

VICINITY MAP (N.T.S.)

SITE DATA

PROJECT: BLAIR ELEMENTARY SCHOOL
 OWNER: NEW HANOVER COUNTY SCHOOLS
 OWNER CONTACT: NEW HANOVER COUNTY BOARD OF EDUCATION
 DESIGNER: CLH DESIGN, PA
 DESIGNER CONTACT: ZAK PIERCE
 PROJECT ADDRESS: 6510 MARKET STREET WILMINGTON, NC 28405
 PIN: R05008-003-032-000
 ZONING: O&I-1
 OVERLAY DISTRICT: N/A
 EXISTING USE: INSTITUTIONAL/EDUCATIONAL
 PROPOSED USE: INSTITUTIONAL/EDUCATIONAL
 TRACT AREA: 13.79 ACRES (600,692.4 SF)
 FLOODPLAIN: SITE IS NOT WITHIN A FLOODPLAIN (REF: FIRM 3720315800J, APRIL 3, 2006)

THERE ARE NO WETLANDS ON THIS SITE.
 THERE ARE NO ENDANGERED SPECIES OR HABITATS ON THIS SITE.
 BUILDING SETBACKS: REQUIRED PROVIDED
 FRONT 20' 147'
 REAR 20' 96'
 INTERIOR SIDE 20' 381'

TYPE OF CONSTRUCTION: TYPE IIB

PARKING REQUIREMENTS:

PARKING CODE: 1 SPACE PER TEACHER OR STAFF PERSON*
 NO. OF TEACHERS AND STAFF: 50
 TOTAL SPACES REQ'D: 50
 TOTAL SPACES PROVIDED: 111
 TOTAL H/C SPACES REQ'D: 5
 TOTAL H/C SPACES PROVIDED: 5 (W/ 2 VAN ACCESSIBLE)
 *IF A PARKING GROUP DOES NOT CONTAIN A SPECIFIC MAXIMUM LIMIT ON THE NUMBER OF PARKING SPACES, THE MAXIMUM ALLOWABLE PARKING SPACES SHALL BE 150 PERCENT OF THE MINIMUM PARKING STANDARD FOR SUCH PARKING GROUPS.
 TOTAL BICYCLE SPACES REQ'D: 10
 TOTAL BICYCLE SPACES PROVIDED: 20

NUMBER OF PROPOSED BUILDINGS: 1
 NUMBER OF FLOORS ON PROPOSED BUILDING: 1
 GROSS FLOOR AREA: EXISTING: 49,624 SQFT.
 PROPOSED 1ST FLOOR: 56,781 SQFT.
 PROPOSED 2ND FLOOR: 30,844 SQFT.
 PROPOSED TOTAL: 87,625 SQFT.

BUILDING LOT COVERAGE-EXISTING: 8.3%
 BUILDING LOT COVERAGE-PROPOSED: 9.5%
 MAX. BUILDING HEIGHT PROPOSED: 33' 1"

EXISTING IMPERVIOUS (WITHIN PROJECT LIMITS): 4.20-AC (183,092-SF)
 PROPOSED IMPERVIOUS (WITHIN PROJECT LIMITS): 5.08-AC (221,232-SF)

CAMA LAND USE CLASSIFICATION: URBAN
 CAMA AREAS OF CONCERN (AEC): THIS SITE IS NOT WITHIN A CAMA AEC.

THE SITE HAS NO LOCAL, STATE OR FEDERALLY RECOGNIZED HISTORIC STRUCTURES OR ARCHAEOLOGICAL RESOURCES.
 THE SITE HAS NO CEMETARIES, BURIAL SITES OR BURIAL GROUNDS.
 THE SITE HAS NO EXISTING EASEMENT ON SITE.

PROPOSED WATER AND SEWER CAPACITY:

WATER: 7,200 GPD (600 STUDENTS X 12 GPD)
 SEWER: 7,200 GPD (600 STUDENTS X 12 GPD)

A TREE REMOVAL/PRESERVATION PERMIT IS REQUIRED PRIOR TO REMOVING ANY TREES. CONTRACTOR SHALL OBTAIN & COMPLETE PERMIT. CONTACT CITY OF WILMINGTON ZONING DEPARTMENT TO OBTAIN COPY OF PERMIT.

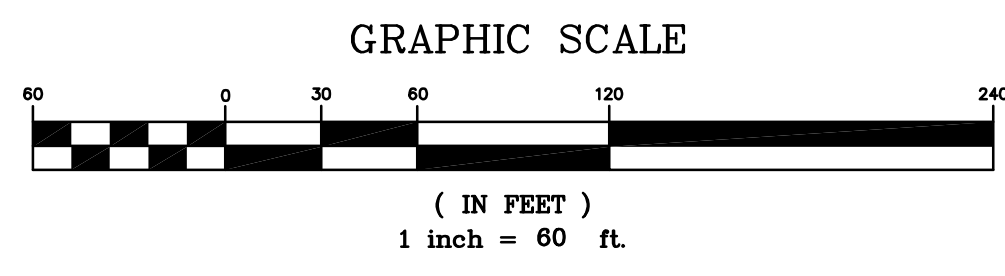
CITY OF WILMINGTON NOTES

- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING SHALL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN TREE PROTECTION FENCING.
- ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING OR STAGING OF MATERIALS WILL OCCUR IN THOSE AREAS.
- NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING IS INSTALLED AND APPROVED. PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT, AND CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION METHODS.
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
- ONCE STREETS ARE OPEN TO TRAFFIC, CONTACT TRAFFIC ENGINEERING REGARDING THE INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
- CONTACT TRAFFIC ENGINEERING AT 910.341.7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
- CALL TRAFFIC ENGINEERING AT 910.341.7888 FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
- TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
- ALL PARKING STALL MARKINGS AND LANE ARROWS WITH THE PARKING AREAS SHALL BE WHITE.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER.
- STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
- TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.
- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET.
- ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS & CURBING WILL BE REPLACED.
- CONTACT TRAFFIC ENGINEERING AT 910.341.7888 TO DISCUSS STREET LIGHT OPTIONS.
- WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) DETAILS AND SPECIFICATIONS.
- PROJECT SHALL COMPLY WITH CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 910.343.3910 FOR INFORMATION.
- IF THE CONTRACTOR DESIRED CFPUA WATER FOR CONSTRUCTION, HE 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.
- ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH THE CFPUA CROSS CONNECTION CONTROL REGULATIONS. CALL 910.343.3910 FOR INFORMATION.
- ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
- ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USDFCQCHR OR ASSE.
- CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.
- CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- UNDERGROUND FIRE LINE(S) MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910.341.0696.
- NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SIGHT DISTANCE.
- CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1.800.632.4949 PRIOR TO DOING ANY DIGGING, CLEARING OR GRADING.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- 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 THE RECORDING OF THE FINAL PLAN.
- PERMITTING OF BUSINESS IDENTIFICATION SIGNAGE IS A SEPARATE PROCESS. NCDOT/CITY OF WILMINGTON WILL NOT ALLOW OBSTRUCTIONS WITHIN THE RIGHT OF WAY.

APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING _____	_____
TRAFFIC _____	_____
FIRE _____	_____

City of Wilmington
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: _____ Permit # _____
 Signed: _____



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 Delivery Methods

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 ARCHITECTS

**NOT FOR CONSTRUCTION
 FOR REVIEW ONLY**

CLH DESIGN, P.A.
 400 Regency Forest Drive
 Suite 120
 Cary, North Carolina 27518
 Phone: (919) 319-6716
 Fax: (919) 319-7516
 PE: C-1096

DESIGN DEVELOPMENT SUBMITTAL FOR:
**BLAIR ELEMENTARY SCHOOL
 NEW HANOVER COUNTY SCHOOLS**
 WILMINGTON, NORTH CAROLINA

ENERGY STAR PARTNER

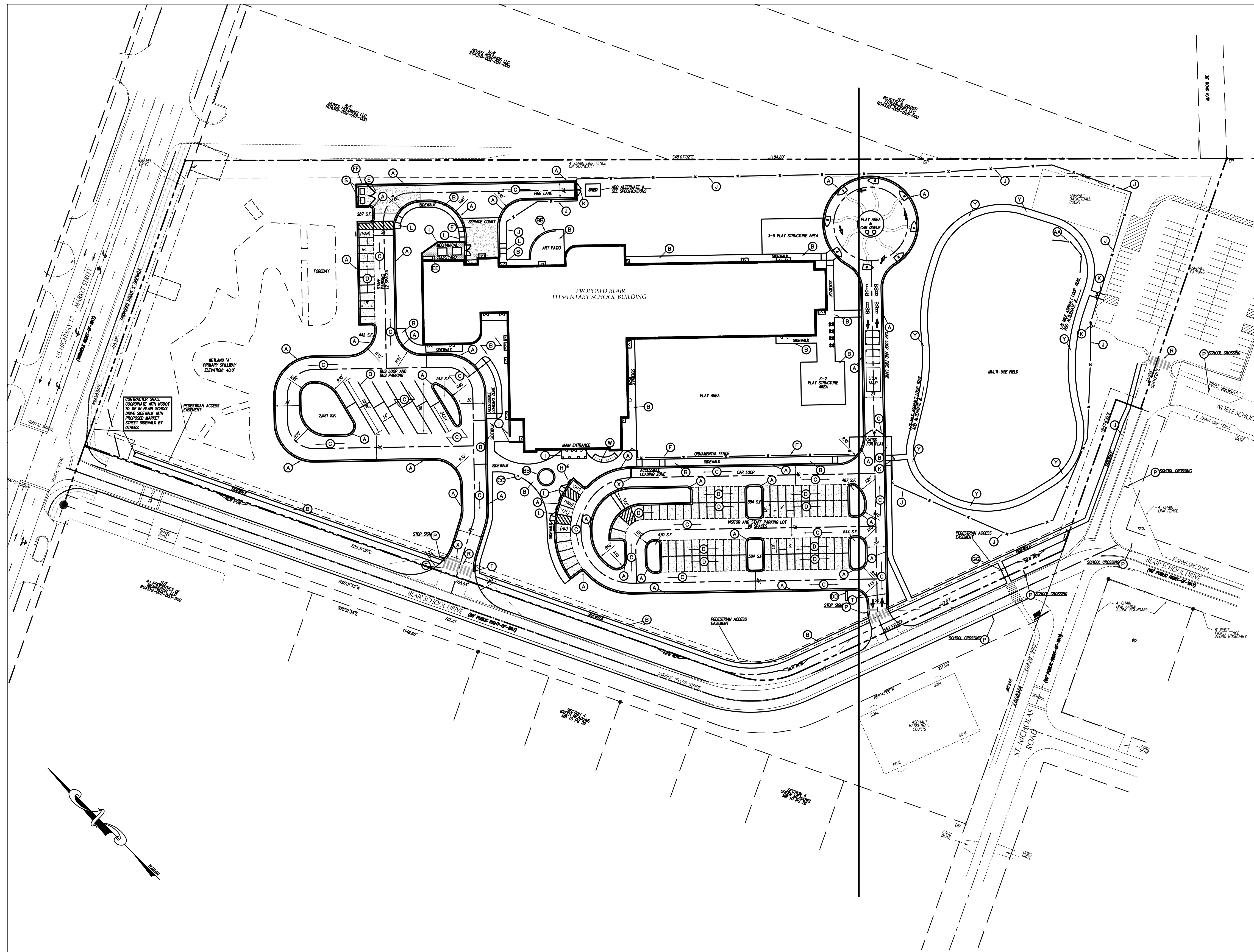
ID	DATE	DESCRIPTION

PROJECT #: SFLA-01504.000
 CLH-15-143
 CAD TECH.: MB
 CAD TECH.: YLA
 CHECKED BY: KAL/ZRP

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OVERALL
 SITE PLAN

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Becoming the
Leading Designer of
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in the Nation with a
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Delivery Methods

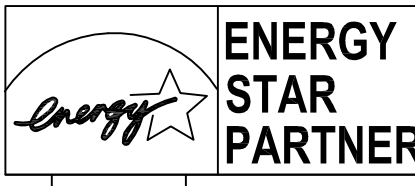
Capital Bank Plaza
333 Fayetteville St.
Suite 225
Raleigh, NC 27601
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sfl+a
ARCHITECTS

**NOT FOR CONSTRUCTION
FOR REVIEW ONLY**

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400 Regency Forest Drive
Suite 150
Cary, North Carolina 27518
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Fax: (919) 519-7516
C-109
PE: C-1096

DESIGN DEVELOPMENT SUBMITTAL FOR:
**BLAIR ELEMENTARY SCHOOL
NEW HANOVER COUNTY SCHOOLS**
WILMINGTON, NORTH CAROLINA



ID	DATE	DESCRIPTION
	10/03/2016	ISSUE DATE:
PROJECT #: SFLA - 01504.000 CLH - 15-143		
CAD TECH.: MB		
CAD TECH.: YLA		
CHECKED BY: KAL/ZRP		

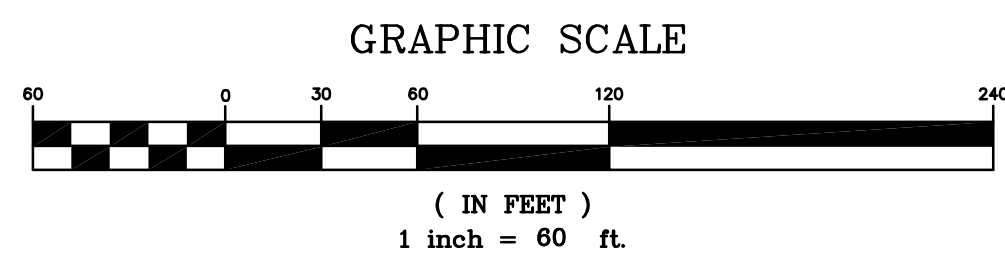
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OVERALL SITE
STAKING PLAN

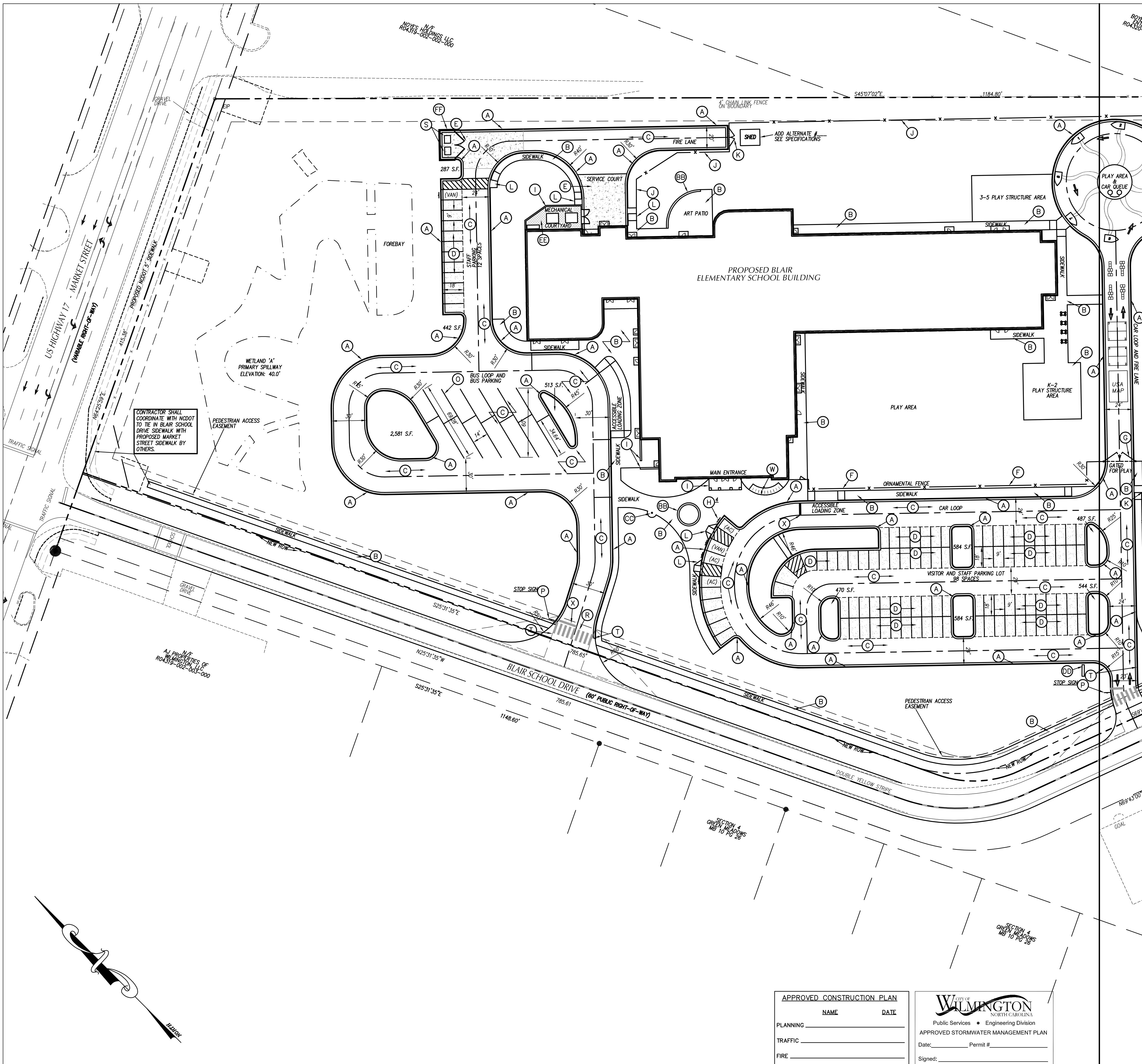
APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING	
TRAFFIC	
FIRE	

City of **WILMINGTON**
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____



C1.0



- ### KEY NOTES
- (A) 24" CONCRETE CURB & GUTTER, SEE DETAIL SHEET C7.2.
 - (B) CONCRETE SIDEWALK, SEE DETAIL SHEET C7.2.
 - (C) HEAVY DUTY ASPHALT PAVEMENT, SEE DETAIL SHEET C7.2.
 - (D) PERVIOUS CONCRETE PAVEMENT, SEE DETAIL SHEET C7.13.
 - (E) CONCRETE PAVEMENT, SEE DETAIL SHEET C7.2.
 - (F) ORNAMENTAL FENCE, SEE ARCHITECTURAL PLANS.
 - (G) PIPE GATE, SEE DETAIL SHEET C7.9.
 - (H) ACCESSIBLE PARKING SIGNAGE, SEE DETAIL SHEET C7.3.
 - (I) SEE ARCHITECTURAL PLANS FOR SCREEN WALLS, RAMP, CANOPY, STEPS, ETC.
 - (J) VINYL COATED CHAIN-LINK FENCE, SEE DETAIL SHEET C7.13.
 - (K) VINYL COATED CHAIN-LINK GATE, SEE DETAIL SHEET C7.13.
 - (L) ACCESSIBLE CURB RAMP, SEE DETAIL SHEET C7.3.
 - (M) ASPHALT PAVEMENT FLUSH WITH SIDEWALK.
 - (N) DIRECTIONAL ARROW, SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - (O) SOLID WHITE MARKING, SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - (P) TRAFFIC CONTROL SIGNAGE, SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - (Q) FIRE LANE STRIPING, SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - (R) HI-VIS CROSSWALK, SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - (S) DUMPSTERS, PROVIDED BY OWNER, RELOCATED BY CONTRACTOR. COORDINATE WITH OWNER FOR TEMPORARY LOCATION DURING CONSTRUCTION. REFER TO STAKING PLANS FOR FINAL LOCATION AFTER CONSTRUCTION.
 - (T) STANDARD METHOD OF ENDING CURB, SEE DETAIL SHEET C7.2.
 - (U) PRE-CAST CONCRETE WHEEL STOP, SEE DETAIL SHEET C7.2.
 - (V) NO PARKING - FIRE LANE SIGNAGE, SEE DETAIL SHEET C7.2.
 - (W) BIKE RACKS, SEE DETAIL SHEET C7.2.
 - (X) STOP BAR, SEE TRAFFIC CONTROL NOTES THIS SHEET.
 - (Y) ASPHALT WALKING TRAIL, SEE DETAIL SHEET C7.2.
 - (Z) SIDEWALK FLUSH W/ PAVEMENT, SEE ACCESS. PARKING CURB RAMP DETAIL SHEET C7.2.
 - (AA) TEE-BALL BACKSTOP, SEE DETAIL SHEET.
 - (BB) SEAT WALL, SEE DETAIL SHEET C7.13.
 - (CC) FLAG POLE, SEE DETAIL SHEET C7.2.
 - (DD) MONUMENT SIGN, SEE ARCHITECTURAL PLANS.
 - (EE) 4" THICK WASHED #57 STONE.
 - (FF) DUMPSTER ENCLOSURE, SEE DETAIL SHEET C7.13.
 - (GG) CONCRETE SIDEWALK WITH CULVERT CROSSING, SEE DETAIL SHEET C7.2.

- ### GENERAL NOTES
1. ALL DIMENSIONS SHOWN ARE FACE OF CURB AND FACE OF BUILDING WALL, UNLESS OTHERWISE SHOWN.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS SHOWN AND CONTACT THE ARCHITECT IF ANY DISCREPANCIES OCCUR.
 3. CONSTRUCTION STAKE OUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
 4. ALL SIGNS AND PAVEMENT MARKINGS ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
 5. PAVEMENT MARKINGS IN PUBLIC RIGHT-OF-WAYS AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY OF WILMINGTON AND/OR NCDOT STANDARDS.
 6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON STANDARDS AND SPECIFICATIONS.
 7. REPLACEMENT OF ANY BROKEN OR DAMAGED CONCRETE SIDEWALK PANELS OR CURBING THAT OCCURS DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
 8. ALL PARKING STALL RADI SHALL BE 4' UNLESS OTHERWISE NOTED.
 9. PIPE GATE AT THE BUS DROP-OFF/FIRE LANE SHALL MEET THE CITY OF WILMINGTON FIRE SERVICES GATE REQUIREMENTS FOR LOCKING ARRANGEMENTS.
 10. NO PORTION OF THIS PROPERTY IS LOCATED IN THE 100 YEAR FLOOD ZONE PER FIRM PANEL 3720315800 J DATED APR. 3, 2006.

- ### TRAFFIC CONTROL NOTES
1. ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.

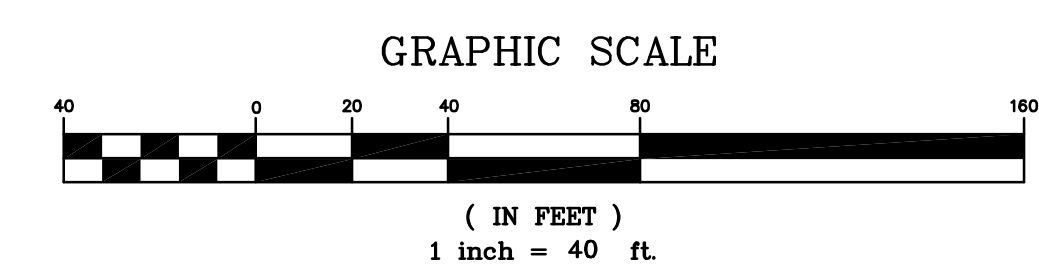
SIGN	MUTCD STD.	SIZE
STOP	R1-1	30"x30"
ONE WAY	R6-1	36"x12"
DO NOT ENTER (DNE)	R5-1	30"x30"
SCHOOL CROSSING	S1-1	36"x36"
 2. ALL SIGNS SHALL BE MOUNTED WITH 7'-FT MIN. VERTICAL CLEARANCE TO THE BOTTOM OF THE SIGN ON 2'-LB. GALV. STEEL U-CHANNEL POST SET IN 3'-FT DEEP x 12"-IN DIA. CONCRETE FOOTING.
 3. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MUTCD AND NCDOT STANDARDS AND THE PROJECT SPECIFICATIONS.

MARKING	NCDOT STD.	SIZE	COLOR
PARKING SPACE	-	4-IN	WHT.
DIRECTIONAL ARROWS	1205.08	STD.	WHT.
NO PARKING - FIRE LANE	-	4-IN	WHT.
SOLID CROSSWALK	1205.07(HI-VIS)	24-IN	WHT.
STOP BAR	-	24-IN	WHT.
 - * NO PARKING - FIRE LANE MARKING SHALL CONSIST OF A 4" SOLID WHITE STRIPE AND 8" HIGH WHITE TEXT "NO PARKING - FIRE LANE" AT 50' INTERVALS. PROVIDE IN ALL PAVED AREAS AS DESIGNATED BY FIRE MARSHALL.
 4. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC TYPE EXCEPT FOR PARKING SPACES WHICH MAY BE THERMOPLASTIC OR ALKYD-RESIN TYPE PAINT PER CITY OF WILMINGTON STANDARDS.
 5. ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY CLH DESIGN PRIOR TO SIGN INSTALLATION.
 6. CENTER ALL DIRECTIONAL ARROWS WITHIN TRAVEL LANE.
 7. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.

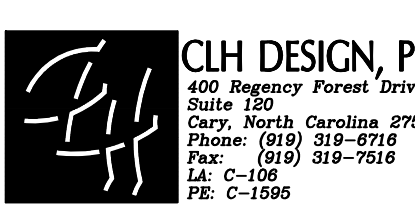
APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING _____	_____
TRAFFIC _____	_____
FIRE _____	_____

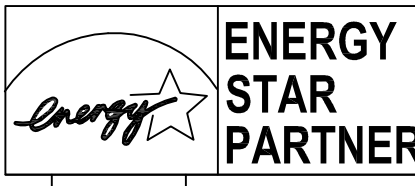
City of WILMINGTON
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____



NOT FOR CONSTRUCTION FOR REVIEW ONLY



DESIGN DEVELOPMENT SUBMITTAL FOR:
BLAIR ELEMENTARY SCHOOL
NEW HANOVER COUNTY SCHOOLS
WILMINGTON, NORTH CAROLINA

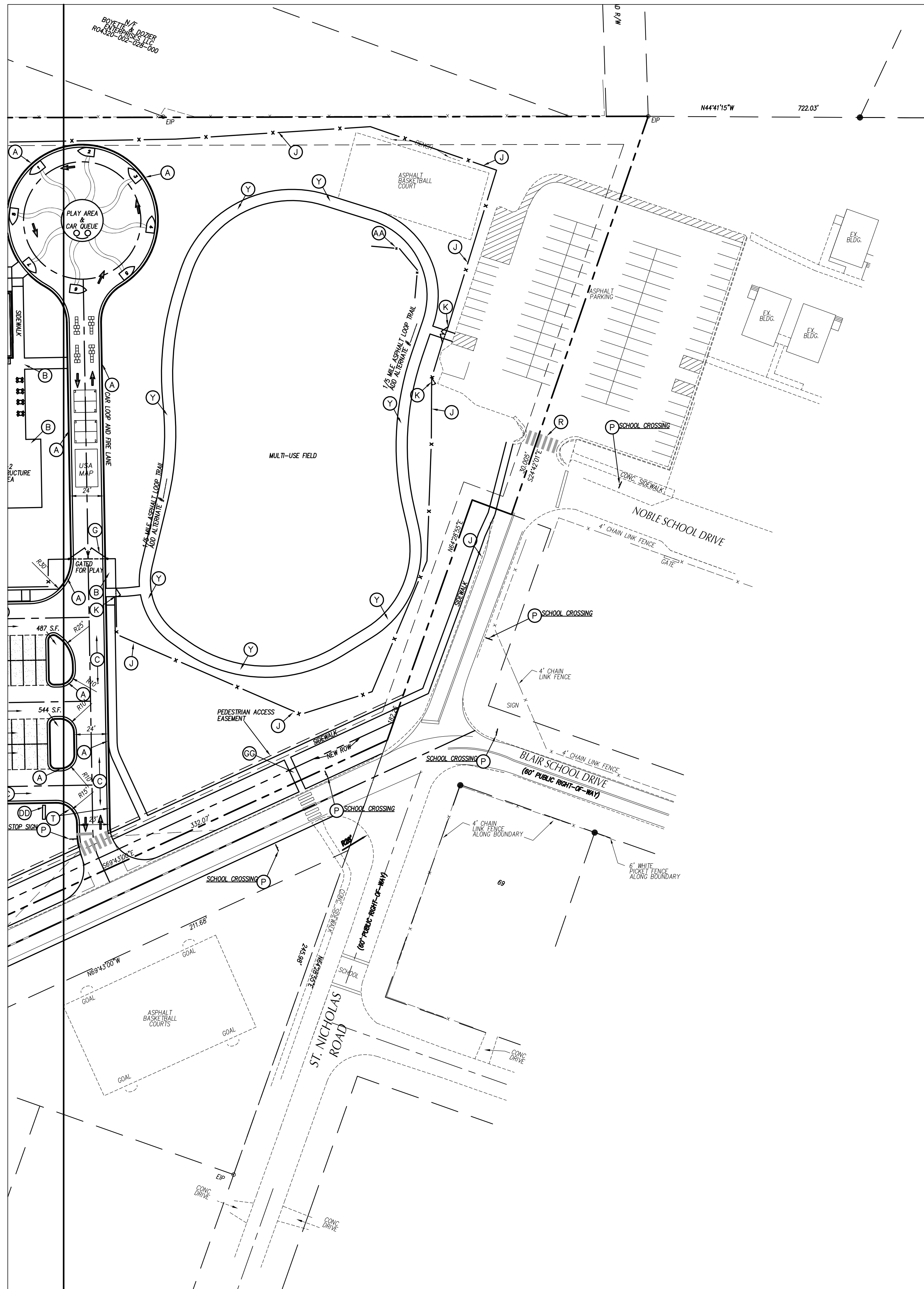


ID	DATE	DESCRIPTION
		ISSUE DATE: 10/03/2016
		PROJECT #: SFLA - 01504.000
		CAD TECH.: MB
		CAD TECH.: YLA
		CHECKED BY: KAL/ZRP

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SITE STAKING PLAN

C1.1



KEY NOTES

- (A) 24" CONCRETE CURB & GUTTER, SEE DETAIL SHEET C7.2.
- (B) CONCRETE SIDEWALK, SEE DETAIL SHEET C7.2.
- (C) HEAVY DUTY ASPHALT PAVEMENT, SEE DETAIL SHEET C7.2.
- (D) PERVIOUS CONCRETE PAVEMENT, SEE DETAIL SHEET C7.13.
- (E) CONCRETE PAVEMENT, SEE DETAIL SHEET C7.2.
- (F) ORNAMENTAL FENCE, SEE ARCHITECTURAL PLANS.
- (G) PIPE GATE, SEE DETAIL SHEET C7.9.
- (H) ACCESSIBLE PARKING SIGNAGE, SEE DETAIL SHEET C7.3.
- (I) SEE ARCHITECTURAL PLANS FOR SCREEN WALLS, RAMP, CANOPY, STEPS, ETC.
- (J) VINYL COATED CHAIN-LINK FENCE, SEE DETAIL SHEET C7.13.
- (K) VINYL COATED CHAIN-LINK GATE, SEE DETAIL SHEET C7.13.
- (L) ACCESSIBLE CURB RAMP, SEE DETAIL SHEET C7.3.
- (M) ASPHALT PAVEMENT FLUSH WITH SIDEWALK.
- (N) DIRECTIONAL ARROW, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (O) SOLID WHITE MARKING, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (P) TRAFFIC CONTROL SIGNAGE, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (Q) FIRE LANE STRIPING, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (R) HI-VIS CROSSWALK, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (S) DUMPSTERS, PROVIDED BY OWNER, RELOCATED BY CONTRACTOR. COORDINATE WITH OWNER FOR TEMPORARY LOCATION DURING CONSTRUCTION. REFER TO STAKING PLANS FOR FINAL LOCATION AFTER CONSTRUCTION.
- (T) STANDARD METHOD OF ENDING CURB, SEE DETAIL SHEET C7.2.
- (U) PRE-CAST CONCRETE WHEEL STOP, SEE DETAIL SHEET C7.2.
- (V) NO PARKING - FIRE LANE SIGNAGE, SEE DETAIL SHEET C7.2.
- (W) BIKE RACKS, SEE DETAIL SHEET C7.2.
- (X) STOP BAR, SEE TRAFFIC CONTROL NOTES THIS SHEET.
- (Y) ASPHALT WALKING TRAIL, SEE DETAIL SHEET C7.2.
- (Z) SIDEWALK FLUSH W/ PAVEMENT, SEE ACCESS. PARKING CURB RAMP DETAIL SHEET C7.2.
- (AA) TEE-BALL BACKSTOP, SEE DETAIL SHEET.
- (BB) SEAT WALL, SEE DETAIL SHEET C7.13.
- (CC) FLAG POLE, SEE DETAIL SHEET C7.2.
- (DD) MONUMENT SIGN, SEE ARCHITECTURAL PLANS.
- (EE) 4" THICK WASHED #57 STONE.
- (FF) DUMPSTER ENCLOSURE, SEE DETAIL SHEET C7.13.
- (GG) CONCRETE SIDEWALK WITH CULVERT CROSSING, SEE DETAIL SHEET C7.2.

GENERAL NOTES

1. ALL DIMENSIONS SHOWN ARE FACE OF CURB AND FACE OF BUILDING WALL, UNLESS OTHERWISE SHOWN.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS SHOWN AND CONTACT THE ARCHITECT IF ANY DISCREPANCIES OCCUR.
3. CONSTRUCTION STAKE OUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. ALL SIGNS AND PAVEMENT MARKINGS ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
5. PAVEMENT MARKINGS IN PUBLIC RIGHT-OF-WAYS AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY OF WILMINGTON AND/OR NCDOT STANDARDS.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON STANDARDS AND SPECIFICATIONS.
7. REPLACEMENT OF ANY BROKEN OR DAMAGED CONCRETE SIDEWALK PANELS OR CURBING THAT OCCURS DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
8. ALL PARKING STALL RADI SHALL BE 4' UNLESS OTHERWISE NOTED.
9. PIPE GATE AT THE BUS DROP-OFF/FIRE LANE SHALL MEET THE CITY OF WILMINGTON FIRE SERVICES GATE REQUIREMENTS FOR LOCKING ARRANGEMENTS.
10. NO PORTION OF THIS PROPERTY IS LOCATED IN THE 100 YEAR FLOOD ZONE PER FIRM PANEL 3720315800 J DATED APR. 3, 2006.

TRAFFIC CONTROL NOTES

1. ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.

SIGN	MUTCD STD.	SIZE
STOP	R1-1	30"x30"
ONE WAY	R6-1	36"x12"
DO NOT ENTER (DNE)	R5-1	30"x30"
SCHOOL CROSSING	S1-1	36"x36"
2. ALL SIGNS SHALL BE MOUNTED WITH 7'-FT MIN. VERTICAL CLEARANCE TO THE BOTTOM OF THE SIGN ON 2"-LB. GALV. STEEL U-CHANNEL POST SET IN 3'-FT DEEP x 12"-IN DIA. CONCRETE FOOTING.
3. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MUTCD AND NCDOT STANDARDS AND THE PROJECT SPECIFICATIONS.

MARKING	NCDOT STD.	SIZE	COLOR
PARKING SPACE	-	4'-IN	WHT.
DIRECTIONAL ARROWS	1205.08	STD.	WHT.
NO PARKING - FIRE LANE *	-	4'-IN	WHT.
SOLID	-	4'-IN	WHT.
CROSSWALK	1205.07(HI-VIS)	24'-IN	WHT.
STOP BAR	-	24'-IN	WHT.

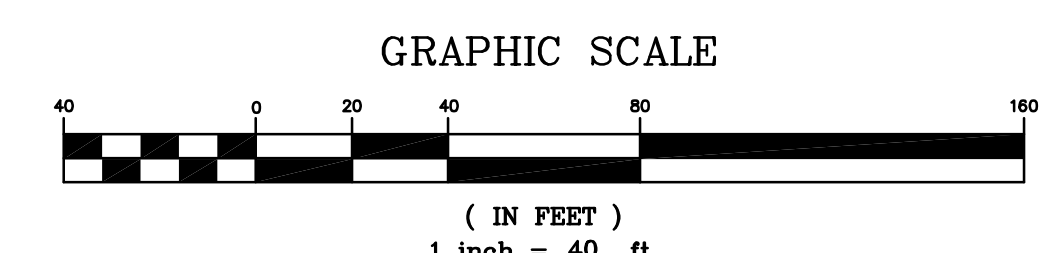
* NO PARKING - FIRE LANE MARKING SHALL CONSIST OF A 4" SOLID WHITE STRIPE AND 8" HIGH WHITE TEXT "NO PARKING - FIRE LANE" AT 50' INTERVALS. PROVIDE IN ALL PAVED AREAS AS DESIGNATED BY FIRE MARSHALL.
4. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC TYPE EXCEPT FOR PARKING SPACES WHICH MAY BE THERMOPLASTIC OR ALKYD-RESIN TYPE PAINT PER CITY OF WILMINGTON STANDARDS.
5. ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY CLH DESIGN PRIOR TO SIGN INSTALLATION.
6. CENTER ALL DIRECTIONAL ARROWS WITHIN TRAVEL LANE.
7. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.

APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING _____	_____
TRAFFIC _____	_____
FIRE _____	_____

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

Date: _____ Permit # _____
Signed: _____



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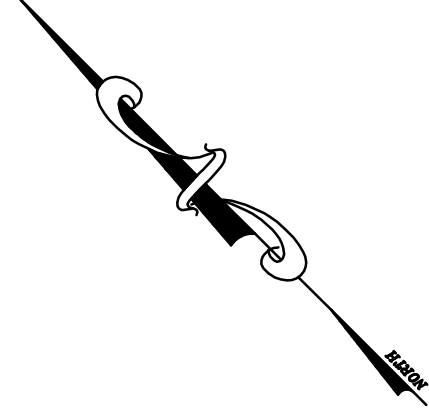
ENERGY STAR PARTNER

ID	DATE	DESCRIPTION
	10/03/2016	ISSUE DATE:
PROJECT #: SFLA - 01504.000 CLH - 15-143		
CAD TECH.: MB		
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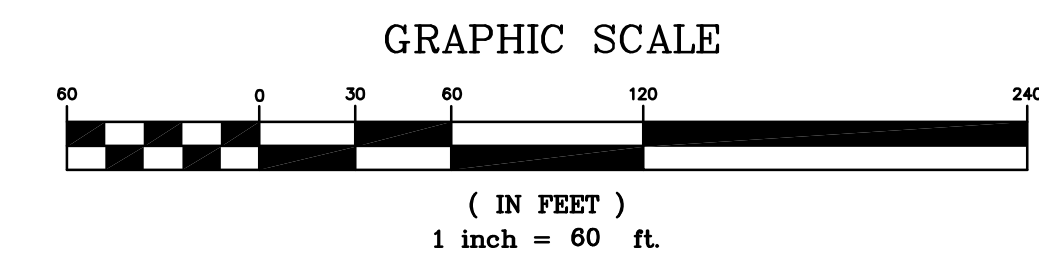
SITE STAKING PLAN

C1.2



APPROVED CONSTRUCTION PLAN	
NAME	DATE
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TRAFFIC _____	_____
FIRE _____	_____


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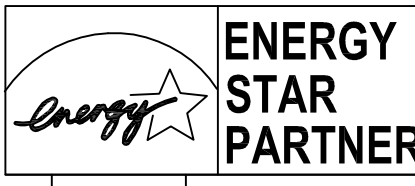
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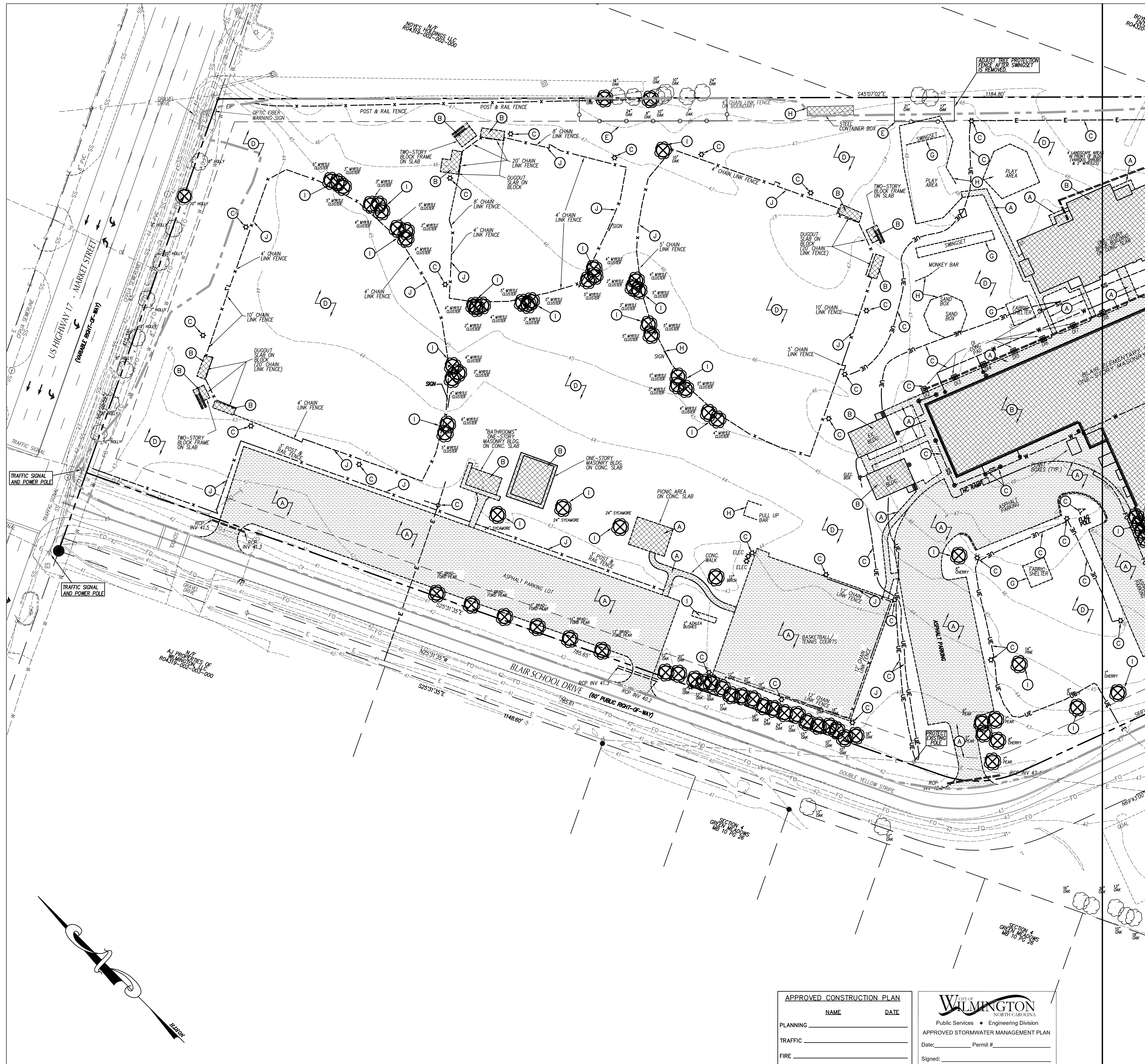


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OVERALL EXISTING
CONDITIONS AND
DEMO PLAN

C2.0



LEGEND-STRUCTURES/UTILITIES TO REMAIN

OVERHEAD ELECTRICAL	---	E	LIGHT POLE	☆	LP
UNDERGROUND ELECTRICAL	---	UE	UTILITY POLE	⊗	PP
FIRE PROTECTION	---	FP	MANHOLE	⊙	MH
GAS	---	G	CLEAN OUT	⊙	CO
SANITARY SEWER	---	SS	DROP INLET,CATCH BASIN	□	DI, CB
TELEPHONE	---	T	FIRE HYDRANT	⊙	FH
UNDERGROUND TELEPHONE	---	UT	WATER VALVE	⊙	WV
FIBER OPTIC	---	FO	CABLE PEDESTAL	⊙	
WATER	---	W			
FORCE MAIN	---	FM			
STORM DRAIN	---				
INDIVIDUAL TREE TO REMAIN					

LEGEND-STRUCTURES/UTILITIES TO BE REMOVED

OVERHEAD ELECTRICAL	---	E	LIGHT POLE	☆	LP
UNDERGROUND ELECTRICAL	---	UE	UTILITY POLE	⊗	PP
FIRE PROTECTION	---	FP	MANHOLE	⊙	MH
GAS	---	G	CLEAN OUT	⊙	CO
SANITARY SEWER	---	SS	DROP INLET,CATCH BASIN	□	DI, CB
TELEPHONE	---	T	FIRE HYDRANT	⊙	FH
UNDERGROUND TELEPHONE	---	UT	WATER VALVE	⊙	WV
FIBER OPTIC	---	FO	CONSTR./CLEARING LIMITS	---	
WATER	---	W	PAVEMENT, S/W, CONCRETE TO BE DEMOLISHED	---	
FORCE MAIN	---	FM	BUILDINGS TO BE DEMOLISHED REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.	---	
STORM DRAIN	---				
INDIVIDUAL TREE TO BE REMOVED					

KEY NOTES

- (A) SAWCUT AND REMOVE PAVEMENT, CURB & GUTTER, AND SIDEWALK.
- (B) BUILDING/STRUCTURES TO BE DEMOLISHED. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
- (C) STRUCTURES/UTILITIES TO BE REMOVED BY CONTRACTOR. COORDINATE W/ LOCAL UTILITY PROVIDERS AS REQUIRED, PRIOR TO REMOVING LIGHT/ELECTRICAL POLES.
- (D) CLEAR & GRUB WITHIN CONSTRUCTION LIMITS. SEE SPECIFICATIONS.
- (E) TREE PROTECTION FENCING, SEE DETAIL SHEET C7.1.
- (F) SCREEN WALL TO BE REMOVED.
- (G) ITEM TO BE SALVAGED AND RETURNED TO OWNER.
- (H) SITE ELEMENTS (TRASH CANS, BOLLARDS, BENCHES, SIGNS, ETC.) TO BE REMOVED.
- (I) SHRUBS/LANDSCAPING TO BE REMOVED.
- (J) FENCE TO BE REMOVED.

GENERAL NOTES

1. ADDITIONAL UTILITIES MAY BE ENCOUNTERED WITHIN THE CONSTRUCTION LIMITS. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING THESE ADDITIONAL UTILITIES.
2. OUTSIDE OF CONSTRUCTION LIMITS, ALL UTILITIES OR STRUCTURES NOT INDICATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE.
3. ALL WASTE MATERIAL GENERATED FROM CLEARING AND DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.
4. INSTALLED TREE PROTECTION FENCING PRIOR TO BEGINNING OPERATIONS. CLEAR AND GRUB AS NEEDED WITHIN CONSTRUCTION LIMITS PER SPECIFICATIONS AND DRAWINGS. EXISTING TREES, SHRUBS OR OTHER LANDSCAPE MATERIAL WHICH WILL CONFLICT WITH NEW CONSTRUCTION SHALL BE REMOVED (WHETHER OR NOT SHOWN ON THE DRAWINGS) FOLLOWING APPROVAL OF ARCHITECT. BY SUBMITTING A BID, CONTRACTOR ACKNOWLEDGES THAT THE SITE HAS BEEN INVESTIGATED TO DETERMINE TYPE, SIZE AND QUANTITY OF CLEARING REQUIRED FOR CONSTRUCTION.
5. LAND CLEARING AND CONSTRUCTION CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION REQUIREMENTS AND METHODS (PER CODE SECT. 18-457(D)).
6. NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING HAS BEEN INSTALLED AND APPROVED (PER CODE SECT. 18-458).
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11. VERIFY ALL ILLUSTRATED KNOWN UNDERGROUND ELEMENTS. EXERCISE REASONABLE EFFORTS TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS. NOTIFY THE ARCHITECT IMMEDIATELY IF UNKNOWN ELEMENTS ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE PROPOSED DESIGN.
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14. GENERAL CONTRACTOR TO COORDINATE ALL PEDESTRIAN ACCESS PATHS, LOCATIONS, LIGHTING, HANDICAP PARKING, ETC. DURING CONSTRUCTION WITH OWNER.
15. EXISTING SURVEY INFORMATION WAS TAKEN FROM A BOUNDARY AND TOPOGRAPHIC SURVEY BY STROUD ENGINEERING DATED 2-26-16. SURVEY PROVIDED BY OWNER.
16. ANY AND ALL LANDSCAPING AND EXISTING TREES & SHRUBS TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR UTILIZING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
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ENERGY STAR PARTNER

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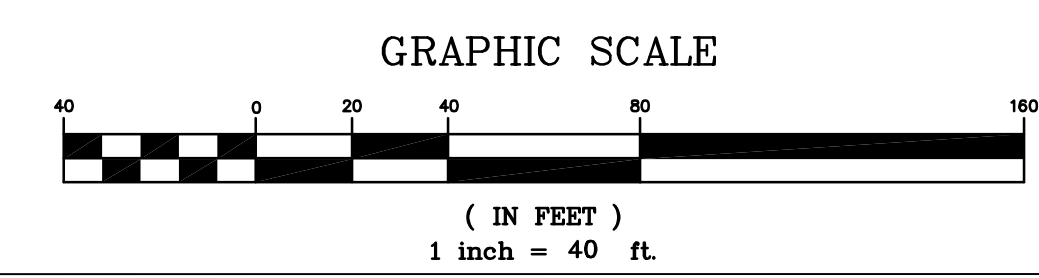
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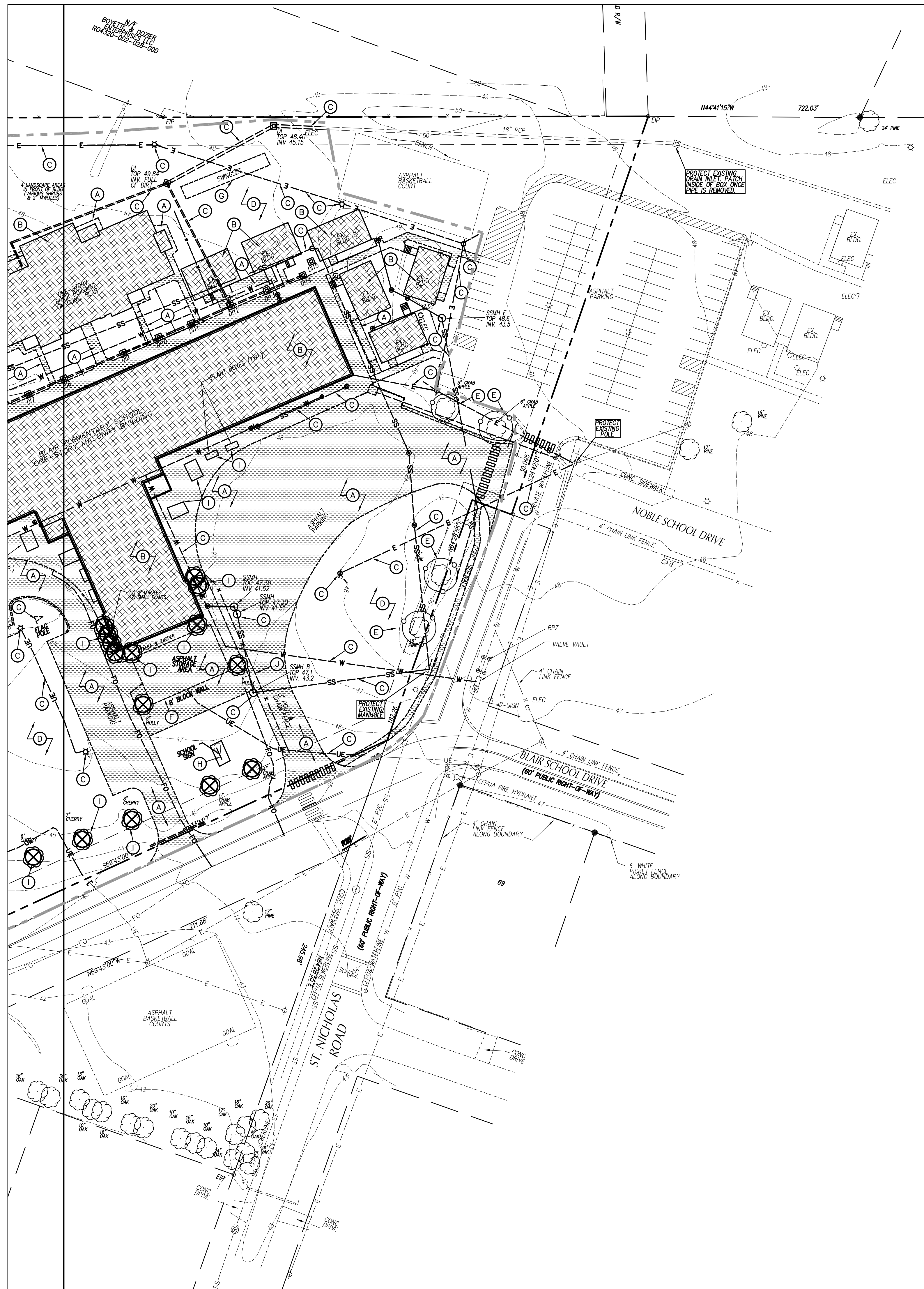
EXISTING
 CONDITIONS
 AND DEMO PLAN

C2.1

APPROVED CONSTRUCTION PLAN
 NAME: _____ DATE: _____
 PLANNING: _____
 TRAFFIC: _____
 FIRE: _____

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





LEGEND-STRUCTURES/UTILITIES TO REMAIN

OVERHEAD ELECTRICAL	-----E-----	LIGHT POLE	☆ LP
UNDERGROUND ELECTRICAL	-----UE-----	UTILITY POLE	⊗ PP
FIRE PROTECTION	-----FP-----	MANHOLE	⊙ MH
GAS	-----G-----	CLEAN OUT	⊙ CO
SANITARY SEWER	-----SS-----	DROP INLET,CATCH BASIN	⊙ DI, CB
TELEPHONE	-----T-----	FIRE HYDRANT	⊙ FH
UNDERGROUND TELEPHONE	-----UT-----	WATER VALVE	⊙ WV
FIBER OPTIC	-----FO-----	CABLE PEDESTAL	⊙
WATER	-----W-----		
FORCE MAIN	-----FM-----		
STORM DRAIN	-----SD-----		
INDIVIDUAL TREE TO BE REMOVED	⊗		

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FIBER OPTIC	-----FO-----	CONSTR./CLEARING LIMITS	---
WATER	-----W-----	PAVEMENT, S/W, CONCRETE TO BE DEMOLISHED	▨
FORCE MAIN	-----FM-----	BUILDINGS TO BE DEMOLISHED	▩
STORM DRAIN	-----SD-----	REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.	▩
INDIVIDUAL TREE TO BE REMOVED	⊗		

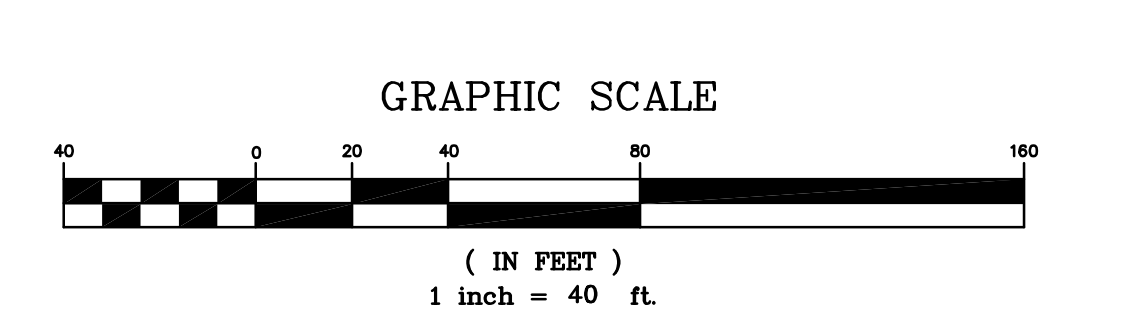
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APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING _____	
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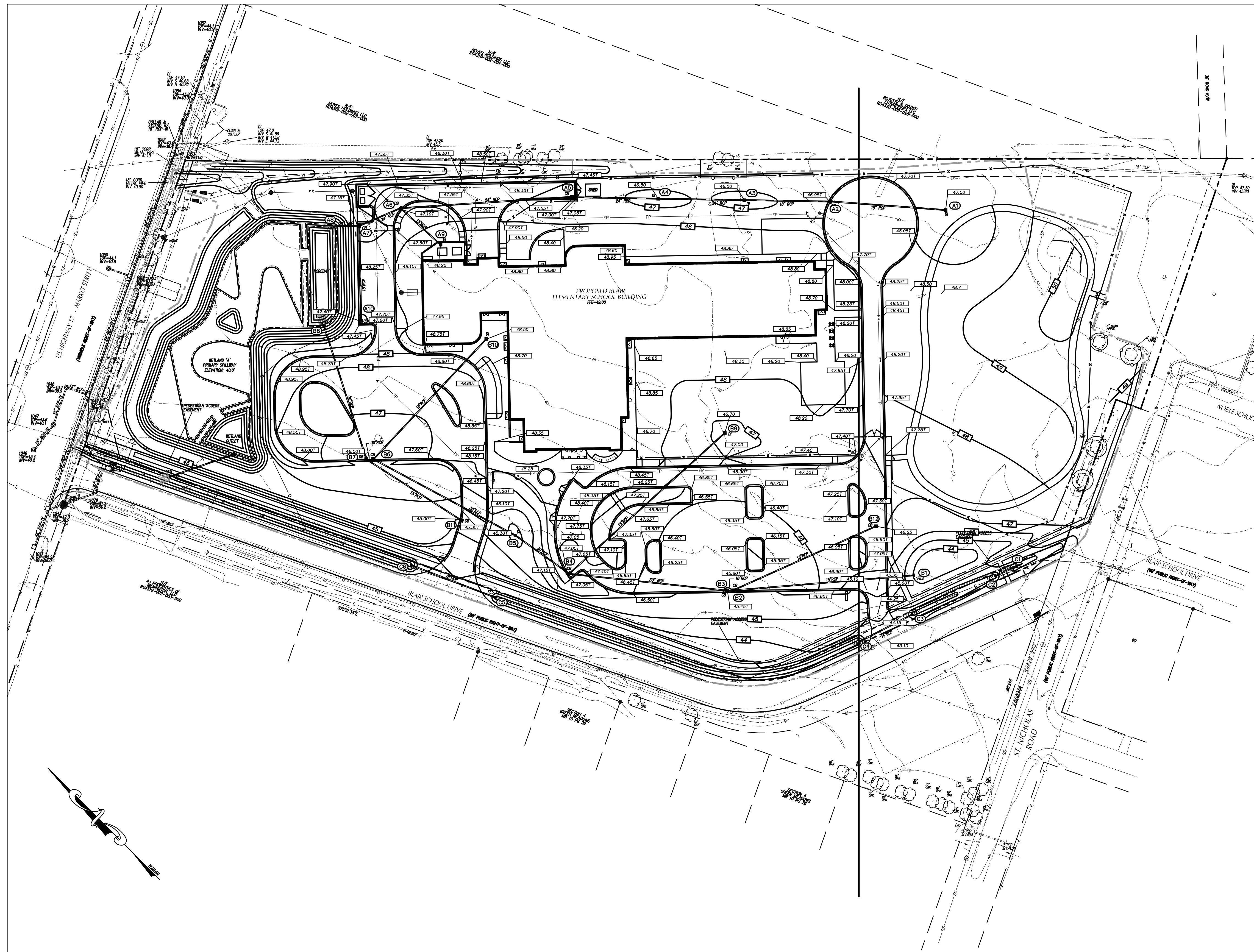
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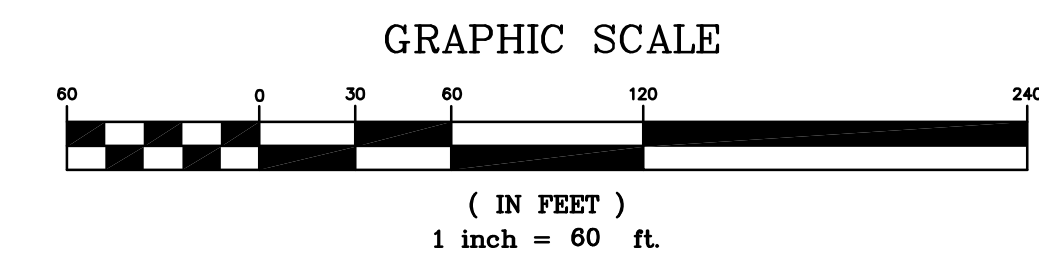
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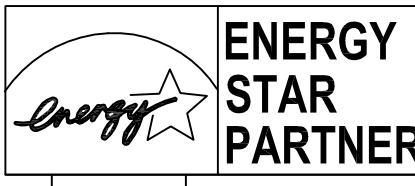
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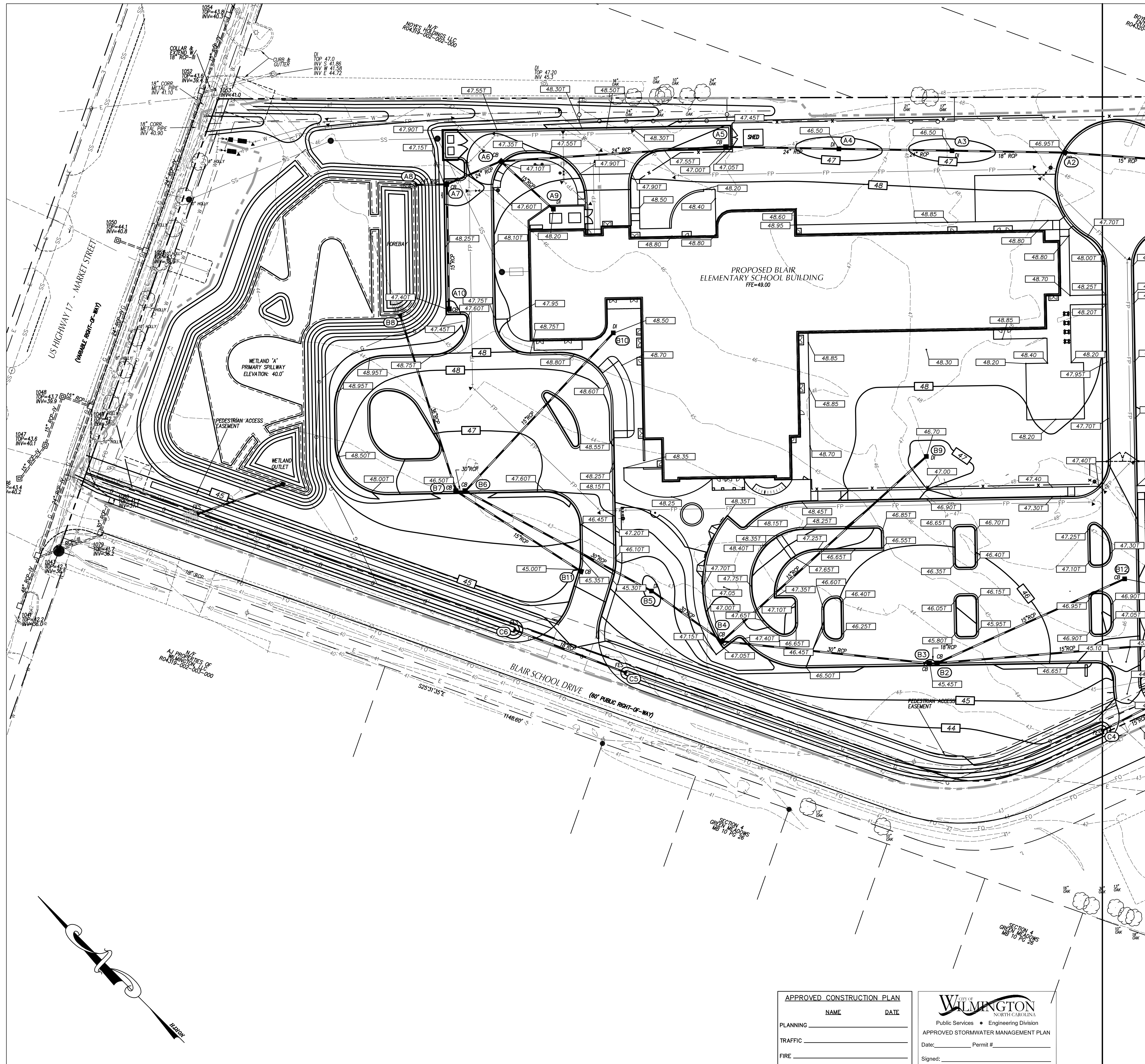


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**OVERALL SITE
 GRADING PLAN**

C3.0



GRADING LEGEND

- EXISTING CONTOURS
- FINAL CONTOURS
- 270.4' EXISTING SURVEY SPOT ELEVATION
- 270.50T PROPOSED TOP OF CURB SPOT ELEVATION
- 270.50 PROPOSED GROUND/PAVEMENT ELEVATION
- (29) STORM STRUCTURE NUMBER
- EXISTING STORM DRAIN PIPE
- PROPOSED STORM DRAIN PIPE
- TREE PROTECTION FENCE SEE DETAIL SHEET 07.1
- CONSTRUCTION LIMITS

- ### GRADING NOTES
1. ALL SPOT ELEVATIONS INDICATED AT CURB AND GUTTER ARE TO TOP OF CURB, UNLESS OTHERWISE SHOWN.
 2. TOTAL DENUDED AREA = ____ AC.
 3. CONTRACTOR SHALL ADJUST ALL EXISTING VAULTS, MANHOLES, STORM DRAIN STRUCTURES, CLEANOUTS, ETC. AS NEEDED TO MATCH FINISH GRADE.
 4. ALL BACKFILL, COMPACTION, SOILS TESTING, ETC. SHALL BE PERFORMED BY THE OWNER'S INDEPENDENT TESTING LABORATORY. (SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION)
 5. ALL STORM DRAIN PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER STOPPAGE OF WORK EACH DAY.
 6. EXISTING VEGETATION WITHIN TREE PROTECTION AREAS SHALL REMAIN UNDISTURBED, UNLESS NOTED OTHERWISE.
 7. THE GRADING CONTRACTOR SHALL COMPLY WITH ALL STATE CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF-SITE.
 8. THE GRADING CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY STATE AUTHORITIES OR THE ARCHITECT.
 9. THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR OFF-SITE DISPOSAL OF ALL CLEARING AND GRADING WASTE MATERIALS GENERATED DURING CONSTRUCTION AND FOR OBTAINING ALL APPLICABLE PERMITS FOR OFF-SITE STOCKPILES AND/OR WASTE AREAS.
 10. ALL ROOF DRAINS SHALL BE 6" PVC (SCH 40) @ 1.04% MIN. SLOPE UNLESS NOTED OTHERWISE. ROOF DRAINS SHALL BE DIP WHEN COVER IS LESS THAN 12 INCHES. PROVIDE ALL NECESSARY FITTINGS REQUIRED FOR INSTALLATION.

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NEW HANOVER COUNTY SCHOOLS
WILMINGTON, NORTH CAROLINA

ENERGY STAR PARTNER

ID	DATE	DESCRIPTION
	10/03/2016	ISSUE DATE:
PROJECT #: SFLA - 01504.000 CLH - 15-143		
CAD TECH.: MB		
CAD TECH.: YLA		
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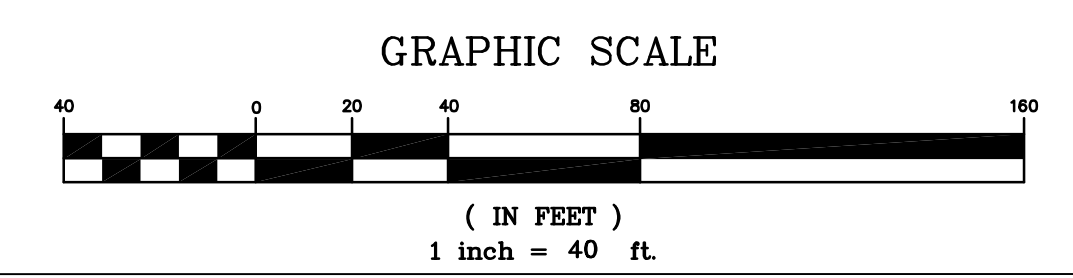
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SITE GRADING PLAN

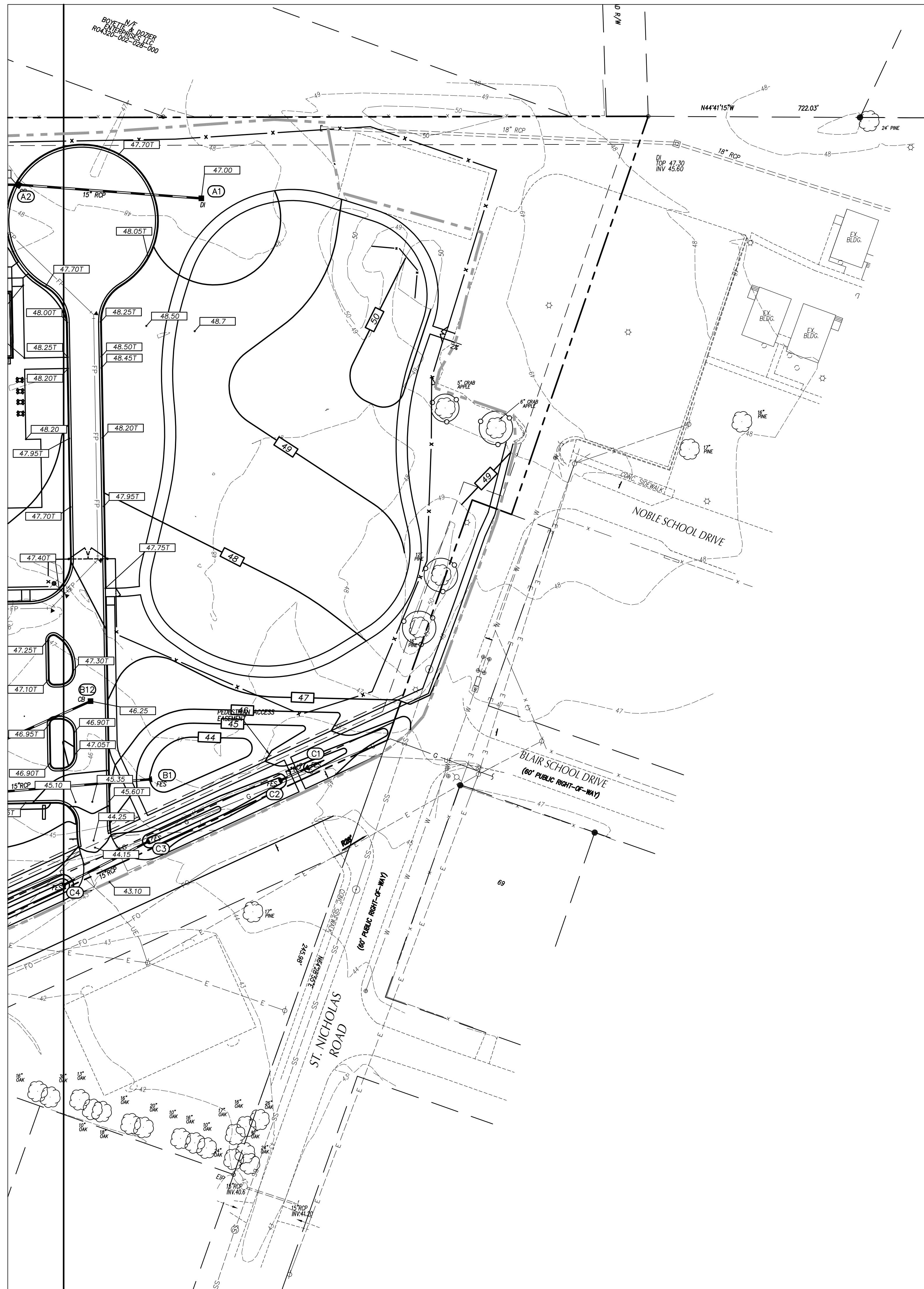
APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING _____	
TRAFFIC _____	
FIRE _____	

WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____



C3.1



GRADING LEGEND

- EXISTING CONTOURS
- FINAL CONTOURS
- EXISTING SURVEY SPOT ELEVATION
- PROPOSED TOP OF CURB SPOT ELEVATION
- PROPOSED GROUND/PAVEMENT ELEVATION
- STORM STRUCTURE NUMBER
- EXISTING STORM DRAIN PIPE
- PROPOSED STORM DRAIN PIPE
- TREE PROTECTION FENCE SEE DETAIL SHEET 07.1.
- CONSTRUCTION LIMITS

GRADING NOTES

1. ALL SPOT ELEVATIONS INDICATED AT CURB AND GUTTER ARE TO TOP OF CURB, UNLESS OTHERWISE SHOWN.
2. TOTAL DENUDED AREA = ____ AC.
3. CONTRACTOR SHALL ADJUST ALL EXISTING VAULTS, MANHOLES, STORM DRAIN STRUCTURES, CLEANOUTS, ETC. AS NEEDED TO MATCH FINISH GRADE.
4. ALL BACKFILL, COMPACTION, SOILS TESTING, ETC. SHALL BE PERFORMED BY THE OWNERS INDEPENDENT TESTING LABORATORY. (SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION)
5. ALL STORM DRAIN PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER STOPPAGE OF WORK EACH DAY.
6. EXISTING VEGETATION WITHIN TREE PROTECTION AREAS SHALL REMAIN UNDISTURBED, UNLESS NOTED OTHERWISE.
7. THE GRADING CONTRACTOR SHALL COMPLY WITH ALL STATE CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF-SITE.
8. THE GRADING CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY STATE AUTHORITIES OR THE ARCHITECT.
9. THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR OFF-SITE DISPOSAL OF ALL CLEARING AND GRADING WASTE MATERIALS GENERATED DURING CONSTRUCTION AND FOR OBTAINING ALL APPLICABLE PERMITS FOR OFF-SITE STOCKPILES AND/OR WASTE AREAS.
10. ALL ROOF DRAINS SHALL BE 6" PVC (SCH 40) @ 1.04% MIN. SLOPE UNLESS NOTED OTHERWISE. ROOF DRAINS SHALL BE DIP WHEN COVER IS LESS THAN 12 INCHES. PROVIDE ALL NECESSARY FITTINGS REQUIRED FOR INSTALLATION.

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**ENERGY
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 PARTNER**

ID	DATE	DESCRIPTION

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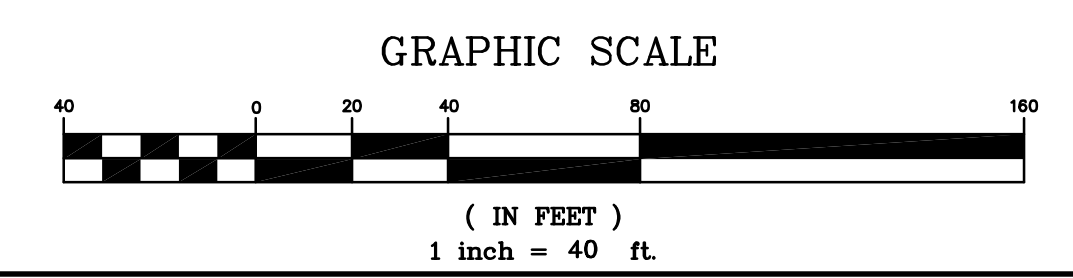
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**SITE GRADING
 PLAN**

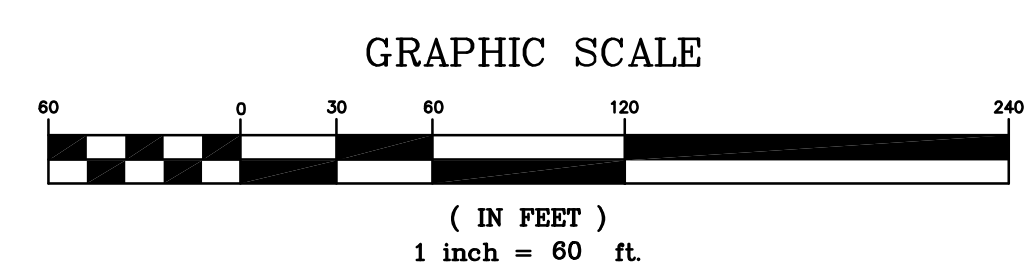
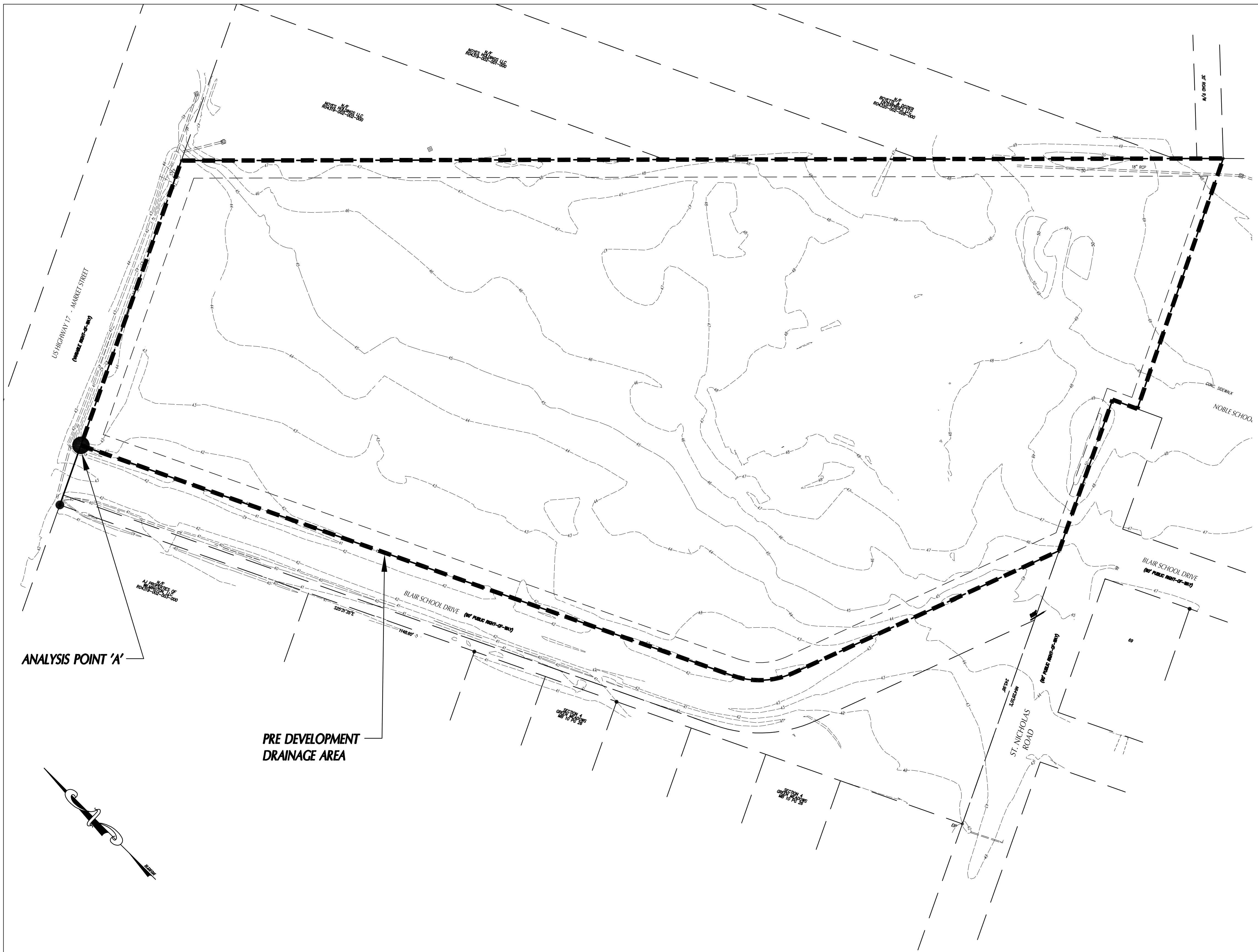
APPROVED CONSTRUCTION PLAN

NAME	DATE
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TRAFFIC _____	_____
FIRE _____	_____

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C3.2



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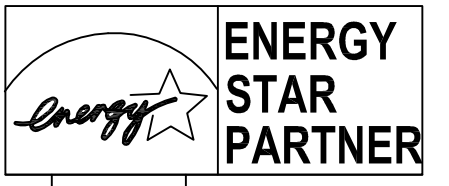
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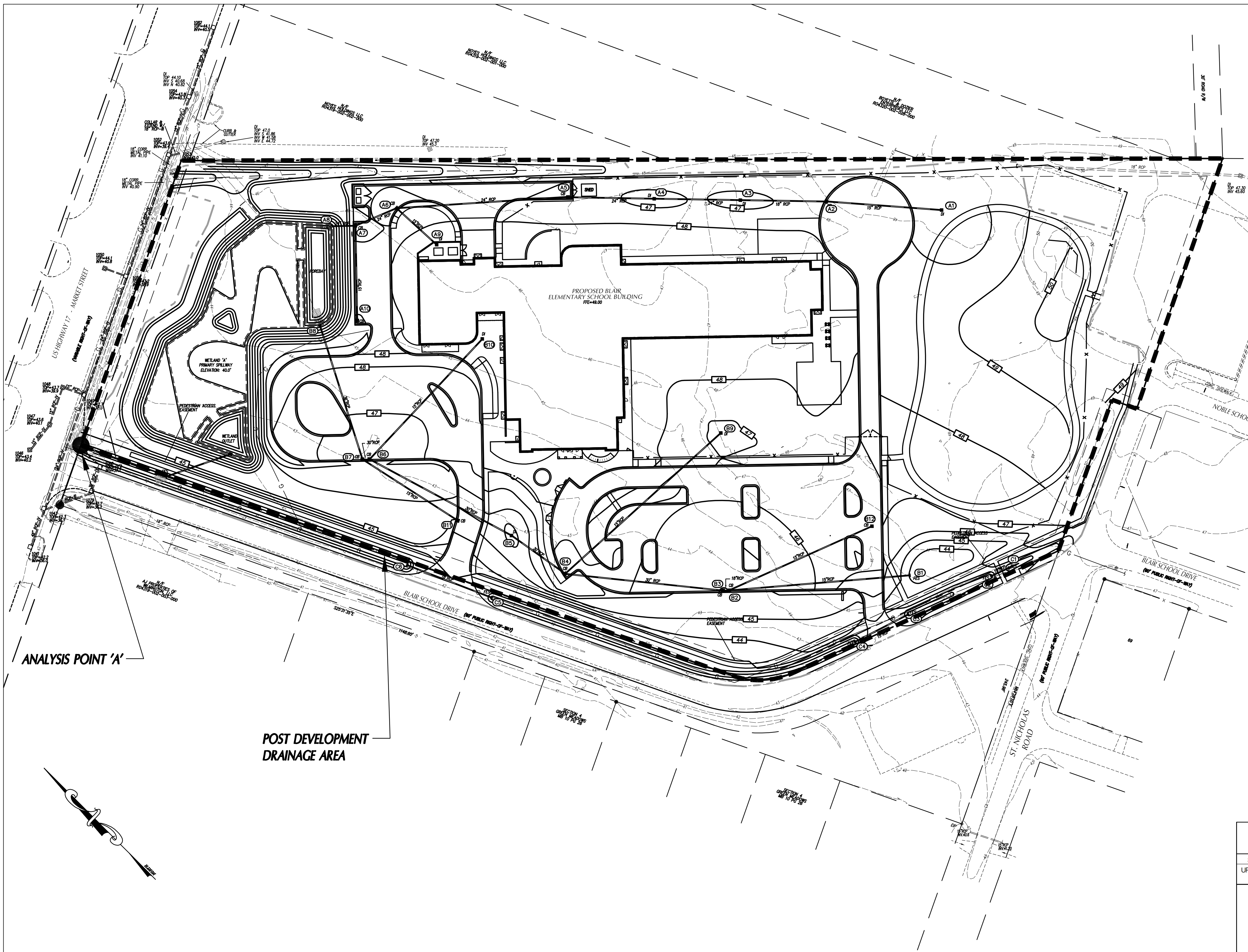
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PRE DEVELOP.
STORMWATER
MANAGEMENT
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C3.3



ANALYSIS POINT 'A'

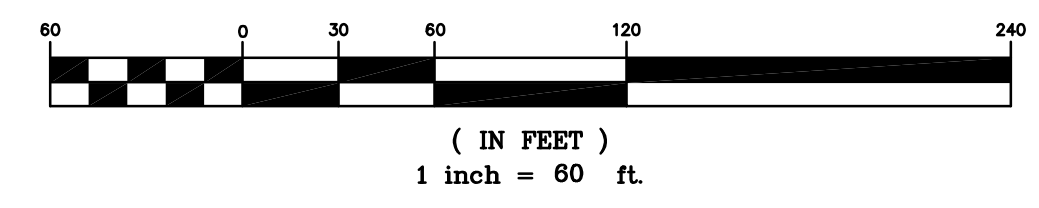
POST DEVELOPMENT DRAINAGE AREA

STORMWATER QUANTITY ANALYSIS

ANALYSIS POINT	PHASE	DRAINAGE AREA (AC)	WOODS (AC)	GRASS (AC)	IMPERV. (AC)	FUTURE IMPERV. (AC)	Q10 (CFS)	Q25 (CFS)	NOTES
A	PRE-DEV	12.84	0.00	12.84	0.00	0.00	2.27	4.87	
	POST-DEV MANAGED	12.84	0.00	7.76	5.08	0.00	18.83 1.57	25.24 4.11	

NOTE:
1. STORMWATER RUNOFF FLOWS AND MANAGED STORMWATER FLOWS DETERMINED USING THE SCS TR55 METHOD AND USING HYDRAFLOW BY AUTOCAD 2014.

GRAPHIC SCALE



DRAINAGE STRUCTURE SCHEDULE											
STRUCTURE NO.		PIPE SLOPE	PIPE DIA. (IN)	PIPE LENGTH (LF)	PIPE MATL.	UPPER INV. (FT)	LOWER INV. (FT)	UPSTREAM STRUCTURE DATA			
UP STRM	DN STRM							TOP ELEV. (FT)	DEPTH (FT)	TYPE	NOTES
A1	A2	0.30%	15	132	RCP	41.80	41.40	47.00	5.20	DI	
A2	A3	0.20%	18	98	RCP	41.40	41.20	46.95	5.55	CB	
A3	A4	0.20%	24	99	RCP	41.20	41.00	46.50	5.30	DI	
A4	A5	0.20%	24	98	RCP	41.00	40.80	46.50	5.50	DI	
A5	A6	0.26%	24	196	RCP	40.80	40.30	47.00	6.20	CB	
A6	A7	0.39%	24	51	RCP	40.30	40.10	47.10	6.80	CB	
A7	A8	0.38%	24	26	RCP	40.10	40.00	47.15	7.05	FES	
A9	A6	3.61%	15	61	RCP	42.50	40.30	48.20	5.70	DI	
A10	A7	1.28%	15	109	RCP	41.50	40.10	47.40	5.90	CB	
B1	B2	1.32%	15	208	RCP	43.50	40.75	45.00	1.50	FES	
B2	B3	0.71%	18	7	RCP	40.75	40.70	45.45	4.70	CB	
B3	B4	0.39%	30	181	RCP	40.70	40.00	45.45	4.75	CB	
B4	B5	0.33%	30	75	RCP	40.00	39.75	47.00	7.00	CB	
B5	B6	0.22%	30	184	RCP	39.75	39.35	44.50	4.75	DI	
B6	B7	0.63%	30	8	RCP	39.35	39.30	46.50	7.15	CB	
B7	B8	0.19%	36	161	RCP	39.30	39.00	46.50	7.20	CB	
B9	B4	0.27%	15	239	RCP	41.10	40.45	46.70	5.60	CB	
B10	B6	1.08%	15	189	RCP	42.20	40.15	48.50	6.30	CB	
B11	B7	0.27%	15	129	RCP	40.50	40.15	45.00	4.50	CB	
B12	B2	0.61%	15	180	RCP	41.85	40.75	46.25	4.40	DI	
C1	C2	0.83%	15	24	RCP	42.70	42.50	44.80	2.10	FES	
C3	C4	0.77%	15	71	RCP	41.30	40.75	43.50	2.20	FES	
C5	C6	0.94%	18	106	RCP	40.30	39.30	42.30	2.00	FES	

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APPROVED STORMWATER MANAGEMENT PLAN

City of WILMINGTON, NORTH CAROLINA
Public Services • Engineering Division

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Signed: _____

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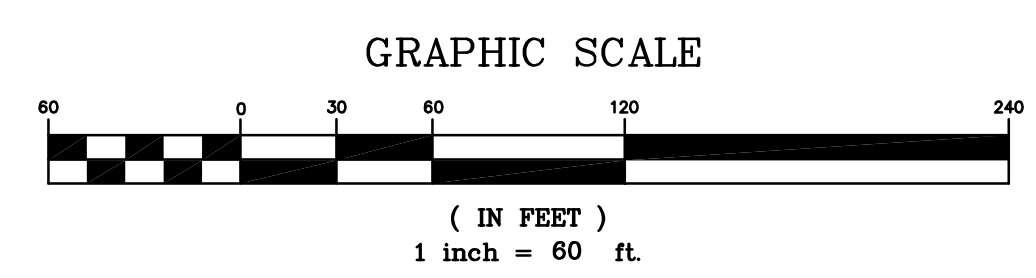
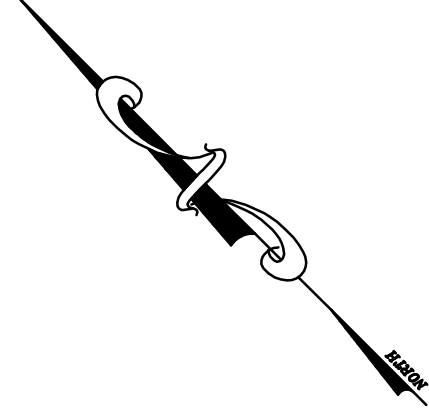
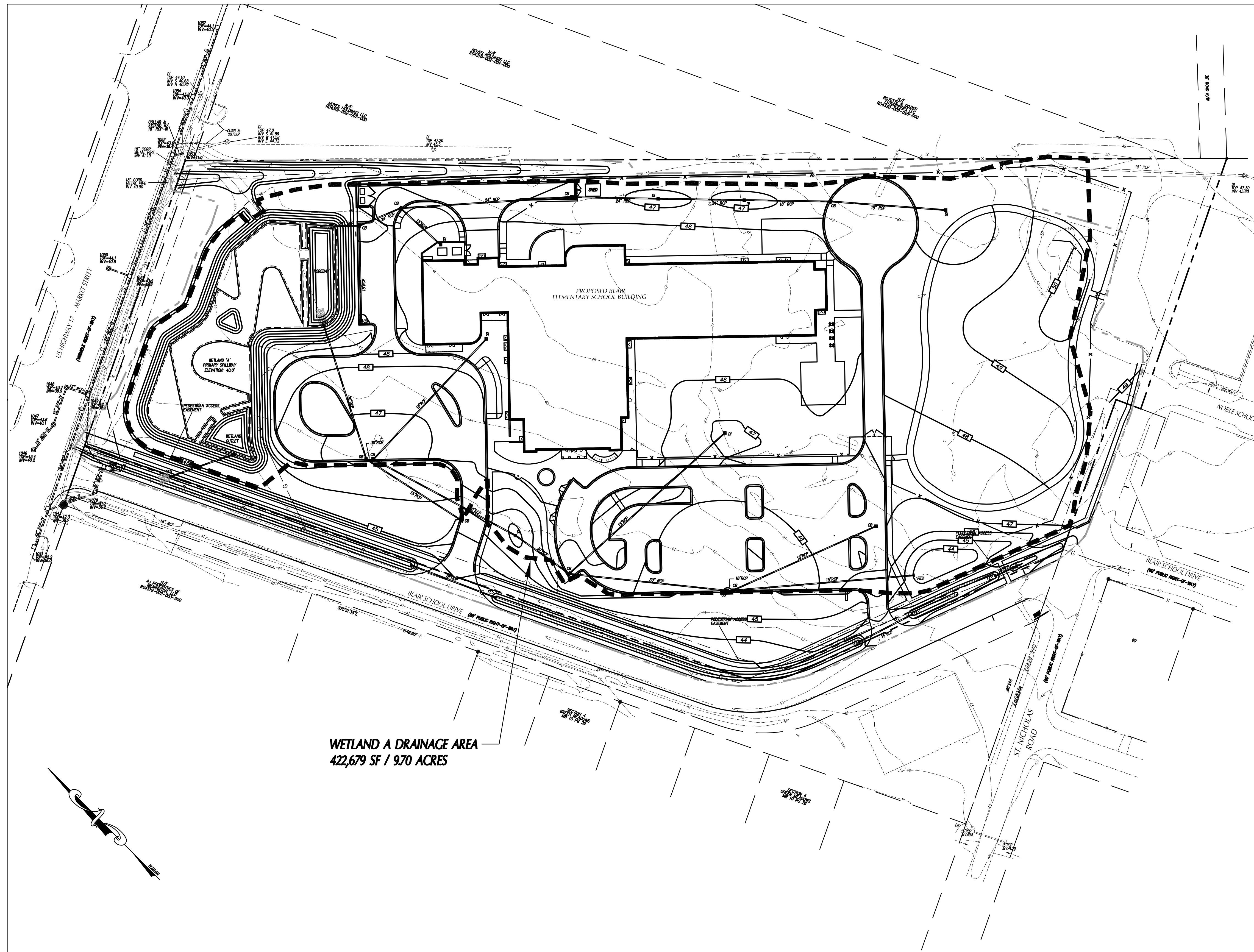
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POST DEVELOP.
STORMWATER
MANAGEMENT
PLAN

C3.4



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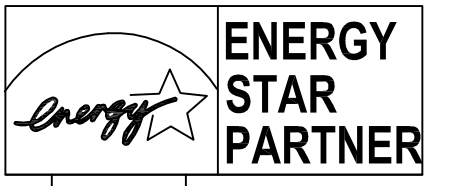
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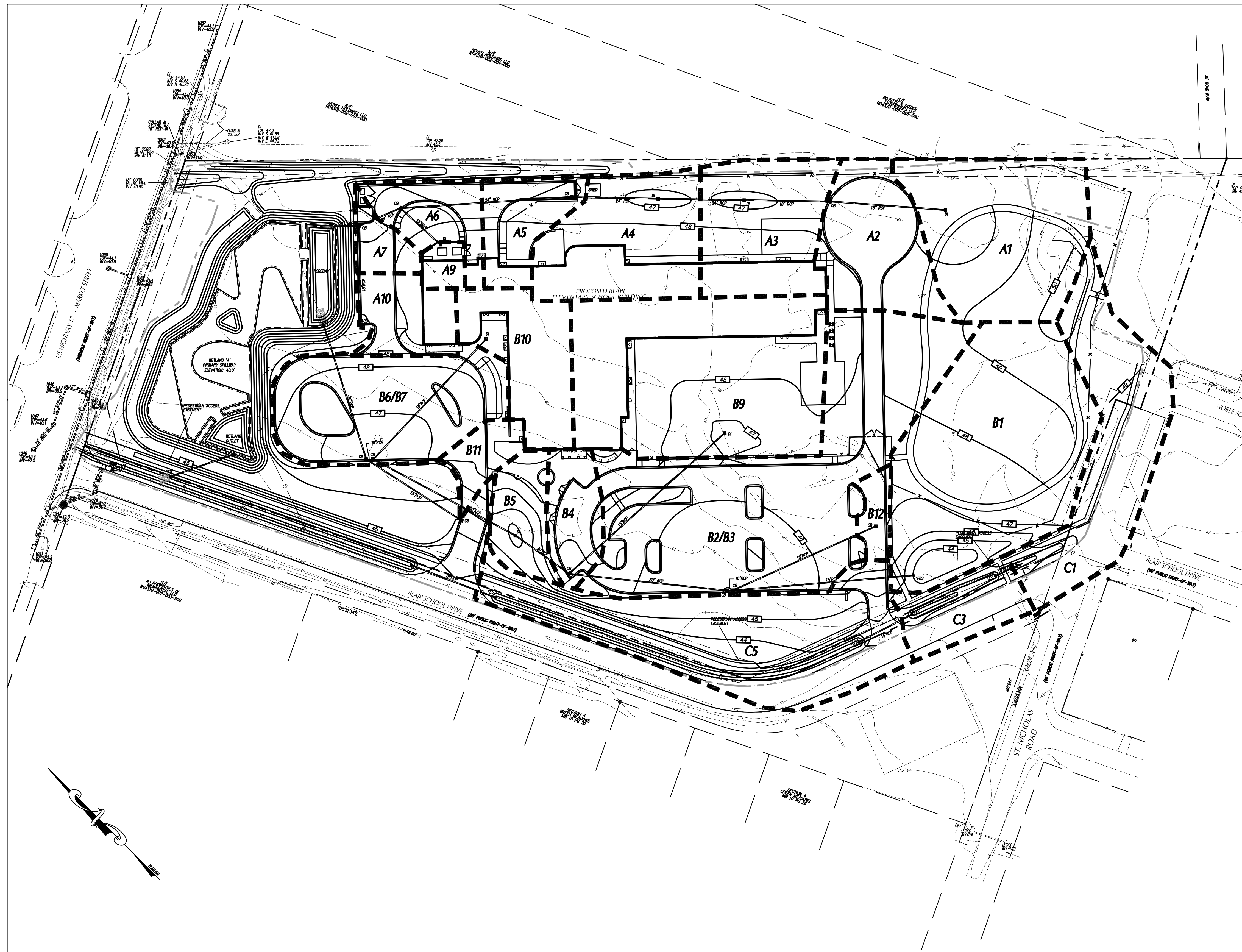


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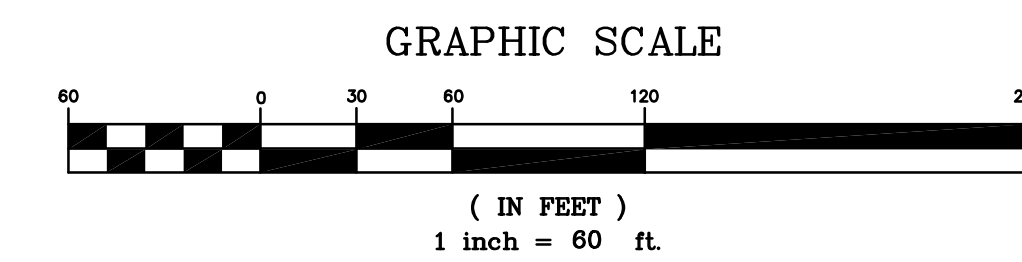
STORMWATER BMP
DRAINAGE AREA
PLAN

C3.5



DRAINAGE AREAS TO INLETS

INLET NO.	AREA (SF)	AREA (AC)
A1	33,300	0.76
A2	19,400	0.45
A3	21,900	0.50
A4	24,100	0.55
A5	10,050	0.23
A6	9,650	0.22
A7	4,300	0.10
A9	2,500	0.06
A10	9,600	0.22
B1	51,900	1.19
B2/B3	67,800	1.56
B4	8,650	0.20
B5	8,550	0.20
B6/B7	30,000	0.69
B9	51,650	1.19
B10	16,400	0.38
B11	5,200	0.12
B12	3,350	0.08
C1	30,550	0.70
C3	10,200	0.23
C5	44,400	0.98



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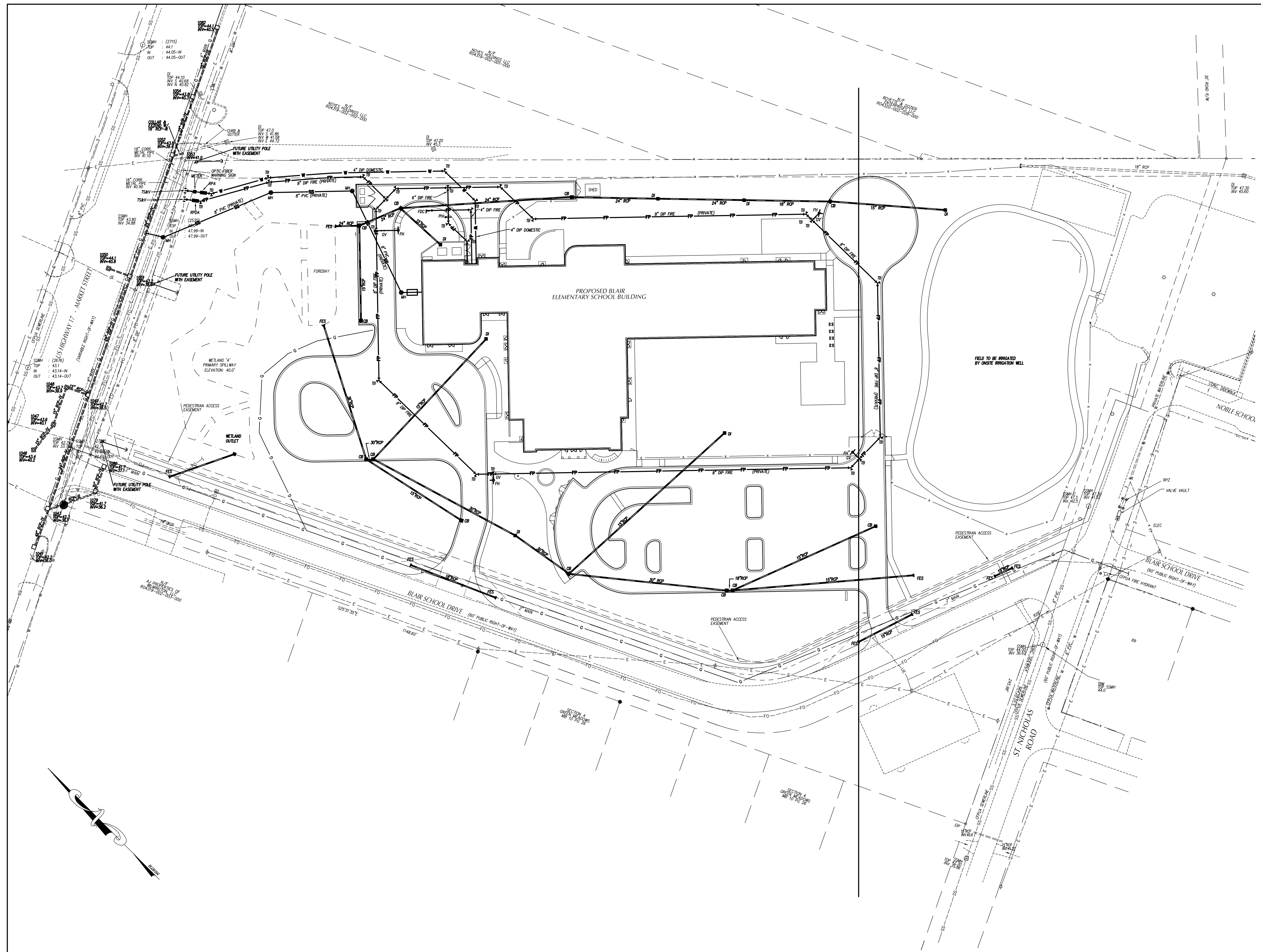
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**INLET DRAINAGE
 AREA PLAN**

C3.6




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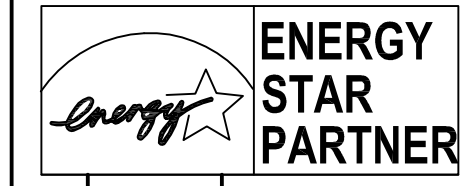
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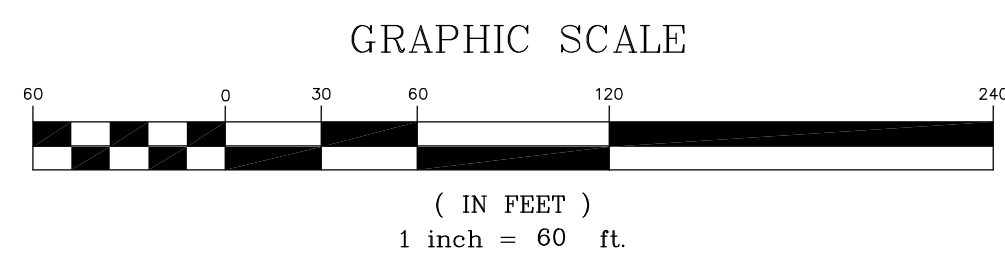
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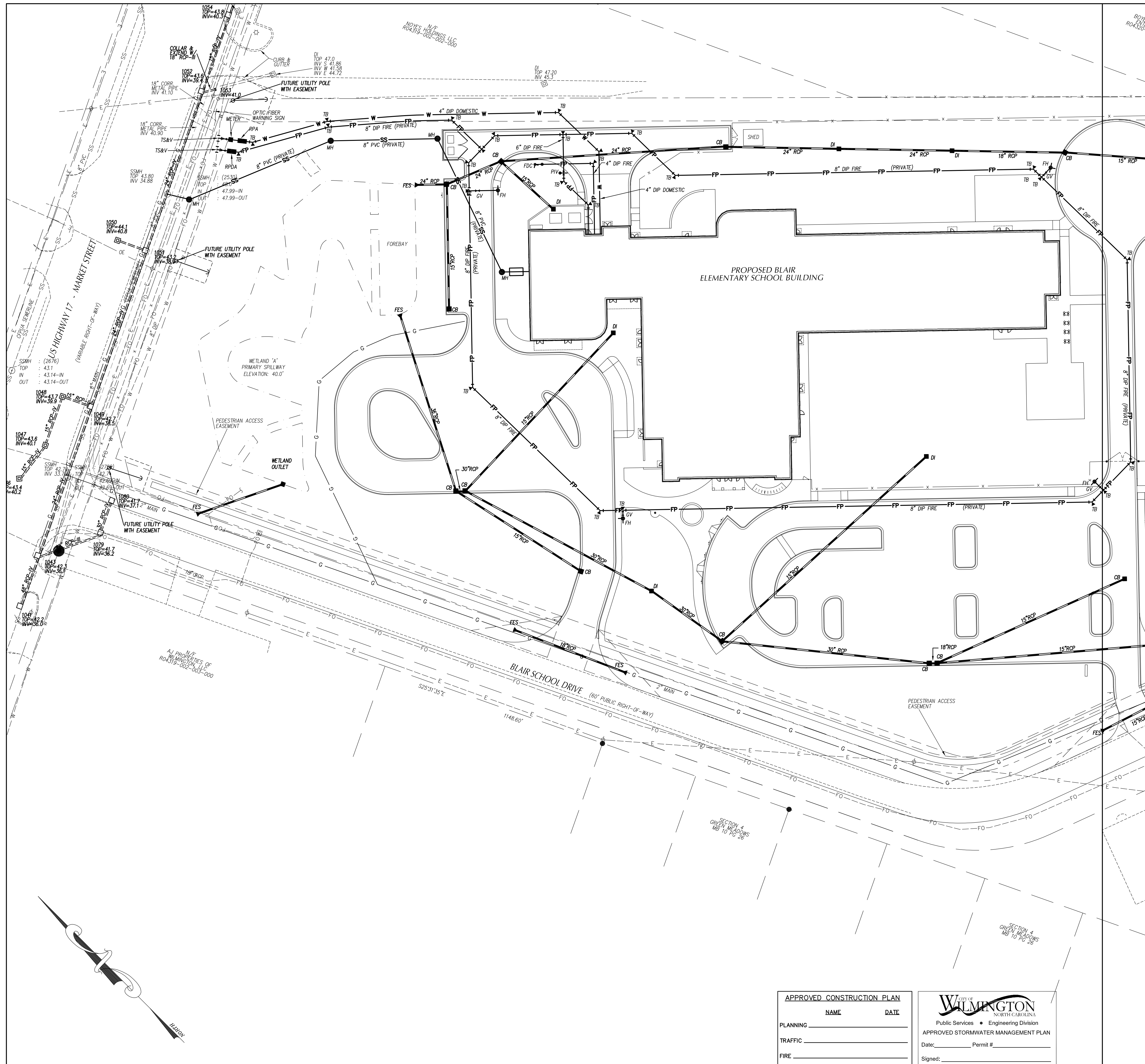
**OVERALL
 SITE UTILITY
 PLAN**

C5.0

APPROVED CONSTRUCTION PLAN	
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City of **WILMINGTON**
 NORTH CAROLINA
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
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UTILITY LEGEND

	EXISTING	PROPOSED
OVERHEAD ELECTRICAL	--- E ---	— E —
UNDERGROUND ELECTRICAL	--- UE ---	— UE —
GAS	--- G ---	— G —
SANITARY SEWER	--- SS ---	— SS —
TELEPHONE	--- T ---	— T —
UNDERGROUND TELEPHONE	--- UT ---	— UT —
WATER	--- W ---	— W —
FIRE PROTECTION	--- FP ---	— FP —
FORCE MAIN	--- FM ---	— FM —
CHILLED WATER	--- CW ---	— CW —
FOUNDATION DRAIN	--- FD ---	— FD —
FIBER OPTIC	--- FO ---	— FO —
ROOF DRAIN	--- RD ---	— RD —
STORM DRAIN	---	---
LIGHT POLE	LP	*
UTILITY POLE	UP	*
MANHOLE	MH	●
CLEAN OUT	CO	○
DROP INLET, CATCH BASIN	DI, CB	□
FIRE HYDRANT	FH	+
WATER VALVE	WV	+
TELEPHONE PEDESTAL	TP	+
COMMUNICATION BOX	CB	+
SANITARY SEWER STRUCTURE I.D.		3
STORM SEWER STRUCTURE I.D.		8

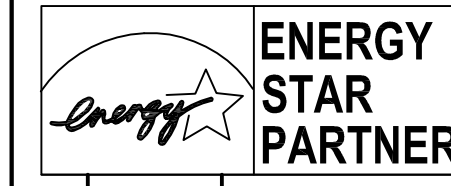
- ### UTILITY NOTES
- INSTALL WATERMANS WITH A COVER OF NO LESS THAN 4'-FT. INSTALL WATER SERVICES WITH NO LESS THAN 18"-IN OF COVER TO SUBGRADE.
 - INSTALL SEWER MAINS WITH A COVER OF NO LESS THAN 3'-FT TO FINISHED GRADE UNLESS DUCTILE IRON PIPE IS USED. INSTALL SEWER SERVICES WITH NO LESS THAN 18"-IN OF COVER TO SUBGRADE.
 - INSTALL ALL UTILITIES TO PROVIDE REQUIRED CLEARANCES AS INDICATED IN THE SPECIFICATIONS.
 - WATERLINES AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL CLEARANCE OF 10'-FT.
 - WATER AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM VERTICAL CLEARANCE OF 12"-IN TO STORM DRAINAGE PIPES.
 - COORDINATE AND SCHEDULE INSTALLATION OF ALL UTILITIES WITH OTHER PRIME CONTRACTORS, UTILITY COMPANIES AND OTHER TRADES INCLUDING BUT NOT LIMITED TO: NATURAL GAS, ELECTRICITY, TELEPHONE AND CATV.
 - VERIFY EXISTING CONDITIONS AND CONNECTIONS TO EXISTING UTILITIES PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT IF ANY DISCREPANCIES ARE DISCOVERED.
 - CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES DURING CONSTRUCTION AND SHALL MAKE REPAIRS AT NO EXPENSE TO THE OWNER.
 - ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE NCSBC AND OSHA REQUIREMENTS.
 - THE CONTRACTOR SHALL PROVIDE AN AS-BUILT SURVEY OF ALL UTILITY AND STORM DRAINAGE IMPROVEMENTS FOLLOWING CONSTRUCTION.
 - CONTRACTOR SHALL PHASE DEMOLITION AND NEW CONSTRUCTION TO ENSURE UNINTERRUPTED ACCESS AND UTILITY SERVICE TO ADJACENT FACILITIES. COORDINATE SHORT-TERM, OFF-HOUR, TEMPORARY SHUT-DOWNS WITH THE OWNER.
 - SEE GENERAL NOTES ON EXISTING CONDITIONS AND DEMOLITION PLAN FOR REQUIREMENTS FOR REMOVAL AND PATCHING OF PAVEMENT FOR UTILITY INSTALLATION.
 - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON STANDARDS AND SPECIFICATIONS.
 - ALL ROOF DRAINS SHALL BE 6" PVC @ 1.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN COVER IS LESS THAN 24"-IN.
 - ALL SANITARY SEWER SERVICES SHALL BE 4" PVC (SCH 40) @ 1.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN COVER IS LESS THAN 24"-IN.
 - THE FOLLOWING "PERMITS" ARE REQUIRED TO BE OBTAINED FROM THE CITY OF WILMINGTON FIRE SERVICES ADMINISTRATION BY EACH RESPONSIBLE CONTRACTOR PRIOR TO THE START OF WORK. THE "GENERAL CONTRACTOR" SHALL BE RESPONSIBLE TO MAKE SURE ALL OF HIS/HER SUBS FOLLOW THIS PROCEDURE. THE PERMITS REQUIRED ARE AS FOLLOWS:
 - UNDERGROUND PIPING PERMIT (FIRE LINE (S)).
 - SPRINKLER PERMIT.
 - FIRE ALARM PERMIT.
 - KITCHEN HOOD FIRE PROTECTION PERMIT.
 THE "GENERAL CONTRACTOR" SHALL ALSO MAKE SURE THAT ALL HIS SUBS PROPERLY COORDINATE THE INSPECTION PROCESS WITH THE WILMINGTON FIRE DEPARTMENT ADMINISTRATION OFFICE.
 - CONTACT THE NC ONE CALL CENTER PRIOR TO ANY DIGGING. 1-800-632-4949.
 - PROJECT SHALL COMPLY WITH CITY OF WILMINGTON CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 910-343-3910 FOR INFORMATION.
 - ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CITY WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USFCFCCR OR ASSE.



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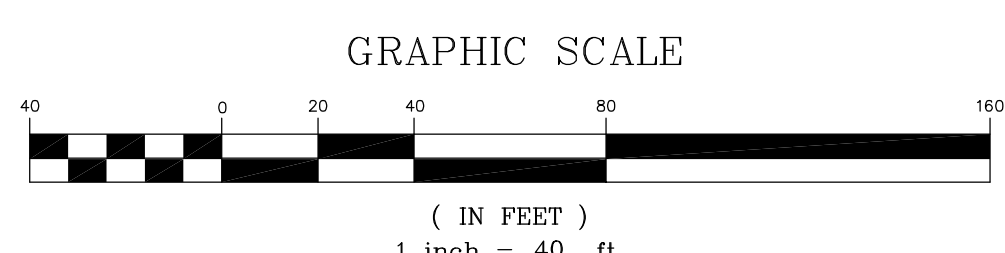
DESIGN DEVELOPMENT SUBMITTAL FOR:
**BLAIR ELEMENTARY SCHOOL
NEW HANOVER COUNTY SCHOOLS**
WILMINGTON, NORTH CAROLINA



APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING _____	_____
TRAFFIC _____	_____
FIRE _____	_____

City of **WILMINGTON**
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____



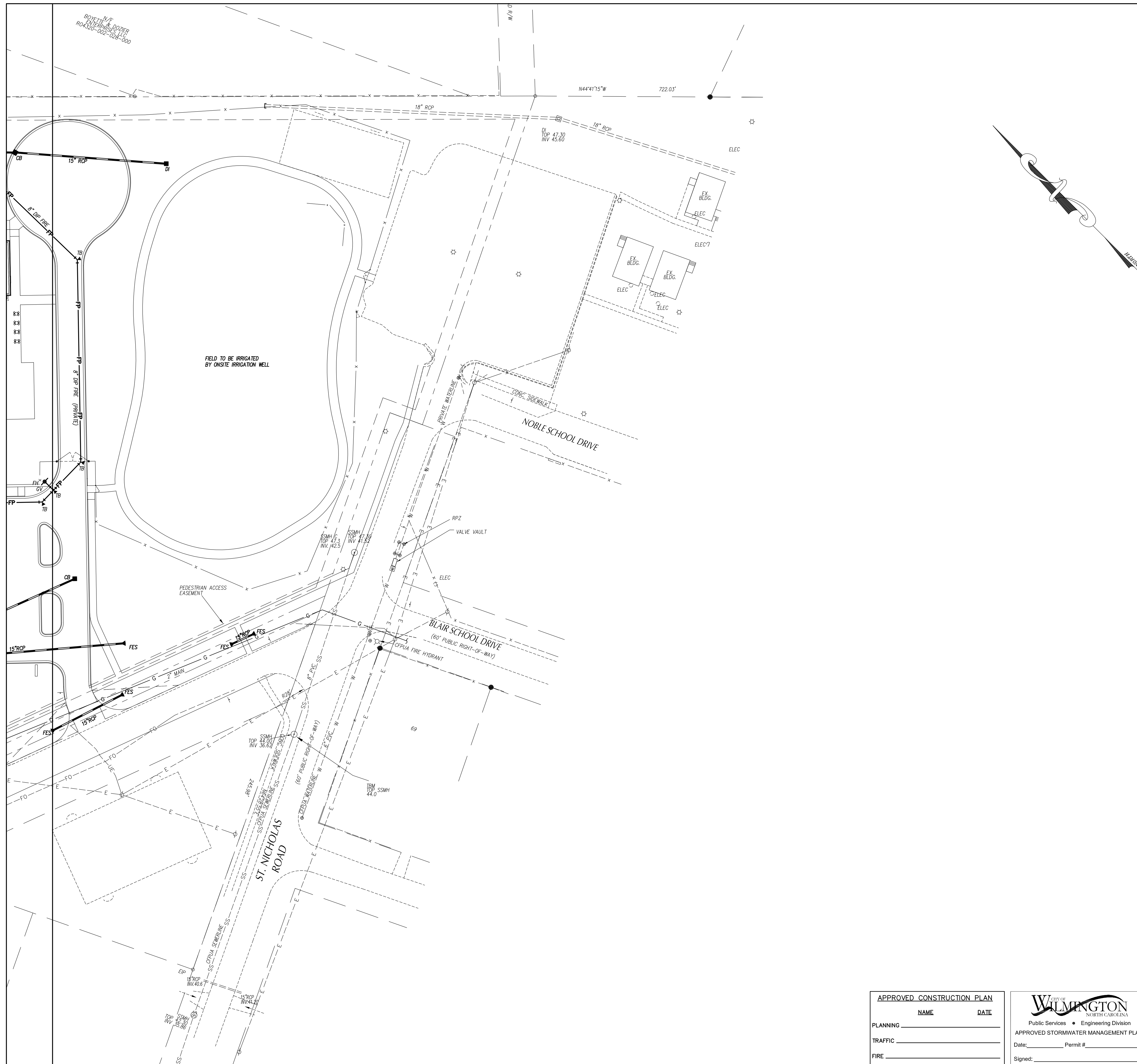
ID	DATE	DESCRIPTION

PROJECT #: SFLA - 01504.000
CLH - 15-143
CAD TECH.: MB
CAD TECH.: YLA
CHECKED BY: KAL/ZRP

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SITE UTILITY PLAN

C5.1



UTILITY LEGEND

	EXISTING	PROPOSED
OVERHEAD ELECTRICAL	--- E ---	--- E ---
UNDERGROUND ELECTRICAL	--- UE ---	--- UE ---
GAS	--- G ---	--- G ---
SANITARY SEWER	--- SS ---	--- SS ---
TELEPHONE	--- T ---	--- T ---
UNDERGROUND TELEPHONE	--- UT ---	--- UT ---
WATER	--- W ---	--- W ---
FIRE PROTECTION	--- FP ---	--- FP ---
FORCE MAIN	--- FM ---	--- FM ---
CHILLED WATER	--- CW ---	--- CW ---
FOUNDATION DRAIN	--- FD ---	--- FD ---
FIBER OPTIC	--- FO ---	--- FO ---
ROOF DRAIN	--- RD ---	--- RD ---
STORM DRAIN	--- SD ---	--- SD ---
LIGHT POLE	LP	*
UTILITY POLE	UP	*
MANHOLE	MH	●
CLEAN OUT	CO	●
DROP INLET, CATCH BASIN	DI, CB	●
FIRE HYDRANT	FH	+
WATER VALVE	WV	+
TELEPHONE PEDESTAL	TP	■
COMMUNICATION BOX	CB	■
SANITARY SEWER STRUCTURE I.D.		3
STORM SEWER STRUCTURE I.D.		8

UTILITY NOTES

1. INSTALL WATERMANS WITH A COVER OF NO LESS THAN 4-FT. INSTALL WATER SERVICES WITH NO LESS THAN 18-IN OF COVER TO SUBGRADE.
2. INSTALL SEWER MAINS WITH A COVER OF NO LESS THAN 3-FT TO FINISHED GRADE, UNLESS DUCTILE IRON PIPE IS USED. INSTALL SEWER SERVICES WITH NO LESS THAN 18-IN OF COVER TO SUBGRADE.
3. INSTALL ALL UTILITIES TO PROVIDE REQUIRED CLEARANCES AS INDICATED IN THE SPECIFICATIONS.
4. WATERLINES AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL CLEARANCE OF 10-FT.
5. WATER AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM VERTICAL CLEARANCE OF 12-IN TO STORM DRAINAGE PIPES.
6. COORDINATE AND SCHEDULE INSTALLATION OF ALL UTILITIES WITH OTHER PRIME CONTRACTORS, UTILITY COMPANIES AND OTHER TRADES INCLUDING BUT NOT LIMITED TO: NATURAL GAS, ELECTRICITY, TELEPHONE AND CATV.
7. VERIFY EXISTING CONDITIONS AND CONNECTIONS TO EXISTING UTILITIES PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT IF ANY DISCREPANCIES ARE DISCOVERED.
8. CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES DURING CONSTRUCTION AND SHALL MAKE REPAIRS AT NO EXPENSE TO THE OWNER.
9. ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE NCSBC AND OSHA REQUIREMENTS.
10. THE CONTRACTOR SHALL PROVIDE AN AS-BUILT SURVEY OF ALL UTILITY AND STORM DRAINAGE IMPROVEMENTS FOLLOWING CONSTRUCTION.
11. CONTRACTOR SHALL PHASE DEMOLITION AND NEW CONSTRUCTION TO ENSURE UNINTERRUPTED ACCESS AND UTILITY SERVICE TO ADJACENT FACILITIES. COORDINATE SHORT-TERM, OFF-HOUR, TEMPORARY SHUT-DOWNS WITH THE OWNER.
12. SEE GENERAL NOTES ON EXISTING CONDITIONS AND DEMOLITION PLAN FOR REQUIREMENTS FOR REMOVAL AND PATCHING OF PAVEMENT FOR UTILITY INSTALLATION.
13. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON STANDARDS AND SPECIFICATIONS.
14. ALL ROOF DRAINS SHALL BE 6" PVC @ 1.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN COVER IS LESS THAN 24-IN.
15. ALL SANITARY SEWER SERVICES SHALL BE 4" PVC (SCH 40) @ 1.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN COVER IS LESS THAN 24-IN.
16. THE FOLLOWING "PERMITS" ARE REQUIRED TO BE OBTAINED FROM THE CITY OF WILMINGTON FIRE SERVICES ADMINISTRATION BY EACH RESPONSIBLE CONTRACTOR PRIOR TO THE START OF WORK. THE "GENERAL CONTRACTOR" SHALL BE RESPONSIBLE TO MAKE SURE ALL OF HIS/HER SUBS FOLLOW THIS PROCEDURE. THE PERMITS REQUIRED ARE AS FOLLOWS:
 - A. UNDERGROUND PIPING PERMIT (FIRE LINE (S)).
 - B. SPRINKLER PERMIT.
 - C. FIRE ALARM PERMIT.
 - D. KITCHEN HOOD FIRE PROTECTION PERMIT.
 THE "GENERAL CONTRACTOR" SHALL ALSO MAKE SURE THAT ALL HIS SUBS PROPERLY COORDINATE THE INSPECTION PROCESS WITH THE WILMINGTON FIRE DEPARTMENT ADMINISTRATION OFFICE.
17. CONTACT THE NC ONE CALL CENTER PRIOR TO ANY DIGGING. 1-800-632-4949.
18. PROJECT SHALL COMPLY WITH CITY OF WILMINGTON CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 910-343-3910 FOR INFORMATION.
19. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CITY WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USFCFCHR OR ASSE.

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DESIGN DEVELOPMENT SUBMITTAL FOR:
BLAIR ELEMENTARY SCHOOL
NEW HANOVER COUNTY SCHOOLS
WILMINGTON, NORTH CAROLINA

ENERGY STAR PARTNER

ID	DATE	DESCRIPTION
	10/03/2016	ISSUE DATE:
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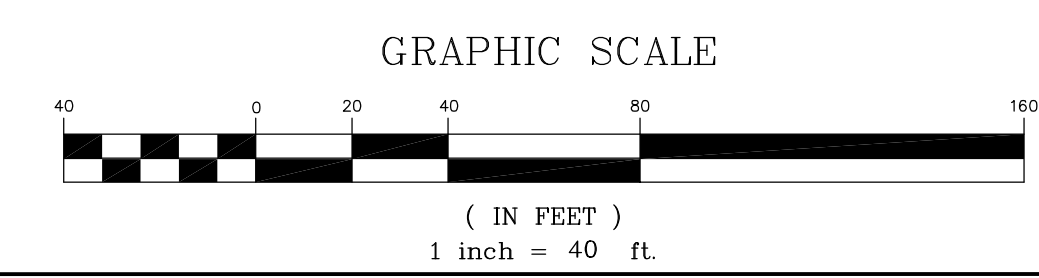
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SITE UTILITY PLAN

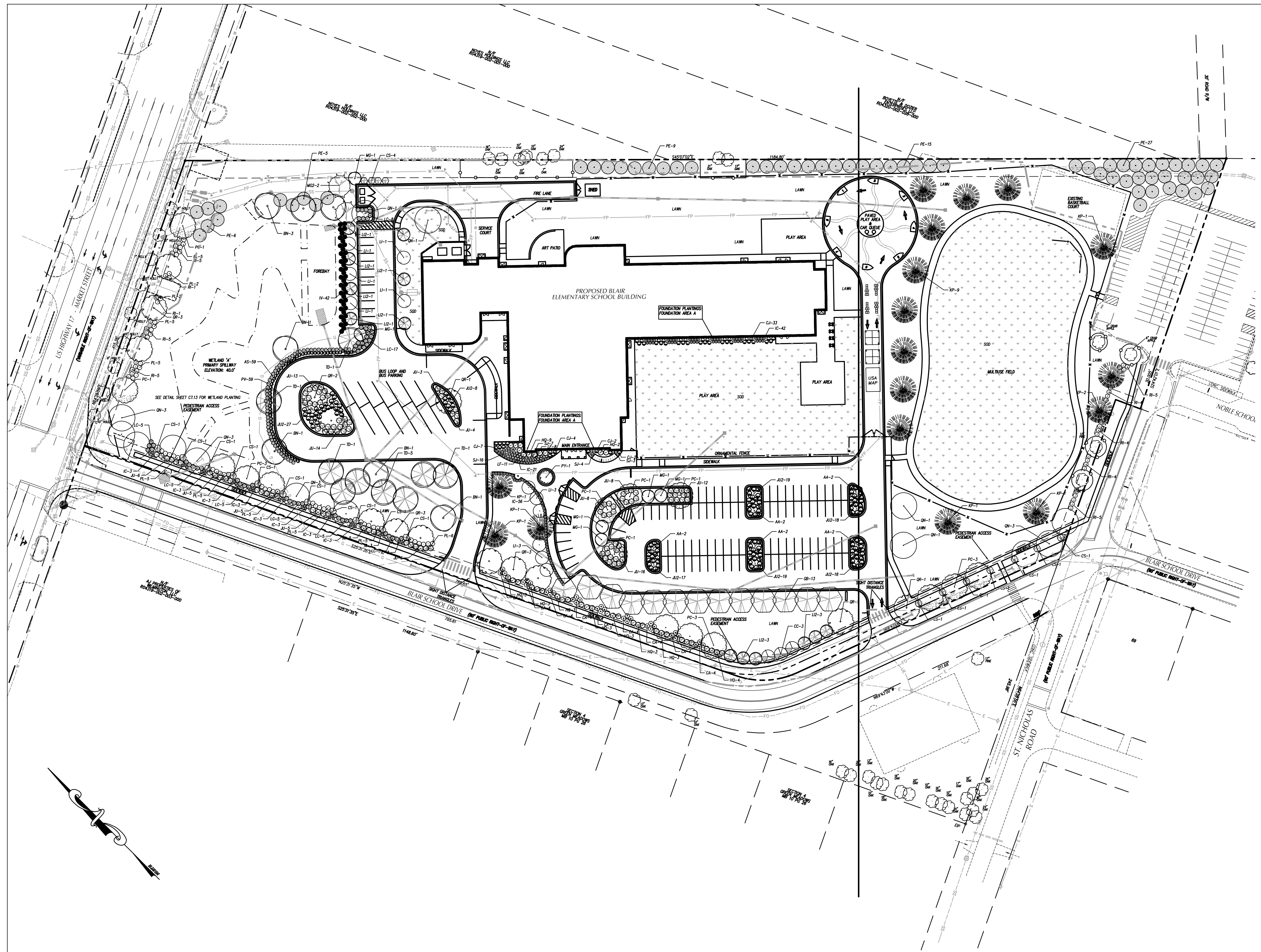
APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING	
TRAFFIC	
FIRE	

City of Wilmington
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____



C5.2



LANDSCAPE CALCULATIONS

STREET YARD REQUIREMENTS

STREET YARD FACTOR = 18
 MINIMUM STANDARD: 1 CANOPY TREE (3" CAL. MIN.) - 3 UNDERST. IF PWR. LINE
 6 SHRUBS (12" HT. MIN.) OR
 6 SHRUBS (36" HT. MIN. IF ADJ. TO A PARKING AREA)
 PER 600 SQ. FT. OF STREET YARD

PRIMARY STREET YARD: BLAIR SCHOOL DRIVE - 9'-27" WIDTH (TO LIMITS OF WORK)
 SQUARE FEET REQUIRED = 18(180.59 LF x 9.5 LF) = 19,785 SF
 MINIMUM STANDARD REQUIRED: 33 CANOPY TREES, 195 SHRUBS
 PROVIDED: 30 NEW CANOPY TREES
 9 UNDERSTORY TREES
 207 NEW SHRUBS

SECONDARY STREET YARD: MARKET STREET - 9'-27" WIDTH (TO LIMITS OF WORK)
 SQUARE FEET REQUIRED = 18(344 LF) / 2 = 3,096 SF
 MINIMUM STANDARD REQUIRED: 5 CANOPY TREES
 30 SHRUBS
 PROVIDED: 7 CANOPY TREES
 36 SHRUBS

SECONDARY STREET YARD: ST. NICHOLAS ROAD - 9'-27" WIDTH (TO LIMITS OF WORK)
 SQUARE FEET REQUIRED = 18(247 LF) / 2 = 2,223 SF
 MINIMUM STANDARD REQUIRED: 4 CANOPY TREES
 22 SHRUBS
 PROVIDED: 3 EXISTING TREES, 3 CANOPY TREES
 22 SHRUBS

FOUNDATION PLANTING REQUIREMENTS (adjacent to parking or internal drive aisle)
 REQUIREMENT = AREA OF BUILDING FACE X 12%
 FOUNDATION PLANTING: AREA A
 BUILDING FACE = 328 FT.
 BUILDING HEIGHT = 33 FT.
 PLANTING AREA REQUIRED = 1,298 SQ. FT.
 PLANTING AREA PROVIDED = 2,703 SQ. FT.

PARKING AREA PLANTING REQUIREMENTS

PARKING AREA PERIMETER PLANTINGS:
 REQUIREMENT: 10' MINIMUM PLANTED STRIP ADJACENT TO ROAD RIGHT-OF-WAY.
 MIN. CAL. 2" TREE EVERY 18' TO 27'

PARKING AREA INTERIOR PLANTINGS:
 REQUIREMENT: INTERIOR LANDSCAPING MUST EQUAL 8% OF TOTAL PARKING, LOADING, AND DRIVE AISLE, AND PEDESTRIAN USE AREA
 MIN. CAL. 2" TREE PER 144 SQ. FT. OF PARKING ISLAND, NO LESS THAN 12" WIDE ISLAND MUST HAVE GROUND COVER
 NO PARKING SPACE MORE THAN 120 FEET AWAY FROM AN ISLAND
 75% SHADE TREES

PARKING AREA SHADE CALCULATION:
 REQUIREMENT: TOTAL PARKING AREA X 20% = 14,309
 TREES IN LANDSCAPE ISLANDS CLAIM = 9,366SF
 TREES ON PERIMETER OF PARKING AREA CLAIM = 21,206SF
 PROVIDED: 21 SHADES X 20% = 14,309SF
 21 LANDSCAPE ISLAND TREES = 14,847SF
 39 PERIMETER TREES = 27,573SF
 TOTAL = 42,420SF

SIGNIFICANT TREE MITIGATION CALCULATIONS:
 (PER COW LDC SEC 18-460(b))

TYPE	DBH	PERCENTAGE x 2	OF REPLACEMENT TREES
OAK	24"	100% x 2	/3 16 TREES
OAK	24"	100% x 2	/3 16 TREES
SYCAMORE	24"	75% x 2	/3 12 TREES
SYCAMORE	24"	75% x 2	/3 12 TREES
SYCAMORE	24"	75% x 2	/3 12 TREES
PEAR	9"	25% x 2	/3 2 TREES
HOLLY	8"	100% x 2	/3 5 TREES
CHERRY	8"	50% x 2	/3 3 TREES
CHERRY	8"	50% x 2	/3 3 TREES
CHERRY	8"	50% x 2	/3 3 TREES
CHERRY	8"	50% x 2	/3 3 TREES
CHERRY	8"	50% x 2	/3 3 TREES
CHERRY	8"	50% x 2	/3 3 TREES
TOTAL TREES REQUIRED FOR MITIGATION:			87 TREES
TOTAL TREES PROVIDED:			88 TREES

CREDITS FOR EXISTING TREES:

SIZE	QTY.	CREDIT VALUE	TOTAL
2-5" CALIPER	1	1	1
6-11"	11	2	22
12-17"	2	3	6
18-23"	N/A	4	N/A
>24"	N/A	DBH/6 (178')	N/A
TOTAL:			29

15 TREES 2" CALIPER OR GREATER PER ACRE OF DISTURBED LAND
 ACRES DISTURBED: 14 CREDITS REQUIRED: 210 CREDITS

NEW STREET TREES PROVIDED: 49 TREES/49 CREDITS
 NEW PARKING AREA TREES PROVIDED: 60 TREES/60 CREDITS
 TREES PROVIDED FOR MITIGATION: 88 TREES/88 CREDITS
 NEW TREES PROVIDED: 197 TREES/197 CREDITS
 + EXISTING TREES: 14 TREES/29 CREDITS
 TOTAL CREDITS PROVIDED: 226 CREDITS

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 WILMINGTON, NORTH CAROLINA

ENERGY STAR PARTNER

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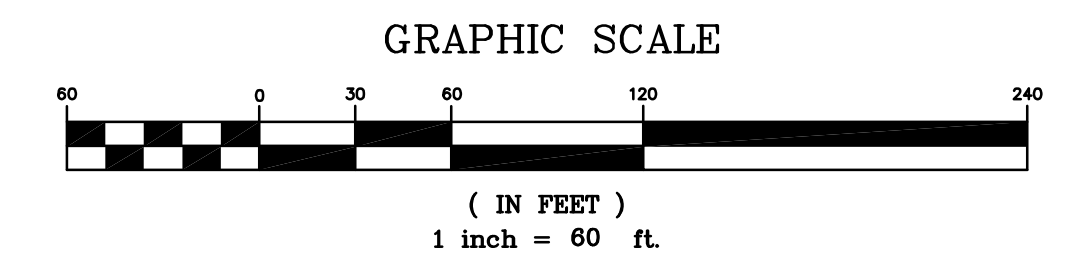
OVERALL
 LANDSCAPE
 PLAN

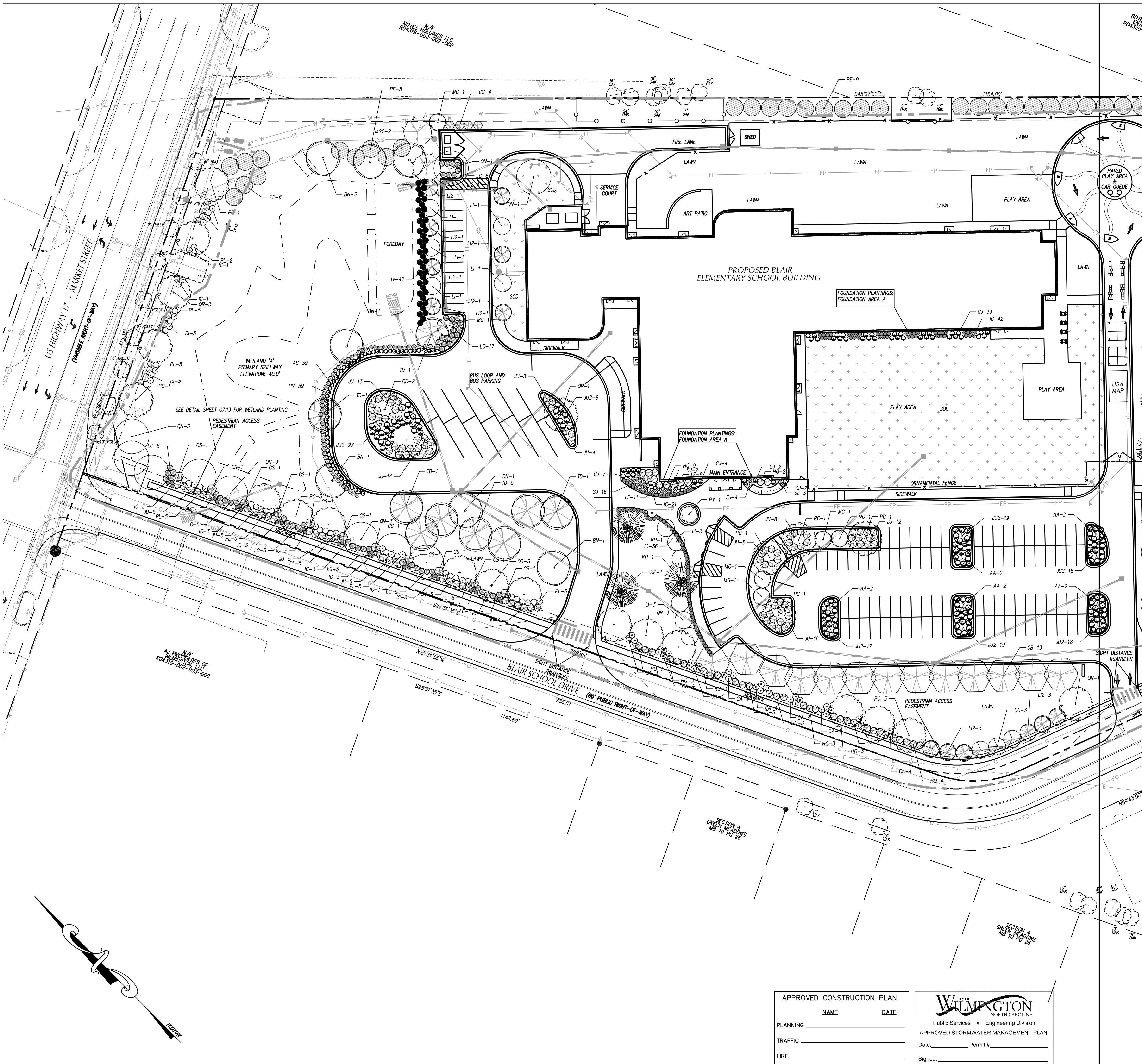
C6.0

APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING	
TRAFFIC	
FIRE	

WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: _____ Permit # _____
 Signed: _____





LANDSCAPE NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND/OR NC DOT STANDARDS AND SPECIFICATIONS.
2. LOCATE ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PLANT MATERIAL. NOTIFY OWNER OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THOSE SHOWN ON THE PLAN.
3. VERIFICATION OF TOTAL QUANTITIES AS SHOWN ON THE PLANT LIST SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR AND THE TOTAL QUANTITIES SHALL BE AS SHOWN ON THE PLAN.
4. LAWN AREAS SHALL BE SEEDED WITH SUNSTAR/RIVERA BERMUDA GRASS 95% COVERAGE. (BASED ON A PER SQUARE YARD SAMPLE) SHALL BE ATTAINED PRIOR TO FINAL INSPECTION.
5. ALL PLANT MATERIAL SHALL CONFORM WITH THE STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSEYMEN AND THE WRITTEN SPECIFICATIONS.
6. PLANTING BEDS TO BE MULCHED WITH A MINIMUM OF 3" OF TRIPLE SHREDDED HARDWOOD MULCH. ALL PLANT GROUPINGS SHALL BE MULCHED AS ONE BED.
7. ESTABLISH POSITIVE DRAINAGE IN ALL PLANTING BEDS AND AWAY FROM BUILDINGS.
8. APPLY PRE-EMERGENT HERBICIDE TO ALL NEW PLANTING BEDS AT AT MANUFACTURER'S RECOMMENDED RATE PRIOR TO INSTALLATION OF MULCH.
9. DO NOT INSTALL PLANT MATERIAL IN IMPERVIOUS SOILS, (i.e. HOLES WHICH, WHEN FILLED WITH WATER, DO NOT COMPLETELY DRAIN WITHIN TWO HOURS.)
10. ALL SODDED AREAS SHALL BE TIFWAY-419 BERMUDA.
11. ANY TREE WRAP SHALL BE REMOVED IMMEDIATELY AFTER INSTALLATION.
12. SEE SPECIFICATIONS REGARDING WARRANTY/MAINTENANCE REQUIREMENTS FOR ALL PLANTS, SOD, AND LAWN SEEDING.
13. DEAD OR DETERIORATING SCREENING SHALL BE REPLACED WITHIN SIX MONTHS OR DURING NEXT PLANTING SEASON.
14. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30' - 10'.
15. PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.

PLANT SCHEDULE

KEY	QTY	PLANT NAME	SIZE	REMARKS
CANOPY TREES				
BN	7	RIVER BIRCH <i>Betula nigra 'Dura Heat'</i>	2'-2 1/2" CAL. 12'-14" HT.	B&B, STRAIGHT TRUNK FULL CROWN
GB	13	AUTUMN GOLD GINKGO (MALE ONLY) <i>Ginkgo biloba 'Autumn Gold'</i>	2'-2 1/2" CAL. 10'-12" HT.	B&B, STRAIGHT TRUNK FULL CROWN
KP	17	GOLDEN RAIN TREE <i>Koelreuteria paniculata</i>	2'-2 1/2" CAL. 10' 12" HT.	FULL CROWN, B&B MATCHED SPECIMENS
ON	15	NUTTALL OAK <i>Quercus Nuttallii</i>	2'-2 1/2" CAL. 12'-14" HT.	B&B, STRAIGHT TRUNK FULL CROWN
OR	14	RED OAK <i>Quercus rubra</i>	2'-2 1/2" CAL. 12'-14" HT.	B&B, STRAIGHT TRUNK FULL CROWN
PC	15	CHINESE PISTACHIO <i>Pistacia chinensis</i>	2'-2 1/2" CAL. 12'-14" HT.	B&B, STRAIGHT TRUNK FULL CROWN
TD	9	BALD CYPRESS <i>Taxodium distichum</i>	2'-2 1/2" CAL. 10'-12" HT.	B&B, STRAIGHT TRUNK FULL CROWN
UNDERSTORY TREES				
AA	10	DWARF SERVICEBERRY <i>Amelanchier arborea</i>	8' MIN. HT. B&B 1 1/2" CAL.	3-5 TRUNKS MATCHED SPECIMENS
CC	3	REDBIRD <i>Cercis canadensis 'Forest Pansy'</i>	8' MIN. HT. B&B 1-1/2" CAL.	STRAIGHT TRUNK MATCHED SPECIMENS
LI	11	CHEROKEE CRAPE MYRTLE <i>Lopstroemia indica 'Cherokee'</i>	8' MIN. HT.	B&B, FULL CROWN
LI2	13	MATCHEZ CRAPE MYRTLE <i>Lopstroemia l. x F. 'Matchez'</i>	8' MIN. HT.	B&B, FULL CROWN
MG	6	LITTLE GEM MAGNOLIA <i>Magnolia grandiflora 'Little Gem'</i>	1'-1 1/2" CAL. 8' MIN. HT.	B&B, STRAIGHT TRUNK FULL TO GROUND
MG2	2	BRACKEN'S BROWN BEAUTY MAGNOLIA <i>Magnolia grandiflora 'Bracken's Brown Beauty'</i>	8' MIN. HT. B&B	STRAIGHT TRUNK MATCHED SPECIMENS
PE	62	SHORTLEAF PINE <i>Pinus echinata</i>	8' MIN. HT. B&B	LOOSELY STAKED STRAIGHT TRUNK
PY	1	YOSHINO CHERRY <i>Prunus yoshinoensis 'Yoshino'</i>	8' MIN. HT. B&B 1 1/2" CAL.	STRAIGHT TRUNK MATCHED SPECIMENS
SHRUBS AND GROUNDCOVERS				
AS	59	LITTLE BLUESTEM <i>Andropogon scoparium 'The Blues'</i>	18"-24" HT./SPR. 4.0' O.C.	CONT. FULL 4.0' O.C.
CA	35	BEAUTY BERRY <i>Collinsia americana</i>	18"-24" HT. MIN 3-GAL CONT.	FULL PLANTS MATCHING 5' O.C.
CJ	48	JAPANESE CEDAR <i>Cryptomeria japonica 'Gobaso Nana'</i>	12" HT.	3 GAL CONT., FULL MATCHING 5' O.C.
CS	22	SUTSUGENKA CAMELLIA <i>Camellia japonica 'Sutsugenkai'</i>	24"-30" HT. MIN 3-GAL CONT.	FULL PLANTS MATCHING 8' O.C.
IC	155	CARISSA HOLLY <i>Ilex cornuta 'Carissa'</i>	18"-24" HT. CONT.	FULL PLANTS MATCHING 4' O.C.
HQ	30	OAKLEAF HYDRANGEA <i>Hydrangea quercifolia</i>	18"-24" HT. CONT.	FULL PLANTS MATCHING 5' O.C.
IV	42	HENRY'S GARNET SWEETSPICE <i>Hea virginica 'Henry's Garnet'</i>	24"-30" HT. MIN 3-GAL CONT.	FULL PLANTS MATCHING 5' O.C.
JU	108	BLUE PACIFIC JUNIPER <i>Juniperus conferta 'Blue Pacific'</i>	15"-18" SPR. CONT.	CONT., FULL 6' O.C.
JU2	126	PARSON'S JUNIPER <i>Juniperus Daurica 'Parson'</i>	18"-24" SPR./HT.	CONT. FULL 3.5' O.C.
LC	55	CHINESE FRINGE FLOWER <i>Loropetalum chinense 'Ruby'</i>	24"-30" HT. MIN 3-GAL CONT.	FULL PLANTS MATCHING 5' O.C.
LF	19	RAINBOW LEUCOTHOE <i>Leucothoe fontansiana 'Girard's Rainbow'</i>	18"-24" HT. CONT.	FULL PLANTS MATCHING 6' O.C.
PL	50	DWARF CHERRY LAUREL <i>Prunus laurocerasus 'Otto Luyken'</i>	18" HT./SPR. CONT.	CONT., FULL 4' O.C.
PV	59	SWITCHGRASS <i>Panicum virgatum 'Shenandoah'</i>	18"-24" HT./SPR. CONT.	CONT., FULL 4.0' O.C.
RI	43	REDBIRD INDIAN HAWTHORN <i>Rhaphirolepis indica 'Redbird'</i>	18" HT./SPR. CONT.	CONT., FULL 4' O.C.
SJ	30	SPIREA <i>Spiraea japonica 'Little Princess'</i>	24" SPR.	5 GAL CONT., FULL 5' O.C.

GRAPHIC SYMBOLS SUPERCEDE WRITTEN QUANTITIES WHERE DISCREPANCIES OCCUR. SEE SHEET

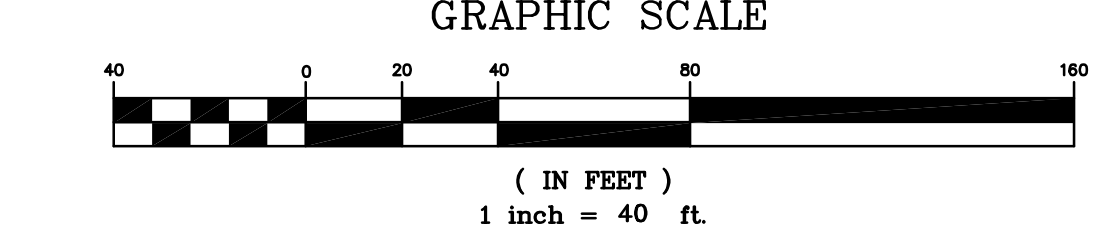
C7.6 FOR MORE INFORMATION.

TIFWAY 419 SOD, SEE DETAIL SHEET C7.6.

A TREE REMOVAL/PRESERVATION PERMIT IS REQUIRED PRIOR TO REMOVING ANY TREES. CONTRACTOR SHALL OBTAIN & COMPLETE PERMIT. CONTACT CITY OF WILMINGTON ZONING DEPARTMENT TO OBTAIN COPY OF PERMIT. ENSURE TO PROVIDE COPY OF TREE REMOVAL CHART WITH PERMIT.

REFER TO PLAN SHEET C-6.0 FOR LANDSCAPE CALCULATIONS.

TREE REMOVAL CHART		TREE REMOVAL CHART (CONT'D.)	
SIZE/TYPE	QTY.	SIZE/TYPE	QTY.
12" BIRCH	1	11" OAK	1
10" BRAD PEAR	1	12" OAK	5
11" BRAD PEAR	2	15" OAK	1
12" BRAD PEAR	1	18" OAK	6
13" BRAD PEAR	1	20" OAK	2
7" CHERRY	1	24" OAK	2
8" CHERRY	4	5" PEAR	1
4" CRAB	1	7" PEAR	2
5" CRAB	1	9" PEAR	1
2" CRAPE	5	14" PINE	1
3" CRAPE	6	24" SYCAMORE	3
4" CRAPE	10		
5" CRAPE	12		
6" CRAPE	1		
6" HOLLY	1		
8" HOLLY	1		
8" OAK	1		
10" OAK	3		
TOTAL:		78	



APPROVED CONSTRUCTION PLAN

NAME _____ DATE _____

PLANNING _____

TRAFFIC _____

FIRE _____

City of WILMINGTON
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
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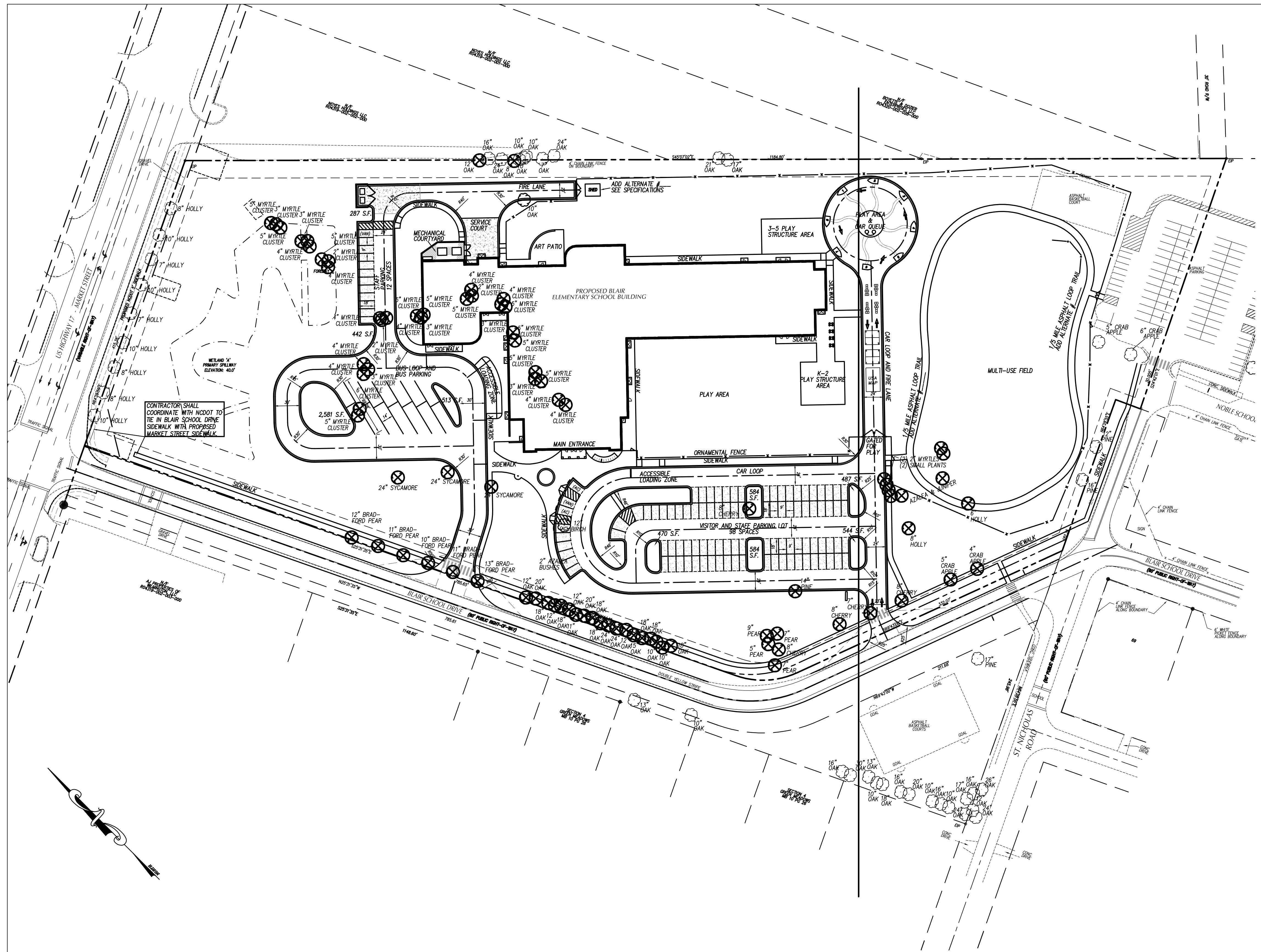
**ENERGY
STAR
PARTNER**

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**LANDSCAPE
PLAN**

C6.1



LANDSCAPE CALCULATIONS

STREET YARD REQUIREMENTS

STREET YARD FACTOR = 18
 MINIMUM STANDARD: 1 CANOPY TREE (3" CAL. MIN.) - 3 UNDERST. IF PWR. LINE
 6 SHRUBS (12" HT. MIN.) OR
 6 SHRUBS (36" HT. MIN. IF ADJ. TO A PARKING AREA)
 PER 600 SQ. FT. OF STREET YARD

PRIMARY STREET YARD: BLAIR SCHOOL DRIVE - 9'-27" WIDTH (TO LIMITS OF WORK)
 SQUARE FEET REQUIRED = 18(180 SF) = 3,240 SF
 MINIMUM STANDARD REQUIRED: 33 CANOPY TREES, 195 SHRUBS
 PROVIDED: 30 NEW CANOPY TREES
 9 UNDERSTORY TREES
 207 NEW SHRUBS

SECONDARY STREET YARD: MARKET STREET - 9'-27" WIDTH (TO LIMITS OF WORK)
 SQUARE FEET REQUIRED = 18(344 SF) = 6,192 SF
 MINIMUM STANDARD REQUIRED: 5 CANOPY TREES
 30 SHRUBS
 PROVIDED: 7 CANOPY TREES
 36 SHRUBS

SECONDARY STREET YARD: ST. NICHOLAS ROAD - 9'-27" WIDTH (TO LIMITS OF WORK)
 SQUARE FEET REQUIRED = 18(344 SF) = 6,192 SF
 MINIMUM STANDARD REQUIRED: 4 CANOPY TREES
 22 SHRUBS
 PROVIDED: 3 EXISTING TREES, 3 CANOPY TREES
 22 SHRUBS

FOUNDATION PLANTING REQUIREMENTS (adjacent to parking or internal drive aisle)
 REQUIREMENT = AREA OF BUILDING FACE X 12%

FOUNDATION PLANTING: AREA A
 BUILDING FACE = 328 FT.
 BUILDING HEIGHT = 33 FT.
 PLANTING AREA REQUIRED = 1,298 SQ. FT.
 PLANTING AREA PROVIDED = 2,703 SQ. FT.

PARKING AREA PLANTING REQUIREMENTS

PARKING AREA PERIMETER PLANTINGS:
 REQUIREMENT: 10' MINIMUM PLANTED STRIP ADJACENT TO ROAD RIGHT-OF-WAY.
 MIN. CAL. 3" TREE EVERY 18' TO 27'

PARKING AREA INTERIOR PLANTINGS:
 REQUIREMENT: INTERIOR LANDSCAPING MUST EQUAL 8% OF TOTAL PARKING,
 LOADING, AND DRIVE AISLE AND PEDESTRIAN USE AREA
 MIN. CAL. 2" TREE PER 144 SQ. FT. OF PARKING ISLAND, NO LESS THAN 12" WIDE
 ISLAND MUST HAVE GROUND COVER
 NO PARKING SPACE MORE THAN 120 FEET AWAY FROM AN ISLAND
 75% SHADE TREES

PARKING AREA SHADE CALCULATION:
 REQUIREMENT: TOTAL PARKING AREA X 20% = 14,309
 TREES IN LANDSCAPE ISLANDS CLAIM = 9,366 SF
 TREES ON PERIMETER OF PARKING AREA CLAIM = 21,206 SF
 PROVIDED: 71 SHADES X 20% = 14,309 SF
 21 LANDSCAPE ISLAND TREES = 14,847 SF
 39 PERIMETER TREES = 27,573 SF
 TOTAL = 42,426 SF

SIGNIFICANT TREE MITIGATION CALCULATIONS:
 (PER COW LDC SEC 18-480(b))
 TOTAL DBH OF REMOVED SIGNIFICANT TREE x TWO TIMES PERCENTAGE OF MITIGATION /3

TYPE	DBH	PERCENTAGE x 2	# OF REPLACEMENT TREES
OAK	24"	100% x 2	/3 16 TREES
OAK	24"	100% x 2	/3 16 TREES
SYCAMORE	24"	75% x 2	/3 12 TREES
SYCAMORE	24"	75% x 2	/3 12 TREES
SYCAMORE	24"	75% x 2	/3 12 TREES
PEAR	9"	25% x 2	/3 2 TREES
HOLLY	8"	100% x 2	/3 5 TREES
CHERRY	8"	50% x 2	/3 3 TREES
CHERRY	8"	50% x 2	/3 3 TREES
CHERRY	8"	50% x 2	/3 3 TREES
CHERRY	8"	50% x 2	/3 3 TREES
CHERRY	8"	50% x 2	/3 3 TREES
CHERRY	8"	50% x 2	/3 3 TREES
TOTAL TREES REQUIRED FOR MITIGATION:	87 TREES		
TOTAL TREES PROVIDED:	88 TREES		

CREDITS FOR EXISTING TREES:

SIZE	QTY.	CREDIT VALUE	TOTAL
2-5" CALIPER	1	1	1
6-11"	11	2	22
12-17"	2	3	6
18-23"	N/A	4	N/A
>24"	N/A	DBH/6 (178')	N/A
TOTAL:			29

15 TREES 2" CALIPER OR GREATER PER ACRE OF DISTURBED LAND
 ACRES DISTURBED: 14 CREDITS REQUIRED: 210 CREDITS

NEW STREET TREES PROVIDED: 49 TREES/49 CREDITS
 NEW PARKING AREA TREES PROVIDED: 80 TREES/80 CREDITS
 TREES PROVIDED FOR MITIGATION: 88 TREES/88 CREDITS
 NEW TREES PROVIDED: 197 TREES/197 CREDITS
 + EXISTING TREES: 14 TREES/29 CREDITS
 TOTAL CREDITS PROVIDED: 226 CREDITS

LEGEND:
 INDIVIDUAL TREE TO BE REMOVED: ⊗ INDIVIDUAL TREE TO REMAIN: ○

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DESIGN DEVELOPMENT SUBMITTAL FOR:
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NEW HANOVER COUNTY SCHOOLS
 WILMINGTON, NORTH CAROLINA

ENERGY STAR PARTNER

ID	DATE	DESCRIPTION
	10/03/2016	ISSUE DATE:

PROJECT #: SFLA - 01504.000
 CLH - 15-143
 CAD TECH.: MB
 CAD TECH.: YLA
 CHECKED BY: KAL/ZRP

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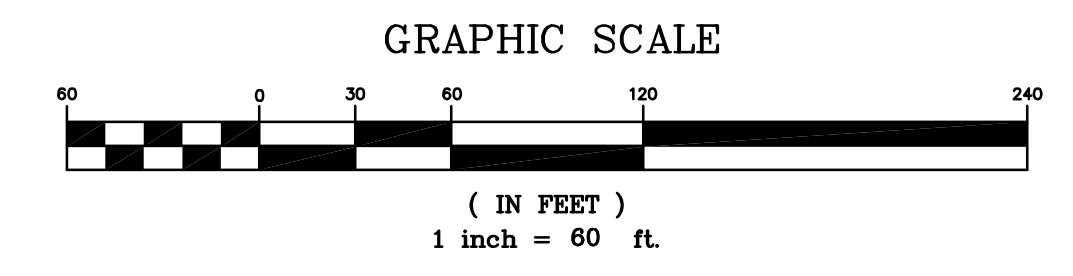
OVERALL
 TREE DEMO
 SURVEY

C6.3

APPROVED CONSTRUCTION PLAN

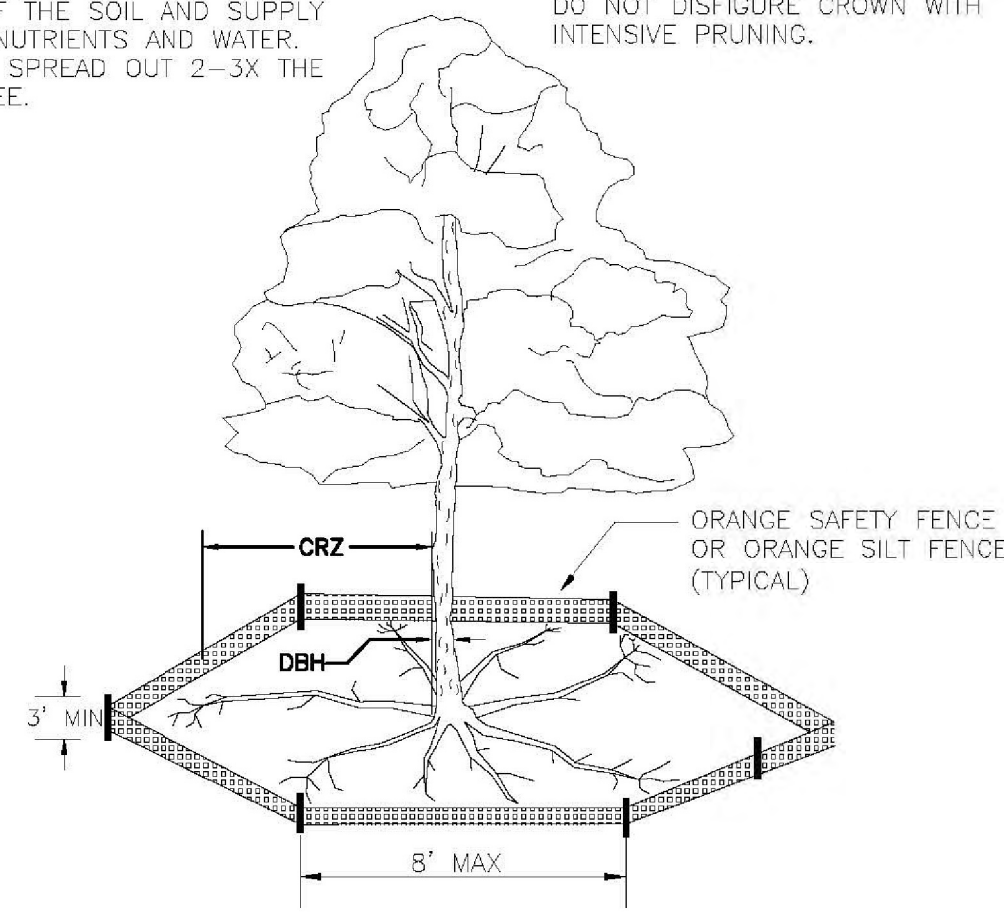
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TRAFFIC	
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Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: _____ Permit # _____
 Signed: _____



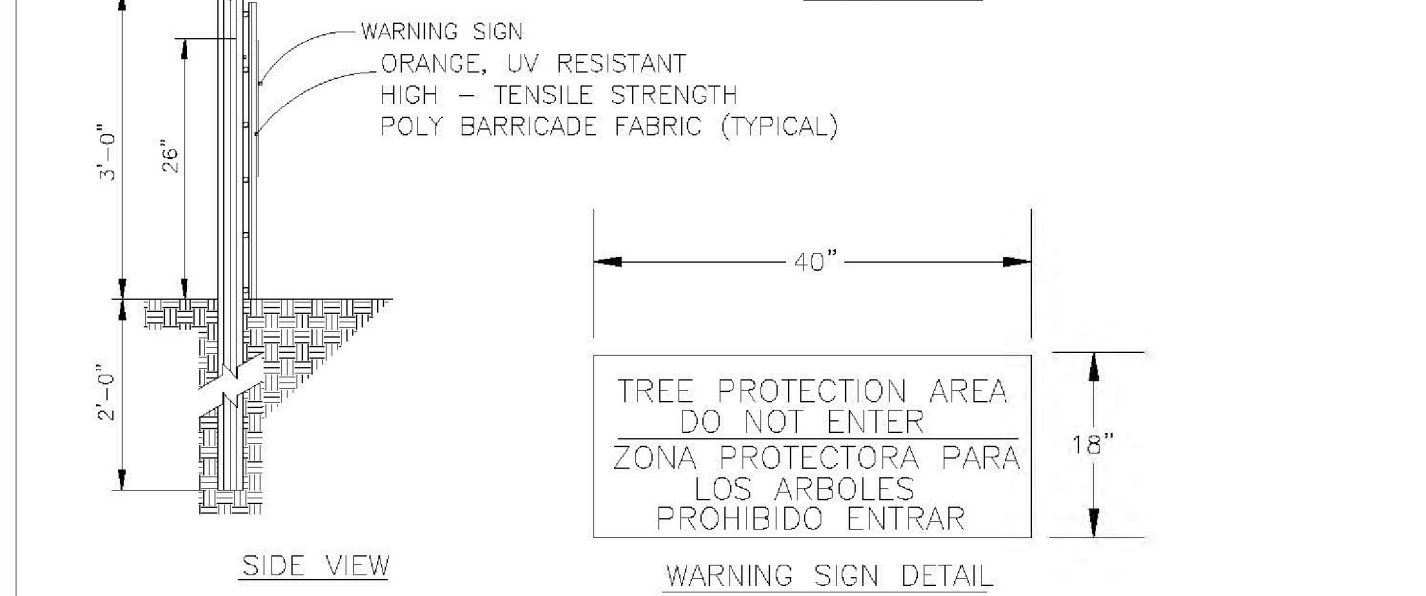
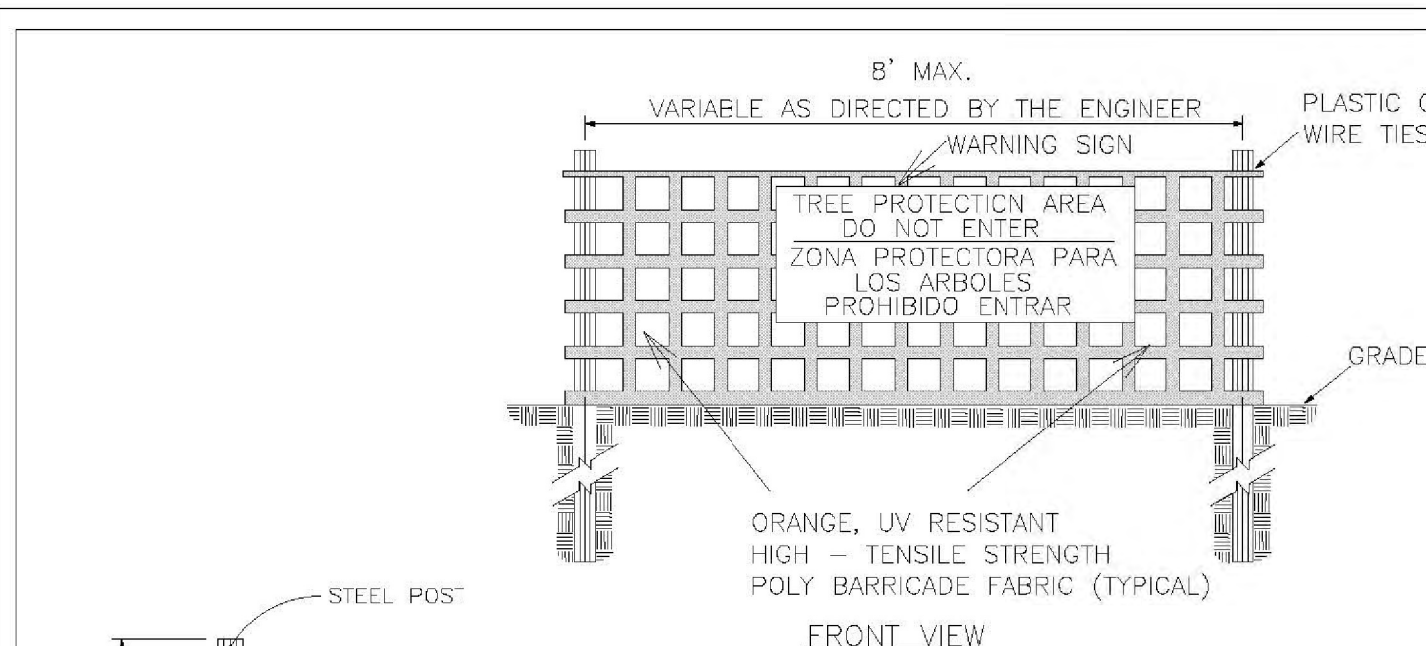
NOTE: THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 65% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.

NOTE: CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISFIGURE CROWN WITH INTENSIVE PRUNING.



- NOTES:
1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
 2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
 3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
 4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
 5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR EQUIPMENT SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
 6. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF \$500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.

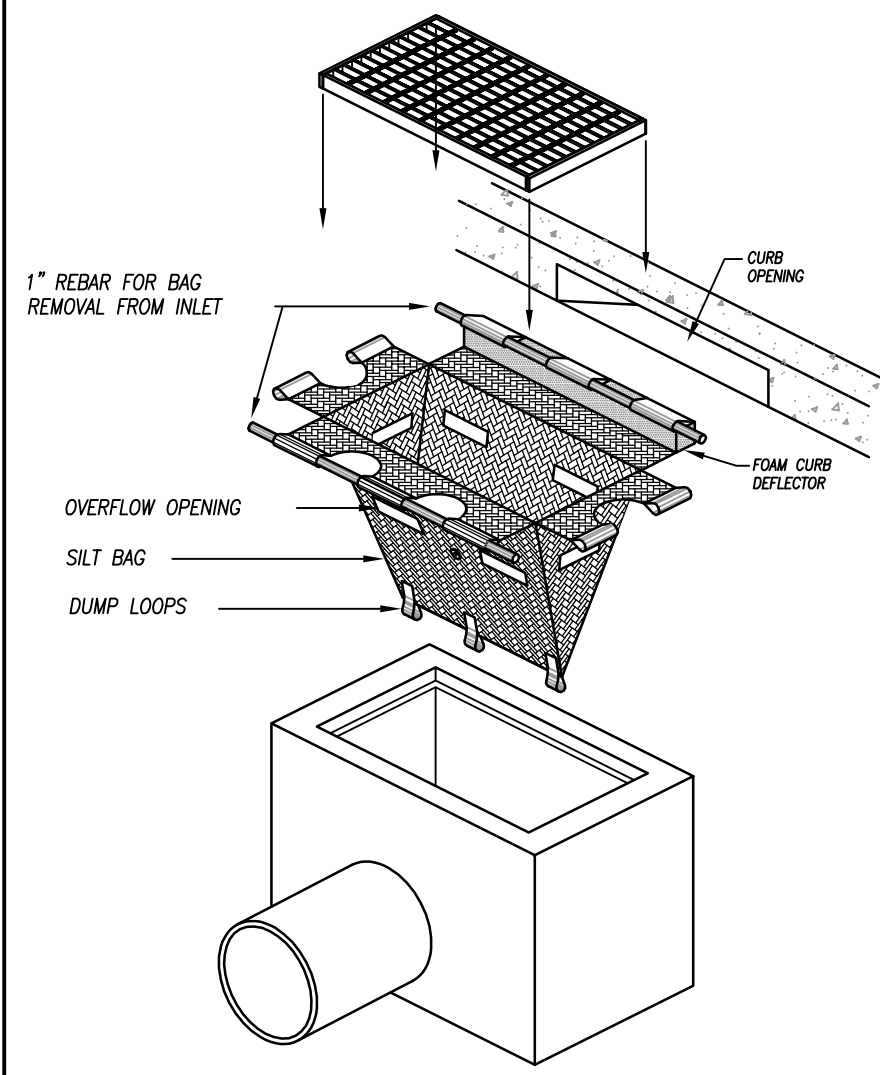
DATE: JAN. 2015	STANDARD DETAIL	<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807</p>	SD 15-09
DRAWN BY JSR	TREE PROTECTION DURING CONSTRUCTION		SHEET 1 of 2
CHECKED BY RDG, P.E.			
SCALE NOT TO SCALE			



- NOTES:
1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
 2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
 3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS THAN TWO SIGNS PER PROTECTION AREA.
 4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.
 5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
 6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL FIELD CONDITIONS.

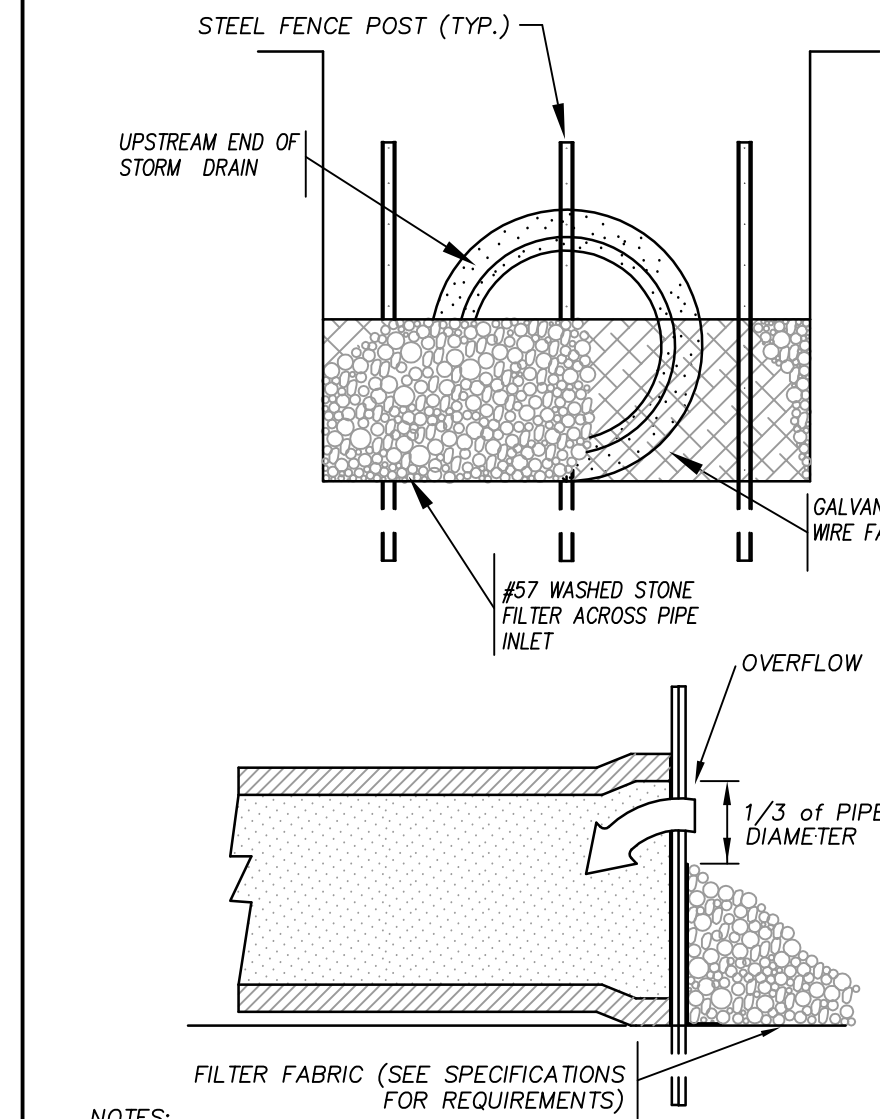
DATE: JAN. 2015	STANDARD DETAIL	<p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807</p>	SD 15-09
DRAWN BY JSR	TREE PROTECTION DURING CONSTRUCTION		SHEET 2 of 2
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CITY OF WILMINGTON TREE PROTECTION FENCE N.T.S.



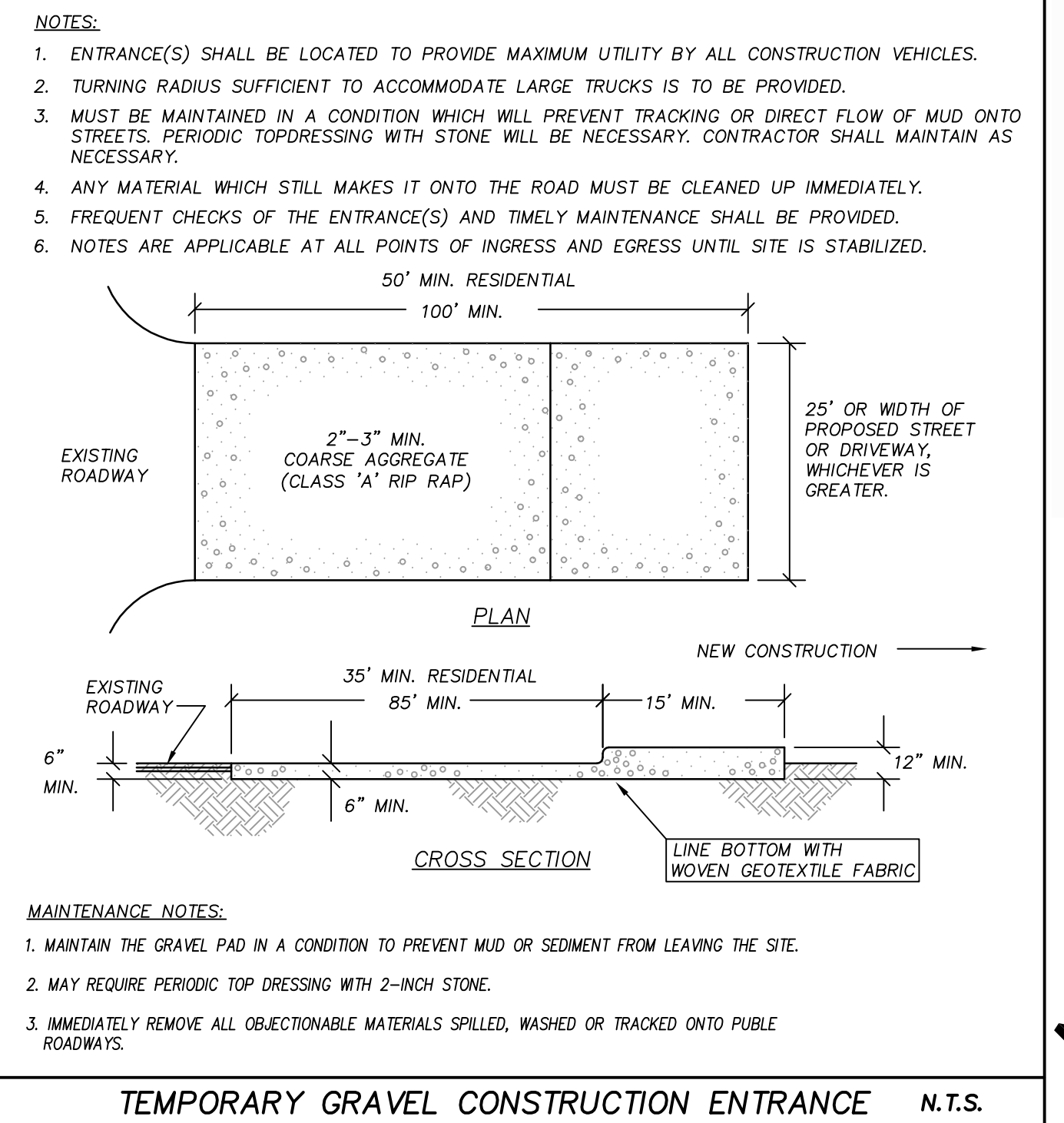
- NOTES:
1. CONTRACTOR TO INSPECT SILT BAG EVERY TWO WEEKS OR AFTER EVERY SUBSTANTIAL RAIN EVENT.
 2. CONTRACTOR TO REMOVE AND DISPOSE OF COLLECTED SILT AT AN ACCEPTABLE OFF SITE LOCATION.
 3. COLLECTED SEDIMENT TO BE REMOVED ROUTINELY TO ENSURE FUNCTIONALITY OF SILT BAG.
 4. DEVICE SHALL BE MANUFACTURED FROM WOVEN POLYPROPYLENE GEOTEXTILE TO FIT THE OPENING OF A CATCH BASIN OR DROP INLET TO FILTER SEDIMENT FROM RUNOFF ENTERING THE INLET. DEVICE SHALL BE PROVIDED WITH AN INTEGRAL CURB DEFLECTOR IF INSTALLED AT A CATCH BASIN WITH A VERTICAL OPENING ADJACENT TO A HORIZONTAL GRATE.
 5. THE DEVICE SHALL BE A HIGH FLOW "SILTSACK" AS MANUFACTURED BY ACF ENVIRONMENTAL, INC. OR APPROVED EQUAL.
 6. INSTALL DEVICE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND INSTALL A CURB DEFLECTOR IF APPROPRIATE.
 7. INSPECT DEVICE AFTER EACH RAIN EVENT AND AT INTERVALS NOT EXCEEDING TWO WEEKS DURING CONSTRUCTION. REMOVE, EMPTY, CLEAN, AND REPLACE THE DEVICE AS NEEDED DURING CONSTRUCTION. EMPTY COLLECTED SEDIMENT IN APPROVED, PROTECTED LOCATION. REMOVE AND DISPOSE OF DEVICE FOLLOWING FULL AND PERMANENT STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA.

SILT BAG INLET PROTECTION N.T.S.

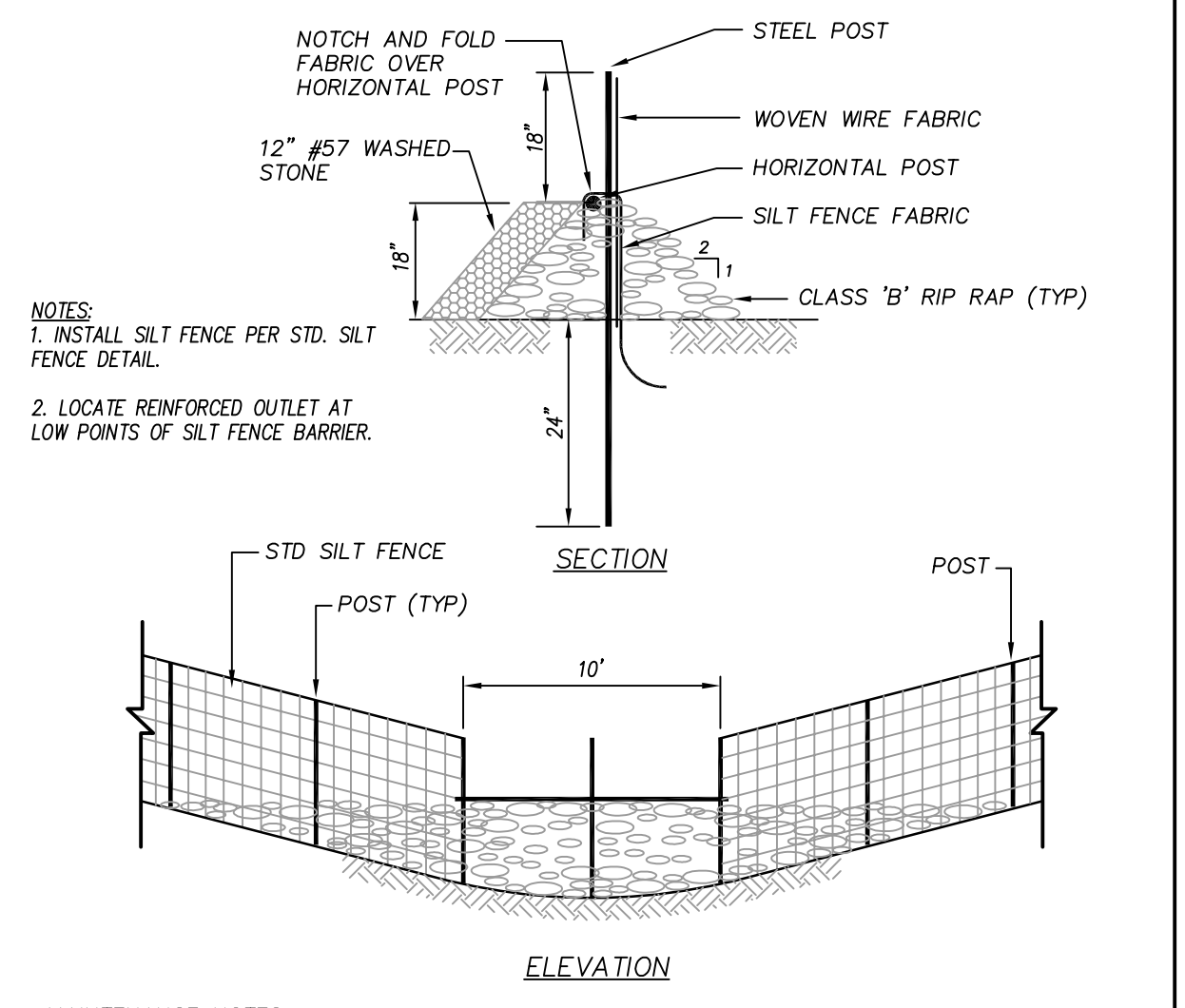


- NOTES:
1. ALL OPEN STORM DRAIN PIPES SHALL BE PROTECTED AFTER STOPPAGE OF WORK EACH DAY AS ILLUSTRATED.
 2. ACCUMULATED SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF AND THE TRENCH BOTTOM REGRADED AND COMPACTED IN ACCORDANCE WITH SPECIFICATIONS PRIOR TO CONTINUANCE OF LAYING PIPE.

STONE FILTER INLET PROTECTION FOR STORM DRAIN UNDER CONSTRUCTION N.T.S.

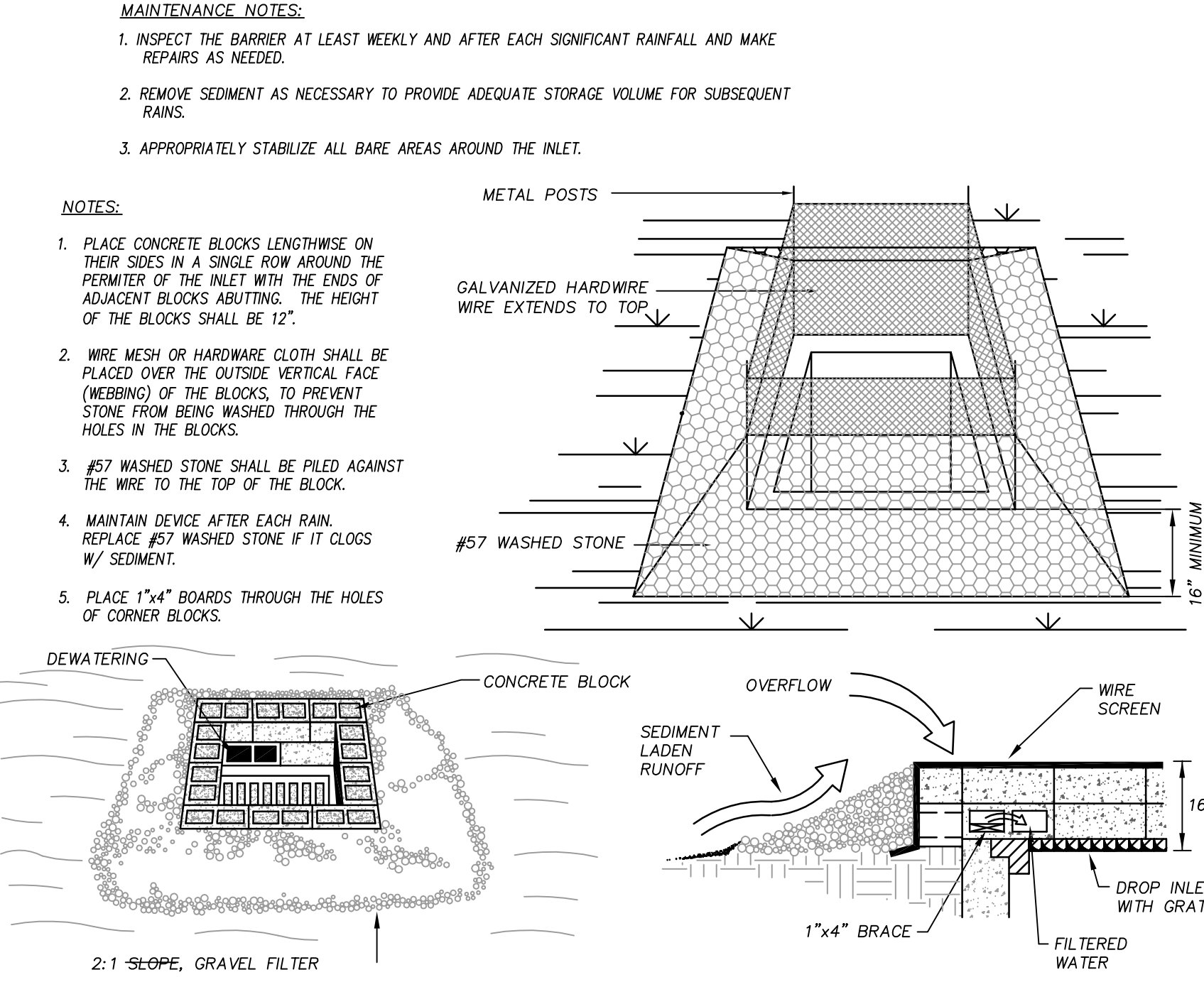


TEMPORARY GRAVEL CONSTRUCTION ENTRANCE N.T.S.

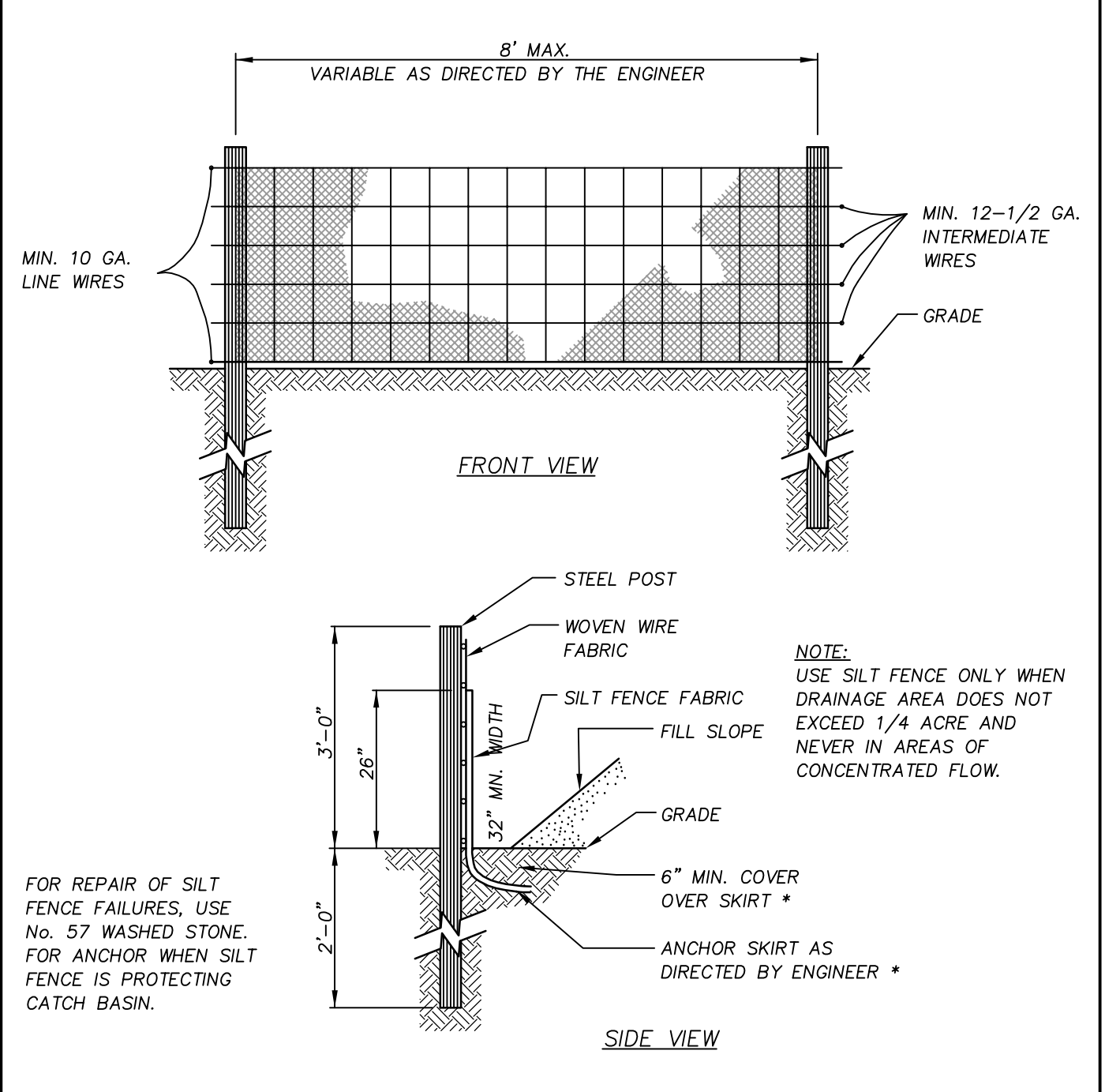


- MAINTENANCE NOTES:
1. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE/OUTLET. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE & REPLACE STONE AS NECESSARY AS IT BECOMES CLOGGED WITH SEDIMENT.
 2. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

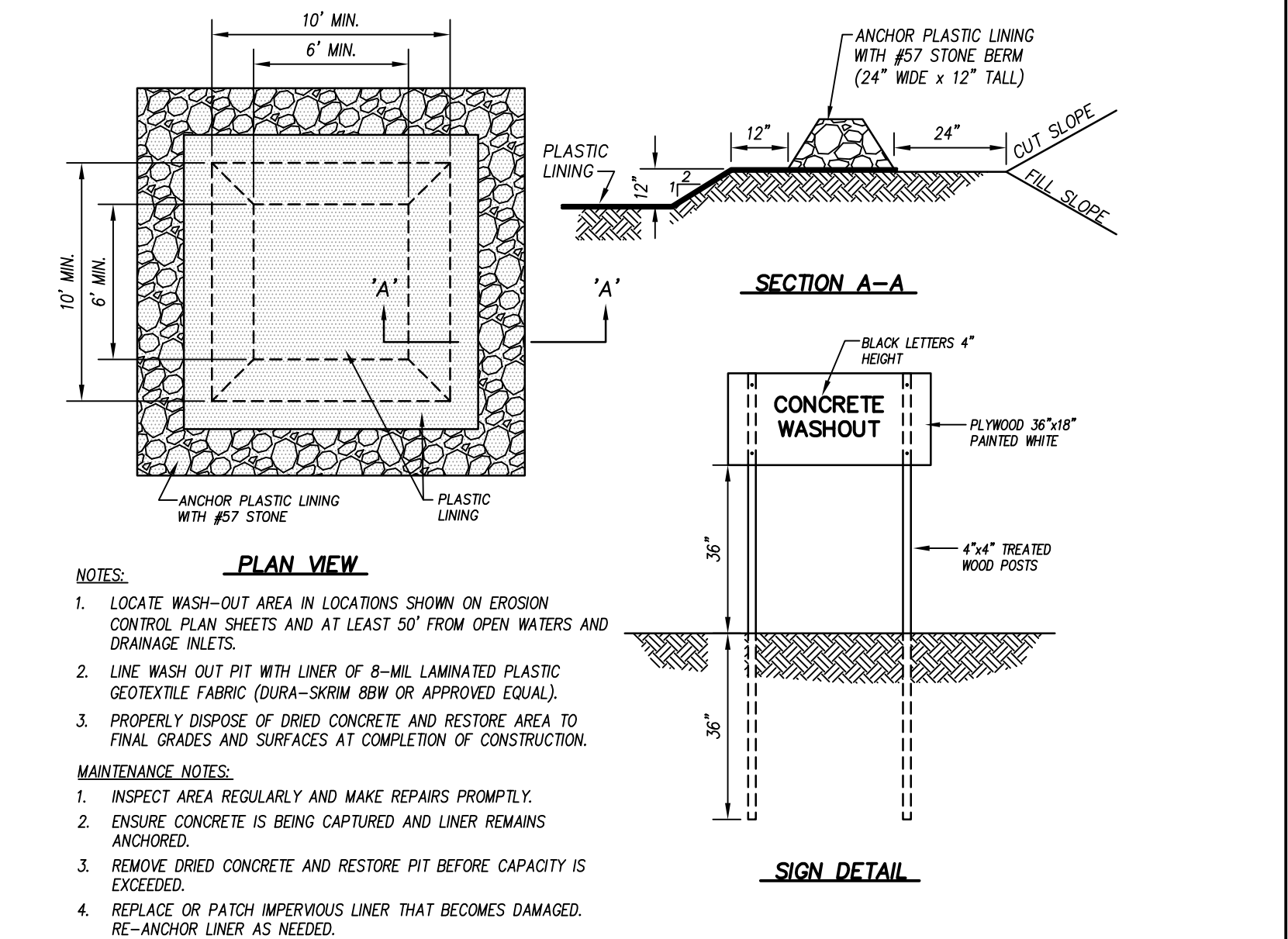
TEMPORARY REINFORCED SILT FENCE OUTLET N.T.S.



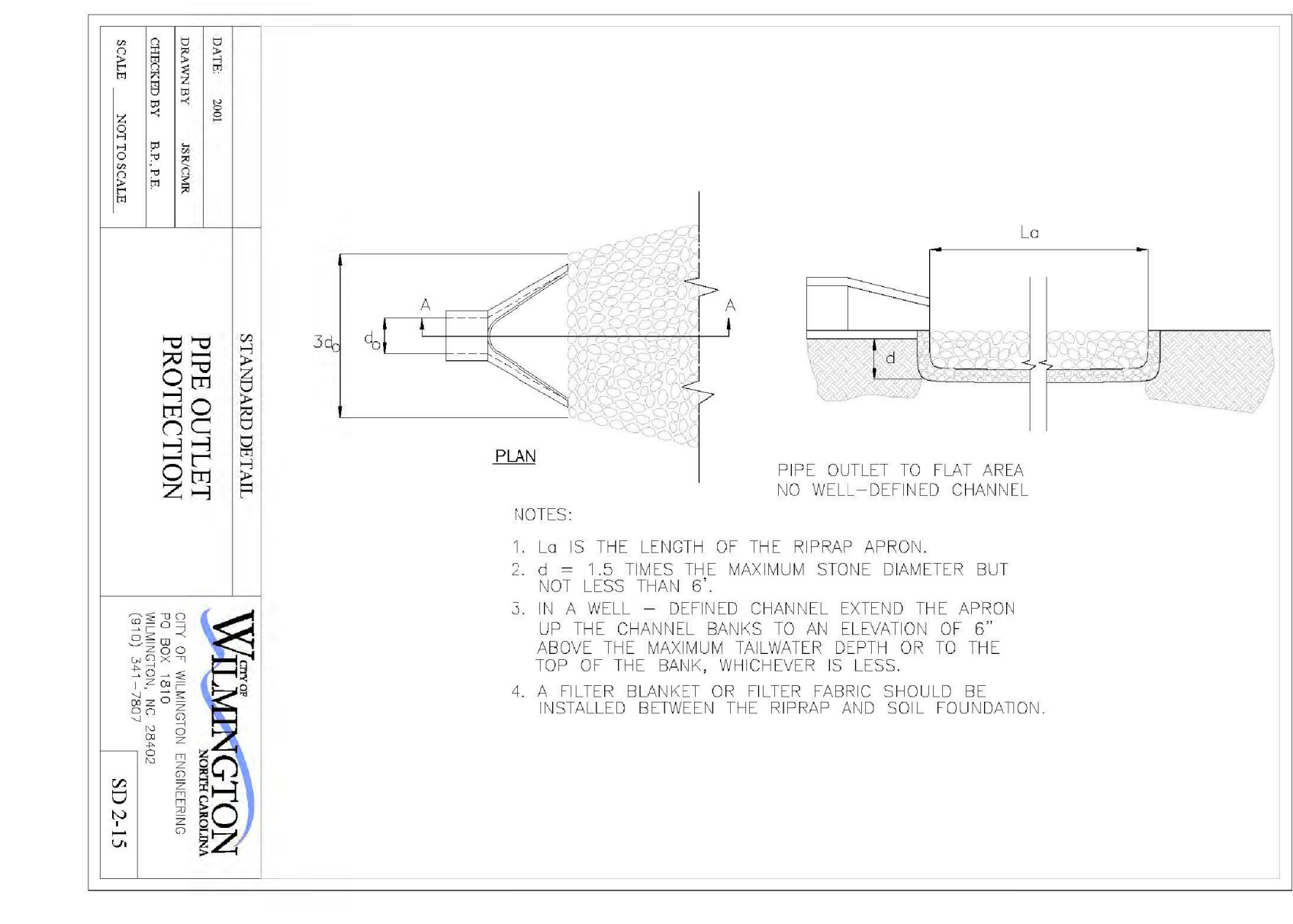
TEMPORARY CATCH BASIN AND YARD INLET PROTECTION N.T.S.



STANDARD TEMPORARY SILT FENCE N.T.S.



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WILMINGTON, NORTH CAROLINA

ENERGY STAR PARTNER

ID	DATE	DESCRIPTION

PROJECT #: SFLA-01504.000
CLH-15-143

CAD TECH.: MB

CAD TECH.: YLA

CHECKED BY: KAL/ZRP

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SITE/CIVIL DETAILS

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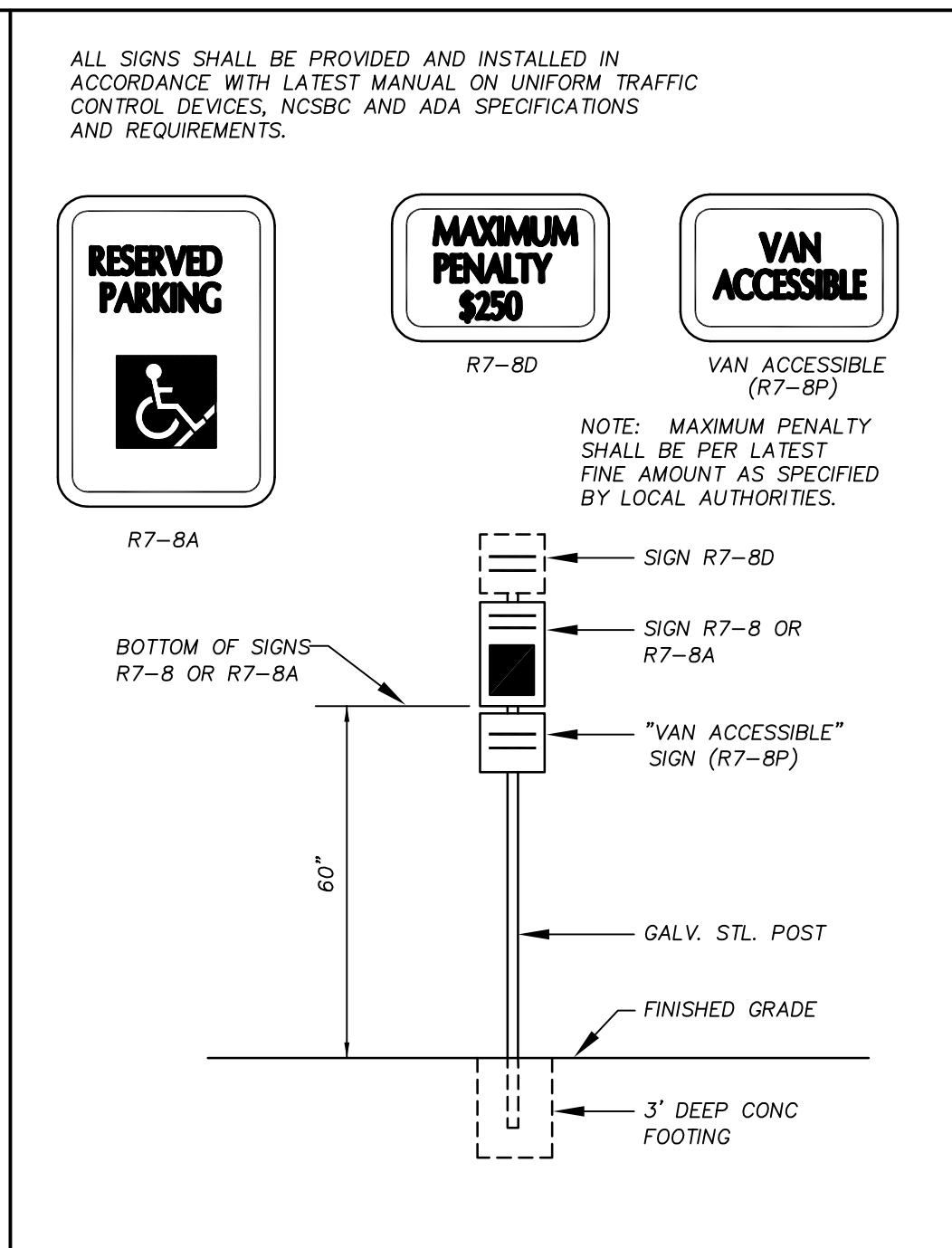
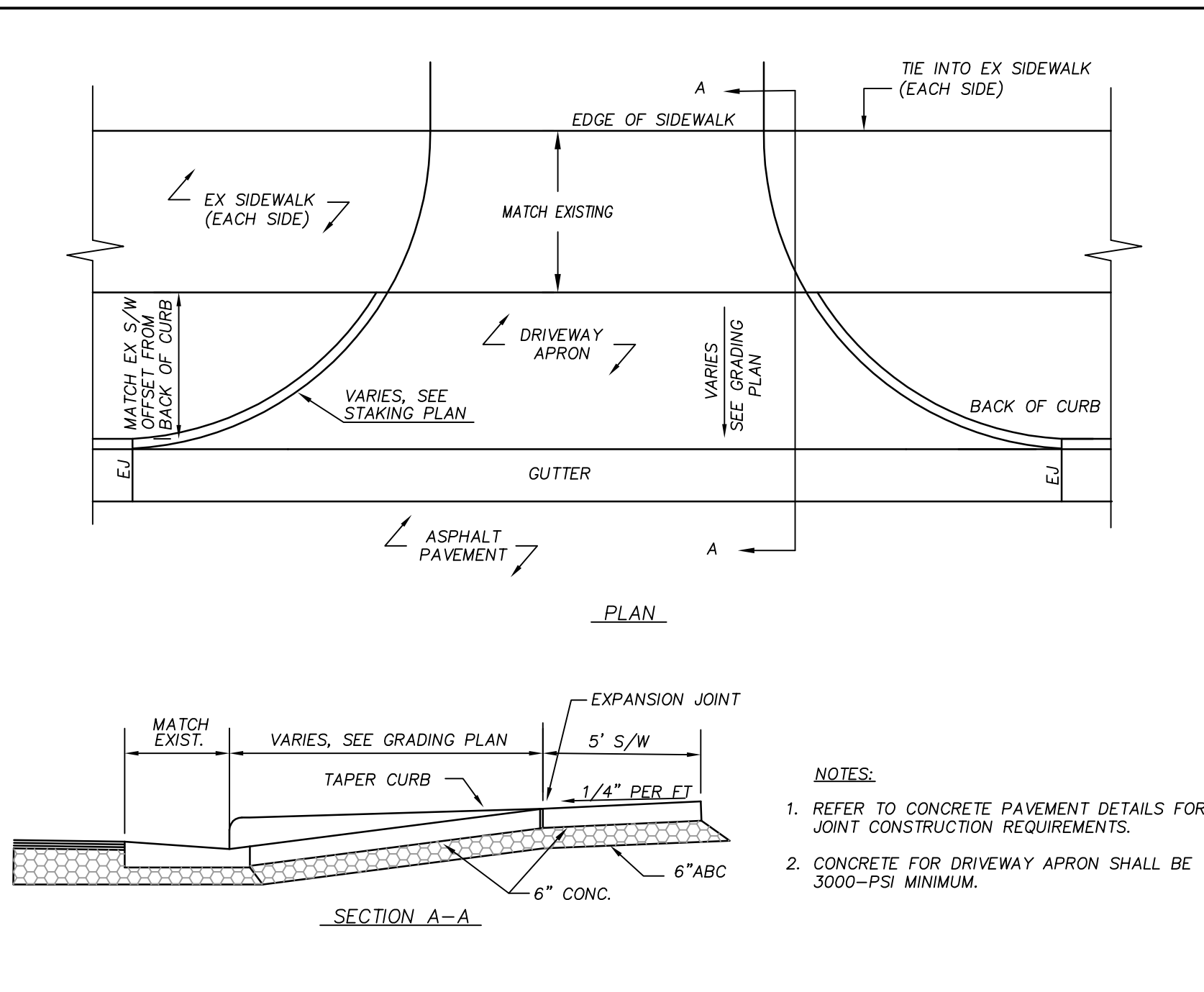
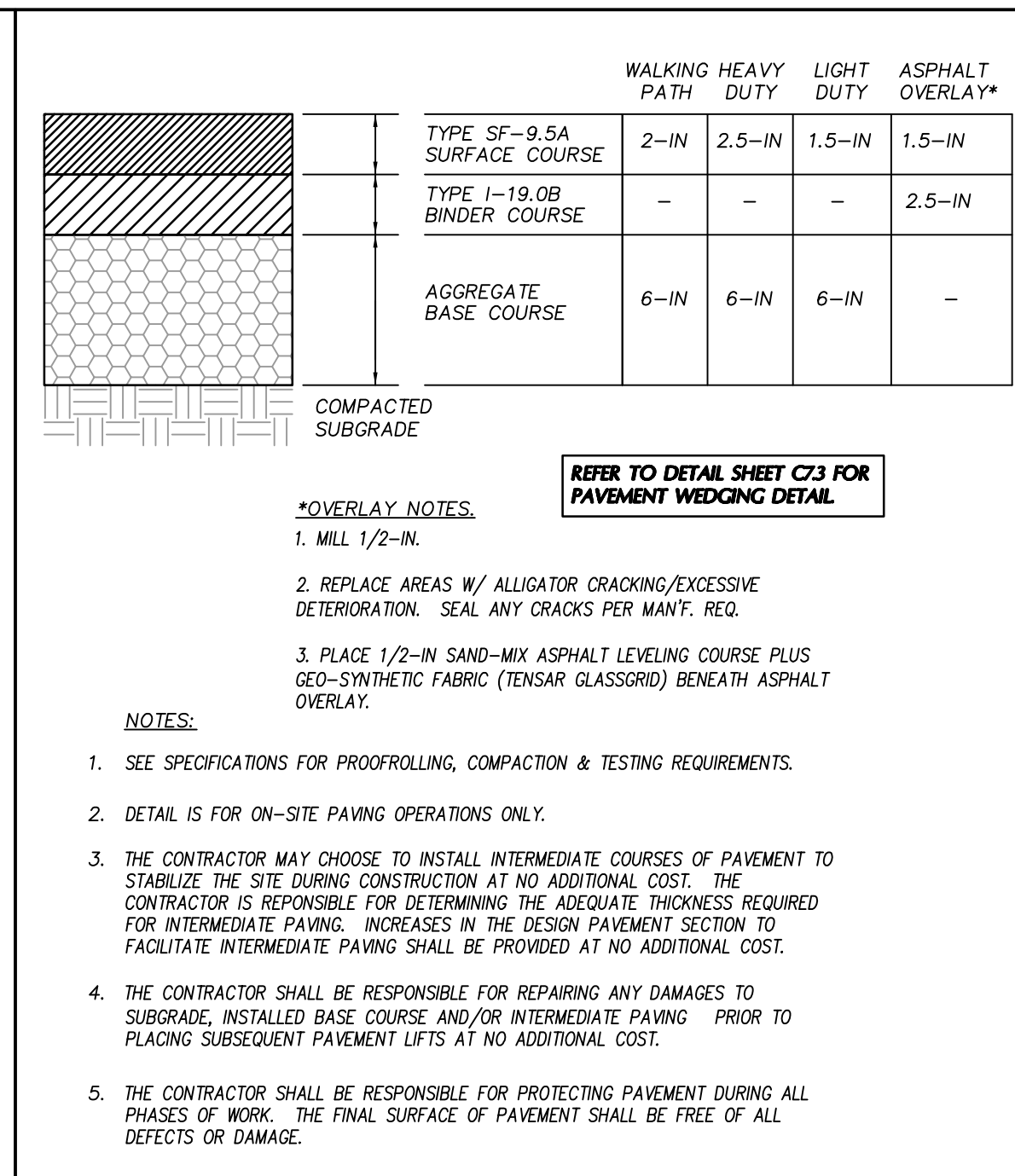
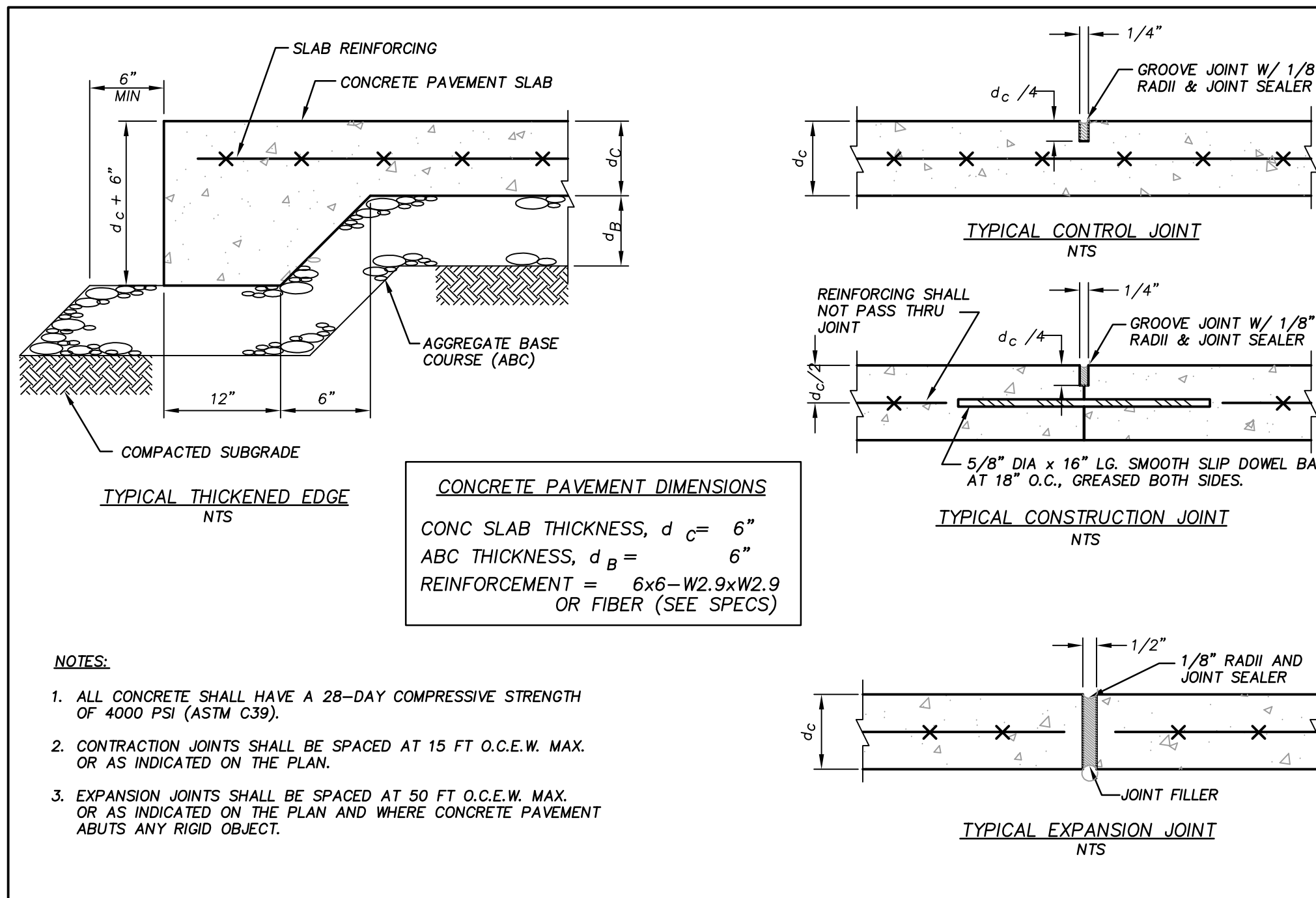
WILMINGTON NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signed: _____

APPROVED CONSTRUCTION PLAN

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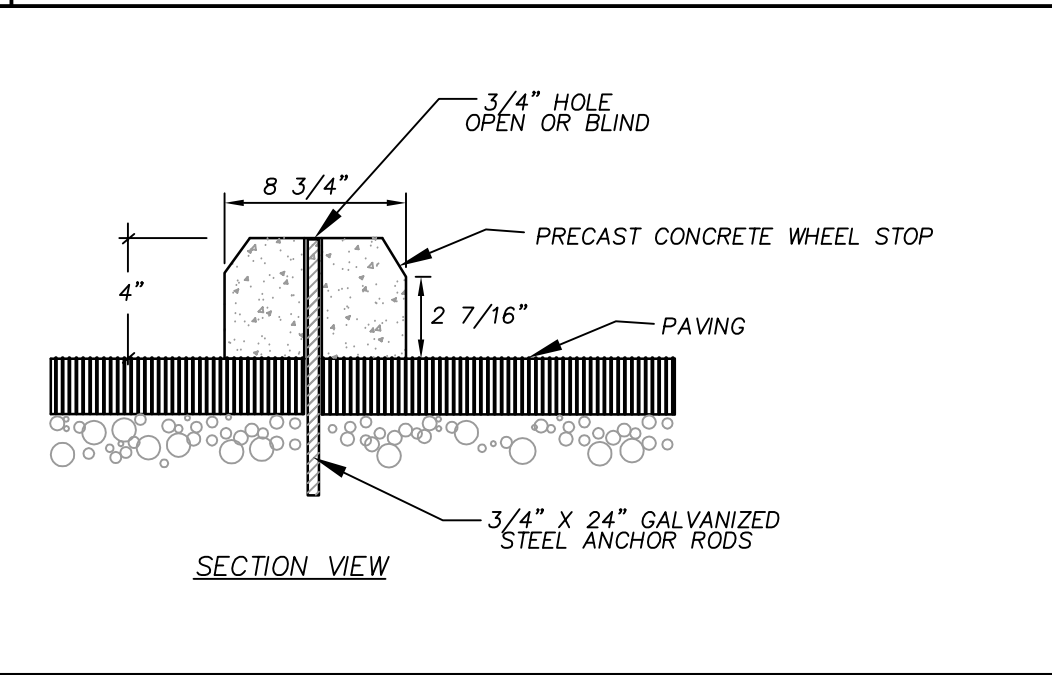
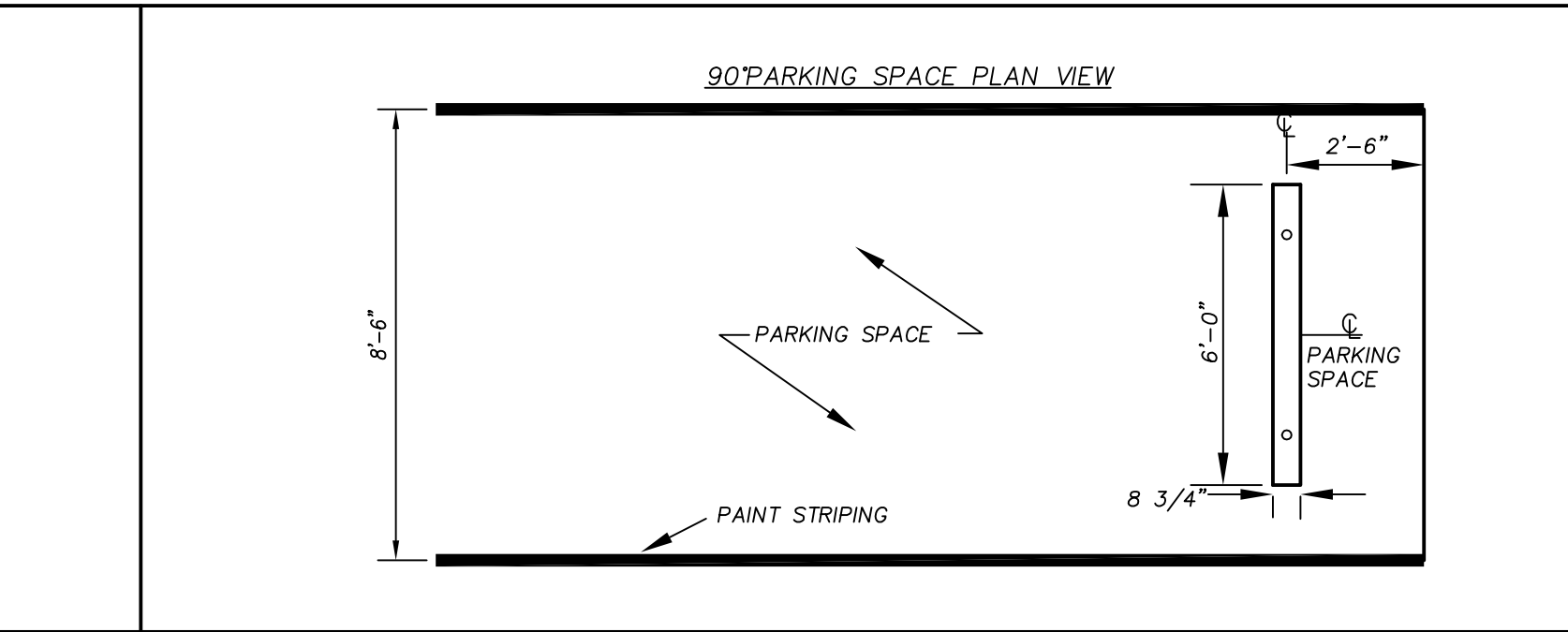
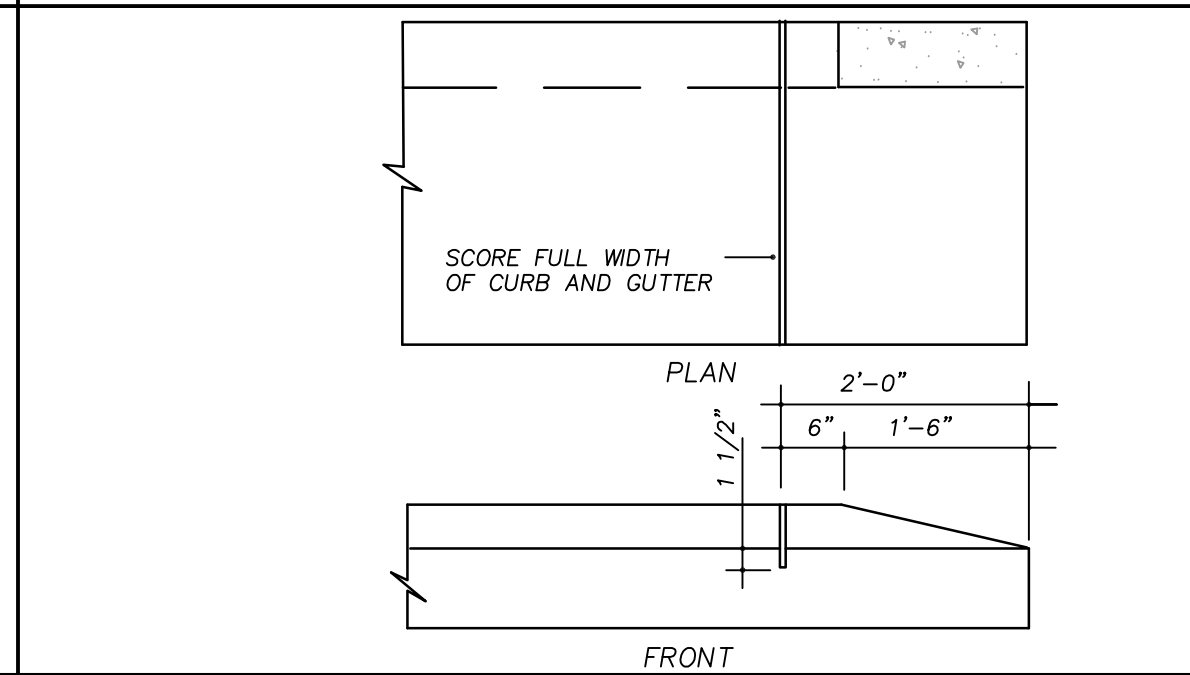
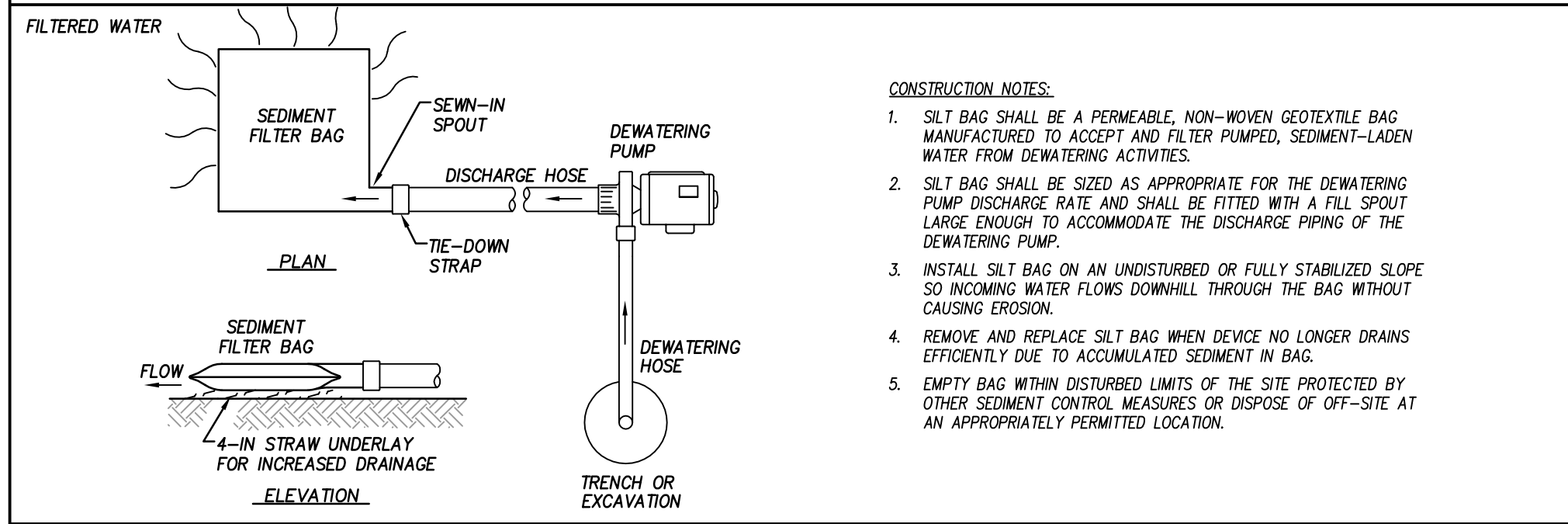


CONCRETE PAVEMENT N.T.S.

ASPHALT PAVEMENT N.T.S.

DRIVEWAY APRON N.T.S.

ACCESSIBLE PARKING SIGNAGE N.T.S.

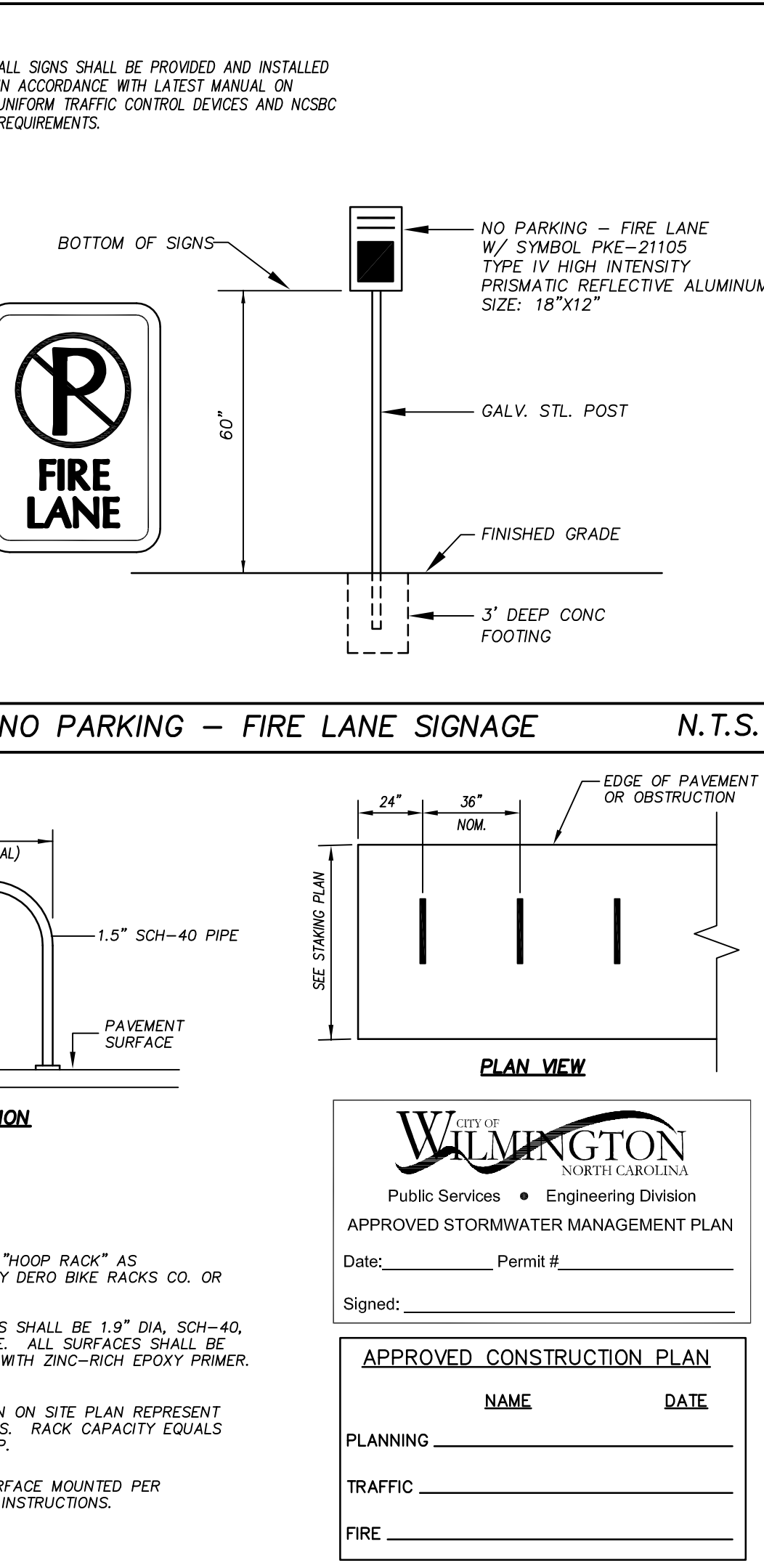
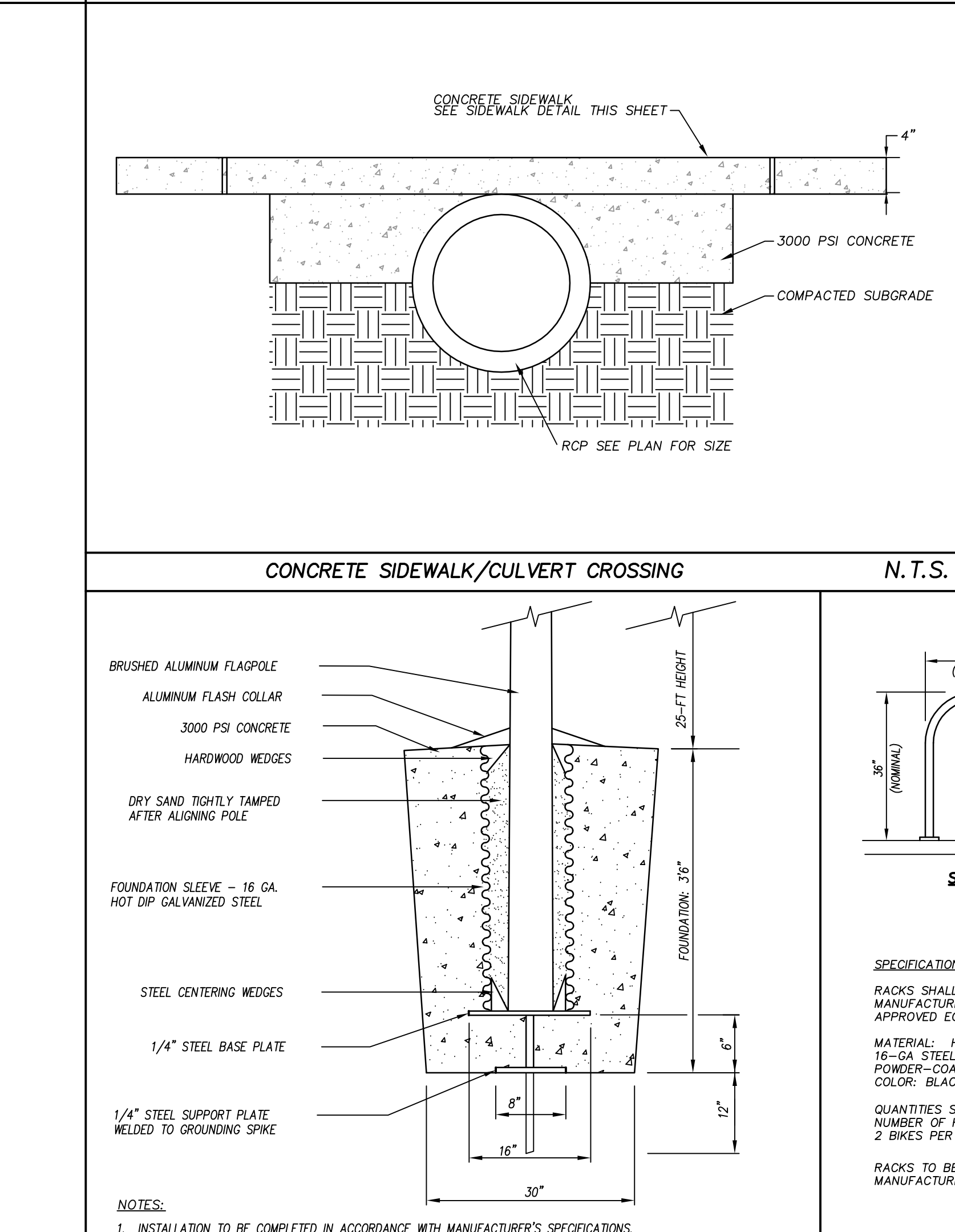
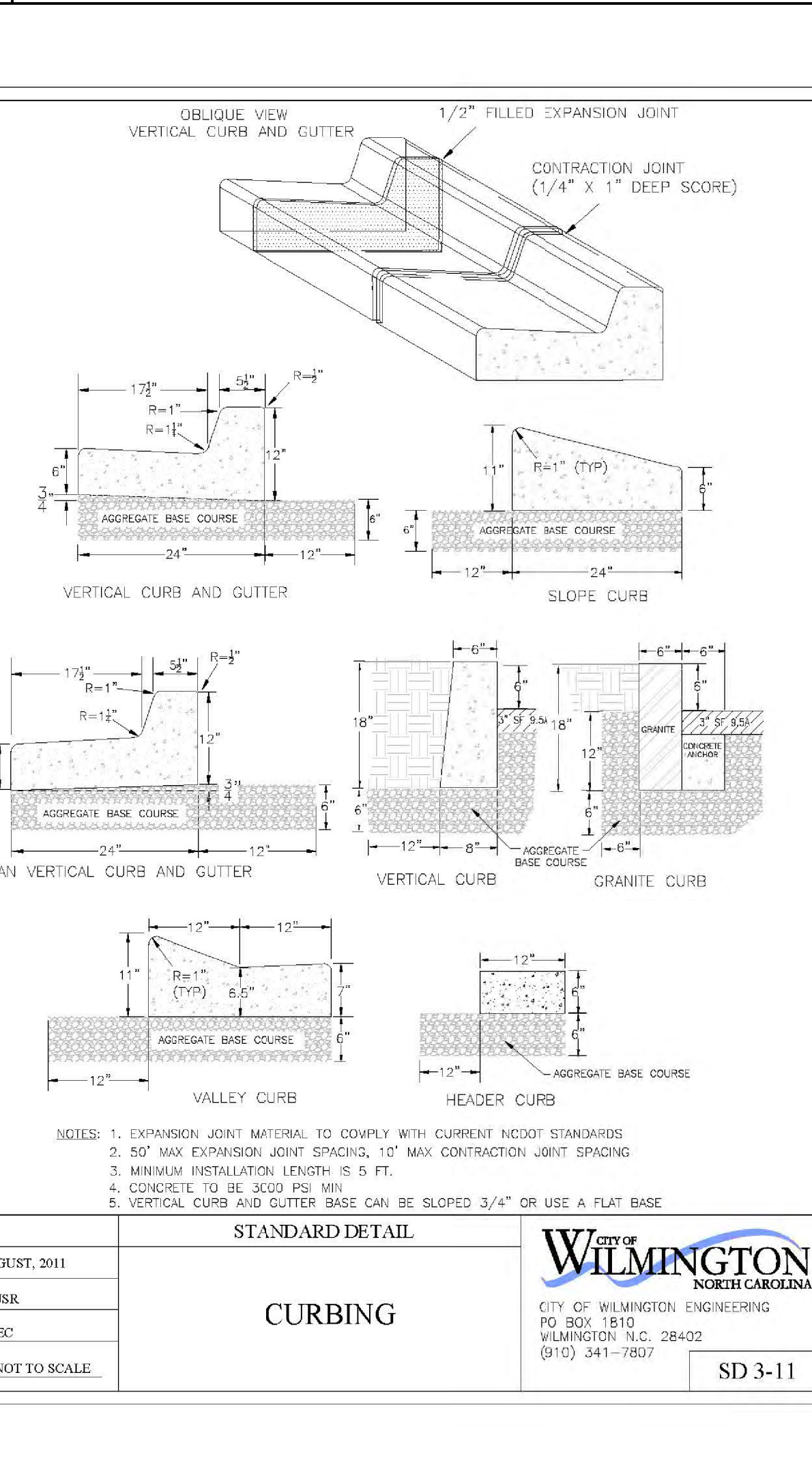
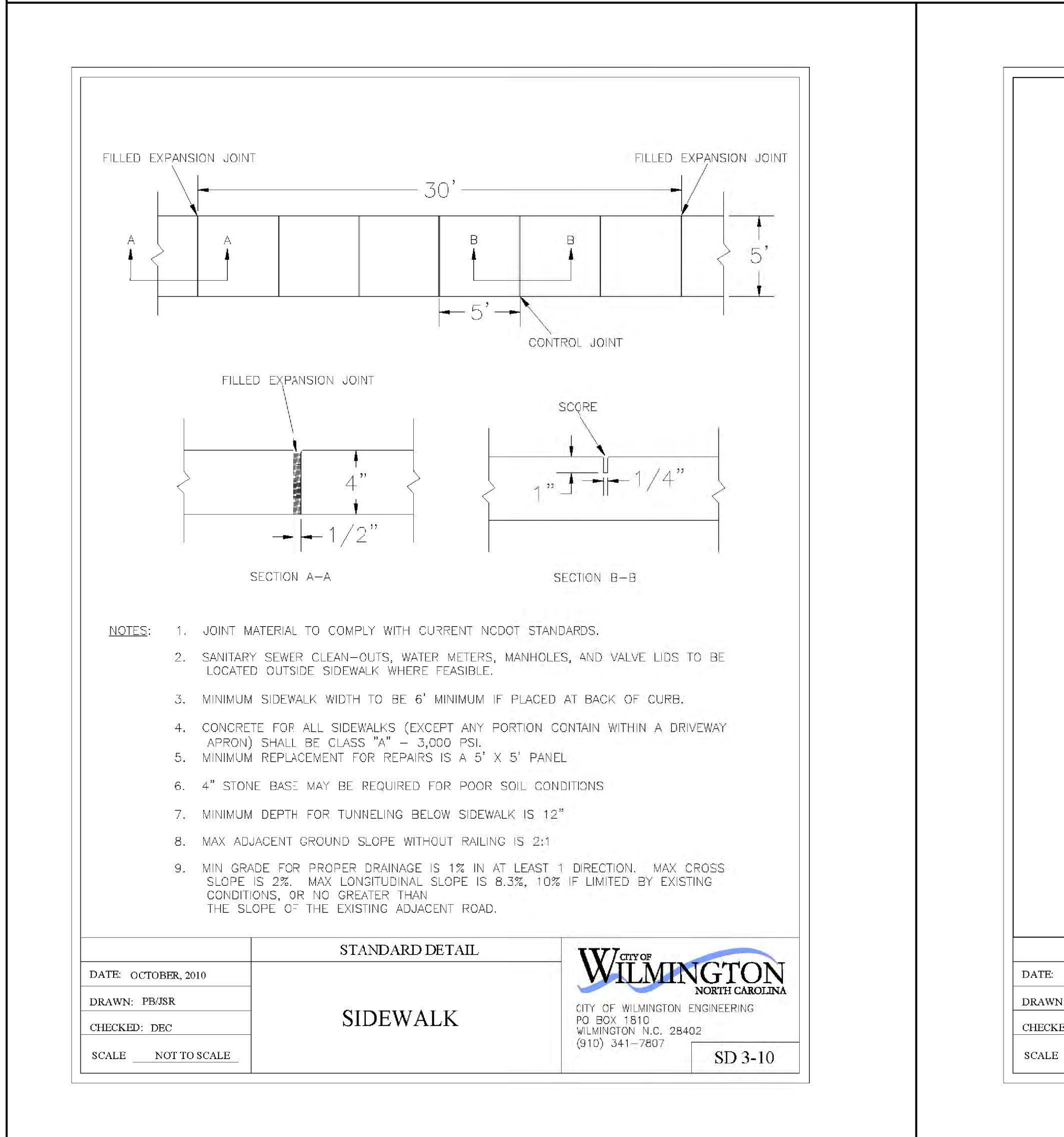


DEWATERING SEDIMENT FILTER BAG N.T.S.

STD METHOD ENDING CURB N.T.S.

90 DEGREE PARKING SPACE PLAN VIEW

PRE-CAST CONCRETE WHEELSTOP N.T.S.



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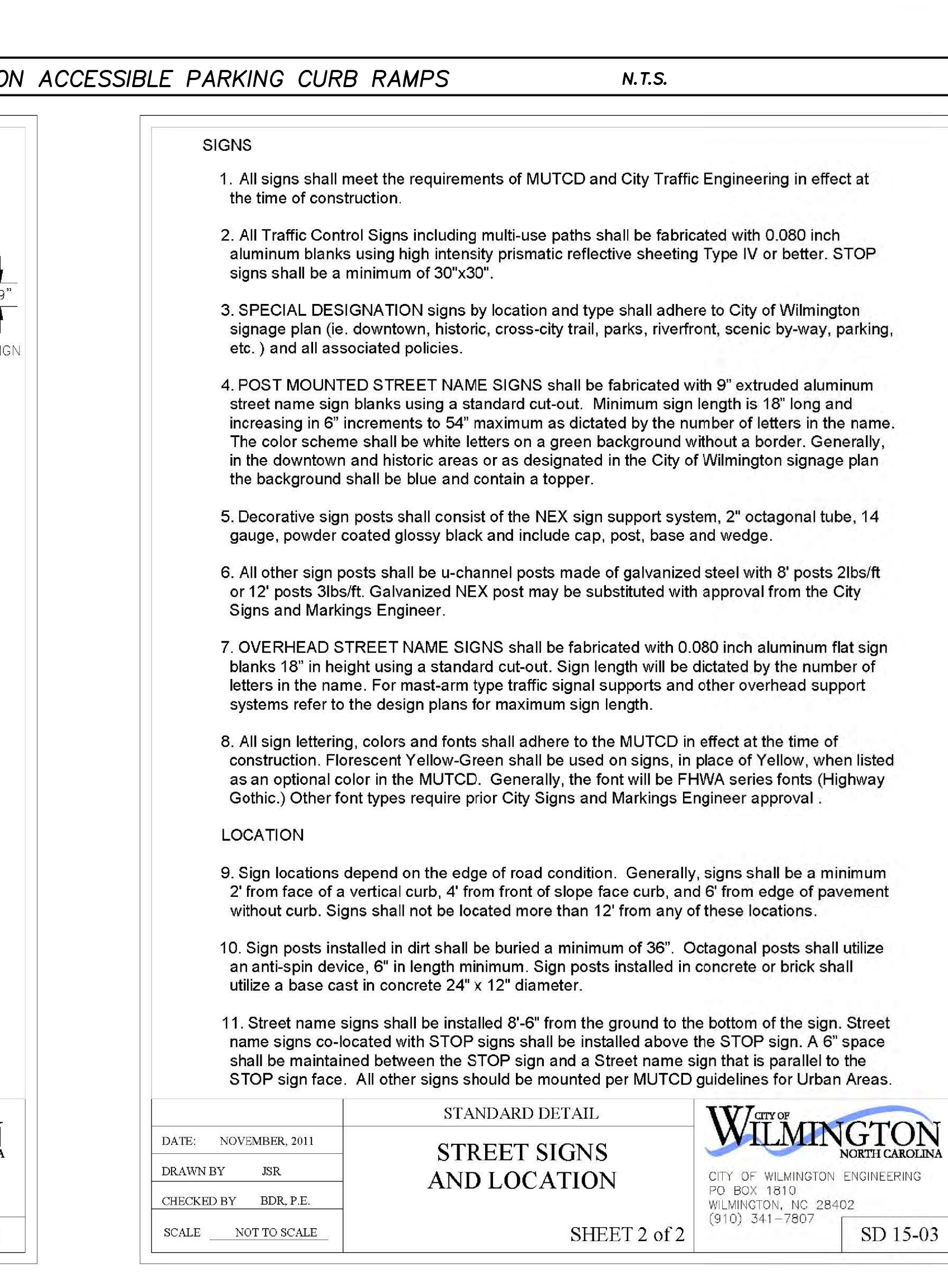
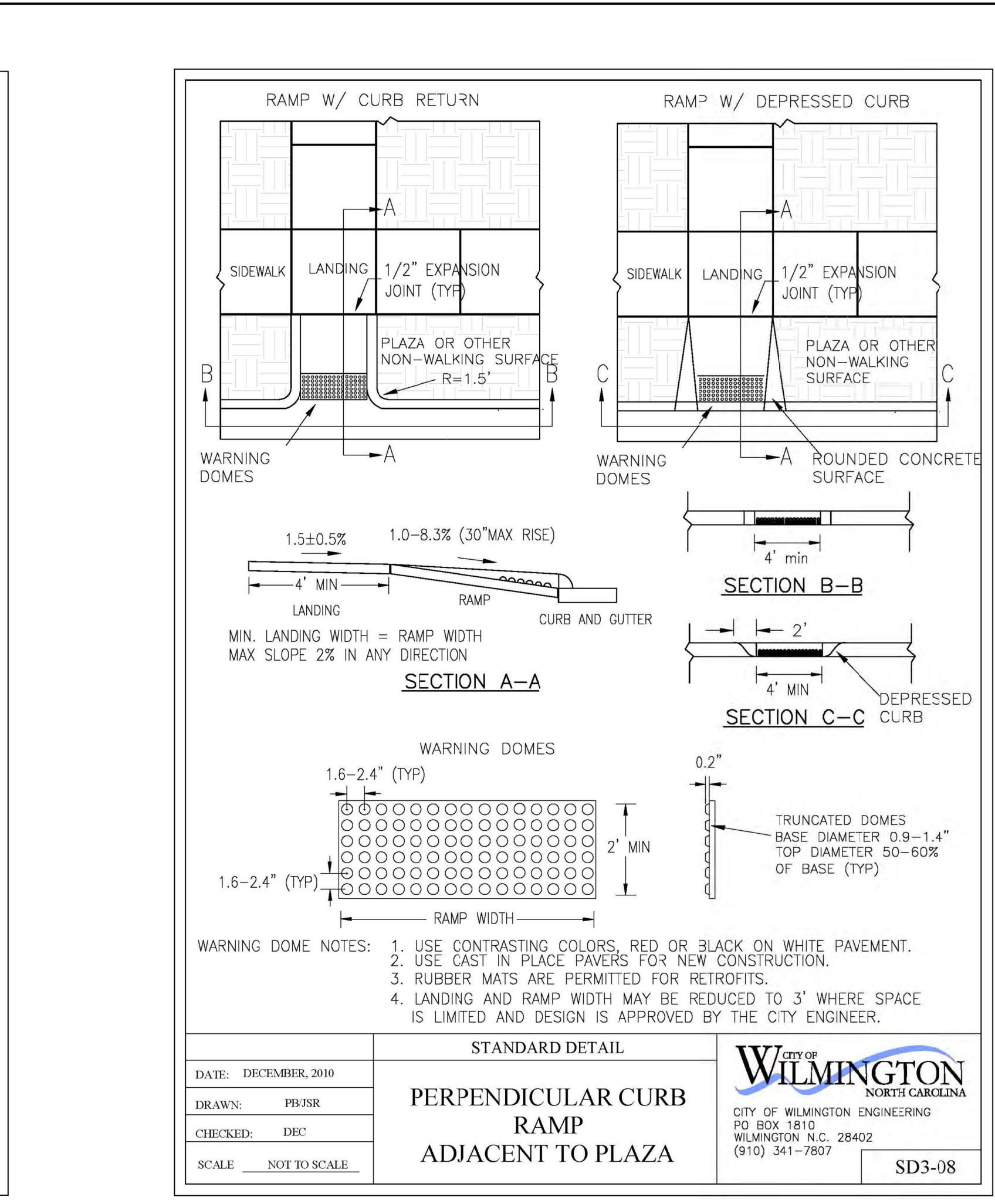
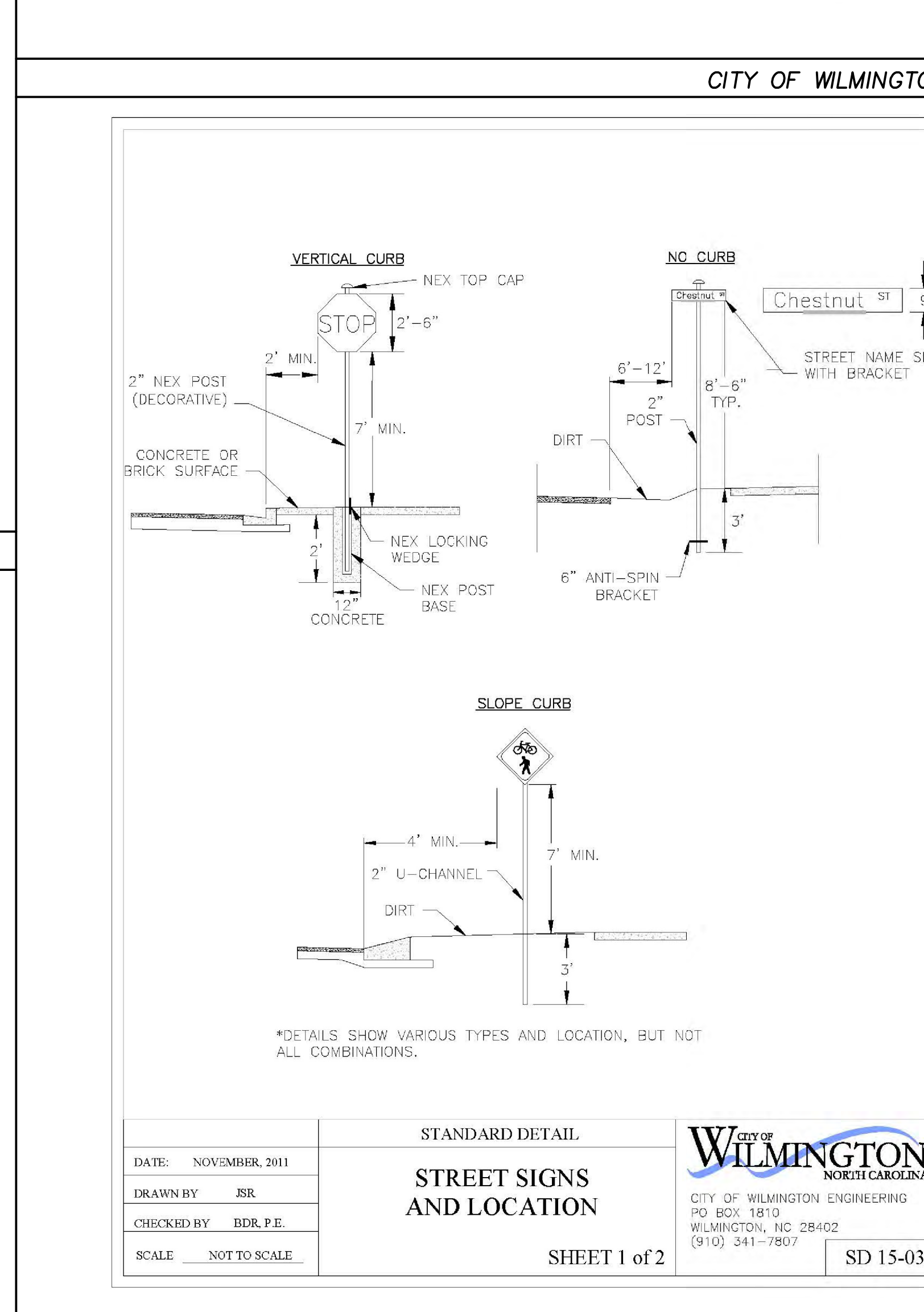
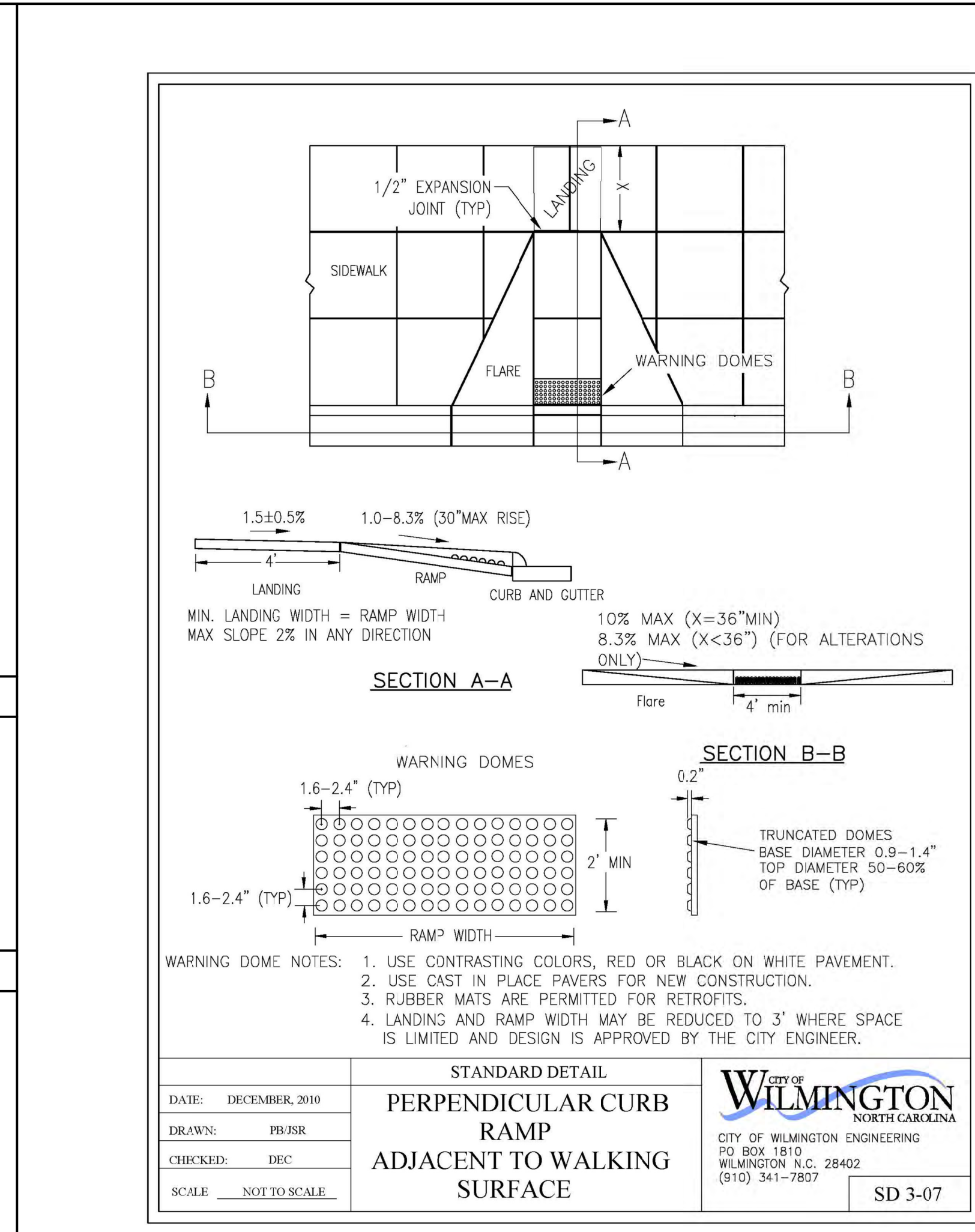
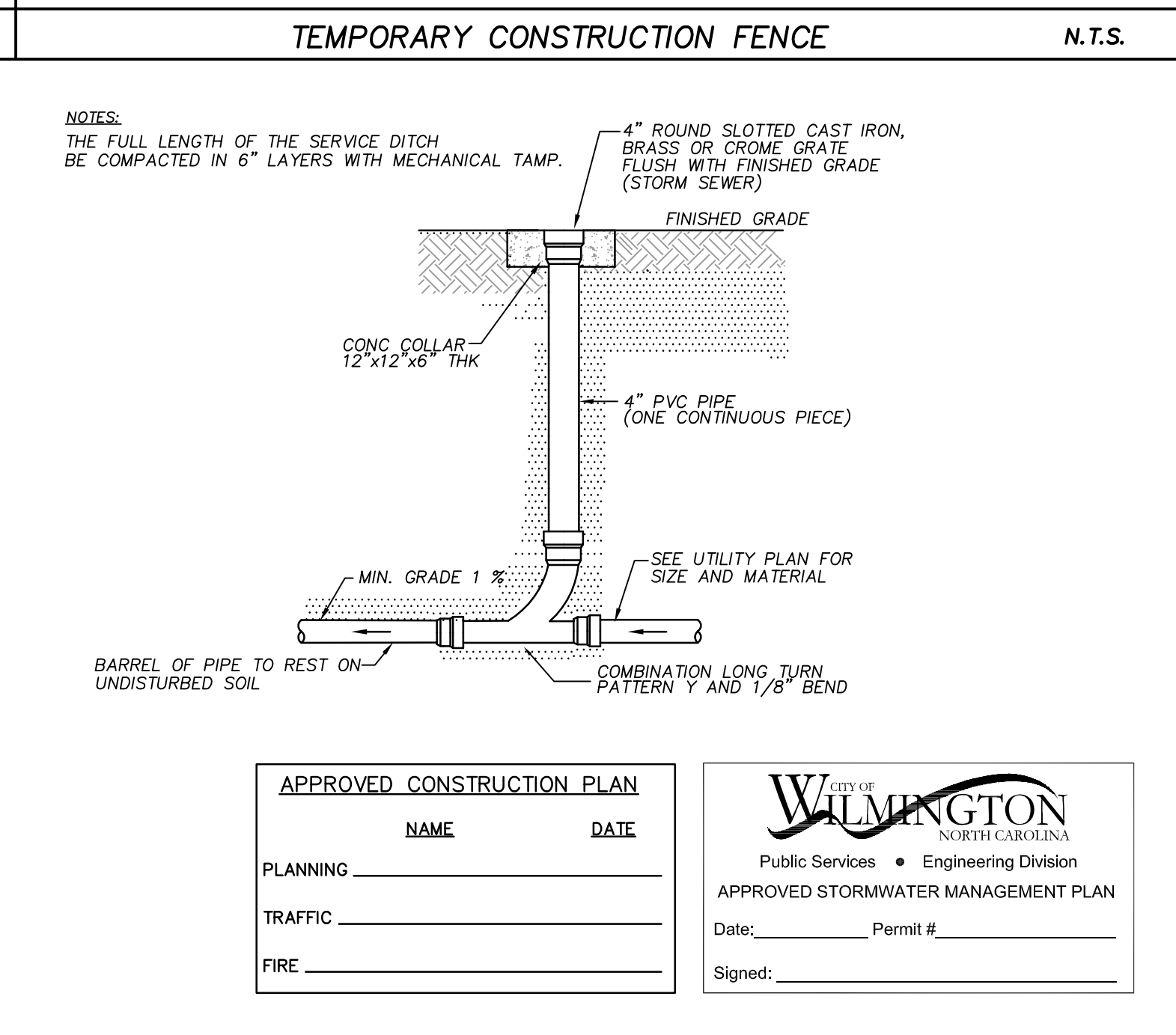
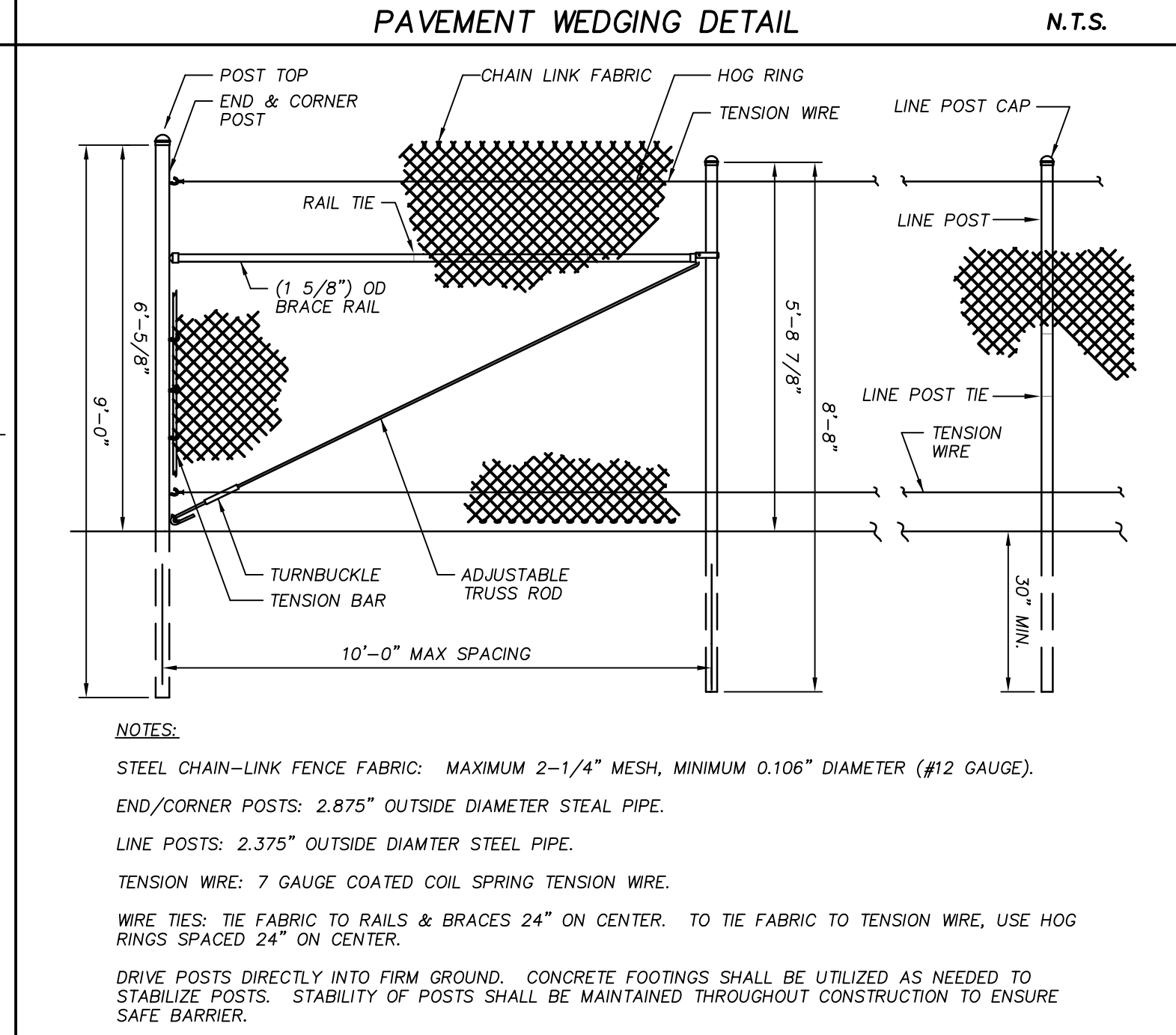
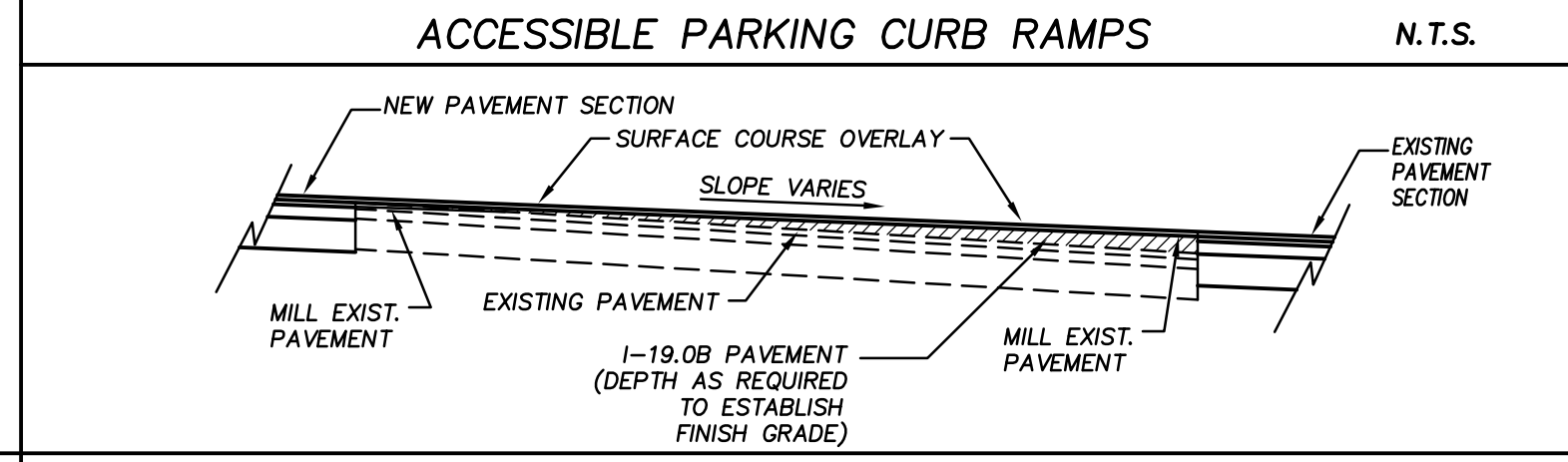
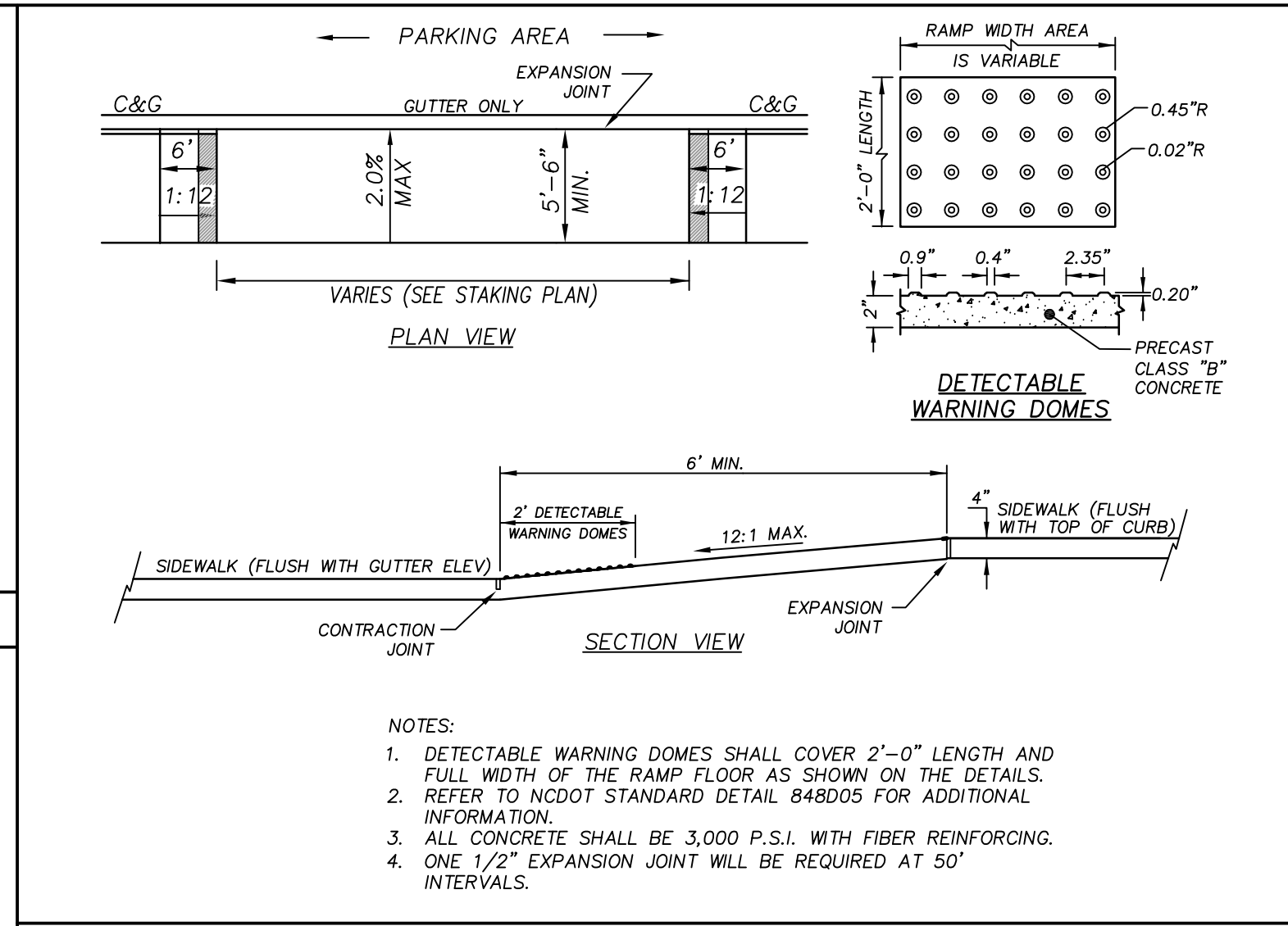
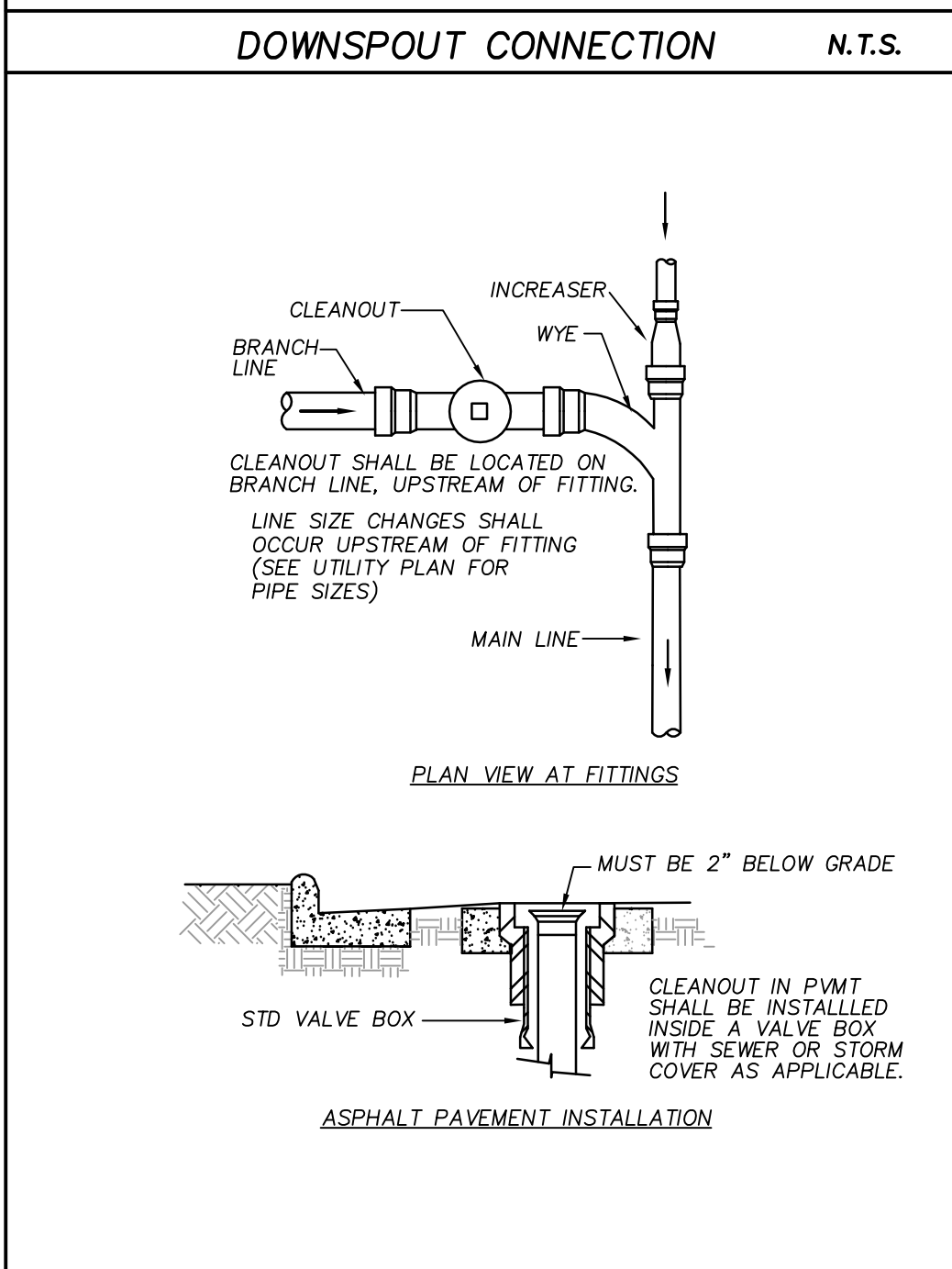
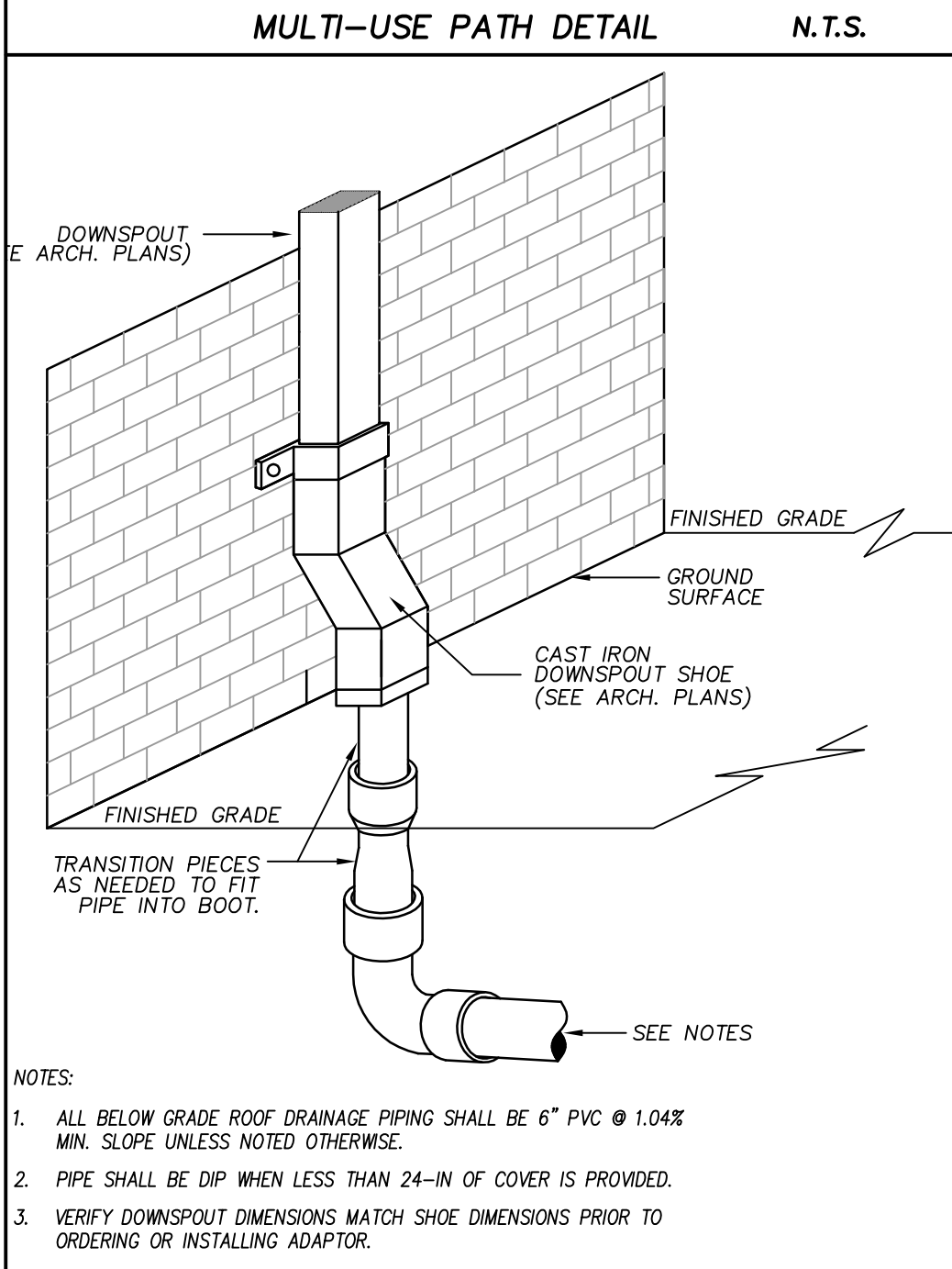
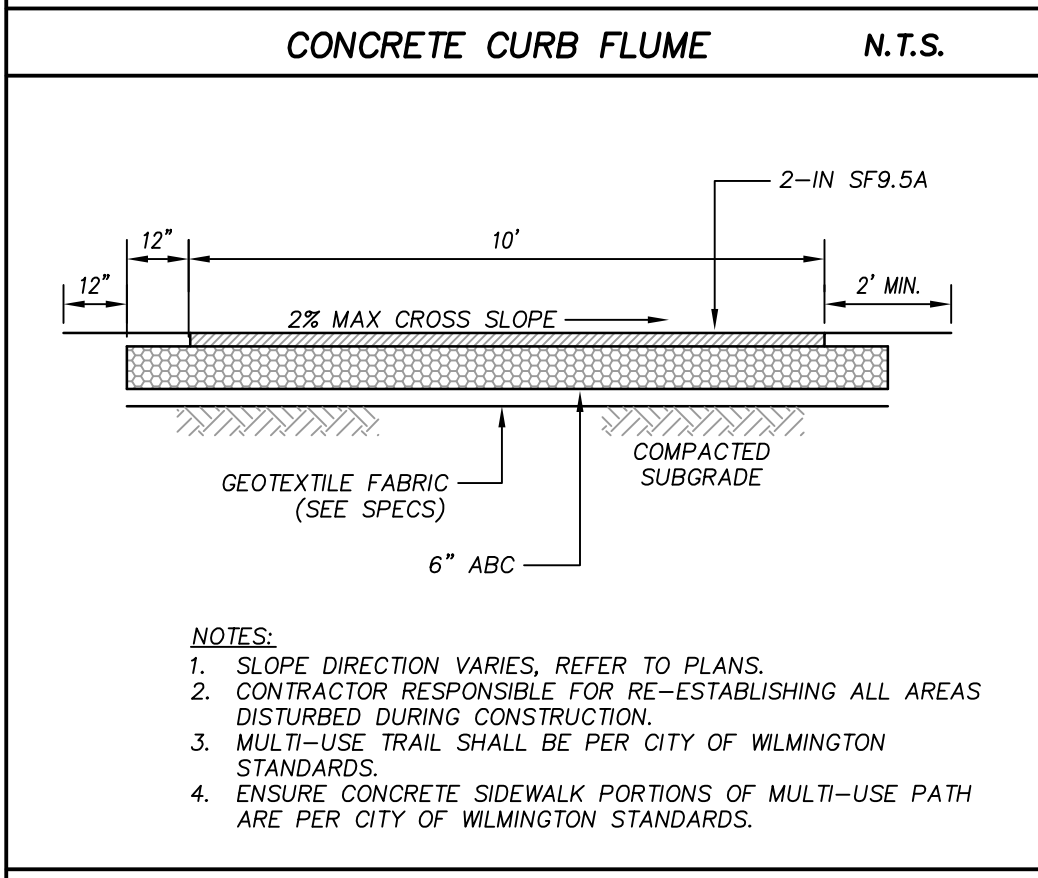
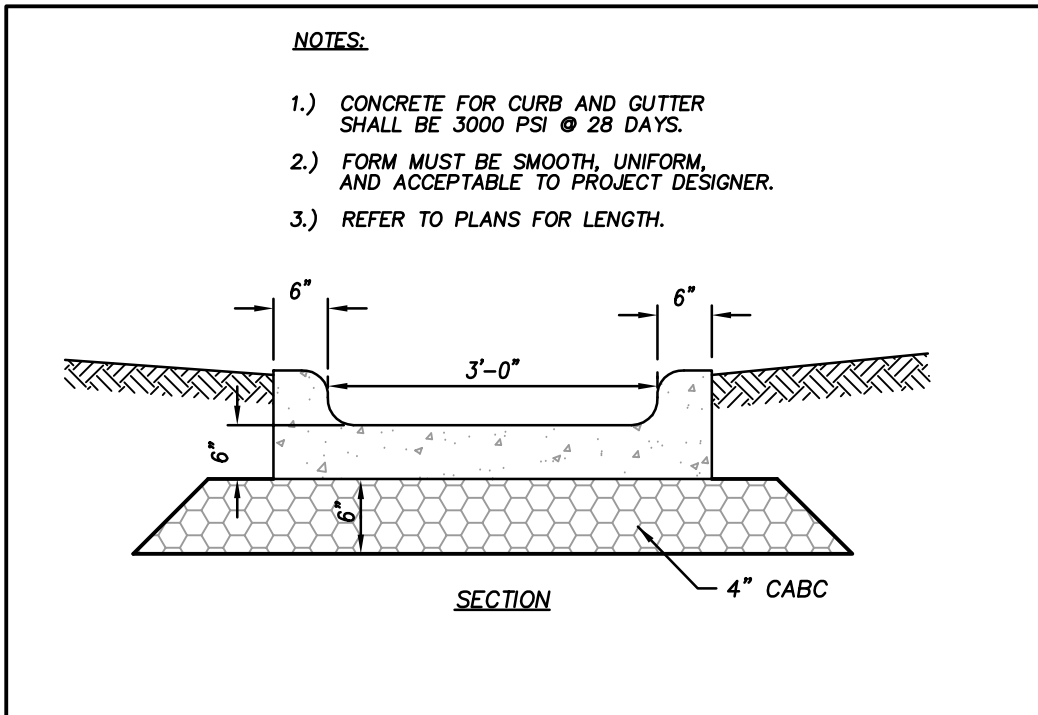
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PROJECT #: SFLA-01504.000
 CLH-15-143
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		ISSUE DATE: 10/03/2016

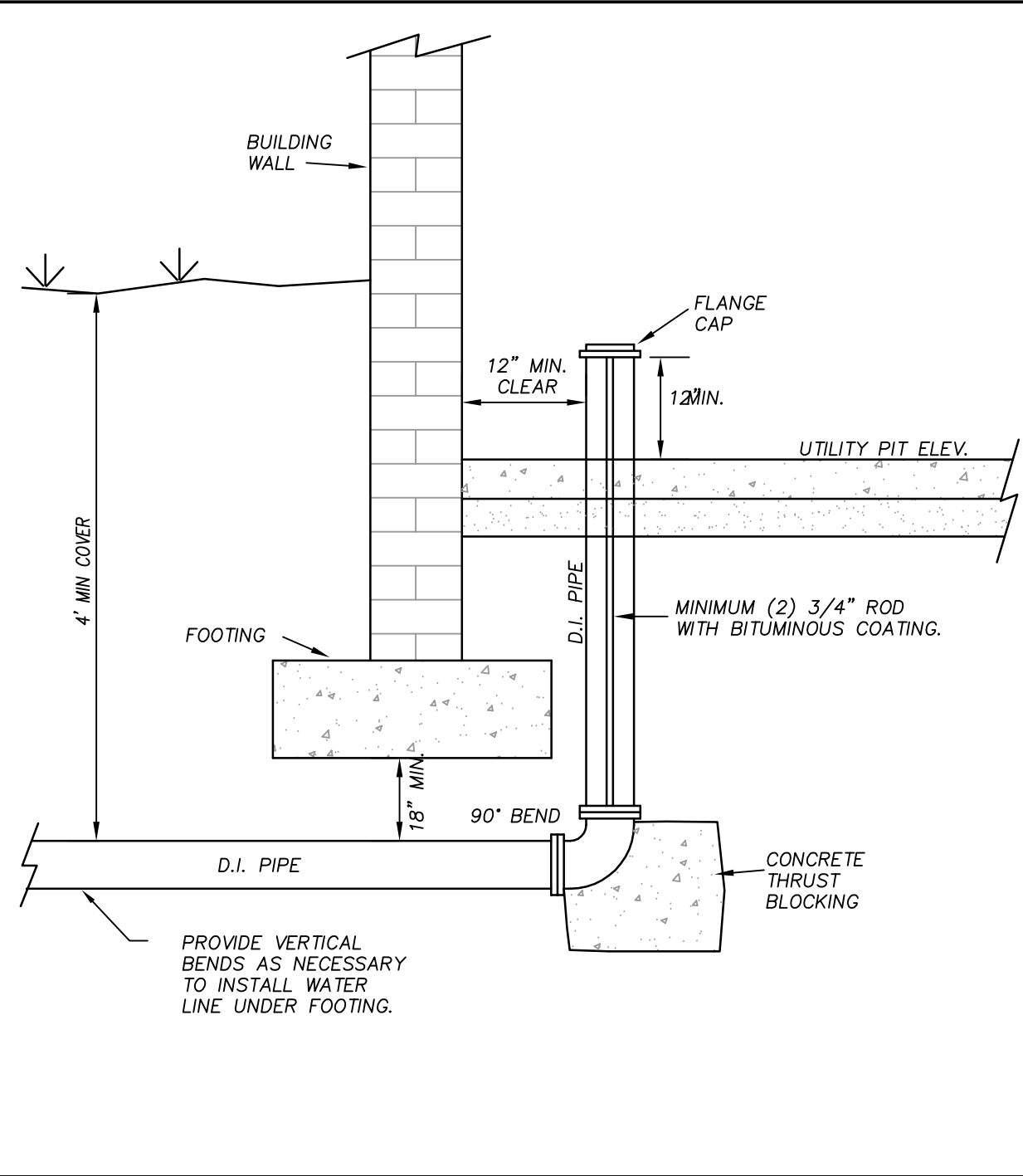
PROJECT #: SFLA-01504.000
CLH-15-143

CAD TECH.: MB
CAD TECH.: YLA
CHECKED BY: KAL/ZRP

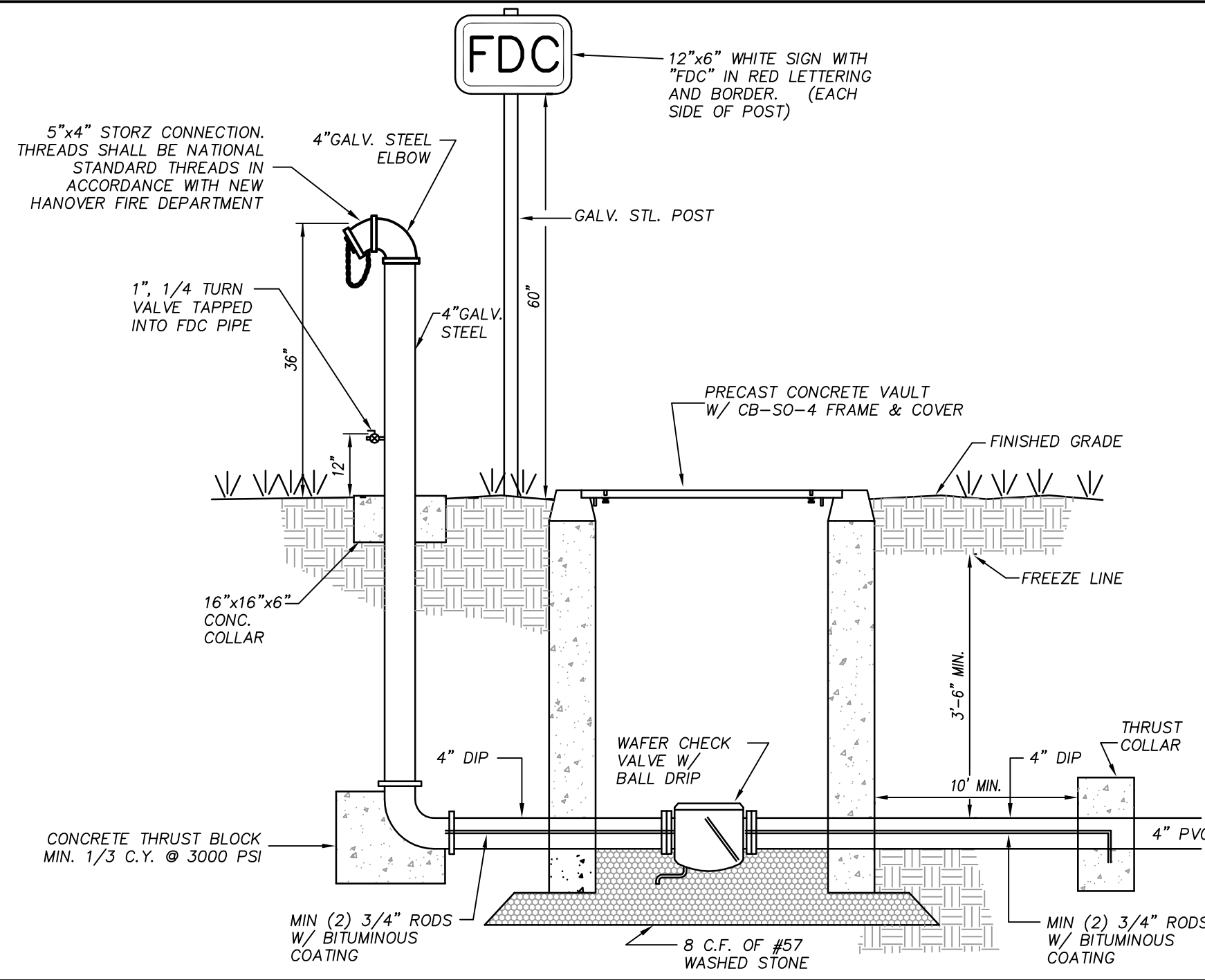
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**SITE/CIVIL
DETAILS**

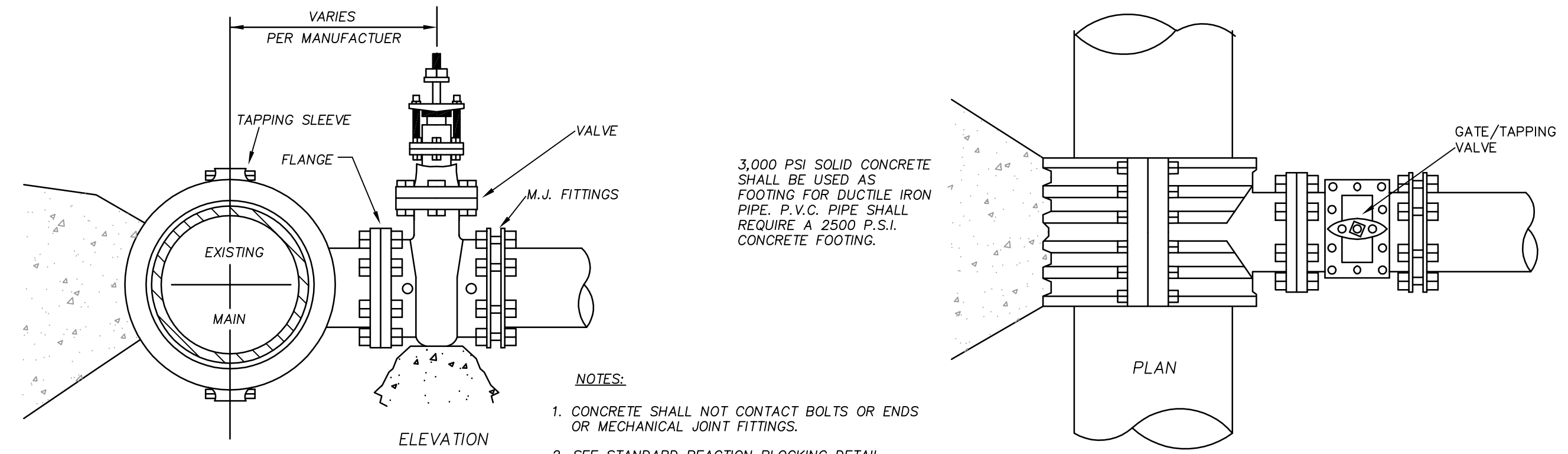
C7.3



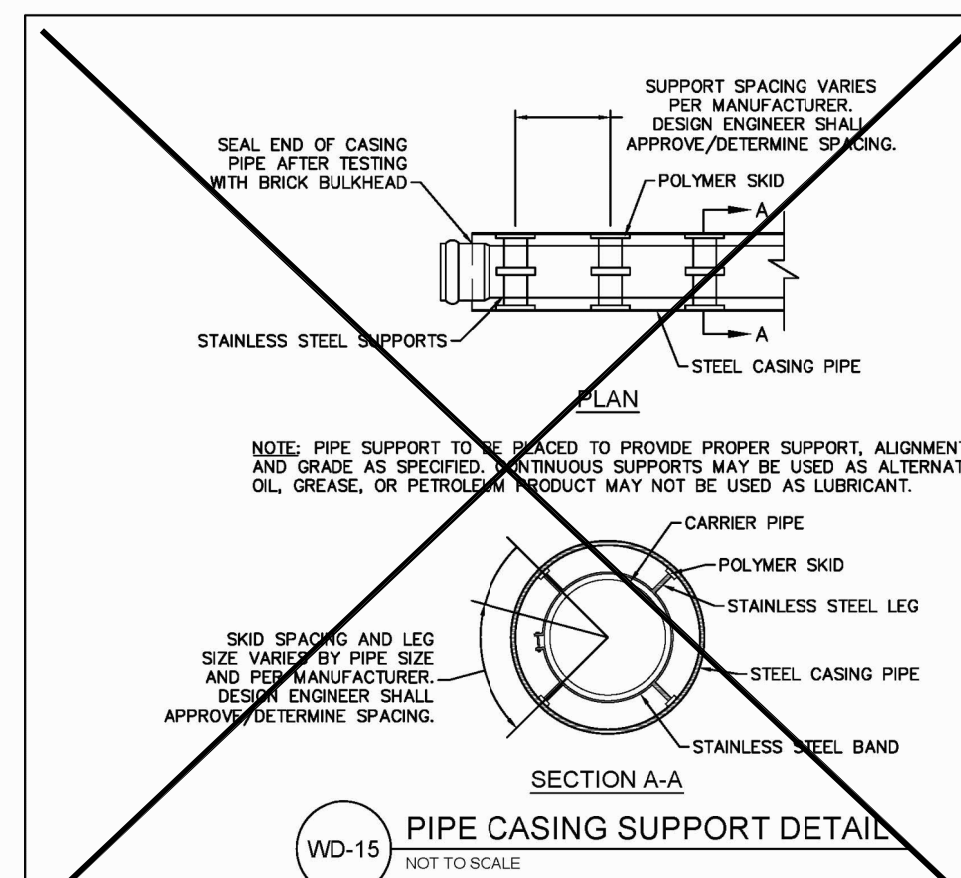
STANDARD FIRE SERVICE INSTALLATION AT BUILDING N.T.S.



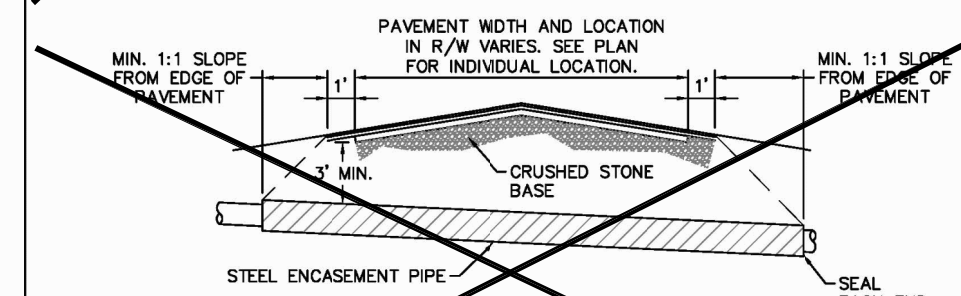
FIRE DEPARTMENT CONNECTION N.T.S.



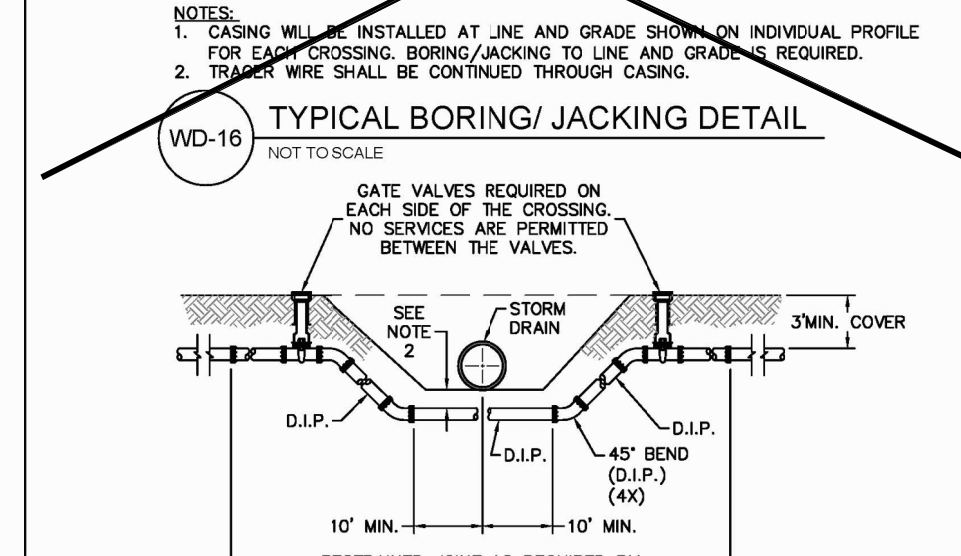
4" - 24" STANDARD TAPPING SLEEVE AND VALVE ASSEMBLY N.T.S.



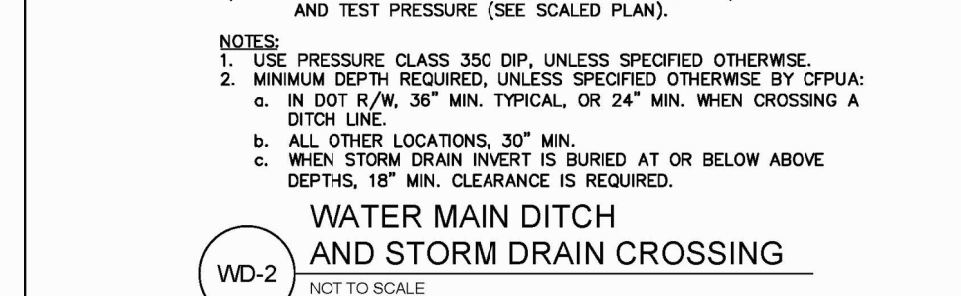
WD-15 PIPE CASING SUPPORT DETAIL NOT TO SCALE



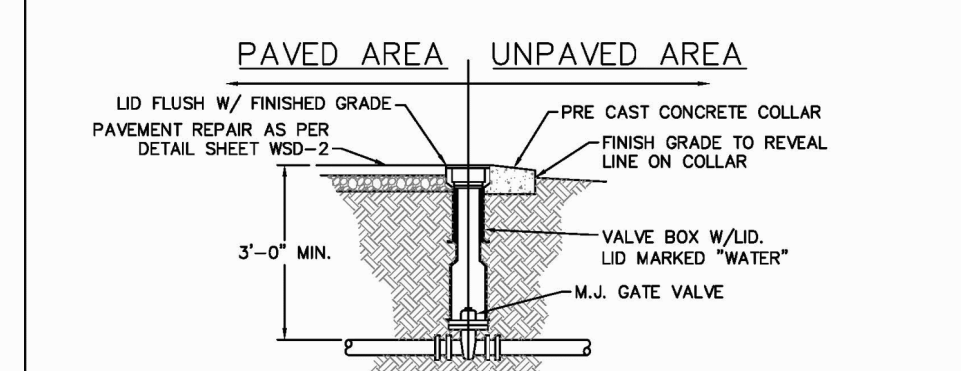
WD-4 THRUST BLOCK DETAIL NOT TO SCALE



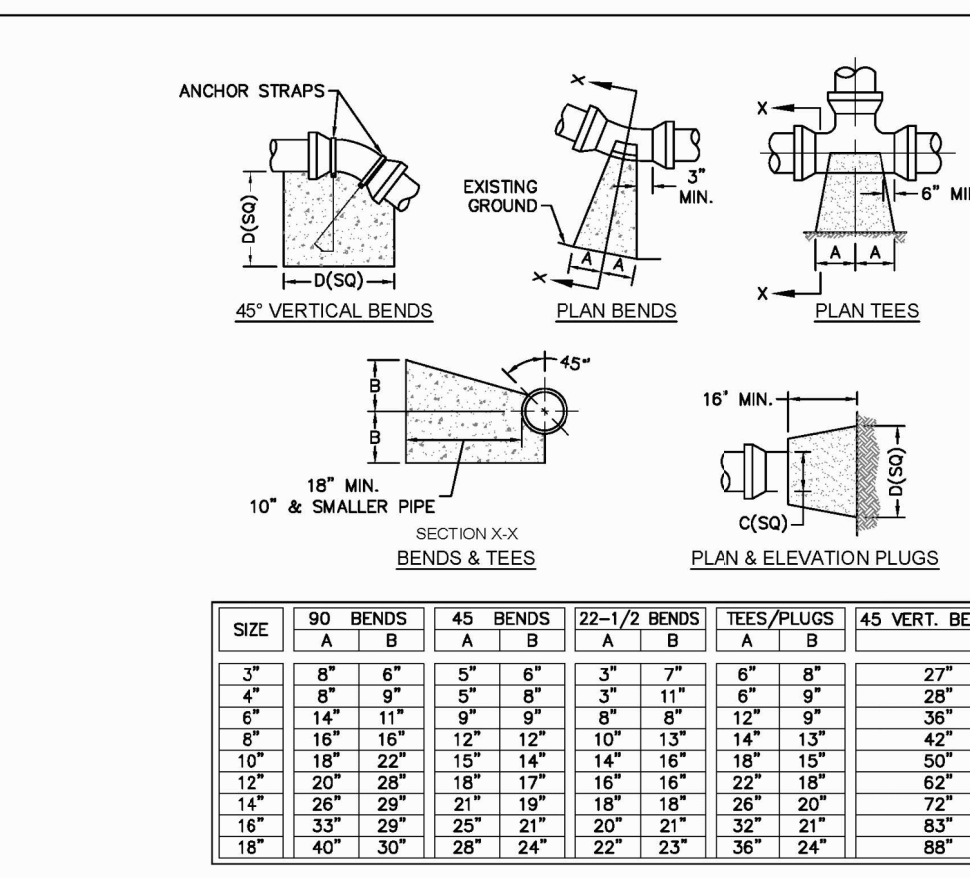
WD-16 TYPICAL BORING/JACKING DETAIL NOT TO SCALE



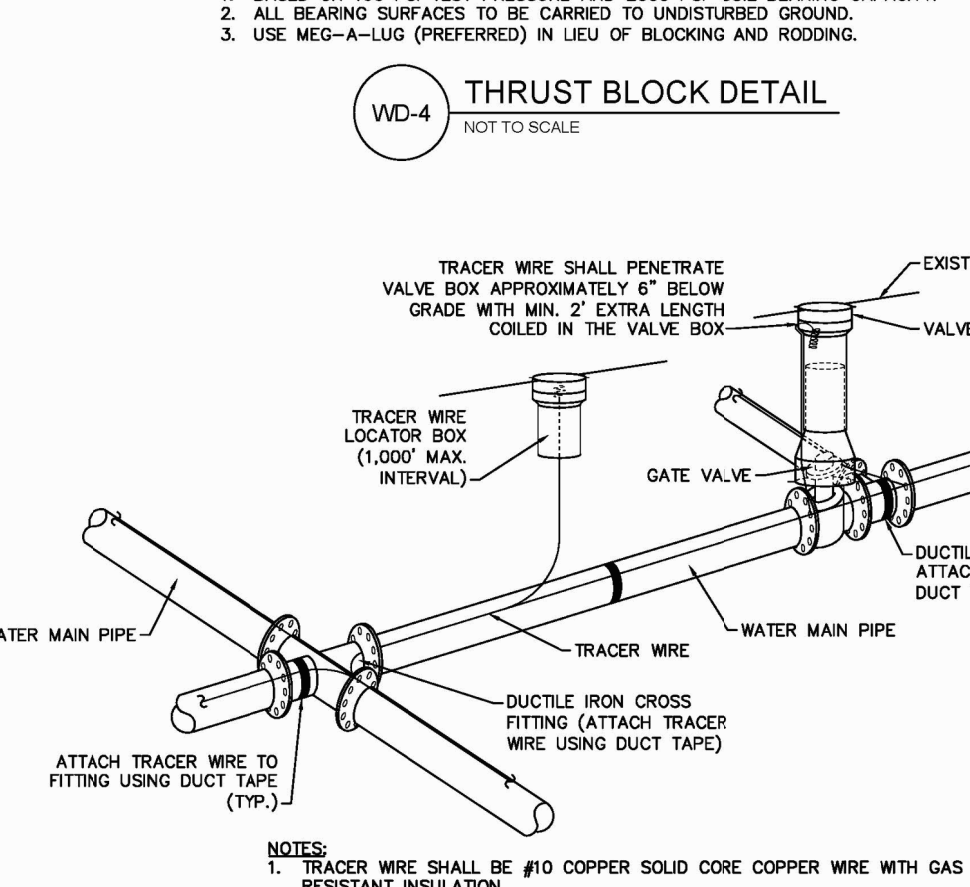
WD-2 WATER MAIN DITCH AND STORM DRAIN CROSSING NOT TO SCALE



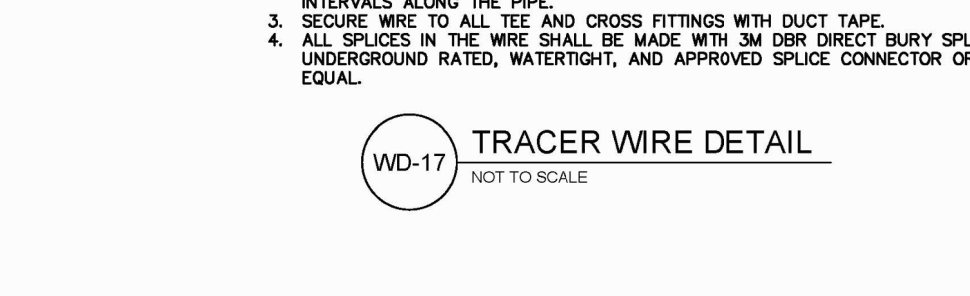
WD-3 VALVE DETAIL NOT TO SCALE



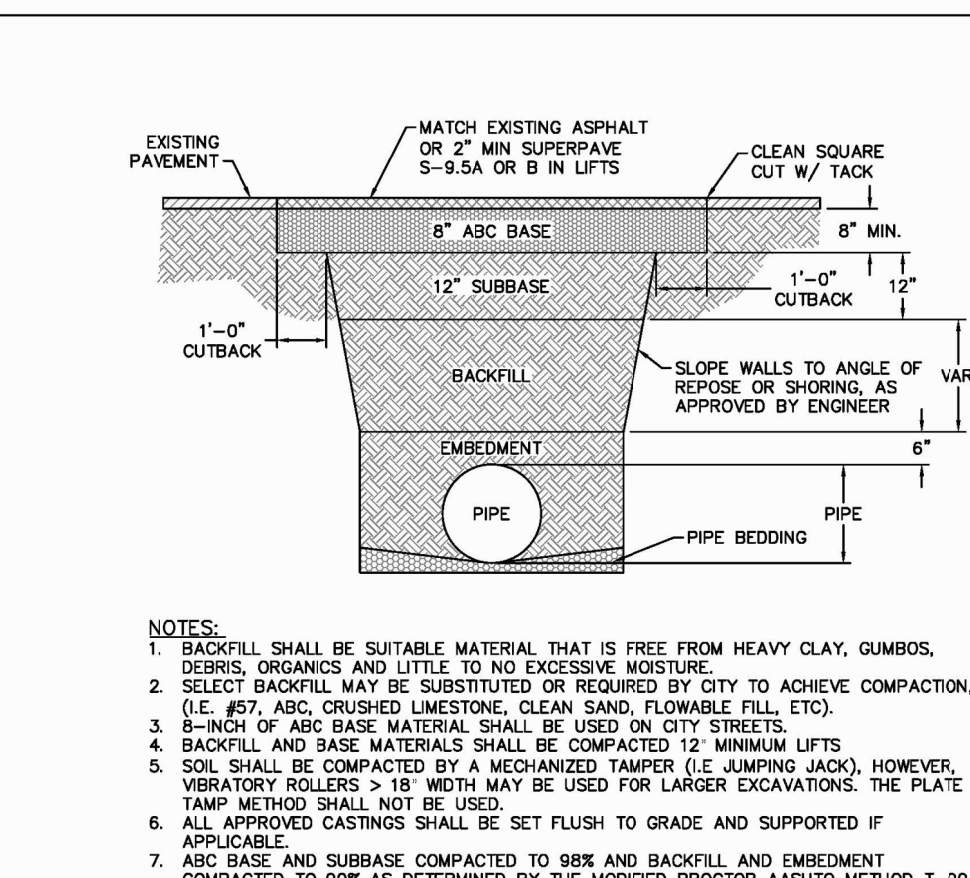
WD-17 TRACER WIRE DETAIL NOT TO SCALE



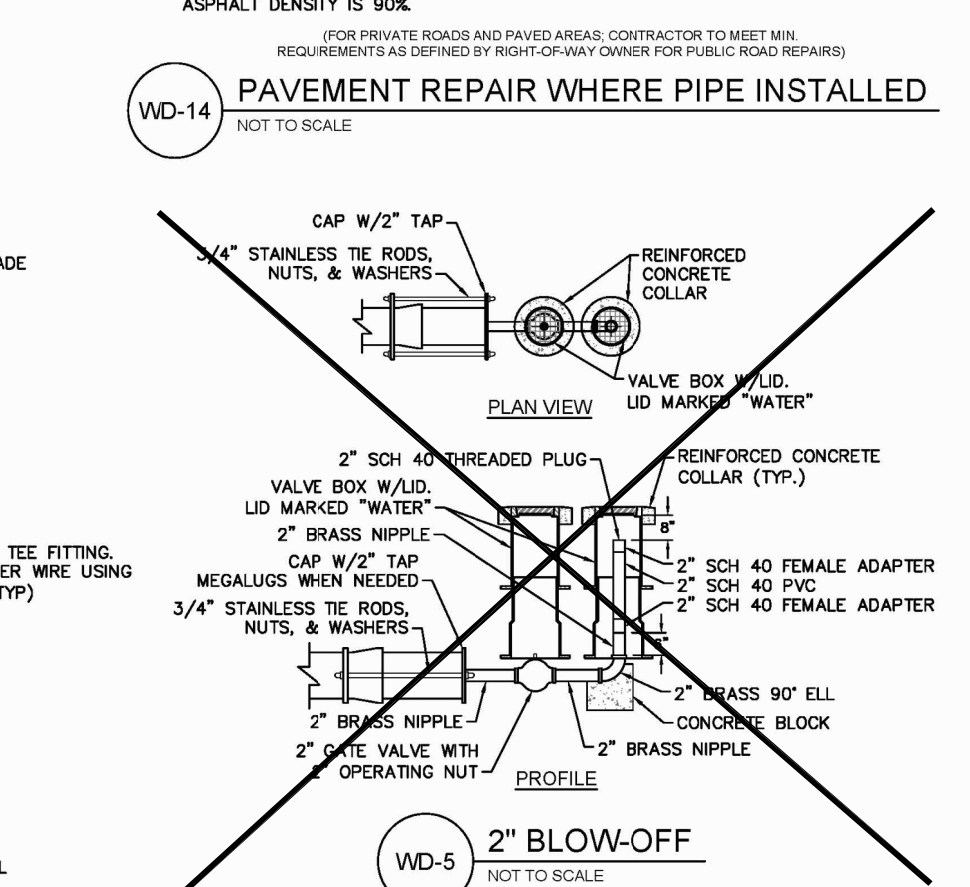
WD-5 2\"/>



WD-6 SAMPLING STATION NOT TO SCALE



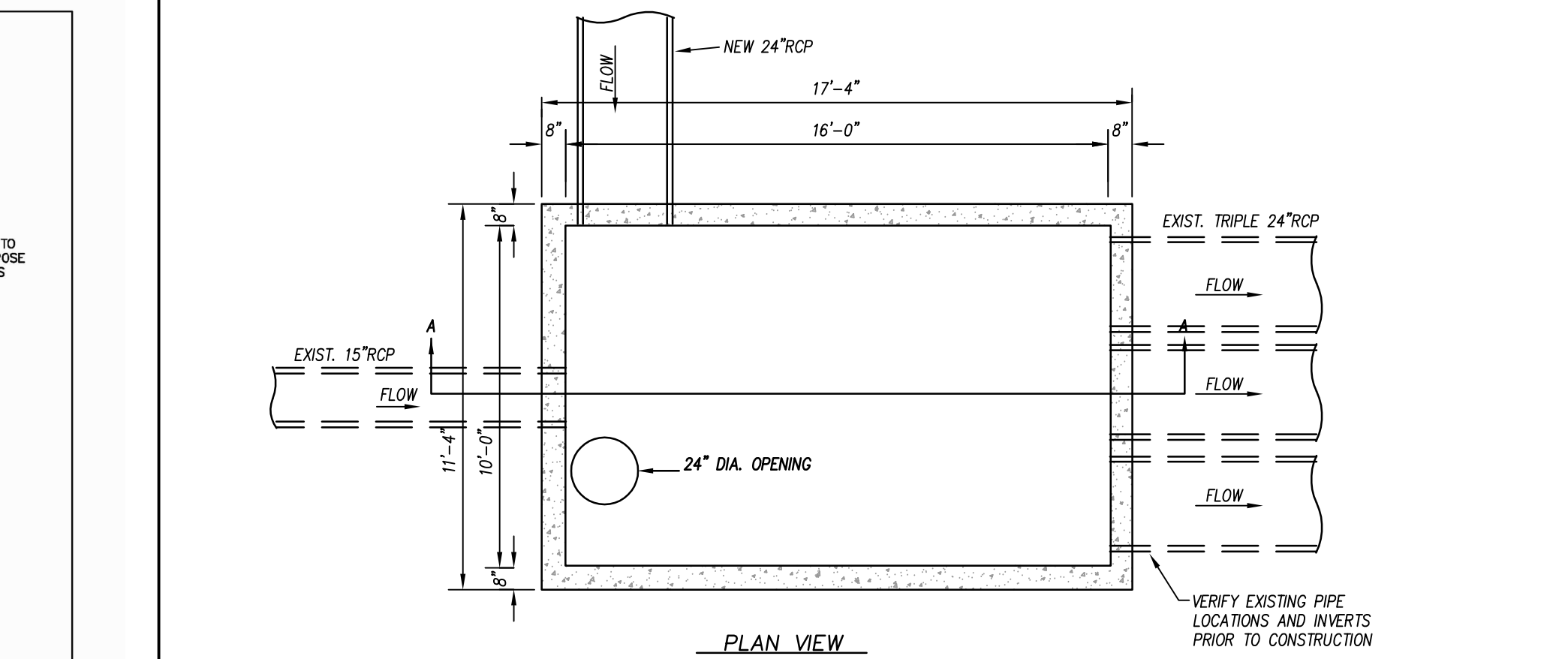
WD-14 PAVEMENT REPAIR WHERE PIPE INSTALLED NOT TO SCALE



WD-9 DOUBLE SERVICE CONNECTION NOT TO SCALE



WD-13 TYPICAL TRENCH DETAIL NOT TO SCALE



PRECAST STORMWATER JUNCTION BOX N.T.S.

Leading Designer of High Performance Facilities in the Nation with a Specialty in Alternative Delivery Methods
 Capital Bank Plaza
 333 Fayetteville St.
 Suite 225
 Raleigh, NC 27601
 Phone: 919.573.6350
 Fax: 919.573.6355
 www.sfla.biz
sfl+a
 ARCHITECTS
NOT FOR CONSTRUCTION FOR REVIEW ONLY

CLH DESIGN, P.A.
 400 Regency Forest Drive
 Suite 120
 Cary, North Carolina 27513
 Phone: (919) 319-8716
 Fax: (919) 319-7616
 PE: C-106
 PE: C-1095

DESIGN DEVELOPMENT SUBMITTAL FOR:
BLAIR ELEMENTARY SCHOOL
NEW HANOVER COUNTY SCHOOLS
 WILMINGTON, NORTH CAROLINA

ENERGY STAR PARTNER

ID	DATE	DESCRIPTION
	10/03/2016	ISSUE DATE:
PROJECT #:	SFLA-01504.000	CLH-15-143
CAD TECH.:	MB	
CAD TECH.:	YLA	
CHECKED BY:	KAL/ZRP	

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SITE/CIVIL DETAILS

C7.5

CFPUA WATER DISTRIBUTION SYSTEM

STANDARD DETAILS

CAPE FEAR PUBLIC UTILITY AUTHORITY
 235 GOVERNMENT CENTER DRIVE
 WILMINGTON, NC 28403
 OFFICE: (910) 332-6560

DATE: 19872
 SCALE: N/A
 DRAWN BY: CFPUA
 CHECKED BY: CFPUA
 PROJECT NO: 1502014
 SHEET NO: WSD-2

REV.	DESCRIPTION	DATE
1	Revised Water Main Ditch and Storm Crossing Detail	11/27/13
2	Revised Water Main Ditch and Storm Crossing Detail	10/20/14
3	Revised Tracer Wire Detail	10/20/15

APPROVED CONSTRUCTION PLAN

NAME _____ DATE _____

PLANNING _____

TRAFFIC _____

FIRE _____

WILMINGTON NORTH CAROLINA
 Public Services • Engineering Division
 APPROVED STORMWATER MANAGEMENT PLAN
 Date: _____ Permit # _____
 Signed: _____

**NOT FOR CONSTRUCTION
FOR REVIEW ONLY**

DESIGN DEVELOPMENT SUBMITTAL FOR:
**BLAIR ELEMENTARY SCHOOL
NEW HANOVER COUNTY SCHOOLS**
WILMINGTON, NORTH CAROLINA


ID	DATE	DESCRIPTION
	10/03/2016	ISSUE DATE:
		PROJECT #: SFLA-01504.000 CLH-15-143
		CAD TECH.: MB
		CAD TECH.: YLA
		CHECKED BY: KAL/ZRP

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**SITE/CIVIL
DETAILS**

C7.6

- No plantings over thirty (30) inches in height allowed in vision clearance.
- Protection from vehicular traffic provided around all landscaping with a minimum height of six (6) inches.
- Owner is responsible for maintenance to ensure plant material lives and prospers.
- Planting plans shall be approved by Landscape Designer prior to installation.
- Landscaping shall be required at the ends of all parking rows.
- A low buffer shall be required where parking is within fifty (50) feet of the Right-of-Way.
- Landscaped islands shall be a minimum width of twelve (12) feet (back of curb to back of curb) and a minimum of two hundred and sixteen (216) square feet.
- A minimum of fifteen (15) trees 2 inches or greater in diameter as measured 6 inches above ground per disturbed acre.
- For recommended Plant List see "Landscape" T-10.4.

STANDARD DETAIL		 <p>CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341-7807</p>
DATE:	APRIL, 2008	
DRAWN BY:	RSR	
CHECKED BY:	B.P.P.E.	
SCALE:	NOT TO SCALE	
LANDSCAPE NOTES		SD 15-14

CITY OF WILMINGTON LANDSCAPE NOTES N.T.S.

DATE	TYPE	PLANTING RATE
APR 15 - JULY 15 **	HULLED SUNSTAR OR RIVERA BERMUDA	85 LBS/ACRE *
JULY 15 - AUG 15	SUNSTAR OR RIVERA BERMUDA SPRIGS	5 BUSHELS/1,000 SF
AUG 15 - APR 15	TEMPORARY SEEDING APPLIES**	

* OR AS REQUIRED TO ACHIEVE 95% COVERAGE AS DETERMINED ON A PER SQUARE YARD BASIS PRIOR TO SUBSTANTIAL COMPLETION.

** WHEN SEEDING MUST TAKE PLACE OUT-OF-SEASON FOR PERMANENT GRASS, APPROPRIATE TEMPORARY SEEDING SHALL BE DONE AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERMANENT SEEDING AS SPECIFIED IN SEASON AT NO ADDITIONAL COST TO OWNER.

LAWN MAINTENANCE NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR LAWN MAINTENANCE UNTIL FINAL COMPLETION.
- LAWN MUST BE AT 95% COVERAGE AT SUBSTANTIAL COMPLETION REVIEW TO BE ACCEPTED.
- IF NOT AT 95% SUBSTANTIAL COMPLETION WILL BE DELAYED UNTIL THE FOLLOWING GROWING SEASON.

SUBSTANTIAL COMPLETION (GRASS):

CONTRACTOR SHALL BE RESPONSIBLE FOR LAWN MAINTENANCE AND WATERING UNTIL SUBSTANTIAL COMPLETION. LAWN/TURF SHALL BE CONSIDERED SUBSTANTIALLY COMPLETE WHEN GRASS ESTABLISHMENT IS AT A MIN. 95% COVERAGE AND THE SURFACE COMPLIES WITH THE SLOPE, SMOOTHNESS AND OTHER SPECIFIED TOLERANCES. IF THE MINIMUM REQUIREMENTS ARE NOT MET, SUBSTANTIAL COMPLETION WILL BE DELAYED UNTIL THE MINIMUM REQUIREMENTS ARE MET (POSSIBLY INTO THE FOLLOWING GROWING SEASON). THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR WATERING AND MAINTENANCE OF THE GRASS UNTIL SUBSTANTIAL COMPLETION IS REACHED. SEE SPECIFICATIONS FOR FURTHER INFORMATION.

PERMANENT SEEDING SCHEDULE- BERMUDA SEED

PERMANENT OR TEMPORARY GROUND COVER SHALL BE PROVIDED OVER ALL DISTURBED AREAS OF THE SITE AS SOON AS POSSIBLE, HOWEVER, NO LATER 30 DAYS AFTER CONSTRUCTION ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED DURING ANY PHASE OF WORK.

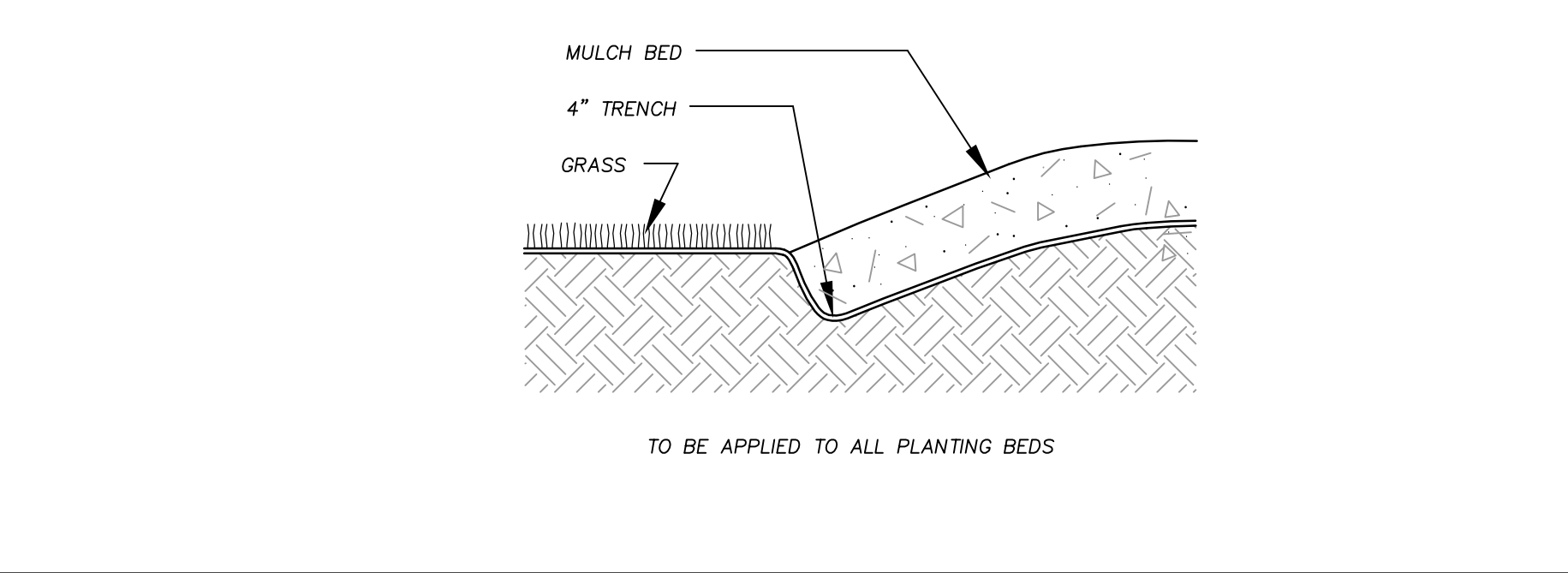
TEMPORARY OR PERMANENT GROUND COVER SHALL BE PROVIDED ON ALL SLOPES WITHIN 15 WORKING DAYS OR 30 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITIES PERMANENTLY OR TEMPORARILY CEASED.

DATE	TYPE	PLANTING RATE
AUG 15 - FEB 1	TALL FESCUE AND WINTER RYE (GRAIN)	70 LBS/ACRE 25 LBS/ACRE
APR 1 - AUG 15	TALL FESCUE AND GERMAN MILLET *** OR SUDAGRASS (SMALL-STEMMED VAR.) ***	120 LBS/ACRE 25 LBS/ACRE 30 LBS/ACRE

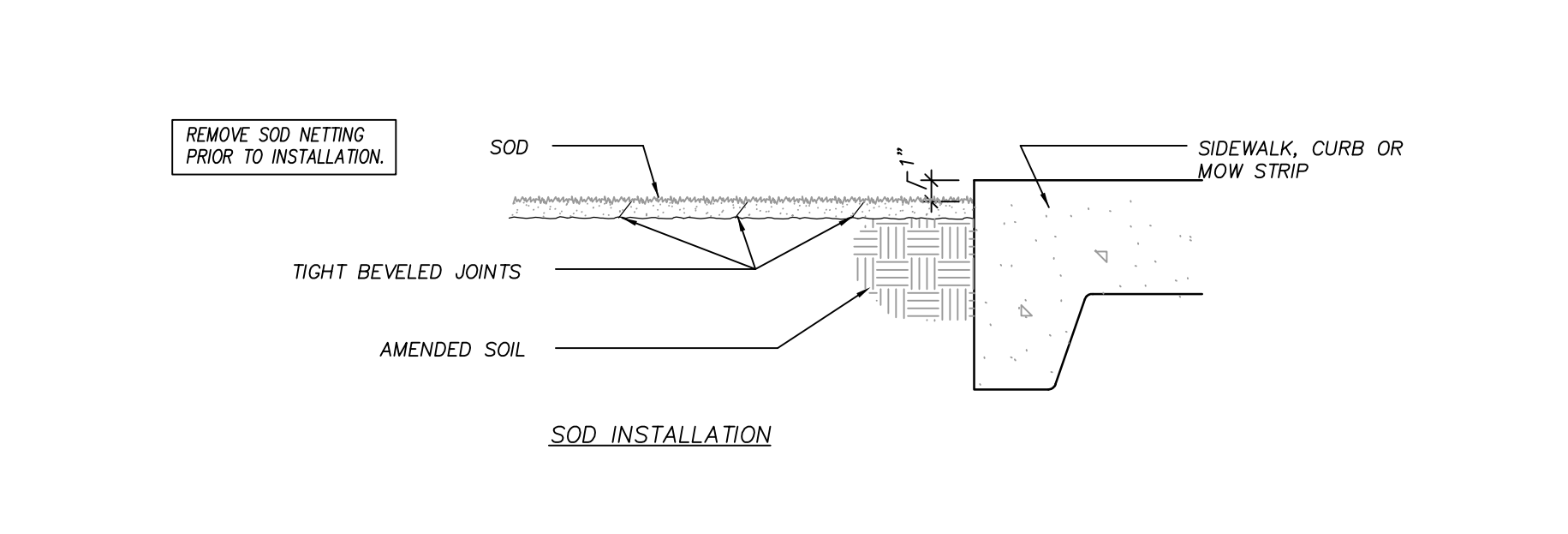
CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

***TEMPORARY - RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION OR NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE MOWING.

TEMPORARY SEEDING SCHEDULE



GROUND COVER PLANTING DETAIL



SOD INSTALLATION DETAIL

- LOCATE ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PLANT MATERIAL. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THOSE SHOWN ON THE PLAN.
- VERIFICATION OF TOTAL QUANTITIES AS SHOWN ON THE PLANT LIST SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND THE TOTAL QUANTITIES SHALL BE AS SHOWN ON THE PLAN.
- CONTACT THE LANDSCAPE ARCHITECT FOR INSPECTION 48 HOURS IN ADVANCE OF THE SCHEDULED SITE VISIT AND AT THE FOLLOWING INTERVALS:
 - REVIEW OF GRADING PRIOR TO PLANT AND LAWN INSTALLATION
 - REVIEW OF PLANT MATERIAL PRIOR TO INSTALLATION.
 - ONE SUBSTANTIAL COMPLETION MEETING FOR PLANT INSTALLATION.
 - ONE FINAL INSPECTION FOR ALL SEEDING/PLANTING OPERATIONS.
- ALL PLANT MATERIAL SHALL CONFORM WITH THE STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND THE WRITTEN SPECIFICATIONS.
- ESTABLISH POSITIVE DRAINAGE IN ALL PLANTING BEDS AND AWAY FROM BUILDING.
- APPLY PRE-EMERGENT HERBICIDE TO ALL NEW PLANTING BEDS AT MANUFACTURER'S RECOMMENDED RATE PRIOR TO INSTALLATION OF PLANT MATERIAL.
- DO NOT INSTALL PLANT MATERIAL IN IMPERVIOUS SOILS (i.e. HOLES WHICH WHEN FILLED WITH WATER, DO NOT COMPLETELY DRAIN WITHIN TWO HOURS).
- LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING ALL PLANTS AND LAWN AREAS AT HIS COST FROM HIS OWN WATER SOURCE INCLUDING DURING PERIODS OF DROUGHT UNTIL FINAL COMPLETION. ANY WATERING OR MAINTENANCE REQUIRED AFTER FINAL COMPLETION SHALL BE AT OWNER'S COST.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL EQUIPMENT & SUBCONTRACTORS AWAY FROM SEEDED AREAS. IF DAMAGE OCCURS, THROUGH NO FAULT OF THE OWNER, AREAS SHALL BE REGRADED AND RESEEDED IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL WATER AND MAINTAIN THOSE AREAS UNTIL THEY ARE AT 95% COVERAGE AT SUBSTANTIAL COMPLETION.
- SUBSTITUTIONS OF PLANT MATERIAL SHALL ONLY BE ACCEPTED 60 DAYS PRIOR TO COMMENCEMENT OF PLANTING OPERATIONS. SUBSTITUTION REQUESTS MUST BE IN WRITING AND WILL ONLY BE ACCEPTED FOR LACK OF AVAILABILITY REASONS WHICH CAN BE SUBSTANTIATED OR FOR SUPERIOR STOCK SUBSTITUTIONS.
- SEEDING
- GENERAL LAWN AREAS SHALL BE SEEDING WITH SUNSTAR/RIVERA BERMUDAGRASS OR APPROVED EQUAL.
- LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT TO REVIEW GRADING ONE WEEK PRIOR TO SEEDING. IF THE LANDSCAPE CONTRACTOR AND LANDSCAPE ARCHITECT FIND GRADING UNACCEPTABLE FOR FINAL SEEDING, LANDSCAPE CONTRACTOR SHALL BRING IT TO THE ATTENTION OF THE GENERAL CONTRACTOR. LANDSCAPE CONTRACTOR SHALL NOT PROCEED WITHOUT APPROVAL BY LANDSCAPE ARCHITECT.

LANDSCAPE NOTES

- CHISEL ALL CUT GRADED OR COMPACTED AREAS TO A MINIMUM DEPTH OF 8".
- DISC ALL AREAS TO RECEIVE GRASS TO A MINIMUM OF 8 INCHES, MIX AND AMEND WITH 3 INCHES OF WELL SCREENED TOPSOIL. ON-SITE TOPSOIL MAY BE USED IN PLACE OF IMPORTED TOPSOIL, IF WELL-SCREENED AND DRY PRIOR TO APPLICATION IN ACCORDANCE WITH SPECIFICATION SECTION 329000.
- REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- APPLY AGRICULTURAL LIME, FERTILIZER, AND PHOSPHATE UNIFORMLY AS PER SPECIFICATIONS AND MIX WELL WITH SOIL.
- CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED TO A 6 INCHES DEPTH.
- SEED AT RATE SPECIFIED OR AS NEEDED TO ACHIEVE AND MAINTAIN A THICK HEALTHY GROUND COVERAGE.
- MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH. BEGIN THOROUGH WATERING OF GRASSED AREAS IMMEDIATELY UPON INSTALLATION. DO NOT ALLOW GRASSED AREAS TO BECOME EXCESSIVELY DRY.
- INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS AS NEEDED.
- IF CONFLICTS OCCUR BETWEEN WRITTEN SPECIFICATIONS AND THE DRAWINGS, THE WRITTEN SPECIFICATIONS SHALL PREVAIL.

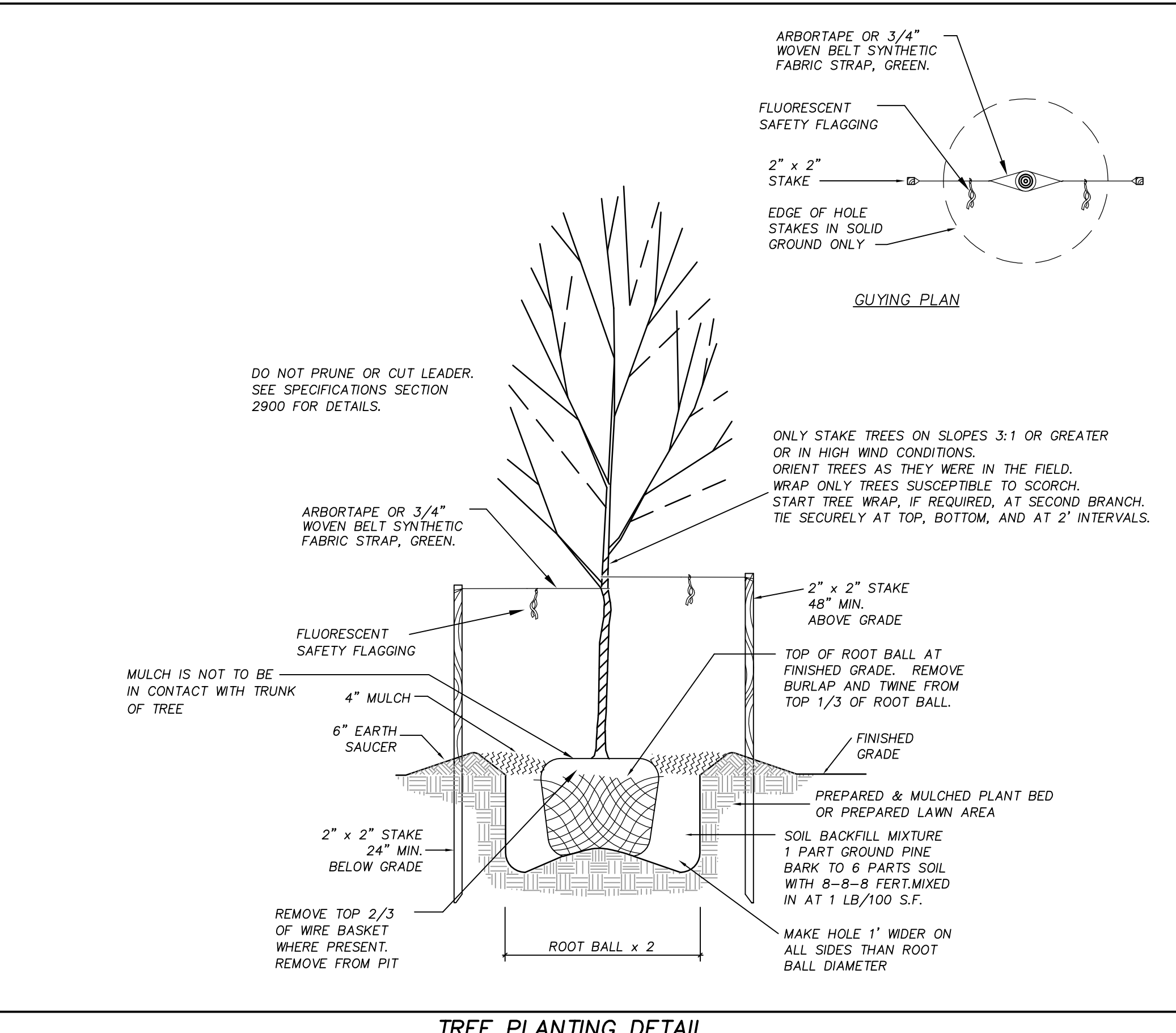
SEEDBED PREPARATION

APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY A MINIMUM 3,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND A MINIMUM 500 LB/ACRE 10-10-10 FERTILIZER, AS NEEDED TO ESTABLISH 95% COVERAGE (AS DETERMINED ON A PER SQUARE YARD BASIS) PRIOR TO SUBSTANTIAL COMPLETION. CONTRACTOR TO SUBMIT A COPY OF ALL SOIL REPORTS TO OWNER UPON RECEIPT.

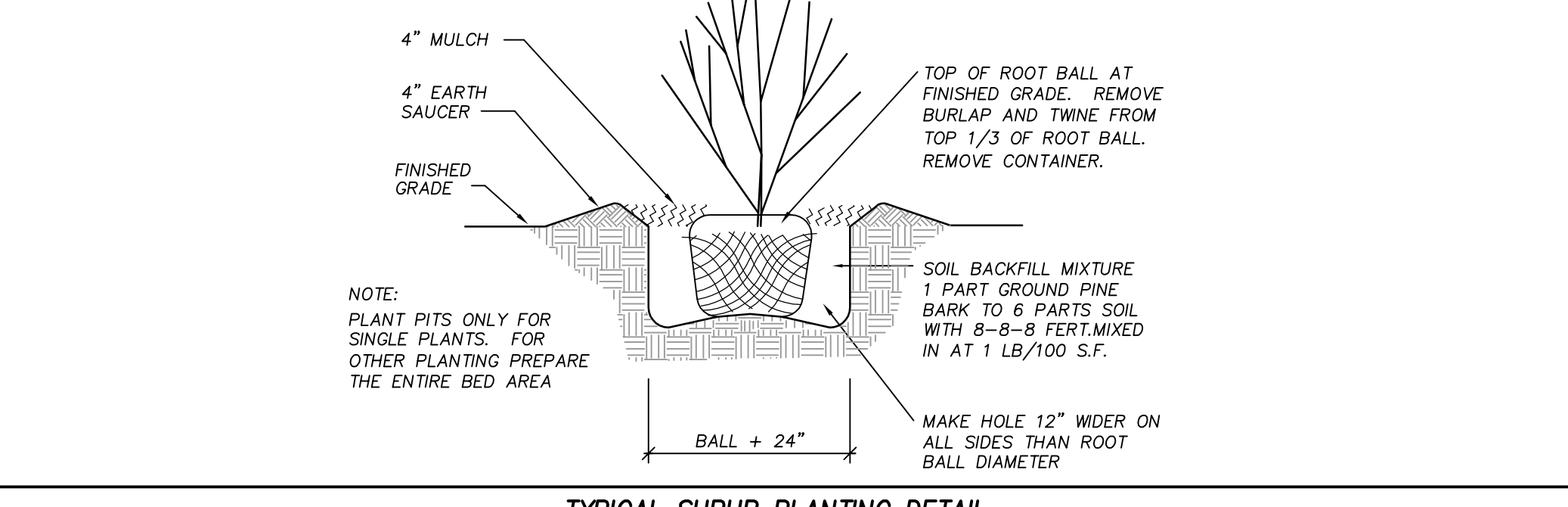
LIME & FERTILIZATION SCHEDULE

- DURING ALL PHASES OF CONSTRUCTION, GROUND COVER ON EXPOSED SLOPES SHALL BE PROVIDED WITHIN 14 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING.
- FINAL PERMANENT GROUND COVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED ON ALL DISTURBED AREAS WITHIN 14 CALENDAR DAYS FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
- USE EXCELLENT MATTING OR OTHER APPROVED CHANNEL LINING MATERIAL TO COVER THE BOTTOM OF CHANNELS.
- APPLY 4000 LB/ACRE (2 TONS LB/AC) GRAIN STRAW OVER SEEDED AREAS AND ANCHOR STRAW CRIMPING WITH HAND OR MECHANICAL GRIMPER 8" MAX. SPACING. ASPHALT TACKING OR OTHER APPROVED METHOD. ASPHALT TACKING SHALL BE 400 GAL/ACRE (9 GAL/1000 SF).
- MULCH AND ANCHORING MATERIALS MUST NOT BE ALLOWED TO WASH DOWN SLOPES AND CLOG DRAINAGE DEVICES.

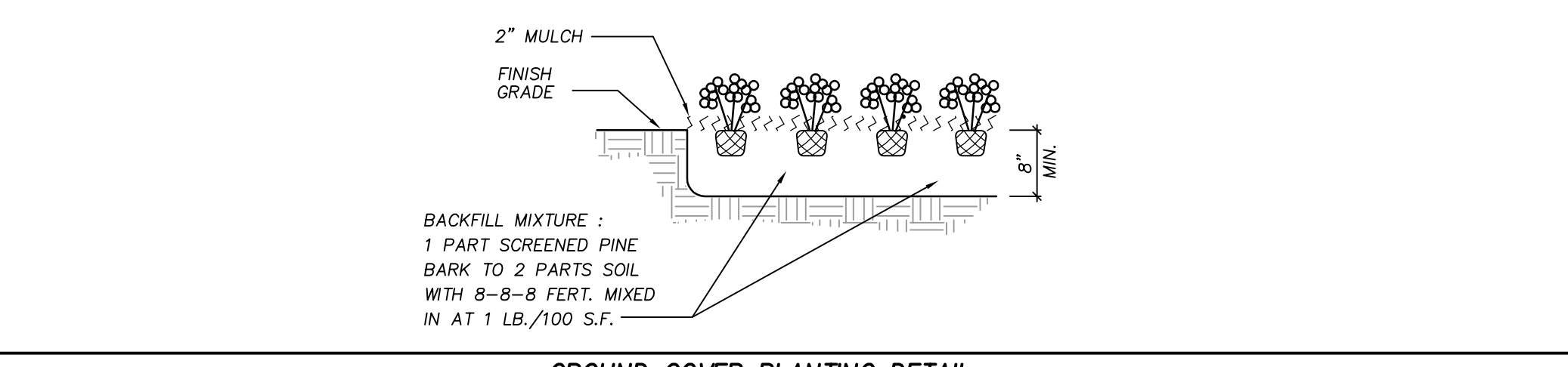
SURFACE STABILIZATION REQUIREMENTS



TREE PLANTING DETAIL



TYPICAL SHRUB PLANTING DETAIL



GROUND COVER PLANTING DETAIL

APPROVED CONSTRUCTION PLAN	
NAME	DATE
PLANNING	
TRAFFIC	
FIRE	

Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

Signed: _____

WILMINGTON
NORTH CAROLINA

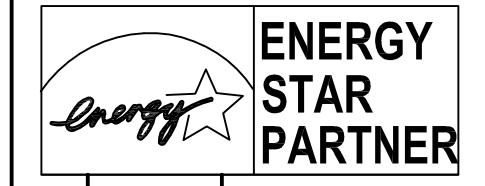
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN

Date: _____ Permit # _____

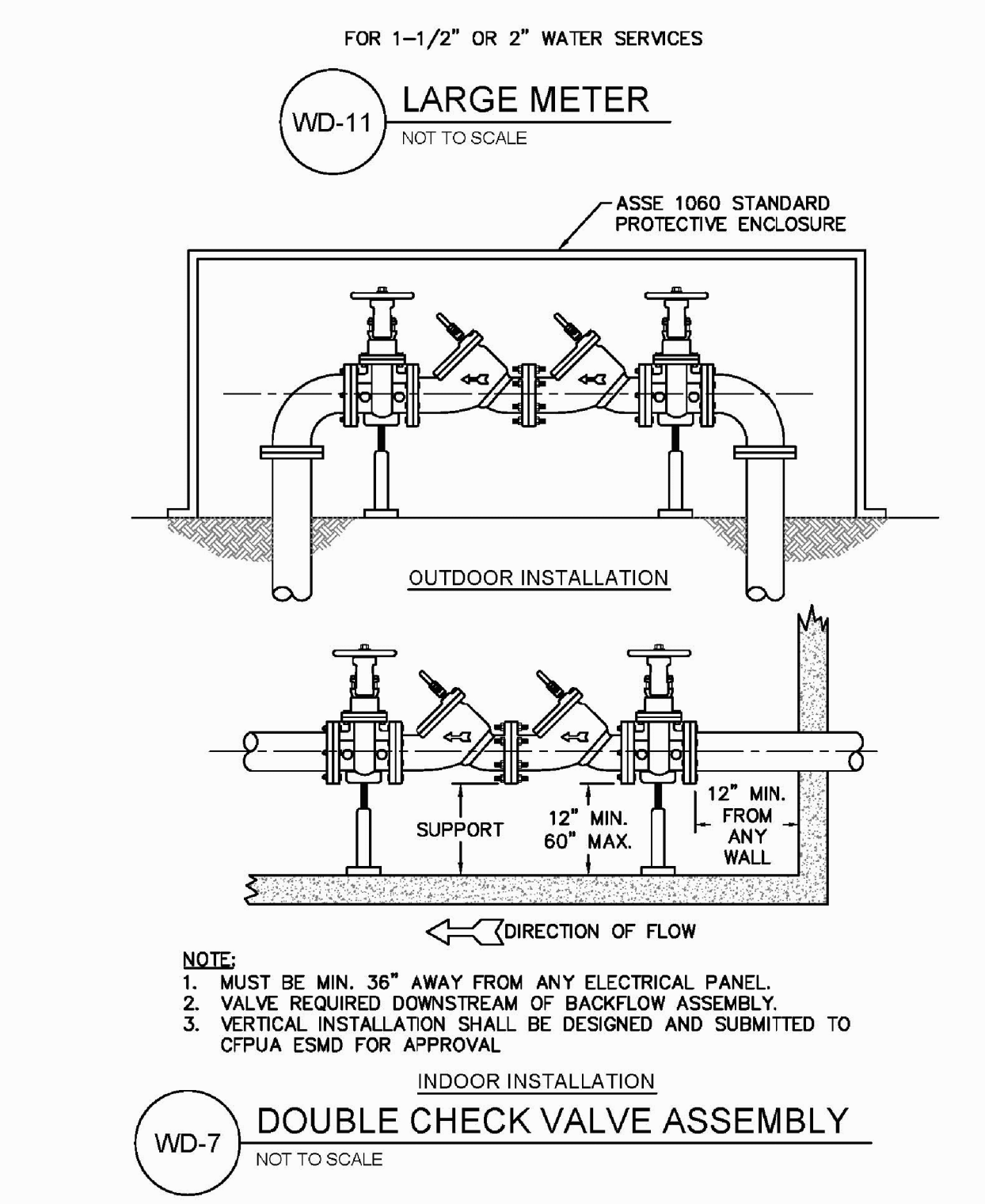
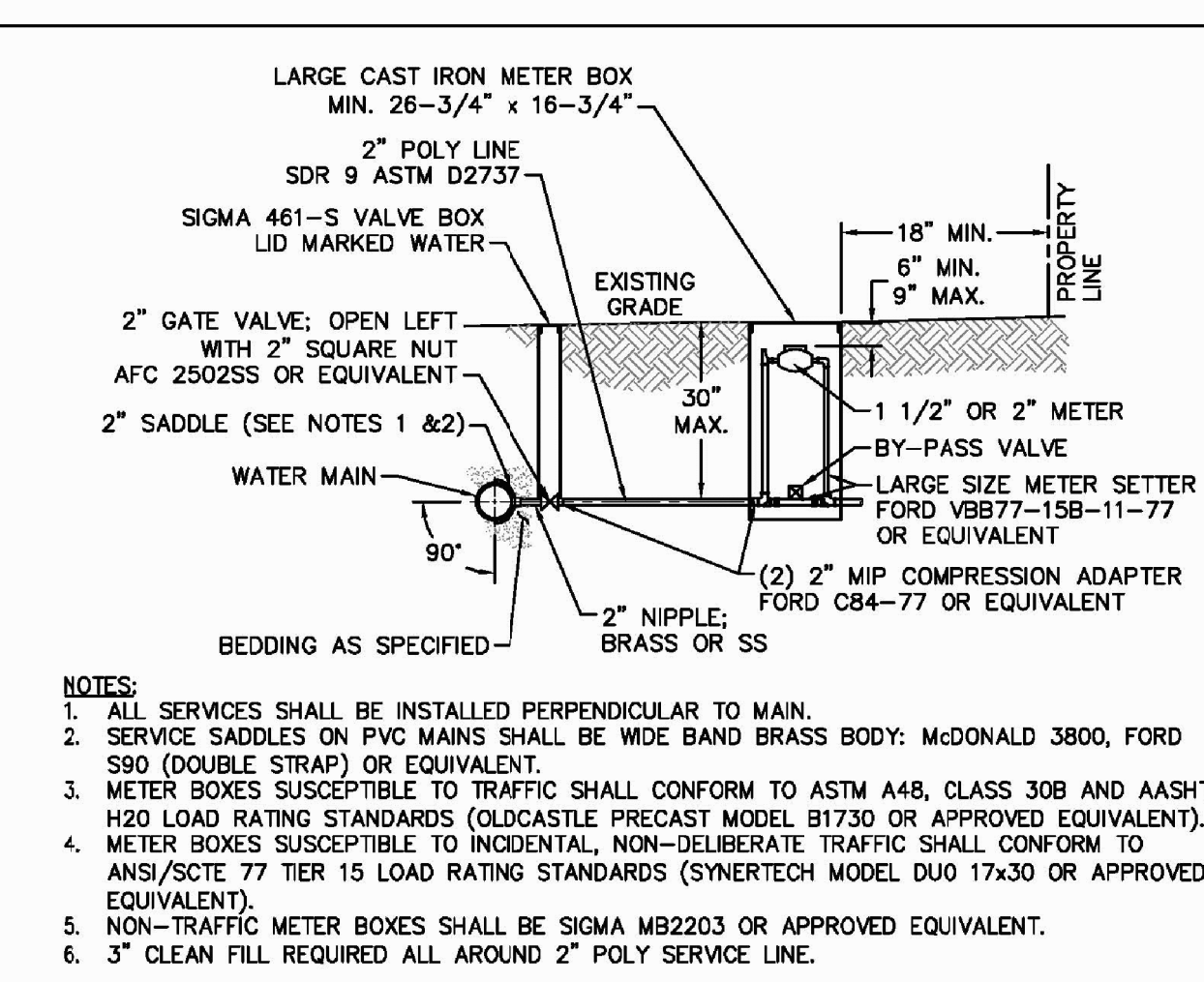
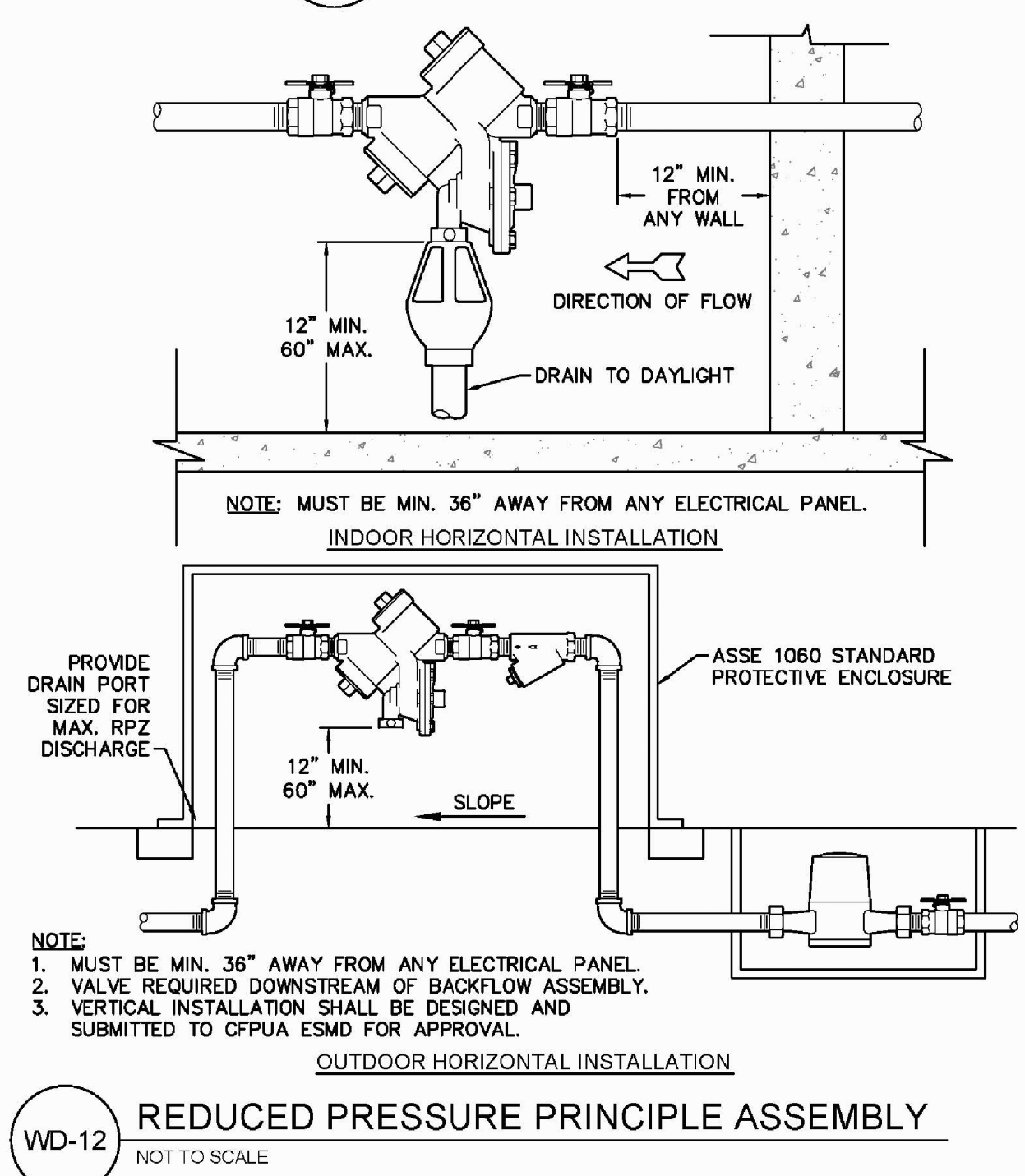
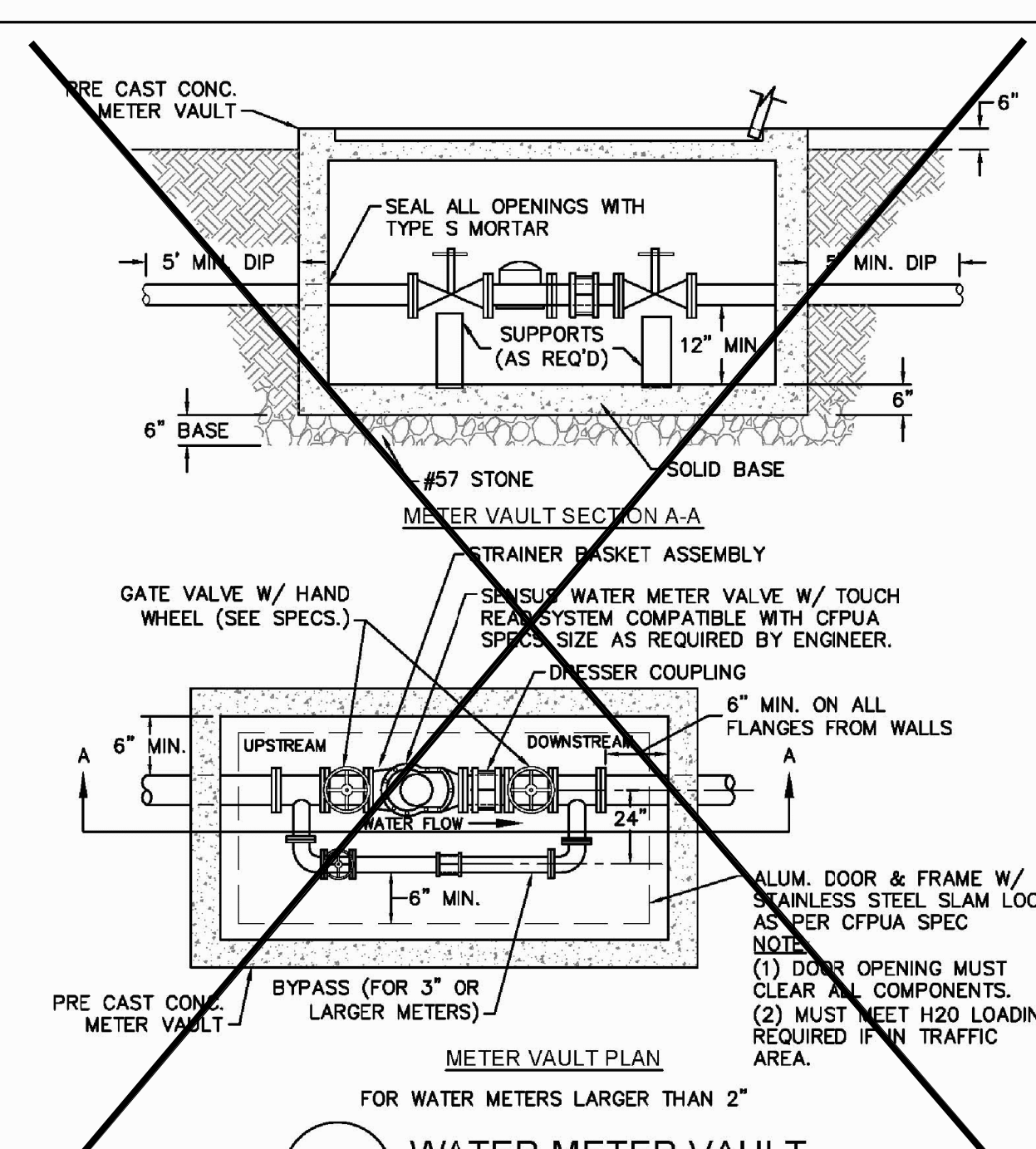
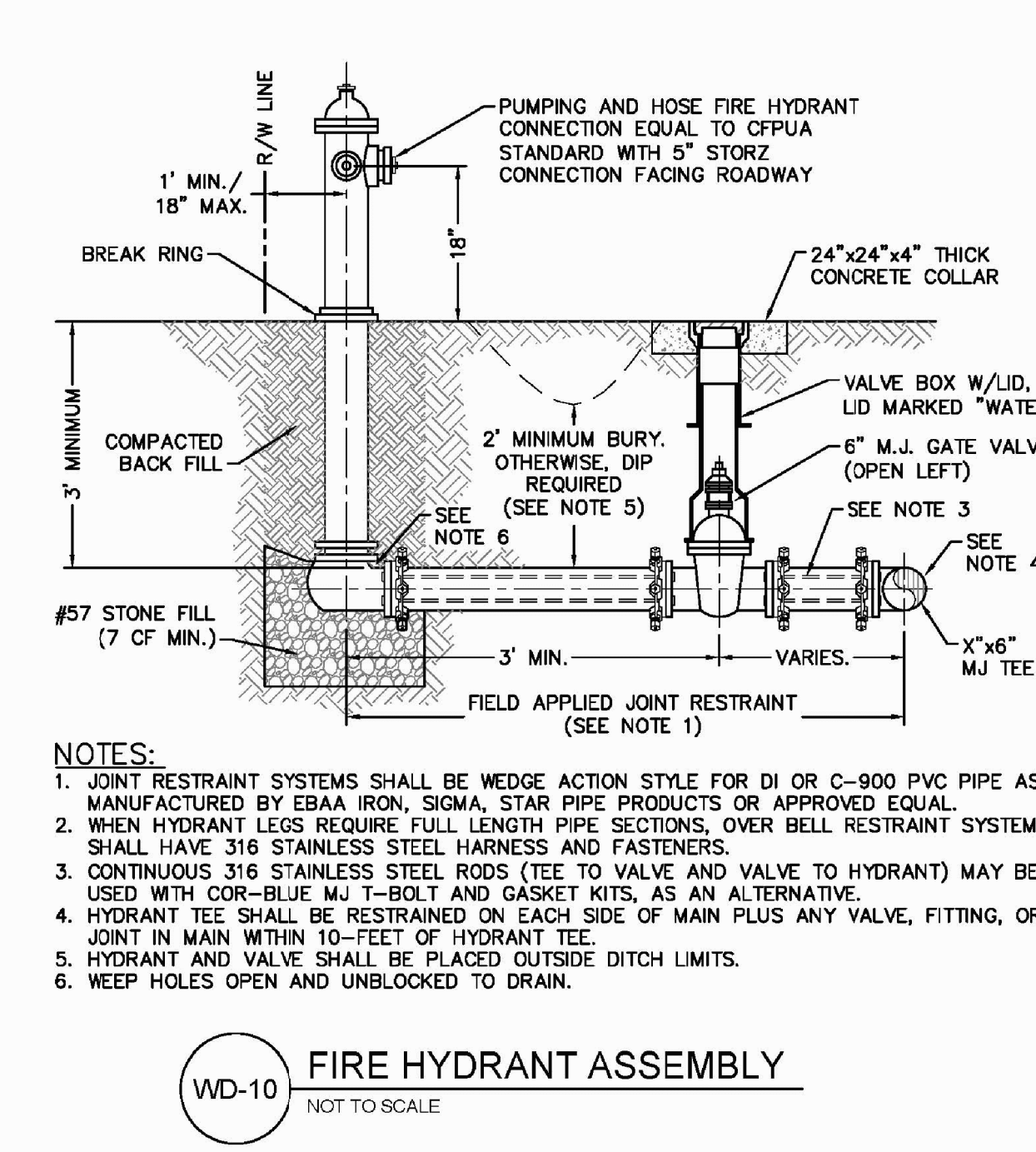
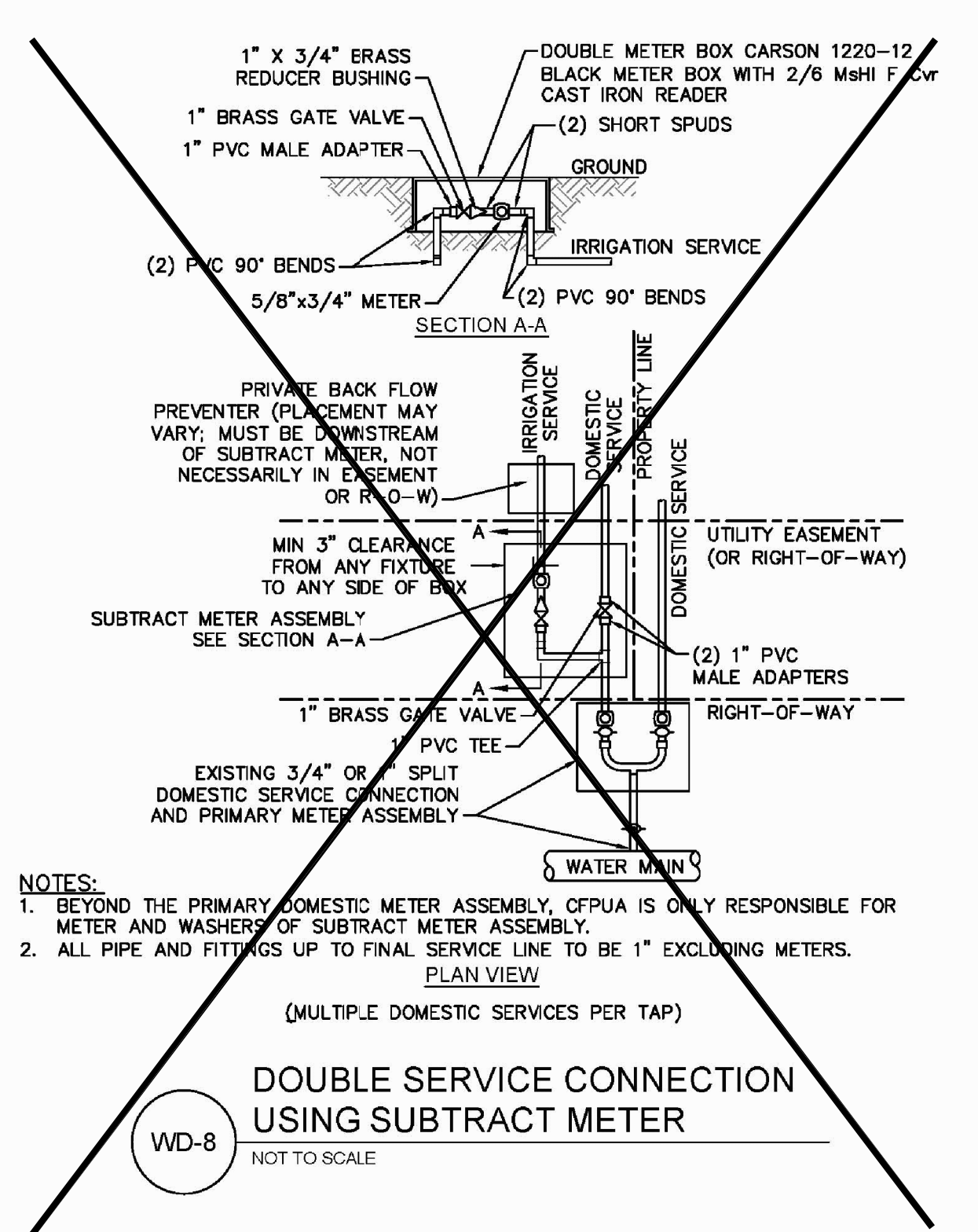
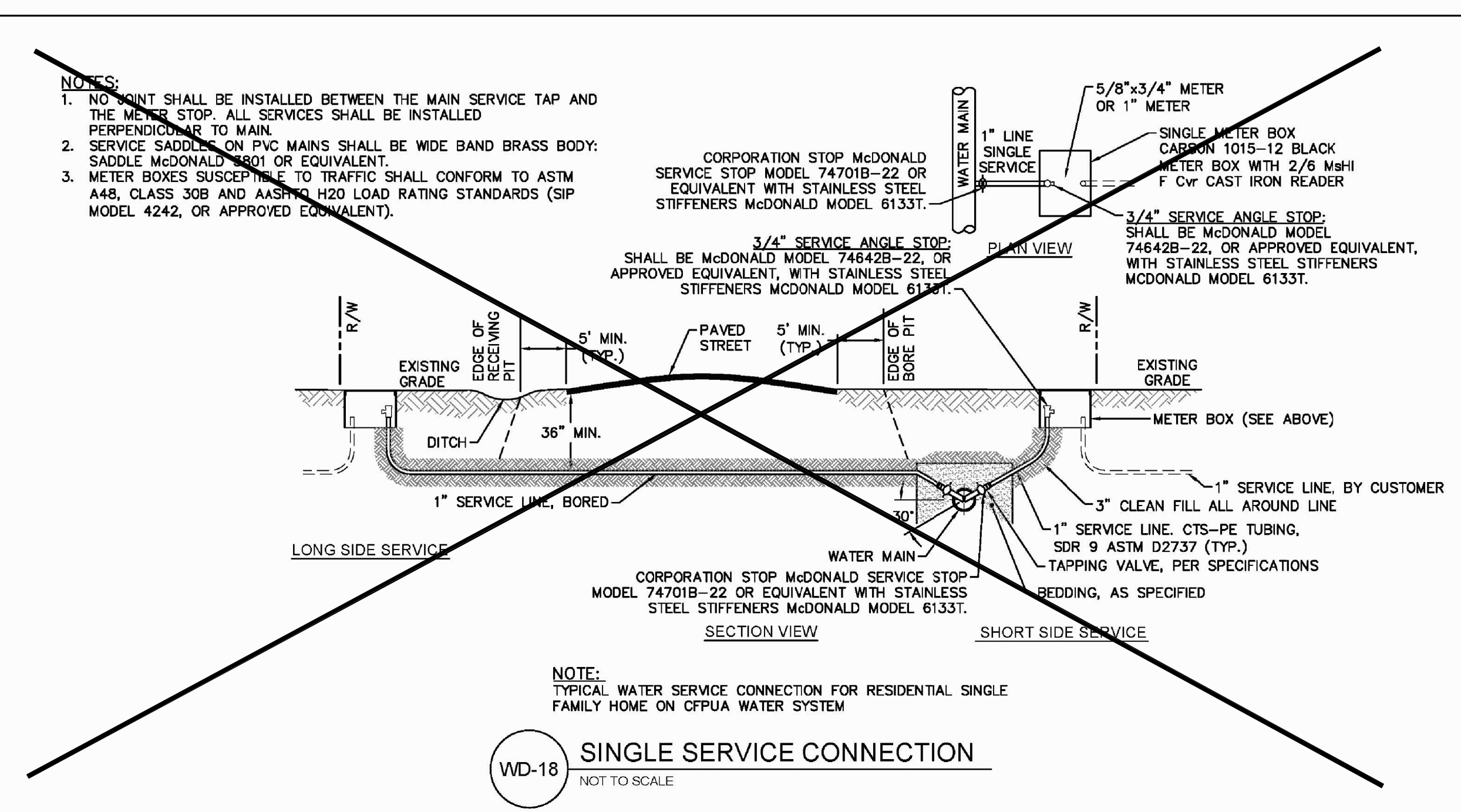
Signed: _____

NOT FOR CONSTRUCTION
FOR REVIEW ONLY

DESIGN DEVELOPMENT SUBMITTAL FOR:
BLAIR ELEMENTARY SCHOOL
NEW HANOVER COUNTY SCHOOLS
WILMINGTON, NORTH CAROLINA



DATE:	1/9/12	
SCALE:	N/A	
DRAWN BY:	CFPUA	
CHECKED BY:	CFPUA	
PROJECT NO.:		
ID:	DATE	DESCRIPTION
	10/03/2016	ISSUE DATE:
PROJECT #:	SFLA-01504.000	
CAD TECH.:	MB	
CAD TECH.:	YLA	
CHECKED BY:	KAL/ZRP	



GENERAL NOTES:

- NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
- THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
- THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
- THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN AND STOCKPILE AREAS (TO ARRANGE AND ENSURE COMPLIANCE WITH ALL LOCAL AND STATE REGULATIONS).

THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

CFPUA WATER DISTRIBUTION SYSTEM

STANDARD DETAILS

WSD-1

CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6560

DATE: 1/9/12
SCALE: N/A
DRAWN BY: CFPUA
CHECKED BY: CFPUA
PROJECT NO.:
SHEET NO.: WSD-1

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

Date: _____ Permit #: _____

Signed: _____

APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING	
TRAFFIC	
FIRE	

REV.	DESCRIPTION:	DATE:
1	Single Service Connection, Double Service Connection, and Large Meter Revised	10/26/12
2	Single Service Connection and Fire Hydrant Details Revised	7/23/13
3	Fire Hydrant Detail Revised	01/03/14
4	Revised Fire Hydrant Assembly To Show 5" STORZ Connection	04/10/15

**NOT FOR CONSTRUCTION
FOR REVIEW ONLY**

**DESIGN DEVELOPMENT SUBMITTAL FOR:
BLAIR ELEMENTARY SCHOOL
NEW HANOVER COUNTY SCHOOLS
WILMINGTON, NORTH CAROLINA**

ID	DATE	DESCRIPTION
	10/03/2016	ISSUE DATE:
PROJECT #:		
CAD TECH:		
CHECKED BY:		

SD-19
NOT TO SCALE

STANDARD SERVICE CONNECTION TO SANITARY SEWER

SD-10
NOT TO SCALE

STANDARD SERVICE LATERAL

SD-11
NOT TO SCALE

SERVICE CONNECTION AND CLEAN-OUT

SD-12
NOT TO SCALE

DEEP SERVICE LATERAL

SD-13
NOT TO SCALE

SAMPLING CHAMBER

SD-14
NOT TO SCALE

PAVEMENT REPAIR WHERE PIPE INSTALLED

SD-15
NOT TO SCALE

TYPICAL TRENCH DETAIL

SD-16
NOT TO SCALE

TYPICAL BORING/JACKING DETAIL

SD-17
NOT TO SCALE

PIPE CASING SUPPORT DETAIL

GENERAL NOTES:

- NO EXCAVATED MATERIAL SHALL BE PLACED IN ANY STREAM, DITCH OR DRAINAGE-WAY.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY CONSTRUCTION BEGINS.
- THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES WHILE CONSTRUCTION IS IN PROGRESS.
- THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS.
- THE CONTRACTOR IS RESPONSIBLE FOR LAY DOWN AND STOCKPILE AREAS (TO ARRANGE AND ENSURE COMPLIANCE WITH ALL LOCAL AND STATE REGULATIONS).

THE DETAILS SHOWN HEREON SUPERCEDE CFPUA WRITTEN TECHNICAL SPECIFICATIONS VERSIONS 1.00 - 1.04

CFPUA SANITARY SEWER

DATE: 1/6/12
SCALE: N/A
DRAWN BY: CFPUA
CHECKED BY: CFPUA
PROJECT NO.:

STANDARD DETAILS

CAPE FEAR PUBLIC UTILITY AUTHORITY
235 GOVERNMENT CENTER DRIVE
WILMINGTON, NC 28403
OFFICE: (910)332-6560

SHEET NO.:
SSD-2

REV.	DESCRIPTION	DATE
1	SAMPLING CHAMBER REVISED	10/25/12

WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____

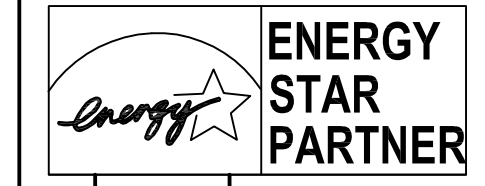
APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING	
TRAFFIC	
FIRE	

APPROVED CONSTRUCTION PLAN

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DESIGN DEVELOPMENT SUBMITTAL FOR:
**BLAIR ELEMENTARY SCHOOL
NEW HANOVER COUNTY SCHOOLS**
WILMINGTON, NORTH CAROLINA



ID	DATE	DESCRIPTION

APPROVED STORMWATER MANAGEMENT PLAN
Date: _____ Permit # _____
Signed: _____

PROJECT #: SFLA-01504.000
CLH-15-143
CAD TECH.: MB
CAD TECH.: YLA
CHECKED BY: KAL/ZRP

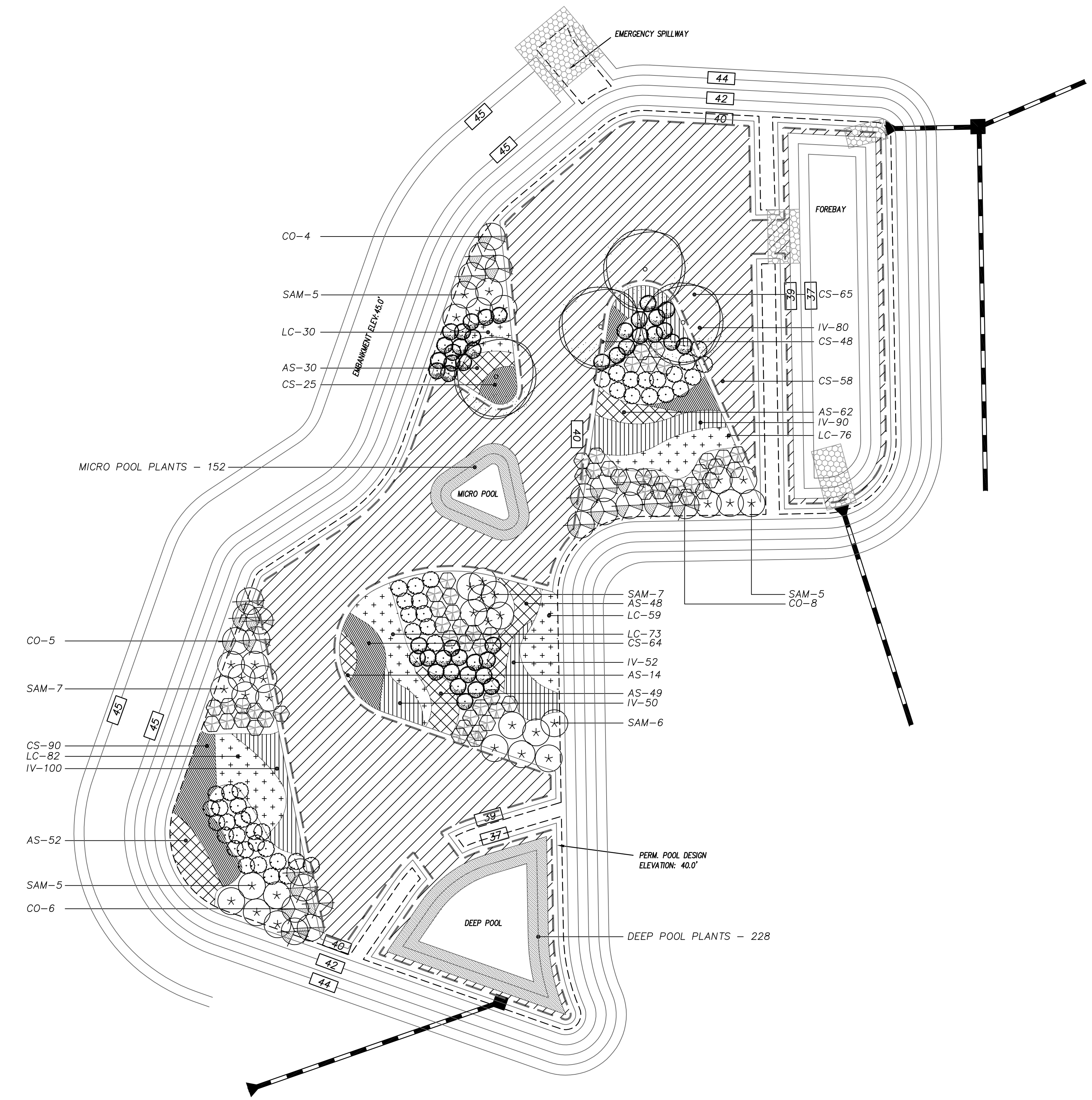
APPROVED CONSTRUCTION PLAN

NAME	DATE
PLANNING _____	
TRAFFIC _____	
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**SITE/CIVIL
DETAILS**

C7.12



STORMWATER WETLAND "A" PLANTING SCHEDULE

WETLAND TREE LIST			
KEY	QTY	PLANT NAME	SIZE
TD	4	TAXODIUM DISTICHUM - BALD CYPRESS	7-GAL. CONT.
SHALLOW LAND SHRUBS			
KEY	QTY	PLANT NAME	SIZE
CO	23	CEPHALANTHUS OCCIDENTALIS - BUTTONBUSH	1-GAL. CONT.
SAM	35	SAMBUCUS CANADENSIS - ELDERBERRY	PLANT 5' O.C.
	60	CLETHRA ALNIFOLIA - SWEET PEPPERBUSH	
	50	ITEA VIRGINICA 'HENRY'S GARNET' - SWEETSPIRE	
	55	ARONIA ARBUTIFOLIA 'BRILLIANTISSIMA' - CHOKEBERRY	
SHALLOW WATER PLANT LIST			
KEY	QTY	PLANT NAME	SIZE
PV	620	PELTANDRA VIRGINIANA - ARROW ARUM	LARGE PLUGS (MIN. 6 CUBIC INCHES)
PC	620	PONTEDERIA CORDATA - PICKEREL WEED	SPACE 2' O.C.
AB	620	ACORUS SUBCORDATUM - SWEETFLAG	
SC	620	SAURURUS CERNUJUS - LIZARD'S TAIL	
JE	620	JUNCUS EFFUSUS - SOFT RUSH	
SHALLOW LAND PLANT LIST			
KEY	QTY	PLANT NAME	SIZE
CS	350	CAREX STRICTA - TUSSOCK SEDGE	LARGE PLUGS (MIN. 6 CUBIC INCHES)
AS	217	ASOLEPIAS INCARNATA - SWAMP MILKWEED	SPACE 2' O.C.
IV	372	IRIS VIRGINICA - BLUE FLAG IRIS	
LC	320	LOBELIA CARDINALIS - CARDINAL FLOWER	
DEEP POOL AND MICRO POOL PLANT LIST			
KEY	QTY	PLANT NAME	SIZE
95		SAGITTARIA LATIFOLIA - BROADLEAF ARROWHEAD	LARGE PLUGS (MIN. 6 CUBIC INCHES)
95		NUPHAR LUTEA - SPATTERDOCK	
95		NUPHAR COORATA - WATERLILY	
95		NELUMBO LUTEA - AMERICAN LOTUS	

DETENTION WETLAND NOTES

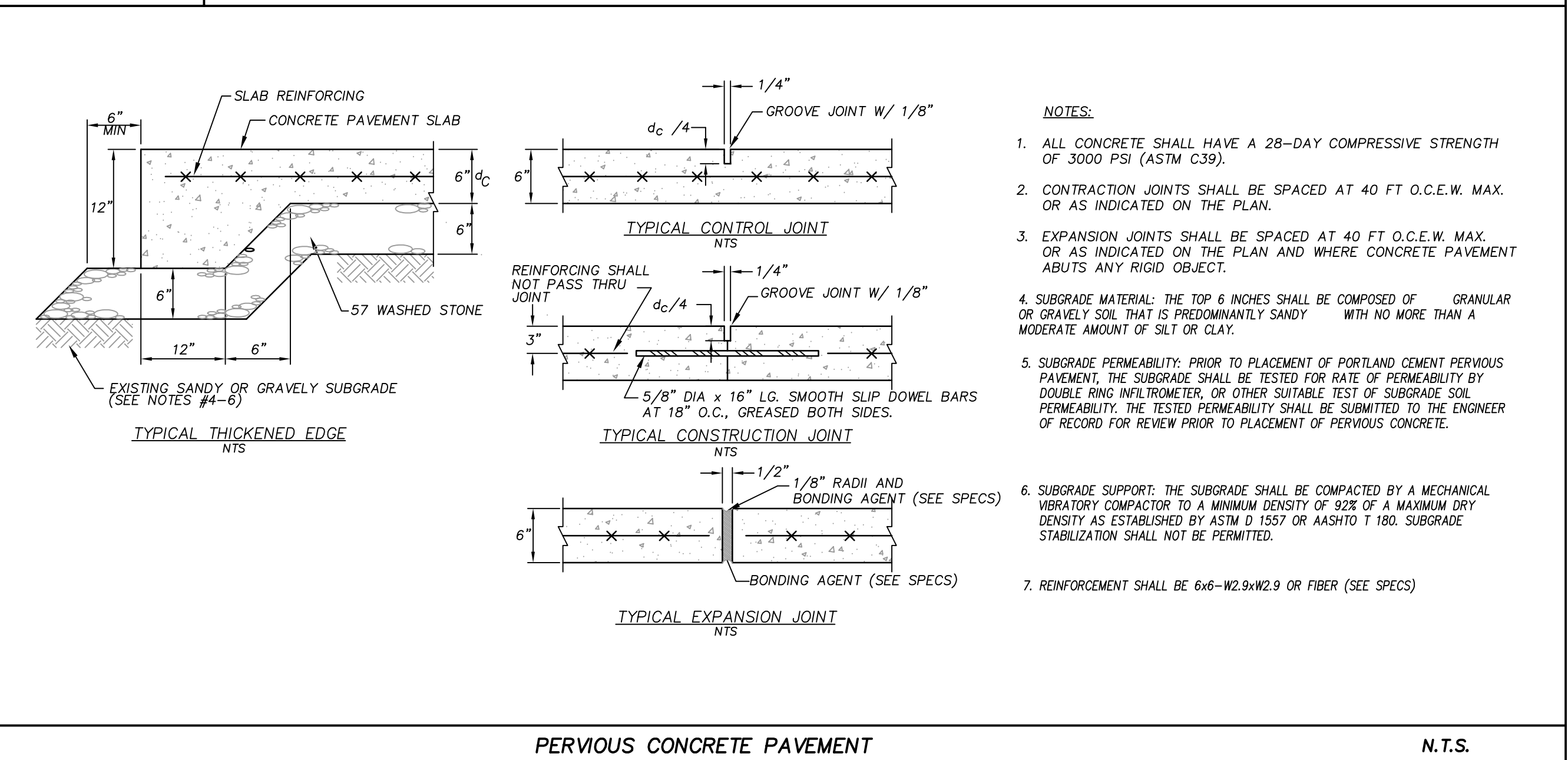
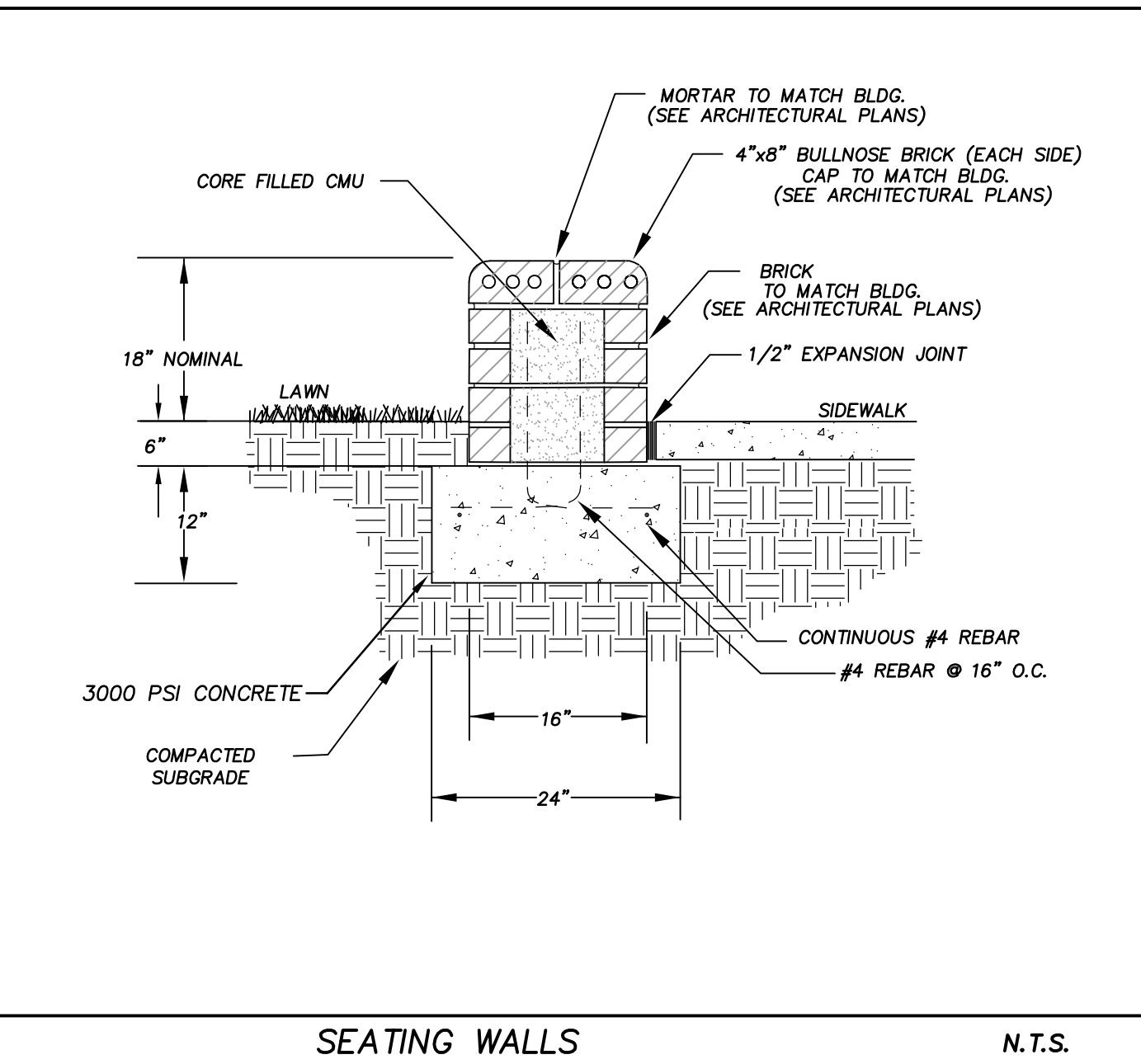
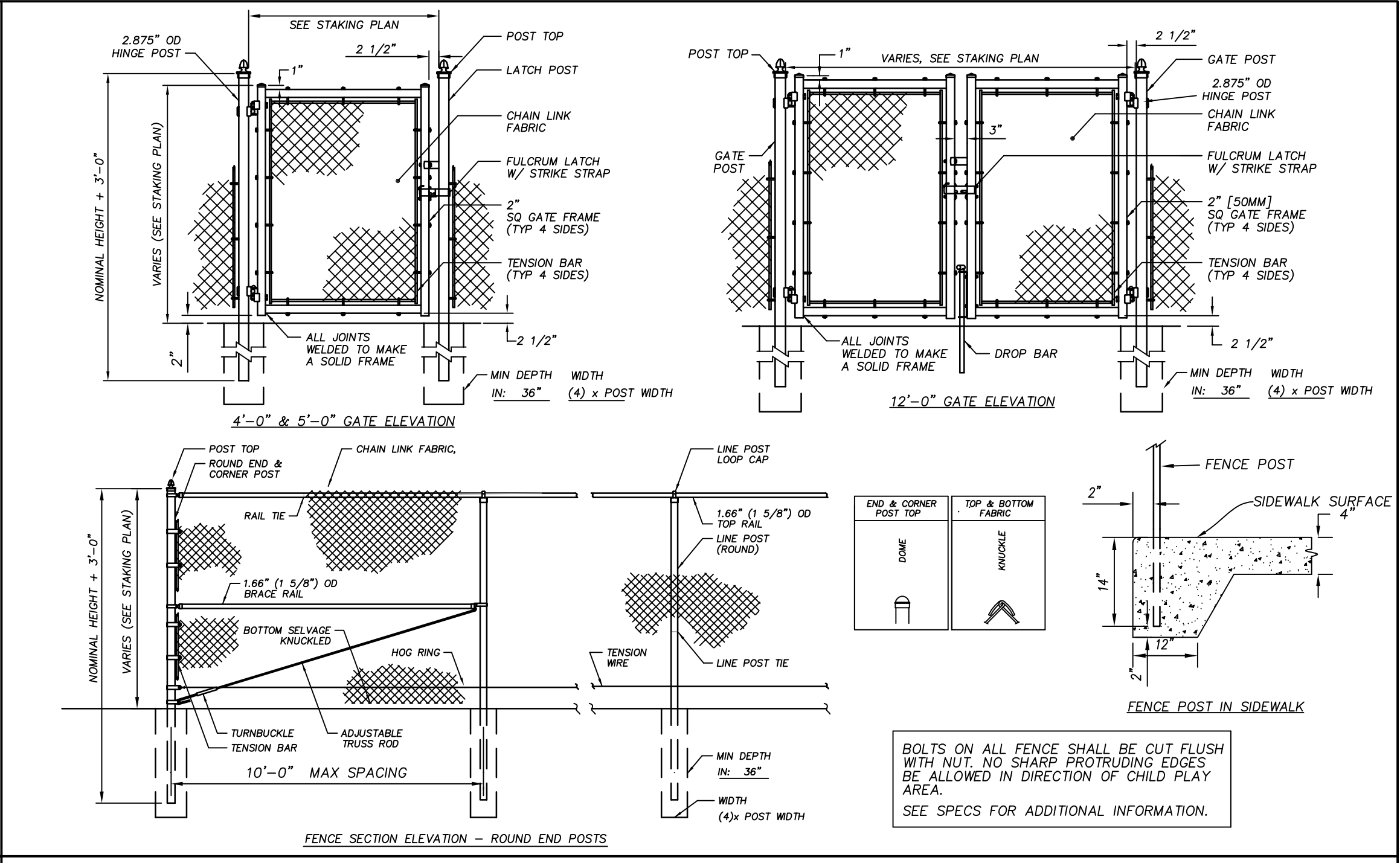
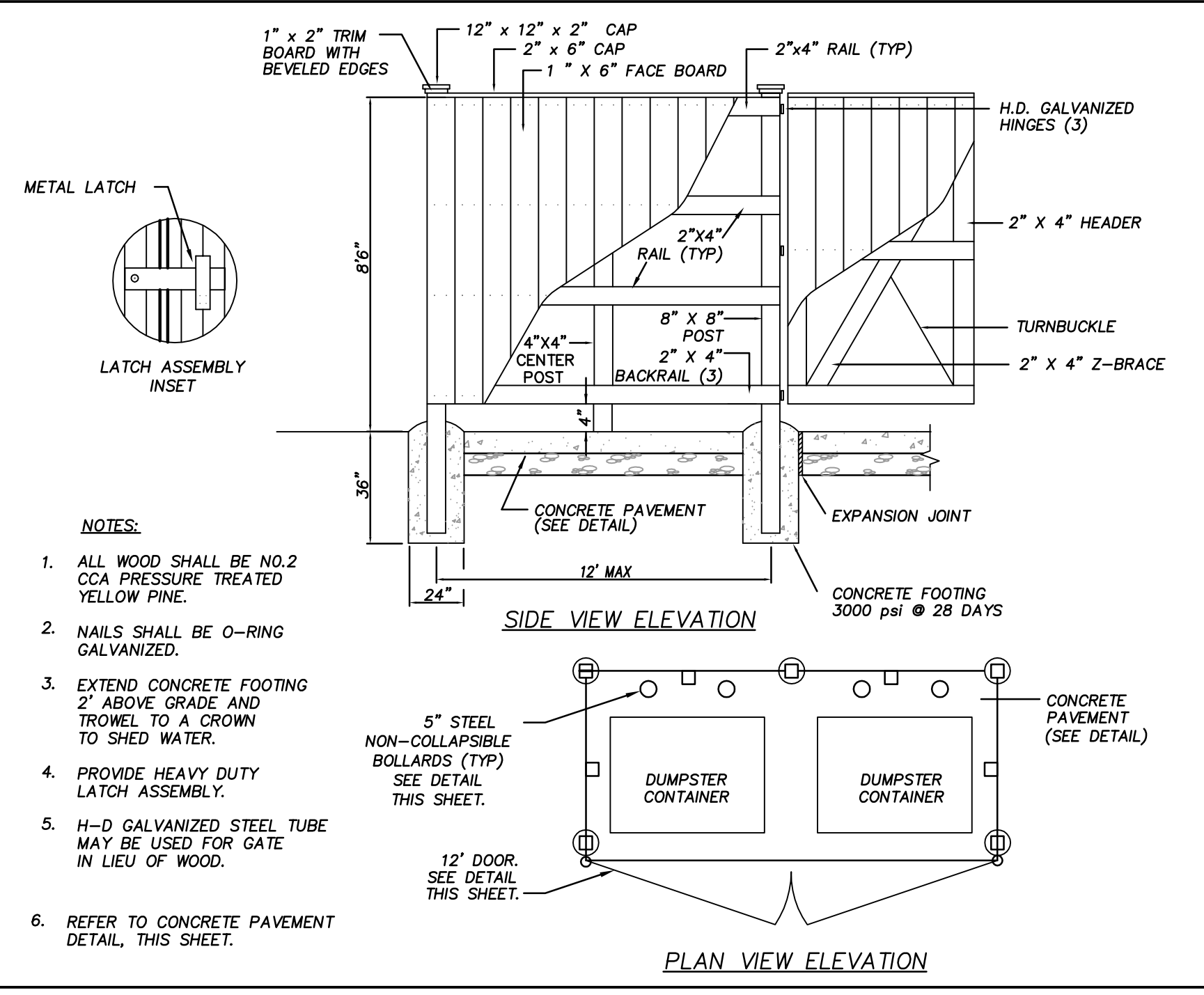
1. WETLAND AREA SHALL BE DRAINED ONE DAY PRIOR TO PLANTING. SEE DETAIL SHEET C07.13 FOR STRUCTURAL INFORMATION. LANDSCAPE ARCHITECT TO APPROVE ALL LOCATIONS IN FIELD.
2. PLACE SHALLOW WATER PLANTINGS IN DESIGNATED AREA BY SPECIES IN GROUPINGS OF 40 PLANTS MIN., 100 PLANTS MAX.
3. SEE SHEET C07.12 FOR MORE INFORMATION.

WETLAND SOIL MIX

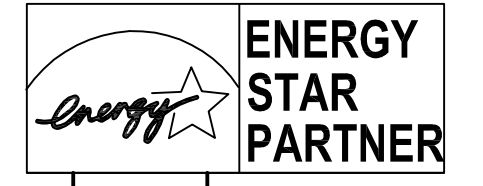
ADD 4" OF TOPSOIL THROUGHOUT STORMWATER WETLAND AREA. TOPSOIL SHALL BE PLACED WITHIN THE SHALLOW LAND, SHALLOW WATER AND DEEP POOL AREAS AND ADHERE TO THE FOLLOWING REQUIREMENTS:

1. THE SOIL MUST BE UNIFORM AND FREE OF STONES, STUMPS, ROOTS, OR OTHER SIMILAR MATERIAL GREATER THAN 2 INCHES.
2. SOIL TEXTURE SHALL BE A LOAMY SAND, WITH NO MORE THAN 10% CLAY (USDA SOIL TEXTURAL CLASSIFICATION).
3. A MINIMUM ORGANIC CONTENT OF 10% BY DRY WEIGHT.
4. THE PH SHALL BE BETWEEN 5.5 AND 7.0.

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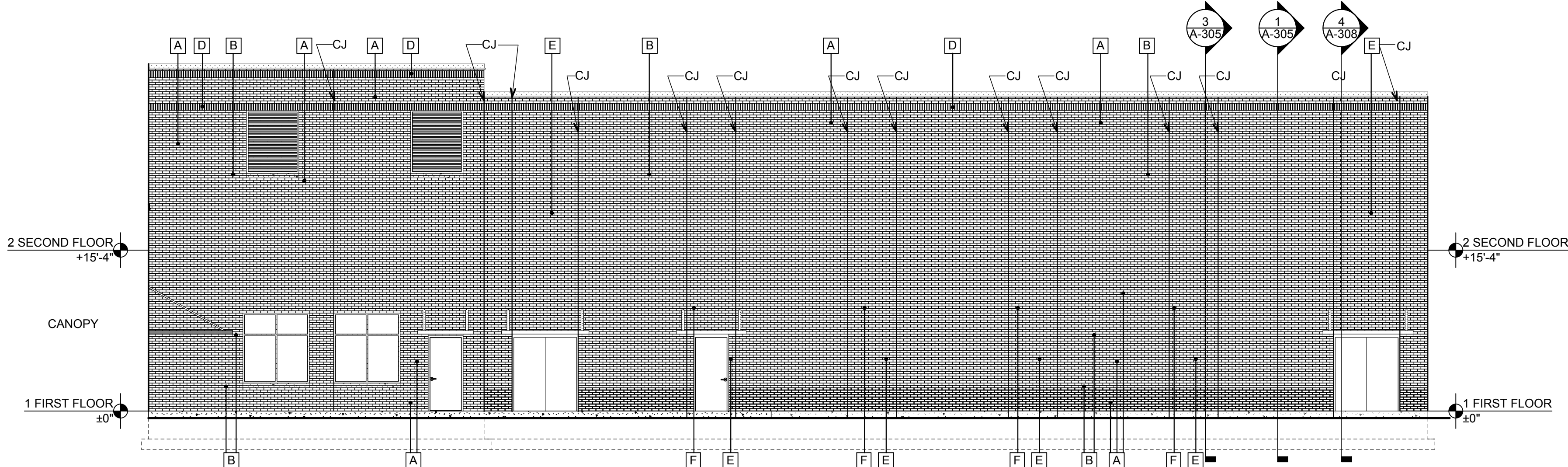


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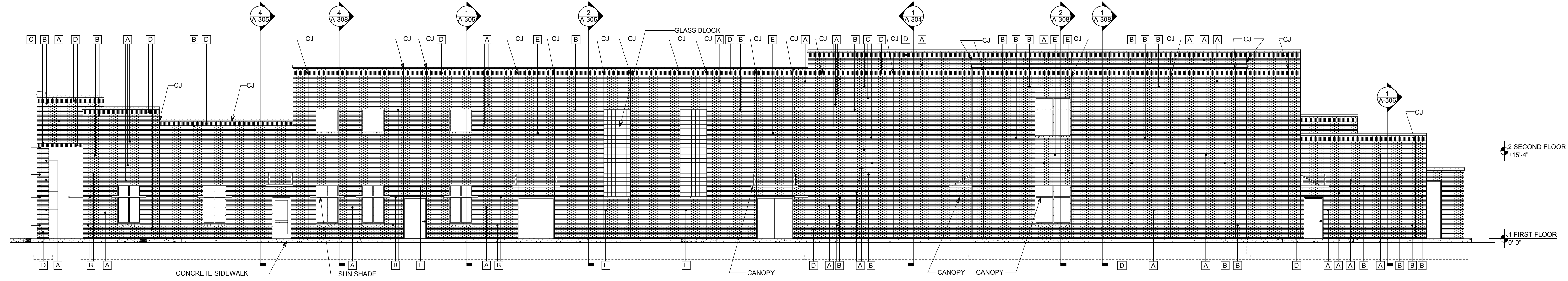


ID	DATE	DESCRIPTION
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		PROJECT #: SFLA - 01594.000 CLH - 15-143
		CAD TECH.: MB
		CAD TECH.: YLA
		CHECKED BY: KAL/ZRP

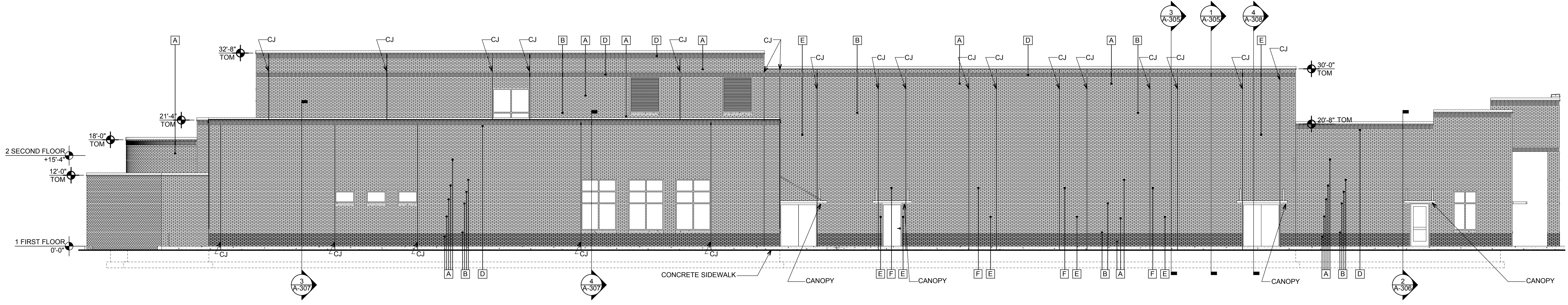
ELEVATION NOTE LEGEND	
MARK	DESCRIPTION
A	FIELD BRICK ALIGN WITH FACE OF FOUNDATION WALL COLOR: #1
B	ACCENT BRICK ALIGN WITH FACE OF FOUNDATION WALL COLOR: #2
C	ACCENT BRICK CORBELLED OUT 3/8" FROM FACE OF FOUNDATION WALL COLOR: #2
D	ACCENT BRICK SOLIDER COURSE ALIGN FACE OF FOUNDATION WALL COLOR: #3
E	FIELD BRICK RECESSED IN 3/8" FROM FACE OF FOUNDATION WALL COLOR: #1
F	8" X 16" X 4" CMU BLOCK CENTER SCORED IN A STACK BOND PATTERN ALIGN WITH FACE OF FOUNDATION WALL COLOR: #4



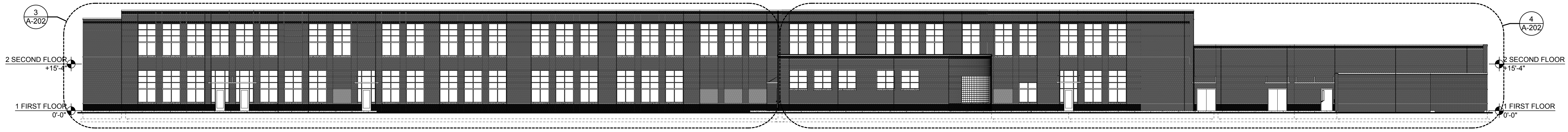
5 PARTIAL EAST ELEVATION
SCALE: 1/8" = 1'-0"



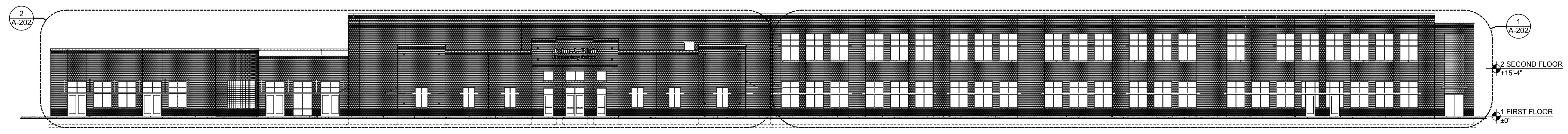
4 EAST ELEVATION
SCALE: 1/8" = 1'-0"



3 WEST ELEVATION
SCALE: 1/8" = 1'-0"



2 NORTH ELEVATION
SCALE: 1/16" = 1'-0"



1 SOUTH ELEVATION
SCALE: 1/16" = 1'-0"

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BLAIR ELEMENTARY SCHOOL
NEW HANOVER COUNTY SCHOOLS
WILMINGTON, NC



ID: _____ DATE: _____ DESCRIPTION: _____
ISSUE DATE: 07/01/2016
PROJECT #: 01504.000
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EXTERIOR ELEVATIONS