



Planning Board
Regular Meeting Agenda
October 10, 2022, 6:30 p.m.

1. Call to Order
2. Approval of August 8, 2022, Meeting Minutes
3. City Council Actions Update
4. Request to rezone two properties totaling +/- 87.73 acres located at 1818 Saddle Club Rd (PINs 9826425313 and 9826511986) from R-10 and R-20 to R-12 (CD) to allow for a residential cluster development of 207 single-family homes by Lebanon Road 3, LLC
5. New Business
6. Adjournment



The Planning Board meeting was held at the Glendel Stephenson Municipal Building located at 106 E. Washington Street, Mebane, NC 27302 and livestreamed via YouTube. The video can be accessed through the following link: <https://www.youtube.com/watch?v=LeKdqvXUgdM>

Members Present:

Edward Tulauskas, Chair
Judy Taylor, Vice Chair
Jason VanBuren
Gale Pettiford
Susan Semonite

William Chapman
Kurt Pearson
Keith Hoover
Larry Teague

City Staff Present:

Ashley Ownbey, Interim Development Director
Audrey Vogel, Planner

Kirk Montgomery, IT Director

1. Call to Order

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

2. Approval of July 18, 2022, Meeting Minutes

Judy Taylor made a motion to approve the meeting minutes. Susan Semonite seconded the motion which passed unanimously.

3. City Council Actions Update

Ashley Ownbey, Interim Development Director, provided an update on the City Council's recent action at the August City Council meeting

4. Request to establish LM (CD) zoning on the +/- 73.978-acre parcel (identified by Parcel Identification Number 9844452283) located on West Ten Road outside of the Mebane Extra-Territorial Jurisdiction (ETJ) in Orange County to allow for a light-industrial development including two warehouse buildings by Williams Development Group.

Williams Development Group is requesting to establish LM (CD) zoning on the +/- 73.978-acre parcel (identified by Parcel Identification Number 9844452283) located on West Ten Road outside of the Mebane Extra-Territorial Jurisdiction (ETJ) in Orange County to allow for a light-industrial development including two warehouse buildings. Proposed onsite amenities are detailed in the meeting agenda packet available [here](#). Annexation will be required before the City Council can hold a public hearing to take zoning action. The applicant has the property under contract to purchase, contingent upon approval of the conditional rezoning. The Planning staff has reviewed the request for harmony with the zoning of the surrounding area and consistency with the City's adopted plans and recommends approval. The Technical Review Committee (TRC) has reviewed the site plan and the applicant has revised the plan to reflect the comments

Audrey Vogel provided an overview and PowerPoint presentation of the request.



The following individuals attended the meeting to represent the zoning request:

- Taylor Williams – Williams Development Group, applicant
- Josh Reinke – Ramey Kemp Associates, traffic consultant
- Tim Summerville – Stewart, civil engineer
- Michael Fox – Tuggle Duggins, attorney

Michael Fox introduced the applicant team in attendance and presented the purpose of the zoning request. He noted that the proposed Mebane zoning is not different from the existing zoning in Orange County and fits in to the Buckhorn Economic Development District. Mr. Fox also discussed the neighborhood outreach for the project including a zoom call and various phone with neighbors. He cited the primary concerns as traffic, buffers, and stormwater. Mr. Fox also discussed conversations with Orange County Schools, noting that the County is going to perform a traffic study to manage existing traffic conditions and future growth for the Gravelly Hill Middle School down the street.

Taylor Williams provided information about Williams Development group and elaborated on the proposed development, site plan, and traffic impact analysis (TIA).

Susan Semonite asked if schools were remote when the TIA was completed in December 2021. It was confirmed that students returned to the classroom for the full year in 2021.

Kurt Pearson asked for more information about the buffer required between the two sites. Tim Summerville responded that by subdividing the property into two parcels the UDO requires a 20' type c buffer and the applicant has proposed to provide these plantings elsewhere on site to provide screening from the outside.

Jason VanBuren asked when Orange County Schools would complete the aforementioned traffic study. Michael Fox answered that the timeframe has yet to be determined.

Larry Teague asked if they were able to estimate the time of day for most truck traffic without having building tenants determined yet. Taylor Williams responded that it is difficult to speculate, but typically warehouses have lower peak trip generation because the shifts tend to operate on a 24-hour clock. Traffic consultant Josh Reinke added that the trip generation manual used for the TIA is based on land use type, and the warehouse use does not tend to overlap with peak traffic.

Judy Taylor asked if a service road has ever been considered to serve these properties along West Ten Rd. Josh Reinke responded that this has not been discussed or considered to the best of his knowledge. Ms. Taylor asked if any improvements would be necessary at the Mt. Willing interchange. Mr. Reinke answered that per the TIA, the development would not have a significant impact on the interchange and per NCDOT's review it would not need monitoring for signalization.

Susan Semonite questioned if the road needed to be widened to accommodate truck traffic. Josh Reinke answered that the road along the property's frontage would be widened to accommodate



the required turn lanes, however it would not be widened anywhere else.

Tom Boney of the Alamance News asked for clarification on the trip generation table presented from the TIA. Josh Reinke explained that the ITE Trip Generation manual determines generation assumptions/estimates based on studies of sites across the country. The generation is not based on number of employees, it is based on building size. He explained that the weekday AM and PM peaks on the screen is the “worst case” traffic in the morning and evening. He added that the ITE manual does not do a break down specifically for truck traffic. Truck traffic is typically spread out throughout the day as opposed to concentrated during peaks.

Mr. Boney asked if the applicant had an idea of if the company would do speculative or build-to-suit type of development. Taylor Williams answered that it was yet to be determined, however they would like to identify an occupant prior to vertical construction.

Tom Boney asked about the current and projected projects included in the traffic analysis. Per Josh Reinke the following projects were considered in the TIA:

- Project titanium - completed ABB industrial site in Mebane, northwest of the site
- Medline – the medical supply distribution facility, west of the site
- West Ten Industrial and Buckhorn Business Center, Al. Neyer light industrial developments west of the site
- Bowman Road subdivisions – single family residential development in Mebane west of the site
- Efland Industrial – 2021 TIA for industrial space north of the site

Chairman Tulauskas invited the public to speak and ask questions.

Beth Bronson, 1221 Buckhorn Rd, read aloud written comments on behalf of her neighbor Fiona Johan , 5016 Johann Ln:

Good evening to the planning board and in person attendees. I am sorry I could not attend this meeting but hope that my review of the agenda packet ahead of tonight’s meeting along with my questions provide a useful viewpoint from a rural resident.

I want to start by showing my appreciation for the 100’ buffers automatically put into this site plan from Al Neyer. I recognize that this is double the 50’ requirement in the UDO and as many of you know something I fought hard for on the 6016 West Ten Property. **I will again push that the developer and the planning board consider a slightly higher buffer of 150’, at the very least on property lines that touch rural residential housing.** I can personally attest to the disturbance that building in this area brings not only to the people, but the animals. The noise pollution alone, every day from 7am to 10pm, is enough to discourage opening your own window on a beautiful day instead of running an HVAC system.

My second concern is the traffic. I see from the traffic impact analysis that there are some added lanes that the developer plans to put in at entrances on West Ten and Buckhorn. They



seem to meet the minimum required by the TIA. **If I were a direct neighbor of this property, I would ask whose property those road expansions impact and if this is something that eminent domain automatically takes care of or if those property owners get a say about what happens to their road front property.**

Another traffic concern for those of us not directly next door to this site is the general increase of tractor trailer traffic. It is already happening to me multiple times a week that tractor trailers coming out of the truck stop are pulling in front of oncoming traffic causing the need for extreme braking. I have spoken to other neighbors and they have experienced the same thing. This is an already unsafe situation that I worry will get worse with more tractor trailers on the road.

As I stated with the 6016 West Ten rezoning I am aware that the Buckhorn Business Center does lay within the planned Buckhorn Economic Development District. Therefore, I will not object to this project outright but I truly hope that any plans that meet approval of the planning board take the local traffic into consideration. As stated above tractor trailers entering Buckhorn are already a concern and we have not even seen the effects of Medline and 6016 West Ten tractor trailer traffic. **I see the TIA recommend “monitoring” which is appreciated but I truly feel it is a bit lackluster if the city’s plans are to continue to encourage industrial development in the BEDD.** If we also factor in the new housing developments that are creeping east on Bowman Rd we are in for a significant increase in traffic at the Buckhorn interchange and I hope that we can act a bit more proactively instead of waiting for something bad to happen.

It is truly heartbreaking to see the agricultural land around me turning into an industrial area. I ask you as someone who understands the city’s need for growth to continue to consider those of us in this area that moved here specifically for the rural feel.

I will continue to tune in via YouTube and speak up when I am concerned. I appreciate all the planning board does and recognize that balancing the needs of developers and local rural residents is a tricky one, thank you for your time and consideration.

Sincerely,
Fiona Johann

Beth Bronson also shared her own concerns about the impact large industrial facilities have on the existing rural residential character of the area in addition to the new higher density single family residential and townhomes popping up on Bowman Road. Ms. Bronson shared disappointment and fear that the approval of more industrial projects in the area will “set in stone” more industrial development in the primarily residential area. She added that truck traffic is already an issue and will continue to get worse, noting the development is a faster pace than the NCDOT funded improvements for the Buckhorn interchange area.

Craig Lloyd, 3103 US 70 W, explained that he is a long-time Orange County and Efland resident and is working on a park project across the street from the subject property. Mr. Lloyd shared that while



Efland will be impacted by growth in the area, it is a good corridor for economic development and employment growth. He shared his support of the project.

Kurt Pearson commented that he liked the fact the property is already zoned for light industrial in the Orange County EBD-2 district which was put together with extensive studies and cooperation with the County in the past. He added that the property is just outside the G-2 primary growth area. He also commented that the one waiver request is reasonable, and it makes sense to add to the buffers along the outside of the property. He also noted that the applicant has shown a willingness to listen to the people around them and the improvements to the roadways seem to be well-studied. He concluded that the project would be good for the area.

Kurt Pearson made a motion to approve the request as follows:

*Motion to **approve** the LM(CD) zoning as presented; and*

*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. Specifically, the request:*

- *Is for a property within the City's G-4 Secondary Growth Area (Mebane CLP, p.66);*
- *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)*

Keith Hoover seconded the motion which passed unanimously. Mr. Tulauskas confirmed that the request would be scheduled for a public hearing before the Mebane City Council on September 12th.

5. New Business

The following new business items were shared with the Board:

- Staff is working on scheduling a Planning Board basics training
- There is a community meeting on Wednesday August 17th to kick off engagement for our recreation and parks master plan and our update to the bicycle and pedestrian transportation plan

Kurt Pearson asked if the Kingsdown conditional rezoning request would need to come back to Planning Board prior to advancing to City Council public hearing. Ashley Ownbey responded that as of now it would not need to come back to Planning Board because changes made to the proposed development reduce the intensity of the project and do not significantly impact the site plan layout. She elaborated on these changes noting that they are in the August City Council agenda packet.

6. Adjournment

Chairman Tulauskas adjourned the meeting at 7:20 p.m.



AGENDA ITEM #4

RZ 22-11

Conditional Rezoning –
Tupelo North

Presenter

Audrey Vogel, City Planner

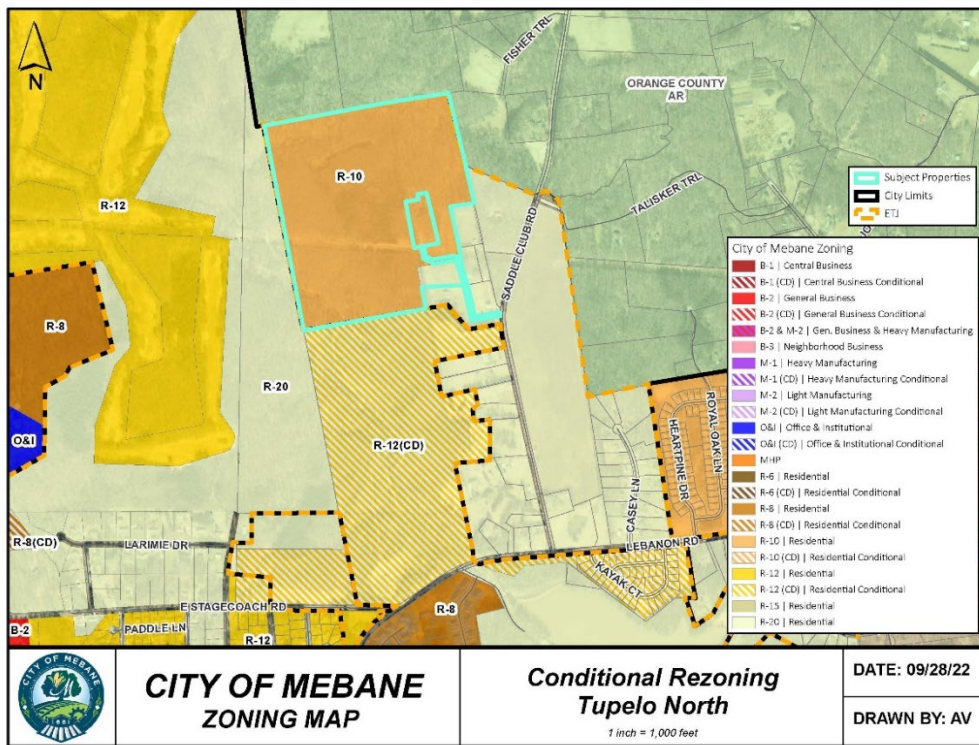
Applicant

Lebanon Road 3, LLC,
c/o James Parker, Jr.
320 Executive Court
Hillsborough, NC 27278

Public Hearing

Yes No

Zoning Map



Property

1818 Saddle Club Road

Orange County
GPINs 9826425313,
9826511986

Proposed Zoning

R-12(CD)

Current Zoning

R-10 SUP, R-20

Size

+/-87.73 acres

Surrounding Zoning

R-10, R-12(CD), R-20, Orange County AR

Surrounding Land Uses

Residential & Vacant

Utilities

To be extended at developer's expense

Floodplain

Yes

Watershed

Yes

City Limits

No

Summary

Lebanon Road 3, LLC, c/o James Parker, Jr., is requesting approval to conditionally rezone two properties totaling +/- 87.73 acres located at 1818 Saddle Club Rd (PINs 9826425313 and 9826511986) from R-10 and R-20 to R-12 (CD) to allow for "Tupelo North," a residential cluster development of 207 single-family homes. The property is located in Orange County outside of the City Limits within the Extra-Territorial Jurisdiction (ETJ). Lebanon Road Partners has the property under contract to purchase, contingent upon approval of the conditional rezoning.

The subdivision is intended to be an extension of the Tupelo Junction subdivision under construction immediately to the south of the site. The development will be accessed through Tupelo Junction's street connections at Lebanon Road and Saddle Club Road. One HOA will exist for both developments and the amenities will be inclusive for all residents of Tupelo Junction and the proposed Tupelo North.

The site-specific plan includes the following on-site amenities and dedications:

- The applicant proposes to construct all internal roads with 5' sidewalks on one side.
- The site plan features an amenity clubhouse and pool with and +/- 37.65 acres of private open space to be maintained by the HOA.
- The applicant will provide 21,250 s.f. of public multi-use path.

Requested waivers:

- The UDO requires side setbacks of 10' and 18' for corner lots, and the applicant is requesting that they be reduced to 7.5' minimum and 13' for corner lots.
- The UDO requires rear setbacks of 25' and the applicant is requesting that they be reduced to 20'.
- The UDO requires a minimum lot width of 65' and the applicant is requesting that they be reduced to 60'.
- The UDO requires the applicant to dedicate 5.94 acres in public recreation area. The applicant is providing 0.49 acre of onsite public recreation in the form of a public multi-use path and proposes to make a payment-in-lieu for the remainder of the required public recreation requirement (\$16,126.28 for 5.45 acres).

The Technical Review Committee (TRC) has reviewed the site plan four times and the applicant has revised the plan to reflect the comments.

Summit Design and Engineering Services conducted a Traffic Impact Analysis (TIA) which proposed a right turn lane traveling west on Lebanon Road at the intersection of Stagecoach Road. NCDOT and City staff agree mitigation is required at the intersection of Lebanon and Stagecoach and is the responsibility of the Tupelo North development. However, a final decision has not been made as to the type of improvement. Mitigation may include a traffic signal, compact roundabout, or a right turn lane as described in the applicant's TIA. Any mitigation is subject to NCDOT approval. The developer has agreed to make NCDOT required improvements still under consideration.

Financial Impact

The developer will be required to make all of the improvements at his own expense.

Recommendation

The Planning Staff recommends approval of the request.

Suggested Motion

1. Motion to approve the R-12(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:
 - Is for a property within the City's G-4 Secondary Growth Area and is "...generally residential and commercial in nature..." (Mebane CLP, p.66);
 - Is providing community facilities in the form of a greenway consistent with Growth Management Goal 1.4 (p. 17, 83)
 - Provides a greenway and open space in a developing area, connecting to other locations, consistent with Open Space and Natural Resource Protection Goal 4.3 (p. 17, 89, & 90);
3. Motion to **deny** the R-12(CD) rezoning as presented due to a lack of
 - a. Harmony with the surrounding zoning or land use

OR

 - b. Consistency with the objectives and goals in the City's 2017 Comprehensive Land Development Plan *Mebane By Design*.

Attachments

1. Zoning Amendment Application
2. Zoning Map
3. Site Plan
4. Planning Project Report
5. Preliminary Water and Sewer System Approval Letter
6. Technical Memorandum – City Engineering Review
7. Traffic Impact Analysis Executive Summary ([Full TIA available via this link](#))
 - a. RKA Review of TIA



APPLICATION FOR A ZONING AMENDMENT

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

Name of Applicant: Lebanon Road 3, LLC

Address of Applicant: 320 Executive Court, Hillsborough, NC 27278

Address and brief description of property to be rezoned: 1818 Saddle Club Rd
87.74 acre parcel north of Tupelo Junction

Applicant's interest in property: (Owned, leased or otherwise) Developer

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

Yes ___ Explain: _____ No

Type of re-zoning requested: R-12 (conditional)

Sketch attached: Yes No _____

Reason for the requested re-zoning: Cluster Subdivision Development

Signed: _____

Date: 4/25/22

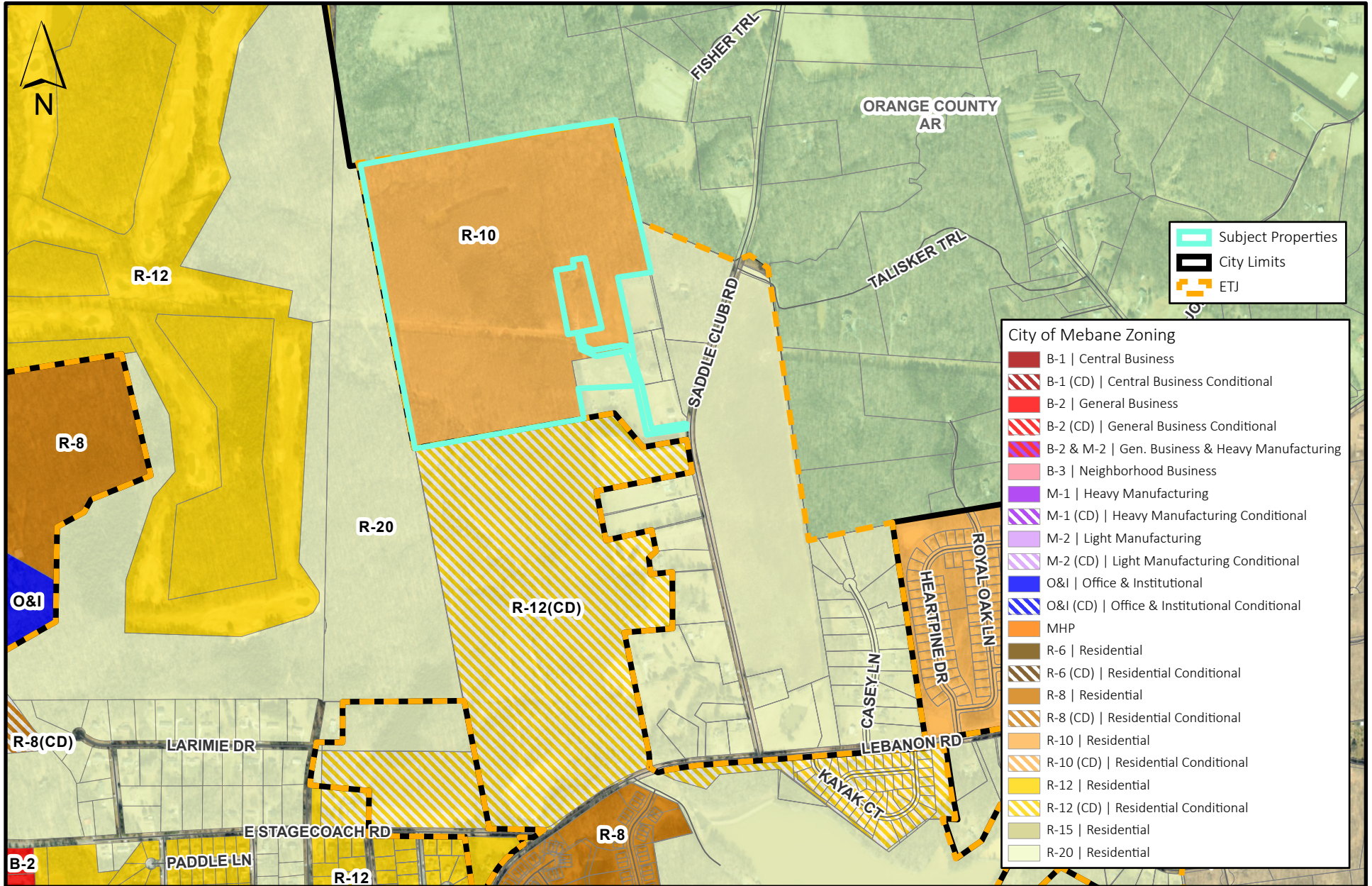
Action by Planning Board: _____

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.



CITY OF MEBANE ZONING MAP

Conditional Rezoning Tupelo North

1 inch = 1,000 feet

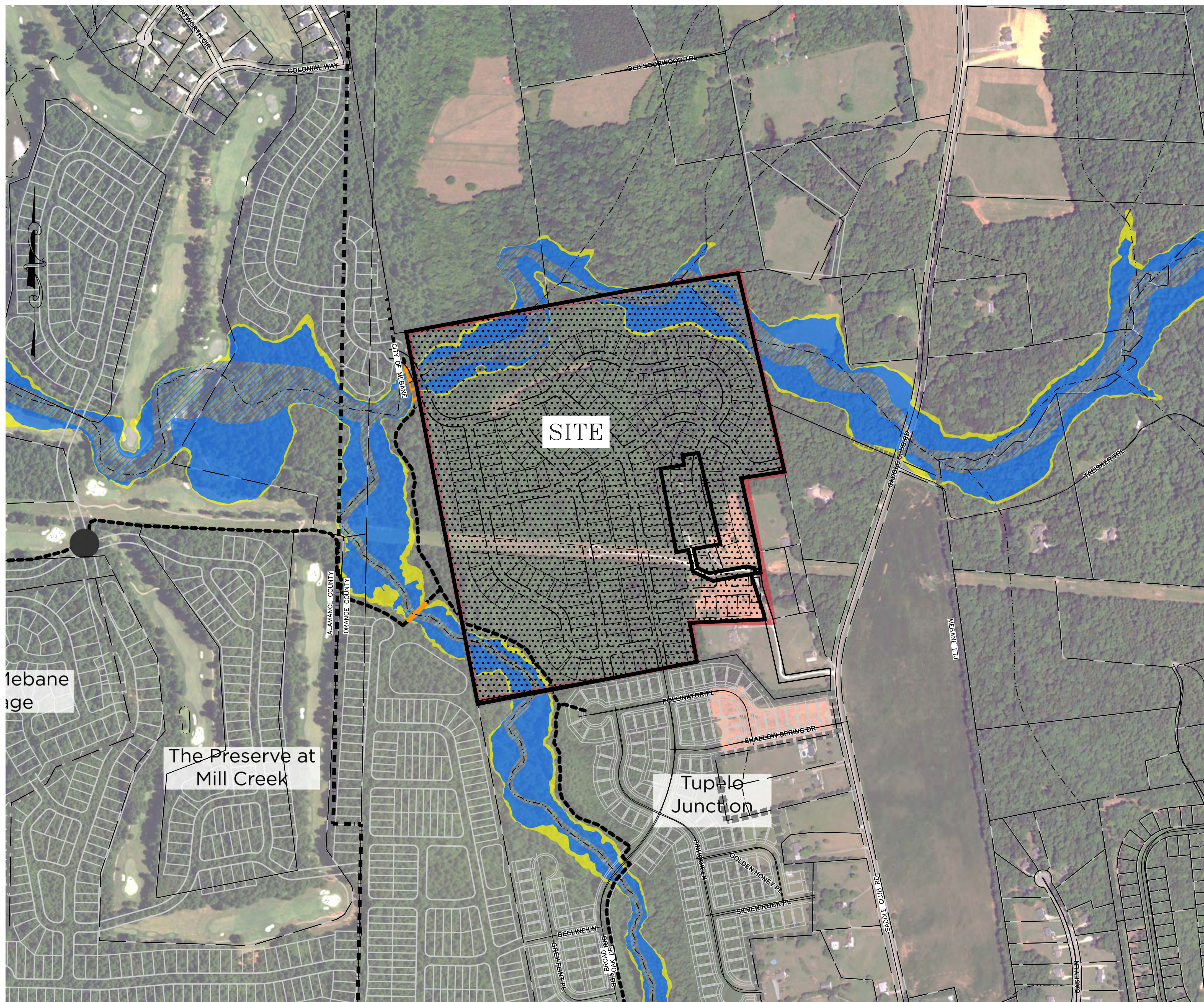
DATE: 09/28/22

DRAWN BY: AV

PRELIMINARY SITE PLAN & REZONING PLAN FOR

TUPELO JUNCTION NORTH

1818 SADDLE CLUB ROAD, MEBANE NC 27302



INDEX OF DRAWINGS:

- C1.0 COVER SHEET
- C1.1 COVER SHEET, NOTES
- C2.0 EXISTING CONDITIONS & DEMOLITION PLAN
- C3.0 SITE PLAN, OVERVIEW
- C3.0A SHEET INDEX
- C3.1 SITE PLAN, PHASE 1, SOUTH
- C3.2 SITE PLAN, PHASE 1, NORTH
- C3.3 SITE PLAN, PHASE 2, SOUTH
- C3.4 SITE PLAN, PHASE 2, NORTH
- C3.5 MULTI-USE TRAIL EXHIBIT
- C5.1 GRADING & STORM DRAINAGE PLAN, PHASE 1, SOUTH
- C5.2 GRADING & STORM DRAINAGE PLAN, PHASE 1, NORTH
- C5.3 GRADING & STORM DRAINAGE PLAN, PHASE 2, SOUTH
- C5.4 GRADING & STORM DRAINAGE PLAN, PHASE 2, NORTH
- C6.1 UTILITY PLAN, PHASE 1, SOUTH
- C6.2 UTILITY PLAN, PHASE 1, NORTH
- C6.3 UTILITY PLAN, PHASE 2, SOUTH
- C6.4 UTILITY PLAN, PHASE 2, NORTH
- C6.5 UTILITY PLAN, INTERSECTIONS
- C8.0 LANDSCAPE PLAN (AMENITY & EAST BUFFER AREA)
- C8.1 LANDSCAPE PLAN (SCM SCREENING)
- C9.0 TRAFFIC IMPROVEMENT

EarthCentric Engineering, Inc.
 License # C-2638

204 W. Clay Street
 Mebane, NC 27302
 Phone: (919) 563-9041
 Fax: (919) 304-3234
 E-Mail: Phil.Koch@EarthCentric.com

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

PRINCIPAL ENGINEER
 PHIL KOCH - NCPE #22634

TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEBANE NC 27302

COVER SHEET

| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
| 2 | 08/30/2022 | PER TRC COMMENTS | CPK |
| 3 | 09/27/2022 | PLANNING BOARD | CPK |

| | |
|-------------------|---------------|
| DATE: | MAY 03, 2022 |
| HORIZONTAL SCALE: | 1" = 300' |
| VERTICAL SCALE: | N/A |
| PROJECT MANAGER: | CPK |
| DRAWN BY: | CPK |
| PROJECT NO.: | 22-16 |
| DRAWING NAME: | 22-16 WORKING |

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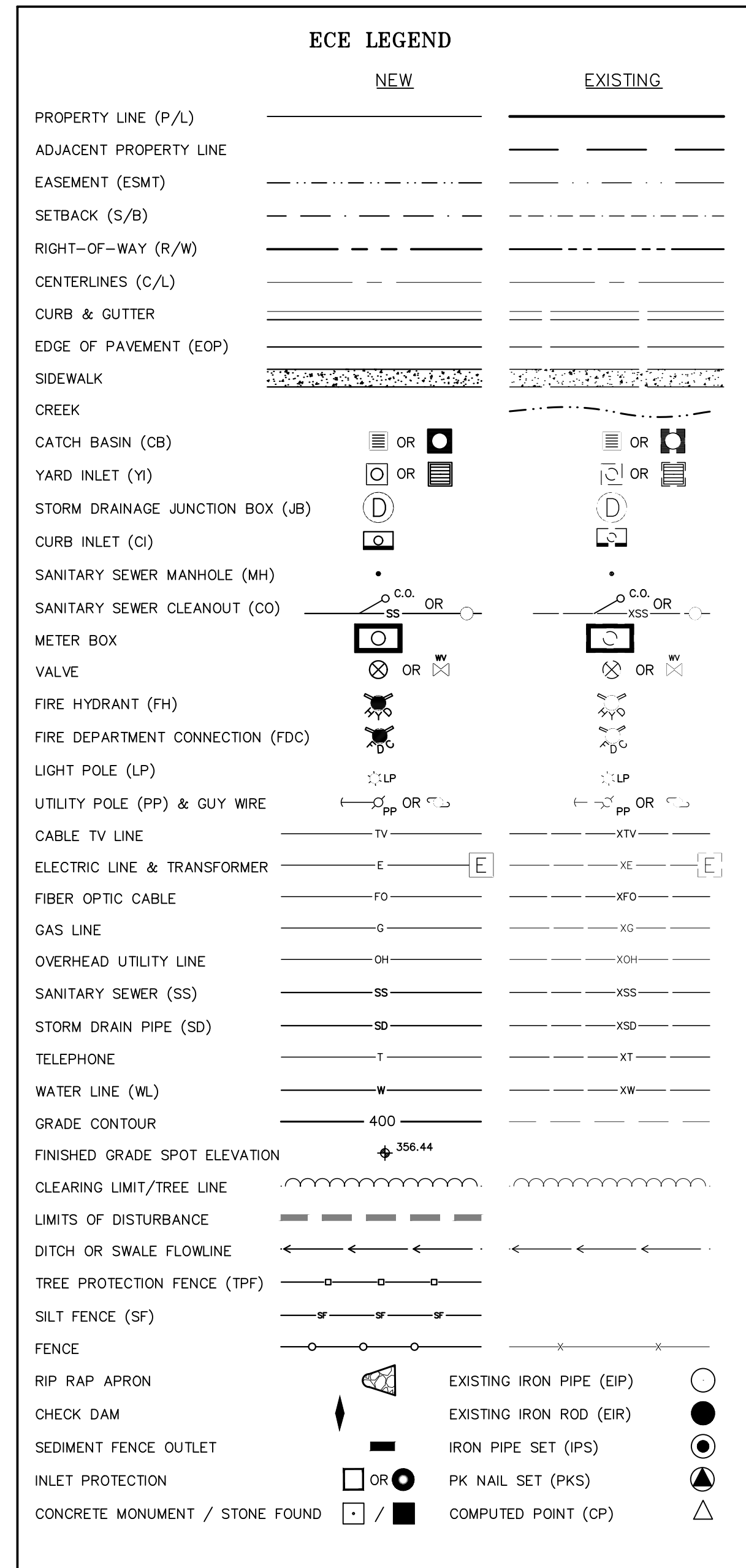
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SHEET NO.

C1.0

PRELIMINARY SITE PLAN

APPROVAL STAMP



PUBLIC RECREATION SPACE CALCULATIONS:
 REQUIRED = 1,250 SF PER DWELLING UNIT
 207 DWELLING UNITS X 1,250 SF = 258,750 SF OR 5.94 AC.
 PROVIDED = 21,250 SF OR 0.49 AC OF PUBLIC MULTI-USE TRAIL
 PAYMENT-IN-LIEU REQUESTED FOR REMAINDER (5.45 AC) IN THE AMOUNT OF \$16,126.28,
 BASED ON A TOTAL 2022 TAX VALUE OF \$259,569 FOR 67.73 ACRE OR \$2,958.95 AN ACRE

PRIVATE COMMON OPEN SPACE CALCULATIONS:
 AMOUNT EQUAL TO THE AMOUNT OF LOT AREA BY WHICH ALL DWELLING UNIT
 LOTS ARE REDUCED BELOW THE BASE ZONING DISTRICT
 PROPOSED BASE ZONING DISTRICT IS R-12 REQUIRING 12,000 SF LOTS.
 THE AMOUNT OF AREA BY WHICH ALL LOTS ARE REDUCED IS 878,807 SF
 (12,000 SF - LOT AREA FOR EVERY LOT UNDER 12,000 SF)

TOTAL PRIVATE COMMON OPEN SPACE REQUIRED: 878,807 SF OR 20.17 AC

TOTAL PRIVATE COMMON OPEN SPACE PROVIDED: 24.18 AC (SEE OPEN SPACE TABLE)

| OPEN SPACE CHART | | | | | | | | |
|-----------------------|----------------|----------------|-------------------------|------------------------------------|---|---|--|---------------------------------|
| SECTION OF OPEN SPACE | LAND AREA (SF) | LAND AREA (AC) | AREA OF SCM (0% CREDIT) | AREA WITH >15% SLOPES (50% CREDIT) | STREAM BUFFER, WETLANDS & FEMA AREAS (50% CREDIT) | REQUIRED LANDSCAPE BUFFERS (50% CREDIT) | EXISTING POWER & SEWER EASE. (100% CREDIT) | TOTAL EFFECTIVE OPEN SPACE AREA |
| OPEN SPACE 208 | 776,104 SF | 17.82 AC | 3.06 AC | 5.29 AC | 8.51 AC | 0.00 AC | 0.00 AC | 7.86 AC |
| OPEN SPACE 209 | 44,223 SF | 1.02 AC | 0.00 AC | 0.00 AC | 0.00 AC | 0.00 AC | 0.53 AC | 1.02 AC |
| OPEN SPACE 210 | 6,841 SF | 0.15 AC | 0.00 AC | 0.00 AC | 0.00 AC | 0.00 AC | 0.00 AC | 0.15 AC |
| OPEN SPACE 211 | 100,037 SF | 2.30 AC | 0.00 AC | 0.00 AC | 0.00 AC | 0.00 AC | 0.74 AC | 2.30 AC |
| OPEN SPACE 212 | 41,447 SF | 0.95 AC | 0.00 AC | 0.00 AC | 0.00 AC | 0.00 AC | 0.00 AC | 0.95 AC |
| OPEN SPACE 213 | 155,759 SF | 3.58 AC | 0.00 AC | 0.15 AC | 0.00 AC | 0.00 AC | 0.44 AC | 3.50 AC |
| OPEN SPACE 214 | 138,119 SF | 3.17 AC | 0.00 AC | 0.30 AC | 0.00 AC | 0.00 AC | 1.01 AC | 3.02 AC |
| OPEN SPACE 215 | 382,495 SF | 8.78 AC | 1.00 AC | 3.48 AC | 2.05 AC | 0.00 AC | 0.68 AC | 5.01 AC |
| OPEN SPACE 216 | 15,840 SF | 0.36 AC | 0.00 AC | 0.00 AC | 0.00 AC | 0.00 AC | 0.00 AC | 0.36 AC |
| TOTAL OPEN SPACE AREA | 1,660,665 SF | 38.13 AC | -4.06 AC | -4.61 AC | -5.28 AC | -0.00 AC | -0.00 AC | 24.18 AC |

CITY OF MEBANE GENERAL NOTES:

- ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT PLANS AND/OR SPECIFICATIONS, CITY OF MEBANE STANDARD DETAILS AND CONSTRUCTION STANDARDS, STATE CONSTRUCTION STANDARDS, OSHA REGULATIONS AND OTHER APPLICABLE CONTRACT DOCUMENTS.
- A COPY OF THE CONSTRUCTION DRAWINGS BEARING THE APPROVAL STAMP FROM THE CITY OF MEBANE SHALL ALWAYS BE ON SITE AND AVAILABLE.
- MATERIAL SUBMITTALS TO BE APPROVED BY THE CITY OF MEBANE PRIOR TO ORDERING MATERIAL.
- MODIFICATION TO THE APPROVED DRAWINGS SHALL NOT BE MADE WITHOUT THE WRITTEN APPROVAL OF THE DESIGN ENGINEER AND THE CITY OF MEBANE.
- PRIOR TO CONSTRUCTION, ALL NECESSARY PERMITS TO COMPLETE THE CONSTRUCTION SHOULD BE ACQUIRED AND FOLLOWED.
- PRIOR TO STARTING CONSTRUCTION, THE GENERAL CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION CONFERENCE WITH THE CITY OF MEBANE, OWNER/REP, PLANNING, EROSION CONTROL, GEOTECHNICAL ENGINEER, ALL SUB-CONTRACTORS, AND ENGINEER/REP.
- GEOTECHNICAL SPREADSHEET TO BE PROVIDED TO THE CITY PRIOR TO PRE-CONSTRUCTION MEETING FOR REVIEW. SPREADSHEET TO ACCOMPANY GEOTECHNICAL REPORTS.
- ALL SOIL WITHIN THE RIGHT OF WAY AND PUBLIC EASEMENTS SHALL BE COMPACTED TO CITY OF MEBANE SPECIFICATIONS. CITY REPRESENTATIVE TO BE NOTIFIED 24 HOURS IN ADVANCE AND GIVEN THE OPPORTUNITY TO BE PRESENT DURING GEOTECH TESTING.
- ALL UTILITY SEPARATIONS SHALL MEET THE REQUIREMENTS AS STATED IN THE CITY OF MEBANE CONSTRUCTION DOCUMENTS CHECKLIST. ALL UTILITY SEPARATIONS TO BE FIELD VERIFIED DURING INSTALLATION AND AS-INSTALLED SEPARATION LABELED ON AS-BUILT DRAWINGS. CONTRACTOR SHALL PROVIDE DESIGN ENGINEER VERIFICATION OF AS-INSTALLED SEPARATIONS TO BE INCLUDED ON AS-BUILT DRAWINGS SUBMITTED TO STATE.
- ALL WATER MAIN TO INCLUDE TWO FORMS OF RESTRAINT (MEGA-LUGS AND BLOCKING) AND CONFORM TO THE DISTANCES STATED IN DETAIL W-26.
- TESTING PROCEDURES PER CITY OF MEBANE STANDARDS AS FOLLOWS: WATER LINE - PRESSURE TEST, CHLORINATE, BAC-T. SANITARY SEWER - PRESSURE TEST, VACUUM TEST MANHOLES, MANDREL, VIDEO. STORM SEWER - VIDEO, CONCRETE - CYLINDERS EVERY 30 YARDS. ROADWAY - DENSITY AND PROOF ROLL. ASPHALT - CORES FOR BINDER, NUCLEAR DENSITY GAUGE TESTS ON FINAL LIFT.
- FOR ALL PROJECTS WHERE THE FINAL LIFT OF ASPHALT IS NOT ANTICIPATED PRIOR TO THE ONSET OF WINTER, ALL MANHOLES AND VALVE BOXES ARE TO BE ADJUSTED FLUSH WITH THE BINDER COURSE. THE FINAL ADJUSTMENT TO FINISH GRADE WILL NOT BE DONE UNTIL IMMEDIATELY PRIOR TO THE PLACEMENT OF THE FINAL LIFT OF SURFACE COURSE.
- CLASS III RCP SHALL HAVE A MINIMUM OF 3' OF COVER WITHIN THE ROW PER NCDOT REQUIREMENTS, WHERE 3' OF COVER IS NOT PROVIDED, CLASS IV RCP.
- ALL DRAINAGE SWALES SHALL HAVE A MINIMUM OF 1% SLOPE.
- ALL THIRD-PARTY UTILITIES TO ACQUIRE AN ENCROACHMENT AGREEMENT WITH THE CITY OF MEBANE PRIOR TO STARTING INSTALLATION.
- BORROW PIT LOCATIONS TO BE SURVEYED FOR IN FIELD VERIFICATION AND BE IDENTIFIED ON THE PLAT.
- UNDER ABSOLUTELY NO CIRCUMSTANCES SHALL ANY UNMANNED EXCAVATION BE LEFT OPEN OR UNPROTECTED DURING NON-WORKING HOURS. UTILIZE SIGNS, BARRICADES, ETC. TO ENSURE THE SAFETY OF THE GENERAL PUBLIC.
- WHEN STAKING WATER LINE, CURB RADIUS POINTS SHOULD ALSO BE STAKED TO ENSURE VALVES ARE PLACED OUTSIDE OF CURB LINE AND HANDICAP RAMP TRUNCATED DOMES.
- CONTRACTOR RESPONSIBLE FOR NOTIFYING THE CITY OF MEBANE AND THE DESIGN ENGINEER PRIOR TO TESTING WATER AND SEWER LINES TO COORDINATE SCHEDULING SINCE DESIGN ENGINEER WILL BE CERTIFYING AND MAY WANT TO WITNESS TESTING.
- CONTRACTOR TO SCHEDULE PUNCH LIST WALK THROUGH AFTER BINDER LIFT OF ASPHALT HAS BEEN INSTALLED.

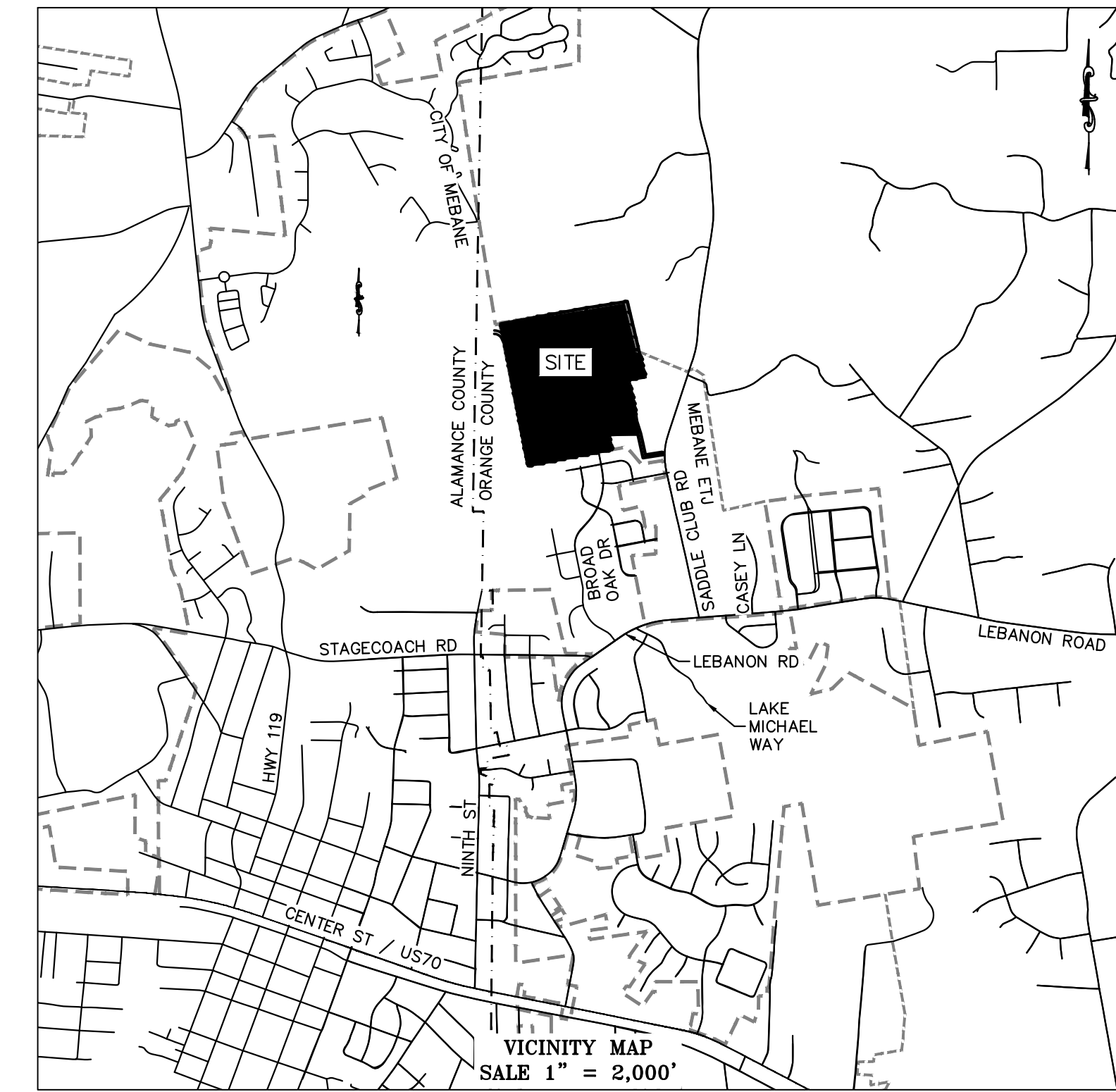
ECE GENERAL NOTES:

- EXISTING BOUNDARY SURVEY PROVIDED BY SUMMIT DESIGN AND ENGINEERING SERVICES AND SUPPLEMENTED WITH ADDITIONAL DOWNLOADED GIS INFORMATION.
- WORK WITHIN PUBLIC RIGHT-OF-WAYS SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS, NOTIFICATIONS, STANDARDS AND POLICIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL MEASURES FOR ALL WORK W/PUBLIC R/W PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND THE N.C. SUPPLEMENT TO THE MUTCD, AND LOCAL INSPECTORS DIRECTION.
- ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT PLANS AND/OR SPECIFICATIONS, LOCAL STANDARD DETAILS AND CONSTRUCTION STANDARDS, STATE CONSTRUCTION STANDARDS, AND OTHER APPLICABLE CONTRACT DOCUMENTS.
- CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING ALL APPROPRIATE PARTIES AND ASSURING THAT UTILITIES ARE LOCATED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CALL NC ONE CALL (PREVIOUSLY ULOCO) AT 1-800-632-4949 FOR UTILITY LOCATING SERVICES 48 HOURS PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- UNDERGROUND UTILITIES SHOWN USING BEST AVAILABLE INFORMATION. ALL LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE MORE UNDERGROUND UTILITIES THAN ARE SHOWN HEREON. CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES PRIOR TO ANY EXCAVATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO REMAIN DURING ALL DEMOLITION AND CONSTRUCTION ACTIVITIES.
- ALL CLEARING, GRUBBING AND UNSUITABLE FILL MATERIAL SHALL BE DISPOSED OF LEGALLY.
- ALL PAVEMENT, CURB, STORM DRAINAGE PIPE, AND STRUCTURES TO BE REMOVED SHALL BE HAULED OFFSITE AND DISPOSED OF LEGALLY.
- SIGNAGE SHALL BE LOCATED AS SHOWN. SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH LOCAL STANDARDS.
- SITE LIGHTING SHALL AS SHOWN, AND SHALL BE SUFFICIENT TO PROPERLY ILLUMINATE THE SITE IN ACCORDANCE WITH LOCAL STANDARDS.
- LANDSCAPING SHALL BE INSTALLED IN THE PROVIDED YARDS, IN ACCORDANCE WITH LOCAL STANDARDS.
- NO SIGHT OBSTRUCTING OR PARTIALLY OBSTRUCTING WALL, FENCE, FOLIAGE, BERMING, PARKED VEHICLES OR SIGNS BETWEEN THE HEIGHT OF TWENTY-FOUR (24) INCHES AND EIGHT (8) FEET ABOVE THE CURB LINE ELEVATION, OR NEAREST TRAVELED WAY IF NO CURBING EXISTS, SHALL BE PLACED WITHIN A SIGHT TRIANGLE OF A PUBLIC STREET, PRIVATE STREET OR DRIVEWAY CONTAINED ON THE PROPERTY OR AN ADJOINING PROPERTY.

CONTRACTOR SHALL NOT MAKE ANY MODIFICATIONS TO THE APPROVED DRAWINGS WITHOUT PRIOR APPROVAL OF BOTH THE DESIGN ENGINEER AND LOCAL INSPECTOR.

ECE GRADING & STORM DRAINAGE IMPROVEMENT NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL CONSTRUCTION STANDARDS, SPECIFICATIONS, AND PROCEDURES AND THE NCDEN'S SEDIMENTATION AND EROSION CONTROL STANDARDS, SPECS., AND PROCEDURES.
- CONTRACTOR SHALL VERIFY ALL APPLICABLE STATE AND LOCAL PERMITS REQUIRED FOR THE COMMENCEMENT OF GRADING OPERATIONS HAVE BEEN OBTAINED PRIOR TO START OF GRADING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF DEMOLITION AND/OR CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO REMAIN DURING ALL CONSTRUCTION ACTIVITIES.
- ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED AND CONSTRUCTED TO MEET ALL STATE AND LOCAL REQUIREMENTS, INCLUDING THE STATE STANDARDS FOR WATER QUALITY AND DETENTION FACILITIES (CURRENT EDITION).
- EROSION CONTROL MEASURES ARE PERFORMANCE BASED AND SHALL BE PROVIDED PER THE EROSION CONTROL PLANS AND AS NEEDED TO PROTECT ADJACENT PROPERTIES.
- CONTRACTOR SHALL PROVIDE ALL STAKING, FLAGGING AND/OR FENCING NECESSARY TO PROVIDE PROPER PROTECTION OF ANY STREAM BUFFERS.



CONTACT INFORMATION:

OWNER: 1818 SADDLE CLUB ROAD, MEBANE, NC 27302
 LEES BEES INC. / JEFFREY R LEE
 1818 SADDLE CLUB ROAD, MEBANE, NC 27302
 919-949-6140
 JEFFREY.LEE@YAHOO.COM

DEVELOPER: LEBANON ROAD 3, LLC
 320 EXECUTIVE COURT
 HILLSBOROUGH, NC 27278
 C/O JIM PARKER, 919-730-5741
 JAMES.PARKER@SUMMITDE.NET

CIVIL ENGINEER: EARTH CENTRIC ENGINEERING INC. (C-2638)
 CHARLES P. KOCH (NCEP #22634)
 204 WEST CLAY STREET, MEBANE, NC 27302
 PHONE: 919-563-9041 FAX: 919-563-3234
 PHIL.KOCH@EARTHCENTRIC.COM

SURVEYOR: SUMMIT DESIGN AND ENGINEERING SERVICES
 320 EXECUTIVE COURT
 HILLSBOROUGH, NC 27278
 RICK HARRIS, 919-732-3683
 RICK.HARRIS@SUMMITDE.NET

SITE INFORMATION & NOTES:

COUNTY: ORANGE COUNTY, CITY OF MEBANE ETJ
PIN#: 9826-42-5313 & 9826-51-1986
DEED REF: BK: 6364 PG: 131 & BK: 6106 PG: 431

ZONING CODE: R-10 EXISTING, R-12(C) PROPOSED
ADJACENT ZONES: R-12 (CD) SOUTH, R-20 WEST & EAST AR (COUNTY) NORTH & EAST
 87.73 ACRES (3,821,695 SF) BY SURVEY

RIVER BASIN: CAPE FEAR RIVER BASIN
RECEIVING WATER COURSE: MILL CREEK (WS-II; HOW, NSW)
 LAKE MICHAEL (WS-II; HOW, NSW)
WATERSHED: OWA WATER SUPPLY WATERSHED
SOILS: Ch - CHEWACLA - GROUP B/D
 GeB & GeC - GEORGEVILLE - GROUP B
 Lg - LIGUNUM - GROUP D
 Td - TARRUM - GROUP B
 MAP PANEL #3710982600 EFFECTIVE 11/17/2017
 FLOOD HAZARDS ON SITE

FEMA:

CURRENT USE: SINGLE-FAMILY HOME & BEE FARM
PROPOSED USE: 207 UNIT CLUSTER SUBDIVISION (2.36 UNITS/ACRE)
 PHASE 1=129 UNITS, PHASE 2=78 UNITS

R-12 DENSITY: 3.63 UNITS/ACRE 318 UNITS MAX.)
R-12 LOT SIZE: 12,000 SF MIN (7,200 SF AS CLUSTER)
FRONT YARD SETBACK (REQUESTED): 60' MINIMUM (UDO WIDTH 65')
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 207 EACH 3 BEDROOM HOMES @ 2.5 SPACES PER HOME
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 EACH LOT WILL HAVE PARKING FOR 3 VEHICLES IN DRIVEWAY & GARAGES

LANDSCAPE & BUFFERING:
 PERIMETER BUFFERS - NOT REQUIRED FOR PROPOSED USE CLASS 3
 STREETScape - NO STREET FRONTAGE PRESENT

AREA OF DISTURBANCE: TBD WITH NCDOT EROSION CONTROL SUBMITTAL

SURVEY DATA: SUPPLIED BY SUMMIT DESIGN AND ENGINEERING SERVICES & SUPPLEMENTED WITH TOPOGRAPHY OBTAINED FROM GIS.

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CITY OF MEBANE PUBLIC WATER, SEWER AND INTERNAL STREETS, DESIGN AND INSTALLATION IN ACCORDANCE WITH CITY OF MEBANE STANDARDS, DETAILS AND SPECIFICATIONS.

WAIVERS REQUESTED FOR LOT WIDTH OF 60' AND REDUCED SETBACKS LISTED ABOVE.

EarthCentric Engineering, Inc.
 License # C-2638
 204 W. Clay Street
 Mebane, NC 27302
 Phone: (919) 563-9041
 Fax: (919) 304-3234
 E-Mail: Phil.Koch@EarthCentric.com

PRELIMINARY NOT FOR CONSTRUCTION

PRINCIPAL ENGINEER
 PHIL KOCH - NCEP #22634

TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEBANE NC 27302

COVER SHEET NOTES

| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
| 2 | 08/30/2022 | PER TRC COMMENTS | CPK |
| 3 | 09/27/2022 | PLANNING BOARD | CPK |

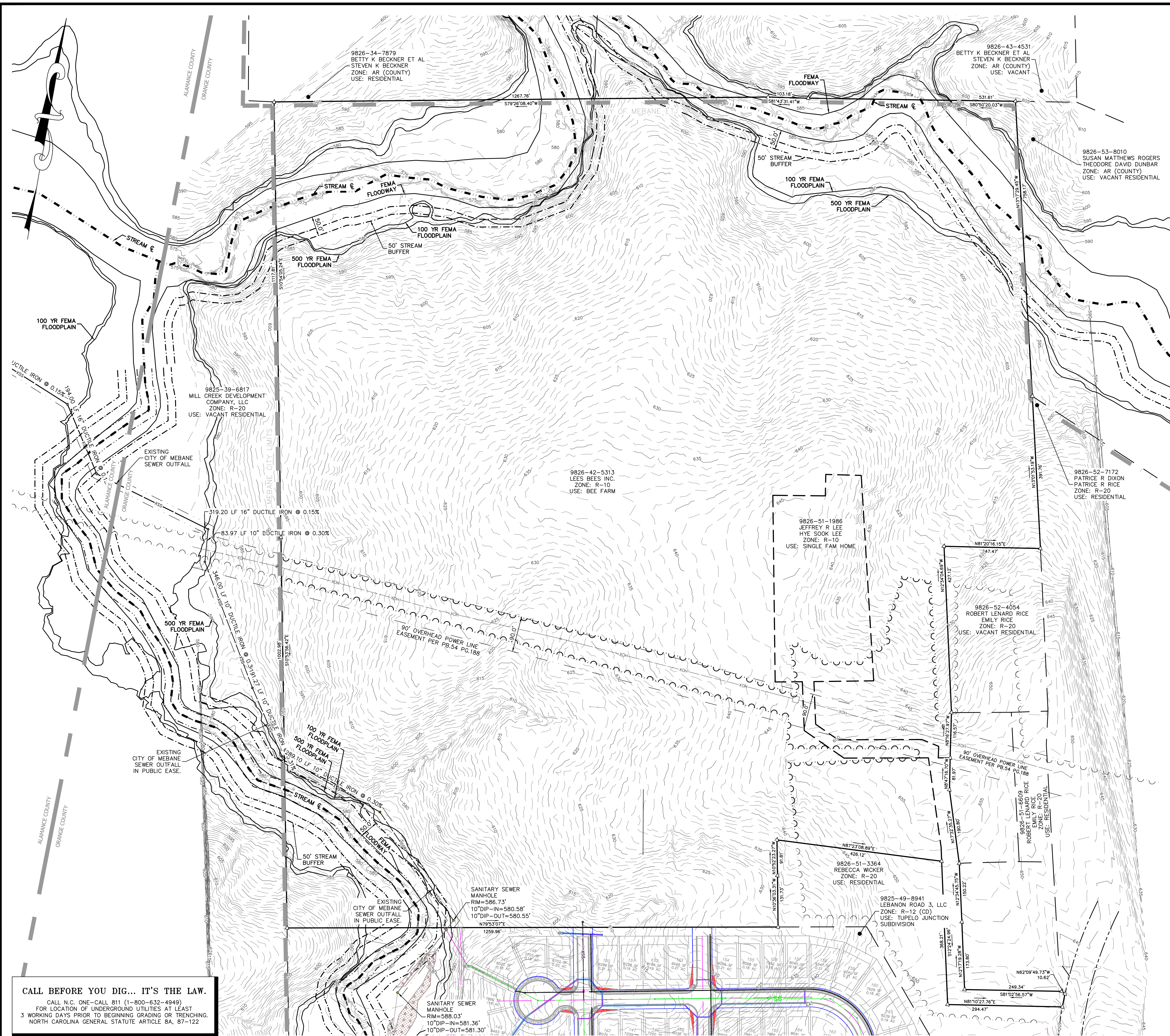
DATE: MAY 03, 2022

HORIZONTAL SCALE: N/A
 VERTICAL SCALE: N/A
 PROJECT MANAGER: CPK
 DRAWN BY: CPK
 PROJECT NO.: 22-16
 DRAWING NAME: 22-16 WORKING

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SHEET NO.
C1.1
 PRELIMINARY SITE PLAN



CONTACT INFORMATION:
 SITE ADDRESS: 1818 SADDLE CLUB ROAD, MEbane, NC 27302
 OWNER: LEES BEES INC. / JEFFREY R LEE, 1818 SADDLE CLUB ROAD, MEbane, NC 27302, 919-949-6140, JEFFERYRLEE@YAHOO.COM
 DEVELOPER: LEBANON ROAD 3, LLC, 320 EXECUTIVE COURT, HILLSBOROUGH, NC 27278, C/O JIM PARKER, 919-730-5741, JAMES.PARKER@SUMMITDE.NET
 CIVIL ENGINEER: EARTHCENTRIC ENGINEERING, INC. (C-2638), CHARLES P. KOCH (NCPE #22634), 204 WEST CLAY STREET, MEbane, NC 27302, PHONE: 919-563-9041 FAX: 919-563-3234, PHIL.KOCH@EARTHCENTRIC.COM
 SURVEYOR: SUMMIT DESIGN AND ENGINEERING SERVICES, 320 EXECUTIVE COURT, HILLSBOROUGH, NC 27278, RICK HARRIS, 919-732-3883, RICK.HARRIS@SUMMITDE.NET

SITE INFORMATION & NOTES:
 COUNTY: ORANGE COUNTY, CITY OF MEbane ETJ
 PIN#: 9826-42-5313 & 9826-51-1986
 DEED REF: BK: 6364 PG: 131 & BK: 6106 PG: 431
 ZONING CODE: R-10 EXISTING, R-12(C) PROPOSED
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 SIZE: 87.73 ACRES (3,821,695 SF) BY SURVEY
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 RECEIVING WATER COURSE: MILL CREEK (WS-II; HOW, NSW)
 WATERSHED: LAKE MICHAEL (WS-II; HOW, NSW)
 SOILS: GWA WATER SUPPLY WATERSHED, Ch - CHEWAULA - GROUP B/D, GeB & GeC - GEORGEVILLE - GROUP B, Lg - LUNUM - GROUP D, TdD - TARRUS - GROUP B
 FEMA: MAP PANEL #3710982600L EFFECTIVE 11/17/2017, FLOOD HAZARDS ON SITE
 CURRENT USE: SINGLE-FAMILY HOME & BEE FARM
 PROPOSED USE: 207 UNIT CLUSTER SUBDIVISION (2.36 UNITS/ACRE), PHASE 1=129 UNITS, PHASE 2=78 UNITS

R-12 DENSITY: 3.63 UNITS/ACRE (318 UNITS MAX.)
R-12 LOT SIZE: 12,000 SF MIN (7,200 SF AS CLUSTER)
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FRONT YARD SETBACK (REQUESTED): 25' MINIMUM
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LANDSCAPE & BUFFERING:
 PERIMETER BUFFERS - NOT REQUIRED FOR PROPOSED USE CLASS 3
 STREETSCAPE - NO STREET FRONTAGE PRESENT

AREA OF DISTURBANCE: TBD WITH NCDEQ EROSION CONTROL SUBMITTAL

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CITY OF MEbane PUBLIC WATER, SEWER AND INTERNAL STREETS, DESIGN AND INSTALLATION IN ACCORDANCE WITH CITY OF MEbane STANDARDS, DETAILS AND SPECIFICATIONS.

WAIVERS REQUESTED FOR LOT WIDTH OF 60' AND REDUCED SETBACKS LISTED ABOVE.

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 License # C-2638
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PRELIMINARY NOT FOR CONSTRUCTION

PRINCIPAL ENGINEER
 PHIL KOCH - NCPE #22634

TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEbane, NC 27302

EXISTING CONDITIONS & DEMOLITION PLAN

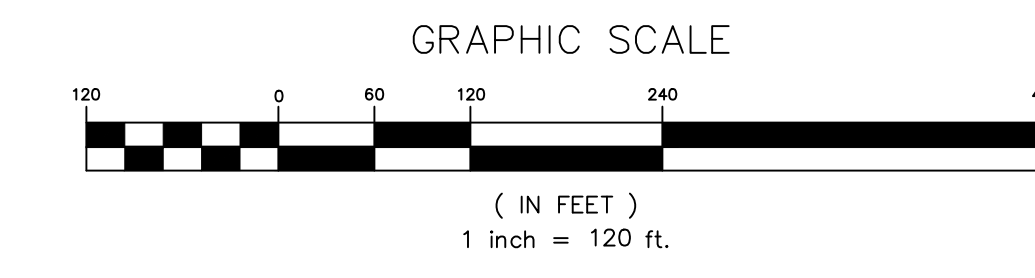
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| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
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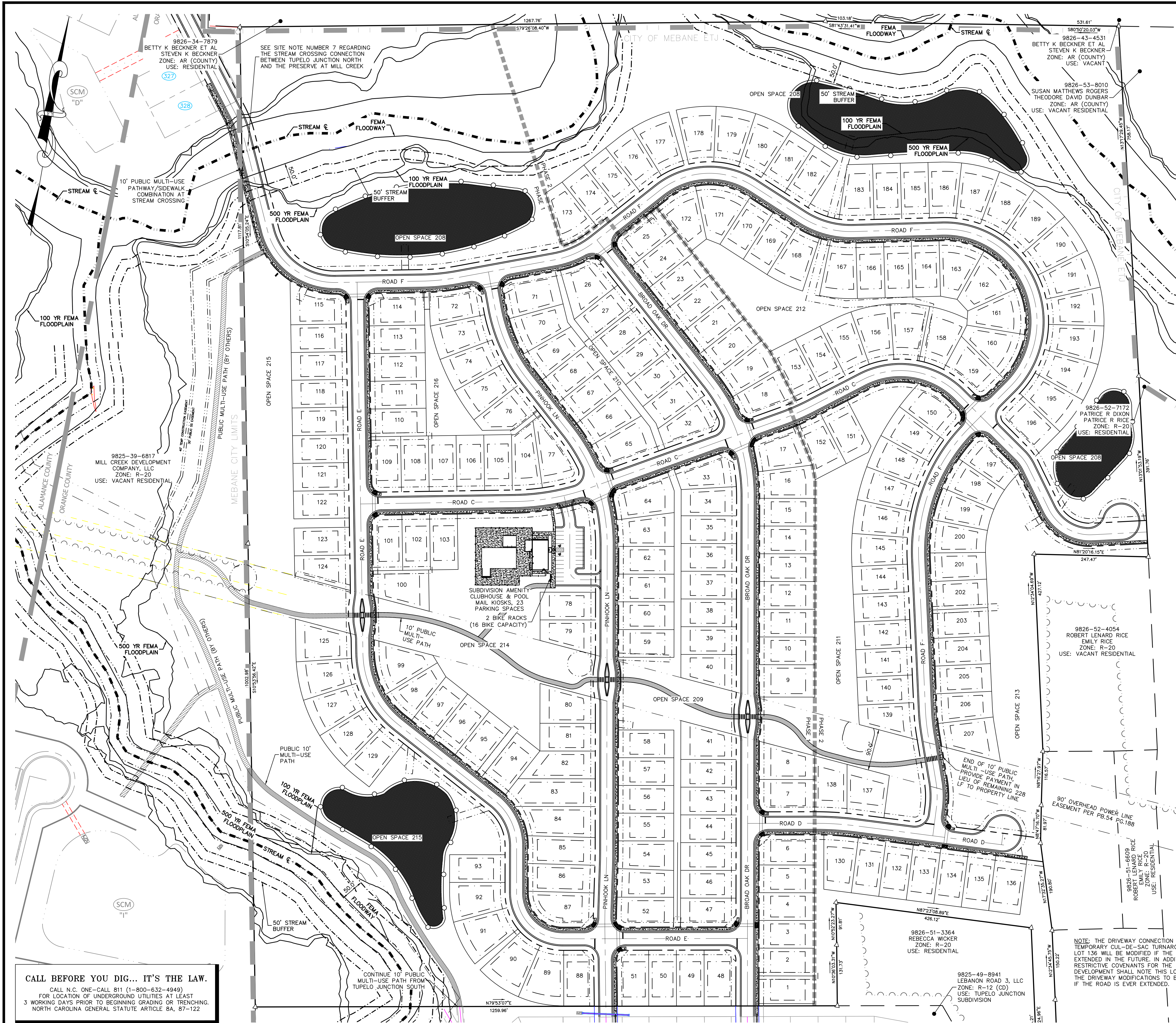
DATE: MAY 03, 2022
 HORIZONTAL SCALE: 1" = 120'
 VERTICAL SCALE: N/A
 PROJECT MANAGER: CPK
 DRAWN BY: CPK
 PROJECT NO: 22-18
 DRAWING NAME: 22-16 WORKING

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 SHEET NO.
C2.0
 PRELIMINARY SITE PLAN

CALL BEFORE YOU DIG... IT'S THE LAW.
 CALL N.C. ONE—CALL 811 (1-800-632-4949)
 FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING GRADING OR TRENCHING.
 NORTH CAROLINA GENERAL STATUTE ARTICLE 8A, 87-122





SITE INFORMATION & NOTES:

COUNTY: ORANGE COUNTY, CITY OF MEBANE ETJ
 PIN: 9826-42-5313 & 9826-51-1986
 DEED REF: BK: 6364 PG: 131 & BK: 6106 PG: 431

ZONING CODE: R-10 EXISTING, R-12(C) PROPOSED
 ADJACENT ZONES: R-12 (CD) SOUTH, R-20 WEST & EAST AR (COUNTY) NORTH & EAST
 SIZE: 87.73 ACRES (3,821,695 SF) BY SURVEY

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 RECEIVING WATER COURSE: MILL CREEK (WS-II; HOW, NSW)
 LAKE MICHAEL (WS-II; HOW, NSW)
 WATERSHED: GWA WATER SUPPLY WATERSHED
 SOILS: C1 - CHEWACLA - GROUP B/D
 G6B & G6C - GEORGEVILLE - GROUP B
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FEMA: MAP PANEL #3710982600L EFFECTIVE 11/17/2017
 FLOOD HAZARDS ON SITE

CURRENT USE: SINGLE-FAMILY HOME & BEE FARM
 PROPOSED USE: 207 UNIT CLUSTER SUBDIVISION (2.36 UNITS/ACRE)
 PHASE 1=129 UNITS, PHASE 2=78 UNITS

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 R-12 LOT SIZE: 12,000 SF MIN (7,200 SF AS CLUSTER)
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 TOTAL REQUIRED SPACES = 517.5 SPACES
 EACH LOT WILL HAVE PARKING FOR 3 VEHICLES IN DRIVEWAY & GARAGES

LANDSCAPE & BUFFERING:
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 STREETSCAPE - NO STREET FRONTAGE PRESENT

AREA OF DISTURBANCE: TBD WITH NCOEO EROSION CONTROL SUBMITTAL

SURVEY DATA SUPPLIED BY SUMMIT DESIGN AND ENGINEERING SERVICES & SUPPLEMENTED WITH TOPOGRAPHY OBTAINED FROM GIS.

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CITY OF MEBANE PUBLIC WATER, SEWER AND INTERNAL STREETS, DESIGN AND INSTALLATION IN ACCORDANCE WITH CITY OF MEBANE STANDARDS, DETAILS AND SPECIFICATIONS.

WAIVERS REQUESTED FOR LOT WIDTH OF 60' AND REDUCED SETBACKS LISTED ABOVE.

SITE NOTES:

- 10'x70' SIGHT TRIANGLES TO BE PROVIDED AT ALL INTERSECTIONS.
- CITY OF MEBANE ANNEXATION REQUIRED PRIOR TO CONNECTION TO CITY UTILITIES.
- ALL SOMS TO BE FENCED
- A PAYMENT-IN-LIEU OF CONSTRUCTION FOR ROAD C FROM THE INTERSECTION OF ROAD F TO THE EASTERN PROPERTY LINE SHALL BE PROVIDED.
- ALL PARKING SPACES SHALL MEET CITY OF MEBANE STANDARDS PER SEC. 6-5 D OF THE UDO.
- DETAILS FOR TRAFFIC CALMING AT POWER EASEMENT SHOWN ON SHEET C3.1.
- DEVELOPERS OF TUPELO NORTH AND THE PRESERVE AT MILL CREEK TO MAKE SURE THAT PROPOSED PUBLIC ROADWAY, WATER, SEWER, AND TRAIL(S) AT THE STREAM CROSSING ARE DESIGNED, PERMITTED, AND CONSTRUCTED TO CITY OF MEBANE STANDARDS & SPECS. BOTH PARTIES WILL ENTER INTO A TWO PARTY AGREEMENT THAT COVERS ALL ASPECTS OF THESE IMPROVEMENTS. THE CONSTRUCTION DRAWING APPROVAL PROCESS THROUGH THE CITY OF MEBANE FOR TUPELO NORTH WILL CONSIST OF TWO SEPARATE SUBMITTALS: ONE FOR THE ENTIRE SUBDIVISION AND THE OTHER FOR THE CONNECTION PORTION BETWEEN BOTH PROPERTIES. THE PURPOSE OF THIS IS TO ELIMINATE UNNECESSARY REVIEW/DESIGN AND PREVENTING THE SUBMITTALS TO CITY OF MEBANE FROM BEING APPROVED. CONSTRUCTION DRAWING APPROVAL OF THE CONSTRUCTION DRAWING PROCESS FOR THE CONNECTION WILL OCCUR ONLY AFTER BOTH DEVELOPMENTS HAVE CONSTRUCTION DRAWING APPROVAL FOR THEIR RESPECTIVE DEVELOPMENTS MINUS THE CONNECTION. ONCE CONSTRUCTION DRAWING APPROVAL OF BOTH DEVELOPMENTS HAS BEEN OBTAINED THEN THE CONNECTION WILL BE SUBMITTED FOR CONSTRUCTION DRAWING APPROVAL.

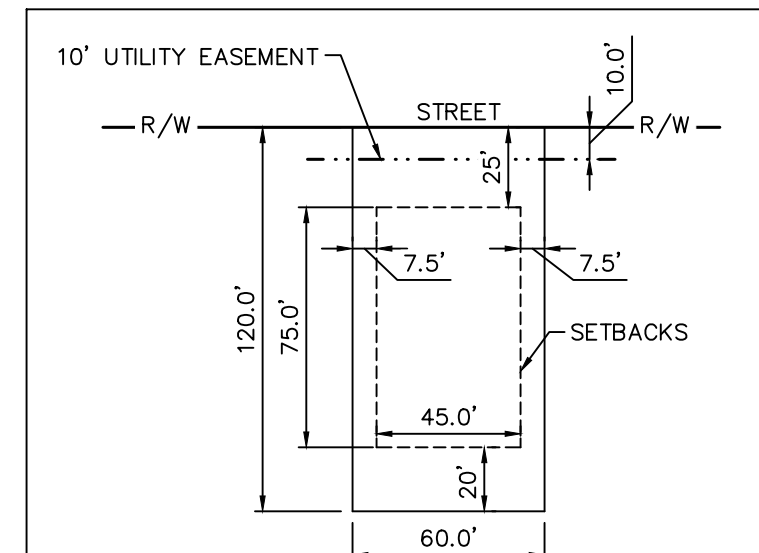
PROPOSED IMPERVIOUS AREA:

TOTAL SITE AREA: 3,821,695 SF

AMENITY ROOF & CONC.: 14,428 SF
 AMENITY PARKING LOT: 10,282 SF
 PUBLIC MULTI-USE TRAIL: 23,754 SF (OPTION A)
 SUBDIVISION SIDEWALKS: 54,914 SF
 PUBLIC ROADWAYS: 355,599 SF
 IMPERVIOUS ON LOTS: 672,750 SF
 (@ 3,250 SF EACH FOR 207 LOTS)

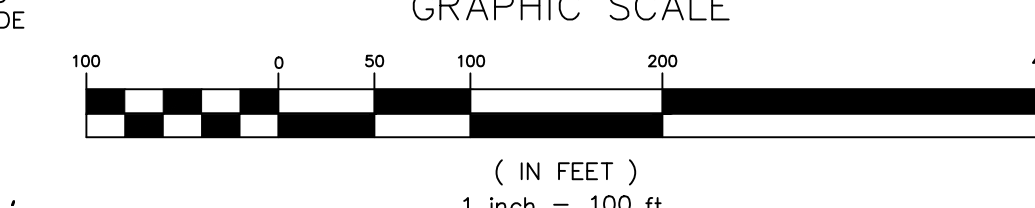
PROPOSED TOTAL: 1,131,727 SF
 IMPERVIOUS ALLOWANCE: + 14,781 SF
 ALLOWED IMPERVIOUS: 1,146,508 SF OR 30.00%

PRELIMINARY STORMWATER CALCULATIONS:
 APPROX. WQV PER SIMPLE METHOD: 89,853 CF
 APPROX. WQV REQUIRED PER DEVICE: 22,500 CF
 APPROX. SURFACE AREA REQ'D/DEVICE: 22,500 SF



SETBACKS:
 FRONT: 25' REAR: 20'
 SIDE: 7.5' CORNER SIDE: 13'
 7,200 SF LOTS MINIMUM

**SAMPLE LOT SIZE, NTS
 (7,200 SF LOT)**



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 3 WORKING DAYS PRIOR TO BEGINNING GRADING OR TRENCHING.
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 License # C-2638

ECE
 Incorporated

204 W. Clay Street
 Mebane, NC 27302
 Phone: (919) 563-9041
 Fax: (919) 304-9234
 E-Mail: Phil.Koehn@EarthCentric.com

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

PRINCIPAL ENGINEER
 PHIL KOECH - NCPE #22634

TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEBANE NC 27302

**SITE PLAN
 OVERVIEW**

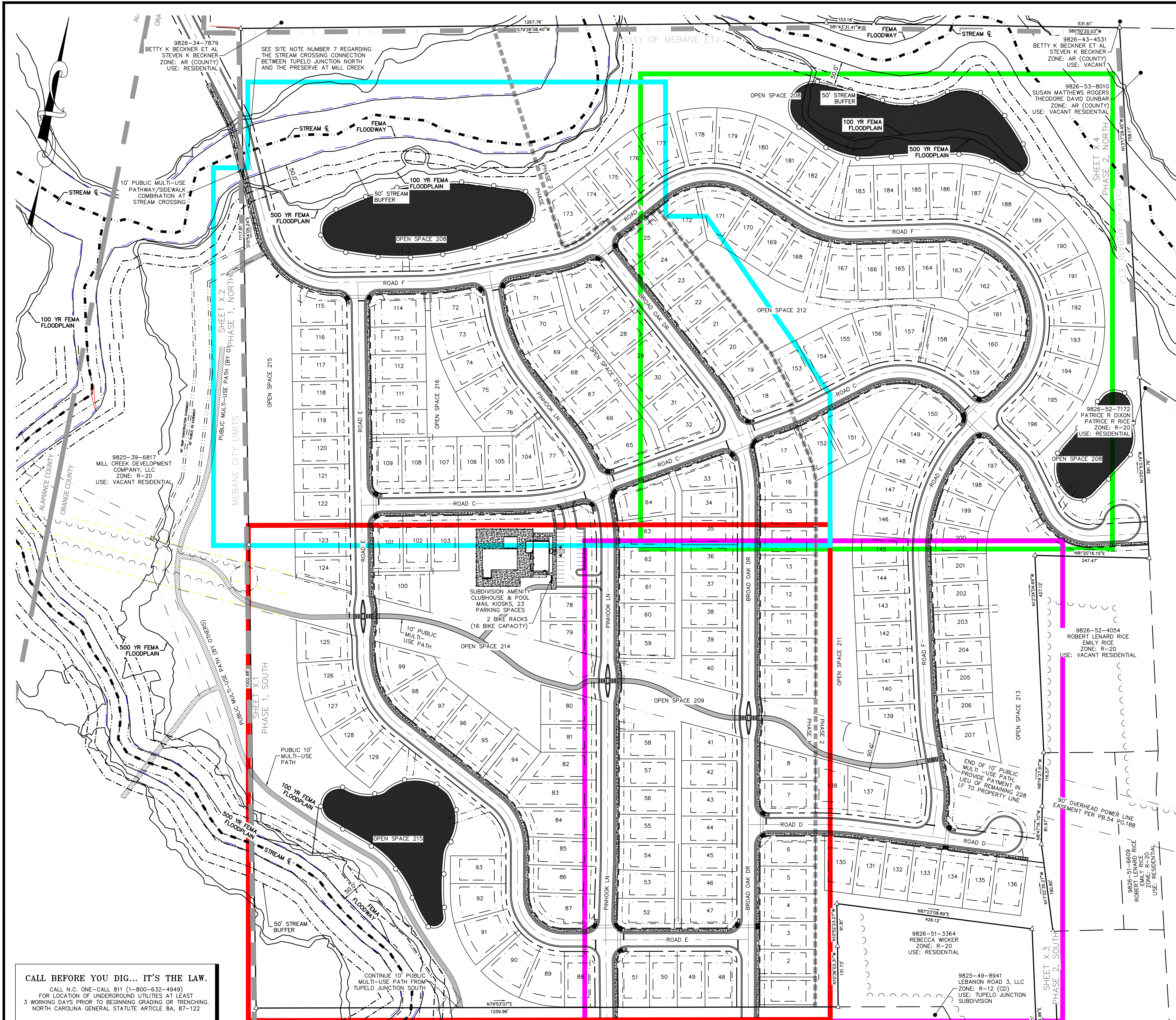
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| 3 | 09/27/2022 | PLANNING BOARD | CPK | |

DATE: MAY 03, 2022
 HORIZONTAL SCALE: 1" = 100'
 VERTICAL SCALE: N/A
 PROJECT MANAGER: CPK
 DRAWN BY: CPK
 PROJECT NO.: 22-16
 DRAWING NAME: 22-16 WORKING

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SHEET NO.
C3.0
 PRELIMINARY SITE PLAN



SITE INFORMATION & NOTES:

COUNTY: ORANGE COUNTY, CITY OF MEBANE ETJ
 PIN: 9826-42-5313 & 9826-51-1986
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 SOILS: Ch - CHEWACLA - GROUP B/D
 G&B & G&C - GEORGEVILLE - GROUP B
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 MAP PANEL #3710982600L EFFECTIVE 11/17/2017
 FLOOD HAZARDS ON SITE

FEMA: SINGLE-FAMILY HOME & BEE FARM
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 PHASE 1=129 UNITS, PHASE 2=78 UNITS

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 R-12 LOT WIDTH (REQUESTED): 60' MINIMUM (UDO WIDTH 65')
 FRONT YARD SETBACK: 25' MINIMUM
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 TOTAL REQUIRED SPACES = 517.5 SPACES
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 STREETSCAPE - NO STREET FRONTAGE PRESENT

AREA OF DISTURBANCE: TBD WITH NCOEO EROSION CONTROL SUBMITTAL

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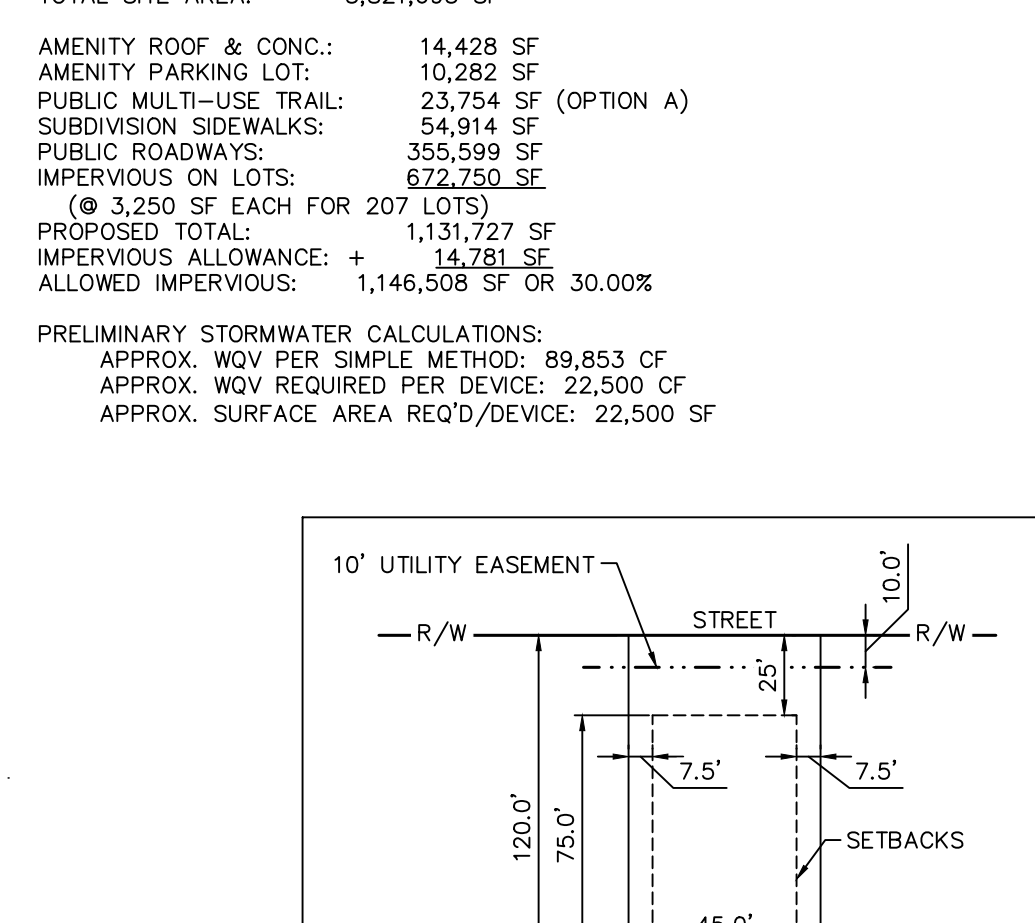
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| (@ 3.250 SF EACH FOR 207 LOTS) | |
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| IMPERVIOUS ALLOWANCE: + | 14,781 SF |
| ALLOWED IMPERVIOUS: | 1,146,508 SF OR 30.00% |

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 APPROX. WQV REQUIRED PER DEVICE: 22,500 CF
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SETBACKS:
 FRONT: 25' REAR: 20'
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 7,200 SF LOTS MINIMUM

**SAMPLE LOT SIZE, NTS
 (7,200 SF LOT)**

GRAPHIC SCALE

(IN FEET)
 1 inch = 100 ft.

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 NORTH CAROLINA GENERAL STATUTE ARTICLE 8A, 87-122

EarthCentric Engineering, Inc.
 License # C-2638

ECE
 Incorporated

204 W. Clay Street
 Mebane, NC 27302
 Phone: (919) 563-9041
 Fax: (919) 304-3234
 E-Mail: Phil.Koehn@EarthCentric.com

**PRELIMINARY
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TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEBANE NC 27302

**SITE PLAN
 OVERVIEW & SHEET INDEX**

| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
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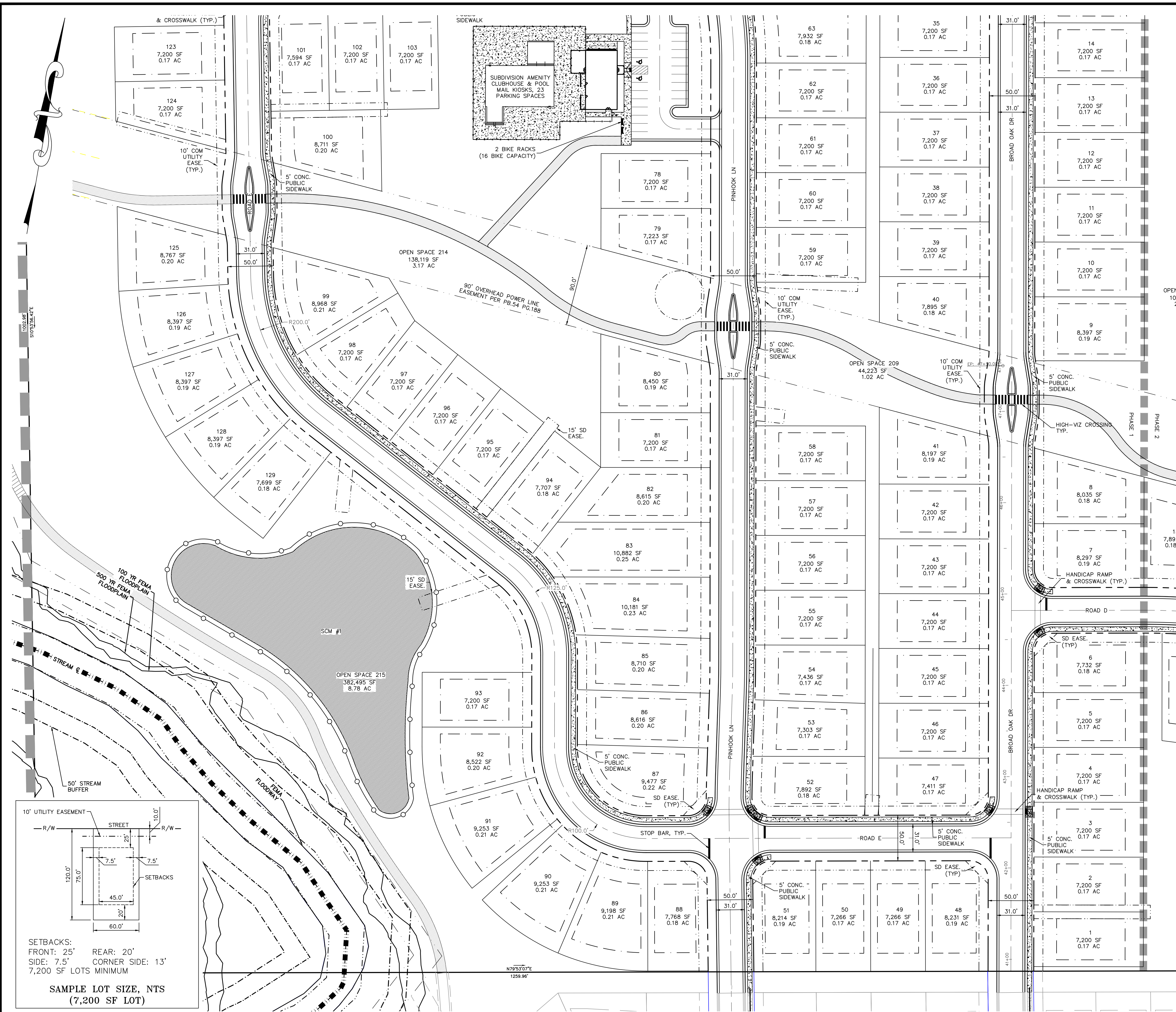
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 VERTICAL SCALE: N/A
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 DRAWN BY: CPK
 PROJECT NO.: 22-16
 DRAWING NAME: 22-16 WORKING

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SHEET NO.
C3.0a

PRELIMINARY SITE PLAN



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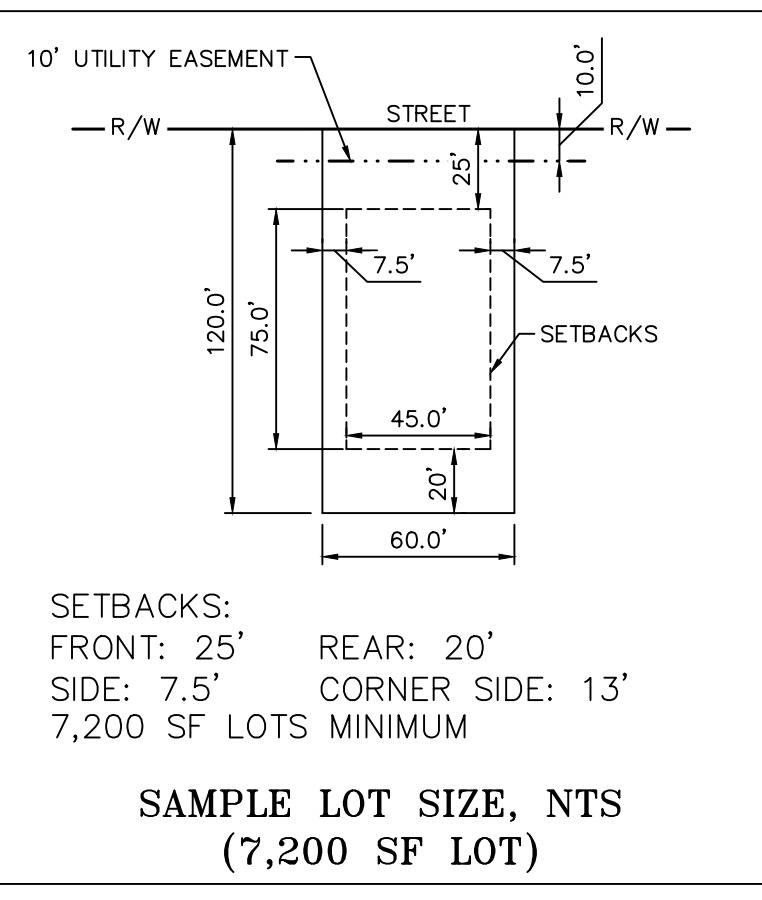
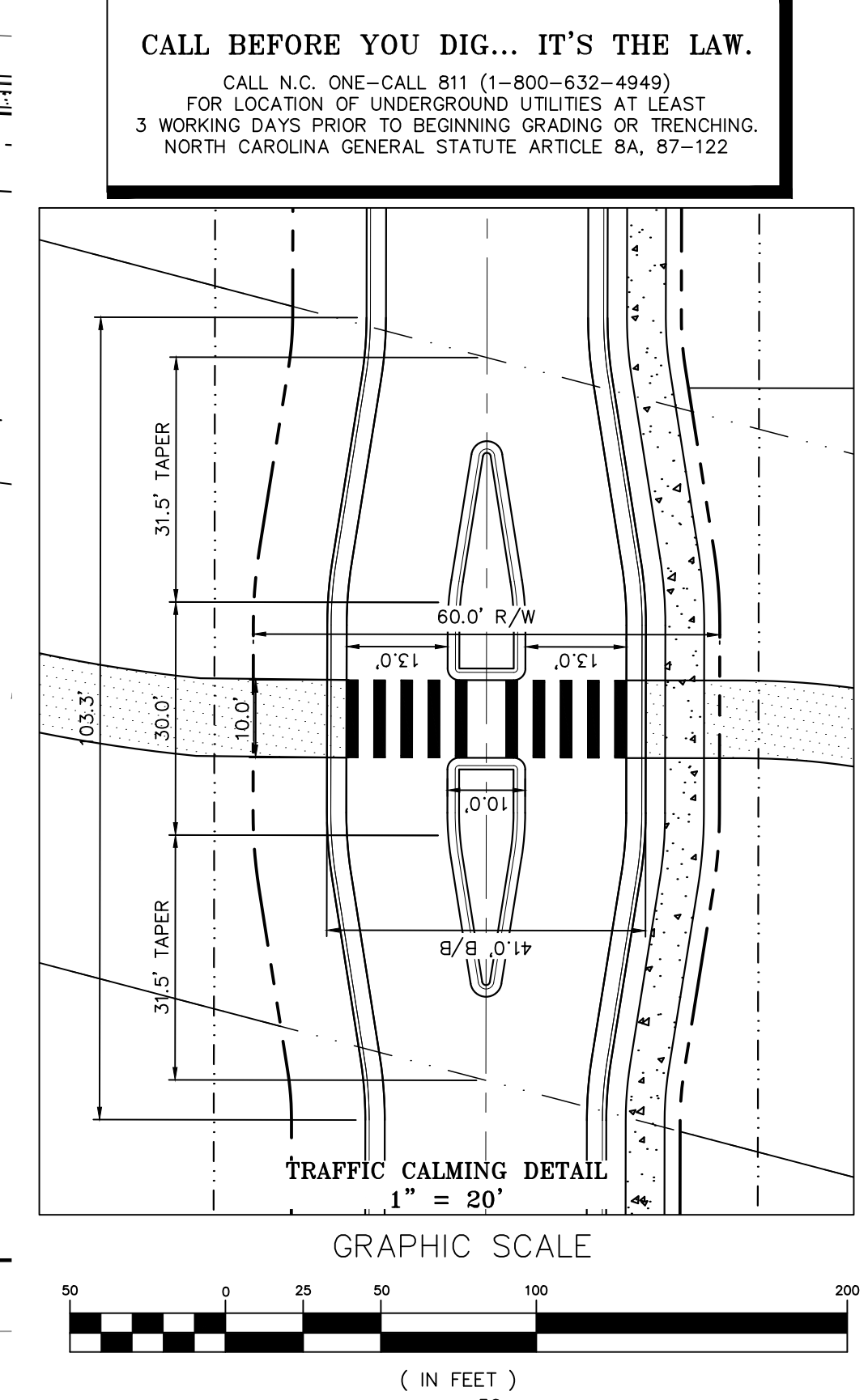
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PRINCIPAL ENGINEER
 PHIL KOECH - NCPE #22634

**TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEBANE NC 27302**

**SITE PLAN
 PHASE 1, SOUTH**

| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
| 2 | 08/30/2022 | PER TRC COMMENTS | CPK |
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DATE: MAY 03, 2022
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: N/A
 PROJECT MANAGER: CPK
 DRAWN BY: CPK
 PROJECT NO: 22-16
 DRAWING NAME: 22-16 WORKING

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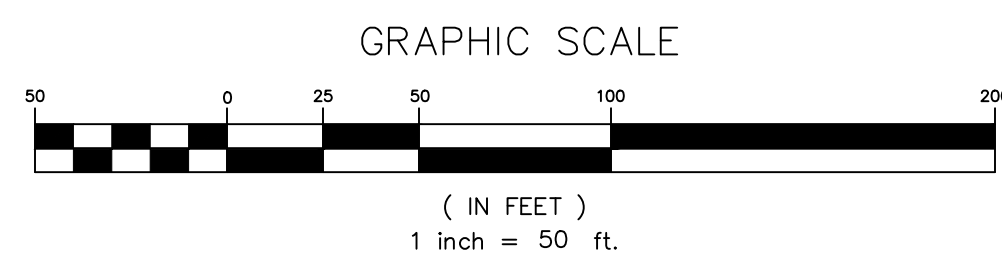
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**SHEET NO.
 C3.1**

PRELIMINARY SITE PLAN

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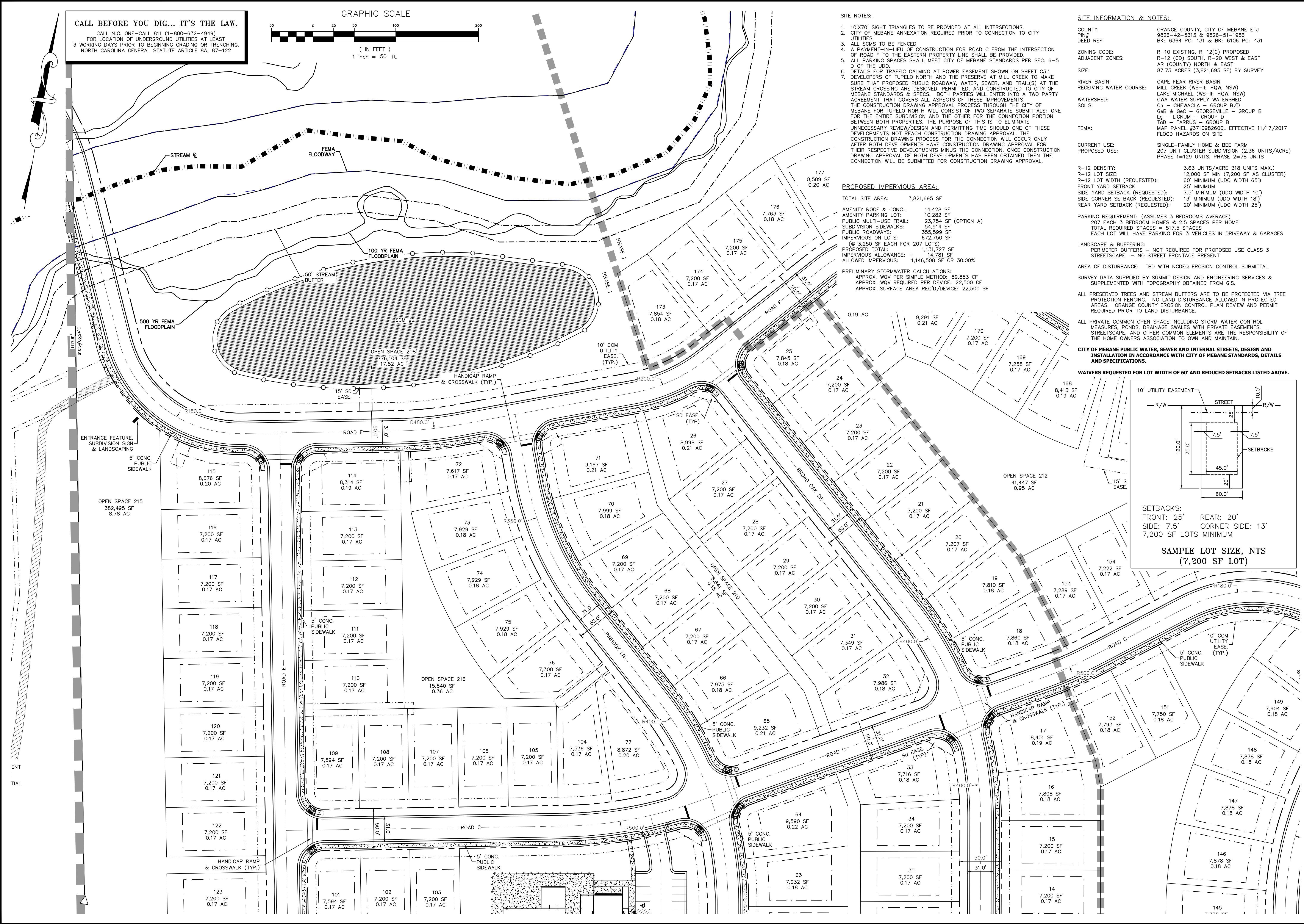
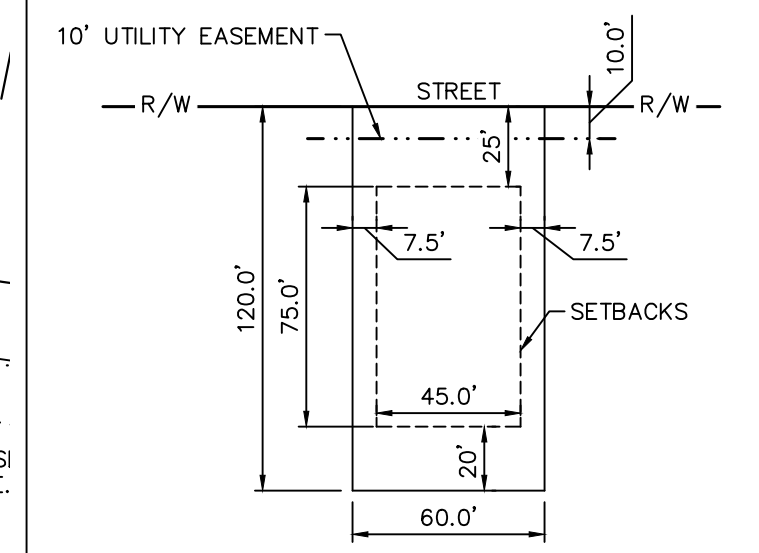
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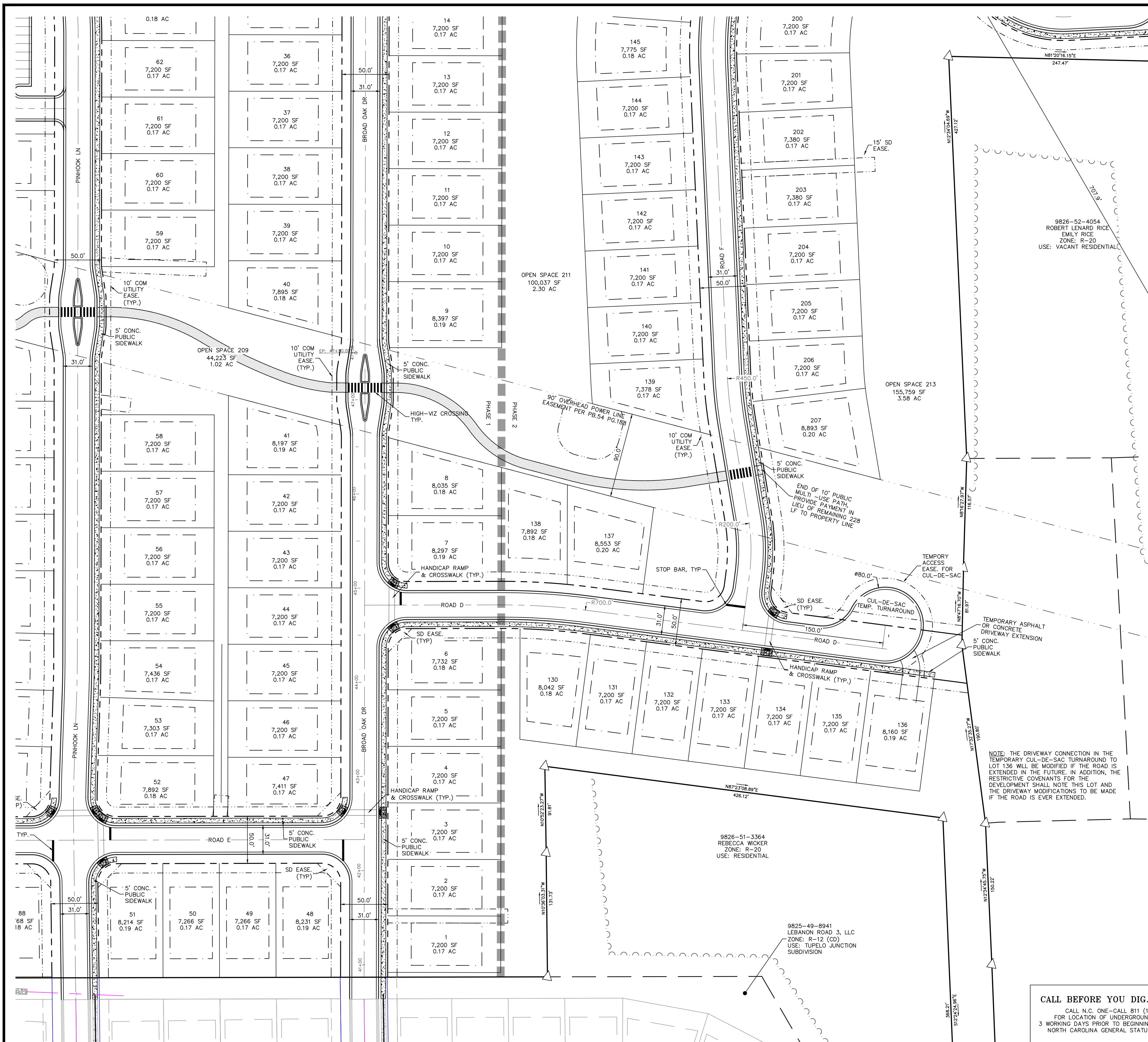


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SITE PLAN
PHASE 1, NORTH

Table with columns: REV., DATE, DESCRIPTION. Rows 1-3 detailing revisions to the drawing.

DATE: MAY 03, 2022
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: N/A
PROJECT MANAGER: CPK
DRAWN BY: CPK
PROJECT NO.: 22-16
DRAWING NAME: 22-16 WORKING
SHEET NO. C3.2
PRELIMINARY SITE PLAN



SITE INFORMATION & NOTES:

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- DETAILS FOR TRAFFIC CALMING AT POWER EASEMENT SHOWN ON SHEET C3.1.
- DEVELOPERS OF TUPELO NORTH AND THE PRESERVE AT MILL CREEK TO MAKE SURE THAT PROPOSED PUBLIC ROADWAY, WATER, SEWER, AND TRAIL(S) AT THE STREAM CROSSING ARE DESIGNED, PERMITTED, AND CONSTRUCTED TO CITY OF MEBANE STANDARDS & SPECS. BOTH PARTIES WILL ENTER INTO A TWO PARTY AGREEMENT THAT COVERS ALL ASPECTS OF THESE IMPROVEMENTS. THE CONSTRUCTION DRAWING APPROVAL PROCESS THROUGH THE CITY OF MEBANE FOR TUPELO NORTH WILL CONSIST OF TWO SEPARATE SUBMITTALS: ONE FOR THE ENTIRE SUBDIVISION AND THE OTHER FOR THE CONNECTION PORTION BETWEEN BOTH PROPERTIES. THE PURPOSE OF THIS IS TO ELIMINATE UNNECESSARY REVIEW/DESIGN AND PERMITTING TIME SHOULD ONE OF THESE DEVELOPMENTS NOT REACH CONSTRUCTION DRAWING APPROVAL. THE CONSTRUCTION DRAWING PROCESS FOR THE CONNECTION WILL OCCUR ONLY AFTER BOTH DEVELOPMENTS HAVE CONSTRUCTION DRAWING APPROVAL FOR THEIR RESPECTIVE DEVELOPMENTS MINUS THE CONNECTION. ONCE CONSTRUCTION DRAWING APPROVAL OF BOTH DEVELOPMENTS HAS BEEN OBTAINED THEN THE CONNECTION WILL BE SUBMITTED FOR CONSTRUCTION DRAWING APPROVAL.

PROPOSED IMPERVIOUS AREA:

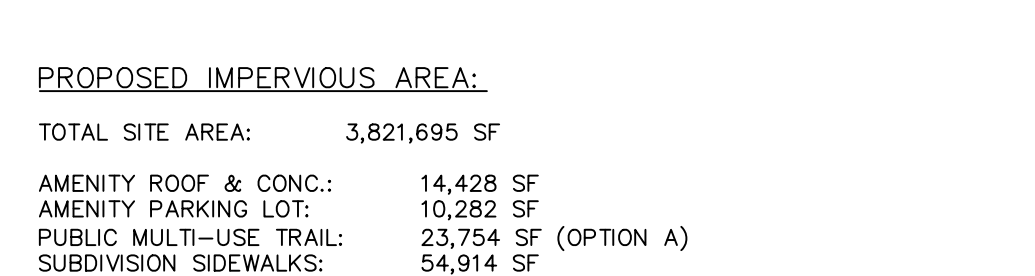
TOTAL SITE AREA: 3,821,695 SF

AMENITY ROOF & CONC.: 14,428 SF
 AMENITY PARKING LOT: 10,282 SF
 PUBLIC MULTI-USE TRAIL: 23,754 SF (OPTION A)
 SUBDIVISION SIDEWALKS: 54,914 SF
 PUBLIC ROADWAYS: 355,599 SF
 IMPERVIOUS ON LOTS: 672,750 SF
 (@ 3,250 SF EACH FOR 207 LOTS)

PROPOSED TOTAL: 1,131,727 SF
 IMPERVIOUS ALLOWANCE: + 14,781 SF
 ALLOWED IMPERVIOUS: 1,146,508 SF OR 30.00%

PRELIMINARY STORMWATER CALCULATIONS:
 APPROX. WQV PER SIMPLE METHOD: 89,853 CF
 APPROX. WQV REQUIRED PER DEVICE: 22,500 CF
 APPROX. SURFACE AREA REQ'D/DEVICE: 22,500 SF

NOTE: THE DRIVEWAY CONNECTION IN THE TEMPORARY CUL-DE-SAC TURNAROUND TO LOT 136 WILL BE MODIFIED IF THE ROAD IS EXTENDED IN THE FUTURE. IN ADDITION, THE RESTRICTIVE COVENANTS FOR THE DEVELOPMENT SHALL NOTE THIS LOT AND THE DRIVEWAY MODIFICATIONS TO BE MADE IF THE ROAD IS EVER EXTENDED.



| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
| 2 | 08/30/2022 | PER TRC COMMENTS | CPK |
| 3 | 09/27/2022 | PLANNING BOARD | CPK |

| | |
|-------------------|---------------|
| DATE: | MAY 03, 2022 |
| HORIZONTAL SCALE: | 1" = 50' |
| VERTICAL SCALE: | N/A |
| PROJECT MANAGER: | CPK |
| DRAWN BY: | CPK |
| PROJECT NO.: | 22-16 |
| DRAWING NAME: | 22-16 WORKING |

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SETBACKS:
 FRONT: 25' REAR: 20'
 SIDE: 7.5' CORNER SIDE: 13'
 7,200 SF LOTS MINIMUM

SAMPLE LOT SIZE, NTS (7,200 SF LOT)

GRAPHIC SCALE
 (IN FEET)
 1 inch = 50 ft.

CALL BEFORE YOU DIG... IT'S THE LAW.
 CALL N.C. ONE-CALL 811 (1-800-632-4949)
 FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING GRADING OR TRENCHING.
 NORTH CAROLINA GENERAL STATUTE ARTICLE 8A, 87-122

EarthCentric Engineering, Inc.
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PRELIMINARY NOT FOR CONSTRUCTION

PRINCIPAL ENGINEER
 PHIL KOECH - NCPE #22634

TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEBANE NC 27302

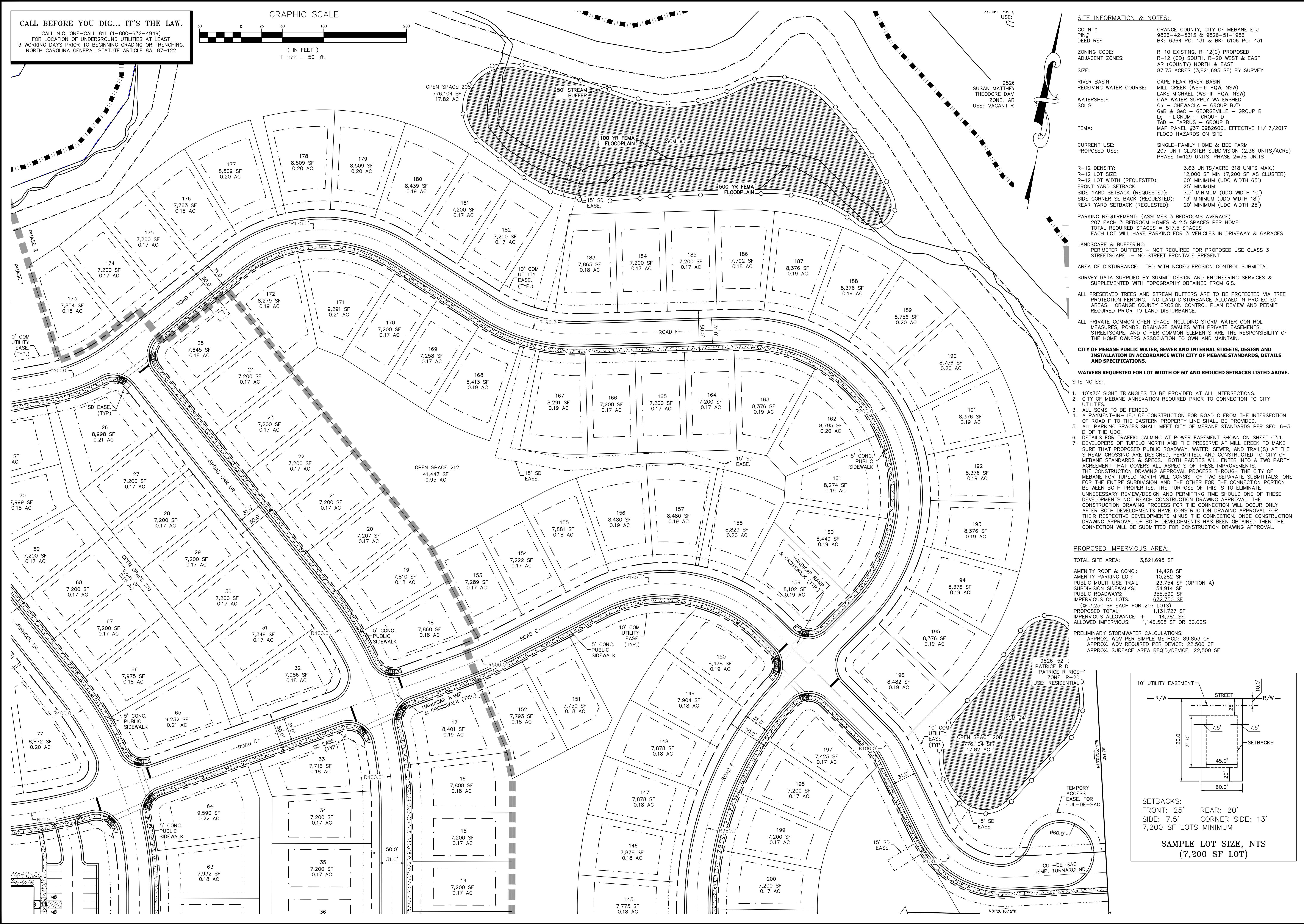
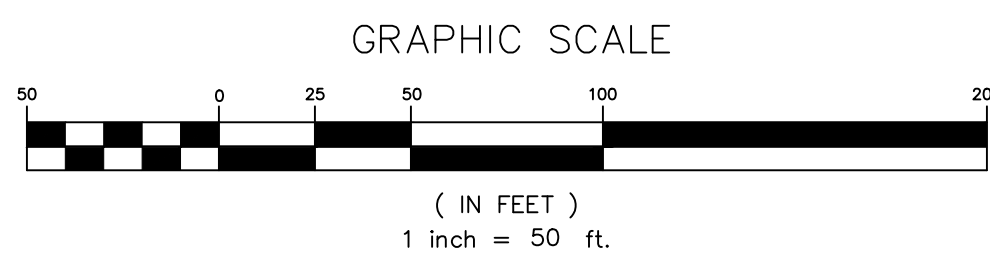
SITE PLAN
 PHASE 2, SOUTH

SHEET NO.
C3.3

PRELIMINARY SITE PLAN

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SITE INFORMATION & NOTES:

COUNTY: ORANGE COUNTY, CITY OF MEBANE ETJ
 PIN# 9826-42-5313 & 9826-51-1986
 DEED REF: BK: 6364 PG: 131 & BK: 6106 PG: 431

ZONING CODE: R-10 EXISTING, R-12(C) PROPOSED
 ADJACENT ZONES: R-12 (CD) SOUTH, R-20 WEST & EAST AR (COUNTY) NORTH & EAST
 SIZE: 87.73 ACRES (3,821,695 SF) BY SURVEY

RIVER BASIN: CAPE FEAR RIVER BASIN
 RECEIVING WATER COURSE: MILL CREEK (WS-II; HOW, NSW)
 LAKE MICHAEL (WS-II; HOW, NSW)
 WATERSHED: GWA WATER SUPPLY WATERSHED
 SOILS: Ch - CHEWACLA - GROUP B/D
 GcB & GcC - GEORGEVILLE - GROUP B
 Lg - LIGNUM - GROUP D
 Td - TARRUS - GROUP B
 MAP PANEL #3710982600 EFFECTIVE 11/17/2017
 FEMA: FLOOD HAZARDS ON SITE

CURRENT USE: SINGLE-FAMILY HOME & BEE FARM
 PROPOSED USE: 207 UNIT CLUSTER SUBDIVISION (2.36 UNITS/ACRE)
 PHASE 1=129 UNITS, PHASE 2=78 UNITS

R-12 DENSITY: 3.63 UNITS/ACRE (318 UNITS MAX.)
 R-12 LOT SIZE: 12,000 SF MIN (7,200 SF AS CLUSTER)
 R-12 LOT WIDTH (REQUESTED): 60' MINIMUM (UDO WIDTH 65')
 FRONT YARD SETBACK: 25' MINIMUM
 SIDE YARD SETBACK (REQUESTED): 7.5' MINIMUM (UDO WIDTH 10')
 SIDE CORNER SETBACK (REQUESTED): 13' MINIMUM (UDO WIDTH 18')
 REAR YARD SETBACK (REQUESTED): 20' MINIMUM (UDO WIDTH 25')

PARKING REQUIREMENT: (ASSUMES 3 BEDROOMS AVERAGE)
 207 EACH 3 BEDROOM HOMES @ 2.5 SPACES PER HOME
 TOTAL REQUIRED SPACES: 517.5 SPACES
 EACH LOT WILL HAVE PARKING FOR 3 VEHICLES IN DRIVEWAY & GARAGES

LANDSCAPE & BUFFERING:
 PERIMETER BUFFERS - NOT REQUIRED FOR PROPOSED USE CLASS 3
 STREETScape - NO STREET FRONTAGE PRESENT

AREA OF DISTURBANCE: TBD WITH NCECO EROSION CONTROL SUBMITTAL

SURVEY DATA SUPPLIED BY SUMMIT DESIGN AND ENGINEERING SERVICES & SUPPLEMENTED WITH TOPOGRAPHY OBTAINED FROM GIS.

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CITY OF MEBANE PUBLIC WATER, SEWER AND INTERNAL STREETS, DESIGN AND INSTALLATION IN ACCORDANCE WITH CITY OF MEBANE STANDARDS, DETAILS AND SPECIFICATIONS.

WAIVERS REQUESTED FOR LOT WIDTH OF 60' AND REDUCED SETBACKS LISTED ABOVE.

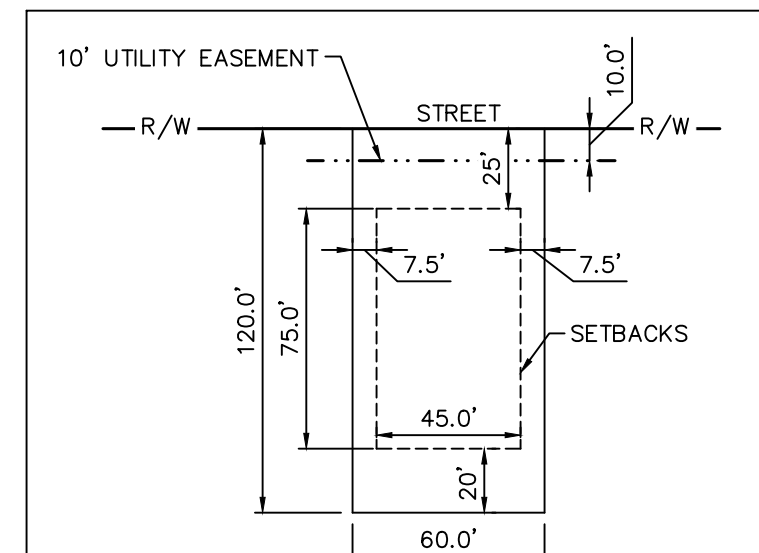
SITE NOTES:

- 10'x70' SIGHT TRIANGLES TO BE PROVIDED AT ALL INTERSECTIONS.
- CITY OF MEBANE ANNEXATION REQUIRED PRIOR TO CONNECTION TO CITY UTILITIES.
- ALL SOMS TO BE FENCED
- A PAYMENT-IN-LIEU OF CONSTRUCTION FOR ROAD C FROM THE INTERSECTION OF ROAD F TO THE EASTERN PROPERTY LINE SHALL BE PROVIDED.
- ALL PARKING SPACES SHALL MEET CITY OF MEBANE STANDARDS PER SEC. 6-5 D OF THE UDO.
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PRELIMINARY NOT FOR CONSTRUCTION

PRINCIPAL ENGINEER
 PHIL KOECH - NCPE #22634

TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEBANE NC 27302

SITE PLAN PHASE 2, NORTH

| REV. | DATE | DESCRIPTION | BY | CPK |
|------|------------|------------------|----|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | | CPK |
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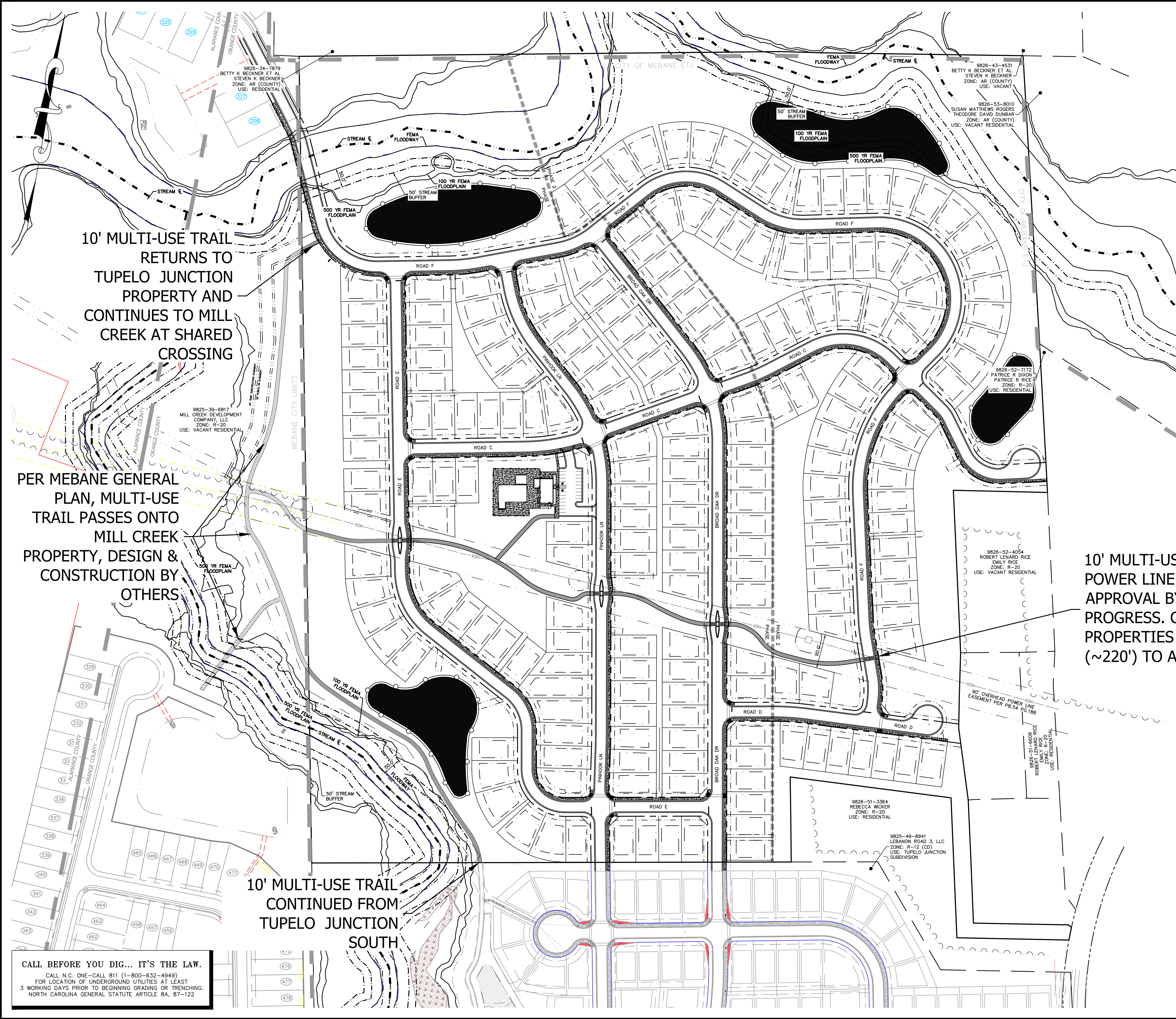
DATE: MAY 03, 2022
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: N/A
 PROJECT MANAGER: CPK
 DRAWN BY: CPK
 PROJECT NO: 22-16
 DRAWING NAME: 22-16 WORKING

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SHEET NO. C3.4

PRELIMINARY SITE PLAN



SITE INFORMATION & NOTES:

COUNTY: ORANGE COUNTY, CITY OF MEBANE ETJ
 PIN# 9826-42-5313 & 9826-51-1986
 DEED REF: BK: 6364 PG: 131 & BK: 6106 PG: 431

ZONING CODE: R-10 EXISTING, R-12(C) PROPOSED
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 SOILS: Ch - CHEWACLA - GROUP B/D
 G6B & G6C - GEORGEVILLE - GROUP B
 Lg - LIGNUM - GROUP D
 Td - TARRUS - GROUP B
 MAP PANEL #3710982600L EFFECTIVE 11/17/2017
 FLOOD HAZARDS ON SITE

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 PROPOSED USE: 207 UNIT CLUSTER SUBDIVISION (2.36 UNITS/ACRE)
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LANDSCAPE & BUFFERING:
 PERIMETER BUFFERS - NOT REQUIRED FOR PROPOSED USE CLASS 3
 STREETSCAPE - NO STREET FRONTAGE PRESENT

AREA OF DISTURBANCE: TBD WITH NCOEQ EROSION CONTROL SUBMITTAL

SURVEY DATA SUPPLIED BY SUMMIT DESIGN AND ENGINEERING SERVICES & SUPPLEMENTED WITH TOPOGRAPHY OBTAINED FROM GIS.

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CITY OF MEBANE PUBLIC WATER, SEWER AND INTERNAL STREETS, DESIGN AND INSTALLATION IN ACCORDANCE WITH CITY OF MEBANE STANDARDS, DETAILS AND SPECIFICATIONS.

WAIVERS REQUESTED FOR LOT WIDTH OF 60' AND REDUCED SETBACKS LISTED ABOVE.

10' MULTI-USE TRAIL RETURNS TO TUPELO JUNCTION PROPERTY AND CONTINUES TO MILL CREEK AT SHARED CROSSING

PER MEBANE GENERAL PLAN, MULTI-USE TRAIL PASSES ONTO MILL CREEK PROPERTY, DESIGN & CONSTRUCTION BY OTHERS

10' MULTI-USE GREENWAY TRAIL THROUGH POWER LINE EASEMENT. SUBJECT TO APPROVAL BY DUKE ENERGY, DISCUSSION IN PROGRESS. CONNECTIVITY TO EASTERN PROPERTIES PROVIDED AS PAYMENT IN LIEU (~220') TO AVOID DEAD END.

10' MULTI-USE TRAIL CONTINUED FROM TUPELO JUNCTION SOUTH

CALL BEFORE YOU DIG... IT'S THE LAW.
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 FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING GRADING OR TRENCHING
 NORTH CAROLINA GENERAL STATUTE ARTICLE 8A, 87-122

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 License # C-2638

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PRELIMINARY NOT FOR CONSTRUCTION

PRINCIPAL ENGINEER
 PHIL KOECH - NCPCE #22634

TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEBANE NC 27302

MULTI-USE PATH OVERVIEW

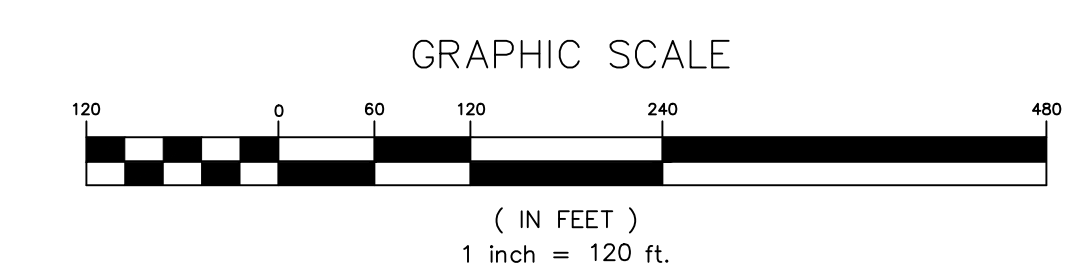
| REV. | DATE | DESCRIPTION | BY |
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| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
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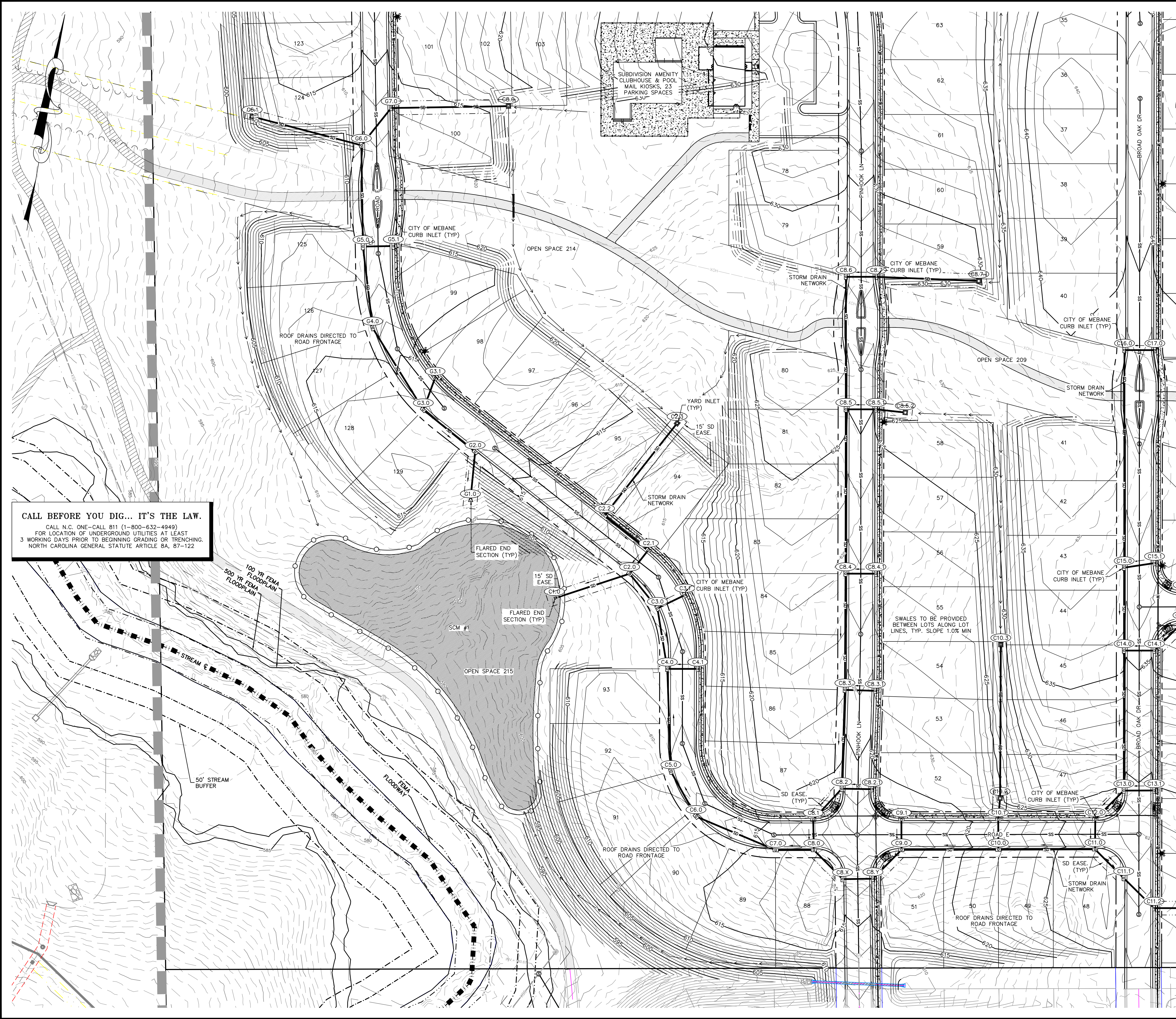
DATE: MAY 03, 2022
 HORIZONTAL SCALE: 1" = 120'
 VERTICAL SCALE: N/A
 PROJECT MANAGER: CPK
 DRAWN BY: CPK
 PROJECT NO.: 22-16
 DRAWING NAME: 22-16 WORKING

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SHEET NO.
C3.5
 PRELIMINARY SITE PLAN





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 NORTH CAROLINA GENERAL STATUTE ARTICLE BA, 87-122

SITE INFORMATION & NOTES:

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 PIN#: 9826-42-5313 & 9826-51-1986
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 APPROX. WQV PER SIMPLE METHOD: 89,853 CF
 APPROX. WQV REQUIRED PER DEVICE: 22,500 CF
 APPROX. SURFACE AREA REQ'D/DEVICE: 22,500 SF

STORMWATER / STORM DRAINAGE NOTES:

1. THE SITE WILL COMPLY WITH THE CITY OF MEBANE RIPARIAN BUFFER ORDINANCE.
2. THE SITE WILL BE PERMITTED AS A HIGH-DENSITY STORMWATER AND WATER SUPPLY WATERSHED PROJECT.
3. STREAM AND WETLAND DELINEATION TO BE PROVIDED PRIOR TO CONSTRUCTION DRAWING SUBMITTAL FOR REVIEW AND APPROVAL BY CITY.
4. WHERE NECESSARY ROOF DRAINS WILL BE DIRECTED TO THE ROADWAY AND ALL ROADWAY DRAINAGE WILL BE DIRECTED TO SCMs.
5. CONSTRUCTION DRAWINGS WILL PROVIDE SWALES AND/OR PIPE SYSTEMS AS NECESSARY TO DIRECT ALL IMPERVIOUS AREA TO SCMs.
6. SUPPLEMENTAL GRADING & SD PLAN TO BE SUBMITTED TO CITY ENGINEER AT TIME OF CONSTRUCTION PLAN REVIEW.

| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
| 2 | 08/30/2022 | PER TRC COMMENTS | CPK |
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DATE: MAY 03, 2022
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 VERTICAL SCALE: N/A
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 PROJECT NO.: 22-18
 DRAWING NAME: 22-16 WORKING

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SHEET NO.
C5.1
 PRELIMINARY SITE PLAN

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 License # C-2638

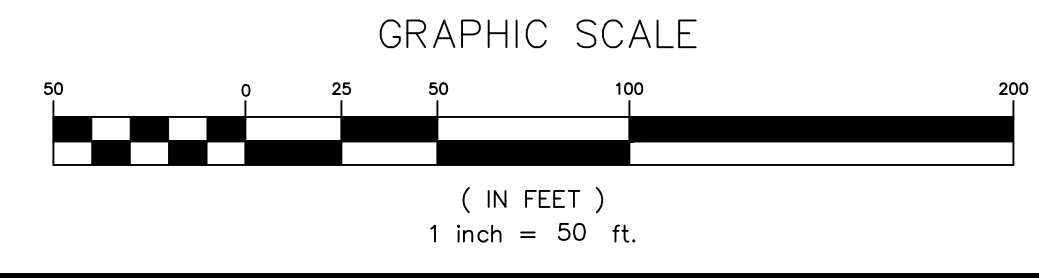
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 PHIL KOECH - NCPCE #22634

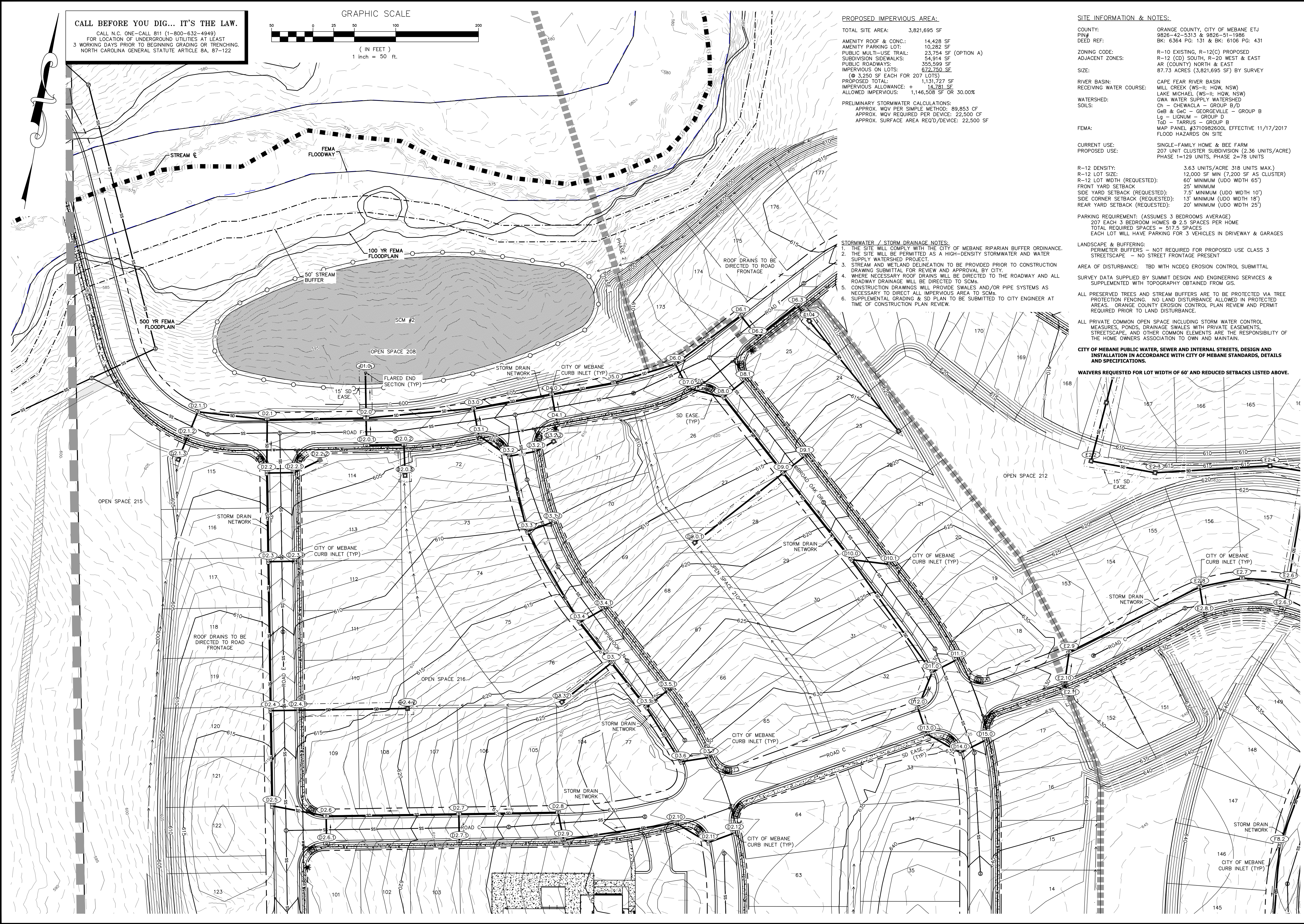
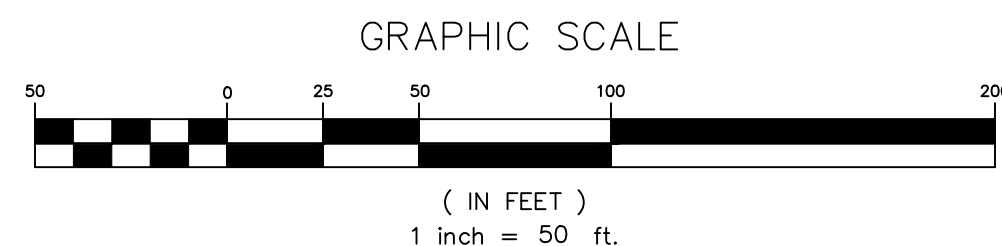
TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEBANE NC 27302

**GRADING & STORM DRAINAGE
 PLAN - PHASE 1, SOUTH**



CALL BEFORE YOU DIG... IT'S THE LAW.

CALL N.C. ONE-CALL 811 (1-800-632-4949)
FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST
3 WORKING DAYS PRIOR TO BEGINNING GRADING OR TRENCHING.
NORTH CAROLINA GENERAL STATUTE ARTICLE 8A, 87-122



PROPOSED IMPERVIOUS AREA:

TOTAL SITE AREA: 3,821,695 SF
AMENITY ROOF & CONC.: 14,428 SF
AMENITY PARKING LOT: 10,282 SF
PUBLIC MULTI-USE TRAIL: 23,754 SF (OPTION A)
SUBDIVISION SIDEWALKS: 54,914 SF
PUBLIC ROADWAYS: 355,599 SF
IMPERVIOUS ON LOTS: 672,750 SF
(@ 3,250 SF EACH FOR 207 LOTS)
PROPOSED TOTAL: 1,131,727 SF
IMPERVIOUS ALLOWANCE: + 14,781 SF
ALLOWED IMPERVIOUS: 1,146,508 SF OR 30.00%

PRELIMINARY STORMWATER CALCULATIONS:
APPROX. WOV PER SIMPLE METHOD: 89,853 CF
APPROX. WOV REQUIRED PER DEVICE: 22,500 CF
APPROX. SURFACE AREA REQ'D/DEVICE: 22,500 SF

STORMWATER / STORM DRAINAGE NOTES:

- 1. THE SITE WILL COMPLY WITH THE CITY OF MEBANE RIPARIAN BUFFER ORDINANCE.
- 2. THE SITE WILL BE PERMITTED AS A HIGH-DENSITY STORMWATER AND WATER SUPPLY WATERSHED PROJECT.
- 3. STREAM AND WETLAND DELINEATION TO BE PROVIDED PRIOR TO CONSTRUCTION DRAWING SUBMITTAL FOR REVIEW AND APPROVAL BY CITY.
- 4. WHERE NECESSARY ROOF DRAINS WILL BE DIRECTED TO THE ROADWAY AND ALL ROADWAY DRAINAGE WILL BE DIRECTED TO SCMS.
- 5. CONSTRUCTION DRAWINGS WILL PROVIDE SWALES AND/OR PIPE SYSTEMS AS NECESSARY TO DIRECT ALL IMPERVIOUS AREA TO SCMS.
- 6. SUPPLEMENTAL GRADING & SD PLAN TO BE SUBMITTED TO CITY ENGINEER AT TIME OF CONSTRUCTION PLAN REVIEW.

SITE INFORMATION & NOTES:

COUNTY: ORANGE COUNTY, CITY OF MEBANE ETJ
PIN# 9826-42-5313 & 9826-51-1986
DEED REF: BK: 6364 PG: 131 & BK: 6106 PG: 431
ZONING CODE: R-10 EXISTING, R-12(C) PROPOSED
ADJACENT ZONES: R-12 (C) SOUTH, R-20 WEST & EAST AR (COUNTY) NORTH & EAST
SIZE: 87.73 ACRES (3,821,695 SF) BY SURVEY
RIVER BASIN: CAPE FEAR RIVER BASIN
RECEIVING WATER COURSE: MILL CREEK (WS-II; HOW, NSW)
LAKE MICHAEL (WS-II; HOW, NSW)
WATERSHED: GWA WATER SUPPLY WATERSHED
SOILS: Ch - CHEWACLA - GROUP B/D
GcB & GcC - GEORGEVILLE - GROUP B
Lg - LIGNUM - GROUP D
TbD - TARRUS - GROUP B
MAP PANEL #3710982600L EFFECTIVE 11/17/2017
FLOOD HAZARDS ON SITE

CURRENT USE: SINGLE-FAMILY HOME & BEE FARM
PROPOSED USE: 207 UNIT CLUSTER SUBDIVISION (2.36 UNITS/ACRE)
PHASE 1=129 UNITS, PHASE 2=78 UNITS

R-12 DENSITY: 3.63 UNITS/ACRE (318 UNITS MAX.)
R-12 LOT SIZE: 12,000 SF MIN (7,200 SF AS CLUSTER)
R-12 LOT WIDTH (REQUESTED): 60' MINIMUM (UDO WIDTH 65')
FRONT YARD SETBACK: 25' MINIMUM
SIDE YARD SETBACK (REQUESTED): 7.5' MINIMUM (UDO WIDTH 10')
SIDE CORNER SETBACK (REQUESTED): 13' MINIMUM (UDO WIDTH 18')
REAR YARD SETBACK (REQUESTED): 20' MINIMUM (UDO WIDTH 25')

PARKING REQUIREMENT: (ASSUMES 3 BEDROOMS AVERAGE)
207 EACH 3 BEDROOM HOMES @ 2.5 SPACES PER HOME
TOTAL REQUIRED SPACES = 517.5 SPACES
EACH LOT WILL HAVE PARKING FOR 3 VEHICLES IN DRIVEWAY & GARAGES

LANDSCAPE & BUFFERING:
PERIMETER BUFFERS - NOT REQUIRED FOR PROPOSED USE CLASS 3
STREETSCAPE - NO STREET FRONTAGE PRESENT

AREA OF DISTURBANCE: TBD WITH NCECO EROSION CONTROL SUBMITTAL
SURVEY DATA SUPPLIED BY SUMMIT DESIGN AND ENGINEERING SERVICES & SUPPLEMENTED WITH TOPOGRAPHY OBTAINED FROM GIS.

ALL PRESERVED TREES AND STREAM BUFFERS ARE TO BE PROTECTED VIA TREE PROTECTION FENCING. NO LAND DISTURBANCE ALLOWED IN PROTECTED AREAS. ORANGE COUNTY EROSION CONTROL PLAN REVIEW AND PERMIT REQUIRED PRIOR TO LAND DISTURBANCE.

ALL PRIVATE COMMON OPEN SPACE INCLUDING STORM WATER CONTROL MEASURES, PONDS, DRAINAGE SWALES WITH PRIVATE EASEMENTS, STREETSCAPE, AND OTHER COMMON ELEMENTS ARE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION TO OWN AND MAINTAIN.

CITY OF MEBANE PUBLIC WATER, SEWER AND INTERNAL STREETS, DESIGN AND INSTALLATION IN ACCORDANCE WITH CITY OF MEBANE STANDARDS, DETAILS AND SPECIFICATIONS.

WAIVERS REQUESTED FOR LOT WIDTH OF 60' AND REDUCED SETBACKS LISTED ABOVE.

EarthCentric Engineering, Inc.
License # C-2638
204 W. Clay Street
Mebane, NC 27302
Phone: (919) 563-9041
Fax: (919) 304-3234
E-Mail: Phil.Koehn@EarthCentric.com

**PRELIMINARY
NOT FOR
CONSTRUCTION**

TUPELO JUNCTION NORTH
1818 SADDLE CLUB ROAD, MEBANE NC 27302
**GRADING & STORM DRAINAGE
PLAN - PHASE 1, NORTH**

| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
| 2 | 08/30/2022 | PER TRC COMMENTS | CPK |
| 3 | 09/27/2022 | PLANNING BOARD | CPK |

DATE: MAY 03, 2022
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: N/A
PROJECT MANAGER: CPK
DRAWN BY: CPK
PROJECT NO.: 22-16
DRAWING NAME: 22-16 WORKING

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SHEET NO.
C5.2
PRELIMINARY SITE PLAN



SITE INFORMATION & NOTES:

COUNTY: ORANGE COUNTY, CITY OF MEBANE ETJ
 PIN# 9826-42-5313 & 9826-51-1986
 DEED REF: BK: 6364 PG: 131 & BK: 6106 PG: 431

ZONING CODE: R-10 EXISTING, R-12(C) PROPOSED
 ADJACENT ZONES: R-12 (C) SOUTH, R-20 WEST & EAST AR (COUNTY) NORTH & EAST
 SIZE: 87.73 ACRES (3,821,695 SF) BY SURVEY

RIVER BASIN: CAPE FEAR RIVER BASIN
 RECEIVING WATER COURSE: MILL CREEK (WS-II; HOW, NSW)
 LAKE MICHAEL (WS-II; HOW, NSW)
 WATERSHED: GWA WATER SUPPLY WATERSHED
 SOILS: Ch - CHEWACLA - GROUP B/D
 C6B & C6C - GEORGEVILLE - GROUP B
 Lg - LIGNUM - GROUP D
 T6D - TARRUS - GROUP B
 MAP PANEL #3710982600L EFFECTIVE 11/17/2017
 FEMA: FLOOD HAZARDS ON SITE

CURRENT USE: SINGLE-FAMILY HOME & BEE FARM
 PROPOSED USE: 207 UNIT CLUSTER SUBDIVISION (2.36 UNITS/ACRE)
 PHASE 1=129 UNITS, PHASE 2=78 UNITS

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 TOTAL REQUIRED SPACES = 517.5 SPACES
 EACH LOT WILL HAVE PARKING FOR 3 VEHICLES IN DRIVEWAY & GARAGES

LANDSCAPE & BUFFERING:
 PERIMETER BUFFERS - NOT REQUIRED FOR PROPOSED USE CLASS 3
 STREETSCAPE - NO STREET FRONTAGE PRESENT

AREA OF DISTURBANCE: TBD WITH NCOEQ EROSION CONTROL SUBMITTAL

SURVEY DATA SUPPLIED BY SUMMIT DESIGN AND ENGINEERING SERVICES & SUPPLEMENTED WITH TOPOGRAPHY OBTAINED FROM GIS.

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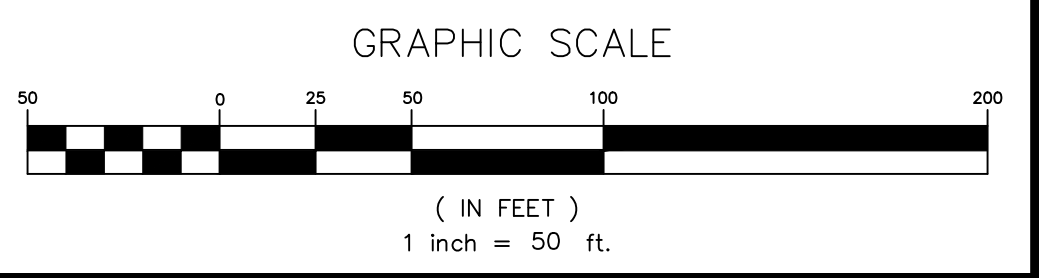
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 NORTH CAROLINA GENERAL STATUTE ARTICLE 8A, 87-122



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**PRELIMINARY
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PRINCIPAL ENGINEER
 PHIL KOECH - NCPPE #22634

TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEBANE NC 27302

**GRADING & STORM DRAINAGE
 PLAN - PHASE 2, SOUTH**

| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
| 2 | 08/30/2022 | PER TRC COMMENTS | CPK |
| 3 | 09/27/2022 | PLANNING BOARD | CPK |

DATE: MAY 03, 2022
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: N/A
 PROJECT MANAGER: CPK
 DRAWN BY: CPK
 PROJECT NO: 22-16
 DRAWING NAME: 22-16 WORKING

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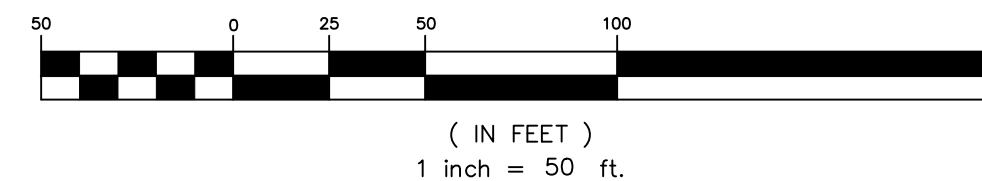
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SHEET NO.
C5.3
 PRELIMINARY SITE PLAN

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GRAPHIC SCALE



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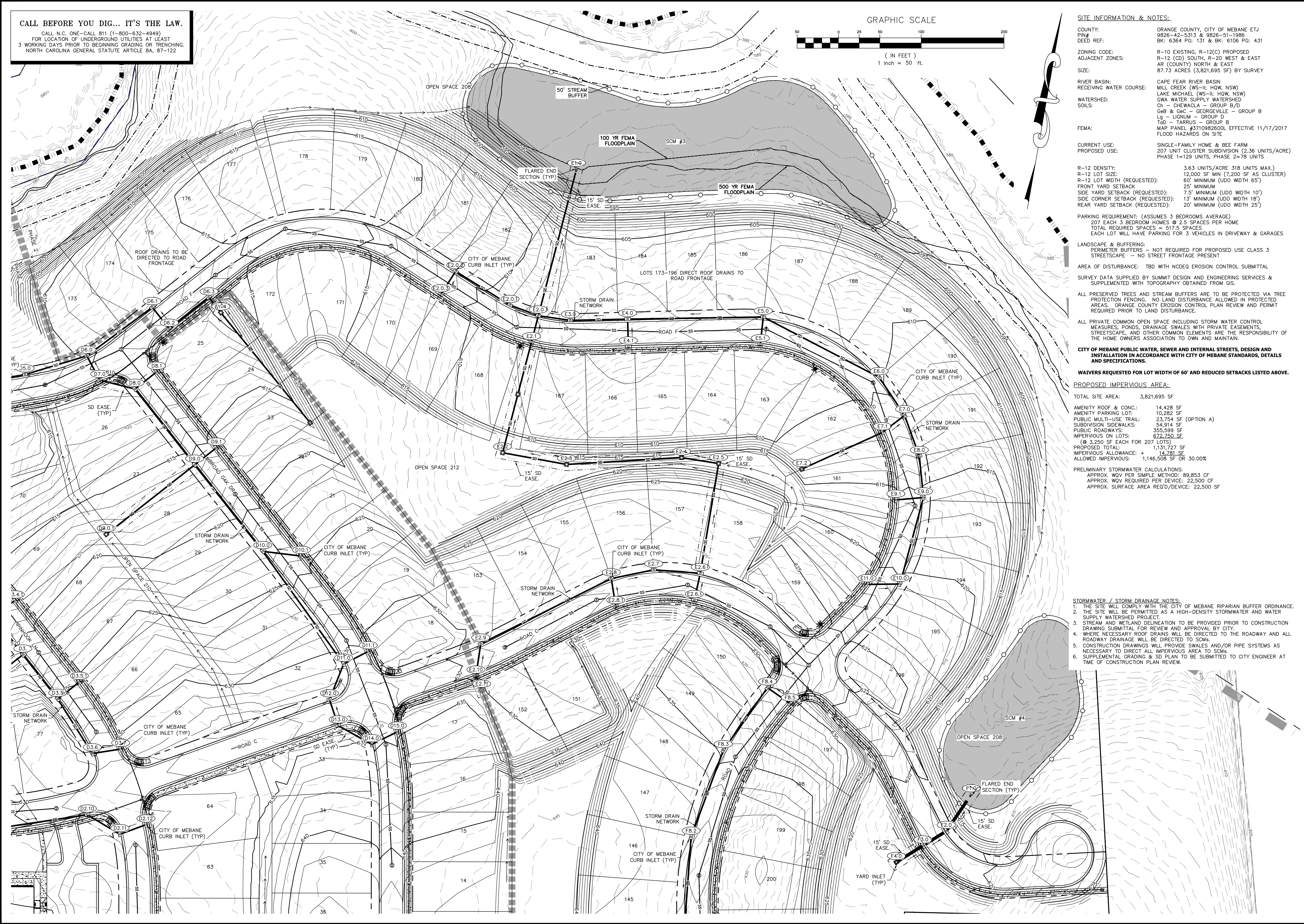
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PRINCIPAL ENGINEER
PHIL KOECH - NCPCE #26384

TUPELO JUNCTION NORTH
1818 SADDLE CLUB ROAD, MEBANE NC 27302
GRADING & STORM DRAINAGE
PLAN - PHASE 2, NORTH

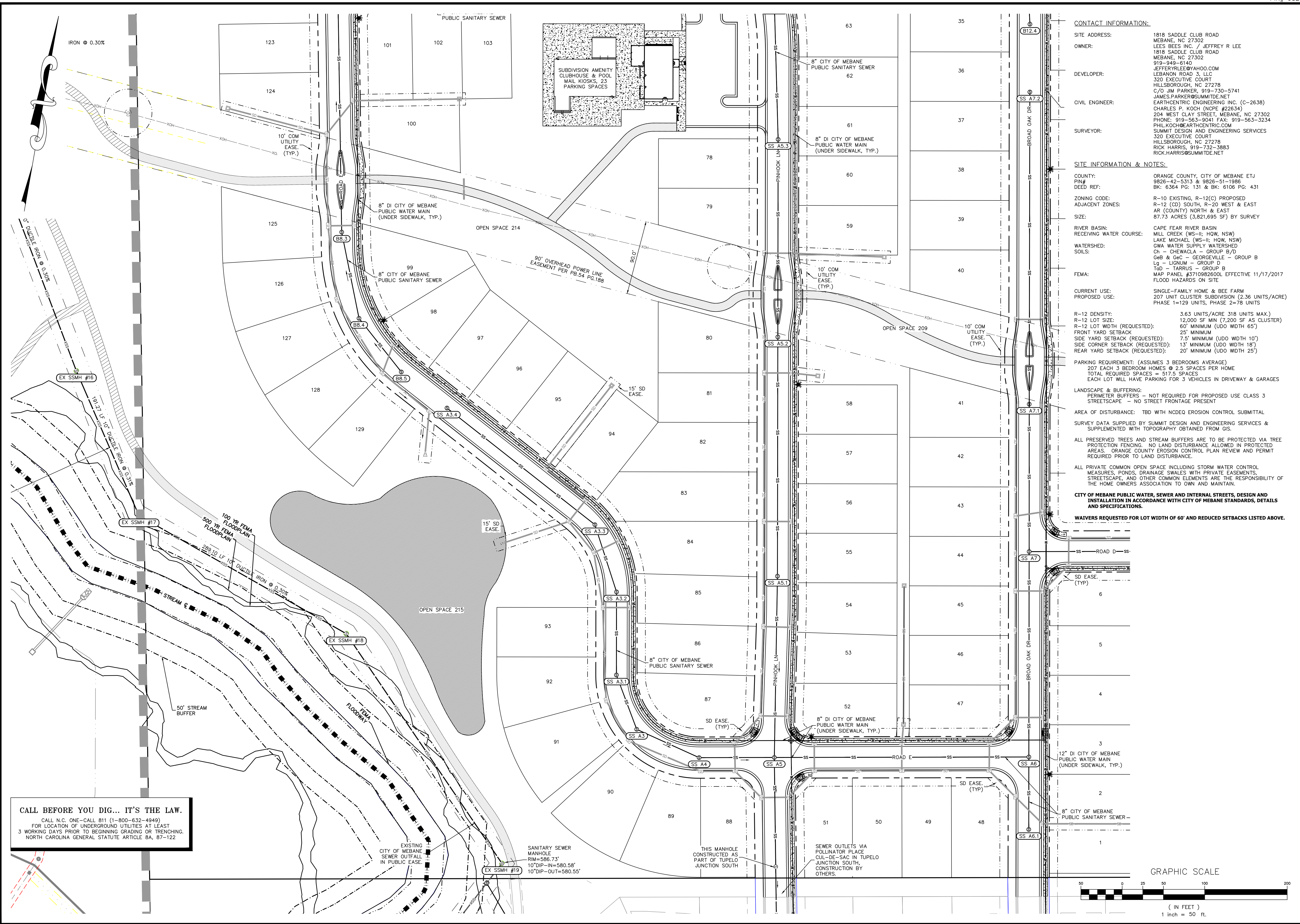
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DATE: MAY 03, 2022
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VERTICAL SCALE: N/A
PROJECT MANAGER: CPK
DRAWN BY: CPK
PROJECT NO.: 22-16
DRAWING NAME: 22-16 WORKING

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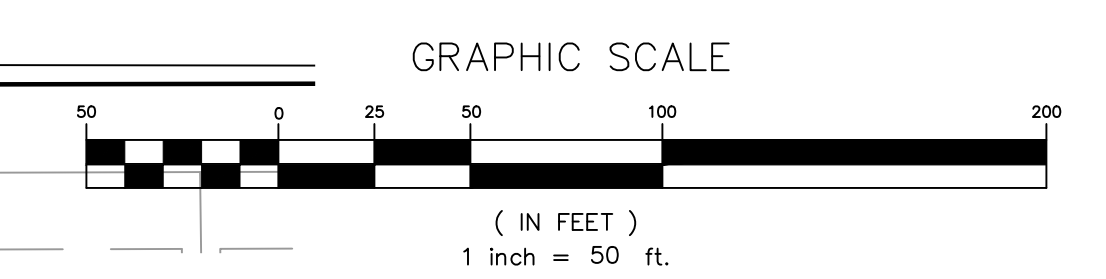
SHEET NO.
C5.4
PRELIMINARY SITE PLAN



CONTACT INFORMATION:
 SITE ADDRESS: 1818 SADDLE CLUB ROAD, MEbane, NC 27302
 OWNER: LEES BEES INC. / JEFFREY R LEE, 1818 SADDLE CLUB ROAD, MEbane, NC 27302, 919-949-6140, JEFFERYRLEE@YAHOO.COM
 DEVELOPER: LEBANON ROAD 3, LLC, 320 EXECUTIVE COURT, HILLSBOROUGH, NC 27278, C/O JIM PARKER, 919-730-5741, JAMES.PARKER@SUMMITDE.NET
 CIVIL ENGINEER: EARTHCENTRIC ENGINEERING INC. (C-2638), CHARLES P. KOCH (NCPE #22634), 204 WEST CLAY STREET, MEbane, NC 27302, PHONE: 919-563-9041 FAX: 919-563-3234, PHIL.KOCH@EARTHCENTRIC.COM
 SURVEYOR: SUMMIT DESIGN AND ENGINEERING SERVICES, 320 EXECUTIVE COURT, HILLSBOROUGH, NC 27278, RICK HARRIS, 919-732-3883, RICK.HARRIS@SUMMITDE.NET

SITE INFORMATION & NOTES:
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 Mebane, NC 27302
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 Fax: (919) 304-3234
 E-Mail: Phil.Koch@EarthCentric.com

PRELIMINARY NOT FOR CONSTRUCTION

PRINCIPAL ENGINEER
 PHIL KOCH - NCPE #22634

TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEbane NC 27302

UTILITY PLAN
 PHASE 1, NORTH

| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
| 2 | 08/30/2022 | PER TRC COMMENTS | CPK |
| 3 | 09/27/2022 | PLANNING BOARD | CPK |

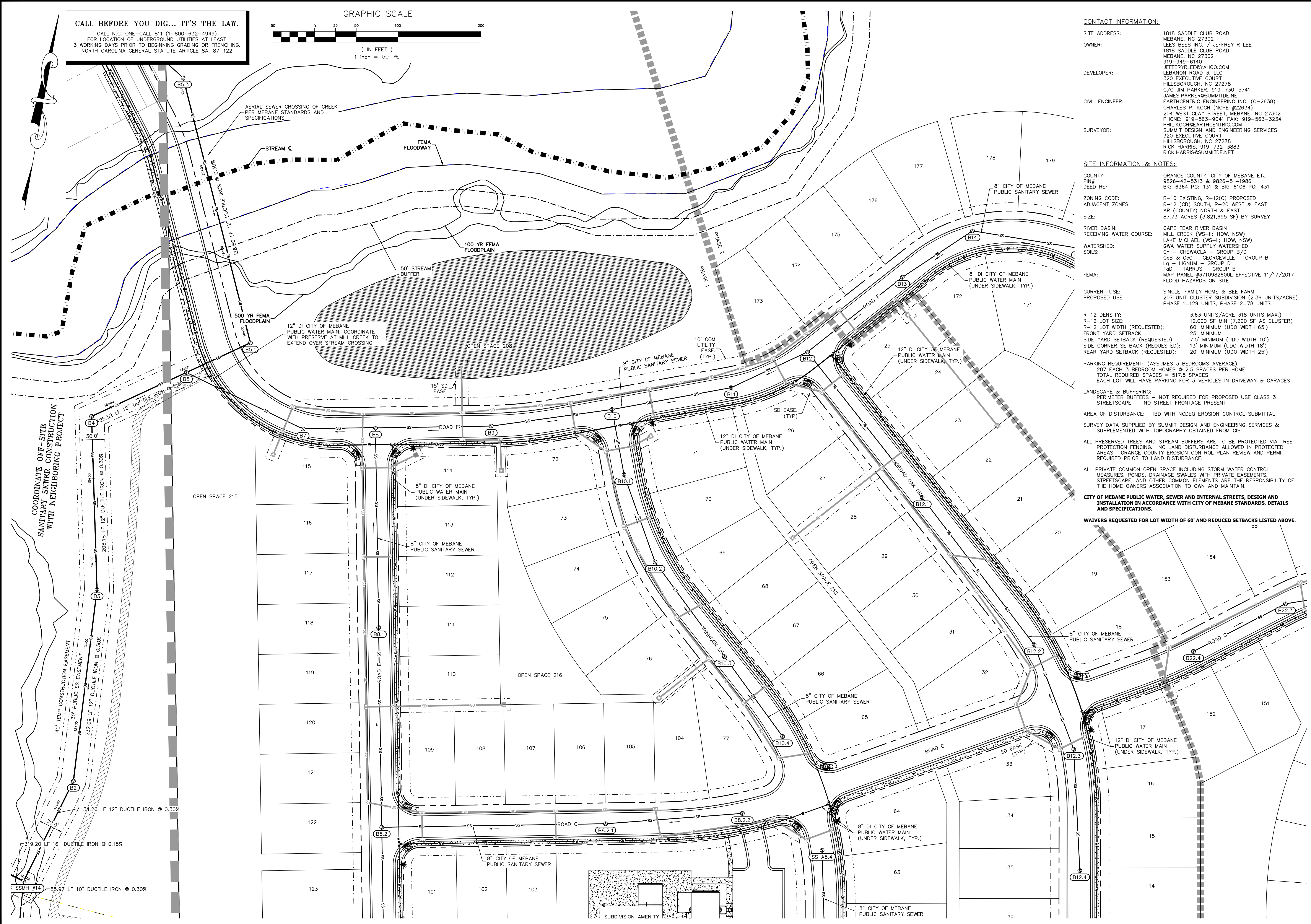
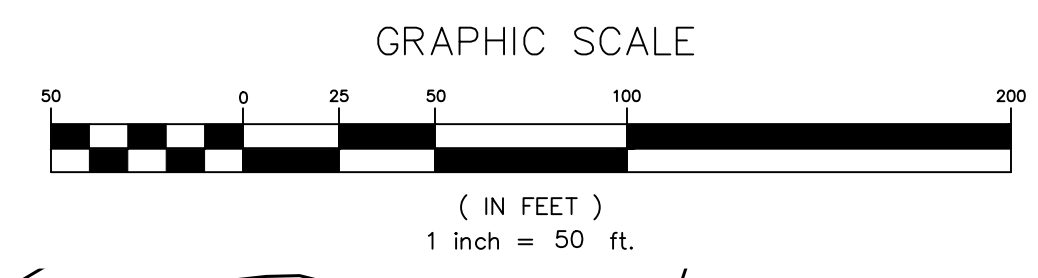
DATE: MAY 03, 2022
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: N/A
 PROJECT MANAGER: CPK
 DRAWN BY: CPK
 PROJECT NO.: 22-16
 DRAWING NAME: 22-16 WORKING

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SHEET NO.
C6.1
 PRELIMINARY SITE PLAN

CALL BEFORE YOU DIG... IT'S THE LAW.
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 FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST
 3 WORKING DAYS PRIOR TO BEGINNING GRADING OR TRENCHING.
 NORTH CAROLINA GENERAL STATUTE ARTICLE 8A, 87-122



CONTACT INFORMATION:
 SITE ADDRESS: 1818 SADDLE CLUB ROAD, MEBANE, NC 27302
 OWNER: LEES BEES INC. / JEFFREY R LEE, 1818 SADDLE CLUB ROAD, MEBANE, NC 27302, 919-949-6140, JEFFERYRLEE@YAHOO.COM
 DEVELOPER: LEBANON ROAD 3, LLC, 320 EXECUTIVE COURT, HILLSBOROUGH, NC 27278, C/O JIM PARKER, 919-730-5741, JAMES.PARKER@SUMMITDE.NET
 CIVIL ENGINEER: EARTH CENTRIC ENGINEERING INC. (C-2638), CHARLES P. KOCH (NCP# #22634), 204 WEST CLAY STREET, MEBANE, NC 27302, PHONE: 919-563-9041, FAX: 919-563-3234, PHIL.KOCH@EARTHCENTRIC.COM
 SURVEYOR: SUMMIT DESIGN AND ENGINEERING SERVICES, 320 EXECUTIVE COURT, HILLSBOROUGH, NC 27278, RICK HARRIS, 919-732-3883, RICK.HARRIS@SUMMITDE.NET

SITE INFORMATION & NOTES:
 COUNTY: ORANGE COUNTY, CITY OF MEBANE ETJ
 PIN#: 9826-42-5313 & 9826-51-1986
 DEED REF: BK: 6364 PG: 131 & BK: 6106 PG: 431
 ZONING CODE: R-10 EXISTING, R-12(C) PROPOSED
 ADJACENT ZONES: R-12 (CD) SOUTH, R-20 WEST & EAST AR (COUNTY) NORTH & EAST
 SIZE: 87.73 ACRES (3,821,695 SF) BY SURVEY
 RIVER BASIN: CAPE FEAR RIVER BASIN
 RECEIVING WATER COURSE: MILL CREEK (WS-I; HQW, NSW)
 WATERSHED: LAKE MICHAEL (WS-II; HQW, NSW)
 SOILS: Ch - CHEWAULA - GROUP B/D, G6B & G6C - GEORGEVILLE - GROUP B, Lg - LIGNUM - GROUP D, Td - TARRUS - GROUP B
 FEMA: MAP PANEL #3710982600 EFFECTIVE 11/17/2017, FLOOD HAZARDS ON SITE
 CURRENT USE: SINGLE-FAMILY HOME & BEE FARM
 PROPOSED USE: 207 UNIT CLUSTER SUBDIVISION (2.36 UNITS/ACRE), PHASE 1=129 UNITS, PHASE 2=78 UNITS

R-12 DENSITY: 3.63 UNITS/ACRE 318 UNITS MAX.
 R-12 LOT SIZE: 12,000 SF MIN (7,200 SF AS CLUSTER)
 R-12 LOT WIDTH (REQUESTED): 60' MINIMUM (UDO WIDTH 65')
 FRONT YARD SETBACK (REQUESTED): 25' MINIMUM
 SIDE YARD SETBACK (REQUESTED): 7.5' MINIMUM (UDO WIDTH 10')
 SIDE CORNER SETBACK (REQUESTED): 13' MINIMUM (UDO WIDTH 18')
 REAR YARD SETBACK (REQUESTED): 20' MINIMUM (UDO WIDTH 25')

PARKING REQUIREMENT: (ASSUMES 3 BEDROOMS AVERAGE)
 207 EACH 3 BEDROOM HOMES @ 2.5 SPACES PER HOME
 TOTAL REQUIRED SPACES = 517.5 SPACES
 EACH LOT WILL HAVE PARKING FOR 3 VEHICLES IN DRIVEWAY & GARAGES

LANDSCAPE & BUFFERING: PERIMETER BUFFERS - NOT REQUIRED FOR PROPOSED USE CLASS 3
 STREETSCAPE - NO STREET FRONTAGE PRESENT

AREA OF DISTURBANCE: TBD WITH NCOE EROSION CONTROL SUBMITTAL

SURVEY DATA SUPPLIED BY SUMMIT DESIGN AND ENGINEERING SERVICES & SUPPLEMENTED WITH TOPOGRAPHY OBTAINED FROM GIS.

ALL PRESERVED TREES AND STREAM BUFFERS ARE TO BE PROTECTED VIA TREE PROTECTION FENCING. NO LAND DISTURBANCE ALLOWED IN PROTECTED AREAS. ORANGE COUNTY EROSION CONTROL PLAN REVIEW AND PERMIT REQUIRED PRIOR TO LAND DISTURBANCE.

ALL PRIVATE COMMON OPEN SPACE INCLUDING STORM WATER CONTROL MEASURES, PONDS, DRAINAGE SWALES WITH PRIVATE EASEMENTS, STREETSCAPE, AND OTHER COMMON ELEMENTS ARE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION TO OWN AND MAINTAIN.

CITY OF MEBANE PUBLIC WATER, SEWER AND INTERNAL STREETS, DESIGN AND INSTALLATION IN ACCORDANCE WITH CITY OF MEBANE STANDARDS, DETAILS AND SPECIFICATIONS.

WAIVERS REQUESTED FOR LOT WIDTH OF 60' AND REDUCED SETBACKS LISTED ABOVE.

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 License # C-2638
 204 W. Clay Street
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 Fax: (919) 304-3234
 E-Mail: Phil.Koch@EarthCentric.com

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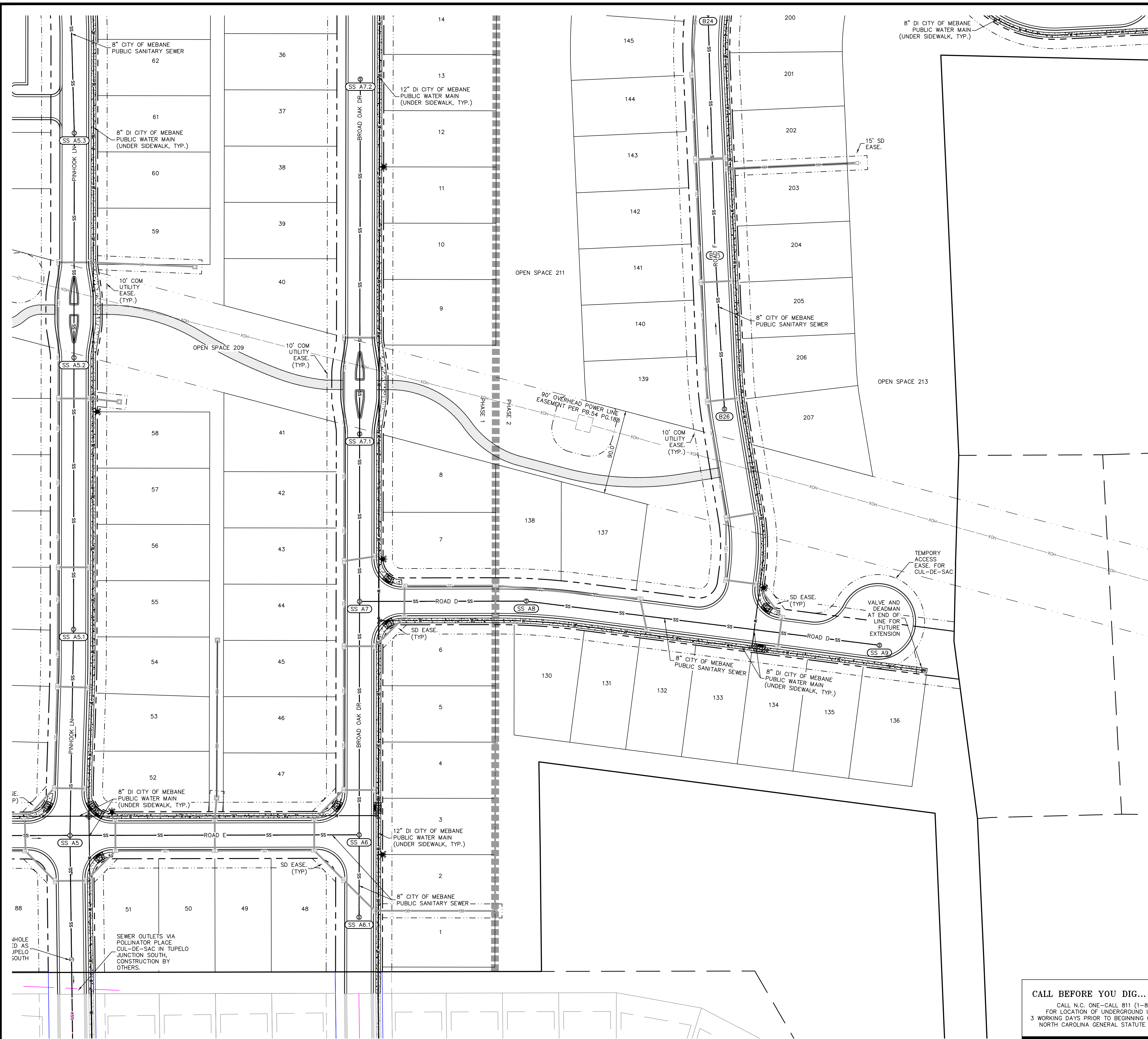
UTILITY PLAN
PHASE 1, NORTH
TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEBANE NC 27302

| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
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DATE: MAY 03, 2022
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 PROJECT MANAGER: CPK
 DRAWN BY: CPK
 PROJECT NO.: 22-16
 DRAWING NAME: 22-16 WORKING

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SHEET NO.
C6.2
 PRELIMINARY SITE PLAN



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 SITE ADDRESS: 1818 SADDLE CLUB ROAD, MEbane, NC 27302
 OWNER: LEES BEES INC. / JEFFREY R LEE, 1818 SADDLE CLUB ROAD, MEbane, NC 27302
 DEVELOPER: JEFFERYRLEE@YAHOO.COM, C/O JIM PARKER, 919-730-5741, JAMES.PARKER@SUMMITDE.NET
 CIVIL ENGINEER: EARTHCENTRIC ENGINEERING INC. (C-2638), CHARLES P. KOCH (NCP# #22634), 204 WEST CLAY STREET, MEbane, NC 27302
 SURVEYOR: PHIL.KOCH@EARTHCENTRIC.COM, SUMMIT DESIGN AND ENGINEERING SERVICES, 320 EXECUTIVE COURT, HILLSBOROUGH, NC 27278, RICK.HARRIS, 919-732-3883, RICK.HARRIS@SUMMITDE.NET

SITE INFORMATION & NOTES:
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 DEED REF: 9826-42-5313 & 9826-51-1986, BK: 6364 PG: 131 & BK: 6106 PG: 431
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 AREA OF DISTURBANCE: TBD WITH NCOEQ EROSION CONTROL SUBMITTAL
 SURVEY DATA SUPPLIED BY SUMMIT DESIGN AND ENGINEERING SERVICES & SUPPLEMENTED WITH TOPOGRAPHY OBTAINED FROM GIS.
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PRELIMINARY NOT FOR CONSTRUCTION

PRINCIPAL ENGINEER
 PHIL KOCH - NCP# #22634

TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEbane NC 27302

UTILITY PLAN
 PHASE 2, SOUTH

| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
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| 3 | 09/27/2022 | PLANNING BOARD | CPK |

DATE: MAY 03, 2022
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: N/A
 PROJECT MANAGER: CPK
 DRAWN BY: CPK
 PROJECT NO.: 22-16
 DRAWING NAME: 22-16 WORKING

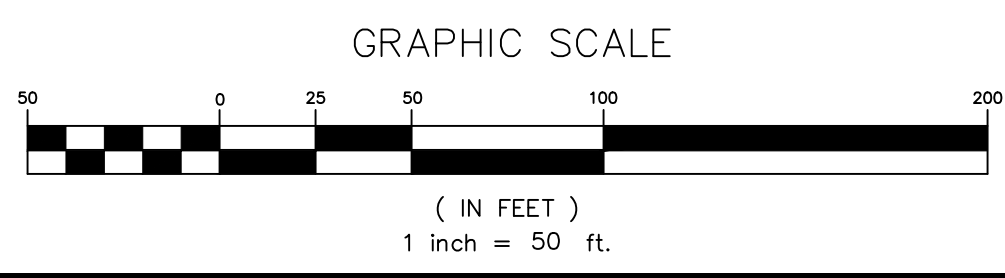
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SHEET NO.
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PRELIMINARY SITE PLAN

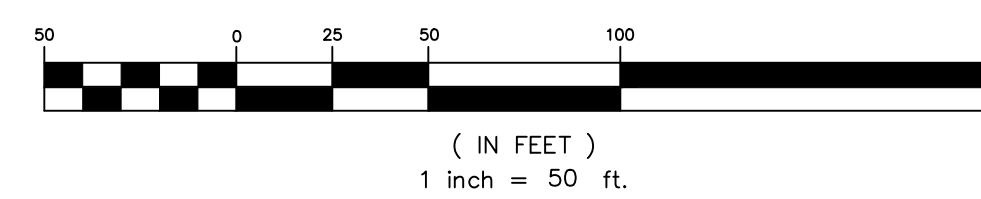
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 NORTH CAROLINA GENERAL STATUTE ARTICLE 8A, 87-122



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GRAPHIC SCALE



CONTACT INFORMATION:

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MEBANE, NC 27302
OWNER: LEES BEES INC. / JEFFREY R LEE
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MEBANE, NC 27302
919-949-6140
JEFFERYRLEE@YAHOO.COM
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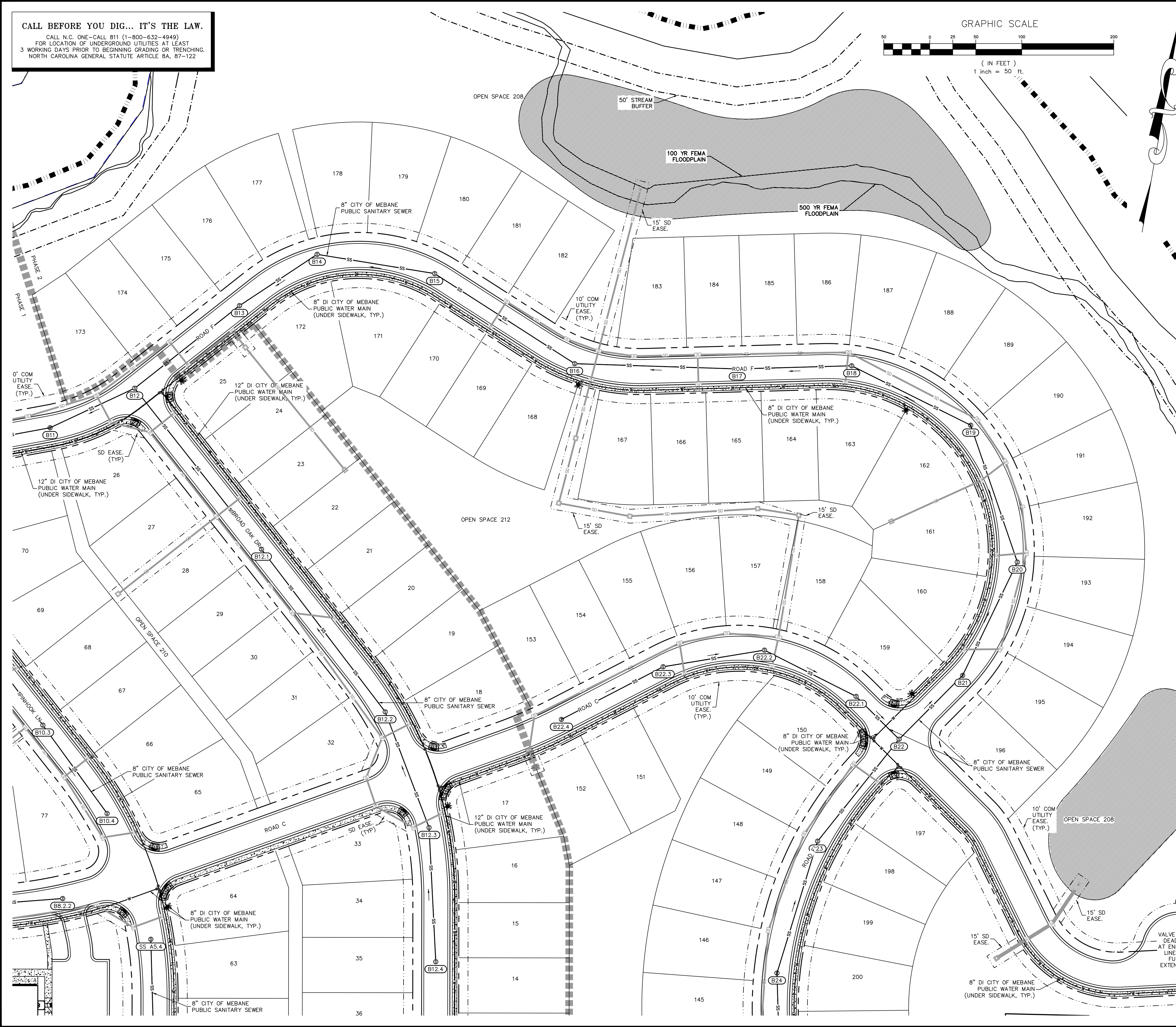
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TUPELO JUNCTION NORTH
1818 SADDLE CLUB ROAD, MEBANE NC 27302

**UTILITY PLAN
PHASE 2, NORTH**

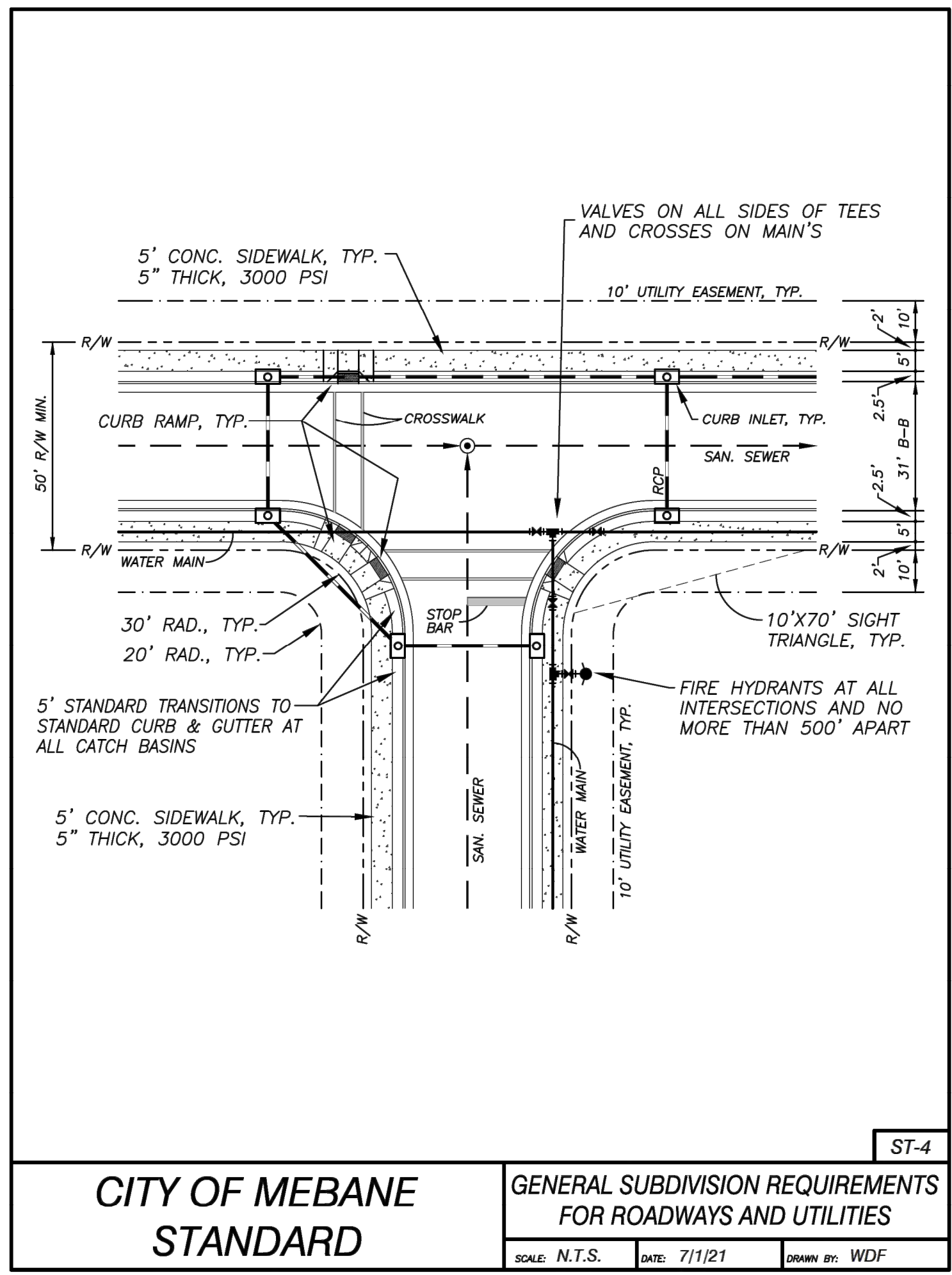
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PROJECT MANAGER: CPK
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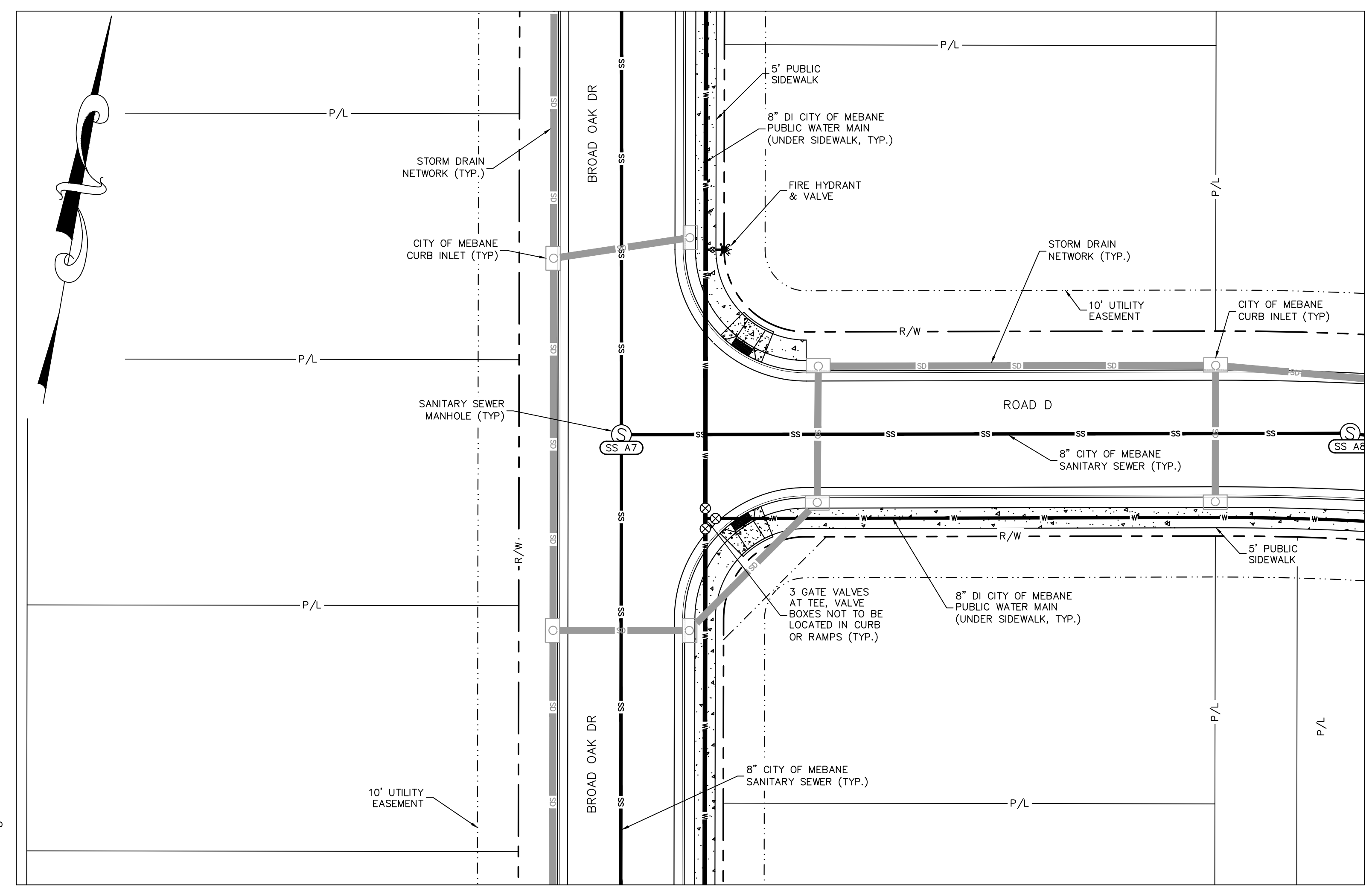
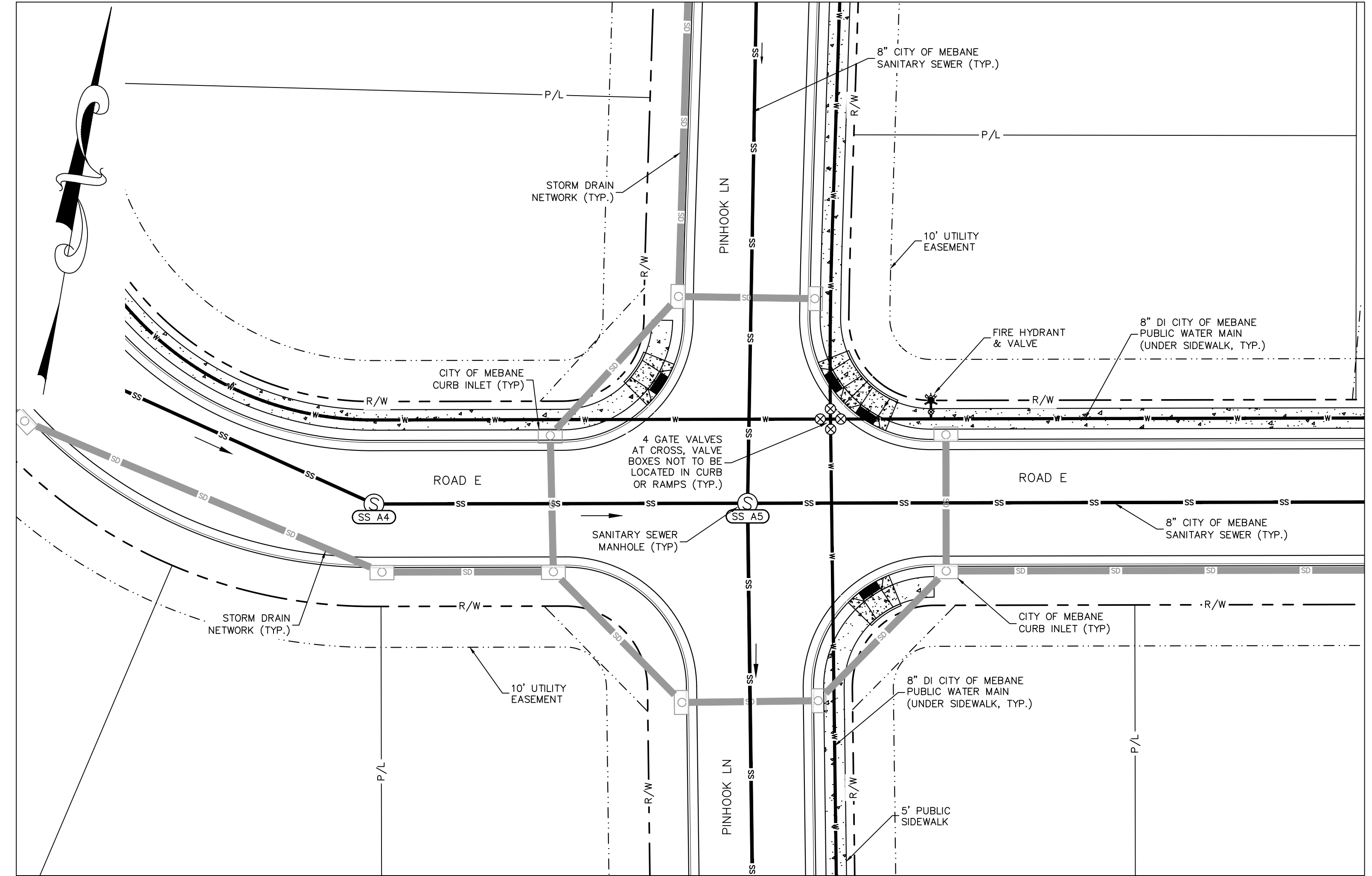
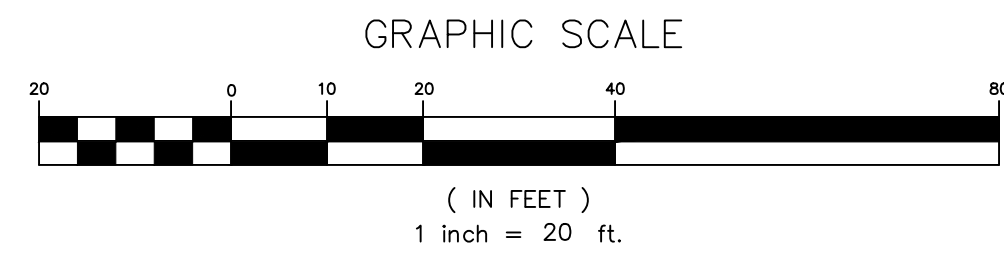
SHEET NO.
C6.4
PRELIMINARY SITE PLAN



CONTACT INFORMATION:
 SITE ADDRESS: 1818 SADDLE CLUB ROAD, MEBANE, NC 27302
 OWNER: LEES BEES INC. / JEFFREY R LEE, 1818 SADDLE CLUB ROAD, MEBANE, NC 27302, 919-949-6140, JEFFERYLEE@YAHOO.COM
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 PHIL KOCH - NCEP #22634

TUPELO JUNCTION NORTH
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UTILITY PLAN INTERSECTIONS

| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
| 2 | 08/30/2022 | PER TRC COMMENTS | CPK |
| 3 | 09/27/2022 | PLANNING BOARD | CPK |

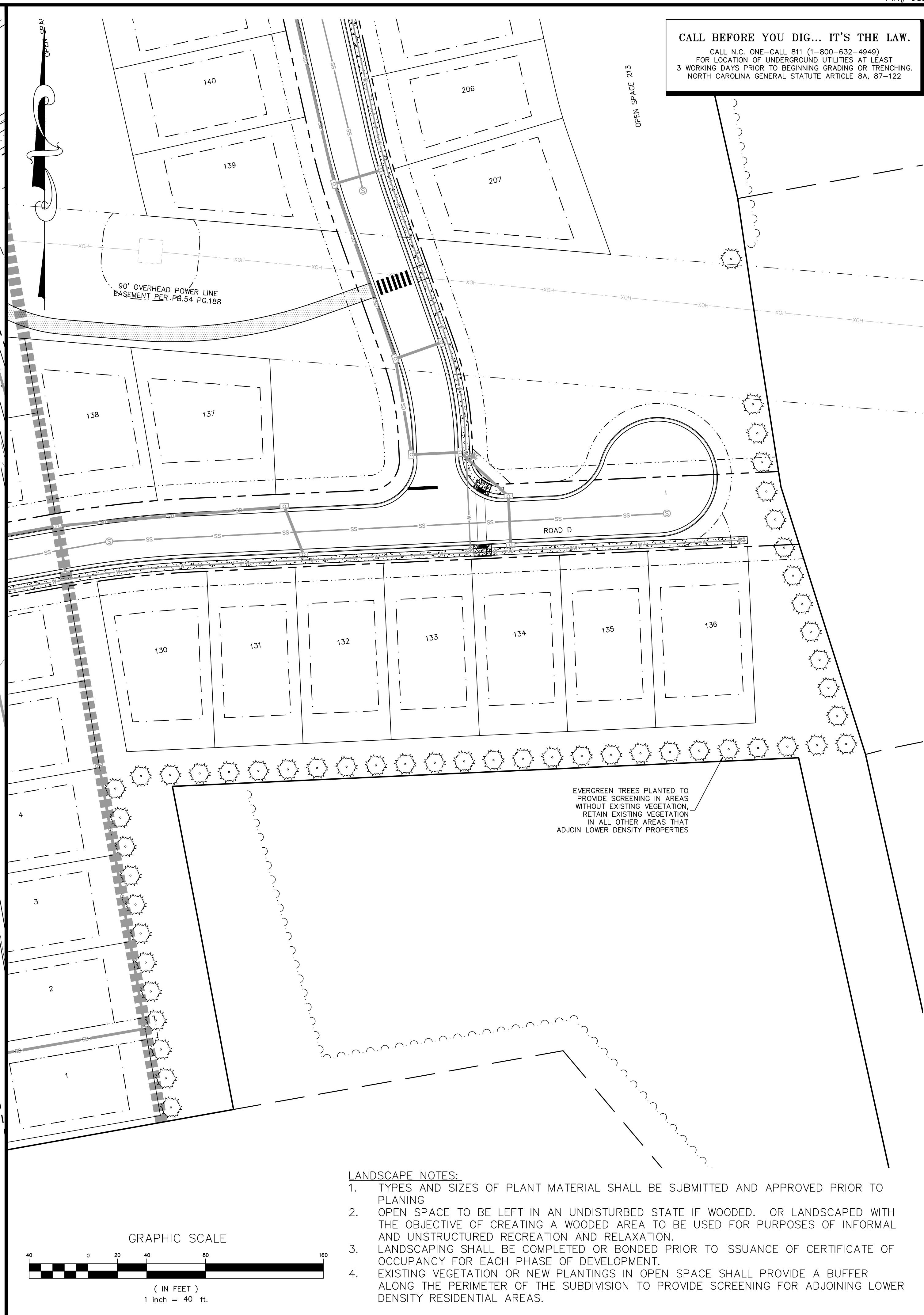
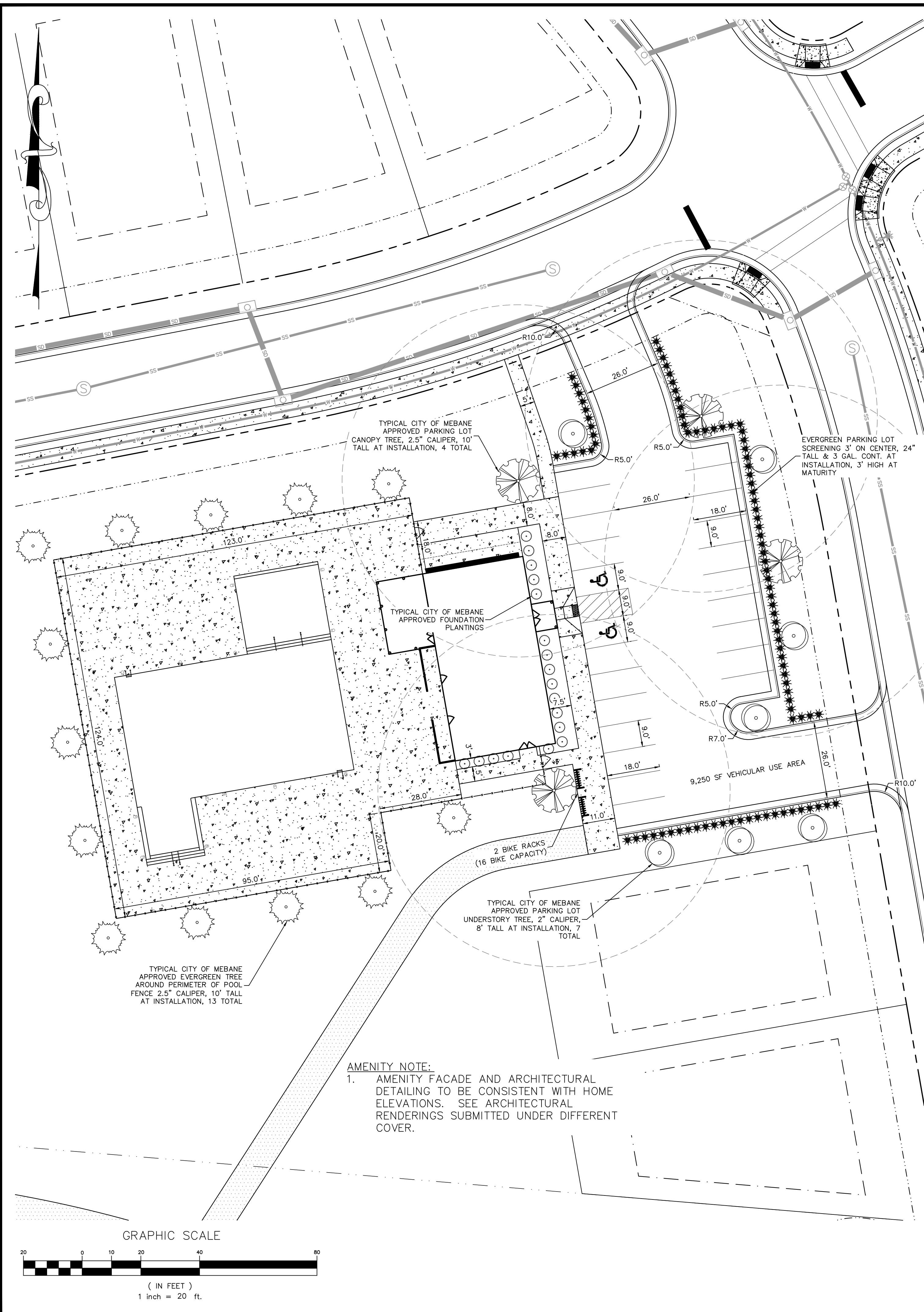
DATE: MAY 03, 2022
 HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: N/A
 PROJECT MANAGER: CPK
 DRAWN BY: CPK
 PROJECT NO.: 22-16
 DRAWING NAME: 22-16 WORKING

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SHEET NO. C6.5

PRELIMINARY SITE PLAN



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EarthCentric Engineering, Inc.
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Phone: (919) 563-9041
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E-Mail: Phil.Koch@EarthCentric.com

PRELIMINARY NOT FOR CONSTRUCTION
PRINCIPAL ENGINEER
PHIL KOCH - NCP# 422634

TUPELO JUNCTION NORTH
1818 SADDLE CLUB ROAD, MEBANE NC 27302
LANDSCAPE PLAN (AMENITY & EAST BUFFER AREA)

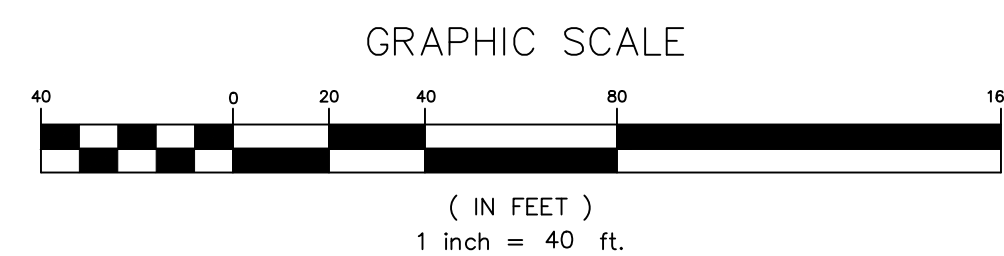
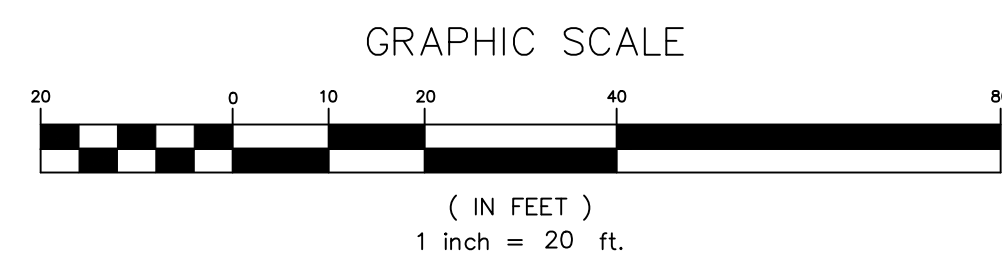
| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
| 2 | 08/30/2022 | PER TRC COMMENTS | CPK |
| 3 | 09/27/2022 | PLANNING BOARD | CPK |

DATE: MAY 03, 2022
HORIZONTAL SCALE: VARIOUS
VERTICAL SCALE: N/A
PROJECT MANAGER: CPK
DRAWN BY: CPK
PROJECT NO.: 22-16
DRAWING NAME: 22-16 WORKING

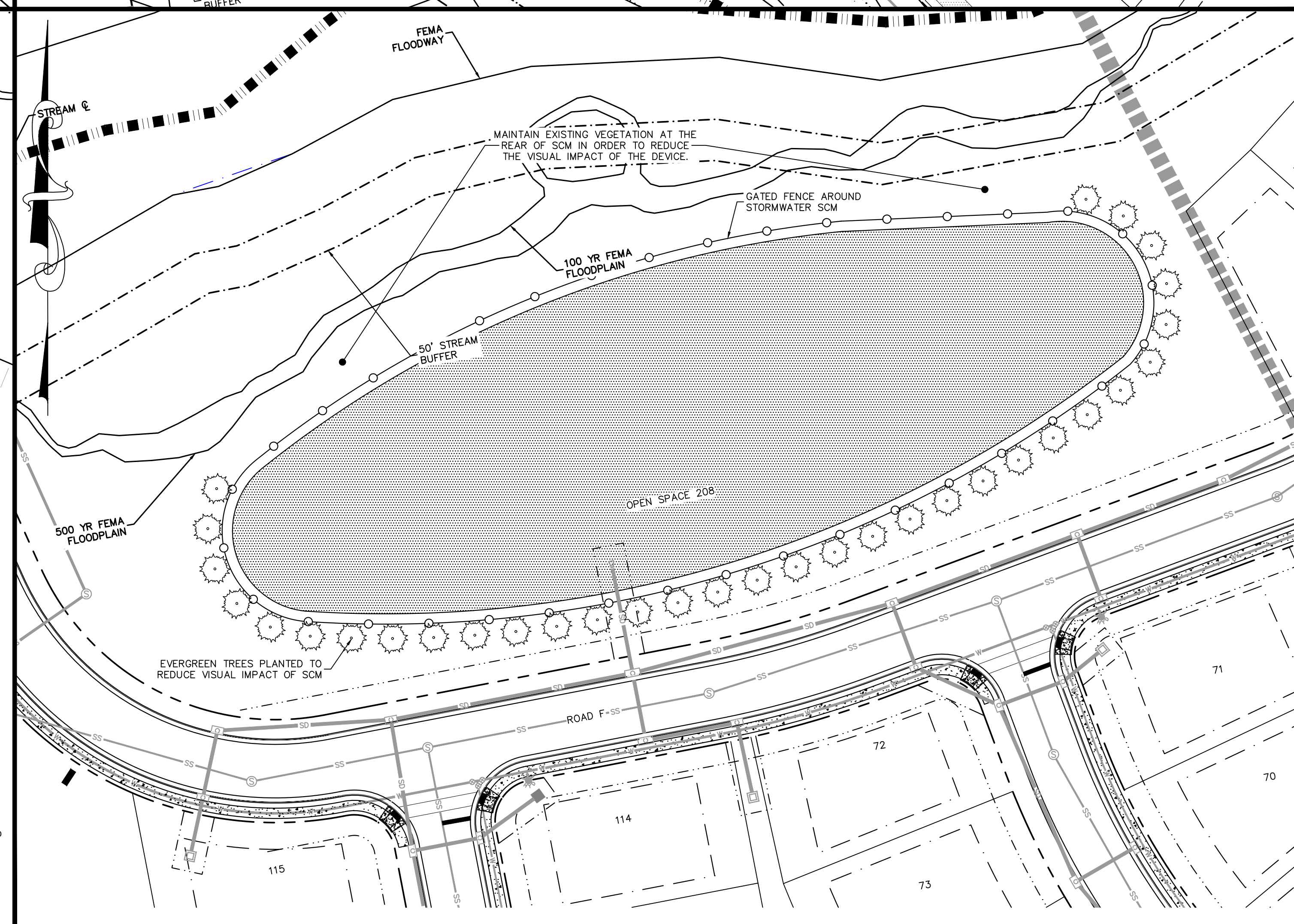
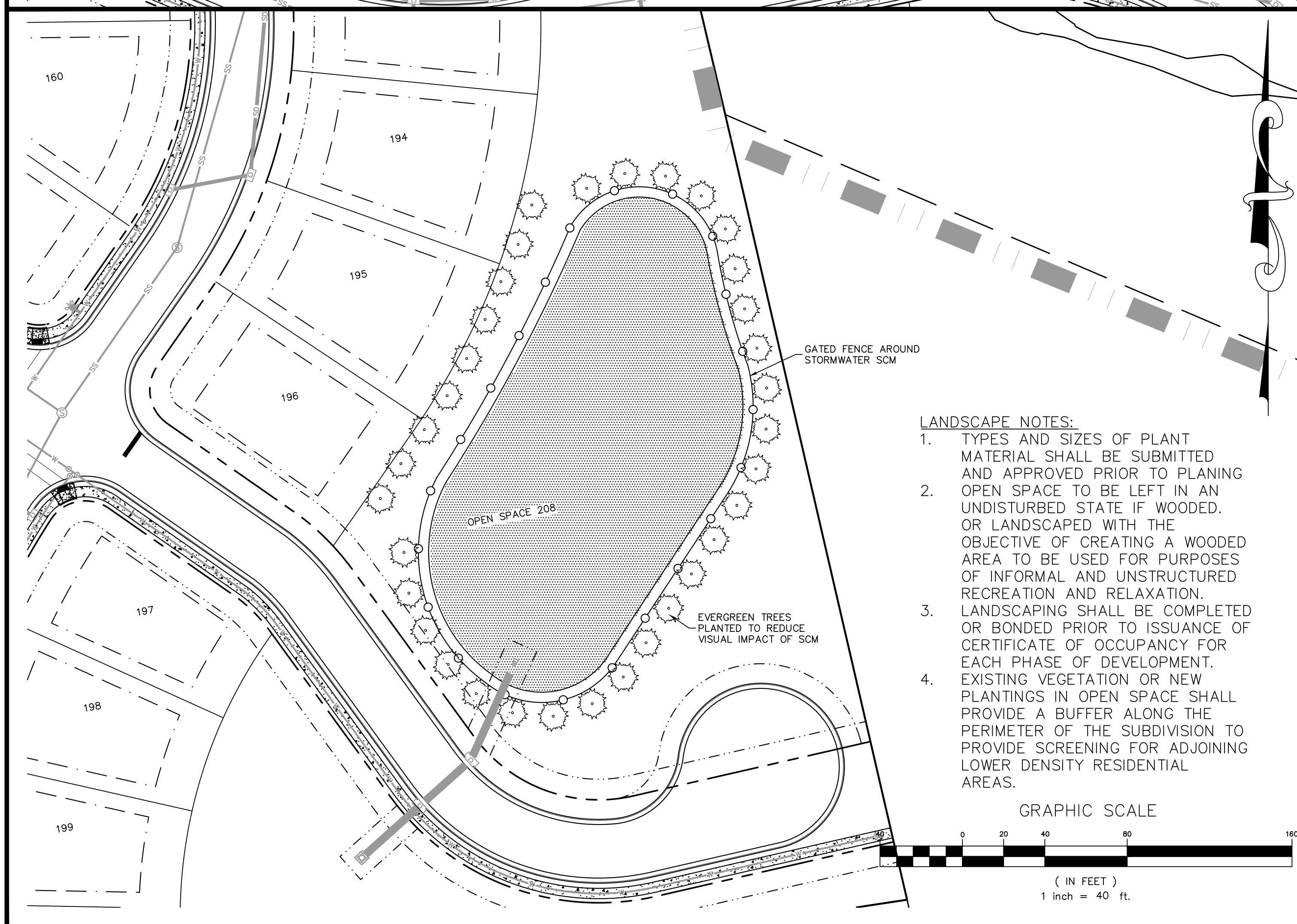
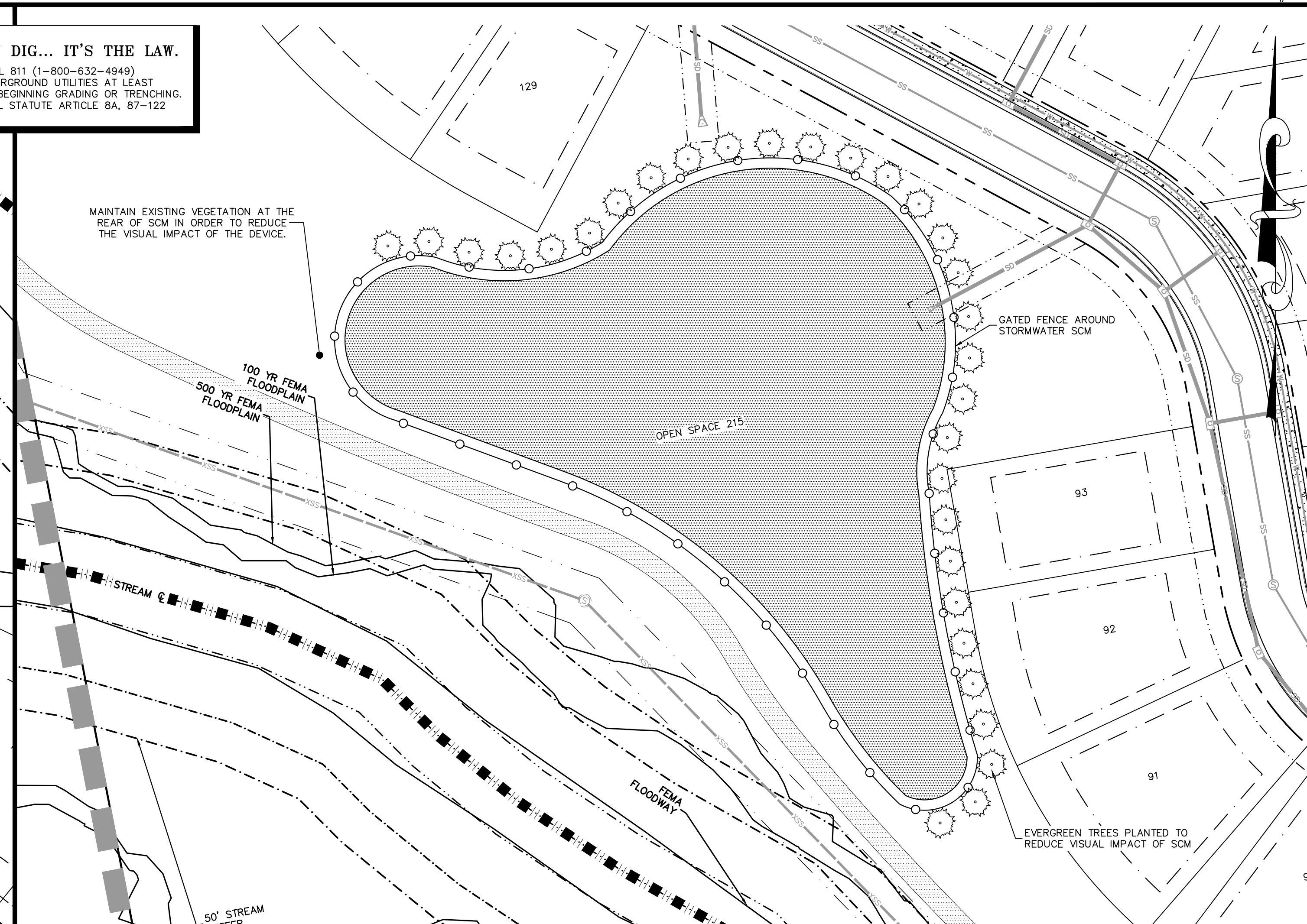
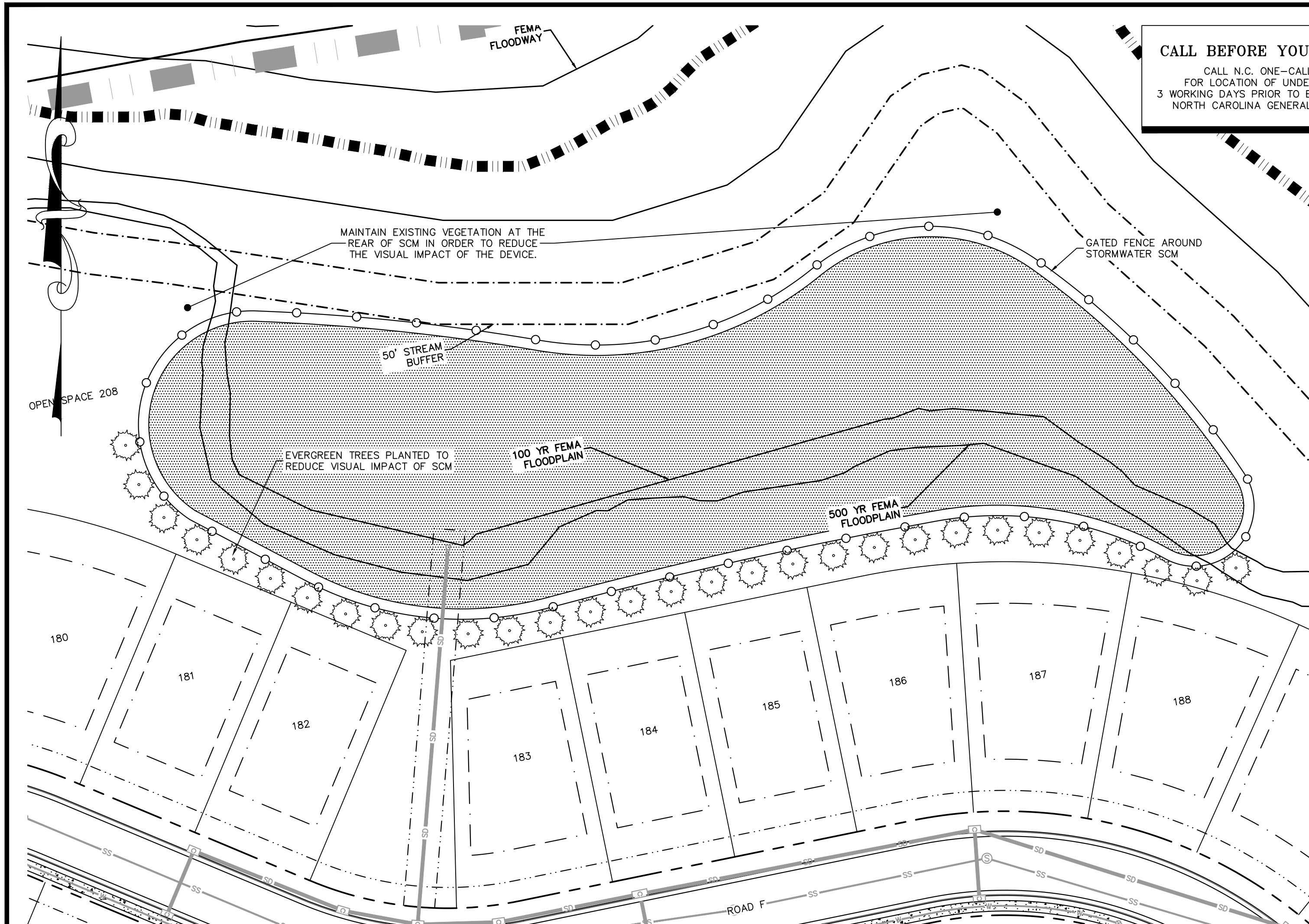
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SHEET NO.
C8.0
PRELIMINARY SITE PLAN

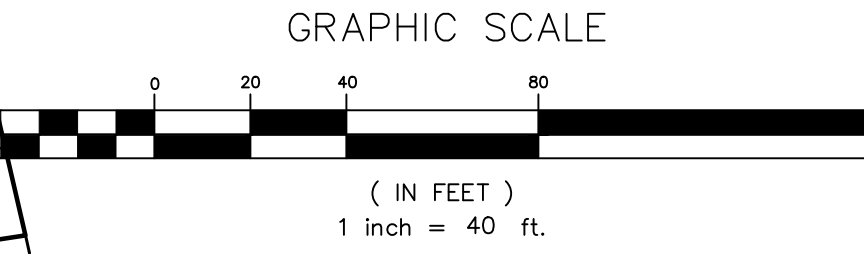


- LANDSCAPE NOTES:**
1. TYPES AND SIZES OF PLANT MATERIAL SHALL BE SUBMITTED AND APPROVED PRIOR TO PLANING
 2. OPEN SPACE TO BE LEFT IN AN UNDISTURBED STATE IF WOODED. OR LANDSCAPED WITH THE OBJECTIVE OF CREATING A WOODED AREA TO BE USED FOR PURPOSES OF INFORMAL AND UNSTRUCTURED RECREATION AND RELAXATION.
 3. LANDSCAPING SHALL BE COMPLETED OR BONDED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY FOR EACH PHASE OF DEVELOPMENT.
 4. EXISTING VEGETATION OR NEW PLANTINGS IN OPEN SPACE SHALL PROVIDE A BUFFER ALONG THE PERIMETER OF THE SUBDIVISION TO PROVIDE SCREENING FOR ADJOINING LOWER DENSITY RESIDENTIAL AREAS.



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 3 WORKING DAYS PRIOR TO BEGINNING GRADING OR TRENCHING.
 NORTH CAROLINA GENERAL STATUTE ARTICLE 8A, 87-122

- LANDSCAPE NOTES:**
1. TYPES AND SIZES OF PLANT MATERIAL SHALL BE SUBMITTED AND APPROVED PRIOR TO PLANING OPEN SPACE TO BE LEFT IN AN UNDISTURBED STATE IF WOODED, OR LANDSCAPED WITH THE OBJECTIVE OF CREATING A WOODED AREA TO BE USED FOR PURPOSES OF INFORMAL AND UNSTRUCTURED RECREATION AND RELAXATION.
 2. LANDSCAPING SHALL BE COMPLETED OR BONDED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY FOR EACH PHASE OF DEVELOPMENT.
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**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

PRINCIPAL ENGINEER
 PHIL KOCH - NCPPE #22634

TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEBANE NC 27302

**LANDSCAPE PLAN
 (SCM SCREENING)**

| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
| 2 | 08/30/2022 | PER TRC COMMENTS | CPK |
| 3 | 09/27/2022 | PLANNING BOARD | CPK |

DATE: MAY 03, 2022
 HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: N/A
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 PROJECT NO.: 22-16
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SHEET NO.
C8.1
 PRELIMINARY SITE PLAN



SITE INFORMATION & NOTES:

COUNTY: ORANGE COUNTY, CITY OF MEBANE ETJ
 PIN: 9826-42-5313 & 9826-51-1986
 DEED REF: BK: 6364 PG: 131 & BK: 6106 PG: 431

ZONING CODE: R-10 EXISTING, R-12(C) PROPOSED
 ADJACENT ZONES: R-12 (C) SOUTH, R-20 WEST & EAST AR (COUNTY) NORTH & EAST
 SIZE: 87.73 ACRES (3,821,695 SF) BY SURVEY

RIVER BASIN: CAPE FEAR RIVER BASIN
 RECEIVING WATER COURSE: MILL CREEK (WS-II; HOW, NSW)
 LAKE MICHAEL (WS-II; HOW, NSW)
 WATERSHED: GWA WATER SUPPLY WATERSHED
 SOILS: Ch - CHEWACLA - GROUP B/D
 GcB & GcC - GEORGEVILLE - GROUP B
 Lg - LIGNUM - GROUP D
 Td - TARRUS - GROUP B
 FEMA: MAP PANEL #371092600L EFFECTIVE 11/17/2017
 FLOOD HAZARDOUS ON SITE

CURRENT USE: SINGLE-FAMILY HOME & BEE FARM
 PROPOSED USE: 207 UNIT CLUSTER SUBDIVISION (2.36 UNITS/ACRE)
 PHASE 1=129 UNITS, PHASE 2=78 UNITS

R-12 DENSITY: 3.63 UNITS/ACRE 318 UNITS MAX.)
 R-12 LOT SIZE: 12,000 SF MIN (7,200 SF AS CLUSTER)
 R-12 LOT WIDTH (REQUESTED): 60' MINIMUM (UDO WIDTH 65')
 FRONT YARD SETBACK: 25' MINIMUM
 SIDE YARD SETBACK (REQUESTED): 7.5' MINIMUM (UDO WIDTH 10')
 SIDE CORNER SETBACK (REQUESTED): 13' MINIMUM (UDO WIDTH 18')
 REAR YARD SETBACK (REQUESTED): 20' MINIMUM (UDO WIDTH 25')

PARKING REQUIREMENT: (ASSUMES 3 BEDROOMS AVERAGE)
 207 EACH 3 BEDROOM HOMES @ 2.5 SPACES PER HOME
 TOTAL REQUIRED SPACES = 517.5 SPACES
 EACH LOT WILL HAVE PARKING FOR 3 VEHICLES IN DRIVEWAY & GARAGES

LANDSCAPE & BUFFERING:
 PERIMETER BUFFERS - NOT REQUIRED FOR PROPOSED USE CLASS 3
 STREETSCAPE - NO STREET FRONTAGE PRESENT

AREA OF DISTURBANCE: TBD WITH NCDOT EROSION CONTROL SUBMITTAL
 SURVEY DATA SUPPLIED BY SUMMIT DESIGN AND ENGINEERING SERVICES &
 SUPPLEMENTED WITH TOPOGRAPHY OBTAINED FROM GIS.

ALL PRESERVED TREES AND STREAM BUFFERS ARE TO BE PROTECTED VIA TREE PROTECTION FENCING. NO LAND DISTURBANCE ALLOWED IN PROTECTED AREAS. ORANGE COUNTY EROSION CONTROL PLAN REVIEW AND PERMIT REQUIRED PRIOR TO LAND DISTURBANCE.

ALL PRIVATE COMMON OPEN SPACE INCLUDING STORM WATER CONTROL MEASURES, PONDS, DRAINAGE SWALES WITH PRIVATE EASEMENTS, STREETSCAPE, AND OTHER COMMON ELEMENTS ARE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION TO OWN AND MAINTAIN.

CITY OF MEBANE PUBLIC WATER, SEWER AND INTERNAL STREETS, DESIGN AND INSTALLATION IN ACCORDANCE WITH CITY OF MEBANE STANDARDS, DETAILS AND SPECIFICATIONS.

WAIVERS REQUESTED FOR LOT WIDTH OF 60' AND REDUCED SETBACKS LISTED ABOVE.

SITE NOTES:

- 10'X70' SIGHT TRIANGLES TO BE PROVIDED AT ALL INTERSECTIONS.
- CITY OF MEBANE ANNEXATION REQUIRED PRIOR TO CONNECTION TO CITY UTILITIES.
- ALL SOWS TO BE FENCED
- A PAYMENT-IN-LIEU OF CONSTRUCTION FOR ROAD C FROM THE INTERSECTION OF ROAD F TO THE EASTERN PROPERTY LINE SHALL BE PROVIDED.
- ALL PARKING SPACES SHALL MEET CITY OF MEBANE STANDARDS PER SEC. 6-5 D OF THE UDO.
- DETAILS FOR TRAFFIC CALMING AT POWER EASEMENT SHOWN ON SHEET C3.1.
- DEVELOPERS OF TUPELO NORTH AND THE PRESERVE AT MILL CREEK TO MAKE SURE THAT PROPOSED PUBLIC ROADWAY, WATER, SEWER, AND TRAIL(S) AT THE STREAM CROSSING ARE DESIGNED, PERMITTED, AND CONSTRUCTED TO CITY OF MEBANE STANDARDS & SPECS. BOTH PARTIES WILL ENTER INTO A TWO PARTY AGREEMENT THAT COVERS ALL ASPECTS OF THESE IMPROVEMENTS. THE CONSTRUCTION DRAWING APPROVAL PROCESS THROUGH THE CITY OF MEBANE FOR TUPELO NORTH WILL CONSIST OF TWO SEPARATE SUBMITTALS: ONE FOR THE ENTIRE SUBDIVISION AND THE OTHER FOR THE CONNECTION PORTION BETWEEN BOTH PROPERTIES. THE PURPOSE OF THIS IS TO ELIMINATE UNNECESSARY REVIEW/DESIGN AND PERMITTING TIME SHOULD ONE OF THESE DEVELOPMENTS NOT REACH CONSTRUCTION DRAWING APPROVAL. THE CONSTRUCTION DRAWING APPROVAL PROCESS FOR THE CONNECTION WILL OCCUR ONLY AFTER BOTH DEVELOPMENTS HAVE CONSTRUCTION DRAWING APPROVAL FOR THEIR RESPECTIVE DEVELOPMENTS MINUS THE CONNECTION. ONCE CONSTRUCTION DRAWING APPROVAL OF BOTH DEVELOPMENTS HAS BEEN OBTAINED THEN THE CONNECTION WILL BE SUBMITTED FOR CONSTRUCTION DRAWING APPROVAL.

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 FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST
 3 WORKING DAYS PRIOR TO BEGINNING GRADING OR TRENCHING.
 NORTH CAROLINA GENERAL STATUTE ARTICLE 8A, 87-122

TRAFFIC NOTES - THE SEPTEMBER 2022 TRAFFIC IMPACT ANALYSIS RECOMMENDS THAT THE ADDITION OF TUPELO JUNCTION NORTH TO THE OVERALL TUPELO JUNCTION PROJECT WILL BENEFIT FROM A DEDICATED RIGHT TURN LANE FOR WESTBOUND LEBANON ROAD TRAFFIC TURNING RIGHT ONTO E. STAGECOACH ROAD. FURTHER MODIFICATIONS TO LEBANON ROAD OR SADDLE CLUB ROAD ARE NOT RECOMMENDED FOR TUPELO JUNCTION NORTH. ALL IMPROVEMENTS TO LEBANON AND STAGECOACH ROADS MUST HAVE THE CONCUERANCE OF NCDOT AT THE TIME OF CONSTRUCTION PLAN APPROVAL.

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PRINCIPAL ENGINEER
 PHIL KOCH - NCPE #2634

TUPELO JUNCTION NORTH
 1818 SADDLE CLUB ROAD, MEBANE NC 27302

TRAFFIC IMPROVEMENT PLAN
 EXHIBIT PHASE 2, OFFSITE

| REV. | DATE | DESCRIPTION | BY |
|------|------------|------------------|-----|
| 1 | 08/09/2022 | PER TRC COMMENTS | CPK |
| 2 | 08/30/2022 | PER TRC COMMENTS | CPK |
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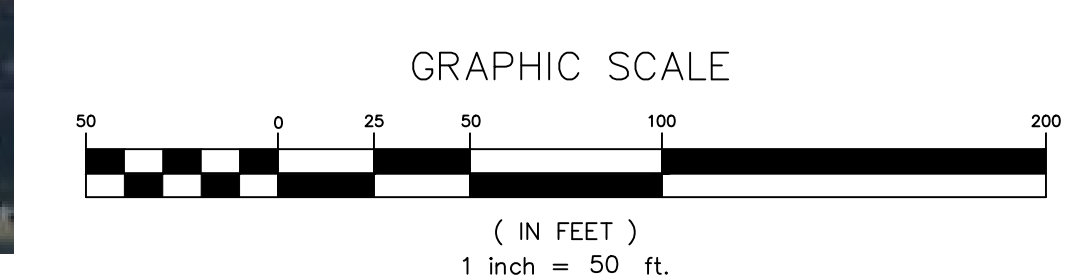
DATE: MAY 03, 2022
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 VERTICAL SCALE: N/A
 PROJECT MANAGER: CPK
 DRAWN BY: CPK
 PROJECT NO: 22-18
 DRAWING NAME: 22-16 WORKING

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SHEET NO.
C9.0

PRELIMINARY SITE PLAN



PLANNING PROJECT REPORT

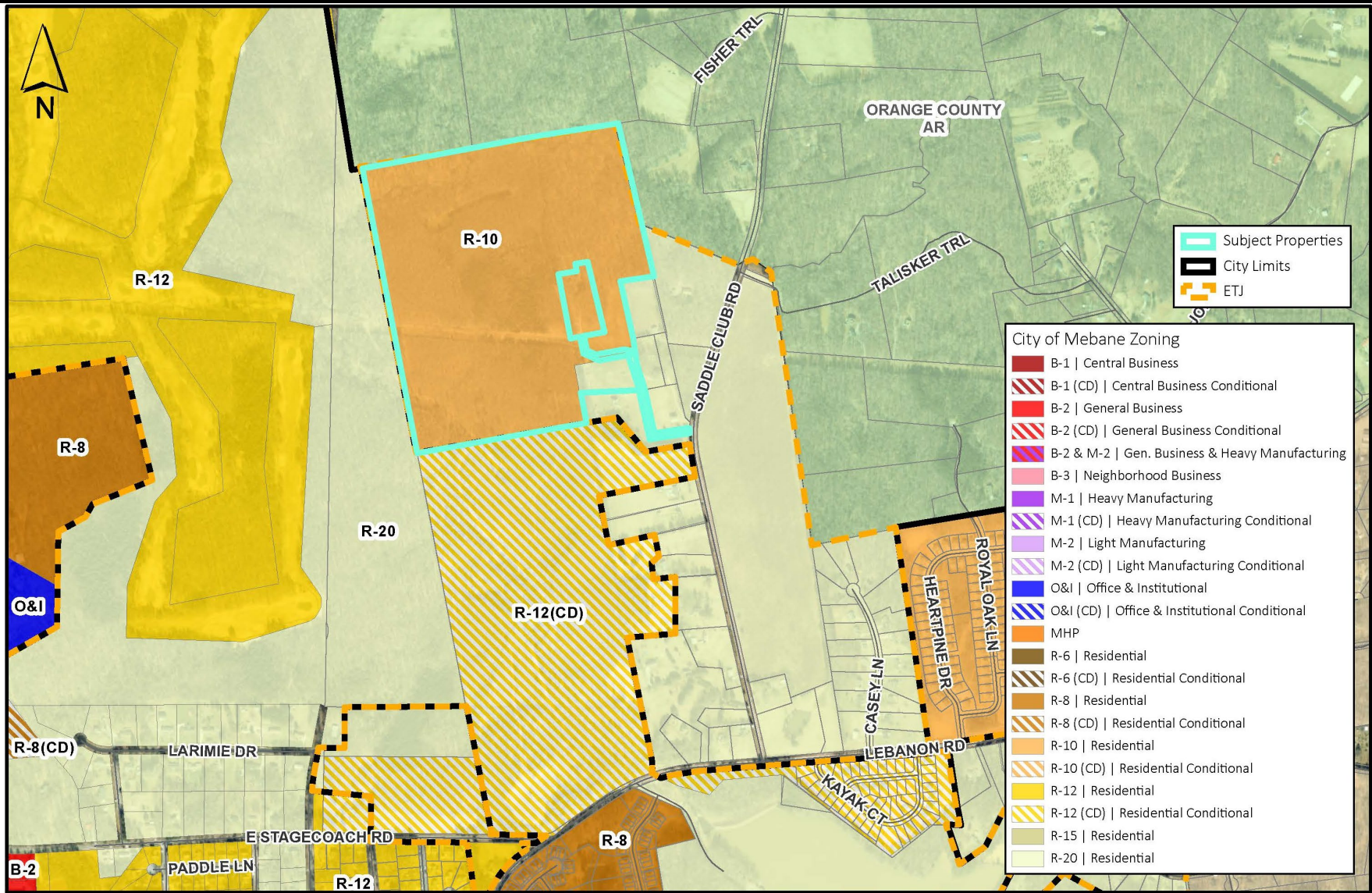
| | |
|----------------|---|
| DATE | 09/27/2022 |
| PROJECT NUMBER | RZ 22-11 |
| PROJECT NAME | Tupelo North |
| APPLICANT | Lebanon Road 3, LLC c/o James Parker, Jr. 320 Executive Court Hillsborough, NC 27278 |

CONTENTS

| | |
|---|--------|
| PROJECT NAME & APPLICANT | PAGE 1 |
| ZONING REPORT | PAGE 2 |
| LAND USE REPORT | PAGE 4 |
| UTILITIES REPORT | PAGE 7 |
| STAFF ZONING REQUEST RECOMMENDATION | PAGE 8 |

ZONING REPORT

| | |
|-----------------------------------|---|
| EXISTING ZONE | R-10, Residential and R-20, Residential |
| REQUESTED ACTION | R-12(CD) (Residential, Conditional Zoning District) |
| CONDITIONAL ZONE? | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO |
| CURRENT LAND USE | Bee farm, Single-Family Residential, Vacant |
| PARCEL SIZE | +/- 87.73 acres |
| PROPERTY OWNERS | Lee's Bees, Inc. & Jeffrey R. Lee 1818 Saddle Club Rd. Mebane, NC 27302 |
| LEGAL DESCRIPTION | Request to rezone two properties totaling +/- 87.73 acres located at 1818 Saddle Club Rd (PINs 9826425313 and 9826511986) from R-10 and R-20 to R-12 (CD) to allow for a residential cluster development of 207 single-family homes by Lebanon Road 3, LLC. |
| AREA ZONING & DISTRICTS | The subject property is surrounded by adjacent residential zoning including R-20 lots to the south and west, and the Tupelo Junction subdivision zoned R-12(CD) immediately south of site. Properties to the northeast and north are in Orange County's planning jurisdiction and zoned AR (Agricultural Residential). |
| SITE HISTORY | This property was approved for a Special Use Permit and rezoning request in 2005 for a Master Planned community called The Landing at Lake Michael. The vested rights for that plan are expired. |
| STAFF ANALYSIS | |
| CITY LIMITS? | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |
| 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 proposed rezoning is a continuation of the adjacent Tupelo Junction subdivision, which is south of the site and zoned R-12(CD). The zoning is also consistent with nearby subdivisions in the area including Havenstone, the Retreat at Lake Michael, and Stagecoach Corner. It will introduce denser zoning to the more rural areas to the north and east, though the proposed zone is consistent with their residential nature. |



CITY OF MEBANE ZONING MAP

Conditional Rezoning Tupelo North

1 inch = 1,000 feet

DATE: 09/28/22

DRAWN BY: AV

LAND USE REPORT

| | | | |
|--------------------------------------|--|-----------------|----------|
| EXISTING LAND USE | The site is largely forested and includes a single-family dwelling and apiary/bee farm use. An overhead power line easement runs across the southern part of the property. | | |
| PROPOSED LAND USE & REQUESTED ACTION | The applicant is requesting a conditional rezoning to develop two properties totaling +/- 87.73 acres located off of Saddle Club Road (PINs 9826425313 & 9826511986) to allow for a residential cluster development of 207 single-family homes. | | |
| PROPOSED ZONING | R-12 (CD) (Residential, Conditional Zoning District) | | |
| PARCEL SIZE | +/- 87.73 acres | | |
| AREA LAND USE | The properties to the site's west and south are currently undeveloped but are proposed as residential subdivisions. The adjoining lots to the southeast are occupied by single-family homes on one to four-acre lots. Larger lots to the east include an eight-acre lot with a single-family dwelling as well as a fourteen-acre, unimproved lot. The two lots to the north are large: the northeastern lot of 28.94 acres is partially cleared, while the northwestern lot of 88.24 acres is partially cleared and includes a single-family residence as well as some other small structures. | | |
| ONSITE AMENITIES & DEDICATIONS | The applicant will provide 21,250 s.f. of public multi-use path and proposes to make a payment-in-lieu for the remainder of the required public open space requirement (\$16,126.28 for 5.45 acres). | | |
| WAIVER REQUESTED | The site plan features an amenity clubhouse and pool with and +/- 37.65 acres of private open space to be maintained by the HOA. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | |
| DESCRIPTION OF REQUESTED WAIVER(S) | The following waivers are requested from dimensional requirements: | UDO Requirement | Proposed |
| | Minimum Lot Width | 65' | 60' |
| | Minimum Side Setback | 10' | 7.5' |
| | Minimum Corner Setback | 18' | 13' |
| | Minimum Rear Setback | 25' | 20' |

CONSISTENCY WITH *MEBANE BY DESIGN* STRATEGY

**LAND USE GROWTH STRATEGY
DESIGNATION(S)**

G-4 Secondary Growth Area
Conservation

OTHER LAND USE CONSIDERATIONS

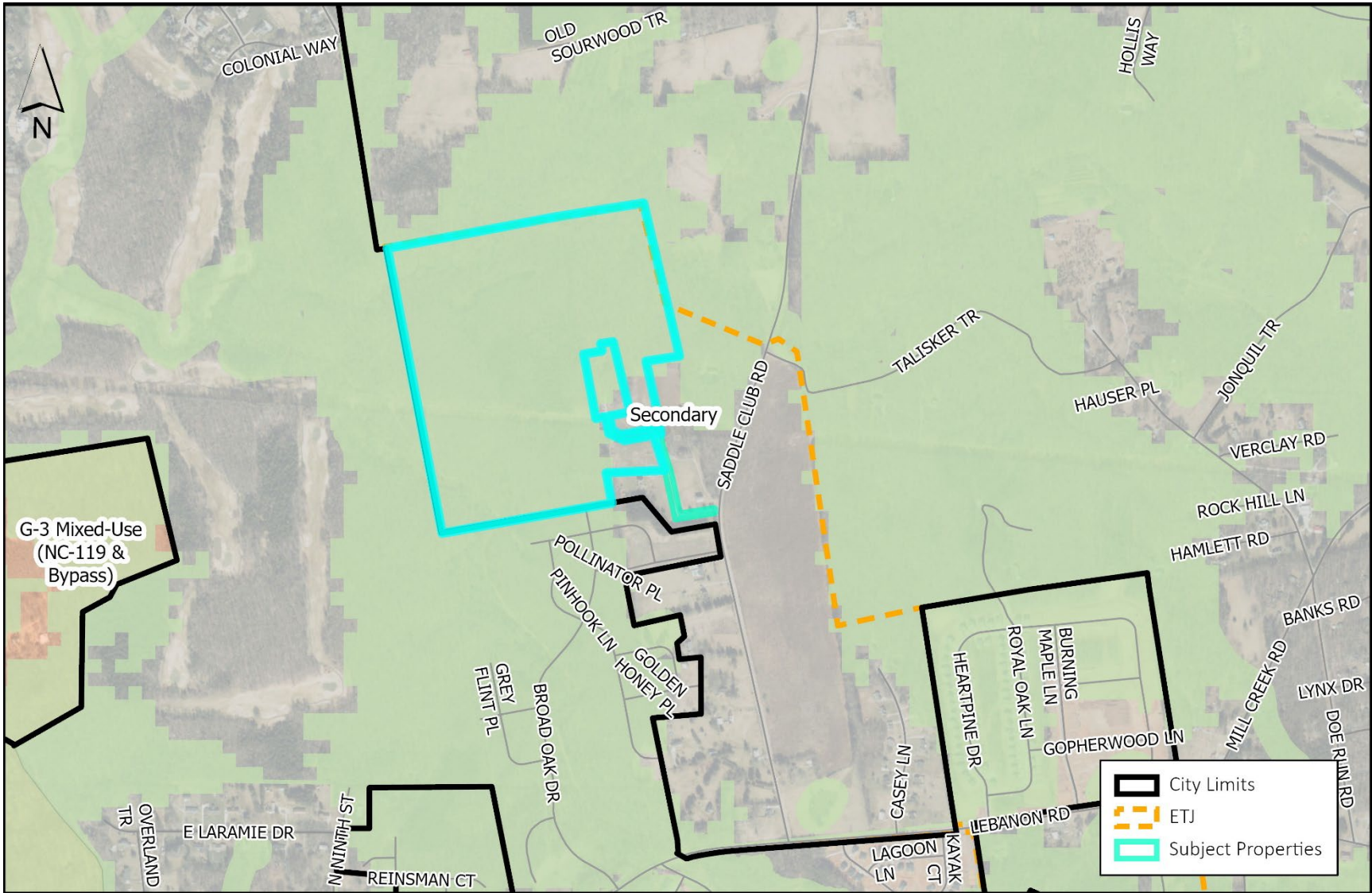
Floodplain present
Graham-Mebane Reservoir Water Supply (WS-II) Watershed

***MEBANE BY DESIGN* GOALS &
OBJECTIVES SUPPORTED**

GROWTH MANAGEMENT 1.4
Ensure that adequate community facilities are integrated into new development to reduce distances to parks, schools, and community centers.

OPEN SPACE AND NATURAL RESOURCE PROTECTION 4.3
Support park, greenway, and open space expansion in developed and developing areas, prioritizing connectivity between each location.

***MEBANE BY DESIGN* GOALS &
OBJECTIVES NOT SUPPORTED**



CITY OF MEBANE
Future Growth Area Map

Conditional Rezoning
Tupelo North

1 inch = 1,000 feet

DATE: 08/28/22

DRAWN BY: AV

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 31,050 gallons per day of water and sewer service to support the development's 207 single-family residences. Water service is provided from a 12-inch water line to be constructed with the extension of Broad Oak Drive through Tupelo Junction. Sewer service is provided from an off-site 12-inch sewer outfall will be extended from the proposed Preserve at Mill Creek Development and from a connection with an 8-inch sewer line to be constructed with the extension of Broad Oak Drive through Tupelo Junction |
| 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 type="checkbox"/> YES <input checked="" type="checkbox"/> NO |

TRANSPORTATION NETWORK STATUS

| | |
|---------------------------|--|
| CURRENT CONDITIONS | <p>The subject properties are situated north of Lebanon Road and west of Saddle Club Road. The subdivision will be accessed through street connections with Lebanon Road and Saddle Club Road through the Tupelo Junction subdivision, which is under construction.</p> <p>Lebanon Road is a state-maintained secondary route with an average daily traffic volume of 3,700 trips at this location. It has a current Level of Service (LOS) C and is projected to have a LOS D in 2040. It has a Safety Score of 44.6, which reflects a history of some traffic incidents on this road section. The traffic volume on the nearby section of Saddle Club Road was 350 trips, and that section had a moderate Safety Score of 56.</p> <p>There was one fatal accident to the east of the site on Saddle Run Road in 2017 and one serious accident at the intersection of Saddle Run Road and Lebanon Road in 2021.</p> |
|---------------------------|--|

TRAFFIC IMPACT ANALYSIS
REQUIRED?

YES NO

DESCRIPTION OF RECOMMENDED
IMPROVEMENTS

Off-site street improvements identified in the TIA review indicate a proposed right turn lane traveling west on Lebanon Road at its intersection with Stagecoach Road. NCDOT and City staff agree mitigation is required at the intersection of Lebanon and Stagecoach and is the responsibility of the Tupelo North development. However, a final decision has not been made as to the type of improvement. Mitigation may include a traffic signal, compact roundabout, or a right turn lane as described in the applicant's TIA. Any mitigation is subject to NCDOT approval.

CONSISTENCY WITH THE MEBANE
BICYCLE AND PEDESTRIAN
TRANSPORTATION PLAN?

YES NO

MULTIMODAL IMPROVEMENTS
PROVIDED BY APPLICANT?

YES NO

DESCRIPTION OF MULTIMODAL
IMPROVEMENTS

The applicant will provide sidewalks on one side of each street in the development. The site plan also features a multi-use path to be publicly dedicated. The path will connect to adjacent residential areas as part of a larger multi-use path network. Bicycle racks are being provided at all private recreation facilities.

STAFF RECOMMENDATION

STAFF ZONING
RECOMMENDATION

APPROVE DISAPPROVE

STAFF SPECIAL USE FINDING

CONSISTENT NOT CONSISTENT.....WITH *MEBANE BY DESIGN*

RATIONALE

The proposed development "Tupelo North" is consistent with the guidance provided within *Mebane By Design*, the Mebane Comprehensive Land Development Plan. Specifically, it serves Goals 1.4 and 4.3. The proposed project will be developed as a residential cluster subdivision compliant with the watershed overlay district and will provide a public multi-use path.



October 4, 2022

Mr. Phil Koch, PE
EarthCentric Engineering Inc.
204 W. Clay Street
Mebane, NC 27302

Subject: Tupelo Junction North– Water and Sewer

Dear Mr. Koch:

Regarding the Preliminary Site Plans for Tupelo Junction North and in accordance with the UDO, this memo is provided to indicate that I have reviewed the preliminary water and sewer system layout and find it acceptable and meeting City of Mebane requirements as follows:

- A. Water system – Water service is provided from a 12-inch water line to be constructed with the extension of Broad Oak Drive through Tupelo Junction. The remaining streets will be served from this line with 8-inch water line extensions with appropriate valves and fire hydrant spacing. When designed and installed to City and State standards, these public lines will become part of the City’s water system. The estimated daily water use for this project is 31,050 gallons per day (207 homes at 150 gallons per day each). The City has adequate water capacity available to meet the domestic demand and fire flow requirements of this project.
- B. Sanitary Sewer system – Sewer service is provided from an off-site 12-inch sewer outfall will be extended through the proposed Preserve at Mill Creek Development to Tupelo North and from a connection with an 8-inch sewer line to be constructed with the extension of Broad Oak Drive through Tupelo Junction. Internal to the project site are proposed 8-inch sewer lines with appropriate manhole spacing. When designed and installed to City and State standards, these public lines will become part of the City’s sanitary sewer collection system. The state permitted flow will be 49,860 gallons per day (207 at 240 gpd each assuming average of 3-bedroom room homes as indicated on the plans). The estimated daily sewer use when tributary is 31,050 gallons per day (207 homes at 150 gallons per day each). The City has adequate sewer capacity available at the downstream North Regional Sewer Pump Station 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".

Franz K. Holt, P.E. City Engineer
CC: Ashley Ownbey, Development Director
Preston Mitchell, Assistant City Manager
Kyle Smith, Utilities Director



Technical Memorandum

Date: October 4, 2022

To: Ashley Ownbey, Development Director

From: Franz K. Holt, City Engineer

Subject: Tupelo Junction North

City Engineering has reviewed the Preliminary Site Plans for Tupelo Junction North submitted September 27th, 2022 by Phil Koch, P.E. with EarthCentric Engineering, Inc. and provides the following technical comments.

A. General

Tupelo Junction North is a proposed phased (2) single family residential cluster development proposed to be built on 87.7 acres north of Tupelo Junction which is currently under construction. The project proposes 207 single family lots with a min. lot size of 7,200 square feet as allowed by the UDO for R-12 Cluster Development (which allows for a 40% reduction in lot size with the balance of the lot area being placed in private common open space).

The property is in the Graham-Mebane Lake public water supply watershed non-critical area. Plans show using the high-density option which is allowed with new engineered stormwater control facilities receiving storm water runoff from proposed new development (max. built upon area of 30%).

Water service is provided from a 12-inch water line to be constructed with the extension of Broad Oak Drive through Tupelo Junction. Sewer service is provided from an off-site 12-inch sewer outfall will be extended through the proposed Preserve at Mill Creek Development to Tupelo Junction North (per agreement between developers) and from a connection with an 8-inch sewer line to be constructed with the extension of Broad Oak Drive through Tupelo Junction.

Internal streets are considered local and constructed to a 31-ft. b-b curb and gutter section with a 5-ft. wide concrete sidewalk being typically located on one side of the street. A 10-ft. wide paved multi-use path (City maintained) is proposed to connect to a paved greenway system that connects to the Preserve at Mill Creek Development and Tupelo Junction and runs the middle of the development along the Duke Energy Transmission Tower Line Easement per their standards and agreement.

The project includes street connections with Lebanon Road and Saddle Club Road through Tupelo Junction (under construction) and a future connection with the proposed Preserve at Mill Creek Development (per agreement between developers). Off-site street improvements identified in



the TIA review indicate a proposed right turn lane traveling west on Lebanon Road at its intersection with Stagecoach Road. NCDOT and the City's Traffic consultant indicate that a signal or compact traffic round-a-bout would be better mitigate traffic needs at this intersection. The developer has agreed to make NCDOT required improvements still under consideration and prior to the 101st building permit application.

B. Availability of City Water and Sewer

Regarding the Preliminary Site Plans for Tupelo Junction 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 meeting City of Mebane requirements as follows:

1. Water system – Water service is provided from a 12-inch water line to be constructed with the extension of Broad Oak Drive through Tupelo Junction. The remaining streets will be served from this line with 8-inch water line extensions with appropriate valves and fire hydrant spacing. When designed and installed to City and State standards, these public lines will become part of the City's water system. The estimated daily water use for this project is 31,050 gallons per day (207 homes at 150 gallons per day each). The City has adequate water capacity available to meet the domestic demand and fire flow requirements of this project.
2. Sanitary Sewer system – Sewer service is provided from an off-site 12-inch sewer outfall will be extended through the proposed Preserve at Mill Creek Development to Tupelo North and from a connection with an 8-inch sewer line to be constructed with the extension of Broad Oak Drive through Tupelo Junction. Internal to the project site are proposed 8-inch sewer lines with appropriate manhole spacing. When designed and installed to City and State standards, these public lines will become part of the City's sanitary sewer collection system. The state permitted flow will be 49,860 gallons per day (207 at 240 gpd each assuming average of 3-bedroom room homes as indicated on the plans). The estimated daily sewer use when tributary is 31,050 gallons per day (207 homes at 150 gallons per day each). The City has adequate sewer capacity available at the downstream North Regional Sewer Pump Station and at the WRRF to meet this demand.

C. Watershed Overlay District and Phase II Stormwater Requirements

1. Watershed Overlay District requirements are provided in the UDO. These requirements in the UDO are for the Back-Creek Watershed, which includes the Graham-Mebane Lake. This project lies in the GWA non-critical area allowing up to 30% built upon area with engineered stormwater controls. The proposed stormwater management devices shown on the plans are intended to receive stormwater runoff from the proposed new



development and will meet the requirements of the Water Supply Watershed Rules. Upon the project being completed and the site being stabilized with permanent ground cover, the stormwater management devices temporarily serving as erosion control measures will be converted to the designed permanent stormwater management device (owned and maintained by the property owners' association). A 20-year maintenance bond and annual inspection fee will be posted with the City upon completion of the stormwater management devices.

2. Phase II Stormwater Post Construction Ordinance

The UDO provides standards for Storm Water Management and 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 provide four stormwater management devices (all devices where perm. water surface is 2 feet or more are to be fenced as required by ordinance). These devices will be designed to meet the SPCO as a part of final construction plan submittal/approval process. All stormwater management devices will be owned and maintained by the property owners' association.

D. Storm Drainage System

Sec. 5-4. D. in the UDO provides requirements for storm drainage systems. The preliminary site plans include a preliminary piping layout that indicates certain pipe locations, inlets, and discharge points. Stormwater flows from these pipes will be transported to stormwater management devices. Design of the storm drainage system will be in accordance with the City's Storm Drainage Design Manual.

E. Street Access and TIA

Proposed streets shown on the plans are considered local and to be constructed to City of Mebane standards (31' B-B width and rolled curb and gutter) with sidewalk located typically on one side. These local streets will connect to Lebanon Road and Saddle Club Road through Tupelo Junction (under construction). In addition, a connection to St. Andrews Drive is proposed with the proposed development of The Preserve at Mill Creek. Two street stubs are provided to adjacent properties for possible future extension ending in temporary cul-de-sacs. When designed and installed to City standards, these public streets, sidewalks, and multi-use path will become part of the City's systems.

Also required are off-site improvements identified in the TIA at Stagecoach Road and Lebanon Road intersection. NCDOT is reviewing the possibility of a traffic signal or compact round-a-bout.



The developer's TIA has indicated a possible right turn lane from Lebanon Road to Stagecoach Road to mitigate the need for additional improvements at the intersection. The developer has agreed to construct required improvements by the 101st building permit application. The design and construction of these future determined improvements are subject to NCDDOT review and approval.

F. Construction Plan Submittal

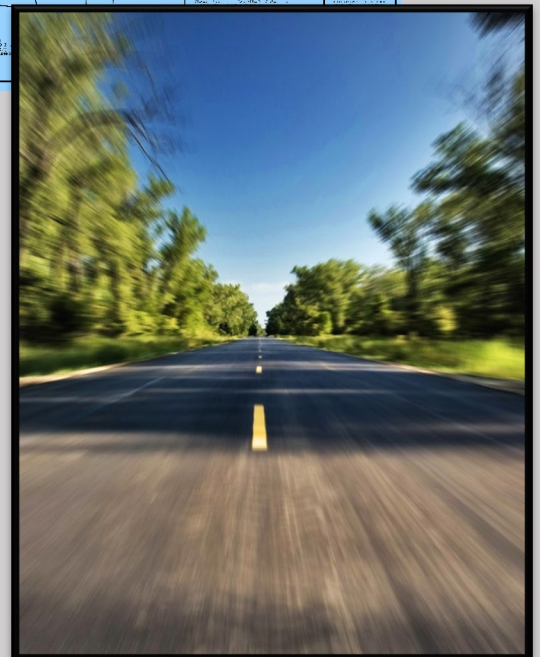
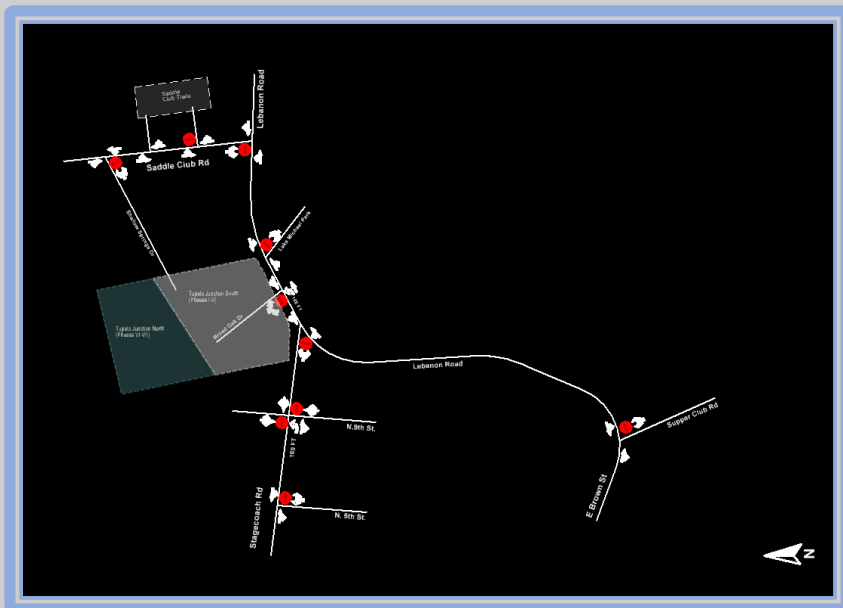
Sec. 7-6.7. A. in the UDO indicates that construction plans for all street facilities, including water and sewer facilities, shall be submitted following preliminary plat or site plan approval; therefore, construction plans are not required as a part of the site plan review. A utility plan is provided 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 when construction plans are submitted after Preliminary Site Plan approval.

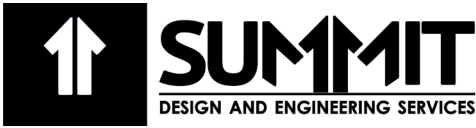
Based on city engineering review of the referenced preliminary site plans, it is my opinion that said plans are in substantial compliance with the UDO.

Traffic Impact Analysis

Tupelo Junction North Subdivision

Lebanon Road Mebane, NC





Tupelo Junction North Subdivision
Lebanon Road (SR 1306) near Saddle Club Road (SR 1346)
Mebane, North Carolina

Traffic Impact Analysis



Edward W. Sircany

09/20/2022

Prepared by
Summit Design & Engineering
320 Executive Court
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Prepared for
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320 Executive Court
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September 2022

Executive Summary

Introduction

An expansion for a proposed residential development consisting of two hundred seven (207) single family homes is planned to be constructed as phases six and seven adjacent to the Tupelo Junction South (Phases 1-5) development, and will be called Tupelo Junction North. The development is on a site on Lebanon Road (SR 1306) east of Stagecoach Road (SR 1376) and west of Saddle Club Road (SR 1346) in the City of Mebane in Orange County, North Carolina. The development is being proposed on a single large parcel totaling approximately 88 acres. The development will be built in two (2) phases over a three-year period after work commences in 2026, and after the proposed completion of Tupelo Junction South. No new site entrances are proposed, as Tupelo Junction North streets will connect to existing street stubs in Tupelo Junction South. This will allow access for Tupelo Junction North via the new street entrances on Lebanon Road near Stagecoach Road, and the second access on Saddle Club Road north of Lebanon Road. The access points are street type entrances, with one entry lane and two exit lanes onto Lebanon Road, and one entry lane and one exit lane for the access onto Saddle Club Road. The accesses have been designed to NCDOT and City of Mebane standards, as all internal streets are proposed to be City maintained streets.

Summit Design & Engineering analyzed the development to determine the potential traffic impacts that this project may have on the roadway network. The analysis will identify any transportation improvements that may be required to accommodate the impacts of both the projected background traffic and the new development traffic. The following intersections were included in the study:

- North 5th Street & Stagecoach Road (SR 1996) (Alamance)
- Lebanon Road (SR 1306) & Supper Club Road (SR 1304)
- Lebanon Road (SR 1306) & Stagecoach Road (SR 1376) (Orange)
- Lebanon Road (SR 1306) & Broad Oak Dr. (Site Dr. #1)
- Lebanon Road (SR 1306) & Lake Michael Park
- Lebanon Road (SR 1306) & Saddle Club Road (SR 1346)
- Saddle Club Road (SR 1346) & Shallow Spring Dr. (Site Dr. #2)

The Vicinity Map shows the location of the site near Mebane, NC, and the intersections in the vicinity that are part of this Traffic Impact Analysis. The subject intersections were analyzed for the following scenarios:

- 2022 Existing Conditions
- 2028 Future No Build Conditions
- 2028 Future Build Conditions

Turn Movement Count data was collected at the four existing subject intersections for the AM and PM peak hours, from 6 AM to 9 AM and from 4 PM to 7 PM to allow for determining the exact peak hours. The turn movement counts were collected on September 13, 2022 while all traditional and year-round schools were in session. The data was collected in 15-minute intervals at all locations to determine the exact peak hour within the data collection period.

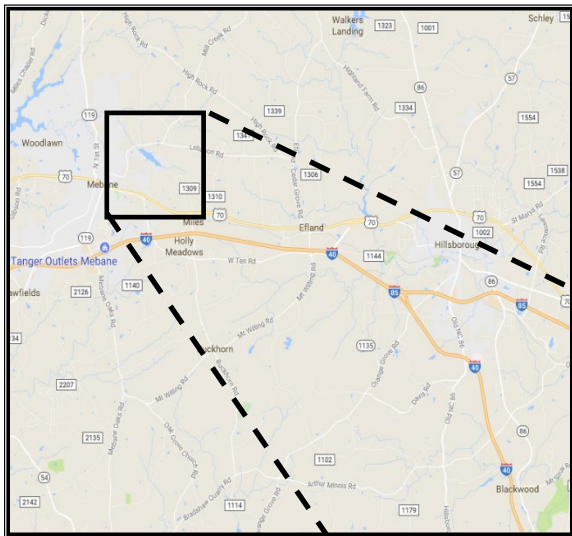
A scoping discussion was held with City of Mebane Planning staff, as well as NCDOT Division 7 staff, to obtain background information and to determine the elements to be covered in this Traffic Impact Analysis (TIA). The topics discussed involved selecting the intersections to be studied, the background growth rate, and any recently approved developments and/or TIP projects that may be impacted or create an impact on the study area.

Based on discussions with City and NCDOT staff, it was determined that the study corridor would include the main public street intersections along Lebanon Road from and including the intersection at Supper Club Road (SR 1304) to the intersection at Saddle Club Road (SR 1346). As a result of a number of nearby developments under construction, or in the approval process, Stagecoach Road was also included in the study, west to the intersection at North 5th Street. In addition, the proposed site driveway intersections, on Lebanon Road between Stagecoach Road and Saddle Club Road (Broad Oak Drive), and on Saddle Club Road north of Lebanon Road (Shallow Spring Drive) will be included in the study.

As part of the City of Mebane Unified Development Ordinance, there is a requirement to provide a capacity analysis of all transportation modes. However, in light of the lack of a transit system in the area, it was agreed that analysis of the transit mode would not be necessary for this study. Similarly, bicycle and pedestrian movements are presently not accommodated with walkways or sidewalks on Lebanon Road, although there is a continuous sidewalk on Stagecoach Road, from west of North 1st Street through North 9th Street. Sidewalks are being constructed within the subdivision, and will provide internal connections within the development to enhance pedestrian and bicycle movements.

Following the scoping discussion, a Memorandum of Understanding (MOU) was prepared and submitted to the City of Mebane, and NCDOT, Division Seven. A full copy of the Memorandum of Understanding is included in the appendix of the full Traffic Impact Analysis.

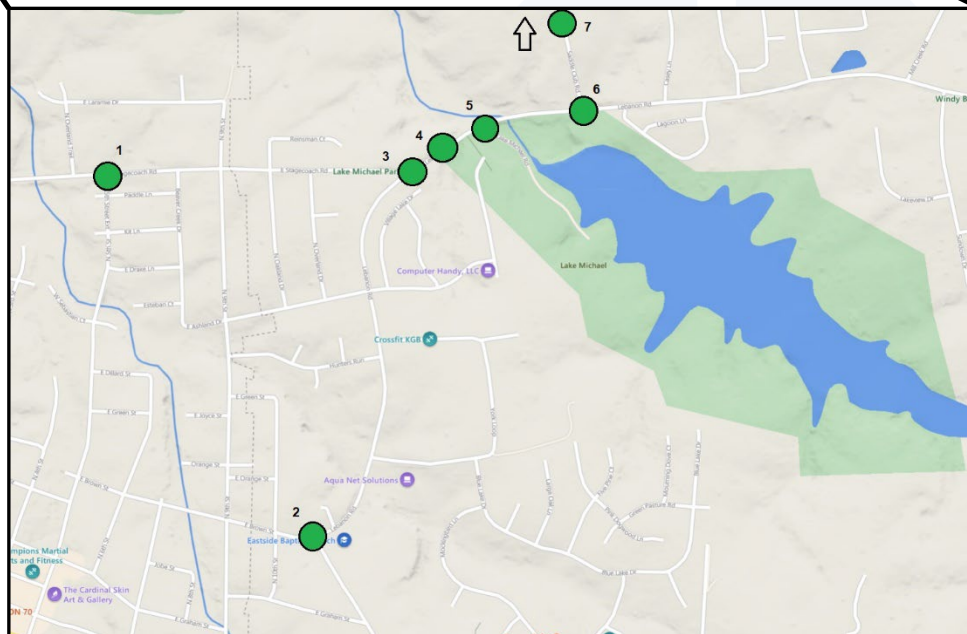
VICINITY MAP



LEGEND

 = Study Area Intersection

- 1 - N. 5th St & Stagecoah Rd
- 2 - Lebanon Rd & Supper Club Rd
- 3 - Lebanon Rd & Stagecoach Rd
- 4 - Lebanon Rd & Site Dr. #1
- 5 - Lebanon Rd & Lake Michael Park
- 6 - Lebanon Rd & Saddle Club Rr
- 7 - Saddle Club Rd & Site Dr #2



Adjacent Developments

Several developments nearby the study area that have been recently approved and/or under construction that will need to be considered as part of this Traffic Impact Analysis, specifically accounting for the future trips created when they are completed. These developments have been identified by NCDOT and the City of Mebane staff and are outlined below with proposed buildout years. Any roadway improvements for these developments recommended in their respective TIA's will be implemented in the Synchro models for the 2028 No Build and Buildout scenarios for Tupelo Junction North.

ADJACENT DEVELOPMENTS:

| | |
|-------------------------------------|-------------------------------------|
| Stagecoach Corner (2023) | Tupelo Junction South (2026) |
| Havenstone Phase II (46 lots -2023) | North First Street Townhomes (2028) |
| Potter's Mill (2024) | North Mebane Village (2028) * |
| Westcott Townhomes (2024) | The Preserve at Mill Creek (2028) * |
| Saddle Club Trails (2025) * | |

(*) – Denotes the development is in approval process, but will be considered as built for this TIA.

The full process and sketched used for trip distribution and trip assignment for each of these developments is contained in the appendix of the full TIA report as well as briefly explained below. Many of the trip distributions and assignments were derived from past TIA information available for the development. This maintains consistency between the previous TIA results and this study, and validates the results of all the studies.

A proposed development on Stagecoach Road, named Stagecoach Corner, is a subdivision of a size (35 single family homes) that did not require any traffic study as part of its approval. However, it has been approved and under construction at this time. A simple distribution of trips to and from the development of 60 % to/from the west and 40 % to/from the east was utilized for the estimation of the trips. A 50/50 split of trips at Stagecoach Road and Lebanon Road intersection of Stagecoach Corner generated traffic would provide a pattern of trips similar to the adjacent developments.

The Havenstone subdivision (169 single family homes , two phases) on Lebanon Road east of Saddle Club Road is partially complete, and still continuing to add single family homes to buildout. Phase I is complete, but Phase II has approximately 46 lots left to completion. This includes partially constructed homes, ones that are nearly finished, but not occupied when the turn movement counts were taken. Therefore, using the distributions for the TIA for Havenstone, the new trips created by the remaining 46 units to be constructed and occupied were assigned to the network.

Both the Wescott Townhomes (110 townhomes) and Potter's Mill (42 single family homes) developments are residential subdivisions located north of Stagecoach Road along N. 1st Street, outside the study area for this TIA, but have distributions and trips assigned for the subject intersections on Stagecoach Road at North 5th Street and Lebanon Road. Both of these developments used identical distributions of trips to/from Lebanon Road, North 9th Street and North 5th Street.

Saddle Club Trails is proposed as a 125 unit single family home subdivision proposed to be located on the east side of Saddle Club Road, north of Lebanon Road. The subdivision will provide two access points on Saddle Club Road, and both of these street intersections will be south of the access drive for Tupelo Junction (Shallow Springs Drive). A TIA was completed and submitted for this subdivision, and the trip distribution and trip assignment was utilized as indicated in that TIA. A further distribution of the trips generated to/from the west and south of Stagecoach Road was needed as well.

Tupelo Junction South is a 183 single family home subdivision currently under construction on Lebanon Road east of Stagecoach Road, and will provide two access points for the development. A new street will intersect Lebanon Road between Stagecoach Road and Lake Michael Park for the primary access point for the subdivision. The second access point will intersect Saddle Club Road north of Lebanon Road and the Saddle Club Trails development.

The North First Street Townhomes development is proposing 149 townhomes to be constructed on a site that is located on the west side of N. 1st Street and north of Stagecoach Road, which is west of the study area. A TIA was completed and submitted for this development, and with new trips shown to be assigned to the intersections eastward on Stagecoach Road to Lebanon Road, these trips are incorporated into this study. It should also be noted that City of Mebane staff indicated that this development, currently in the approval process, is the same parcel and proposed land use as Wescott Townhomes, and had been renamed by the current applicant. Since previous TIA's included trips for both names for the site, in order to maintain some consistency and a more conservative approach, it was agreed to show both named developments for that site in this TIA.

North Mebane Village is proposed as a mixed-use development located north of Stagecoach Road, and on the east side of North 1st Street. It is proposed to consist of 106 single family homes, 130 townhomes, 40,000 square-feet of office space, 64,000 square-feet of retail shopping spaces, and a 5,000 square-foot (super) convenience store with gas pumps at full buildout in 2028. While the development will be phased construction over several years, trips generated for the full build have been considered for this study. Trips generated and distributed for Stagecoach Road at 5th Street were integrated into this study from that development's TIA. However, the intersections to the east of North 5th Street on Stagecoach Road and Lebanon Road need to have those new trips from North Mebane Village assigned to them, and were accomplished by using ratios similar to those used in other TIA reports for this area.



The Preserve at Mill Creek, an additional 590 single family homes are proposed to be constructed and attached to the existing Mill Creek subdivision and golf course. The development required a TIA to be submitted as well, and a similar network of study intersections include intersections along Stagecoach Road. Trip distribution and assignment was integrated directly from The Preserve’s TIA into this study for adjacent developments, and further distribution and assignment was created for the intersections on Lebanon Road beyond the Stagecoach Road intersection, using similar ratios as all other TIA studies for this area.

Trip Generation

The site generation potential of the proposed development was computed using the 10th Edition of *ITE Trip Generation Manual*. The trip generation calculated trips based on a total build of two hundred seven (207) Single Family Homes (ITE Land Use Code 210). The developer plans to construct the subdivision in two phases over a period of 3 years. Per NCDOT Congestion Management Standards, and the Rate vs. Equation Spreadsheet effective July 1, 2018, the trip generation was calculated using the Equation for the adjacent street peak hour data.

The weekday average daily trips generated, as well as AM and PM Peak Hour trips by development phase are shown for the proposed land use in Table 3:

SUMMARY OF SITE TRIP GENERATION

| Phase | ITE Code | Land Use | Size | Units | Wkday Avg # Trips | | | Adjacent Street Traffic Volumes | | | | | |
|-------|----------|----------|------|---|-------------------|-------------|-------------|---------------------------------|------------|------------|--------------------|-----------|------------|
| | | | | | Enter | Exit | Total | Weekday AM Peak Hr | | | Weekday PM Peak Hr | | |
| | | | | | Enter | Exit | Total | Enter | Exit | Total | Enter | Exit | Total |
| 2028 | 210 | SFHOUSE | 207 | Dwelling Units | 1016 | 1015 | 2031 | 38 | 114 | 152 | 129 | 75 | 204 |
| | | | | Unadjusted Volume | 1016 | 1015 | 2031 | 38 | 114 | 152 | 129 | 75 | 204 |
| | | | | Internal Capture | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | Pass-By Trips | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | Volume Added to Adjacent Streets | 1016 | 1015 | 2031 | 38 | 114 | 152 | 129 | 75 | 204 |

Source: *ITE Trip Generation Manual, 10th Edition*

For residential type land uses, pass-by trips are not utilized, as those type types apply to retail and service type land uses. Similarly, there are no internal capture trips to account for in a residential development.

The total unadjusted volumes were calculated to be 152 trips during the AM peak hour (38 entering and 114 exiting), and 204 trips during the PM peak hour (129 entering and 75 exiting). The average weekday trips have been calculated to be 2,031 total, with 1,016 entering trips and 1,015 exiting trips.

Trip Distribution

The distribution ratios developed for the adjacent developments applied 30 % of trips to/from the east/north of the site (generally) and 70 % of trips to/from the west/south. Similar ratios were developed for the Tupelo Junction South and additional ratios were included for the Stagecoach Road and North 5th Street intersection, as this study area is an expansion from the initial Tupelo Junction TIA.

Based on the information available from the adjacent developments Traffic Impact Analyses, the primary trip distributions for the site have been estimated to be:

- 35 % to/from the west on Stagecoach Road
- 35 % to from the south on Lebanon Road
- 25 % to/from the east on Lebanon Road
- 5 % to/from the north on Saddle Club Road

Based upon trip distributions for adjacent developments to the west of Tupelo Junction subdivisions, distributions were developed for trips west of Lebanon Road along Stagecoach Road. A distribution split was also created for the intersection of Lebanon Road and Supper Club Road similar to the distribution developed for Tupelo Junction South. All remaining distributions are listed here:

- 5 % to/from the west on E. Brown Street
- 30 % to/from the south on Supper Club Road
- 20 % to/from the west on Stagecoach Road
- 15 % to/from the south and west on North 5th Street

The traffic distributions utilized for dividing traffic in and out of the two access points was determined in similar method used for Tupelo Junction South, however with the location of this development being further north off Lebanon Road, heavier weighting was given to more traffic using the site access onto Saddle Club Road as the main access compared to the split developed for Tupelo Junction South. The split of traffic using the two access points for the Tupelo Junction North has been weighted to 55 % traffic using the Lebanon Road access, and 45% using the Saddle Club Road access.

Synchro version 11.1 build 2 was used to analyze all existing and future intersections. Because overall intersection levels of service are not provided for unsignalized intersections, the results were evaluated on a per movement basis for unsignalized intersections. Thus, intersection improvements may need to be considered should one or more of the intersection movements experience a failing level of service. This method of analysis differs from signalized intersections, where one or more movements at the intersection may be deficient, but no intersection improvements would be deemed necessary as long as the overall level of service for the intersection does not fall below LOS D, which is the accepted criteria for signalized intersections.

The results of the study are presented as follows, listed by Intersection:

A. North 5th Street & Stagecoach Road (SR 1996) (Alamance)

The proposed development, and the adjacent developments under construction, will add new trips to this unsignalized intersection, including through movements onto Stagecoach Road, as well as turning movements to and from North 5th Street. The Level of Service for this intersection has diminished to Level of Service F under No Build conditions in 2028 for the PM peak hour will remain at A for the AM peak hour and B for both peak hours, a result mainly attributed to the buildout of adjacent developments. Construction of any turn lanes on any of the approaches did not improve the intersection capacity to be better than Level of Service F, and therefore, in maintaining consistency with previous TIA reports, it is recommended to continue to monitor this intersection over time for possible signalization. Since the majority of the delay and capacity issues are resulting from these developments, NCDOT practice is to monitor situations such as these, since the traffic is project volumes, and not actual. Once these developments are built and actual traffic on the roadways, signal warrant analysis can then be determined.

B. Lebanon Road & Supper Club Road

The proposed development, and the adjacent developments under construction, will add new trips to this unsignalized intersection, including through movements onto westbound E. Brown Street, as well as turning movements to and from Supper Club Road. The Level of Service for this intersection will remain at A for the AM peak hour and B for the PM peak hour. This will provide adequate capacity in its current configuration for several years after the project buildout.

C. Lebanon Road & Stagecoach Road

The proposed development, and the adjacent developments under construction, will add new trips to this intersection as turning movements on Stagecoach Road, as well as through movements on Lebanon Road. The Level of Service for this intersection will decrease to C for the AM peak hour, and for the PM peak hour will decrease to LOS F. A right turn lane on Lebanon Road westbound at Stagecoach Road with 200 of storage will increase the capacity of the intersection and provide Level of Service B in the AM peak, and D in the PM peak hour, which is what would be expected in the PM peak under No Build conditions. This will provide adequate capacity in its current configuration for several years after the project buildout.

D. Lebanon Road & Broad Oak Drive (Site Drive #1)

The proposed development will add new trips with the buildout of the site to this intersection, with new trips entering and exiting at Broad Oak Drive, the main entrance to the subdivision, in addition to the



traffic into and out of the site from the build of Tupelo Junction South. The trips will be added as south bound left and right turns from Broad Oak Drive, and left and right turns from Lebanon Road into the site. None of these movements experience excessive delays or queues in Buildout analysis. A left turn lane was required as part of Tupelo Junction South and is under construction on Lebanon Road at the site driveway with 100 feet of storage, and analysis indicates that this turn lane will also provide adequate storage for the added trips resulting from the construction of Tupelo Junction North. The Level of Service for the intersection overall is B, with an average of 13.2 seconds delay between the peak hours, with the left turn exiting the site experience slightly longer average delay than the right turns exiting the same site driveway.

E. Lebanon Road & Lake Michael Park

The proposed development, and the adjacent developments under construction, will add new trips to this intersection with the buildout of the site however the only new trips generated by the buildout of the Tupelo Junction North will be through movements on Lebanon Road at this intersection. All other adjacent developments, as well as the proposed site will add through movements only at this intersection as well. The intersection will experience LOS B in the AM peak hour, and LOS C in the PM Peak hour under all conditions.

F. Lebanon Road & Saddle Club Road

The proposed development, and the adjacent developments under construction, add new trips to this unsignalized intersection with the buildout of Tupelo Junction North, on all approaches and all movements. There are no turn lanes on any of the approaches of the intersection, but existing volumes are such that there is adequate capacity to handle the additional trips generated by all of the adjacent developments and the proposed site. The intersection will provide LOS B in the AM peak hour and LOS C in the PM peak hour for the future Buildout analysis periods.

G. Lebanon Road & Shallow Spring Drive (Site Drive #2)

The proposed development will add new trips with the buildout of the site to this intersection, with new trips entering and exiting at Shallow Spring Drive, the secondary entrance to the subdivision. These trips will be an increase from the trips using this access from the Tupelo Junction South development. The trips will be added as eastbound left and right turns from Shallow Spring Drive, and left and right turns from Saddle Club Road into the site. The intersection will operate at LOS A in both the AM and PM peak hour with very little delay, as through traffic on Saddle Club Road remains very low volume.

A summary of the existing, No Build conditions and Build conditions is provided on the next page indicating the capability of the roadway network to handle the new trips generated by this site.



HCM 6th Edition Level of Service Summary

| AM PEAK | | 2022 | 2028 | | |
|---------|--|----------|-----------|-----------|-------------|
| | | EXISTING | NO BUILD | BUILD | BUILD + IMP |
| 1 | North 5th Street & Stagecoach Rd | B (12.8) | F (106.2) | F (157.5) | F (157.5) |
| 2 | Lebanon Rd & Supper Club Rd | A (8.8) | A (9.0) | A (9.1) | A (9.1) |
| 3 | Lebanon Rd & Stagecoach Rd | B (10.2) | B (14.0) | C (16.1) | B (13.0) |
| 4 | Lebanon Rd. & Broad Oak Dr. (Site Dr. #1) | - | B (11.4) | B (12.5) | B (12.5) |
| 5 | Lebanon Rd & Lake Michael Park | A (9.7) | B (11.3) | B (11.8) | B (11.8) |
| 6 | Lebanon Rd & Saddle Club Rd | A (9.8) | B (12.5) | B (13.9) | B (13.9) |
| 7 | Saddle Club Rd. & Shallow Spring Dr. (Site Dr. #2) | - | A (8.7) | A (9.0) | A (9.0) |

| PM PEAK | | 2022 | 2028 | | |
|---------|--|----------|-----------|-----------|-------------|
| | | EXISTING | NO BUILD | BUILD | BUILD + IMP |
| 1 | North 5th Street & Stagecoach Rd | C (17.4) | F (555.1) | F (699.0) | F (699.0) |
| 2 | Lebanon Rd & Supper Club Rd | A (9.4) | B (10.0) | B (10.4) | B (10.4) |
| 3 | Lebanon Rd & Stagecoach Rd | B (11.8) | D (28.5) | F (58.4) | D (30.1) |
| 4 | Lebanon Rd. & Broad Oak Dr. (Site Dr. #1) | - | B (12.2) | B (14.0) | B (14.0) |
| 5 | Lebanon Rd & Lake Michael Park | B (10.8) | B (14.1) | C (15.0) | C (15.0) |
| 6 | Lebanon Rd & Saddle Club Rd | A (9.7) | B (13.8) | C (16.5) | C (16.5) |
| 7 | Saddle Club Rd. & Shallow Spring Dr. (Site Dr. #2) | - | A (8.8) | A (9.1) | A (9.1) |

LOS (delay in seconds)

Note: for unsignalized conditions, LOS and delay indicates only minor street approach with longest delay.



Conclusions and Recommendations

In summary, the residential development site on the north side of Lebanon Road, west of Saddle Club Road in Mebane (Orange County) was analyzed for three (3) separate conditions including 2022 Existing Conditions and 2028 Buildout/No Build Conditions. The trip generation analysis indicates that the proposed development of two hundred seven (207) single family homes to be constructed in two (2) phases starting in 2026 is expected to generate a total of 2,031 trips per day, with 152 trips during the AM peak hour, and 204 trips in the PM peak hour at full buildout.

For the purposes of this study, the total volume added to the adjacent roadway network was not reduced for any pass-by trips or Internal Capture trips, since this is a residential subdivision. The turn movement data was collected in September 2022 when traditional and year round schools were in session. A growth rate of 1% from 2022 was applied through the analysis years to buildout in 2028 to estimate the background traffic. New trips anticipated to be generated by nearby adjacent developments either under construction or recently approved were added to the background growth to estimate future No Build traffic.

All scenarios were configured according to NCDOT Congestion Management requirements for capacity analysis. Roadway improvements proposed by and expected to be constructed by adjacent developments have been configured as existing roadway configurations for the No Build and Buildout conditions for 2028. City of Mebane UDO and local Transportation Plans have been applied in consideration of the development.

For the Tupelo Junction North subdivision site construction, two (2) existing street accesses will be utilized for the site that will provide access through Tupelo Junction South by constructing new streets onto existing street stub-outs. The two existing site accesses on Lebanon Road and Saddle Club Road are presently under construction and will be open prior to the start of construction on Tupelo Junction North, including a left turn lane on Lebanon Road for eastbound turning traffic at Broad Oak Drive (Site Dr. #1). The existing access on Lebanon Road provides one entering lane and two exiting lanes, and the existing access on Saddle Club Road will provide one entering and one exiting lane. All streets in Tupelo Junction North will connect to the existing street stubouts in Tupelo Junction South to provide access to Lebanon Road and Saddle Club Road.

Summit Design & Engineering developed the existing traffic count information, background growth and adjacent development trips throughout the years up through and including the buildout year in 2028. As part of the study Summit also calculated the trip generation for the site development and analyzed the traffic impacts to formulate the recommendations in this study. Discussions with NCDOT Division 7 staff as well as City of Mebane staff were held to determine the complete scope of the report.

The existing roadway network demonstrates the ability to handle the added site trips to the network with some minimal improvements. The existing and Future No Build analysis Level of Service indicate some delay issues at the Lebanon Road & Stagecoach Road intersection. Most notably in the PM peak hour that create Level of Service F. A right turn lane on Lebanon Road is recommended to reduce the delay and congestion, and analysis indicates the proposed turn lane would improve the Level of Service to No Build 2028 level.

The Future Buildout analysis Level of Service indicates adequate roadway capacity is achievable under existing conditions, the addition of a proposed left turn lane on Stagecoach Road at North 9th Street, to be constructed by 2028 by an adjacent development, and a recommended right turn lane on Lebanon Road at Stagecoach Road.

A summary of the results for the study intersections are as follows:

North 5th Street & Stagecoach Road

Analysis of the existing approaches during build conditions indicate that the intersection movements will operate at Level of Service F, (the NB stopped approach) even under No Build conditions. This is mainly attributed to the construction of nearby/adjacent developments that have been approved or soon to be approved. Analysis indicated no roadway improvements feasible within current Right-of-Way will provide better Level of Service, and in accordance with previous traffic studies, this intersection should be considered for signalization if and when actual traffic volumes meet signal warrants. There will be adequate capacity available to handle additional traffic for the proposed site, if the intersection were signalized.

Continue to monitor traffic volumes at this intersection as adjacent and nearby developments are constructed, to verify meeting signal warrants.

Lebanon Road & Supper Club Road

Analysis of the existing approaches during build conditions indicate that the intersection movements will operate at acceptable levels of service. There is adequate capacity available to handle additional traffic for the proposed site, the adjacent developments under construction and annual growth.

No improvements are recommended for this intersection.

Lebanon Road & Stagecoach Road

The existing configuration shows increases in delay for both peak hours for No Build and buildout conditions. The PM peak hour delays increase on Stagecoach Road to Level of Service F, however the addition of a turn lane on Lebanon for westbound traffic will increase intersection capacity and improve the Level of Service to D, which would provide the same capacity under 2028 No Build conditions.

Construct a right turn lane on Lebanon Road westbound at Stagecoach Road, with 200 feet of storage and appropriate taper.



Lebanon Road & Broad Oak Drive (Site Drive #1)

The construction of the development will generate additional trips at this intersection on Lebanon Road, which also serves as the access point into Tupelo Junction South. A new left turn lane into the site from Lebanon Road is under construction. All of the delay associated with the access drive is for traffic exiting the site (stop control), with minimal queuing in the left turn lane on Lebanon Road. There is adequate capacity available on Lebanon Road to handle additional traffic for the adjacent developments, the proposed site, as well as annual growth. The left turn lane under construction also has the capacity and storage to accommodate the additional trips generated from Tupelo Junction North.

No improvements are recommended for this intersection.

Lebanon Road & Lake Michael Park

Analysis of the existing approaches during build conditions indicate that the intersection movements will operate at acceptable levels of service. There is adequate capacity available to handle additional traffic for the proposed site, the adjacent developments under construction and annual growth.

No improvements are recommended for this intersection.

Lebanon Road & Saddle Club Road

Analysis of the existing approaches during build conditions indicate that the intersection movements will operate at acceptable levels of service. There is adequate capacity available to handle additional traffic for the proposed site, the adjacent developments under construction and annual growth.

No improvements are recommended for this intersection.

Saddle Club Road & Shallow Spring Drive (Site Drive #2)

The construction of the development will generate additional trips at this intersection on Saddle Club Road, which also provides access into Tupelo Junction South subdivision. The access will provide a single entrance and exit for the combined developments. There is adequate capacity available to handle additional traffic for Tupelo Junction North as well as new trips generated by adjacent or nearby developments that will be constructed by 2028, as well as annual growth.

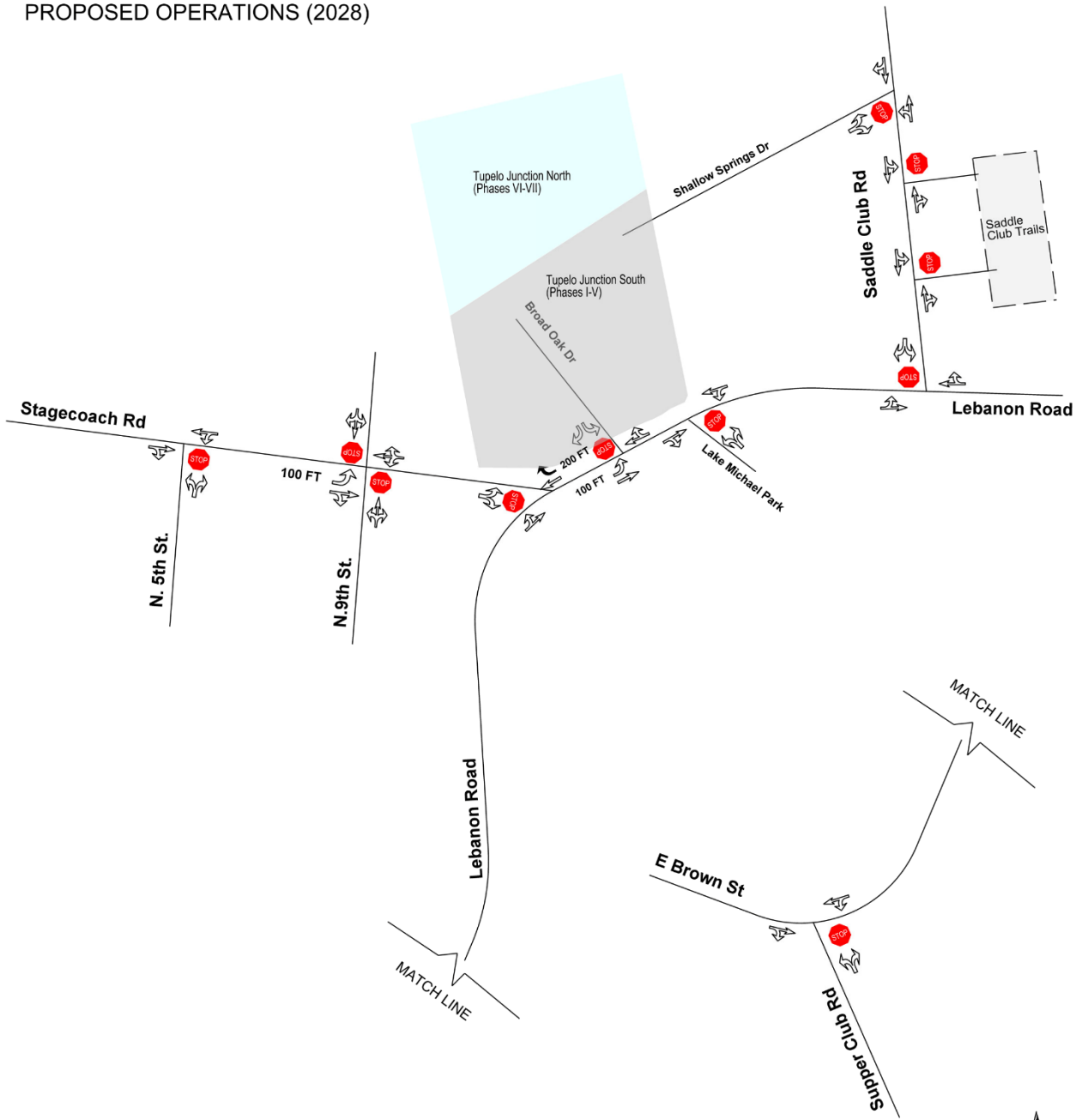
No improvements are recommended for this intersection.

All public streets shall be constructed to City of Mebane standards and specifications and per the City's Unified Development Ordinance. Any NCDOT requirements related to NCDOT maintained roadways will be designed to NCDOT standards and specifications. In conclusion, this study has reviewed the impacts of both background traffic conditions and the proposed traffic to be generated by the site as well as the adjacent developments presently under construction, studied the impacts to the roadway network, and has determined that there will be adequate capacity for future traffic.



PROPOSED TRAFFIC OPERATIONS (2028)

PROPOSED OPERATIONS (2028)



SUMMIT
 DESIGN AND ENGINEERING SERVICES
 Creatively Inspired - Technically Executed
 License #: P-0339
 320 Executive Court
 Hillsborough, NC 27278-8551
 Voice: (919) 732-3883 Fax: (919) 732-6676
 www.summitde.com

TUPELO JUNCTION NORTH
 MEBANE, NC (ORANGE COUNTY)

PROPOSED OPERATIONS

| Existing | Proposed |
|----------|------------------------------|
| ⇨ | ⇨ Lane (storage xx FT) |
| STOP | STOP * |
| STOP | Sign Control |

September 30, 2022

TO: Ashley Ownbey
Interim Development Director – City of Mebane
E: aownbey@cityofmebane.com

FROM: Craig J. Hyman, PE
Ramey Kemp Associates
E: chyman@rameykemp.com

SUBJECT: **Tupelo Junction North TIA Review Comments**

Ms. Ownbey:

Ramey Kemp Associates (RKA) has reviewed the subject TIA and issues the following comments.

Study Summary

The proposed site is an expansion of the residential Tupelo Junction South development located north of Lebanon Road in Mebane, North Carolina. It consists of 207 single family units and will have access via existing roadways in Tupelo Junction South – Shallow Springs Drive and Broad Oak Drive. The development is expected to be built in two phases over three years, beginning in 2026. Construction on the proposed development is anticipated to begin after the completion of the Tupelo Junction South development.

The development is anticipated to generate approximately 2,030 daily trips during a typical weekday - with 152 trips occurring during the morning (AM) peak hour and 204 trips occurring during the afternoon (PM) peak hour. Analysis was performed for three (3) scenarios: 2022 Existing Conditions, 2028 Future No Build Conditions, and 2028 Future Build Conditions. Analysis results indicate a degradation of minor approach levels of service for the following intersections due to adjacent development and/or site traffic:

1. Stagecoach Road at N 5th Street
2. Stagecoach Road at Lebanon Road

The following comments relate to deviations from various NCDOT and/or City analysis guidelines. A revised TIA based on these comments is requested.

General

1. Some figures show the intersection of Stagecoach Road and 9th Street as well as Lebanon Road and Ashland Dr / Lake Michael Way and some figures do not. These intersections are also included in the Synchro analysis but LOS results are not reported for them. Please clarify the intent of including these intersections in some of the material and either include in all figures and reporting or remove from the study.

TIA Report

1. Please verify if the 2028 horizon year is appropriate based on whether Tupelo North will be completed by then.
2. Figures 9A and 9B appear to be the same turn lane warrant chart. Please revise as appropriate.
3. Section V. Mitigation A. North 5th Street & Stagecoach Road (Alamance) on page 39 of the report states “The level of service for this intersection has diminished to level of service F under No Build conditions in 2028 for the PM peak hour will remain at A for the AM peak hour and B for both peak hours, a result mainly attributed to the buildout of adjacent developments.” The LOS for the minor approach of this intersection under existing conditions is LOS B (AM) and LOS C (PM). The minor approach operates at LOS F under all over analysis scenarios. Please revise this statement or clarify the intent if referring to something else.
4. Section V. Mitigation B. Lebanon Road & Supper Club Road on page 39 of the report states “This will provide adequate capacity in its current configuration for several years after the project buildout.” This is not a known fact as only the build-out year of the proposed development was analyzed. The intersection configuration will accommodate traffic volumes studied in this report for the identified adjacent developments and subject development.
5. Section V. Mitigation C. Lebanon Road & Stagecoach Road on page 39 of the report states “This will provide adequate capacity in its current configuration for several years after the project buildout.” This is not a known fact as only the build-out year of the proposed development was analyzed. The intersection configuration will accommodate traffic volumes studied in this report for the identified adjacent developments and subject development.

Synchro Analysis

1. 2028 Buildout AM Peak hour file: SB thru volumes on Saddle Club Road are lower than shown in Figure 8 in the report. The largest difference in volume is 8 vehicles at Saddle Club Trails #1. This is not expected to significantly impact the analysis results.
2. 2028 Buildout PM Peak hour file:
 - a. EB/WB thru movements on Stagecoach Road at Stagecoach Corner do not match those in Figure 8. The difference is small and not expected to impact the analysis results.
 - b. SB thru volumes on Saddle Club Road are lower than shown in Figure 8 in the report, as well as the NB thru volume on Saddle Club Road at Saddle Club Trails #2. However, the differences are small and not expected to significantly impact the analysis results.