completion of the introductory period in the new position, he/she is eligible for another one step increase (for a total max increase of 10% at the conclusion of the introductory process).	**A six-month introductory period will apply to promotions. A performance evaluation will be conducted at six months in the new positon, but no pay increase is granted.	N/A	Annual evaluation will be conducted at 12 months with eligible for a one-step increase with acceptable evaluation score.

Hiring Guidelines					
General		Approx 2.5% per year of prior directly relevant experience up to the mid-point	Approx 2.5% per year of prior directly relevant experience up to the mid-point. Above mid-point will need justification and prior approval by Town Manager	N/A	New: Add to hiring practices. Intial 6 month evaultion without a pay increase.
Police		Step 1 No experience &/or no Degree Step 3 Two (2) years of experience &/or Associate Degree Step 5 Four (4) years of experience &/or Bachelor's Degree Five(5)+ years of experience evaluated on a case-by-case basis	Step 1 No sworn experience &/or no Degree Step 3 Two (2) years of experience Step 5 Four (4) years of experience Five(5)+ years of experience evaluated on a case-by-case basis. Posesses an education degree and/or Law Enforcement Certificate=additional premium pay.	N/A	Anniversary date for evals is 12 months from sworn in date. No eval at 6 months.
		none	**Probationary Officer:** (new) Less than one year sworn exper. completing initial Field Training usually for 4 to 6 months. During this time they are accompanied by and are receiving field training from experienced trainers in order to become an independent Police Officer.	N/A	Pay rate is 5% below Step 1 Police Officer. At completion of FTO will promote to Police Officer Step 1. Anniversary date for evals is 12 months from sworn in date. No eval at 6 months.
Fire		Start at Step 1, Upon successful completion of a six (6) month introductory period, incumbents will be eligible to receive a one (1) step increase	Start at Step 1, Upon successful completion of a twelve 12) month introductory period, incumbents will be eligible to receive a one (1) step increase with acceptable performace review score	N/A	At bottom of published Fire pay plan

Town of Pineville Classification & Pay Plan

Effective March 5, 2025

Grade	Project Title	FLSA Status	Min	Mid	Max
14	Customer Service Representative	NE	$43,285	$49,778	$56,271
14	Maintenance Technician	NE	$43,285	$49,778	$56,271
14	Park Maintenance Technician I	NE	$43,285	$49,778	$56,271
14	Storm Water Technician	NE	$43,285	$49,778	$56,271
14	911 Telecommunicator	NE	$43,285	$49,778	$56,271
14	Admin Assistant/Receptionist	NE	$43,285	$49,778	$56,271
15	Administrative Assistant	NE	$45,450	$52,267	$59,085
15	Equipment Operator	NE	$45,450	$52,267	$59,085
15	Senior Customer Service Representative	NE	$45,450	$52,267	$59,085
15	Senior Storm Water Technician	NE	$45,450	$52,267	$59,085
16	Accounting Technician II	NE	$47,722	$54,880	$62,039
16	Administrative Technician	NE	$47,722	$54,880	$62,039
16	Billing & Collections Coordinator	NE	$47,722	$54,880	$62,039
16	Fleet Manager	NE	$47,722	$54,880	$62,039
16	Property & Evidence Technician	NE	$47,722	$54,880	$62,039
16	Senior Parks Maintenance Technician	NE	$47,722	$54,880	$62,039
17	Human Resource Assistant	NE	$50,108	$57,624	$65,140
18	Athletic Coordinator	NE	$50,421	$60,505	$70,589
18	Code Enforcement Officer	NE	$50,421	$60,505	$70,589
18	Programs/Events Coordinator	NE	$50,421	$60,505	$70,589
18	Special Events Coordinator	NE	$50,421	$60,505	$70,589
18	Systems Technician	NE	$50,421	$60,505	$70,589
20	Assistant Telecommunications Supervisor	NE	$55,589	$66,707	$77,825
20	Community Outreach Specialist	NE	$55,589	$66,707	$77,825
20	Parks Maintenance Supervisor	NE	$55,589	$66,707	$77,825
20	Public Works Supervisor	NE	$55,589	$66,707	$77,825
20	Senior Systems Technician/Assistant Supervisor	NE	$55,589	$66,707	$77,825
21	Building Maintenance Supervisor	NE	$58,368	$70,042	$81,715
21	Crime Analyst	NE	$58,368	$70,042	$81,715
21	Records & Accreditation Manager	NE	$58,368	$70,042	$81,715
22	Community Relations & Communications Specialist	NE	$61,287	$73,544	$85,802
22	Accountant	Exempt	$61,287	$73,544	$85,802
23	Network Database Technician	NE	$64,351	$77,221	$90,091
23	Systems Technician Supervisor	NE	$64,351	$77,221	$90,091
24	Telecommunications Supervisor 911	Exempt	$67,568	$81,082	$94,595
25	Town Clerk	Exempt	$70,947	$85,136	$99,326
30	Human Resource Director	Exempt	$94,593	$118,241	$141,890
30	Parks & Recreation Director	Exempt	$94,593	$118,241	$141,890
30	Public Works Director	Exempt	$94,593	$118,241	$141,890
31	Finance Director	Exempt	$102,160	$127,700	$153,240
31	Planning Director	Exempt	$102,160	$127,700	$153,240
31	Telephone/Utility Director	Exempt	$102,160	$127,700	$153,240
	Assistant Town Manager	Exempt			
36	Town Manager	Exempt	$150,106	$187,633	$225,159

Town of Pineville Police Classification & Step Pay Plan

Effective March 5, 2025

Grade	Position		1	2	3	4	5	6	7	8	9	10	11
	BLET	$18.00											
	Probationary	$55,417.66											
	40	*$26.64*											
	42	*$25.37*											
PO1	Police Officer		$58,334.38	$59,792.74	$61,287.56	$62,819.75	$64,390.24	$66,000.00	$67,650.00	$69,341.25	$71,074.78	$72,851.65	$74,672.94
	42		*$26.71*	*$27.38*	*$28.06*	*$28.76*	*$29.48*	*$30.22*	*$30.98*	*$31.75*	*$32.54*	*$33.36*	*$34.19*
PO2	Detective		$60,667.76	$62,184.45	$63,739.06	$65,332.54	$66,965.85	$68,640.00	$70,356.00	$72,114.90	$73,917.77	$75,765.72	$77,659.86
	40		*$29.17*	*$29.90*	*$30.64*	*$31.41*	*$32.20*	*$33.00*	*$33.83*	*$34.67*	*$35.54*	*$36.43*	*$37.34*
PO3	Corporal		$64,914.50	$66,537.36	$68,200.80	$69,905.82	$71,653.46	$73,444.80	$75,280.92	$77,162.94	$79,092.02	$81,069.32	$83,096.05
	40		*$31.21*	*$31.99*	*$32.79*	*$33.61*	*$34.45*	*$35.31*	*$36.19*	*$37.10*	*$38.03*	*$38.98*	*$39.95*
	42		*$29.72*	*$30.47*	*$31.23*	*$32.01*	*$32.81*	*$33.63*	*$34.47*	*$35.33*	*$36.21*	*$37.12*	*$38.05*
PO4	Sergeant		$72,704.24	$74,521.85	$76,384.89	$78,294.52	$80,251.88	$82,258.18	$84,314.63	$86,422.50	$88,583.06	$90,797.64	$93,067.58
	40		*$34.95*	*$35.83*	*$36.72*	*$37.64*	*$38.58*	*$39.55*	*$40.54*	*$41.55*	*$42.59*	*$43.65*	*$44.74*
	42		*$33.29*	*$34.12*	*$34.97*	*$35.85*	*$36.75*	*$37.66*	*$38.61*	*$39.57*	*$40.56*	*$41.57*	*$42.61*
PO5	Lieutenant		$82,155.79	$84,209.69	$86,314.93	$88,472.80	$90,684.62	$92,951.74	$95,275.53	$97,657.42	$100,098.86	$102,601.33	$105,166.36
PO6	Police Captain		$94,068.38	$96,420.09	$98,830.59	$101,301.36	$103,833.89	$106,429.74	$109,090.48	$111,817.75	$114,613.19	$117,478.52	$120,415.48
PO7	Police Chief		$122,103.62	$125,766.72	$129,539.73	$133,425.92	$137,428.69	$141,551.56	$145,798.10	$150,172.05	$154,677.21	$159,317.52	$164,097.05

Add Policies - Hiring and promotion

Town of Pineville Police Classification & Step Pay Plan

Effective March 5, 2025

Grade	Position		1	2	3	4	5	6	7	8	9	10	11	Target Range Spread	Midpoint Differential	Avg. Midpoint vs Range Midpoint	Step Diff	Range Spread
	BLET	$18.00																
	Probationary	$119,478.3875																
	40	$57.4415																
	42	$54.7062																
PO1	Police Officer		$58,334.3830	$59,792.7426	$61,287.5611	$62,819.7501	$64,390.2439	$66,000.0000	$67,650.0000	$69,341.2500	$71,074.7813	$72,851.6508	$74,672.9421	33%		▲5.5%	2.50%	28%
	42		*$26.7099*	*$27.3776*	*$28.0621*	*$28.7636*	*$29.4827*	*$30.2198*	*$30.9753*	*$31.7497*	*$32.5434*	*$33.3570*	*$34.1909*					
PO2	Detective		$60,667.7583	$62,184.4523	$63,739.0636	$65,332.5402	$66,965.8537	$68,640.0000	$70,356.0000	$72,114.9000	$73,917.7725	$75,765.7168	$77,659.8597	33%	4.00%	▼(0.7%)	2.50%	28%
	40		*$29.1672*	*$29.8964*	*$30.6438*	*$31.4099*	*$32.1951*	*$33.0000*	*$33.8250*	*$34.6706*	*$35.5374*	*$36.4258*	*$37.3365*					
PO3	Corporal		$64,914.5014	$66,537.3639	$68,200.7980	$69,905.8180	$71,653.4634	$73,444.8000	$75,280.9200	$77,162.9430	$79,092.0166	$81,069.3170	$83,096.0499	33%	7.00%	▲1.1%	2.50%	28%
	40		*$31.2089*	*$31.9891*	*$32.7888*	*$33.6086*	*$34.4488*	*$35.3100*	*$36.1928*	*$37.0976*	*$38.0250*	*$38.9756*	*$39.9500*					
	42		*$29.7228*	*$30.4658*	*$31.2275*	*$32.0082*	*$32.8084*	*$33.6286*	*$34.4693*	*$35.3310*	*$36.2143*	*$37.1197*	*$38.0476*					
PO4	Sergeant		$72,704.2415	$74,521.8476	$76,384.8938	$78,294.5161	$80,251.8790	$82,258.1760	$84,314.6304	$86,422.4962	$88,583.0586	$90,797.6350	$93,067.5759	33%	12.00%	▲4.8%	2.50%	28%
	40		*$34.9540*	*$35.8278*	*$36.7235*	*$37.6416*	*$38.5826*	*$39.5472*	*$40.5359*	*$41.5493*	*$42.5880*	*$43.6527*	*$44.7440*					
	42		*$33.2895*	*$34.1217*	*$34.9748*	*$35.8491*	*$36.7454*	*$37.6640*	*$38.6056*	*$39.5707*	*$40.5600*	*$41.5740*	*$42.6134*					
PO5	Lieutenant		$82,155.7929	$84,209.6878	$86,314.9300	$88,472.8032	$90,684.6233	$92,951.7389	$95,275.5324	$97,657.4207	$100,098.8562	$102,601.3276	$105,166.3608	33%	13.00%	▲4.6%	2.50%	28%
PO6	Police Captain		$94,068.3829	$96,420.0925	$98,830.5948	$101,301.3597	$103,833.8937	$106,429.7410	$109,090.4845	$111,817.7467	$114,613.1903	$117,478.5201	$120,415.4831	33%	14.50%	▲2.8%	2.50%	28%
PO7	Police Chief		$122,103.6153	$125,766.7237	$129,539.7254	$133,425.9172	$137,428.6947	$141,551.5556	$145,798.1022	$150,172.0453	$154,677.2066	$159,317.5228	$164,097.0485	33%	33.00%	▲5.5%	3.00%	34%

Town of Pineville Fire Classification & Pay Plan
2024-2025

Position	Grade	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	Step 12	Step 13	Step 14	Step 15
Firefighter Driver	20	$ 58,317.17	$ 59,775.10	$ 61,269.48	$ 62,801.21	$ 64,371.25	$ 65,980.53	$ 67,630.04	$ 69,320.79	$ 71,053.81	$ 72,830.16	$ 74,650.91	$ 76,517.18	$ 78,430.11	$ 80,390.86	$ 82,400.64
HOURLY (For HR Only)		*$ 19.64*	*$ 20.13*	*$ 20.63*	*$ 21.15*	*$ 21.67*	*$ 22.22*	*$ 22.77*	*$ 23.34*	*$ 23.92*	*$ 24.52*	*$ 25.13*	*$ 25.76*	*$ 26.41*	*$ 27.07*	*$ 27.74*

Introductory Period
Upon successful completion of a twelve (12) month introductory period, incumbents will be eligible to receive a one (1) step increase

Town of Pineville Fire Classification & Pay Plan
2024-2025

Position	Grade	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	Step 12	Step 13	Step 14	Step 15
Firefighter Driver	20	$ 58,317.1710	$ 59,775.1003	$ 61,269.4778	$ 62,801.2147	$ 64,371.2451	$ 65,980.5262	$ 67,630.0394	$ 69,320.7904	$ 71,053.8101	$ 72,830.1554	$ 74,650.9093	$ 76,517.1820	$ 78,430.1115	$ 80,390.8643	$ 82,400.6359
HOURLY (For HR Only)		*$ 19.6354*	*$ 20.1263*	*$ 20.6295*	*$ 21.1452*	*$ 21.6738*	*$ 22.2157*	*$ 22.7711*	*$ 23.3403*	*$ 23.9238*	*$ 24.5219*	*$ 25.1350*	*$ 25.7634*	*$ 26.4074*	*$ 27.0676*	*$ 27.7443*

Introductory Period
Upon successful completion of a twelve (12) month introductory period, incumbents will be eligible to receive a one (1) step increase.

Pineville
NORTH CAROLINA

TOWN COUNCIL AGENDA ITEM

MEETING DATE: January 22, 2025

Agenda Title/Category:	**Work Session – Finance Report FY25 Q2**			
Staff Contact/Presenter:	**Christopher Tucker, Finance Director**			
Meets Strategic Initiative or Approved Plan:	**Yes**	**No**	If yes, list:	**Financial Policies**
	X			
Background:	**As approved 10/8/2024 – Financial Policies: Budget Development Policies #5 – "The Town Council will receive a financial report at least quarterly showing year-to-date revenues and expenditures and comparing each amount to the budget as amended."**			
Discussion:	**Staff will be on hand to review and discuss.**			
Fiscal impact:				
Attachments:	**Staff Memo** **Finance Report and Notifications FY25 Q2**			
Recommended Motion to be made by Council:	**Receive as information**			

January 22, 2025

To: Honorable Mayor and Town Council
Ryan Spitzer, Town Manager
Lisa Snyder, Town Clerk

From: Christopher Tucker, Assistant Town Manager CMT

RE: Council Information – Finance Report and Notifications FY25 Q2

For the Council's information at the January 27, 2025 Council Work Session, please find attached the finance report and notifications through December 2024 – FY25 Q2.

General Fund - Revenues are at the proper pace across all major categories. Expenditures are at a comfortable pace when the Town Hall debt payment and the first half of the Police radio project are extracted.

Electric Fund – Electric Charges are at solid pace reflective of the rate increase. The Town has received the payment from the NCMPA1 sale of capacity. Expenditures are above the pace due to capital projects.

Telephone Funds – Revenues are at a solid pace. Operating expenditures are as well. Timing and scope of capital projects are the pressure points.

Notifications: None

Town of Pineville
Revenue Report (Budget vs. Actual) - General Fund
For the Month Ending December 2024

	Budget	Actual	% of Budget
Revenues			
Ad Valorem Taxes	$ 10,735,000	$ 6,473,083	60.30%
Powell Bill	285,000	329,039	115.45%
Franchise Taxes	1,150,000	364,506	31.70%
Sales Taxes	3,150,000	1,228,187	38.99%
Storm Water Fees	450,000	247,088	54.91%
Tourism Revenues	1,450,000	508,588	35.08%
ETJ / Library from Meck County	1,275,000	690,028	54.12%
Miscellaneous Revenue	470,000	601,136	127.90%
Transfers from Other Funds	75,000	-	0.00%
Investment Earnings	450,000	463,087	102.91%
Appropriated Fund Balance	6,344,000	-	0.00%
Total	$ 25,834,000	$ 10,904,742	42.21%
Expenditures			
General Government	$ 3,215,000	$ 1,661,364	51.68%
Public Safety	14,982,000	7,169,029	47.85%
Public Works - Transportation	1,650,000	625,110	37.89%
Public Works - Environmental Protection	1,450,000	713,991	49.24%
Recreation - Admin / Parks	763,000	396,298	51.94%
Recreation Tourism	1,456,000	835,308	57.37%
Debt Service	1,817,000	1,659,160	91.31%
Transfers to Other Funds	401,000	-	0.00%
Contingency	100,000	-	0.00%
OPEN ENCUMBRANCES @ 12/31/24	-	2,230,011	
Total	$ 25,834,000	$ 15,290,272	59.19%

Town of Pineville
Revenue Report (Budget vs. Actual) - 911 Fund
For the Month Ending December 2024

	Budget	Actual	% of Budget
Revenues			
PSAP Revenue	-	10,953	
Interest Earnings	-	11,756	
Fund Balance Appropriated	200,000	-	
Total Revenue	200,000	22,709	11.35%
Expenditures			
Restricted Expenditures	200,000	101,916	50.96%
OPEN ENCUMBRANCES @ 12/31/24	-	-	
Total Expenditures	200,000	101,916	50.96%

Town of Pineville
Revenue Report (Budget vs. Actual) - Electric Fund
For the Month Ending December 2024

	Budget	Actual	% of Budget
Revenues			
Electric Charges	13,000,000	7,385,601	56.81%
Interest Earnings	100,000	94,052	94.05%
Misc Revenues	50,000	2,149,876	4299.75%
Fund Balance Appropriated	2,085,000	-	0.00%
Total	15,235,000	9,629,529	63.21%
Expenditures			
Administration	570,000	313,102	54.93%
Wholesale Power Purchased	7,500,000	4,195,469	55.94%
Operations and Maintenance	2,030,000	929,377	45.78%
Capital Outlay	5,085,000	2,556,138	50.27%
PILOT	50,000	-	0.00%
OPEN ENCUMBRANCES @ 12/31/24	-	1,223,092	
Total	15,235,000	9,217,178	60.50%

Town of Pineville
Revenue Report (Budget vs. Actual) - ILEC Fund
For the Month Ending December 2024

	Budget	Actual	% of Budget
Revenues			
Operating Revenues	1,145,000	576,931	50.39%
Interest Earnings	-	58,782	
Fund Balance Appropriated	555,000	-	0.00%
Total Revenue	1,700,000	635,714	37.39%
Expenditures			
Operating Transfer Out	300,000	75,000	25.00%
Operating Expenses	1,100,000	521,266	47.39%
Plant under Construction	300,000	4,380	1.46%
OPEN ENCUMBRANCES @ 12/31/24	-	12,401	
Total	1,700,000	613,047	36.06%

Town of Pineville
Revenue Report (Budget vs. Actual) - CLEC Fund
For the Month Ending December 2024

	Budget	Actual	% of Budget
Revenues			
Operating Revenues	1,330,000	757,344	56.94%
Transfer from ILEC	300,000	75,000	25.00%
Fund Balance Appropriated	-	-	
Total Revenue	1,630,000	832,344	51.06%
Expenditures			
Operating Expenses	1,330,000	610,111	45.87%
Plant under Construction	300,000	94,945	31.65%
OPEN ENCUMBRANCES @ 12/31/24	-	38,976	
Total	1,630,000	744,031	45.65%

Pineville
NORTH CAROLINA

TOWN COUNCIL AGENDA ITEM

MEETING DATE: January 27, 2025

Agenda Title/Category:	**FY26 Budget Calendar**			
Staff Contact/Presenter:	**Christopher Tucker, Finance Director**			
Meets Strategic Initiative or Approved Plan:	**Yes**	**No**	If yes, list:	**Financial Policies**
	X			
Background:	**Each year to kick off the budget process, staff should present a budget calendar to lay out the timeline for the Council's budget engagements.**			
Discussion:	**Please bring your personal calendars so we can confirm the number of budget work sessions and establish windows of Council availability at this session.**			
Fiscal impact:	**The annual budget is the Council's most effective policy-making tool. Key decisions include the tax rate, compensation strategies, and capital additions**			
Attachments:	**FY26 DRAFT Budget Calendar**			
Recommended Motion to be made by Council:	**No Action in this session; Direct Staff and Clerk to confirm work session dates and times**			

< DRAFT> FY26 Council Budget Calendar

February 2025 – One Budget Workshop Session

- Review Funds and Budget Process; Discuss Priorities and Pressures

March 2025 – Two Budget Workshop Sessions with Council

- March ?? – Davenport Financial Advisors – General Fund
- March ?? – Davenport Financial Advisors – Electric Fund

April 1, 2025 – April 11, 2025 – Four Budget Workshop Sessions with Council

- Fund Balance / Debt / Revenues
- Compensation / Benefits
- Operations / Capital Outlay
- Public Safety

April 12, 2025 – April 21, 2025 – CMS Spring Break

April 24, 2025 – Budget Work Session - Enterprise Funds (ELECTRIC / PCS)
April 29, 2025 – Budget Work Session – Mgrs. Recommended Budget presentation

April 29, 2025 – May 13, 2025 – Budget Available for Public Review

May 13, 2025 – Council Meeting - Hold Public Hearing
June 10, 2025 – Council Meeting - Approve Budget Ordinance and Fee Schedule