



PLEASE TAKE NOTICE that the Mebane Planning Board's Regular Meeting will be held virtually on Monday, January 11, 2021, at 6:30 p.m.

The City of Mebane is taking measures to mitigate the spread of the COVID-19 virus including banning physical attendance at public meetings, employing social distancing, and implementing remote participation. The following will allow the public to attend the meeting by remotely accessing it on the internet.

For those without internet service, you can listen to the meeting by calling 919-304-9210, password 158962.

For people who plan to view the meeting, but not comment or participate, the City is providing a YouTube live stream by searching the City of Mebane on YouTube or at the following link:

<https://www.youtube.com/channel/UCoL1RXdRDMzK98p53TMoqww>

For people who plan or think they may want to address the Planning Board during a Public Hearing, see options below.

Option #1-

- Email comment to avogel@cityofmebane.com. Written comments must be received by **4pm on Monday, January 11th** Written comments will be read aloud by City Staff
- Messages must be labeled Public Hearing in the subject line and must contain commenter's name and address.

Option #2

- Email avogel@cityofmebane.com by Monday, December 14th, 2:00pm to speak during the Public Comment Period or Public Hearing. When email is received, an email will be sent with instructions on how to register and speak during the Public Comment Period or Public Hearing
- Messages must be labeled Public Comment or Public Hearing in the subject line and must contain commenter's name and address.
- Registered participants will be given an access code to speak at the meeting via Zoom, a remote conferencing service
- Callers will be held in queue and asked to mute their phones or speakers until they are called on to speak
- Speakers will be called in the order in which they are registered. Should time allow after all registered speakers have had a chance to speak, you may use the "raise hand" button on the Zoom interface to be recognized and staff will unmute you to give comment.
- Per authority of NCGS 143-318.17, if a person participating remotely willfully disrupts the Planning Board, then upon direction by the Chair, such person may be removed from electronic participation, or his or her e-mail may not be read.



Planning Board
Regular Meeting Agenda
January 11, 2021, 6:30 p.m.

1. Call to Order
2. Approval of December 14, 2020, Meeting Minutes
3. City Council Actions Update
4. Request to Establish M-2 (CD) Zoning on a +/-47.5-Acre Parcel (PIN 9834436528) at 6016 West Ten Road Located Outside of the Extra-Territorial Jurisdiction (ETJ) in Orange County by Al Neyer – *Continued from December 14th Planning Board Meeting*
5. Lowes Boulevard Corridor Plan
6. New Business
7. Adjournment



**Planning Board
Minutes to the Meeting**

Glendel Stephenson Municipal Building
December 14, 2020
6:30 p.m.

The Planning Board meeting was held virtually and livestreamed via YouTube. The video can be accessed through the following link: <https://www.youtube.com/watch?v=ci2UakUtAD8>

Members Present Via Zoom: Keith Hoover, Lori Oakley, Kurt Pearson, Gale Pettiford, Vice Chairman Judy Taylor, Larry Teague, Chairman Edward Tulauskas

Also Present: Ashley Ownbey, Planner; Audrey Vogel, Planner; Cy Stober, Development Director; Kirk Montgomery, IT Director

1. Call to Order

At 6:30 p.m. Chairman Edward Tulauskas called the meeting to order.

2. Approval of November 9, 2020 Minutes

Gale Pettiford made a motion to approve the minutes from the November 9, 2020 meeting. Larry Teague seconded the motion, which passed unanimously.

3. City Council Actions Update

Cy Stober, Development Director, Provided an update on recent City Council actions regarding the Mebane Oaks Road development project and the Buckhorn Area Plan.

**4. Request to Establish M-2 (CD) Zoning on a +/-47.5-Acre Parcel (PIN 9834436528) at 6016 West Ten Road Located Outside of the Extra-Territorial Jurisdiction (ETJ) in Orange County by Al Neyer –
*Continued from November 9th Planning Board Meeting***

Cy Stober provided a brief overview and PowerPoint of the request, summarizing the information presented to the Planning Board at the November 9th meeting. Cy Stober indicated that property is classified as a “top tier” in the Buckhorn Area Plan; however, City Council has not adopted the plan at this time. As Such the staff report for the project was revised to reflect that no staff recommendation was made because the project is beyond the bounds of all adopted city plans. Cy Stober highlighted new information regarding the Traffic Impact Analysis and master site plan, noting that the Applicant provided additional revisions to the master site plan that he had not yet reviewed and are not reflected on site plan provided in the agenda packet.



Tim Summerville, Engineer with STEWART, 101 West Main St, Durham, NC 27701, summarized the revisions made to the master site plan. Tim Summerville indicated that the revisions were based on information from the TIA and feedback from neighbors.

Judy Taylor asked for clarification about freight traffic and driveway usage. Tim Summerville indicated that the neighbors preferred the right-in, right-out only driveway, and that it will eliminate trucks needing to turn left of buckhorn road.

Lori Oakley asked if this was noted on the plans. Tim Summerville replied that it was noted on the latest plans. Cy Stober clarified that the Planning Board has not received the most up-to-date site plan, and that the revisions in question were provided only prior to the meeting at 12:00pm. He further clarified that these notable changes included 100-foot buffers, right-in/right-out driveway on Buckhorn Rd, and the right turn lane on West Ten Rd.

Kurt Pearson asked Cy Stober if he had any notes or comments on these latest revisions. Cy Stober responded explaining the rationale for staff's initial comments and that revisions address Staff's concerns about freight traffic going south on Buckhorn Road. Cy also indicated that more detail could be provided regarding internal circulation on the site to discourage left turns on to West Ten.

At the direction of Chairman Tulauskas, Several members of the public shared comments and asked questions.

Fiona Johan, 5016 Johan Lane, noted that she appreciated the 100-foot buffer, but requested it be increased to 150 feet. Ms. Johan also asked about an error shown in the agenda packet noting a "minimum" height. Justin Parker, representing the applicant, clarified that it should be "maximum." Ms. Johan asked questions about stormwater, including the fencing for the wet pond on the site. Cy Stober indicated that there is a City of Mebane Ordinance that requires fencing for non-natural bodies of water greater than two feet. In addition, she asked about the "public interest conformance" section on the Staff Report, and if an adjoining property value appraisal would be completed. Cy Stober clarified that the section is only considered for special use permits. Ms. Johan also asked about changes to Buckhorn Road per the Efland-Mebane-Buckhorn Access Management Plan. Cy Stober clarified that the plan was not a City of Mebane adopted plan and is not considered for Mebane plan review.

Patricia O'Connor, 1011 Squires Rd, asked about the Traffic Impact Analysis and if it included data from the Medline project. Joshua Reinke, traffic engineer at Ramey Kemp, responded to Ms. O'Connor's questions and concerns, providing a detailed explanation of the TIA methodology. He indicated that Medline was included in the analysis, and added that the TIA looks at peak hours only. Ms. O'Connor also requested that the developer provide a real estate impact analysis to be completed by a local real estate firm.



Beth Bronson, 1221 Buckhorn Rd, echoed her neighbors' concerns and noted that it is worth discussing the Buckhorn Area Plan because it is connected to this project, and asked about the Board's response to December 7, 2020, City Council meeting on the matter. She also asked about the relationship between Orange County and the City of Mebane regarding moving forward with development in this area. Ms. Bronson also asked about the NCDOT's comments regarding the TIA. Cy Stober responded that the comments were received earlier in the day.

Cy Stober read the following **draft** comments received from Chuck Edwards, NCDOT District Engineer, Division 7, District 1:

General:

The proposed site is located on the southeast corner of the intersection of Buckhorn Road and West Ten Road and consists of 675,000 square foot of warehousing. The site is accessed via two full movement driveways on West Ten Road and one full movement driveway on Buckhorn Road. Upon full buildout in 2023, the site is expected to generate approximately 1120 daily trips. The TIA did not indicate that the site was to be developed in phases an analysis is based upon a single full-buildout scenario.

Methodology:

The analysis and methodology and scope of the TIA are consistent with the MOU based on discussion between RKA, the City of Mebane and NCDOT. Background traffic counts were not possible due to Covid-19 impacts. Traffic counts previously taken by NCDOT and RKA for other recent projects were utilized with appropriate adjustments as described in the study. Schools were in normal operational the time that counts were taken.

Committed Improvements:

- *NCDOT has recently completed geometric improvements at the intersection of Buckhorn Road and West Ten Road to increase intersection radii to accommodate truck turning movements.*
- *NCDOT has also programmed and funded installation of paved shoulders and resurfacing of West Ten Road from Buckhorn Road to Mt. Willing Road. This works is scheduled for Summer 2021.*

Analyses findings and Recommended Improvements:

Based on the information provided, NCDOT generally concurs with the TIA recommendations as amended below.

Buckhorn Road and I-40/I-85 Eastbound Ramps

- *Monitor intersection for signalization, and install traffic signal once warranted and approved by NCDOT. Based on anticipated no-build (2023) operations, this improvement should be considered regardless of if the proposed development is built.*



Buckhorn Road and I-40/I-85 Westbound Ramps

- *Monitor intersection for signalization, and install traffic signal once warranted and approved by NCDOT. Based on anticipated no-build (2023) operations, this improvement should be considered regardless of if the proposed development is built.*

West Ten Road and Site Drive 1

- *Construct the northbound approach with one (1) ingress lane and one (1) egress lane.*
- *Provide stop control for the northbound approach.*
 - *Provide a minimum 100' internal protected driveway stem*
 - *NCDOT turn lane warrants are not satisfied based on anticipated volumes. The City of Mebane has indicated that local regulations require installation of road improvements at the site accesses. NCDOT will support local requirements.*

West Ten Road and Site Drive 2

- *Construct the northbound approach with one (1) ingress lane and one (1) egress lane.*
- *Provide stop control for the northbound approach.*
 - *Provide a minimum 100' internal protected driveway stem*
 - *NCDOT turn lane warrants are not satisfied based on anticipated volumes. The City of Mebane has indicated that local regulations require installation of road improvements at the site accesses. NCDOT will support local requirements.*

Buckhorn Road and Site Drive 3

- *Construct the westbound approach with one (1) ingress lane and one (1) egress lane.*
- *Provide stop control for the westbound approach.*
 - *Provide a minimum 100' internal protected driveway stem*
 - *NCDOT turn lane warrants are not satisfied based on anticipated volumes. The City of Mebane has indicated that local regulations require installation of road improvements at the site accesses. NCDOT will support local requirements.*
 - *The City of Mebane has indicated that as a condition of development approval, restriction of truck access at this driveway may be stipulated. NCDOT will support this local requirement if applied to the development.*

Permitting:

Prior to performing work in the NCDOT right of way, the applicant will need to obtain the following:

- *Approved NCDOT Driveway Permit*
- *Approved NCDOT 3-Party Encroachment Agreement with City of Mebane for any proposed/stipulated water and sewer or sidewalk construction*

C. N. Edwards Jr., PE (Chuck)

District Engineer

North Carolina Department of Transportation

Division of Highways

Division 7, District 1



Aimee Tattersall, 1133 Squires Road, asked specific questions about the TIA. Joshua Reinke responded to her questions. A key point from this discussion was that the TIA included all traffic, not just Neyer traffic, expected to be on the roadway. They discussed at length the relationship between the Medline project and traffic on West Ten road, and how it was factored into the TIA. Ms. Tattersall expressed concern about traffic on West Ten Road.

Kurt Pearson acknowledged Ms. Tattersall's frustrations about the data in the TIA. He also noted that TIA studies rely on models and generalizations, but TIA does a good job accounting for the activity on West Ten and Buckhorn Road and provides data that he can feel confident about.

Beth Bronson expressed concern that NCDOT yielded to the local guidance from the City of Mebane and Orange County. She also expressed concerns about the projected growth from the TIA, indicating that more focus needs to be on future growth under the Buckhorn Area Plan. In addition, Ms. Bronson noted that the area has already been identified for state NCDOT improvements that have not been acted on.

Kurt Pearson responded to Ms. Bronson's comments, clarifying that Mr. Edwards comments yielding to the City indicate going above and beyond the State requirements.

Aimee Tattersall echoed more concerns about traffic on Buckhorn Road. Ms. Tattersall noted that road widening would be disruptive to single family homes that already exist.

Kurt Pearson asked Cy Stober if the right-in/right-out roadway design would be effective in limiting left turns on to West Ten Road. Cy Stober responded that he would also recommend directional signs to guide movement internal to the site.

Lori Oakley asked Cy Stober to confirm when the latest site plan revisions were received and if Staff has had sufficient time to review them. Cy confirmed that she was correct. Ms. Oakley expressed astonishment that the applicant has asked the Planning Board to vote on plans that they do not have in their possession. Cy Stober indicated that he could provide paper copies of the plans to the Board. Just Parker, explained that the reasoning for the additional revisions was to incorporate any feedback that came out of the December 7, 2020, City Council hearing on the Buckhorn Area Plan. Paul Koonts, a representative of the applicant, chimed in about addressed potential City Council recommendations under the Buckhorn Area Plan as they continue to consider the project.

Lori Oakley reiterated that she needs to physically see the plans to review the revisions.

Fiona Johan asked if the applicant would consider the real estate impact analysis prior to the Board voting on the matter. Justin Parker responded that it would be their recommendation for an appraisal that examines the larger area as opposed to a select number of parcels and that the applicant would work with the City to produce that. Cy Stober responded that the City has a standard two-week review period and the findings would need to be included in an agenda packet and presented at a public



hearing. He added that an appraisal is not required by the Unified Development Ordinance for a conditional rezoning, so it is at the applicant's discretion to complete.

Fiona Johan reiterated concerns about the project and how there is little guidance for development in the area. She indicated that she would continue to push for a home value analysis and broader buffers to protect her home and the property she invested in.

Cy Stober clarified that staff would be able to include the findings of a home value study in findings of facts, but that staff not qualified to review an appraisal. Fiona Johan commented that she would be happy to find a licensed real estate appraiser to review the findings.

Aimee Tattersall commented that when talking about property values and the project in general, there are implications for not only Mebane, but also for the homes in Orange County along Buckhorn and West Ten.

Kurt Pearson asked Cy if it was appropriate to ask the applicant how they would like the Board to proceed – to either vote on the request without the revised plans or table the request to give the board time to review the revised plans and allow for the applicant to respond to any concerns raised during the public hearing. Cy clarified that the powers of the Planning Board under general statute, noting that the role of the Board is to advise the City Council on rezoning requests. Mr. Stober also noted that after 30 days the applicant has the option to pursue a public hearing before City Council without a recommendation from the Planning Board.

Justin Parker expressed his appreciation of the neighbors' concerns and that the applicant has made efforts to acknowledge these concerns and honor the intentions of Buckhorn Area Plan. Mr. Parker noted that Buckhorn Area Plan considered the property in questions and was recommended by the Planning Board at the November 9, 2020, Planning Board meeting. Mr. Parker also noted that applicant would be amicable to postponing the decision until the next Planning Board Meeting to allow the Board time to review the revised plans.

Patricia O'Connor thanked Justin Parker for his efforts and expressed that the Board would even consider voting on the issue at this meeting. Chairman Tulauskas clarified that the Planning Board is a recommendation body, and the project will be heard by the Mebane City Council at a public hearing to decide on the request.

Kurt Pearson made a motion to table the request until the January 11, 2021, Planning Board meeting. Judy Taylor seconded the motion. Per a roll call vote, the motion carried unanimously.

Judy Taylor asked Cy Stober when the Buckhorn Area Plan would be presented to Orange County. Cy Stober responded that there would be an information item at a meeting held the following evening, Tuesday, December 14, 2021 and a public meeting on January 15, 2021.



5. Mebane Housing Supply Report - *Continued from November 9th Planning Board Meeting*

Audrey Vogel, City Planner, provided a brief introduction about the report, noting that data from the 2000 census was added to the report since it was presented to the Planning Board at the November 9, 2020, meeting. Cy Stober clarified that the agenda item was intended to Planning Board discussion and any action they see fit to take.

Judy Taylor made a motion to recommend that the Housing Supply Report be presented to the City Council for the reason that it consistent with the goals and objectives of the Mebane By Design Comprehensive Land Development Plan. Gale Pettiford seconded the motion. Per a roll call vote, the motion carried unanimously.

6. New Business

Ashley Ownbey provided an update on the Lowes Boulevard Corridor Plan, detailing the key dates for upcoming virtual meetings, and providing an overview of the public engagement website. She note that the deadline for the public survey is January 22, 2021.

Cy Stober also noted that there is an open position on the City of Mebane Bicycle and Pedestrian Advisory Committee, as well as openings on the Recreation and Parks Advocacy Committee. Cy Stober also reminded the Board that the terms for four members will end in 2021.

7. Adjournment

There being no further business, the meeting was adjourned at 8:10 p.m.



AGENDA ITEM #4

RZ 20-12

Conditional Rezoning –
6016 West Ten Road

Continued

Presenter

Cy Stober, Development Director

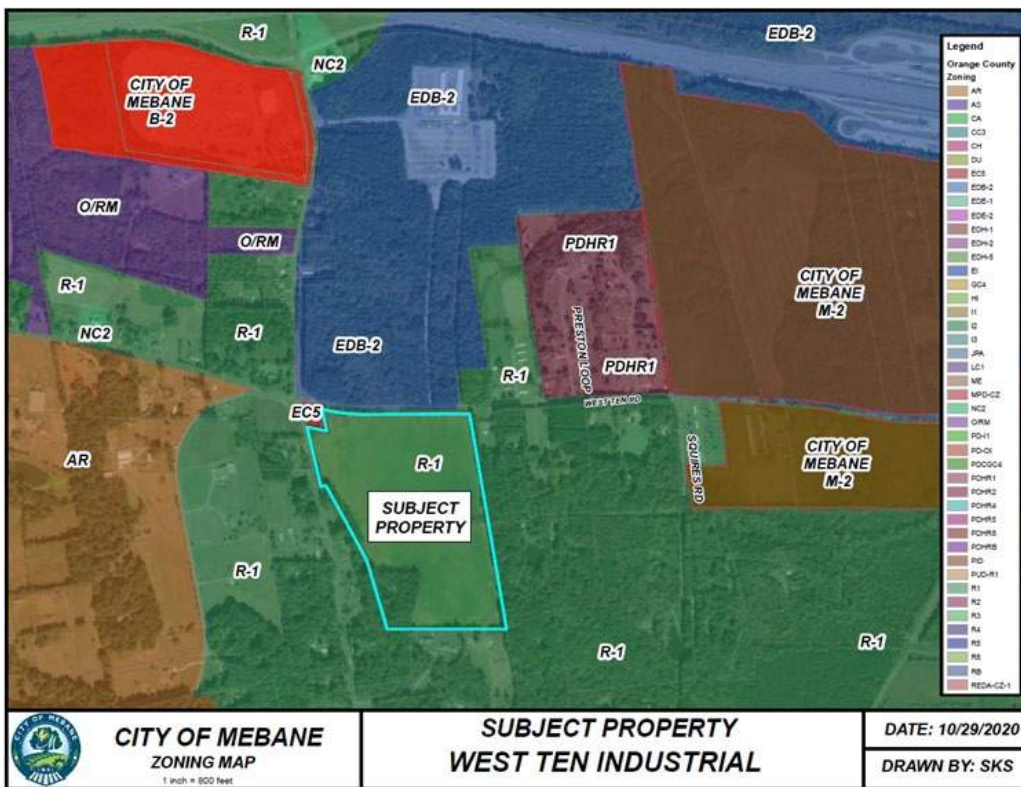
Applicant

Al Neyer
4509 Creedmor Road
Suite 201
Raleigh, NC 27612

Public Hearing

Yes No

Zoning Map



Property

6016 West Ten Rd, Orange County

GPIN
9834436528

Proposed Zoning

M-2(CD)

Current Zoning

EDB-2

Size

+/-46.38 acres

Surrounding Zoning

R-1, PDHR1, EDB-2

Surrounding Land Uses

Residential, Economic Development, and Business

Utilities

Existing

Floodplain

No

Watershed

Yes

City Limits

No

Summary

Al Neyer is requesting approval to request to establish M-2(CD) (Light Manufacturing, Conditional Zoning District) on a +/-46.38-ac parcel Located at 6016 West Ten Road, outside of the City's Extra-Territorial Jurisdiction (ETJ) in Orange County. The property is proposed for annexation and is also being subdivided as a property exempt from City or County standards. Al Neyer has the property under contract to purchase, contingent upon approval of the conditional rezoning.

The applicant proposes to develop the property as a conditional zoning district with a limited menu of uses and a master plan that shall not be exceeded in intensity. The site plan shows the extent of this intensity, which may total as much as 675,000 s.f. of warehouse space and parking and stormwater controls to support this footprint. The property lies in both the Falls Lake nutrient-sensitive watershed and the Upper Eno River water supply watershed (II) and is subject the applicable stormwater management and stream buffering rules. Al Neyer is also requesting the City's application of the 70% built upon area allowance for this site within the water supply watershed. The applicant has ordered a Traffic Impact Analysis (TIA) but its findings are not available at this time.

At the November 9, 2020, Planning Board, the Planning Board voted unanimously to continue the discussion on making a recommendation of action to the City Council to the December 14 meeting to address public concerns, namely the absence of a Traffic Impact Analysis (TIA), which had not yet been completed for staff or Planning Board review. The TIA is included with this continued item for review. It recommends no offsite improvements; the applicant is responsible for delivering two full-access onsite driveways on West Ten Road and one possible future full-access driveway on Buckhorn Road. The applicant also made the following changes, which are shown on the revised site plan in your packets:

- Changed all boundary buffers to 100';
- Fence and 3' berm is provided along the southern property line;
- Moved parking on the south lot to the south side of the building and shifted the building farther north
- Changed the curb cut on Buckhorn to a proposed curb cut rather than a future driveway and limited it to right-in/right-out
- Changed the minimum height requirement to 56'

These changes were not available in the site plan provided in the December 14 meeting packet. The Planning Board voted unanimously to continue the discussion to the January 11 meeting.

Furthermore, the applicant proposes limiting the Light Manufacturing uses on the property to the following (all development standards, including necessitating a special use, will persist):

- Accessory Uses and Structures
- Apparel and Finish Fabric Products
- Bakery Products
- Beverage Products
- Building Supplies

- Bulk Mail and Packaging
- Cabinet and Woodworking Shops
- Communication Tower Under 50' in Height
- Computer and Office Equipment
- Courier Service
- Dairy Products
- Distribution
- Drugs and Pharmaceuticals
- Equipment Leasing and Rental
- Farm Product Warehousing and Storage
- Farm Supplies and Equipment Sales
- Fence, Wall
- Food Preparation and Related Products, Miscellaneous
- Office Supplies and Equipment
- Outside Storage
- Public Works and Public Utility Facilities Essential to the Immediate Area
- Research, Development or Testing Services
- Signs
- Solar Farms
- Small Wireless Facility
- Temporary Portable Storage Containers
- Temporary Construction, Storage or Office
- Warehouse (General Storage, Enclosed)
- Warehouse (Self-Storage)
- Wholesale Trade

Financial Impact

N/A

Recommendation

Planning Staff recommends approval of the request. The rezoning request is consistent with the City's adopted Comprehensive Land Development Plan (CLP), *Mebane By Design*.

Suggested Motion

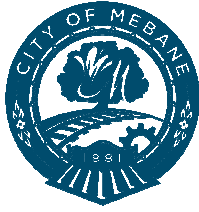
1. Motion to **approve** the M-2(CD) zoning as presented.
2. Motion to find that **the application is consistent** with the objectives and goals in the City's 2017 Comprehensive Land Development Plan *Mebane By Design*. The request:
 - Serves Mebane CLP Growth Management Goal 1.7 through the support [of] industrial development at existing industrial parks near I-40/85 (pp.17, 59 & 82); and

- Is for a property adjacent to the City's G-2 Industrial Primary (V) Growth Area "Part of BEDD and North of US-70", an "...area [*that*] is intended for more robust growth, primarily for light industrial purposes... [with] areas immediately outside of these corridors, though, [*that*] are rural residential lots... (Mebane CLP, p.72); and

 - Pending approval and adoption by the City Council, is a Top Tier parcel within the *Buckhorn Area Plan*.
3. Motion to **deny** the M-2(CD) zoning as presented due to a lack of
- Harmony with the surrounding zoning or land use
- OR**
- Consistency with the objectives and goals in the City's 2017 Comprehensive Land Development Plan *Mebane By Design*.

Attachments

1. Zoning Amendment Applications
2. Zoning Map
3. Site Plan
4. Planning Project Report
5. Technical Memorandum on Utilities
6. Letter of Approval from City Engineer
7. Orange County Planning Department Memorandum
8. Traffic Impact Analysis



APPLICATION FOR A ZONING AMENDMENT

Application is hereby made for an amendment to the Mebane Zoning Ordinance as follows:

Name of Applicant: Al Neyer

Address of Applicant: 4509 Creedmor Road, Suite 201 Raleigh, NC 27612

Address and brief description of property to be rezoned: 6016 West Ten Road
24.77 acre vacant parcel

Applicant's interest in property: (Owned, leased or otherwise) Under contract
to purchase

*Do you have any conflicts of interest with: Elected/Appointed Officials, Staff, etc.?

Yes ___ Explain: _____ No X

Type of re-zoning requested: Conditional M-2

Sketch attached: Yes X No _____

Reason for the requested re-zoning: Parcel is to be annexed into City
limits

Signed: David E. Okun, David E. Okun

Date: 11/2/2020

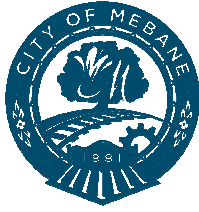
Action by Planning Board: _____

Public Hearing Date: _____ Action: _____

Zoning Map Corrected: _____

The following items should be included with the application for rezoning when it is returned:

1. Tax Map showing the area that is to be considered for rezoning.
2. Names and addresses of all adjoining property owners within a 300' radius (Include those that are across the street).
3. \$300.00 Fee to cover administrative costs.
4. The information is due 15 working days prior to the Planning Board meeting. The Planning Board meets the 2nd Monday of each month at 6:30 p.m. Then the request goes to the City Council for a Public Hearing the following month. The City Council meets the 1st Monday of each month at 6:00 p.m.



APPLICATION FOR A ZONING AMENDMENT

Application is hereby made for an amendment to the Mebane Zoning Ordinance as follows:

Name of Applicant: Al Neyer

Address of Applicant: 4509 Creedmor Road, Suite 201 Raleigh, NC 27612

Address and brief description of property to be rezoned: 6016 West Ten Road
21.56 acre vacant parcel

Applicant's interest in property: (Owned, leased or otherwise) Under contract
to purchase

*Do you have any conflicts of interest with: Elected/Appointed Officials, Staff, etc.?

Yes ___ Explain: _____ No X

Type of re-zoning requested: Conditional M-2

Sketch attached: Yes X No _____

Reason for the requested re-zoning: Parcel is to be annexed into City
limits

Signed: _____

Date: _____

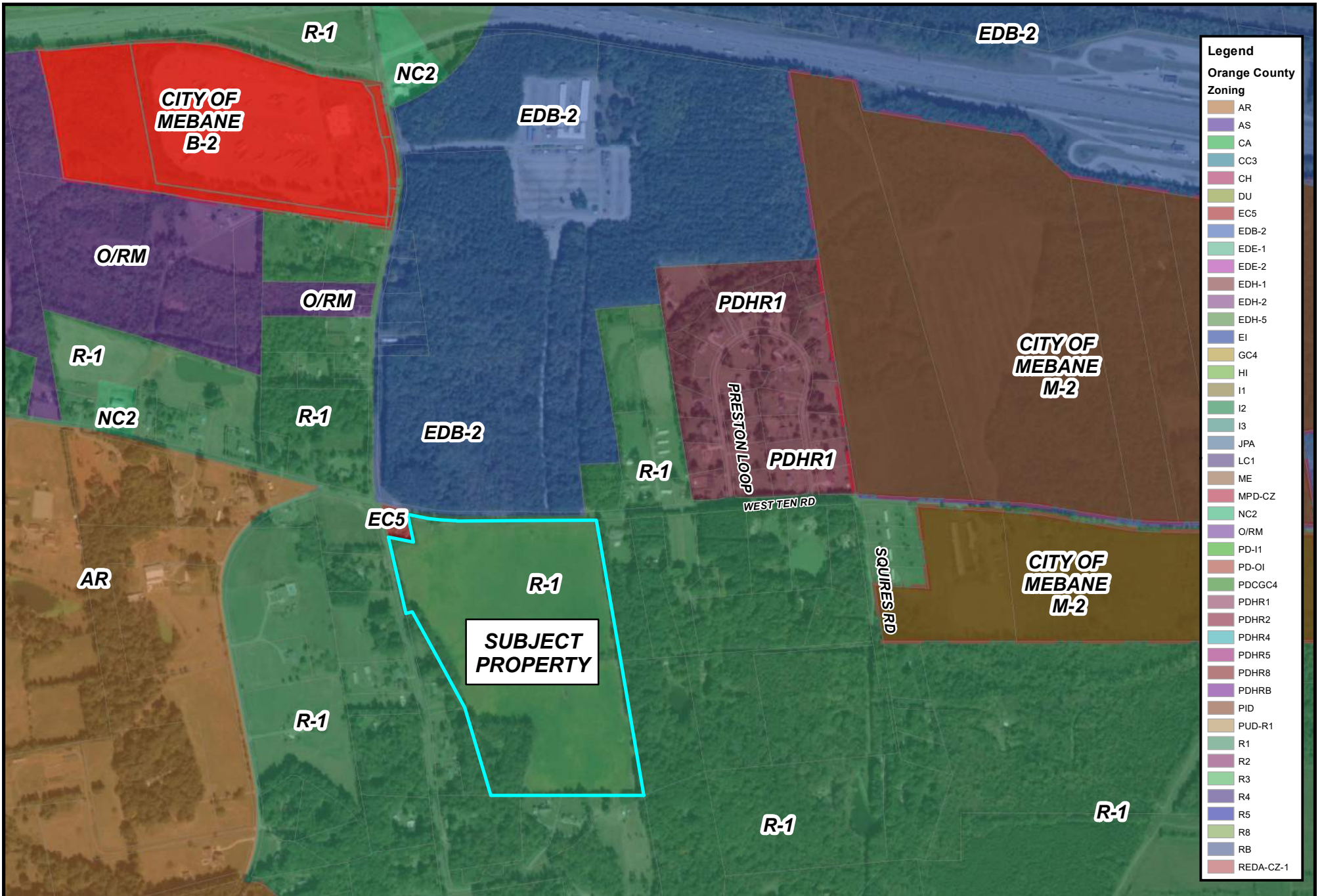
Action by Planning Board: _____

Public Hearing Date: _____ Action: _____

Zoning Map Corrected: _____

The following items should be included with the application for rezoning when it is returned:

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CITY OF MEBANE

ZONING MAP

1 inch = 800 feet

**SUBJECT PROPERTY
WEST TEN INDUSTRIAL**

DATE: 10/29/2020

DRAWN BY: SKS

WEST TEN INDUSTRIAL

CONSULTANT:



APPLICANT:



PARCEL INFORMATION:

PIN: 9834436528
 DB 6625, PG 582
 LOCATION: 6016 WEST TEN ROAD
 OWNER: MARGARET JOANNE BEIKERT MANN
 OWNER ADDRESS: 1965 NC 119 S
 MEBANE, NC 27302

SITE PLAN

NOVEMBER 2, 2020
 REVISED JANUARY 4, 2021
 6016 West Ten Road
 Mebane, North Carolina

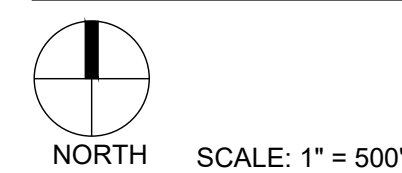
VICINITY MAP



INDEX OF DRAWINGS	
Sheet #	SHEET NAME
C0.00	COVER SHEET
C1.00	EXISTING CONDITIONS PLAN
C3.00	SITE PLAN

ALLOWABLE USES:

- ACCESSORY USES AND STRUCTURES (CUSTOMARY)
- APPAREL AND FINISH FABRIC PRODUCTS
- BAKERY PRODUCTS
- BEVERAGE PRODUCTS
- BUILDING SUPPLIES
- BULK MAIL AND PACKAGING
- CABINET AND WOODWORKING SHOPS
- COMMUNICATION TOWER UNDER 50' IN HEIGHT
- COMPUTER AND OFFICE EQUIPMENT
- COURIER SERVICE
- DAIRY PRODUCTS
- DISTRIBUTION
- DRUGS AND PHARMACEUTICALS
- EQUIPMENT LEASING AND RENTAL
- FARM PRODUCT WAREHOUSING AND STORAGE
- FARM SUPPLIES AND EQUIPMENT SALES
- FENCE, WALL
- FOOD PREPARATION AND RELATED PRODUCTS, MISCELLANEOUS
- OFFICE SUPPLIES AND EQUIPMENT
- OUTSIDE STORAGE
- PUBLIC WORKS AND PUBLIC UTILITY FACILITIES ESSENTIAL TO THE IMMEDIATE AREA
- RESEARCH, DEVELOPMENT OR TESTING SERVICES
- SIGNS
- SOLAR FARMS
- SMALL WIRELESS FACILITY
- TEMPORARY PORTABLE STORAGE CONTAINERS
- TEMPORARY CONSTRUCTION, STORAGE OR OFFICE
- WAREHOUSE (GENERAL STORAGE, ENCLOSED)
- WAREHOUSE (SELF-STORAGE)
- WHOLESALE TRADE





PLANNING PROJECT REPORT

DATE	11/04/2020; rev. 12/08/20; 01/06/21
PROJECT NAME	6016 West Ten Rezoning Request
PROJECT NUMBER	RZ 20-12
APPLICANT	Al Neyer 4509 Creedmor Road Suite 201 Raleigh, NC 27612

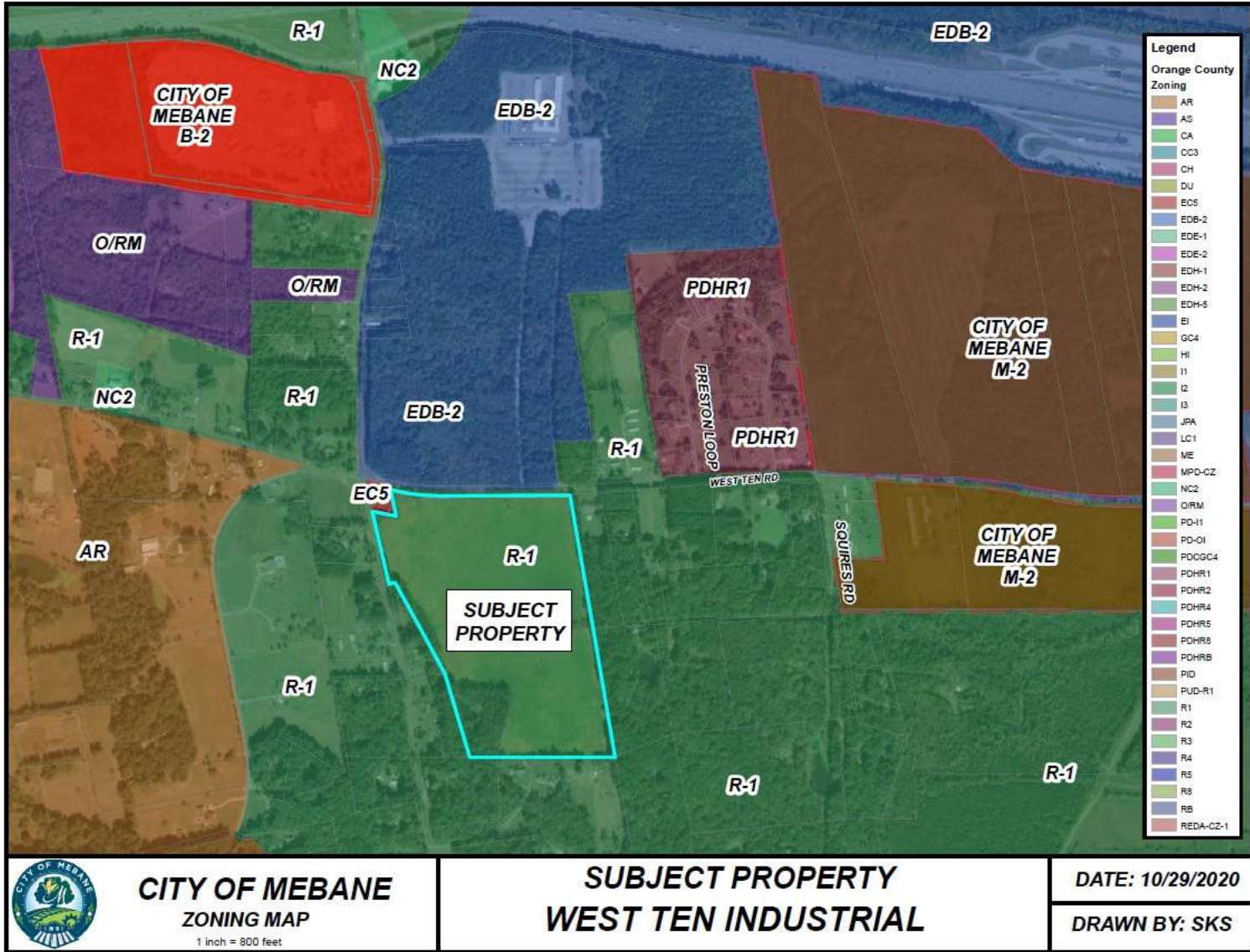
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STAFF ZONING REQUEST RECOMMENDATION	PAGE 8



ZONING REPORT

EXISTING ZONE	R-1 (Rural Residential – Orange County zoning)
REQUESTED ACTION	Zoning to M-2(CD)
CONDITIONAL ZONE?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
CURRENT LAND USE	Vacant, Agriculture
PARCEL SIZE	+/-46.38 ac, being subdivided into +/-24.77-ac and +/-21.56-ac parcels
PROPERTY OWNERS	Margaret Mann 1965 NC 119 South Mebane, NC 27302 GPIN 9834436528
LEGAL DESCRIPTION	One +/-46.38-ac parcel at 6016 West Ten Road is petitioning the City of Mebane for annexation and rezoning from Orange County’s R-1 (Rural Residential) district to the City’s M-2(CD) (Light Manufacturing, Conditional) district, with a master plan that shows the highest potential intensity of use on the property, with a condition allowing for layout and design flexibility. The proposed uses will be restricted to those identified on the site plan submittal. The proposed property is actively being subdivided into a +/-24.77-ac and a +/-21.56-ac parcel through a process exempt from local standards, per NC General Statutes.
AREA ZONING & DISTRICTS	All surrounding zoning districts are within Orange County’s planning and zoning jurisdiction. The properties to the north are zoned EDB-2 (Economic Development Buckhorn Higher Intensity). The property at the southeastern corner of Buckhorn and West Ten Roads is zoned as EC-5 (Existing Commercial-5). All other surrounding properties are zoned R-1 (Rural Residential). All properties north of West Ten Road are within the Buckhorn Economic Development District (BEDD), intended to “...create a district allowing a wide range of non-residential uses with limited higher density residential uses” (Orange County Unified Development Ordinance, p. 3-43)
SITE HISTORY	Property historically vacant or used for agriculture.
STAFF ANALYSIS	
CITY LIMITS?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO – Requires annexation for City action
PROPOSED USE BY-RIGHT?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
SPECIAL USE?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
EXISTING UTILITIES?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
POTENTIAL IMPACT OF PROPOSED ZONE	The property is within the G-2 Industrial (V) Primary Growth Area. The potential developer is requesting a M-2(CD) rezoning, consistent with both the City G-2 Industrial (V) primary growth area in <i>Mebane By Design</i> and guidance provided by the City’s <i>Buckhorn Area Plan</i> . This will introduce a non-residential use to the surrounding residential properties but they will be buffered with 100’ semi-opaque buffers.



CITY OF MEBANE
ZONING MAP
1 inch = 800 feet

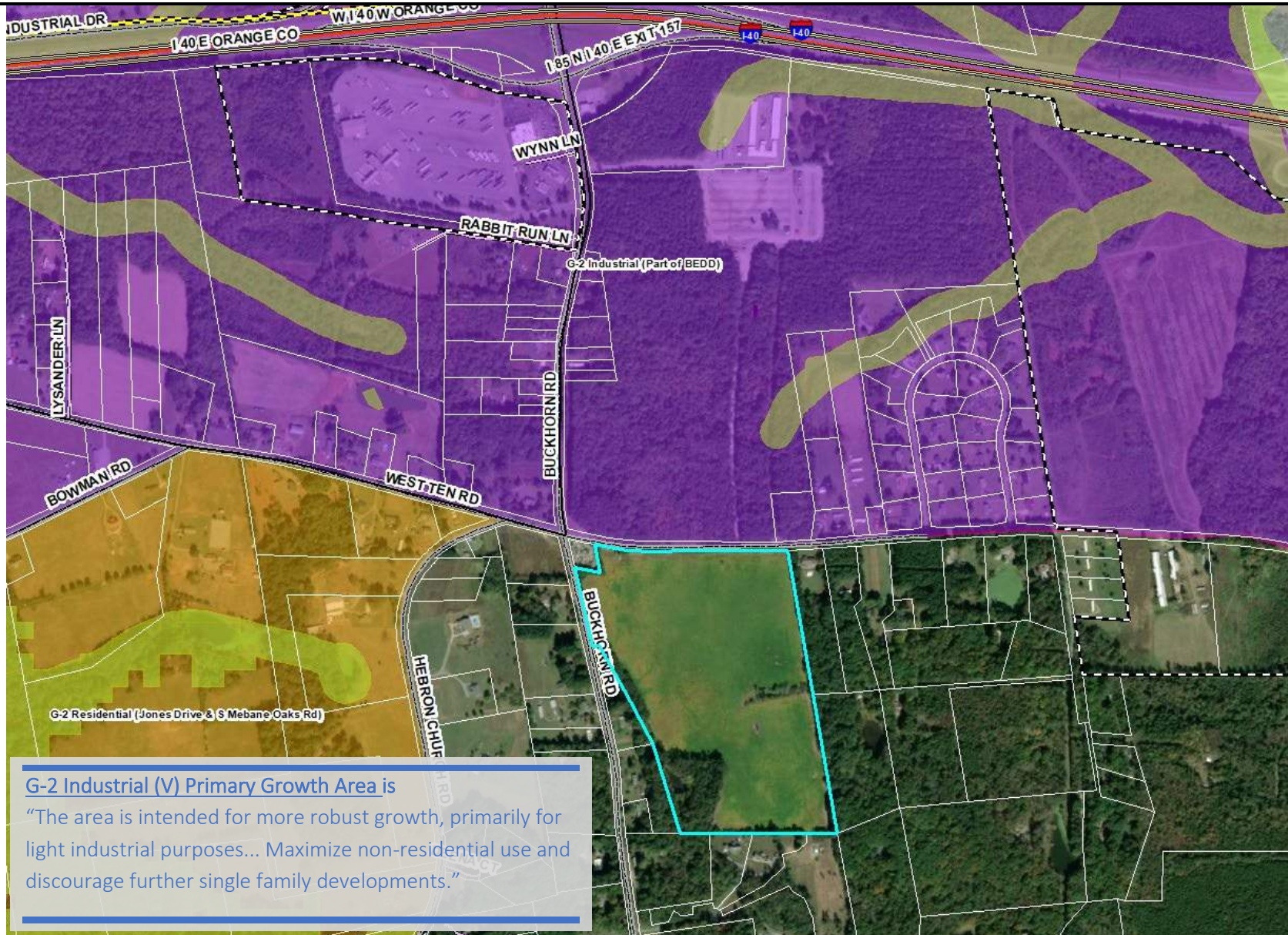
SUBJECT PROPERTY
WEST TEN INDUSTRIAL

DATE: 10/29/2020
DRAWN BY: SKS



LAND USE REPORT

EXISTING LAND USE	Vacant, Agriculture
PROPOSED LAND USE & REQUESTED ACTION	One +/-46.38-ac parcel at 1606 West Ten Road is petitioning the City of Mebane for annexation and rezoning from Orange County’s R-1 (Rural Residential) district to the City’s M-2(CD) (Light Manufacturing, Conditional) district, with a master plan that shows the highest potential intensity of use on the property, with a condition allowing for layout and design flexibility. The proposed uses will be restricted to those identified on the site plan submittal.
PROPOSED ZONING	M-2(CD)
PARCEL SIZE	+/-46.38, actively being subdivided into +/-24.77-ac and +/-21.56-ac parcels
AREA LAND USE	The property to the immediate north is a forested lot used by the Buckhorn Flea Market as a secondary entrance. The property at the corner of Buckhorn and West Ten Roads is a used car lot and business. All other surrounding properties are large-lot single-family residences on wells and septic systems.
ONSITE AMENITIES & DEDICATIONS	The owner will dedicate open space for stormwater management.
WAIVER REQUESTED	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
DESCRIPTION OF REQUESTED WAIVER(S)	
CONSISTENCY WITH <i>MEBANE BY DESIGN</i> STRATEGY	
LAND USE GROWTH STRATEGY DESIGNATION(S)	G-2 Industrial Primary (V) Growth Area “Part of BEDD and North of US-70”
OTHER LAND USE CONSIDERATIONS	Upper Eno River Protected Watershed II – Applicant requesting application of 10/70 Built Upon Area allowance Falls Lake Water Supply Nutrient Strategy
<i>MEBANE BY DESIGN</i> GOALS & OBJECTIVES SUPPORTED	GROWTH MANAGEMENT 1.7 Continue to support industrial development at existing industrial parks near I-40/85. COORDINATION 5.1 Document and share information related to land development that can be utilized across levels of government for better decision making.
<i>MEBANE BY DESIGN</i> GOALS & OBJECTIVES <u>NOT</u> SUPPORTED	



G-2 Industrial (V) Primary Growth Area is

“The area is intended for more robust growth, primarily for light industrial purposes... Maximize non-residential use and discourage further single family developments.”



UTILITIES REPORT

AVAILABLE UTILITIES	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
PROPOSED UTILITY NEEDS	Per the memorandum from Franz Holt of AWCK, the project is estimated to require, 12,500 gallons per day of water and sewer services. The water and sewer utility lines are present at the properties. The applicant proposes to connect to a 12" watermain with a 8" looped line, and to a 12" forcemain with a 4" forcemain for water and sewer service, respectively. A 100 GPM private pump station will also be provided. Any improvements will be made and paid for by a developer.
UTILITIES PROVIDED BY APPLICANT	Applicant has pledged to provide all on-site utilities, as described in AWCK's Technical Memo.
MUNICIPAL CAPACITY TO ABSORB PROJECT	The City has adequate water & sewer supply to meet the domestic and fire flow demands of the project.
CONSISTENCY WITH MEBANE LONG RANGE UTILITY PLAN?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
ADEQUATE STORMWATER CONTROL?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
INNOVATIVE STORMWATER MANAGEMENT?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Nutrient management controls complying with the Falls Lake Nutrient Strategy will be required
TRANSPORTATION NETWORK STATUS	
CURRENT CONDITIONS	West Ten Road is a NCDOT major thoroughfare that hosts 1,700 average daily trips. It has a Level Of Service (LOS) C and a Safety Score of 88.9. Buckhorn Road, which has an interchange with Interstate 40/85 approximately 0.5 miles to the north, has a LOS C and a Safety Score of 100 at this location. There have been 11 crashes at the intersection of these two roads since 2015, including one serious, non-fatal crash in 2016, and a another on the frontage of Buckhorn Road in 2017.
TRAFFIC IMPACT ANALYSIS REQUIRED?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
DESCRIPTION OR RECOMMENDED IMPROVEMENTS	A TIA was completed for the applicant by Ramey, Kemp, and Associates. It makes recommendations of full-access driveways to West Ten Road and to provide a potential future driveway off Buckhorn Road. No offsite improvements are recommended. The Mebane UDO requires right-turn lanes for residential subdivisions generating 50+ units, which translates to 500 trips per day. Staff recommends that a similar standard apply to this non-residential site, with a right-turn lane provided at the western driveway on West Ten Road. Furthermore, staff recommends that a future driveway from Buckhorn Road be restricted to non-freight traffic.



CONSISTENCY WITH THE MEBANE

BICYCLE AND PEDESTRIAN

YES NO N/A

TRANSPORTATION PLAN?

MULTIMODAL IMPROVEMENTS

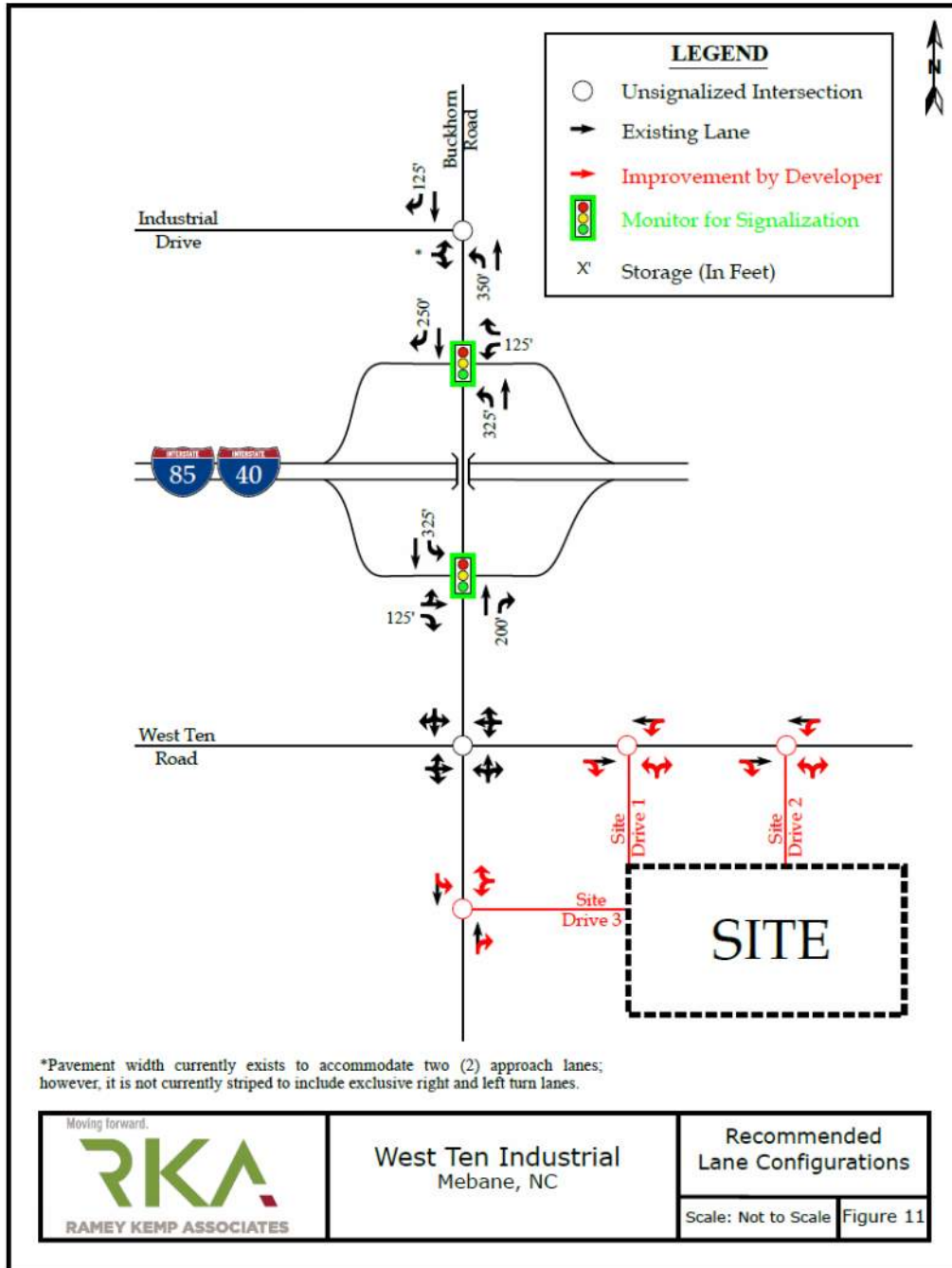
PROVIDED BY APPLICANT?

YES NO

DESCRIPTION OF MULTIMODAL

IMPROVEMENTS

N/A





STAFF RECOMMENDATION

STAFF ZONING RECOMMENDATION APPROVE DISAPPROVE

STAFF SPECIAL USE FINDING CONSISTENT NOT CONSISTENT.....WITH *MEBANE BY DESIGN*

RATIONALE

The proposed development RZ 20-12 **is** consistent with the guidance provided within *Mebane By Design*, the Mebane Comprehensive Land Development Plan, as amended. In particular, it **is** consistent with the description and goals for G-2 (V) Industrial Primary Growth Area for the BEDD and the goals for this **area** by the City and Orange County.

PUBLIC INTEREST CONFORMANCE?

ENDANGER PUBLIC HEALTH OR SAFETY? YES NO

SUBSTANTIALLY INJURE THE VALUE OF ADJOINING OR ABUTTING PROPERTY? YES NO

HARMONIOUS WITH THE AREA IN WHICH IT IS LOCATED? YES NO

CONSISTENT WITH *MEBANE BY DESIGN*, THE MUNICIPAL COMPREHENSIVE LAND DEVELOPMENT PLAN?

- The application is consistent with the objectives and policies for growth and development contained in the City of Mebane Comprehensive Land Development Plan, *Mebane By Design*, and, as such, has been recommended for approval.
- The application is not fully consistent with the objectives and policies for growth and development of the City of Mebane Comprehensive Land Development Plan, *Mebane By Design*, but is otherwise in the public interest and has been recommended for approval. The Comprehensive Land Development Plan must be amended to reflect this approval and ensure consistency for the City of Mebane’s long-range planning objectives and policies.
- The application is not consistent with the objectives and policies for growth and development of the City of Mebane Comprehensive Land Development Plan, *Mebane By Design*, and, as such, has been recommended for denial.



Technical Memorandum

Date: October 30, 2020
To: Ashley Ownbey, City Planner
From: Franz K. Holt, P.E.
Subject: West Ten Industrial Development – City Engineering review

Preliminary Site Plans for the Mebane Oaks Residential Development dated October 20, 2020 and prepared by Tim Summerville, P.E. with Stewart Engineering Durham, NC, have been reviewed by the Engineering Department as a part of the TRC process. Our technical memo comments are as follows:

A. General

The West Ten Industrial development is a 47.5 acre site on West Ten Road near Buckhorn Road and Interchange. It is proposed that the site be subdivided into two lots of similar size with two separate buildings totaling 675,000 square feet max. and being served by common entrances/driveways/private water and sewer systems.

Stormwater management controls will be required to treat and detain the stormwater runoff from the proposed impervious surfaces.

A Traffic Impact Analysis (TIA) will be required to determine the need of off-site roadway improvements.

NCDOT review and approval will be required for utility encroachments, the two proposed roadway connections, and any roadway improvements identified as a part of the TIA.

B. Availability of City Water and Sewer

In regards to the Preliminary Site Plan for the West Ten Industrial development and in accordance with paragraph 7-4.3 A.3.a. in the UDO, this memo is provided to indicate that I have reviewed the preliminary water and sewer system layout and find it acceptable and meets City standards based on the following:

1. Water system – The project is proposed to be served with from an 8-inch connection to the City's existing 12-inch water main in West Ten Road. The new internal water lines are shown as 8-inch looped being served from a master meter connection with backflow prevention. Beyond the master meter the system will be permitted as private (operated and maintained by the owner). The private system will include necessary gate valves, fire hydrants, and service connections to each building (fire and domestic). The estimated water usage is 12,500 GPD



(100 GPD per bay). The City currently has adequate water capacity available to meet the domestic demand and fire flow requirements of this project.

2. Sanitary Sewer system – The project is proposed to be permitted and served with a private sewer collection system with 100 GPM pump station and 4 inch force main connecting to the City’s 12-inch force main in West Ten Road. Internal to the project site are proposed 8-inch private sewer lines with appropriate manhole spacing. All private sewer improvements will be operated and maintained by the owner. Each proposed building will have its own sewer service. The estimated sewer use for this project is 12,500 GPD (100 GPD per bay). The City currently has adequate sewer capacity available in downstream sewer facilities to meet this demand (South Regional Sewer Pump Station and Outfall and at the WRRF).

C. Watershed Overlay District and Phase II Stormwater Requirements

1. Watershed Overlay District requirements are provided under Sec. 5.2 of the UDO.
This project is within the Upper Eno Water Supply Watershed and the project will be part of this expanded water supply watershed area for the Upper Eno Water Supply Watershed.
Falls Lake Nutrient Strategy
This project is in the Falls Lake Watershed and will comply with the NC DEQ nutrient rules for new development. The City of Mebane will administer these rules under a verbal agreement with NC DEQ.

The project proposes to construct two privately maintained stormwater management control devices (fenced wet ponds) meeting the City’s requirements for treatment including nutrient removal.

2. Phase II Stormwater Post Construction Ordinance
Sec. 5.4 in the UDO provides standards for Storm Water Management and 5.4.F requires compliance with the Mebane Post Construction Runoff Ordinance (which is a stand-alone ordinance titled the Phase II Stormwater Post Construction Ordinance (SPCO)). The standards in the UDO are general standards as the Ordinance itself provides detailed standards. The SPCO does apply to this project as it will disturb more than one acre of land and it is estimated that the new built upon will be more than 24% of the site.

The project proposes to construct two privately maintained stormwater management control devices (fenced wet ponds) meeting the City’s requirements for stormwater treatment and detention.



D. Storm Drainage System

Sec. 5-4. D. in the UDO provides requirements for storm drainage systems. The preliminary site plans include a preliminary layout of storm drainage swales, piping, and inlets that collect stormwater runoff that is directed to stormwater management control devices where treatment and detention occurs before being discharged off-site.

E. Street Access and TIA

The industrial site proposes to access West Ten Road at two locations requiring NCDOT driveway permits. A TIA will be required for the site which will identify any off-site improvements required with the proposed development.

F. Construction Plan Submittal

Sec. 7-6.7. A. in the UDO indicates that construction plans for all street facilities, including water and sewer facilities, shall be submitted following preliminary plat or site plan approval; therefore, construction plans are not required as a part of the site plan review. A utility plan is provided which generally shows the proposed water lines, sewer lines, and storm drainage and stormwater management devices to indicate that the project is feasible for utility service and providing stormwater management. Appendix E which is included in the UDO is a Construction Document checklist which is to be provided at such time as construction plans are submitted after Preliminary Site Plan approval. Based on city engineering review of the referenced preliminary site plans, it is my opinion that said plans are in substantial compliance with the UDO.



October 30, 2020

Timothy Summerville, PE
Stewart Engineering
101 West Main St.
Durham, NC 27701

Subject: West Ten Industrial – Water and Sewer System

In regards to the subject Preliminary Site Plan and in accordance with paragraph 7-4.3 A.3.a. in the UDO, this letter is provided to indicate that I have reviewed the preliminary water and sewer system layout and find it acceptable and meets City standards based on the following:

1. Water system – The project is proposed to be served with from an 8-inch connection to the City's existing 12-inch water main in West Ten Road. The new internal water lines are shown as 8-inch looped being served from a master meter connection with backflow prevention. Beyond the master meter the system will be permitted as private (operated and maintained by the owner). The private system will include necessary gate valves, fire hydrants, and service connections to each building (fire and domestic). The estimated water usage is 12,500 GPD (100 GPD per bay). The City currently has adequate water capacity available to meet the domestic demand and fire flow requirements of this project.
2. Sanitary Sewer system – The project is proposed to be permitted and served with a private sewer collection system with 100 GPM pump station and 4 inch force main connecting to the City's 12-inch force main in West Ten Road. Internal to the project site are proposed 8-inch private sewer lines with appropriate manhole spacing. All private sewer improvements will be operated and maintained by the owner. Each proposed building will have its own sewer service. The estimated sewer use for this project is 12,500 GPD (100 GPD per bay). The City currently has adequate sewer capacity available at the downstream sewer facilities (Southeast Regional Pump Station and Outfall and at the WRRF to meet this demand).

If there are any questions, please let me know.

Sincerely,

A handwritten signature in black ink that reads "Franz K. Holt". The signature is written in a cursive style.

Franz K. Holt, P.E. City Engineer

CC: Ashley Ownbey, Planner
Cy Stober, Development Director
Kyle Smith, Utilities Director

PLANNING & INSPECTIONS DEPARTMENT
Craig N. Benedict, AICP, Director

Comprehensive Planning
(919) 245-2575
(919) 644-3002 (FAX)
www.orangecountync.gov



131 W. Margaret Lane
Suite 201
P. O. Box 8181
Hillsborough, NC 27278

MEMORANDUM

TO: Craig Benedict, Orange County Planning Director
FROM: Tom Ten Eyck, Transportation/Land Use Planner
Tom Altieri, Comprehensive Planning Supervisor
CC: Travis Myren, Deputy County Manager
DATE: October 9, 2020
SUBJECT: West Ten Industrial Development Proposal, Including Annexation,
in Mebane, NC

Below is a brief summary and comments on the proposed West Ten Industrial development that is on the October 13, 2020 Mebane TRC meeting agenda. Some of the pertinent information from the preliminary plans is described below:

- West Ten Industrial is a development proposal comprised of one parcel (totaling 46.38 acres) in Orange County at the southeast corner of Buckhorn Road and West Ten Road ([See Attached Location Map](#)).
- The proposal indicates that Mebane would annex the development and convert zoning to Mebane's M-2 (CD) Light Manufacturing Conditional Zoning District
- The front and side setbacks facing the roadways are 50 feet at each of the roadways, but the side setbacks (to the adjacent parcels to the east and southwest of the parcel) and rear setback are 20 feet from adjacent properties.
- The parcel is currently in Orange County's planning jurisdiction, it is zoned Rural Residential (R1), and the land use classification is Rural Residential on the County's Future Land Use Map.

The North Carolina General Statutes (160A-58.1) provide municipalities with considerable power to annex properties upon receipt of property owner petition. This process is commonly referred to as voluntary annexation. State law, as of 2012, also makes it very difficult for municipalities to pursue involuntary annexation, which requires a referendum and a majority vote. Only registered voters of the proposed annexation area are allowed to vote on the referendum. It's also noteworthy that there's nothing in the County's Utility Service Agreement with Mebane that limits its ability to annex. The Agreement states that nothing contained therein, "shall be construed to limit or to expand any such regulatory or planning jurisdiction or to limit the power of the City to annex into its corporate limits properties within the service area."

Monies were made available in the FY 2019-2020 Orange County budget to coordinate with the City of Mebane and work together with a consultant to further analyze areas within Orange County, adjacent to and near Mebane, and develop recommendations for a growth strategy. In January, 2020, Orange County and Mebane began the search for a consultant to complete a land use study of the area. The Piedmont Triad Regional Council (PTRC) was selected as the consultant, and beginning on February 6, 2020, Orange County, Mebane and

PTRC have met monthly to discuss the geographic area of the study, the parcel suitability criteria and mechanisms for feedback on the analysis. Public input of the study area was tabled due to stay-at-home orders from COVID-19; as such, the public outreach is scheduled to take place in the late fall of 2020.

The intent of the Buckhorn Area Plan is to assess potential non-residential uses in the area of Orange County in which Mebane has grown and, ultimately, to inform the future land use for non-residential economic development in western Orange County. The parcel of the West Ten Industrial project is located within the study area; it is important to note, however, that the parcel is not currently reflected in the current (2012) City of Mebane Utility Service Agreement with Orange County or on the Orange County Future Land Use Map (FLUM) for light industrial development. As there is a discrepancy between what is already 'on the books' and what is intended to be updated in the not-too-distant future, it is advised that action should be taken on the study before this parcel can be recognized by Orange County as appropriate for light industrial development or economic development that is not rural in nature. As a function of this consideration, buffers of 100 feet should be considered to protect the rural surroundings from this industrial development, especially since there are residences adjacent to the subject parcel to the east, southwest and south of the project parcel.

An additional consideration should be the nature of the roadway in an area that transitions from rural to industrial very quickly. According to the Efland-Buckhorn-Mebane Access Management Plan, which was adopted by the Orange County BOCC on April 2, 2019, the future roadway cross section for West Ten Road (east of Ben Wilson Road) is a two-way road with a two-way left turn based on NCDOT cross section 3A (5-foot wide paved shoulder) or 3C (curb and gutter, bike lanes and sidewalks). Similarly, the future roadway cross section for Buckhorn Road in this area is a four-lane divided roadway and raised median based on NCDOT cross section 4F (curb and gutter, wide outside lanes and sidewalks) or 4G (curb and gutter, bike lane and sidewalks). Currently, both Buckhorn Road and West Ten Road are two-lane roads with a narrow shoulder, which is typical of rural roadways.

While you are in receipt of the materials provided by Mebane, if you have any questions regarding the information contained herein or require additional information, please let Tom Ten Eyck or Tom Altieri know.

Attachment – *Location map of proposed parcels in West Ten Industrial Development Proposal*



West Ten Industrial
Traffic Impact Analysis
Mebane, North Carolina

TRAFFIC IMPACT ANALYSIS

FOR

WEST TEN INDUSTRIAL

LOCATED

IN

Mebane, North Carolina

Prepared For:
Neyer

4509 Creedmoor Rd., Suite 201
Raleigh, NC 27612

Prepared By:

Ramey Kemp & Associates, Inc.
5808 Faringdon Place, Suite 100
Raleigh, NC 27609
License #C-0910



12/1/2020

December 2020

RKA Project No. 20427

Prepared By: MLS

Reviewed By: JTR

**TRAFFIC IMPACT ANALYSIS
WEST TEN INDUSTRIAL
MEBANE, NORTH CAROLINA**

EXECUTIVE SUMMARY

1. Development Overview

A Traffic Impact Analysis (TIA) was conducted for the proposed West Ten Industrial development in accordance with the Mebane (City) Unified Development Ordinance (UDO) and North Carolina Department of Transportation (NCDOT) capacity analysis guidelines. The proposed development is to be located in the southeast quadrant at the intersection of West Ten Road and Buckhorn Road in Mebane, North Carolina. The proposed development is expected to consist of a 675,000 sq. ft. warehouse and is expected to be built-out in 2023. Site access will be provided via two (2) full movement access points along West Ten Road and one (1) potential future full movement access point along Buckhorn Road.

2. Existing Traffic Conditions

The study area for the TIA was determined through coordination with the City and NCDOT and consists of the following existing intersections:

- Buckhorn Road and West Ten Road
- Buckhorn Road and I-40/I-85 Eastbound Ramps
- Buckhorn Road and I-40/I-85 Westbound Ramps
- Buckhorn Road and Industrial Drive

Typical weekday AM (7:00 - 9:00 AM) and PM (4:00 - 6:00 PM) peak hour turning movements counts were collected at the intersection of Buckhorn Road and West Ten Road in September of 2016, while local schools were in session, and were provided by the NCDOT. Counts at the remaining intersections were collected in September of 2019 by RKA during typical weekday AM and PM peak hours, while schools were in session. All count data was grown to 2020 utilizing a 2% annually compounded growth rate. Traffic volumes were balanced along Buckhorn Road between Industrial Drive and the I-40/I-85 ramps due to limited development between intersections. Imbalances between the I-40/I-85 ramps and West Ten Road along Buckhorn Road

were determined to be reasonable based on the existing Petro Shopping Center and gas stations. All count data was collected while schools were in session, and captured trips to/from Gravelly Hill Middle School. The school consists of 460 students in grades 6-8 with a current bell schedule of 8:30 AM to 3:35 PM. The weekday AM (7:00 – 9:00 AM) peak hour would capture the AM school trips. The weekday PM peak hour (occurring from 5:15 – 6:15pm based on count data) had significantly higher volumes at the intersection of West Ten Road and Buckhorn Road than the school PM peak period (2:00 – 4:00 PM based on the current bell schedule), so it is expected that the weekday PM (4:00 – 6:00 PM) peak hour would be more conservative for analysis purposes even though it is after the school lets out (3:35 PM).

3. Site Trip Generation

Average weekday daily, AM peak hour, and PM peak hour trips for the proposed development were estimated using methodology contained within the ITE Trip Generation Manual, 10th Edition. Table E-1 provides a summary of the trip generation potential for the site.

Table E-1: Site Trip Generation

LAND USE (ITE Code)	INTENSITY	DAILY TRIPS (VPD)	WEEKDAY AM PEAK HOUR (VPH)		WEEKDAY PM PEAK HOUR (VPH)	
			Enter	Exit	Enter	Exit
Warehousing (150)	675,000 sq. ft.	1,120	82	24	29	80

4. Future Traffic Conditions

Through coordination with the City and NCDOT, an annual growth rate of 2% was used to generate projected (2023) weekday AM and PM peak hour traffic volumes. Project Titanium and Medline were considered as adjacent developments under future conditions:

5. Capacity Analysis Summary

The analysis considered weekday AM and PM peak hour traffic for existing (2020), no-build (2023), and build (2023) conditions. Refer to Section 7 of the report for the capacity analysis summary performed at each study intersection.

6. Recommendations

Based on the findings of this study, specific geometric and traffic control improvements have been identified at study intersections. The improvements are summarized below and are illustrated in Figure E-1.

Recommended Improvements

Buckhorn Road and I-40/I-85 Eastbound Ramps

- Monitor intersection for signalization, and install traffic signal once warranted and approved by NCDOT and the City. *Based on anticipated no-build (2023) operations, this improvement should be considered regardless of if the proposed development is built.*

Buckhorn Road and I-40/I-85 Westbound Ramps

- Monitor intersection for signalization, and install traffic signal once warranted and approved by NCDOT and the City.

West Ten Road and Site Drive 1

- Construct the northbound approach with one (1) ingress lane and one (1) egress lane.
- Provide stop control for the northbound approach.

West Ten Road and Site Drive 2

- Construct the northbound approach with one (1) ingress lane and one (1) egress lane.
- Provide stop control for the northbound approach.

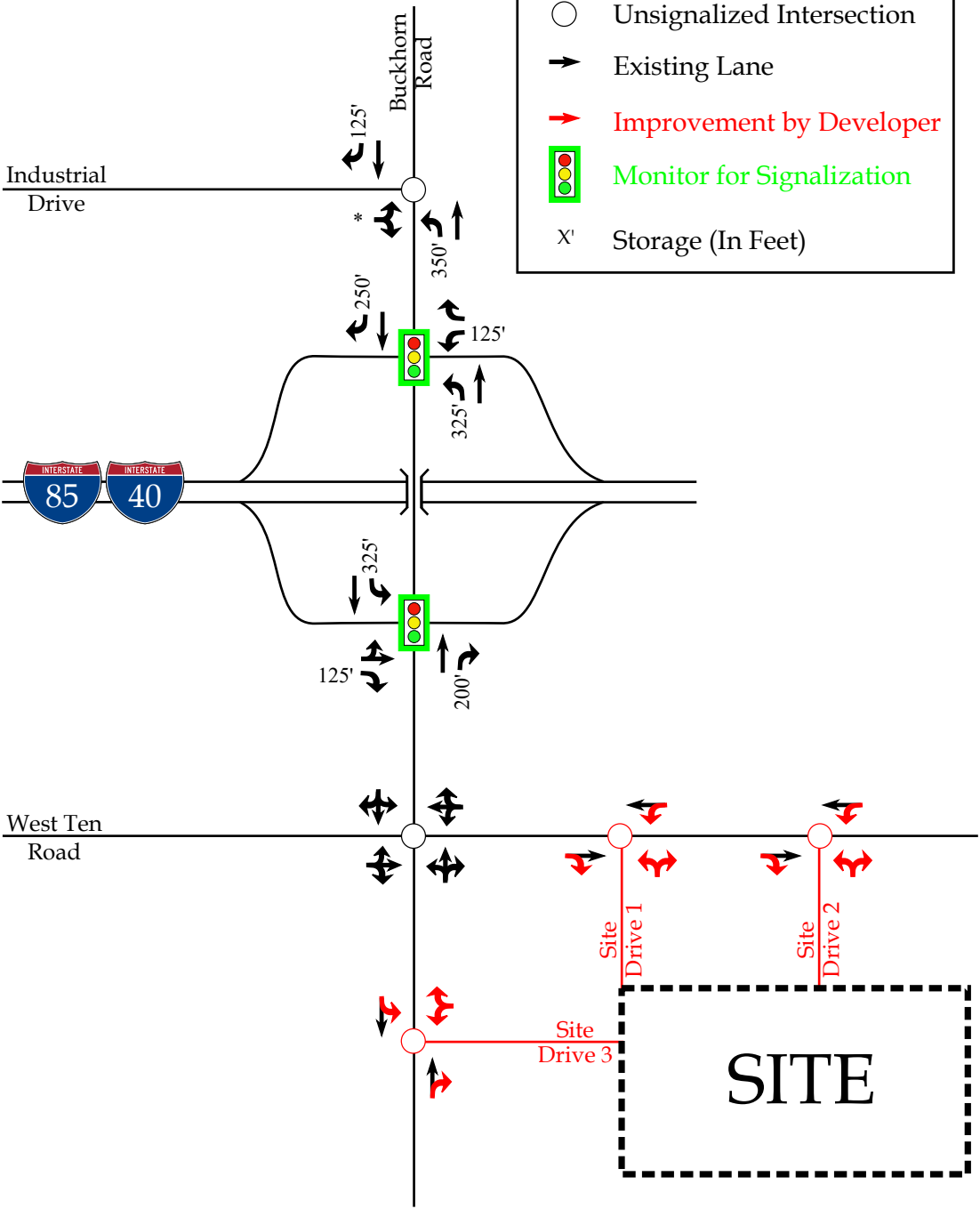
Buckhorn Road and Site Drive 3

- Construct the westbound approach with one (1) ingress lane and one (1) egress lane.
- Provide stop control for the westbound approach.



LEGEND

- Unsignalized Intersection
- ➔ Existing Lane
- ➔ Improvement by Developer
- 🚦 Monitor for Signalization
- X' Storage (In Feet)



*Pavement width currently exists to accommodate two (2) approach lanes; however, it is not currently striped to include exclusive right and left turn lanes.

Moving forward.

RKA
RAMEY KEMP ASSOCIATES

West Ten Industrial
Mebane, NC

Recommended Lane Configurations

Scale: Not to Scale	Figure E-1
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- Appendix C: Adjacent Development Information
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- Appendix H: Capacity Calculations - West Ten Road and Site Drive 1
- Appendix I: Capacity Calculations - West Ten Road and Site Drive 2
- Appendix J: Capacity Calculations - Buckhorn Road and Site Drive 3

TRAFFIC IMPACT ANALYSIS

WEST TEN INDUSTRIAL

MEBANE, NORTH CAROLINA

1. INTRODUCTION

The contents of this report present the findings of the Traffic Impact Analysis (TIA) conducted for the proposed West Ten Industrial development to be located in the southeast quadrant at the intersection of West Ten Road and Buckhorn Road in Mebane, North Carolina. The purpose of this study is to determine the potential impacts to the surrounding transportation system created by traffic generated by the proposed development, as well as recommend improvements to mitigate the impacts.

The proposed development is expected to consist of a 675,000 sq. ft. warehouse and is expected to be built-out in 2023. It should be noted that the proposed development is anticipated to be below North Carolina Department of Transportation (NCDOT) threshold to require a TIA; however, a courtesy copy of the TIA will be provided to the NCDOT.

The study analyzes traffic conditions during the weekday AM and PM peak hours for the following scenarios:

- Existing (2020) Traffic Conditions
- No-Build (2023) Traffic Conditions
- Build (2023) Traffic Conditions

1.1. Site Location and Study Area

The development is proposed to be located in the southeast quadrant at the intersection of West Ten Road and Buckhorn Road in Mebane, North Carolina. Refer to Figure 1 for the site location map.

The study area for the TIA was determined through coordination with the NCDOT and the City of Mebane (City) and consists of the following existing intersections:

- Buckhorn Road and West Ten Road

- Buckhorn Road and I-40/I-85 Eastbound Ramps
- Buckhorn Road and I-40/I-85 Westbound Ramps
- Buckhorn Road and Industrial Drive

Refer to Appendix A for the approved scoping documentation.

1.2. Proposed Land Use and Site Access

The site is expected to be located in the southeast quadrant at the intersection of West Ten Road and Buckhorn Road. The proposed development, anticipated to be completed in 2023, is assumed to consist of a 675,000 sq. ft. warehouse.

Site access will be provided via two (2) full movement access points along West Ten Road and one (1) potential future full movement access point along Buckhorn Road. Refer to Figure 2 for a copy of the preliminary site plan.

1.3. Adjacent Land Uses

The proposed development is located in an area consisting primarily of farms, undeveloped land, and residential development. Along Buckhorn Road approximately 0.50 mile to the north of the proposed site are two (2) gas stations. Along West Ten Road approximately 1.25 miles to the east of the proposed site is Gravelly Hill Middle School. The school consists of 460 students in grades 6-8 with a current bell schedule of 8:30 AM to 3:35 PM. Refer to Section 2 of the report for more information on Gravelly Hill Middle School and how the school contributes to existing (2020) peak hour conditions.

1.4. Existing Roadways

Existing lane configurations (number of traffic lanes on each intersection approach), lane widths, speed limits, and other intersection and roadway information within the study area are shown in Figure 3. Table 1, on the following page, provides a summary of this information, as well.

Table 1: Existing Roadway Inventory

Road Name	Route Number	Typical Cross Section	Speed Limit	Maintained By	2019 AADT (vpd)
I-40/I-85	I-40/I-85	8-lane divided	65 mph	NCDOT	111,000
Buckhorn Road	SR 1114	2-lane undivided	35 mph / 45 mph	NCDOT	2,100*
West Ten Road	SR 1146	2-lane undivided	55 mph	NCDOT	2,300
Industrial Drive	SR 1374	2-lane undivided	45 mph	NCDOT	1,600**

*ADT from 2017

**ADT based on the traffic counts from 2019 grown to 2020 and assuming the weekday PM peak hour volume is 10% of the average daily traffic.



LEGEND

- - - Proposed Site Location
- Study Intersection
- - - Study Area




West Ten Industrial
Mebane, NC

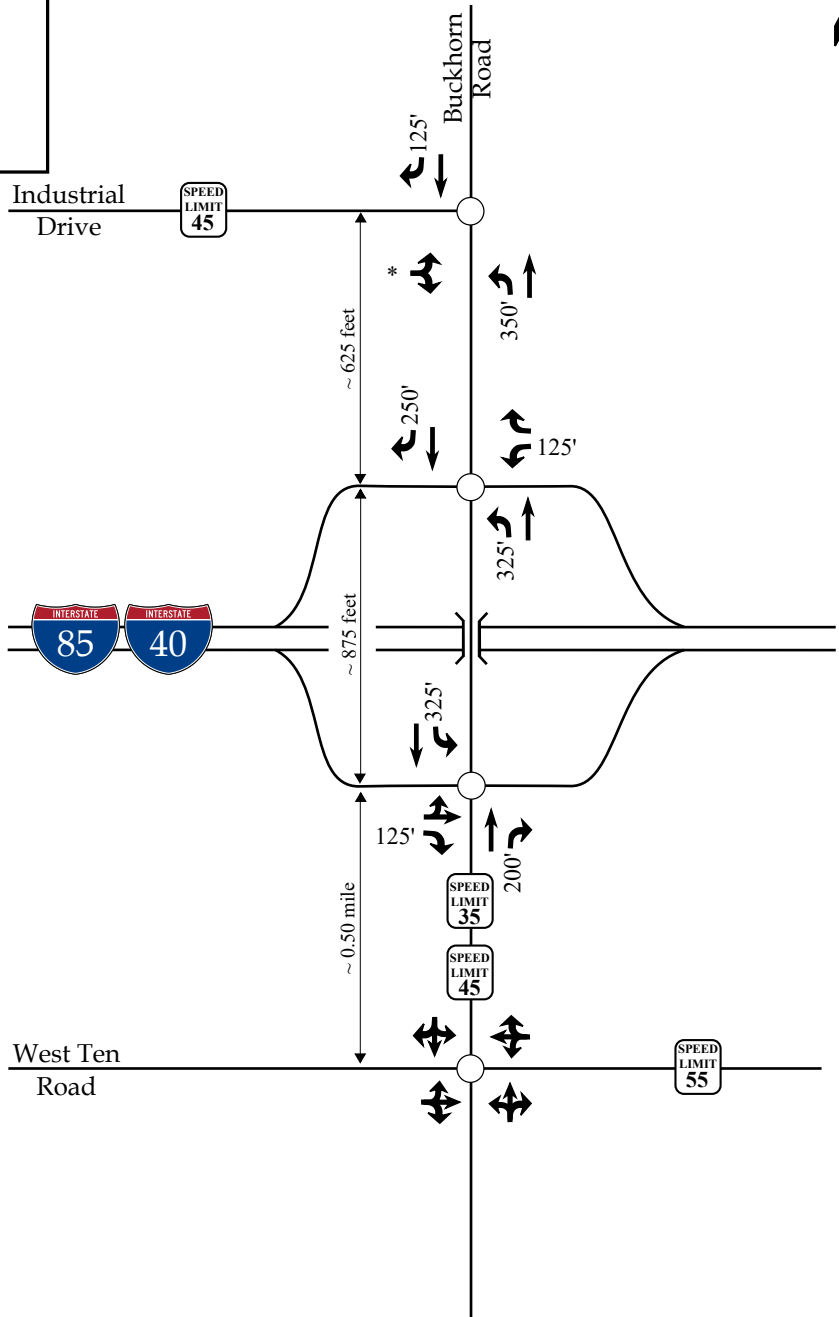
Site Location Map

Scale: Not to Scale

Figure 1

LEGEND

- Unsignalized Intersection
- ➔ Existing Lane
- X' Storage (In Feet)
-  Posted Speed Limit



*Pavement width currently exists to accommodate two (2) approach lanes; however, it is not currently striped to include exclusive right and left turn lanes.

Moving forward.



RAMEY KEMP ASSOCIATES

West Ten Industrial
Mebane, NC

Existing Lane Configurations

Scale: Not to Scale

Figure 3

2. EXISTING (2020) PEAK HOUR CONDITIONS

2.1. Existing (2020) Peak Hour Traffic

Typical weekday AM (7:00 – 9:00 AM) and PM (4:00 – 6:00 PM) peak hour turning movements counts were collected at the intersection of Buckhorn Road and West Ten Road in September of 2016, while local schools were in session, and were provided by the NCDOT. Counts at the following intersections were collected in September of 2019 by RKA during typical weekday AM and PM peak hours, while schools were in session:

- Buckhorn Road and I-40/I-85 Eastbound Ramps
- Buckhorn Road and I-40/I-85 Westbound Ramps
- Buckhorn Road and Industrial Drive

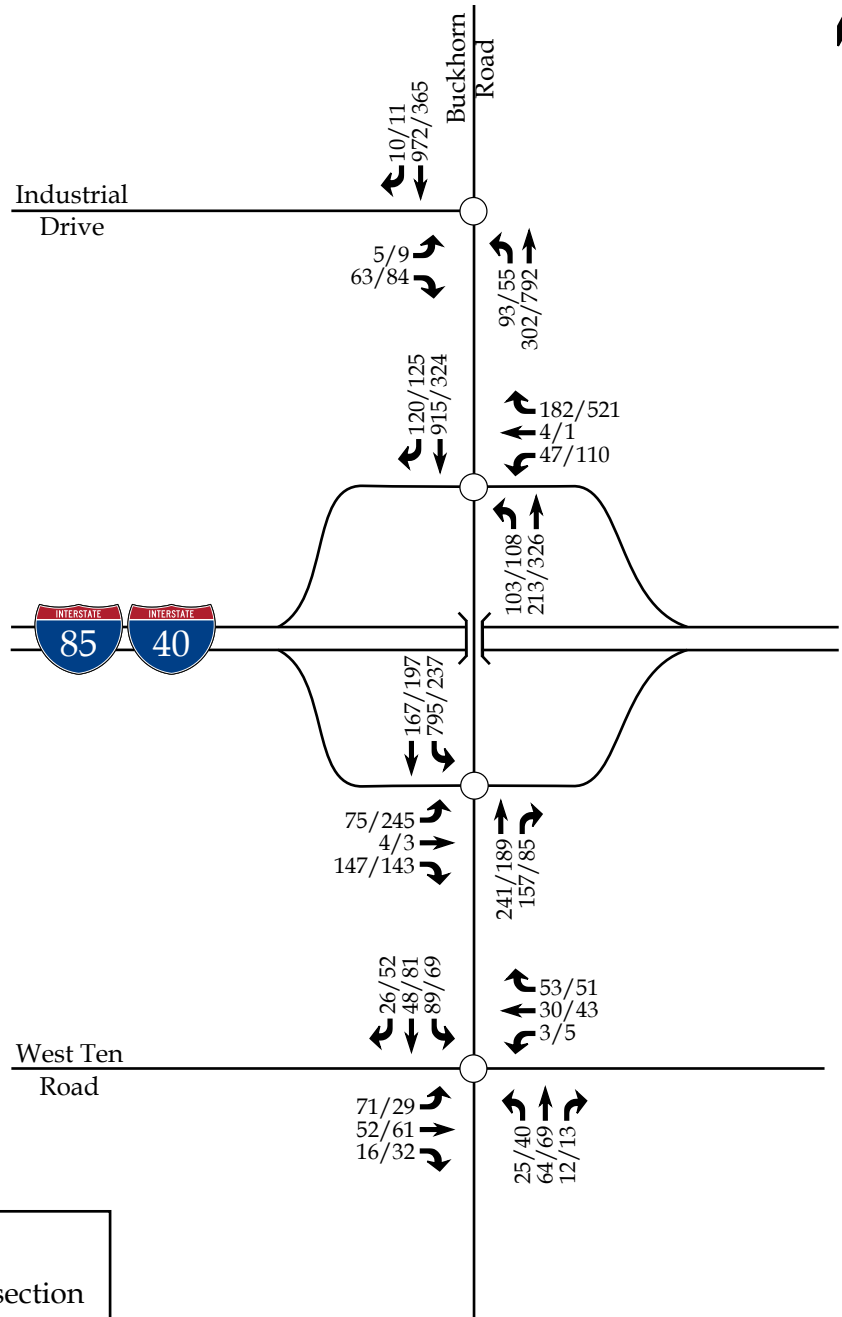
All count data was grown to 2020 utilizing a 2% annually compounded growth rate based on historical data within the vicinity of the site and based on recent TIAs for other developments in the area. Traffic volumes were balanced along Buckhorn Road between Industrial Drive and the I-40/I-85 ramps due to limited development between intersections. Imbalances between the I-40/I-85 ramps and West Ten Road along Buckhorn Road were determined to be reasonable based on the existing Petro Shopping Center and gas stations; therefore, volumes were not balanced along this segment of Buckhorn Road.

It should be noted that all count data was collected while schools were in session, and captured trips to/from Gravelly Hill Middle School. The school consists of 460 students in grades 6-8 with a current bell schedule of 8:30 AM to 3:35 PM. The weekday AM (7:00 – 9:00 AM) peak hour would capture the AM school trips. The weekday PM peak hour (occurring from 5:15 – 6:15pm based on count data) had significantly higher volumes at the intersection of West Ten Road and Buckhorn Road than the school PM peak period (2:00 – 4:00 PM based on the current bell schedule), so it is expected that the weekday PM (4:00 – 6:00 PM) peak hour would be more conservative for analysis purposes even though it is after the school lets out (3:35 PM). There may also be afterschool care or extracurriculars at the middle school that would contribute to the weekday PM peak hour and the proposed industrial site would be expected to generate more trips during the weekday PM peak hour than the school PM peak

hour. Refer to Figure 4 for existing (2020) weekday AM and PM peak hour traffic volumes. A copy of the count data is located in Appendix B of this report.

2.2. Analysis of Existing (2020) Peak Hour Traffic

The existing (2020) weekday AM and PM peak hour traffic volumes were analyzed to determine the current levels of service at the study intersections under existing roadway conditions. Signal information was obtained from NCDOT and is included in Appendix C. The results of the analysis are presented in Section 7 of this report.



LEGEND

○ Unsignalized Intersection

X / Y → Weekday AM / PM Peak Hour Traffic

Moving forward.

RKA

RAMEY KEMP ASSOCIATES

West Ten Industrial
Mebane, NC

Existing (2020)
Peak Hour Traffic

Scale: Not to Scale | Figure 4

3. NO-BUILD (2023) PEAK HOUR CONDITIONS

In order to account for growth of traffic and subsequent traffic conditions at a future year, no-build traffic projections are needed. No-build traffic is the component of traffic due to the growth of the community and surrounding area that is anticipated to occur regardless of whether or not the proposed development is constructed. No-build traffic is comprised of existing traffic growth within the study area and additional traffic created as a result of adjacent approved developments.

3.1. Ambient Traffic Growth

Through coordination with the City and NCDOT, it was determined that an annual growth rate of 2% would be used to generate projected (2023) weekday AM and PM peak hour traffic volumes. Refer to Figure 5 for projected (2023) peak hour traffic.

3.2. Adjacent Development Traffic

Through coordination with the City and NCDOT, the following adjacent developments were identified to be included as an approved adjacent development in this study:

- Project Titanium
- Medline

Table 2 on the following page provides a summary of the adjacent developments. Additional adjacent development information can be found in Appendix D.

Table 2: Adjacent Development Information

Development Name	Location	Build-Out Year	Land Use / Intensity	TIA Performed
Project Titanium	West of Buckhorn Road along Industrial Drive	2021	203,400 sq. ft. manufacturing expansion onto the existing 345,225 sq. ft. industrial site	October 2019 by RKA
Medline	5511 West Ten Road	N/A <i>Expected prior to the build-out of the proposed development</i>	1,200,000 sq. ft. warehousing	N/A <i>Trips generated and applied to roadway network*</i>

*Refer to Appendix C for the approved Medline trip generation, distribution, and assignment.

The adjacent developments were approved, during scoping, by the City and NCDOT. Adjacent development trips are shown in Figure 6. Adjacent development information can be found in Appendix C.

3.3. Future Roadway Improvements

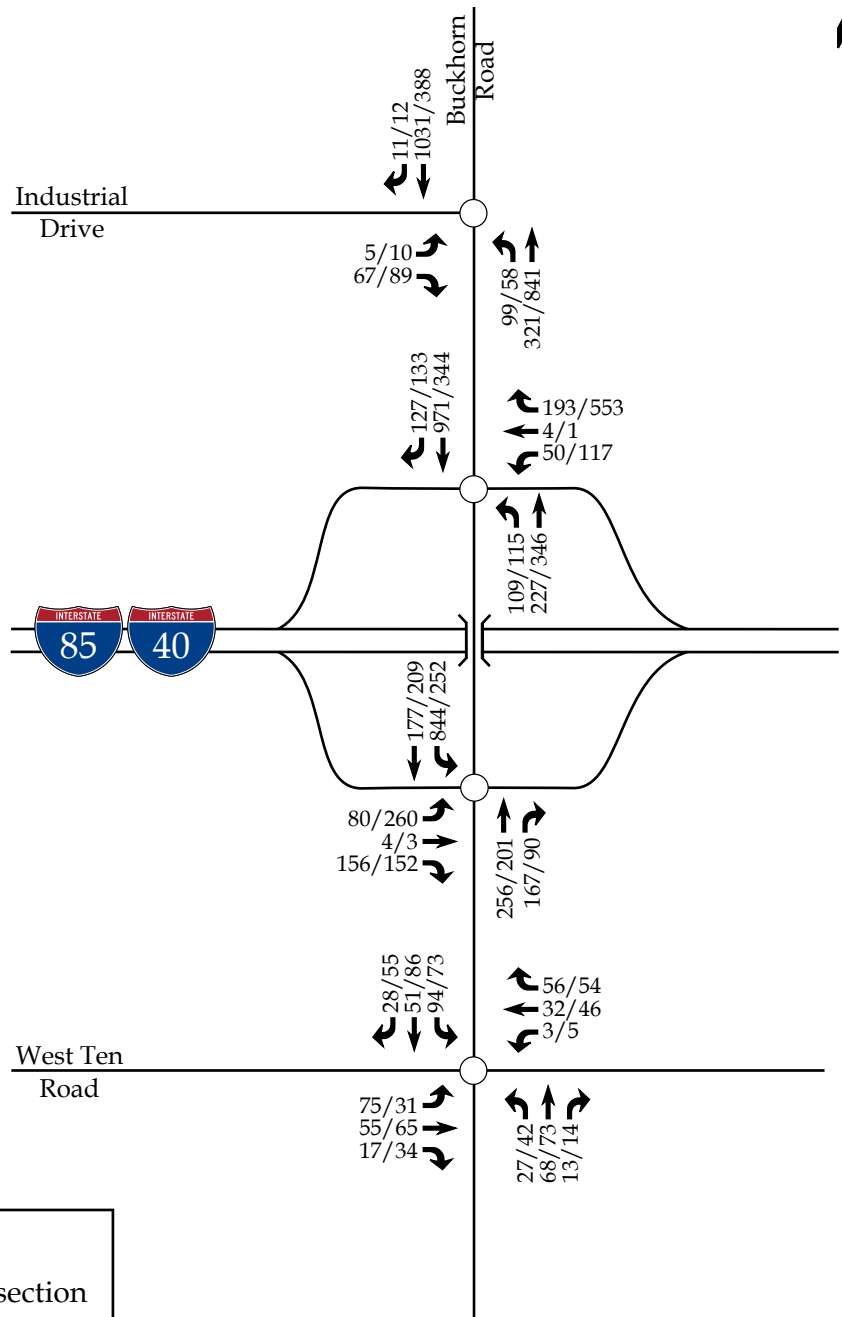
Based on coordination with the NCDOT and the City, it was determined there were no future roadway improvements to consider with this study.

3.4. No-Build (2023) Peak Hour Traffic Volumes

The no-build (2023) traffic volumes were determined by projecting the existing (2020) peak hour traffic to the year 2023, and adding the adjacent development trips. Refer to Figure 7 for an illustration of the no-build (2023) peak hour traffic volumes at the study intersections.

3.5. Analysis of No-Build (2023) Peak Hour Traffic Conditions

The no-build (2023) AM and PM peak hour traffic volumes at the study intersections were analyzed with future geometric roadway conditions and traffic control. The analysis results are presented in Section 7 of this report.



LEGEND



○ Unsignalized Intersection

x / y → Weekday AM / PM Peak Hour Traffic

Moving forward.

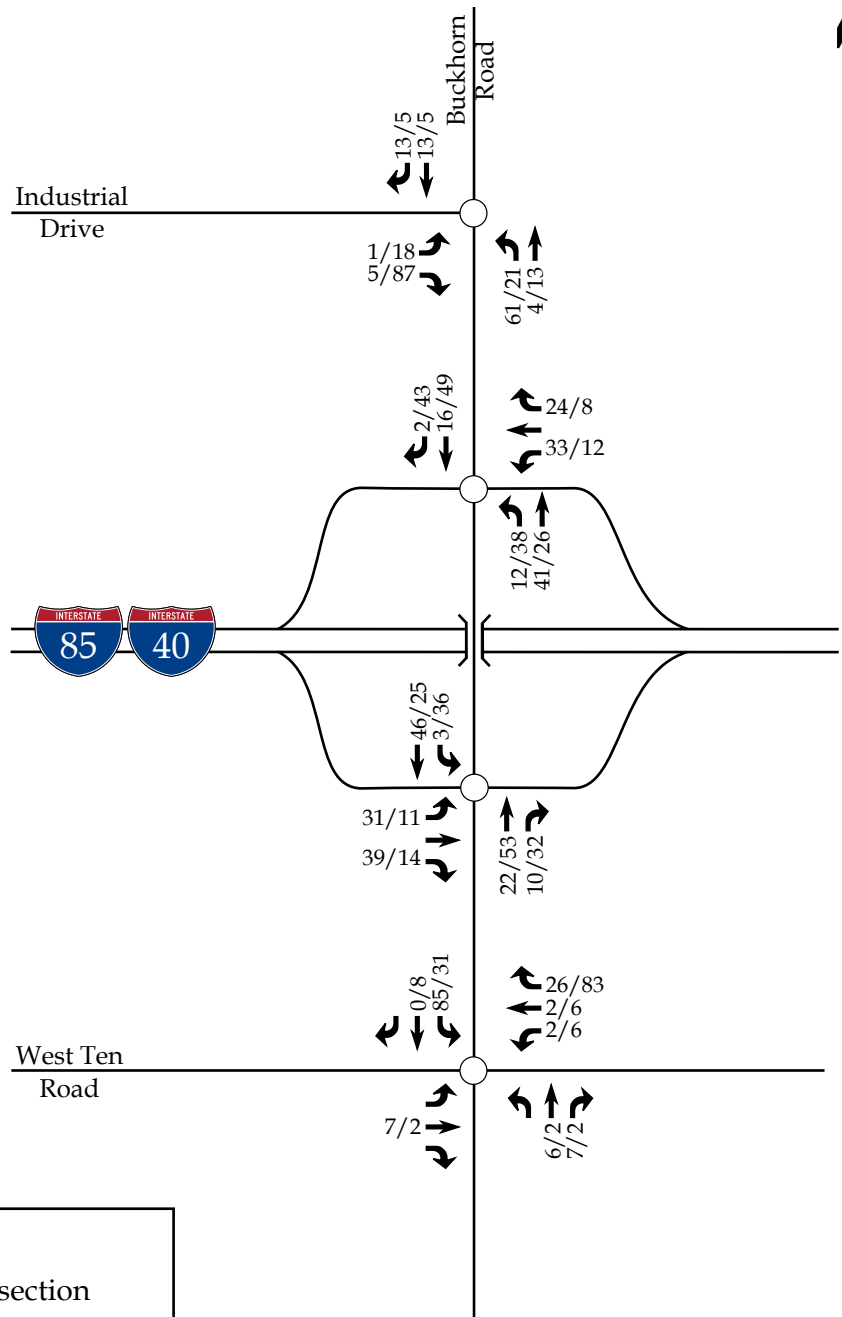


West Ten Industrial
Mebane, NC

Projected (2023)
Peak Hour Traffic

Scale: Not to Scale

Figure 5



LEGEND

○ Unsignalized Intersection

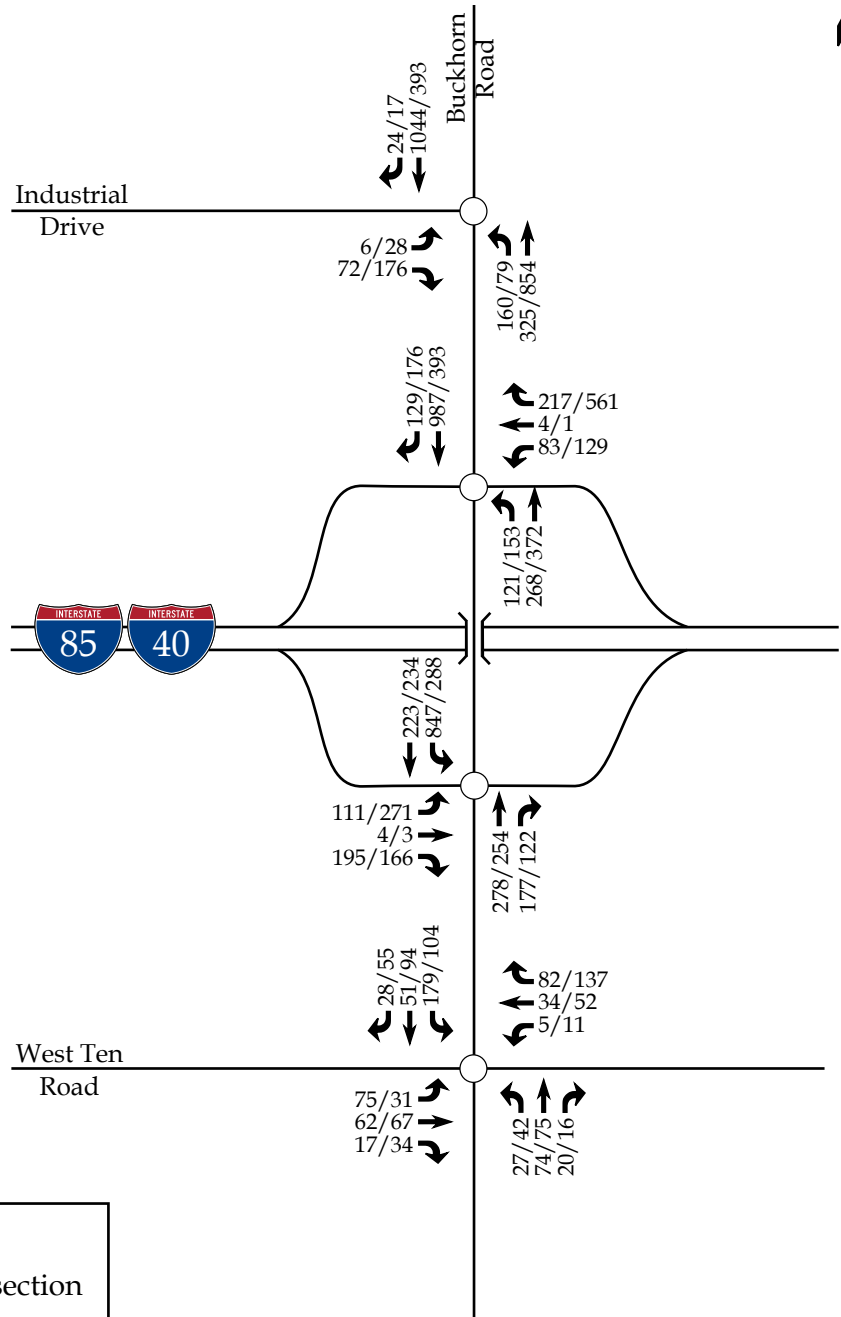
X / Y → Weekday AM / PM Peak Hour Adjacent Development Trips



West Ten Industrial
Mebane, NC

Peak Hour Adjacent Development Trips

Scale: Not to Scale Figure 6



LEGEND

○ Unsignalized Intersection

X / Y → Weekday AM / PM Peak Hour Traffic

Moving forward.

RAMEY KEMP ASSOCIATES

West Ten Industrial
Mebane, NC

No-Build (2023)
Peak Hour Traffic

Scale: Not to Scale Figure 7

4. SITE TRIP GENERATION AND DISTRIBUTION

4.1. Trip Generation

The proposed development is expected to consist of a 675,000 sq. ft. warehouse. Average weekday daily, AM peak hour, and PM peak hour trips for the proposed development were estimated using methodology contained within the ITE *Trip Generation Manual*, 10th Edition. Table 3 provides a summary of the trip generation potential for the site.

Table 3: Trip Generation Summary

Land Use (ITE Code)	Intensity	Daily Traffic (vpd)	Weekday AM Peak Hour Trips (vph)		Weekday PM Peak Hour Trips (vph)	
			Enter	Exit	Enter	Exit
Warehousing (150)	675,000 sq. ft.	1,120	82	24	29	80

It is estimated that the proposed West Ten Industrial development will generate approximately 1,120 total site trips on the roadway network during a typical 24-hour weekday period. Of the daily traffic volume, it is anticipated that 106 trips (82 entering and 24 exiting) will occur during the weekday AM peak hour and 109 (29 entering and 80 exiting) will occur during the weekday PM peak hour.

4.2. Site Trip Distribution and Assignment

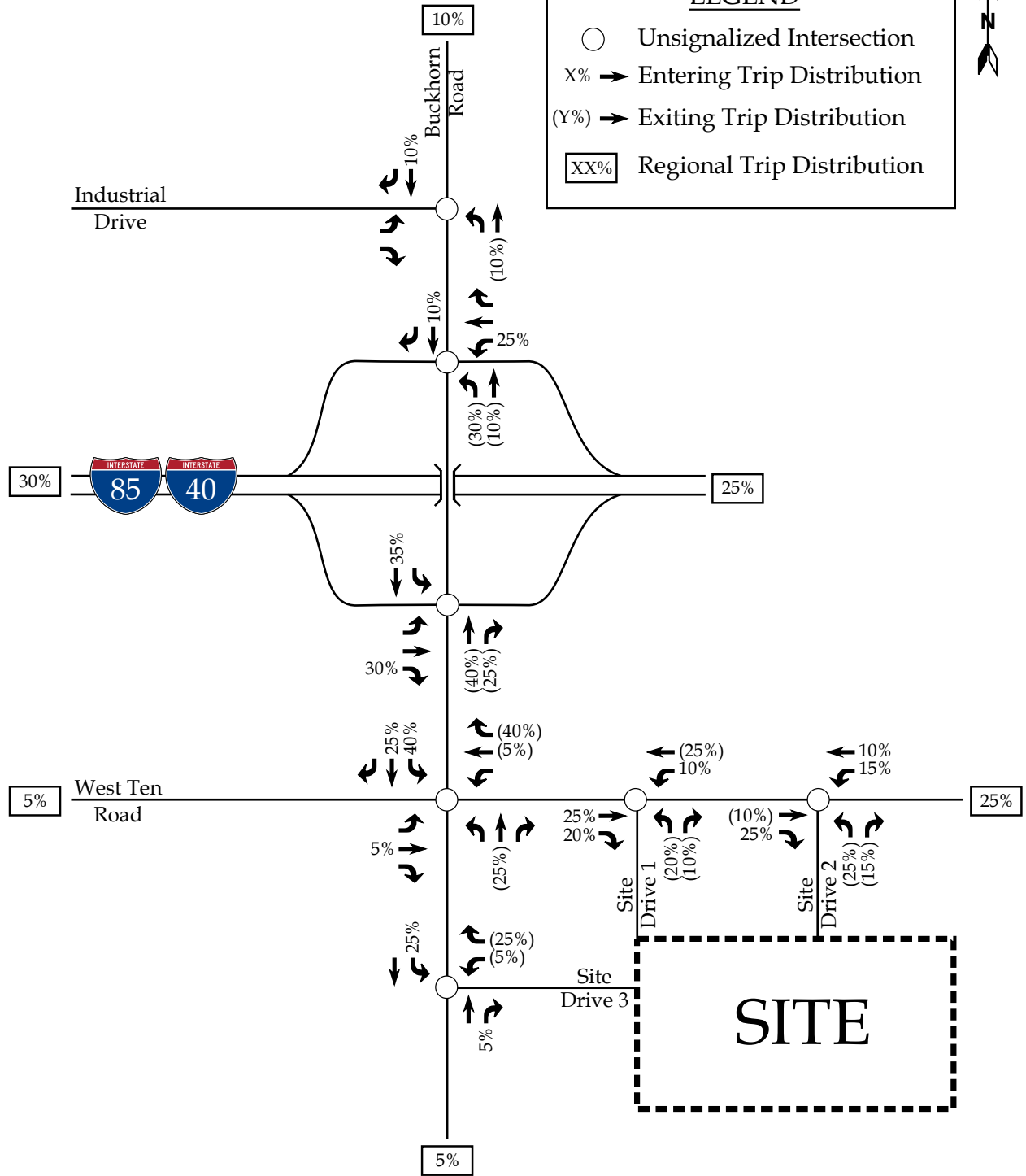
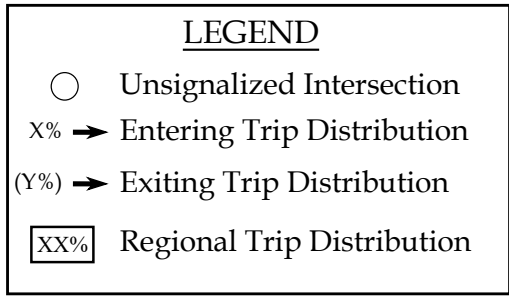
Trip distribution percentages used in assigning site traffic for this development were estimated based on a combination of existing traffic patterns, population centers adjacent to the study area, and engineering judgment.

It is estimated that the site trips will be regionally distributed as follows:

- 10% to/from the north via Buckhorn Road
- 5% to/from the south via Buckhorn Road
- 25% to/from the east via West Ten Road
- 5% to/from the west via West Ten Road
- 30% to/from the west via I-40/I-85

- 25% to/from the east via I-40/I-85

The site trip distribution is shown in Figure 8. Refer to Figure 9 for the site trip assignment,



West Ten Industrial
Mebane, NC

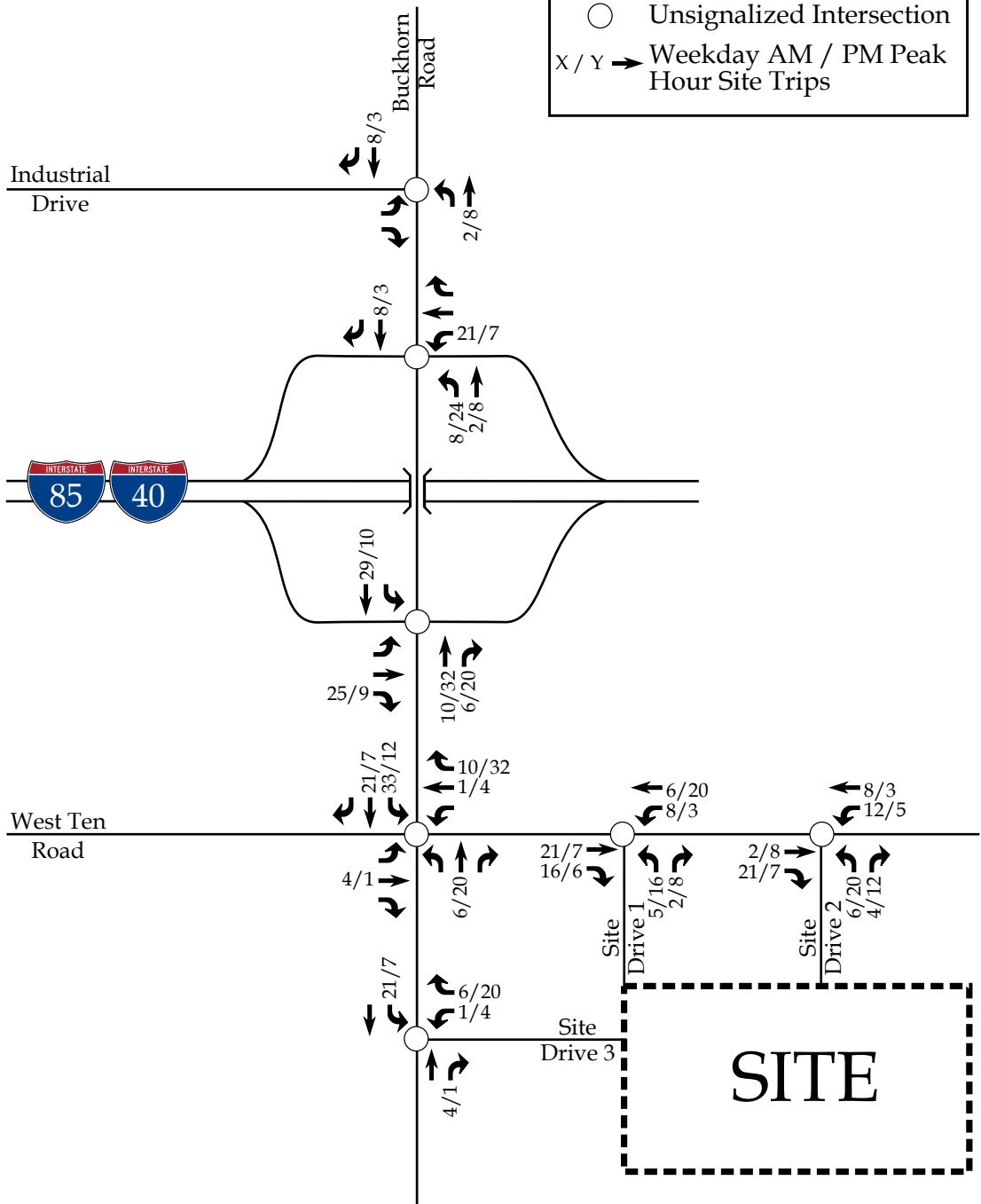
Site Trip Distribution

Scale: Not to Scale Figure 8

LEGEND

○ Unsignalized Intersection

X / Y → Weekday AM / PM Peak Hour Site Trips



Moving forward.

West Ten Industrial
Mebane, NC

Site Trip Assignment

Scale: Not to Scale Figure 9

5. BUILD (2023) TRAFFIC CONDITIONS

5.1. Build (2023) Peak Hour Traffic Volumes

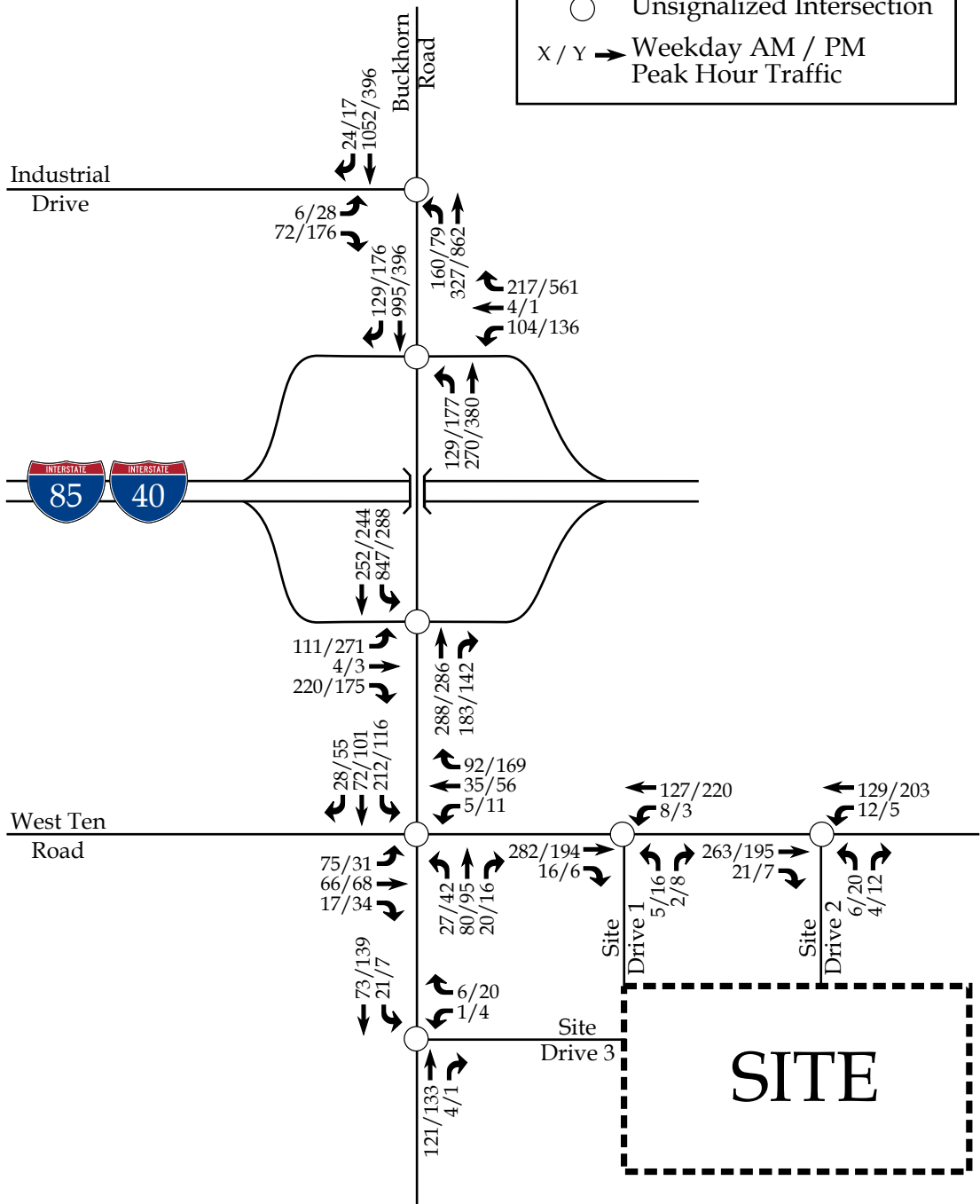
To estimate traffic conditions with the site fully built-out, the total site trips were added to the no-build (2023) traffic volumes to determine the build (2023) traffic volumes. Refer to Figure 10 for an illustration of the build (2023) peak hour traffic volumes with the proposed site fully developed.

5.2. Analysis of Build (2023) Peak Hour Traffic

Study intersections were analyzed with the build (2023) traffic volumes using the same methodology previously discussed for existing and no-build traffic conditions. Intersections were analyzed with improvements necessary to accommodate future traffic volumes. The results of the capacity analysis for each intersection are presented in Section 7 of this report.

LEGEND

- Unsignalized Intersection
- X / Y → Weekday AM / PM Peak Hour Traffic



Moving forward.

RKA
RAMEY KEMP ASSOCIATES

West Ten Industrial
Mebane, NC

Build (2023)
Peak Hour Traffic

Scale: Not to Scale | Figure 10

6. TRAFFIC ANALYSIS PROCEDURE

Study intersections were analyzed using the methodology outlined in the *Highway Capacity Manual* (HCM), 6th Edition published by the Transportation Research Board. Capacity and level of service are the design criteria for this traffic study. A computer software package, Synchro (Version 10.3), was used to complete the analyses for the study area intersections. Please note that the unsignalized capacity analysis does not provide an overall level of service for an intersection; only delay for an approach with a conflicting movement.

The HCM defines capacity as “the maximum hourly rate at which persons or vehicles can reasonably be expected to traverse a point or uniform section of a lane or roadway during a given time period under prevailing roadway, traffic, and control conditions.” Level of service (LOS) is a term used to represent different driving conditions, and is defined as a “qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers.” Level of service varies from Level “A” representing free flow, to Level “F” where breakdown conditions are evident. Refer to Table 4 for HCM levels of service and related average control delay per vehicle for both signalized and unsignalized intersections. Control delay as defined by the HCM includes “initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay”. An average control delay of 50 seconds at a signalized intersection results in LOS “D” operation at the intersection.

Table 4: Highway Capacity Manual – Levels-of-Service and Delay

UNSIGNALIZED INTERSECTION		SIGNALIZED INTERSECTION	
LEVEL OF SERVICE	AVERAGE CONTROL DELAY PER VEHICLE (SECONDS)	LEVEL OF SERVICE	AVERAGE CONTROL DELAY PER VEHICLE (SECONDS)
A	0-10	A	0-10
B	10-15	B	10-20
C	15-25	C	20-35
D	25-35	D	35-55
E	35-50	E	55-80
F	>50	F	>80

6.1. Adjustments to Analysis Guidelines

Capacity analysis at all study intersections was completed according to the NCDOT Congestions Management Guidelines.

7. CAPACITY ANALYSIS

7.1. Buckhorn Road and West Ten Road

The existing unsignalized, all-way stop-controlled intersection of Buckhorn Road and West Ten Road was analyzed under existing (2020), no-build (2023), and build (2023) traffic conditions with lane configurations and traffic control shown in Table 5. Refer to Table 5 for a summary of the analysis results. Refer to Appendix D for the Synchro capacity analysis reports.

Table 5: Analysis Summary of Buckhorn Road and West Ten Road

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
Existing (2020) Conditions	EB	1 LT-TH-RT	A ³	A (9)	A ³	A (9)
	WB	1 LT-TH-RT	A ³		A ³	
	NB	1 LT-TH-RT	A ³		A ³	
	SB	1 LT-TH-RT	A ³		A ³	
No-Build (2023) Conditions	EB	1 LT-TH-RT	A ³	B (10)	A ³	B (10)
	WB	1 LT-TH-RT	A ³		B ³	
	NB	1 LT-TH-RT	A ³		A ³	
	SB	1 LT-TH-RT	B ³		B ³	
Build (2023) Conditions	EB	1 LT-TH-RT	B ³	B (11)	B ³	B (11)
	WB	1 LT-TH-RT	A ³		B ³	
	NB	1 LT-TH-RT	A ³		B ³	
	SB	1 LT-TH-RT	B ³		B ³	

3. Level of service for all-way stop-controlled approach.

Capacity analysis of existing (2020), no-build (2023), and build (2023) traffic conditions indicates the approaches at the intersection of Buckhorn Road and West Ten Road are expected to operate at LOS B or better during the weekday AM and PM peak hours. Based on SimTraffic results, there is anticipated to be minimal queuing on the approaches. The site plan indicates that the site access points will be beyond the maximum queuing on the westbound and northbound approaches at this study intersection.

7.2. Buckhorn Road and I-40/I-85 Eastbound Ramps

The existing unsignalized intersection of Buckhorn Road and I-40/I-85 Eastbound Ramps was analyzed under existing (2020), no-build (2023), and build (2023) traffic conditions with existing lane configurations and traffic control. Refer to Table 6 for a summary of the analysis results. Refer to Appendix E for the Synchro capacity analysis reports.

Table 6: Analysis Summary of Buckhorn Road and I-40/I-85 Eastbound Ramps

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
Existing (2020) Conditions	EB	1 LT-TH, 1 RT	F ²	N/A	F ²	N/A
	NB	1 TH, 1 RT	--		--	
	SB	1 LT, 1 TH	B ¹		A ¹	
No-Build (2023) Conditions	EB	1 LT-TH, 1 RT	F ²	N/A	F ²	N/A
	NB	1 TH, 1 RT	--		--	
	SB	1 LT, 1 TH	C ¹		A ¹	
Build (2023) Conditions	EB	1 LT-TH, 1 RT	F ²	N/A	F ²	N/A
	NB	1 TH, 1 RT	--		--	
	SB	1 LT, 1 TH	C ¹		A ¹	
Build (2023) Conditions - Signalized	EB	1 LT-TH, 1 RT	F	D (45)	D	C (24)
	NB	1 TH, 1 RT	D		C	
	SB	1 LT, 1 TH	C		B	

Improvements to lane configurations are shown in bold.

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Capacity analysis of existing (2020), no-build (2023), and build (2023) traffic conditions indicates the minor-street approach at the intersection of Buckhorn Road and I-40/I-85 Eastbound Ramps is expected to operate at LOS F during the weekday AM and PM peak hours. The major-street left-turn movement is expected to operate at LOS C or better under all analysis scenarios during the weekday AM and PM peak hours. Based on SimTraffic simulations, the eastbound approach queuing is anticipated to spillback onto I-40/I-85 under all analysis scenarios. It should be noted that the Project Titanium TIA identified a traffic signal at the study intersection, but ultimately did not recommend this improvement.

Geometric changes to the intersection were considered; however, due to the intersection's built-out nature, with turn lanes on all approaches, and due to the limited roadway width to the north because of the bridge, there were no reasonable geometric improvements that were expected to provide a significant improvement at the study intersection. Alternatively, a traffic signal was considered, and the existing (2020), no-build (2023), and build (2023) traffic volumes were analyzed utilizing the criteria contained in the *Manual on Uniform Traffic Control Devices* (MUTCD). A traffic signal was warranted during both the weekday AM and PM peak hours under all analysis scenarios. With a traffic signal, the intersection is anticipated to operate at an overall LOS D during the weekday AM peak hour and LOS C during the weekday PM peak hour. Based on SimTraffic simulations, queuing is anticipated to be improved and contained on the eastbound off-ramp with the provision of a traffic signal.

It should be noted that the proposed development is only expected to account for approximately 4% of the total traffic at this intersection and the adjacent development traffic growth is anticipated to account for more than double the proposed site traffic growth to this study intersection. Additionally, along the eastbound approach, the proposed development is only anticipated to contribute to the eastbound right-turn movement, which is expected to operate with less delay than the eastbound left-turn movement during the weekday AM and PM peak hours. It should be noted that queuing is anticipated to spillback onto I-40/I-85 under all analysis scenarios with or without the proposed development. It is recommended that the intersection be monitored for signalization and a traffic signal be installed once warranted and approved by NCDOT and the City regardless of if the proposed site is constructed or not. Based on the anticipated no-build traffic growth at this study intersection, a traffic signal should not be a requirement solely of the proposed development.

7.3. Buckhorn Road and I-40/I-85 Westbound Ramps

The existing unsignalized intersection of Buckhorn Road and I-40/I-85 Westbound Ramps was analyzed under existing (2020), no-build (2023), and build (2023) traffic conditions with the lane configurations and traffic control shown in Table 7. Refer to Table 7 for a summary of the analysis results. Refer to Appendix F for the Synchro capacity analysis reports.

Table 7: Analysis Summary of Buckhorn Road and I-40/I-85 Westbound Ramps

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
Existing (2020) Conditions	WB NB SB	1 LT-TH, 1 RT 1 LT, 1 TH 1 TH, 1 RT	C ² B ¹ --	N/A	D ² A ¹ --	N/A
No-Build (2023) Conditions	WB NB SB	1 LT-TH, 1 RT 1 LT, 1 TH 1 TH, 1 RT	F ² B ¹ --	N/A	F ² A ¹ --	N/A
Build (2023) Conditions	WB NB SB	1 LT-TH, 1 RT 1 LT, 1 TH 1 TH, 1 RT	F ² B ¹ --	N/A	F ² A ¹ --	N/A
Build (2023) Conditions - Signalized	WB NB SB	1 LT-TH, 1 RT 1 LT, 1 TH 1 TH, 1 RT	F D C	D (42)	D C C	C (34)

Improvements to lane configurations are shown in bold.

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Capacity analysis of existing (2020) traffic conditions indicates that the minor-street approach at the intersection of Buckhorn Road and I-40/I-85 Westbound Ramps is expected to operate at LOS C during the weekday AM peak hour and LOS D during the weekday PM peak hour. Under no-build (2023) and build (2023) traffic conditions the minor-street approach is expected to operate at LOS F during the weekday AM and PM peak hours. The major-street left-turn movement is expected to operate at LOS B or better under all analysis scenarios during the weekday AM and PM peak hours. Based on SimTraffic simulations, the westbound approach queuing is anticipated to spillback onto I-40/I-85 under build (2023) conditions.

Geometric changes to the intersection were considered; however, due to the intersection's built-out nature, with turn lanes on all approaches, and due to the limited roadway width to the south because of the bridge, there were no reasonable geometric improvements that were expected to provide a significant improvement at the study intersection. Alternatively, a traffic signal was considered, and the existing (2020), no-build (2023), and build (2023) traffic volumes were analyzed utilizing the criteria contained in the *Manual on Uniform Traffic Control Devices* (MUTCD). A traffic signal was warranted during both the weekday AM and PM peak hours under all analysis scenarios. With a traffic signal, the intersection is anticipated to operate at an overall LOS D during the weekday AM peak hour and LOS C during the weekday PM peak hour. Based on SimTraffic simulations, queuing is anticipated to be improved and contained on the westbound off-ramp with the provision of a traffic signal.

It should be noted that the proposed development is only expected to account for approximately 2% of the total traffic at this intersection; however, due to the heavy queuing, it is recommended that this intersection be monitored for signalization. Based on the anticipated no-build traffic growth at this study intersection, a traffic signal should not be a requirement solely of the proposed development.

7.4. Buckhorn Road and Industrial Drive

The existing unsignalized intersection of Buckhorn Road and Industrial Drive was analyzed under existing (2020), no-build (2023), and build (2023) traffic conditions with the lane configurations and traffic control shown in Table 8. Refer to Table 8 for a summary of the analysis results. Refer to Appendix G for the Synchro capacity analysis reports.

Table 8: Analysis Summary of Buckhorn Road and Industrial Drive

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
Existing (2020) Conditions	EB NB SB	1 LT-RT 1 LT, 1 TH 1 TH, 1 RT	D ² B ¹ --	N/A	B ² A ¹ --	N/A
No-Build (2023) Conditions	EB NB SB	1 LT-RT 1 LT, 1 TH 1 TH, 1 RT	E ² B ¹ --	N/A	D ² A ¹ --	N/A
Build (2023) Conditions	EB NB SB	1 LT-RT 1 LT, 1 TH 1 TH, 1 RT	E ² B ¹ --	N/A	D ² A ¹ --	N/A
Build (2023) Conditions - <i>Field Operations*</i>	EB NB SB	1 LT, 1 RT* 1 LT, 1 TH 1 TH, 1 RT	D ² B ¹ --	N/A	C ² A ¹ --	N/A

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

*Based on existing pavement width, the eastbound approach is wide enough for a two-lane approach. This approach is currently unstriped; however, a 25-foot eastbound right-turn lane was analyzed to demonstrate anticipated field conditions.

Capacity analysis of existing (2020) conditions indicates that the minor-street approach and major-street left-turn movement at the intersection of Buckhorn Road and Industrial Drive are expected to operate at LOS D or better during the weekday AM and PM peak hours. Under no-build (2023) and build (2023) traffic conditions, the major-street left-turn movement is expected to operate at LOS B or better during the weekday AM and PM peak hours, while the minor-street approach is expected to operate at at LOS E during the weekday AM peak hour and LOS D during the weekday PM peak hour. Poor levels-of-service are not uncommon at stop-controlled minor-street approaches opposing heavy mainline volumes.

Under existing (2020) conditions, the eastbound minor-street approach is unstriped; however, the eastbound approach pavement lane is wide enough for a two-lane approach. The intersection was analyzed under build (2023) traffic conditions with a 25-foot eastbound right-turn lane to demonstrate field conditions. With the addition of a 25-foot eastbound right-turn lane, the minor-street approach at this intersection is expected to operate at LOS D or better during the weekday AM and PM peak hours.

It should be noted that the proposed West Ten Industrial development is only anticipated to add trips to the mainline through movements at this intersection and is not anticipated to contribute to the minor-street approach. Overall, the proposed development is anticipated to add less than 1% of the total traffic at this study intersection under future conditions. Due to the low impact of the proposed development on the study intersection, no improvements are recommended by the developer.

7.5. West Ten Road and Site Drive 1

The proposed intersection of West Ten Road and Site Drive 1 was analyzed under build (2023) traffic conditions with the lane configurations and traffic control shown in Table 9. Refer to Table 9 for a summary of the analysis results. Refer to Appendix H for the Synchro capacity analysis reports.

Table 9: Analysis Summary of West Ten Road and Site Drive 1

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
Build (2023) Conditions	EB WB NB	1 TH-RT 1 LT-TH 1 LT-RT	-- A ¹ B ²	N/A	-- A ¹ B ²	N/A

Improvements to lane configurations by the developer are shown in bold.

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Capacity analysis of build (2023) traffic conditions indicates the minor-street approach and major-street left-turn movement at the proposed intersection of West Ten Road and Site Drive 1 are expected to operate at LOS B or better during the weekday AM and PM peak hours. Based on SimTraffic simulations, no off-site queuing is anticipated to impact the proposed driveway.

Left- and right-turn lanes were considered based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways*; however, due to the low AADT volumes along the site frontage (1,700 vehicles per day in 2016 and estimated to be approximately 2,900 vehicles per day in 2023, assuming a 2% annually compounded growth rate and conservatively including all site traffic) and relatively low weekday AM and PM peak hour through volumes along West Ten Road, no turn lanes are recommended into the proposed site.

7.6. West Ten Road and Site Drive 2

The proposed intersection of West Ten Road and Site Drive 2 was analyzed under build (2023) traffic conditions with the lane configurations and traffic control shown in Table 10. Refer to Table 10 for a summary of the analysis results. Refer to Appendix I for the Synchro capacity analysis reports.

Table 10: Analysis Summary of West Ten Road and Site Drive 2

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
Build (2023) Conditions	EB WB NB	1 TH-RT 1 LT-TH 1 LT-RT	-- A ¹ B ²	N/A	-- A ¹ B ²	N/A

Improvements to lane configurations are shown in bold.

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Capacity analysis of build (2023) traffic conditions indicates the minor-street approach and major-street left-turn movement at the proposed intersection of West Ten Road and Site Drive 2 are expected to operate at LOS B or better during the weekday AM and PM peak hours. Based on SimTraffic simulations, no off-site queuing is anticipated to impact the proposed driveway.

Left- and right-turn lanes were considered; however, due to the low AADT volumes along the site frontage (1,700 vehicles per day in 2016 based on NCDOT AADT Maps and estimated to be approximately 2,900 vehicles per day in 2023 assuming a 2% annually compounded growth rate and conservatively including all site traffic) and relatively low weekday AM and PM peak hour through volumes along West Ten Road, no turn lanes are recommended into the proposed site.

7.7. Buckhorn Road and Site Drive 3

The proposed unsignalized intersection of Buckhorn Road and Site Drive 3 was analyzed under build (2023) traffic conditions with the lane configurations and traffic control shown in Table 11. Refer to Table 11 for a summary of the analysis results. Refer to Appendix J for the Synchro capacity analysis reports.

Table 11: Analysis Summary of Buckhorn Road and Site Drive 3

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
Build (2023) Conditions	WB NB SB	1 LT-RT 1 TH-RT 1 LT-TH	A ² -- A ¹	N/A	A ² -- A ¹	N/A

Improvements to lane configurations are shown in bold.

1. Level of service for minor-street approach.
2. Level of service for minor-street approach.

Capacity analysis of build (2023) traffic conditions indicates the minor-street approach and major-street left-turn movement at the proposed intersection of Buckhorn Road and Site Drive 3 are expected to operate at LOS A during the weekday AM and PM peak hours. Based on SimTraffic simulations, no off-site queuing is anticipated to impact the proposed driveway.

Left- and right-turn lanes were considered; however, due to the low AADT volumes along the site frontage (1,800 vehicles per day in 2019 and estimated to be approximately 3,000 vehicles per day in 2023 assuming a 2% annually compounded growth rate and conservatively including all site traffic) and relatively low weekday AM and PM peak hour through volumes along Buckhorn Road to the south of West Ten Road, no turn lanes are recommended into the proposed site.

8. CONCLUSIONS

This Traffic Impact Analysis was conducted to determine the potential traffic impacts of the proposed development, located in the southeast quadrant at the intersection of West Ten Road and Buckhorn Road in Mebane, North Carolina. The proposed development is expected to be built out in 2023. Site access will be provided via two (2) full movement access points along West Ten Road and one (1) potential future full movement access point along Buckhorn Road. The study analyzes traffic conditions during the weekday AM and PM peak hours for the following scenarios:

- Existing (2020) Traffic Conditions
- No-Build (2023) Traffic Conditions
- Build (2023) Traffic Conditions

Trip Generation

It is estimated that the proposed development will generate approximately 1,120 total site trips on the roadway network during a typical 24-hour weekday period. Of the daily traffic volume, it is anticipated that 106 trips (82 entering and 24 exiting) will occur during the weekday AM peak hour and 109 (29 entering and 80 exiting) will occur during the weekday PM peak hour.

Adjustments to Analysis Guidelines

Capacity analysis at all study intersections was completed according to NCDOT Congestion Management Guidelines. Refer to section 6.1 of this report for a detailed description of any adjustments to these guidelines made throughout the analysis.

Intersection Capacity Analysis Summary

All the study area intersections (including the proposed site driveways) are expected to operate at acceptable levels-of-service under existing and future year conditions with the exception of the intersections listed below. A summary of the study area intersections that are expected to need improvements are as follows:

Buckhorn Road and I-40/I-85 Eastbound Ramps

The minor-street approach is expected to operate at LOS F during the weekday AM and PM peak hours under all analysis scenarios. Based on SimTraffic simulations, the eastbound approach queuing is anticipated to spillback onto I-40/I-85 under all analysis scenarios. A traffic signal was considered, and traffic volumes were analyzed utilizing the criteria contained in the *Manual on Uniform Traffic Control Devices* (MUTCD). A traffic signal was warranted during both the weekday AM and PM peak hours under all analysis scenarios. With a traffic signal, the intersection is anticipated to operate at an overall acceptable level-of-service during the weekday AM and PM peak hours. Based on SimTraffic simulations, queuing is anticipated to be improved and contained on the eastbound off-ramp with the provision of a traffic signal.

It should be noted that the proposed development is only expected to account for approximately 4% of the total traffic at this intersection. Additionally, along the eastbound approach, the proposed development is only anticipated to contribute to the eastbound right-turn movement, which is expected to operate with less delay than the eastbound left-turn movement during the weekday AM and PM peak hours. It is recommended that the intersection be monitored for signalization and a traffic signal be installed once warranted and approved by NCDOT and the City.

Buckhorn Road and I-40/I-85 Westbound Ramps

Under no-build (2023) and build (2023) traffic conditions the minor-street approach is expected to operate at LOS F during the weekday AM and PM peak hours. Based on SimTraffic simulations, the westbound approach queuing is anticipated to spillback onto I-40/I-85 under build (2023) conditions. A traffic signal was considered, and traffic volumes were analyzed utilizing the criteria contained in the *Manual on Uniform Traffic Control Devices* (MUTCD). A traffic signal was warranted during both the weekday AM and PM peak hours under all analysis scenarios. With a traffic signal, the intersection is anticipated to operate at an overall LOS D during the weekday AM peak hour and LOS C during the weekday PM peak hour. Based on SimTraffic simulations, queuing is anticipated to be improved and contained on the westbound off-ramp with the provision of a traffic signal. It should be

noted that the proposed development is only expected to account for approximately 2% of the total traffic at this intersection.

Buckhorn Road and Industrial Drive

Under no-build (2023) and build (2023) traffic conditions, the minor-street approach is expected to operate at LOS E during the weekday AM peak hour. Poor levels-of-service are not uncommon at stop-controlled minor-street approaches opposing heavy mainline volumes. Under existing (2020) conditions, the eastbound minor-street approach is unstriped; however, the eastbound approach pavement lane is wide enough for a two-lane approach. The intersection was analyzed under build (2023) traffic conditions with a 25-foot eastbound right-turn lane to demonstrate field conditions. With the addition of a 25-foot eastbound right-turn lane, the minor-street approach at this intersection is expected to operate at LOS D or better during the weekday AM and PM peak hours.

9. RECOMMENDATIONS

Based on the findings of this study, specific geometric improvements have been identified and are recommended to accommodate future traffic conditions. See a more detailed description of the recommended improvements below. Refer to Figure 11 for an illustration of the recommended lane configuration for the proposed development.

Recommended Improvements

Buckhorn Road and I-40/I-85 Eastbound Ramps

- Monitor intersection for signalization, and install traffic signal once warranted and approved by NCDOT and the City. *Based on anticipated no-build (2023) operations, this improvement should be considered regardless of if the proposed development is built.*

Buckhorn Road and I-40/I-85 Westbound Ramps

- Monitor intersection for signalization, and install traffic signal once warranted and approved by NCDOT and the City.

West Ten Road and Site Drive 1

- Construct the northbound approach with one (1) ingress lane and one (1) egress lane.
- Provide stop control for the northbound approach.

West Ten Road and Site Drive 2

- Construct the northbound approach with one (1) ingress lane and one (1) egress lane.
- Provide stop control for the northbound approach.

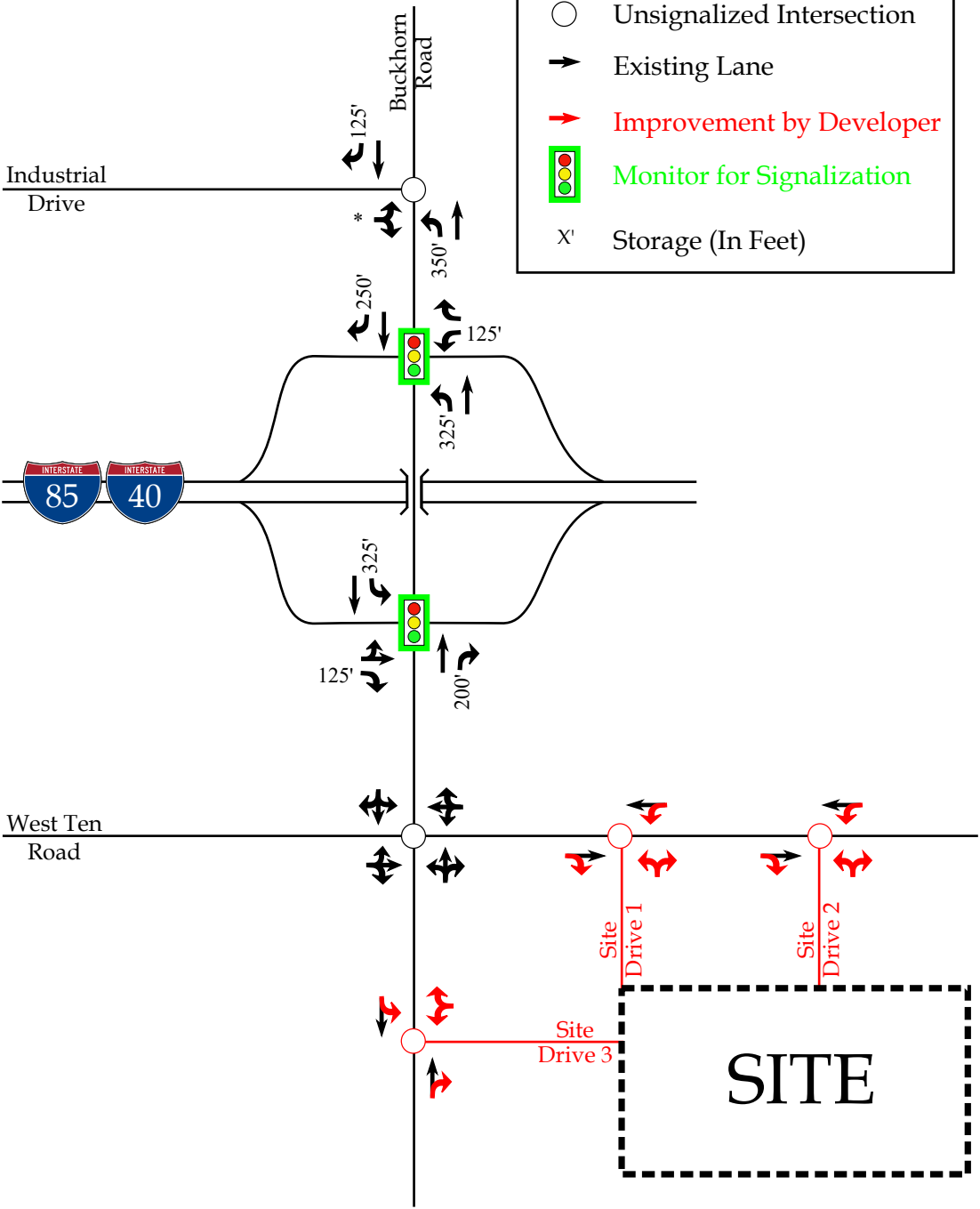
Buckhorn Road and Site Drive 3

- Construct the westbound approach with one (1) ingress lane and one (1) egress lane.
- Provide stop control for the westbound approach.



LEGEND

- Unsignalized Intersection
- ➔ Existing Lane
- ➔ Improvement by Developer
- 🚦 Monitor for Signalization
- X' Storage (In Feet)



*Pavement width currently exists to accommodate two (2) approach lanes; however, it is not currently striped to include exclusive right and left turn lanes.

<p>Moving forward.</p> <p>RKA RAMEY KEMP ASSOCIATES</p>	<p>West Ten Industrial Mebane, NC</p>	<p>Recommended Lane Configurations</p>	
		<p>Scale: Not to Scale</p>	<p>Figure 11</p>



AGENDA ITEM #5

Lowes Boulevard Corridor Plan

Presenter

Ashley Ownbey, Planner

Public Hearing

Yes No

Summary

The *City of Mebane 2040 Comprehensive Transportation Plan (CTP)*, which was adopted in May 2018, recommends “Roadway Project #7” (p. 78), the planning and construction of a roadway to connect Lowes Boulevard with Trollingwood-Hawfields Road and NC 119. As identified in the CTP, construction of a new roadway is expected to improve connectivity and relieve congestion in a well-traveled area that includes a congested, high-crash intersection at Trollingwood-Hawfields Road and NC 119 that currently has a Level Of Service (LOS) F, as rated by the NC Department of Transportation. Both NC 119 and Trollingwood-Hawfields Road have LOS D at this location that could be addressed through congestion relief and safety improvement. The Lowes Boulevard Corridor Plan proposes three concepts for extending Lowes Boulevard. Two of the concepts include variations, with one variation showing standard “T” stop-controlled intersections and the other variation considering roundabouts. The proposed extension of Lowes Boulevard is intended to decrease the number of vehicles traveling through the intersection of Trollingwood-Hawfields Road and NC 119. Additionally, the proposed concepts include a multi-use path to improve bicycle and pedestrian access in the area, particularly to Hawfields Middle School and Garrett Elementary School.

A [virtual public engagement website](#) went live Monday, December 7, 2020. Since then, residents, businesses, and property owners in the area as well as the general public have been invited by letters, postcards, and social media posts to attend a virtual public input session on January 7 and complete a survey by January 22.

Financial Impact

N/A

The proposed roadway is expected to be constructed by private development and/or considered for funding through the NC Department of Transportation’s Strategic Transportation Prioritization (STIP) process. Staff time is required to review construction of the roadway by private development or to shepherd the highway project through the STIP process, as managed by the Burlington-Graham Metropolitan Planning Organization.

Recommendation

Staff recommends that the Board recommend one of the three concepts to City Council.

Suggested Motion

1. Motion to **recommend** Concept(s) _____ of the Lowes Boulevard Corridor Plan to the City Council.
2. Motion to **recommend denial of** all concepts of the Lowes Boulevard Corridor Plan to the City Council.

Attachments

1. Lowes Boulevard Corridor Plan – Virtual Engagement Print Version

Lowes Boulevard Corridor Plan

Public Engagement

About

This virtual public engagement has been created with the intent to provide the City of Mebane residents with a safe way to provide input and comments on the Lowes Boulevard Corridor Plan.

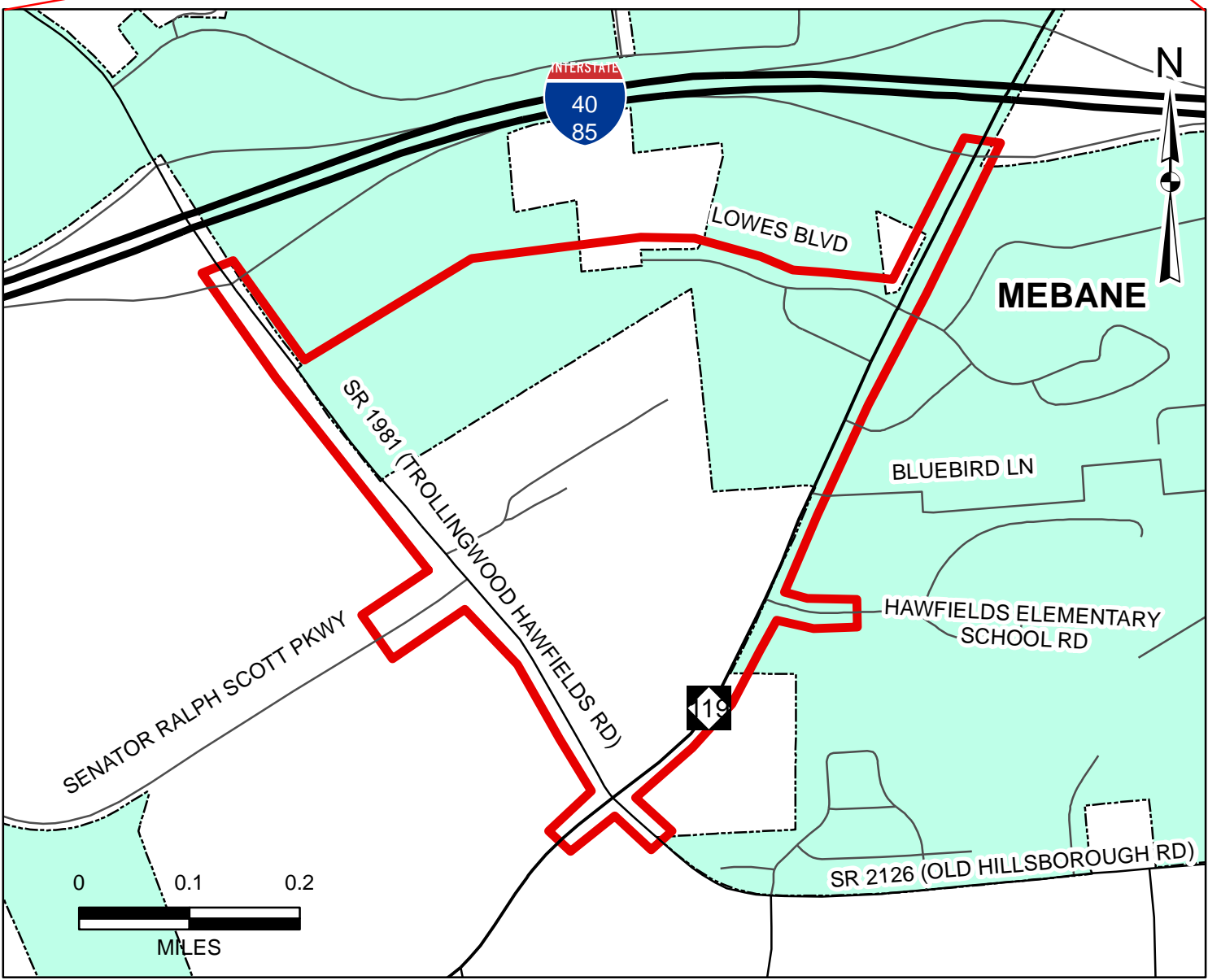
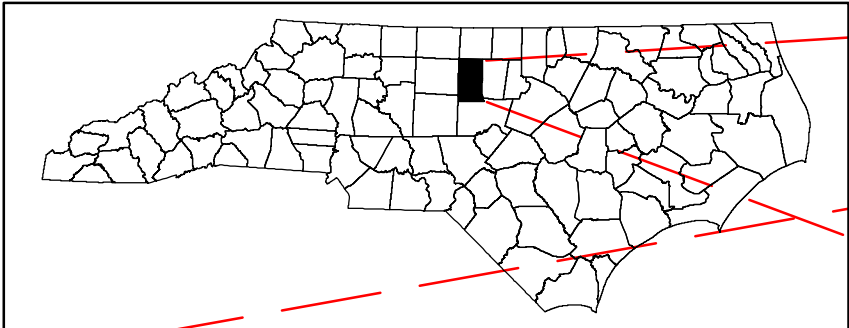
The project website provides general information on the project, design details, and maps of the conceptual alternatives of the Lowes Boulevard Extension. At the bottom of the project webpage, under the "Public Survey" section is a link to a public survey. Your participation is crucial to the success of the project and any comments or insights would be appreciated.

The public survey is open for comment from December 7, 2020 through January 22, 2021.

ACCESS TO INFORMATION: ALL DOCUMENTS AND DATA CAN BE PROVIDED IN ALTERNATIVE FORMAT UPON REQUEST PLEASE CONTACT FOR ADDITIONAL ASSISTANCE AND INFORMATION 336-513-5418

ACCESO A INFORMACION TODOS LOS DOCUMENTOS Y DATOS DE MPO SE PUEDEN PROPORCIONAR EN FORMATOS ALTERNOS A PETICION POR FAVOR COMUNIQUESE CON LA OFICINA DE MPO PARA INFORMACION E ASISTENCIA ADICIONAL 336-513-5418

No person shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity as provided by Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and any other related non-discrimination Civil Rights laws and authorities with use of federal funds.



 STUDY AREA



CITY OF MEBANE

RAMEY KEMP ASSOCIATES

PROPOSED LOWES BOULEVARD
EXTENSION
FROM LOWES BOULEVARD
TO SR 1981 (TROLLINGWOOD-HAWFIELDS
ROAD)
ALAMANCE COUNTY

VICINITY MAP

Project Overview

The purpose of the proposed extension of Lowes Boulevard is to address existing and future congestion at the intersection of NC 119 and Trollingwood-Hawfields Road (SR 1981) as well as establish multi-modal connectivity within the study area. The project study area is shown, outlined in red, with the Mebane city limits highlighted in green.

The Lowes Boulevard Corridor Plan addresses existing concerns, which include traffic congestion within the study area and absence of bicycle and pedestrian accommodations. Currently, the intersection of NC 119 and Trollingwood-Hawfields Road operates at failing levels of service during peak hours, which cause significant queuing and delay, ultimately increasing travel times throughout the study area. The Lowes Boulevard extension provides an alternative route that will likely decrease the number of vehicles traveling through the intersection of NC 119 and Trollingwood-Hawfields Road. Future transit connectivity along the extension will further aid in reducing the number of vehicles on study area roadways.

Additionally, Hawfields Middle School and Garrett Elementary School are located within the study area and currently lack bicycle and pedestrian access. The improvements included with the Lowes Boulevard extension provide dedicated bicycle and pedestrian access to the two schools via a multi-use path.

The Lowes Boulevard Extension and bicycle and pedestrian facilities have been included in the following transportation plans adopted by the City of Mebane:

The City of Mebane's 2040 Comprehensive Transportation Plan (CTP) is multi-modal, covering roadway, public transportation, and bicycle and pedestrian travel. The CTP serves as an official guide to providing a well-coordinated, efficient, and economical transportation system for the future of Mebane.

The City of Mebane's Bicycle and Pedestrian Transportation Plan communicates the blueprint for making bicycling and walking an integral part of daily life in Mebane. The purpose of this plan is to expand the existing network, complete network gaps, provide greater connectivity, educate and encourage the public, and maximize funding sources.

In December 2018, the Mebane City Council adopted a Complete Streets Resolution. Complete Streets are designed and implemented to enable safe access for all users of all ages and abilities. The Mebane City Council and City staff assess street standards, transportation plans, policies, and programs using principles of the Complete Streets concept.

Alternative Designs

Three alternatives were developed for the Lowes Boulevard Extension. Below, you will find Concepts 1, 2, and 3. Concepts 1 and 2 have two variations (Concept 1a and 1b, Concept 2a and 2b). Concepts 1a and 2a include standard "T" stop-controlled intersections, and concepts 1b and 2b include roundabouts.

Each alternative design considers:

1. NC 119 widened to a four-lane roadway, per a funded NCDOT project. The lines shown on the map is the proposed edge of pavement.
2. A known proposed development, next to the Lowe's Home Improvement, that is expected to be approved by the City of Mebane in the near future, and would be constructed prior to the Lowes Boulevard Extension.
3. Sidewalk on one side of the roadway and a multi-use path on the other.

The following maps show the proposed alternative designs:

Concept 1: Lowes Boulevard Extension to Trollingwood-Hawfields Road

1a: Stop-control intersections

1b: Roundabouts

Concept 2: Lowes Boulevard Extension to Hawfields Middle School Road Extension

2a: Stop-control intersections

2b: Roundabouts

Concept 3: Lowes Boulevard to Trollingwood-Hawfields Road

CONCEPT 1A

Lowes Boulevard Corridor Plan



Legend

- Roadway Median
- Sidewalk/Multi-Use Path
- Edge of Travel
- Lane Line
- Phase 2
- NC 119 Widening

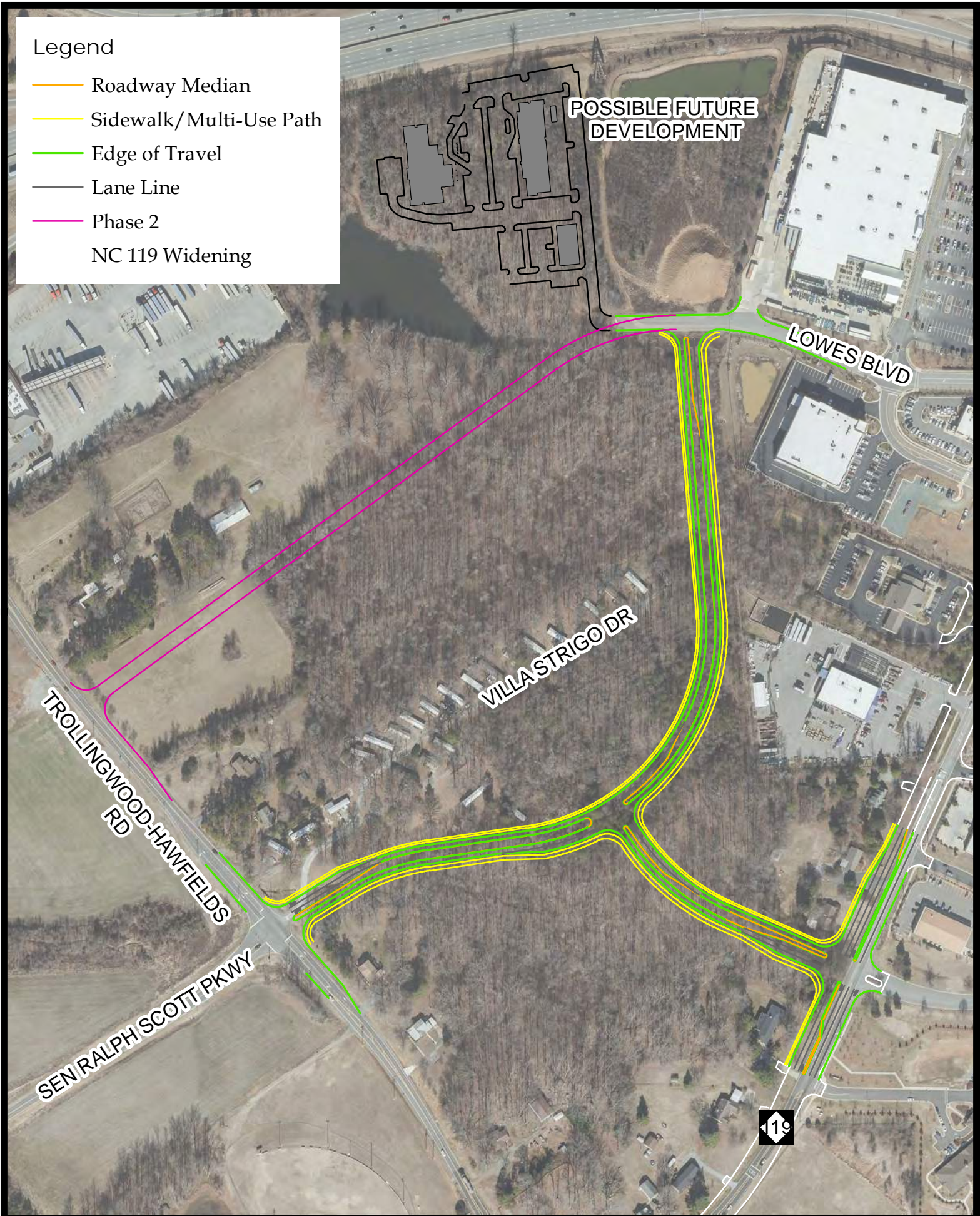
POSSIBLE FUTURE DEVELOPMENT

LOWES BLVD

VILLA STRIGO DR

TROLLINGWOOD-HAWFIELDS RD

SEN RALPH SCOTT PKWY



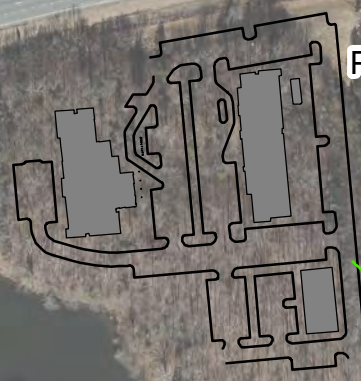
CONCEPT 1B

Lowes Boulevard Corridor Plan



Legend

- Roadway Median
- Sidewalk/Multi-Use Path
- Edge of Travel
- Lane Line
- Phase 2
- NC 119 Widening



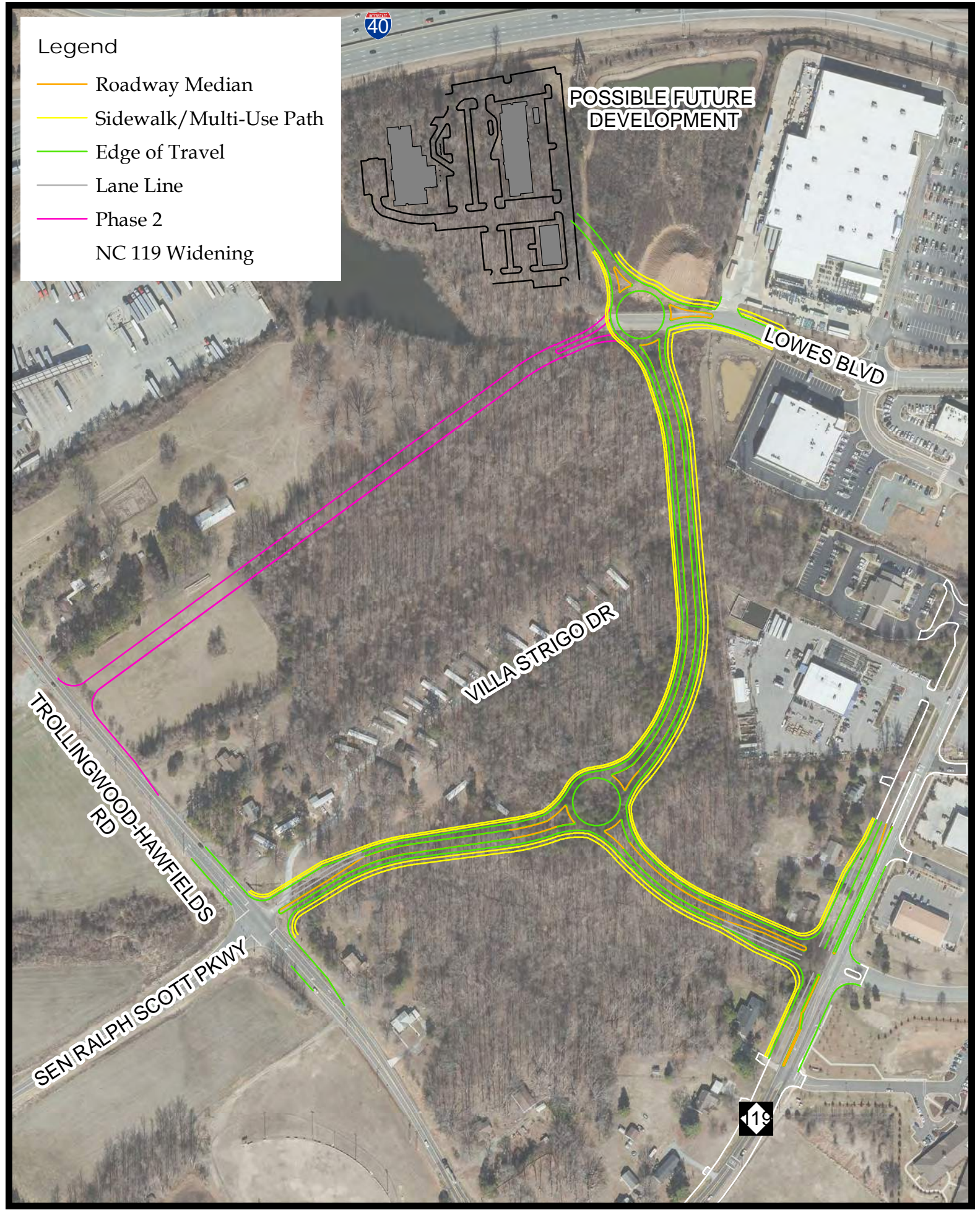
POSSIBLE FUTURE DEVELOPMENT

LOWES BLVD

VILLA STRIGO DR

TROLLINGWOOD-HAWFIELDS RD

SEN RALPH SCOTT PKWY



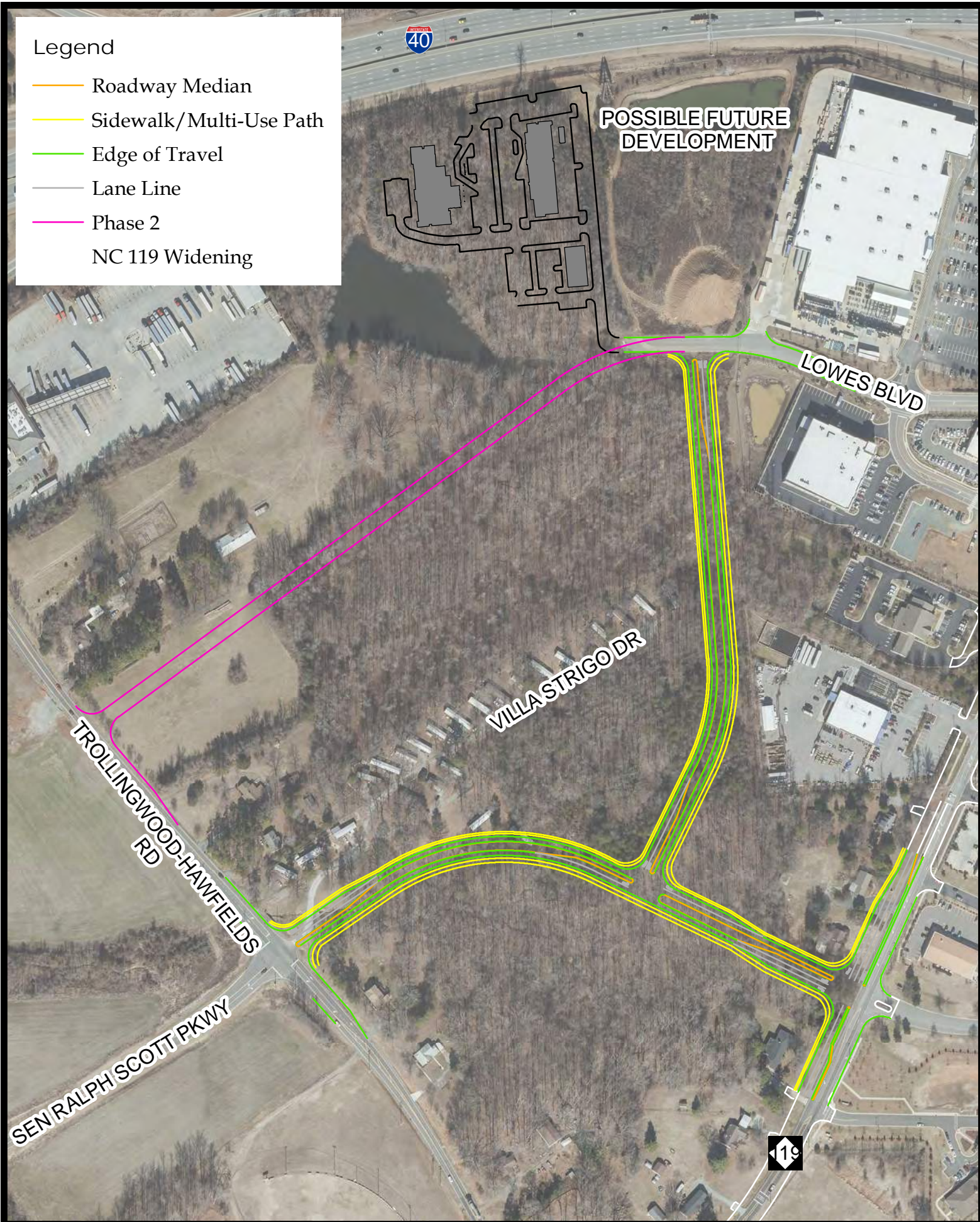
CONCEPT 2A

Lowes Boulevard Corridor Plan



Legend

- Roadway Median
- Sidewalk/Multi-Use Path
- Edge of Travel
- Lane Line
- Phase 2
- NC 119 Widening



CONCEPT 2B

Lowes Boulevard Corridor Plan



Legend

- Roadway Median
- Sidewalk/Multi-Use Path
- Edge of Travel
- Lane Line
- Phase 2
- NC 119 Widening



CONCEPT 3

Lowes Boulevard Corridor Plan



Legend

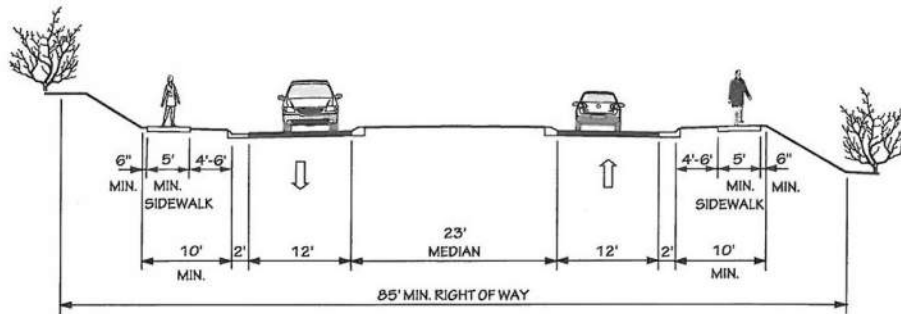
- Roadway Median
- Sidewalk/Multi-Use Path
- Edge of Travel
- Lane Line
- NC 119 Widening



Design Considerations

The following items were taken into consideration when developing alternatives:

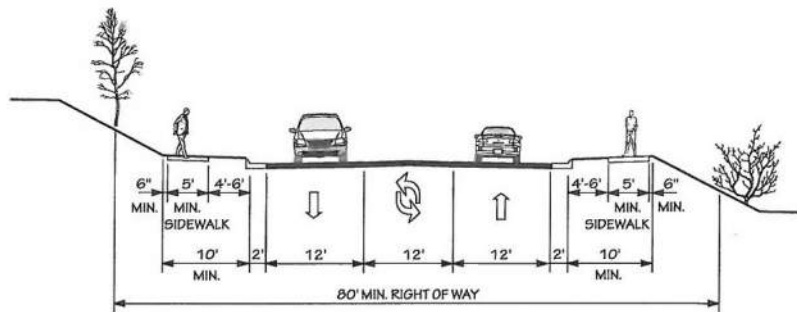
- Posted speed limit of 35 miles per hour (MPH)
- Provide direct access to Hawfields Elementary School Road
- Reduce impacts to existing buildings
- Reduce impacts to known historic sites
- Reduce impacts to known water features (streams, ponds, etc)
- Consider future development and growth of the North Carolina Commerce Park



**2 LANE DIVIDED (23' RAISED MEDIAN)
WITH CURB & GUTTER AND SIDEWALKS
POSTED SPEED 25-45 MPH**

Source: North Carolina Department of Transportation

Both a two-lane median divided roadway and a three-lane roadway with a center turn lane are being considered for the proposed Lowes Boulevard Extension.



**2 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER,
AND SIDEWALKS
POSTED SPEED 25-45 MPH**

Source: North Carolina Department of Transportation

Study Area

The study area was set to include the major roadways that would provide access to the future Lowes Boulevard Extension, as well as the major nearby intersections. This included NC 119 from Trollingwood-Hawfields Road to I-40/85 and Trollingwood-Hawfields Road from NC 119 to I-40/85. Conceptual alternatives for the proposed Lowes Boulevard Extension have been developed within this area.

The information below provides a summary of the demographics within the study area. Note that the demographics below were gathered based on the 2010 Census Block Group that the study area is located in. The Block Group is larger than the study area, as shown in the map below. Although the infographic provides information about the entire Block Group, this data may not be fully representative of the smaller study area.



Source: 2018 American Community Survey 5-year Estimates. North Carolina, Alamance County Census Block 212.05, Block Group 3

STUDY AREA

Lowes Boulevard Corridor Plan



Legend

 Study Area

Existing Conditions

Lowes Boulevard

Lowes Boulevard is a three-lane road with no control of access within the study area, with a traffic signal at its terminal with NC 119. Currently, Lowes Boulevard ends just after the truck entrance for Lowe's Home Improvement. The existing roadway is a three-lane section with curb and gutter and sidewalk on the north side.

NC 119

NC 119 is a two-lane road with no control of access and two traffic signals within the study area. Signals are located at Lowes Boulevard and Trollingwood-Hawfields Road. Gaps in the sidewalk network exist along NC 119.

The 2020-2029 State Transportation Improvement Program (STIP) includes a funded project (STIP Project U-6013) to widen NC 119 in the study area from Trollingwood-Hawfields Road/Old Hillsborough Road to Lowes Boulevard. Right of way acquisition is scheduled for 2021 and construction is scheduled for 2023. If you are interested in finding out more information regarding the NC 119 widening project, please go to the web address below to be directed to the NCDOT project page.

<https://www.ncdot.gov/news/public-meetings/Pages/U-6013-2019-04-04.aspx>

Trollingwood-Hawfields Road

Trollingwood-Hawfields Road is a two-lane road with no control of access and two traffic signals within the study area. Signals are located at NC 119 and Senator Ralph Scott Parkway. No sidewalks exist along Trollingwood-Hawfields Road within the study area. Trollingwood-Hawfields Road provides access to the North Carolina Commerce Park, which generates automobile and truck traffic.

The 2020-2029 STIP includes a funded project (STIP Project I-6059) to improve the I-40/85 interchange with Trollingwood-Hawfields Road. Improvements include widening Trollingwood-Hawfields Road, improving the interchange, and providing bicycle and pedestrian accessibility. Right of way acquisition is scheduled for 2027 with construction scheduled beyond 2029.

Public Survey

The City of Mebane staff would like to obtain input from the public regarding the Lowes Boulevard Corridor Plan. Your input is very important and will help with further concept development and the selection of a preferred alternative. Please fill out the attached survey and return to the City of Mebane Planning & Zoning Department to provide your thoughts.

The survey will be open from December 7, 2020 to January 22, 2021.

Contact

City of Mebane Planning & Zoning Department

Ashley Ownbey, Planner

Phone: 919-563-9990

Email: planning@cityofmebane.com

Glossary of Terms

"On a new location" - The roadway will be constructed in an area with no existing roadway; this will be a brand new road.

"Bicycle facility" - A dedicated area for bicyclist. Examples include a paved shoulder, a dedicated bike lane, or a separated bike lane.

"Pedestrian facility" - A dedicated area for pedestrians (foot traffic). Examples include sidewalks or paved trails.

"Control of access" - The term used to describe whether NCDOT will allow private driveways to connect to the roadway. For example, interstates, like I-40, have control of access because there are no intersections, only interchanges. NC 119, for example, has no control of access because businesses and private properties are able to have driveways connect to the road.

"Gaps in sidewalk" - The sidewalk is not continuous in a certain area.

"Stop-control" - An intersection with stop signs.

"Multi-use path" - A paved trail that is wider than a sidewalk, typically 10 feet wide, that allows for both pedestrians and bicyclists to comfortably use the path at the same time.

Lowes Boulevard Corridor Plan

Public Engagement Survey

This public engagement survey is for the design considerations and alternative development of the Lowes Boulevard Extension. Please fill out the survey and return your completed form to the City of Mebane Planning & Zoning Department no later than January 22, 2021.

City of Mebane Planning & Zoning Department

ATTN: Ashley Ownbey

106 E. Washington St.

Mebane, NC 27302

ACCESS TO INFORMATION: ALL DOCUMENTS AND DATA CAN BE PROVIDED IN ALTERNATIVE FORMAT UPON REQUEST PLEASE CONTACT FOR ADDITIONAL ASSISTANCE AND INFORMATION 336-513-5418

ACCESO A INFORMACION TODOS LOS DOCUMENTOS Y DATOS DE MPO SE PUEDEN PROPORCIONAR EN FORMATOS ALTERNOS A PETICION POR FAVOR COMUNIQUESE CON LA OFICINA DE MPO PARA INFORMACION E ASISTENCIA ADICIONAL 336-513-5418

No person shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity as provided by Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and any other related non-discrimination Civil Rights laws and authorities with use of federal funds.

Existing Conditions

1. What intersections do you regularly travel through? *Select all that apply.*
 - NC 119 at Lowes Boulevard
 - NC 119 at I-40/85
 - NC 119 at Trollingwood-Hawfields Road
 - Trollingwood-Hawfields Road at Sen. Ralph Scott Pkwy
 - Trollingwood-Hawfields Road at I-40/85
 - None of these

2. What concerns do you have, if any, about the existing study area surrounding Lowes Boulevard, NC 119, and Trollingwood-Hawfields Road. *Select all that apply.*

- Congestion on roads
- Safety
- Bicycle and pedestrian access
- Congestion at intersections
- Not enough route options
- Travel time
- Other: _____

3. In a few words, what is your current experience traveling through the project study area surrounding Lowes Boulevard, NC 119, and Trollingwood-Hawfields Road?

Future Use

4. Providing pedestrian access, via sidewalks, on the Lowes Boulevard Extension is important to me.

Please tell us if you agree or disagree with this statement.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

5. Providing bicyclist access, via a shared use path or bike lanes, on the Lowes Boulevard Extension is important to me.

Please tell us if you agree or disagree with this statement.

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

6. If the Lowes Boulevard Extension was constructed, how often would you use it?
- Daily
 - 5-6 times a week
 - 3-4 times a week
 - Once or twice a week
 - Less than once a week

Preferred Alternatives

7. What design option would be your first choice? *Please select your **favorite** design.*
- Concept 1a
 - Concept 1b
 - Concept 2a
 - Concept 2b
 - Concept 3
8. What design option would be your second choice? *Please select your **second favorite** design.*
- Concept 1a
 - Concept 1b
 - Concept 2a
 - Concept 2b
 - Concept 3
9. What design option would be your LAST choice? *Please select your **least favorite** design.*
- Concept 1a
 - Concept 1b
 - Concept 2a
 - Concept 2b
 - Concept 3

10. Which roadway section would you prefer?

A two-lane divided section would have a center median that would limit when drivers can turn left. A three-lane section will allow for drivers to turn left from a shared center lane anywhere along the roadway.

- Two-Lane Divided
- Three-Lane

11. Which of the following are important in your preferred design selection? *Select all that apply.*

- Fewer impacts to existing homes
- Visual appeal
- Future economic growth
- Bicycle safety
- Pedestrian safety
- Other: _____

12. Do you have any additional comments that were not covered in the questions above?

Demographics

Please note that this section is voluntary and will remain private.

13. Please select how you relate to the project study area. *Check all that apply. See the Project Study Area, included in the public information packet, for reference.*

- I live in the project study area
- I work in the project study area
- I am a regular customer at businesses in the project study area
- Other: _____

14. What is your age range?

- Under 18
- 18-23
- 24-30
- 31-40
- 41-50
- 51-60
- 61 and over

15. How many people live at your primary residence (include yourself)? _____

16. What is your household income?

- Less than \$30,000
- \$30,000-\$50,000
- \$50,001-\$75,000
- \$75,001-\$100,000
- \$100,001-\$150,000
- Over \$150,000

17. What is your race?

- White/Caucasian
- Black/African American
- Asian
- Native American
- Pacific Islander
- Other: _____

18. What is your ethnicity?

- Not Hispanic/Latino
- Hispanic/Latino