

# The HUB - Indoor Pickle Ball

1220 NC 57 Hillsborough, NC 27278

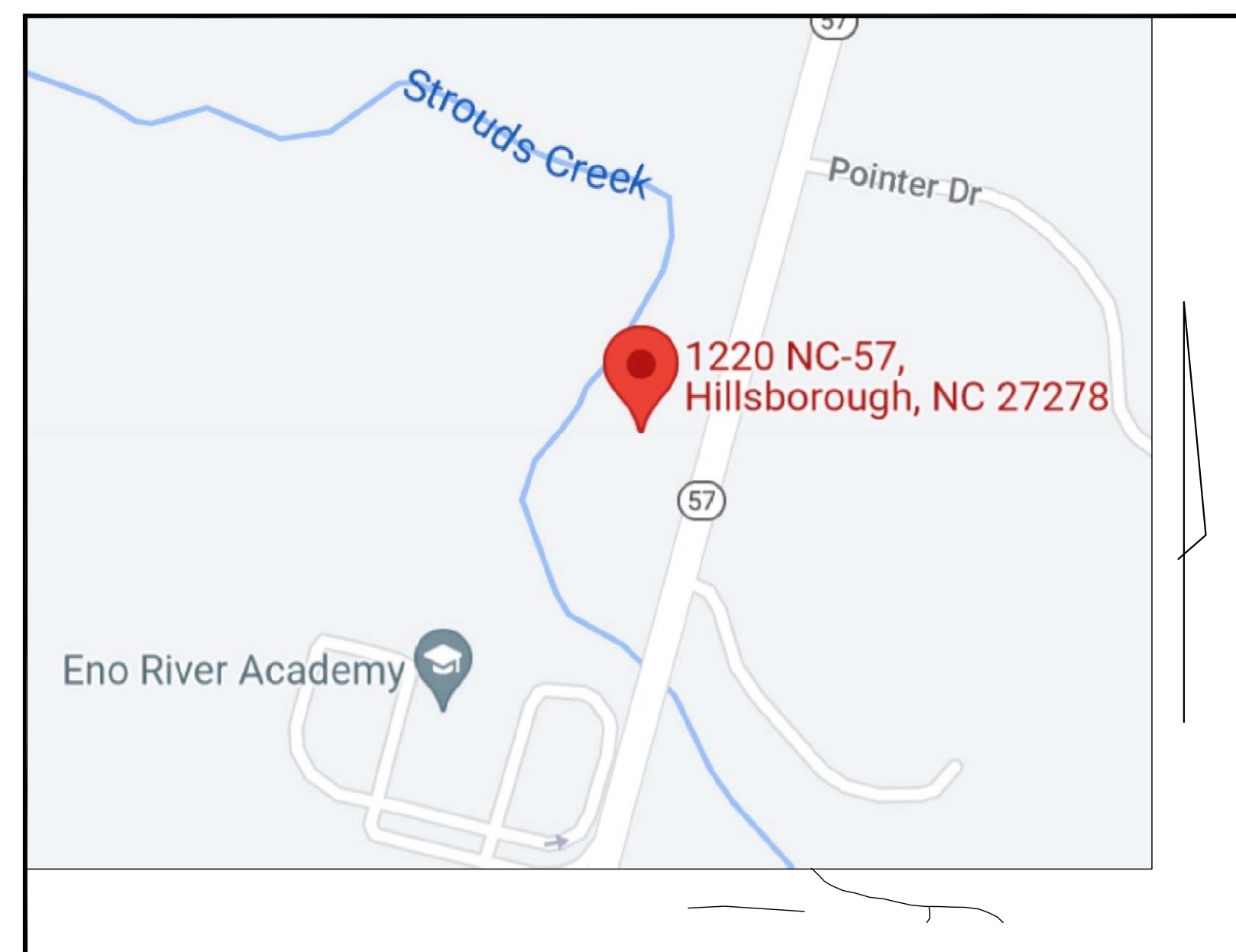
Site Plan: SP-xx-xxxx

PIN: 9875075617

**GENERAL NOTES**

- BOUNDARY, TREE AND TOPOGRAPHIC SURVEY BY CJT, P.A. CIVIL PLANS PREPARED, DESIGNED AND DRAWN BY VETERAN ENGINEERING ASSOCIATES, INC.
  - THE PURPOSE OF THESE PLANS IS TO CONSTRUCT A HEALTH/FITNESS CLUB w/ PICKLEBALL COURTS.
  - ALL SOIL FILL MATERIAL SHALL BE SUITABLE, STABLE SOILS THAT ARE FREE OF ORGANIC MATERIAL CONTAIN NO ROCKS.
  - THERE ARE EXISTING UNDERGROUND UTILITIES ON THIS SITE. CONTRACTOR SHALL CALL NC NO-CUTS AND LOCAL AUTHORITIES TO VERIFY ALL UTILITY LOCATIONS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR WILL FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. AN EXISTING UTILITIES SHOWN HEREIN ARE TO BE CONSIDERED APPROXIMATE. SHOULD THE CONTRACTOR FIND THAT THERE MAY BE A CONFLICT WITH INFORMATION SHOWN IN THESE CONTRACT DOCUMENTS, THE CONTRACTOR WILL REPORT THE INFORMATION FOUND TO THE ENGINEER OF RECORD AND THEN AWAIT FURTHER DIRECTION FROM THE OWNER.
  - THIS SITE IS IN FLOOD HAZARD AREA AE (FLOODWAY) PER FEMA PANEL 3710987500K DATED 11/17/2017.
  - DEVELOPER SHALL COORDINATE A PRE-CONSTRUCTION CONFERENCE PRIOR TO ANY SITE DISTURBANCES WITH ALL APPROPRIATE PERMIT-ISSUING AUTHORITIES. THE CONFERENCE WILL BE ATTENDED BY A REPRESENTATIVE FROM THE DEVELOPERS ENGINEER, CONTRACTOR, ZONING DIVISION, PUBLIC WORKS, AND THE CITY ENGINEER.
  - STORMWATER CONTROLS ARE REQUIRED FOR THIS PROJECT.
- SIGNAGE NOTES:**
- NO SIGNAGE OR MONUMENTATION IS PROPOSED AT THIS TIME.
  - A COPY OF THE APPROVED SITE PLAN MUST BE DISPLAYED IN A KIOSK AT THE SITE.
- PUBLIC WORKS NOTES:**
- THE DEVELOPER/OWNER/CONTRACTORS SHALL BE RESPONSIBLE FOR THE PROMPT REMOVAL OF ANY AND ALL MUD, SOILS, STONE AND/OR CONSTRUCTION RELATED MATERIALS DEPOSITED UPON THE STREET SURFACES INCIDENTAL TO ON-SITE DEVELOPMENT ACTIVITIES AND DELIVERIES. THIS WOULD INCLUDE MAINTENANCE AS NEEDED.

**TRUTH IN DRAINAGE STATEMENT:** THE PROPOSAL MEETS OR EXCEEDS LOCAL AND STATE DESIGN GUIDELINES.



**VICINITY MAP**  
NTS

**SHEET INDEX**

- |         |  |
|---------|--|
| SHEET 1 | C1 - COVER SHEET   |
| SHEET 2 | AP1 - AREA PLAN  |
| SHEET 3 | EX1 - EXISTING CONDITIONS                                    |
| SHEET 4 | SP1 - SITE PLAN  |
| SHEET 5 | GR1 - GRADING/DRAINAGE / UTILITY PLAN / TREE PROTECTION PLAN |
| SHEET 6 | LP1 - LIGHTING PLAN  |
| SHEET 7 | L-5 - LANDSCAPE PLAN   |
| SHEET 8 | ELEVATION PLAN   |

**ENGINEERING FIRM:**

PLANS PREPARED BY:  
ADDRESS:  
PHONE:

VETERAN ENGINEERING ASSOCIATES, INC. (C-3527)  
POST OFFICE BOX 1625 DURHAM N.C. 27701  
(919) 201-2175  
ATTN: Thomas R. Kagarise, P.E., as President (11622)

**DEVELOPER / OWNER**

ADDRESS:

LAURA LOEHR  
3619 HATHAWAY ROAD  
DURHAM, NC 27707  
(919) 609-5023

PHONE:

**CLIENT**  
ADDRESS:

SMITHSON, INC.  
PO BOX 1731  
ROCKY MOUNT, NC 27802

PHONE:

(919) 977-3055

THIS PLAN WILL EXPIRE IF A TOWN OF  
HILLSBOROUGH ZONING COMPLIANCE  
PERMIT HAS NOT BEEN ISSUED BY:

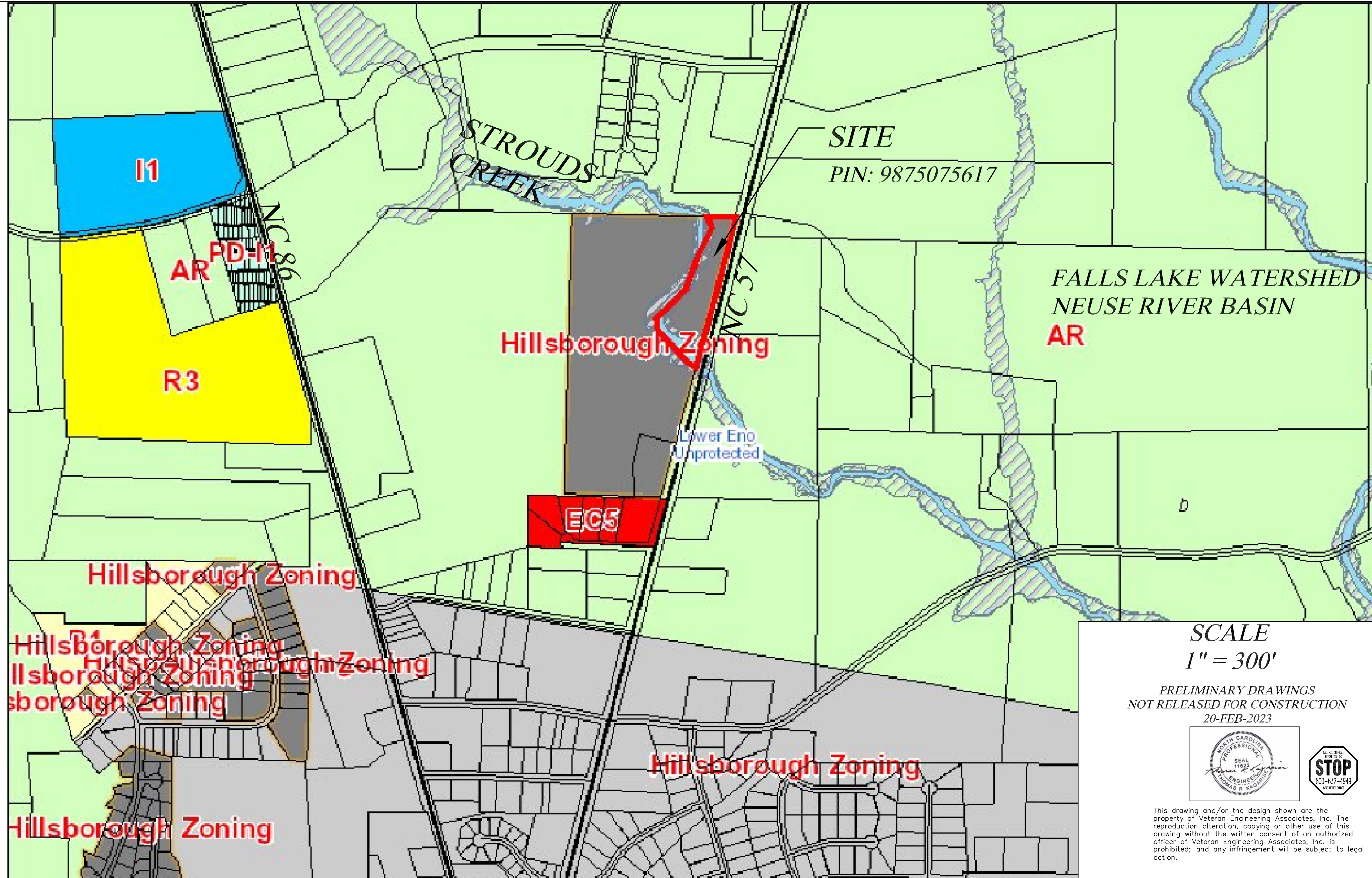
20-FEB-2023



**PRELIMINARY DRAWINGS**  
**NOT RELEASED FOR**  
**CONSTRUCTION**

This drawing and/or the design shown are the property of Veteran Engineering Associates, Inc. The reproduction alteration, copying or other use of this drawing without the written consent of an authorized officer of Veteran Engineering Associates, Inc. is prohibited; and any infringement will be subject to legal action.

MAP TAKEN FROM ORANGE COUNTY G.I.S.  
1220 NC 57 HILLSBOROUGH, NC



SCALE  
1" = 300'

PRELIMINARY DRAWINGS  
NOT RELEASED FOR CONSTRUCTION  
20-FEB-2023



This drawing and/or the design shown are the property of Veteran Engineering Associates, Inc. The reproduction alteration, copying or other use of this drawing without the written consent of an authorized officer of Veteran Engineering Associates, Inc. is prohibited; and any infringement will be subject to legal action.

<p>VETERAN ENGINEERING ASSOCIATES, INC. Civil Engineering Services Post Office Box 4625 Durham, N.C. 27702 (919) 201-2775 (p) VEA Ltrfj - (c-8527) tom@veteranengineeringassociates.com</p>	
<p>SMITHSON, INC. PO BOX 1731 ROCKY MOUNT, NC 27802</p>	
CLIENT	AREA MAP
PROJECT	THE HUB - INDOOR PICKLE BALL
SHEET TITLE	TOWN OF HILLSBOROUGH
NO.	DATE
AC.	DATE
REVISION	BY
PROJECT NO. 0225	SCALE 1" = 300'
DATE 2/20/23	DRAWN BY mj
CHECKED BY trk	AM1

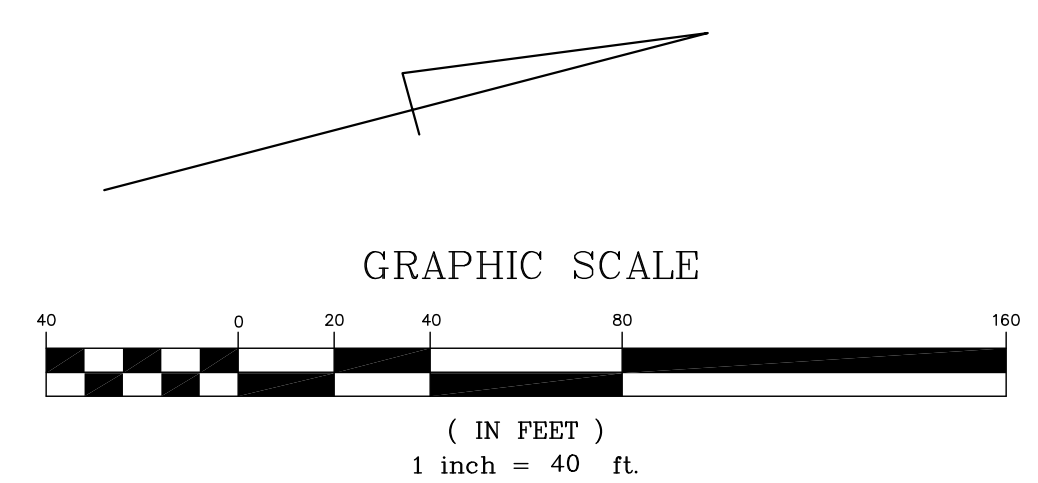
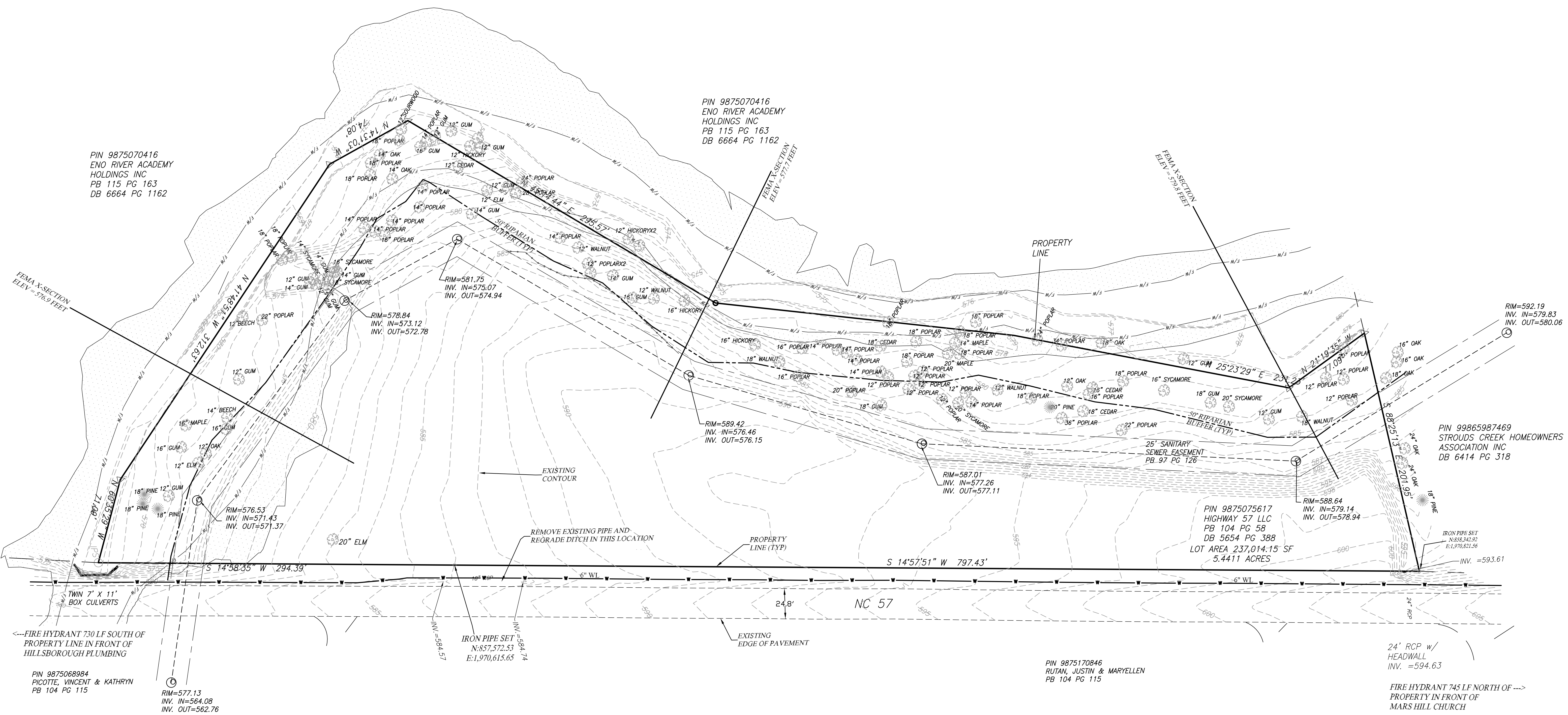
PIN 9875070416  
 ENO RIVER ACADEMY  
 HOLDINGS INC  
 PB 115 PG 163  
 DB 6664 PG 1162

PIN 9875070416  
 ENO RIVER ACADEMY  
 HOLDINGS INC  
 PB 115 PG 163  
 DB 6664 PG 1162

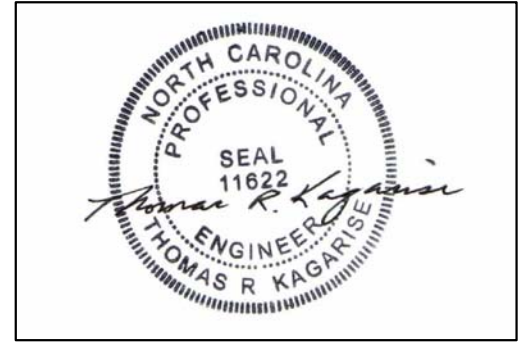
PIN 9875170846  
 RUTAN, JUSTIN & MARYELLEN  
 PB 104 PG 115

PIN 9875075617  
 HIGHWAY 57 LLC  
 PB 104 PG 58  
 DB 5654 PG 388  
 LOT AREA 237,014.15 SF  
 5.4411 ACRES

PIN 99865987469  
 STROUDS CREEK HOMEOWNERS  
 ASSOCIATION INC  
 DB 6414 PG 318



PRELIMINARY DRAWINGS  
 NOT RELEASED FOR CONSTRUCTION  
 20-FEB-2023

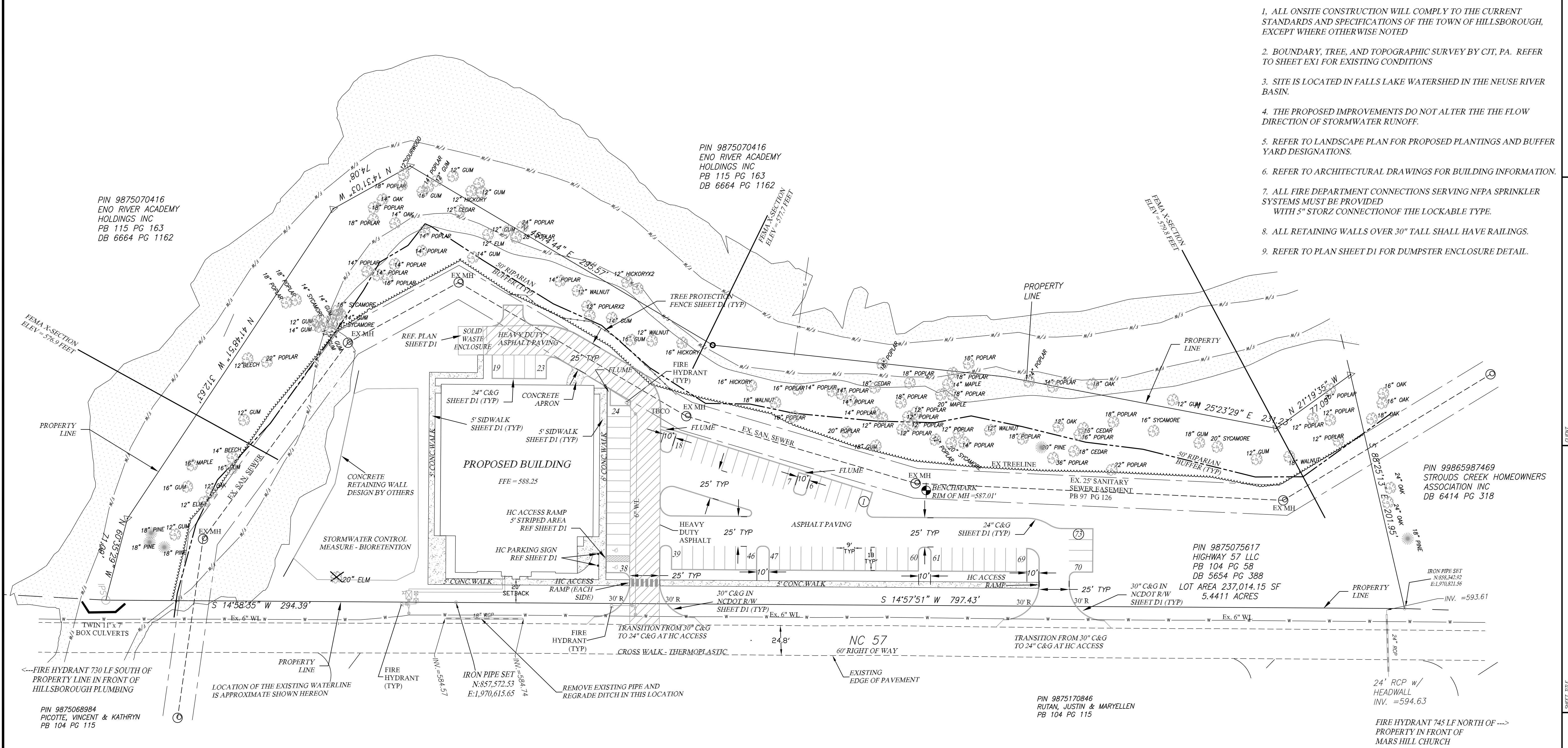


BOUNDARY, TREE & TOPOGRAPHIC  
 SURVEY BY:  
 CJT, PA  
 LICENSE #: L-4204  
 111 W. MAIN STREET.  
 DURHAM, N.C. 27701  
 PH.:(919)682-0368

This drawing and/or the design shown are the property of Veteran Engineering Associates, Inc. The reproduction alteration, copying or other use of this drawing without the written consent of an authorized officer of Veteran Engineering Associates, Inc. is prohibited; and any infringement will be subject to legal action.

PROJECT NO	NO.	DATE	BY
0225			
SCALE	1"=40'		
DATE	2/20/23		
DRAWN BY	mj		
CHECKED BY	trk		
			EX1

1. ALL ONSITE CONSTRUCTION WILL COMPLY TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE TOWN OF HILLSBOROUGH, EXCEPT WHERE OTHERWISE NOTED
2. BOUNDARY, TREE, AND TOPOGRAPHIC SURVEY BY CJT, PA. REFER TO SHEET EX1 FOR EXISTING CONDITIONS
3. SITE IS LOCATED IN FALLS LAKE WATERSHED IN THE NEUSE RIVER BASIN.
4. THE PROPOSED IMPROVEMENTS DO NOT ALTER THE THE FLOW DIRECTION OF STORMWATER RUNOFF.
5. REFER TO LANDSCAPE PLAN FOR PROPOSED PLANTINGS AND BUFFER YARD DESIGNATIONS.
6. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING INFORMATION.
7. ALL FIRE DEPARTMENT CONNECTIONS SERVING NFPA SPRINKLER SYSTEMS MUST BE PROVIDED WITH 5" STORZ CONNECTION OF THE LOCKABLE TYPE.
8. ALL RETAINING WALLS OVER 30" TALL SHALL HAVE RAILINGS.
9. REFER TO PLAN SHEET D1 FOR DUMPSTER ENCLOSURE DETAIL.



**SITE DEVELOPMENT DATA**

1. PIN: 9875075617
2. TRACT ACREAGE: 0.544 ACRES = 237,014 sq. ft.
3. PROPOSED USE: RECREATION FACILITY 45
4. ZONING: OI
5. PROPOSED GROSS FLOOR AREA = 19,587 SQ. FT.
6. REQUIRED PARKING = GFA/250 = 78 SPACES +/- 5 SPACES (HEALTH/FITNESS CLUB)
7. PROPOSED PARKING = 73 SPACES  
 90° ANGLE PARKING: 9'W X 18'D  
 DRIVE AISLE = 25'W
8. BUILDING SETBACKS:  
 FRONT = 20-FT  
 SIDE/REAR = 20-FT
9. EXISTING SITE IMPERVIOUS = 0 SQ. FT.
10. PROPOSED SITE IMPERVIOUS = 63,003 SF = 1.45 AC
11. TOTAL SITE IMPERVIOUS PERCENTAGE = 100 x 1.45 AC / 5.44 AC = 26.6 %
12. LANDSCAPE BUFFERS:  
 NORTHERN PROPERTY LINE = TYPE B  
 SOUTH & WEST PROPERTY LINE = TYPE A  
 ALONG NC 57 - NO BUFFER REQUIRED
13. PARKING LOT = ASPHALT WITH CONCRETE CURB AND GUTTER  
 8" C&G - 2" ASPHALT  
 HEAVY DUTY ASPHALT: 8" C&G - 3" ASPHALT
14. ALL WORK IN NCDOT RIGHT OF WAY TO CONFIRM TO NCDOT CURRENT STANDARDS AND SPECIFICATIONS.
15. A FEE IN LIEU OF CONSTRUCTION SHALL BE PAID TO THE TOWN OF HILLSBOROUGH FOR ALL SIDEWALK NOT CONSTRUCTED ACROSS THE SITE FRONTAGE
16. OPEN SPACE TO BE MAINTAINED BY OWNER = 3.74 ACRES = 68.75 %

**STORMWATER CONTROL MEASURE - BLANKET EASEMENT**

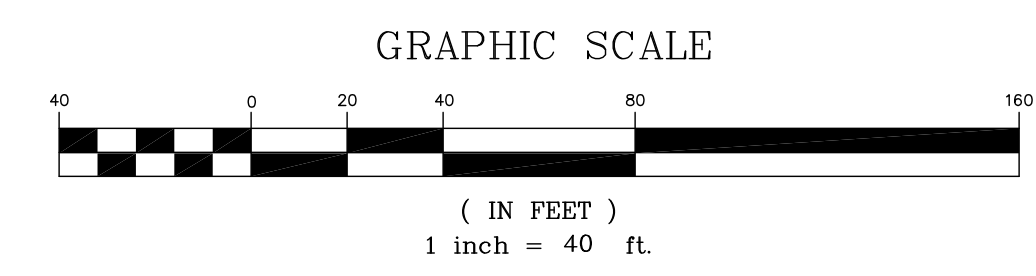
THE TOWN OF HILLSBOROUGH AND THEIR ASSIGNS HAVE RIGHT TO ACCESS THE PERMANENT STORMWATER CONTROL MEASURE BIORETENTION FOR INSPECTION AND MAINTENANCE ENFORCEMENT. A BLANKET ACCESS EASEMENT TO, OVER AND AROUND THE STORMWATER CONTROL MEASURE IS HEREBY GRANTED FOR INSPECTIONS AS WELL AS ENFORCEMENT OF OPERATIONS AND MAINTENANCE

THIS SITE IS IN FLOOD HAZARD AREA AE (FLOODWAY) PER FEMA PANEL 3710987500K DATED 17-NOV-2017.

FLOODPLAIN AND FLOODWAY SHOWN AS PER HEREIN BEFORE REFERENCED FEMA PANEL

**SOLID WASTE GENERAL NOTES:**

1. ALL EXISTING STRUCTURES 500 SQUARE FEET & LARGER IN SIZE SHALL BE ASSESSED PRIOR TO DEMOLITION TO ENSURE COMPLIANCE WITH THE COUNTY'S REGULATED RECYCLABLE MATERIALS ORDINANCE (RRMO) & TO ASSESS THE POTENTIAL FOR DE-CONSTRUCTION &/OR THE RE-USE OF SALVAGEABLE MATERIALS.
2. BY ORANGE COUNTY ORDINANCE, CLEAN WOOD WASTE, SCRAP METAL, & CORRUGATED CARDBOARD PRESENT IN CONSTRUCTION OR DEMOLITION WASTE MUST BE RECYCLED.
3. BY ORANGE COUNTY ORDINANCE, ALL HAULERS OF MIXED CONSTRUCTION & DEMOLITION WASTE THAT INCLUDES ANY REGULATED RECYCLABLE MATERIALS SHALL BE LICENSED BY ORANGE COUNTY.
4. PRIOR TO ANY DEMOLITION OR CONSTRUCTION ACTIVITY ON THE SITE THE APPLICANT SHALL HOLD A PREDEMOLITION/PRE-CONSTRUCTION CONFERENCE WITH THE SOLID WASTE STAFF. THIS MAY BE THE SAME PRECONSTRUCTION MEETING HELD WITH OTHER DEVELOPMENT/ENFORCEMENT OFFICIALS.
5. THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS (ACM) &/OR OTHER HAZARDOUS MATERIALS IN CONSTRUCTION & DEMOLITION WASTE SHALL BE HANDLED IN ACCORDANCE WITH ANY & ALL LOCAL, STATE, & FEDERAL REGULATIONS AND GUIDELINES.



PRELIMINARY DRAWINGS  
 NOT RELEASED FOR CONSTRUCTION  
 20-FEB-2023



This drawing and/or the design shown are the property of Veteran Engineering Associates, Inc. The reproduction alteration, copying or other use of this drawing without the written consent of an authorized officer of Veteran Engineering Associates, Inc. is prohibited; and any infringement will be subject to legal action.

NO.	DATE	REVISION	BY
0025	2/20/23		
0026			
0027			
0028			
0029			
0030			
0031			
0032			
0033			
0034			
0035			
0036			
0037			
0038			
0039			
0040			
0041			
0042			
0043			
0044			
0045			
0046			
0047			
0048			
0049			
0050			

TREE PROTECTION DATA

NUMBER OF CANOPY TREES TO BE REMOVED  
 ESTIMATE OF THE NUMBER OF CANOPY TREES BEING RETAINED  
 NUMBER OF TREES 24-INCHES OR GREATER DBH TO BE REMOVED  
 PERCENTAGE OF TREE COVER AREA BEFORE DEVELOPMENT  
 PERCENTAGE OF TREE COVER AREA AFTER DEVELOPMENT  
 METHOD USED TO CALCULATE THE TREE COVERAGE AREA

1 TREE TO BE REMOVED = 20" ELM  
 ALL TREES NORTH AND SOUTH OF THE EXISTING SANITARY SEWER EASEMENT = APPROX 111  
 0 TREES GREATER THAN 24" DBH TO BE REMOVED  
 77,000 SQ.FT.  
 77,000 SQ.FT. (NO CHANGE)  
 THIS PROPOSAL CONTEMPLATES THE REMOVAL OF ONE EXISTING TREE (1 - 20" ELM)

GENERAL NOTES: THE TOWN OF HILLSBOROUGH MINIMUM DESIGN STANDARDS HAVE BEEN MET AND EXCEEDED IN THE DESIGN SHOWN HEREON. STORMWATER ROUTING OF THE NEW SCM UTILIZED THE SCS METHOD IN REGARDS TO DETERMINING STORMWATER VOLUME. THESE METHODS CONTEMPLATE THEORETICAL DESIGN STORMS AND CANNOT MODEL ALL POSSIBLE STORM EVENTS IN NATURE.  
 GAS, ELECTRIC AND OTHER UTILITIES DESIGNED BY OTHERS.

Nutrient Export Summary	Pre-Project Whole Site Conditions	Post-Project Whole Site without SCMs	Post-Project Whole Site with SCMs
Total Nitrogen Loading Rate (lb/ac/yr)	0.97	4.45	1.17
Total Phosphorus Loading Rate (lb/ac/yr)	0.36	0.63	0.27

PIN 9875070416  
 ENO RIVER ACADEMY HOLDINGS INC  
 PB 115 PG 163  
 DB 6664 PG 1162

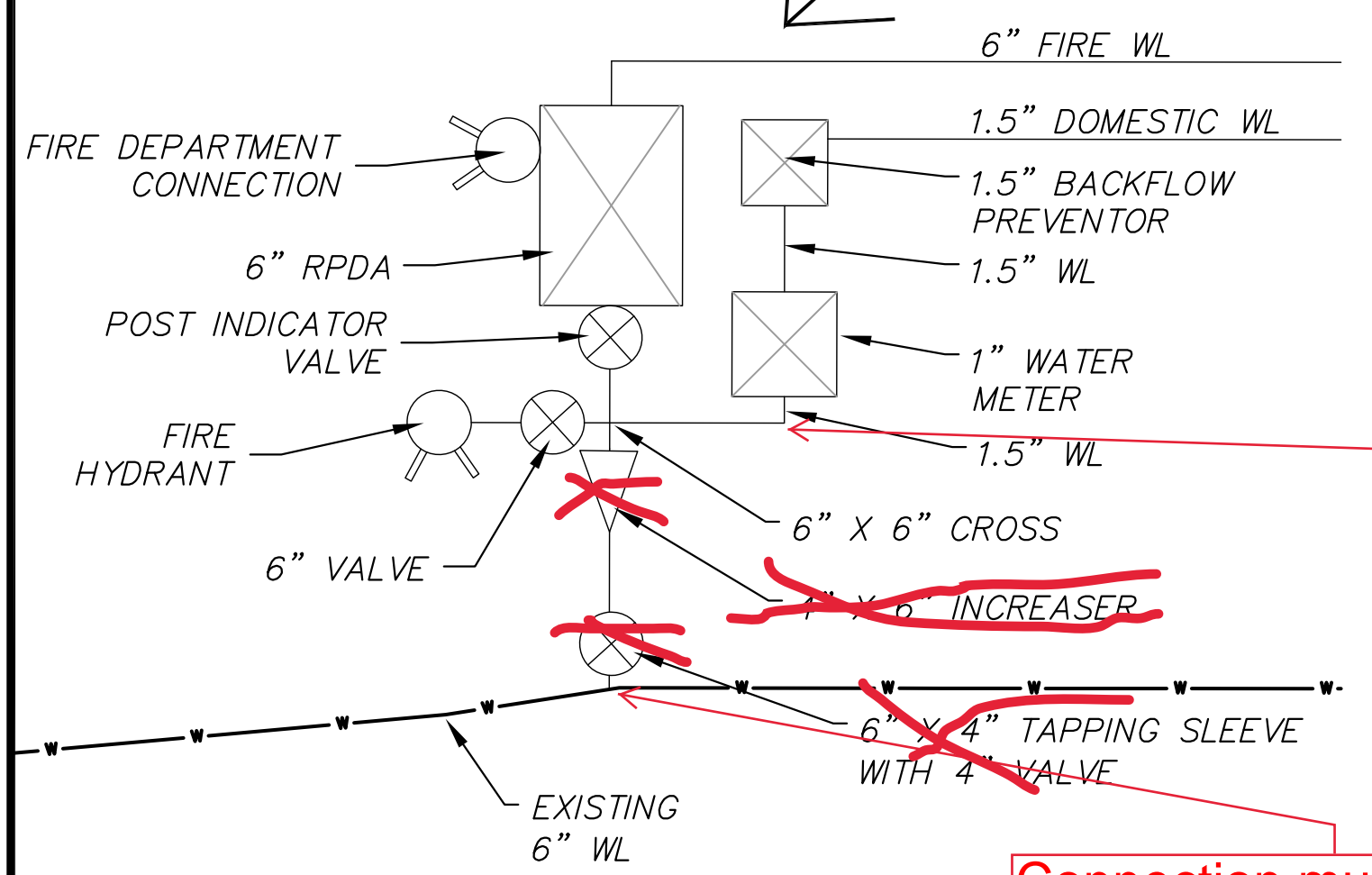
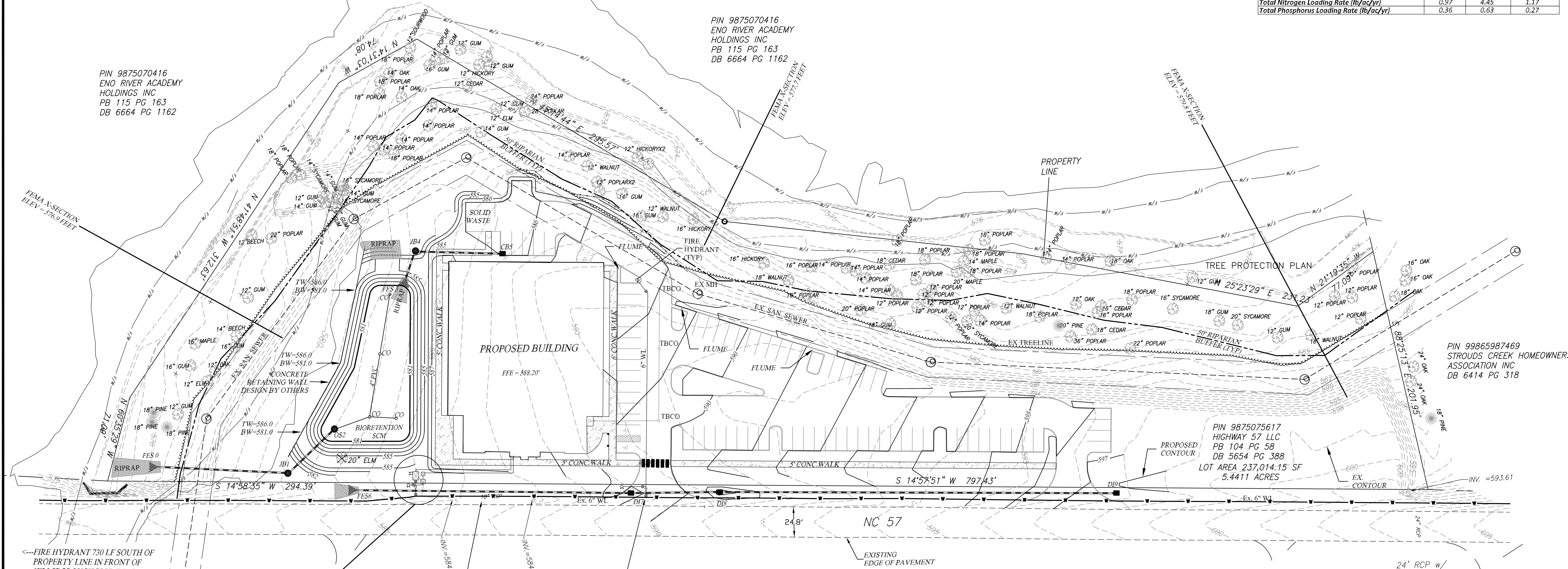
PIN 9875070416  
 ENO RIVER ACADEMY HOLDINGS INC  
 PB 115 PG 163  
 DB 6664 PG 1162

PIN 99865987469  
 STROUDS CREEK HOMEOWNERS ASSOCIATION INC  
 DB 6414 PG 318

PIN 9875170846  
 RUTAN, JUSTIN & MARYELLEN  
 PB 104 PG 115

PIN 9875068984  
 PICOTTE, VINCENT & KATHRYN  
 PB 104 PG 115

ALL UTILITIES SHALL BE CONSTRUCTED IN ACCORD WITH THE CURRENT TOWN OF HILLSBOROUGH STANDARDS AND SPECIFICATIONS

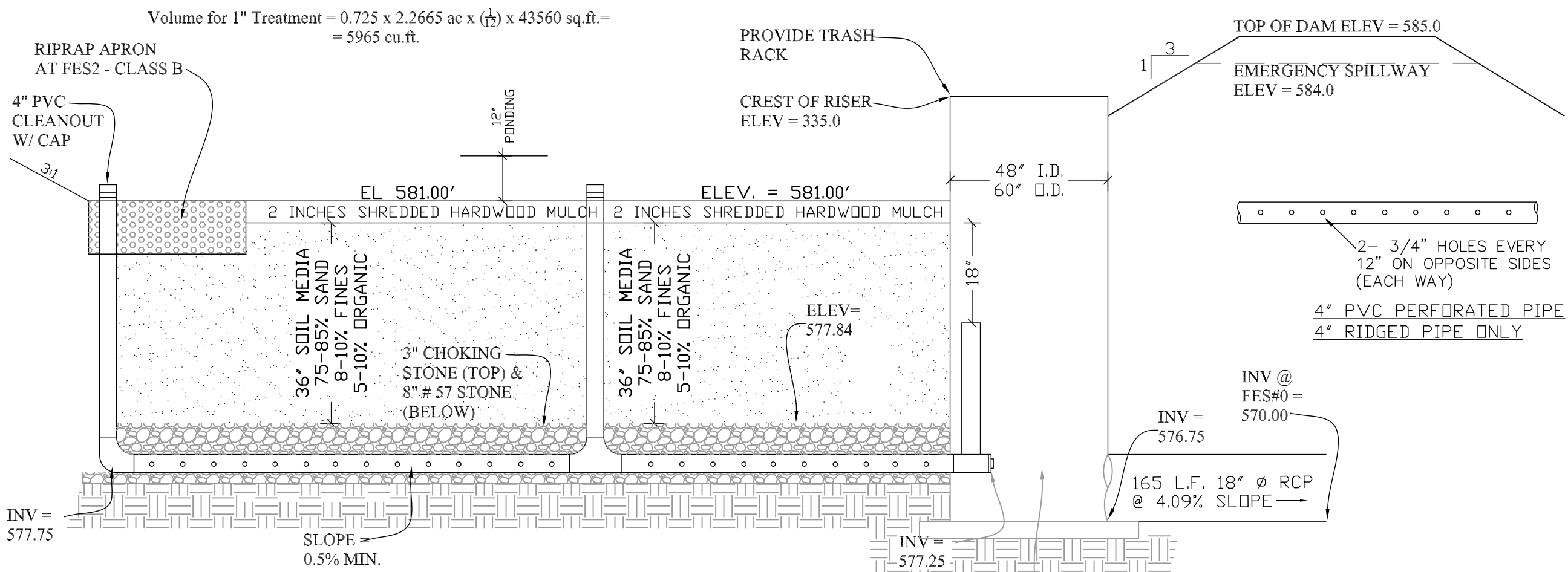


How are you going from 6" to 1.5"? Are you putting a reducer here?

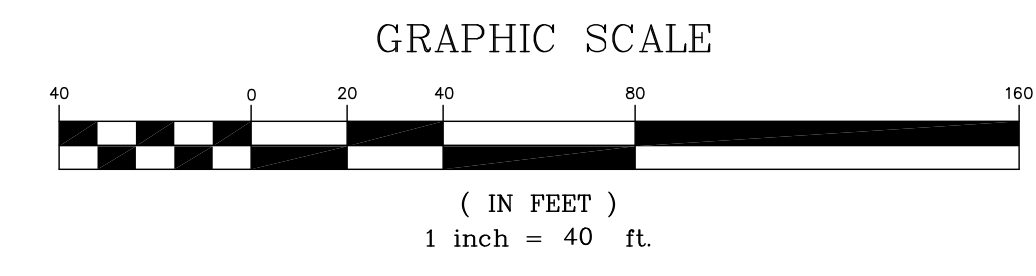
Connection must be a cut in T with an in-line valve. No reducers or increasers.

- 1-6" x 4" - TAPPING SLEEVE W/ 1/4" VALVE
- 1-4" x 6" - INCREASER
- 1-6" x 6" TEE
- 1-6" GATE VALVE
- 1- FIRE HYDRANT

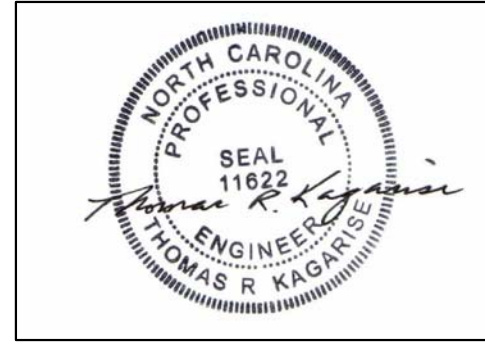
TBCO = TRAFFIC BEARING CLEAN OUT  
 STORM DRAINAGE SYSTEM TO BE DESIGNED AT CONSTRUCTION DRAWING REVIEW  
 \*\*\*PLANTING PLAN AND UNDERDRAIN SYSTEM DESIGN FOR BIO-RETENTION TO BE PROVIDED AT CONSTRUCTION DRAWING REVIEW\*\*\*



CONTRACTOR SHALL PROVIDE WRITTEN VERIFICATION TO THE ENGINEER THAT THE 36-INCH SOIL MEDIA WILL PROVIDE 2-INCHES PER HOUR INFILTRATION RATE  
 BIORETENTION SECTION VIEW (W/IWS)  
 NO SCALE



PRELIMINARY DRAWINGS  
 NOT RELEASED FOR CONSTRUCTION  
 20-FEB-2023



This drawing and/or the design shown are the property of Veteran Engineering Associates, Inc. The reproduction alteration, copying or other use of this drawing without the written consent of an authorized officer of Veteran Engineering Associates, Inc. is prohibited; and any infringement will be subject to legal action.

VETERAN ENGINEERING ASSOCIATES, INC.  
 Civil Engineering Services  
 Post Office Box 1625 Durham, N.C. 27702  
 (919) 201-2775 (p) VEA Lic# - (C-8527)  
 tom@veteranengineeringassociates.com

SMITHSON, INC.  
 PO BOX 1731  
 ROCKY MOUNT, NC 27802

ORANGE CO. N.C.

THE HUB - INDOOR PICKLE BALL

GRADING & DRAINAGE PLAN  
 UTILITY PLAN  
 TREE PROTECTION PLAN

PROJECT

SHEET TITLE

BY

DATE

REVISION

NO. DATE

SCALE 1"=40'

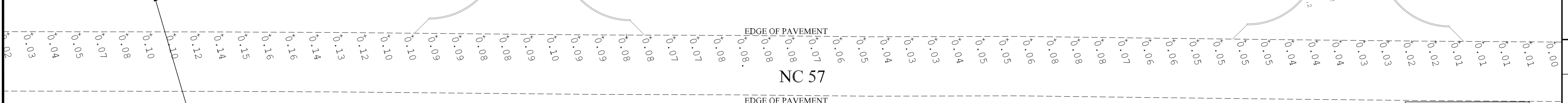
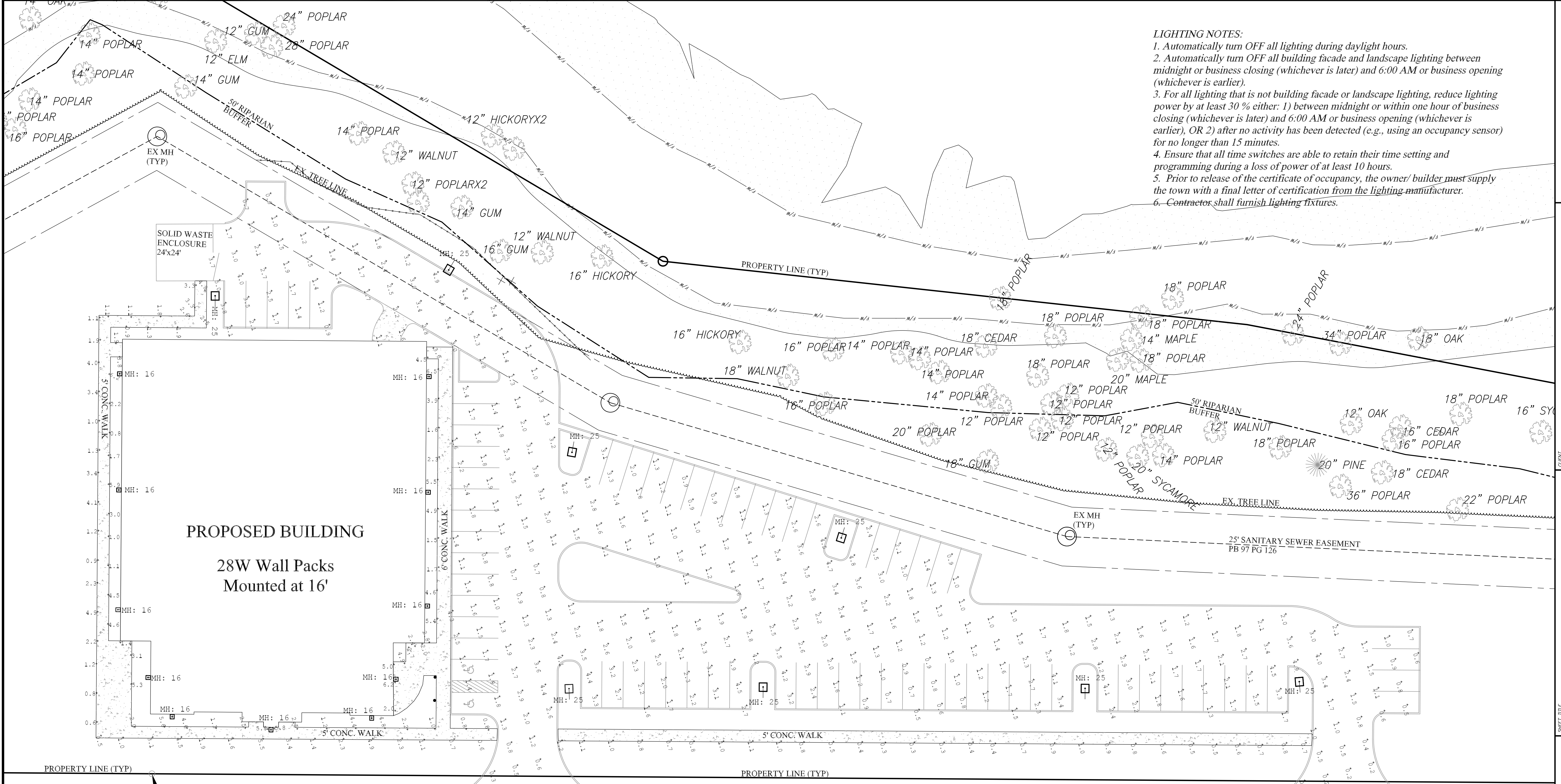
DATE 2/20/23

DRAWN BY mj

CHECKED BY tk

GR1

- LIGHTING NOTES:**
1. Automatically turn OFF all lighting during daylight hours.
  2. Automatically turn OFF all building facade and landscape lighting between midnight or business closing (whichever is later) and 6:00 AM or business opening (whichever is earlier).
  3. For all lighting that is not building facade or landscape lighting, reduce lighting power by at least 30 % either: 1) between midnight or within one hour of business closing (whichever is later) and 6:00 AM or business opening (whichever is earlier), OR 2) after no activity has been detected (e.g., using an occupancy sensor) for no longer than 15 minutes.
  4. Ensure that all time switches are able to retain their time setting and programming during a loss of power of at least 10 hours.
  5. Prior to release of the certificate of occupancy, the owner/ builder must supply the town with a final letter of certification from the lighting manufacturer.
  6. Contractor shall furnish lighting fixtures.

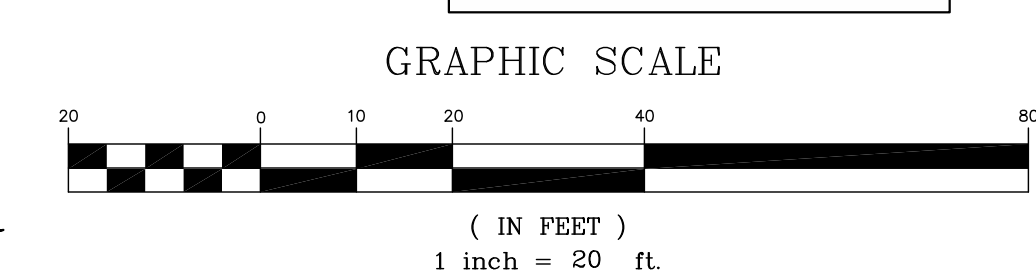
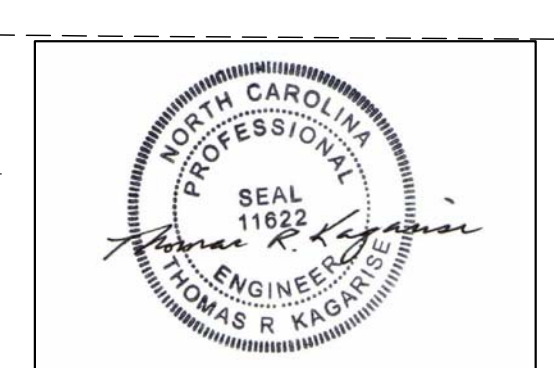


**LIGHTS TO BE MAINTAINED BY PROPERTY OWNER**

Luminaire Schedule										
Symbol	Qty	Tag	Label	Arrangement	Lum. Lumens	LLF	Description	Lum. Watts	Arr. Watts	Total Watts
	11		65-677	Single	3580	1.000	28W ADJUSTABLE WALL PACK	27.9201	27.92	307.121
	8		65-841	Single	13779	1.000	LED Area Light Type III; 100W; Bronze Finish; 5000K; 120-277V	100	100	800

Calculation Summary									
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	Meter Type
Building Sidewalk	Illuminance	Fc	2.86	7.0	0.5	5.72	14.00	Readings taken at 0° AFG	Horizontal
Parking Sidewalk	Illuminance	Fc	0.81	1.4	0.3	2.70	4.67	Readings taken at 0° AFG	Horizontal
Parking Drives	Illuminance	Fc	1.98	5.0	0.2	9.90	25.00	Readings taken at 0° AFG	Horizontal
Property Line	Illuminance	Fc	0.04	0.16	0.00	N.A.	N.A.	Readings taken at 0° AFG	Horizontal

PRELIMINARY DRAWINGS  
 NOT RELEASED FOR CONSTRUCTION  
 20-FEB-2023



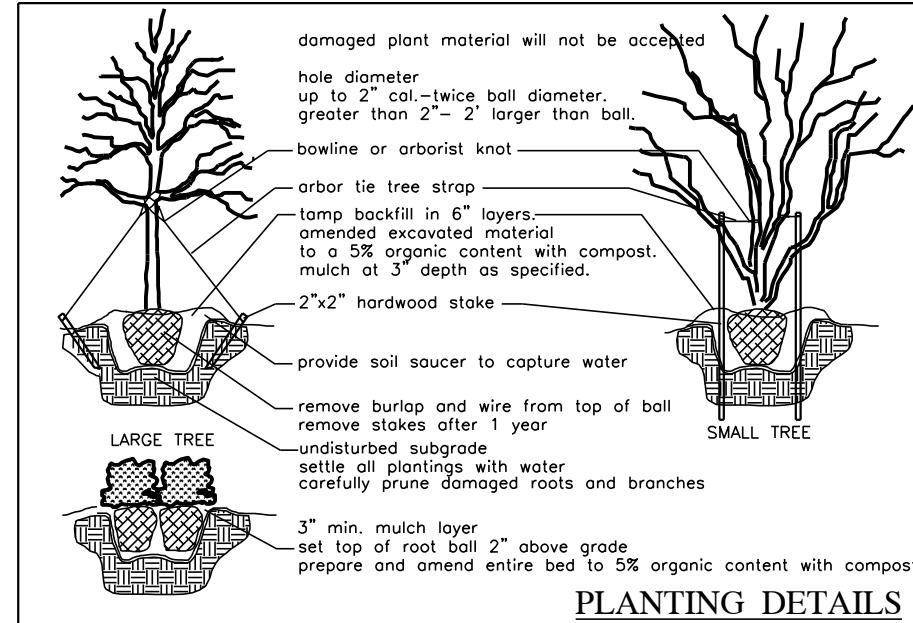
This drawing and/or the design shown are the property of Veteran Engineering Associates, Inc. The reproduction alteration, copying or other use of this drawing without the written consent of an authorized officer of Veteran Engineering Associates, Inc. is prohibited; and any infringement will be subject to legal action.

PROJECT NO	DATE	REVISION	BY
0225	2/20/23		

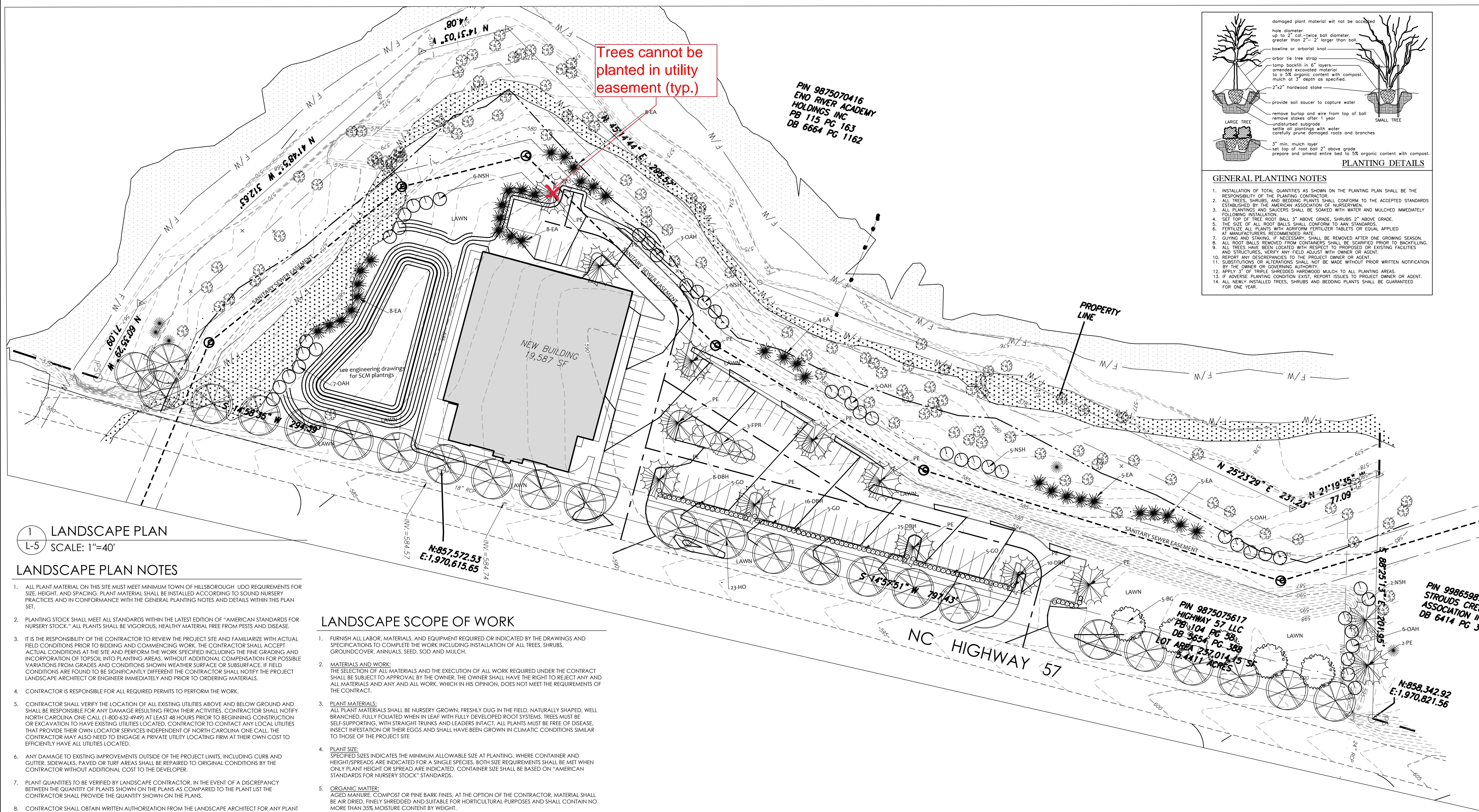
LP1

Trees cannot be planted in utility easement (typ.)

PIN 9875070416  
ENO RIVER ACADEMY  
HOLDINGS INC  
PB 115 PG 163  
DB 6664 PG 1162



- GENERAL PLANTING NOTES**
- INSTALLATION OF TOTAL QUANTITIES AS SHOWN ON THE PLANTING PLAN SHALL BE THE RESPONSIBILITY OF THE PLANTING CONTRACTOR.
  - ALL TREES, SHRUBS, AND BEDDING PLANTS SHALL CONFORM TO THE ACCEPTED STANDARDS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSERMEN.
  - ALL PLANTINGS AND SACKERS SHALL BE SOAKED WITH AND MULCHED IMMEDIATELY FOLLOWING INSTALLATION.
  - SET TOP OF TREE ROOT BALL 3" ABOVE GRADE, SHRUBS 2" ABOVE GRADE.
  - THE SIZE OF ALL ROOT BALLS SHALL CONFORM TO AAN STANDARDS.
  - FERTILIZE ALL PLANTS WITH AGROFORM FERTILIZER TABLETS OR EQUAL, APPLIED AT MANUFACTURERS RECOMMENDED RATE.
  - QUINING AND STAKING, IF NECESSARY, SHALL BE REMOVED AFTER ONE GROWING SEASON.
  - ALL ROOT BALLS REMOVED FROM CONTAINERS SHALL BE SCARIFIED PRIOR TO BACKFILLING.
  - ALL TREES MUST BE LOCATED WITH RESPECT TO PROPOSED OR EXISTING FACILITIES AND STRUCTURES, VERIFY ANY FIELD ADJUST WITH OWNER OR AGENT.
  - REPORT ANY DISCREPANCIES TO THE PROJECT OWNER OR AGENT.
  - SUBSTITUTIONS OR ALTERATIONS SHALL NOT BE MADE WITHOUT PRIOR WRITTEN NOTIFICATION BY THE OWNER OR GOVERNING AUTHORITY.
  - APPLY 2" OF THINLY SHREDDED HARDWOOD MULCH TO ALL PLANTING AREAS.
  - IF ADVERSE PLANTING CONDITION EXIST, REPORT ISSUES TO PROJECT OWNER OR AGENT.
  - ALL NEWLY INSTALLED TREES, SHRUBS AND BEDDING PLANTS SHALL BE GUARANTEED FOR ONE YEAR.



1 LANDSCAPE PLAN  
L-5 SCALE: 1"=40'

LANDSCAPE PLAN NOTES

- ALL PLANT MATERIAL ON THIS SITE MUST MEET MINIMUM TOWN OF HILLSBOROUGH UDO REQUIREMENTS FOR NURSERY STOCK. ALL PLANTS SHALL BE VIGOROUS, HEALTHY MATERIAL FREE FROM PESTS AND DISEASE.
- PLANTING STOCK SHALL MEET ALL STANDARDS WITHIN THE LATEST EDITION OF "AMERICAN STANDARDS FOR NURSERY STOCK". ALL PLANTS SHALL BE VIGOROUS, HEALTHY MATERIAL FREE FROM PESTS AND DISEASE.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THE PROJECT SITE AND FAMILIARIZE WITH ACTUAL FIELD CONDITIONS PRIOR TO BIDDING AND COMMENCING WORK. THE CONTRACTOR SHALL ACCEPT ACTUAL CONDITIONS AT THE SITE AND PERFORM THE WORK SPECIFIED INCLUDING THE FINE GRADING AND INCORPORATION OF TOPSOIL INTO PLANTING AREAS, WITHOUT ADDITIONAL COMPENSATION FOR POSSIBLE VARIATIONS FROM GRADES AND CONDITIONS SHOWN WEATHER SURFACE OR SUBSURFACE. IF FIELD CONDITIONS ARE FOUND TO BE SIGNIFICANTLY DIFFERENT THE CONTRACTOR SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT OR ENGINEER IMMEDIATELY AND PRIOR TO ORDERING MATERIALS.
- CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED PERMITS TO PERFORM THE WORK.
- CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES ABOVE AND BELOW GROUND AND SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM THEIR ACTIVITIES. CONTRACTOR SHALL NOTIFY NORTH CAROLINA ONE CALL (1-800-327-4949) AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR TO CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF NORTH CAROLINA ONE CALL. THE CONTRACTOR MAY ALSO NEED TO ENGAGE A PRIVATE UTILITY LOCATING FIRM AT THEIR OWN COST TO EFFICIENTLY HAVE ALL UTILITIES LOCATED.
- ANY DAMAGE TO EXISTING IMPROVEMENTS OUTSIDE OF THE PROJECT LIMITS, INCLUDING CURB AND GUTTER, SIDEWALKS, PAVED OR TURF AREAS SHALL BE REPAIRED TO ORIGINAL CONDITIONS BY THE CONTRACTOR WITHOUT ADDITIONAL COST TO THE DEVELOPER.
- PLANT QUANTITIES TO BE VERIFIED BY LANDSCAPE CONTRACTOR. IN THE EVENT OF A DISCREPANCY BETWEEN THE QUANTITY OF PLANTS SHOWN ON THE PLANS AS COMPARED TO THE PLANT LIST THE CONTRACTOR SHALL PROVIDE THE QUANTITY SHOWN ON THE PLANS.
- CONTRACTOR SHALL OBTAIN WRITTEN AUTHORIZATION FROM THE LANDSCAPE ARCHITECT FOR ANY PLANT SUBSTITUTIONS OR MODIFICATIONS TO THE LANDSCAPE PLANS. THIS MAY REQUIRE A MODIFICATION TO THE APPROVED PLANS. NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES ON THE PLANS.
- ALL ABOVE GROUND MECHANICAL EQUIPMENT, ELECTRICAL TRANSFORMERS, DUMPSTERS, BACKFLOW PREVENTERS, AND VALVE BOXES SHALL BE SCREENED FROM VIEW OF ADJACENT PROPERTIES AND RIGHT-OF-WAY WHILE MAINTAINING REQUIRED ACCESS TO LOCAL CODE STANDARDS AND REQUIREMENTS.
- WITHIN THE SIGHT TRIANGLES SHOWN ON THIS PLAN, NO OBSTRUCTIONS BETWEEN TWO FEET AND EIGHT FEET IN HEIGHT ABOVE THE NEAREST VEHICLE SURFACE OR ADJACENT CURB LINE SHALL BE ALLOWED.
- ALL UNPAVED AREAS SHALL BE TOPSOILED AND SEEDDED / SODDED OR MULCHED TO THE LIMITS OF CONSTRUCTION BASED ON ACTUAL FIELD CONDITIONS BEYOND THE APPROVED PLANS.
- ALL SOD TO BE REBEL FESCUE IV, TURF GEM, LESCO OR EQUAL. ALL SEED TO BE REBEL FESCUE IV, TURF GEM, LESCO OR EQUAL @ 6 LBS. PER 1000 S.F. IN LAWN AREAS 3" TOPSOIL SHALL BE TILLED INTO THE TOP 6" OF GROUND PRIOR TO SEEDING.
- SLOPES GREATER THAN 3:1 SHALL REQUIRE HYDRO-SEEDING. SLOPES GREATER THAN 2:1 SHALL BE SODDED WITH CENTIPEDE GRASS. ADDITIONAL STABILIZATION MEASURES MAY BE REQUIRED FOR SLOPES GREATER THAN 3:1 TO ENSURE SOIL STABILIZATION AND ESTABLISHMENT OF PERMANENT GROUND COVER.
- INTERIOR MULCH SHALL BE DOUBLE GROUND PINE BARK TO A DEPTH OF 4". PERIMETER LANDSCAPE BUFFERS SHALL BE MULCHED WITH 4" PINE STRAW TO BED LINES SHOWN OR BUFFER LIMITS. BED LINES SHALL CONFORM TO CONFIGURATION SHOWN ON THE PLANS.
- PINE STRAW SHALL NOT BE USED AS MULCH OR GROUND COVER WITHIN TEN FEET OF ANY STRUCTURES CONSISTING OF EXTERIOR COMBUSTIBLE CONSTRUCTION.
- CONTRACTOR SHALL LEVEL AND SMOOTH ALL DISTURBED AREAS AND REMOVE ALL ROCKS AND CONSTRUCTION DEBRIS PRIOR TO SEEDING, SOD OR PLANT INSTALLATION.
- NOTE THAT WITHIN LANDSCAPED AREAS SURROUNDING BUILDING, THE GRADES SHOWN ON THE GRADING SHEET ARE "TOP OF MULCH" OR "TOP OF TOPSOIL". CONTRACTOR SHALL ENSURE POSITIVE FINISHED DRAINAGE (MIN. 2%) AWAY FROM ALL BUILDINGS AND COORDINATE WITH THE LANDSCAPE PLAN TO LEAVE SUBGRADE LOW ENOUGH TO MAINTAIN THESE SPOTS AS FINISHED GRADE.
- OWNER SHALL MAINTAIN ALL PLANT BEDS AND PLANT MATERIAL IN GOOD HEALTH, AND ANY DEAD, UNHEALTHY OR MISSING PLANTS SHALL BE REPLACED WITH THE SAME PLANT MATERIAL ORIGINALLY SPECIFIED ON THIS PLAN.
- TREE PLANTING AND SITE LIGHTING SHALL BE SEPARATED BY AT LEAST 10 FEET.

LANDSCAPE SCOPE OF WORK

- FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED OR INDICATED BY THE DRAWINGS AND SPECIFICATIONS TO COMPLETE THE WORK INCLUDING INSTALLATION OF ALL TREES, SHRUBS, GROUND COVER, ANNUALS, SEED, SOD AND MULCH.
- MATERIALS AND WORK:**  
THE SELECTION OF ALL MATERIALS AND THE EXECUTION OF ALL WORK REQUIRED UNDER THE CONTRACT SHALL BE SUBJECT TO APPROVAL BY THE OWNER. THE OWNER SHALL HAVE THE RIGHT TO REJECT ANY AND ALL MATERIALS AND ANY AND ALL WORK, WHICH IN HIS OPINION, DOES NOT MEET THE REQUIREMENTS OF THE CONTRACT.
- PLANT MATERIALS:**  
ALL PLANT MATERIALS SHALL BE NURSERY GROWN, FRESHLY DUG IN THE FIELD, NATURALLY SHAPED, WELL BRANCHED, FULLY FOLIATED WHEN IN LEAF WITH FULLY DEVELOPED ROOT SYSTEMS. TREES MUST BE SELF-SUPPORTING, WITH STRAIGHT TRUNKS AND LEADERS INTACT. ALL PLANTS MUST BE FREE OF DISEASE, INSECT INFESTATION OR THEIR EGGS AND SHALL HAVE BEEN GROWN IN CLIMATIC CONDITIONS SIMILAR TO THOSE OF THE PROJECT SITE.
- PLANT SIZE:**  
SPECIFIED SIZES INDICATES THE MINIMUM ALLOWABLE SIZE AT PLANTING, WHERE CONTAINER AND HEIGHT/SPREADS ARE INDICATED FOR A SINGLE SPECIES. BOTH SIZE REQUIREMENTS SHALL BE MET WHEN ONLY PLANT HEIGHT OR SPREAD ARE INDICATED, CONTAINER SIZE SHALL BE BASED ON "AMERICAN STANDARDS FOR NURSERY STOCK" STANDARDS.
- ORGANIC MATTER:**  
AGED MANURE, COMPOST OR PINE BARK FINES, AT THE OPTION OF THE CONTRACTOR. MATERIAL SHALL BE AIR DRIED, FINELY SHREDDED AND SUITABLE FOR HORTICULTURAL PURPOSES AND SHALL CONTAIN NO MORE THAN 35% MOISTURE CONTENT BY WEIGHT.
- PINE BARK MULCH:**  
ALL PINE BARK MULCH SHALL BE CLEAN, DOUBLE GROUND, FINE TEXTURED NUGGET MULCH WITH MINIMAL AMOUNTS OF SAPWOOD CONTENT.
- TURF AREAS:**  
PRIOR TO ANY SEEDING OR SOD APPLICATION, VERIFY THAT ALL TRENCHING AND LAND DISTURBING ACTIVITIES HAVE BEEN COMPLETED. ENSURE ALL AREAS ARE FREE OF STONES, LARGE SOIL CLOUDS AND ANY OTHER CONSTRUCTION DEBRIS.

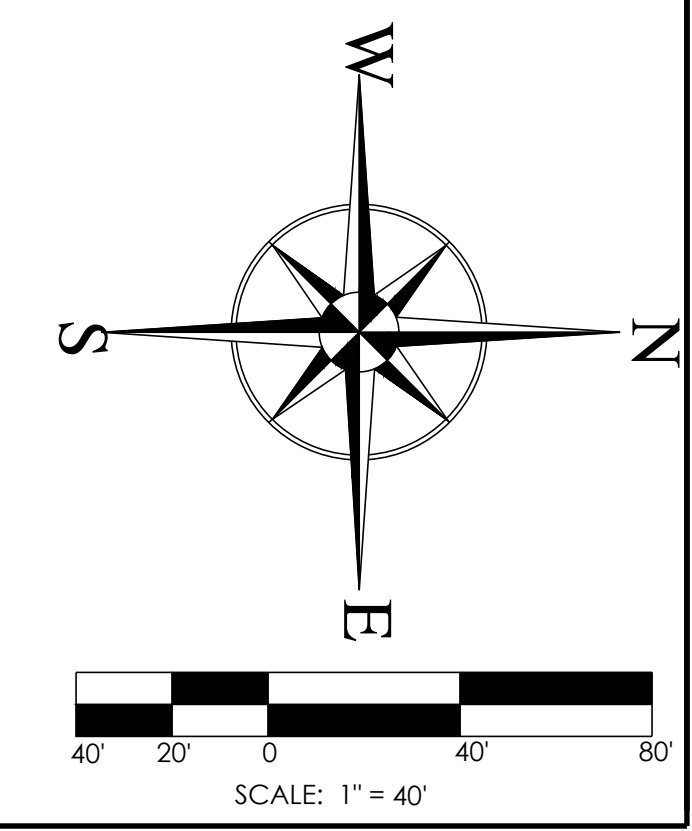
PLANT SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QTY.	COMMENTS
HO	Quercus phellos 'Harrington'	Harrington Willow Oak	2.5" Caliper	B&B	23	Full
PE	Ulmus parvifolia 'Princeton'	Princeton Elm	2.5" Caliper	B&B	13	Full
DBH	Ilex cornuta 'Burfordii Nana'	Dwarf Burford Holly	Min. 24" HT.	Cont.	59	Full to Match
GO	Osmannthus heterophyllus 'Goshiki'	Goshiki Osmanthus	Min. 24" HT.	Cont.	15	Full to Match
EA	Thuja occidentalis 'Emerald'	Emerald Arborvitae	Min. 48" HT.	Cont.	38	Full to Match
NSH	Ilex x 'Nellie R. Stevens'	Nellie Stevens Holly	Min. 48" HT.	Cont.	18	Full to Match
OAH	Ilex x 'Oakland'	Oakland Holly	Min. 48" HT.	Cont.	26	Full to Match
FPR	Cercis canadensis 'Forest Pansy'	Forest Pansy Redbud	1" Caliper	Cont.	3	
BG	Nyssa sylvanica	Black Gum	2.5" Caliper	B&B	5	Full

LANDSCAPE CALCULATIONS

- NORTH BUFFER- 25' TYPE B-3 BUFFER**  
201.95 L.F. /100=2.02x 3 LARGE TREES= 6 TREES REQUIRED  
4 TREES EXISTING+2 PROVIDED  
4 LARGE SHRUBS=8 LARGE SHRUBS REQUIRED  
8 LARGE SHRUBS PROPOSED
- WEST BUFFER- 20' TYPE A-3 BUFFER**  
850.89 L.F. /100=8.51x 5 LARGE SHRUBS 43 LARGE SHRUBS REQUIRED  
43 LARGE SHRUBS PROPOSED
- SOUTH BUFFER- 20' TYPE A-3 BUFFER**  
547.78 L.F./100=4.58x 5 LARGE SHRUBS= 21 LARGE SHRUBS REQUIRED  
21 LARGE SHRUBS PROPOSED
- STREET TREES NC 57**  
1,091.82 L.F./740 = 1 PER 40L.F. 28 LARGE TREES REQUIRED  
28 LARGE TREES PROVIDED
- PARKING LOT TREES**  
73 PARKING SPACES/7 1 PER 7 SPACES 11 TREES REQUIRED  
11 TREES PROVIDED

Note: Existing canopy trees retained inside buffer yards is being credited for buffer requirements. Screening shrubs have been placed in locations to make the most impact for healthy plant growth to achieve buffer screening goals.



2023-02-16  
PRELIMINARY  
NOT FOR  
CONSTRUCTION

REVISIONS: