



**Town of Cornelius
Architectural Review Board**

**Agenda
January 27, 2017
12:00 PM
Cornelius Town Hall - Room 204**

- 1. Call To Order**
- 2. Determination of Quorum**
- 3. Approval of Minutes**
- 4. Review And Recommendation On Agenda Items**
 - A. REZ 10-16: DB Holdings (Auto Sales Dealership))
 - B. Courtyard's at Lake Norman Clubhouse
 - C. Pike's Nursery
 - D. MAV 01-17: Lake Norman Hardware
- 5. Old Business**
- 6. New Business**
 - A. Arts District Joint Meeting - January 30th @ 6:30pm
 - B. Proposed Lighting Ordinance and Guide
- 7. Next Meeting**
- 8. Adjournment**

REQUEST FOR BOARD ACTION

 Print

Date of Meeting: January 27, 2017

To: Architectural Review Board Members
From: Jason T. Pauling, AICP - Senior Planner

Action Requested:

A request from DB Automotive Real Estate Holdings, LLC to develop an automotive sales, service and storage use at 18837 Statesville Road. The proposed project consists of removing two existing buildings and constructing a new 22,850 square foot building to initially be used for auto service only, which will then eventually be expanded to 26,800 square feet and include auto sales. The existing site is approximately 5.6 acres, and is zoned Highway Commercial (HC), and is also within the Automobile Sales Overlay District (AS-O).

Manager's Recommendation:

Review and provide direction

ATTACHMENTS:		
Name:	Description:	Type:
DB Holdings_CZ_application.pdf	Application	Backup Material
DB Holdings_project_description_letter.pdf	Project Description	Backup Material
DB Holdings_ZONING.jpg	Zoning Map	Backup Material
DB Holdings_LU.jpg	Land Use Map	Backup Material
DB Holdings_VICINITY.jpg	Vicinity Map	Backup Material
DB Holdings_PROPERTY.jpg	Property Map	Backup Material
POLARIS_IMAGE.pdf	Polaris Aerial Photo	Backup Material
Street_View.JPG	Street View 1	Backup Material
Street_View_2.JPG	Street View 2	Backup Material
Revised_Site_Plan.pdf	Revised Site Plan	Backup Material
1-12-2017_REVIEW_BOARD_PRES.pdf	Revised Illustrative Site Plan & Elevations	Backup Material
Phase_I_First_Floor_Plan.pdf	Phase 1 - First Floor Plan	Backup Material
Phase_I_Mezzanine_Floor_Plan.pdf	Phase 1 - Mezzanine Plan	Backup Material
Phase_II_First_Floor_Plan.pdf	Phase 2 - First Floor Plan	Backup Material
Phase_II_Mezzanine_Floor_Plan.pdf	Phase 2 - Mezzanine Plan	Backup Material



TOWN OF CORNELIUS

Planning Department

PO Box 399 | Cornelius, NC 28031 | Phone: 704-896-2461 | Fax: 704-896-2462

Staff Only:

Date Rec'd: 10/28

Rec'd by: JP

Case #: REZ 10-16

LAND DEVELOPMENT APPLICATION FORM

1. Application Type	✓	Fee	✓	Fee
• Sketch Plan/Plat (Major Sub):	<input type="checkbox"/>	_____	• Conditional Zoning (CZ)	<input type="checkbox"/> _____
• Preliminary Plat (Major Sub):	<input type="checkbox"/>	_____	• Special Use Permit (SUP)	<input type="checkbox"/> _____
• Final Plat (Major Sub):	<input type="checkbox"/>	_____	• Major Architectural Variation	<input type="checkbox"/> _____
• Construction Documents:	<input type="checkbox"/>	_____	• Minor Architectural Variation	<input type="checkbox"/> _____
• General Rezoning	<input type="checkbox"/>	_____	• Other: _____	<input type="checkbox"/> _____
			Fee Total: _____	

2. Project Information

Date of Application: 11-4-2016 Name of Project: DB HOLDINGS

Location: 18837 STATESVILLE RD. Property Size (acres): 5.62 # of Units/Lots: _____

Current Zoning: AG-0 Proposed Zoning: CZ (AG-0)

Current Land Use: AUTOMOTIVE SERVICE, STORAGE, COMMERCIAL Proposed Land Use: AUTO. SALES, SERVICE, STORAGE

Tax Parcel Number(s): 00541209

3. Contact Information

DB AUTOMOTIVE REAL ESTATE HOLDINGS LLC
Owner, Applicant, or Developer

20700 TORRENCE CHAPEL RD
Address

CORNELIUS, NC 28031
City, State Zip

704-896-3800
Telephone

JACK SALZMAN
Signature Print Name Date

JSALZMAN@LAKENORMANCHRYSLER.COM
Email

ADAM STACE ASSOCIATES ARCHITECTURE
Agent(s) (Engineer, Architect, Etc.)

126 N. MAIN ST
Address

MOORESVILLE, NC 28115
City, State Zip

704-664-1311
Telephone

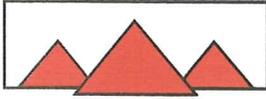
LARRY SCHAEFFER
Signature Print Name Date

LARRY@SCADAMSASSOCIATESARCH.COM
Email

4. The following items shall be considered as part of a complete application, please check this list to ensure all items are included:

<input type="checkbox"/> Signed "Original" application	<input type="checkbox"/> Illustrative (color) site/sketch plan for presentation purposes with same layers as described above
<input type="checkbox"/> Project Fee(s) – See Fee Schedule	<input type="checkbox"/> Official hard copy of architectural elevations (at least one copy), which may include multiple pages. Must be drawn to scale by a registered architect, and include all primary and accessory buildings (including all building sides), and any other architectural elements/features of the site such as gazebos, trellis's, garden walls, retaining walls, or other items over 4-feet in height (NOT APPLICABLE FOR SINGLE-FAMILY RESIDENTIAL DEVELOPMENTS).
<input type="checkbox"/> Written Summary/Description of Request can be on company letterhead. Shall include requested use or uses, sq. feet of non-residential space, or density and number of units/lots for residential, or any other applicable information. For CZ's, must also describe any variations proposed from the Land Development Code	<input type="checkbox"/> Illustrative (color) elevations for presentation purposes for all items described above, as well as perspective (3D) renderings and photograph examples
<input type="checkbox"/> Property Survey (at least one copy), including existing buildings, topography, wetlands, streams, vegetation (trees over 18" in diameter), and other natural features.	<input type="checkbox"/> Digital Files of all items listed above
<input type="checkbox"/> Site/sketch plan (at least one copy), may contain multiple pages and must be drawn to scale by an engineer or landscape architect. Shall include locations of buildings and/or lots, streets, parking, proposed grading, landscaping/screening, open space, watershed/storm water information, associated storm water measures, and proposed utilities and lighting. Shall also include general information from adjoining lots	

ADAMS + ASSOCIATES
ARCHITECTURE

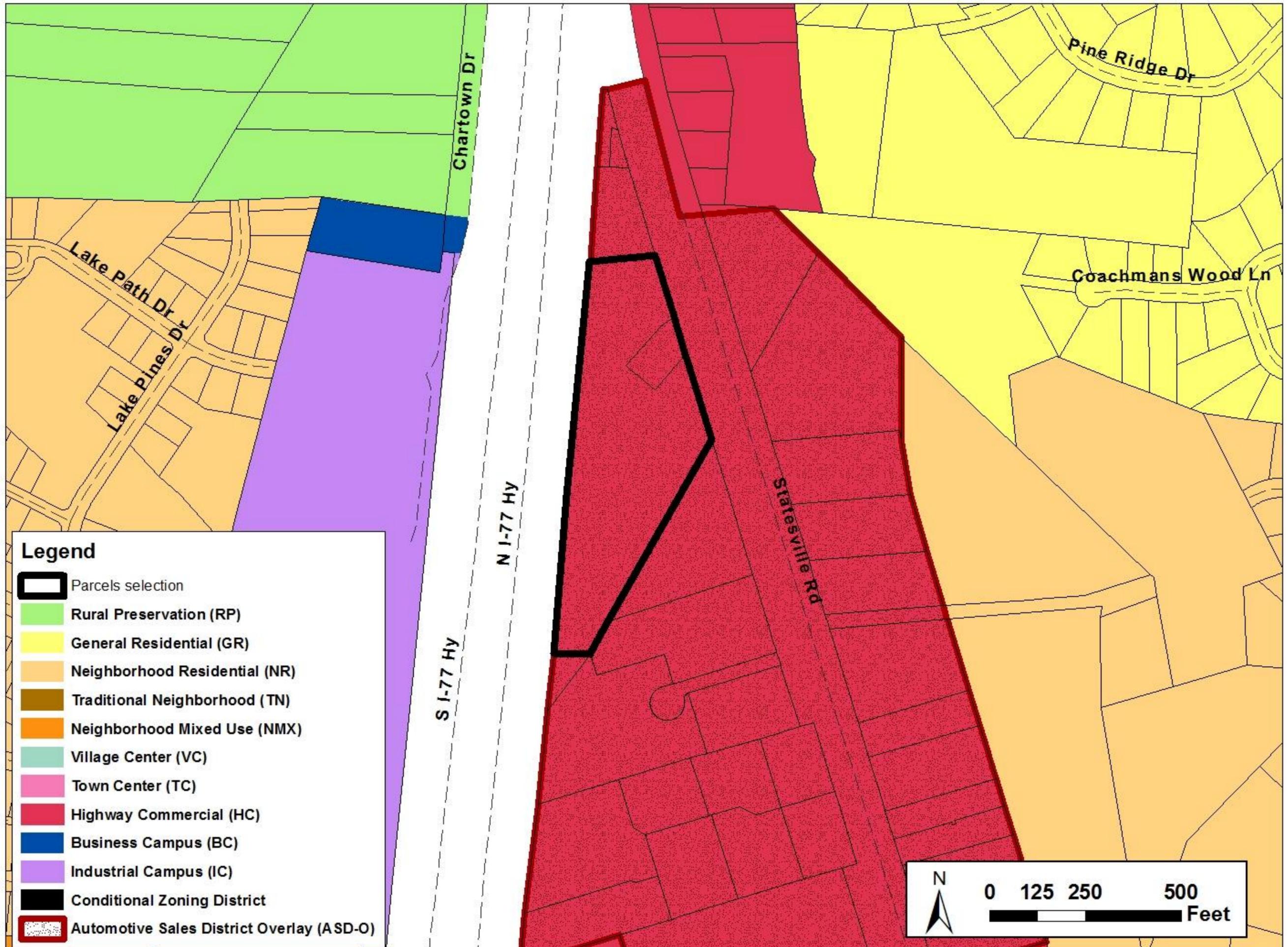


October 25, 2016

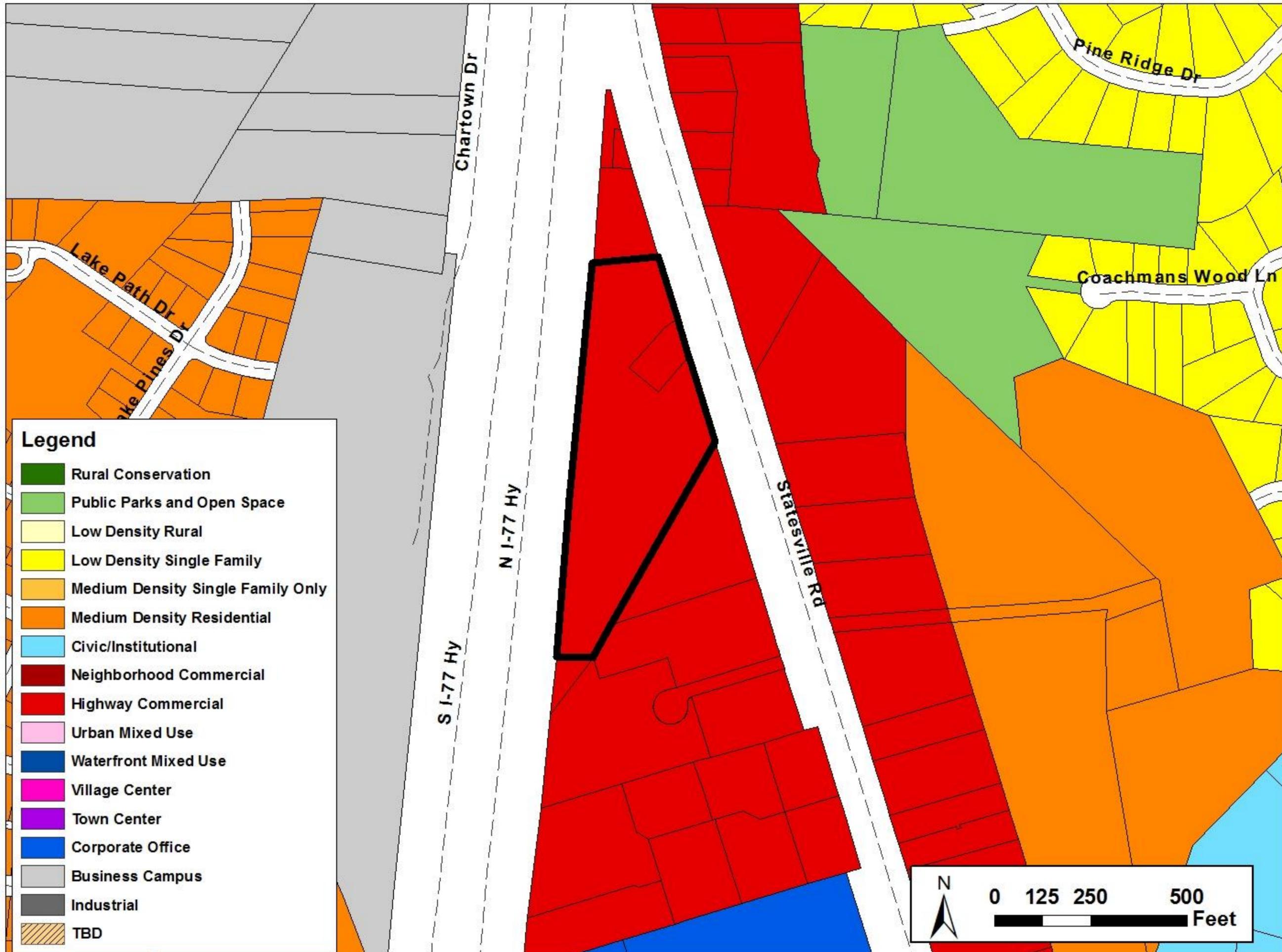
RE: DB Holdings
18837 Statesville Road
Cornelius, NC

This proposed project consists of the removal of two buildings, with an approximate square footage of 9,075. Phase I will consist of the construction of a new 22,850 square foot commercial building. Phase II will increase the building to 26,800 square feet by adding a new sales floor area to the front of the building and a drive thru wash bay. This single story building with a mezzanine, will serve as an automotive service center with automotive sales. The project includes site improvements which includes; grading, parking lots, service drives, site lighting and landscaping. The site is 5.6 acres and is zoned as HC (Highway Commercial) and will remain as Highway Commercial. There are no variations proposed from the Land Development Code.

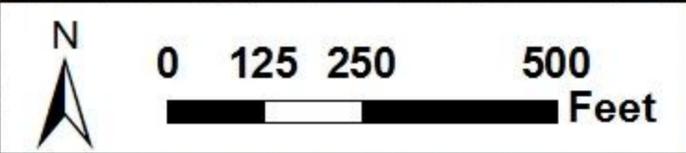
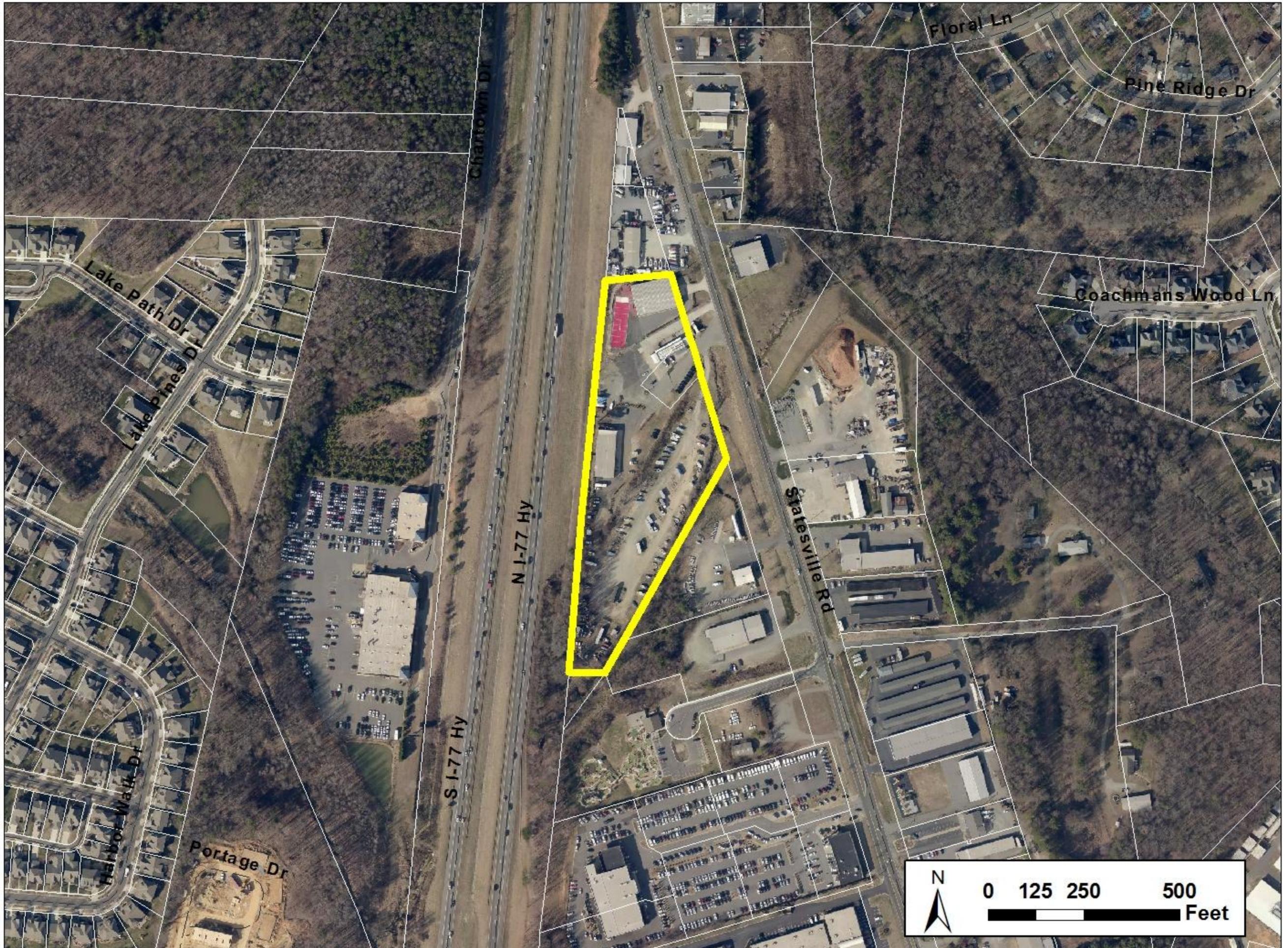
REZ 10-16: DB HOLDINGS



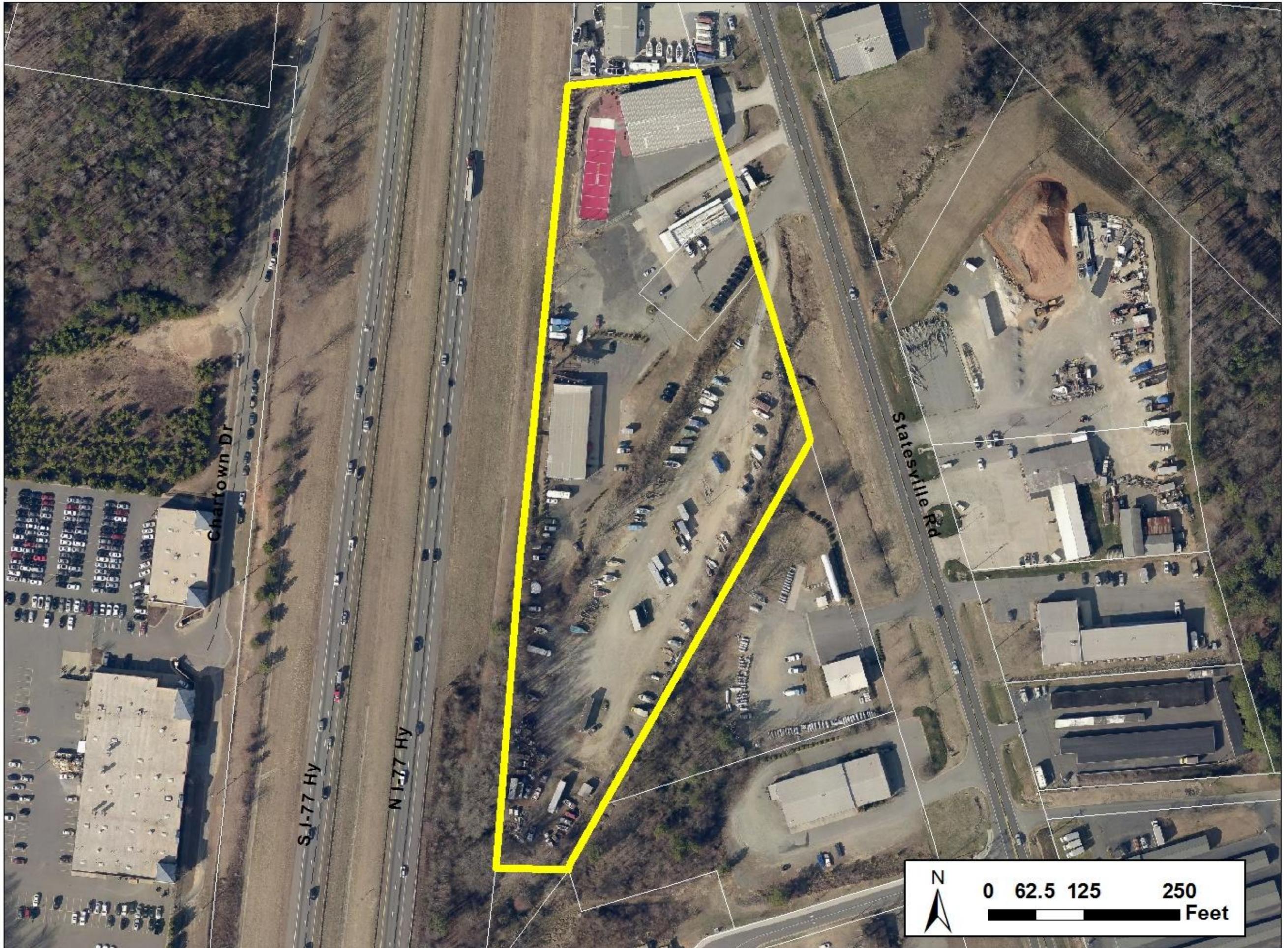
REZ 10-16: DB HOLDINGS

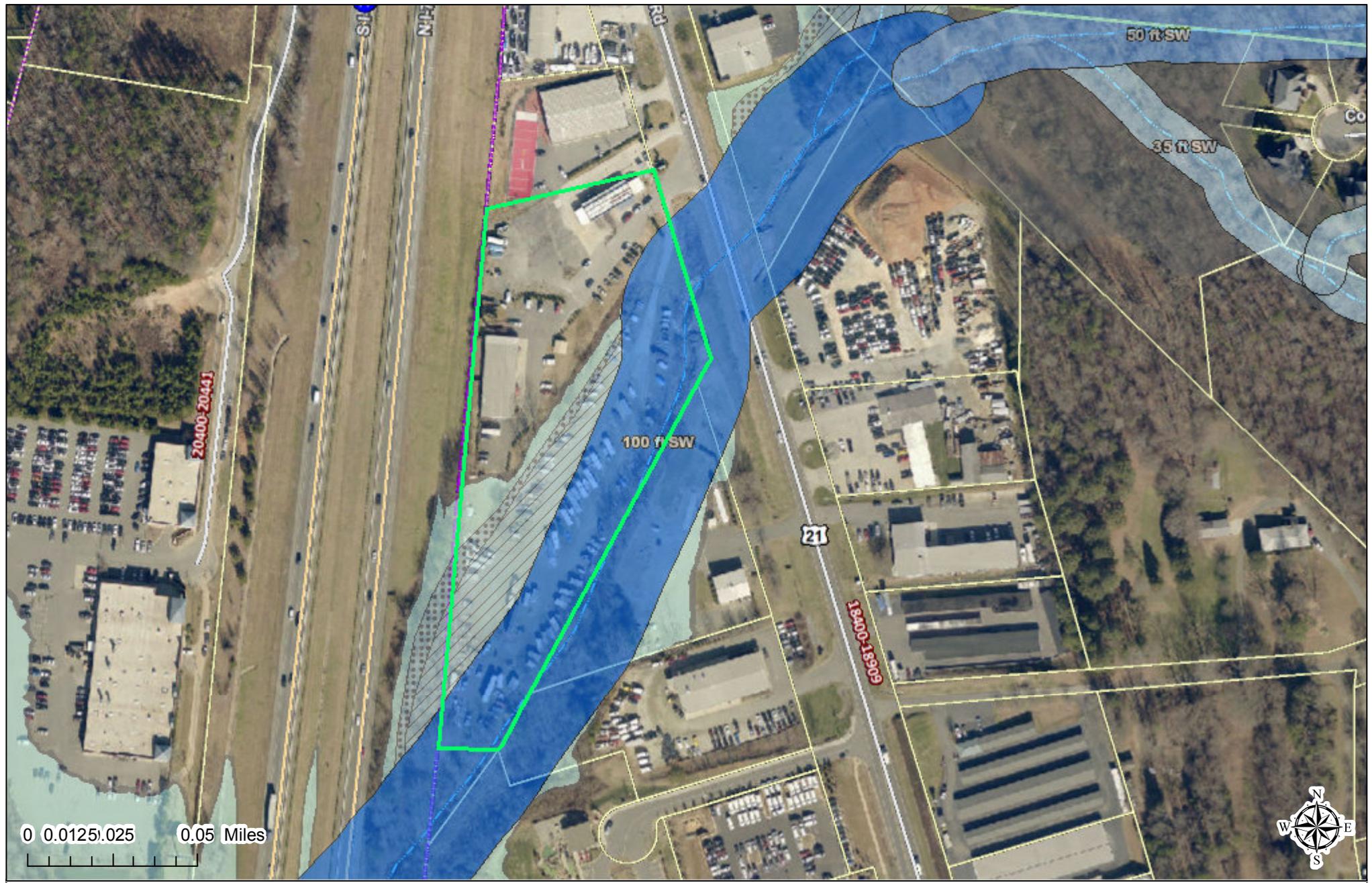


REZ 10-16: DB HOLDINGS



REZ 10-16: DB HOLDINGS





20400-20441

100 ft SW

50 ft SW

35 ft SW

21

18400-18909

0 0.0125 0.025 0.05 Miles







SEAL
PRELIMINARY
 DO NOT USE FOR
 CONSTRUCTION

KEY PLAN

SCALE: 1" = 40'

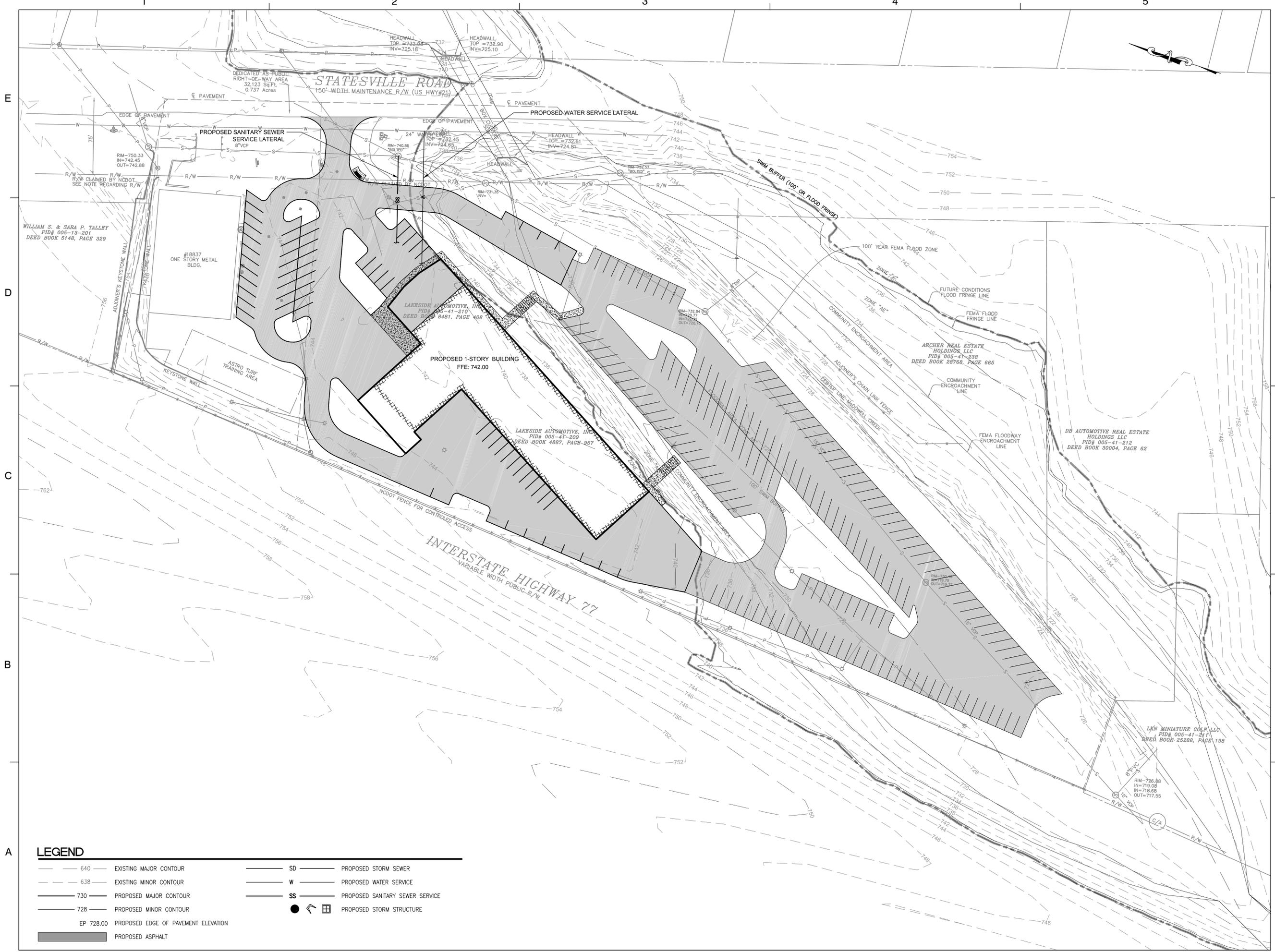
NO.	DATE	BY	DESCRIPTION
REVISIONS			

DRAWN BY: MNT
 APPROVED BY: BJD
 CHECKED BY: BJD
 DATE: 10/28/2016

TITLE
GRADING PLAN

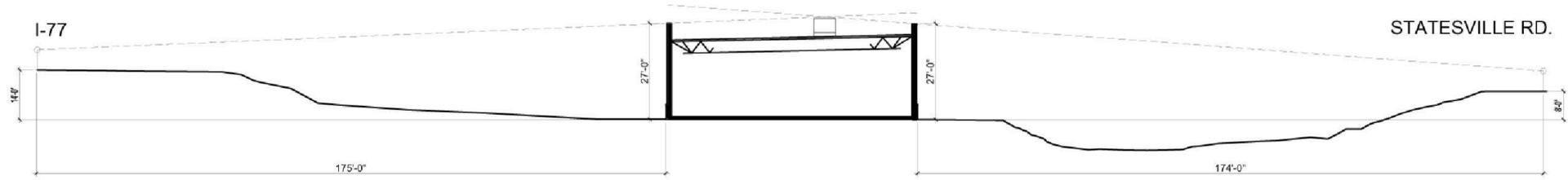
PROJECT NO. 50083181

C3.02



LEGEND

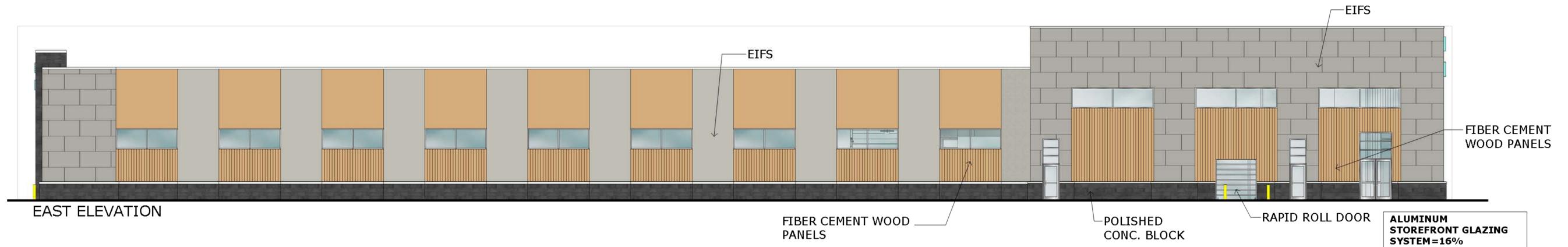
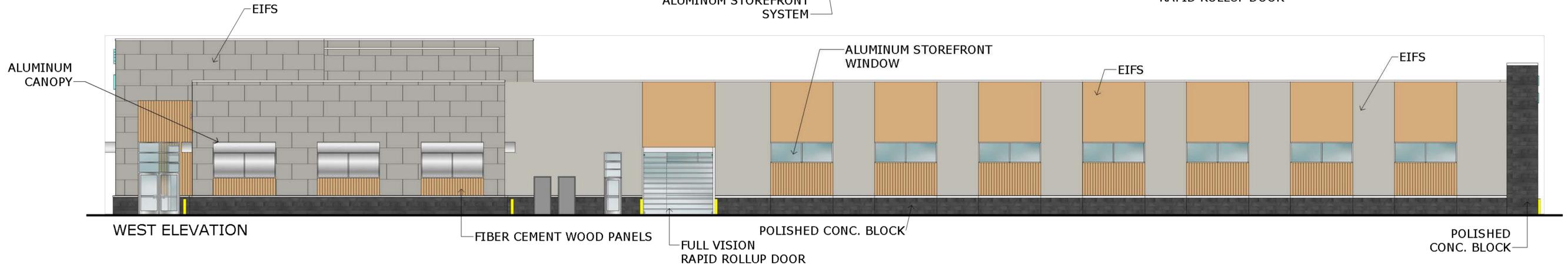
— 640 —	EXISTING MAJOR CONTOUR	— SD —	PROPOSED STORM SEWER
— 638 —	EXISTING MINOR CONTOUR	— W —	PROPOSED WATER SERVICE
— 730 —	PROPOSED MAJOR CONTOUR	— SS —	PROPOSED SANITARY SEWER SERVICE
— 728 —	PROPOSED MINOR CONTOUR	● ◁ ⊞	PROPOSED STORM STRUCTURE
EP 728.00	PROPOSED EDGE OF PAVEMENT ELEVATION		
█	PROPOSED ASPHALT		



RTU SCREENING PROFILE
SCALE: 1/16" = 1'-0"



CONCEPT SITE PLAN
SCALE: 1" = 30'-0"



PHASE I ELEVATIONS
SCALE: 1/8" = 1'-0"



PHASE II ELEVATIONS
SCALE: 1/8" = 1'-0"



NORTH WEST VIEW-PHASE 1



NORTH EAST VIEW-PHASE 1

PHASE I RENDERINGS



NORTH EAST VIEW-PHASE 1



SOUTH EAST VIEW-PHASE 1

PHASE I RENDERINGS



NORTH WEST VIEW-PHASE 2



NORTH EAST VIEW-PHASE 2

PHASE II RENDERINGS



SOUTH EAST VIEW-PHASE 2



SOUTH WEST VIEW-PHASE 2

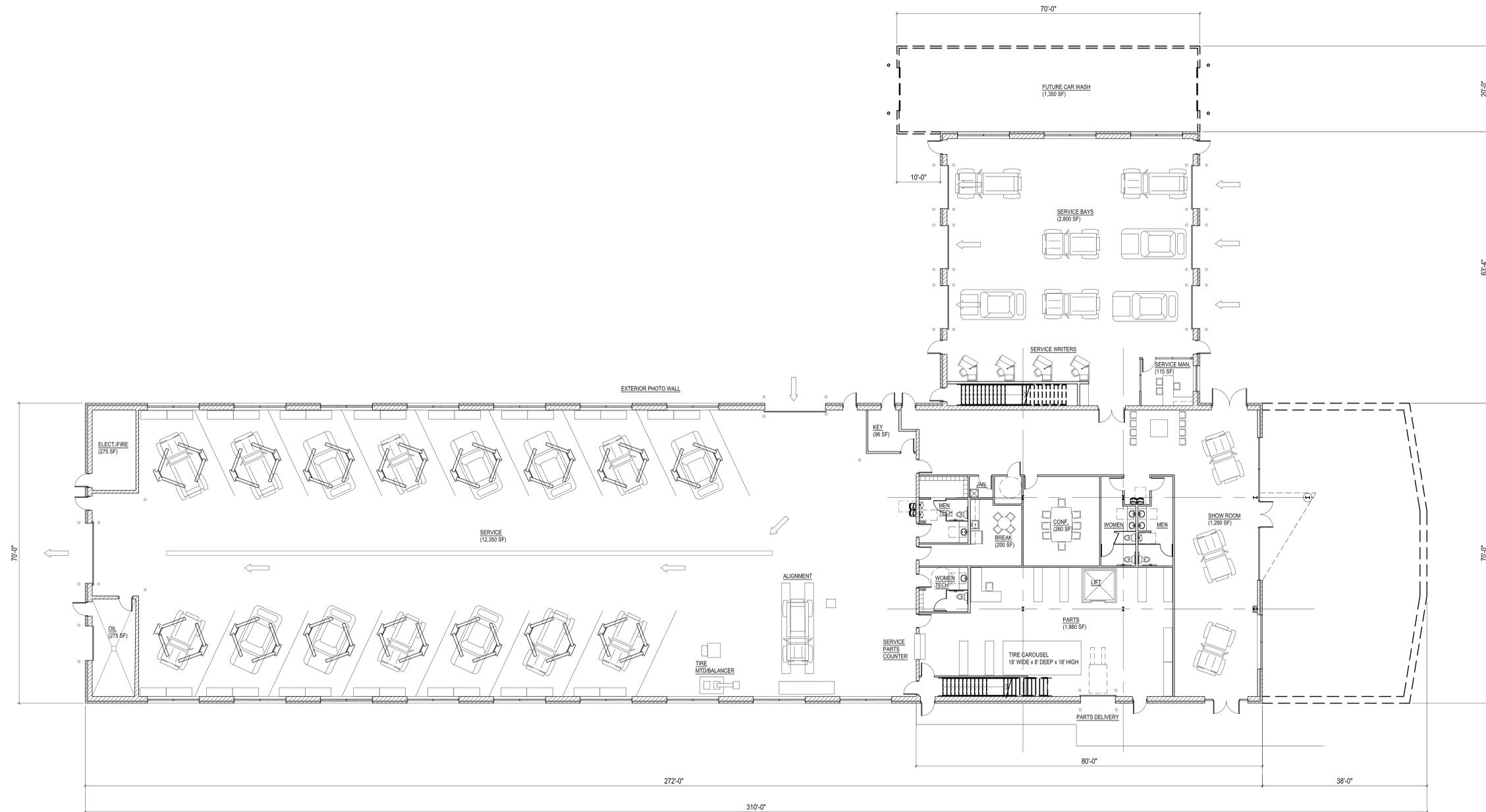
PHASE II RENDERINGS



NEW AUTOMOTIVE DEALERSHIP BUILDING FOR:
DB HOLDINGS

CORNELIUS, NORTH CAROLINA

Project No. : 3222.03
Contact : D. STRONG
Drawn By: DKS
Date : 12-06-2016



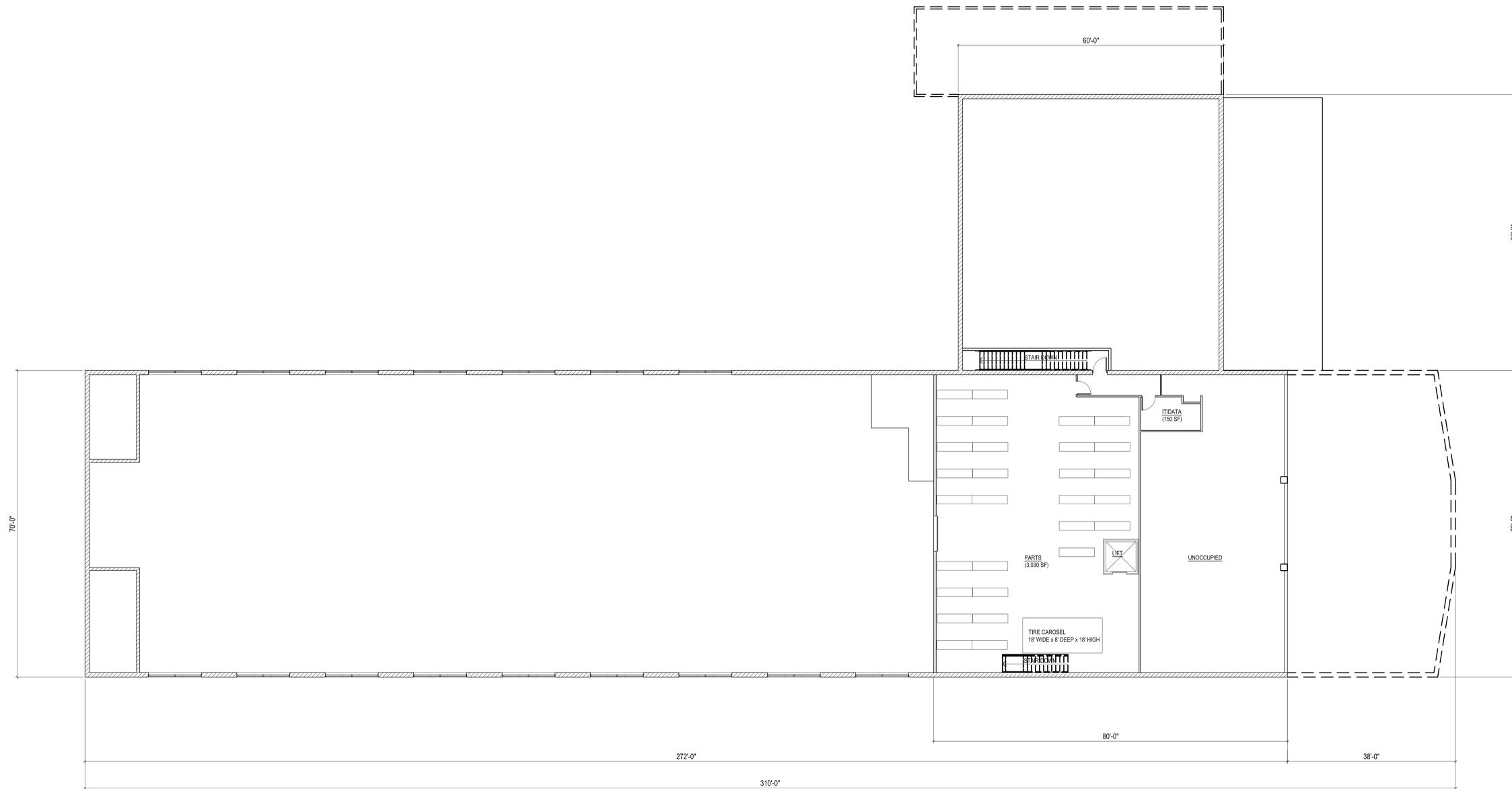
PROPOSED
FIRST
FLOOR PLAN
PHASE I



NEW AUTOMOTIVE DEALERSHIP BUILDING FOR:
DB HOLDINGS

CORNELIUS, NORTH CAROLINA

Project No. : 3222.03
Contact : D. STRONG
Drawn By: DKS
Date : 12-06-2016



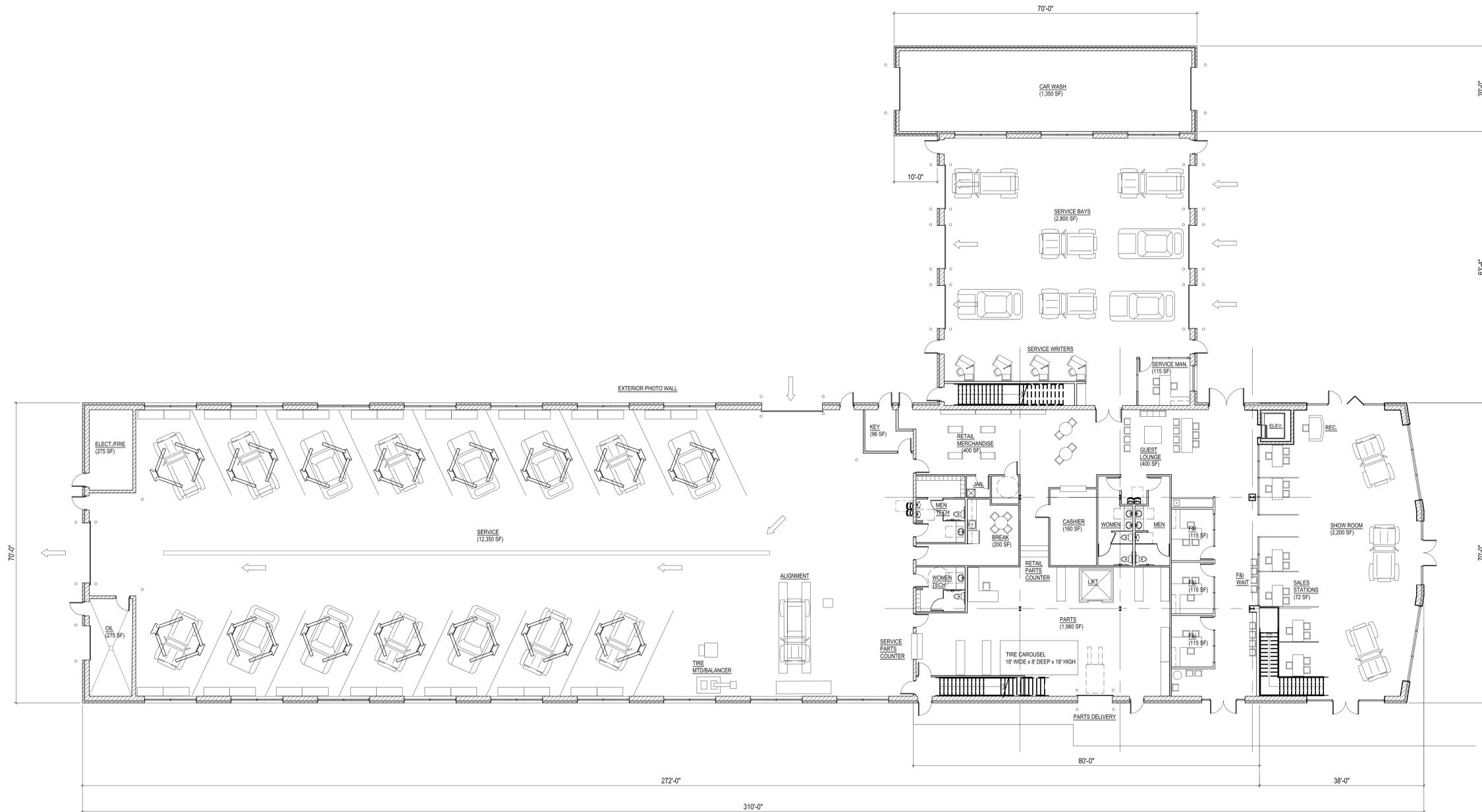
PROPOSED
MEZZANINE
LEVEL
PHASE I



NEW AUTOMOTIVE DEALERSHIP BUILDING FOR:
DB HOLDINGS

CORNELIUS, NORTH CAROLINA

Project No. : 3222.03
Contact : D. STRONG
Drawn By: EKS
Date : 12-06-2016



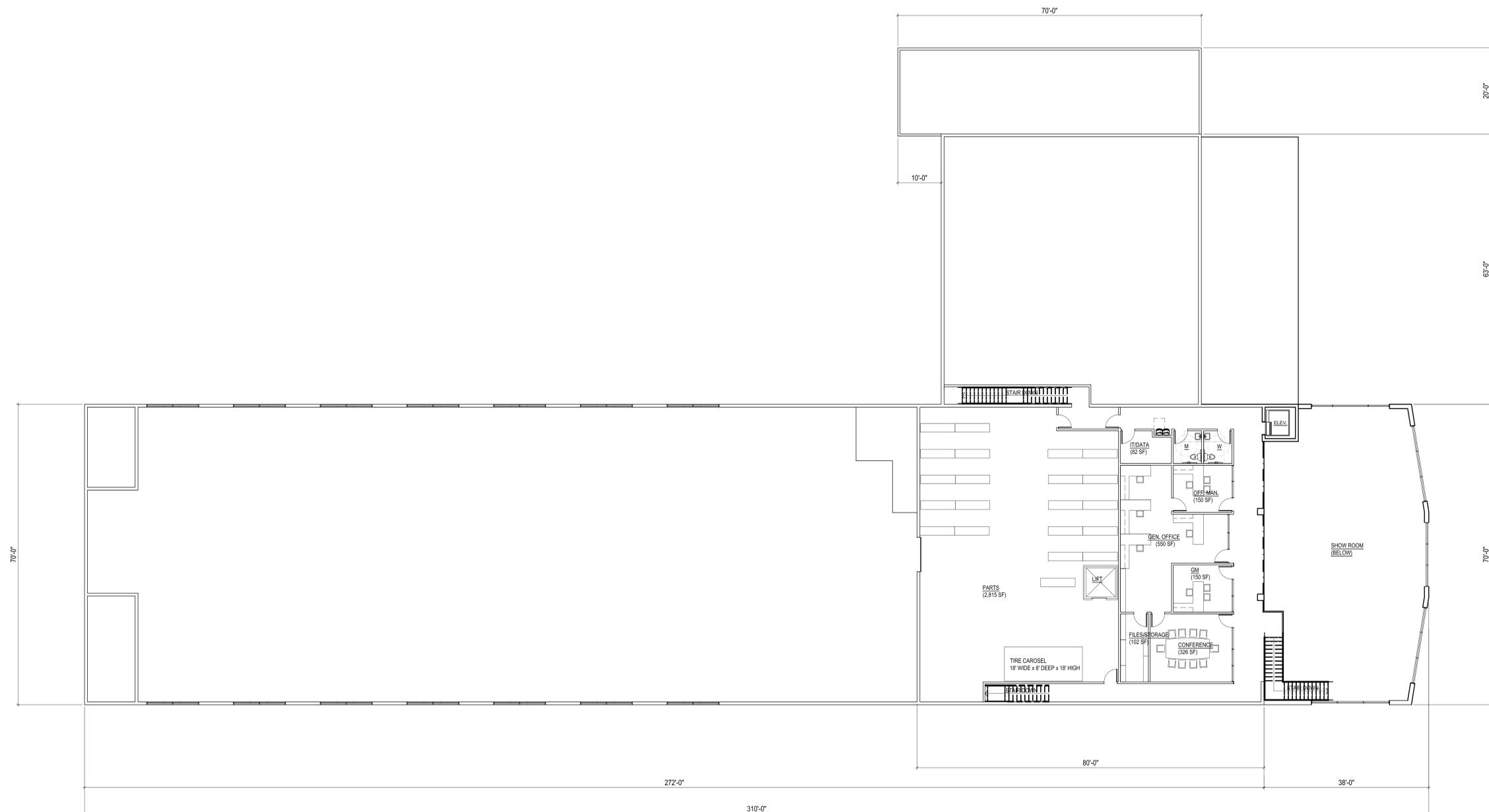
PROPOSED
FIRST
FLOOR PLAN
PHASE II



NEW AUTOMOTIVE DEALERSHIP BUILDING FOR:
DB HOLDINGS

CORNELIUS, NORTH CAROLINA

Project No. : 3222.03
Contact : D. STRONG
Drawn By: DKS
Date : 12-06-2016



PROPOSED
MEZZANINE
LEVEL
PHASE II

REQUEST FOR BOARD ACTION

 Print

Date of Meeting: January 27, 2017

To: Architectural Review Board Members
From: Jason T. Pauling, AICP - Senior Planner

Action Requested:

A request by Epcon Carolinas LLC to construct the community clubhouse building that was approved as part of the Courtyards at Lake Norman (aka Courtyards at Nantz) subdivision.

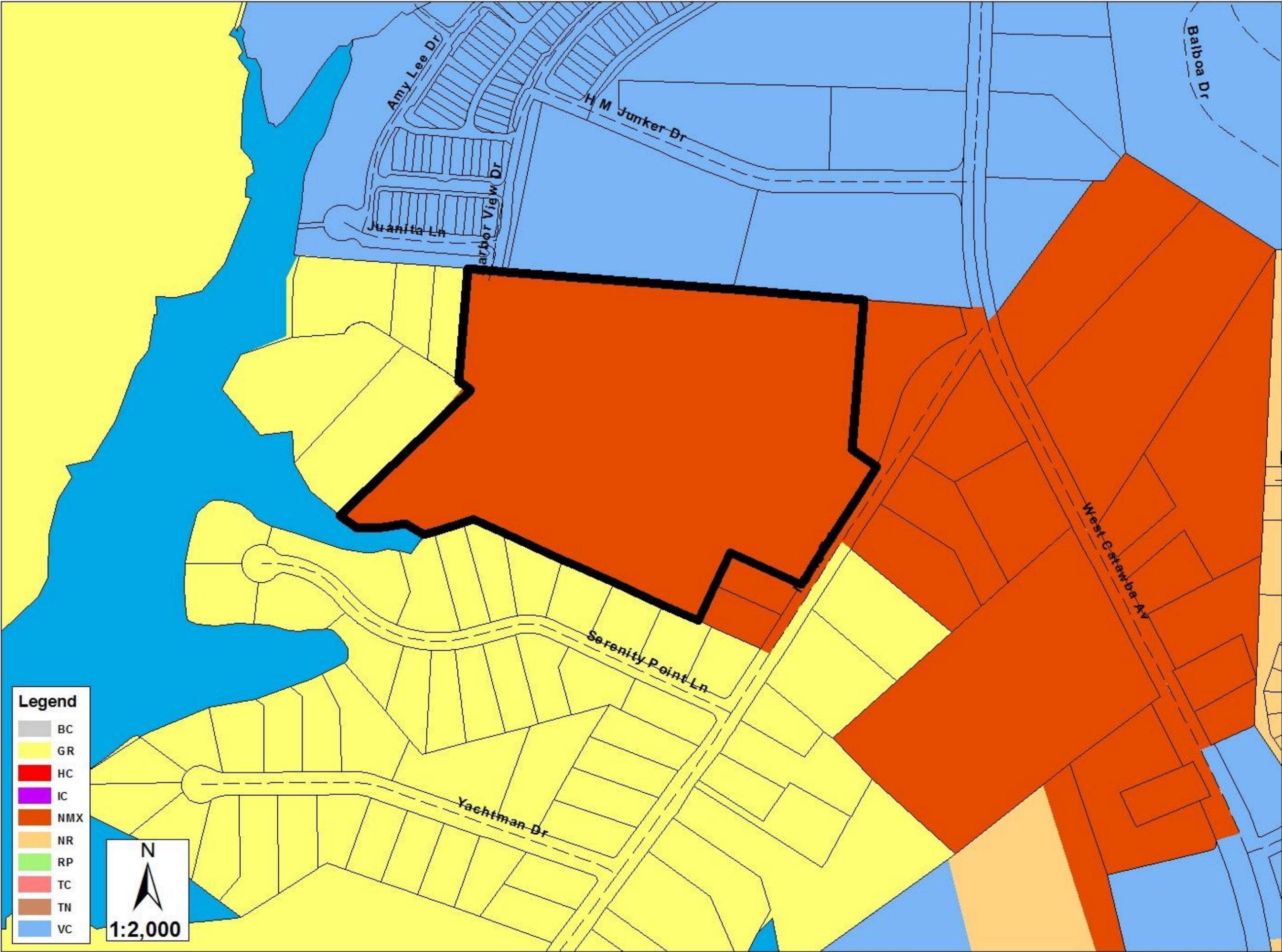
Manager's Recommendation:

Review and provide direction

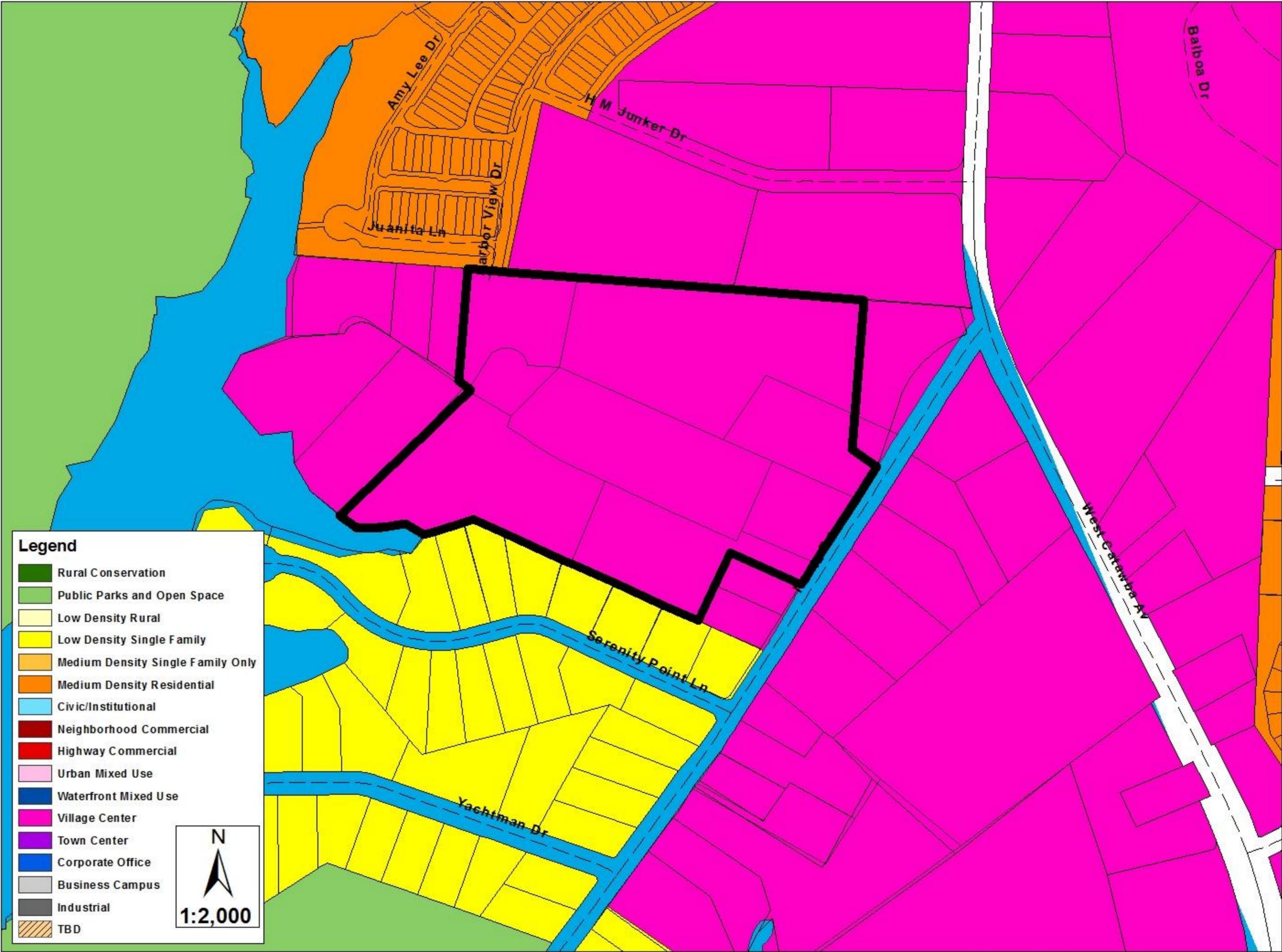
ATTACHMENTS:

Name:	Description:	Type:
 CYatNantz_Zoning.jpg	Zoning Map	Backup Material
 CYatNantz_LU.jpg	Land Use Map	Backup Material
 CYatNantz_Vicinity.jpg	Vicinity Map	Backup Material
 CYatNantz_Property.jpg	Property Map	Backup Material
 Epcon_CorneliusARCFORM.pdf	ARB Checklist	Backup Material
 Epcon_Amenity-Clubhouse_Center_Site_Plan.pdf	Site Plan	Backup Material
 Epcon_Courtyards_on_Lake_Norman_(formerly_Nantz_Road)-Site_Plan.pdf	Overall Site Plan	Backup Material
 Epcon_ClubhouseArchitecturalPlans-CYonLakeNorman(formerlyNantzRd).pdf	Floor Plan and Elevations	Backup Material
 Lake_Norman_FC_Clubhouse_Birds-eye_300.jpg	Color perspective rendering	Backup Material

Courtyards at Nantz Road



Courtyards at Nantz Road



Courtyards at Nantz Road



Amy Lee Dr

H M Junker Dr

Juanita Ln

Harbor View Dr

Nantz Rd

Serenity Point Ln

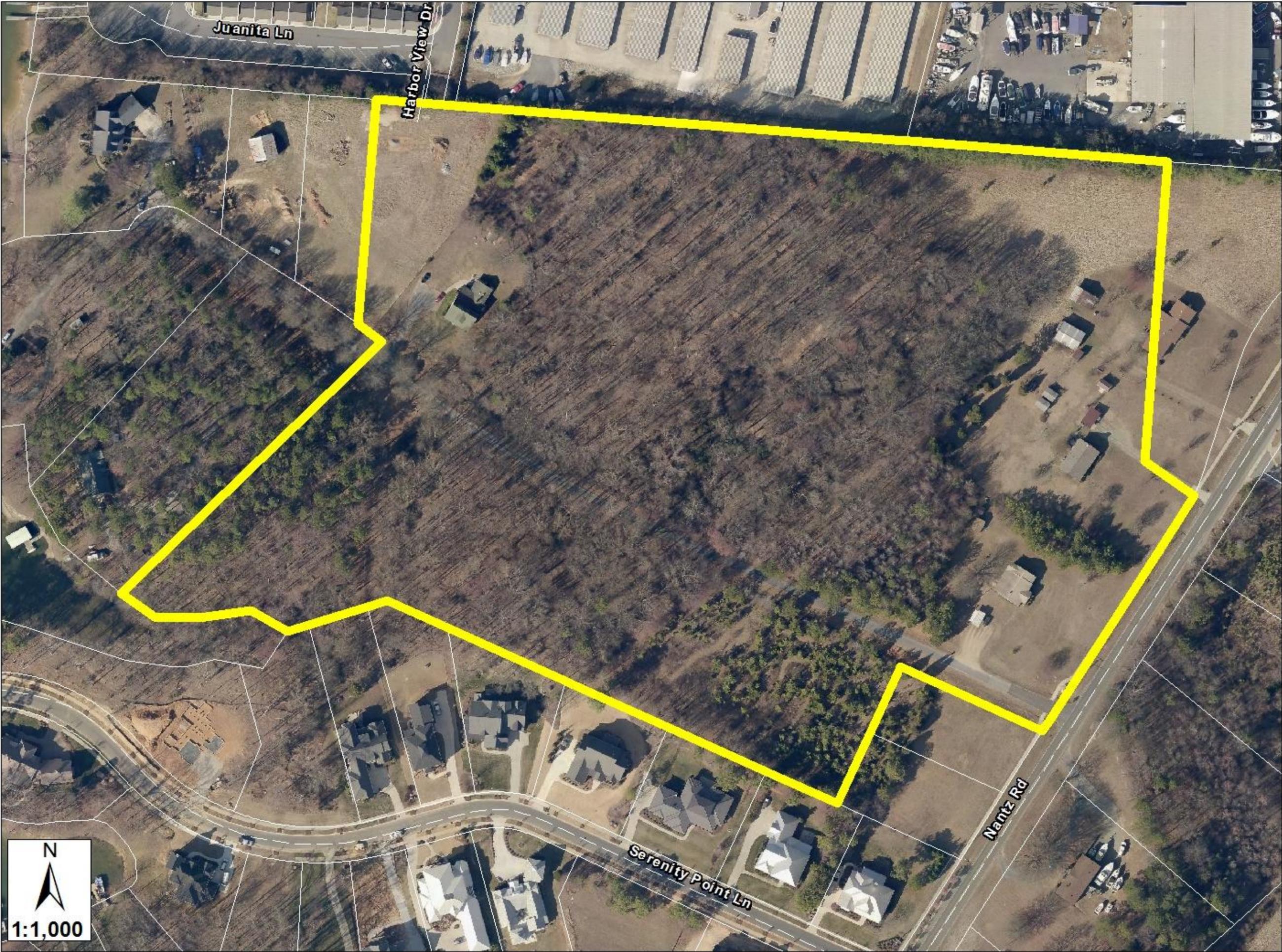
Yachtman Dr

West Catawba Av

Balboa Dr

N
1:2,000

Courtyards at Nantz Road





TOWN OF CORNELIUS:

ARCHITECTURAL REVIEW CHECKLIST & SUBMITTAL REQUIREMENTS

Please review the following information carefully and check to be sure all requirements of Chapter 4 have been met, be prepared to discuss if any variations are appropriate with staff and the Architectural Review Board:

- Front Façade/Elevation – The front elevation faces the primary street and the overall massing is pedestrian in scale. The primary entrance is architecturally and functionally designed on the front façade of the building, and extends parallel to the frontage line. **For commercial buildings, 70% of the street level frontages are part of windows or doorways.** Street level windows are visually permeable. Mirrorized glass is not permitted, and faux windows or display casements are not permitted in lieu of exterior window treatments for the frontage elevation.
- Building materials, scale and style – Building materials, scale and style are appropriate with surrounding uses. Building walls are brick, cast concrete, stucco, stone, marble, or other materials similar in appearance and durability. Regular or decorative concrete block, and siding (non-vinyl) materials may only be used on building walls not visible from a public street or as an accent material only. Two wall materials may be combined horizontally, but the heavier material is below.
- Building Articulation – Frontage wall has adequate articulation, no wall shall remain unpierced by a window, door, or general access point for more than 16 feet. Doors that are intended to provide access contain a stoop, porch or awning that forms as the predominant aspect of the building design. For buildings greater than 100 feet in width, there shall be no uninterrupted wall length exceeding 75 feet. An interruption may consist of a change in place or a change in texture/masonry patterns. For buildings less than 75 feet, one interruption is required within 30 feet on either side of the center of the building.
- Building Roof – For pitched roof, the roof is clad with wood shingles, standing seam metal, corrugated metal, slate, diamond tab asphalt shingles, or similar materials. Flat roofs have parapet walls high enough to conceal the flat portion of the roof and conceal all roof top mechanical equipment. Parapets are terraced on side elevations. Canopies and awnings are canvas or of similar material and durability. If there are any skylights, they shall be flat. *ARCHITECTURAL REVIEW SHINGLES*
- Accessory buildings, fences, walls and accessory equipment – All accessory buildings and walls are clad in materials similar in appearance to the principal structure or use materials that complement the principal structure. *NO ACCESSORY BUILDINGS*

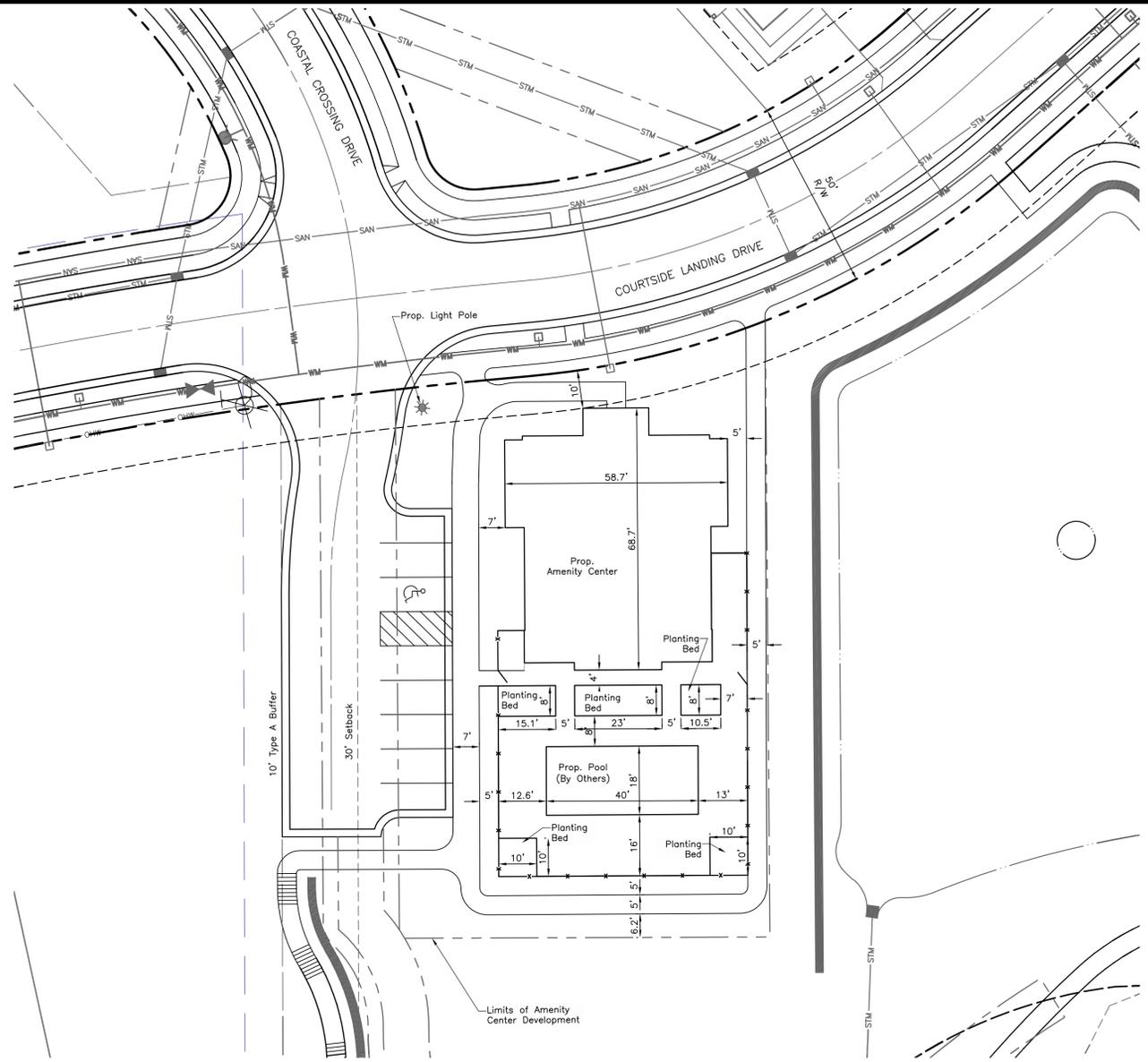
SUBMITTAL REQUIREMENTS FOR ARCHITECTURAL REVIEW BOARD

- Elevations of all four sides with dimensions, features and materials clearly labeled drawn to scale by a registered architect.
- Color elevations, color samples, or photo examples
- Site Plan – May contain multiple pages, drawn to scale by an engineer or landscape architect. Include locations of buildings, lots, streets, parking, proposed grading, landscaping/screening, open space, watershed/storm water information, associated storm water measures, and proposed utilities and lighting. Shall also include general information from adjoining lots
- Perspective drawings/renderings shown at different angles
- Floor plans

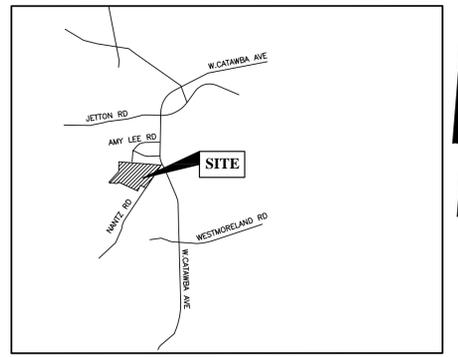
★ *Additional info may be necessary based upon the Land Development Code, or as determined by the Planning Director.*

THE ARCHITECTURAL REVIEW BOARD (ARB)

- A. Pursuant to G.S. 160A-361, the Town of Cornelius has an Architectural Review Board (ARB) consisting of seven (7) persons who are residents or property owners within the Town. At least four of the members are required to be architects, landscape architects, building designers or other design professionals. At least one (1) of the members shall reside east of I-77. The Town Board may also designate one of its members as a non-voting (ex-officio) member of the ARB. Each member of the ARB and its chair are appointed by the Town Board
- B. The ARB typically meets on the 4th Friday of every month at 12:00 PM. The deadline to submit materials for the ARB is by the **2nd Friday of every month**. Digital files can be emailed to Planning Staff or be on a disk.
- C. A quorum of at least four (4) members of the ARB is necessary in order to hold a meeting. All meetings are open to the public, and follow all open meeting and public records requirements, include "Roberts Rules of Order for Small Boards."
- D. Decisions shall be by a simple majority of the board for those that are present at the meeting, and board members with a conflict of interest shall abstain from voting.
- E. The ARB operates in an advisory only capacity to the Planning Director, his/her staff, the Planning Board and the Town Board of Commissioners on a project by project basis. On cases that will be heard by the Planning Board and Town Board of Commissioners for final recommendation, the ARB's recommendations will typically be noted in the staff report and staff analysis of the specific project.

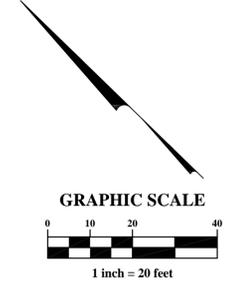


SITE DATA	
Owner	EPCON Communities, INC. 500 Stonehenge Parkway Dublin, OH 43017
PIN#	00106118, 00106154, 00106151, 00106150, 00106120, 00106149, 00106117, 00106121
Zoning	Neighborhood Mixed Use - Conditional Zoning (NMX-CZ)
Use	Age Restricted Detached Housing
Setbacks	10' Min Build to Line 35' Max Build to Line 10' Min Building Separation 10' / 25' / 30' Rear Yard Perimeter Setback
Acres	Total = 320.09 Ac
Built Up Area: Buildings, Drives, and Sidewalks	13.67± Ac. (4.2%)?
Urban Open Space Area	3.39± Ac.
Total Units	67 Units
Clubhouse	3,320 SF
Flood Panel	This property is not located within the 100 year flood plain
Watershed	Lake Norman - CA (50% Max Impervious)



LOCATION MAP
No Scale

NOTES:
See Courtyards at Kinnaman Park Site Improvement Plans for Site Utilities, Storm Drain, Street Improvements, and Signage Design.
See Architectural and Pool Design Plans and Documents for detailed design information for Clubhouse Building and Pool.



LEGEND		
Valve	Proposed Water	Existing Contours
MH	Proposed Storm	Proposed Contours
SAS	Proposed Sanitary	Flow Direction Arrow
Private Storm Drain (By Others)	Existing Water	Light Pole
Existing Storm	Existing Storm	PUE
Existing Sanitary	Prop Top of Curb Elevation	SDE
Prop Pavement/Sidewalk Elevation	Proposed Pavement/Sidewalk Elevation	SSE
		Handicap Ramp

MARK	DATE	DESCRIPTION

EPCON COMMUNITIES
8600 Sam Furr Road, Suite 180
Huntersville, NC 28078
PH: (855) 762-1010
Contact: Rich Hearth

CITY OF TOWNSHIP, COUNTY, STATE
PLAN TYPE
PROJECT TITLE
AMENITY CENTER SITE PLAN

ACCESSIBLE PARKING REQUIREMENTS		
TOTAL PARKING SPACES PROVIDED	MINIMUM NUMBER OF ACCESSIBLE SPACES REQUIRED	MINIMUM NUMBER OF ACCESSIBLE SPACES REQUIRED TO BE VAN ACCESSIBLE
1 TO 25	1	1
26 TO 50	2	1
51 TO 75	3	1
76 TO 100	4	1
101 TO 150	5	1
151 TO 200	6	1
201 TO 300	7	1
301 TO 400	8	1
401 TO 500	9	2
501 TO 1000	2% OF TOTAL	1 IN EVERY 5 ACCESSIBLE SPACES
1001 AND OVER	2% PLUS 1 FOR EACH 100 OVER 1000	1 IN EVERY 5 ACCESSIBLE SPACES

SECTION 4.2.2 OF THE BUILDING AND CODES ACT (BACA) USE 4.2.2.05 (C) FOR MEDICAL OFFICE FACILITIES.

NOTES:
1. ALL 12" X 18" ACCESSIBLE SIGNS SHALL BE MOUNTED AT 5000 FEET FROM GRADE TO BOTTOM EDGE OF SIGN FACE (MOUNTED SIGNING HEIGHT CAN BE REDUCED TO FACE HEIGHT IF PLACED IN AN AREA SUBJECT TO VIBRATION AND BLOWING FACE TO WIND. PRESTRESSERS ARE NOT EXPECTED TO USE.)
2. REFER TO MANUAL ON SIGNING (MANSIGN) GENERAL SYMBOLS (MANSIGN) U.S. DEPARTMENT OF TRANSPORTATION AND NORTH CAROLINA DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL.
3. IF ACCESSIBLE SIGN IS A MARKED SIDEWALK AREA, THEN RAMP IS REQUIRED AT JOINTING SIDE WALK.

SEE STANDARD NO. 711.1 & 714.1 FOR SUPPLEMENTAL SIGN DETAIL.

STANDARD DRAWING
ACCESSIBLE PARKING AND SIGNAGE STANDARDS
REV. DATE: 5/9/13
SHEET NO. 712.1

STANDARD DRAWING
SUPPLEMENTAL VAN ACCESSIBLE SIGN
REV. DATE: 11/1/10
SHEET NO. 713.1

STANDARD DRAWING
SUPPLEMENTAL MAXIMUM PENALTY SIGN
REV. DATE: 11/1/10
SHEET NO. 714.1

STANDARD DRAWING
ACCESSIBLE RAMP STANDARD
REV. DATE: 10/14/09
SHEET NO. 715.1

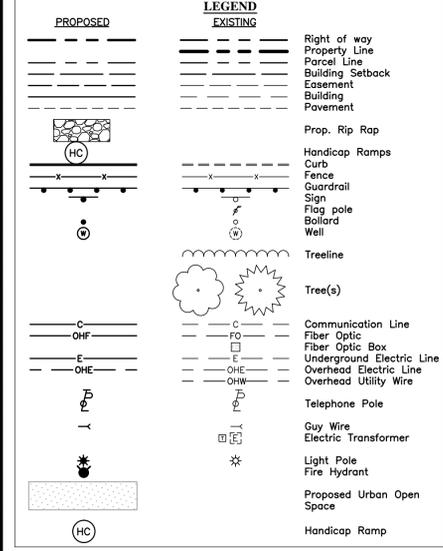
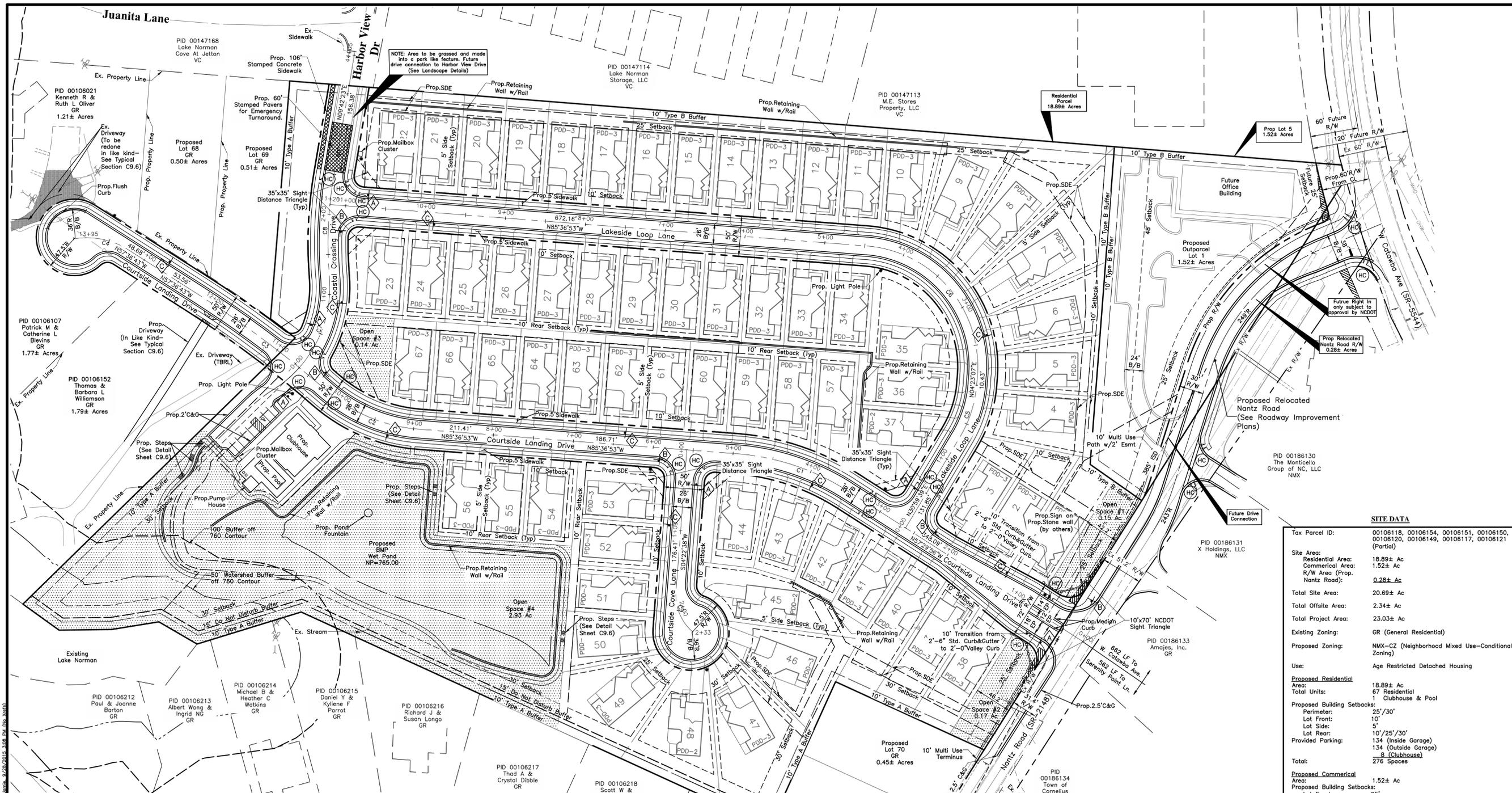


DATE
December 22, 2016

SCALE
As Noted

JOB NO.
2014-1126

SHEET
C40



STOP SIGN
R1-1
30" x 30"

STREET NAME SIGN

20 MPH SPEED LIMIT SIGN
R2-1

GENERAL NOTES

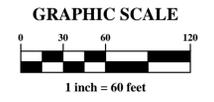
- See Sheets C9.0-C9.4 for site details.
- All driveway connections to roadway shall be in strict accordance with Town of Cornelius and Mecklenburg County Specifications and Details.
- Unit mix as shown is subject to change based on demand. Developer reserves the right to modify the building/unit configuration in all buildings and unit sales dictate. Actual floor plans and footprints will be determined at the time of building plan submittal.
- Proposed Signs, Lighting & Landscaping will be designed in accordance with the Town of Cornelius Standards and Regulations. Proposed locations will be prepared and reviewed as part of the Construction Plans.
- Trash will be provided per lot. Mail will be provided in Cluster locations.
- All curbs shall be valley curb & gutter unless otherwise noted. All dimensions are measured to the top back of curb unless noted otherwise.
- All radius dimensions are measured to the top back of curb unless noted otherwise.
- No vehicles are permitted to be parked in any designated landscape areas.
- All proposed pedestrian road crossings shall meet ADA requirements per MCLDS# 10.33A, 10.33B, 10.35A, 10.35B, 10.40. See details on sheets C9.0 and C9.1.
- Anywhere asphalt and concrete meet, contractor shall construct a turnaround per detail on sheet C9.4.
- At concrete construction joints, contractor shall install the joint per detail on sheet C9.0.
- All pavement areas to be flexible asphalt pavement, per detail on sheet C9.4.
- Coordinate all curb and street grades in intersection with inspector.
- All road improvements at Courtyards at Nantz Road are to be coordinated with the Town or County LUESA prior to construction.
- Developer will provide street name signs per MCLDS# 50.05 (9" signs only).
- Sign triangles shown are the minimum required.
- In rolling or hilly terrain, sweeping of the stone base and/or application of a tack coat may be required near intersections. These requirements will be established by the Inspector and based on field conditions.
- Approval of this plan is not an authorization to grade adjacent properties. When field conditions warrant off-site grading, permission must be obtained from the affected property owners.
- Handrails may be required by a representative of the County, if warranted by field conditions (MCLDS 50.04A,B).
- In order to ensure proper drainage, keep a minimum of 0.5% slope on the curb.
- Subsurface drainage facilities may be required in the street right-of-way if deemed necessary by the inspector.
- Retaining walls >4 ft (residential) or 5 ft (commercial) in height requires a permit from the Code Enforcement prior to construction. The engineer of record for the retaining wall(s) must certify that the wall(s) is (are) constructed to specifications prior to issuance of C.O.
- Construction of retaining wall(s) cannot begin until all necessary permits are acquired.
- The Mecklenburg County Engineering Department has not reviewed the structural stability of any retaining walls on the site and does not assume responsibility for them.
- "As-built" drawings and plans of the storm drainage system, including designed ditches, must be submitted prior to subdivision final inspection to the County Engineering Department in accordance with the Subdivision Ordinance.
- Contractor to coordinate with developer for light pole locations.

FEMA NOTE

- The proposed Site is located outside of the 100 year floodplain.
- According to the Federal Emergency Management Agency's Flood Insurance Map, dated March 02, 2009, the subject tract shown herein lies within Zone "X" (areas determined to be outside 0.2% annual chance floodplain), Community Panel No. 3710463300 J.

C/L CURVE DATA TABLE

CURVE #	A	RADIUS	TANGENT	LENGTH
C1	28'06"57"	300.00'	75.12'	147.21'
C2	36'37"28"	200.00'	66.19'	127.84'
C3	8'37"18"	1330.00'	100.26'	200.13'
C4	42'15"23"	96.00'	37.20'	70.99'
C5	26'36"32"	150.00'	35.47'	69.66'
C6	90'00"00"	150.00'	150.00'	235.62'
C7	46'30"19"	150.00'	64.45'	121.75'
C8	14'30"16"	500.00'	63.63'	126.57'
C9	53'17"18"	60.61'	30.41'	56.37'



SITE DATA

Tax Parcel ID: 00106118, 00106154, 00106151, 00106150, 00106120, 00106149, 00106117, 00106121 (Partial)

Site Area: Residential Area: 18.89± Ac
Commercial Area: 1.52± Ac
R/W Area (Prop. Nantz Road): 0.28± Ac

Total Site Area: 20.69± Ac
Total Offsite Area: 2.34± Ac
Total Project Area: 23.03± Ac

Existing Zoning: GR (General Residential)
Proposed Zoning: NMX-CZ (Neighborhood Mixed Use-Conditional Zoning)
Use: Age Restricted Detached Housing

Proposed Residential
Area: 18.89± Ac
Total Units: 67 Residential
1 Clubhouse & Pool

Proposed Building Setbacks:
Perimeter: 25'/30'
Lot Front: 10'
Lot Side: 5'
Lot Rear: 10'/25'/30'
Provided Parking: 134 (Inside Garage)
134 (Outside Garage)
8 (Clubhouse)
276 Spaces

Total:
Proposed Commercial
Area: 1.52± Ac
Proposed Building Setbacks:
Lot Front: 25'
Lot Side: 0'
Lot Rear: 48'
Provided Parking: 41 Spaces

Open Space Required: 1.80 Ac
(3 Bedrooms x 67 Units x 390)

Open Space Provided: 3.39 Ac

Note: Ramsey Creek Community Park located within 1/2 mile of Project Site.

Proposed Onsite Impervious Area:
Commercial: Buildings: 0.18± Ac
Sidewalks: 0.82± Ac
Pavement: 0.48± Ac

Residential: Buildings: 6.11± Ac
Sidewalks: 0.82± Ac
Pavement: 2.15± Ac

Total Onsite Impervious Area: 9.76± Ac
Total Offsite Impervious Area: 1.28± Ac
Total Impervious Area: 11.04± Ac

Watershed: Allowed: Lake Norman - CA (50% Max Impervious Area)
Provided: 11.04± Ac / 23.03± Ac = 48%

REVISIONS

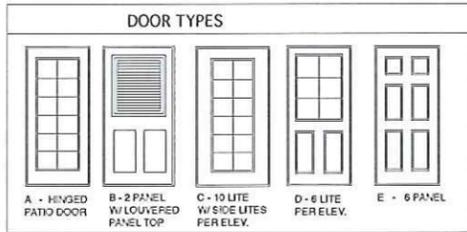
MARK	DATE	DESCRIPTION
1	04/28/15	Revised Per Town and County Comments
2	06/03/15	Revised Per Town and County Comments

EPCON COMMUNITIES
8600 Sam Furr Road, Suite 180
Huntersville, NC 28078
PH: (855) 762-1010
Contact: Rich Henscheid

TOWN OF CORNELIUS, MECKLENBURG COUNTY, NORTH CAROLINA
SITE IMPROVEMENT PLANS
FOR
COURTYARDS AT NANTZ ROAD
SITE PLAN

EMH
Evan M. Henscheid, P.E.
Engineer - Surveyor - Planner - Scientist
Professional Seal No. 3549
Date: 06/03/15

DATE: June 3, 2015
SCALE: 1" = 60'
JOB NO.: 2014-1126
SHEET: C4.0



ROOM SCHEDULE				
SPACE	FLOOR	BASES	WALLS	CEILING
MEN'S	NON-SLIP CERAMIC TILE OVER CONCRETE	TILE COVE	CERAMIC TILE @ 55" H.	M.R.G.W.B.
WOMEN'S	NON-SLIP CERAMIC TILE OVER CONCRETE	TILE COVE		
POOL EQUIP. RM.	SEALED CONCRETE	N/A	M.R.G.W.B.	
CHM./STORAGE/ MECH. RM./ JANITOR RM.	CONCRETE	N/A		
KIT/CAFETERIA/ GALLERY/OFFICE/ PARLOR/ HOSPITALITY	CERAMIC TILE OVER CONCRETE	WOOD	G.W.B.	G.W.B.
ENTRY/HALL/ COMMUNITY ROOM	LAMINATE FLOOR OVER CONCRETE	WOOD	G.W.B.	G.W.B.

NOTES:
 1. F.W.P. - FIBERGLASS WALL PANELS BY KEMITE OR APPROVED EQUAL.
 2. PAINT WALLS & CEILINGS W/ ENAMEL PAINT.
 3. ALL M.R.G.W.B. WALLS LOCATED AT W.C. & URINALS SHALL BE COVERED IN EPOXY PAINT.

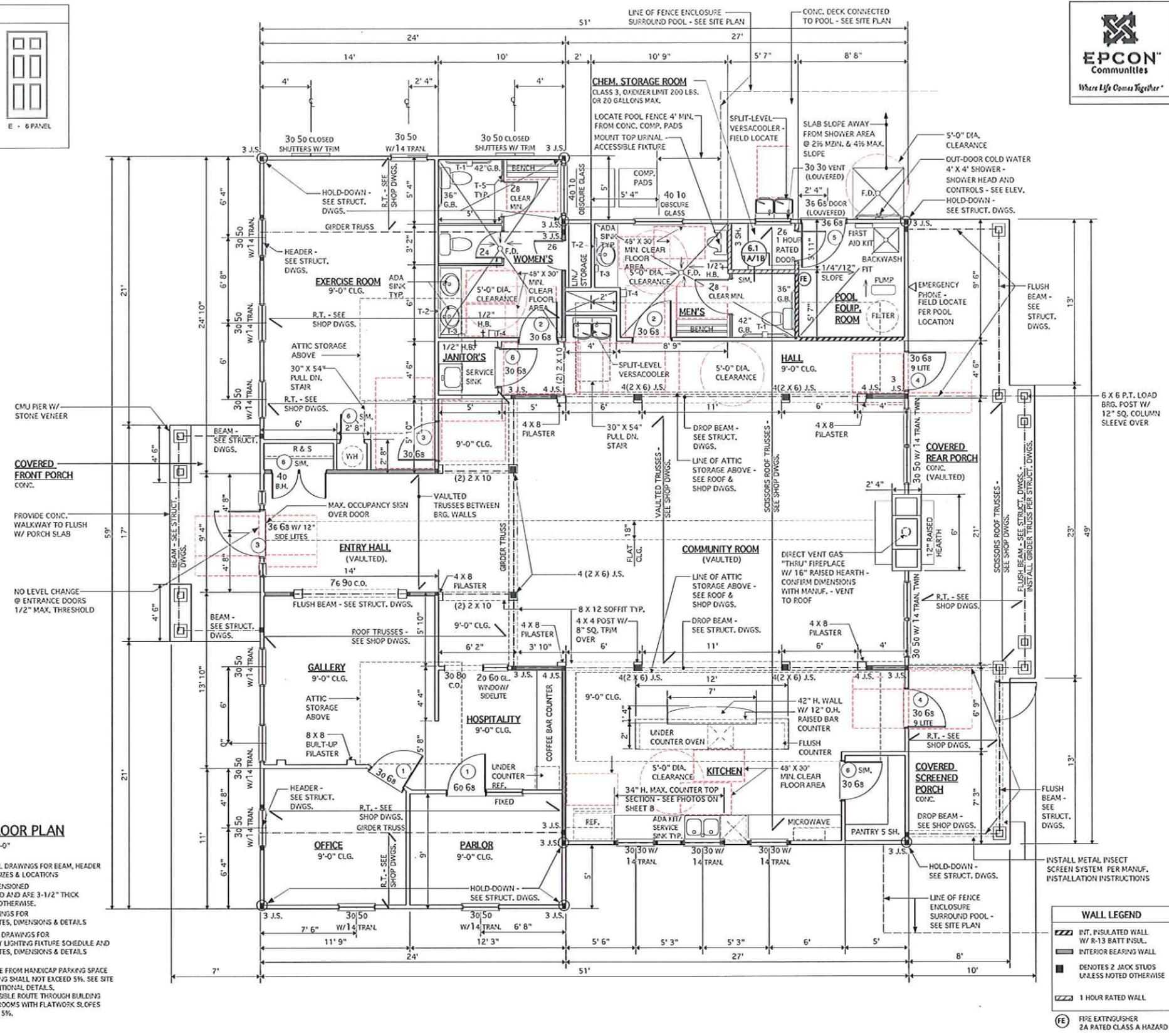
DOOR SCHEDULE							
MARK	DOOR SIZE		CONSTRUCTION	GLAZING	THICKNESS	RATING	DOOR TYPES
	WIDTH	HEIGHT					
1	3'-0"	6'-8"	WD.				A
2	3'-0"	6'-8"	M				B
3	3'-6"	6'-8"	WD.	TI			C
4	3'-0"	6'-8"	WD.	TI			D
5	3'-6"	6'-8"	M	TI			B
6	3'-0"	6'-8"	WD.				E

NOTES:
 1. HEIGHT DOOR HEIGHTS ARE 6'-8" NOMINAL UNLESS OTHERWISE NOTED.
 2. CONSTRUCTION: M - METAL, IM - INSULATED METAL.
 3. GLAZING: TI - TEMPERED INSULATED.
 4. THICKNESS: IS BASED ON MFR. TYPICAL STANDARDS MINIMUM THICKNESS IS NOTED FOR CODE REQUIREMENTS ONLY.
 5. FIRE RATING AND LABEL: WHERE INDICATED PROVIDE DOORS WITH REQUIRED HARDWARE.
 6. PROVIDE DEAD BOLTS AT ALL EXTERIOR DOORS.
 7. DOOR 2 SHALL HAVE CORROSION RESISTANT FINISH.
 8. TOILET ROOM DOORS SHALL HAVE H.C. LEVER HARDWARE.

TOILET ACCESSORIES	
T-1	TISSUE HOLDER
T-2	MIRROR (SHATTERPROOF) & SHELF 24" X 36" MIN. MOUNT 40" A.F.F.
T-2(A)	MIRROR SHATTERPROOF FULL LENGTH (BTM. 9" A.F.F.)
T-3	METAL PLASTIC SOAP DISPENSER
T-4	ADA COMPLIANT ELECTRIC HAND DRYER WITH AUTOMATIC SENSOR OPERATION TO BE WALL MOUNTED @ 54" MAX. A.F.F. TO BOTTOM OF SENSOR LENS
T-5	TOILET STALL PARTITION TOP TO BE 70" A.F.F. BOTTOM TO BE 12" A.F.F.

NOTE:
 MOUNTING FOR ACCESSORIES TO BE IN ACCORDANCE WITH 2010 ADA STANDARD FOR ACCESSIBILITY DESIGN.

FIRST FLOOR PLAN
 SCALE 1/4" = 1'-0"
 NOTES:
 SEE STRUCTURAL DRAWINGS FOR BEAM, HEADER & HOLD-DOWN SIZES & LOCATIONS.
 WALLS ARE DIMENSIONED TO FACE OF STUD AND ARE 3-1/2" THICK UNLESS NOTED OTHERWISE.
 SEE POOL DRAWINGS FOR ADDITIONAL NOTES, DIMENSIONS & DETAILS.
 SEE ELECTRICAL DRAWINGS FOR EXIT/EMERGENCY LIGHTING FIXTURE SCHEDULE AND ADDITIONAL NOTES, DIMENSIONS & DETAILS.
 NOTE:
 SIDEWALK SLOPE FROM HANDICAP PARKING SPACE TO POOL BUILDING SHALL NOT EXCEED 5%. SEE SITE PLANS FOR ADDITIONAL DETAILS.
 PROVIDE ACCESSIBLE ROUTE THROUGH BUILDING AND INTO RESTROOMS WITH FLATWORK SLOPES NOT TO EXCEED 5%.



JAMES WENTLING/ ARCHITECT
 LAND TITLE BUILDING
 100 SOUTH BROAD STREET,
 SUITE 1524
 PHILADELPHIA, PA 19110
 (215) 568-2551
 (888) 675-5318 FAX
 email - information@wentlinghouseplans.com

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 THESE DRAWINGS SHALL BE USED IN CONFORMANCE WITH ALL LOCAL BUILDING, MECHANICAL, PLUMBING AND ELECTRICAL CODES AND SHALL MEET THE REQUIREMENTS OF THE HEALTH DEPARTMENT, FIRE DEPARTMENT, AND ANY AGENCIES WITH JURISDICTION OVER ACCESSIBILITY GUIDELINES (ADAAG), THE FAIR HOUSING ACT ACCESSIBILITY GUIDELINES (FHAAG), AND SHALL BE CONSTRUCTED IN CONFORMANCE WITH STATE AND LOCAL ENERGY REQUIREMENTS.



REVISIONS		
MARK	DATE	DESCRIPTION
JW	08-31-16	CLIENT REV.
JW	09-01-16	CLIENT REV.
JW	09-07-16	CLIENT REV.
DN	10-19-16	PRELIM. WD. SET
DN	11-01-16	SHOP DWGS.
DN	11-29-16	STRUCT. DWGS.
DN	12-20-16	CLIENT REV.

PROJECT NO. 162-07
 DATE 08-15-16
 SCALE AS NOTED
 DRAWN BY DN
 CHECKED BY JW
 ISSUED FOR PERMITS CONSTRUCTION

PROJECT TITLE
CLUBHOUSE BUILDING FOR THE COURTYARDS ON LAKE NORMAN
 Cornelius, Mecklenburg County, NC
 CLIENT
 EPCON CAROLINAS, LLC
 8600 Sam Furr Road, #180
 Huntersville, NC 28078
 (704) 977-8044

DRAWING TITLE
FLOOR PLAN
 SHEET
3

WALL LEGEND	
[Symbol]	INT. INSULATED WALL W/ R-13 BATT INSUL.
[Symbol]	INTERIOR BEARING WALL
[Symbol]	DEMOTES 2 JACK STUDS UNLESS NOTED OTHERWISE
[Symbol]	1 HOUR RATED WALL
[Symbol]	FIRE EXTINGUISHER 2A RATED CLASS A HAZARD



REQUEST FOR BOARD ACTION

 Print

Date of Meeting: January 27, 2017

To: Architectural Review Board

From: Jason T. Pauling, AICP - Senior Planner

Action Requested:

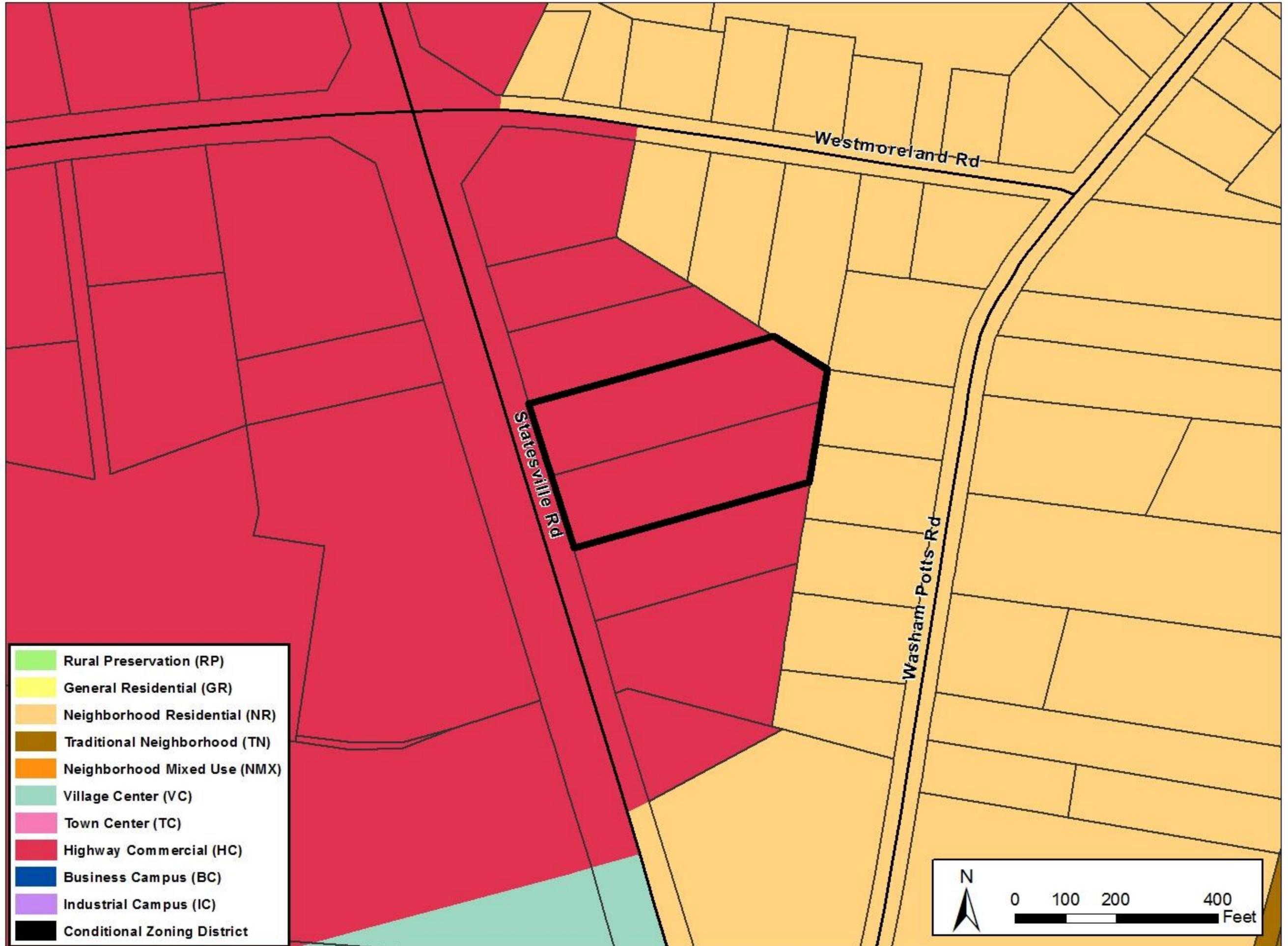
A request by Pike's Nursery to develop two parcels on Statesville Road (approximately 3.6 acres) as a full retail nursery and garden center that will include a 10,000 square foot building and 20,000 square foot indoor greenhouse.

Manager's Recommendation:

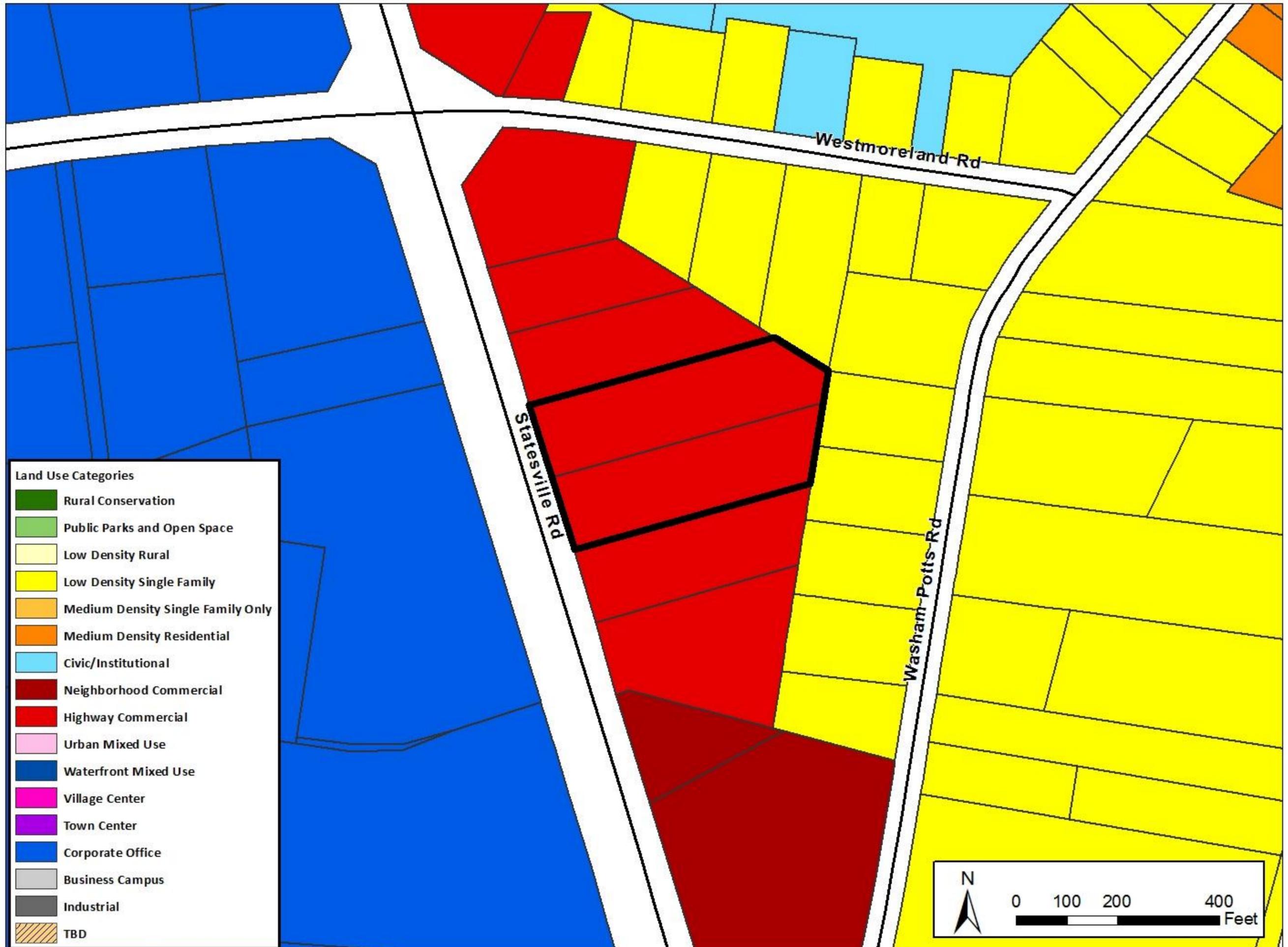
Review and provide direction

ATTACHMENTS:		
Name:	Description:	Type:
Pike_s_Zoning.jpg	Zoning Map	Backup Material
Pike_s_LU.jpg	Land Use Map	Backup Material
Pike_s_Vicinity.jpg	Vicinity Map	Backup Material
Pike_s_Property.jpg	Property Map	Backup Material
Pike_Matthews-Aerial_1_reduced.jpg	Matthews-Aerial	Backup Material
Pike_Matthews-Corner_Elevation_reduced.jpg	Matthews-Corner	Backup Material
Pike_Matthews-Side_Elevation.jpg	Matthews-Side	Backup Material
Pike_Matthews-Greenhouse_exterior_reduced.jpg	Matthews-Greenhouse 1	Backup Material
12-13-16_PIKE_Cornelius_SP-2.pdf	Site Plan	Backup Material
2017-05_A1.0.pdf	Floor Plan	Backup Material
2017-05_A1.1.pdf	Floor Plan_Bldg	Backup Material
2017-05_A2.1.pdf	Elevations 1	Backup Material
2017-05_A2.2.pdf	Elevations 2	Backup Material

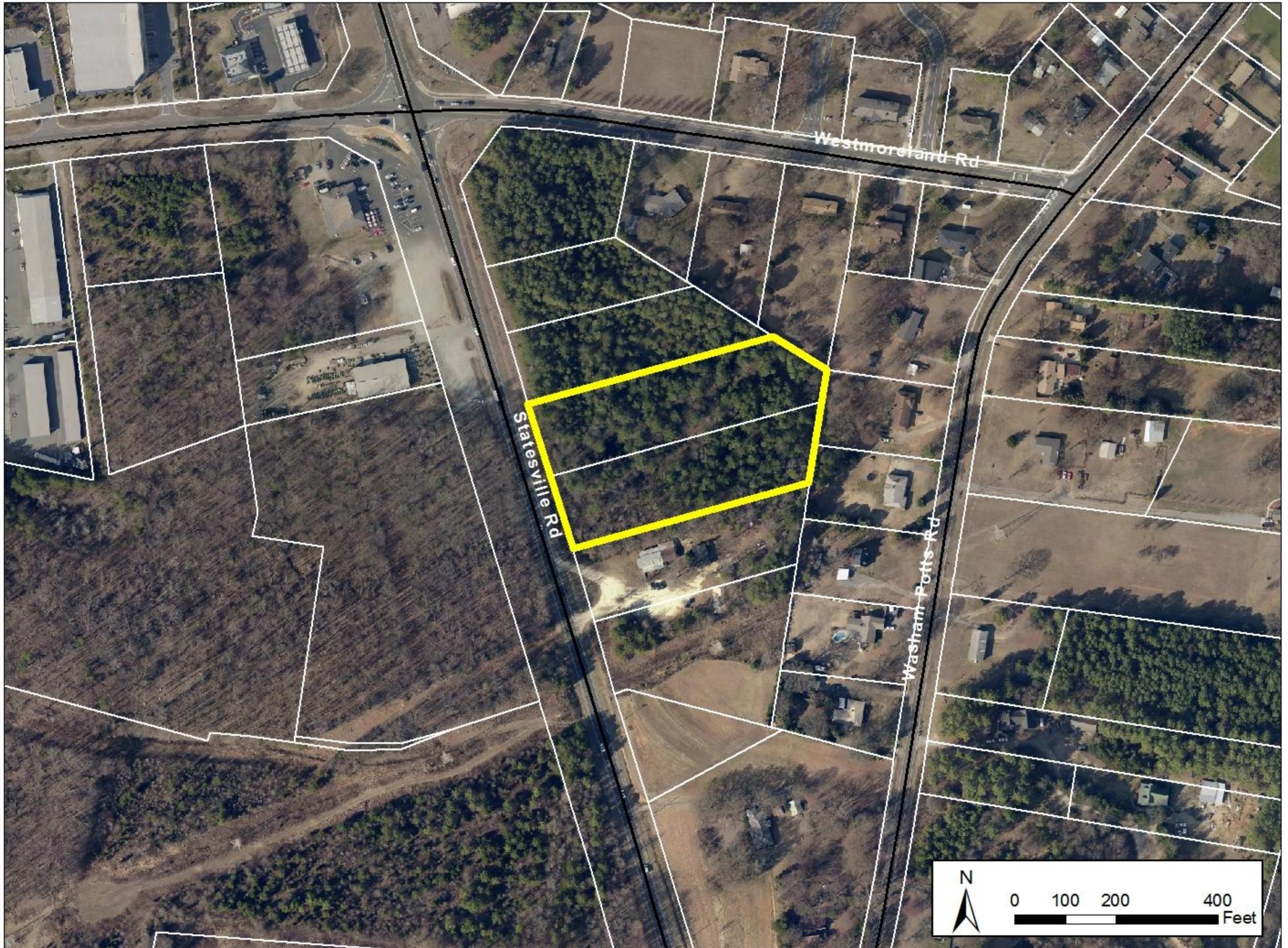
PIKE'S NURSERY SITE



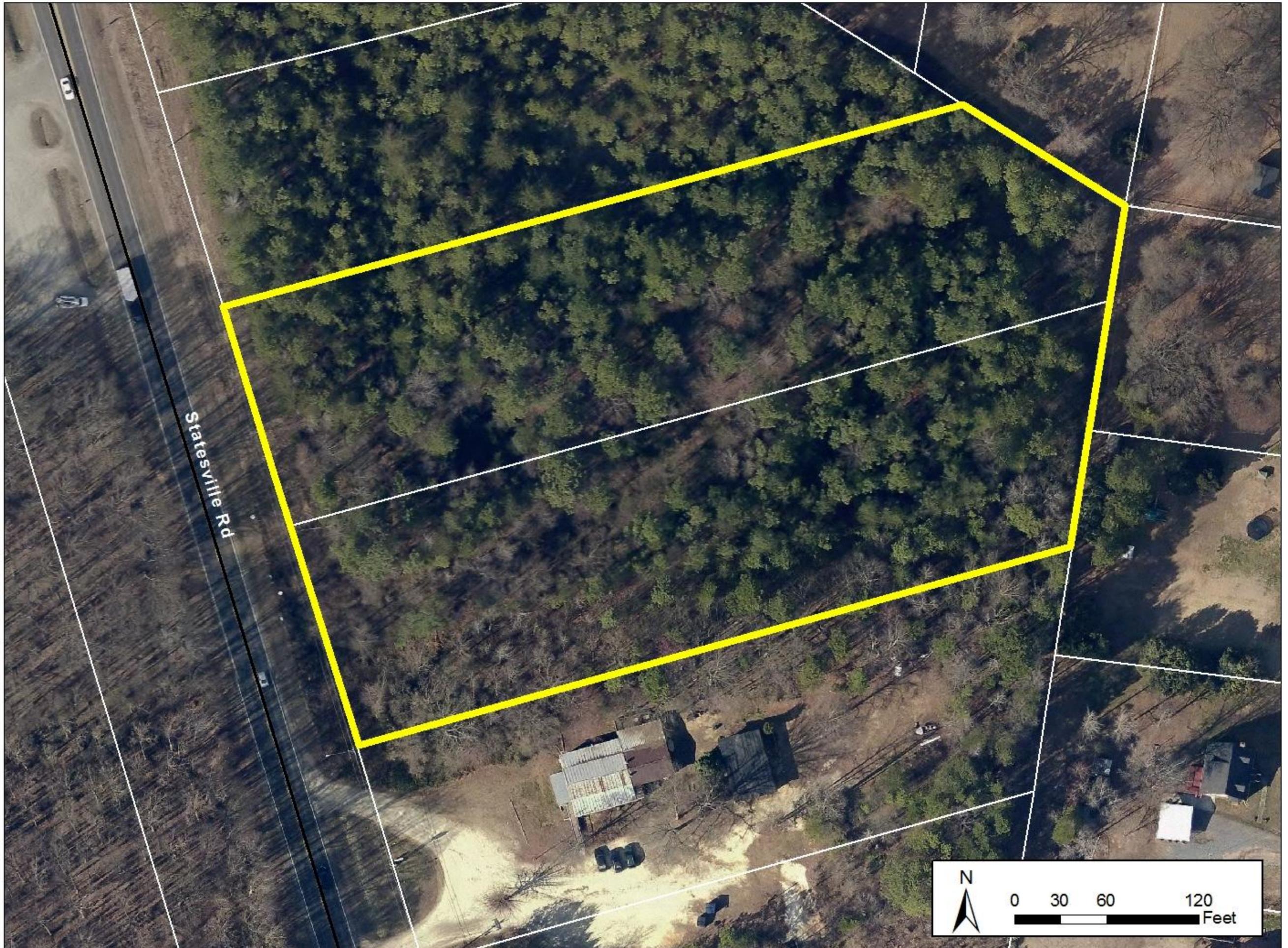
PIKE'S NURSERY SITE



PIKE'S NURSERY SITE



PIKE'S NURSERY SITE







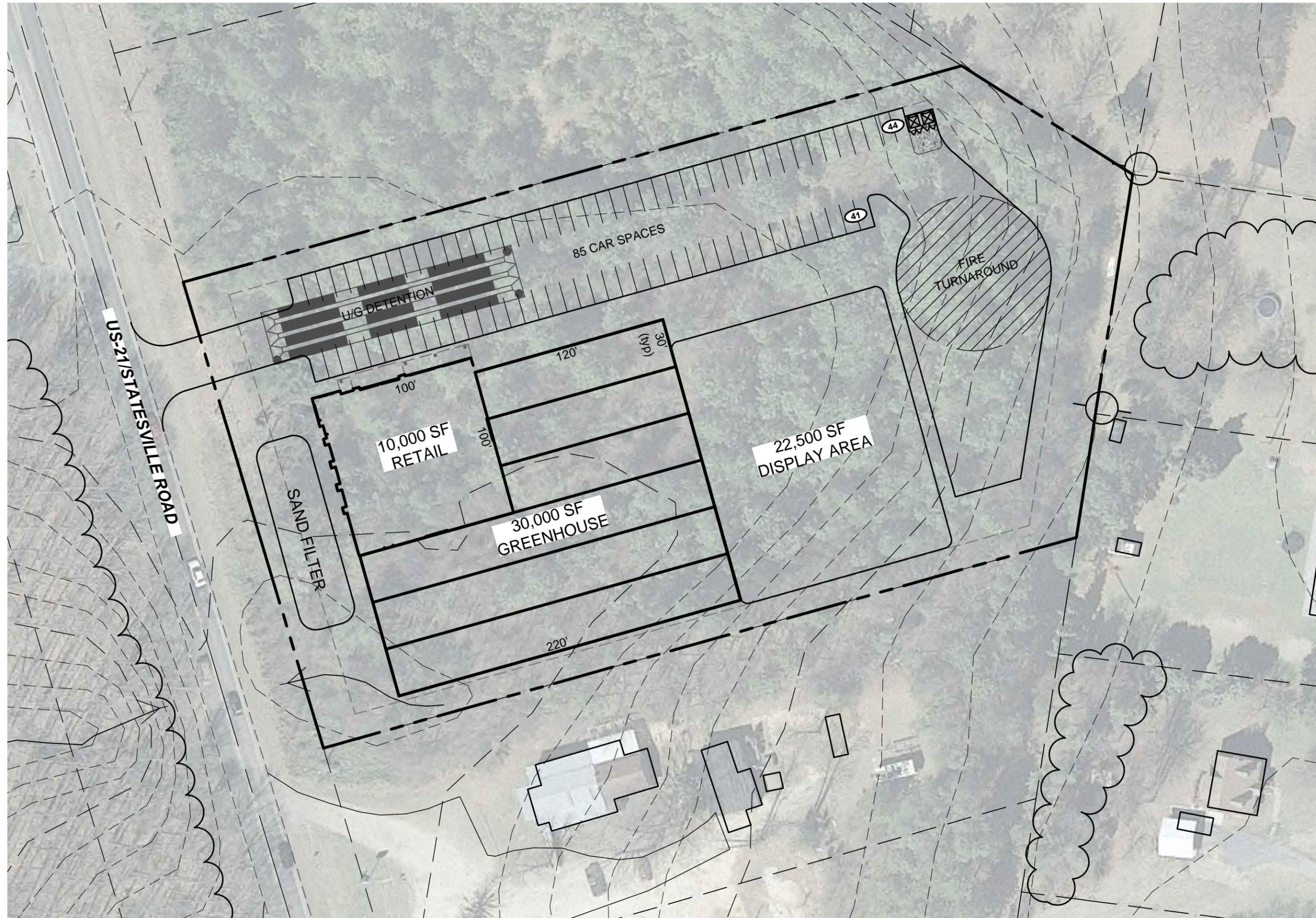
PIKE
NURSERIES

PIKE
NURSERIES









SCALE: 1"=60'

SKETCH PLAN # 2

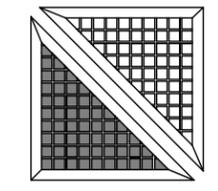
PIKE NURSERIES

JOB No.: PRELIMINARY

DRAWN BY: ChB

DATE: 12/01/16

CORNELIUS



**BURTON
ENGINEERING
ASSOCIATES**
CIVIL ENGINEERS
LAND PLANNERS

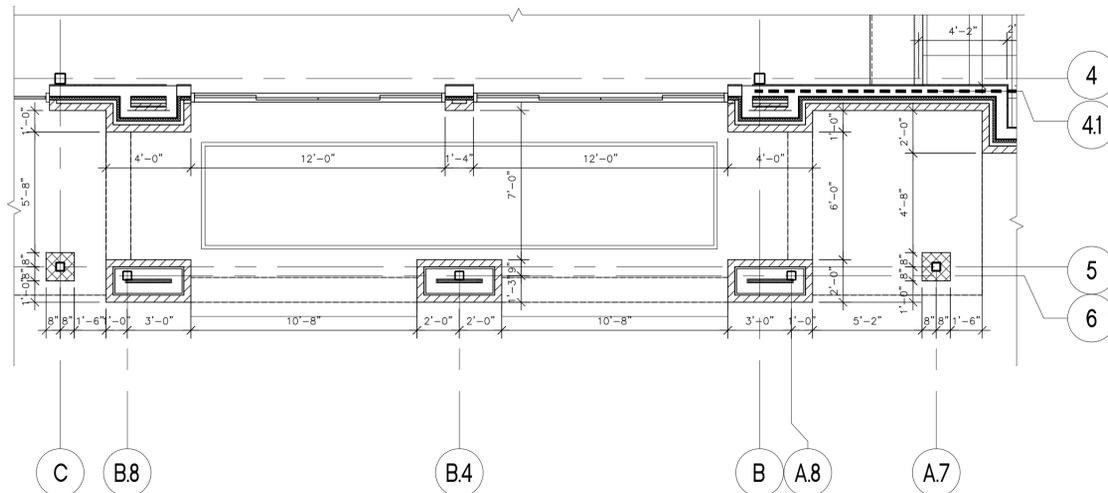
5950 Fairview Rd. • Suite 100 • Charlotte, NC 28210
(704) 553-8881 • Fax (704) 553-8860
FIRM # C-1157



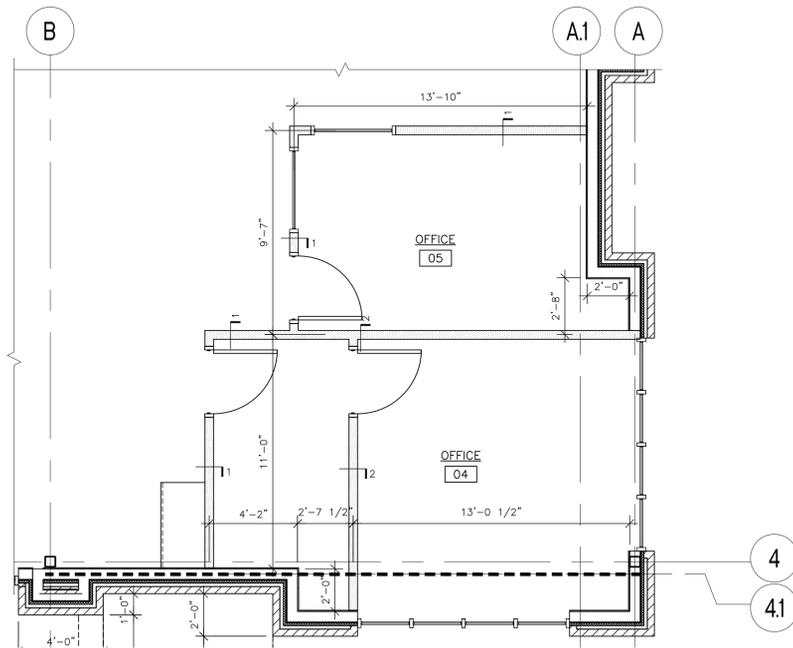
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841.8440 fax Matthews, North Carolina 28105
www.UrbanAIA.com

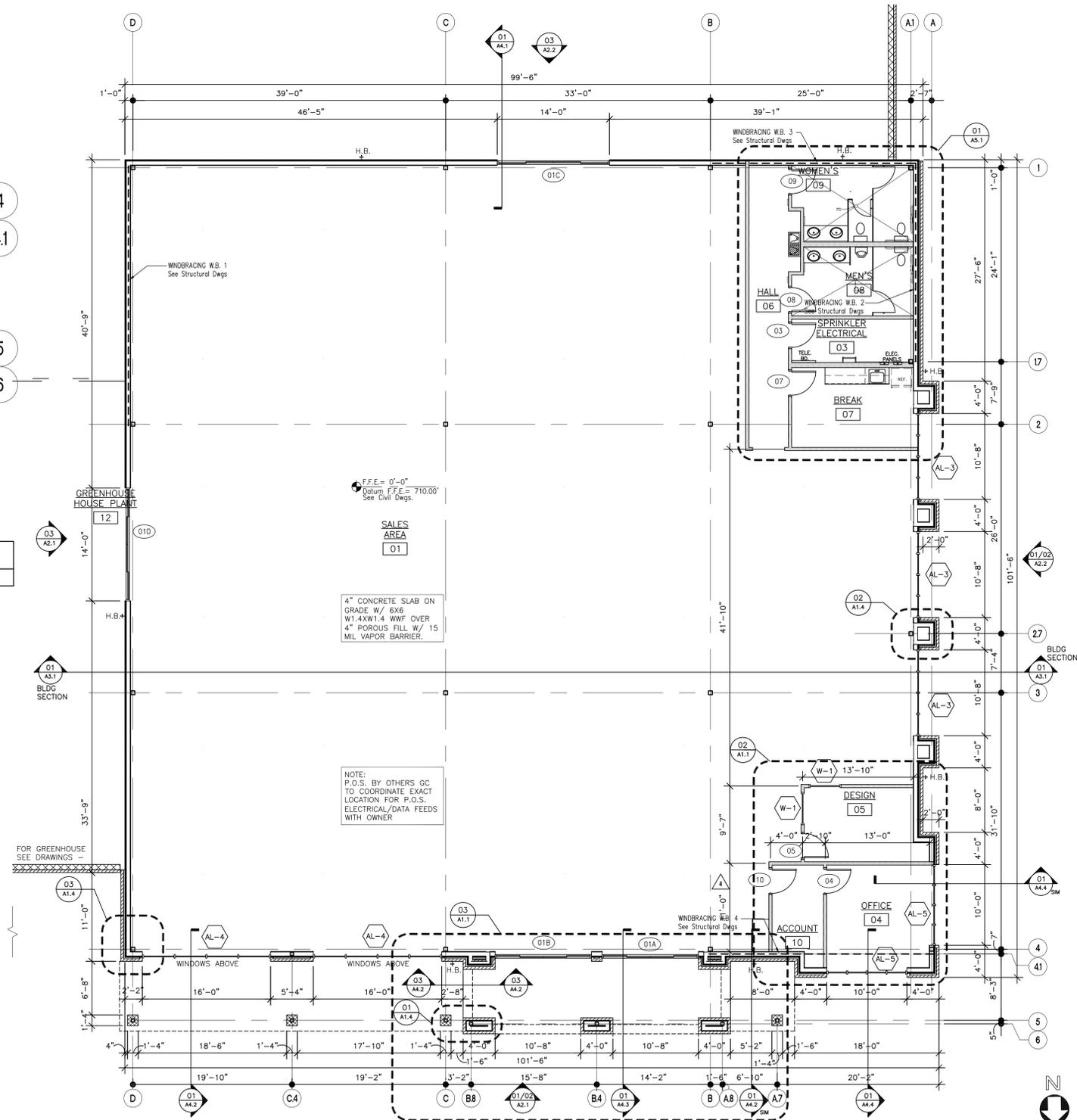
Seals:



03 ENLARGED FLOOR PLAN: Main Entrance
1/4" = 1'-0"



02 ENLARGED FLOOR PLAN: Room 04 & 05
1/4" = 1'-0"



01 FLOOR PLAN: Overall Building Plan
1/8" = 1'-0"

PIKE NURSERIES CORNELIUS
New Construction

Statesville Road
Cornelius, NC 28031

Date: January 13, 2016
Project Number: 2017-05
Issued For:
Construction Only: xx.xx.17

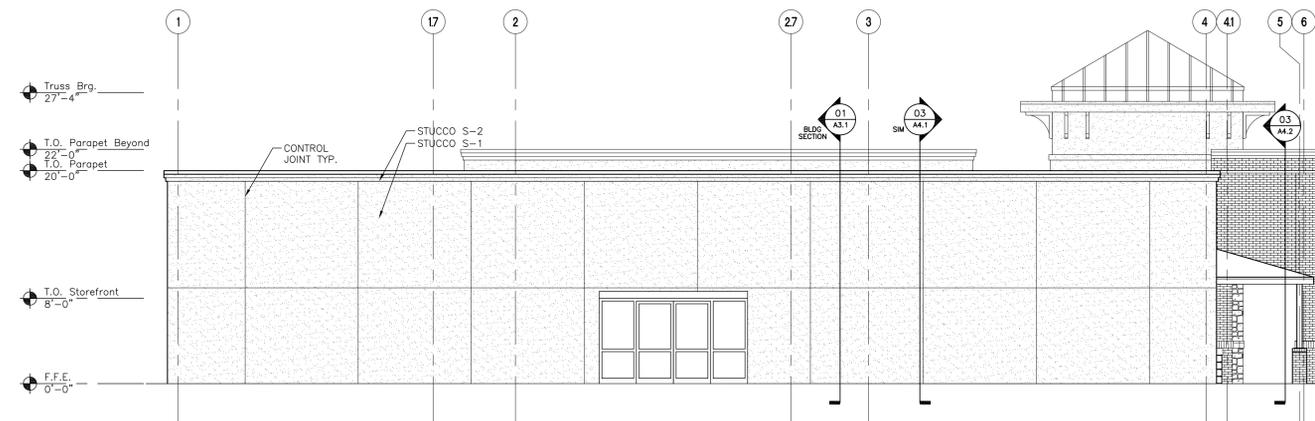
FLOOR PLAN

A1.1

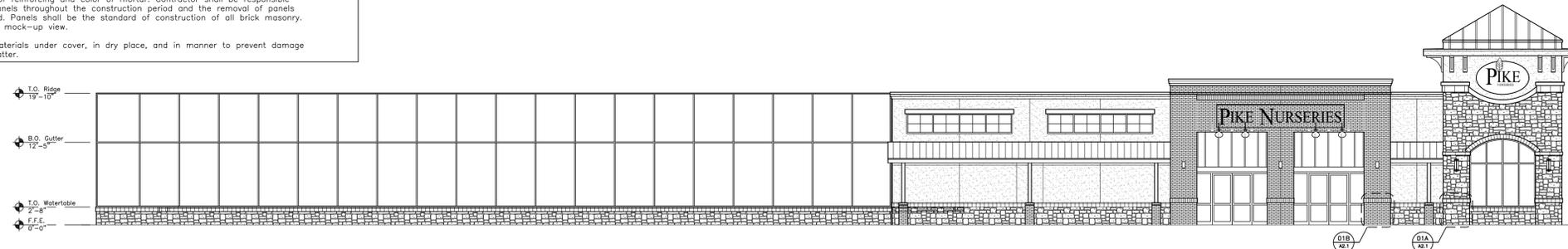
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(1/16" = 1'-0" when 11x17)

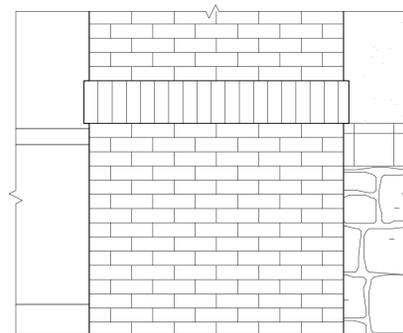
EXTERIOR FINISH SCHEDULE			
MASONRY SCHEDULE			
MASONRY TYPE	PRODUCT	NO./COLOR	MANUFACTURER
TYPE 1	TO BE SELECTED	TO BE SELECTED	TO BE SELECTED
TYPE 2 (Upper Field)	CULTURED STONE	LIMESTONE CHARDONNAY	BORAL
TYPE 3 (Field)	BRICK	WALNUT GROVE	BORAL
TYPE 4 (Accent)	BRICK	SAVANNAH GRAY	BORAL
TYPE 5	WATERTABLE	COLOR TO BE SELECTED BY ARCHITECT	TO BE SELECTED
TYPE 6	TRIMSTONE	6"x8"x1-1/2"	COLOR TO BE SELECTED BY ARCHITECT
TYPE 7	PORCH TRIM	24"x6"x3-1/2"	COLOR TO BE SELECTED BY ARCHITECT
TYPE 8	FLAT WALL CAP	12"x24"x2"	COLOR TO BE SELECTED BY ARCHITECT
NOTE: Brick masonry pattern is a common running bond U.N.O. *Provide block w/ water-repellant integral admixture.			
E.I.F.S. ITEMS			
ITEM	PRODUCT	NO./COLOR	MANUFACTURER
S-1	Exterior Insulation STUCCO/E.I.F.S. Finish System (Field)	#FS-108 Manor White FINISH: Limestone	BASF Wall Systems Inc. Finestone
S-2	Exterior Insulation STUCCO/E.I.F.S. Finish System (Accent)	#FS-10622 FINISH: Limestone	BASF Wall Systems Inc. Finestone
S-3	Exterior Insulation STUCCO/E.I.F.S. Finish System (Brackets)	#FS-6 TAN FINISH: Limestone	BASF Wall Systems Inc. Finestone
PAINT & DECORATIVE ITEMS			
ITEM	PRODUCT	NO./COLOR	MANUFACTURER
Coping Cap	Pre-Finished	Hartford Green	UNA-CLAD or approved Equal
Standing Seam	Pre-Finished	Hartford Green	UNA-CLAD or approved Equal
PNT-1	Paint	Hartford Green	SHERWIN WILLIAMS
NOTES:			
NOTES: 1. - X Substitutions can be made with Owner/Architect's approval.			
MASONRY SUBMITTALS:			
1. Brick and/or Decorative Block Samples: Submit 5 samples of each type of exposed brick required. Include in each set the full range of color and texture to be expected in the completed work. Architect review will be for color and texture only. Compliance with all other requirements is the exclusive responsibility of the Contractor.			
2. Mock-Up Example Panel: Erect two sample wall panel of brick at project site. Build panels 4'-0" long and 4'-0" high. Panels shall show proposed material, method of laying, workmanship, installation of reinforcing and color of mortar. Contractor shall be responsible for maintaining sample panels throughout the construction period and the removal of panels after the job is completed. Panels shall be the standard of construction of all brick masonry. See elevations- indicating mock-up view.			
3. Product Handling: Store materials under cover, in dry place, and in manner to prevent damage or intrusion of foreign matter.			



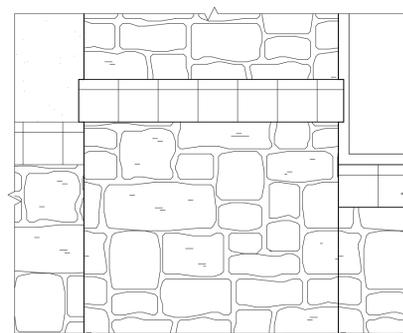
03 ELEVATION: Left Side
1/8" = 1'-0"



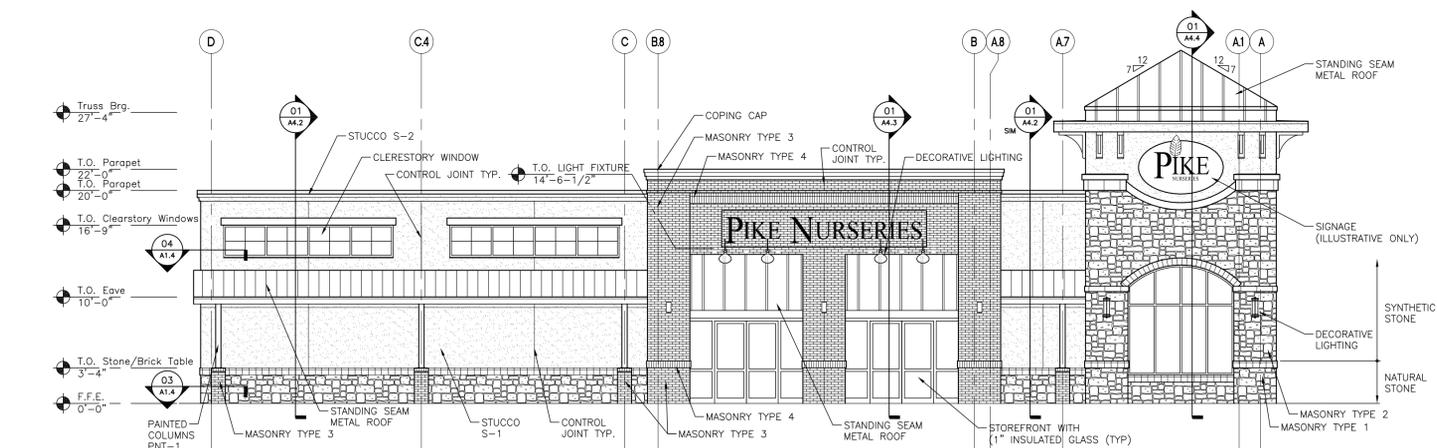
02 ELEVATION: Facing Parking Lot
3/32" = 1'-0"



01B ELEVATION: Brick Mock Up
3/4" = 1'-0"



01A ELEVATION: Stone Mock Up
3/4" = 1'-0"



01 ELEVATION: Facing Parking Lot
1/8" = 1'-0"

(1/16" = 1'-0" when 11x17)



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Seals:

PIKE NURSERIES
New Construction

Statesville Road
Cornelius, NC 28031

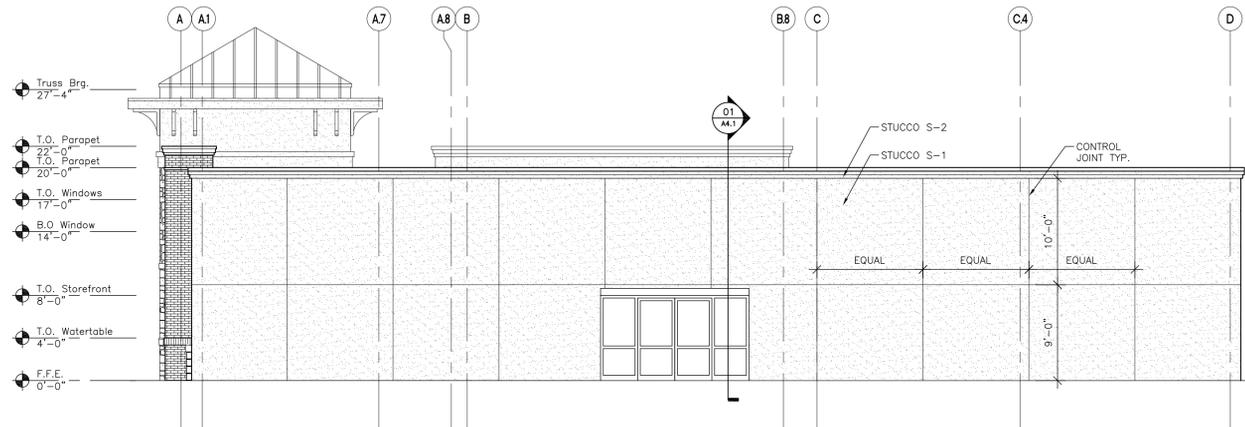
Date: January 13, 2015
Project Number: 2017-05
Issued For:
Construction Only: xx.xx.17

EXTERIOR ELEVATIONS

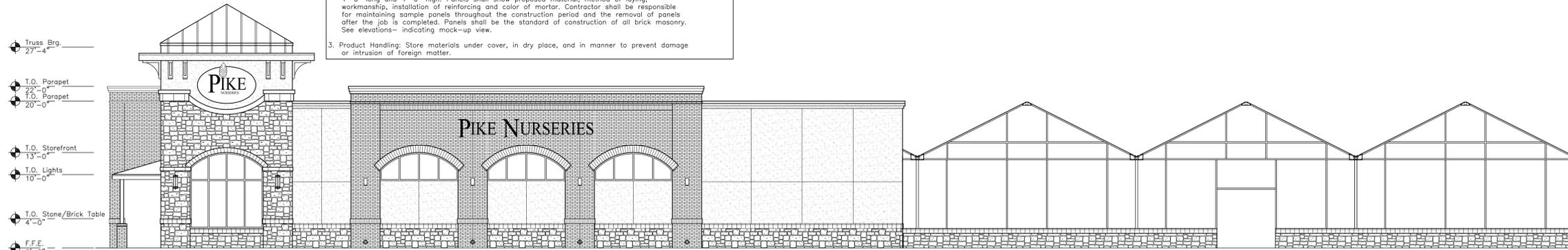
A2.1

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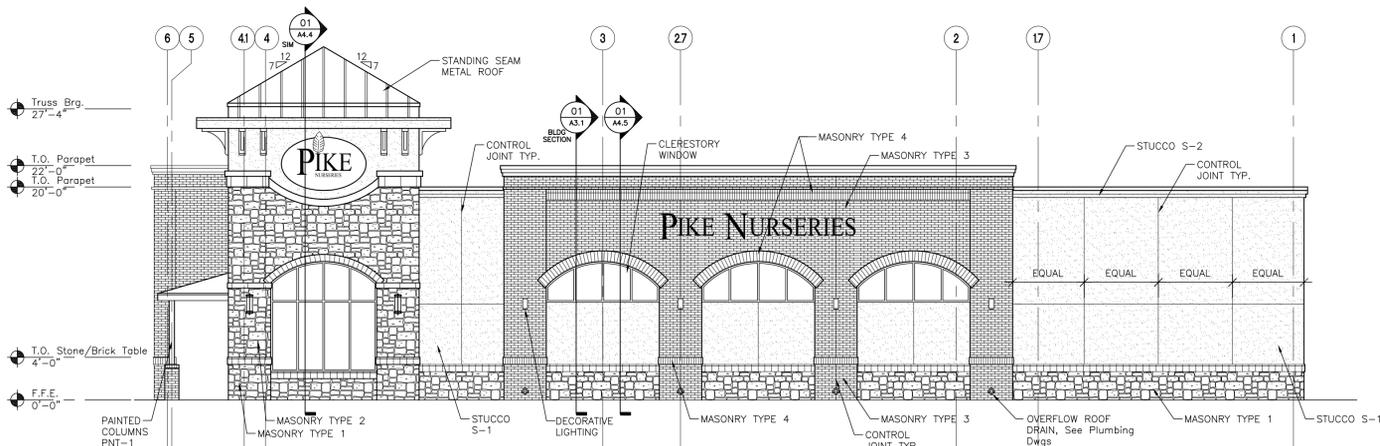
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MASONRY SCHEDULE			
MASONRY TYPE	PRODUCT	NO./COLOR	MANUFACTURER
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TYPE 4 (Accent)	BRICK	SAVANNAH GRAY	BORAL
TYPE 5	WATERTABLE	COLOR TO BE SELECTED BY ARCHITECT	TO BE SELECTED
TYPE 6	TRIMSTONE	COLOR TO BE SELECTED BY ARCHITECT	HORIZON STONE GRACO DISTRIBUTORS
TYPE 7	PORCH TRIM	COLOR TO BE SELECTED BY ARCHITECT	HORIZON STONE GRACO DISTRIBUTORS
TYPE 8	FLAT WALL CAP	COLOR TO BE SELECTED BY ARCHITECT	HORIZON STONE GRACO DISTRIBUTORS
NOTE: Brick masonry pattern is a common running bond U.N.O. *Provide block w/ water-repellant integral admixture.			
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S-2	Exterior Insulation Finish System	#FS-10622 FINISH: Limestone	BASF Wall Systems Inc. Finestone
S-3	Exterior Insulation Finish System	#FS-6 TAN FINISH: Limestone	BASF Wall Systems Inc. Finestone
PAINT & DECORATIVE ITEMS			
ITEM	PRODUCT	NO./COLOR	MANUFACTURER
Coping Cap	Pre-Finished	Hartford Green	UNA-CLAD or approved Equal
Standing Seam	Pre-Finished	Hartford Green	UNA-CLAD or approved Equal
PNT-1	Paint	Hartford Green	SHERWIN WILLIAMS
NOTES: 1. X Substitutions can be made with Owner/Architect's approval.			
MASONRY SUBMITTALS: 1. Brick and/or Decorative Block Samples: Submit 5 samples of each type of exposed brick required. Include in each set the full range of color and texture to be expected in the completed work. Architect review will be for color and texture only. Compliance with all other requirements is the exclusive responsibility of the Contractor. 2. Mock-Up Example Panel: Erect two sample wall panel of brick at project site. Build panels 4'-0" long and 4'-0" high. Panels shall show proposed material, method of laying, workmanship, installation of reinforcing and color of mortar. Contractor shall be responsible for maintaining sample panels throughout the construction period and the removal of panels after the job is completed. Panels shall be the standard of construction of all brick masonry. See elevations - indicating mock-up view. 3. Product Handling: Store materials under cover, in dry place, and in manner to prevent damage or intrusion of foreign matter.			



03 ELEVATION: Rear Side Facing Greenhouse
1/8" = 1'-0"



02 ELEVATION: Statesville Road
1/8" = 1'-0"



01 ELEVATION: Statesville Road
1/8" = 1'-0"



ARCHITECTURAL GROUP
704 841.1899 tel 841.8440 fax
1242 Mann Drive Suite 200
Matthews, North Carolina 28105
www.UrbanAIA.com

Seals:

PIKE NURSERIES
New Construction

Statesville Road
Cornelius, NC 28031

Date: January 13, 2015
Project Number: 2017-05
Issued For:
Construction Only: xx.xx.17

EXTERIOR ELEVATIONS

A2.2

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(1/16" = 1'-0" when 11x17)

REQUEST FOR BOARD ACTION

 Print

Date of Meeting: January 27, 2017

To: Architectural Review Board Members
From: Jason T. Pauling, AICP - Senior Planner

Action Requested:

A request to construct a 10,974 square foot retail hardware store on Jetton Road Extension across from Aquesta Bank. The applicants are requesting a major architectural variation from the following sections: 4.6.3(B)(3), and 4.6.3(B)(4).

Manager's Recommendation:

Review and provide direction

ATTACHMENTS:

Name:	Description:	Type:
variation_(2).pdf	VAR Request Letter	Backup Material
LKN_Hardware_Zoning.jpg	Zoning Map	Backup Material
LKN_Hardware_LU.jpg	Land Use Map	Backup Material
LKN_Hardware_Vicinity.jpg	Vicinity Map	Backup Material
LKN_Hardware_Property.jpg	Property Map	Backup Material
Survey_for_ARB.pdf	Property Survey	Backup Material
Site_Plan_for_ARB.pdf	Site Plan	Backup Material
Truvalue_jan19_(2).jpg	Jetton Elevation (Color)	Backup Material
revised_elevations.pdf	Elevations	Backup Material
Floor_plan_for_ARB.pdf	Floor Plan	Backup Material
fxZgG8_rei.jpg	Photo Ex 1	Backup Material
HwFg1N_rei.jpg	Photo Ex 2	Backup Material
index_jcrew.jpg	Photo Ex 3	Backup Material
yc17Yi_erehwon.jpg	Photo Ex 4	Backup Material

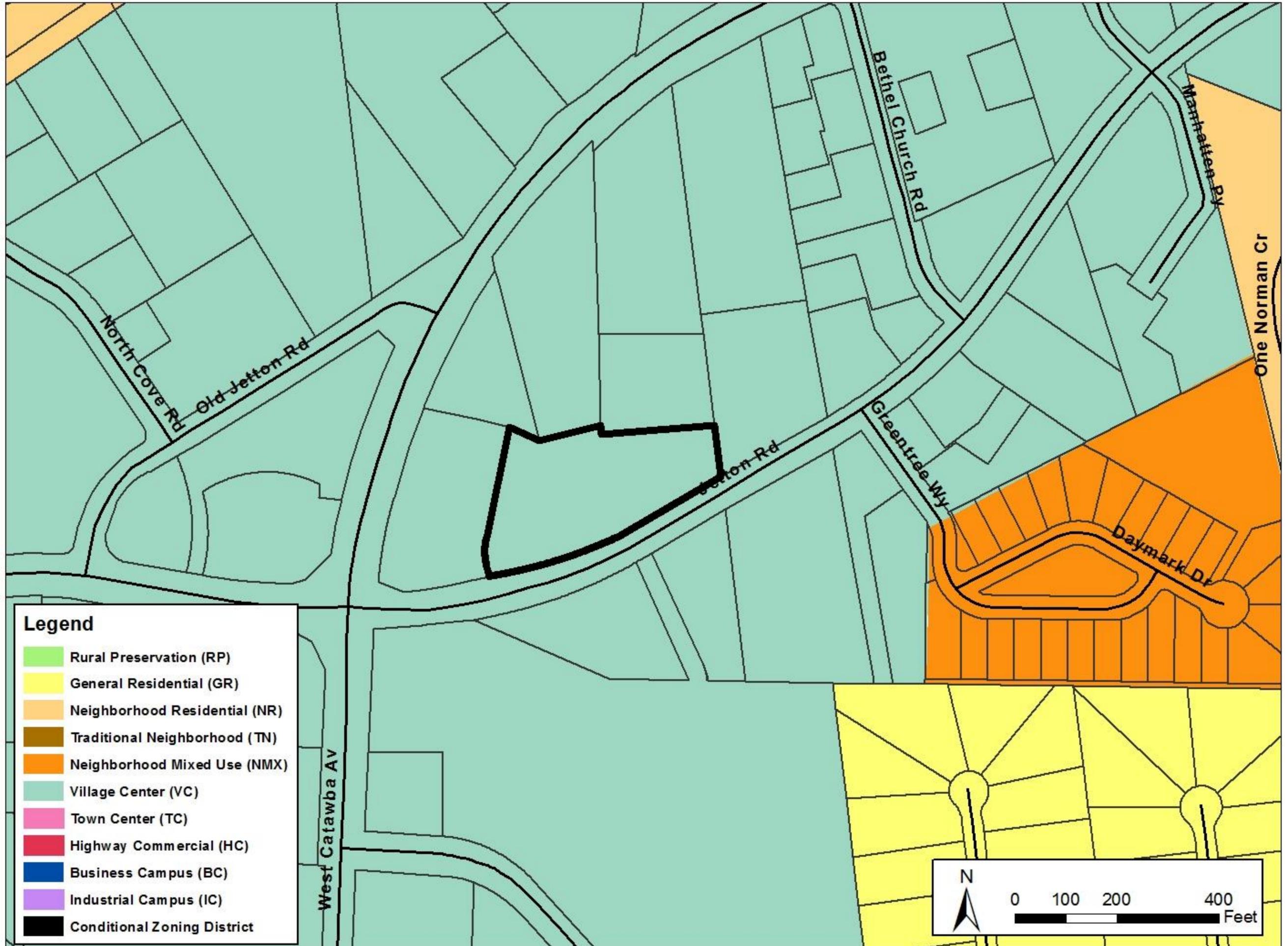
**Wilber
Associates**
ARCHITECTS/PLANNERS

We are requesting variation for Section 4.6.3(B)(3) due to the fact that we will not be having 70% windows on the street frontage. Our storefront/window area will be 34.5%.

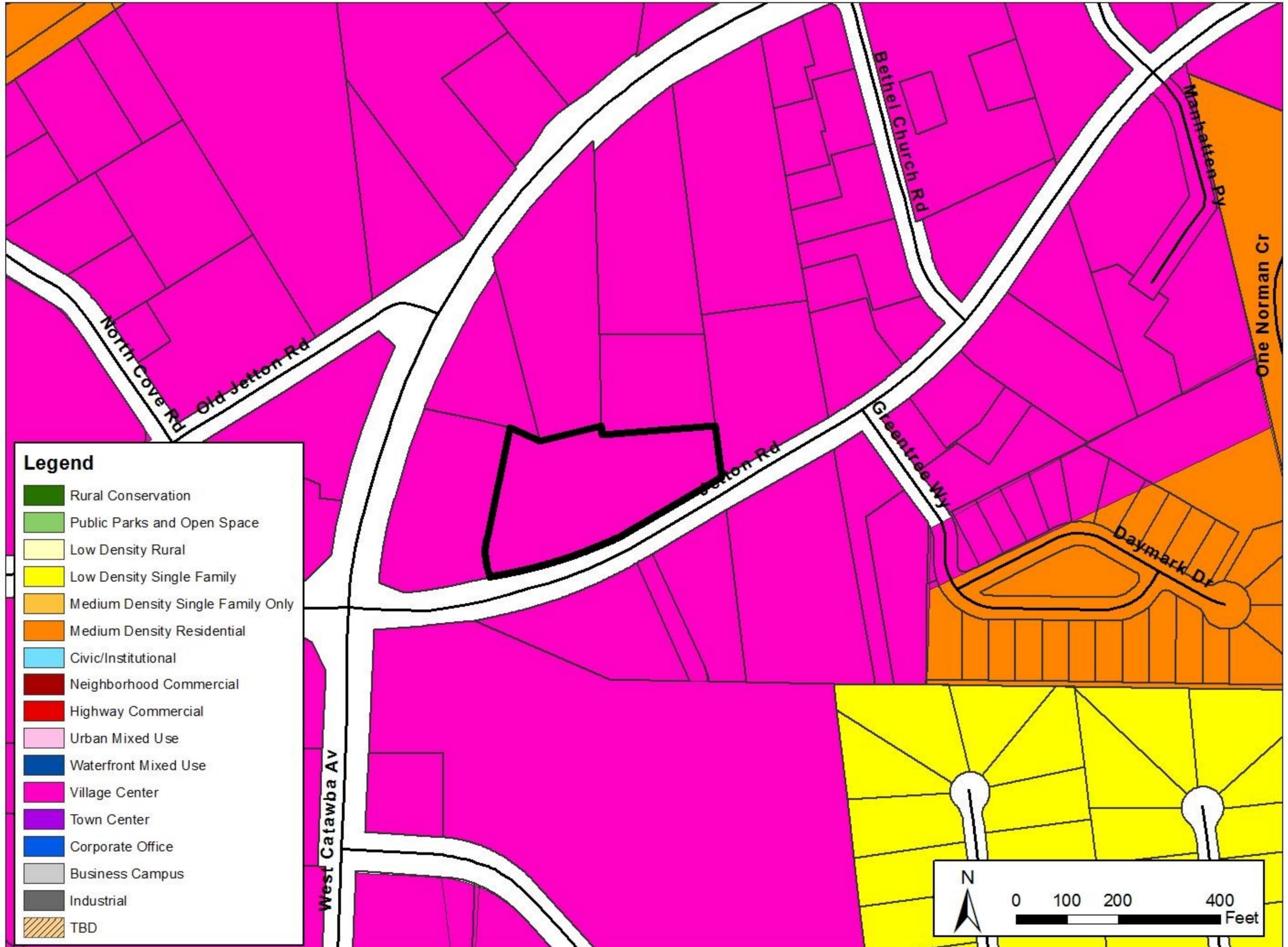
We would also like to request variation for Section 4.6.3(B)(4), requiring penetrations no greater than sixteen (16) on the street facade. The glass on the street facade is grouped in the center, allowing more wall space for retail display.

Under the General Principles 4.6.1, we will be in compliance with the 10 items listed. Our scale and massing are relative to the adjacent properties, and other existing properties in that vicinity. We are in compliance with the street orientation, lot width and setbacks. As for the architectural style, our proposed building is compatible with, (but not matching) the style of others in that area

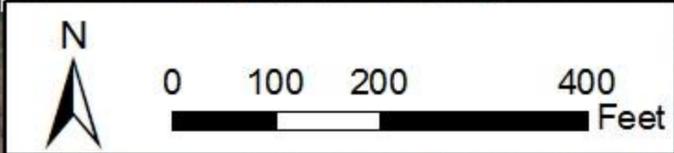
MAV 01-17: Lake Norman Hardware



MAV 01-17: Lake Norman Hardware

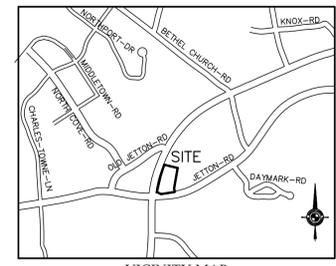


MAV 01-17: Lake Norman Hardware



MAV 01-17: Lake Norman Hardware





VICINITY MAP
NOT TO SCALE



LOT 2,
M.B. 32, PG. 963
PARK MERIDIAN BANK "ET AL"
D.B. 11198, PG. 554
PIN: 005-123-14

M.B. 33, PG. 903
WILLIAM A LAW "ET AL"
D.B. 28520, PG. 659
PIN: 005-123-29

UNIT U/F 720-1
WILLIAM A LAW "ET AL"
D.B. 23326, PG. 690
PIN: 005-123-31

LOT 1,
M.B. 30, PG. 433
PLEUR-RICK-STEPH-LLC "ET AL"
D.B. 9809, PG. 872
PIN: 005-123-12

M.B. 33, PG. 903
PORTION OF
PLUER FAMILY LLC
D.B. 10626, PG. 284
PIN: 005-123-11

M.B. 33, PG. 903
PORTION OF
PLUER FAMILY LLC
D.B. 10626, PG. 284
PIN: 005-123-11

- NOTES:**
- THIS PLAT IS NOT FOR RECORDATION AS PER G.S. 47-30 AS AMENDED.
 - ALL CORNERS MONUMENTED AS SHOWN.
 - NO RECOVERABLE NGS MONUMENT LOCATED WITHIN 2,000 FEET OF SUBJECT PROPERTY.
 - THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS MAP IS APPROXIMATE, BASED ON INFORMATION PROVIDED BY OTHERS OR BY FIELD LOCATION. UTILITY LOCATIONS AS SHOWN HEREON ARE INTENDED FOR PLANNING ONLY. ACTUAL LOCATION, SIZE, OR DEPTH OF LINE SHOULD BE VERIFIED WITH THE INDIVIDUAL UTILITY COMPANY BEFORE CONSTRUCTION.
 - THIS SURVEY WAS PERFORMED WITHOUT BENEFIT OF A TITLE COMMITMENT REPORT. R.B. PHARR & ASSOCIATES, P.A. DOES NOT CLAIM THAT ALL MATTERS OF RECORD WHICH MAY OR MAY NOT AFFECT THE SUBJECT PROPERTY ARE SHOWN HEREON.
 - ELEVATIONS BASED ON N.G.S. MONUMENT "DEAN", ELEVATION = 777.52 FEET, NAVD 88.
 - BROKEN LINES INDICATE PROPERTY LINES NOT SURVEYED.
 - THE OFF-SITE RIGHT-OF-WAY SHOWN HEREON IS FOR ILLUSTRATIVE PURPOSES ONLY. THE UNDERSIGNED CERTIFIES ONLY TO THE RIGHT-OF-WAYS SURVEYED, AND DOES NOT CERTIFY TO THE RIGHT-OF-WAY WIDTH OF ANY ADJACENT PROPERTIES.

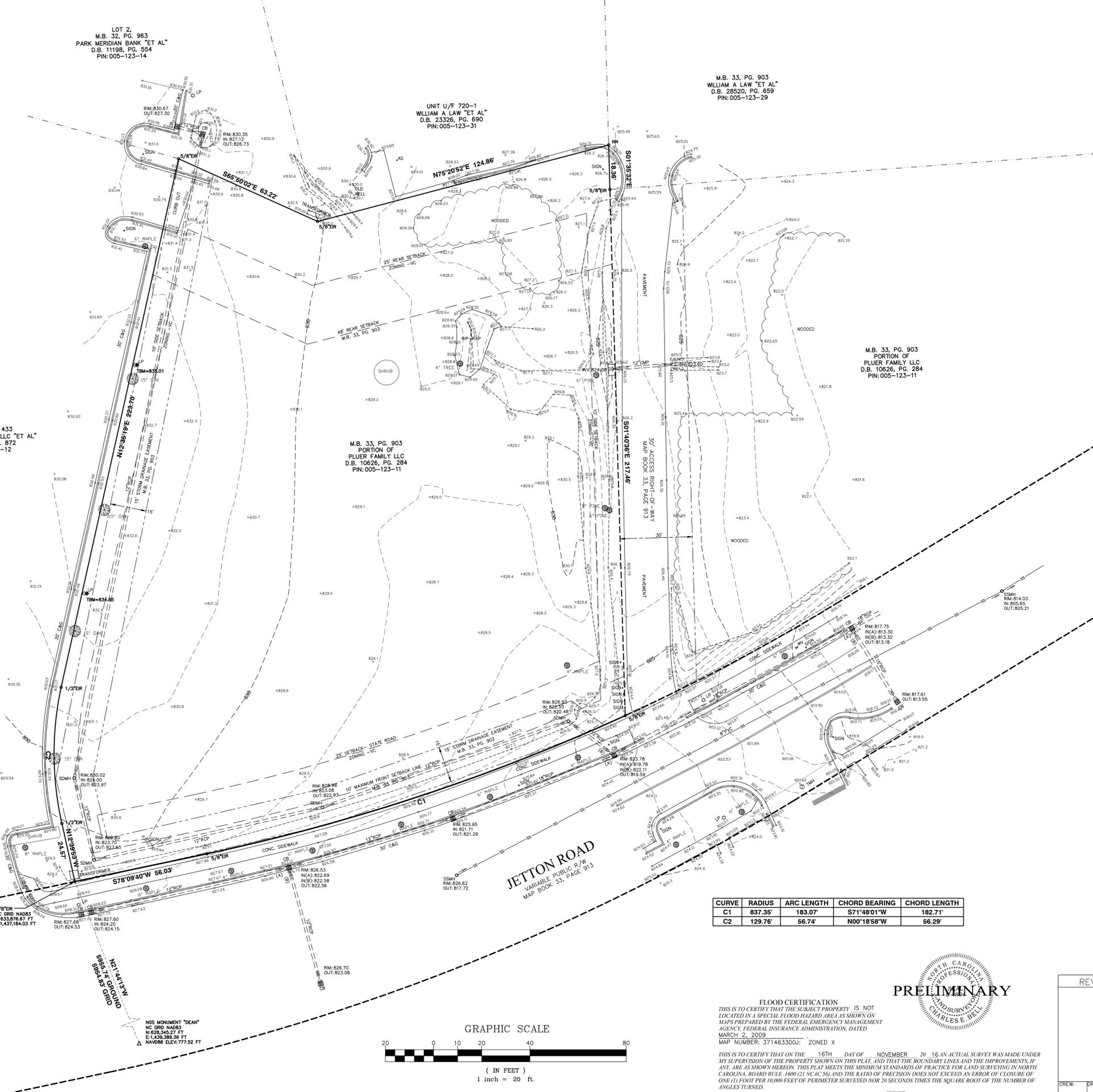
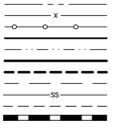
ZONING:
ZONING RESTRICTIONS AS PER ZONING ORDINANCE.
SUBJECT PROPERTY ZONED: VC

MINIMUM SETBACK: 25'
MINIMUM SIDE YARD: 10'
MINIMUM REAR YARD: 25'

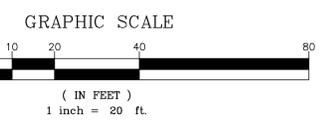
* SETBACK-STATE ROAD

FOR FURTHER INFORMATION CONTACT THE TOWN OF CORNELIUS ZONING DEPARTMENT AT 704-892-6032.

- LEGEND:**
- C&G - CURB & GUTTER
 - CB - CATCH BASIN
 - CMP - CORRUGATED METAL PIPE
 - CPP - CORRUGATED PLASTIC PIPE
 - D.B. - DEED BOOK
 - EIP - EXISTING IRON PIPE
 - EIR - EXISTING IRON ROD
 - EN - EXISTING NAIL
 - LP - LIGHT POLE
 - MI - MEASURED
 - M.B. - MAP BOOK
 - N.G.S. - NATIONAL GEODETIC SURVEY
 - NN - NEW NAIL
 - PIV - PARCEL IDENTIFICATION NUMBER
 - PG. - PAGE
 - (R) - RECORDED
 - R/W - RIGHT-OF-WAY
 - RCP - REINFORCED CONCRETE PIPE
 - SDMH - STORM DRAIN MANHOLE
 - SSMH - SANITARY SEWER MANHOLE
 - TBM - TEMPORARY BENCHMARK
 - WV - WATER VALVE
- LINE LEGEND:**
- EASEMENT
 - FENCE
 - GUARD RAIL
 - PROPERTY LINE
 - PROPERTY LINE (NOT SURVEYED)
 - RIGHT-OF-WAY
 - RIGHT-OF-WAY (NOT SURVEYED)
 - SETBACK
 - SANITARY SEWER PIPE
 - STORM DRAIN PIPE
 - STORM DRAIN PIPE > 12"



CURVE	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
C1	837.35'	183.07'	S71°48'01"W	182.71'
C2	129.76'	56.74'	N00°18'58"W	56.29'



FLOOD CERTIFICATION
THIS IS TO CERTIFY THAT THE SUBJECT PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON MAPS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FEDERAL INSURANCE ADMINISTRATION, DATED MARCH 2, 2009.
MAP NUMBER: 371463300; ZONED X

THIS IS TO CERTIFY THAT ON THE 16TH DAY OF NOVEMBER 2016 AN ACTUAL SURVEY WAS MADE UNDER MY SUPERVISION OF THE PROPERTY SHOWN ON THIS PLAT, AND THAT THE BOUNDARY LINES AND THE IMPROVEMENTS, IF ANY, ARE AS SHOWN HEREON. THIS PLAT MEETS THE MINIMUM STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA, BOARD RULE 1600 (2) NCAC 36 AND THE RATIO OF PRECISION DOES NOT EXCEED AN ERROR OF CLOSURE OF ONE (1) FOOT PER 10,000 FEET OF PERIMETER SURVEYED NOR 20 SECONDS TIMES THE SQUARE ROOT OF THE NUMBER OF ANGLES TURNED.

SIGNED

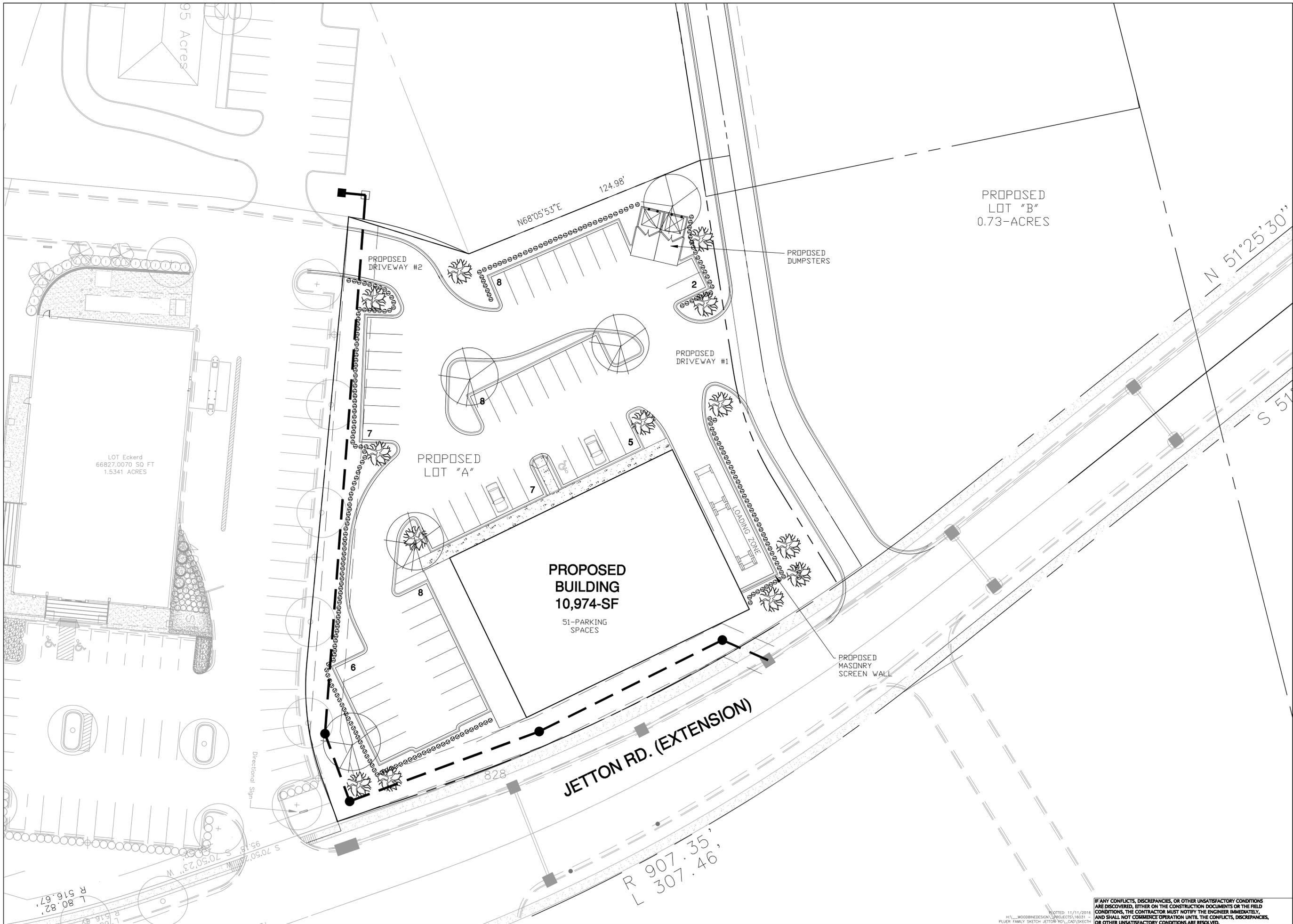


GPS CERTIFICATION:
I, CHARLES E. BELL, CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:
(1) CLASS OF SURVEY: A1(10.000)
(2) POSITIONAL ACCURACY: HORZ. N:0.0013; E:0.0120; VERT:0.0128
(3) TYPE OF GPS FIELD PROCEDURE: REAL-TIME KINEMATIC
(4) DATES OF SURVEY: NOV. 14, 2016
(5) DATUM/EPOCH: NAVD83/NOV03
(6) PUBLISHED/FIXED-CONTROL USE: NGS MONUMENT "DEAN"
(7) GEOD. MODEL: GEOID28 (CONUS)
(8) COMBINED GRID FACTORS: 0.99984698
(9) UNITS: US SURVEY FEET

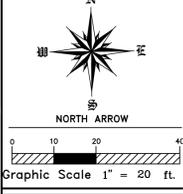
TOTAL AREA
55,221 SQ. FT. OR 1.2677 ACRES

REVISIONS		TOPOGRAPHIC SURVEY PREPARED FOR:	
		JLL	
		OF:	
		A PORTION OF THE PLUER FAMILY LLC PROPERTY	
		TOWN OF CORNELIUS, MECKLENBURG COUNTY, NC	
		MAP REFERENCE: 33-903	
		DEED REFERENCE: 10626-284	
		TAX PARCEL NO: 005-123-11	
		R.B. PHARR & ASSOCIATES, P.A.	
		SURVEYING & MAPPING	
		LICENSE NO. 2471	
		420 HAWTHORNE LANE CHARLOTTE, N.C. 28204 TEL: (704) 376-2186	
CREW:	DRAWN:	REVISIONS:	SCALE:
GW/BS	CB/DJ		1" = 20'
		DATE:	FILE NO. W-5222
		NOV 16, 2016	JOB NO. 85975





Woodbine Design, P.C.
 Land planning & civil engineering
 www.woodbinedesign.com 980.725.2669 20816 N. Main Street, Suite 204
 pwod@woodbinedesign.com 704.315.8367 Cornelius, NC 28031



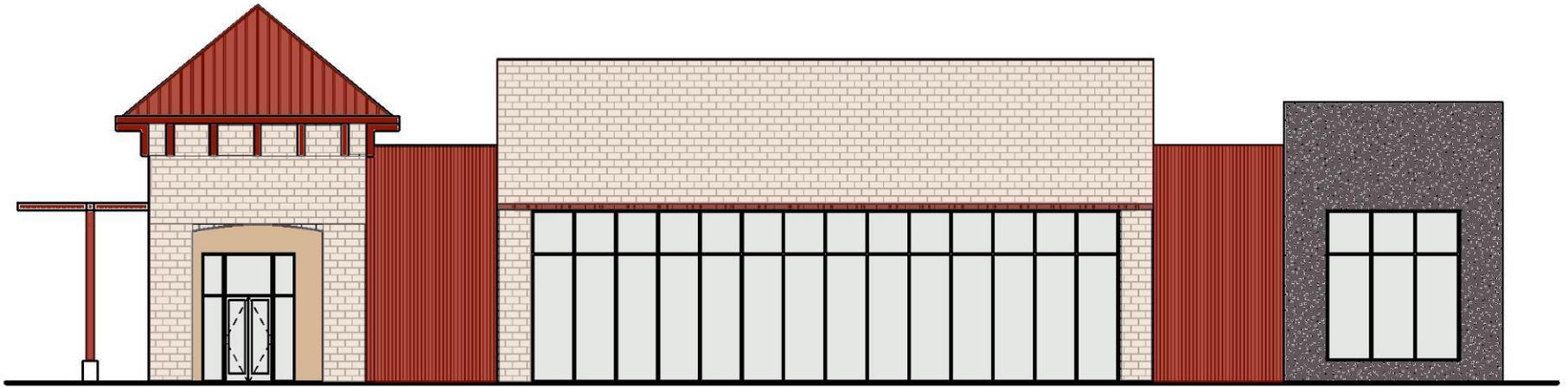
Project: TRUE VALUE HARDWARE
 Location: JETTON RD., CORNELIUS, NC
 Mecklenburg, Co.
 Sheet Title: SKETCH PLAN

DEVELOPER/OWNER
 Designed By: Woodbine Design
 Drawn By: PW
 Date: 8/19/16
 Revisions: 10/12/16 per reviews

Sheet Z5 of 1
 Project Number 16031

IF ANY CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR THE FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY, AND SHALL NOT COMMENCE OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.

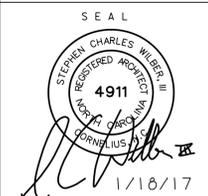
PLOTTED: 11/11/2016
 H:_WOODBINEDESIGN\PROJECTS\16031 - PULER FAMILY SKETCH JETTON RD., CAD\SKETCH





Wilber Associates
 Architecture / Planning
 P.O. Box 428 - 20044 N. Zion St.
 Cornelius, N.C. 28031
 704-892-3633

NOTE
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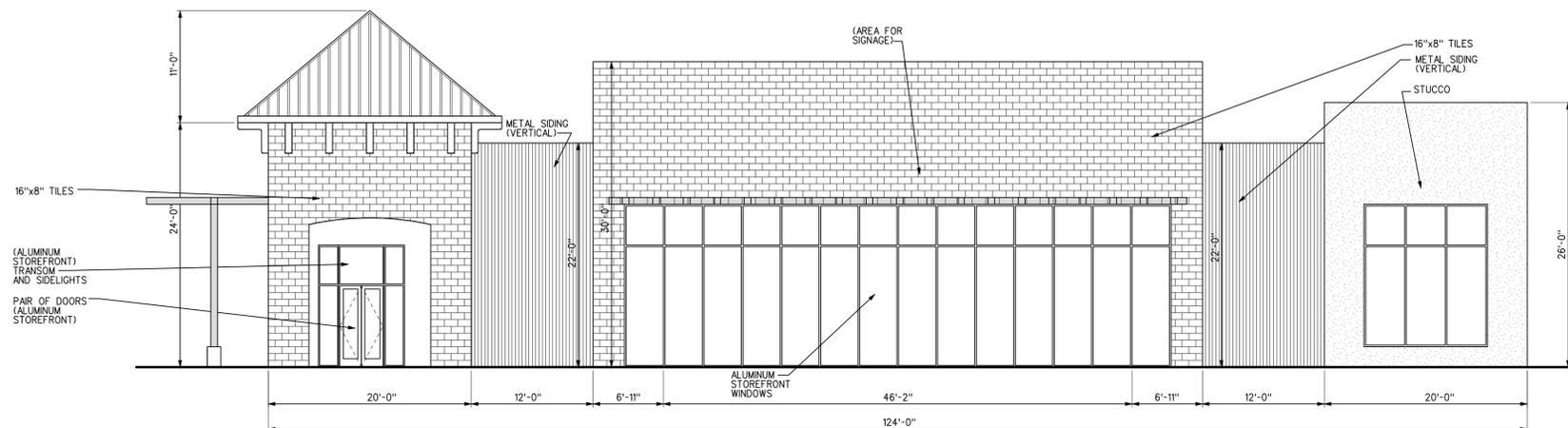


TITLE

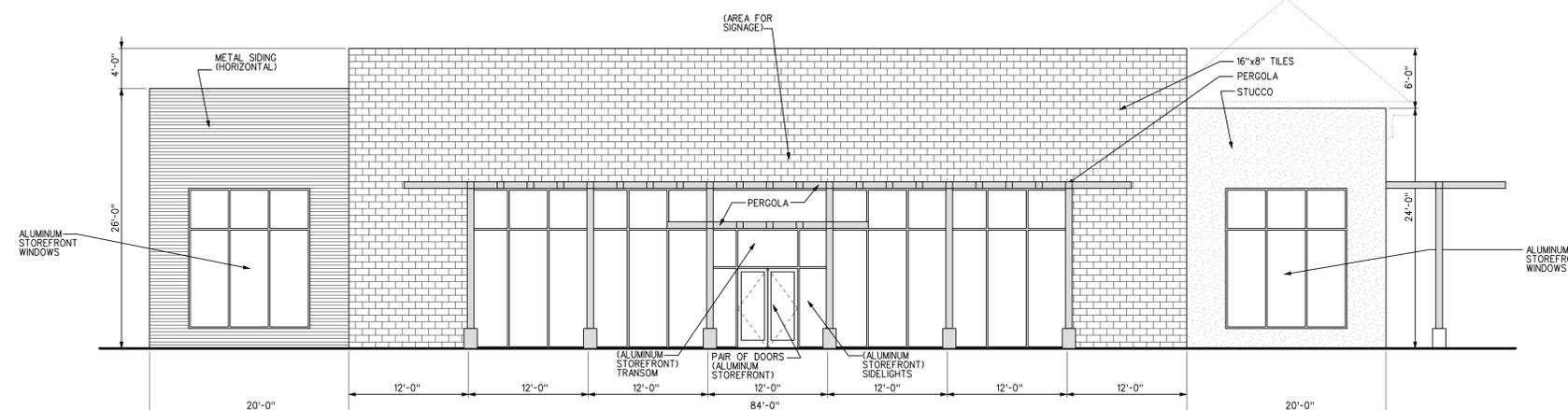
NEW BUILDING FOR
LAKE GARDEN & HARDWARE
 JETTON ROAD
 CORNELIUS, NC

COMM. NO. 1688
 DATE 1/18/17
 REVISIONS

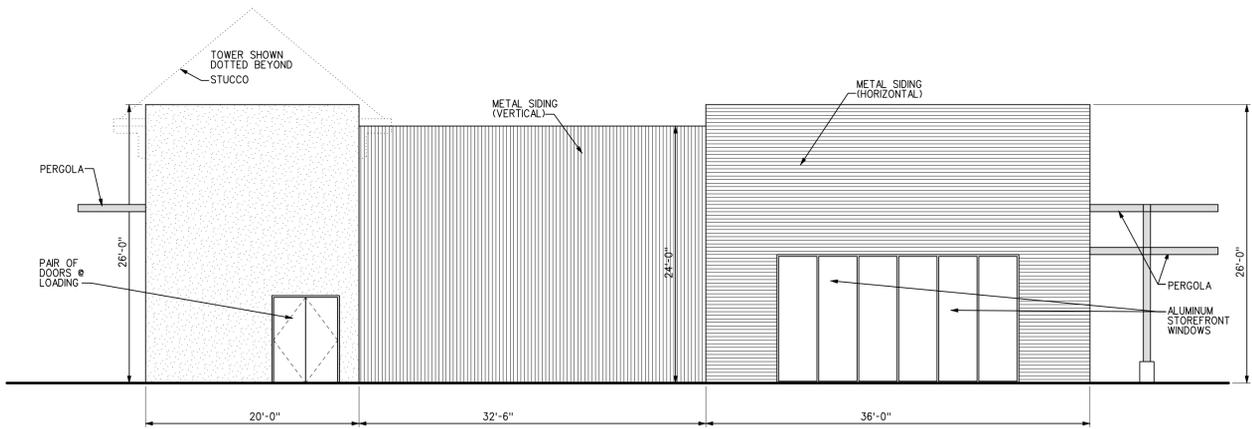
SHEET
A-2
 OF



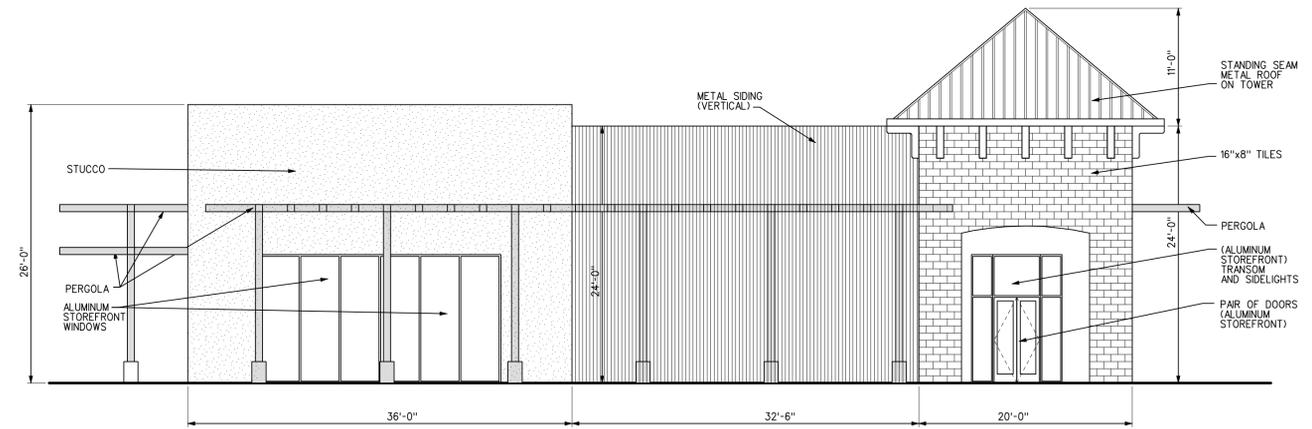
JETTON ROAD ELEVATION (SOUTH)
 $1/8" = 1'-0"$



PARKING LOT ELEVATION (NORTH)
 $1/8" = 1'-0"$



SIDE ELEVATION (EAST)
 $1/8" = 1'-0"$

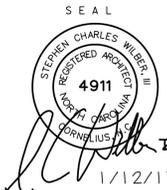


SIDE ELEVATION (WEST)
 $1/8" = 1'-0"$



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 Architecture / Planning
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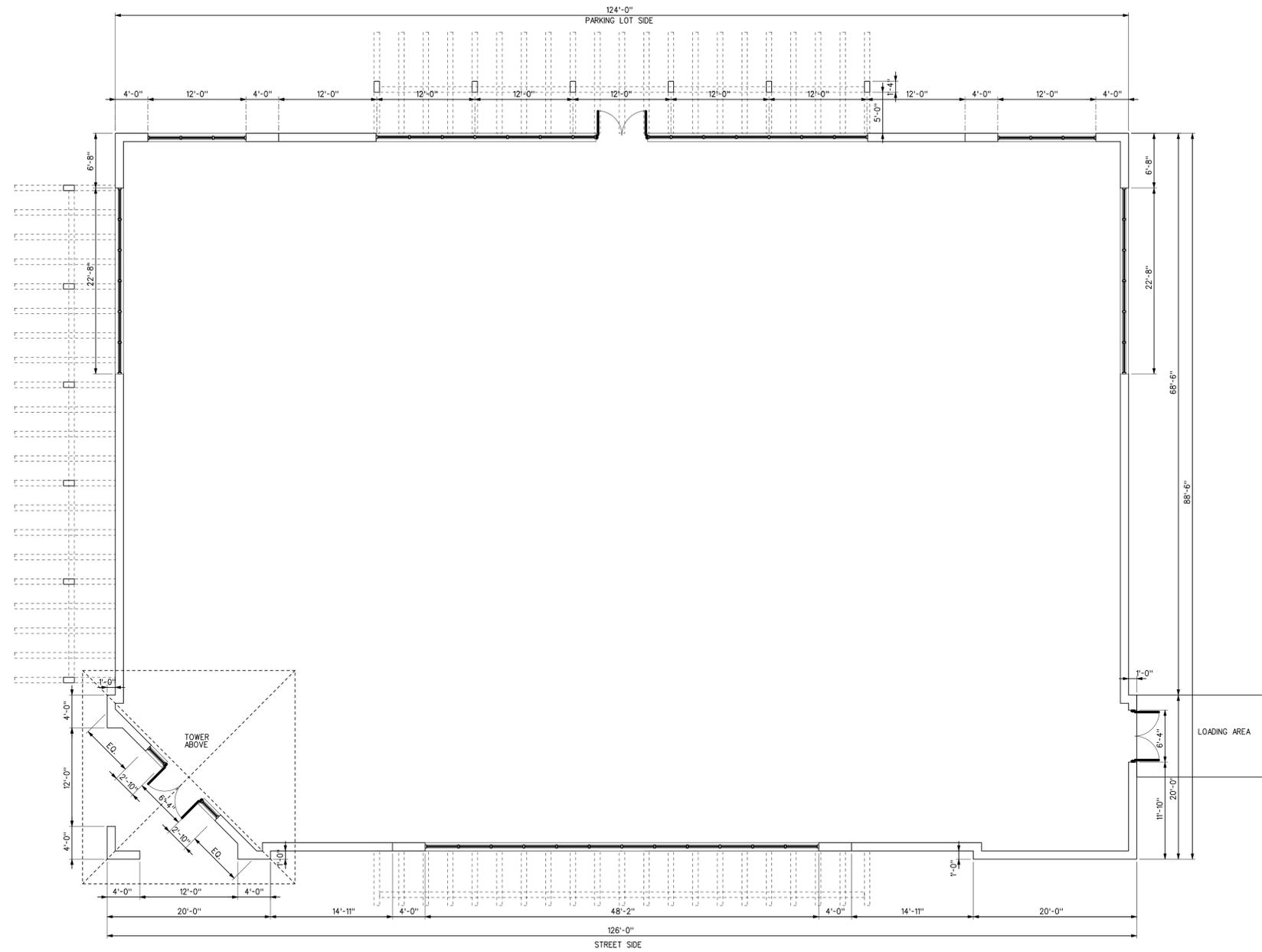


TITLE

NEW BUILDING FOR
LAKE NORMAN HARDWARE
 JETTON ROAD
 CORNELIUS, NC

COMM. NO. 1688
 DATE 1/12/17
 REVISIONS

SHEET
A-1
 OF



FLOOR PLAN
 1/8" = 1'-0"
 10,501 SQUARE FEET FLOOR AREA
 10,928 SQUARE FEET BUILDING AREA (ACTUAL)



CAMP
CLIMB
BIKE
HIKE
TRAVEL

JOIN US FOR OUR
GRAND OPENING
CELEBRATION | APR. 15-17



COMING SOON

RECREATIONAL
EQUIPMENT, INC.







REQUEST FOR BOARD ACTION

 [Print](#)

Date of Meeting: January 27, 2017

To: Architectural Review Board Members

From: Wayne Herron, Planning Director

Action Requested:

Discussion of upcoming joint meeting regarding the Arts Center and the Arts District

Manager's Recommendation:

Hear update

ATTACHMENTS:		
Name:	Description:	Type:
 Arts_District_Input_Form_final.docx	Art Center Input Form	Backup Material

Arts District Input Form

Thank you for providing input for the planning and development of Cornelius' Arts District Overlay. Please feel free to include comments that cannot fit into the provided feedback boxes by using a separate sheet of paper. For further comments please contact Will Washam, Senior Planner wrwasham@cornelius.org (704)-896-2461 ext. 116

Arts District Overlay Extents

***A conceptual Arts District extents has been developed around the Arts Center site on Catawba Avenue and the Town Center. See the attached concept map.

<p>How far should the Arts District extend westward on Catawba Ave. How far should the district extend north and south along highway 115? Use landmarks in your description if possible.</p>	
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Arts District Overlay Uses and Zoning Regulations

<p>What uses should be encouraged in the Arts District? (Performance Space, Art Studio, Micro Brewery, Events Space indoor and outdoor, Music Venue, Business incubators, etc.)</p>	
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Built Environment, Structures, and Architecture

<p>The existing buildings contribute to the unique character of this area. Should use of the existing buildings be encouraged? What priority should historic preservation be?</p>	
<p>Some areas within the proposed district extents have opportunities for new development. Should zoning regulate building materials/forms to conform to the existing prominent buildings with the proposed art district extents? Should we be more flexible in considering artistic form in architecture?</p>	

Public Art in the District

<p>Currently murals are subject to ARB review and are not allowed on street fronting wall surfaces. Should Murals be considered differently inside the arts district? What about other art forms (sculpture, statues, etc.)?</p>	
<p>Some arts districts have unique branding incorporated into public art (In Hendersonville they have bear statues in their arts district). Ideas for unique public art branding specific to Cornelius?</p>	
<p>Should we incorporate unique wayfinding signs into the arts district? There is an opportunity to incorporate the existing Historic Walking tour in this area into wayfinding signage</p>	
<p>Should we have a committee whose purpose is to review public/private art and give direction in the district?</p>	

What other issues are important to you?

REQUEST FOR BOARD ACTION

 [Print](#)

Date of Meeting: January 27, 2017

To: Architectural Review Board Members

From: Wayne Herron, Planning Director

Action Requested:

Introduction to proposed lighting ordinance and guide.

Manager's Recommendation:

Hear presentation.

ATTACHMENTS:		
Name:	Description:	Type:
 Section_7.6_Exterior_Lighting.docx	Proposed Lighting Ordinance	Backup Material
 CorneliusLightingOrdinanceGuide.docx	Lighting Ordinance Guide	Backup Material

- **Sec. 7.6 – EXTERIOR LIGHTING.**

(a)

Intent and Purpose.

Outdoor lighting *shall* be designed to provide the minimum lighting necessary to ensure adequate safety, night vision, and comfort, and not create or cause excessive *glare* onto adjacent *properties* and public *street rights-of-way*.

(b)

Definitions.

Cutoff fixture - An outdoor light fixture shielded or constructed in such a manner that no more than two and one-half (2½) per cent of the total light emitted by the fixture is projected above the horizontal plane of the fixture.

Flood lamp - A form of lighting designed to direct its output in a specific direction with a reflector formed from the glass envelope of the lamp itself. Such lamps are so designated by the manufacturers and are typically used in residential outdoor area lighting.

Flood light - A form of lighting designed to direct its output in a diffuse, more or less specific direction, with reflecting or refracting elements located external to the lamp.

Footcandle (FC) - A quantitative unit measuring the amount of light cast onto a given point, measured as one (1) *lumen* per square foot.

Full cutoff fixture - An outdoor light fixture shielded or constructed in such a manner that it emits no light above the horizontal plane of the fixture.

Glare - The effect produced by a *light source* within the visual field that is sufficiently brighter than the level to which the eyes are adapted, to cause annoyance, discomfort, or loss of visual performance and ability.

IESNA - The Illuminating Engineering Society of North America, a non-profit professional organization of lighting specialists that has established recommended design standards for various lighting applications.

Internal refractive lens - A glass or plastic lens installed between the lamp and the sections of the outer fixture globe or enclosure. Refractive refers to the redirection (bending) of the light as it goes through the lens, softening and spreading the light being distributed from the *light source* thereby reducing direct *glare*.

Light source - The element of a lighting fixture that is the point of origin of the *lumens* emitted by the fixture.

Lumen - A quantitative unit measuring the amount of light emitted by a *light source*.

Maintained footcandles - Illuminance of lighting fixtures adjusted for a maintenance factor accounting for dirt build-up and lamp output depreciation. The maintenance factor used in the

design process to account for this depreciation cannot be lower than 0.72 for high-pressure sodium and 0.64 for metal halide and mercury vapor.

Medium base - The size of lamp socket designed to accept a medium or Edison base lamp.

Semi-cutoff fixture - An outdoor light fixture shielded or constructed in such a manner that it emits no more than five (5) per cent of its light above the horizontal plane of the fixture, and no more than twenty (20) per cent of its light ten (10) degrees below the horizontal plane of the fixture.

Wall pack - A type of light fixture typically flush-mounted on a vertical wall surface.

Wide-body refractive globe - A translucent lamp enclosure used with some outdoor fixtures to provide a decorative look (including but not limited to acorn- and carriage light-style fixtures). "Wide-body" refers to a wider than average size globe (greater than fifteen and seventy-five one hundredths (15.75) inches in diameter). "Refractive" refers to the redirection (bending) of the light as it goes through the lens, rendering the light fixture more effective. *Wide-body refractive globes* are intended to soften and spread the light being distributed from the *light source* thereby reducing direct *glare*.

(c)

Light Measurement Technique.

Light level measurements *shall* be made at the *property* line of the *property* upon which the light to be measured is being generated. If measurement on private *property* is not possible or practical, light level measurements *may* be made at the boundary of the public *street right-of-way* that adjoins the *property* of the complainant or at any other location on the *property* of the complainant. Measurements *shall* be made at finished grade (ground level), with the light-registering portion of the meter held parallel to the ground pointing up. The meter *shall* have cosine and color correction and have an accuracy tolerance of no greater than plus or minus five (5) per cent. Measurements *shall* be taken with a light meter that has been calibrated within the *year*. Light levels are specified, calculated and measured in *footcandles (FC)*. All FC values below are *maintained footcandles*.

(d)

General Standards for Outdoor Lighting.

(1)

Unless otherwise specified in subsections (e) through (j) below, the maximum light level *shall* be three tenths (0.3) *maintained foot candle* at any *property* line in a residential district, or on a *lot* occupied by a *dwelling, congregate care* or *congregate living structure*, and two (2.0) *maintained foot candles* at any public *street right-of-way*, unless otherwise approved by the Planning Board.

(2)

All flood lights *shall* be installed such that the fixture *shall* be aimed down at least forty-five (45) degrees from vertical, or the front of the fixture is shielded such that no portion of the light bulb extends below the bottom edge of an external shield. Flood lights and display

lights *shall* be positioned such that any such fixture located within fifty (50) feet of a public *street right-of-way* is mounted and aimed perpendicular to the *right-of-way*, with a side-to-side horizontal aiming tolerance not to exceed fifteen (15) degrees from perpendicular to the *right-of-way*.

(3)

All flood lamps emitting one thousand (1,000) or more *lumens shall* be aimed at least sixty (60) degrees down from horizontal, or shielded such that the main beam from the *light source* is not visible from adjacent *properties* or the public *street right-of-way*.

(4)

All *wall pack* fixtures *shall* be *cutoff fixtures*.

(5)

Service connections for all freestanding fixtures installed after application of this ordinance *shall* be installed underground.

(6)

Within non-residential districts and developments, all outdoor lighting fixtures *shall* be at minimum *semi-cutoff fixtures*.

(7)

All light fixtures installed by public *agencies*, their agents, or contractors for the purpose of illuminating public *streets* are otherwise exempt from this regulation.

(e)

Lighting in Parking Lots and Outdoor Areas.

(1)

Other than flood lights and flood lamps, all outdoor area and *parking lot* lighting fixtures of more than two thousand (2,000) *lumens shall* be *cutoff fixtures*, or comply with subsection (3) below.

(2)

The mounting height of all outdoor lighting, except *outdoor sports field* lighting and *outdoor performance area* lighting, *shall* not exceed thirty five (35) feet above finished grade.

(3)

Exceptions:

a.

Non-cutoff fixtures *may* be used when the maximum initial *lumens* generated by each fixture *shall* not exceed nine thousand five hundred (9,500) initial lamp *lumens* per fixture.

b.

All metal halide, mercury vapor, fluorescent, induction, white high pressure sodium and color improved high pressure sodium lamps used in non-cutoff fixtures *shall* be coated with an internal white frosting inside the outer lamp envelope.

c.

All metal halide fixtures equipped with a medium base socket must utilize either an internal refractive lens or a *wide-body refractive globe*.

d.

All non-cutoff fixture open-bottom lights *shall* be equipped with full *cutoff fixture* shields that reduce *glare* and limit uplight.

(f)

Lighting for Vehicular Canopies.

Areas under a *vehicular canopy* *shall* have a maximum point of horizontal illuminance of twenty-four (24) *maintained foot candles (FC)*. Areas outside the *vehicular canopy* *shall* be regulated by the standards of subsection (d) above. Lighting under *vehicular canopies* *shall* be designed so as not to create *glare* off-site. Acceptable methods include one (1) or more of the *following*:

(1)

Recessed fixture incorporating a lens cover that is either recessed or flush with the bottom surface (ceiling) of the *vehicular canopy*.

(2)

Light fixture incorporating shields, or shielded by the edge of the *vehicular canopy* itself, so that light is restrained to five (5) degrees or more below the horizontal plane.

(3)

Surface mounted fixture incorporating a flat glass that provides a *cutoff fixture* or shielded light distribution.

(4)

Surface mounted fixture, typically measuring two (2) feet by two (2) feet, with a lens cover that contains at least two (2) per cent white fill diffusion material.

(5)

Indirect lighting where light is beamed upward and then reflected down from the underside of the *vehicular canopy*. Such fixtures *shall* be shielded such that direct illumination is focused exclusively on the underside of the *vehicular canopy*.

(6)

Other method approved by the Planning Board.

(g)

Outdoor Sports Field/Outdoor Performance Area Lighting.

(1)

The mounting height of *outdoor sports field* and *outdoor performance area* lighting fixtures *shall* not exceed eighty (80) feet from finished grade unless approved by the Planning Board as having no adverse effect or approved by the *Town Board* as part of a conditional zoning.

(2)

All *outdoor sports field* and *outdoor performance area* lighting fixtures *shall* be equipped with a *glare* control package (louvers, shields, or similar devices). The fixtures must be aimed so that their beams are directed and fall within the primary playing or performance area.

(3)

The hours of operation for the lighting system for any game or event *shall* not exceed one (1) hour after the end of an event or administrative activity.

(h)

Lighting of Outdoor Display Areas.

(1)

Parking lot outdoor areas *shall* be illuminated in accordance with the requirements for subsection (e), above. Outdoor *display areas* *shall* have a maximum point of illuminance of twenty-four (24) *maintained foot candles (FC)*.

(2)

All light fixtures *shall* meet the IESNA definition of *cutoff fixtures*. Forward throw fixtures (type IV light distribution, as defined by the *IESNA*) are required within twenty-five (25) feet of any public *street right-of-way*. Alternatively, directional fixtures (such as flood lights) *may* be used provided they *shall* be aimed and shielded in accordance with subsections (d)(1) and (d)(2) of this ordinance.

(3)

The mounting height of outdoor *display area* fixtures *shall* not exceed thirty five (35) feet above finished grade, unless approved by the Planning Board as having no adverse effect.

(i)

Sign Lighting.

Lighting fixtures illuminating signs *shall* be aimed and shielded so that direct illumination is focused exclusively on the sign.

(j)

Lighting of Buildings and Landscaping.

Lighting fixtures *shall* be selected, located, aimed, and shielded so that direct illumination is focused exclusively on the *building facade*, plantings, and other intended site feature and away from adjoining *properties* and the public *street right-of-way*.

(k)

(1)

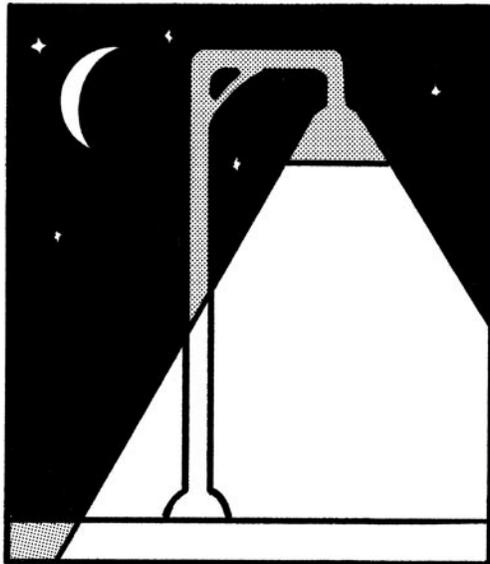
A point-by-point *foot candle* array in a printout format indicating the location and aiming of illuminating devices shall be provided. The printout *shall* indicate compliance with the maximum *maintained foot candles* required by this Code.

(2)

Description of the illuminating devices, fixtures, lamps, supports, reflectors, poles, raised foundations and other devices (including but not limited to manufacturers or electric utility catalog specification sheets and/or drawings, and photometric report indicating fixture classification [*cutoff fixture, wall pack, flood light, etc.*]).

The Inspections Director or his/her designee(s) *may* waive any or all of the above permit requirements, provided the applicant can otherwise demonstrate compliance with this Code.

A Guide to the
**CORNELIUS
LIGHTING
ORDINANCE**



*Town of Cornelius
North Carolina*

Introduction

Intent and purpose

"Outdoor lighting shall be designed to provide the minimum lighting necessary to ensure adequate safety, night vision, and comfort, and not create or cause excessive glare onto adjacent properties and public street rights of way."

Summary of Provisions

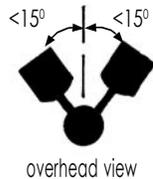
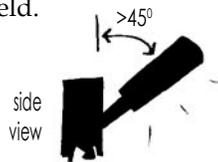
- Limits light spillover into right-of-way (to 2.0 footcandles) and spillover at residential property lines (0.3 footcandle)
- Requires flood lights and flood lamps to be aimed and/or shielded to minimize glare
- Requires wall packs and most parking lot lighting to be of cut-off (shielded) design
- Requires service connections for new outdoor lighting to be placed underground
- Discourages excessive fixture mounting heights
- Limits light levels under vehicular canopies and in outdoor sales areas (to 24 footcandles); provides six different methods of compliance for the former
- Requires sports lighting and outdoor performance area lighting to have a glare control package, and to be turned off an hour after an event ends
- Permits decorative and historically styled lighting fixtures (provided they meet certain glare reduction standards)
- Permits flexibility (e.g., Planning Commission and/or Town Board approval of various alternatives)
- Grandfathers existing fixtures
- Does not affect street lights

The following provisions apply to all outdoor lighting installations, both within the Cornelius Town Limits and the Town's Extra-Territorial Jurisdiction (ETJ):

General Standards

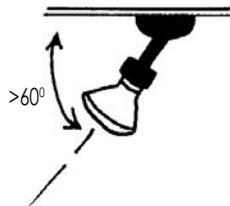
MAXIMUM LEVELS: Unless specified otherwise, the maximum light level cannot exceed 0.3 maintained footcandle at any residential property line, and 2.0 maintained footcandles at any public street right-of-way.

FLOOD LIGHT POSITIONS: Floodlights should be directed away from streets. The fixture must either be aimed down at least forty-five (45) degrees from vertical, or with the front of the fixture shielded so that no portion of the light bulb extends below the bottom edge of the shield.



Also, any fixture located within fifty feet of a public street right-of-way must be mounted perpendicular to the right-of-way, with a side-to-side horizontal aiming tolerance of no more than fifteen degrees.

FLOOD LAMP POSITIONING: All flood lamps emitting 1,000 or more lumens must be aimed at least sixty (60) degrees down from horizontal, or shielded so that the main beam is not visible from adjacent properties or the public street right-of-way.



NO UNSHIELDED WALL PACKS: All wall pack fixtures must be cutoff (shielded) fixtures.



SERVICE CONNECTIONS: Service connections for all freestanding fixtures installed must be installed underground (no overhead wires).



STREET LIGHTING EXEMPT: All light fixtures installed under authorization of public agencies for illuminating streets are exempt from the ordinance.

In addition, the following ordinance provisions apply to specific types of lighting installations:

Parking & Outdoor Areas

These areas include parking lots, pedestrian ways, yards, and driveways.

CUTOFF DESIGN GENERALLY REQUIRED: Other than flood lights and flood lamps, all outdoor area and parking lot lighting fixtures of more than 2,000 lumens must be cutoff fixtures (fully shielded), unless they are among the "Exceptions/Special Considerations" listed below.

MAXIMUM HEIGHT: Outdoor lighting, except sports field lighting and performance area lighting, should not be more than thirty-five (35) feet tall.

EXCEPTIONS/SPECIAL CONSIDERATIONS:

- Non-cutoff (unshielded) fixtures can be used when the maximum initial lumens generated by each fixture is less than 9500 initial lamp lumens. These fixtures generally feature globes or vertical glass planes:



- If the unshielded fixtures have metal halide, mercury vapor, fluorescent, induction, white high pressure sodium and color improved high pressure sodium lamps, the outer lamp envelope must be coated with an internal white frosting to diffuse light.
 - Additionally, all metal halide fixtures equipped with a medium base socket must use either an internal refractive lens or a wide-body refractive globe.
- All non-cutoff fixture open-bottom lights (dusk-to-dawn or barn lights) must be equipped with full cutoff fixture shields:



Vehicular Canopies

These canopies are often installed at gas stations and convenience stores.

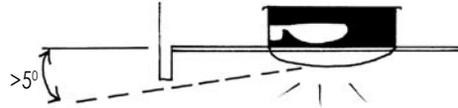
MAXIMUM LEVEL: Lighting under a vehicular canopy must be less than 24 maintained footcandles, and designed to prevent glare off-site.

ACCEPTABLE LIGHTING DESIGNS:

- (1) Recessed fixture incorporating a lens cover that is either recessed or flush with the bottom surface (ceiling) of the canopy.



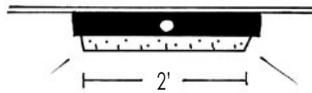
- (2) Light fixture incorporating shields, or shielded by the edge of the vehicular canopy itself, so that light is restrained to five degrees or more below horizontal.



- (3) Surface mounted fixture incorporating a flat glass that provides cutoff design or shielded light distribution.



- (4) Surface mounted fixture, typically measuring two feet by two feet, with a lens cover that contains at least two (2) percent white fill diffusion material.

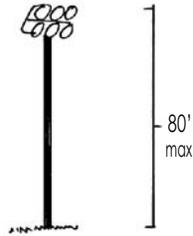


- (5) Indirect lighting where light is beamed upward and then reflected by the underside of the vehicular canopy. Such fixtures must be shielded, with direct illumination focused exclusively on the underside of the canopy.

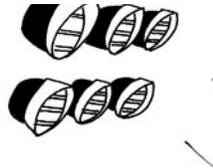


- (6) Other method approved by the Planning Board.

Sports Fields & Performance Areas



MAXIMUM HEIGHT: The mounting height of outdoor sports field and outdoor performance area lighting fixtures must not exceed eighty (80) feet from finished grade (unless approved by the Planning Board and/or Town Board).



GLARE CONTROL REQUIRED: All outdoor sports field and outdoor performance area lighting fixtures must be equipped with a glare control package (louvers, shields, or similar devices). The fixtures also must be aimed so that their beams are directed and fall within the primary playing or performance area.



HOURS LIMITED: The hours of operation for the lighting system for any game or event must not exceed one hour after the end of an event or administrative activity.

Signs

CAREFUL AIMING REQUIRED: Lighting fixtures illuminating signs must be aimed and shielded so that direct illumination is focused exclusively on the sign. Signs must also meet the other provisions of the Town sign ordinance.

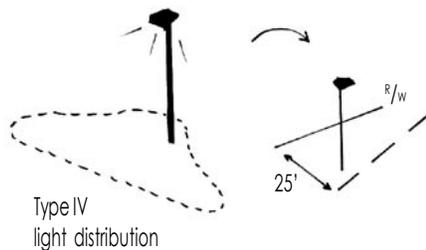
Buildings & Landscaping

CAREFUL AIMING REQUIRED: Lighting fixtures must be selected, located, aimed, and shielded so that direct illumination is focused solely on the building façade, plantings, and other intended site feature, and away from adjoining properties and the public street right- of-way.

Display Areas

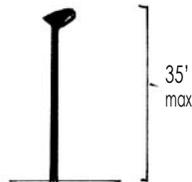
These outdoor areas are used for displaying such goods as automobiles, boats, and yard care equipment.

MAXIMUM LIGHTING LEVEL: Lighting in outdoor display areas must measure less than 24 maintained footcandles.



FIXTURE TYPE: All light fixtures must be of cutoff design. Forward throw fixtures (type IV light distribution, as defined by the IESNA) are required within 25 feet of street rights-of-way.

Alternatively, directional fixtures (such as flood lights) can be used provided they are aimed and shielded to prevent glare.



MAXIMUM HEIGHT: The mounting height of outdoor display area fixtures shall not exceed thirty-five (35) feet above finished grade, unless approved by the Planning Board as having no adverse effect.

The following provisions apply to all lighting installations:

Permits

Applicants must submit proof that their lighting plans meet the ordinance at the time of site plan approval. Information to be submitted includes:

- (1) A point-by-point footcandle array in a printout format indicating the location and aiming of light fixtures, and the maximum maintained footcandles of each.
- (2) Description of the illuminating devices, fixtures, lamps, supports, reflectors, poles, raised foundations and other devices (including but not limited to manufacturers' or electric utility catalog specification sheets and/or drawings, and photometric report indicating fixture classification [cutoff fixture, wall pack, flood light, etc.]).

NOTE: The Planning Director can waive any or all of the above permit requirements provided the applicant can otherwise demonstrate compliance with the ordinance.



Compliance

All new fixtures must comply with the ordinance.

These installations include:

- All new outdoor lighting fixtures,
- All replacement fixtures (in cases of total replacement),
- Changes to existing fixture wattage, fixture type, mounting, or fixture.

The following routine maintenance does not require compliance:

- Changing the lamp, ballast, starter, photo control, fixture housing, lens and other required components.

Measuring Light

Light level measurements are to be made:

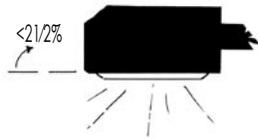
- At the property line of the property from which the light is generated.
- At ground level, with the light-registering portion of the meter held parallel to the ground, pointing up.



All light levels are specified, calculated and measured in footcandles.
All footcandle values in the ordinance are maintained footcandles.

Definitions

The following lighting terms appear in the ordinance:



Cutoff Fixture - An outdoor light fixture shielded or constructed in such a manner that no more than two and one half ($2\frac{1}{2}$) percent of the total light emitted by the fixture is projected above the horizontal plane of the fixture.

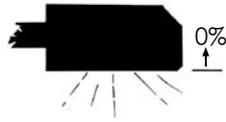


Flood Lamp – A form of lighting designed to direct its output in a specific direction with a reflector formed from the glass envelope of the lamp itself. Such lamps are so designated by the manufacturers and are typically used in residential outdoor area lighting.



Flood Light – A form of lighting designed to direct its output in a diffuse, more or less specific direction, with reflecting or refracting elements located external to the lamp.

Footcandle (FC) – A quantitative unit measuring the amount of light cast onto a given point, measured as one lumen per square foot.



Full Cutoff Fixture – An outdoor light fixture shielded or constructed in such a manner that it emits no light above the horizontal plane of the fixture.

Glare – The effect produced by a light source within the visual field that is sufficiently brighter than the level to which the eyes are adapted, to cause annoyance, discomfort, or loss of visual performance and ability.

IESNA – The Illuminating Engineering Society of North America, a non-profit professional organization of lighting specialists that has established recommended design standards for various lighting applications.



Internal Refractive Lens – A glass or plastic lens installed between the lamp and the sections of the outer fixture globe or enclosure. Refractive refers to the redirection (bending) of the light as it goes through the lens, softening and spreading the light being distributed from the light source thereby reducing direct glare.

Light Source – The element of a lighting fixture that is the point of origin of the lumens emitted by the fixture.

Lumen – A quantitative unit measuring the amount of light emitted by a light source.

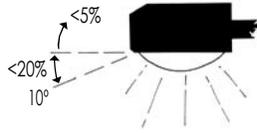
Maintained Footcandles – Illuminance of lighting fixtures adjusted for a maintenance factor accounting for dirt build-up and lamp output depreciation. The maintenance factor used in the design process to account for this depreciation cannot be lower than 0.72 for high-pressure sodium and 0.64 for metal halide and mercury vapor.

Medium Base – The size of lamp socket designed to accept a medium or Edison base lamp.

Outdoor Sports Field – An area designed for active recreation, whether publicly or privately owned, including but not limited to baseball/softball diamonds, soccer fields, football fields, golf courses and ranges, tennis courts, racetracks, and swimming pools.

Outdoor Performance Area – An area permanently dedicated to the public presentation of music, dance, theater, media arts, storytelling, oratory, or other performing arts, whether publicly or privately owned, including but not limited to amphitheaters and similar open or semi-enclosed structures.

Right-of-Way – An interest in land to the Town which provides for the perpetual right and privilege of the Town, its agents, franchise holders, successors, and assigns to construct, install, improve, reconstruct, remove, replace, inspect, repair, maintain, and use a public street, including related and customary uses of street rights-of-way such as sidewalks, bike paths, landscaping, mass transit facilities, traffic control, traffic control devices and signage, sanitary sewer, stormwater drainage, water supply, cable television, electric power, gas, and telephone transmission and related purposes in, upon, over, below, and across the rights-of-way.



Semi-Cutoff Fixture – An outdoor light fixture shielded or constructed in such a manner that it emits no more than five (5) percent of its light above the horizontal plane of the fixture, and no more than twenty (20) percent of its light ten (10) degrees below the horizontal plane of the fixture.

Vehicular Canopy – A roofed, open, drive-through structure designed to provide temporary shelter for vehicles and their occupants while making use of a business' services.

Wall Pack – A type of light fixture typically flush-mounted on a vertical wall surface.

Wide-body Refractive Globe – A translucent lamp enclosure used with some outdoor fixtures to provide a decorative look (including but not limited to acorn- and carriage light-style fixtures). "Wide-body" refers to a wider than average size globe (greater than 15.75 inches in diameter). "Refractive" refers to the redirection (bending) of the light as it goes through the lens, rendering the light fixture more effective. Wide-body refractive globes are intended to soften and spread the light being distributed from the light source thereby reducing direct glare.

The complete text of the
Cornelius Lighting
Ordinance (Town Code §
7.6)

Further questions?

**Contact the
City of Raleigh
Inspections
Department:
919-516-2555**