

### TREES SCHEDULED FOR REMOVAL

Point #	Raw Description	Point #	Raw Description	Point #	Raw Description
11	18" PINE	59	13" PINE	105	13" PINE
12	22" PINE	60	24" LOBLOLLY	106	13" PINE
13	8" OAK	61	15" PINE	107	13" PINE
14	7" MAG	63	11" HARDWOOD	108	13" PINE
22	10" OAK	64	DAMAGED CHERRY	109	16" PINE
24	8" OAK	65	DAMAGED CHERRY	110	12" PINE
30	8" DOGWOOD	66	14" OAK	112	17" PINE
31	24" LOBLOLLY	67	8" CHERRY	113	18" MAG
35	6" CHINESE PISTACHE	68	DAMAGED CHERRY	114	14" PINE
36	11" CHINESE PISTACHE	69	DAMAGED CHERRY	115	5" MAG
37	21" PINE	70	11" GUM	116	14" PINE
38	19" PINE	71	8" MAG	118	10" CEDAR
39	18" PINE	72	7" MAG	119	16" PINE
40	14" PINE	73	19" PINE	120	16" PINE
41	8" GUM	76	DAMAGED CHERRY	121	16" MAG
45	20" HARDWOOD	77	DAMAGED CHERRY	246	18" PINE
46	5" DOGWOOD	78	13" HARDWOOD	247	6" GUM
55	8" CEDAR	79	8" CEDAR		
56	9" CEDAR	81	5" MAG		
57	13" GUM	84	17" PINE		
58	11" GUM	85	10" HARDWOOD		

● TO BE REMOVED

(ST) SIGNIFICANT TREES = HARDWOOD, LONG LEAF PINE, POCOSIN PINE, BLACK PINE, AND NON-PINE CONIFER AT LEAST 24 INCHES DBH, ALL OTHER PINES AT LEAST 32 INCHES DBH AND DOGWOOD, MAGNOLIAS, AMERICAN HOLLIES AND OTHER ORNAMENTAL FLOWERING TREES AT LEAST 8 INCHES DBH.

DESCRIPTION	MITIGATION %	
8" DOGWOOD	100	$(8 \times 2 \times 1.0) / 3 = 5.3$
8" CHERRY	75	$(8 \times 2 \times .75) / 3 = 4.0$
8" MAGNOLIA	100	$(8 \times 2 \times 1.0) / 3 = 5.3$
18" MAGNOLIA	100	$(18 \times 2 \times 1.0) / 3 = 12.0$
16" MAGNOLIA	100	$(16 \times 2 \times 1.0) / 3 = 10.7$
TOTAL = 37.3 TREES		

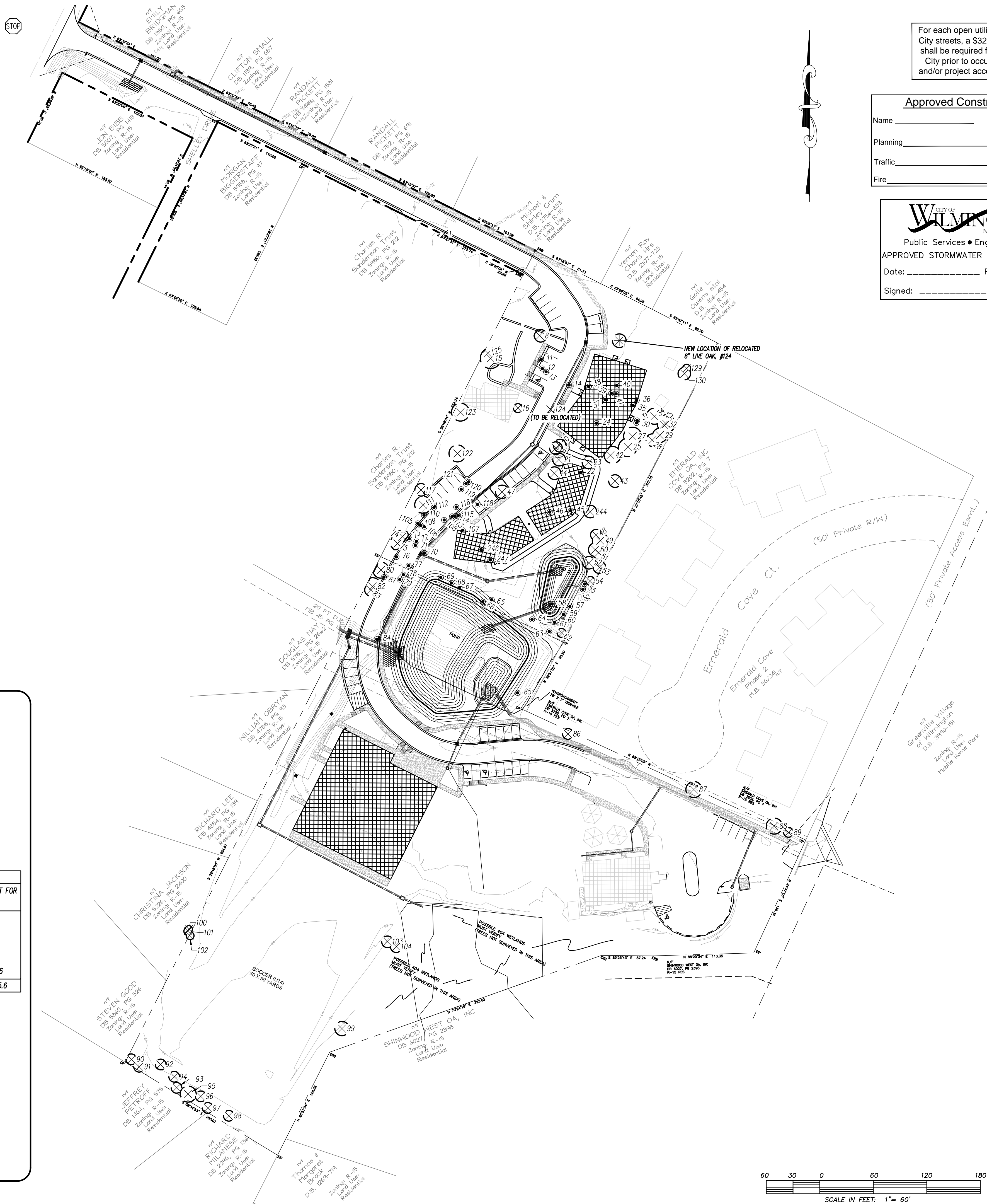
### TREES SCHEDULED TO BE RETAINED

Point #	Raw Description	Point #	Raw Description	Point #	Raw Description
1	CREPE MYRTLE	96	12" PIN*		
8	6" MAG	97	12" PINE		
15	23" PINE	98	12" PINE		
16	10" HOLLY	99	16" PINE		
19	SMALL PALM	100	8" GUM		
20	8" MAG	101	9" GUM		
21	16" OAK	102	17" OAK		
23	14" OAK	103	13" PINE		
25	19" PINE	104	13" PINE		
27	20" PINE	111	19" PINE		
28	14" PINE	117	14" MAGNOLIA		
29	16" PINE	122	19" HARDWOOD		
32	18" OAK	123	20" OAK		
33	20" PINE	124	8" OAK		
34	18" PINE	125	DAMAGED CHERRY		
42	12" CAMPHOR	129	9" HARDWOOD		
43	CREPE MYRTLE	130	14" HARDWOOD		
44	10" MAG	244	28" LOBLOLLY		
47	11" MAG				
48	12" OAK				
49	18" PINE				
50	15" PINE				
51	14" PINE				
52	14" PINE				
53	14" PINE				
54	10" CEDAR				
54	10" CEDAR				
62	10" HARDWOOD				
74	15" PINE				
75	DAMAGED CHERRY				
80	18" GUM				
82	19" PINE				
83	14" PINE				
86	12" PINE				
87	18" PINE				
88	18" PINE				
89	11" GUM				
90	12" PINE				
91	12" PINE				
92	12" PINE				
93	12" PINE				
94	8" OAK				
95	18" PINE				

\* TO BE RELOCATED

× TO BE RETAINED

CREDIT FOR PRESERVED TREES			
PRESERVED TREES (INCHES CALIPER OR DBH)	CREDIT	NUMBER OF TREES	CREDIT FOR TREES
2-5	1	1	1
6-11	2	12	24
12-17	3	26	78
18-23	4	12	48
>24	DBH/6	1	4.6
TOTAL			155.6



For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

**WILMINGTON NORTH CAROLINA**

Public Services • Engineering Division

**APPROVED STORMWATER MANAGEMENT PLAN**

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

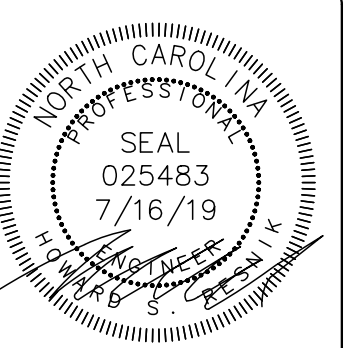


LICENSE # C-2710  
ENGINEERING  
LAND PLANNING  
COMMERCIAL / RESIDENTIAL

P.O. BOX 4041  
WILMINGTON, NC 28406  
(910) 791-4441

TREE INVENTORY-MITIGATION PLAN  
for  
**FRIENDS SCHOOL OF WILMINGTON**

TREE INVENTORY-MITIGATION PLAN  
**FRIENDS SCHOOL OF WILMINGTON**  
LOCATED IN WILMINGTON TOWNSHIP  
NEW HANOVER COUNTY, NORTH CAROLINA  
OWNER: FRIENDS SCHOOL OF WILMINGTON INC  
550 PELLETER AVENUE  
WILMINGTON, NC 28409  
PH: 910-792-1811

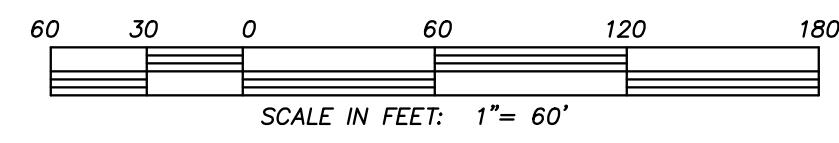
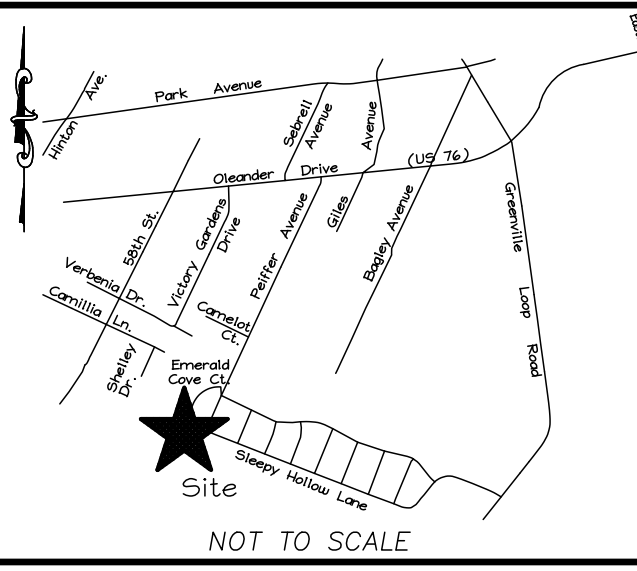


REV. NO.	DATE	BY	REMARKS
5	7/16/19	JSM	TREES TO STAY / BE REMOVED
4	3/20/19	MB	TREES TO STAY / BE REMOVED
3	1/7/19	MB	REMOVED SHEET NUMBERS, SHOW RELOCATION OF TREE #124
2	11/12/18	JSM	TREES TO STAY / BE REMOVED
1	7/16/18	MB	REMOVED SHEET NUMBERS

DATE: 6-4-18  
HORZ. SCALE: 1" = 60'  
VERT. SCALE: N/A  
DRAWN BY: RLW  
CHECKED BY: HSR  
PROJECT NO.: 05-0040



# LOCATION MAP



## SITE & BUILDING DATA:

LOT AREA = 316,856 SF (7.27 AC.)  
 CAMELLIA LANE ROW = 22,735 SF (0.52 AC.)  
 TOTAL PROJECT AREA = 339,591 SF (7.80 AC.)

TOTAL OF 250 STUDENTS MAX.  
 PROPERTY ADDRESS IS 350 PEPPER AVENUE  
 PID = R06200-003-064-000

EXISTING ON-SITE DATA:  
 EXISTING BUILDINGS ON SITE = 14,834 SF  
 EXISTING ASPHALT = 28,339 SF  
 EXISTING SIDEWALK = 4,022 SF  
 TOTAL = 47,195 SF

47,195 SF / 316,856 SF = 0.149

EXISTING ON-SITE TO BE REMOVED:  
 EXISTING BUILDINGS ON SITE = 7,596 SF  
 EXISTING ASPHALT = 11,838 SF  
 EXISTING SIDEWALK = 2,542 SF  
 TOTAL = 21,976 SF

PROPOSED ON-SITE IMPERVIOUS:  
 PROPOSED BUILDINGS = 26,662 SF  
 EXISTING BUILDINGS = 7,238 SF  
 PROPOSED ASPHALT & CURBING = 28,218 SF  
 EXISTING ASPHALT & CURBING = 16,478 SF  
 PROPOSED SIDEWALKS = 13,685 SF  
 EXISTING SIDEWALKS = 1,483 SF  
 FUTURE = 5,000 SF  
 TOTAL = 99,762 SF

99,762 SF / 316,856 SF = 0.315

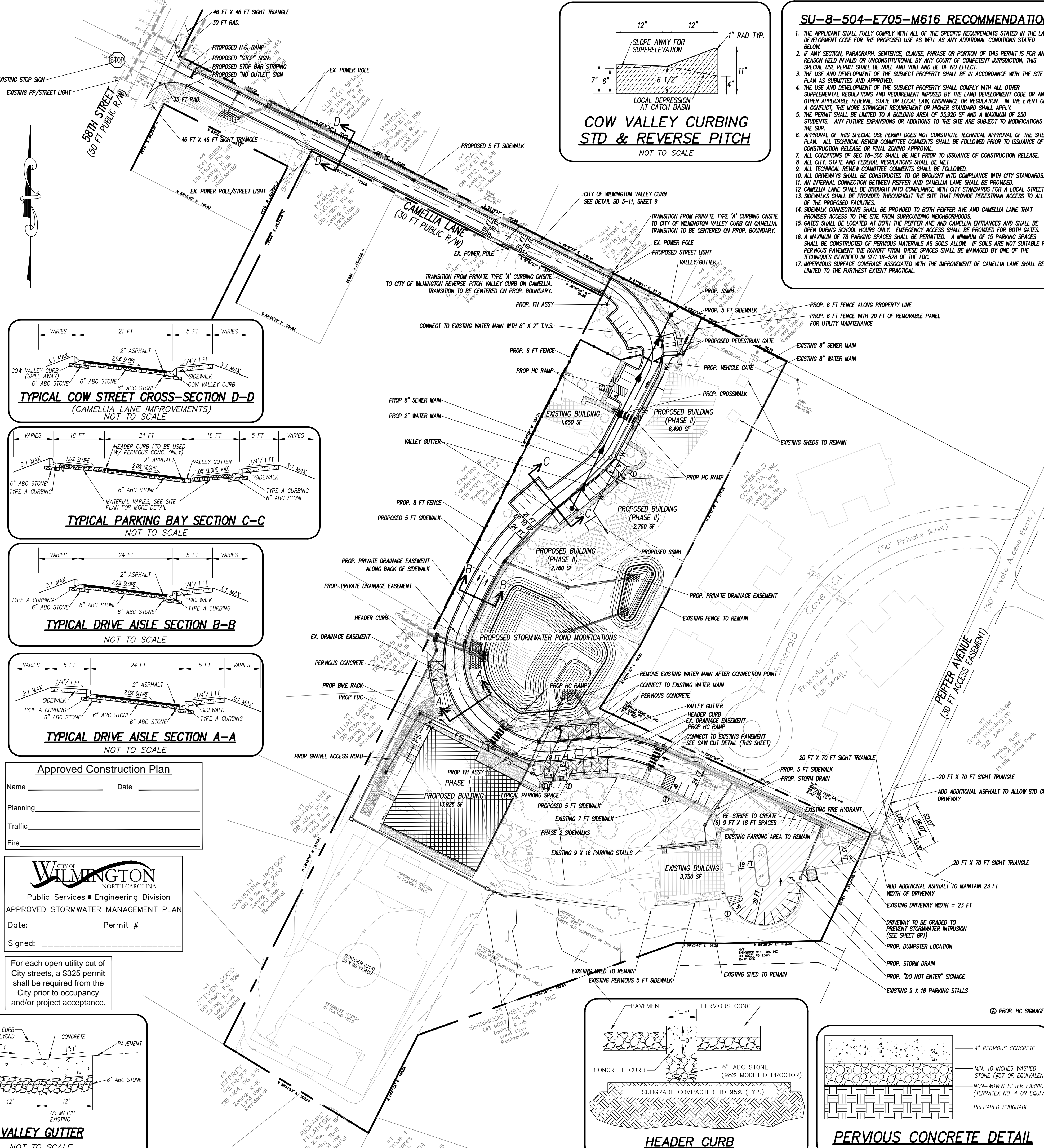
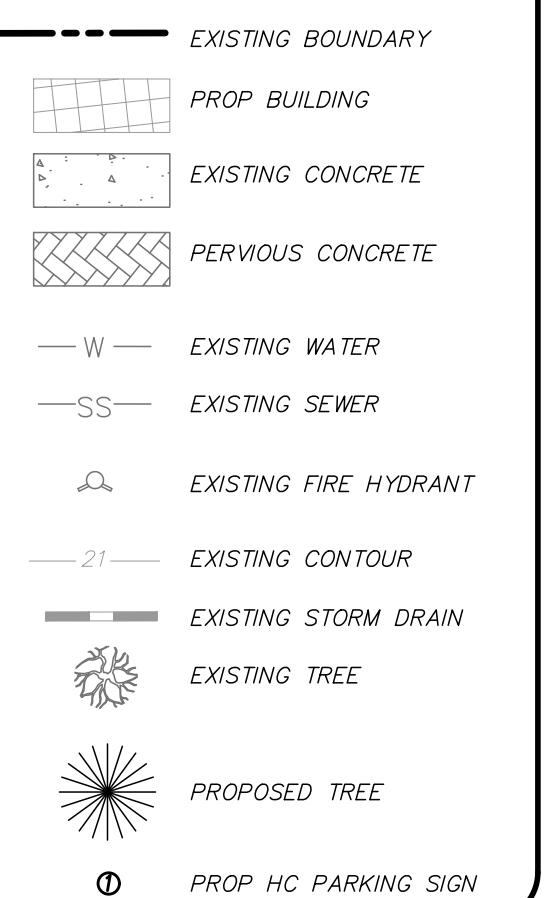
PROPOSED IMPERVIOUS OFFSITE (CAMELLIA LANE IMPROVEMENTS)  
 ASPHALT & CURBING = 13,215 SF  
 SIDEWALK = 2,841 SF

SOILS - ABBREVIATION	TYPE AND DESCRIPTION	HYDROLOGIC GROUP	AREA (1.87 ac)
LE	Lean, 0 TO 2% SLOPES	B/D	(1.87 ac)
MU	Murville, 0 TO 2% SLOPES	A/D	(2.20 ac)
SE	Seagoto, 0 TO 2% SLOPES	A/D	(2.90 ac)

BUILDING DATA:  
 NUMBER OF BUILDINGS = 6  
 BUILDING HEIGHT = +/- 40 FT MAX FOR ALL PROPOSED BLDGS  
 NUMBER OF STORES = 2 (MULTI-PURPOSE BLDG) 1 (PH II CLASS ROOM BLDG)  
 BUILDING TYPE = 4  
 BUILDING AREA: 33,900 SF  
 LOT COVERAGE: 33,900 SF / 316,856 SF = 0.105  
 PROPOSED 11% BUILDING LOT COVERAGE

BUILDING SETBACKS	REQUIRED SETBACKS	PROPOSED SETBACKS
EX. BUILDING	FRONT SETBACK: 50 FT	FRONT SETBACK: 128 FT
	SIDE SETBACK: 50 FT	SIDE SETBACK: 322.6 & 63.5 FT
	REAR SETBACK: 50 FT	REAR SETBACK: 40 FT

## LEGEND



### Approved Construction Plan

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

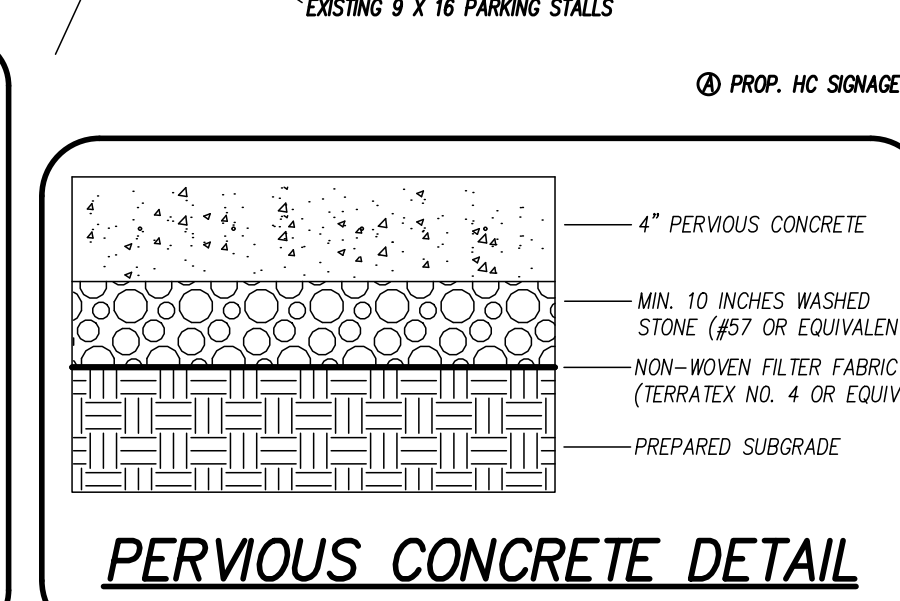
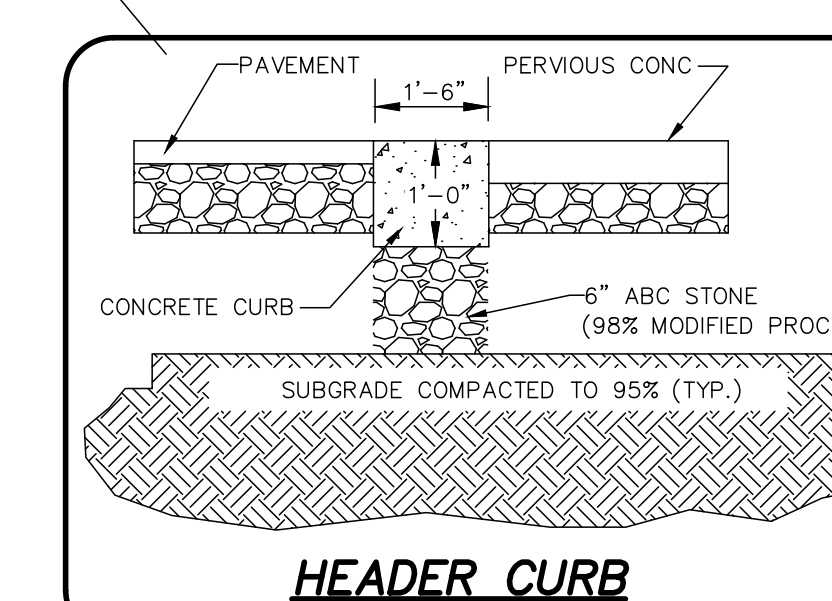
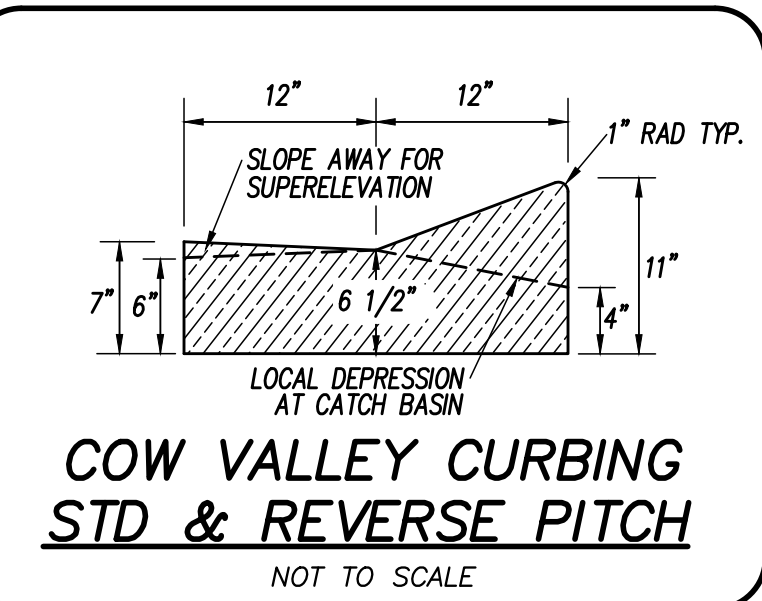
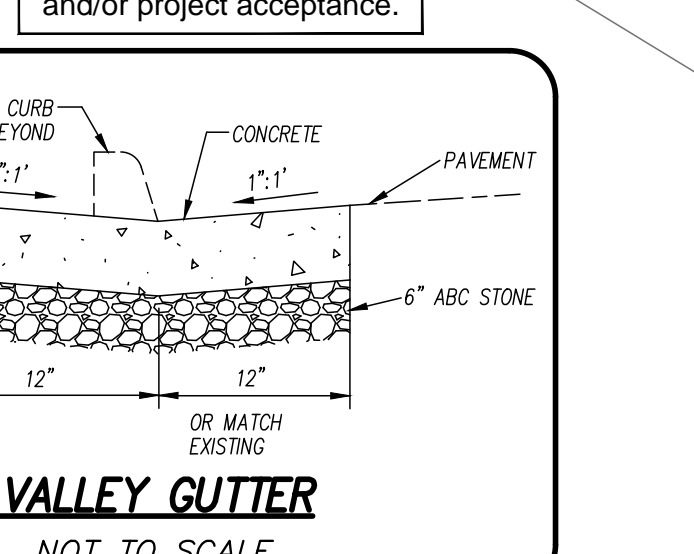
Fire \_\_\_\_\_

**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



## SU-8-504-E705-M616 RECOMMENDATIONS

- THE APPLICANT SHALL FULLY COMPLY WITH ALL OF THE SPECIFIC REQUIREMENTS STATED IN THE LAND DEVELOPMENT CODE FOR THE PROPOSED USE AS WELL AS ANY ADDITIONAL CONDITIONS STATED BELOW.
- IF ANY SECTION, PARAGRAPH, SENTENCE, CLAUSE, PHRASE OR PORTION OF THIS PERMIT IS FOR ANY REASON HELD INVALID OR UNCONSTITUTIONAL BY ANY COURT OF COMPETENT JURISDICTION, THIS SPECIAL USE PERMIT SHALL BE NULL AND VOID AND BE OF NO EFFECT.
- THE USE AND DEVELOPMENT OF THE SUBJECT PROPERTY SHALL BE IN ACCORDANCE WITH THE SITE PLAN AS SUBMITTED AND APPROVED.
- THE USE AND DEVELOPMENT OF THE SUBJECT PROPERTY SHALL COMPLY WITH ALL OTHER SUPPLEMENTAL REGULATIONS AND REQUIREMENTS IMPOSED BY THE LAND DEVELOPMENT CODE OR ANY OTHER APPLICABLE FEDERAL, STATE OR LOCAL LAW, ORDINANCE OR REGULATION. IN THE EVENT OF A CONFLICT, THE MORE STRINGENT REQUIREMENT OR HIGHER STANDARD SHALL APPLY.
- THE PERMIT SHALL BE LIMITED TO A BUILDING AREA OF 33,900 SF AND A MAXIMUM OF 250 STUDENTS. ANY FUTURE EXPANSIONS OR ADDITIONS TO THE SITE ARE SUBJECT TO MODIFICATIONS TO THE SUP.
- APPROVAL OF THIS SPECIAL USE PERMIT DOES NOT CONSTITUTE TECHNICAL APPROVAL OF THE SITE PLAN. ALL TECHNICAL REVIEW COMMITTEE COMMENTS SHALL BE FOLLOWED PRIOR TO ISSUANCE OF A CONSTRUCTION RELEASE OR FINAL ZONING APPROVAL.
- ALL CONDITIONS OF SEC 18-300 SHALL BE MET PRIOR TO ISSUANCE OF CONSTRUCTION RELEASE.
- ALL CITY, STATE AND FEDERAL REGULATIONS SHALL BE MET.
- ALL TECHNICAL REVIEW COMMITTEE COMMENTS SHALL BE FOLLOWED.
- ALL DRIVEWAYS SHALL BE CONSTRUCTED TO OR BROUGHT INTO COMPLIANCE WITH CITY STANDARDS.
- AN INTERNAL CONNECTION BETWEEN PEPPER AND CAMELLIA LANE SHALL BE PROVIDED.
- CAMELLIA LANE SHALL BE BROUGHT INTO COMPLIANCE WITH CITY STANDARDS FOR A LOCAL STREET. SIDEWALKS SHALL BE PROVIDED THROUGHOUT THE SITE THAT PROVIDE PEDESTRIAN ACCESS TO ALL OF THE PROPOSED FACILITIES.
- SIDEWALK CONNECTIONS SHALL BE PROVIDED TO BOTH PEPPER AVE AND CAMELLIA LANE THAT PROVIDES ACCESS TO THE SITE FROM SURROUNDING NEIGHBORHOODS.
- GATES SHALL BE LOCATED AT BOTH THE PEPPER AVE AND CAMELLIA ENTRANCES AND SHALL BE OPEN DURING SCHOOL HOURS ONLY. EMERGENCY ACCESS SHALL BE PROVIDED FOR BOTH GATES.
- A MAXIMUM OF 78 PARKING SPACES SHALL BE PERMITTED. A MINIMUM OF 15 PARKING SPACES SHALL BE CONSTRUCTED OF PERVIOUS MATERIALS AS SOILS ALLOW. IF SOILS ARE NOT SUITABLE FOR PERVIOUS PAVEMENT THE RUNOFF FROM THESE SPACES SHALL BE MANAGED BY ONE OF THE TECHNIQUES IDENTIFIED IN SEC 18-528 OF THE LDC.
- IMPERVIOUS SURFACE COVERAGE ASSOCIATED WITH THE IMPROVEMENT OF CAMELLIA LANE SHALL BE LIMITED TO THE FURTHEST EXTENT PRACTICAL.

## TRAFFIC ENGINEERING NOTES:

- A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO RECORDING OF THE FINAL PLAT. PLAN SHALL ADHERE TO SD 15-17.
- TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT PARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
- OPEN CUT NOTES:
  - A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 910-341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA SURROUNDING THE OPEN CUT MAY BE REQUIRED.
  - CONTRACTOR TO COORDINATE WITH CITY OF WILMINGTON FOR ACCEPTABLE HOURS OF CONSTRUCTION AND TRAFFIC CONTROL DURING INSTALLATION OF UTILITY CUTS IN CITY ROADS.
  - SUITABLE COMPACTION AND APPROVED STONE & BASE COURSES TO BE INSTALLED IN PLACE OF OPEN CUT.
  - OPEN CUT TO BE SAW CUT.
  - ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS OF WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NC DOT STANDARDS.
  - SHALL BE RESPONSIBLE FOR THE SUBDIVISION TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 FOR FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.
  - TACTILE WARNING MATS ARE TO BE INSTALLED ON ALL WHEELCHAIR RAMPS.
  - ANY BROKEN OR MISSING SIDEWALK PANELS AND CURBING WILL BE REPLACED.
  - ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
  - ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREA SHALL BE WHITE.
  - CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
  - ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30 INCHES - 10 FT.

## ENVIRONMENTAL NOTES:

- NO LAND DISTURBANCE IS PERMITTED OUTSIDE THE DESIGNATED LIMITS OF DISTURBANCE FOR SITE IMPROVEMENTS OTHER THAN WHAT IS NECESSARY TO THE INTO EXISTING CONTOURS OR MEET LANDSCAPING REQUIREMENTS.

## DEVELOPMENT NOTES:

- ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION. CALL 311-4000 AT 1-800-832-4949. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND REPLACEMENT OF ANY UTILITIES, CURB AND CUTTERS, SIDEWALK PANELS, PAVEMENT, ETC. THAT MAY BE DAMAGED DURING CONSTRUCTION. DAMAGED ITEMS SHALL BE REPAIRED TO AT LEAST THE QUALITY OF WORKMANSHIP FOUND IN THE ORIGINAL ITEM.
- SOLID WASTE DISPOSAL WILL BE HAND TOTTLED.
- ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE CITY OF WILMINGTON ZONING ORDINANCE & SUBDIVISION REGULATIONS.
- APPROVAL OF SITE PLAN DOES NOT CONSTITUTE APPROVAL OF PROPOSED SIGNAGE FOR THIS SITE. A SEPARATE SIGN PERMIT WILL BE REQUIRED.
- APPLICABLE STREET FRONTAGES SHALL HAVE NATURAL VEGETATIVE SCREENING MEETING CITY REQUIREMENTS.
- THE DEVELOPMENT SHALL COMPLY WITH ALL CITY TECHNICAL STANDARDS AND DEVELOPMENT REGULATIONS.

## WATER & SEWER USAGE NOTES:

CURRENT WATER USAGE 2,775 GPD PROPOSED WATER USAGE 3,750 GPD  
 CURRENT SEWER USAGE 2,775 GPD PROPOSED SEWER USAGE 3,750 GPD  
 WATER - 250 STUDENTS MAX X 15 GPD = 3,750 GPD  
 SEWER - 250 STUDENTS MAX X 15 GPD = 3,750 GPD

## FIRE & LIFE SAFETY NOTES:

- LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FIRE HYDRANTS OR FDC'S. A 3 FT CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT.
- CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE FIRE LINE PERMIT FROM COW FIRE AND LIFE SAFETY DIVISION. 910-343-0696.
- NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE SITE.
- HYDRANTS MUST BE WITHIN 150 FT OF THE FDC.
- FDC MUST BE WITHIN 40 FT OF FIRE APPARATUS PLACEMENT.
- ADDITIONAL FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- ALL ISOLATION VALVES WITHIN THE "HOT BOX" SHALL BE ELECTRICALLY SUPERVISED.

## UTILITY NOTES:

- PROJECT SHALL COMPLY WITH THE CITY OF WILMINGTON AND CPWA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE SET AND ACTIVATED ON NEW MAINS UNTIL ALL REQUIREMENTS ARE MET. CALL 343-3910 FOR INFORMATION.
- IF THE CONTRACTOR DESIRES WATER FOR CONSTRUCTION HE/SHE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
- ALL COMMERCIAL WATER SERVICES AND ANY IRRIGATION SYSTEMS SUPPLIED BY CPWA WATER SHALL HAVE A BACKFLOW PREVENTION DEVICE ATTACHABLE TO THE CPWA AND APPROVED BY US/CPWA OR ASSE. CALL 799-6064 FOR INFORMATION.
- WHEN PVC WATER MAINS AND/OR POLYETHYLENE SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED COPPER WIRE INSTALLED THE ENTIRE LENGTH AND STRAPPED TO THE PIPES WITH DUCT TAPE. THE WIRE IS TO BE STRIPPED TO BARE WIRE AND SECURED TO ALL VALVES AND FITTINGS. THE WIRE IS TO BE ACCESSIBLE AT ALL FIRE HYDRANTS AND WATER METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
- 30" MINIMUM COVER OVER ALL WATER MAINS.
- ANY SEPARATE CONNECTION FOR IRRIGATION SHALL COMPLY WITH CITY AND CPWA CROSS-CONNECTION REQUIREMENTS WITH APPROVED BACKFLOW PREVENTION DEVICES.
- AT LOCATIONS WHERE WATER MAIN CROSSES UNDER SANITARY SEWER, DUCTILE IRON PIPE SHALL BE USED ALONG WITH PROVIDING 24" MINIMUM OF VERTICAL SEPARATION.
- WATER SERVICES CAN NOT BE ACTIVATED ON NEW WATER MAINS UNTIL ENGINEER'S CERTIFICATION AND APPLICANT'S CERTIFICATION HAVE BEEN PROVIDED TO NODENR AND "FINAL APPROVAL" ISSUED.
- UNDERGROUND UTILITIES - ALL NEW UTILITIES SHALL BE INSTALLED UNDERGROUND, EXCEPT WHERE SUCH PLACEMENT IS PROHIBITED OR DEEMED IMPRACTICAL BY THE UTILITY PROVIDER. UNDERGROUND FACILITIES FOR STREET LIGHTING ALONG ALL PUBLIC STREETS ADJACENT TO THE SUBJECT SITE SHALL BE INSTALLED BY THE DEVELOPER.

## PARKING NOTES:

- 1 PARKING SPACE FOR EACH TEACHER AND STAFF MEMBER. 42 SPACES REQ'D; 66 TOTAL PARKING SPACES PROVIDED.
- 3 HANDICAP SPACES REQUIRED; 6 HANDICAPPED PARKING SPACES PROVIDED.
- 5 BICYCLE PARKING SPACES REQUIRED; 5 PROVIDED.
- ALL PROPOSED PARKING SPACES TO BE 9 FT X 18 FT.
- PARKING STOPS TO BE PLACED ON SPACES THAT ADJOIN SIDEWALK.

## VARIANCE REQUESTS

- SEE SPECIAL USE PLAN: # SU-8-504-E705-M616
- DISTANCE FROM DRIVEWAY TO PROPERTY LINE IS LESS THAN 6.5 FT
- 30 FT NORTH CORNER RADIUS AT CONNECTION OF 58 ST AND CAMELLIA LN.
- 5 FT SIDEWALK ALONG BACK OF CURB INSTEAD OF 6 FT ALONG CAMELLIA LANE.

## GENERAL NOTES:

- NEW HANOVER COUNTY PARCEL NUMBERS: PID = R06200-003-064-000
- TOTAL PROJECT AREA: 339,591 SF (7.80 AC.)
- EXISTING ZONING DISTRICT: R-15
- LAND CLASSIFICATION: RESOURCE PROTECTION
- THIS SITE IS LOCATED WITHIN ZONE "X" ACCORDING TO FEMA FIRM COMMUNITY PANEL NUMBER 17203400K. EFFECTIVE DATE 8/28/18
- EXISTING IMPERVIOUS ON-SITE = 47,195 SF
- BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY GARY W. REYES LAND SURVEYING, P.C. C-4086
- STORMWATER DRAINS TO UT TO HENNETTS CREEK SA/HW 18-87-26
- LAND OWNER - FRIENDS SCHOOL OF WILMINGTON INC 350 PEPPER AVENUE WILMINGTON, NC 28409

LICENSE # C-2710  
 ENGINEERING  
 LAND PLANNING  
 COMMERCIAL / RESIDENTIAL

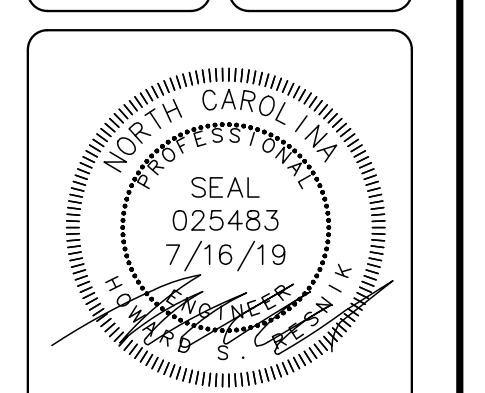
P.O. BOX 4041  
 WILMINGTON, NC 28406  
 (910) 791-4441

SITE PLAN for  
**FRIENDS SCHOOL OF WILMINGTON**

1800 W. WILMINGTON AVENUE, SUITE 100  
 WILMINGTON, NC 28403  
 PH. 910-792-1811

SITE PLAN for  
**FRIENDS SCHOOL OF WILMINGTON**  
 LOCATED IN WILMINGTON TOWNSHIP  
 NEW HANOVER COUNTY, NORTH CAROLINA

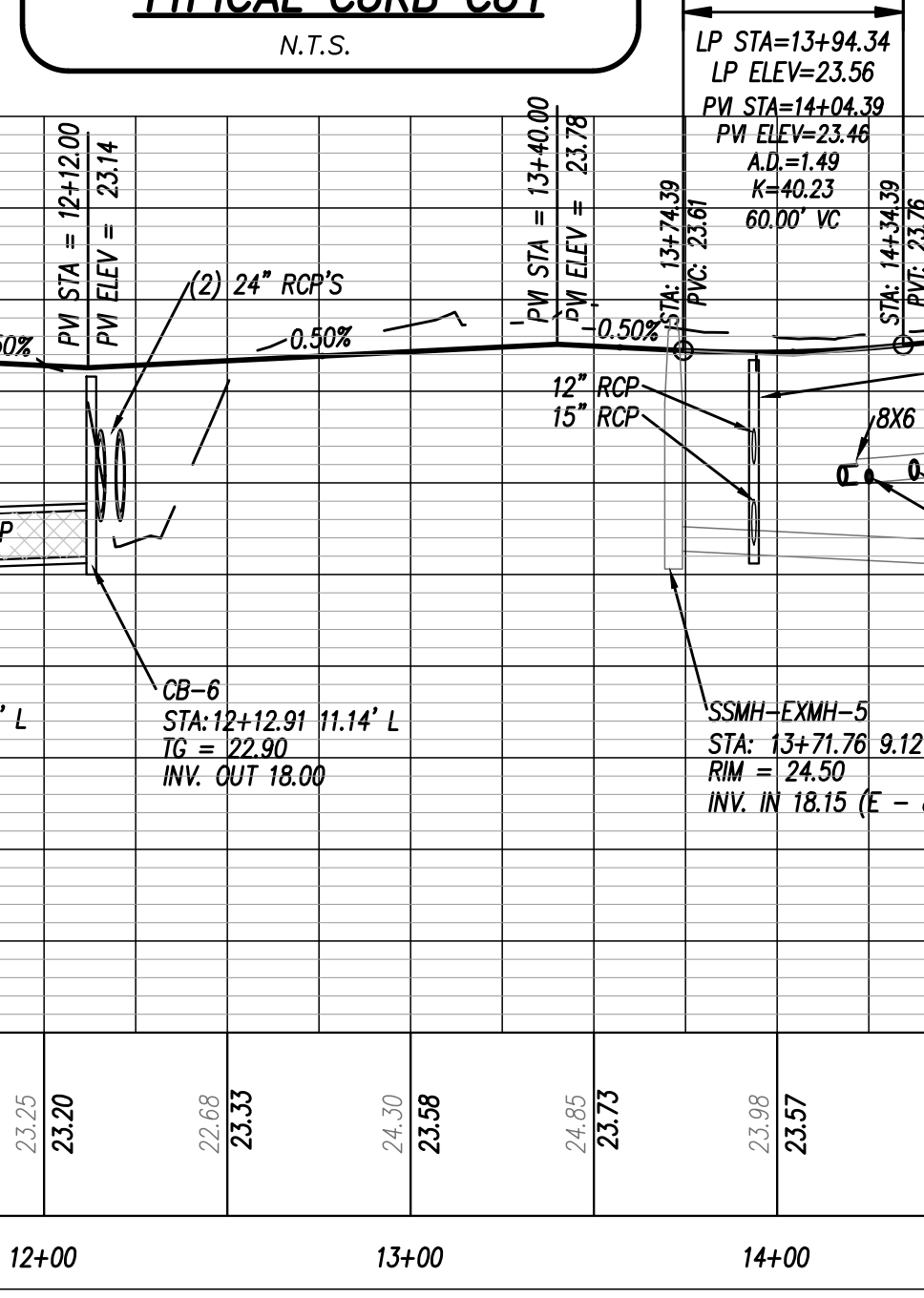
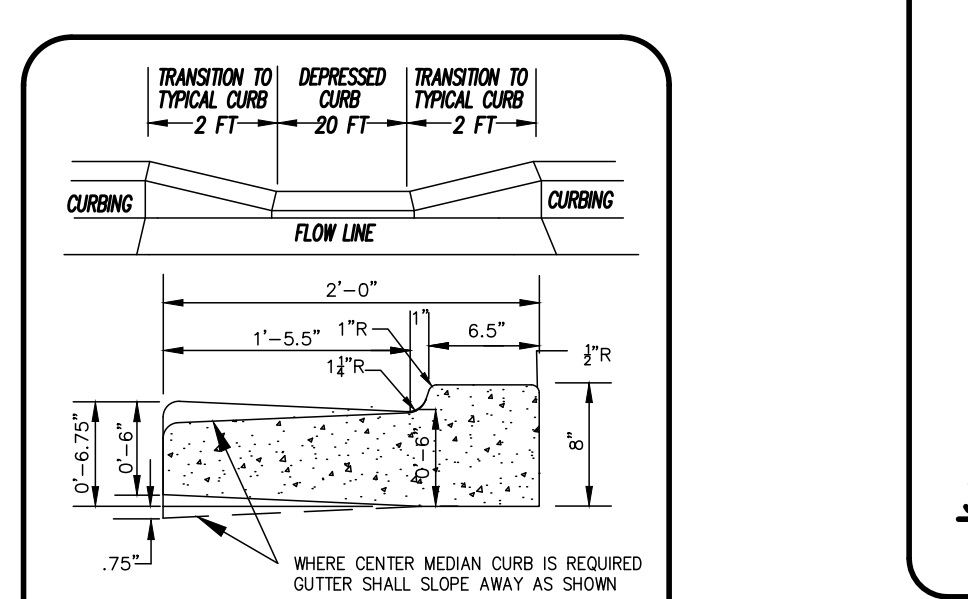
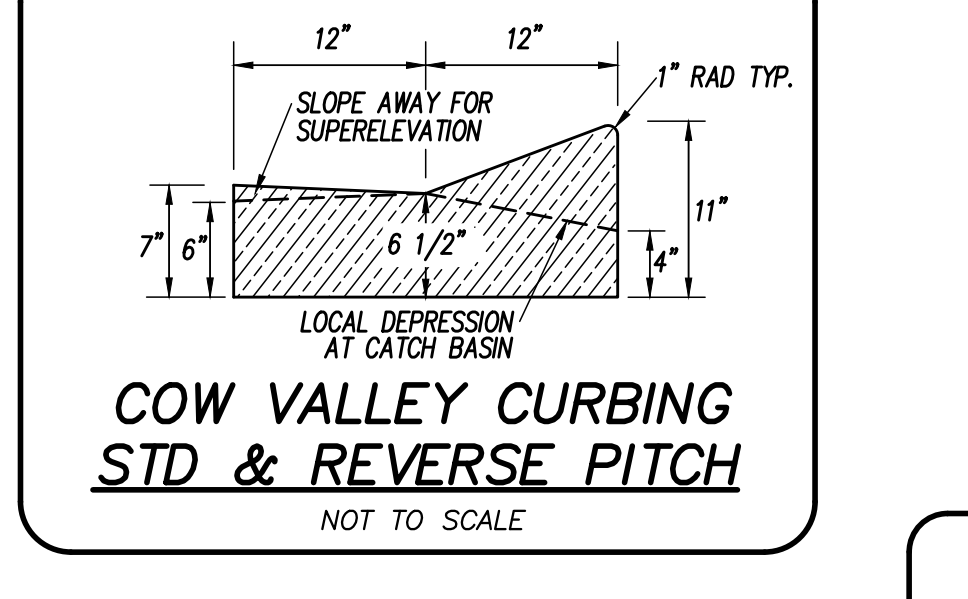
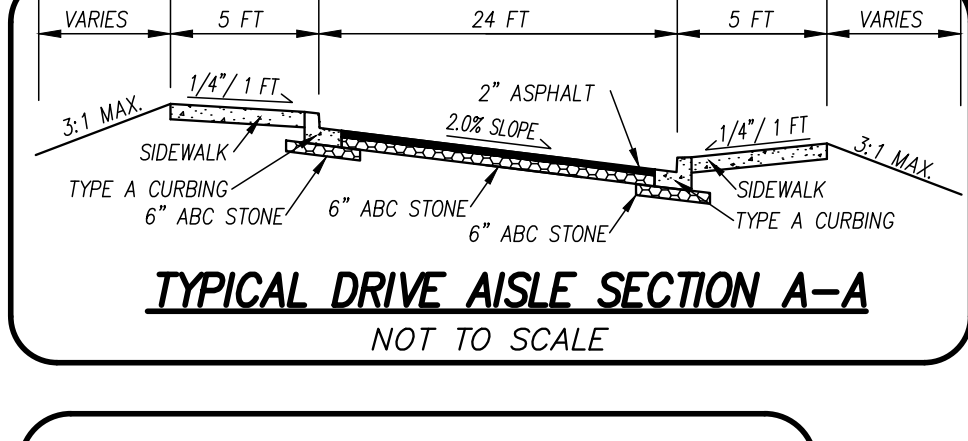
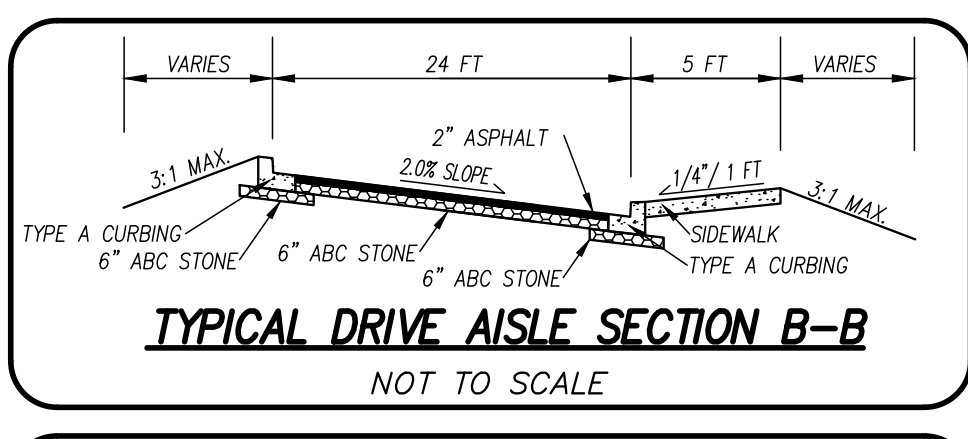
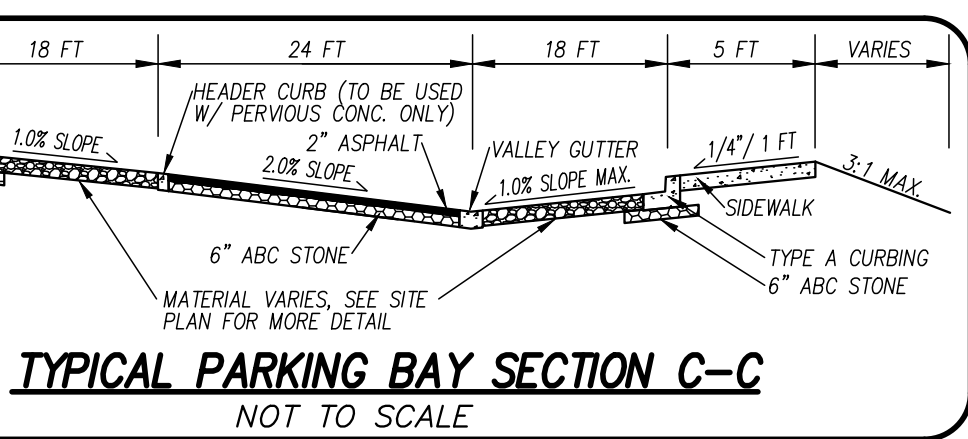
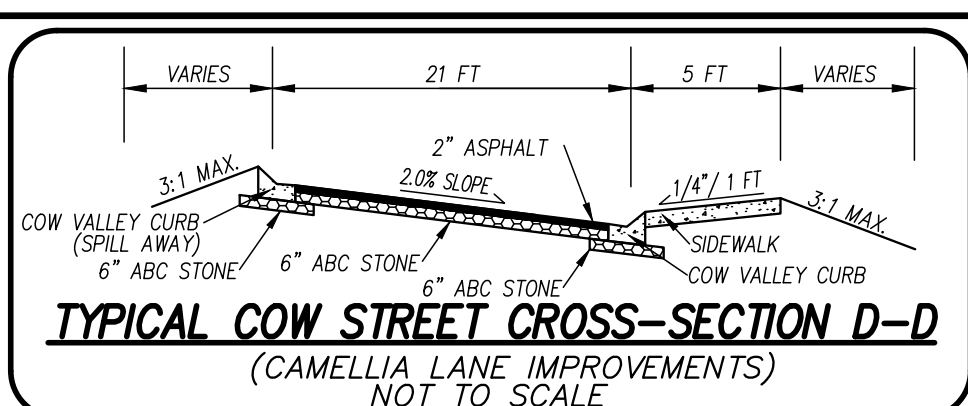
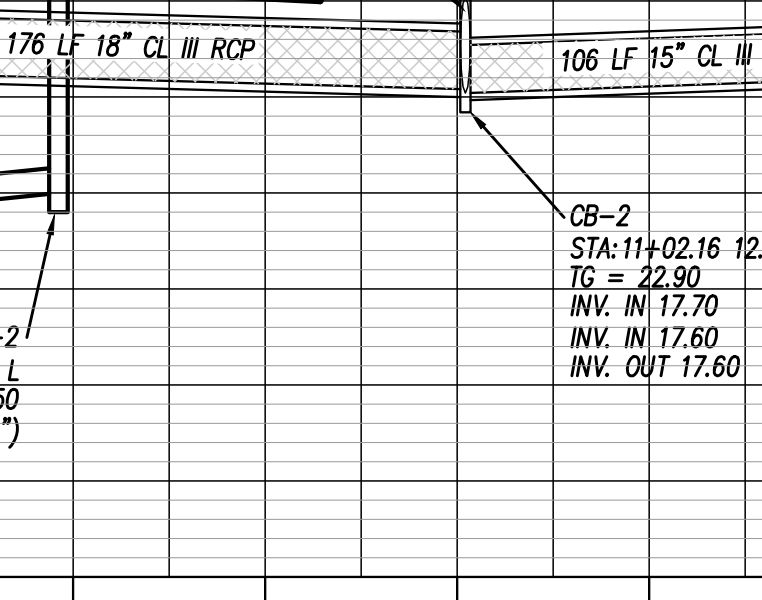
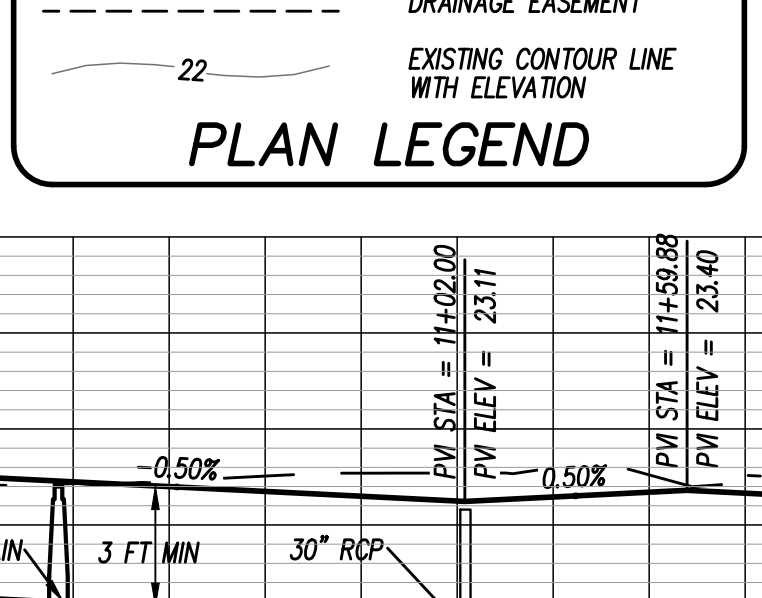
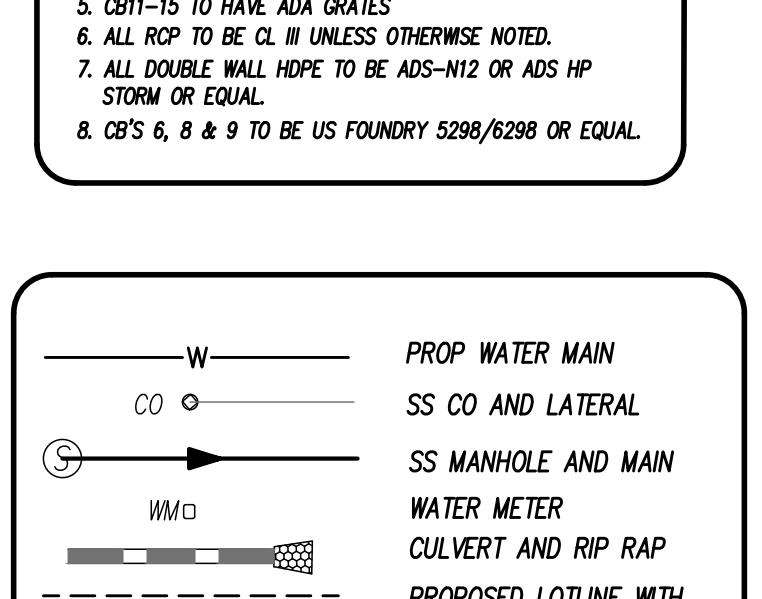
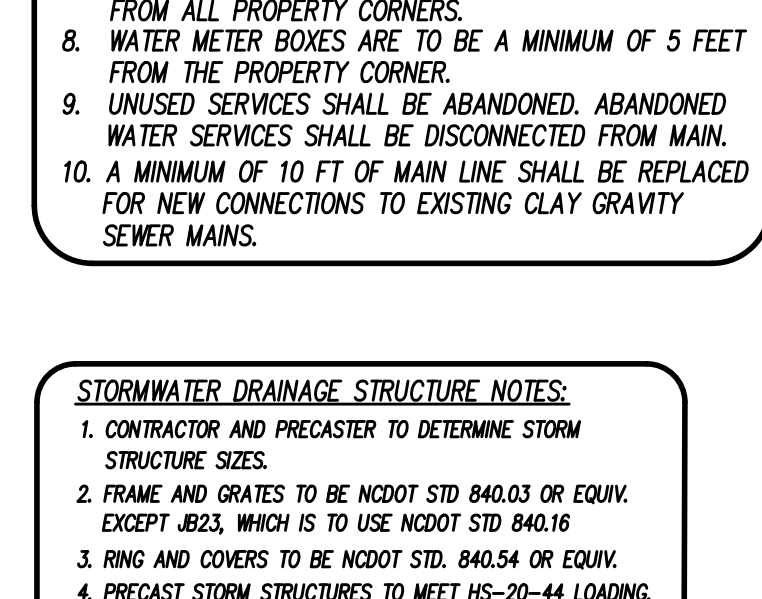
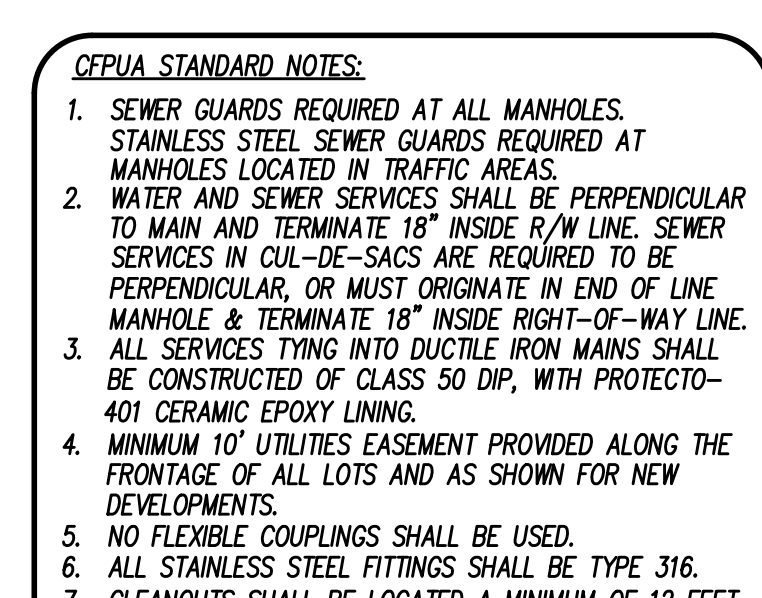
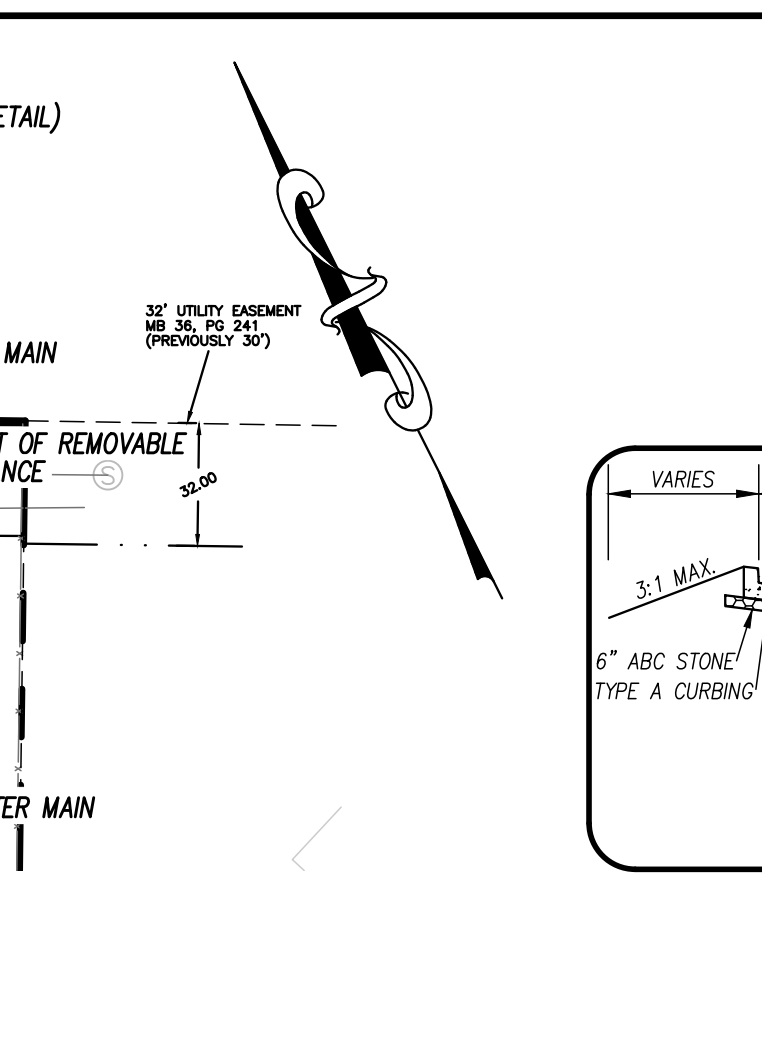
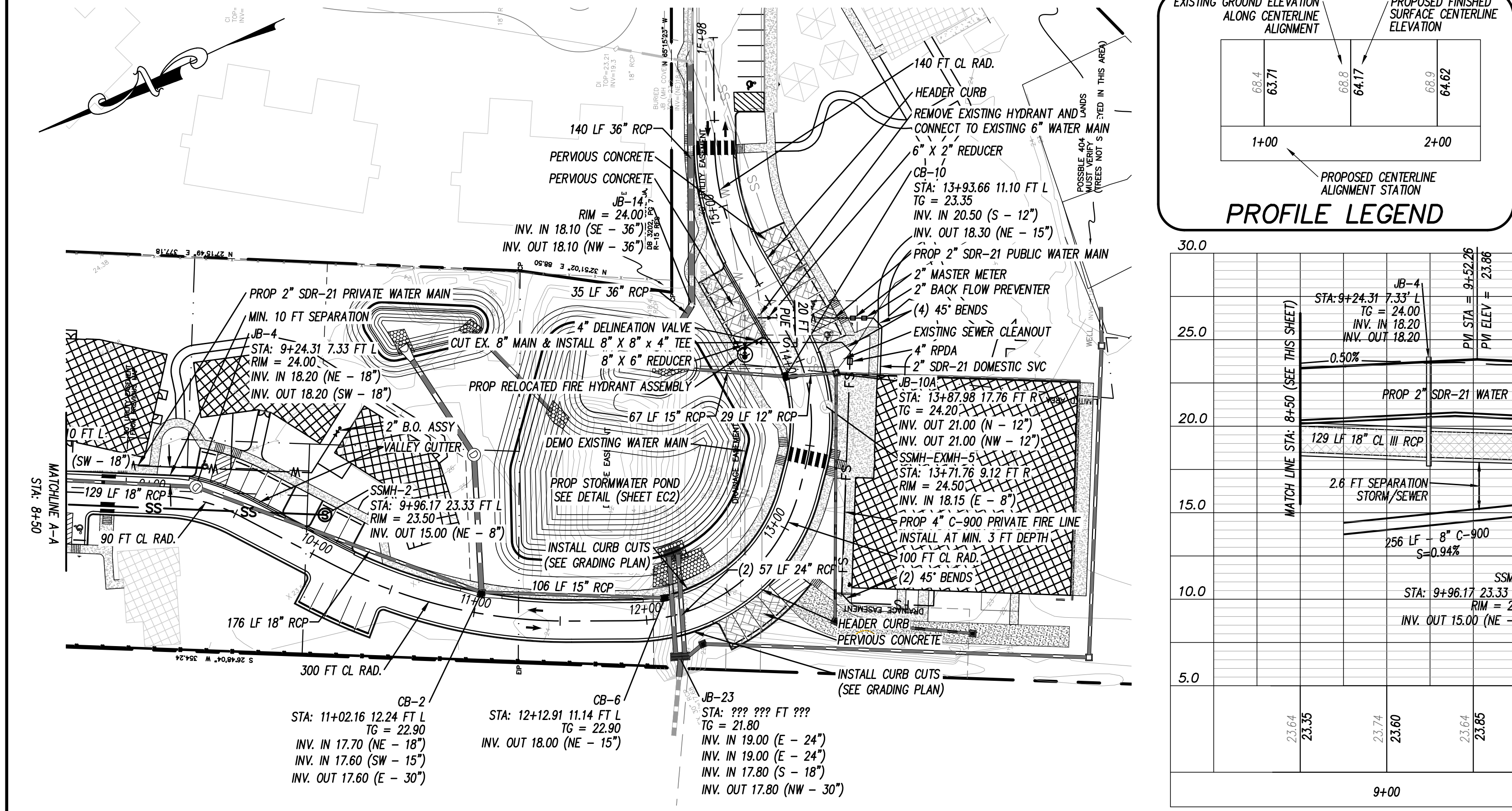
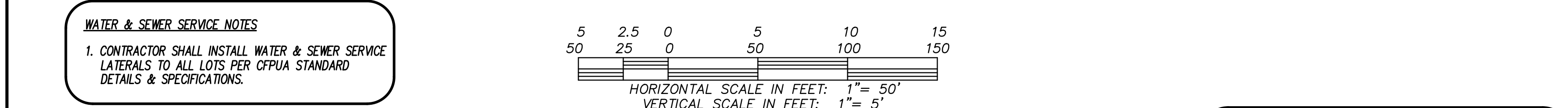
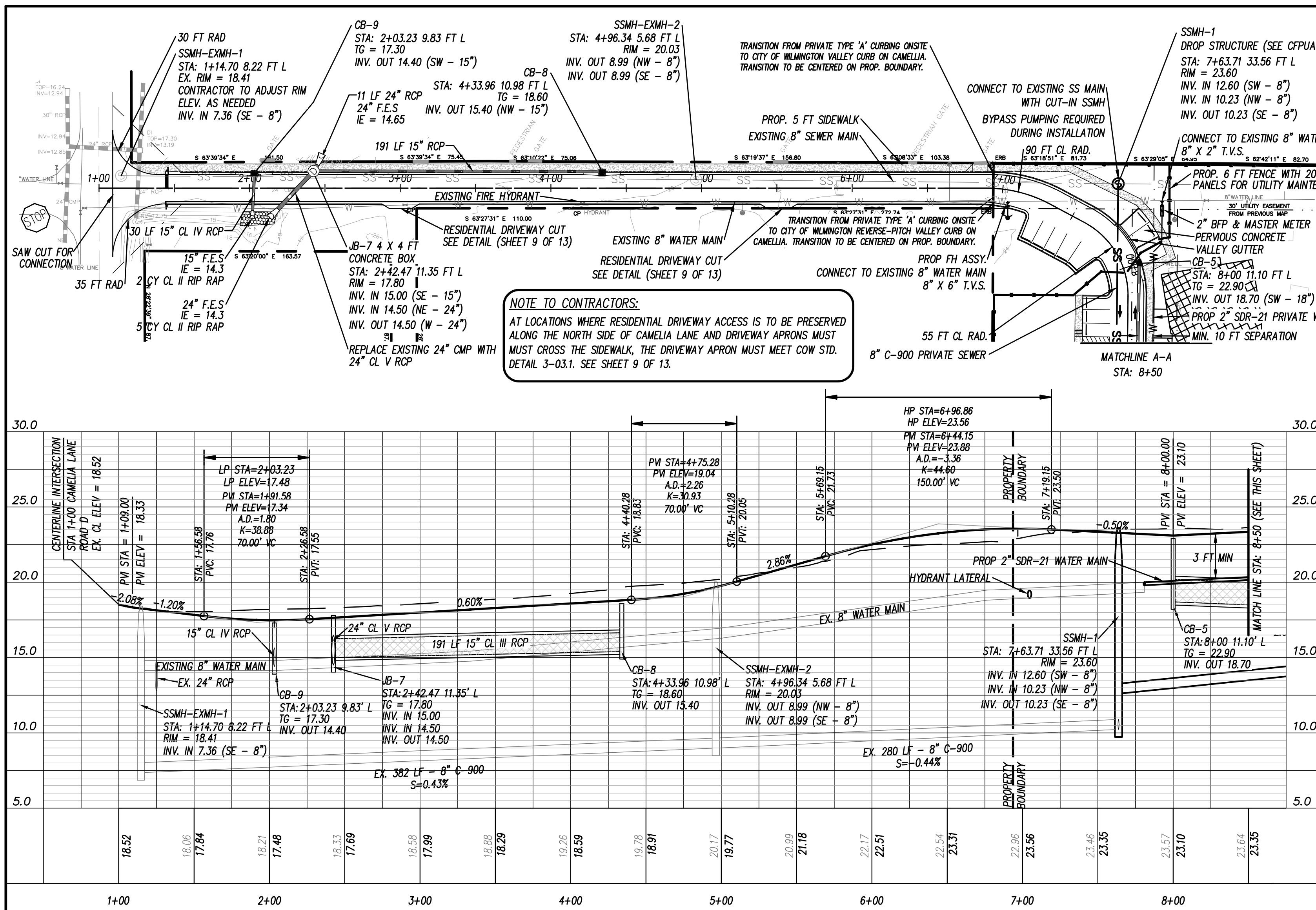
OWNER: FRIENDS SCHOOL OF WILMINGTON INC  
 350 PEPPER AVENUE  
 WILMINGTON, NC 28409  
 PH. 910-792-1811



REV. NO.	DATE	BY	REMARKS
7	7/16/19	RLW	REVISED PER CIVIL PLANNING COMMENTS
6	4/24/19	RLW	REVISED PER TRAFFIC ENGINEERING COMMENTS
5	4/09/19	RLW	REVISED PER COW ENGINEERING COMMENTS
4	3/07/19	MSB	REVISED PER TRC COMMENTS
3	1/17/19	MSB	REVISED PER WATER MAINS & SHEET NUMBERS
2	11/21/18	MSB	REVISED PER CLIENT AND TRC COMMENTS
1	7/16/18	MSB	REVISED SHEET NUMBERS

DATE: 6-4-18  
 HORZ. SCALE: 1" = 60'  
 VERT. SCALE: N/A  
 DRAWN BY: RLW  
 CHECKED BY: HSR  
 PROJECT NO.: 05-0040





**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

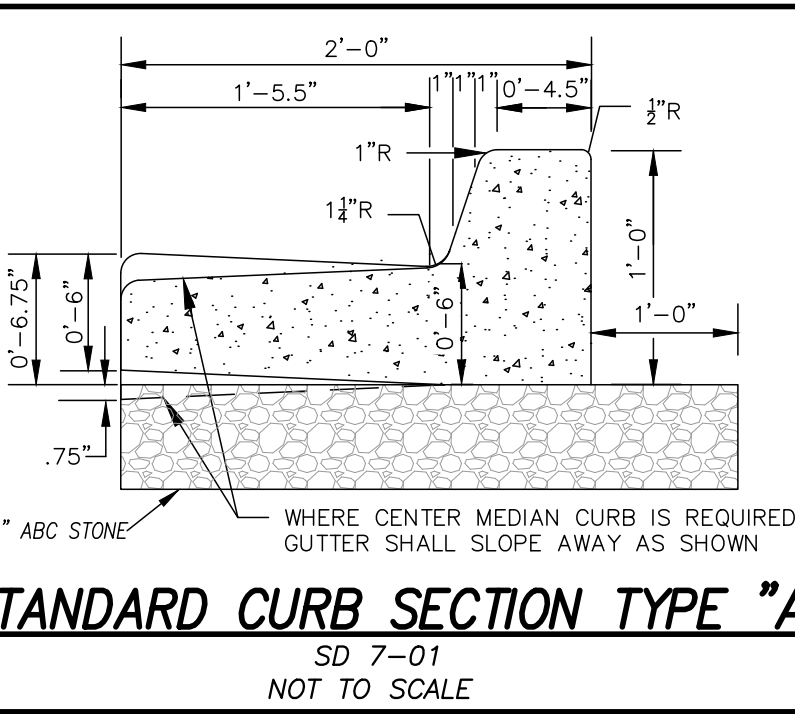
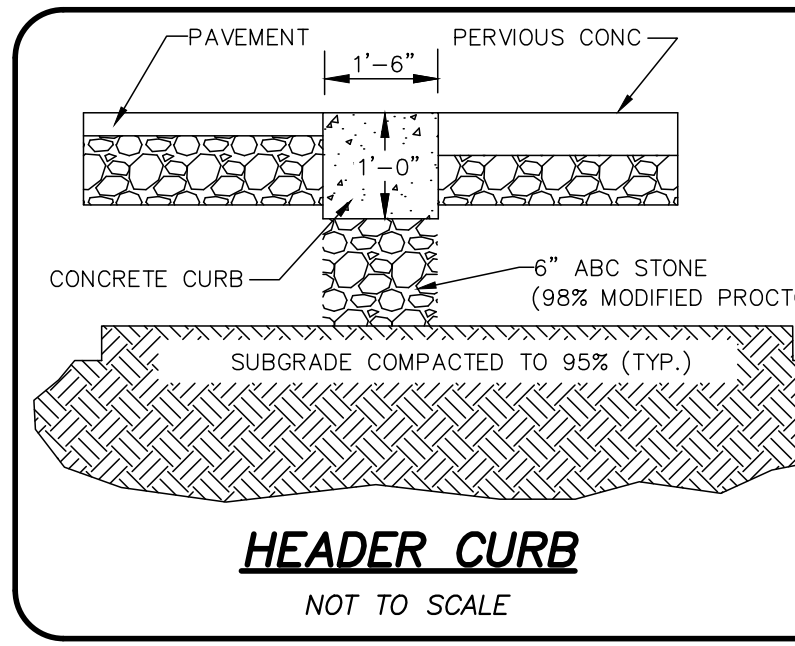
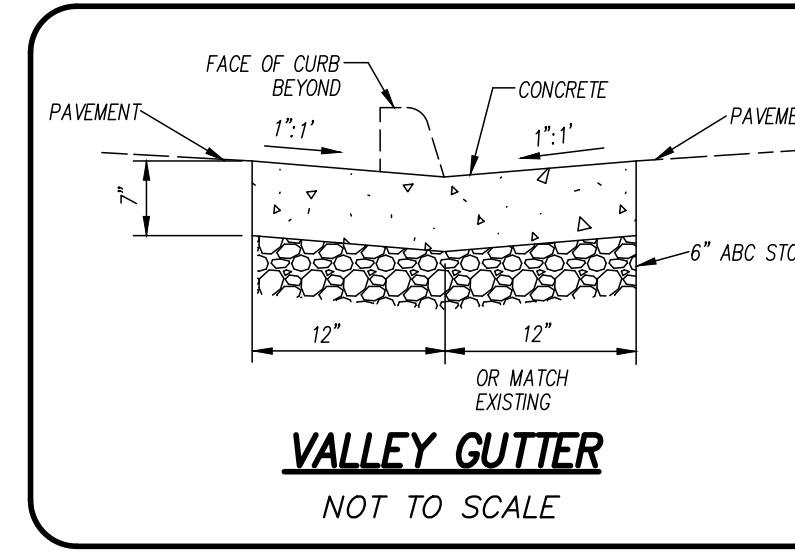
Traffic \_\_\_\_\_

Fire \_\_\_\_\_

**WILMINGTON**  
NORTH CAROLINA  
Public Services Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN

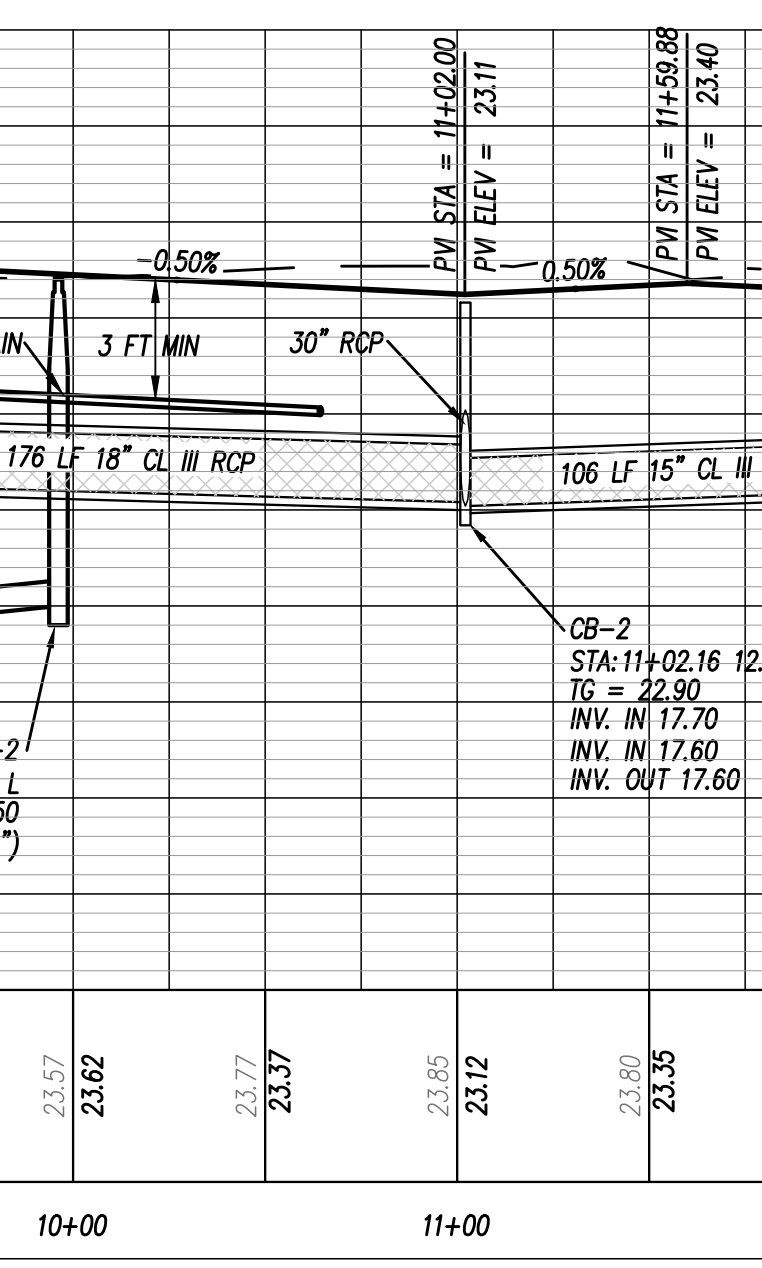
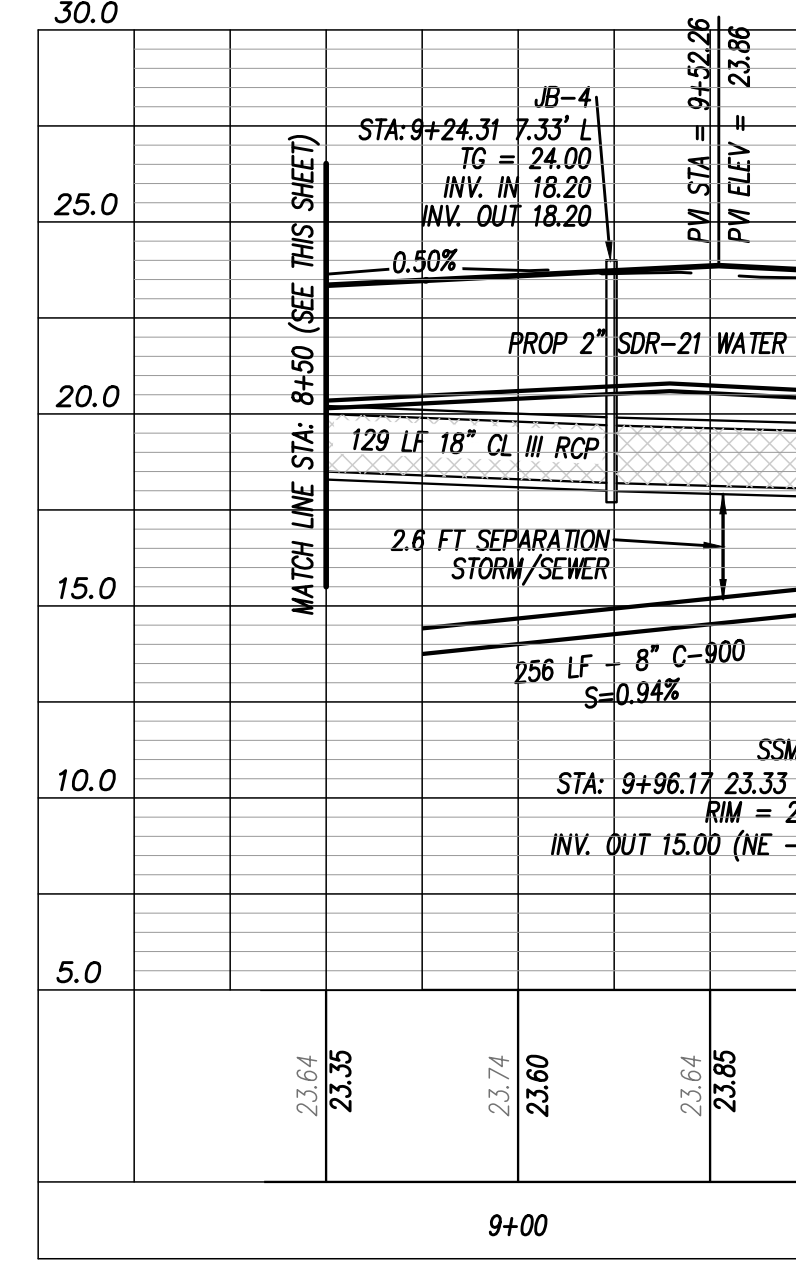
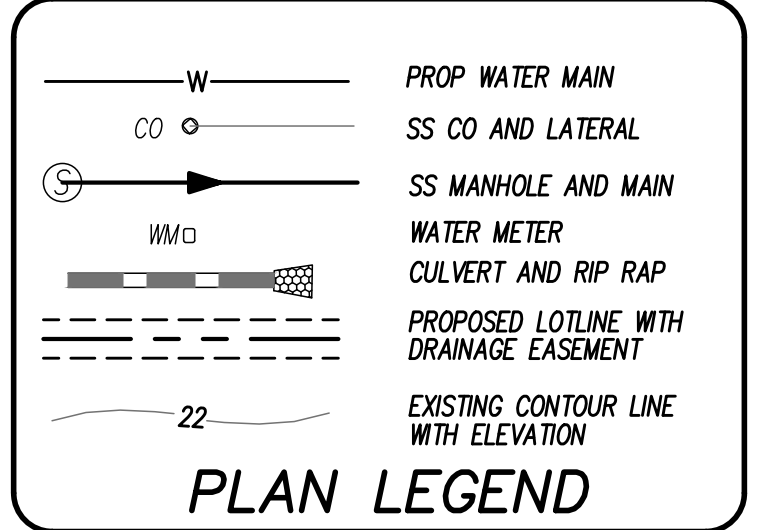
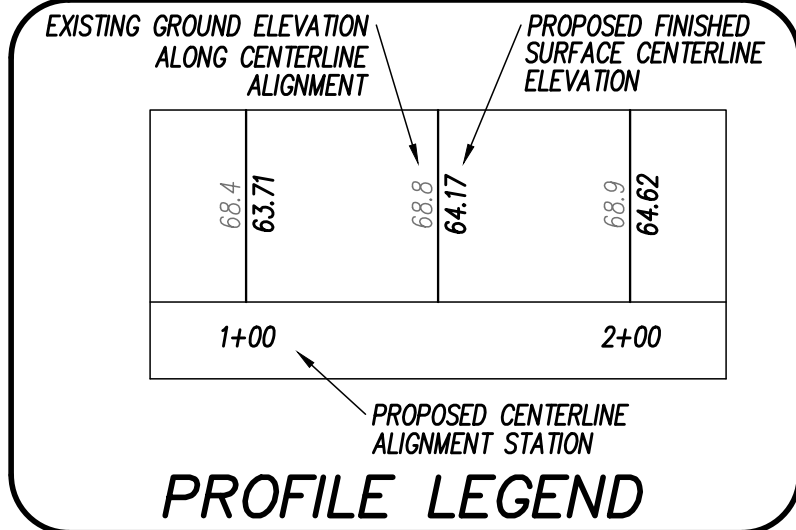
Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_



- CFPIA STANDARD NOTES:**
- SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
  - WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE 18" INSIDE R/W LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE & TERMINATE 18" INSIDE RIGHT-OF-WAY LINE.
  - ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50 DIP, WITH PROTECTO-401 CERAMIC EPOXY LINING.
  - MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
  - NO FLEXIBLE COUPLINGS SHALL BE USED.
  - ALL STAINLESS STEEL FITTINGS SHALL BE TYPE 316.
  - CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS.
  - WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.
  - UNUSED SERVICES SHALL BE ABANDONED. ABANDONED WATER SERVICES SHALL BE DISCONNECTED FROM MAIN.
  - A MINIMUM OF 10 FT OF MAIN LINE SHALL BE REPLACED FOR NEW CONNECTIONS TO EXISTING CLAY GRAVITY SEWER MAINS.

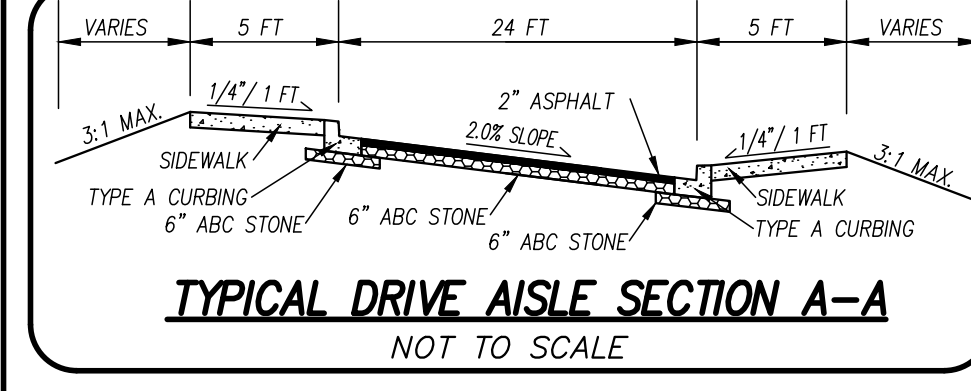
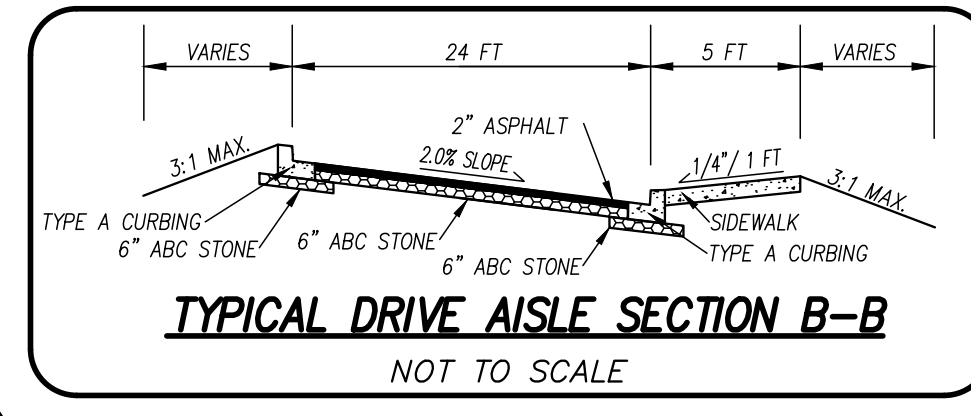
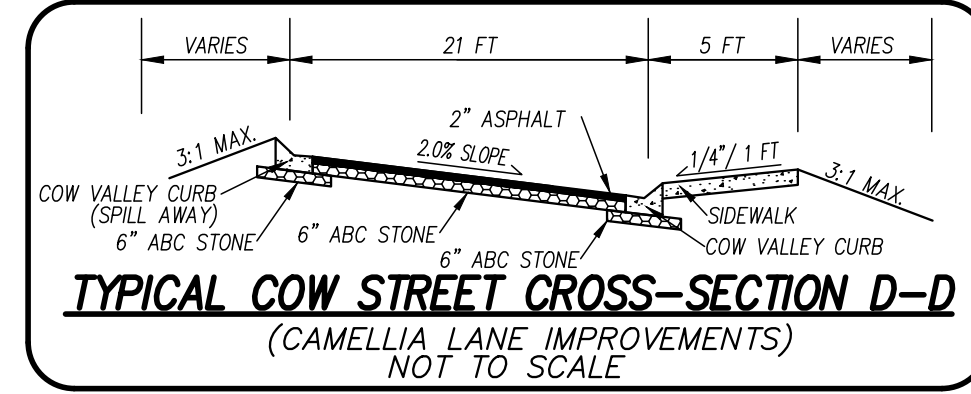
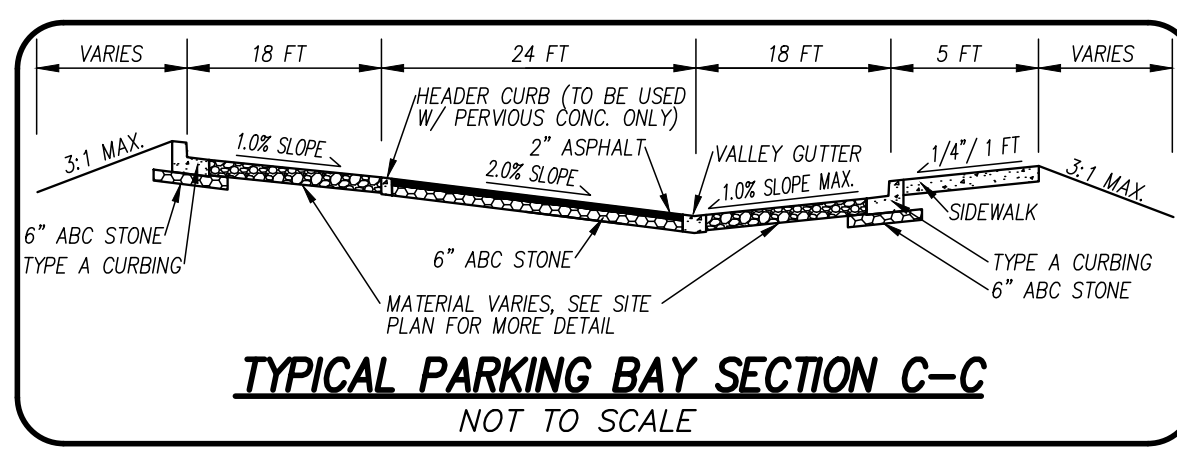
- STORMWATER DRAINAGE STRUCTURE NOTES:**
- CONTRACTOR AND PRECASTER TO DETERMINE STORM STRUCTURE SIZES.
  - FRAME AND GRATES TO BE NODOT STD 840.03 OR EQUIV. EXCEPT #823, WHICH IS TO USE NODOT STD 840.16
  - RING AND COVERS TO BE NODOT STD. 840.54 OR EQUIV.
  - PRECAST STORM STRUCTURES TO MEET HS-20-44 LOADING.
  - CB11-15 TO HAVE ADA GRATES
  - ALL RCP TO BE CL II UNLESS OTHERWISE NOTED.
  - ALL DOUBLE WALL HOPE TO BE ADS-N12 OR ADS HP STORM OR EQUAL.
  - CB'S 6, 8 & 9 TO BE US FOUNDRY 5288/6288 OR EQUAL.



REV. NO.	DATE	BY	REMARKS
1	7/16/19	RLW	REVISION TOP OF GRATES
2	7/16/19	RLW	REVISION PER CIVIL ENGINEERING COMMENTS
3	7/16/19	RLW	REVISION PER CIVIL ENGINEERING COMMENTS
4	7/16/19	RLW	REVISION PER CIVIL ENGINEERING COMMENTS
5	7/16/19	RLW	REVISION PER CIVIL ENGINEERING COMMENTS
6	7/16/19	RLW	REVISION PER CIVIL ENGINEERING COMMENTS



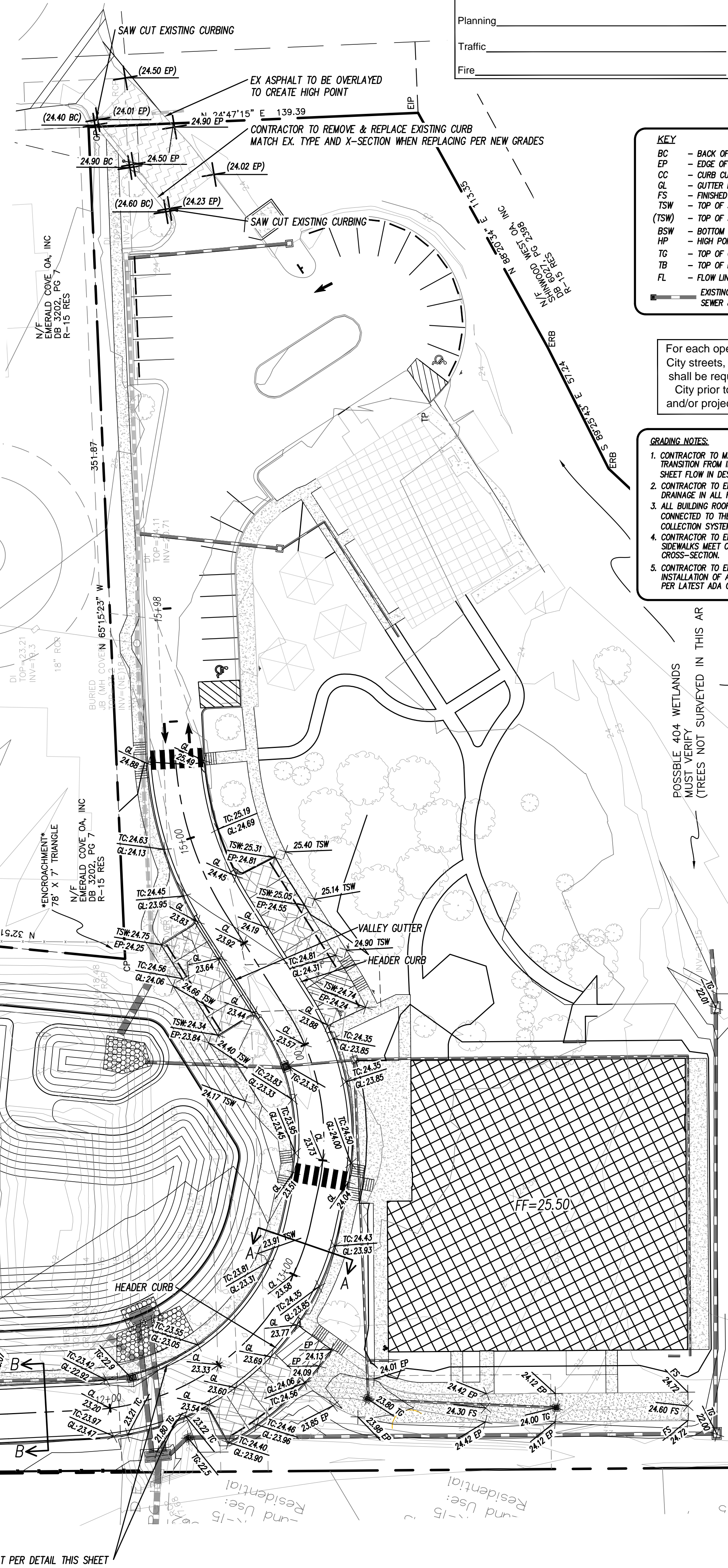
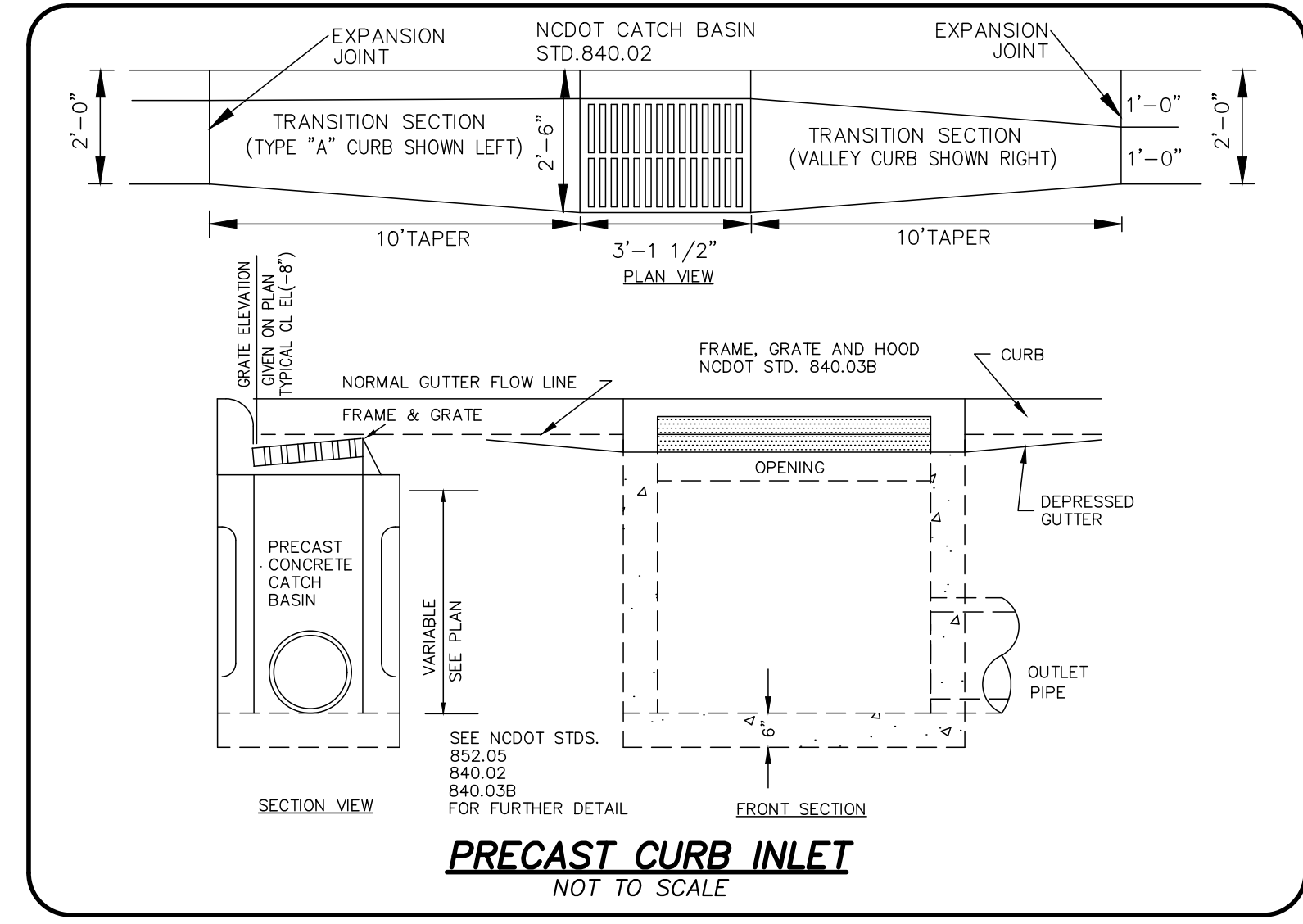
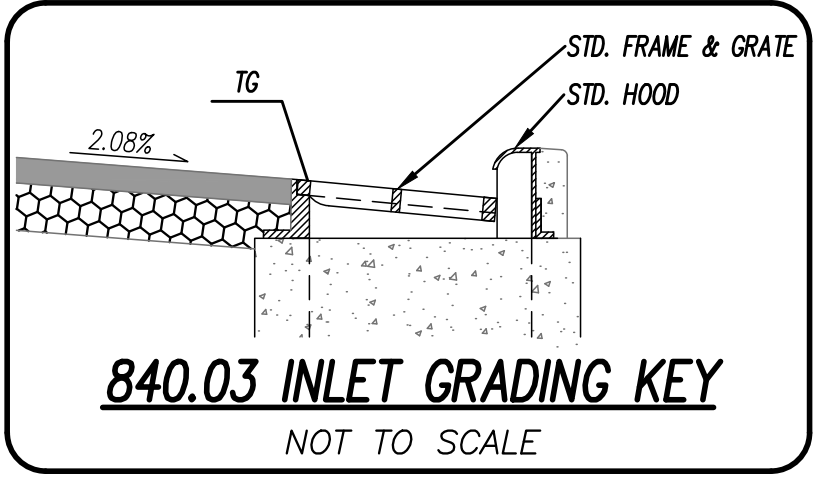
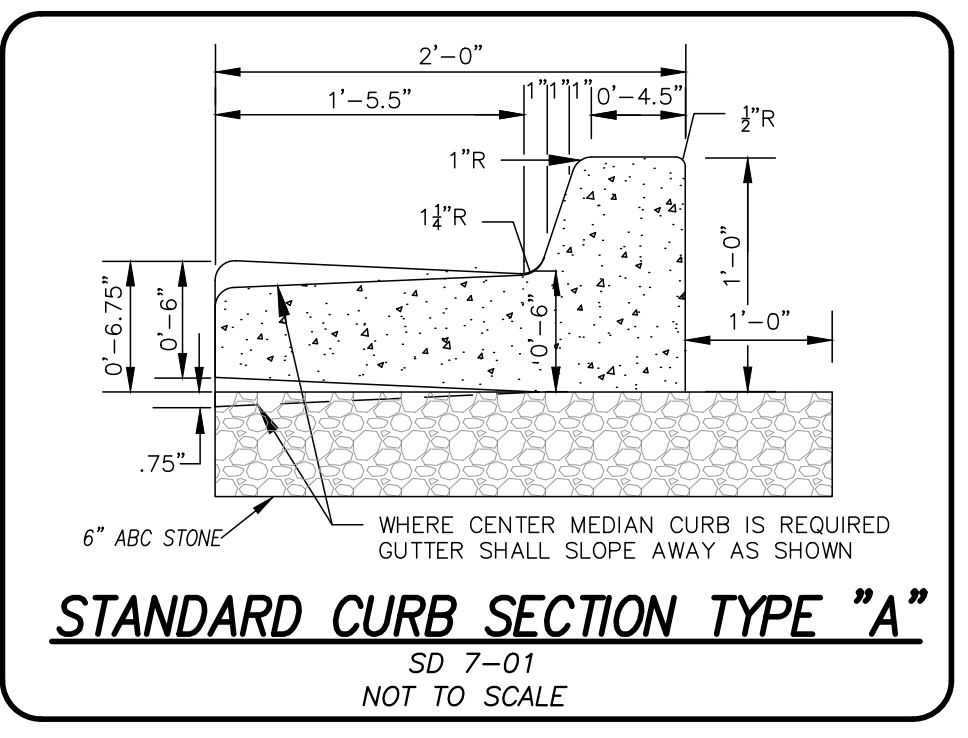
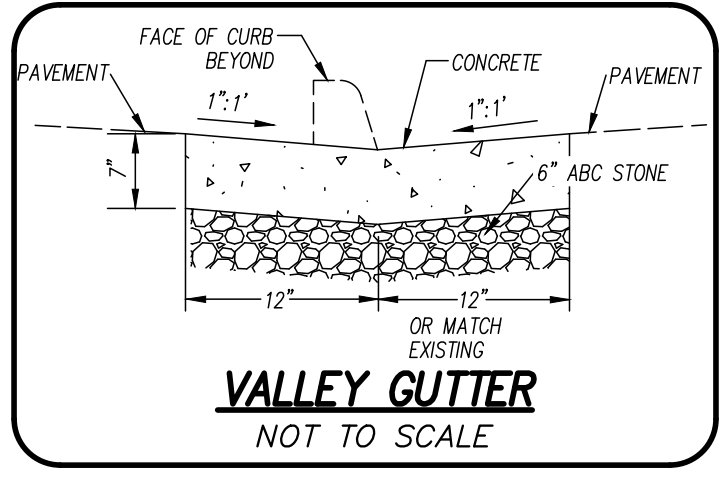
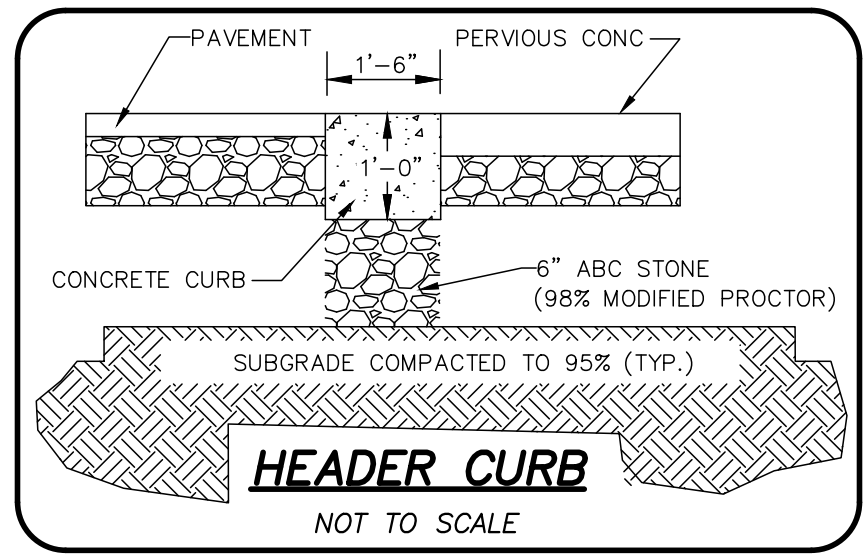
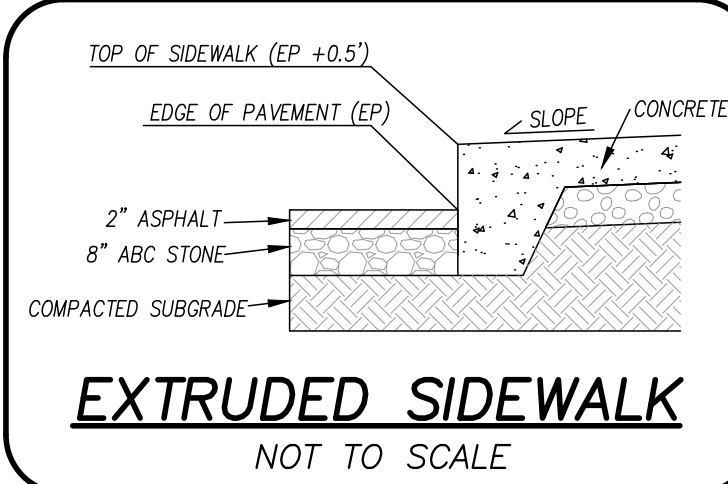
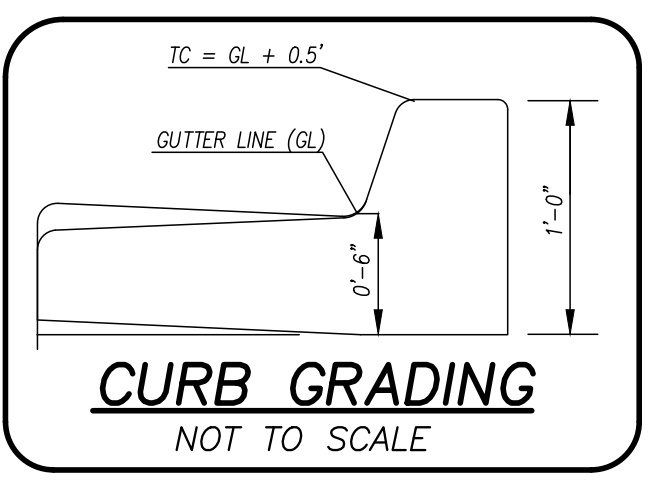
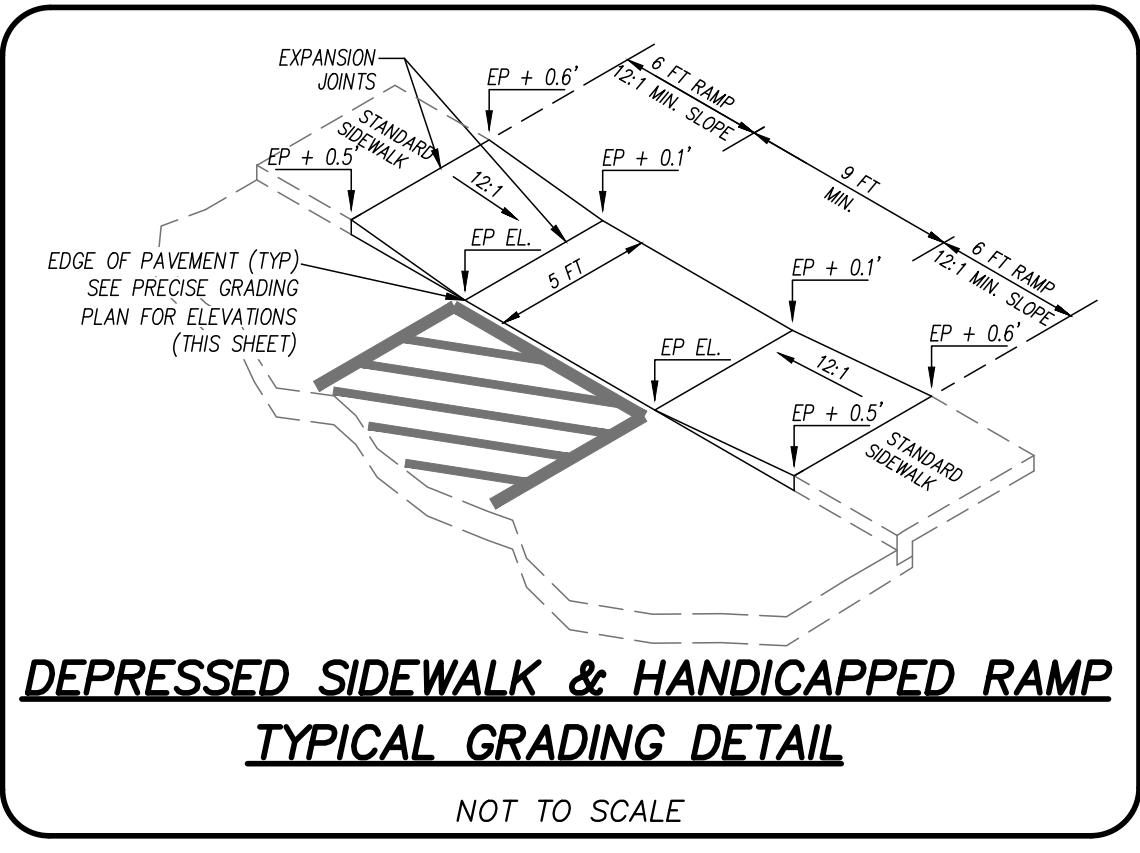
**Approved Construction Plan**  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_



- KEY**
- BC - BACK OF CURB
  - EP - EDGE OF PAVEMENT
  - CC - CURB CUT
  - GL - GUTTER LINE
  - FS - FINISHED SURFACE
  - TSW - TOP OF SIDEWALK (PROPOSED)
  - (TSM) - TOP OF SIDEWALK (EXISTING)
  - BSW - BOTTOM OF SIDEWALK
  - HP - HIGH POINT
  - TG - TOP OF GRATE
  - TB - TOP OF BOX (ACCESS COVER)
  - FL - FLOW LINE

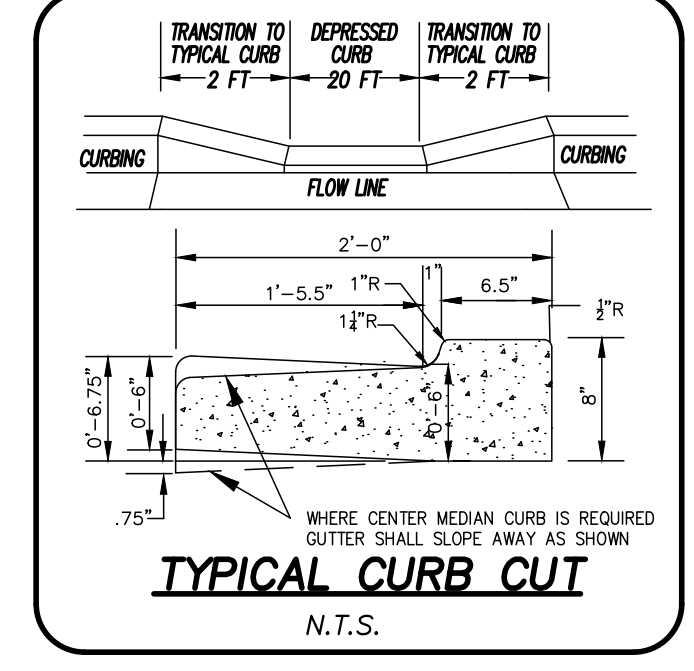
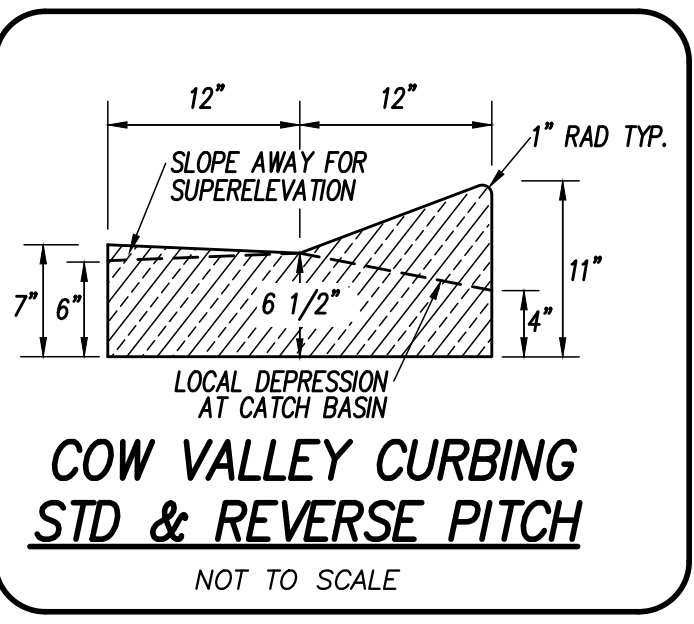
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

- GRADING NOTES:**
1. CONTRACTOR TO MAKE SMOOTH TRANSITION FROM INVERTED CROWN TO SHEET FLOW IN DESIGNATED AREAS
  2. CONTRACTOR TO ENSURE POSITIVE DRAINAGE IN ALL FINISHED AREAS
  3. ALL BUILDING ROOF DRAINS TO BE CONNECTED TO THE STORM DRAINAGE COLLECTION SYSTEM
  4. CONTRACTOR TO ENSURE PUBLIC SIDEWALKS MEET CITY OF WILMINGTON CROSS-SECTION
  5. CONTRACTOR TO ENSURE PROPER INSTALLATION OF ADA ACCESSIBLE ROUTE PER LATEST ADA GUIDELINES.



POSSIBLE 404 WETLANDS  
 MUST VERIFY  
 (TREES NOT SURVEYED IN THIS AREA)

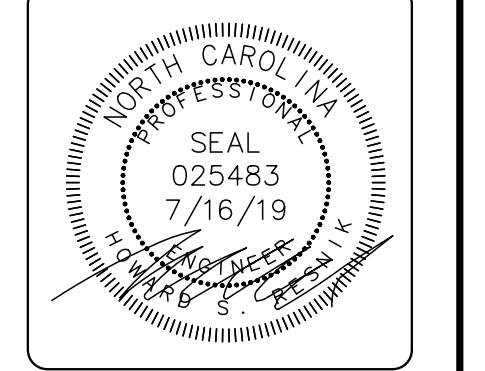
POSSIBLE 404 WETLANDS  
 MUST VERIFY  
 (TREES NOT SURVEYED IN THIS AREA)



LICENSE # C-2710  
 ENGINEERING  
 LAND PLANNING  
 COMMERCIAL / RESIDENTIAL  
 P.O. BOX 4041  
 WILMINGTON, NC 28406  
 (910) 791-4441

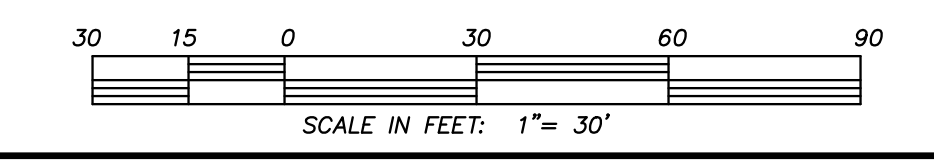
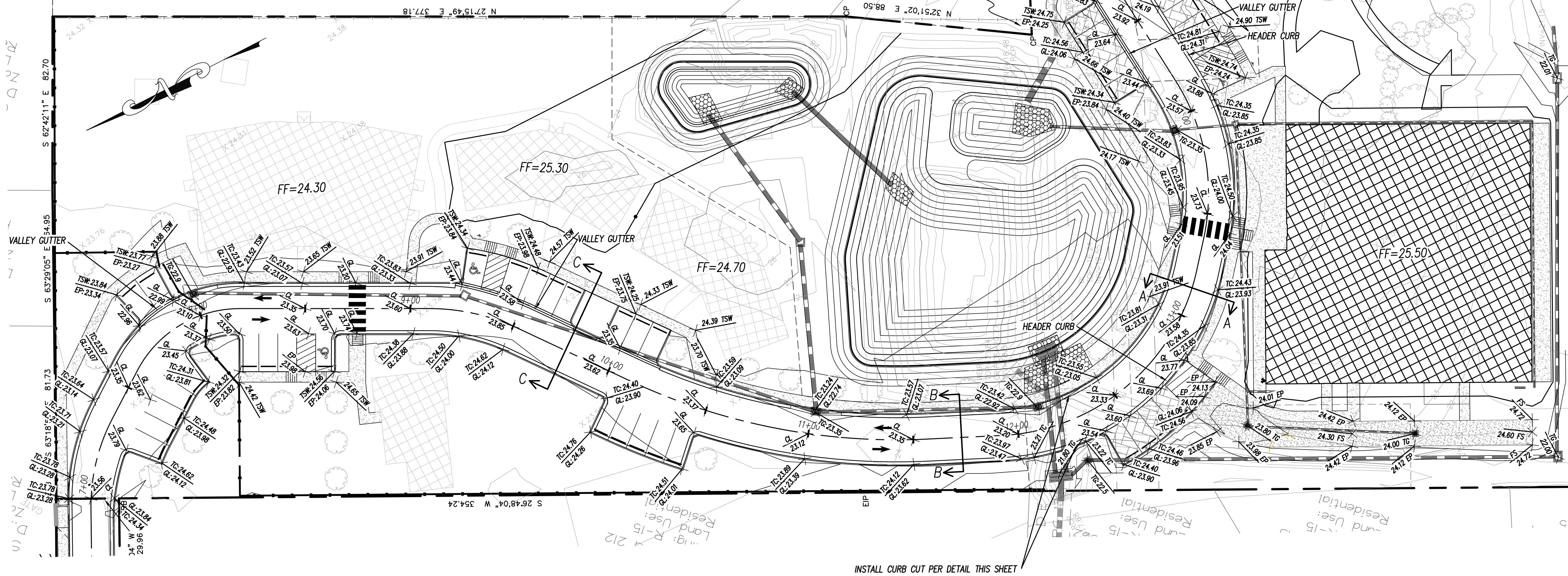
GRADING PLAN FOR  
**FRIENDS SCHOOL OF WILMINGTON**

GRADING PLAN FOR  
**FRIENDS SCHOOL OF WILMINGTON**  
 LOCATED IN WILMINGTON TOWNSHIP,  
 NEW HANOVER COUNTY, NORTH CAROLINA  
 OWNER: FRIENDS SCHOOL OF WILMINGTON INC  
 550 PEELEER AVENUE  
 WILMINGTON, NC 28409  
 PH. 910-792-1811



REV. NO.	DATE	REMARKS
6	7/15/19	OMITTED SOCCER FIELD GRADING, REVISED TICS & DETAILS
5	4/24/19	REVISED PERVIOUS PAVING
4	3/20/19	REVISED PERVIOUS PAVING
3	2/27/19	ADDED GRADING AT REEFER ENTRANCE & REVISED SHEET NUMBERS
2	1/7/19	ADDED GRADING AT REEFER ENTRANCE & REVISED SHEET NUMBERS
1	7/16/18	REVISED SHEET NUMBERS

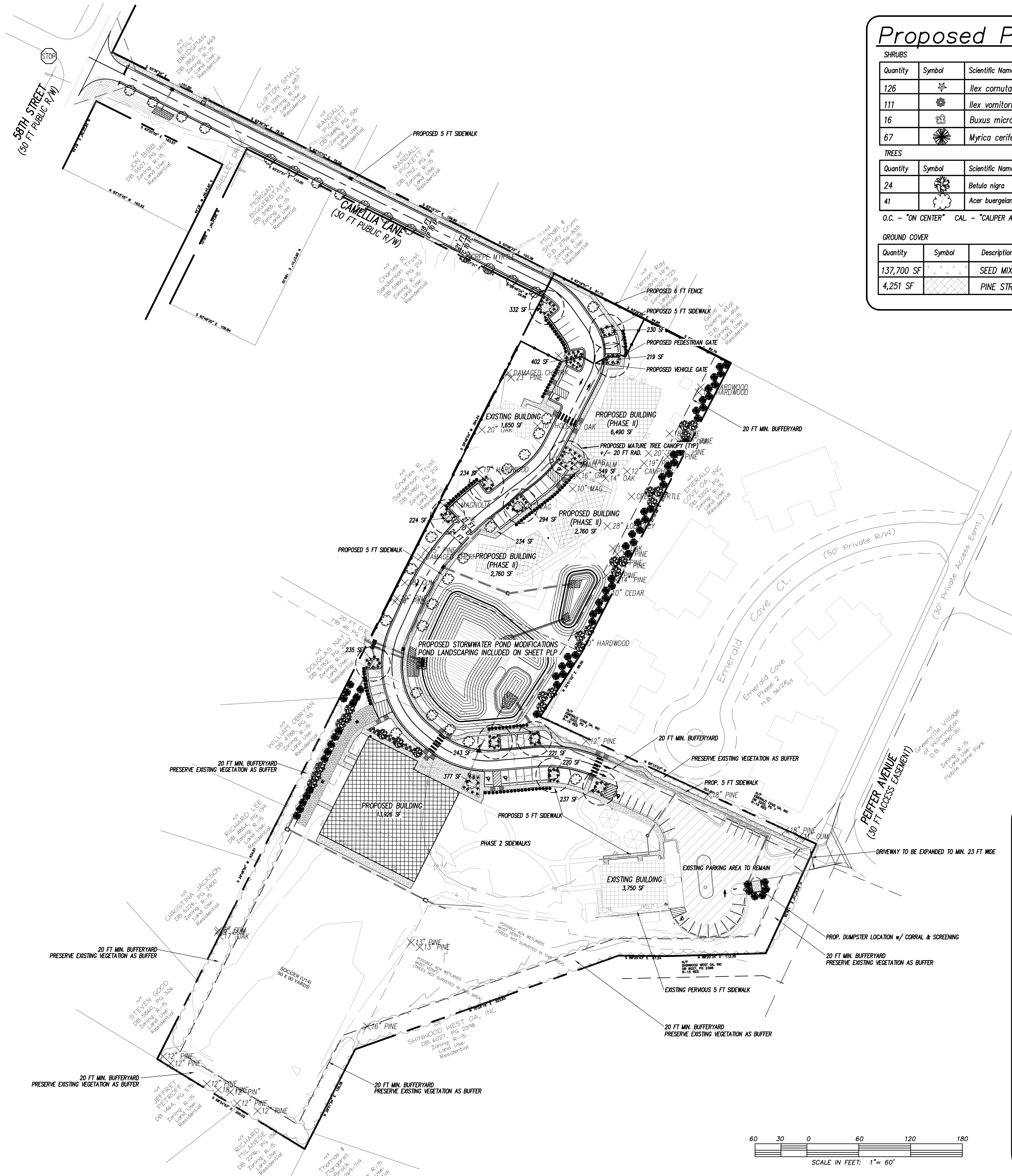
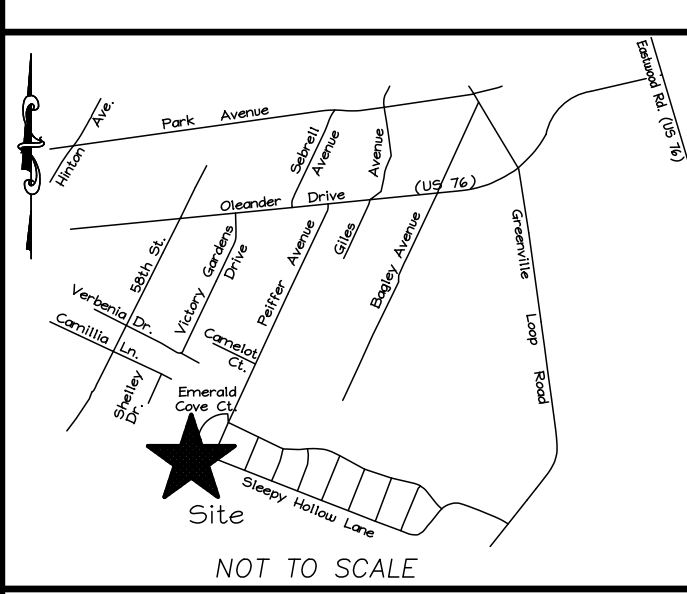
DATE: 6-4-18  
 HORIZ. SCALE: 1" = 30'  
 VERT. SCALE: N/A  
 DRAWN BY: JSM  
 CHECKED BY: HSR  
 PROJECT NO.: 05-0040



INSTALL CURB CUT PER DETAIL THIS SHEET



# LOCATION MAP



## Proposed Plant Table

SHRUBS					
Quantity	Symbol	Scientific Name	Common Name	Planting Size	Planting Remarks
126		<i>Ilex cornuta</i>	Needlepoint Holly	7 GAL. 3' HT.	STREETYARD SHRUB
111		<i>Ilex vomitoria</i>	Dwarf Yaupon Holly	3 Gal.	PARKING LOT
16		<i>Buxus microphylla</i>	Wintergreen Boxwood	3 Gal.	FOUNDATION
67		<i>Myrica cerifera</i>	Wax Myrtle	7 Gal. 3' Ht.	BUFFERYARD SHRUB
TREES					
Quantity	Symbol	Scientific Name	Common Name	Planting Size	Planting Remarks
24		<i>Betula nigra</i>	River Birch	3" CAL.	STREETYARD TREES
41		<i>Acer buergerianum</i>	Trident Maple	2" CAL.	PARKING LOT
O.C. - "ON CENTER" CAL. - "CALIPER AT 6" ABOVE GRADE" GAL. - "GALLON CONTAINER"					
GROUND COVER					
Quantity	Symbol	Description			
137,700 SF		SEED MIX			
4,251 SF		PINE STRAW			

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

### Approved Construction Plan

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Planning: \_\_\_\_\_

Traffic: \_\_\_\_\_

Fire: \_\_\_\_\_



Public Services • Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

### LEGEND

- EXISTING BOUNDARY
- PROP BUILDING
- EXISTING CONCRETE
- PERVIOUS MATERIAL
- EXISTING WATER
- EXISTING SEWER
- EXISTING FIRE HYDRANT
- EXISTING CONTOUR
- EXISTING STORM DRAIN
- EXISTING TREE
- PROPOSED TREE

### LANDSCAPE CALCULATIONS:

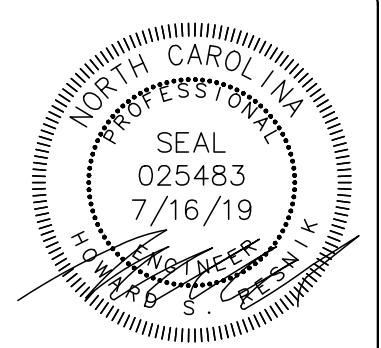
- FOUNDATION LANDSCAPING:**  
 3,300 SF BLDG FACE \* 12% = 396 SF REQ'D FOUNDATION LANDSCAPING.  
 428 SF FOUNDATION LANDSCAPING PROVIDED.
- PARKING ISLAND LANDSCAPING:**  
 1 CANOPY TREE AND SHRUBBERY \* 12 INTERIOR PARKING ISLANDS  
 12 CANOPY TREES AND SHRUBS REQ'D.  
 CANOPY TREES / SHADE TREES PLACED THROUGHOUT PARKING AREA TO AVOID CONFLICT WITH DESIGNED UTILITIES.
- TREES & SHRUBS IN THE SETBACK AREA SHALL BE MAINTAINED BY THE OWNER TO ENSURE THAT THE MATERIAL LIVES & PROSPERS.**
- PARKING AREA SCREENING:**  
 SHRUBBERY PROVIDED FOR MAXIMUM OPACITY OF VEHICLE HEADLIGHTS.
- LANDSCAPE CALCULATIONS BY TOTAL AREA AS FOLLOWS:**  
 TOTAL PROJECT LIMITS = 81,403 SF, TOTAL LANDSCAPED AREA = 6,393 SF  
 $6,393 / 81,403 = 0.0785$  OR 7.9%  
 $7.9% > 6%$  (MINIMUM LANDSCAPED AREA)  
 -ONE (1) TREE AND SIX SHRUBS REQ'D FOR EVERY FIFTEEN (15) PARKING SPACES.  
 $1 / 15 = 0.0667$  TREES PER PARKING SPACE,  $6 / 15 = 0.4$  SHRUBS PER PARKING SPACE.  
 40 PARKING SPACES PROVIDED:  $40 * 0.0667 = 2.668$  TREES REQ'D, 12 SHADE TREES PROVIDED  
 $40 * 0.4 = 16$  SHRUBS REQ'D, 128 VARIOUS SHRUBS PROVIDED
- STREET TREE CALCULATIONS [SEC. 19-196(c)(10)] AS FOLLOWS:**  
 -ONE (1) STREET TREE FOR EVERY THIRTY (30) FEET OF PROPERTY FRONTAGE.  
 -STREET TREES ADDED IN AND AMONGST EXISTING TREES TO MEET REQUIREMENT.  
 -STREET TREES NOT PROVIDED FOR CAMELLIA LANE IMPROVEMENTS DUE TO LIMITED SPACE.  
 STREET TREES REQUIRED: 34  
 STREET TREES PROVIDED: 32 (SIGHT DISTANCE TRIANGLES PROHIBIT THE PLACEMENT OF STREET TREES ALONG PROPOSED PROPERTY FRONTAGE. STREET TREE REQUIREMENTS SHALL BE MET BY MEANS OF A PAYMENT IN LIEU TO THE CITY OF WILMINGTON TREE FUND.)
- PARKING AREA SHADE CALCULATIONS:**  
 6,852 SF PARKING AREA; 20% SHADE REQ'D;  $6,852 * 0.2 = 1,370.4$  SF OF REQ'D SHADE.  
 2,283 SF OF SHADE AREA PROVIDED AT MATURITY.
- BUFFERYARDS - [SEC. 19-406]**  
 PLANTED BUFFERYARDS TO PROVIDE 100% OPACITY.  
 REQ'D; 1 TREE EVERY 30 FT & SHRUBS PROVIDED TO PROVIDE OPACITY.  
 SELECT BUFFERYARDS TO EMPLOY EXISTING VEGETATION.  
 VARYING HEIGHT WOOD FENCING TO BE USED IN OTHER AREAS.



ENGINEERING  
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LANDSCAPE PLAN  
 for  
**FRIENDS SCHOOL OF WILMINGTON**

LANDSCAPE PLAN for  
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 LOCATED IN WILMINGTON TOWNSHIP  
 NEW HANOVER COUNTY, NORTH CAROLINA  
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REV.	DATE	BY	REMARKS
1	7/16/19	JSM	
2	7/16/19	RLW	
3	7/16/19	RLW	
4	7/16/19	RLW	
5	7/16/19	JSM	

DATE: 6-4-18  
 HORZ. SCALE: 1" = 60'  
 VERT. SCALE: N/A  
 DRAWN BY: RLW  
 CHECKED BY: HSR  
 PROJECT NO.: 05-0040  
 Sheet No. **LP** of **LP**