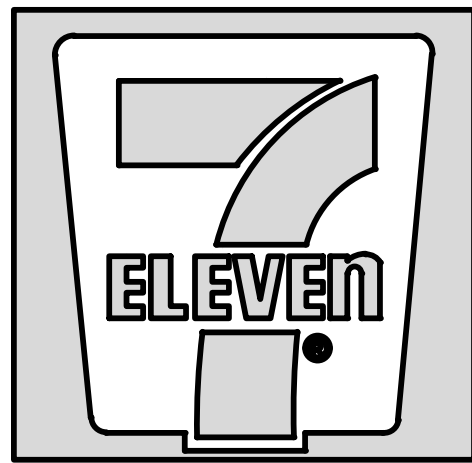


CONSTRUCTION DOCUMENTS

Proposed 7-Eleven Store #42378



1106 N. Arendell Avenue
Zebulon, North Carolina
Wake County

WAKE COUNTY NOTES

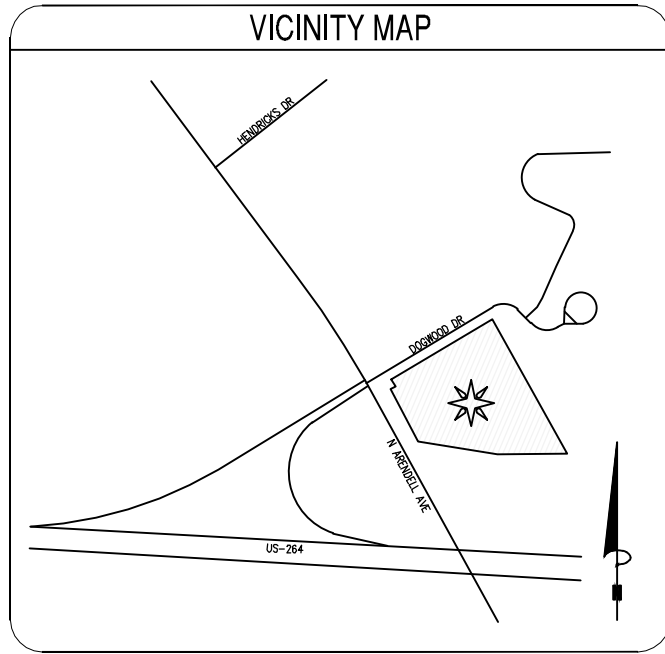
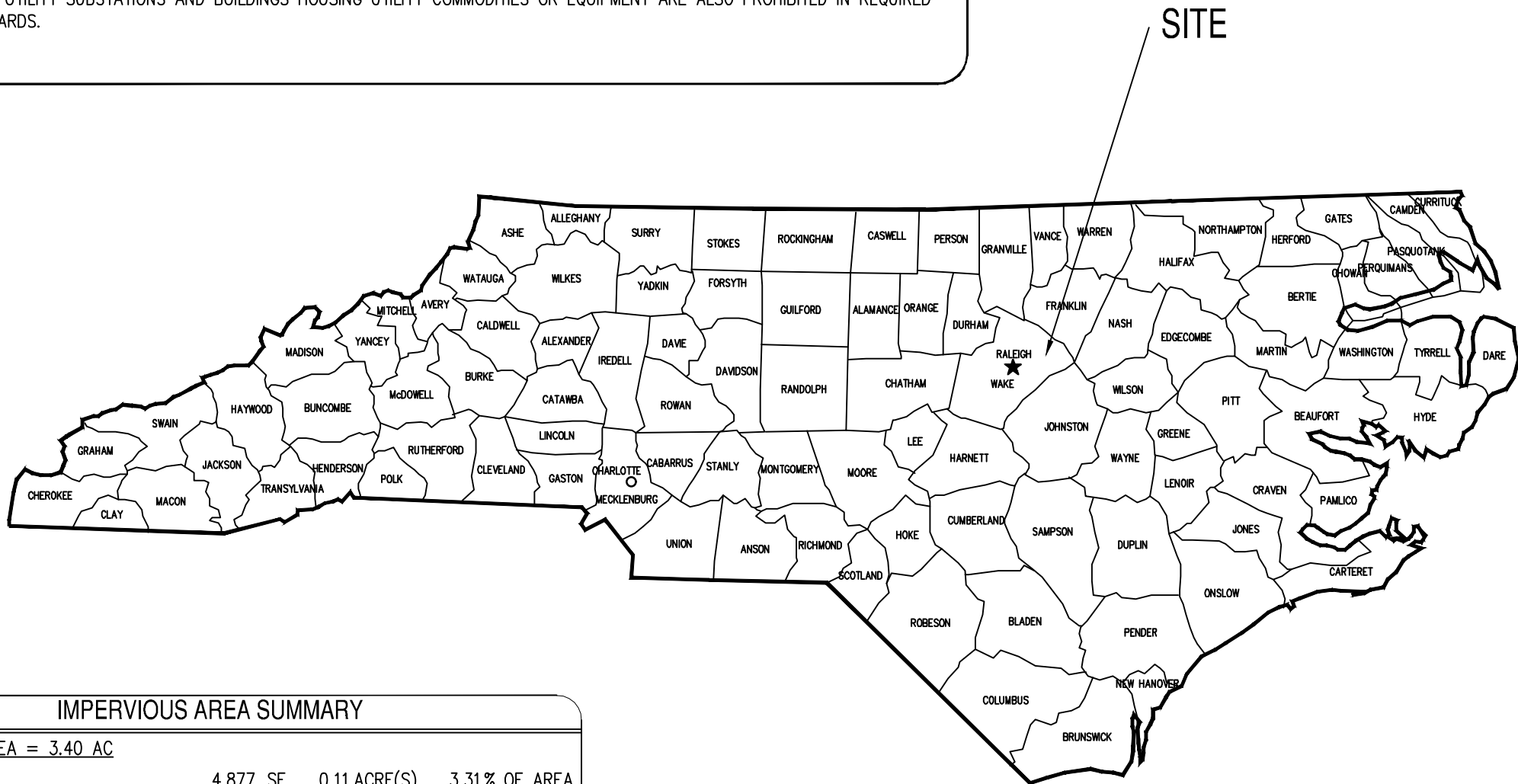
FINAL ZONING AND SITE IMPROVEMENT INSPECTION SHALL BE REQUIRED TO VERIFY SITE PLAN COMPLIANCE BE DONE BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED BY WAKE COUNTY BUILDING INSPECTIONS

DETERIORATED OR DEAD SCREENING SHALL BE REPAIRED OR REPLACED WITHIN SIX MONTHS

NO PERMANENT CONSTRUCTION CAN OCCUR WITHIN BUFFER YARDS

SEPTIC TANKS, SEPTIC DRAIN LINES ARE PROHIBITED IN REQUIRED BUFFERYARDS

STORMWATER RETENTION AND DETENTION FACILITIES, STORAGE TANKS FOR ANY PURPOSE, UTILITY SUBSTATIONS, AND 3 BUILDINGS HOUSING UTILITY SUBSTATIONS AND BUILDINGS HOUSING UTILITY COMMODITIES OR EQUIPMENT ARE ALSO PROHIBITED IN REQUIRED BUFFERYARDS.



IMPERVIOUS AREA SUMMARY			
ON-SITE AREA = 3.40 AC			
BUILDINGS	4,877 SF	0.11 ACRE(S)	3.31% OF AREA
SIDEWALK	4,125 SF	0.09 ACRE(S)	2.79% OF AREA
PAVEMENT	69,870 SF	1.60 ACRE(S)	47.18% OF AREA
TOTAL IMPERVIOUS AREA	78,890 SF	1.81 ACRE(S)	53.27% OF AREA
GREEN/OPEN SPACE	69,213 SF	1.59 ACRE(S)	46.73% OF AREA
EXISTING ON-SITE IMPERVIOUS AREA	5,724 SF	0.13 ACRE(S)	
INCREASE IN IMPERVIOUS AREA	73,166 SF	1.68 ACRE(S)	
OFF-SITE IMPERVIOUS (PUBLIC ROW)			
SIDEWALK	4,730 SF	0.11 ACRE(S)	
PAVEMENT	20,630 SF	0.48 ACRE(S)	
TOTAL OFF-SITE IMPERVIOUS AREA	25,560 SF	0.59 ACRE(S)	

BASE POINTS	
Single Use Retail	40
Newly constructed single use, stand-alone building used primarily for retail, restaurant, or similar commercial use.	
BONUS POINTS	
Section 1B - Roadway Infrastructure Not Warranted by TIA/UDO/CTP	
Accessible ramp improvements at intersection of US Hwy 64 and N Arendell Ave.	5
Section 2C - Stormwater SCM's	
Stormwater - Wetland	5
Section 3A - Outdoor Enhancement	
Installation of Native Shade Tree Species (per Tree up to 10 Trees)	10
Total	60

PUBLIC IMPROVEMENT QUANTITY TABLE		
	WATER MAIN	SEWER MAIN
LENGTH OF PIPE (L.F.)	405 L.F.	365 L.F.
STUB COUNT	1 SERVICE STUB 1 TIE-IN TO EXISTING MAIN	1 SERVICE STUB 1 TIE-IN TO EXISTING MAIN
MANHOLES	N/A	2

PROJECT DEVELOPMENT DATA

STREET ADDRESS:

1106 N ARENDELL AVE

PIN:

2705-19-1832

RED:

0069358

DEED BOOK/PAGE:

1465/154 & 2755/492

ZONING DISTRICT:

HC-C (HEAVY COMMERCIAL-CONDITIONAL)

(ZONING CASE: ORDINANCE

2024-07 - CONDITIONAL ZONING 2023-03)

SITE AREA:

3.40 AC (3.86 AC - 0.46 AC R/W DEDICATION)

LATITUDE & LONGITUDE:

35°50'11.0"N 78°19'17.4"W

INSIDE TOWN LIMITS:

YES

EXISTING USE:

VACANT (FORMERLY SINGLE FAMILY)

PROPOSED BUILDING USE:

CONVENIENCE STORE WITH GASOLINE SALES

GROSS BUILDING AREA:

4,877 SF

MINIMUM LOT SIZE:

6000 SF

MINIMUM LOT WIDTH:

50 FT

MINIMUM STREET SETBACK:

30 FT

MINIMUM SIDE SETBACK:

5 FT

MINIMUM REAR SETBACK:

25 FT

MAXIMUM LOT COVERAGE:

80%

MAXIMUM BUILDING HEIGHT:

50 FT

OPEN SPACE REQUIRED:

3% OF DEVELOPMENT AREA
3% OF 3.40 AC = 0.10 AC

PARKING REQUIREMENT:

TOTAL REQUIRED:

1 FOR EVERY 200 SF
4,877 SF/200 = 25 SPACES
35

PARKING SPACES PROVIDED:

PARKING SPACE DIMENSIONS:

10 FT X 19 FT MINIMUM

STACKING SPACES REQUIRED:

1 ON EACH SIDE OF OUTERMOST GAS PUMP

STACKING SPACE DIMENSIONS:

9 FT X 25 FT

MIN DRIVE AISLE:

24 FT

ACCESSIBLE SPACES PROVIDED:

2

BICYCLE PARKING:

1 PER 20 OFF-STREET PARKING SPACES
2 SPACES PROVIDED

LANDSCAPE BUFFERS:

40FT TYPE D BUFFER ADJACENT TO RESIDENTIAL

STREETSCAPE BUFFER:

15 FT WIDTH

ZONING CONDITIONS (ORDINANCE 2024-07 - CONDITIONAL ZONING 2023-03)

1. DEVELOPMENT OF THE PROPERTY FOR A CONVENIENCE STORE WITH GASOLINE SALES USE SHALL BE SUBSTANTIALLY AS SHOWN ON THE CONCEPT PLAN APPROVED AS A PART OF THIS REZONING REQUEST AND AS SHOWN ON A SITE/DEVELOPMENT PLAN APPROVED SUBSEQUENT AND PURSUANT TO THIS REZONING. DEVELOPMENT OF THE USE ON THE PROPERTY AS DESCRIBED ABOVE SHALL NOT BE SUBJECT TO THE USE-SPECIFIC STANDARD IN UDO 4.3.5.2.1.6. MORE SPECIFICALLY THIS CONDITION PERMITS GASOLINE PUMP ISLAND TO BE LOCATED BETWEEN THE BUILDING AND STREET AS SHOWN ON THE CONCEPT PLAN.

2. THIS REZONING AND THE ASSOCIATED SITE/BUILDING DESIGN PROPOSED AS A PART OF THE REQUEST CONSIDERS CERTAIN UDO REQUIREMENTS IN RELATION TO: THE NATURE OF THE PROPOSED COMMERCIAL USE WHICH IS PERMITTED BY-RIGHT UNDER THE EXISTING HC ZONING; THE PROPERTY BEING ADJACENT TO STREET RIGHTS-OF-WAY ON THREE SIDES, SUBJECTING PROPOSED DEVELOPMENT AT THIS LOCATION TO ADDITIONAL STANDARDS NOT APPLICABLE TO THE SAME DEVELOPMENT TYPE THROUGHOUT ALL HC ZONING; AND, ASPECTS OF THE PROPOSED SITE/BUILDING DESIGN THAT EXCEED THE MINIMUM UDO REQUIREMENTS AS SHOWN AND DESCRIBED IN THE DOCUMENTS SUBMITTED AS A PART OF THE REZONING REQUEST. BASED ON CONSIDERATION OF THESE FACTORS, VARIATION IN THE FENESTRATION REQUIREMENTS FOR THE SOUTH, WEST, AND EAST BUILDING FACADES IS ALLOWED AS SHOWN ON PLANS APPROVED AS PART OF THIS REZONING, MORE SPECIFICALLY:

- SOUTH WALL: 29% TRANSPARENCY/GLAZING PROVIDED (MINIMUM 30% REQUIRED); WALL DOES NOT FACE AN ADJACENT STREET.
- WEST WALL: 33% TRANSPARENCY/GLAZING PROVIDED (MINIMUM 30% REQUIRED); USE OF SPANDREL GLAZING DUE TO INTERIOR LAYOUT REQUIREMENTS FOR SPECIFIC BUILDING USE; CANOPIES ARE PROVIDED ABOVE GLAZING ON THIS FACADE
- EAST WALL: NO TRANSPARENCY PROVIDED (VIEW OF WALL FROM THE ADJACENT STREET WILL BE SCREENED BY MULTIPLE DIFFERENT DESIGN ASPECTS REQUIRED BY THE UDO AND OTHER FEATURES INCLUDING: REQUIRED DUMPSTER ENCLOSURE AND LANDSCAPE SCREENING; STREET TREES; CANOPY AND UNDERSTORY TREES AND SHRUBS WITHIN THE REQUIRED STREET BUFFER; AND THE PROPOSED FUELING AREA AND ASSOCIATED STRUCTURES).

3. THE DEVELOPER SHALL CONSTRUCT/PROVIDE THE FOLLOWING TRAFFIC IMPROVEMENTS AS SHOWN ON THE DIAGRAM TITLED: "PROPOSED LAND CONFIGURATIONS AND TRAFFIC CONTROL, ZEBULON 7-ELEVEN, ZEBULON, NC, FIGURE 14", PREPARED BY IMPACT DESIGNS, INC. AGREED UPON BY DEVELOPMENT TEAM, TOWN OF ZEBULON, AND NCDOT ON 7/27/2023. PLANS/DETAILS OF THESE IMPROVEMENTS SHALL BE SHOWN ON THE SITE/CONSTRUCTION PLANS SUBMITTED TO THE TOWN FOR REVIEW SUBSEQUENT TO REZONING.

- 125-FOOT EASTBOUND RIGHT TURN LANE ON DOGWOOD DRIVE AT SITE ACCESS A.
- 150-FOOT WESTBOUND LEFT TURN LANE ON DOGWOOD DRIVE AT N ARENDELL AVE.
- 300-FOOT LEFT TURN LANE ON US 64 HIGHWAY WB OFF-RAMP
- RETINE TRAFFIC SIGNALS IN THE AM AND PM PEAK HOURS
- UPGRADE SIGNAL AT N ARENDELL AVE/DOGWOOD DRIVE/US 64 WB RAMPS TO ACCOMMODATE NEW LEFT TURN LANES

UTILITY SERVICE NOTES

WATER SERVICE
GENERAL CONTRACTOR TO PROVIDE AND INSTALL A WATER SERVICE LINE FROM MAIN TO BUILDING PER MUNICIPAL REQUIREMENTS.
CONTACT: CITY OF RALEIGH UTILITY DEPARTMENT
TELEPHONE: 919-857-4540

ELECTRIC SERVICE
"POWER CO." TO PROVIDE UNDERGROUND 120/208/3 PHASE SERVICE.
GENERAL CONTRACTOR TO PROVIDE AND INSTALL TWO 4" DIA. CONDUIT W/ PULL WIRE TO UTILITY COMPANY POINT OF CONNECTION.
CONTACT: PROGRESS ENERGY
TELEPHONE: 800-636-0581

TELEPHONE SERVICE
"TELEPHONE CO." TO PROVIDE NEW UNDERGROUND SERVICE. GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 4" DIA. PVC CONDUIT W/ PULL WIRE FROM PHONE PANEL BOARD TO UTILITY COMPANY POINT OF CONNECTION.
CONTACT: TELEPHONE:
TELEPHONE:

SANITARY SEWER
GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 4" SCHEDULE 40 PVC FROM SANITARY SEWER SYSTEM TO LAST CLEAN OUT OUTSIDE OF BUILDING. (MIN. 1% SLOPE). PROVIDE CLEAN OUTS EVERY 75' (TYPICAL).
CONTACT: CITY OF RALEIGH UTILITY DEPARTMENT
TELEPHONE: 919-857-4540

NATURAL GAS
GENERAL CONTRACTOR TO COORDINATE WITH NATURAL GAS UTILITY FOR SERVICE LINE TO PROPOSED BUILDING.
CONTACT: TELEPHONE:

ENVIRONMENTAL CONSULTANT SIGNATURE

EROSION CONTROL, STORMWATER
AND FLOODPLAIN MANAGEMENT

APPROVED

EROSION CONTROL ☐ SEC-112353-2023

STORMWATER MGMT. ☐ SWF-112350-2023

FLOOD STUDY ☐ S-_____

DATE 01/02/2024

ENVIRONMENTAL CONSULTANT SIGNATURE

PUBLIC
Water Distribution/Extension System

The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # W-14087

Authorization to Construct See digital signature

PUBLIC
Sewer Collection/Extension System

The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # S-5404

Authorization to Construct See digital signature

ATTENTION CONTRACTORS

The **Construction Contractor** responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for **contacting the Public Utilities Department at (919)996-4540** at least **twenty four hours** prior to beginning any of their construction.

Failure to notify both **City Departments** in advance of beginning construction, will result in the issuance of **monetary fines**, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for **Inspection, Install a Downstream Plug**, have **Permitted Plans** on the **Jobsite**, or any other **Violation of City of Raleigh Standards** will result in a **Fine and Possible Exclusion** from future work in the **City of Raleigh**.

PRECONSTRUCTION NOTE
A PRE-CONSTRUCTION MEETING IS REQUIRED WITH THE TOWN OF ZEBULON CONSTRUCTION INSPECTOR, CONTACT JASON AT 919-790-5640.



Know what's below.
Call before you dig.

Bowman
Bowman North Carolina Ltd.
4006 Barrett Drive, Suite 104
RALEIGH, NC 27609
Phone: (919) 553-6570
bowman.com
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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1	REVISED	1	REVISED
2	REVISED	2	REVISED
3	REVISED	3	REVISED
4	REVISED	4	REVISED
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EXISTING	LEGEND DESCRIPTION	PROPOSED
	PROPERTY LINE	
	ADJACENT PROPERTY LINE	
	LOT LINE	
	RIGHT OF WAY	
	CENTERLINE	
	FLOOD PLAIN	
	LIMITS OF CONSTRUCTION	
	LIMITS OF DISTURBANCE	
	SWALE / STREAM FLOWLINE	
	OVERFLOW RELIEF PATH	
	FENCE LINE	
	EASEMENT	
	EDGE OF PAVEMENT	
	VERTICAL CURB AND GUTTER	
	MOUNTAIN CURB AND GUTTER	
	CONCRETE SIDEWALK	
	ASPHALT SIDEWALK	
	HANDICAP PARKING	
	SIGHT TRIANGLE	
	SIGN(S)	
	PARKING COUNT INDICATOR	
	VEHICLES PER DAY INDICATOR	
	TEST PIT	
	MONITORING WELL	
	MAJOR CONTOUR	
	MINOR CONTOUR	
	GRADE BREAK	
	RIDGELINE	
	SPOT ELEVATION	
	RIP RAP	
	WATER LINE	
	WATER METER	
	WATER VALVE	
	WATER REDUCER	
	WATER FITTINGS	
	FIRE HYDRANT	
	SANITARY LINE	
	SANITARY MANHOLE	
	SANITARY CLEANOUT	
	STORM SEWER PIPE	
	STORM SEWER MANHOLE	
	STORM SEWER INLET	
	STORM SEWER FLARED END SECTION	
	STORM SEWER HEADWALL	
	OVERHEAD UTILITY	
	UNDERGROUND ELECTRIC	
	OVERHEAD ELECTRIC	
	UTILITY POLE	
	STREET LIGHT	
	CABLE TV SERVICE	
	TELECOM SERVICE	
	FIBER OPTIC SERVICE	
	NATURAL GAS SERVICE	
	TREE	
	TREE LINE	
	WETLANDS	

LEGEND NOTES

- THIS IS A STANDARD SHEET. THEREFORE SOME ABBREVIATIONS MAY APPEAR ON THIS SHEET AND NOT BE USED ON THE PROJECT.
- ADDITIONAL LEGENDS AND NOTES MAY BE FOUND ON OTHER SHEETS ASSOCIATED WITH THIS PLAN. THESE LEGENDS AND NOTES ARE TO BE REFERENCED IN ADDITION TO THIS STANDARD SHEET.

ABBREVIATIONS

A	AASHTO	AREA OF ARC AMERICAN ASSOCIATION OF STATE HWY & TRANS. OFFICIALS
AB	AS-BUILT	
AC	ACRE	
AD	ALGEBRAIC DIFFERENCE IN GRADE	
AE	ACCESS EASEMENT	
ADJ	ADJACENT	
AGGR	AGGREGATE	
AHD	AHEAD	
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	
APT	ANGLE POINT	
APPROX	APPROXIMATE	
ARCH	ARCHITECTURAL	
ASPH	ASPHALT	
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	
AWWA	AMERICAN WATER WORKS ASSOCIATION	
B	BREADTH	
BOC	BACK OF CURB	
BF	BASEMENT FLOOR	
BLDG	BUILDING	
BM	BENCHMARK	
BMP	BEST MANAGEMENT PRACTICES (WATER QUALITY)	
BOV	BLOW OFF VALVE	
BRG	BEARING	
BRL	BUILDING RESTRICTION LINE	
BVCE	BEGINNING VERTICAL CURVE ELEVATION	
BVCS	BEGINNING VERTICAL CURVE STATION	
BW	BOTTOM OF WALL	
c-e	CENTER CORRECTION ON VERTICAL CURVE	
C	CURB	
CATV	CABLE TELEVISION	
C&G	CURB AND GUTTER	
CB	CATCH BASIN	
CBR	CALIFORNIA BEARING RATIO	
CC	CENTER TO CENTER	
CF	CUBIC FEET	
OFS	CUBIC FEET PER SECOND	
CG(R)	CURB AND GUTTER (REVERSE SLOPE)	
CHORD	CHORD BEARING	
CHRG	CAST IRON PIPE	
OP	CENTERLINE	
C	CLEAR	
CLR	CUBIC METERS	
CM	CORRUGATED METAL PIPE	
QMP	CUBIC METERS PER SECOND	
OMS	RUNOFF CURVE NUMBER	
CONT	CONTINUOUS	
CONC	CONCRETE	
OPP	CORRUGATED PLASTIC PIPE	
CS	CURB STOP	
CT	CURT	
CTR	CENTER	
CTRL	CONTROL LINE	
CY	CUBIC YARD	
D	DEPTH	
DA	DRAINAGE AREA	
DB	DEED BOOK	
DD	DIVERSION DIKE	
DET	DETAIL	
DIA	DIAMETER	
DIP	DUCTILE IRON PIPE	
DRP	DROP INLET	
DIST	DISTANCE	
DL	DOMESTIC LINE	
DM	DROP MANHOLE	
DM	DOMESTIC	
DR	DRIVE DRAIN	
DRN	DRAINAGE	
DRNG	DRAINAGE AREA	
DS	DOWN SPOUT	
DU	DWELLING UNITS	
DWG	DRAWING	
D/W	DRIVEWAY	
DELTA	DELTA	
EΔ	EASTING/EAST	
EA	EACH	
EBL	EAST BOUND LANE	
EC	EROSION CONTROL	
ECB	EROSION CONTROL BLANKET	
EG	EDGE OF GUTTER	
EGL	ENERGY GRADIENT LINE	
ELEV	ELEVATION	
ELEC	ELECTRIC	
ELEV	ELEVATION	
ENGR	ENGINEER	
ENT	ENTRANCE	
EOA	EDGE OF ASPHALT	
ECC	EDGE OF CONCRETE	
EOP	EDGE OF PAVEMENT	
EQUIP	EQUIPMENT	
ESMT	EASEMENT	
ETD	EXISTING TO BE DEMOLISHED	
ETR	EXISTING TO REMAIN	
ETRL	EXISTING TO BE RELOCATED	
ETRP	EXISTING TO BE REPLACED	
EVCE	ENDING VERTICAL CURVE ELEVATION	
EVCS	ENDING VERTICAL CURVE STATION	
EW	END WALL	
EX	EXISTING	
ECC	ENVIRONMENTAL QUALITY CORRIDOR	
F	FIRE LINE	
FAR	FLOOR AREA RATIO	
FOC	FACE OF CURB	
FD	FLOOR DRAIN	
FES	FLARED END SECTION	
FF	FIRST FLOOR OR FINISH FLOOR	
FG	FINISH GRADE	
FH	FIRE HYDRANT	
FL	FLOW LINE	
FND	FOUNDATION	
FOY	FOYER	
FOP	FLOOD PLAIN	
FFS	FEET PER SECOND	
FS	FIRE SERVICE OR FACTOR OF SAFETY	
FT	FOOT OR FEET	
G	GAS	
GAR	GARAGE	
GB	GRADE BREAK	
GFA	GROSS FLOOR AREA	
GR	GUARD RAIL OR GRATE INLET	
GV	GATE VALVE	
H	HEAD	
HC	HANDICAP	
HB	HORIZONTAL BEND	
HBP	HOT BITUMINOUS PAVEMENT	
HGL	HYDRAULIC GRADE LINE	
HORZ	HORIZONTAL	
HP	HIGH POINT	
HR	HAND RAIL	
HT	HEIGHT	
HW	HEADWATER	
I	RAINFALL INTENSITY	
ID	INSIDE DIAMETER OR IDENTIFICATION	
IE	INVERT ELEVATION	
IN	INCH	
INV	INVERT	
IP	IRON PIPE	
IPF	IRON PIPE FOUND	
IPF	IRON PIPE SET	
IRR	IRRIGATION	
JB	JUNCTION BOX	
JNT	JOINT	
K	SIGHT DISTANCE COEFFICIENT OR RATE OF VERTICAL CURVATURE	
Ke	CULVERT ENTRANCE LOSS COEFFICIENT	
L	LENGTH	
LAT	LATERAL	
LCG	LIMITS OF CLEARING & GRADING	
LF	LINEAR FEET	
LIP	LIP OF PAN	
LL	LOWER LEVEL	
LS	LINE OF SIGHT	
LS	LOW POINT	
LS	LOADING SPACE	
LST	LEFT	
M	MONUMENT FOUND	
MAX	MAXIMUM	
ME	MATCH EXISTING	
MECH	MECHANICAL	
MH	MANHOLE	
MI	MILE	
MIN	MINIMUM	
MISC	MISCELLANEOUS	
MPH	MILES PER HOUR	
MS	MEDIAN STRIP	
MSL	MEAN SEA LEVEL	
N	NORTHING/NORTH	
N/A	NOT APPLICABLE	
NBL	NORTH BOUND LANE	
N/F	NOW OR FORMERLY	
NFA	NET FLOOR AREA	
N	NUMBER	
NTS	NOT TO SCALE	
OC	ON CENTER	
OBJ	OBJECT	
OD	OUTSIDE DIAMETER	
OH	OVERHANG	
O/H	OVERHEAD	
O/H	OVERHEAD CABLE	
OHE	OVERHEAD ELECTRIC	
OHT	OVERHEAD TELEPHONE	
P	PERIMETER	
P	PROPERTY LINE	
P&P	PLAN AND PROFILE	
PC	POINT OF CURVATURE	
PC	POINT OF COMPOUND CURVATURE	
PCR	POINT OF CURB RETURN	
PCEP	POINT OF CURVE EDGE OF PAVEMENT	
PCTC	POINT OF CURVATURE TOP OF CURB	
P	POINT OF INTERSECTION	
PG	PAGE	
PGL	POINT OF GRADE LINE	
PRC	POINT OF REVERSE CURVATURE	
PRELIM	PRELIMINARY	
PROP	PROPOSED	
PT	POINT OF TANGENCY	
PUE	PUBLIC UTILITY EASEMENT	
PVC	POLYVINYL CHLORIDE PIPE OR POINT OF VERTICAL CURVATURE	
PVI	POINT OF VERTICAL INTERSECTION	
PVT	POINT OF VERTICAL TANGENCY	
PWMT	PAVEMENT	
PVRC	POINT OF VERTICAL REVERSE CURVE	
Q (cfs)	AMOUNT OF RUNOFF (FLOW RATE)	
R	RADIUS	
RCP	REINFORCED CONCRETE PIPE	
ROCR	REDUCER	
RD	ROAD OR ROOF DRAIN	
REINFT	REINFORCED	
REQD	REQUIRED	
RET	RETAINING	
REV	REVISION	
RGP	ROUGH GRADING PLAN	
RMA	RESOURCE MANAGEMENT AREA	
ROM	REMOTE OUTSIDE MONITOR	
RPA	RESOURCE PROTECTION AREA	
RR	RAILROAD	
RTE	ROUTE	
R/W & ROW	RIGHT OF WAY	
S	SPEED OR SLOPE	
SAN	SANITARY SEWER	
SANMH	SANITARY SEWER MANHOLE	
SBL	SOUTH BOUND LANE	
SCH	SCHEDULE	
SD	SIGHT DISTANCE	
SEC	SECTION	
SEW	SEWER	
SF	SQUARE FEET	
SH	SHOULDER	
SP	SPACE OR SITE PLAN	
SPEC	SPECIFICATIONS	
STA	STATION	
STD	STANDARD	
STK	STACK	
STM	STORM SEWER	
STMH	STORM SEWER MANHOLE	
STR	STRUCTURE	
SVC	SERVICE	
S/W	SIDEWALK	
SWM	STORM WATER MANAGEMENT	
SV	CROSS SLOPE	
SY	SQUARE YARD	
T	TANGENT	
TB	TOP OF BANK OR TEST BORING	
TBR	TO BE REMOVED	
TCC	TOP OF CURB	
TEL	TIME OF CONCENTRATION	
TEL	TELEPHONE	
TEMP	TEMPORARY	
TH	TEST HOLE	
TOP	TOP OF FOUNDATION	
TP	TEST PIT OR TREE PROTECTION	
TW	TOP OF WALL OR TAILWATER	
TYP	TYPICAL	
UE	UTILITY EASEMENT	
UG	UNDERGROUND	
UGE	UNDERGROUND ELECTRIC	
UGT	UNDERGROUND TELEPHONE	
UGC	UNDERGROUND CABLE	
UD	UNDERDRAIN	
UL	UPPER LEVEL	
UP	UTILITY POLE	
USGS	US GEOLOGICAL SURVEY	
UTIL	UTILITY	
V OR VOL	VOLUME	
V OR VEL	VELOCITY	
VAN	HANDICAPPED VAN PARKING SPACE	
VB	VERTICAL BEND	
VC	VERTICAL CURVE	
VF	VERTICAL FOOT	
W	WEIGHT OR WIDTH	
WBL	WEST BOUND LANE	
WL	WATER LINE	
WM	WATER METER	
W/M OR WM	WATER MAIN	
W/TB	WITH THRUST BLOCK	
WSEL	WATER SURFACE ELEVATION	
WV	WATER VALVE	
XING	CROSSING	
XF	TRANSFORMER	
YI	YARD INLET	
YR	YEAR	

GENERAL NOTES

- UTILITY CONFLICTS: ALL EXISTING UTILITIES SHOWN WERE COMPILED USING THE BEST AVAILABLE INFORMATION AND FIELD OBSERVATION. BOWMAN NORTH CAROLINA LTD DOES NOT GUARANTEE THE LOCATION OF UNDERGROUND UTILITIES SHOWN HEREON. CONTRACTOR TO BE RESPONSIBLE FOR FIELD VERIFYING THE LOCATION OF AND PROTECTING ALL EXISTING UTILITIES, INCLUDING THOSE NOT SHOWN OR SHOWN INCORRECTLY ON THE PLANS. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED IN A TIMELY FASHION TO THE SATISFACTION OF THE APPROPRIATE GOVERNING AGENCY AND THE OWNER OF THE IMPACTED UTILITY AT THE CONTRACTOR'S EXPENSE.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS FOR THE APPROPRIATE GOVERNING AGENCY. THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT THE JOB SITE AT ALL TIMES THE APPROPRIATE GOVERNING AGENCY'S PUBLIC WORKS MANUAL, ALL APPROVED EASEMENT AGREEMENTS, AND ONE (1) SIGNED COPY OF THE PLANS AS APPROVED BY THE APPROPRIATE GOVERNING AGENCY. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE APPROPRIATE GOVERNING AGENCY FOR ANY VARIANCE TO THE ABOVE DOCUMENTS.
- CONTRACTOR SHALL OBTAIN, AT HIS OWN EXPENSE, ALL APPLICABLE CODES, LICENSES, STANDARDS, SPECIFICATIONS, PERMITS, BONDS, ETC., WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK.
- THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT AND ADJACENT TO THE JOB SITE INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND MUST COMPLY WITH OSHA REGULATIONS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER/DEVELOPER AND ENGINEER OF ANY PROBLEM CONFORMING TO THE APPROVED PLANS FOR ANY ELEMENT OF THE PROPOSED IMPROVEMENTS PRIOR TO ITS CONSTRUCTION.
- THE CONTRACTOR SHALL REPAIR ANY EXCAVATIONS OR PAVEMENT FAILURES CAUSED BY HIS/HER CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF ALL MATERIALS WITHIN DEDICATED RIGHT-OF-WAY AND ALL MATERIALS AND WORKMANSHIP SHALL MEET THE ROADWAY DESIGN AND CONSTRUCTION STANDARDS OF THE APPROPRIATE GOVERNING AGENCY.
- THE CONTRACTOR SHALL NOTIFY THE LOCAL JURISDICTION AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION. THE APPROPRIATE FIRE DEPARTMENT SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF ANY STREET CLOSURES AND IN THE EVENT THAT ANY FIRE HYDRANTS ARE TO BE TEMPORARILY REMOVED FROM SERVICE, THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PROVIDING AT LEAST 48 HOURS ADVANCED NOTICE OF ANY NEED TO SHUT DOWN ANY PORTION OF THE EXISTING WATER SYSTEM AND FOR OBSERVATIONS AND/OR INSPECTIONS REQUIRED.
- THE CONTRACTOR SHALL PROVIDE ALL SIGNS, BARRICADES, FLAGMEN, LIGHTS OR OTHER DEVICES NECESSARY FOR SAFE TRAFFIC CONTROL IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND AS MODIFIED BY THE NORTH CAROLINA SUPPLEMENT TO THE MUTCD. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO AND APPROVED BY THE APPROPRIATE GOVERNING AGENCY PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT FOR WORK WITHIN THE RIGHT-OF-WAY.
- THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF NORTH CAROLINA AT 1-800-632-4949 AT LEAST 2 BUSINESS DAYS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH ANY AFFECTED UTILITY COMPANY.
- THE CONTRACTOR SHALL OBTAIN COPIES OF THE "SOILS AND INVESTIGATION" REPORT FROM GEOTECHNICAL ENGINEER ALONG WITH THE "PAVEMENT THICKNESS DESIGN REPORT". THE CONTRACTOR MUST HAVE COPIES OF SAME ON THE SITE AT ALL TIMES.
- THE CONTRACTOR IS REQUIRED TO PROVIDE AS-CONSTRUCTED HORIZONTAL AND VERTICAL CONSTRUCTION INFORMATION, INCLUDING THE LOCATIONS OF ALL SANITARY LINES AND SERVICES, WATER LINES AND SERVICES, AND OTHER UTILITY LINES AND SERVICES TO THE ENGINEER FOR PREPARATION OF AS-BUILT DOCUMENTS.
- LIMITS OF CONSTRUCTION EASEMENTS AND RIGHTS-OF-WAY SHALL BE DELINEATED WITH TEMPORARY STAKING BY THE CONTRACTOR. SAFETY FENCING SHALL BE PER APPROPRIATE GOVERNING AGENCY.
- WHERE EXCAVATION IS REQUIRED UNDER EXISTING ASPHALT OR CONCRETE PAVEMENT, THE EXISTING PAVEMENT SHALL BE SAW CUT IN A MANNER TO EFFECT A SMOOTH, STRAIGHT-CUT EDGE. ASPHALT PATCH SHALL BE PER APPROPRIATE GOVERNING AGENCY STANDARDS.
- REFER TO FINAL RECORDED PLAT FOR ACTUAL LOT, TRACT, PARCEL, AND EASEMENT LOCATIONS AND DESIGNATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF ALL MATERIALS WITHIN DEDICATED RIGHT-OF-WAYS AND ALL MATERIALS AND WORKMANSHIP SHALL MEET THE ROADWAY DESIGN AND CONSTRUCTION STANDARDS OF THE APPROPRIATE GOVERNING AGENCY.
- THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY TO THE PROJECT WORK SITE (SEE THE EROSION CONTROL PLAN). THE CONTRACTOR SHALL OBTAIN ALL PERMITS NECESSARY (IF APPLICABLE) TO COMPLETE THE CONSTRUCTION AND SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- WATER WILL BE PROVIDED BY THE CONTRACTOR TO KEEP WIND EROSION IN CHECK. USE OF WATER AS A DUST PREVENTATIVE SHALL NOT BE PAID FOR SEPARATELY, BUT INCLUDED IN THE COST OF THE WORK.
- ANY SETTLEMENT OR SOIL ACCUMULATIONS BEYOND THE PROPERTY LIMITS DUE TO GRADING OR EROSION SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR.
- ANY CONSTRUCTION DEBRIS OR MUD TRACKING IN THE PUBLIC RIGHT-OF-WAY RESULTING FROM THIS DEVELOPMENT SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR. THE CONTRACTOR SHALL IMMEDIATELY FIX ANY EXCAVATIONS OR PAVEMENT FAILURES CAUSED BY THE DEVELOPMENT AND SHALL PROPERLY BARRICADE THE SITE UNTIL CLEAN UP OR REPAIR IS COMPLETE.
- IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO GRADE STREET CORES, RIGHT-OF-WAY TEMPLATES, AND LOTS ACCORDING TO GRADING INSTRUCTIONS SHOWN ON PLANS.
- STREET CONTOURS SHOWN AT PROPOSED STREET LOCATIONS REPRESENT FINISHED GRADE ELEVATION TO TOP OF ASPHALT.
- COMPACTION FILL MATERIAL SHALL BE COMPACTED ACCORDING TO THE APPROPRIATE GOVERNING AGENCY REGULATIONS AND THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
- TOLERANCE ROUGH GRADING: TOLERANCE SHALL BE +/- 0.1 FEET.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE SURE ALL APPROPRIATE PERMITS FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY HAVE BEEN OBTAINED PRIOR TO GRADING. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL TEMPORARY WATER DIVERSION/CONTROL DEVICES AND EROSION CONTROL DEVICES NECESSARY TO PROTECT


1. THE CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL EXISTING UTILITIES ON SITE PRIOR TO DEMOLITION.
2. THE CONTRACTOR SHALL PERFORM DEMOLITION ACTIVITIES AS NOTED AND SHOWN ON THESE PLANS AND AS DIRECTED BY THE OWNER.
3. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY PERMITS AND PAY FEES REQUIRED FOR DEMOLITION AND HAUL-OFF FROM THE APPROPRIATE AUTHORITIES.
4. THE CONTRACTOR SHALL PREPARE ALL DOCUMENTS AND ACQUIRE APPROPRIATE PERMITS AS REQUIRED PRIOR TO THE COMMENCEMENT OF DEMOLITION.
5. THE DEMOLITION PLAN IS INTENDED TO DEPICT GENERAL DEMOLITION AND UTILITY WORK. IT IS NOT INTENDED TO IDENTIFY EACH ELEMENT OF DEMOLITION OR RELOCATION. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND APPROPRIATE UTILITY COMPANY PRIOR TO WORK.
6. CONTRACTOR TO COMPLETELY DEMOLISH AND DISPOSE OF OFFSITE IN A LAWFUL MANNER EXISTING BUILDINGS, INCLUDING FOUNDATIONS AND ALL APPURTEANCES LOCATED ON AND AROUND THE PROPERTY INCLUDING BUT NOT LIMITED TO BOLLARDS, GAS METERS, AIR CONDITIONING UNITS, SIGNS, CURBS, SIDEWALKS, ELECTRIC METERS, FENCING, ETC.
7. REMOVE AND DISPOSE OF ANY SIDEWALK, FENCES, STAIRS, WALLS, FOUNDATIONS, CONDUITS, LIGHT POLES, BASES, DEBRIS AND RUBBISH REGARDING REMOVAL FROM THE WORK AREA IN AN APPROVED LANDFILL.
8. REMOVE AND/OR PLUG EXISTING UTILITIES SUCH AS SANITARY SEWER, WATER, GAS, ELECTRIC, AND TELEPHONE AS SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING EACH UTILITY COMPANY TO COORDINATE REMOVAL OF ALL UTILITIES AND FOR DETERMINING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES PRIOR TO COMMENCING WORK.
9. THE CONTRACTOR SHALL CUT AND PLUG, OR ARRANGE FOR THE APPROPRIATE UTILITY COMPANY TO CUT AND PLUG ALL SERVICE PIPING AT THE STREET LINE OR MAIN, AS REQUIRED, OR AS OTHERWISE NOTED. ALL SERVICES MAY NOT BE SHOWN ON THIS PLAN. THE CONTRACTOR SHALL INVESTIGATE THE SITE PRIOR TO BIDDING TO DETERMINE THE EXTEND OF SERVICE PIPING TO BE REMOVED, CUT OR PLUGGED.
10. THE CONTRACTOR SHALL ARRANGE FOR RESETTING OF CURB BOXES, VALVE BOXES AND REMOVAL AND/OR RELOCATION OF OVERHEAD UTILITIES AND POLES WITH THE APPROPRIATE UTILITY COMPANY.
11. INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AND TREE PROTECTION PRIOR TO BEGINNING DEMOLITION WORK.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES TO REMAIN IN PLACE.
13. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID UNNECESSARY DAMAGE TO EXISTING ROAD SURFACE. FINISH SURFACE TO BE REMOVED OR DEMOLISHED SHALL BE CUT ALONG LINES OF JOINTS WHICH WILL PERMIT A NEAT SURFACE WHEN RESTORED.
14. SAWCUT AT INTERFACE OF PAVEMENT OR CURB TO REMAIN. SAWCUT EXISTING PAVEMENT.
15. ALL EXISTING ITEMS TO REMAIN WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE SOLE EXPENSE OF THE CONTRACTOR.
16. DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER AND THE LOCAL MUNICIPALITIES. INTERRUPTIONS SHALL ONLY OCCUR AFTER AN OFFICIAL TEMPORARY SERVICE AREA HAS BEEN PROVIDED.
17. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
18. ASBESTOS OR HAZARDOUS MATERIAL, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIAL SPECIALIST.
19. THE PROPERTY SELLER SHALL PUMP OUT BUILDING FUEL, GREASE TRAPS, AND WASTE OIL TANKS (IF ANY) ARE ENCOUNTERED) AND REMOVE FUEL TO AN APPROVED DISPOSAL AREA BY AN APPROPRIATELY LICENSED WASTE OIL HANDLING CONTRACTOR IN STRICT ACCORDANCE WITH FEDERAL AND STATE REQUIREMENTS BEFORE CONSTRUCTION BEGINS.
20. THE CONTRACTOR SHALL PROPERLY AND LEGALLY DISPOSE OF ALL DEMOLITION DEBRIS OFF OF THE SITE.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS DRAWING ARE BASED ON ABOVE GROUND EVIDENCE OR INFORMATION GATHERED DURING THE FIELD SURVEY PORTION OF THIS PROJECT. AS SUCH, THIS INFORMATION IS SPECULATIVE IN NATURE ONLY AND SHOULD NOT BE CONSTRUED AS FACT. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF THE UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF ANY AND ALL CONSTRUCTION.

**SITE BENCHMARK
TOP NUT OF
FIRE HYDRANT
ELEV: 333.15

N/F
OWNER:
WAKE COUNTY
1002 DOGWOOD DR
PIN: 2706107210
DB 6482 PG 698



A circular professional engineer seal for the State of North Carolina. The outer ring contains the text "NORTH CAROLINA" at the top and "PROFESSIONAL ENGINEER" at the bottom. The center of the seal contains the word "SEAL" at the top, the number "24474" in the middle, and the name "MATTHEW E. POWDER" at the bottom. A handwritten signature, "Matthew E. Powder", is written across the bottom of the seal.

The logo for the number eleven, featuring a stylized '1' and 'E' combined into a single graphic, with the word 'ELEVEN' written vertically next to it.

MARK	DATE	REVISIONS DESCRIPTION	REVISION BY	DATE	REVISIONS DESCRIPTION
		DATE			
1	BRM	TOWN OF ZEBULON REVIEW			
2	BRM/CB	12/25/23			
3	MCB	MAKE COUNTY REVIEW			
4	BRM/CB	11/27/23			
5	BRM/CB	10/04/24			
6	BRM/CB	10/08/24			

This scenario is the property of Elmore and is not to be used

STORE OR BLDG NO.:

VERSION OR PROJECT ID

DESIGN TEAM

PM/DP, ML

RVWR. ML

ADDRESS

ZEBULON, NC 27597

10. *Journal of the American Medical Association*, 2000; 284: 2561-2566.

Abstract

SHEET TITLE

DEMOLITION

PLAN

Abstract

10. *Journal of the American Medical Association*, 2000; 284: 2561-2566.

10. *Journal of the American Medical Association*, 2000; 284: 2561-2566.

C2.0

UTILITY DEMOLITION NOTE:
EXISTING UTILITY SERVICES (UNUSED) SHALL BE
ABANDONED AT TAP (MAIN) & REMOVED FROM ROW
OR EASEMENT – PU HANDBOOK PG 67 & PG 125

EXISTING TO REMAIN

EXISTING TO BE DEMOLISHED/REMOVED

EXISTING TO BE ABANDONED IN PLACE

EXISTING TO BE RELOCATED

EXISTING TREE TO BE REMOVED

LIMITS OF DISTURBANCE

EXISTING ASPHALT/CONCRETE/GRAVEL TO BE
DEMOLISHED/REMOVED

EXISTING BUILDING OR STRUCTURE
TO BE DEMOLISHED/REMOVED

EXISTING CURB AND GUTTER TO BE REMOVED

EXISTING UTILITY TO BE REMOVED

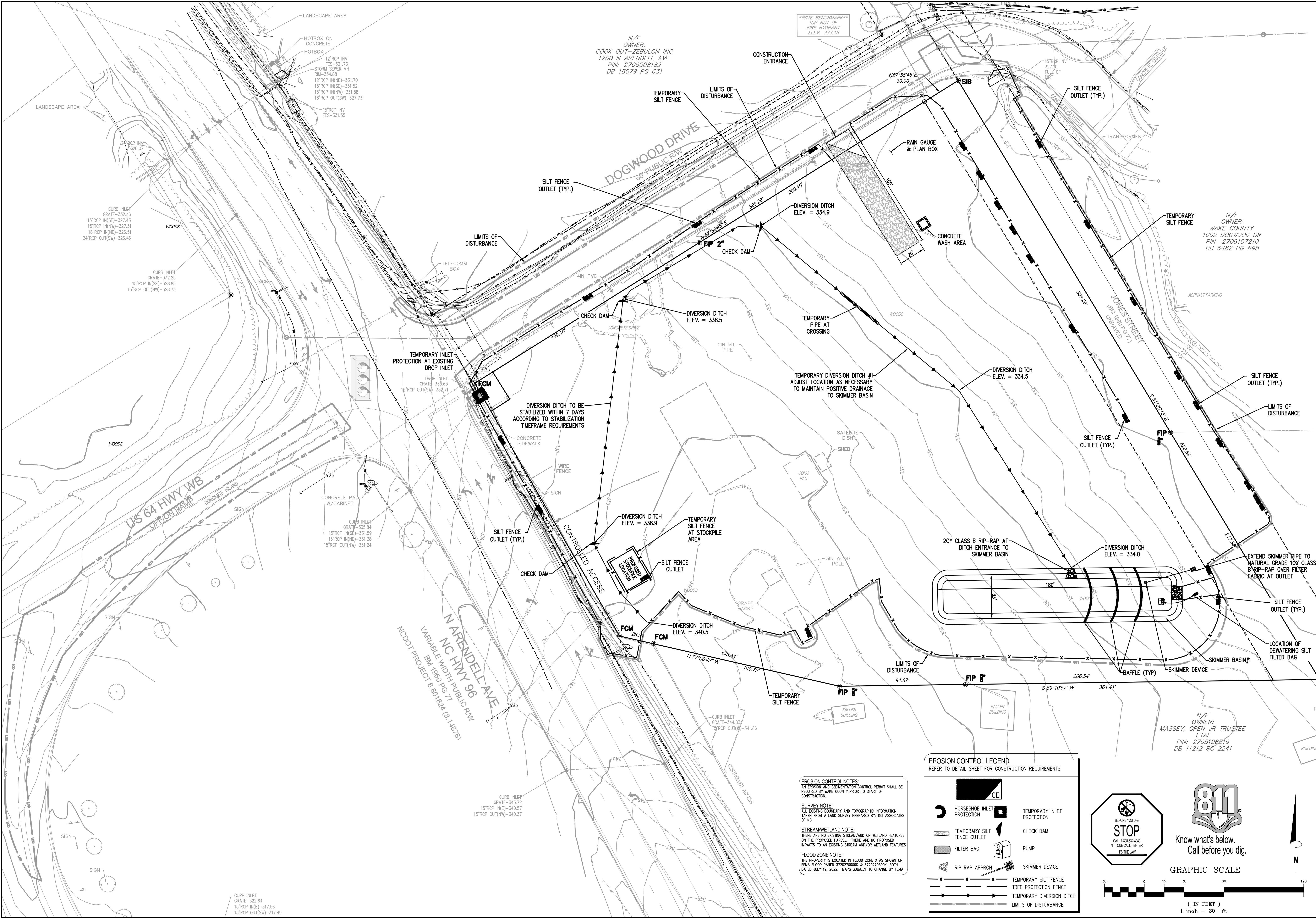


Know what's below
Call before you dig

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft

DRWG. NO. C2.0



Bowman
Bowman North Carolina Ltd.
4000 S. I-85
RALEIGH, NC 27609
Phone: (919) 553-6570
bowman.com
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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

NO.	DATE	REVISION DESCRIPTION
1	02/23	TOWN OF ZEBULON REVIEW
2	03/23	TOWN OF ZEBULON REVIEW
3	04/23	WAKE COUNTY REVIEW
4	05/23	TOWN OF ZEBULON REVIEW
5	06/24	TOWN OF ZEBULON REVIEW
6	08/24	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.:
N/A

VERSION OR PROJECT ID:
N/A

DESIGN TEAM
DGNR: BRM & MCB

PM/DP: MIL

RVWR: MIL

ISSUE DATE: 04/08/2024

ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27597

SHEET TITLE
EROSION CONTROL PLAN - INITIAL

DRWG. NO.
C2.1

EROSION CONTROL NOTES:
AN EROSION AND SEDIMENTATION CONTROL PERMIT SHALL BE REQUIRED BY WAKE COUNTY PRIOR TO START OF CONSTRUCTION.

SURVEY NOTE:
ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY: KGI ASSOCIATES OF NC

STREAM/WETLAND NOTE:
THERE ARE NO EXISTING STREAM/AND/OR WETLAND FEATURES ON THE PROPOSED PARCEL. THERE ARE NO PROPOSED IMPACTS TO AN EXISTING STREAM AND/OR WETLAND FEATURES.

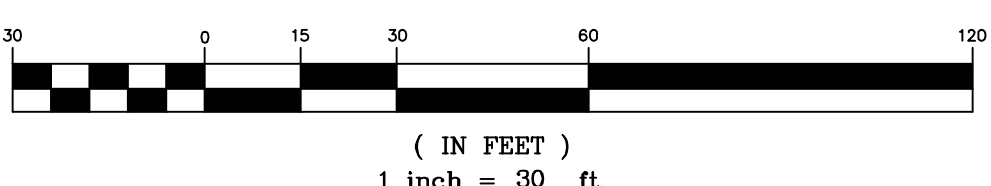
FLOOD ZONE NOTE:
THE PROPERTY IS LOCATED IN FLOOD ZONE X AS SHOWN ON FEMA FLOOD PANEL 3720270600K & 3720270500K, BOTH DATED JULY 19, 2022. MAPS SUBJECT TO CHANGE BY FEMA.

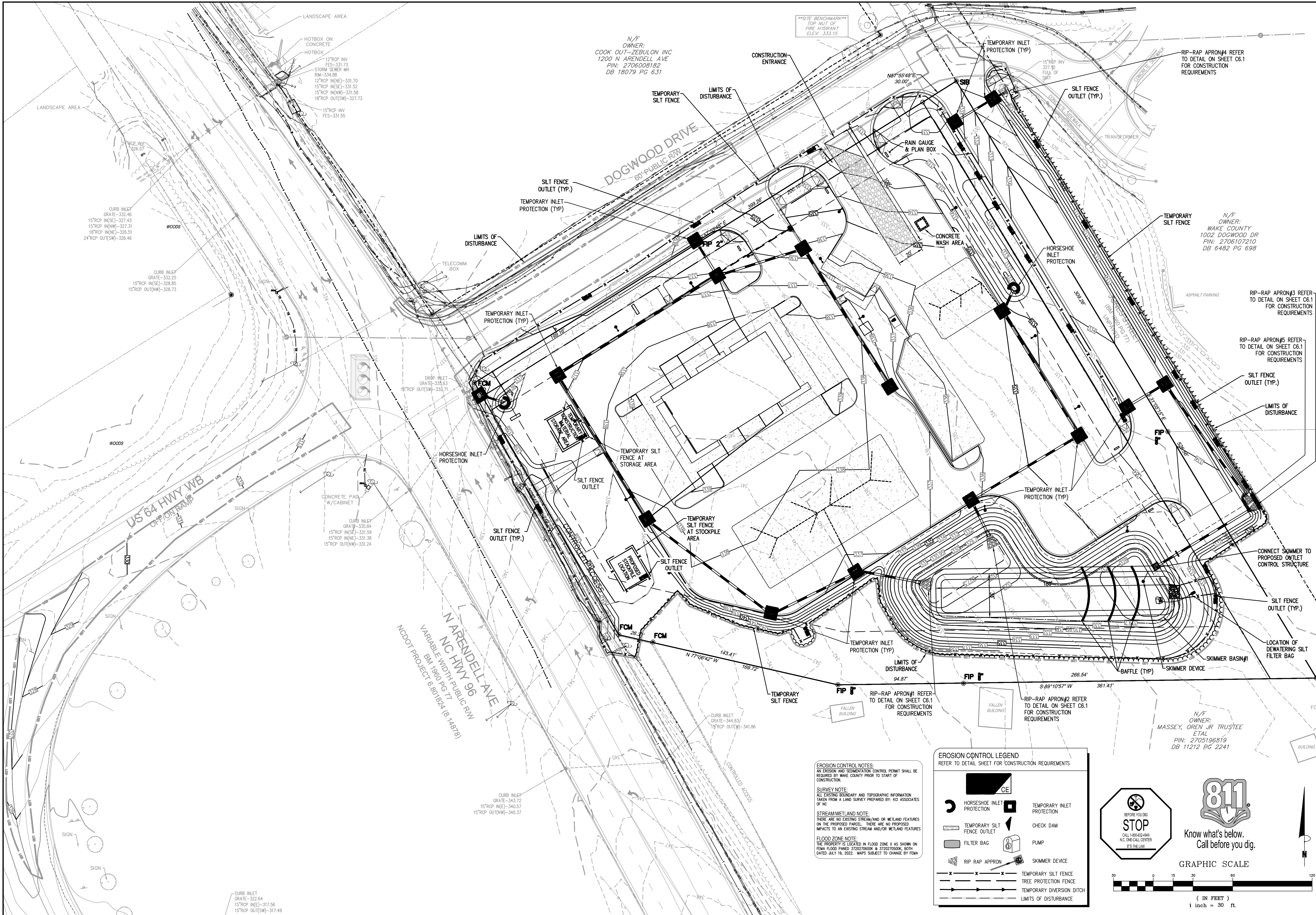
EROSION CONTROL LEGEND
REFER TO DETAIL SHEET FOR CONSTRUCTION REQUIREMENTS

	HORSESHOE INLET PROTECTION		TEMPORARY INLET PROTECTION
	TEMPORARY SILT FENCE OUTLET		CHECK DAM
	FILTER BAG		PUMP
	RIP RAP APRON		SKIMMER DEVICE
	TEMPORARY SILT FENCE		TREE PROTECTION FENCE
	TEMPORARY DIVERSION DITCH		LIMITS OF DISTURBANCE



GRAPHIC SCALE

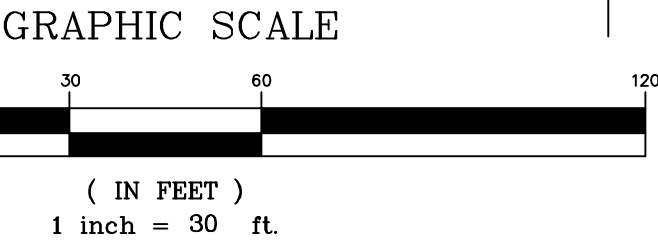




EROSION CONTROL NOTES:
AN EROSION AND SEDIMENTATION CONTROL PERMIT SHALL BE REQUIRED BY WAKE COUNTY PRIOR TO START OF CONSTRUCTION.
SURVEY NOTE:
ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY: KCI ASSOCIATES OF NC
STREAM/WETLAND NOTE:
THERE ARE NO EXISTING STREAM/AND/OR WETLAND FEATURES ON THE PROPOSED PARCEL. THERE ARE NO PROPOSED IMPACTS TO AN EXISTING STREAM AND/OR WETLAND FEATURES.
FLOOD ZONE NOTE:
THE PROPERTY IS LOCATED IN FLOOD ZONE X AS SHOWN ON FEMA FLOOD PANED 3720270600K & 3720270600K. BOTH DATED JULY 19, 2022. MAPS SUBJECT TO CHANGE BY FEMA

EROSION CONTROL LEGEND
REFER TO DETAIL SHEET FOR CONSTRUCTION REQUIREMENTS

	CE		TEMPORARY INLET PROTECTION
	HORSESHOE INLET PROTECTION		CHECK DAM
	TEMPORARY SILT FENCE OUTLET		PUMP
	FILTER BAG		SKIMMER DEVICE
	RIP-RAP APRON		TEMPORARY SILT FENCE
	TREE PROTECTION FENCE		TEMPORARY DIVERSION DITCH
	LIMITS OF DISTURBANCE		



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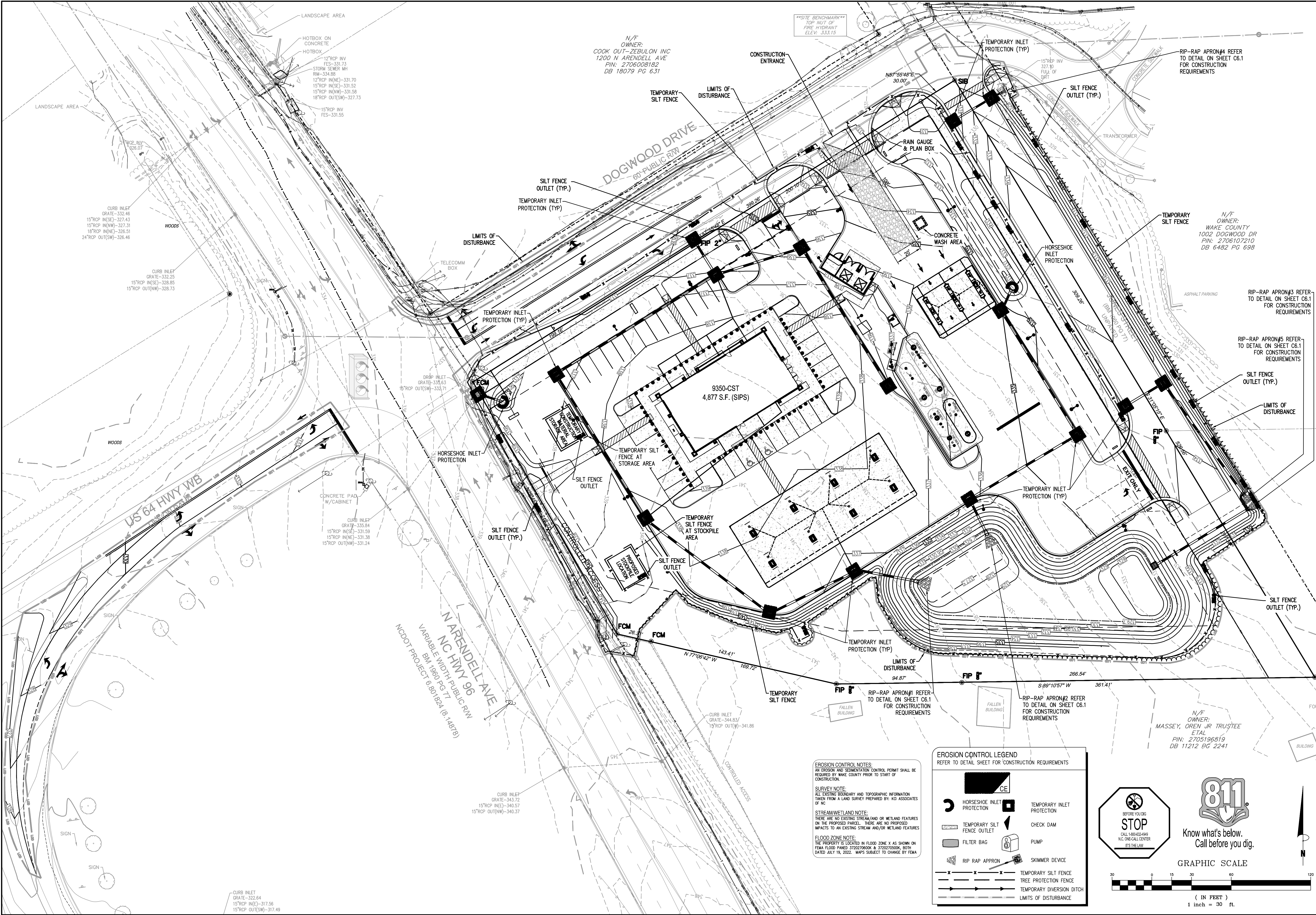
Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

MARK	REVISION	DATE	DESCRIPTION
1	1	02/23	TOWN OF ZEBULON REVIEW
2	2	02/23	TOWN OF ZEBULON REVIEW
3	3	02/23	WAKE COUNTY REVIEW
4	4	02/23	WAKE COUNTY REVIEW
5	5	02/23	TOWN OF ZEBULON REVIEW
6	6	02/23	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.:
N/A
VERSION OR PROJECT ID:
N/A
DESIGN TEAM:
DGNR: BRM & MCB
PM/DP: ML
RVWR: ML
ISSUE DATE: 04/08/2024
ADDRESS:
1106 N ARENDELL AVE
ZEBULON, NC 27597

SHEET TITLE
EROSION CONTROL PLAN - INTERMEDIATE

DRWG. NO.
C2.2



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Matthew J. Bowman
Professional Engineer
State of North Carolina
License No. 10475
Mechanical Engineering

Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

ELEVEN

NO.	DATE	REVISION DESCRIPTION	REVISION BY
1	02/23	TOWN OF ZEBULON REVIEW	BM & MCB
2	02/23	TOWN OF ZEBULON REVIEW	BM & MCB
3	02/23	WAKE COUNTY REVIEW	BM & MCB
4	02/23	TOWN OF ZEBULON REVIEW	BM & MCB
5	02/23	TOWN OF ZEBULON REVIEW	BM & MCB
6	02/23	TOWN OF ZEBULON REVIEW	BM & MCB

STORE OR BLDG NO.:
N/A

VERSION OR PROJECT ID:
N/A

DESIGN TEAM
DGNR: BM & MCB
PM/DP: ML
RVWR: ML

ISSUE DATE: 04/08/2024

ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27597

SHEET TITLE
EROSION CONTROL PLAN - FINAL

DRWG. NO.
C2.3

EROSION CONTROL NOTES:
AN EROSION AND SEDIMENTATION CONTROL PERMIT SHALL BE REQUIRED BY WAKE COUNTY PRIOR TO START OF CONSTRUCTION.

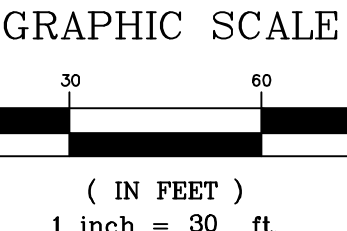
SURVEY NOTE:
ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY: KCI ASSOCIATES OF NC

STREAM/WETLAND NOTE:
THERE ARE NO EXISTING STREAM/AND/OR WETLAND FEATURES ON THE PROPOSED PARCEL. THERE ARE NO PROPOSED IMPACTS TO AN EXISTING STREAM AND/OR WETLAND FEATURES.

FLOOD ZONE NOTE:
THE PROPERTY IS LOCATED IN FLOOD ZONE X AS SHOWN ON FEMA FLOOD PANED 3720270600K & 3720270500K. BOTH DATED JULY 19, 2022. MAPS SUBJECT TO CHANGE BY FEMA.

EROSION CONTROL LEGEND
REFER TO DETAIL SHEET FOR CONSTRUCTION REQUIREMENTS

	HORSESHOE INLET PROTECTION		TEMPORARY INLET PROTECTION
	TEMPORARY SILT FENCE OUTLET		CHECK DAM
	FILTER BAG		PUMP
	RIP-RAP APRON		SKIMMER DEVICE
	TEMPORARY SILT FENCE		TREE PROTECTION FENCE
	TEMPORARY DIVERSION DITCH		LIMITS OF DISTURBANCE



GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION		
Required Ground Stabilization Timeframes		
Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HOW) Zones	7	None
(c) Slopes steeper than 3:1	7	
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HOW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HOW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization must be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION	
Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:	
Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none">Temporary grass seed covered with straw or other mulches and tackifiersHydroseedingRoller erosion control products with or without temporary grass seedAppropriately applied straw or other mulchPlastic sheeting	<ul style="list-style-type: none">Permanent grass seed covered with straw or other mulches and tackifiersGeotextile fabrics such as permanent soil reinforcement mattingHydroseedingShrub or other permanent plantings covered with mulchUniform and evenly distributed ground cover sufficient to restrain erosionStructural methods such as concrete, asphalt or retaining wallsRoller erosion control products with grass seed

- POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**
- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
 - Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
 - Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
 - Provide ponding area for containment of treated Stormwater before discharging offsite.
 - Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

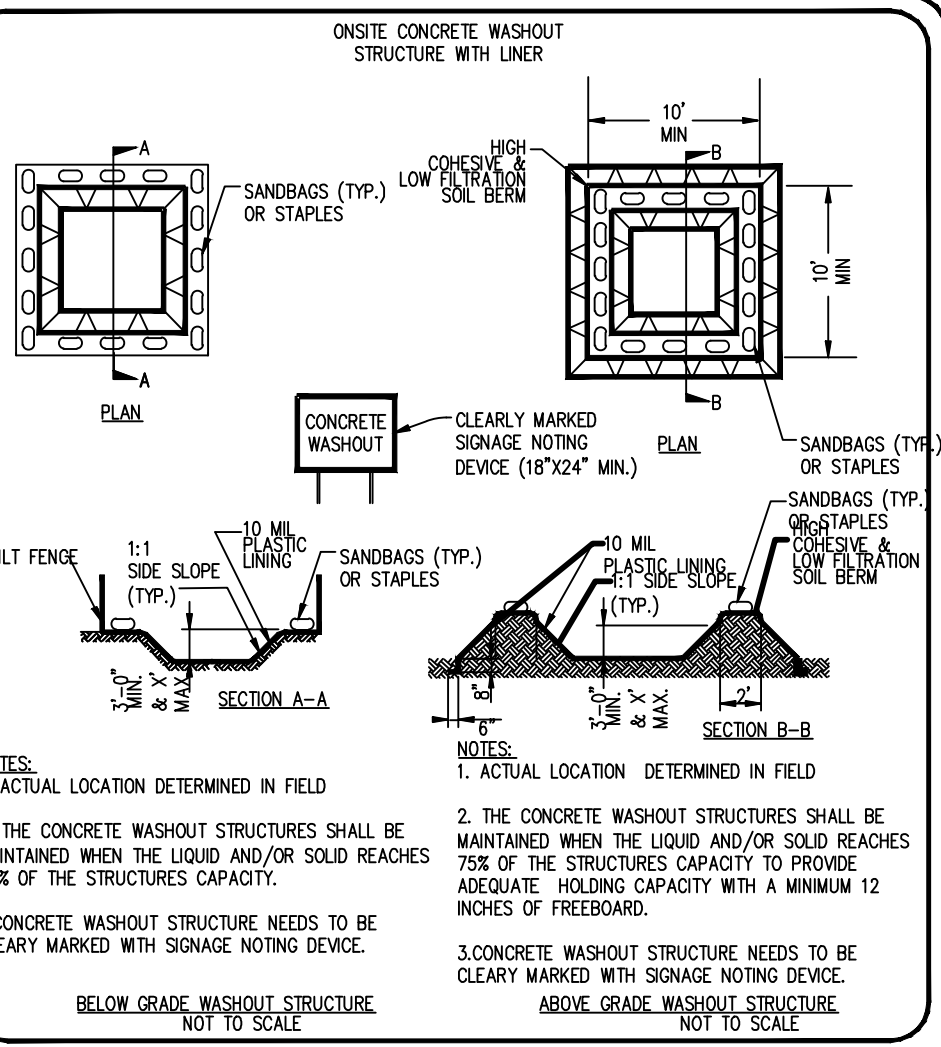
- EQUIPMENT AND VEHICLE MAINTENANCE**
- Maintain vehicles and equipment to prevent discharge of fluids.
 - Provide drip pans under any stored equipment.
 - Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
 - Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
 - Remove leaking vehicles and construction equipment from service until the problem has been corrected.
 - Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

- LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**
- Never bury or burn waste. Place litter and debris in approved waste containers.
 - Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
 - Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
 - Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
 - Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
 - Anchor all lightweight items in waste containers during times of high winds.
 - Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
 - Dispose waste off-site at an approved disposal facility.
 - On business days, clean up and dispose of waste in designated waste containers.

- PAINT AND OTHER LIQUID WASTE**
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
 - Locate paint wastehuts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
 - Prevent the discharge of solps, solvents, detergents and other liquid wastes from construction sites.

- PORTABLE TOILETS**
- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
 - Provide staking or anchoring of portable toilets during periods of high winds or in high traffic areas.
 - Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

- EARTHEN STOCKPILE MANAGEMENT**
- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
 - Protect stockpile with all fence installed along top of slope with a minimum offset of five feet from the toe of stockpile.
 - Provide stable stone access point when feasible.
 - Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



- CONCRETE WASHOUTS**
- Do not discharge concrete or cement slurry from the site.
 - Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and all an approved facility.
 - Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
 - Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approved authority for review and approval. If local standards details are not available, use one of the two types of temporary concrete washouts provided on this detail.
 - Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
 - Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
 - Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
 - Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
 - Provide stable stone access point when feasible.
 - Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
 - At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

- HERBICIDES, PESTICIDES AND RODENTICIDES**
- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
 - Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
 - Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
 - Do not stockpile these materials on-site.

- HAZARDOUS AND TOXIC WASTE**
- Create designated hazardous waste collection area on-site.
 - Place hazardous waste containers under cover or in secondary containment.
 - Do not store hazardous chemicals, drums or bagged materials directly on the ground.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING		
SECTION A: SELF-INSPECTION		
Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections are delayed shall be noted in the inspection record.		
Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. 1. No daily rain gauge observations are made during weekend or holiday periods, and no individual day rainfall information is available, record the cumulative rain measurement for those un-audited days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain monitoring device approved by the Division.
(2) E&S Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, and date of corrective actions taken.
(3) Stormwater discharges (outfalls) (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil, debris, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. The stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: a. Description, evidence and date of corrective actions taken, and b. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item 2)(c) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading/installation of perimeter E&S measures, dewatering and grubbing, installation of storm drainage facilities, completion of all land disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided as well as the required timeframes or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING	
SECTION B: RECORDKEEPING	
1. E&S Plan Documentation The approved E&S plan as well as any approved deviation shall be kept on the site. The approved E&S plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&S plan shall be kept on site and available for inspection at all times during normal business hours.	
Item to Document	Documentation Requirements
(a) Each E&S Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&S Plan.	Initial and date each E&S Measure on a copy of the approved E&S Plan or complete, date and sign an inspection report that lists each E&S Measure shown on the approved E&S Plan. This documentation is required upon the initial installation of the E&S Measures or if the E&S Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&S Plan.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications. Complete, date and sign an inspection report.
(d) The maintenance and repair requirements for all E&S Measures have been performed	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.
(e) Corrective actions have been taken to E&S Measures.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site
In addition to the E&S plan documents above, the following items shall be kept on the site and available for inspection at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practicable:

- This General Permit as well as the Certificate of Coverage, after it is received.
- Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years
All data used to complete the e-NR and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING	
SECTION C: REPORTING	
1. Occurrences that Must be Reported Permittees shall report the following occurrences: (a) Visible sediment deposition in a stream or wetland. (b) Oil spills if: • They are 25 gallons or more, • They are less than 25 gallons but cannot be cleaned up within 24 hours, • They cause sheen on surface waters (regardless of volume), or • They are within 100 feet of surface waters (regardless of volume). (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3.) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.B5. (d) Anticipated bypasses and unanticipated bypasses. (e) Noncompliance with the conditions of this permit that may endanger health or the environment.	
2. Reporting Timeframes and Other Requirements After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-2368.	
Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• Within 24 hours , an oral or electronic notification. • Within 7 calendar days , a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1)(b)(1) above	• A report at least ten days before the date of the bypass, if possible . The report shall include an evaluation of the anticipated quality and effect of the bypass. • Within 24 hours , an oral or electronic notification. • Within 7 calendar days , a report that contains a description of the noncompliance, and its causes, the period of noncompliance, the timeframes, exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41)(6).] • Division staff may waive the requirement for a written report on a case-by-case basis.
(c) Anticipated bypasses (40 CFR 122.41)(b)(5))	• Within 24 hours , an oral or electronic notification.
(d) Unanticipated bypasses (40 CFR 122.41)(b)(5))	• Within 7 calendar days , a report that contains a description of the noncompliance, and its causes, the period of noncompliance, the timeframes, exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41)(6).] • Division staff may waive the requirement for a written report on a case-by-case basis.

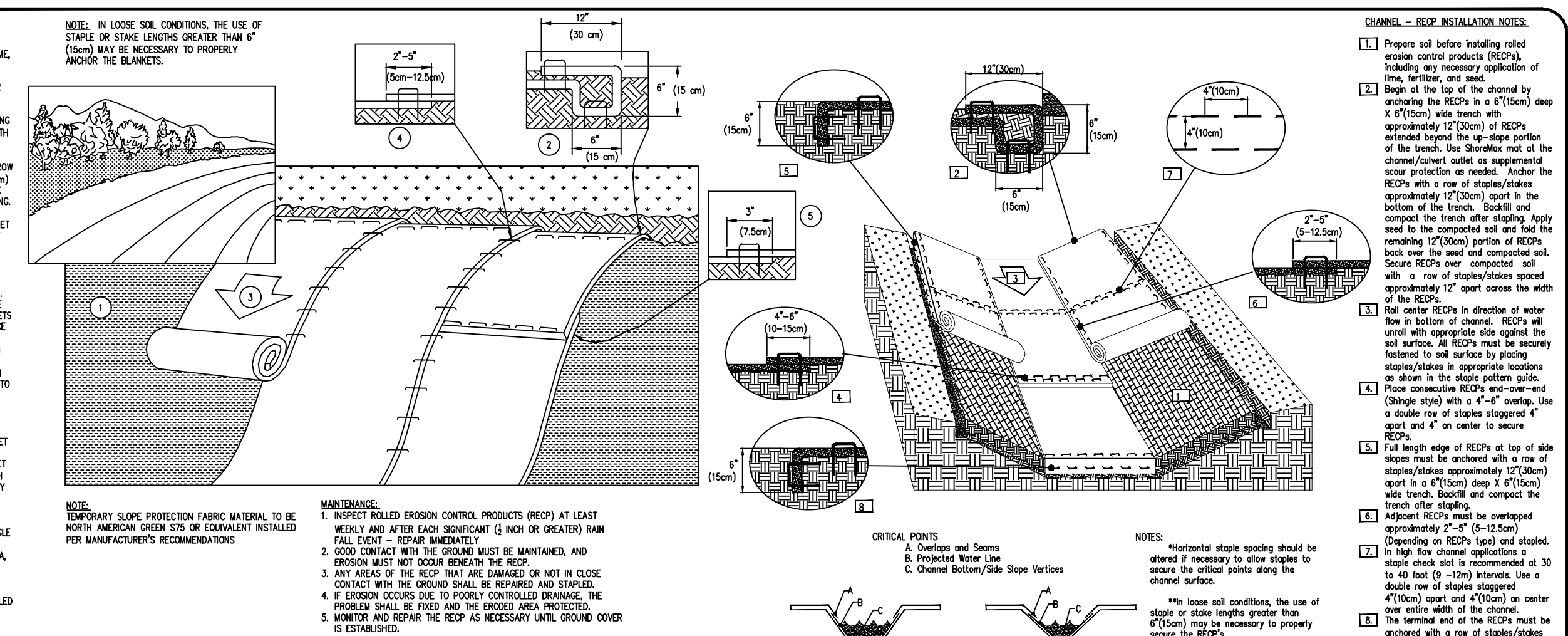
NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

SLOPE PROTECTION - RECP INSTALLATION NOTES:

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-TO-CELL OR NO-SEED PREPARED AREA, CELL-TO-CELL MUST BE INSTALLED WITH PAPER SIDE DOWNS.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 4" (10cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART. FILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO PREPARED SOIL AND FILL REMAINING 12" (30cm) PORTION OF THE BLANKET BACK OVER SEED AND SOIL. SECURE BLANKET OVER SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
- ROLL THE BLANKETS DOWN ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH THE DOWN-SLOPE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE SHAPE PATTERN GUIDE. WHEN USING ORIGINAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE SHAPE PATTERN.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) DOWN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
- CONSECUTIVE BLANKETS SPLICES DOWN THE SLOPE MUST BE PLACED DOWN OVER TWO (SHINGLE STYLE) WITH AN APPROXIMATE 2" (5cm) OVERLAP. STAPLE THROUGH OVERLAPPING BLANKET, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.
- EROSION CONTROL BLANKETS SHALL BE INSTALLED FOLLOWING MANUFACTURER'S SPECIFICATIONS.

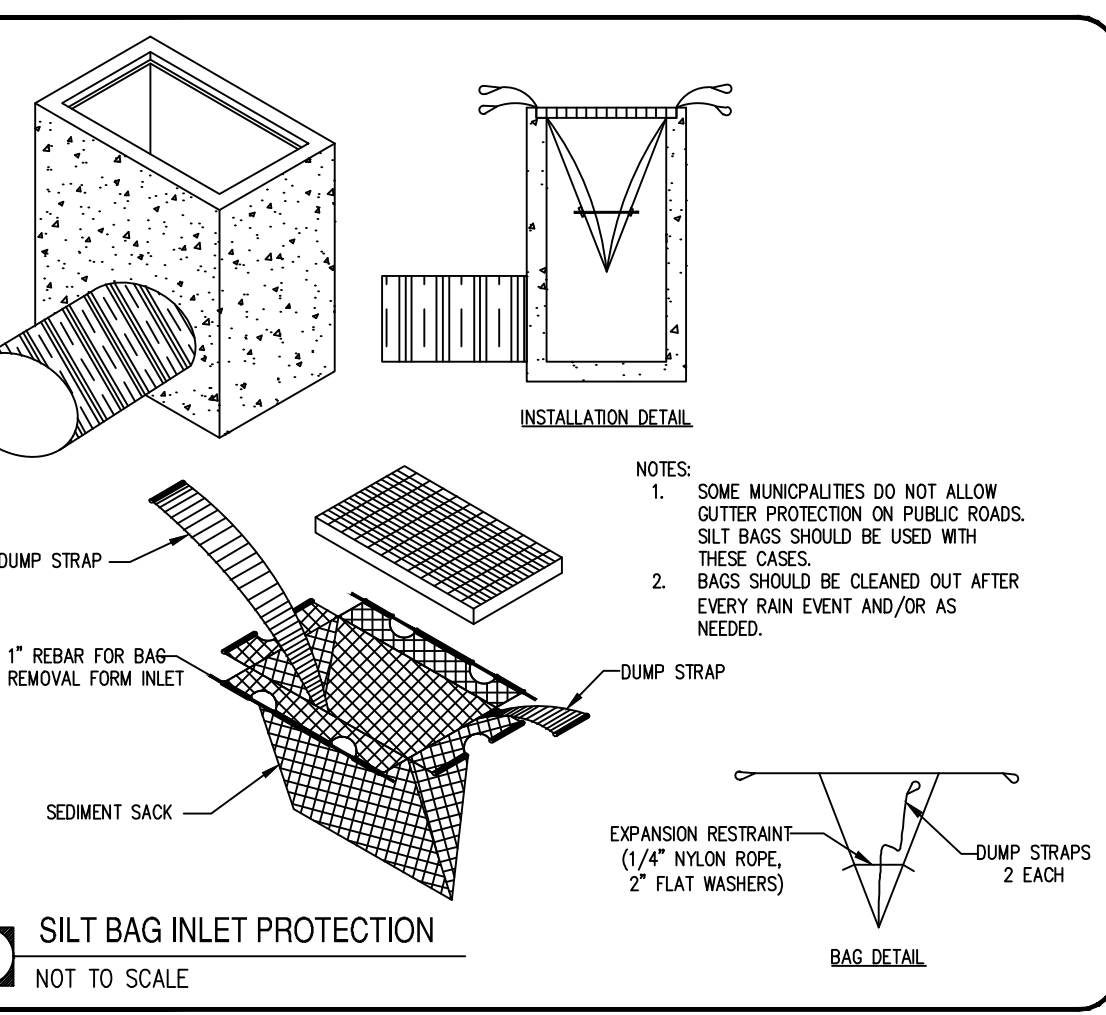
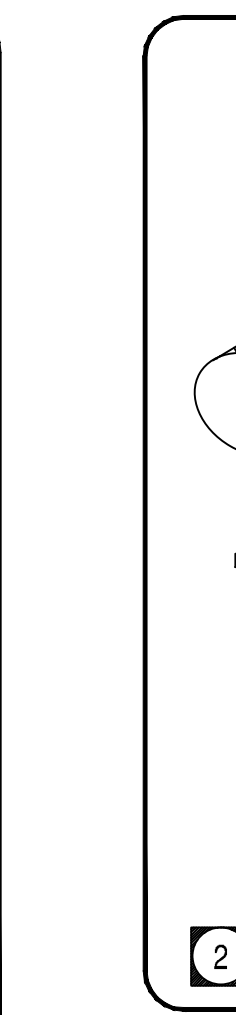
1. ROLLED EROSION CONTROL PRODUCTS (RECP) NOT TO SCALE



CHANNEL - RECP INSTALLATION NOTES:

- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
- BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP IN A 4" (10cm) DEEP x 4" (10cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. USE SHORLINS OUT OF THE CHANNEL/CUTOUT OUTLET OR SUPPLEMENTAL ANCHOR PROTECTION AS NEEDED. ANCHOR THE RECP WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FILL THE REMAINING 12" (30cm) PORTION OF RECPs BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPs OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE RECPs.
- ROLL THE RECPs DOWN THE CHANNEL. RECPs WILL UNROLL WITH THE DOWN-SLOPE SIDE AGAINST THE SOIL SURFACE. ALL RECPs MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE SHAPE PATTERN GUIDE. WHEN USING ORIGINAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE SHAPE PATTERN.
- THE EDGES OF PARALLEL RECPs MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON RECP TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING RECP (RECP BEING INSTALLED ON TOP) DOWN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED RECP.
- CONSECUTIVE RECPs SPLICES DOWN THE CHANNEL MUST BE PLACED DOWN OVER TWO (SHINGLE STYLE) WITH AN APPROXIMATE 2" (5cm) OVERLAP. STAPLE THROUGH OVERLAPPING RECP, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE RECP WIDTH.
- EROSION CONTROL RECPs SHALL BE INSTALLED FOLLOWING MANUFACTURER'S SPECIFICATIONS.

2. CHANNEL - RECP INSTALLATION NOTES: NOT TO SCALE



2. SILT BAG INLET PROTECTION NOT TO SCALE

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RALEIGH, NC 27609
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Professional Engineer
State of North Carolina
License No. 140874

Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

7-Eleven

DATE REVISION DESCRIPTION	DATE REVISION DESCRIPTION
1. 04/01/19	1. 04/01/19
2. 04/01/19	2. 04/01/19
3. 04/01/19	3. 04/01/19
4. 04/01/19	4. 04/01/19
5. 04/01/19	5. 04/01/19
6. 04/01/19	6. 04/01/19

STORE OR BLDG NO.:
N/A

VERSION OR PROJECT ID:
N/A

DESIGN TEAM
DGNR: BRM & MCB

PM/DP: MIL

RVRW: MIL

ISSUE DATE: 04/08/2024

ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27597

SHEET TITLE
NC CONSTRUCTION GENERAL PERMIT (NCG01) NOTES

DRWG. NO.
C2.5

1. THE CONTRACTOR SHALL EMPLOY ALL NECESSARY BARRICADES, SIGNS, FENCES, FLASHING LIGHTS, FLAGMEN, ETC. FOR MAINTENANCE AND PROTECTION OF TRAFFIC AS REQUIRED BY TOWN OF ZEBULON AND THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION. REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, FOR DETAILS OF TRAFFIC CONTROL STANDARDS AND DEVICES.
2. THE CONTRACTOR SHALL PROTECT ALL MONUMENTS, IRON PINS, AND PROPERTY CORNERS DURING CONSTRUCTION.
3. APPROVAL OF THESE PLANS IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS.
4. COORDINATE ALL CURB AND STREET GRADES IN INTERSECTIONS WITH INSPECTOR.
5. NON-STANDARD ITEMS (I.E. PAVES, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BEFORE INSTALLATION.
6. ALL SITE DIMENSIONS ARE REFERENCED TO THE FACE OF CURBS OR EDGE OF PAVING UNLESS OTHERWISE NOTED. ALL BUILDING DIMENSIONS ARE REFERENCED TO THE OUTSIDE FACE OF THE STRUCTURE.
7. EXISTING SITE CONDITIONS, GRADES, CONTOURS, UTILITIES AND OTHER EXISTING FEATURES FROM A SURVEY PREPARED BY KOI ASSOCIATES OF NC.
8. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION "STANDARD DETAILS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND APPLICABLE TOWN OF ZEBULON CODES AND ORDINANCES. THE CONTRACTOR SHALL MAINTAIN A CURRENT EDITION OF THE STATE AND LOCAL CODES, ORDINANCES, STANDARD SPECIFICATION AND STANDARD DETAILS ON THE PROJECT SITE FOR REFERENCE DURING CONSTRUCTION OF THE PROJECT.
9. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND SHALL REPORT ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS THE OWNER OR OWNER'S REPRESENTATIVE IMMEDIATELY. CONTRACTOR SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING WITH WORK.
10. THE CONTRACTOR SHALL PROVIDE SMOOTH TRANSITIONS FROM PROPOSED FEATURES TO EXISTING FEATURES AS NECESSARY.
11. THE CONTRACTOR SHALL SEAL THE EDGE OF EXISTING ASPHALT PAVEMENT WITH TACK COAT IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS WHERE NEW PAVEMENT JOINS EXISTING PAVEMENT.
12. THE CONTRACTOR SHALL REPAIR, RESURFACE, RECONSTRUCT OR REFURBISH ANY AREAS DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, HIS SUBCONTRACTORS OR SUPPLIERS AT NO ADDITIONAL COST TO THE OWNER.
13. ALL PAVEMENT JOINTS SHALL BE SAW-CUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
14. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF TRUCK DOCKS, EXIT DOORS, SIDEWALKS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
15. ALL PAINT STRIPING, PAVEMENT MARKINGS, AND SIGNAGE SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" OR AS OTHERWISE SPECIFIED. ALL REFERENCED SIGN STANDARDS ARE TAKEN FROM THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". ALL NEW SIGNS SHALL BE MOUNTED ON GALVANIZED POSTS AND IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
16. CONTRACTOR SHALL INSTALL ACCESSIBLE RAMPS PER LOCAL MUNICIPALITY AND ADA STANDARDS AT ALL DRIVE AND BUILDING LOCATIONS AS REQUIRED.
17. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY THE CONTRACTOR SHALL NOTIFY THE PUBLIC UTILITIES DEPARTMENTS FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE.
18. PROOF ROLL BUILDING AND ALL PARKING AREAS. NOTIFY OWNER OF ANY UNACCEPTABLE AREAS.
19. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES AND STORM DRAINAGE) TO OWNER PRIOR TO COMPLETION OF CONSTRUCTION.

PROJECT DEVELOPMENT DATA	
STREET ADDRESS:	1106 N ARENDELL AVE
PIN:	2705-19-1832
RED:	0069358
DEED BOOK/PAGE:	1465/154 & 2755/492
ZONING DISTRICT:	HC-C (HEAVY COMMERCIAL-CONDITIONAL)
(ZONING CASE: ORDINANCE	2024-07 - CONDITIONAL ZONING 2023-03)
SITE AREA:	3.40 AC (3.86 AC - 0.46 AC R/W DEDICATION)
LATITUDE & LONGITUDE:	35°50'11.0"N 78°19'17.4"W
INSIDE TOWN LIMITS:	YES
EXISTING USE:	VACANT (FORMERLY SINGLE FAMILY)
PROPOSED BUILDING USE:	CONVENIENCE STORE WITH GASOLINE SALES
GROSS BUILDING AREA:	4,877 SF
MINIMUM LOT SIZE:	6000 SF
MINIMUM LOT WIDTH:	50 FT
MINIMUM STREET SETBACK:	30 FT
MINIMUM SIDE SETBACK:	5 FT
MINIMUM REAR SETBACK:	25 FT
MAXIMUM LOT COVERAGE:	80%
MAXIMUM BUILDING HEIGHT:	50 FT
OPEN SPACE REQUIRED:	3% OF DEVELOPMENT AREA OR 3% OF 3.40 AC = 0.10 AC
PARKING REQUIREMENT:	
TOTAL REQUIRED:	1 FOR EVERY 200 SF 4,877 SF/200 = 25 SPACES
PARKING SPACES PROVIDED:	35
PARKING SPACE DIMENSIONS:	10 FT X 19 FT MINIMUM
STACKING SPACES PROVIDED:	1 ON EACH SIDE OF OUTERMOST GAS PUMP
STACKING SPACE DIMENSIONS:	9 FT X 25 FT
MIN DRIVE AISLE:	24 FT
ACCESSIBLE SPACES PROVIDED:	2
BICYCLE PARKING:	1 PER 20 OFF-STREET PARKING SPACES 2 SPACES PROVIDED
LANDSCAPE BUFFER:	40FT TYPE D BUFFER ADJACENT TO RESIDENTIAL
LANDSCAPE BUFFERS:	15 FT WIDTH

N ARENDELL AVE
NC HWY 96
VARIABLE WIDTH PUBLIC-R/W
BM 1960 PG-77
NCDOT PROJECT 6-80-1824 (R. 14578)

ANY SIGNS ON SITE WILL NEED TO BE
SUBMITTED FOR REVIEW THROUGH A
SEPARATE SIGN PERMIT.

WAKE COUNTY GIS SHOWS
POSSIBLE JOG IN R/W HERE
R/W TAKE NOT FOUND IN
RESEARCH OR COMMITMENT
DURING COURSE OF SURVEY

****SITE BENCHMARK***
TOP NUT OF
FIRE HYDRANT
ELEV: 333.15

NOTE: THE MAINTENANCE OF ALL OPEN SPACE ON THE PROPERTY
WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER OR THE
ASSOCIATED DEVELOPMENT OWNERS ASSOCIATION

NOTE: THE PROPOSED PROJECT SIGN WILL REQUIRE A SIGN PERMIT REVIEW THROUGH THE TOWN OF ZEBULON PLANNING DEPARTMENT

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS

SIGHT TRIANGLE NOTE

WITHIN THE SIGHT TRIANGLES SHOWN ON THIS PLAN, NO OBSTRUCTION BETWEEN TWO (2) FEET AND EIGHT (8) FEET ABOVE THE CURB LINE ELEVATION OR THE NEAREST TRAFFIC SIGNAL SHALL BE PLACED IF NO CURBING EXISTS.

7-ELEVEN STANDARD NOTE: ALL LIGHTING POLES MUST BE 5' AWAY FROM THE CURB IN THE AUTO AREA AND 10' AWAY FROM THE CURB IN THE C.F.L. AREA. IF THIS MINIMUM DISTANCE IS NOT MET THEN BOLLARDS MUST BE INSTALLED TO PROTECT THE LIGHTING POLES. LIGHT POLES ARE 17' (TYP.) IN THE AUTO AREA AND 30' (TYP.) IN THE C.F.L. AREA.

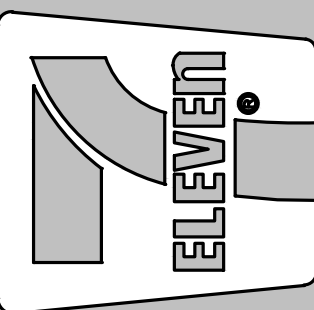
Bowman

Woman North Carolina Ltd
4006 BARRETT DR
Suite 104
RALEIGH, NC 27609
Phone: (919) 553-6570

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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC



MARK	DATE RECEIVED	REVISIONS DESCRIPTION	REVIEWED BY	DATE RECEIVED	REVISIONS DESCRIPTION
1	BRM	TOWN OF ZEBULON REVIEW			
2	BRM/CB	TOWN OF ZEBULON REVIEW			
3	MCB	WAKE COUNTY REVIEW			
4	BRM/CB	TOWN OF ZEBULON REVIEW			
5	BRM/CB	TOWN OF ZEBULON REVIEW			
6	BRM/CB	TOWN OF ZEBULON REVIEW			

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STORE OR BLDG NO	
------------------	--

VERSION OR PROJECT ID

DESIGN TEAM

BUDD, MI

RVWR. ML

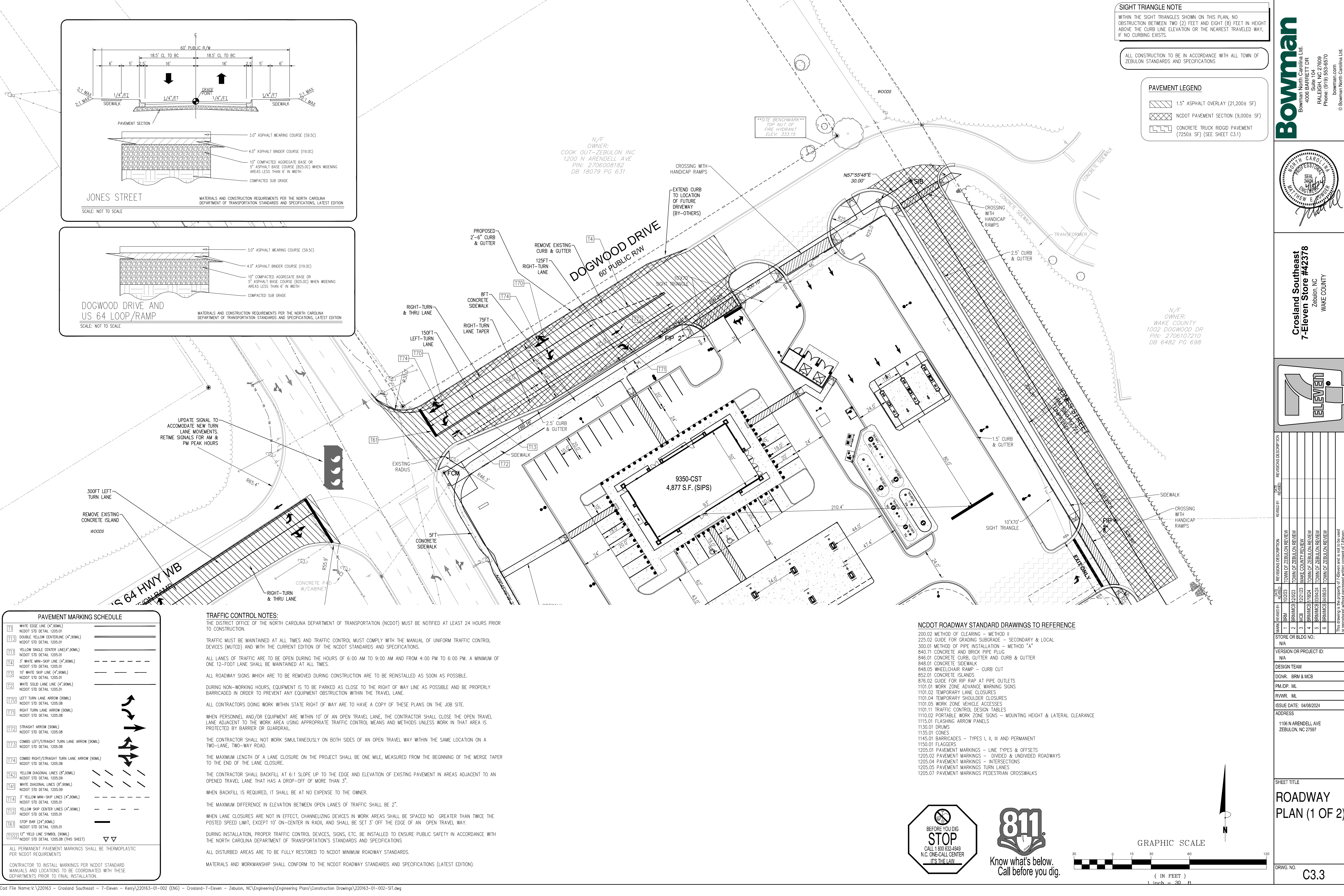
ADDRESS

ZEBULON, NC 27597

SITE PLAN

--	--

C3.0



PAVEMENT MARKING SCHEDULE		
T1	WHITE EDGE LINE (4" 90ML)	
T13	DOUBLE YELLOW CENTERLINE (4" 90ML)	
T11	YELLOW SINGLE CENTERLINE (4" 90ML)	
T14	3" WHITE MINI-SKIP LINE (4" 90ML)	
T13	10" WHITE SKIP LINE (4" 90ML)	
T2	WHITE SOLID LANE LINE (4" 90ML)	
T70	LEFT TURN LANE ARROW (90ML)	
T71	RIGHT TURN LANE ARROW (90ML)	
T72	STRAIGHT ARROW (90ML)	
T73	COMBO LEFT/STRAIGHT TURN LANE ARROW (90ML)	
T74	COMBO RIGHT/STRAIGHT TURN LANE ARROW (90ML)	
T42	YELLOW DIAGONAL LINES (8" 90ML)	
T43	WHITE DIAGONAL LINES (8" 90ML)	
T14	3" YELLOW MINI-SKIP LINES (4" 90ML)	
T12	YELLOW SKIP CENTER LINES (4" 90ML)	
T61	STOP BAR (24" 90ML)	
T102	12" YIELD LINE SYMBOL (90ML)	
ALL PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC PER NCDOT REQUIREMENTS		
CONTRACTOR TO INSTALL MARKINGS PER NCDOT STANDARD MANUALS AND LOCATIONS TO BE COORDINATED WITH THESE DEPARTMENTS PRIOR TO FINAL INSTALLATION.		

TRAFFIC CONTROL NOTES:

THE DISTRICT OFFICE OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO CONSTRUCTION.

TRAFFIC MUST BE MAINTAINED AT ALL TIMES AND TRAFFIC CONTROL MUST COMPLY WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND WITH THE CURRENT EDITION OF THE NCDOT STANDARDS AND SPECIFICATIONS.

ALL LANES OF TRAFFIC ARE TO BE OPEN DURING THE HOURS OF 6:00 AM TO 9:00 AM AND FROM 4:00 PM TO 6:00 PM. A MINIMUM OF ONE 12-FOOT LANE SHALL BE MAINTAINED AT ALL TIMES.

ALL ROADWAY SIGNS WHICH ARE TO BE REMOVED DURING CONSTRUCTION ARE TO BE REINSTALLED AS SOON AS POSSIBLE.

DURING NON-WORKING HOURS, EQUIPMENT IS TO BE PARKED AS CLOSE TO THE RIGHT OF WAY LINE AS POSSIBLE AND BE PROPERLY BARRICADED IN ORDER TO PREVENT ANY EQUIPMENT OBSTRUCTION WITHIN THE TRAVEL LANE.

ALL CONTRACTORS DOING WORK WITHIN STATE RIGHT OF WAY ARE TO HAVE A COPY OF THESE PLANS ON THE JOB SITE.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WITHIN 10' OF AN OPEN TRAVEL LANE, THE CONTRACTOR SHALL CLOSE THE OPEN TRAVEL LANE ADJACENT TO THE WORK AREA USING APPROPRIATE TRAFFIC CONTROL MEANS AND METHODS UNLESS WORK IN THAT AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

THE CONTRACTOR SHALL NOT WORK SIMULTANEOUSLY ON BOTH SIDES OF AN OPEN TRAVEL WAY WITHIN THE SAME LOCATION ON A TWO-LANE, TWO-WAY ROAD.

THE MAXIMUM LENGTH OF A LANE CLOSURE ON THE PROJECT SHALL BE ONE MILE, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

THE CONTRACTOR SHALL BACKFILL AT 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS A DROP-OFF OF MORE THAN 3".

WHEN BACKFILL IS REQUIRED, IT SHALL BE AT NO EXPENSE TO THE OWNER.

THE MAXIMUM DIFFERENCE IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC SHALL BE 2".

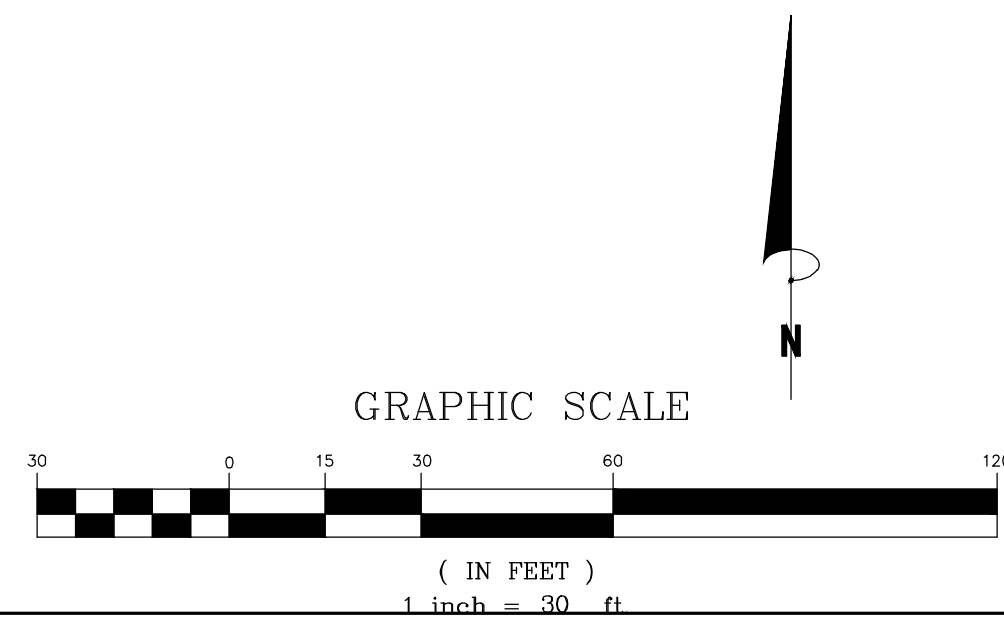
WHEN LANE CLOSURES ARE NOT IN EFFECT, CHANNELIZING DEVICES IN WORK AREAS SHALL BE SPACED NO GREATER THAN TWICE THE POSTED SPEED LIMIT, EXCEPT 10' ON-CENTER IN RADIUS, AND SHALL BE SET 3' OFF THE EDGE OF AN OPEN TRAVEL WAY.

DURING INSTALLATION, PROPER TRAFFIC CONTROL DEVICES, SIGNS, ETC. BE INSTALLED TO ENSURE PUBLIC SAFETY IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S STANDARDS AND SPECIFICATIONS

ALL DISTURBED AREAS ARE TO BE FULLY RESTORED TO NCDOT MINIMUM ROADWAY STANDARDS.

MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE NCDOT ROADWAY STANDARDS AND SPECIFICATIONS (LATEST EDITION).

- NCDOT ROADWAY STANDARD DRAWINGS TO REFERENCE**
- 200.02 METHOD OF CLEARING - METHOD II
 - 225.02 GUIDE FOR GRADING SUBGRADE - SECONDARY & LOCAL
 - 300.01 METHOD OF PIPE INSTALLATION - METHOD "A"
 - 840.71 CONCRETE AND BRICK PIPE PLUG
 - 846.01 CONCRETE CURB, GUTTER AND CURB & GUTTER
 - 848.01 CONCRETE SIDEWALK
 - 848.05 WHEELCHAIR RAMP - CURB CUT
 - 852.01 CONCRETE ISLANDS
 - 876.02 GUIDE FOR RIP RAP AT PIPE OUTLETS
 - 1101.01 WORK ZONE ADVANCE WARNING SIGNS
 - 1101.02 TEMPORARY LANE CLOSURES
 - 1101.04 TEMPORARY SHOULDER CLOSURES
 - 1101.05 WORK ZONE VEHICLE ACCESSES
 - 1101.11 TRAFFIC CONTROL DESIGN TABLES
 - 1110.02 PORTABLE WORK ZONE SIGNS - MOUNTING HEIGHT & LATERAL CLEARANCE
 - 1115.01 FLASHING ARROW PANELS
 - 1130.01 DRUMS
 - 1135.01 CONES
 - 1145.01 BARRICADES - TYPES I, II, III AND PERMANENT
 - 1150.01 FLAGGERS
 - 1205.01 PAVEMENT MARKINGS - LINE TYPES & OFFSETS
 - 1205.02 PAVEMENT MARKINGS - DIVIDED & UNDIVIDED ROADWAYS
 - 1205.04 PAVEMENT MARKINGS - INTERSECTIONS
 - 1205.05 PAVEMENT MARKINGS TURN LANES
 - 1205.07 PAVEMENT MARKINGS PEDESTRIAN CROSSWALKS



SIGHT TRIANGLE NOTE

WITHIN THE SIGHT TRIANGLES SHOWN ON THIS PLAN, NO OBSTRUCTION BETWEEN TWO (2) FEET AND EIGHT (8) FEET IN HEIGHT ABOVE THE CURB LINE ELEVATION OR THE NEAREST TRAVELED WAY, IF NO CURBING EXISTS.

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS

PAVEMENT LEGEND

- 1.5" ASPHALT OVERLAY (21,200± SF)
- NCDOT PAVEMENT SECTION (9,000± SF)
- CONCRETE TRUCK RIDGD PAVEMENT (7250± SF) (SEE SHEET C3.1)

Bowman

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4000 S. 104th St.
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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

7-Eleven

MARK	REVISION	DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1	BRM	12/22/23	TOWN OF ZEBULON REVIEW		
2	BRM/MCB	12/22/23	TOWN OF ZEBULON REVIEW		
3	MCB	12/21/23	WAKE COUNTY REVIEW		
4	BRM/MCB	11/18/24	TOWN OF ZEBULON REVIEW		
5	BRM/MCB	10/04/24	TOWN OF ZEBULON REVIEW		
6	BRM/MCB	10/08/24	TOWN OF ZEBULON REVIEW		

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STORE OR BLDG NO.:
N/A

VERSION OR PROJECT ID:
N/A

DESIGN TEAM:
DGNR, BRM & MCB

PM/DP: ML

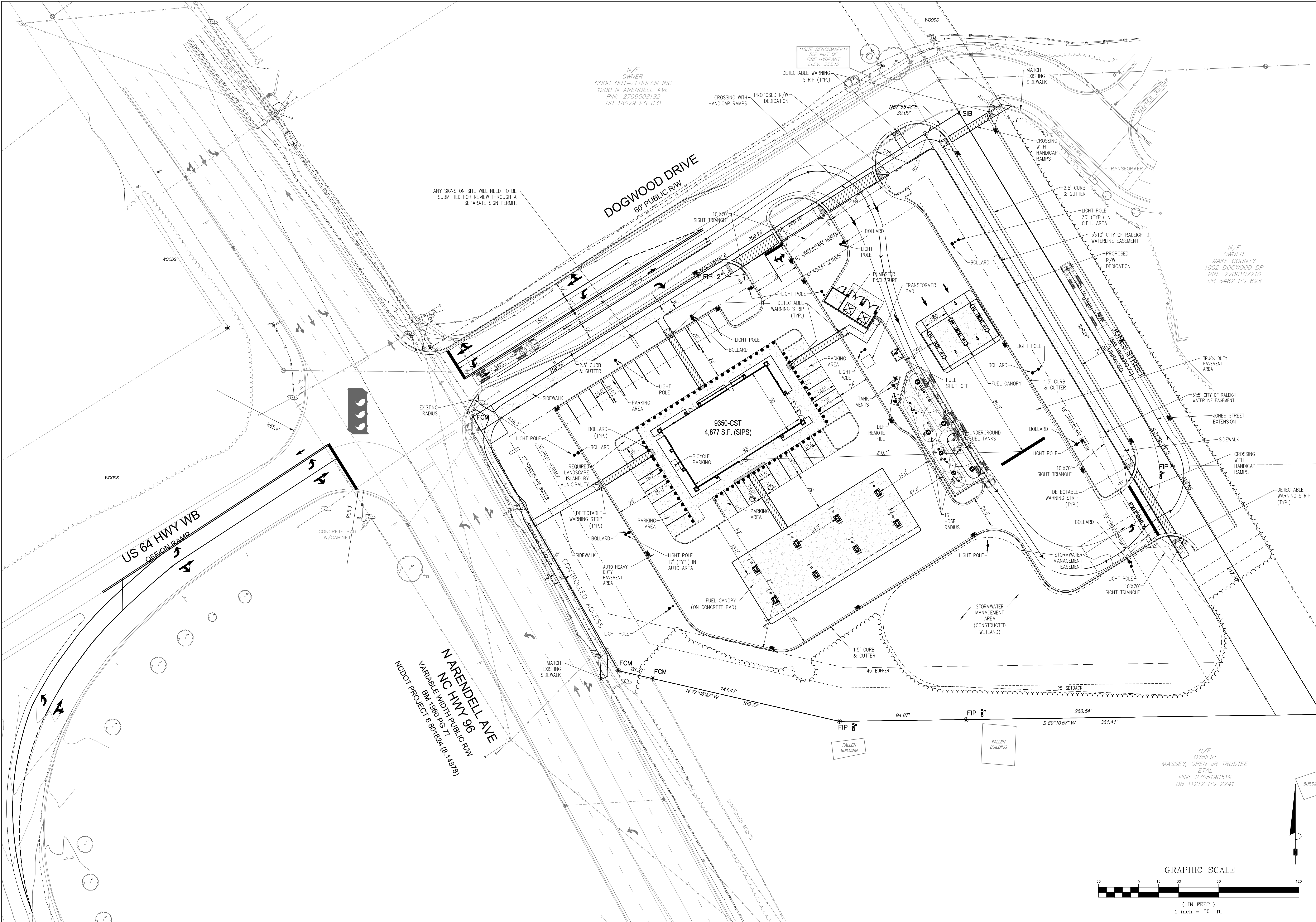
RVWR: ML

ISSUE DATE: 04/08/2024

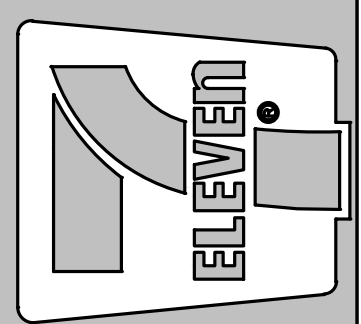
ADDRESS:
1106 N ARENDELL AVE
ZEBULON, NC 27597

SHEET TITLE:
ROADWAY PLAN (1 OF 2)

DRWG. NO.:
C3.3



Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



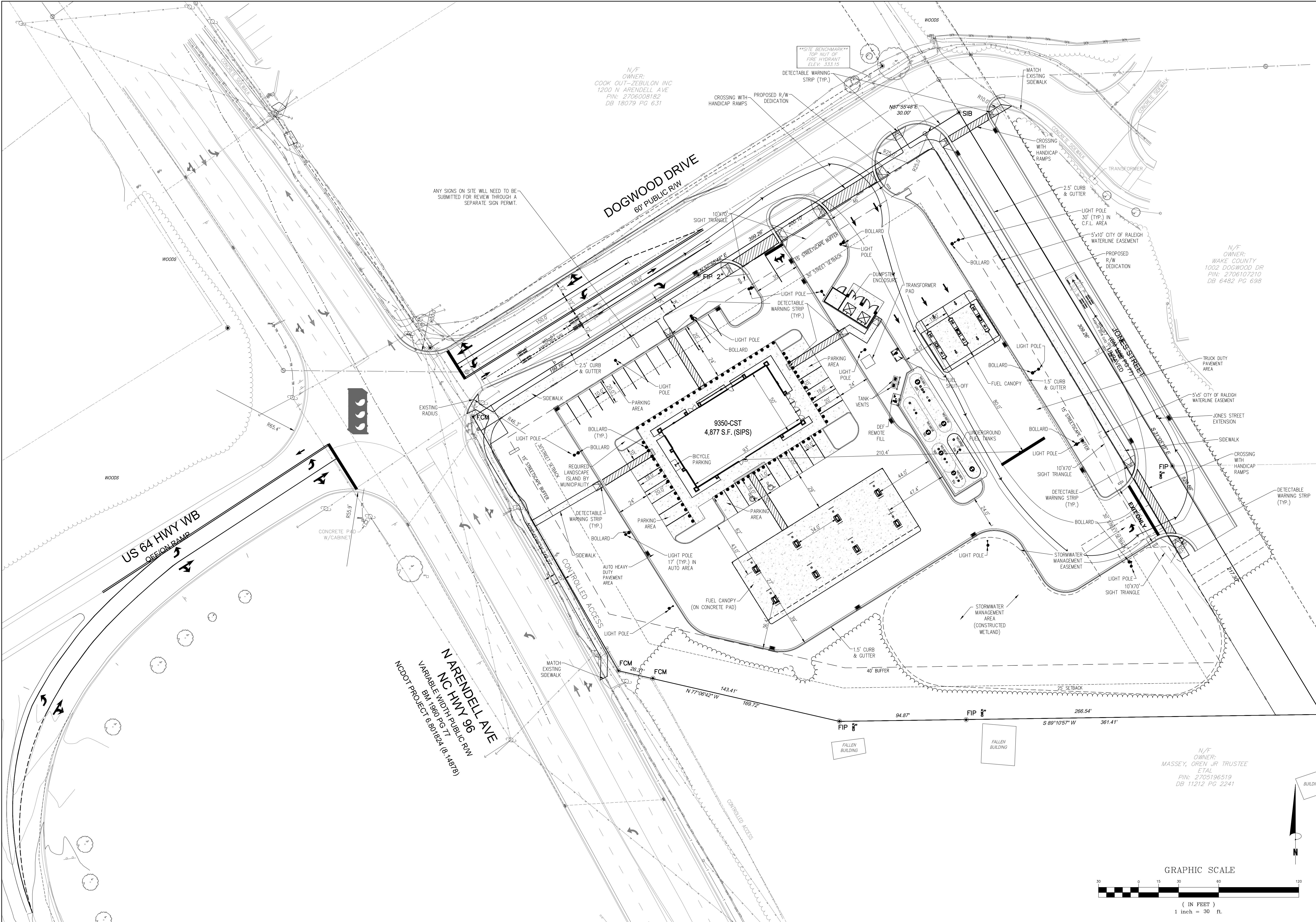
MARK	REVISION	DATE	DESCRIPTION	REVISION	DATE	DESCRIPTION
1	BRM	10/22/23	TOWN OF ZEBULON REVIEW	1	BRM	TOWN OF ZEBULON REVIEW
2	BRM	10/22/23	TOWN OF ZEBULON REVIEW	2	BRM	TOWN OF ZEBULON REVIEW
3	MCB	10/22/23	WAKE COUNTY REVIEW	3	MCB	WAKE COUNTY REVIEW
4	BRM	11/18/24	TOWN OF ZEBULON REVIEW	4	BRM	TOWN OF ZEBULON REVIEW
5	BRM	10/04/24	TOWN OF ZEBULON REVIEW	5	BRM	TOWN OF ZEBULON REVIEW
6	BRM	10/08/24	TOWN OF ZEBULON REVIEW	6	BRM	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.:
N/A
VERSION OR PROJECT ID:
N/A
DESIGN TEAM:
DGNR: BRM & MCB
PM/DP: ML
RVWR: ML
ISSUE DATE: 04/08/2024
ADDRESS:
1106 N ARENDELL AVE
ZEBULON, NC 27597

N/F OWNER:
MASSEY, OREN JR TRUSTEE
ETAL
PIN: 2705196519
DB 11212 PG 2241

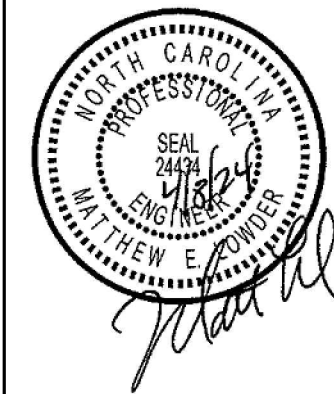
SHEET TITLE
TRUCK TURN
PLAN (WB-50)

DRWG. NO.
C3.5

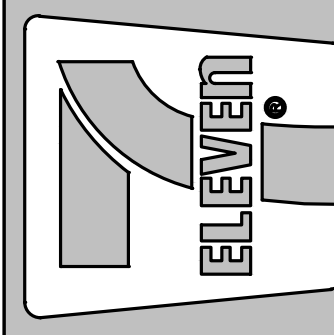


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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

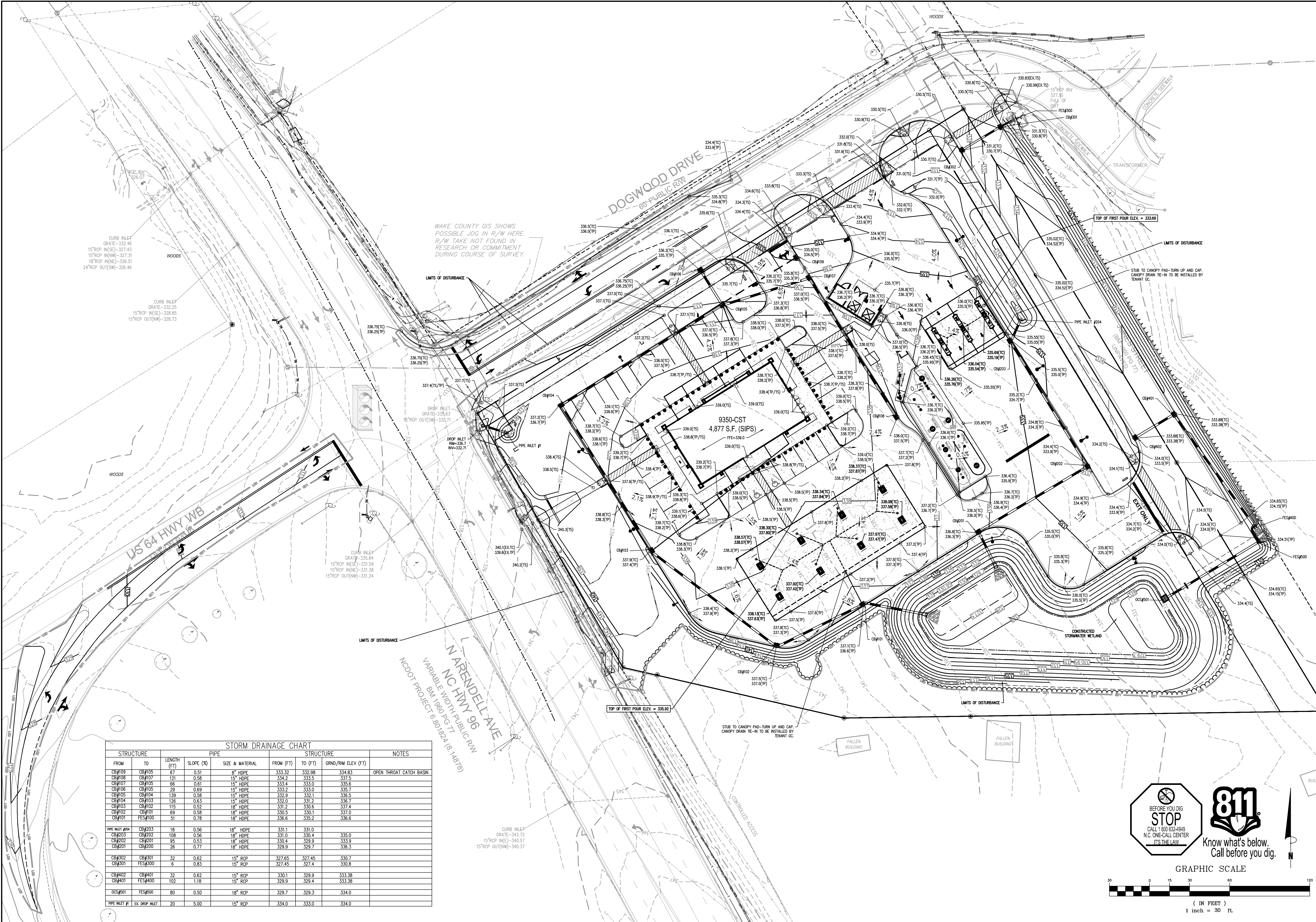


MARK	REVISION	DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1	BRM	10/22/23	TOWN OF ZEBULON REVIEW		
2	BRM/MCB	10/25/23	TOWN OF ZEBULON REVIEW		
3	MCB	10/27/23	WAKE COUNTY REVIEW		
4	BRM/MCB	11/04/24	TOWN OF ZEBULON REVIEW		
5	BRM/MCB	03/04/24	TOWN OF ZEBULON REVIEW		
6	BRM/MCB	04/08/24	TOWN OF ZEBULON REVIEW		

STORE OR BLDG NO.:
N/A
VERSION OR PROJECT ID:
N/A
DESIGN TEAM:
DGNR: BRM & MCB
PM/DP: ML
RVWR: ML
ISSUE DATE: 04/08/2024
ADDRESS:
1106 N ARENDELL AVE
ZEBULON, NC 27597

SHEET TITLE
TRUCK TURN
PLAN (WB-67)

DRWG. NO.
C3.6



WAKE COUNTY GIS SHOWS
POSSIBLE JOG IN R/W HERE.
R/W TAKE NOT FOUND IN
RESEARCH OR COMMITMENT
DURING COURSE OF SURVEY.

N ARENDELL AVE
NC HWY 96
VARIABLE WIDTH PUBLIC R/W
BM 1990 PG 77
NCDOT PROJECT E-801824 (S-14878)

STORM DRAINAGE CHART									
STRUCTURE		PIPE		STRUCTURE		NOTES			
FROM	TO	LENGTH (FT)	SLOPE (%)	SIZE & MATERIAL	FROM (FT)	TO (FT)	GRND/RIM ELEV (FT)		
CB#109	CB#105	67	0.51	6" HDPE	333.32	332.98	334.83	OPEN THROAT CATCH BASIN	
CB#108	CB#107	121	0.58	15" HDPE	334.2	333.5	337.5		
CB#107	CB#105	66	0.61	15" HDPE	333.4	333.0	335.6		
CB#106	CB#105	29	0.69	15" HDPE	333.2	333.0	335.7		
CB#105	CB#104	139	0.58	15" HDPE	332.9	332.1	336.5		
CB#104	CB#103	126	0.63	15" HDPE	332.0	331.2	336.7		
CB#103	CB#102	115	0.52	18" HDPE	331.2	330.6	337.4		
CB#102	CB#101	69	0.58	18" HDPE	330.5	330.1	337.0		
CB#101	FES#100	51	0.78	18" HDPE	330.6	330.2	336.6		
PIPE INLET #204	CB#203	18	0.56	18" HDPE	331.1	331.0	335.0		
CB#203	CB#202	108	0.56	18" HDPE	331.0	330.4	335.0		
CB#202	CB#201	95	0.53	18" HDPE	330.4	329.9	333.9		
CB#201	CB#200	26	0.77	18" HDPE	329.9	329.7	336.3		
CB#302	CB#301	32	0.62	15" RCP	327.65	327.45	330.7		
CB#301	FES#300	6	0.83	15" RCP	327.45	327.4	330.8		
CB#402	CB#401	32	0.62	15" RCP	330.1	329.9	333.38		
CB#401	FES#400	102	1.18	15" RCP	329.9	329.4	333.38		
OCS#501	FES#500	80	0.50	18" RCP	329.7	329.3	334.0		
PIPE INLET #1	EX DROP INLET	20	5.00	15" RCP	334.0	333.0	334.0		

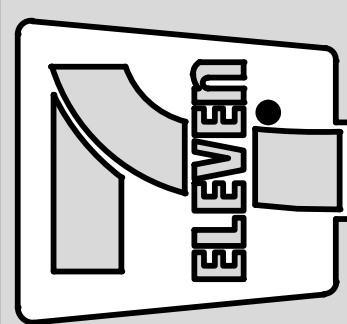
CURB INLET
GRATE-343.72
15"RCP IN(E)-340.57
15"RCP OUT(NW)-340.37



GRAPHIC SCALE



(IN FEET)
1 inch = 30 ft.



DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
11/22/23	TOWN OF ZEBULON REVIEW	11/22/23	TOWN OF ZEBULON REVIEW
12/22/23	TOWN OF ZEBULON REVIEW	12/22/23	TOWN OF ZEBULON REVIEW
1/23/24	WAKE COUNTY REVIEW	1/23/24	WAKE COUNTY REVIEW
2/23/24	TOWN OF ZEBULON REVIEW	2/23/24	TOWN OF ZEBULON REVIEW
3/23/24	TOWN OF ZEBULON REVIEW	3/23/24	TOWN OF ZEBULON REVIEW
4/23/24	TOWN OF ZEBULON REVIEW	4/23/24	TOWN OF ZEBULON REVIEW
5/23/24	TOWN OF ZEBULON REVIEW	5/23/24	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.:	N/A
VERSION OR PROJECT ID:	N/A
DESIGN TEAM	DGNR, BRM & MCB
PM/DP: ML	
RVWR: ML	
ISSUE DATE:	04/08/2024
ADDRESS	1106 N ARENDELL AVE ZEBULON, NC 27597
SHEET TITLE	GRADING & DRAINAGE PLAN
DRWG. NO.	C4.0

- GRADING NOTES:**
1. REFER TO THE SITE PLAN FOR RELATED NOTES.
 2. ALL CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES.
 3. ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.
 4. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO OWNER ANY DISCREPANCIES FOUND BETWEEN ACTUAL FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES, AND SHALL REPAIR ALL DAMAGE TO EXISTING UTILITIES THAT OCCUR DURING CONSTRUCTION.
 6. THE CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
 7. LIMITS OF CLEARING SHOWN ON GRADING PLAN ARE BASED UPON THE APPROXIMATE CUT AND FILL SLOPE LIMITS, OR OTHER GRADING REQUIREMENTS.
 8. THE PROPOSED CONTOURS SHOWN IN DRIVES AND PARKING LOTS AND SIDEWALKS ARE FINISHED ELEVATIONS INCLUDING ASPHALT. REFER TO PAVEMENT CROSS SECTION DATA TO ESTABLISH CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS CONTRACT.
 9. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE SO THAT RUNOFF WILL DRAIN BY GRAVITY FLOW ACROSS NEW PAVEMENT AREAS TO NEW OR EXISTING DRAINAGE INLETS OR SHEET OVERLAND.
 10. ANY GRADING, BEYOND THE LIMITS OF CONSTRUCTION AS SHOWN ON THE GRADING PLAN, IS PROHIBITED.
 11. LAND DISTURBANCE WITHOUT AN APPROVED ESC PLAN IS PROHIBITED.
 12. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON DENUDED AREAS AND ESPECIALLY WHEN THE CONSTRUCTION SEQUENCE REQUIRES IT.
 13. ALL GRADED AREAS ARE TO BE STABILIZED (SEEDED OR LANDSCAPED) WITHIN 14 DAYS OF HAVING REACHED FINAL GRADE.
 14. EXISTING GRADES, CONTOURS, UTILITES AND OTHER EXISTING FEATURES FROM FIELD RUN SURVEY.
 15. THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ANY DEWATERING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS.
 16. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHEETING, SHORING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET OSHA, FEDERAL, STATE, AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS. THE DESIGN ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE DESIGN(S) TO INSTALL SAID ITEMS.
 17. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATION, ELEVATION, AND DIMENSIONS OF EXIT DOORS, RAMPS, BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
 18. ALL FILL MATERIALS, EXISTING BUILDING FOUNDATIONS, PAVEMENT AND UTILITY STRUCTURES, TOPSOIL, AND ANY OTHER DELETERIOUS MATERIALS SHALL BE COMPLETELY REMOVED FROM WITHIN THE BEARING ZONE BELOW THE STRUCTURE.
 19. ALL FOUNDATION EXCAVATION SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL REPRESENTATIVE TO DETERMINE WHETHER UNSUITABLE MATERIAL MUST BE REMOVED. ALL UNDESIRABLE MATERIAL SHALL BE REMOVED, BACKFILLED AND COMPACTED AS REQUIRED BY THE GEOTECHNICAL REPRESENTATIVE.
 20. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED OR DEPICTED.
 21. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
 22. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
 23. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
 24. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER.
 25. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

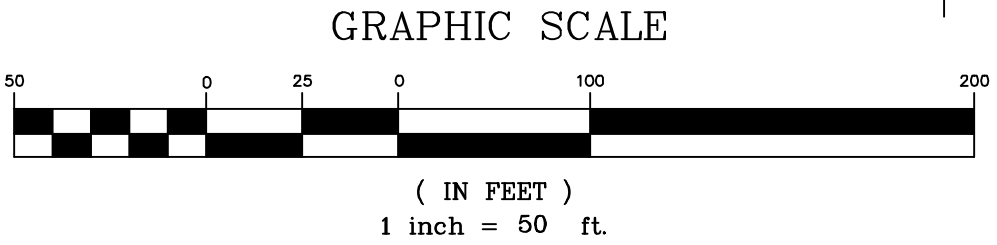
- DRAINAGE NOTES:**
1. A MINIMUM GRADE OF 0.50 % SHALL BE MAINTAINED ON ALL PIPES, UNLESS OTHERWISE NOTED.
 2. PIPE LENGTHS AND SLOPES INDICATED ON THE PLANS ARE APPROXIMATE ONLY.
 3. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - A. NO MORE THAN 500 LF OF TRENCH MAY BE OPENED AT ONE TIME.
 - B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
 - C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 - D. MATERIAL USED FOR BACK-FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
 - E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL REGULATIONS.
 - F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
 4. CATCH BASINS, MANHOLES, FRAMES, GRATES, ETC. SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE TOWN OF ZEBULON STANDARD DRAWINGS AND SPECIFICATIONS.
 5. ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
 6. STORM PIPE SHALL BE AS FOLLOW UNLESS OTHERWISE NOTED:
 - TYPE 1: RCP, CLASS III PER ASTM C-76, WITH FLEXIBLE PLASTIC BITUMEN GASKETS AT JOINTS.
 - TYPE 2: HIGH DENSITY POLYETHYLENE PIPE (HDPE) - AASHTO DESIGNATION M252 TYPE S, M294 TYPE S AND MP7-97 TYPE S, SMOOTH INTERIOR/ANNUAL EXTERIOR. ONLY PERMITTED WHEN SPECIFICALLY INDICATED ON THE CONSTRUCTION DRAWINGS. PIPE SHALL BE INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER'S INSTALLATION GUIDELINES. PIPE JOINTS AND FITTINGS SHALL BE WATERTIGHT.
 7. ALL STORM DRAINAGE WITHIN THE PUBLIC ROADS SHALL BE CLASS II REINFORCED CONCRETE PIPE UNLESS OTHERWISE NOTED.
 8. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE SILT AND DEBRIS.
 9. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
 10. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
 11. PRECAST STRUCTURES MAYBE USED AT CONTRACTORS OPTION.
 12. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
 13. STRUCTURE TOP ELEVATIONS SHOWN HERE ARE APPROXIMATE. CONTRACTOR SHALL ADJUST AS NECESSARY.
 14. RIM ELEVATIONS AS NOTED ARE TO THE GUTTER FLOW LINE.

- LEGEND**
- TOS.....TOP OF SIDEWALK
 - TOC.....TOP OF CURB
 - FL.....GUTTER FLOW LINE
 - TOP.....TOP OF PAVEMENT
 - TW.....TOP OF WALL
 - BW.....BOTTOM OF WALL
 - CB.....CATCH BASIN
 - GI.....GRATE INLET
 - FES.....FLARED END SECTION
 - YI.....YARD INLET
 - GRD.....GROUND
 -FLOW DIRECTION ARROW

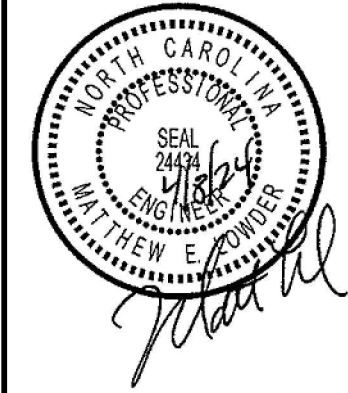
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS



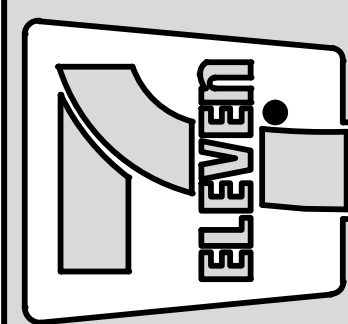
811
Know what's below.
Call before you dig.



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**Crosland Southeast
7-Eleven Store #42378**
Zebulon, NC
WAKE COUNTY



MARK	REVISION	DATE	REVISION DESCRIPTION	REVIEWED BY	DATE	REVISION DESCRIPTION
1	END	02/23	TOWN OF ZEBULON REVIEW			
2	BR/MCB	02/23	TOWN OF ZEBULON REVIEW			
3	MCB	02/23	WAKE COUNTY REVIEW			
4	BR/MCB	02/24	TOWN OF ZEBULON REVIEW			
5	BR/MCB	04/04/24	TOWN OF ZEBULON REVIEW			
6	BR/MCB	04/08/24	TOWN OF ZEBULON REVIEW			

This drawing is the property of 7-Eleven and is not to be used or reproduced without expressed written consent of 7-Eleven.

STORE OR BLDG NO.:
N/A

VERSION OR PROJECT ID:
N/A

DESIGN TEAM
DGNR: BRM & MCB

PM/DP: ML

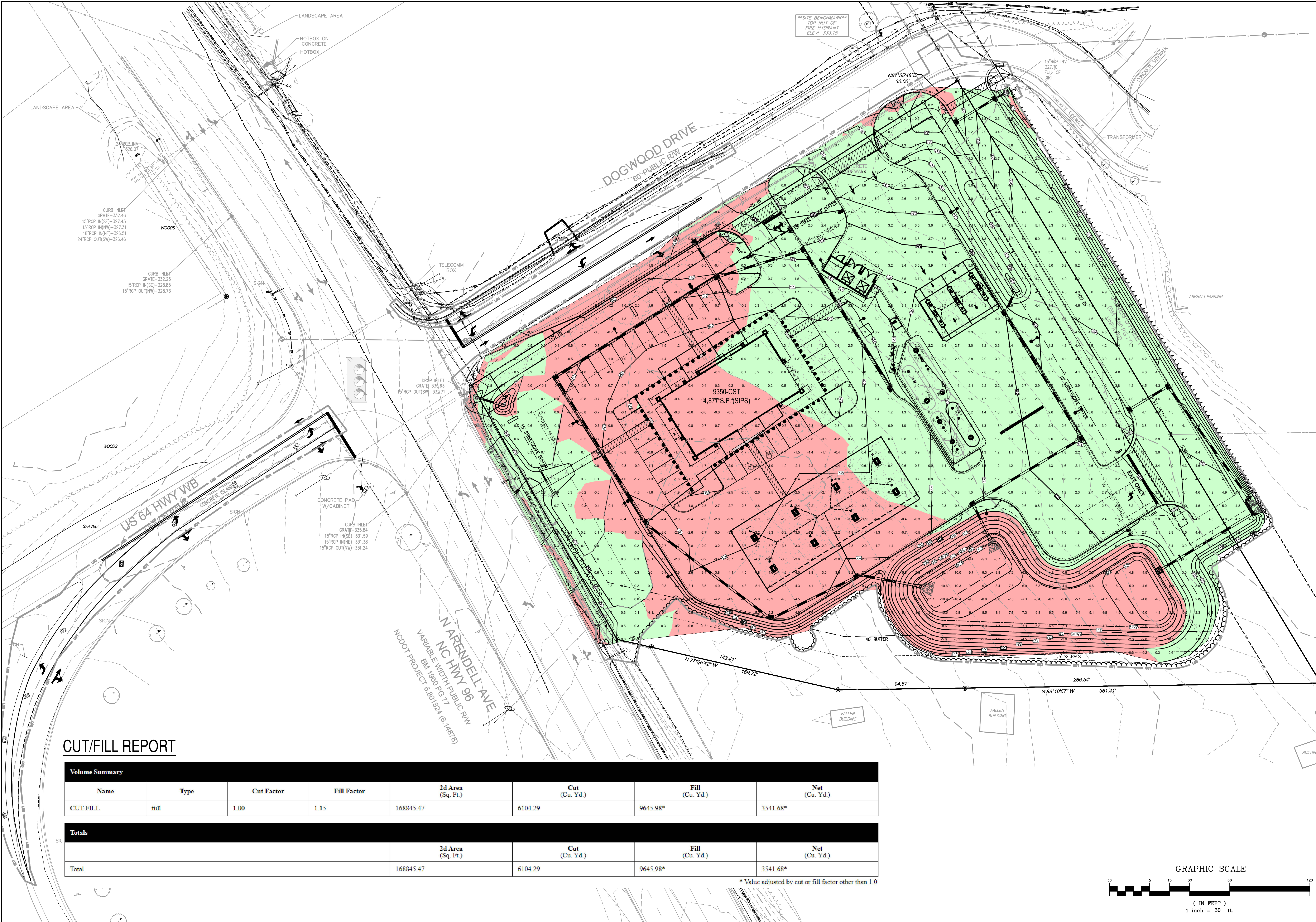
RVWR: ML

ISSUE DATE: 04/08/2024

ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27597

SHEET TITLE
**GRADING &
DRAINAGE
NOTES**

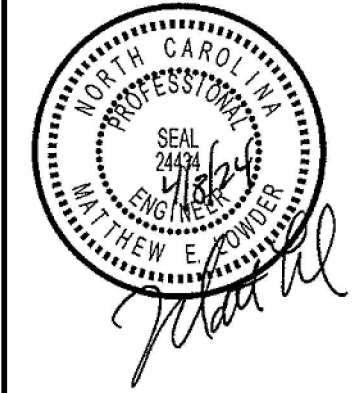
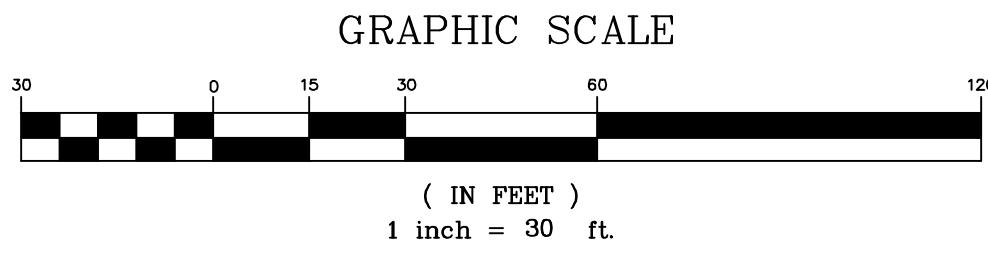
DRWG. NO.
C4.1



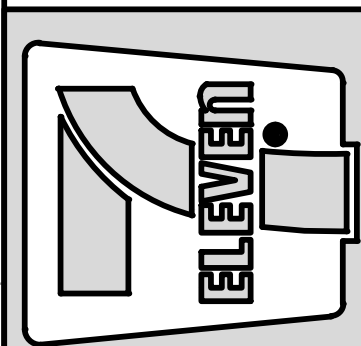
CUT/FILL REPORT

Volume Summary							
Name	Type	Cut Factor	Fill Factor	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
CUT-FILL	full	1.00	1.15	168845.47	6104.29	9645.98*	3541.68*
Totals							
				2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
Total				168845.47	6104.29	9645.98*	3541.68*

* Value adjusted by cut or fill factor other than 1.0



Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

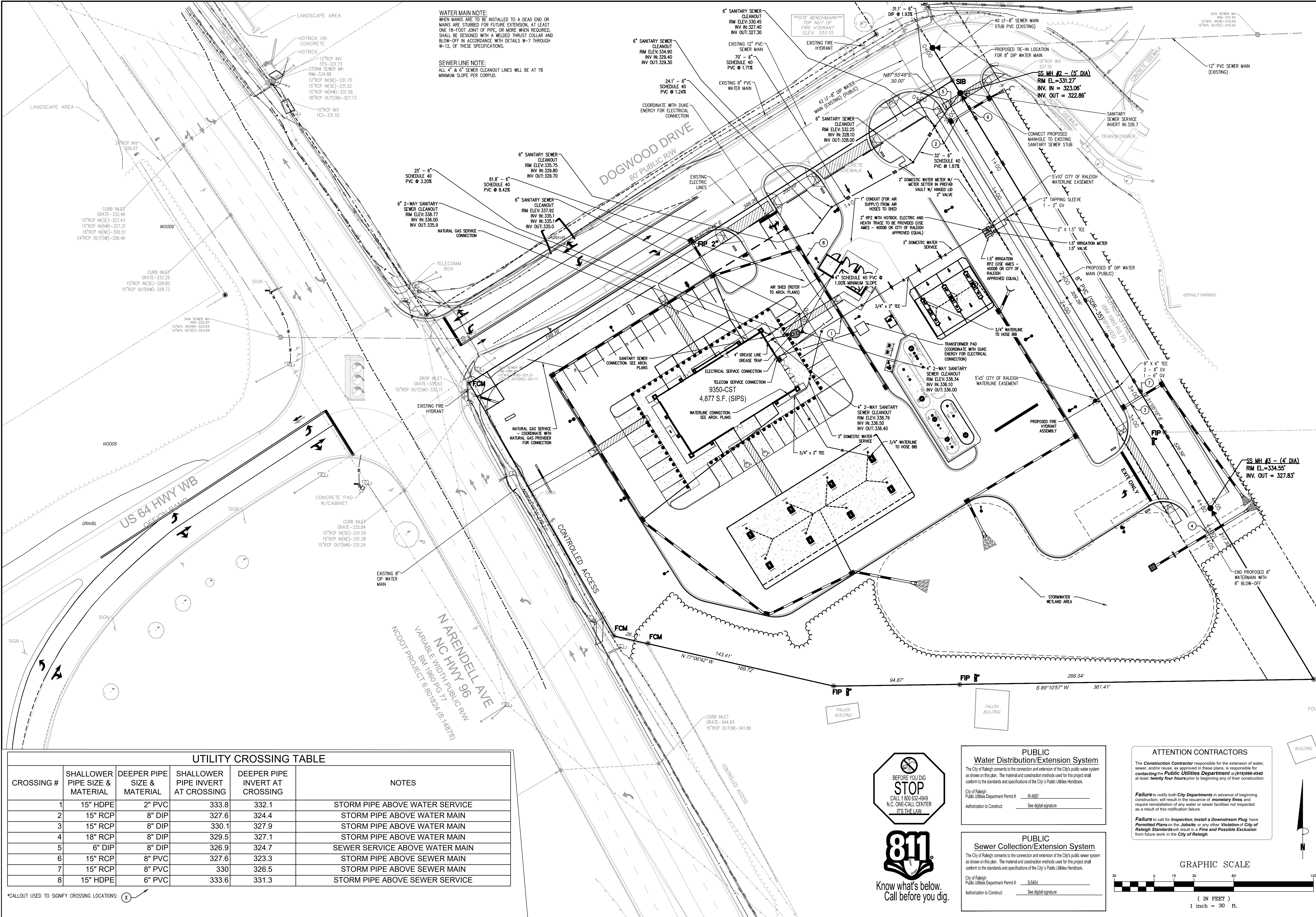


MARK	REVISION	DATE	REVISION DESCRIPTION	REMOVED BY	DATE	REVISION DESCRIPTION
1	REV	02/23	TOWN OF ZEBULON REVIEW			
2	REV	02/23	TOWN OF ZEBULON REVIEW			
3	REV	02/23	WAKE COUNTY REVIEW			
4	REV	02/23	TOWN OF ZEBULON REVIEW			
5	REV	02/23	TOWN OF ZEBULON REVIEW			
6	REV	02/23	TOWN OF ZEBULON REVIEW			

STORE OR BLDG NO.:	N/A
VERSION OR PROJECT ID:	N/A
DESIGN TEAM	DGNR, BRM & MCB
PM/DP: ML	
RVWR: ML	
ISSUE DATE:	04/08/2024
ADDRESS	1106 N ARENDELL AVE ZEBULON, NC 27597

SHEET TITLE
**CUT/FILL
ANALYSIS
PLAN**

DRWG. NO.
C4.2



UTILITY CROSSING TABLE					
CROSSING #	SHALLOWER PIPE SIZE & MATERIAL	DEEPER PIPE SIZE & MATERIAL	SHALLOWER PIPE INVERT AT CROSSING	DEEPER PIPE INVERT AT CROSSING	NOTES
1	15" HDPE	2" PVC	333.8	332.1	STORM PIPE ABOVE WATER SERVICE
2	15" RCP	8" DIP	327.6	324.4	STORM PIPE ABOVE WATER MAIN
3	15" RCP	8" DIP	330.1	327.9	STORM PIPE ABOVE WATER MAIN
4	18" RCP	8" DIP	329.5	327.1	STORM PIPE ABOVE WATER MAIN
5	6" DIP	8" DIP	326.9	324.7	SEWER SERVICE ABOVE WATER MAIN
6	15" RCP	8" PVC	327.6	323.3	STORM PIPE ABOVE SEWER MAIN
7	15" RCP	6" PVC	330	326.5	STORM PIPE ABOVE SEWER MAIN
8	15" HDPE	6" PVC	333.6	331.3	STORM PIPE ABOVE SEWER SERVICE

*CALLOUT USED TO SIGNIFY CROSSING LOCATIONS: (X)



PUBLIC Water Distribution/Extension System

The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # W-4087
Authorization to Construct See digital signature

PUBLIC Sewer Collection/Extension System

The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

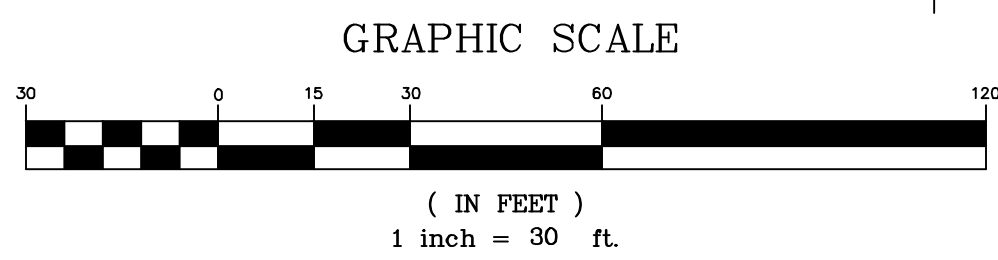
City of Raleigh
Public Utilities Department Permit # S-5404
Authorization to Construct See digital signature

ATTENTION CONTRACTORS

The **Construction Contractor** responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for **contacting the Public Utilities Department** at (919)998-4540 at least **twenty four hours** prior to beginning any of their construction.

Failure to notify both **City Departments** in advance of beginning construction, will result in the issuance of **monetary fines** and require reinstatement of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for **Inspection, Install a Downstream Plug**, have **Permitted Plans** on the **Jobsite**, or any other **Violation of City of Raleigh Standards** will result in a **Fine and Possible Exclusion** from future work in the **City of Raleigh**.



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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1	1/20/23	1	1/20/23
2	2/22/23	2	2/22/23
3	3/22/23	3	3/22/23
4	4/22/23	4	4/22/23
5	5/22/23	5	5/22/23
6	6/22/23	6	6/22/23

STORE OR BLDG NO.:
N/A

VERSION OR PROJECT ID:
N/A

DESIGN TEAM
DGNR: BRM & MCB
PM/DP: ML
RVWR: ML

ISSUE DATE: 04/08/2024

ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27597

SHEET TITLE
UTILITY PLAN

DRWG. NO.
C5.0

Project Water System Data:

- Are the total # domestic water services ≥ 15 , OR the total # people served ≥ 25 ?
Yes/No
- Type of development? (select one)
 - Commercial property
 - Residential Condom or Townhomes
 - Residential Apartments
- NOTE: permitting by City of Raleigh on projects having ≥ 15 domestic water services, OR serving ≥ 25 people, requires Developer NOT to re-sell water (or must have a WR designation from NCUC for Apartment projects only)*

UTILITY NOTES:

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH CITY OF RALEIGH STANDARD DRAWINGS AND SPECIFICATIONS.
- IN THE EVENT THAT A UTILITY ITEM IS NOT COVERED BY THESE PLANS, THEN THE STANDARDS AND SPECIFICATIONS CONTAINED IN THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT HANDBOOK COVERING SUCH ITEMS SHALL APPLY.
- WATER SERVICES 3/4-INCH TO 2-INCH SHALL BE TYPE "K" SOFT COPPER. ALL OTHER WATER MAINS, SERVICES, AND FITTINGS SHALL BE CEMENT-UNED DUCTILE IRON PIPE PER CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
- GRAVITY SANITARY SEWER MAINS SHALL BE DUCTILE IRON PIPE OR PVC PIPE, AS SPECIFIED IN THESE PLANS AND CITY OF RALEIGH STANDARDS AND SPECIFICATIONS. SANITARY SEWER SERVICES SHALL BE SCHEDULE 40 PVC.
- CLEAN-OUT SYMBOLS SHOWN ON THESE PLANS REPRESENT LOCATION OF SURFACE ACCESS POINT. CONTRACTOR SHALL LOCATE WYE APPROPRIATELY BASED ON PIPE DEPTH.
- ALL MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF RALEIGH STANDARDS. MANHOLE DIAMETER SHALL VARY DEPENDING ON PIPE DIAMETER AND DEPTH, PER CITY OF RALEIGH STANDARDS.
- LOCATIONS AND SIZES OF EXISTING UTILITIES SHOWN ON THESE PLANS WERE TAKEN FROM MAPS PREPARED BY OTHERS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD LOCATING ALL UTILITIES AND FOR DAMAGES RESULTING FROM FAILURE TO DO SO.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING RECORD DRAWINGS TO THE ENGINEER SHOWING THE LOCATION OF WATER AND SEWER SERVICES AND ANY DEVIATIONS FROM PLANS MADE DURING CONSTRUCTION. THE ENGINEER WILL PROVIDE THESE RECORD DRAWINGS TO THE OWNER.
- WATER MAINS SHALL HAVE A MINIMUM COVER OF 36" BELOW PROPOSED GRADE.
- ALL UNDERGROUND UTILITIES AND FIRE HYDRANTS MUST BE FUNCTIONALLY APPROVED PRIOR TO STRUCTURAL CONSTRUCTION.
- THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES, AND FIRE HYDRANTS.
- DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING.
- ALL WATER AND SANITARY LEADS TO BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT END.
- ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
- GENERAL CONTRACTOR SHALL HAVE APPROVAL OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THIS SYSTEM PRIOR TO INSTALLATION.
- ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
- CONTRACTOR SHALL NOTIFY THE WATER AUTHORITY INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
- ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 24" VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).
- PRESSURE REDUCING VALVES WILL BE REQUIRED ON THE DOMESTIC WATER MAINS IF THE STATIC PRESSURE AT THE BUILDING EXCEEDS 80PSI.
- IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATERLINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF CROSSING. THE WATERLINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 24" CLEARANCE. MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50).
- DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
- CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE STANDARDS AND SPECIFICATIONS OF THE CITY OF RALEIGH WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES OR UTILITIES BY OTHERS AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- ALL CONSTRUCTION METHODS & MATERIALS SHALL CONFORM WITH THE CURRENT SPECIFICATIONS AND STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION (AWWA). THE AWWA CONSTRUCTION STANDARDS ARE SET FORTH IN THEIR CONSTRUCTION SPECIFICATIONS AND STANDARD FOR WATER AND SANITARY SEWERAGE FACILITIES. A COPY OF WHICH MUST BE PURCHASED FROM THE AWWA BY THE CONTRACTOR AND KEPT AT THE JOB SITE AT ALL TIMES. REFERENCE TO NODOT SHALL MEAN THE CURRENT STANDARDS AND/OR SPECIFICATIONS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.
- THE CONTRACTOR SHALL BE REQUIRED TO EXCAVATE BELOW PLAN GRADE ANY MATERIALS WHICH ARE UNSUITABLE FOR FOUNDATIONS, SUB GRADES, PIPE TRENCH BOTTOMS OR OTHER PURPOSES AND BACKFILL THESE AREAS WITH AN APPROVED MATERIAL. THE EXTENT OF UNDERCUTTING AND BACKFILLING SHALL BE DETERMINED BY THE CITY OF RALEIGH AS TO AREAS WITHIN STREET RIGHT-OF-WAY AND THE ENGINEER IN OTHER AREAS. COMPENSATION SHALL BE AS SET FORTH IN THE CONTRACT DOCUMENTS.
- A MINIMUM VERTICAL SEPARATION OF 24" SHALL BE MAINTAINED BETWEEN SANITARY SEWER & WATER LINES AND A FULL JOINT OF WATER LINE PIPE SHALL BE CENTERED WHERE WATER LINE CROSSES OVER SANITARY SEWER. WHERE CLEARANCE IS LESS THAN 18" BUT GREATER THAN 12", SANITARY SEWER SHALL BE PRESSURE TESTED DUCTILE IRON PIPE 10' FROM WATER-MAIN. WHEN WATER LINE CROSSES UNDER SANITARY SEWER, 18" MINIMUM CLEARANCE MUST BE MAINTAINED, AND SANITARY SEWER SHALL BE PRESSURE TESTED DUCTILE IRON PIPE 10' FROM WATER-MAIN.
- ALL WATERLINES SHALL HAVE BURIED WITH THE PIPE # 12 COATED ELECTRIC WIRE AND BROUGHT UP INTO THE METER BOXES.
- THE CONTRACTOR SHALL PROVIDE A SURVEY AS-BUILT RECORD DRAWING OF THE SANITARY SEWER SYSTEM AND THE WATER DISTRIBUTION SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF RALEIGH UTILITY DEPARTMENT.

FIRE PROTECTION NOTE

THE PROPOSED BUILDING WILL NOT HAVE A FIRE SPRINKLER SYSTEM

UTILITY NOTE

THE ESTIMATED WATER USAGE FOR THIS SITE IS ____ GPD BASED ON

METER NOTE:

CONTRACTOR TO CONTACT CITY OF RALEIGH METERS DIVISION FOR METER LAYOUT AND ADDRESSING.

HYDRANT NOTE:

ALL NEW FIRE HYDRANTS SHALL BE EQUIPPED WITH NST THREADS AND SHALL BE EQUIPPED WITH A 5 INCH STORZ CONNECTION.

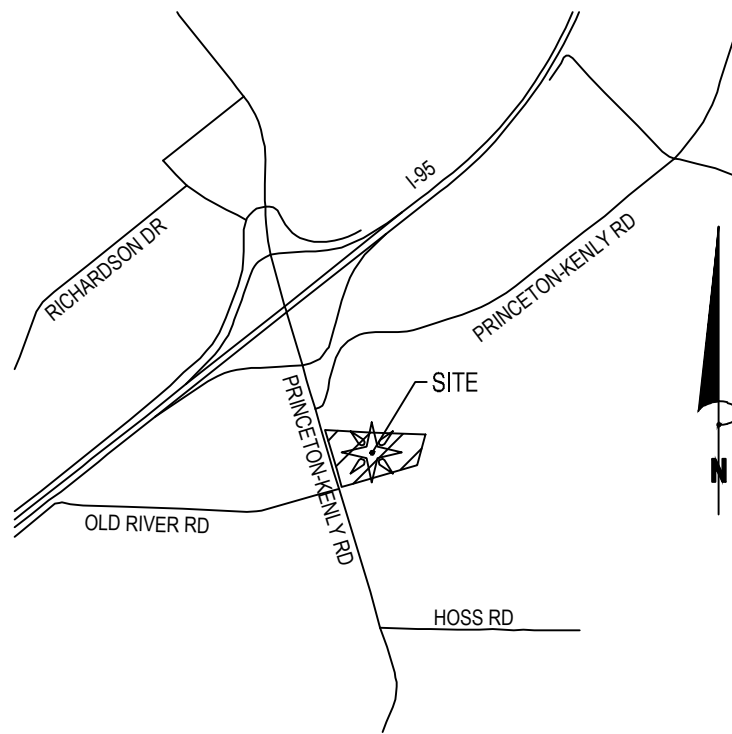
FIRE NOTE:

ELECTRICAL CIRCUIT AND FIRE ALARM CIRCUIT REQUIRED FOR FIRE LINE HOT BOX

UTILITY NOTE:

THERE SHALL BE NO CONSTRUCTION OF ANY FIRE MAINS AND NO SLAB PLACED IN THE FIRE PUMP ROOM OR SPRINKLER RISER ROOM UNTIL HYDRAULIC CALCULATIONS, FOR THE BUILDING(S) ARE SUBMITTED FOR REVIEW AND SUBSEQUENT APPROVAL

VICINITY MAP



STANDARD UTILITY NOTES:

- All materials & construction methods shall be in accordance with City of Raleigh design standards, details & specifications (reference: CORPUD Handbook, current edition).
- Utility separation requirements:
 - A distance of 100' shall be maintained between sanitary sewer & any private or public water supply source such as an impounded reservoir used as a source of drinking water. If adequate lateral separation cannot be achieved, ferrous sanitary sewer pipe shall be specified & installed to wetline specifications. However, the minimum separation shall not be less than 25' from a private well or 50' from a public well.
 - When installing water &/or sewer mains, the horizontal separation between utilities shall be 10'. If this separation cannot be maintained due to existing conditions, the variation allowed is the water main in a separate trench with the elevation of the water main at least 18" above the top of the sewer & must be approved by the Public Utilities Director. All distances are measured from outside diameter to outside diameter.
 - Where it is impossible to obtain proper separation, or anytime a sanitary sewer passes over a watermain, DIP materials or steel encasement extended 10' on each side of crossing must be specified & installed to wetline specifications.
 - 5.0' minimum horizontal separation is required between all sanitary sewer & storm sewer facilities, unless DIP material is specified for sanitary sewer
 - Maintain 18" min. vertical separation at all watermain & RCP storm drain crossings; maintain 18" min. vertical separation at all sanitary sewer & RCP storm drain crossings. Where adequate separations cannot be achieved, specify DIP materials & a concrete cradle having 6" min. clearance (per CORPUD details W- 41 & S-49).
 - All other underground utilities shall cross water & sewer facilities with 18" min. vertical separation required.
- Any necessary field revisions are subject to review & approval of an amended plan &/or profile by the City of Raleigh Public Utilities Department prior to construction.
- Developer shall provide 30 days advance written notice to owner for any work required within an existing City of Raleigh Utility Easement traversing private property.
- Contractor shall maintain continuous water & sewer service to existing residences & businesses throughout construction of project. Any necessary service interruptions shall be preceded by a 24-hour advance notice to the City of Raleigh Public Utilities Department.
- SEWER BYPASS PUMPING - A bypass plan seeded by an NC Professional Engineer shall be provided to Raleigh Water prior to pumping operations for approval. The operations and equipment shall comply with the Public Utilities Handbook.
- 3.0' minimum cover is required on all water mains & sewer force mains. 4.0' minimum cover is required on all reuse mains.
- It is the developer's responsibility to abandon or remove existing water & sewer services not being used in redevelopment of a site unless otherwise directed by the City of Raleigh Public Utilities Department. This includes abandoning tap on main & removal of service from ROW or easement (per CORPUD Handbook procedure).
- Install 2" copper* water services with meters located at ROW or within a 2x2 Wetline Easement immediately adjacent. NOTE: It is the applicant's responsibility to properly size the water service for each connection to provide adequate flow & pressure.
- Install 6" PVC sewer services @ 1.0% minimum grade with cleanouts located at ROW or easement line & spaced every 75 linear feet maximum.
- Pressure reducing valves are required on all water services exceeding 80 psi; backwater valves are required on all sanitary sewer services having building drains lower than 1.0' above the next upstream manhole.
- All environmental permits applicable to the project must be obtained from NCOW, USACE &/or FEMA for any riparian buffer, wetland &/or floodplain impacts (respectively) prior to construction.
- NODOT / Railroad Encroachment Agreements are required for any utility work (including main extensions & service taps) within state or railroad ROW prior to construction.
- Grease Interceptor / Oil Water Separator sizing calculations & installation specifications shall be approved by the SWISD Program Coordinator prior to issuance of a UC and/or Building Permit. Contact: (919) 996-4516 or fog@raleighnc.gov for more information.
- Cross-connection control protection devices are required based on the degree of health hazard involved as listed in Appendix B of the Rules Governing Public Water Systems in North Carolina.
- The devices shall meet the American Society of Sanitary Engineering (ASSE) standards and be on the University of Southern California approval list.
- The device and installation shall meet the guidelines of Appendix A - Guidelines and Requirements for the Cross Connection Program in Raleigh's Service Area.
- The devices shall be installed and tested (both, initial and periodic testing thereafter) in accordance with the manufacturer's recommendations or the local cross connection control program, whichever is more stringent. Contact Cross.connection@raleighnc.gov for more information.
- NOTE: For projects that involve an oversized main or urban main replacement. Any City reimbursement greater than \$250,000.00 must undergo the public bidding process.

PUBLIC Water Distribution/Extension System

The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # W-087
Authorization to Construct See digital signature

PUBLIC Sewer Collection/Extension System

The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # S-504
Authorization to Construct See digital signature

ATTENTION CONTRACTORS

The **Construction Contractor** responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for **contacting the Public Utilities Department at (919)996-4540** at least **twenty four hours** prior to beginning any of their construction.

Failure to notify both City **Departments** in advance of beginning construction, will result in the issuance of **monetary fines**, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for **Inspection, Install a Downstream Plug**, have **Permitted Plans** on the **Jobsite**, or any other **Violation of City of Raleigh Standards** will result in a **Fine and Possible Exclusion** from future work in the **City of Raleigh**.

UTILITY SERVICE NOTES

WATER SERVICE:
GENERAL CONTRACTOR TO PROVIDE AND INSTALL A **2" WATER SERVICE LINE** FROM MAIN TO BUILDING PER MUNICIPAL REQUIREMENTS.
CONTACT: CITY OF RALEIGH UTILITY DEPARTMENT
TELEPHONE: 919-857-4540

ELECTRIC SERVICE:
"POWER CO." TO PROVIDE UNDERGROUND 120/208/3 PHASE SERVICE.
GENERAL CONTRACTOR TO PROVIDE AND INSTALL TWO 4" DIA. CONDUIT W/ PULL WIRE TO UTILITY COMPANY POINT OF CONNECTION.
CONTACT: PROGRESS ENERGY
TELEPHONE: 800-636-0581

TELEPHONE SERVICE:
"TELEPHONE CO." TO PROVIDE NEW UNDERGROUND SERVICE. GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 4" DIA. PVC CONDUIT W/ PULL WIRE FROM PHONE PANEL BOARD TO UTILITY COMPANY POINT OF CONNECTION.
CONTACT: TELEPHONE:

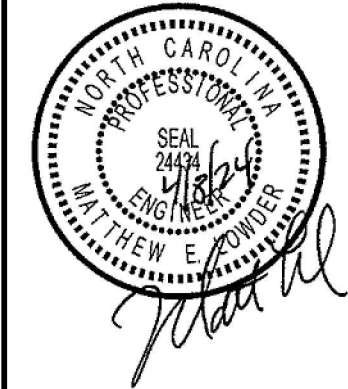
SANITARY SEWER:
GENERAL CONTRACTOR TO PROVIDE AND INSTALL A **6" SCHEDULE 40 PVC** FROM EXISTING SANITARY SEWER SYSTEM TO LAST CLEAN OUT OUTSIDE OF BUILDING. (MIN. 1% SLOPE). PROVIDE CLEAN OUTS EVERY 75' (TYPICAL).
CONTACT: CITY OF RALEIGH UTILITY DEPARTMENT
TELEPHONE: 919-857-4540

NATURAL GAS:
GENERAL CONTRACTOR TO COORDINATE WITH NATURAL GAS UTILITY FOR SERVICE LINE TO PROPOSED BUILDING.
CONTACT: TELEPHONE:

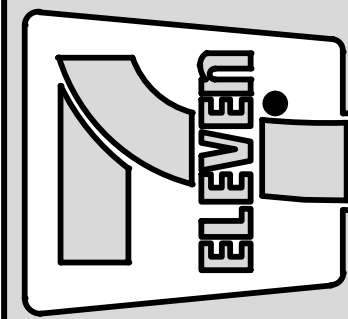
CONDITION OF APPROVAL

A PLAT WILL NEED TO BE RECORDED WITH THE REGISTER OF DEEDS FOR ALL EASEMENT DEDICATIONS

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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



DATE	REVISION DESCRIPTION
DATE	REVISION DESCRIPTION
1	TOWN OF ZEBULON REVIEW
2	TOWN OF ZEBULON REVIEW
3	WAKE COUNTY REVIEW
4	TOWN OF ZEBULON REVIEW
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6	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.:

N/A

VERSION OR PROJECT ID:

N/A

DESIGN TEAM

DGNR, BRM & MCB

PM/DP: ML

RVWR: ML

ISSUE DATE: 04/08/2024

ADDRESS

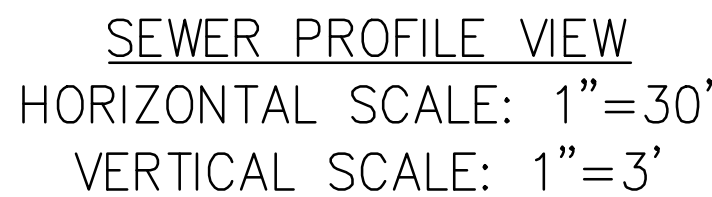
1106 N ARENDELL AVE
ZEBULON, NC 27597

SHEET TITLE

UTILITY NOTES

DRWG. NO.

C5.1

[illegible]

All materials & construction methods shall be in accordance with City of Raleigh design standards, details & specifications (reference: CDPUMP Handbook, current edition)

- Utility separation requirements
 - A distance of 10' shall be maintained between sanitary sewer & any private or public utility supply source such as an impounded reservoir used as a source of drinking water. If adjacent lateral to the sewer trench with a minimum of 12" clearance, the utility shall be specified & installed to utility specifications. However, the minimum separation shall not be less than 25' from a private well shall be 50'.
- When installing water 8" or sewer mains, the horizontal separation between utilities will be 10'. If this separation cannot be maintained due to existing conditions, the variation allowed in the water & sewer trench width shall be 12" and the utility shall be specified & installed to utility specifications & must be approved by the Public Utilities Director. All distances are measured from outside diameter to outside diameter.
- When necessary to obtain proper separation, or anytime a sanitary sewer passes over a watermain, DIP materials or steel encasement extended 10" on each side of crossing must be specified & installed to waterline specifications.
- When horizontal separation is required between sanitary sewer & storm sewer facilities, unless DIP material is specified for sanitary sewer
 - Maintain 18" vertical separation of dip materials & RCP storm drain crossings. Where storm drain crossings cannot be achieved, specify DIP materials & a concrete grade having 6" min. clearance (per CDPUMP HW-41) to the top of the storm drain.
- For all other underground utilities shall cross water & sewer facilities with 18" vertical separation. (see CDPUMP HW-41)

When necessary field revisions are specified to review & approval of an amended plan &/or profile by the City of Raleigh Public Utilities Department.

- Developer shall provide 30 days advance written notice to owner for any work required within an existing City of Raleigh Right of Way.
- Contractor shall maintain continuous water & sewer service to existing residences & businesses throughout construction of project. Any necessary service interruptions shall be preceded by a 24-hour advance notice to the City of Raleigh Public Utilities Department.
- SEWER BYPASS PUMPING – A bypass plan shall be approved by an NC Professional Engineer shall be provided to the City of Raleigh Public Utilities Department for approval. The operations and equipment shall comply with the Public Utilities Department.
- 3.0" minimum cover is required on all water mains & sewer force mains. 4.0" minimum cover is required on all sanitary sewer service lines.
- It is the developer's responsibility to abandon or remove existing water & sewer services not being used in redevelopment of a site unless otherwise directed by the City of Raleigh Public Utilities Department. This includes the responsibility to obtain a permit from the City of Raleigh Public Utilities Department.
- Install 12" Copper water services with meters located at ROW or within a 2'x2' Meterline Easement. This installation should provide NOTE: It is the applicant's responsibility to properly size the water service for each individual lot. Provide adequate flow & pressure
- Install 12" Copper sewer services with meters located in grade with cleanouts located at ROW or easement line & spaced every 75' linear feet minimum.
- Pressure reducing valves are required on all water services excepting 1" pipe; backwater valves are required on all sewer services excepting 12" pipe and larger. All valves shall meet the next upstream manhole.
- All environmental permits applicable to the project must be obtained from NCQWQ, USACE &/or FEMA for any riparian buffer, wetland &/or floodplain impacts (respectively) prior to construction.
- NCDOT / Raleigh Encroachment Permit is required for any utility work (including main installation & service taps) within state or railroad Right of Way prior to construction.
- Grease Interceptor / Oil Water Separator sizing calculations & installation specifications shall be approved by the City of Raleigh Public Utilities Department. Issuance of a UC and/or Bumping Permit. (Hazard 1936-010 or fog@raleigh.gov for more information).
- Cross-connection control protection devices are required based on the degree of health hazard involved as determined by the City of Raleigh Public Utilities Department.
- The devices shall meet the American Society of Sanitary Engineering (ASSE) standards and be in the University of Southern California approval list.
- The devices shall be installed and tested (both initial and periodic testing thereafter) in accordance with the City of Raleigh Public Utilities Department cross-connection control program, whichever is more stringent. Contact Cross.connection@raleigh.gov for more information.
- For projects that require a water main replacement, Any utility reimbursement. Any utility reimbursement greater than \$250,000.00 must undergo the public bidding process.



UTILITY SERVICE NOTES

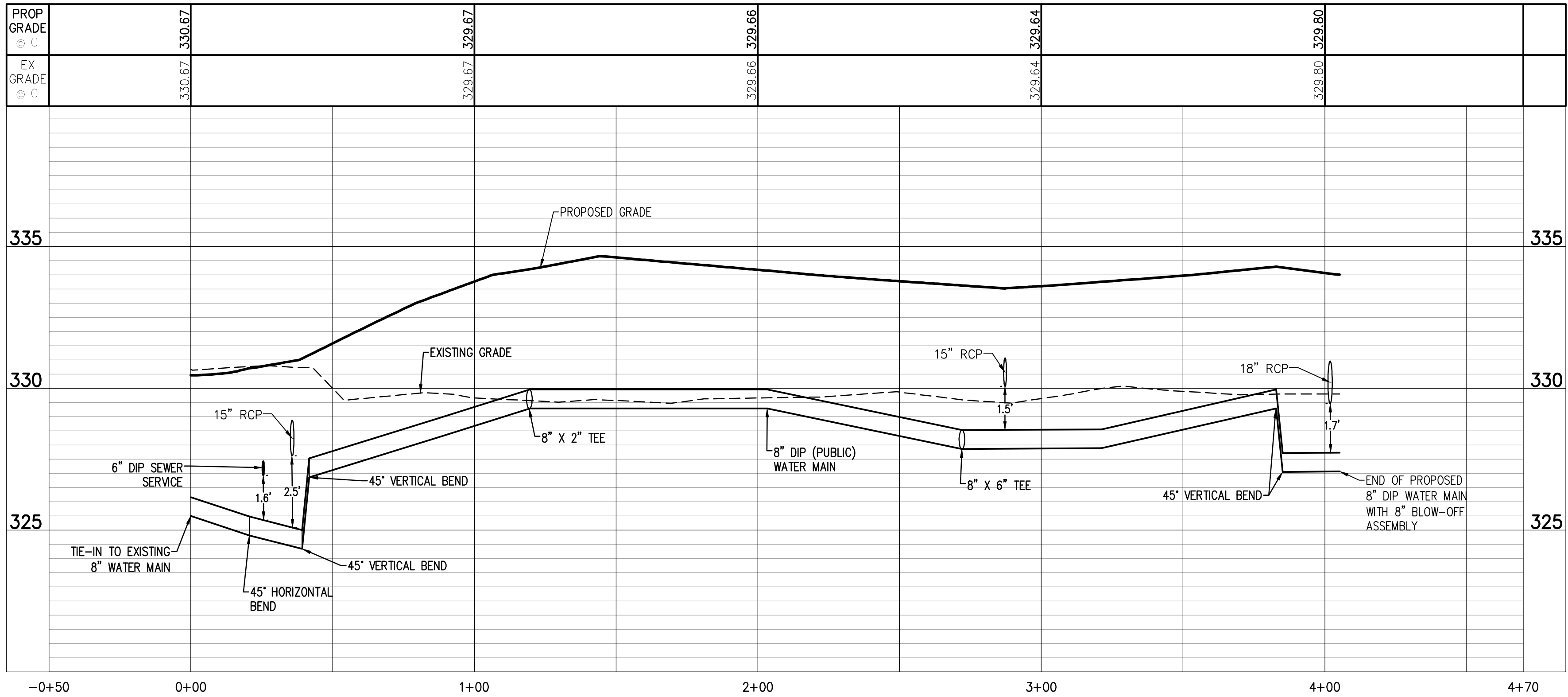
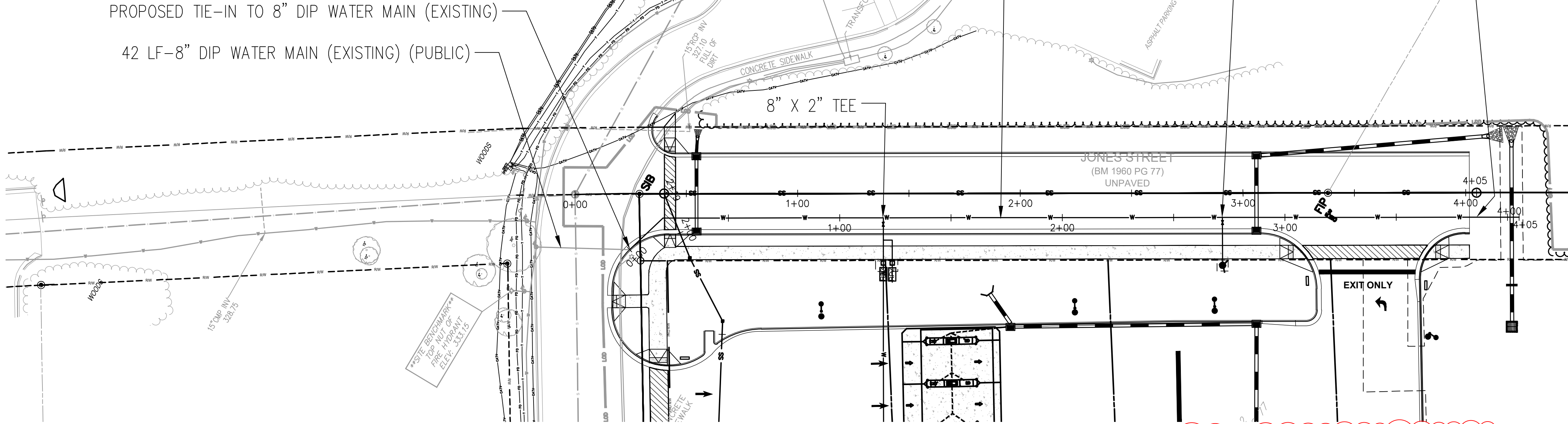
WATER SERVICE
GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 1" WATER SERVICE LINE FROM MAIN TO BUILDING PER MUNICIPAL REQUIREMENTS.
CONTACT: CITY OF RALEIGH UTILITY DEPARTMENT
TELEPHONE: 919-857-4540

ELECTRIC SERVICE
POWER CO. TO PROVIDE UNDERGROUND 120/208/3 PHASE SERVICE.
GENERAL CONTRACTOR TO PROVIDE AND INSTALL TWO 4" DIA. CONDUIT W/ FULL WIRE TO UTILITY COMPANY POINT OF CONNECTION.
CONTACT: PROGRESS ENERGY
TELEPHONE: 800-636-0581

TELEPHONE SERVICE
TELEPHONE CO. TO PROVIDE NEW UNDERGROUND SERVICE. GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 4" DIA. PVC CONDUIT W/ FULL WIRE FROM PHONE PANEL BOARD TO UTILITY COMPANY POINT OF CONNECTION.
CONTACT: TELEPHONE:
TELEPHONE:

SANITARY SEWER
GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 4" SCHEDULE 40 PVC FROM EXISTING SANITARY SEWER SYSTEM TO LAST CLEAN OUT OUTSIDE OF BUILDING (MIN. 1% SLOPE). PROVIDE CLEAN OUTS EVERY 75' (TYPICAL).
CONTACT: CITY OF RALEIGH UTILITY DEPARTMENT
TELEPHONE: 919-857-4540

NATURAL GAS
GENERAL CONTRACTOR TO COORDINATE WITH NATURAL GAS UTILITY FOR SERVICE LINE TO PROPOSED BUILDING.
CONTACT: TELEPHONE:



WATER MAIN PROFILE VIEW
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

CONDITION OF APPROVAL
A PLAT WILL NEED TO BE RECORDED WITH THE REGISTER OF DEEDS FOR ALL EASEMENT DEDICATIONS

PUBLIC
Water Distribution/Extension System
The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh
Public Utilities Department Permit # W-41087
Authorization to Construct See digital signature

PUBLIC
Sewer Collection/Extension System
The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh
Public Utilities Department Permit # S-5404
Authorization to Construct See digital signature

ATTENTION CONTRACTORS
The Construction Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Public Utilities Department at (919) 996-4540 at least twenty four hours prior to beginning any of their construction.
Failure to notify both City Departments in advance of beginning construction, will result in the issuance of monetary fines and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.
Failure to call for inspection, install a Downstream Plug, have Permitted Plansman the Jobsite, or any other Violation of City of Raleigh Standards will result in a Fine and Possible Exclusion from future work in the City of Raleigh.

- STANDARD UTILITY NOTES:
1. All materials & construction methods shall be in accordance with City of Raleigh design standards, details & specifications (reference: CORPUD Handbook, current edition).
 2. Utility separation requirements:
a) A distance of 100' shall be maintained between sanitary sewer & any private or public water supply source such as an impounded reservoir used as a source of drinking water. If adequate lateral separation cannot be achieved, ferrous sanitary sewer pipe shall be specified & installed to waterline specifications. However, the minimum separation shall not be less than 25' from a private well or 50' from a public well.
b) When installing water &/or sewer mains, the horizontal separation between utilities shall be 10'. If this separation cannot be maintained due to existing conditions, the variation allowed in the water main in a separate trench with the elevation of the water main at least 18" above the top of the sewer & must be approved by the Public Utilities Director. All distances are measured from outside diameter to outside diameter.
c) Where it is impossible to obtain proper separation, or anytime a sanitary sewer passes over a watermain, DIP materials or steel encasement extended 10' on each side of crossing must be specified & installed to waterline specifications.
d) 5.0' minimum horizontal separation is required between all sanitary sewer & storm sewer facilities, unless DIP material is specified for sanitary sewer.
e) Maintain 18" min. vertical separation at all watermain & RCP storm drain crossings; maintain 18" min. vertical separation at all sanitary sewer & RCP storm drain crossings. Where adequate separations cannot be achieved, specify DIP materials & a concrete grade having 6" min. clearance (per CORPUD details W- 41 & S-49).
f) All other underground utilities shall cross water & sewer facilities with 18" min. vertical separation required.
3. Any necessary field revisions are subject to review & approval of an amended plan &/or profile by the City of Raleigh Public Utilities Department prior to construction.
4. Developer shall provide 30 days advance written notice to owner for any work required within an existing City of Raleigh Utility Easement, traversing private property.
5. Contractor shall maintain continuous water & sewer service to existing residences & businesses throughout construction of project. Any necessary service interruptions shall be preceded by a 24-hour advance notice to the City of Raleigh Public Utilities Department.
6. SEWER BYPASS PUMPING - A bypass plan sealed by an NC Professional Engineer shall be provided to Raleigh Water prior to pumping operations for approval. The operations and equipment shall comply with the Public Utilities Handbook.
7. 3.0' minimum cover is required on all water mains & sewer force mains. 4.0' minimum cover is required on all reuse mains.
8. It is the developer's responsibility to abandon or remove existing water & sewer services not being used in redevelopment of a site unless otherwise directed by the City of Raleigh Public Utilities Department. This includes abandoning tap at main & removal of service from ROW or easement per CORPUD Handbook procedure.
9. Install 2" copper water services with meters located at ROW or within a 2x2' Waterline Easement immediately adjacent. NOTE: It is the applicant's responsibility to properly size the water service for each connection to provide adequate flow & pressure.
10. Install 6" PVC sewer services @ 1.0% minimum grade with cleanouts located at ROW or easement line & spaced every 75 linear feet maximum.
11. Pressure reducing valves are required on all water services exceeding 80 psi; backwater valves are required on all sanitary sewer services having building drains lower than 1.0' above the next upstream manhole.
12. All environmental permits applicable to the project must be obtained from NCDM, USACE &/or FEMA for any riparian buffer, wetland &/or floodplain impacts (respectively) prior to construction.
13. NC DOT / Railroad Encroachment Agreements are required for any utility work (including main extensions & service taps) within state or railroad ROW prior to construction.
14. Grease Interceptor / Oil Water Separator sizing calculations & installation specifications shall be approved by the RW FOG Program Coordinator prior to issuance of a UC and/or Building Permit. Contact (919) 996-4516 or fog@raleigh.gov for more information.
15. Cross-connection control protection devices are required based on the degree of health hazard involved as listed in Appendix B of the Rules Governing Public Water Systems in North Carolina.
16. The devices shall meet the American Society of Sanitary Engineering (ASSE) standards and be on the University of Southern California approved list.
17. The device and installation shall meet the guidelines of Appendix A - Guidelines and Requirements for the Cross Connection Program in Raleigh's Service Area.
18. The devices shall be installed and tested (both, initial and periodic testing thereafter) in accordance with the manufacturer's recommendations or the local cross connection control program, whichever is more stringent. Contact: Crossconnection@raleigh.gov for more information.
19. NOTICE for projects that involve an oversized main or urban main replacement. Any City reimbursement greater than \$250,000.00 must undergo the public bidding process.

811
Know what's below.
Call before you dig.

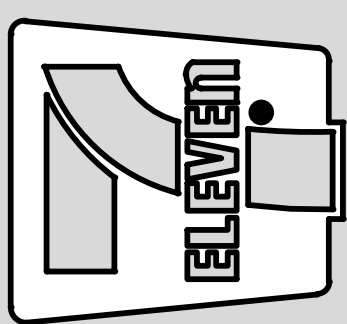
BEFORE YOU DIG
STOP
CALL 1 800 632-4949
N.C. ONE-CALL CENTER
IT'S THE LAW

GRAPHIC SCALE
50 0 25 0 100 200
(IN FEET)
1 inch = 50 ft.

Bowman
Bowman North Carolina Ltd.
4000 S. DR
Suite 104
RALEIGH, NC 27609
Phone: (919) 553-6570
bowman.com
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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

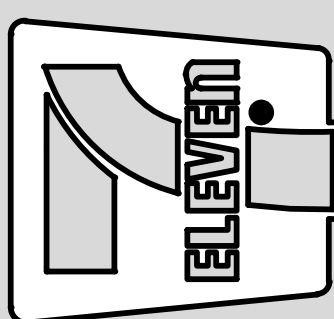
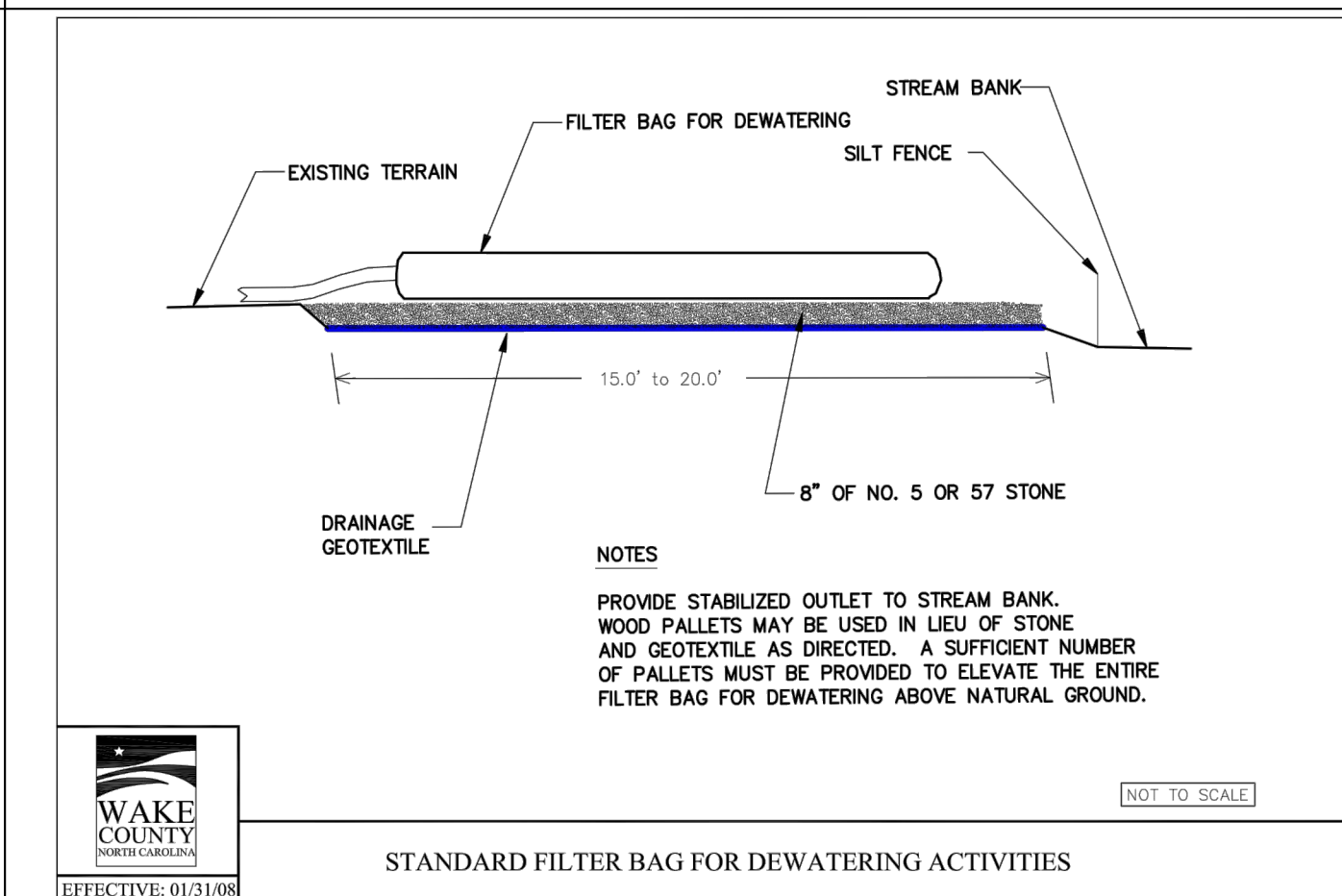
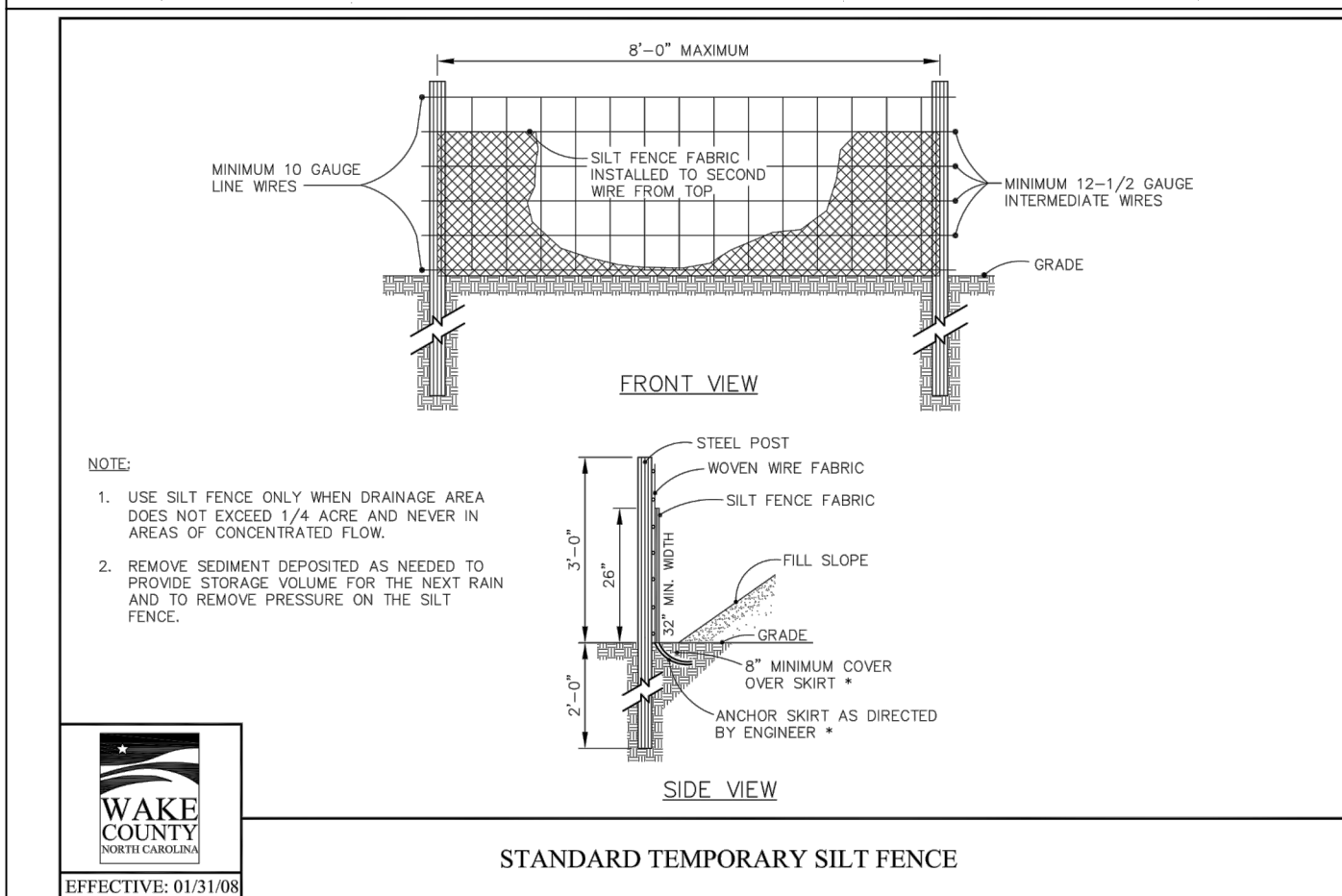
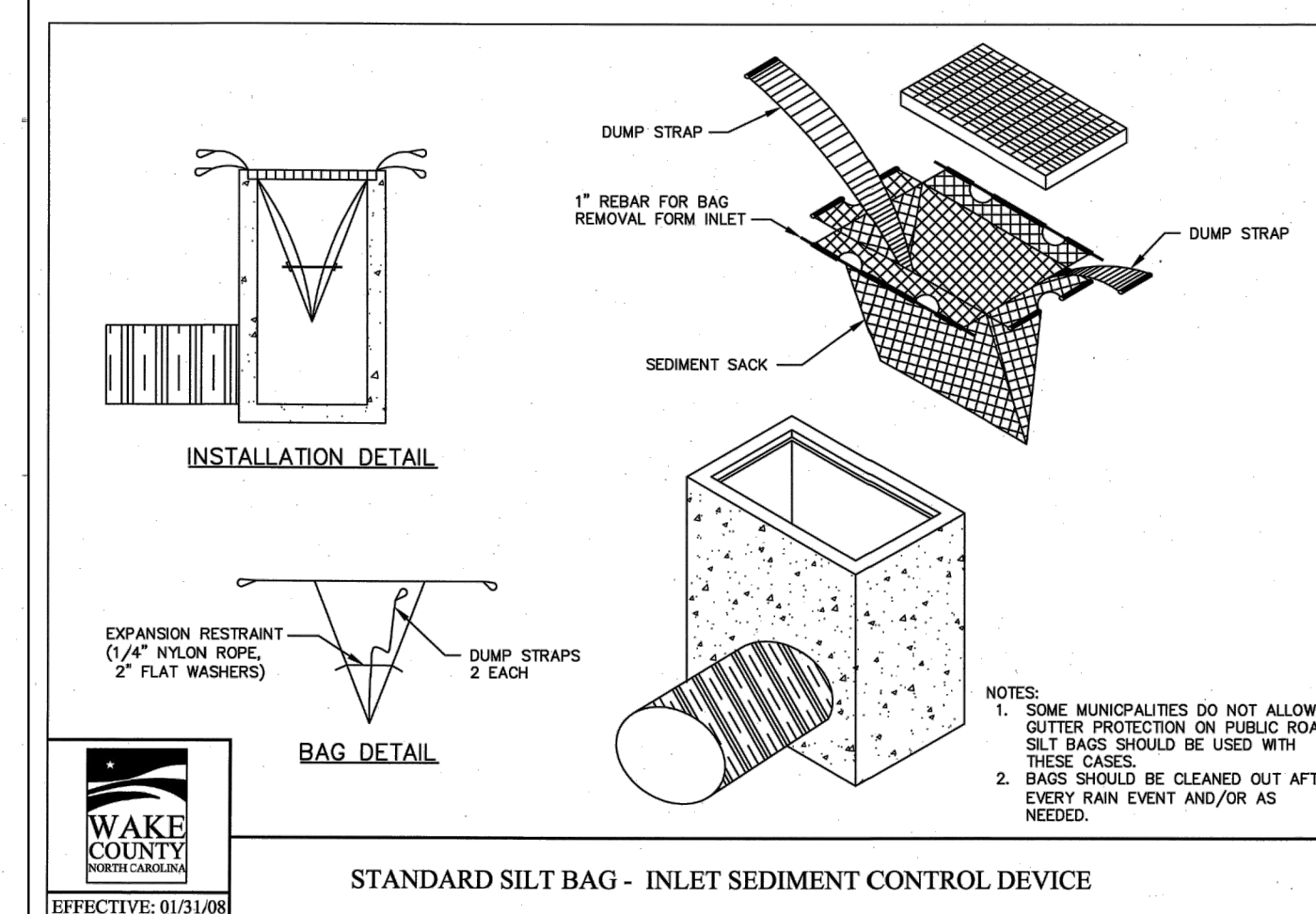
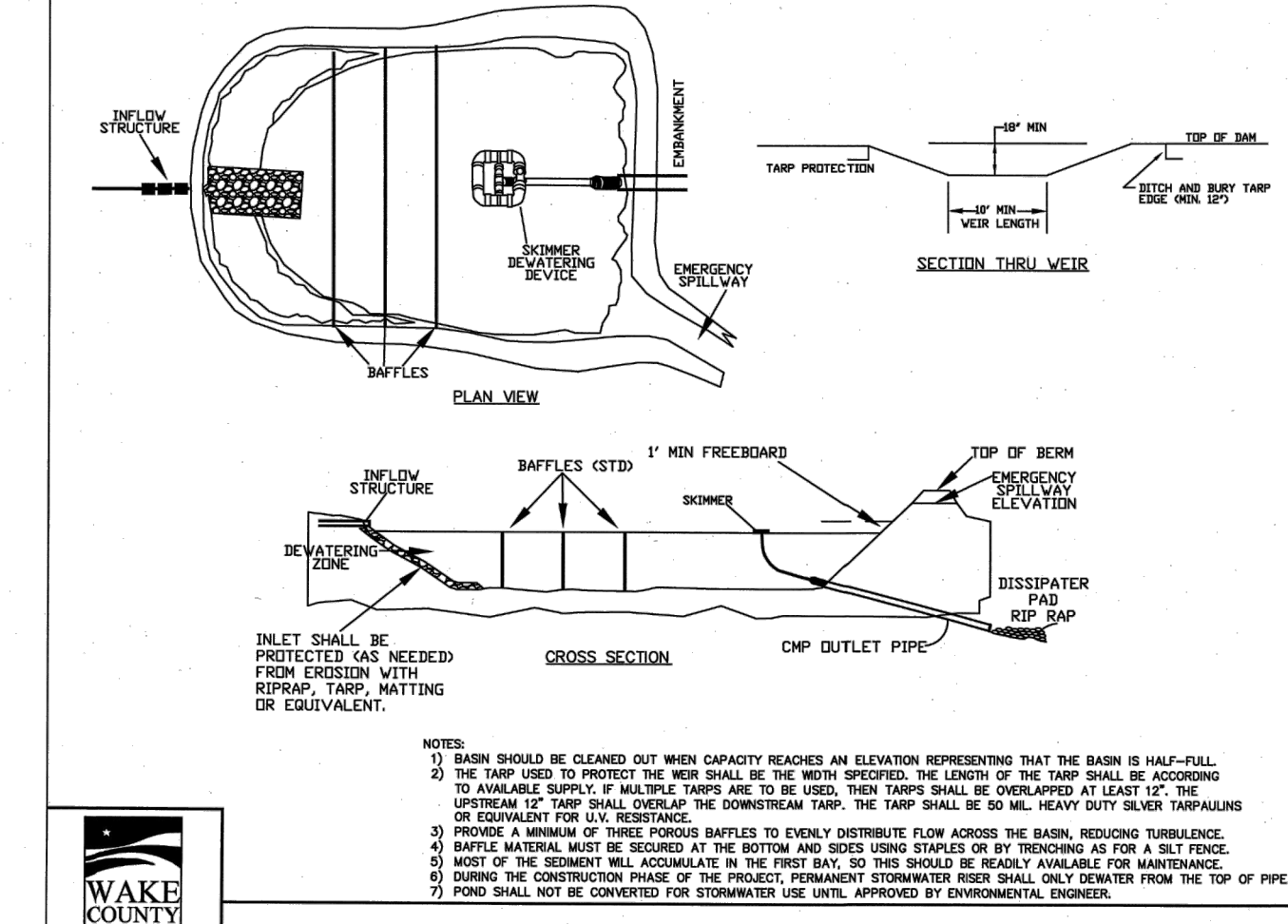
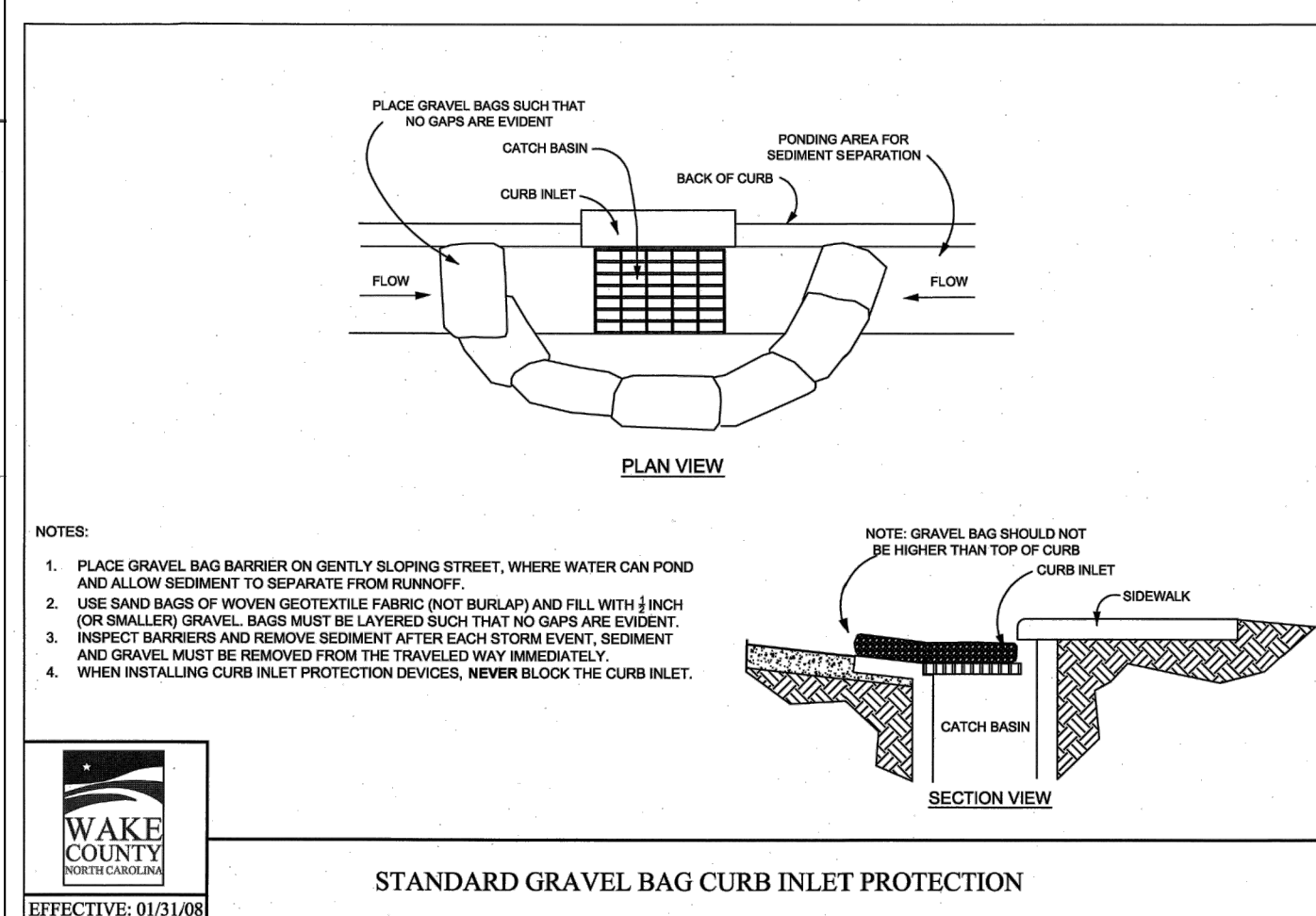
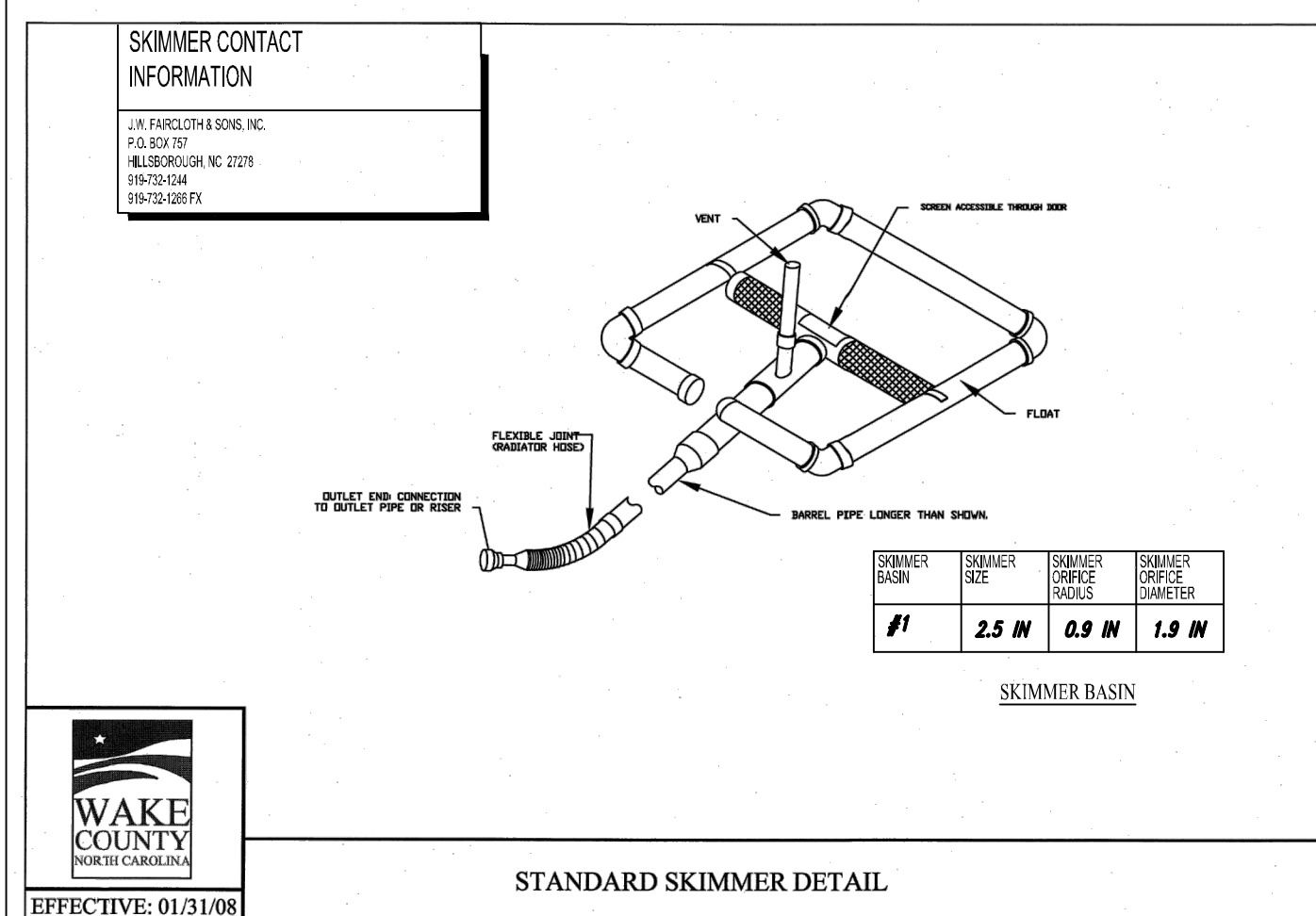
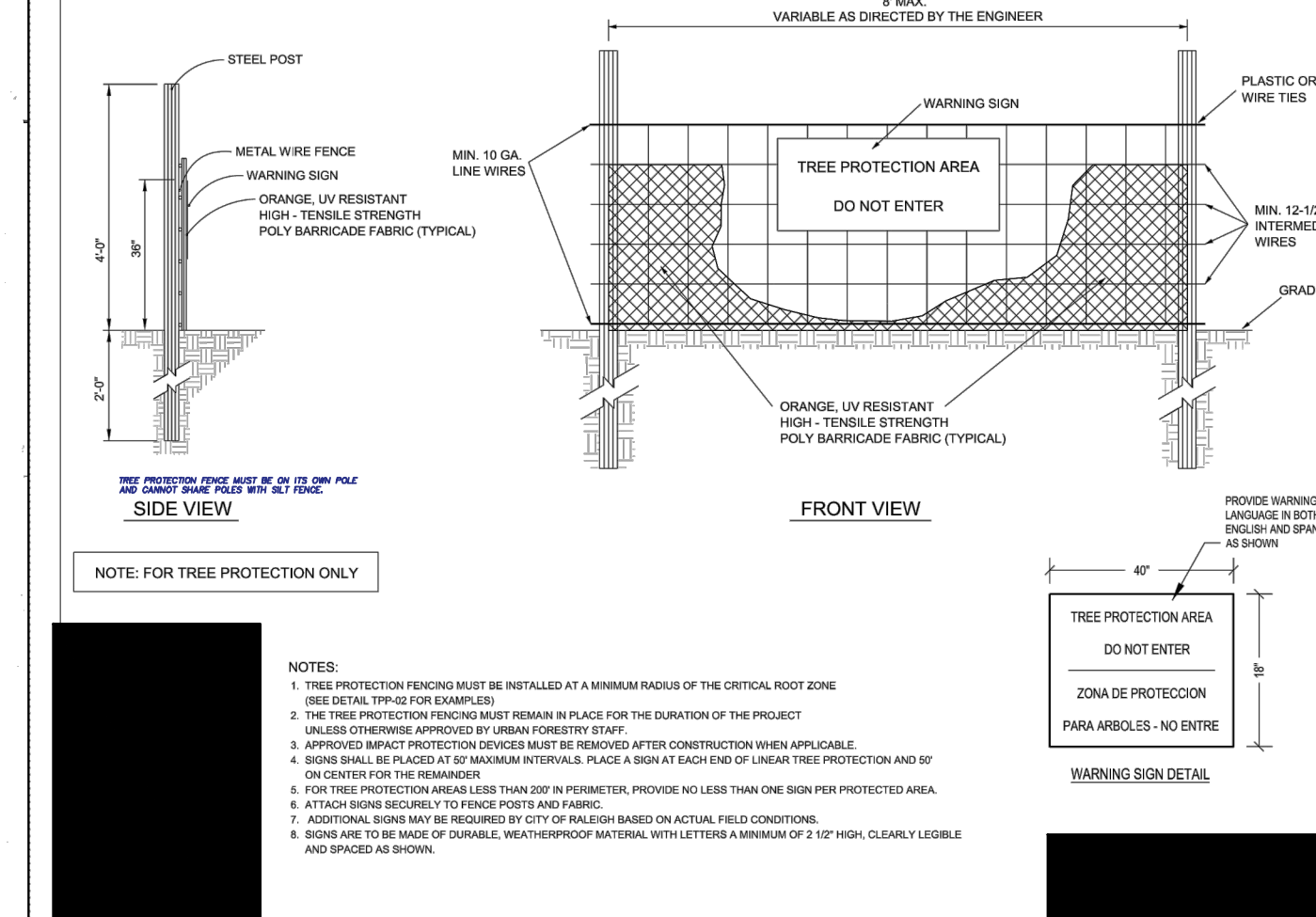
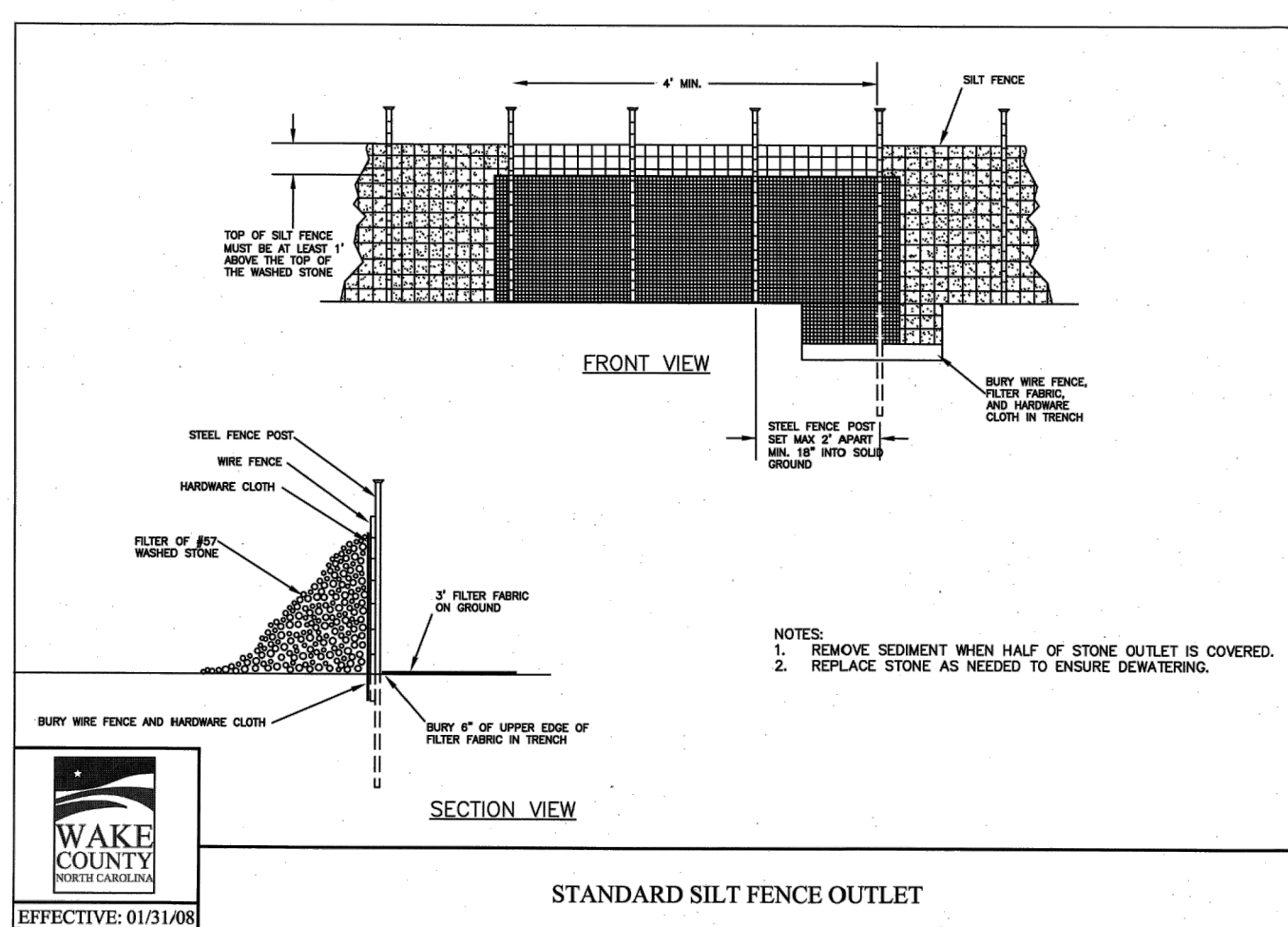
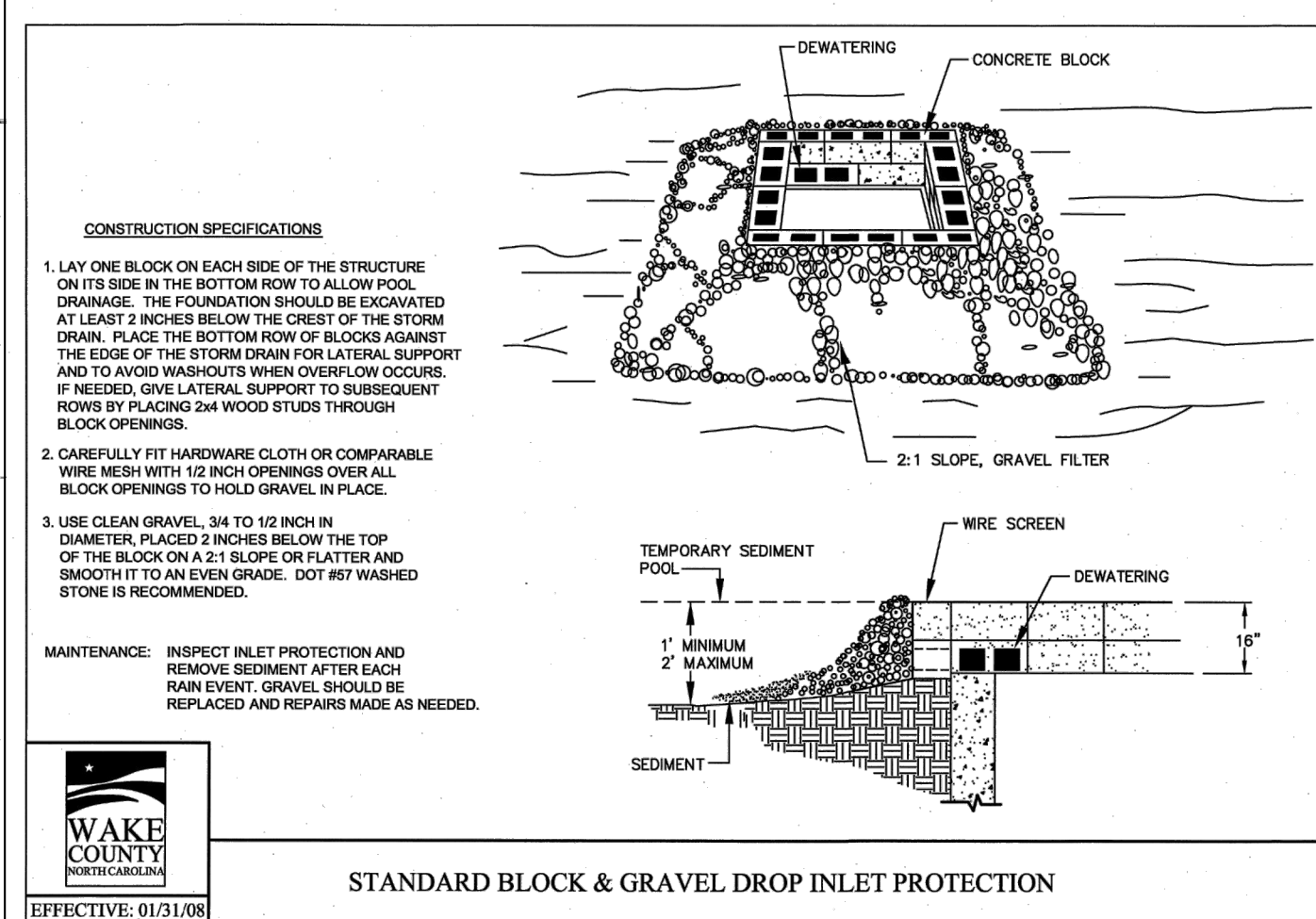
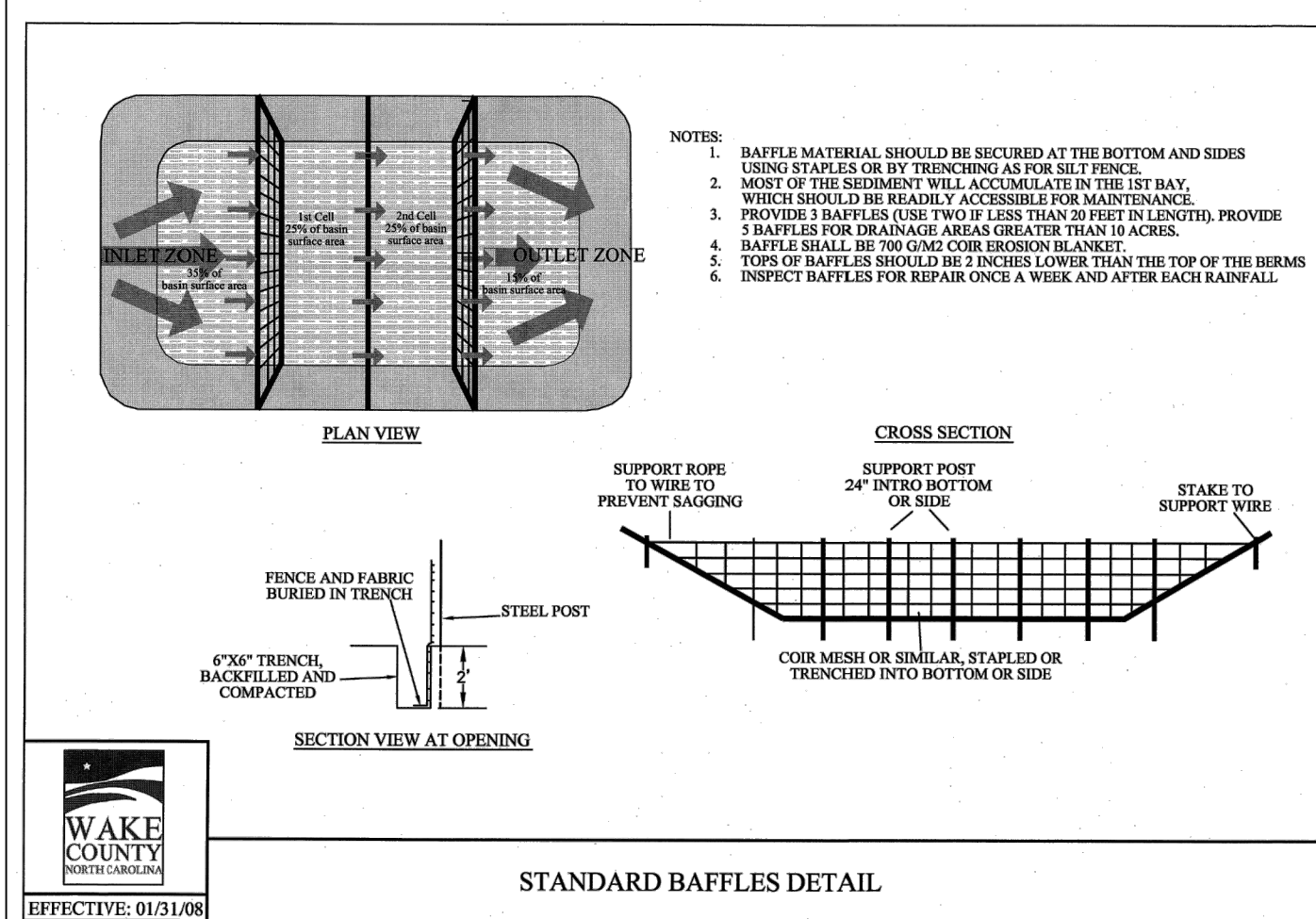
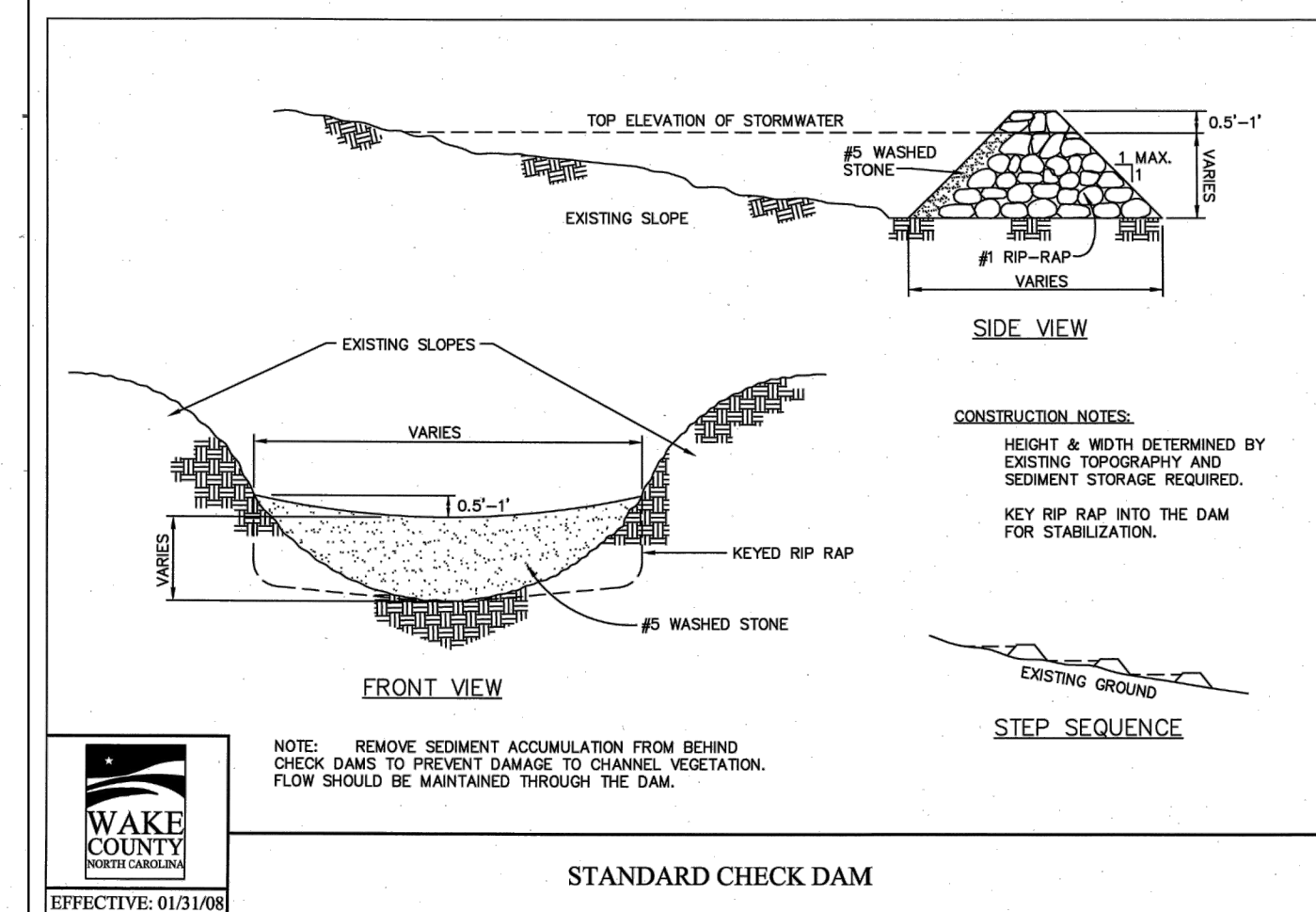
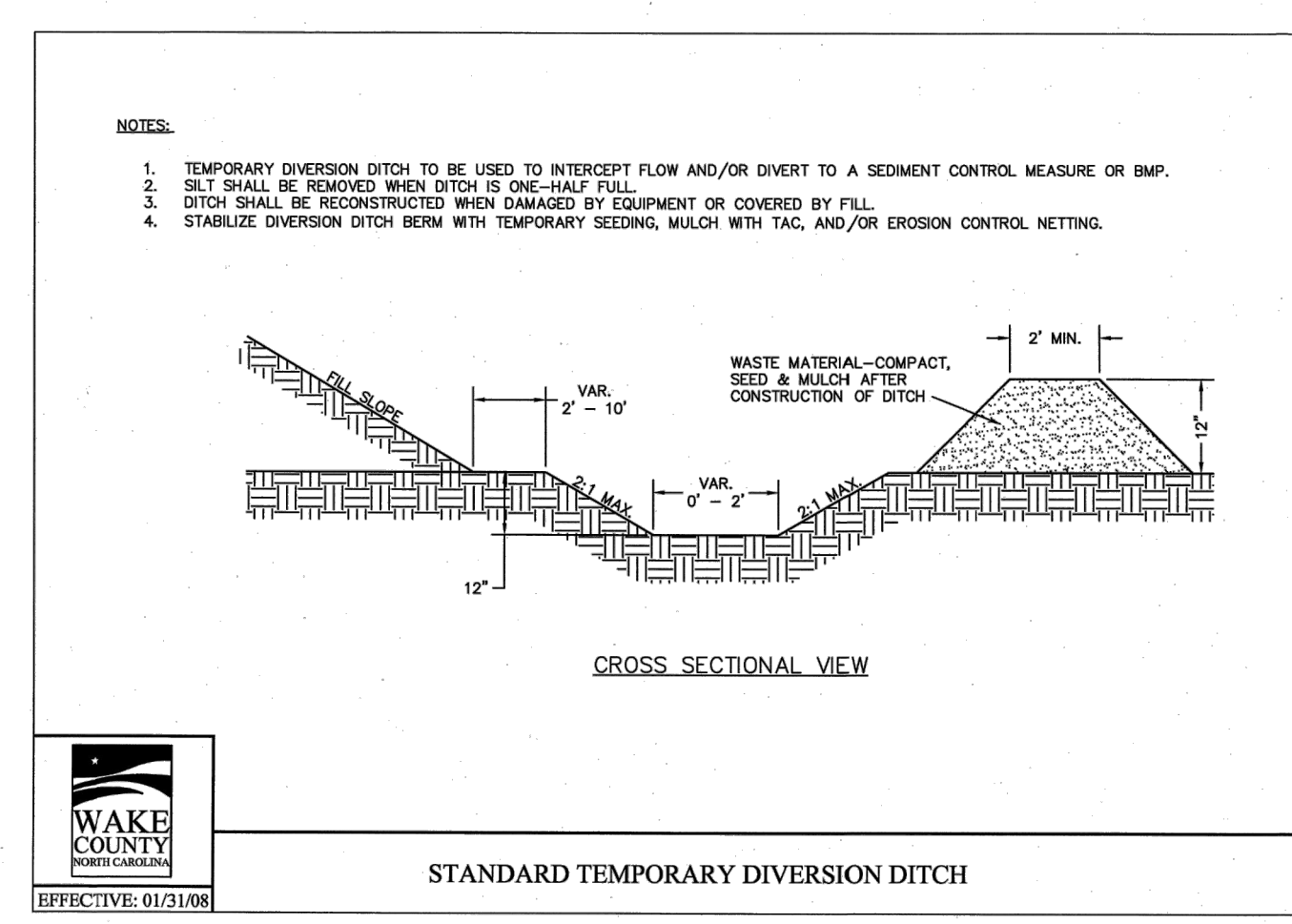
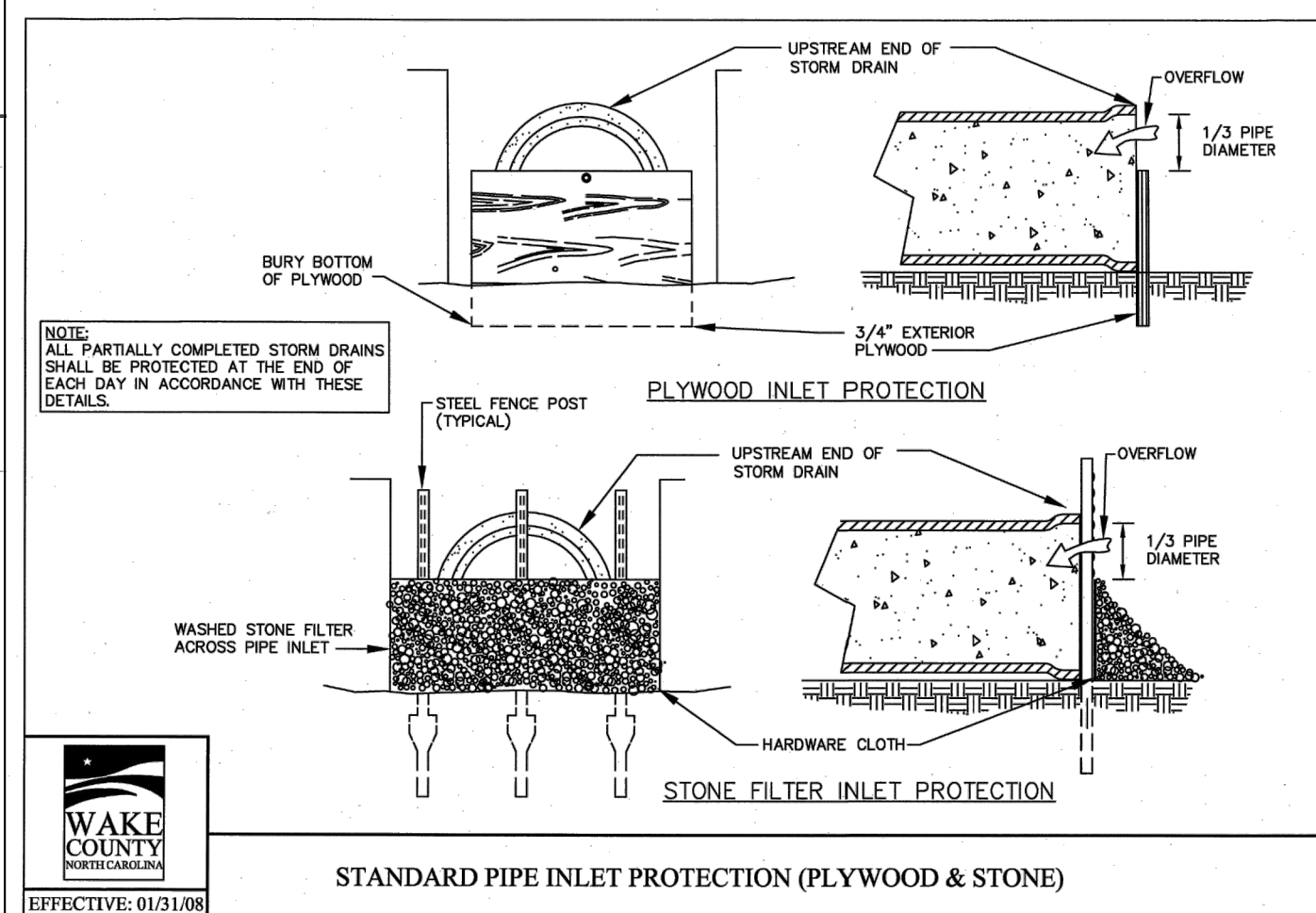
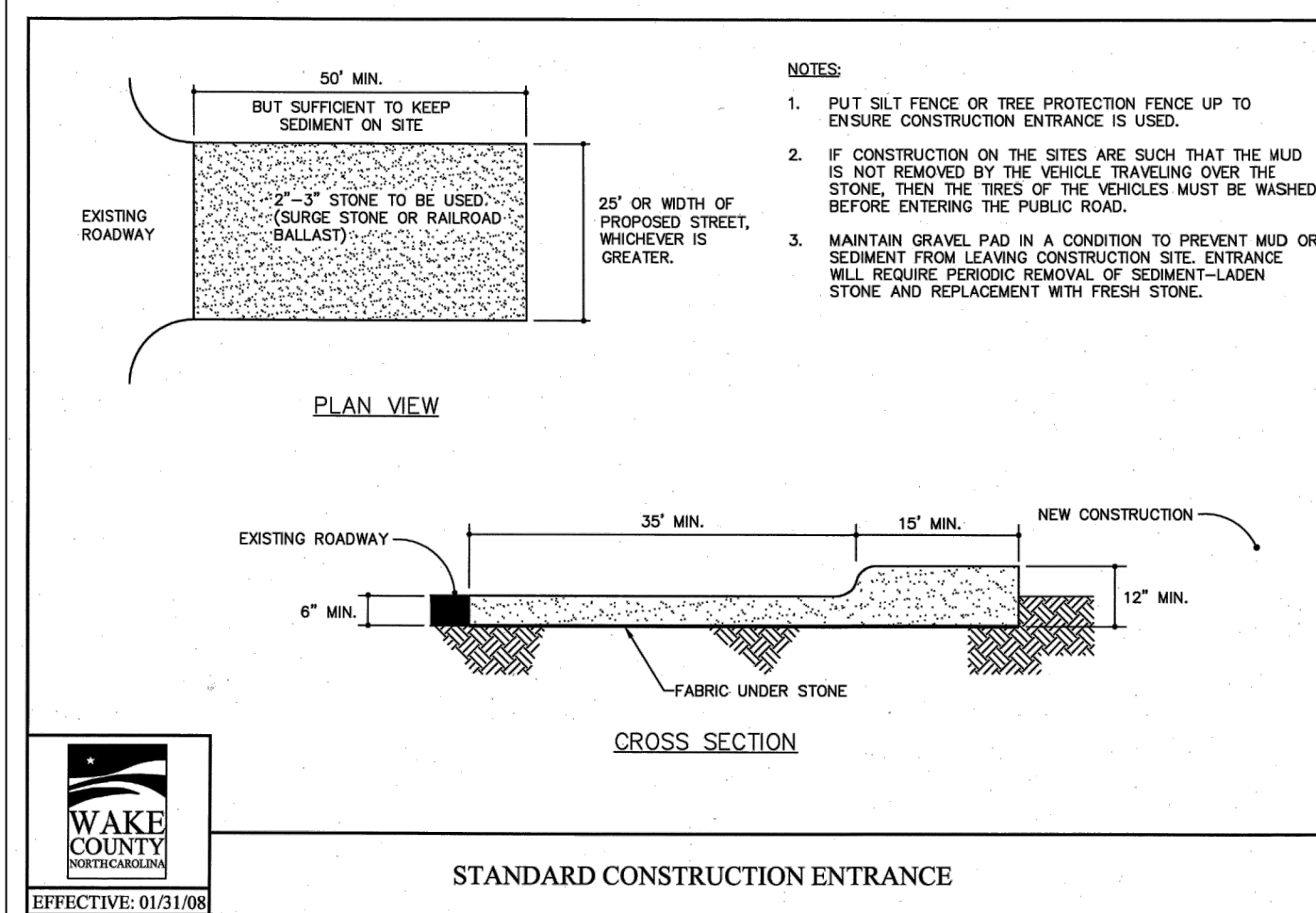


DATE	REVISION DESCRIPTION	REVIEWED BY	DATE
1	REVISED		
2	TOWN OF ZEBULON REVIEW		
3	BRIMMIS 05/23		
4	TOWN OF ZEBULON REVIEW		
5	WAKE COUNTY REVIEW		
6	BRIMMIS 08/24		
7	TOWN OF ZEBULON REVIEW		
8	BRIMMIS 08/24		
9	TOWN OF ZEBULON REVIEW		
10	BRIMMIS 08/24		

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STORE OR BLDG NO.:
N/A
VERSION OR PROJECT ID:
N/A
DESIGN TEAM
DGNR: BRM & MCB
PM/DP: ML
RWVR: ML
ISSUE DATE: 04/08/2024
ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27597

SHEET TITLE
WATER
PLAN AND
PROFILE
DRWG. NO.
C5.3



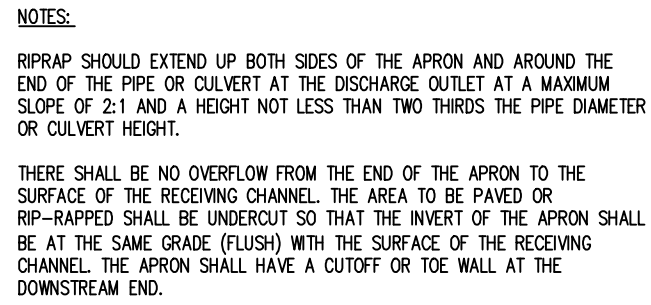
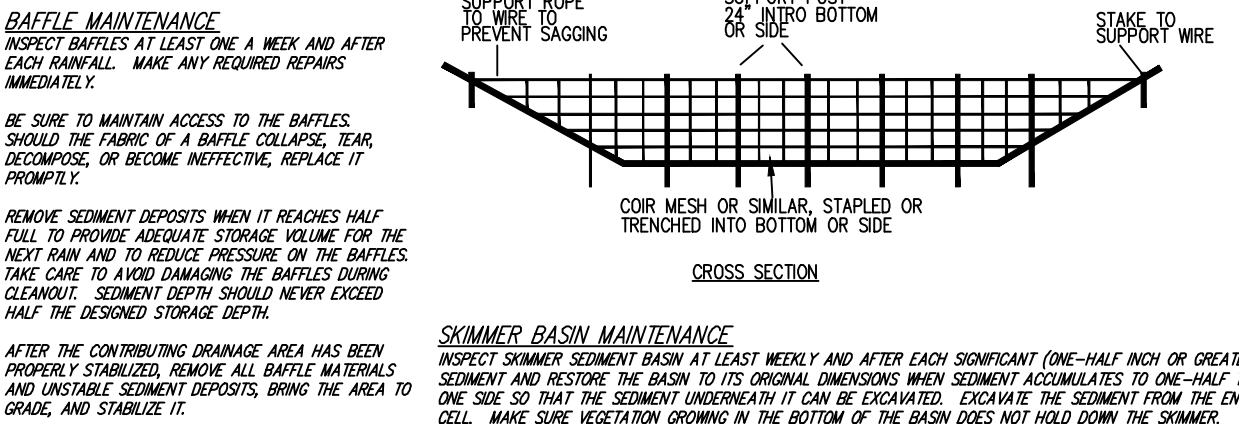
MARK	REVIEWED BY	REVISIONS DESCRIPTION	REVIEWED BY	REVISIONS DESCRIPTION
1	BRM	10/2/23		
2	BRM/BCS	TOWN OF ZEBULON REVIEW		
3	MACB	12/7/23		
4	BRM/BCS	WAKE COUNTY REVIEW		
5	BRM/BCS	TOWN OF ZEBULON REVIEW		
6	BRM/BCS	TOWN OF ZEBULON REVIEW		

This drawing is the property of Zebulon and is not to be used

SEWAGE TREATMENT PLANTS SHALL MEET THE FOLLOWING REQUIREMENTS:

DESIGN STRUCTURES SHALL BE CONSTRUCTED TO PREVENT THE FOLLOWING:

- 1) FOR BASINS OR TRAPS THAT HAVE A DRAINAGE AREA OF LESS THAN 1,000 ACRES, DRAW-DOWN DEVICES SETTING IN THE DRAINAGE OF LAKE RESOURCES OR DELEGATED LOCAL PROGRAM REQUIREMENTS ARE ACCEPTABLE.
- 2) ALL TREATMENT CHAMBERS MUST BE STORED IN LEAK-PROOF CONTAINERS THAT ARE KEPT UNDER COVER AND COVERED OR SUBMERGED UNDER WATER TO PREVENT DROPPING DEBRIS AND APPLICATION RATES ABOVE WATER.
- 3) ALL DRAINAGE DEVICES MUST BE ACCURATELY MONITORED FOR DROPPING DEBRIS AND APPLICATION RATES SET BY THE MANUFACTURER, SUPPLIER AND AS SPECIFIED BY THE DIVISION OF WATER QUALITY.
- 4) THE PERMITTEE MUST USE ONLY CHEMICALS THAT HAVE BEEN APPROVED BY THE NC DIVISION OF WATER QUALITY AND BE IN THEIR OWNED OR RENTED TANKS. THE PERMITTEE MUST HAVE A PHOTOGRAPH OF THE TANKS AND FOUND ON THEIR WEB SITE AT: <http://portal.ncdwr.com/web/ncdwr/ncdwr.asp>
- 5) THE PERMITTEE MUST STORE DETERMINATE INKED WITH POLYMERIS, FLOCCULANTS, OR OTHER REAGENTS IN A CONTAINER THAT PROVIDES PROPER DESIGN AND FILTERING. THE PERMITTEE MUST APPROVE THE PROPOSED TREATMENT RATION OF SEWAGE FLOCCULENT PRODUCT TO DISCHARGE TO SURFACE WATERS.
- 6) DISCHARGE EQUIPMENT MUST BE MAINTAINED TO PREVENT THE DISCHARGE OF THE SEWMENT POLLUTANT CONTROL ACT AND UTILIZE THE PROVISIONS OF SECTION 4.6 OF THE PERSONS AND SEWMENT CONTROL PLANNING AND CONSTRUCTION ACT. THE PERMITTEE MUST HAVE A PHOTOGRAPH OF THE EQUIPMENT AND THE POTENTIAL FOR VISIBLE SILTATION OUTSIDE OF THE 25% DESIGN FLOW (SECTION 4.6.4) OF THE LAKE-ESTUARINE ACTIVITY.



2 RIP-RAP APRON
NOT TO SCALE

2 NOT TO SCALE

CROSS-SECTION VIEW

NOTES:

1. REFER TO SHEET 300 FOR ELEVATION OF EMBANKMENT 1.

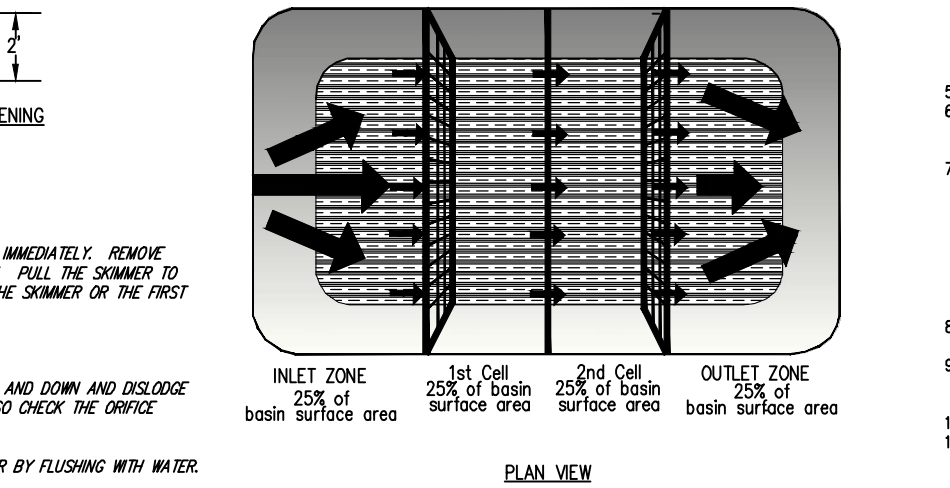
SKIN INFORMATION:

LINE	DATE	DESCRIPTION (AS BUILT)	RISER	BARREL	EMBANKMENT 1	EMBANKMENT 2	EMBANKMENT 3	EMBANKMENT 4	EMBANKMENT 5	EMBANKMENT 6	EMBANKMENT 7	EMBANKMENT 8	EMBANKMENT 9	EMBANKMENT 10	EMBANKMENT 11	EMBANKMENT 12	EMBANKMENT 13	EMBANKMENT 14	EMBANKMENT 15	EMBANKMENT 16	EMBANKMENT 17	EMBANKMENT 18	EMBANKMENT 19	EMBANKMENT 20	EMBANKMENT 21	EMBANKMENT 22	EMBANKMENT 23	EMBANKMENT 24	EMBANKMENT 25	EMBANKMENT 26	EMBANKMENT 27	EMBANKMENT 28	EMBANKMENT 29	EMBANKMENT 30	EMBANKMENT 31	EMBANKMENT 32	EMBANKMENT 33	EMBANKMENT 34	EMBANKMENT 35	EMBANKMENT 36	EMBANKMENT 37	EMBANKMENT 38	EMBANKMENT 39	EMBANKMENT 40	EMBANKMENT 41	EMBANKMENT 42	EMBANKMENT 43	EMBANKMENT 44	EMBANKMENT 45	EMBANKMENT 46	EMBANKMENT 47	EMBANKMENT 48	EMBANKMENT 49	EMBANKMENT 50	EMBANKMENT 51	EMBANKMENT 52	EMBANKMENT 53	EMBANKMENT 54	EMBANKMENT 55	EMBANKMENT 56	EMBANKMENT 57	EMBANKMENT 58	EMBANKMENT 59	EMBANKMENT 60	EMBANKMENT 61	EMBANKMENT 62	EMBANKMENT 63	EMBANKMENT 64	EMBANKMENT 65	EMBANKMENT 66	EMBANKMENT 67	EMBANKMENT 68	EMBANKMENT 69	EMBANKMENT 70	EMBANKMENT 71	EMBANKMENT 72	EMBANKMENT 73	EMBANKMENT 74	EMBANKMENT 75	EMBANKMENT 76	EMBANKMENT 77	EMBANKMENT 78	EMBANKMENT 79	EMBANKMENT 80	EMBANKMENT 81	EMBANKMENT 82	EMBANKMENT 83	EMBANKMENT 84	EMBANKMENT 85	EMBANKMENT 86	EMBANKMENT 87	EMBANKMENT 88	EMBANKMENT 89	EMBANKMENT 90	EMBANKMENT 91	EMBANKMENT 92	EMBANKMENT 93	EMBANKMENT 94	EMBANKMENT 95	EMBANKMENT 96	EMBANKMENT 97	EMBANKMENT 98	EMBANKMENT 99	EMBANKMENT 100
39	3.39	13.6	NA	NA	1.0	2.0	4.0	10	1.5	5.0	REFER TO EMB PLAN																																																																																													

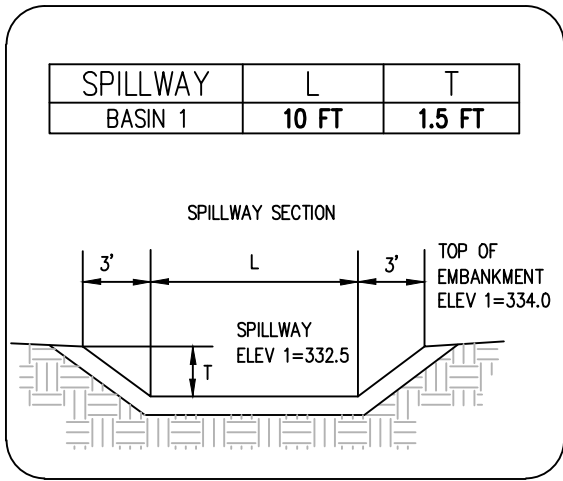
NOTES:

1. BATTLE MATERIAL SHOULD BE SECURED AT THE BOTTOM AND SIDES USING STAPLES OR BY TIEING AS FOR SL FENCE.
2. MOST OF THE SEDIMENT WILL ACCUMULATE IN THE 1ST BAY, WHICH SHOULD BE KEPT OPENIBLE FOR MAINTENANCE.
3. PROVIDE 5 BATTLES (USE 2 FT. IF LESS THAN 20 FEET IN LENGTH). PROVIDE 5 BATTLES FOR DRAINAGE AREAS GREATER THAN 10 ACRES.
4. BATTLE SHALL BE 700 G.M. AND CORROSION RESISTANT.
5. TOPS OF BATTLES SHOULD BE 2 INCHES LOWER THAN THE TOP OF THE BERMS.
6. INSPECT BATTLES FOR REPAIR ONE WEEK AND AFTER EACH RAINFALL.

—STEEL POST



Y. CHECK THE
URY REPAIRS IMMEDIATELY.

[illegible]

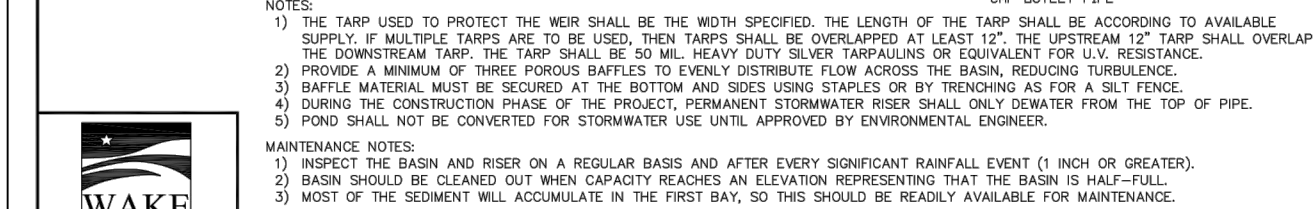
DITCH	FLOW Q(25)	LONG. SLOPE(%)	H	B	W	SS	CHANNEL LINING
TEMPORARY DITCH #1	6.7 CFS	0.90%	1.25'	1.0'	6.0'	2:1	DS75

NPDES Stormwater Discharge Permit for Construction Activities (NCG01 - 4/1/19)
NCDEQ/Division of Energy, Mineral and Land Resources

CHECK INFORMATION		REMARKS	
Site Area Description	Station within the site	Sampling date	Identifiable vegetation
1. (a) Perimeter ditch, drainage, rocky, steeply sloping, high quality forest	near the road after crossing the ditch	12/01/2016	None
2. (b) Stream	near the road	12/01/2016	None
3. (c) Stream	near the road	12/01/2016	2 species of fish: 1. <i>Myxocyprinus</i> sp. 2. <i>Myxocyprinus</i> sp. 3. <i>Myxocyprinus</i> sp. 4. <i>Myxocyprinus</i> sp. 5. <i>Myxocyprinus</i> sp. 6. <i>Myxocyprinus</i> sp. 7. <i>Myxocyprinus</i> sp. 8. <i>Myxocyprinus</i> sp. 9. <i>Myxocyprinus</i> sp. 10. <i>Myxocyprinus</i> sp. 11. <i>Myxocyprinus</i> sp. 12. <i>Myxocyprinus</i> sp. 13. <i>Myxocyprinus</i> sp. 14. <i>Myxocyprinus</i> sp. 15. <i>Myxocyprinus</i> sp. 16. <i>Myxocyprinus</i> sp. 17. <i>Myxocyprinus</i> sp. 18. <i>Myxocyprinus</i> sp. 19. <i>Myxocyprinus</i> sp. 20. <i>Myxocyprinus</i> sp. 21. <i>Myxocyprinus</i> sp. 22. <i>Myxocyprinus</i> sp. 23. <i>Myxocyprinus</i> sp. 24. <i>Myxocyprinus</i> sp. 25. <i>Myxocyprinus</i> sp. 26. <i>Myxocyprinus</i> sp. 27. <i>Myxocyprinus</i> sp. 28. <i>Myxocyprinus</i> sp. 29. <i>Myxocyprinus</i> sp. 30. <i>Myxocyprinus</i> sp. 31. <i>Myxocyprinus</i> sp. 32. <i>Myxocyprinus</i> sp. 33. <i>Myxocyprinus</i> sp. 34. <i>Myxocyprinus</i> sp. 35. <i>Myxocyprinus</i> sp. 36. <i>Myxocyprinus</i> sp. 37. <i>Myxocyprinus</i> sp. 38. <i>Myxocyprinus</i> sp. 39. <i>Myxocyprinus</i> sp. 40. <i>Myxocyprinus</i> sp. 41. <i>Myxocyprinus</i> sp. 42. <i>Myxocyprinus</i> sp. 43. <i>Myxocyprinus</i> sp. 44. <i>Myxocyprinus</i> sp. 45. <i>Myxocyprinus</i> sp. 46. <i>Myxocyprinus</i> sp. 47. <i>Myxocyprinus</i> sp. 48. <i>Myxocyprinus</i> sp. 49. <i>Myxocyprinus</i> sp. 50. <i>Myxocyprinus</i> sp. 51. <i>Myxocyprinus</i> sp. 52. <i>Myxocyprinus</i> sp. 53. <i>Myxocyprinus</i> sp. 54. <i>Myxocyprinus</i> sp. 55. <i>Myxocyprinus</i> sp. 56. <i>Myxocyprinus</i> sp. 57. <i>Myxocyprinus</i> sp. 58. <i>Myxocyprinus</i> sp. 59. <i>Myxocyprinus</i> sp. 60. <i>Myxocyprinus</i> sp. 61. <i>Myxocyprinus</i> sp. 62. <i>Myxocyprinus</i> sp. 63. <i>Myxocyprinus</i> sp. 64. <i>Myxocyprinus</i> sp. 65. <i>Myxocyprinus</i> sp. 66. <i>Myxocyprinus</i> sp. 67. <i>Myxocyprinus</i> sp. 68. <i>Myxocyprinus</i> sp. 69. <i>Myxocyprinus</i> sp. 70. <i>Myxocyprinus</i> sp. 71. <i>Myxocyprinus</i> sp. 72. <i>Myxocyprinus</i> sp. 73. <i>Myxocyprinus</i> sp. 74. <i>Myxocyprinus</i> sp. 75. <i>Myxocyprinus</i> sp. 76. <i>Myxocyprinus</i> sp. 77. <i>Myxocyprinus</i> sp. 78. <i>Myxocyprinus</i> sp. 79. <i>Myxocyprinus</i> sp. 80. <i>Myxocyprinus</i> sp. 81. <i>Myxocyprinus</i> sp. 82. <i>Myxocyprinus</i> sp. 83. <i>Myxocyprinus</i> sp. 84. <i>Myxocyprinus</i> sp. 85. <i>Myxocyprinus</i> sp. 86. <i>Myxocyprinus</i> sp. 87. <i>Myxocyprinus</i> sp. 88. <i>Myxocyprinus</i> sp. 89. <i>Myxocyprinus</i> sp. 90. <i>Myxocyprinus</i> sp. 91. <i>Myxocyprinus</i> sp. 92. <i>Myxocyprinus</i> sp. 93. <i>Myxocyprinus</i> sp. 94. <i>Myxocyprinus</i> sp. 95. <i>Myxocyprinus</i> sp. 96. <i>Myxocyprinus</i> sp. 97. <i>Myxocyprinus</i> sp. 98. <i>Myxocyprinus</i> sp. 99. <i>Myxocyprinus</i> sp. 100. <i>Myxocyprinus</i> sp. 101. <i>Myxocyprinus</i> sp. 102. <i>Myxocyprinus</i> sp. 103. <i>Myxocyprinus</i> sp. 104. <i>Myxocyprinus</i> sp. 105. 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Seedbed Preparation

1. Chisel compacted areas and spread topsoil three inches deep over adverse soil conditions, if available.
2. Rip the entire area to six inches deep.
3. Remove all loose rock, roots and other obstructions, leaving surface reasonably smooth and in good form.
4. Apply agricultural lime, fertilizer and superphosphate uniformly and mix with soil (see mixture below).
5. Continue tillage until a well-pulverized, firm, reasonably uniform seedbed is prepared four to six inches deep.
6. Seed on a fresh, pre-spread and cover seed lightly with seeding equipment or cultipack after seeding.
7. Muck immediately after seeding and anchor muck.



 EFFECTIVE: 01/31/15	STANDARD SKIMMER ATTACHED TO PERMANENT RISER
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STANDARD SKIMMER ATTACHED TO PERMANENT RISER

Rip Rap Apron#1			Rip Rap Apron#2		
	DIMENSIONS			DIMENSIONS	
ENTRY WIDTH	3.0	FT	ENTRY WIDTH	3.0	FT
LENGTH	6.0	FT	LENGTH	6.0	FT
EXIT WIDTH	7.5	FT	EXIT WIDTH	7.5	FT
MIN. THICKNESS	12	IN	MIN. THICKNESS	12.0	IN
MIN. STONE DIAMETER	3	IN	MIN. STONE DIAMETER	3.0	IN
STONE CLASS	A		STONE CLASS	A	

Rip Rap Apron#3			Rip Rap Apron#4		
	DIMENSIONS			DIMENSIONS	
ENTRY WIDTH	3.0	FT	ENTRY WIDTH	2.5	FT
LENGTH	6.0	FT	LENGTH	5.0	FT
EXIT WIDTH	7.5	FT	EXIT WIDTH	5.0	FT
MIN. THICKNESS	12.0	IN	MIN. THICKNESS	12.0	IN
MIN. STONE DIAMETER	3.0	IN	MIN. STONE DIAMETER	3.0	IN
STONE CLASS	A		STONE CLASS	A	

Rip Rap Apron#5		
	DIMENSIONS	
ENTRY WIDTH	2.5	FT
LENGTH	5.0	FT
EXIT WIDTH	6.3	FT
MIN. THICKNESS	12.0	IN
MIN. STONE DIAMETER	3.0	IN
STONE CLASS		

CONSTRUCTION SPECIFICATIONS:

[illegible]

NEEDED TO PROTECT THE FILTER CLOTH.

THE RIPPAP SHOULD BE PLACED IMMEDIATELY AFTER PLACEMENT OF THE FILTER. PLACE RIPPAP SO THAT IT FORMS A DENSE, WELL-GRADED MASS OF STONE WITH A MINIMUM OF JOINTS. THE DESIRED DISTRIBUTION THROUGHOUT THE MASS MAY BE OBTAINED BY SELECTIVE LOADING AT THE QUARRY, AND CONTROLLED DUMPING FROM FINAL PLACEMENT POINTS. THE RIPPAP MAY BE PLACED IN LAYERS OF 15 TO 20 CM (6 TO 8 IN) OR BY OTHER METHODS THAT CAUSE SEPARATION OF STONE SIZES. TAKE CARE NOT TO DISLOOSE THE UNDERLYING BASE OR TO DISRUPT THE FILTER CLOTH.

THE RIPPAP SHOULD BE PLACED TO A STABLE FOUNDATION AT ITS BASE AS SHOWN IN FIGURE 6.15B. THE RIPPAP SHOULD BE PLACED TO A MINIMUM OF ABOUT 1.5 METERS (5 FEET) ABOVE THE FILTER CLOTH AND 1.5 METERS (5 FEET) HORIZONTALLY FROM THE SLOPE.

THE RIPPAP SHOULD BE FREE OF ROCKETS OF STONE OR CLUSTERS OF LARGE HORNED PLACING MATS. IT IS NECESSARY TO ACHIEVE THE PROPER DISTRIBUTION OF STONE SIZES TO PRODUCE A RELATIVELY SMOOTH, UNIFORM SURFACE. THE FINISHED GRADE OF THE RIPPAP SHOULD BLEND WITH THE SURROUNDING AREA. NO OVERALL OR PROTRUSION OF RIPPAP SHOULD BE ALLOWED.

MAINTENANCE:
IN GENERAL, ONCE A RIPRAP INSTALLATION HAS BEEN PROPERLY DESIGNED AND INSTALLED IT REQUIRES VERY LITTLE MAINTENANCE. RIPRAP SHOULD BE INSPECTED PERIODICALLY FOR SCOUR OR DISLOGGED STONES. CONTROL OF WEED AND BRUSH GROWTH MAY BE NEEDED IN SOME LOCATIONS.

AREA YARD SIGN DETAILS



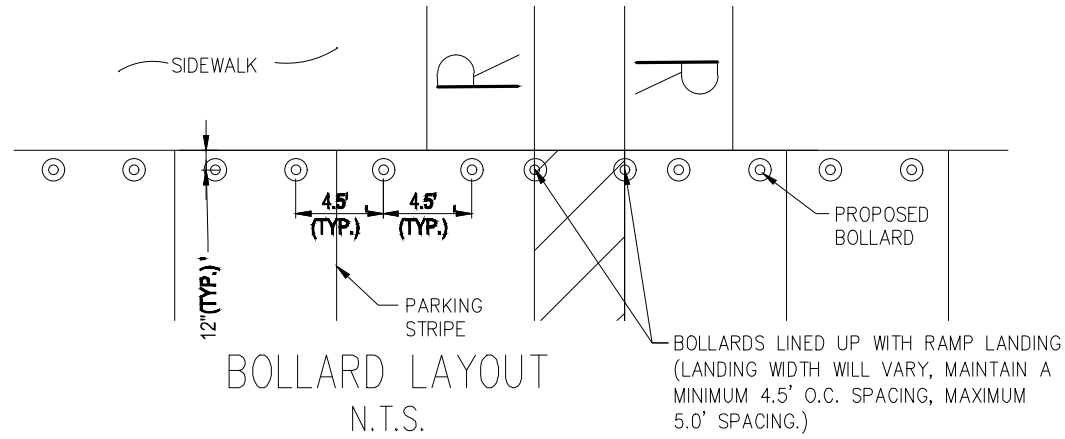
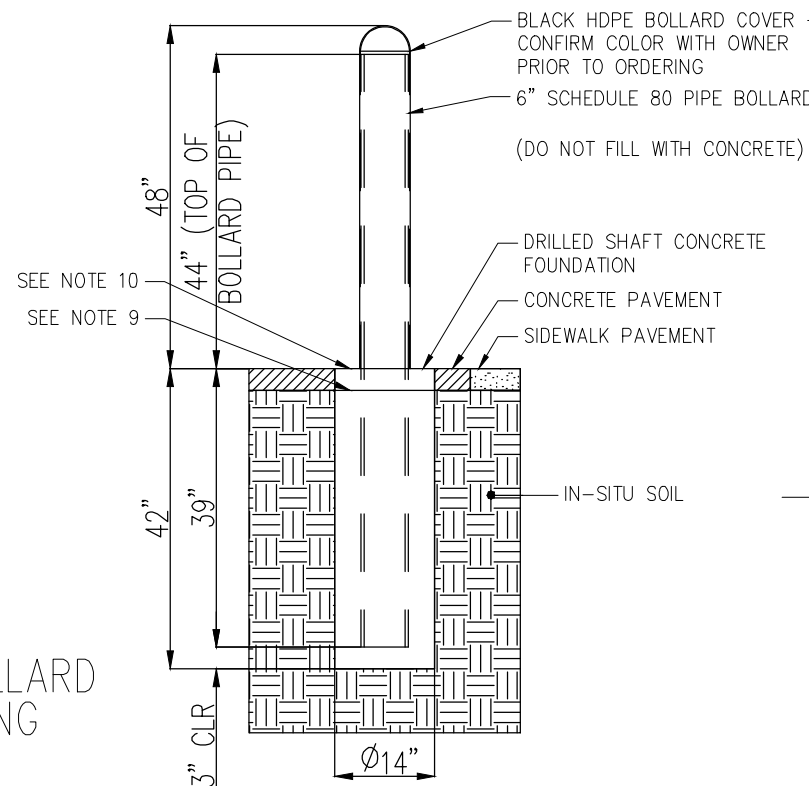
R7-1

TYPICAL NO PARKING SIGN DETAIL
N.T.S.

GENERAL NOTES:

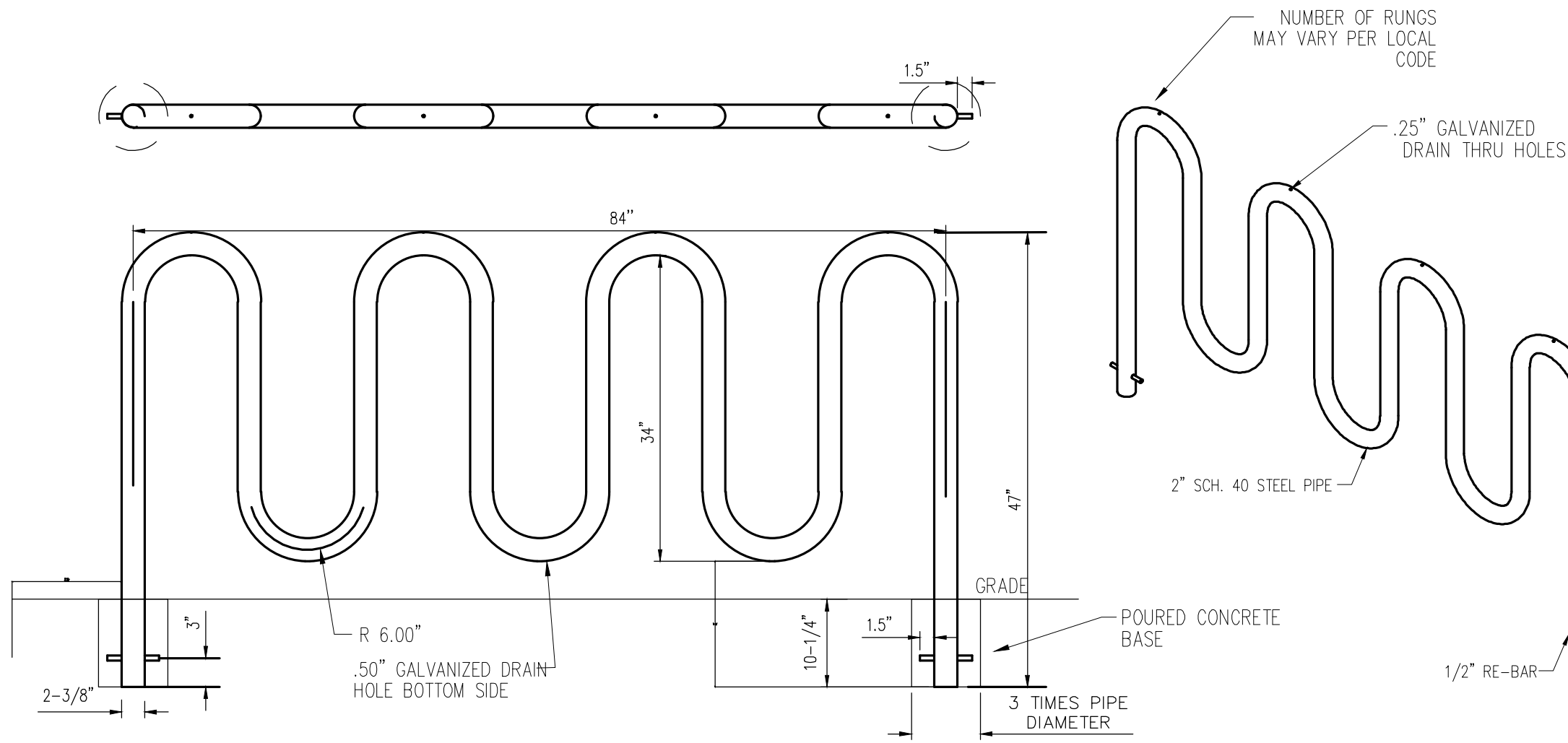
1. MAXIMUM BOLLARD SPACING IS 5' ON CENTER
2. CONCRETE TO BE 4,000 PSI MIN. UNCONFINED COMPRESSIVE STRENGTH.
3. REINFORCING STEEL CONFORMS TO ASTM A615 GRADE 60.
4. BOLLARD PIPE IS ASTM A53, TYPE E, GRADE B OR A500 GRADE B/C.
5. PROVIDE HIGH-DENSITY POLYETHYLENE (HDPE) BOLLARD COVER, COVER TO BE IDEALSHIELD (OR APPROVED EQUAL) 1/8" THICK, BLACK (6C), 6" PIPE FIT, DOME TOP, 48" TALL.
6. DO NOT FILL BOLLARD PIPE WITH CONCRETE. TEMPORARILY SEAL BOTTOM AS NECESSARY TO PREVENT CONCRETE INTRUSION WHILE POURING.
7. USE SONOTUBE IN SANDY OR OTHER SOILS THAT MIGHT CAVE IN.
8. DIMENSIONS IN PARENTHESES ARE NOMINAL.
9. COLD JOINT ACCEPTABLE THIS LINE FOR NEW INSTALLATIONS IN MONOLITHIC POUR CONCRETE PAVEMENT.
10. SLOPE TOP OF CONCRETE AWAY FROM BOLLARD 1/4" FROM PIPE TO EDGE OF DRILLED SHAFT OR CAP.
11. INCREASE DEPTH OF CAISSON AND BOLLARD PIPE TO MEET LOCAL JURISDICTION MIN. FROST DEPTH REQUIREMENT
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY NO UTILITY CONFLICTS EXIST WHERE BOLLARDS ARE TO BE INSTALLED, PRIOR TO INSTALLATION.

DESIGN SPECIFICATIONS: ASTM F3016-19 CONDITION DESIGNATION S20



DEEP MOUNT S20 BOLLARD
IN CONCRETE PAVING
N.T.S.

TYPICAL BIKE RACK DETAIL



CONCRETE & ASPHALT PAVEMENT MAINTENANCE

CONCRETE PAVING MAINTENANCE NOTES:

1. CONTRACTOR SHALL REMOVE CONCRETE FROM FAILED AREA BY SAWCUTTING TO FULL DEPTH THE ORIGINAL SLAB AND REMOVING THE EXISTING CONCRETE. THE PATCH SHALL BE A MINIMUM OF 3' WIDE AND RECTANGULAR IN SHAPE. IT SHALL EXTEND TO THE NEXT JOINT IF WITHIN 3'.
2. ANY JOINTS WHICH ARE REMOVED SHALL BE REPLACED IN THE SAME LOCATION AS THE OLD JOINTS - SEE JOINT DETAILS.
3. CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL DEBRIS PER LOCAL, STATE, AND FEDERAL REGULATIONS.
4. SEE NORMAL STRENGTH PAVEMENT, HIGH STRENGTH PAVEMENT DETAILS FOR FULL DEPTH PATCH REQUIRMENTS.

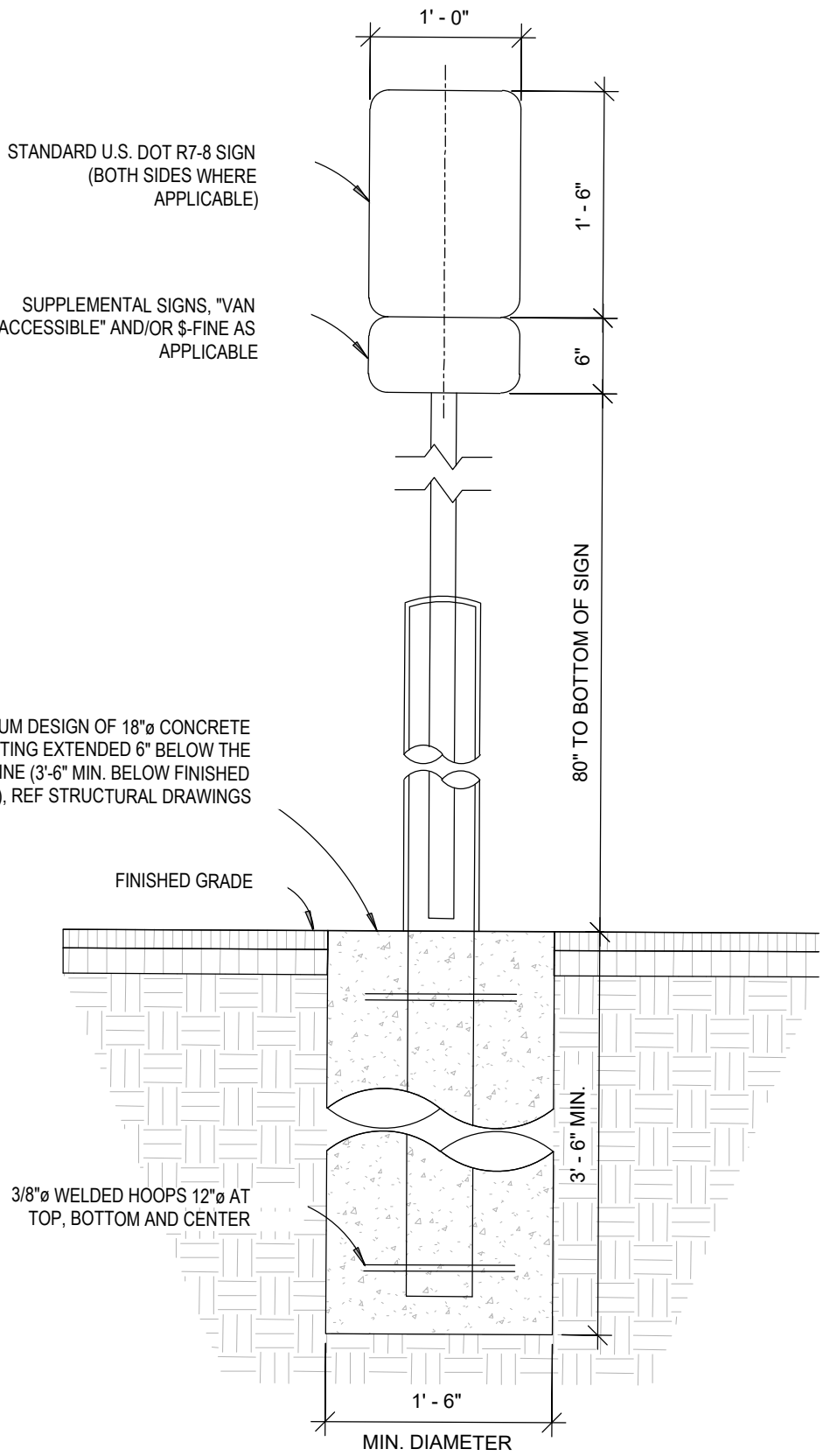
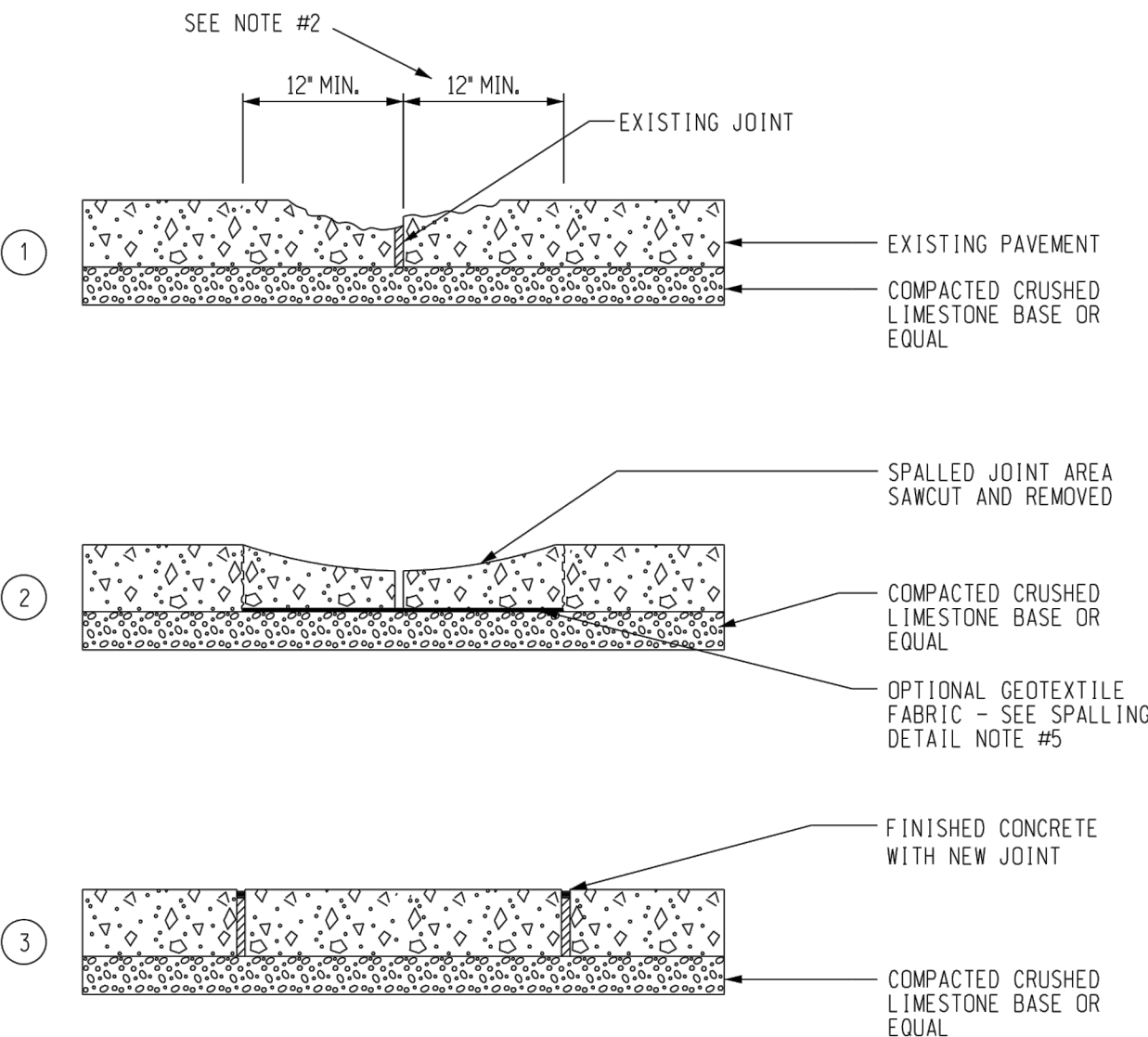
ASPHALT PAVEMENT MAINTENANCE NOTES:

1. CONTRACTOR SHALL REMOVE ASPHALT FROM FAILED AREA BY SAWCUTTING A RECTANGULAR SHAPE AT LEAST 3' BEYOND THE DAMAGED AREA. TWO OF THE EDGES MUST BE AT RIGHT ANGLES TO THE DIRECTION OF TRAFFIC.
2. SUBGRADE MUST BE REMOVED TO SOLID GROUND AND REPLACED IN ACCORDANCE WITH THE FULL DEPTH PATCH DETAIL AND OWNER'S SPECIFICATIONS.
3. CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL DEBRIS PER LOCAL, STATE, AND FEDERAL REGULATIONS.
4. TACK COAT REQUIRED IF INSTALLING SEPARATE PLACEMENTS. SEE SPEEDWAY SPECIFICATIONS FOR TIMING AND TEMPERATURE GUIDELINES.

SPALLING DETAIL

SPALLING DETAIL NOTES:

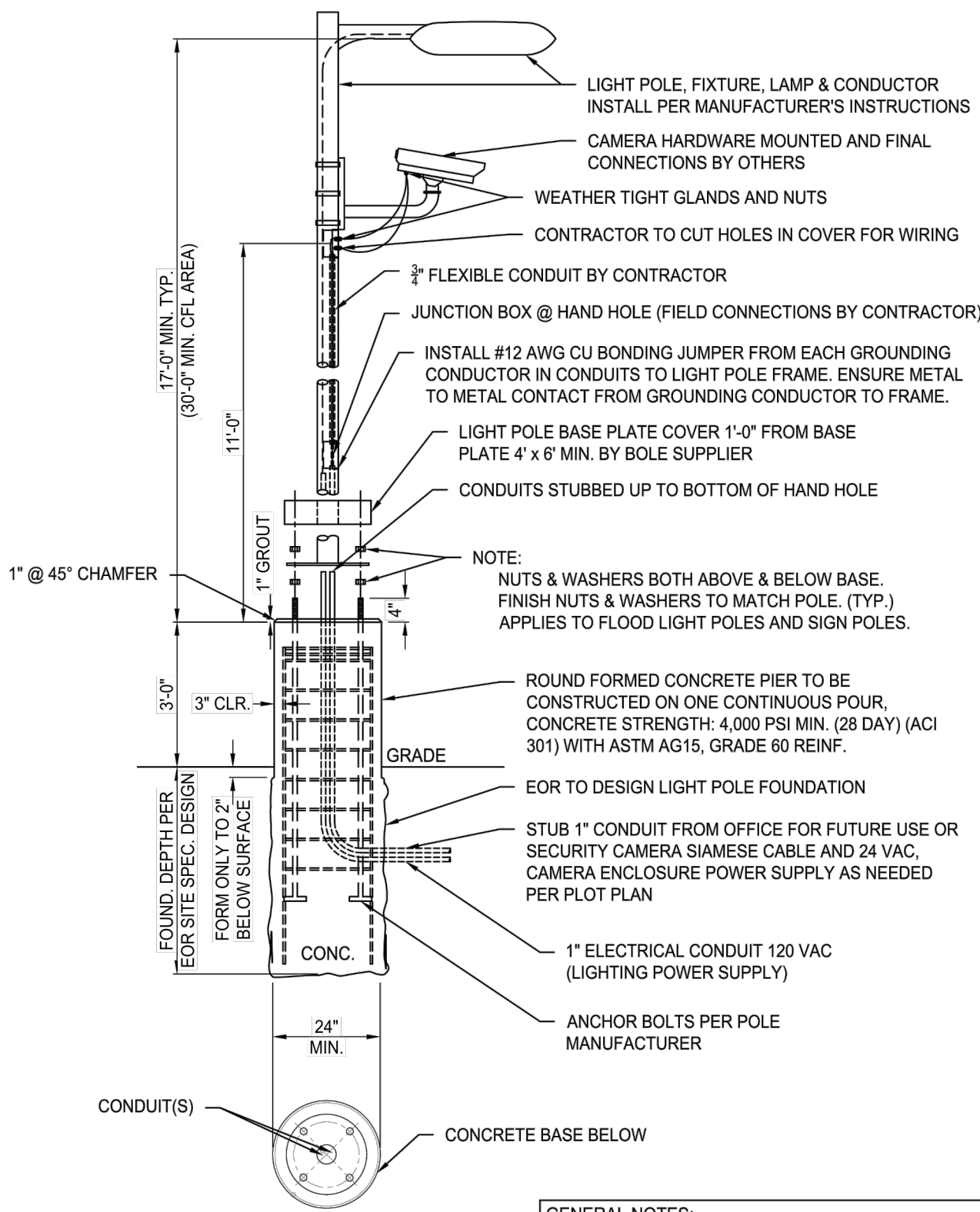
1. SPALLING ALONG JOINTS SHALL BE TREATED WITH REPAIR SIMILAR TO THAT OF A FULL DEPTH PATCH.
2. SPALLED CONCRETE SHALL BE REMOVED IN AN AREA NO LESS THAN ONE FOOT FROM THE JOINT BUT LARGE ENOUGH TO REMOVE ALL UNSOUND CONCRETE AND REMOVED TO A DEPTH GREAT ENOUGH TO REACH SUITABLE SUBGRADE.
3. THE CONCRETE SHALL BE REPLACED PER THE FULL DEPTH PATCH DETAIL AND LOCAL AGENCY HAVING JURISDICTION.
4. THE JOINT SHALL BE REPLACED PER THE JOINT DETAIL TO COINCIDE WITH THE LOCATION OF THE OLD JOINT. THE JOINT SHALL EXTEND THE FULL DEPTH OF THE NEW PATCH.
5. GEOTEXTILE FABRIC (NEEDS TO BE DETERMINED BY OWNER'S REPRESENTATIVE) 8 OZ/50 YD NEEDLE PUNCHED NON WOVEN, NEEDLE PUNCHED FABRIC



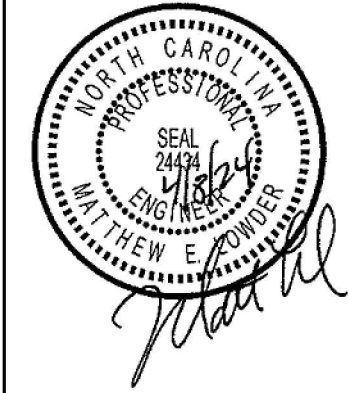
ALL POST MOUNTED ACCESSIBILITY SIGNS SHALL BE MOUNTED WITH IDEAL SHIELD BOLLARD SIGN SYSTEM. BOLLARD AND POST SLEEVE SHALL BE GRAY COLOR. INSTALLATION PER MANUFACTURER INSTRUCTIONS

Post Mounted Accessibility Sign
N.T.S.

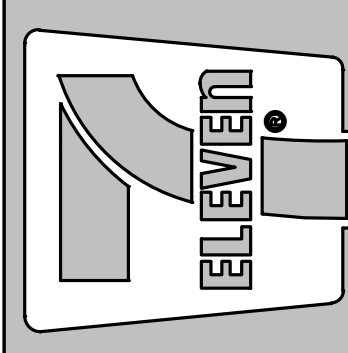
AREA LIGHT POLE FOUNDATION DETAIL



- GENERAL NOTES:
1. RUB CONCRETE TO REMOVE SONOTUBE FORM LINES AND FILL ALL HOLES FOR SMOOTH FINISH. WEATHERSEAL ALL EXPOSED CONCRETE.
 2. VERIFY ANCHOR ROD LAYOUT AND EMBEDMENT REQUIREMENTS WITH POLE SUPPLIER.
 3. COORDINATE LOCATIONS WITH CIVIL.
 4. LIGHT POLE FOUNDATIONS LOCATED IN CFL TRAFFIC AREAS OR PARKING AREAS ARE RECOMMENDED TO EXTEND 9'-0" ABOVE GRADE AND BE A MIN. Ø3'-0".



Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



MARK	REVISION	DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1	BRM	10/22/23	TOWN OF ZEBULON REVIEW		
2	BRM/MCB	10/25/23	TOWN OF ZEBULON REVIEW		
3	MCB	10/27/23	WAKE COUNTY REVIEW		
4	BRM/MCB	11/18/24	TOWN OF ZEBULON REVIEW		
5	BRM/MCB	10/04/24	TOWN OF ZEBULON REVIEW		
6	BRM/MCB	10/08/24	TOWN OF ZEBULON REVIEW		

STORE OR BLDG NO.:
N/A

VERSION OR PROJECT ID:
N/A

DESIGN TEAM
DGNR: BRM & MCB

PM/DP: ML

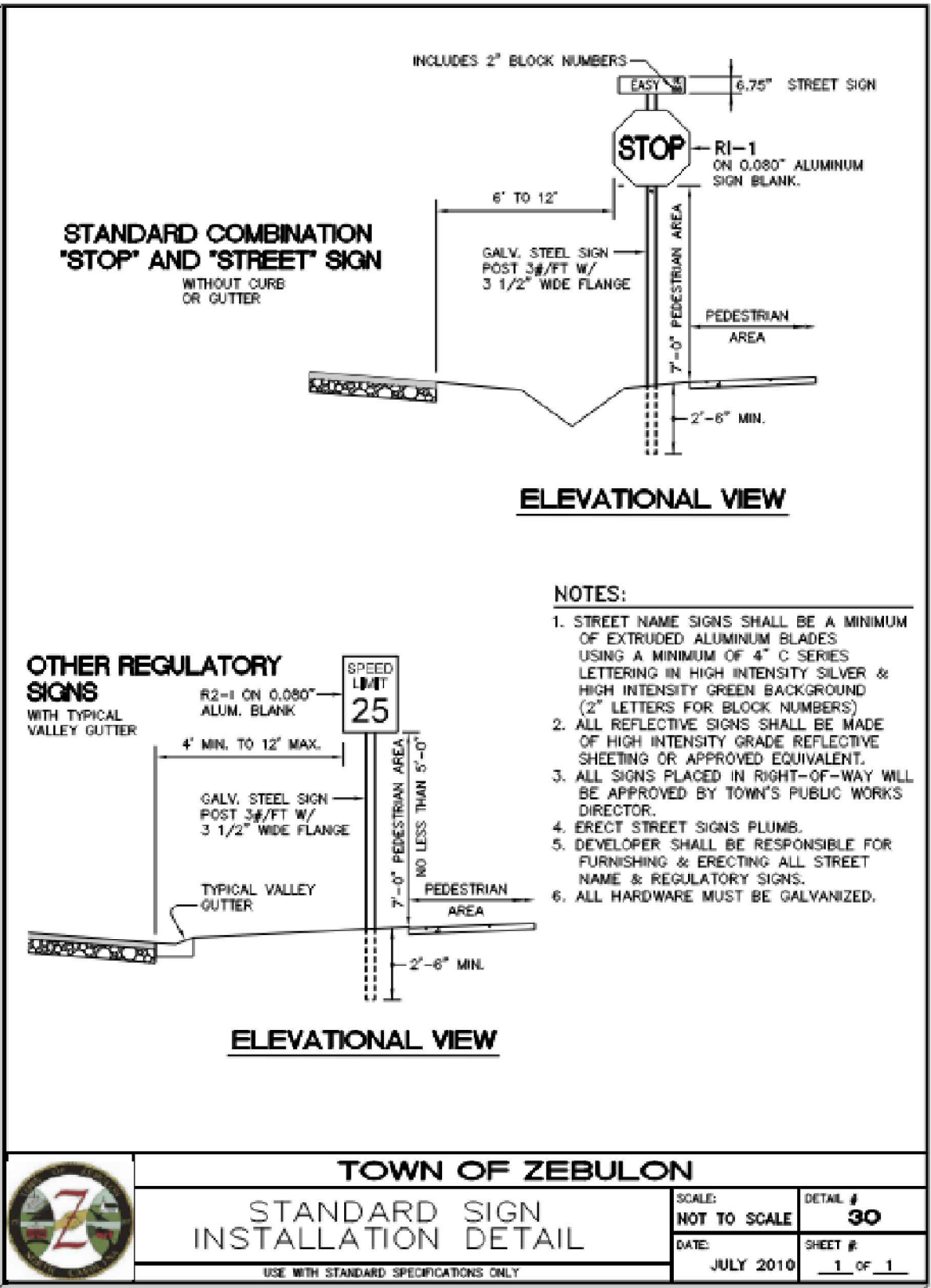
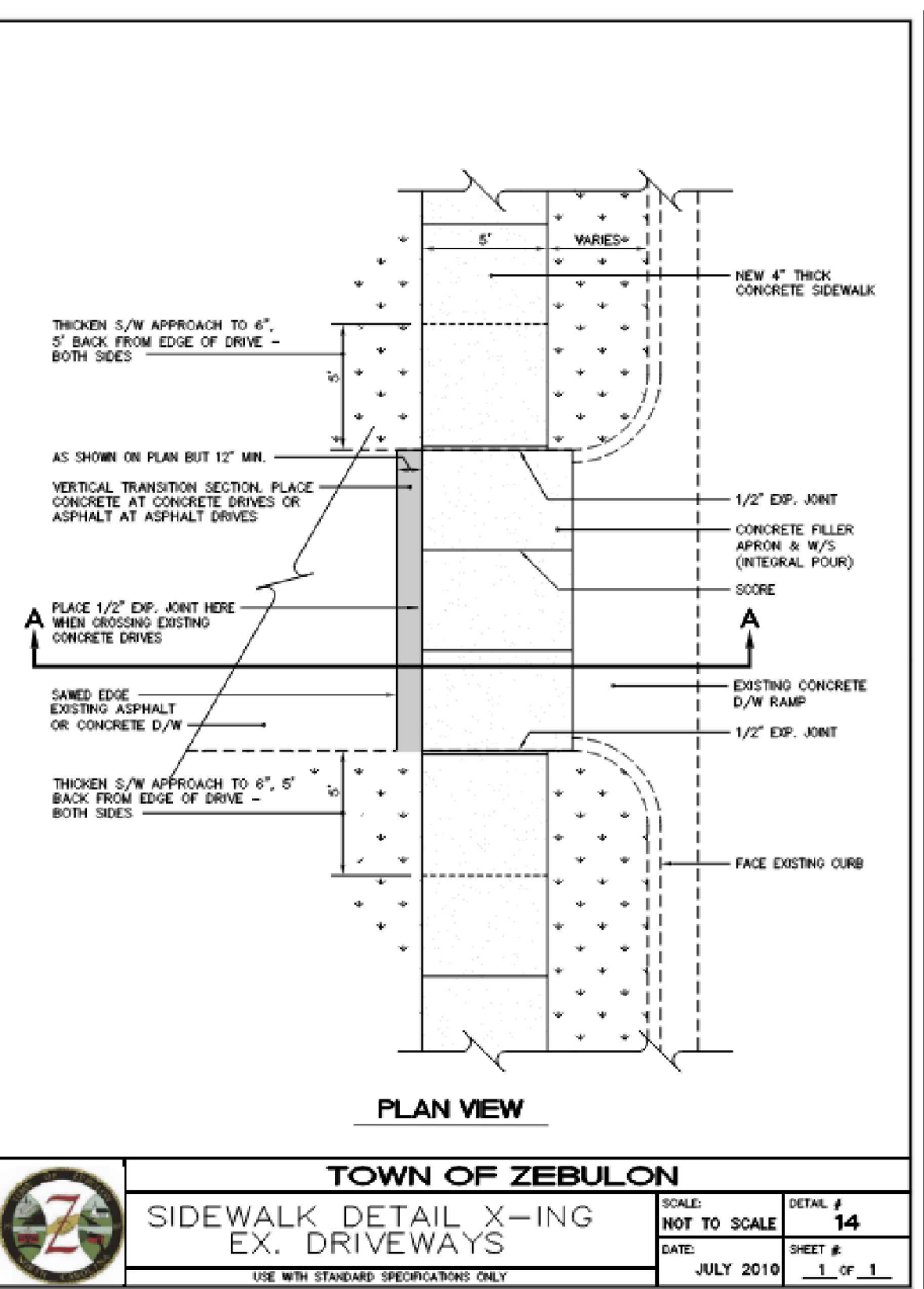
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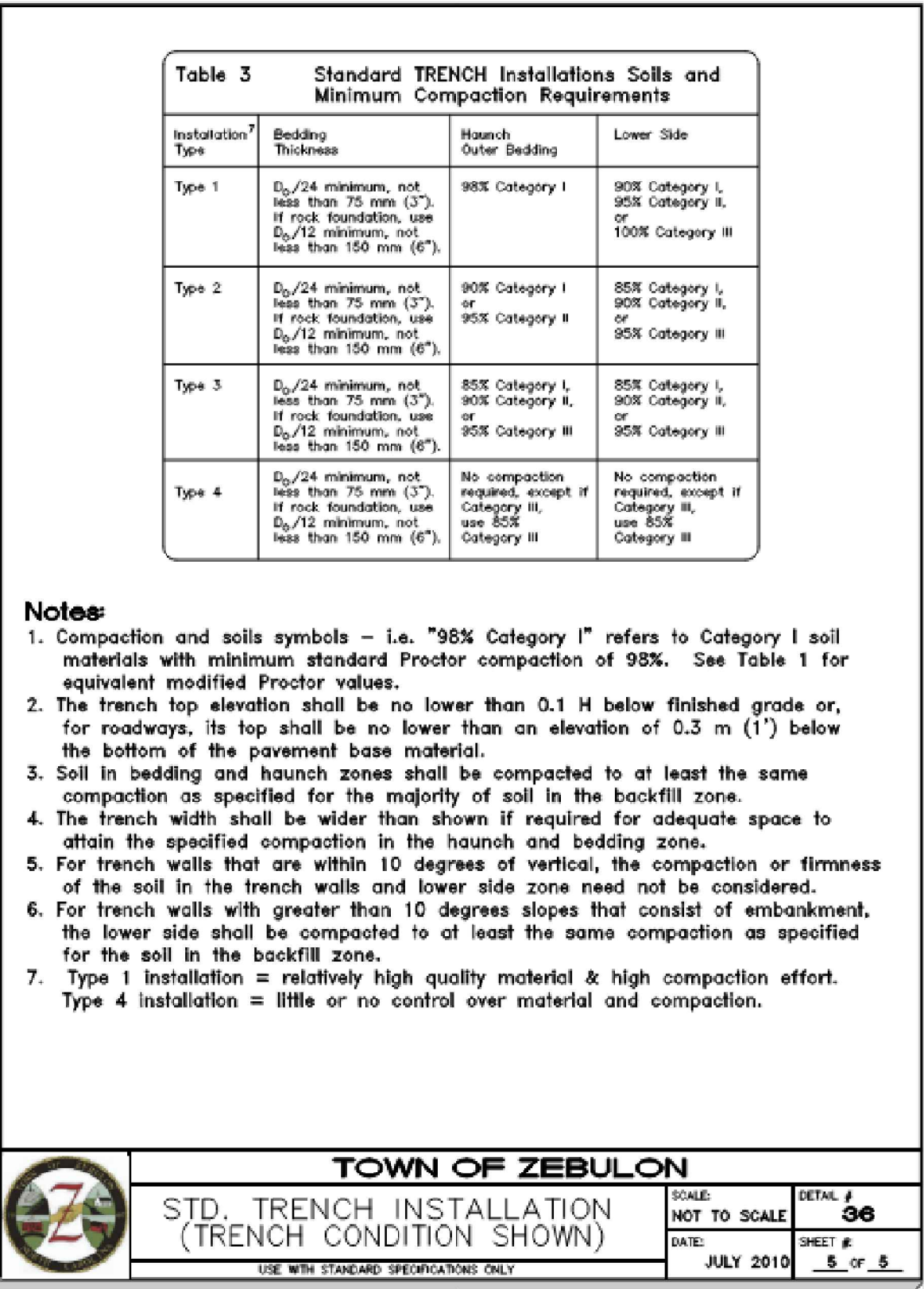
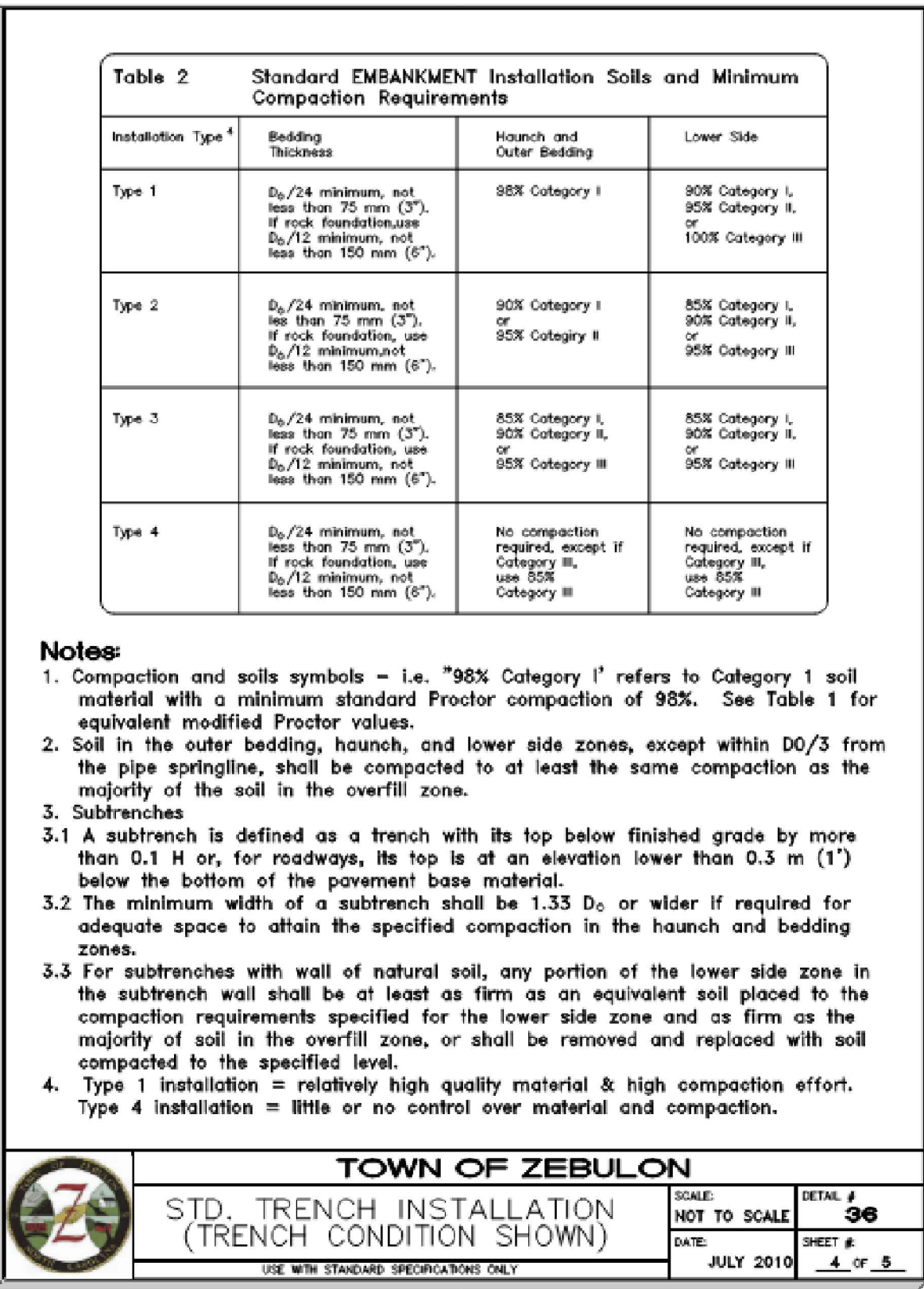
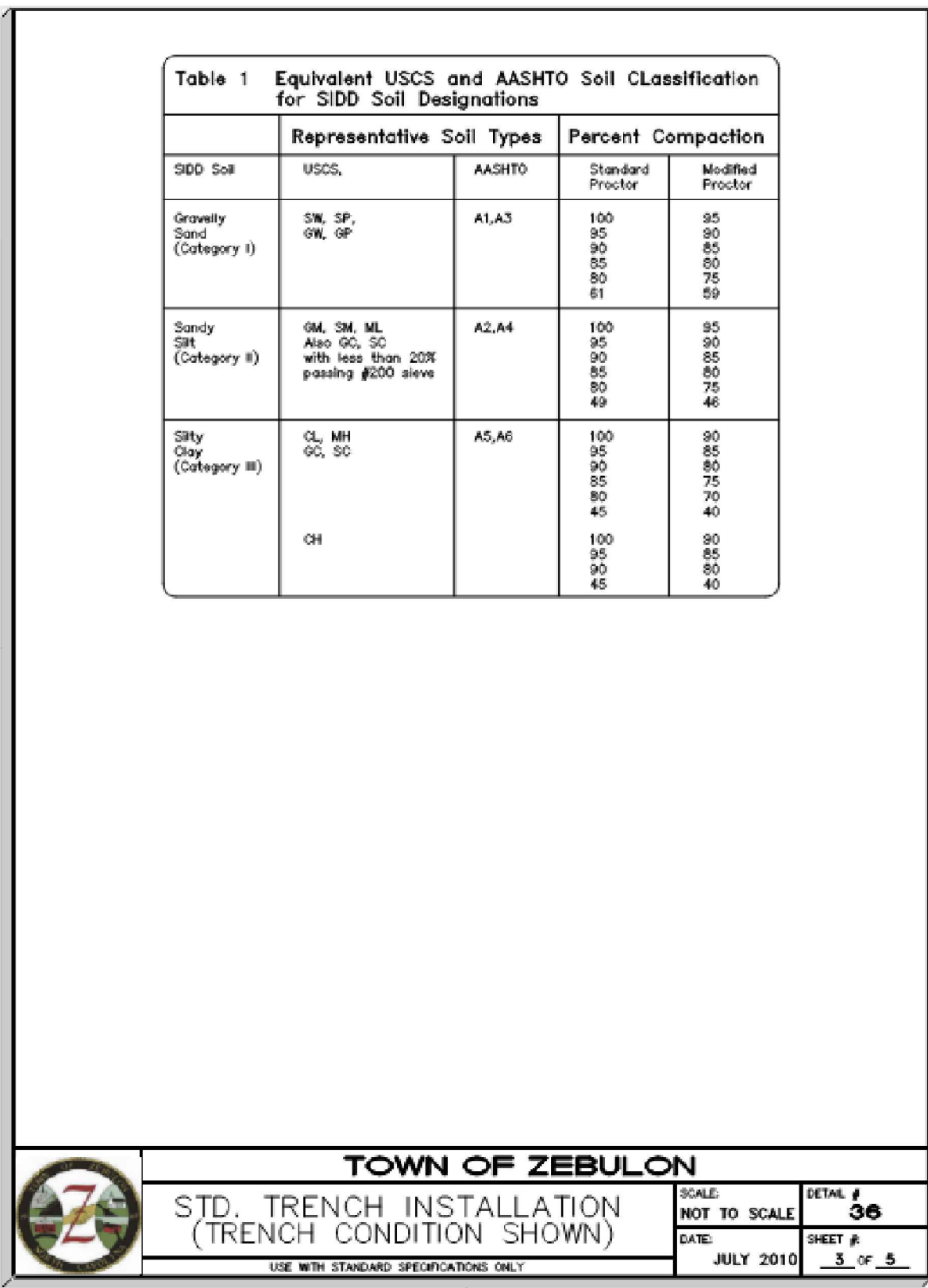
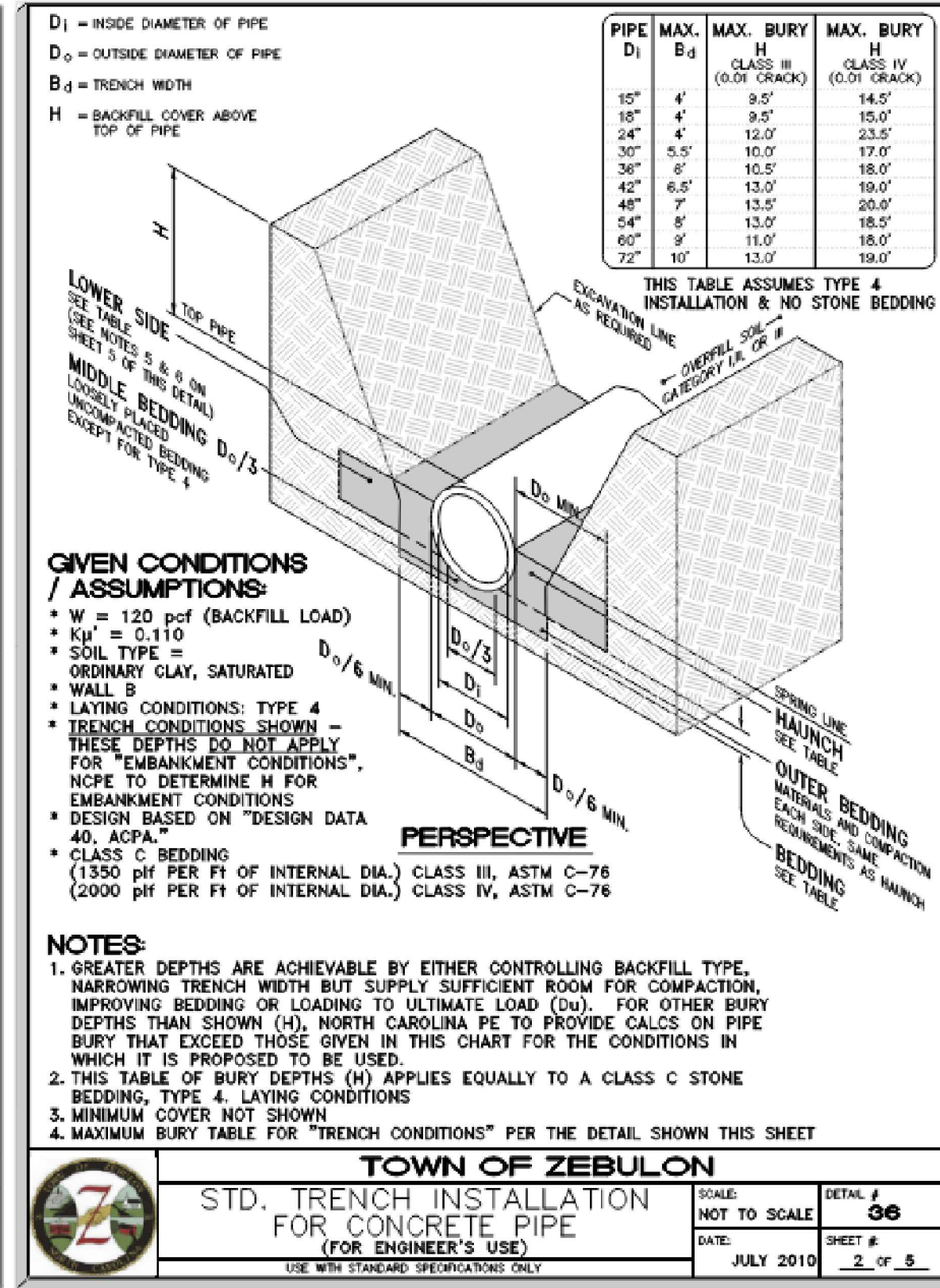
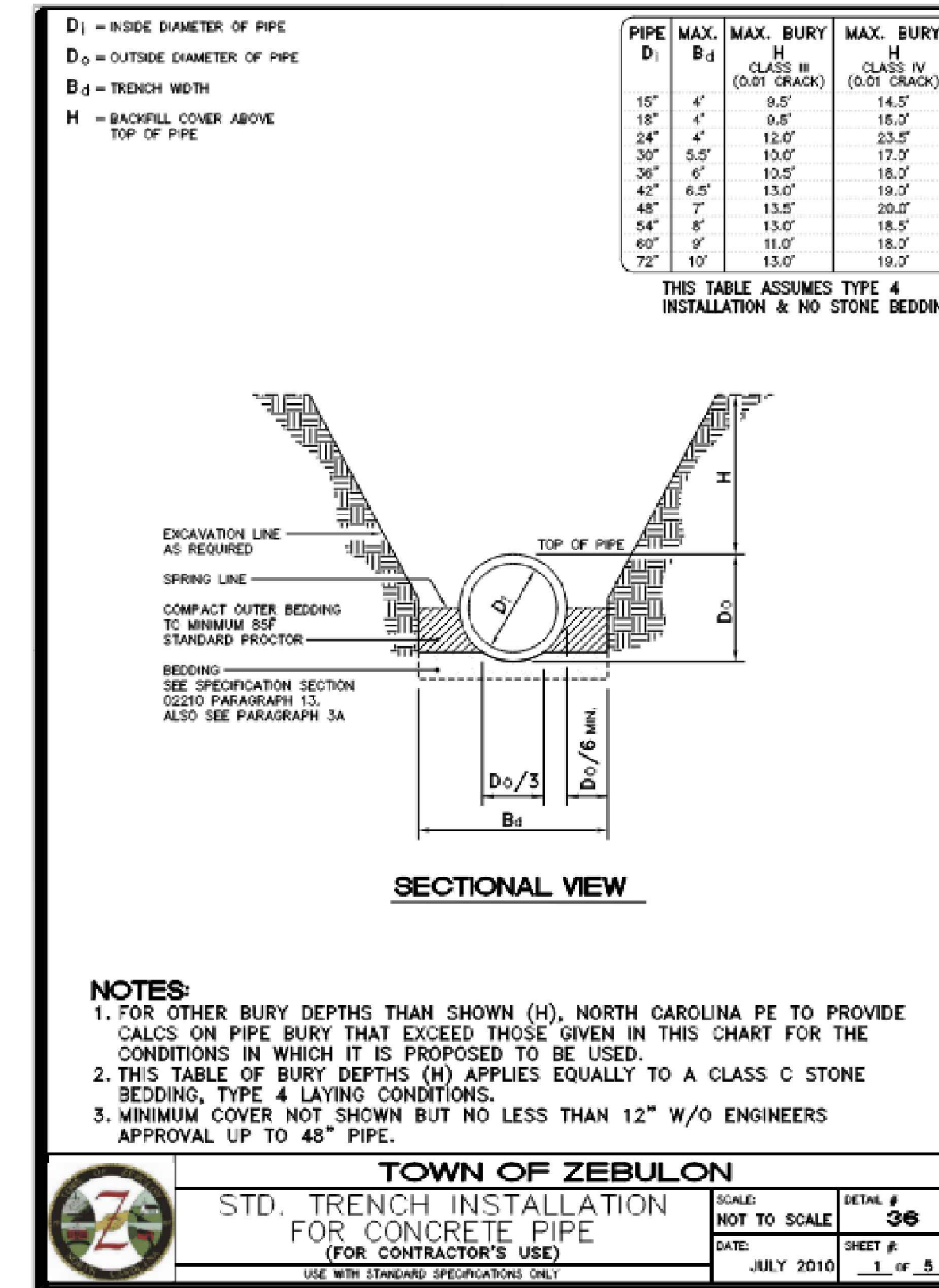
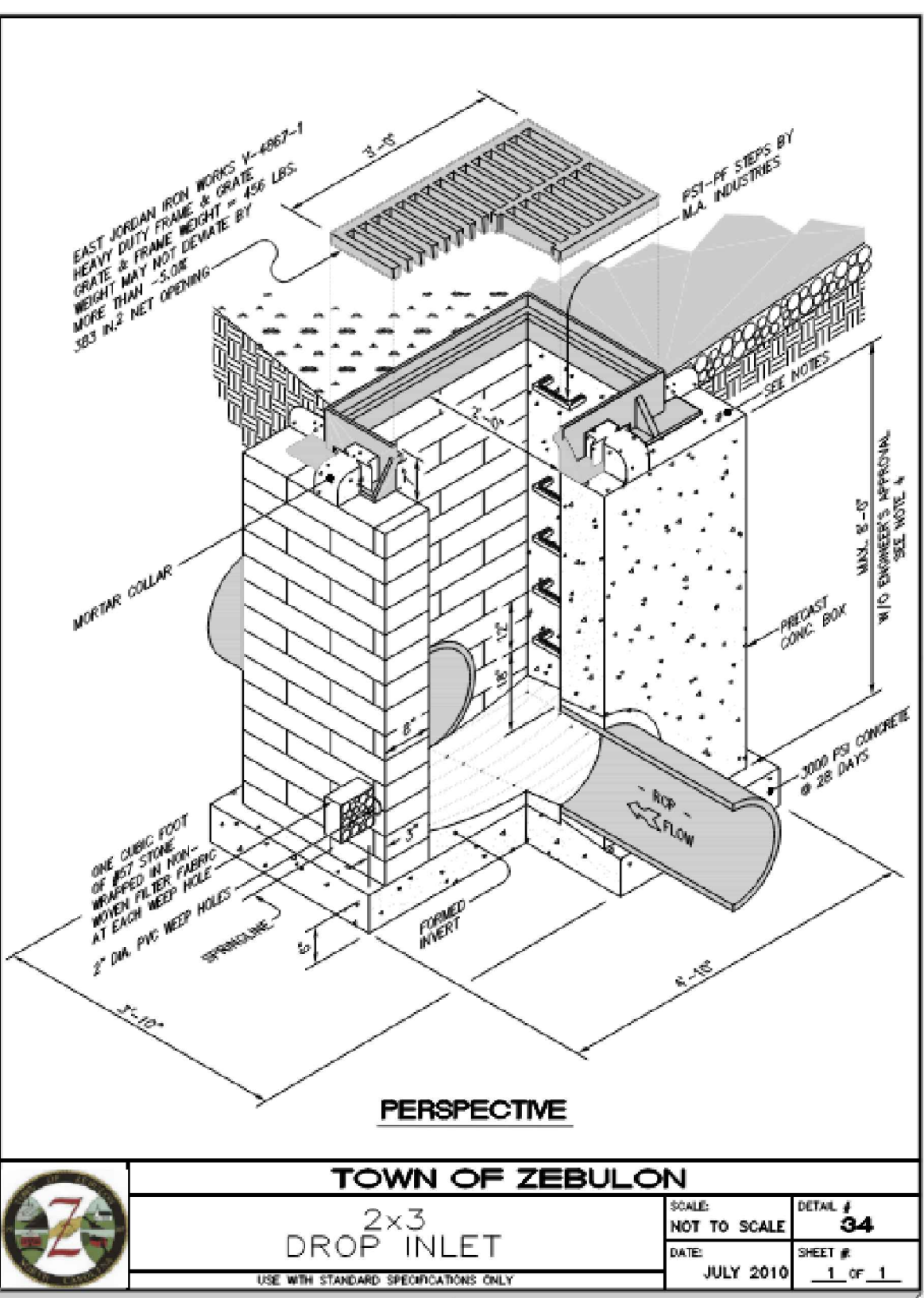
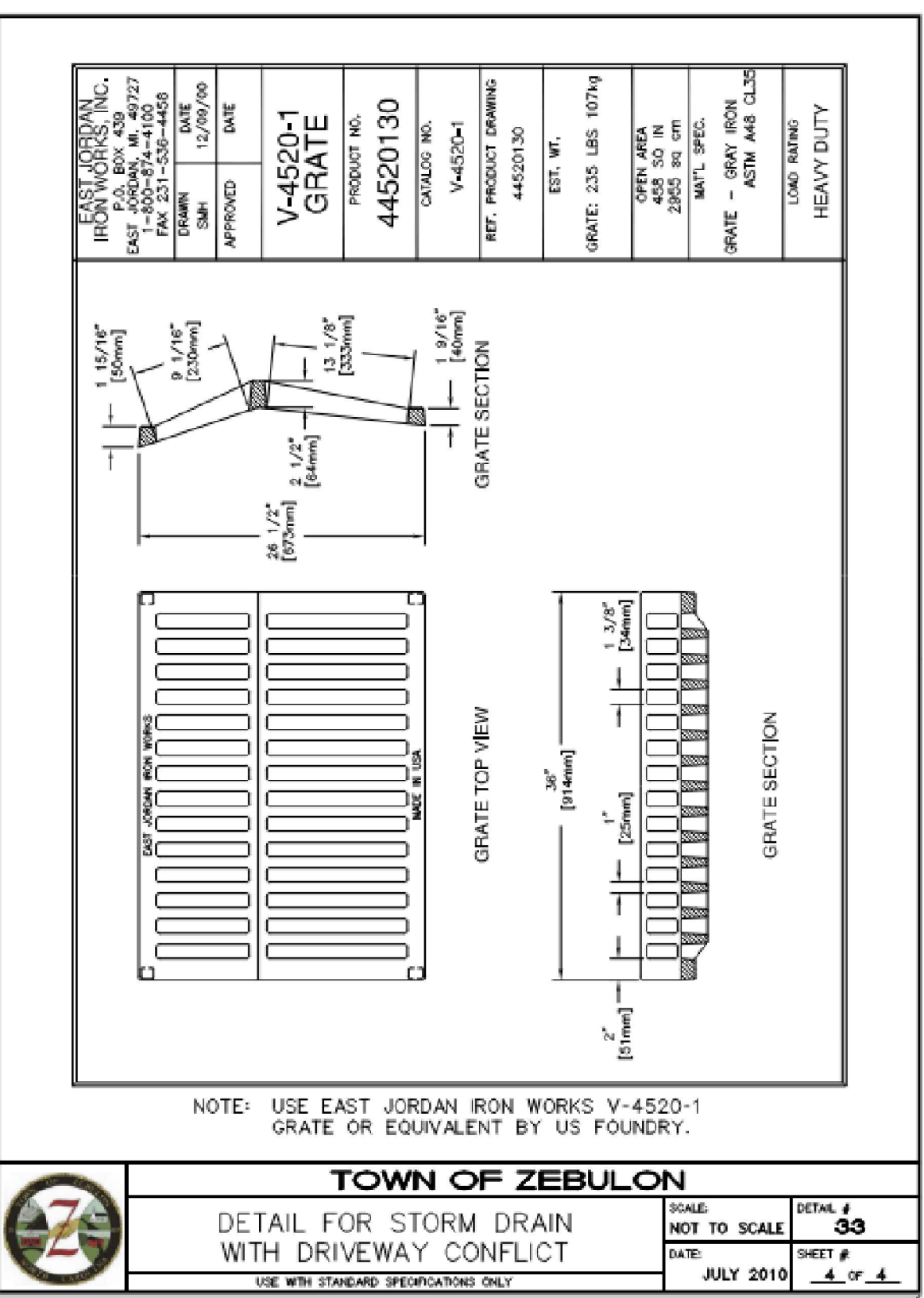
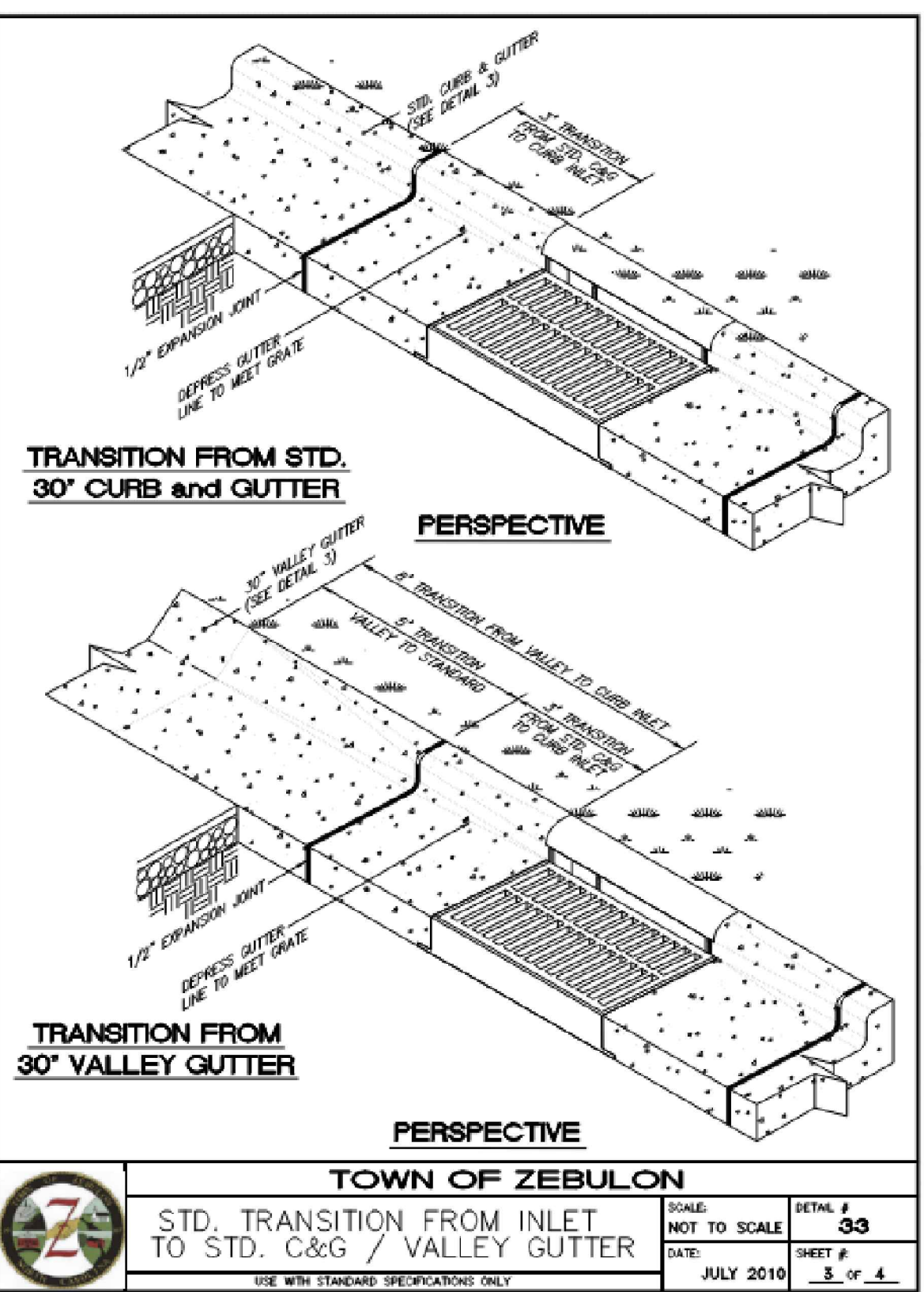
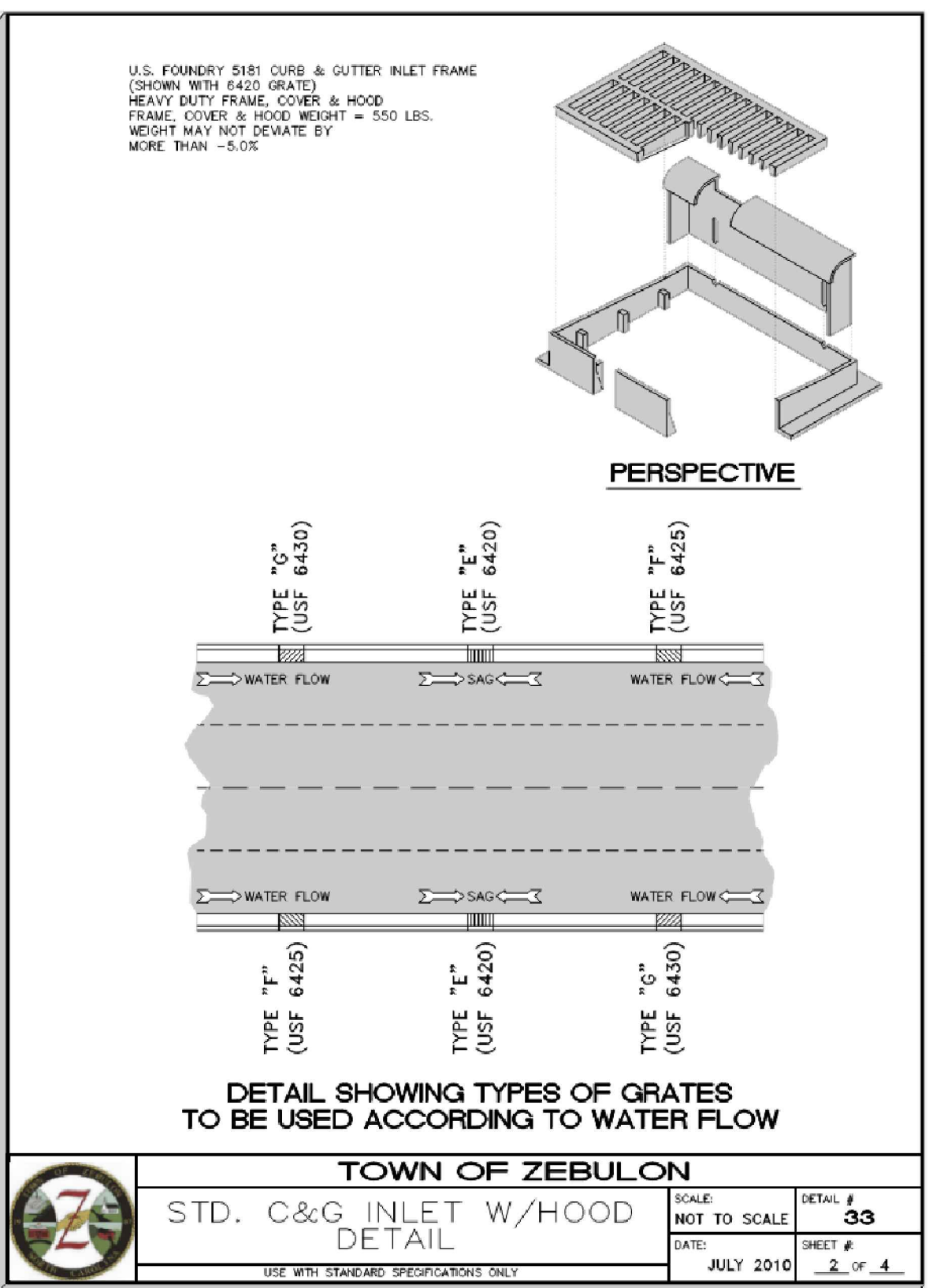
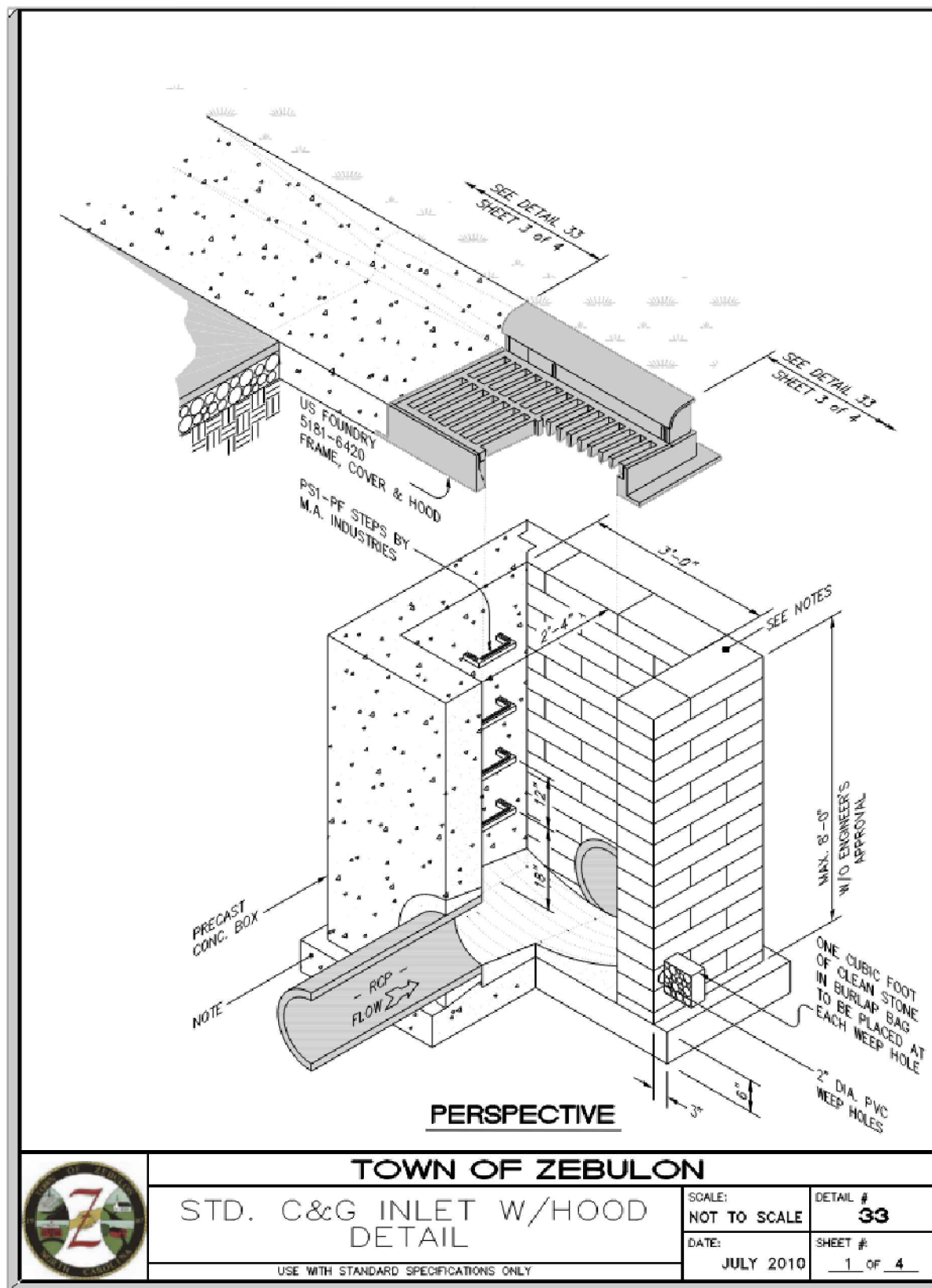
ISSUE DATE: 04/08/2024

ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27597

SHEET TITLE
**CONSTRUCTION
DETAILS**

DRWG. NO.
C6.3

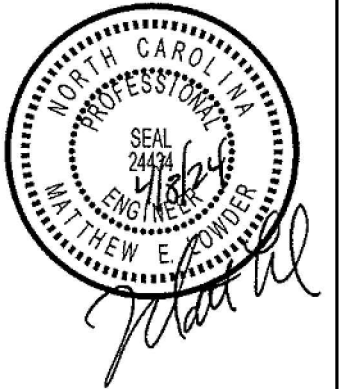
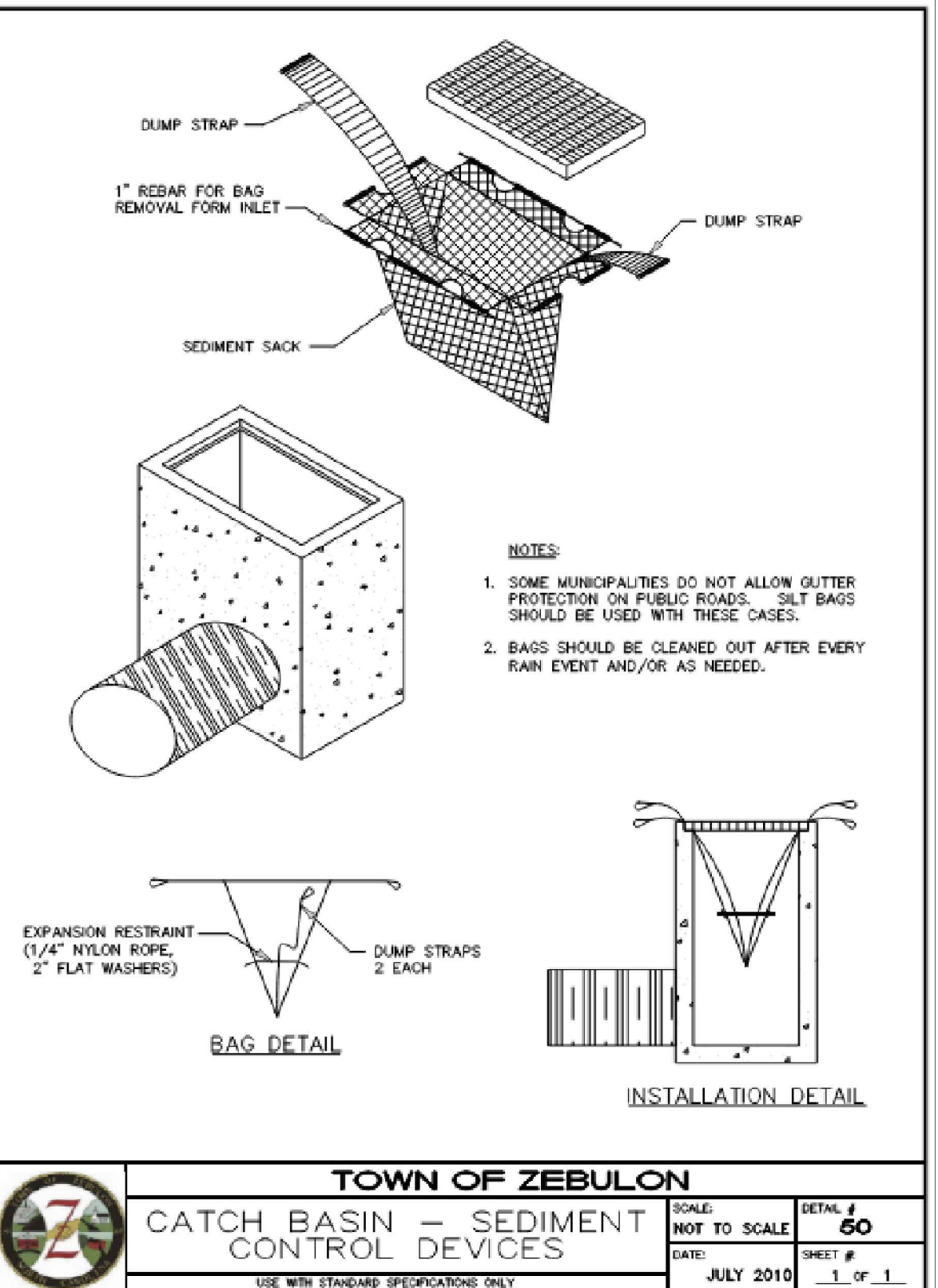
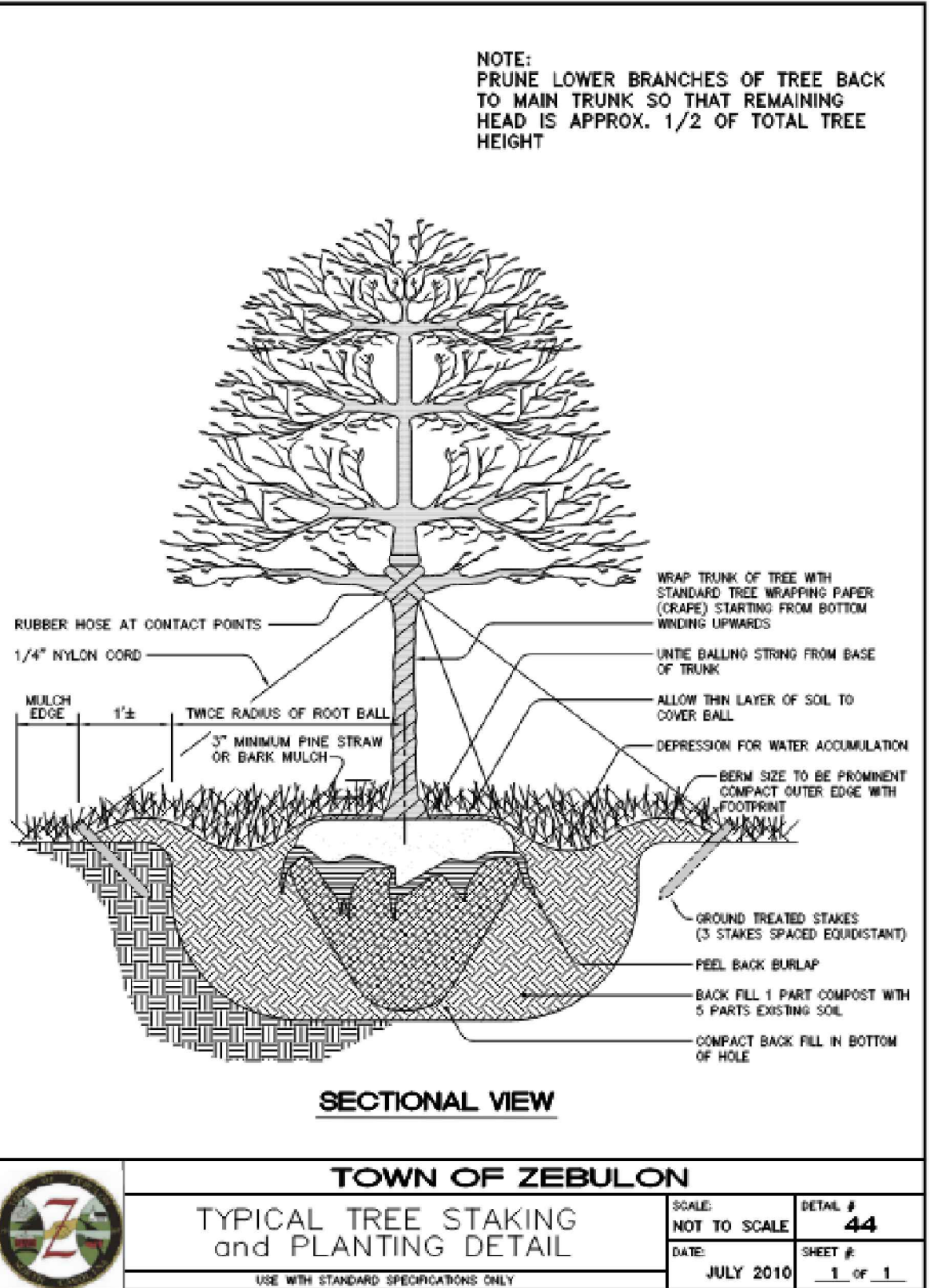
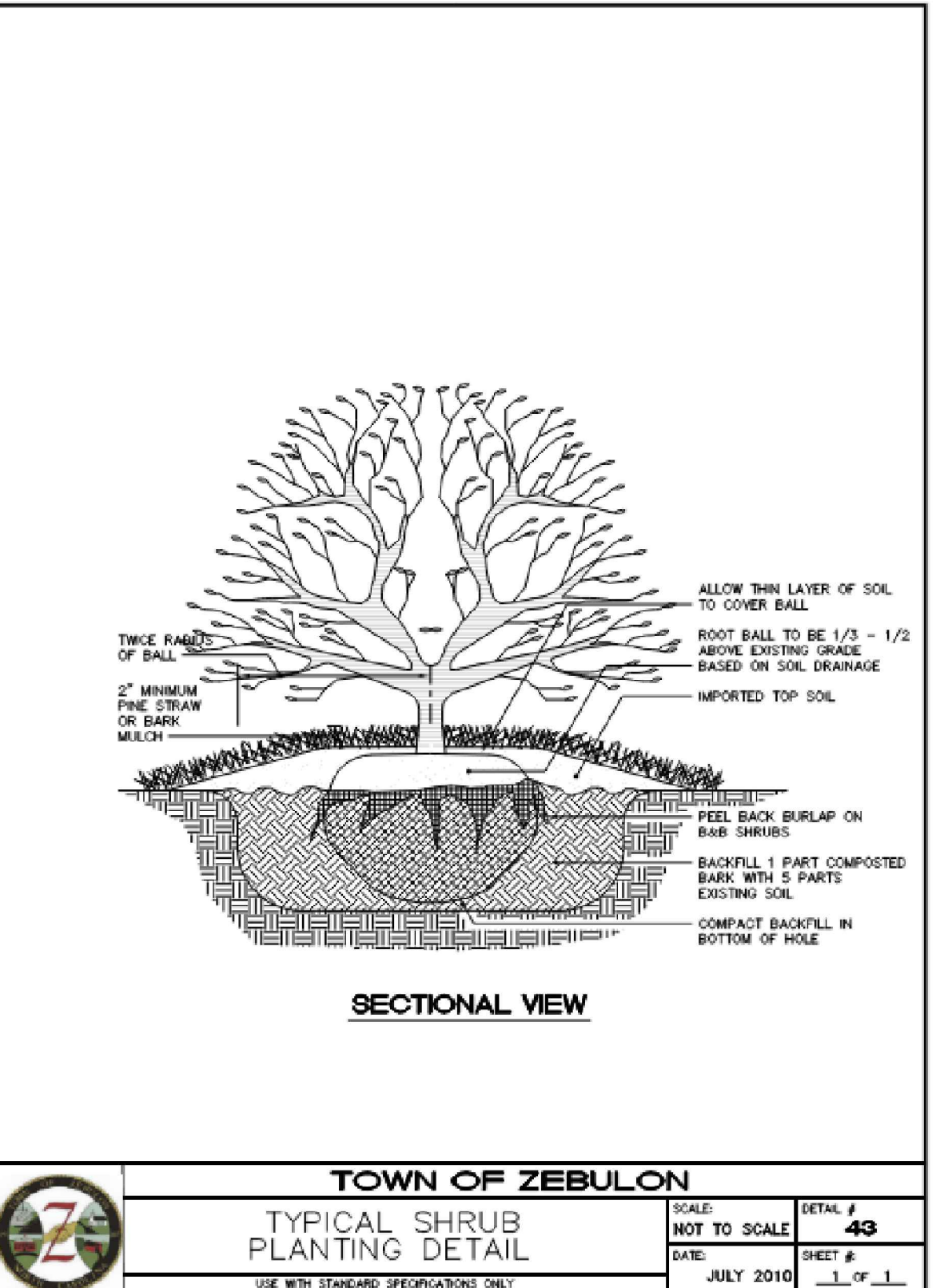
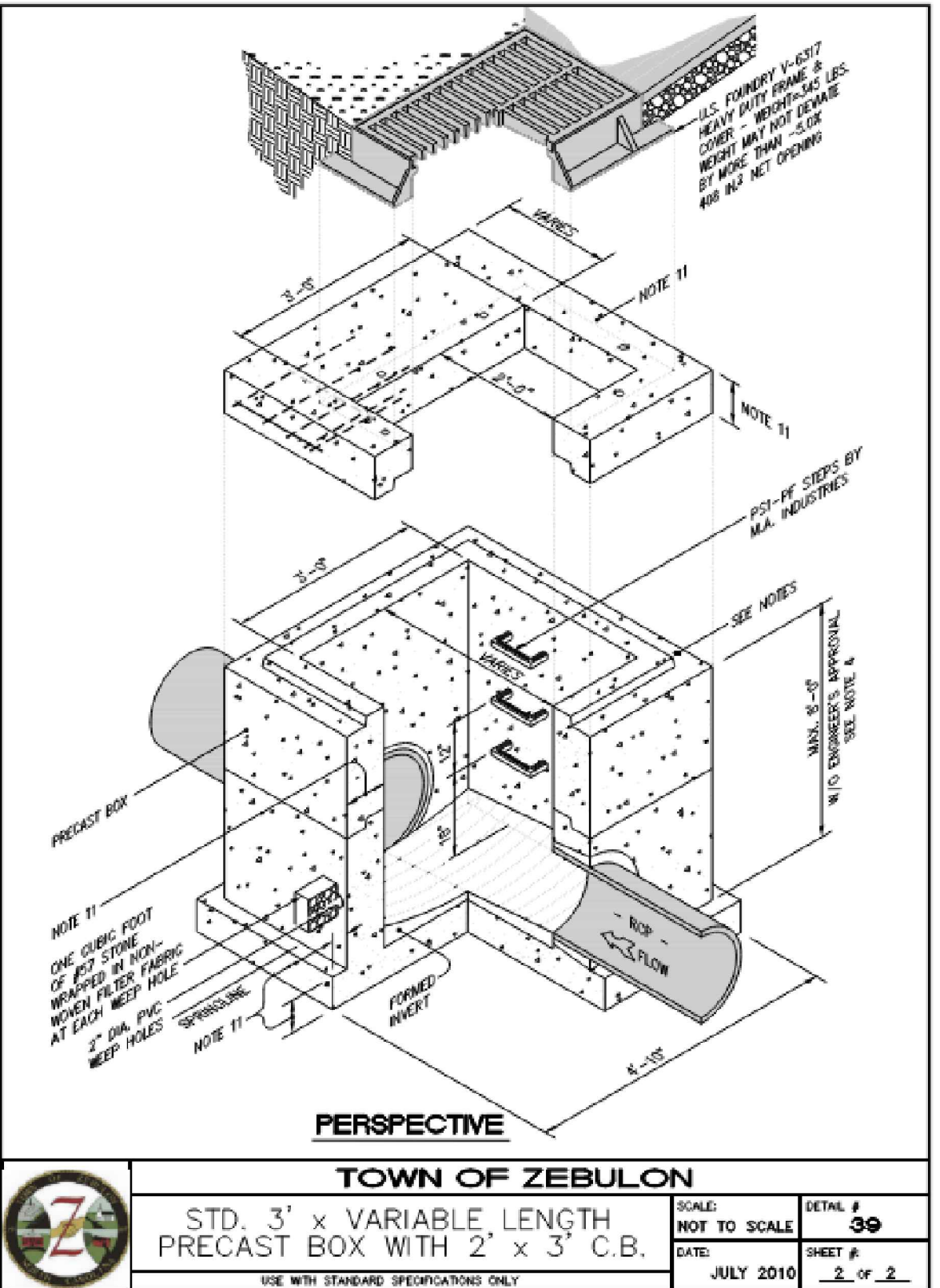
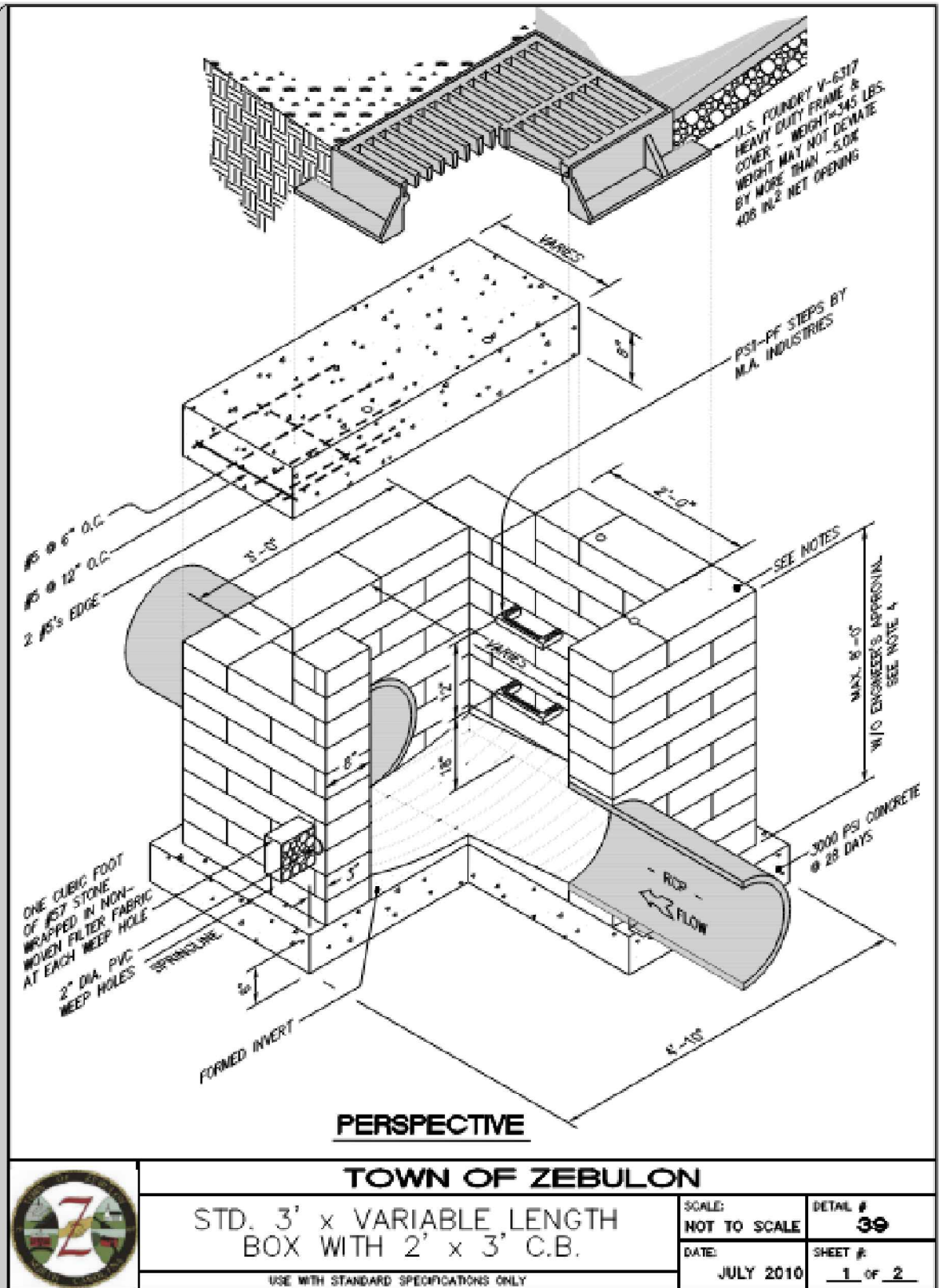
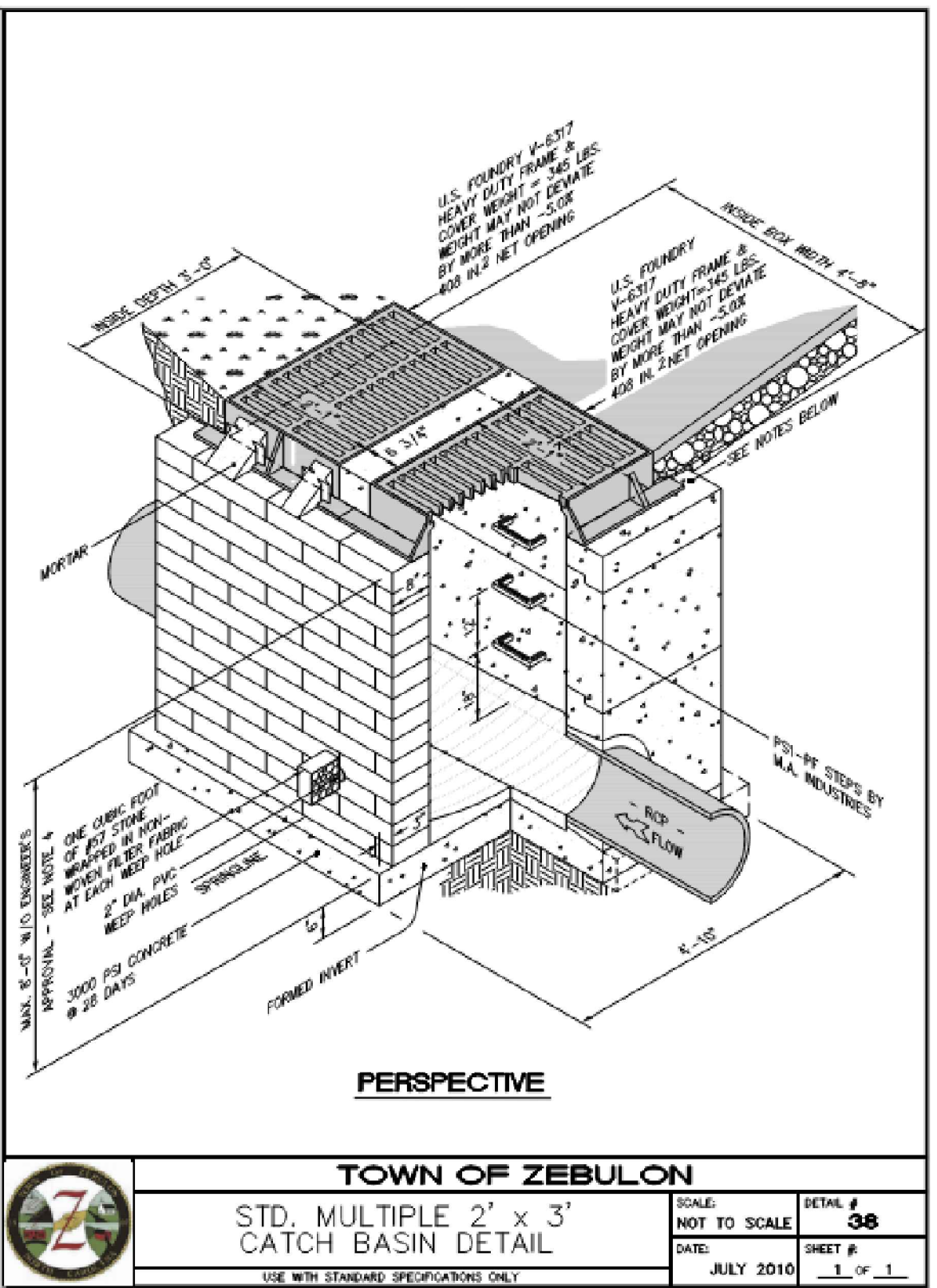
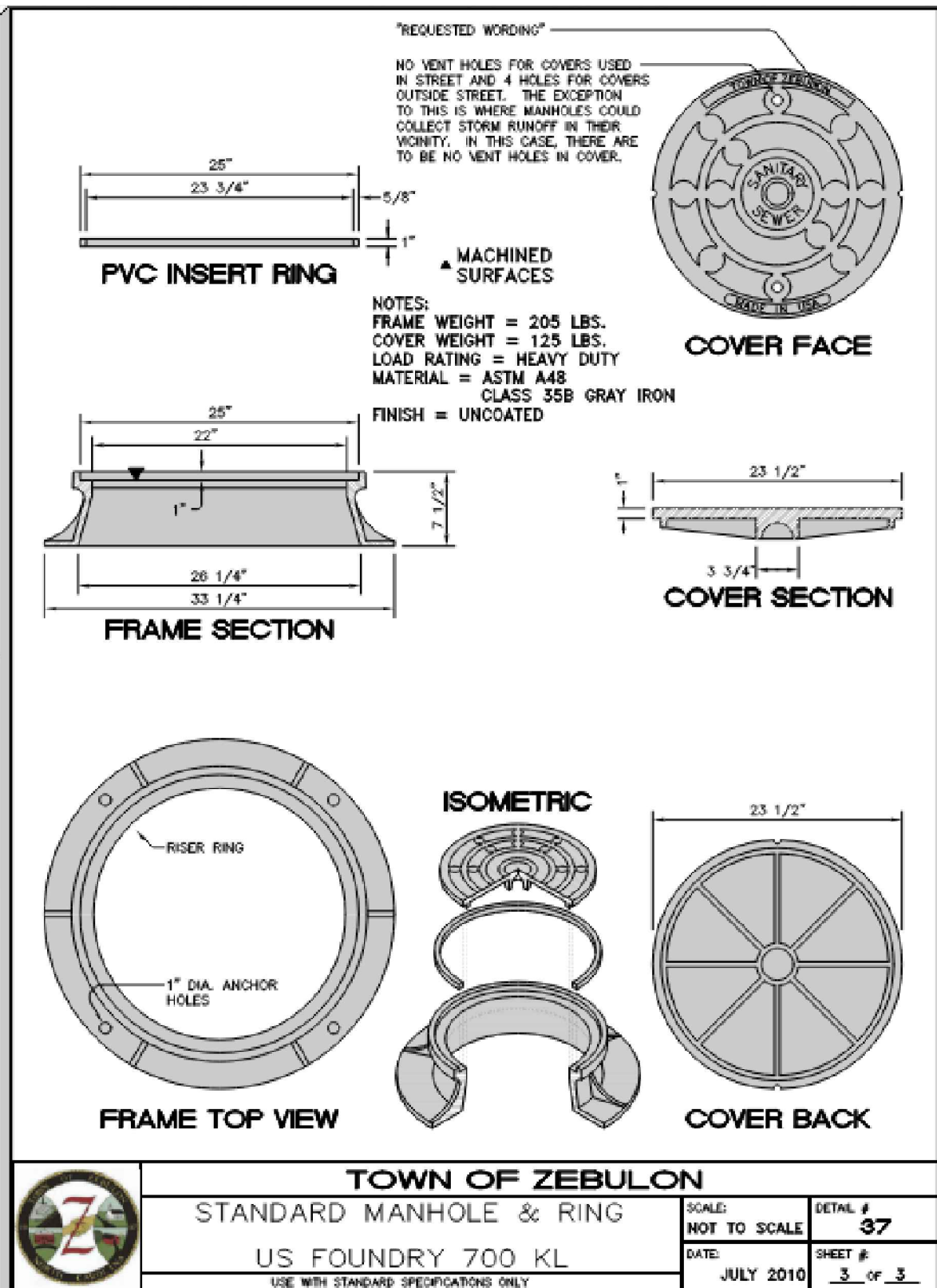
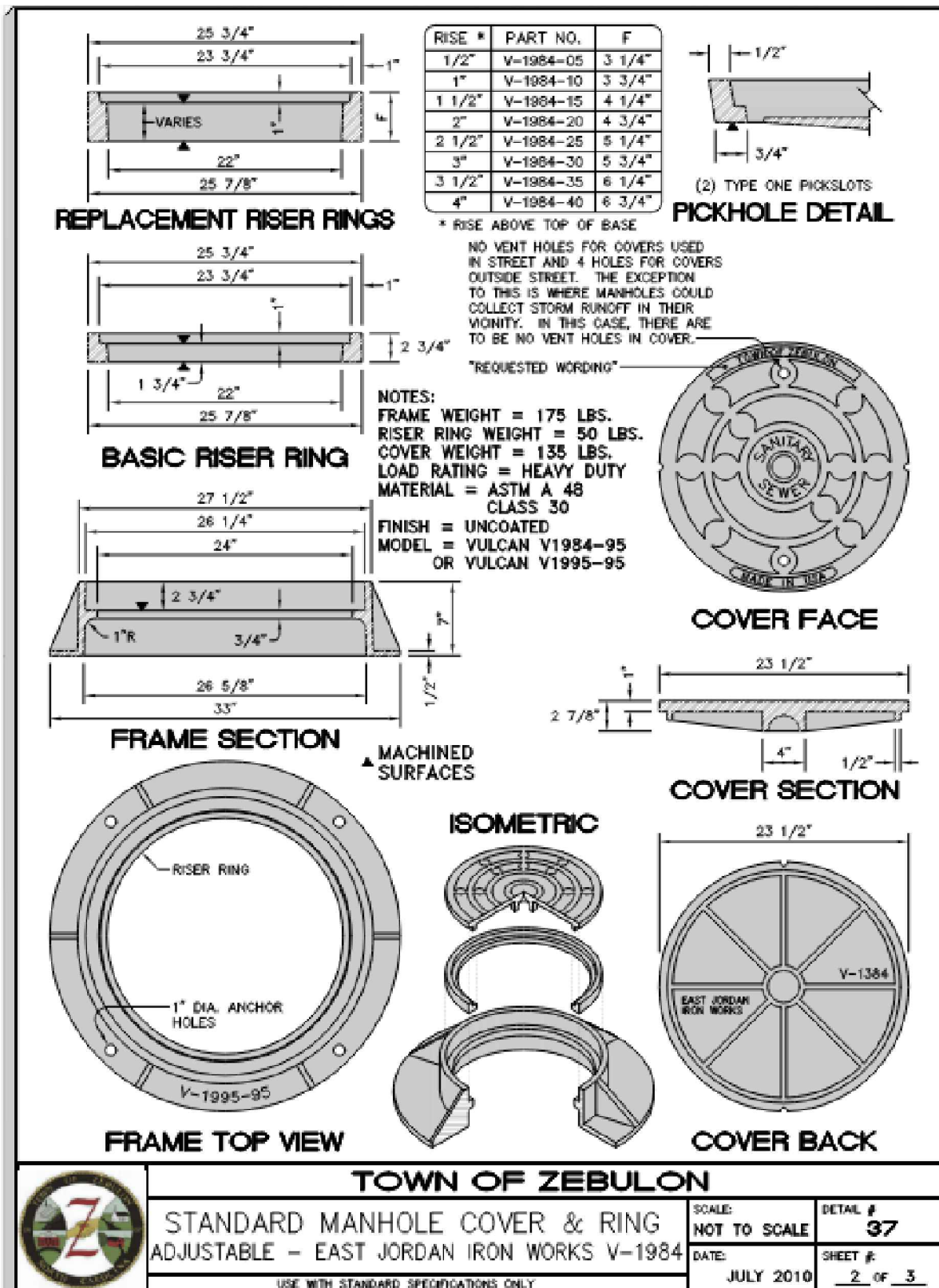
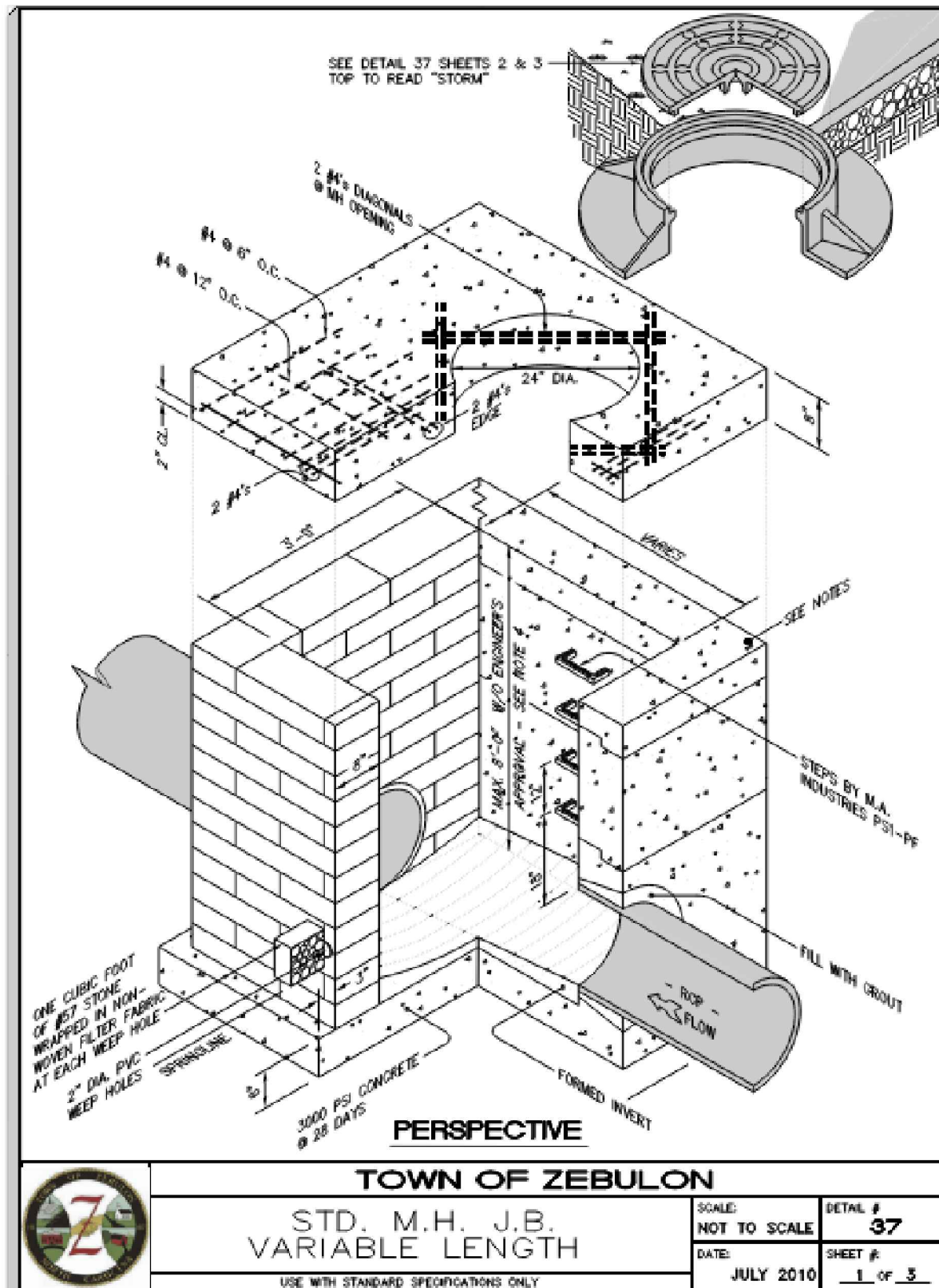
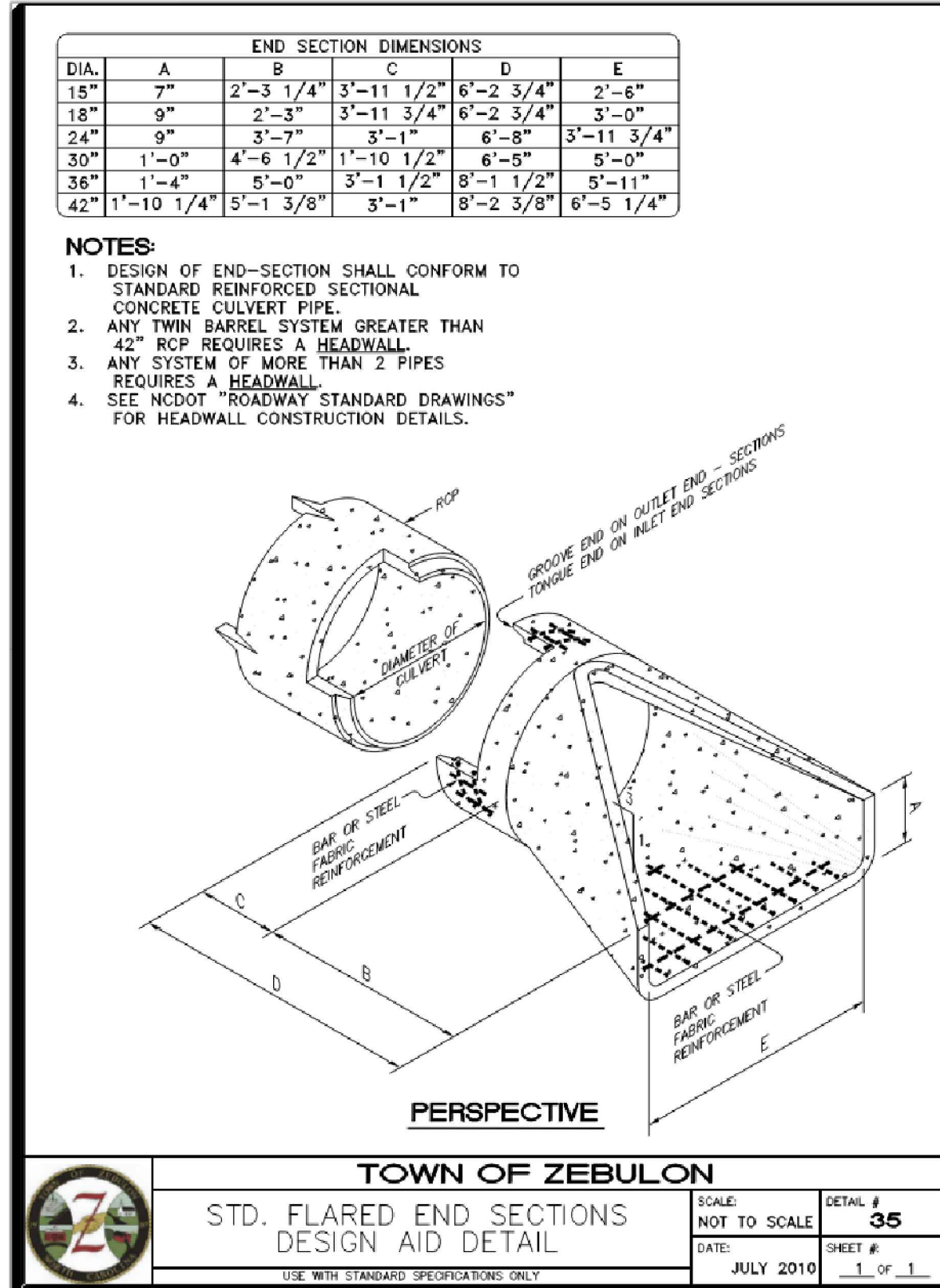




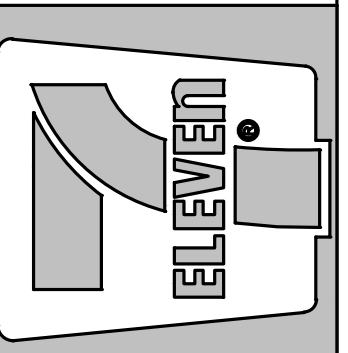
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4	REVISED	4	REVISED
5	REVISED	5	REVISED
6	REVISED	6	REVISED

STORE OR BLDG NO.:
N/A
VERSION OR PROJECT ID:
N/A
DESIGN TEAM
DGNR, BRM & MCB
PM/DP, ML
RVWR, ML
ISSUE DATE: 04/08/2024
ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27597

SHEET TITLE
OFFSITE
CONSTRUCTION
DETAILS



Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
11/22/23	TOWN OF ZEBULON REVIEW		
12/22/23	TOWN OF ZEBULON REVIEW		
1/22/24	TOWN OF ZEBULON REVIEW		
2/22/24	TOWN OF ZEBULON REVIEW		
3/22/24	TOWN OF ZEBULON REVIEW		
4/22/24	TOWN OF ZEBULON REVIEW		
5/22/24	TOWN OF ZEBULON REVIEW		
6/22/24	TOWN OF ZEBULON REVIEW		

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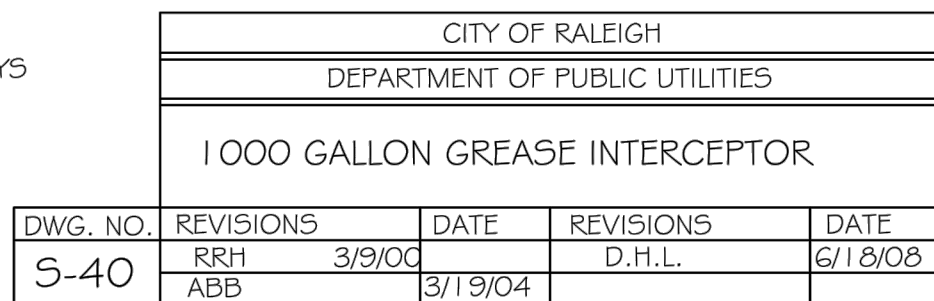
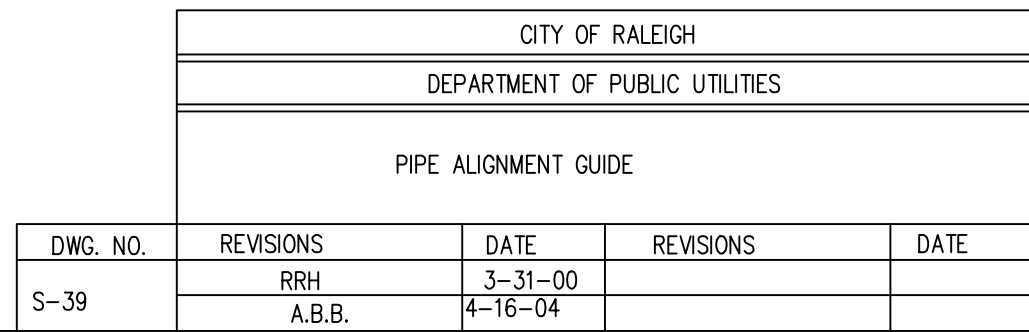
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CONSTRUCTION
DETAILS

STORE OR BLDG NO.: N/A
VERSION OR PROJECT ID: N/A
DESIGN TEAM
DGNR: BRM & MCB
PM/DP: ML
R/W/R: ML
ISSUE DATE: 04/08/2024
ADDRESS 1106 N ARENDELL AVE ZEBULON, NC 27597

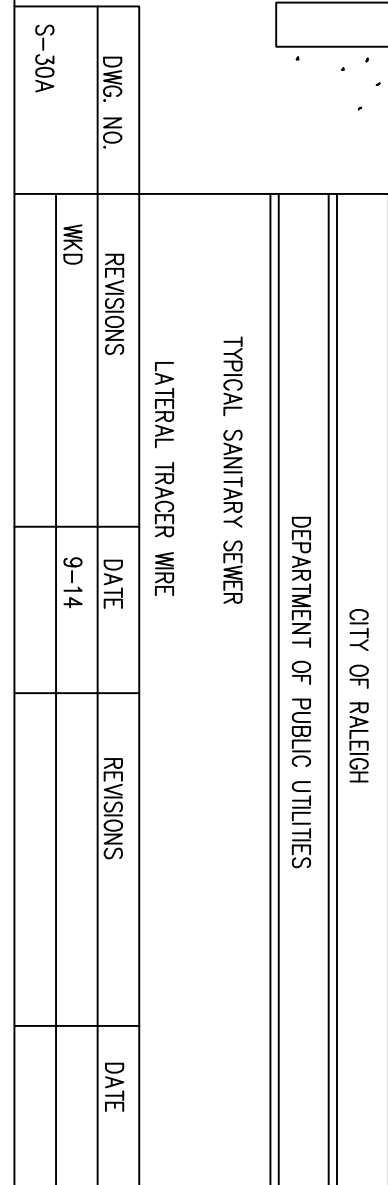
ELEVATION

ELEVATION

SECTION "A-A"
INTERNAL DOWNSPOUT



Failure to call for **Inspection, Install a Downstream Plug**, have **Permitted Plans** on the **Jobsite**, or any other **Violation of City of Raleigh Standards** will result in a **Fine and Possible Exclusion** from future work in the **City of Raleigh**.

[illegible]

STORE OR BLDG NO.:

N/A
VERSION OR PROJECT ID:

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N/A

DESIGN TEAM

GNR. BRM & MCB

PM/DP, ML

VWR MI

ISSUE DATE: 04/08/2024

ADDRESS

1106 N ARENDELL AVE

ZEBULON, NC 27597

Journal of Management Education 36(7)p. 809-824

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Journal of Management Education 36(7)p. 809-824

Journal of Management Education 36(7)p. 809-824

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SHEET TITLE

SEWER

DETAILS

DETAILS

Journal of Management Education 36(7) 809–824

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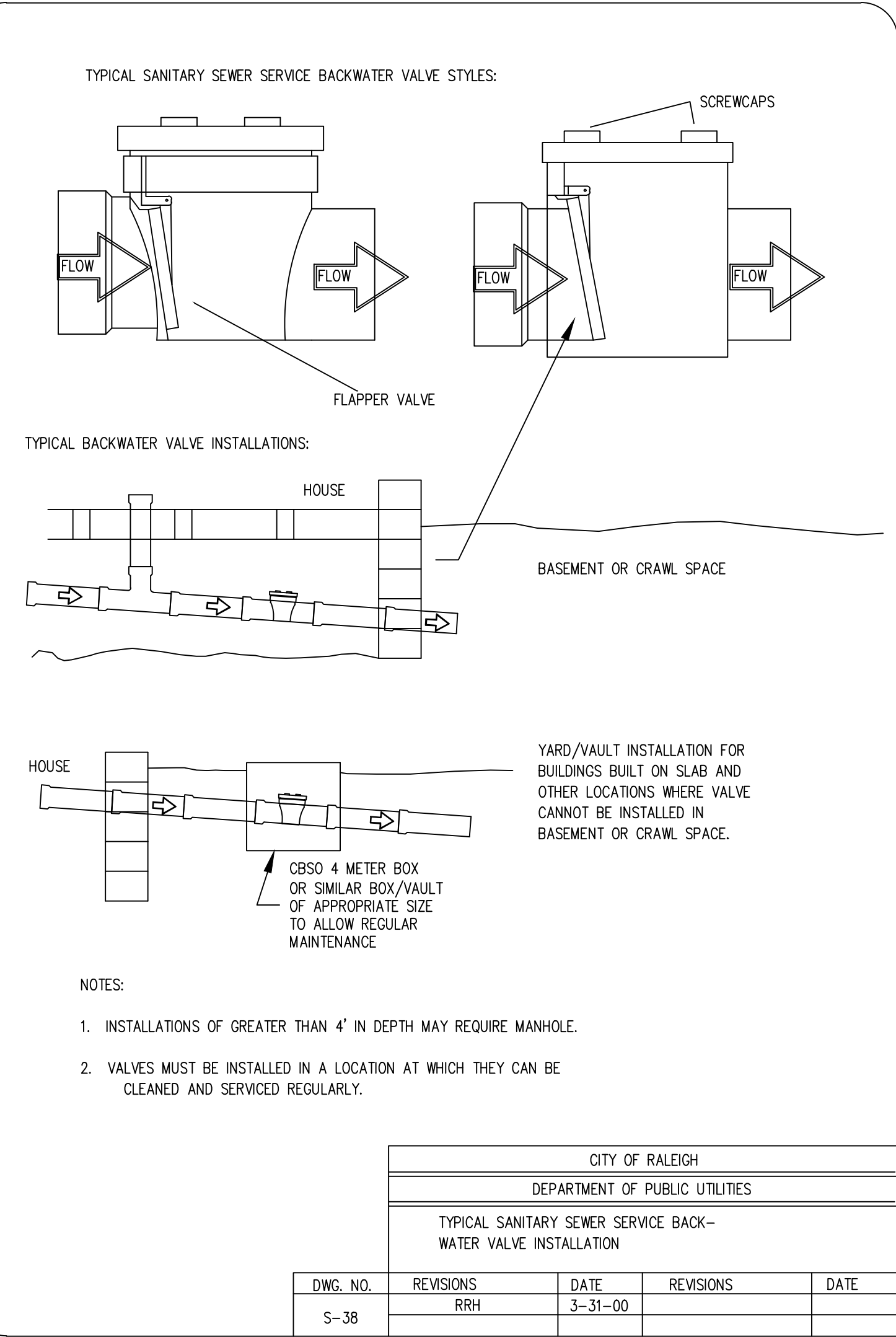
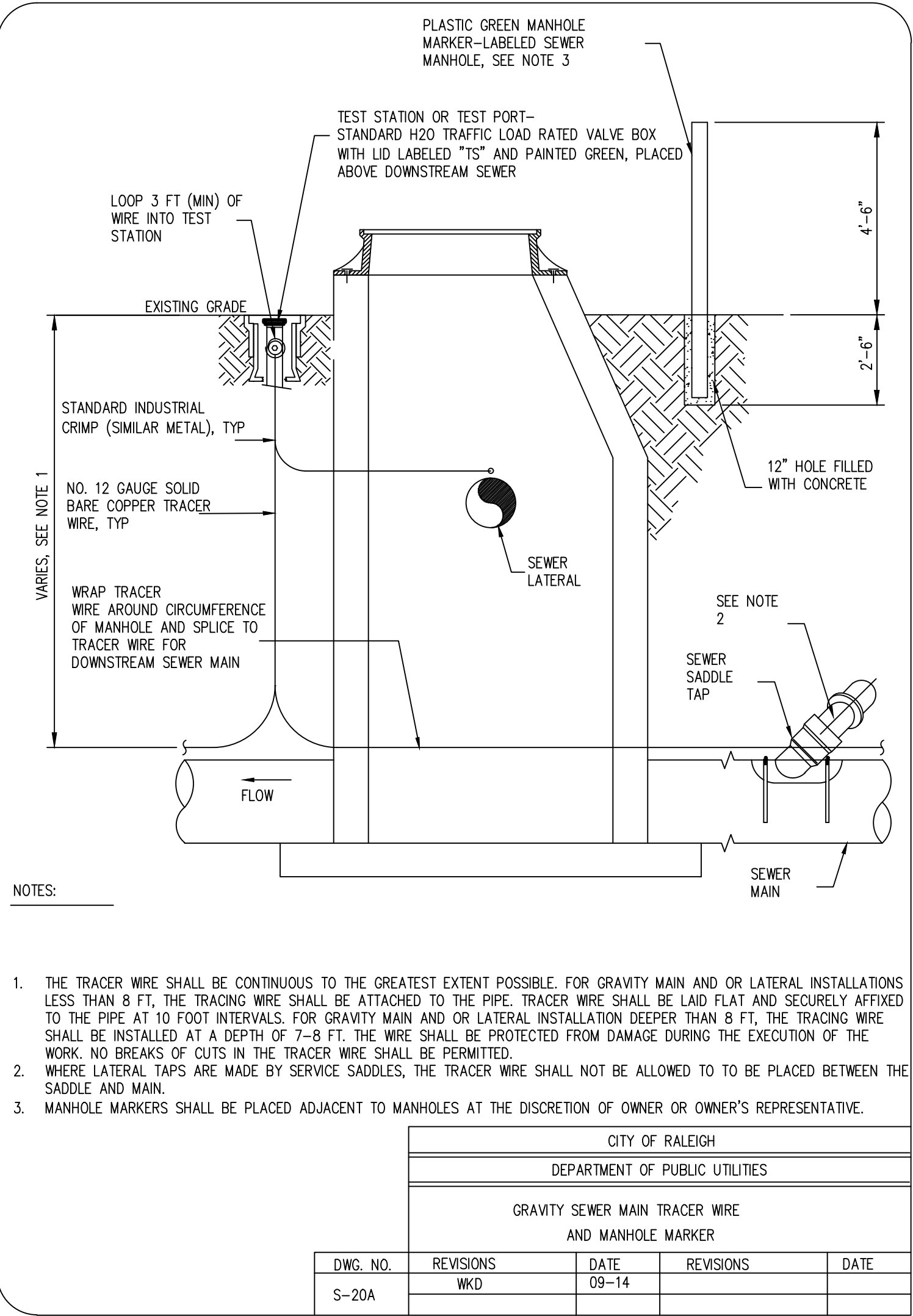
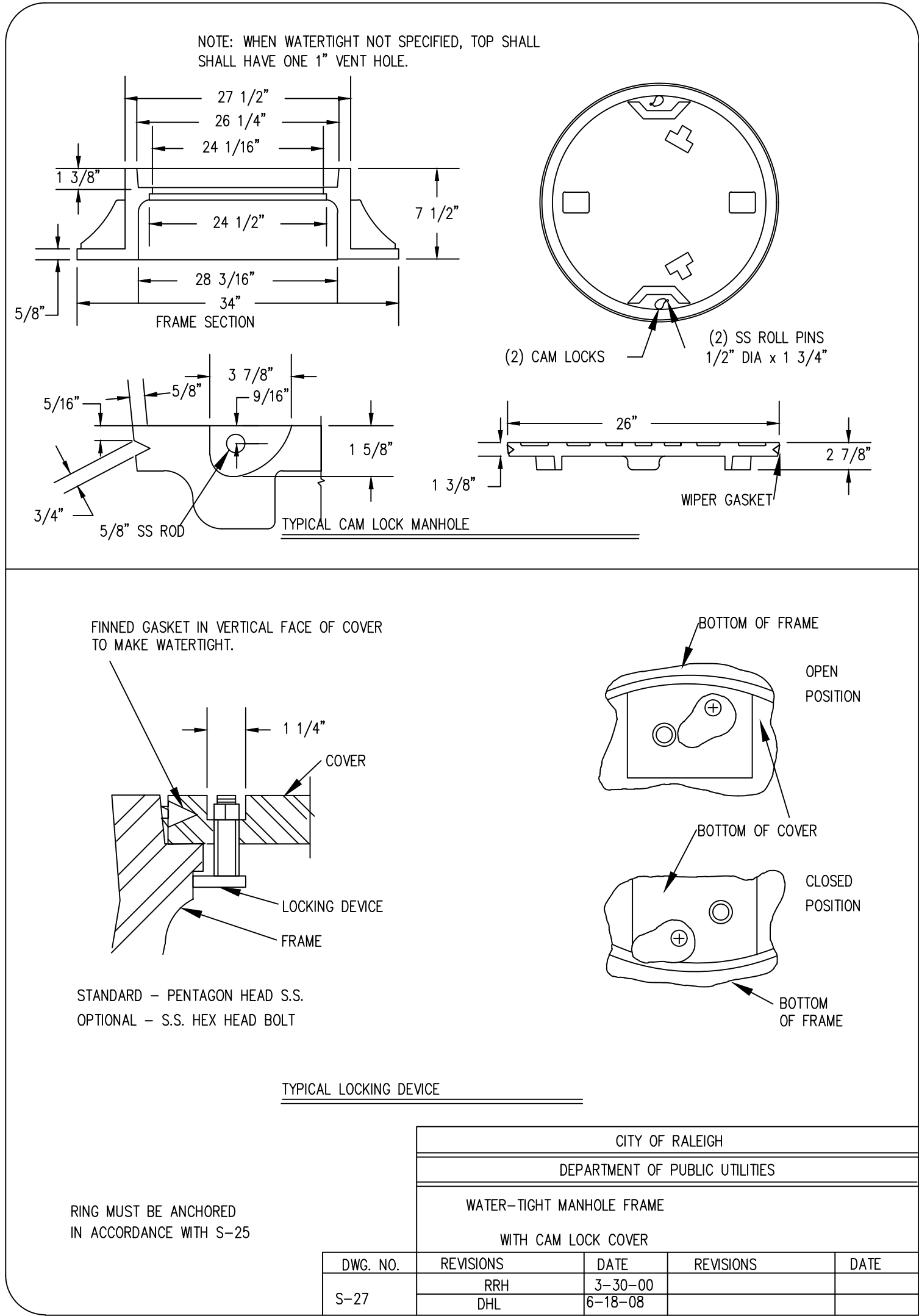
Journal of Management Education 36(7)p. 809-824

Journal of Management Education 36(7) 809-824

Journal of Management Education 36(8)

RWG. NO. 0010

C6.10



PUBLIC Water Distribution/Extension System

The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # W-4087

Authorization to Construct See digital signature

PUBLIC Sewer Collection/Extension System

The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # S-5504

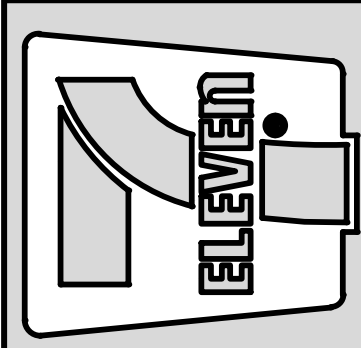
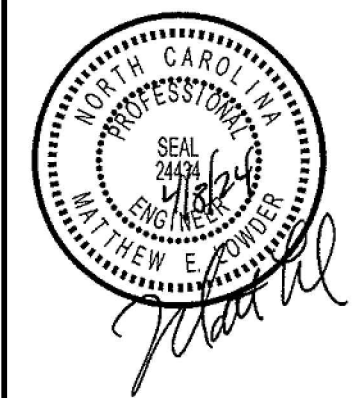
Authorization to Construct See digital signature

ATTENTION CONTRACTORS

The **Construction Contractor** responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for **contacting** the **Public Utilities Department** at (919)996-4540 at least **twenty four hours** prior to beginning any of their construction.

Failure to notify both **City Departments** in advance of beginning construction, will result in the issuance of **monetary fines**, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for **Inspection, Install a Downstream Plug, have Permitted Plans** on the **Jobsite**, or any other **Violation of City of Raleigh Standards** will result in a **Fine and Possible Exclusion** from future work in the **City of Raleigh**.



MARK	REVISION	DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1	END	02/23	TOWN OF ZEBULON REVIEW		
2	BR/MCB	05/23	TOWN OF ZEBULON REVIEW		
3	WCB	02/23	WAKE COUNTY REVIEW		
4	BR/MCB	01/24	TOWN OF ZEBULON REVIEW		
5	BR/MCB	03/24	TOWN OF ZEBULON REVIEW		
6	BR/MCB	04/24	TOWN OF ZEBULON REVIEW		

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STORE OR BLDG NO.:
N/A

VERSION OR PROJECT ID:
N/A

DESIGN TEAM

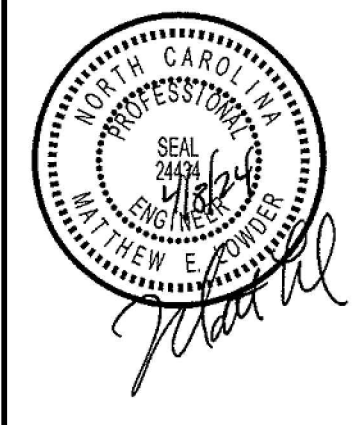
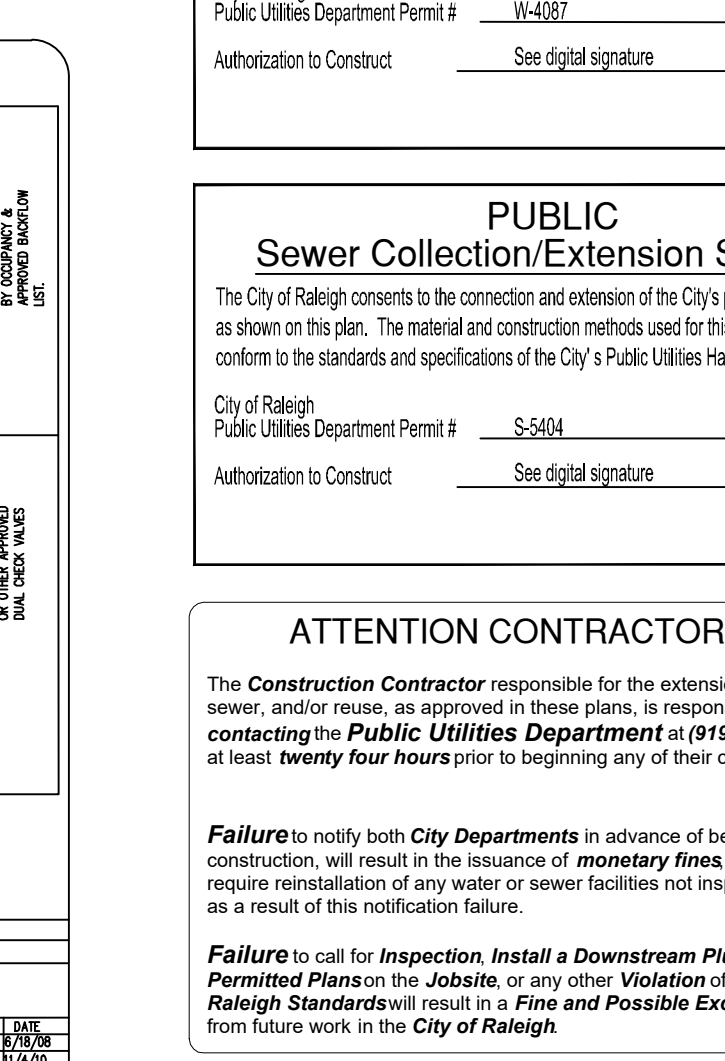
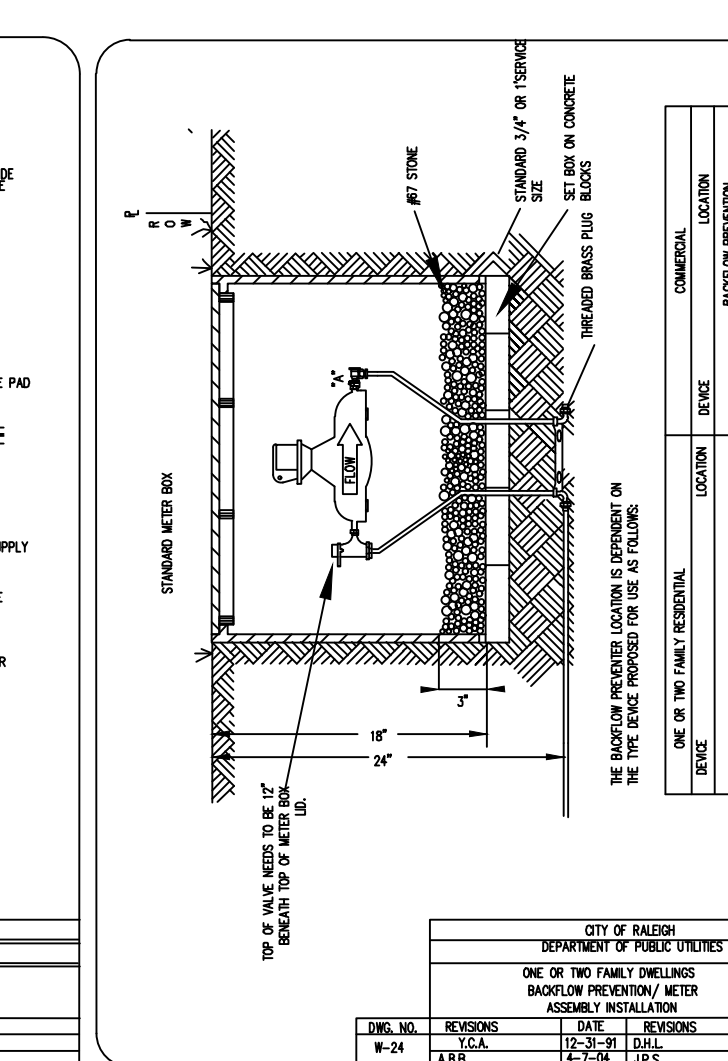
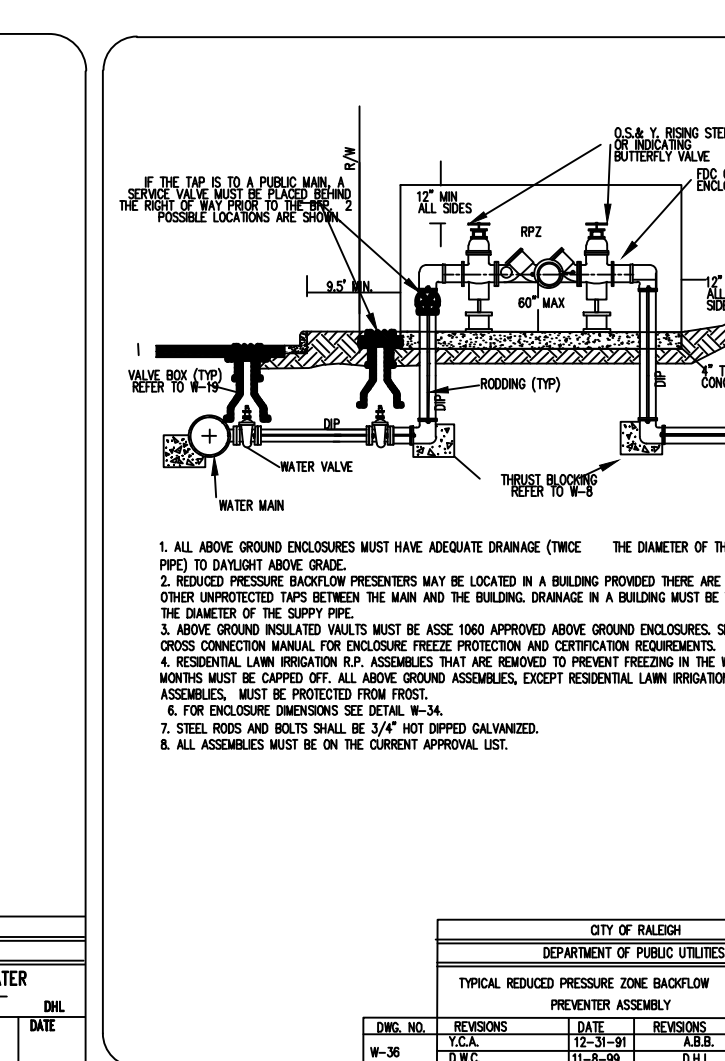
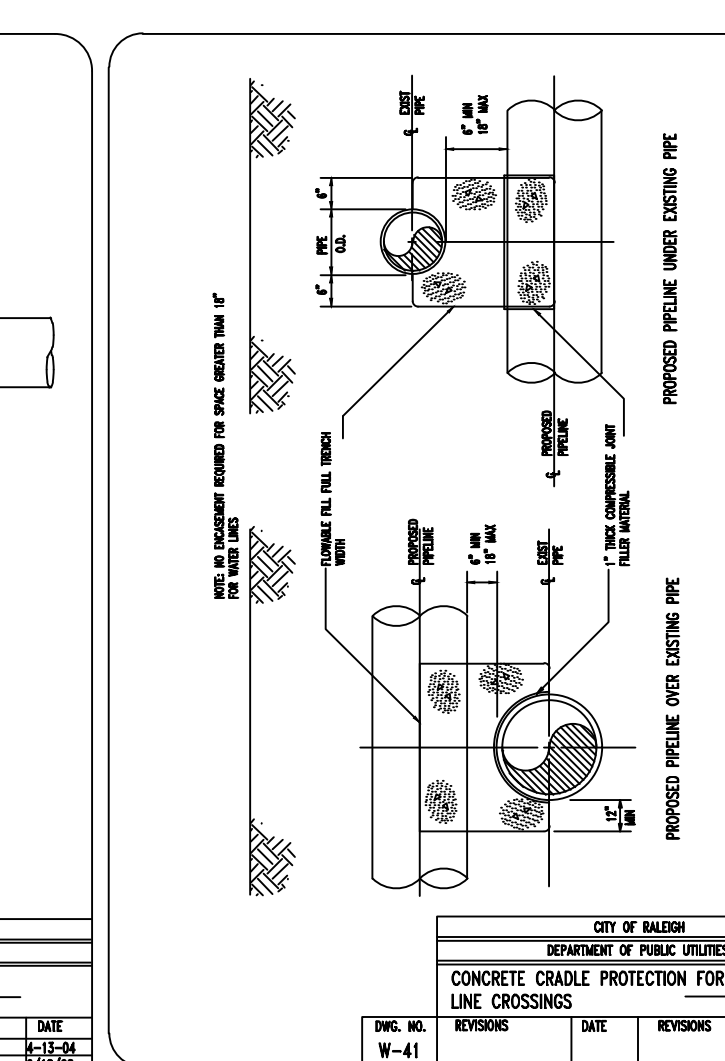
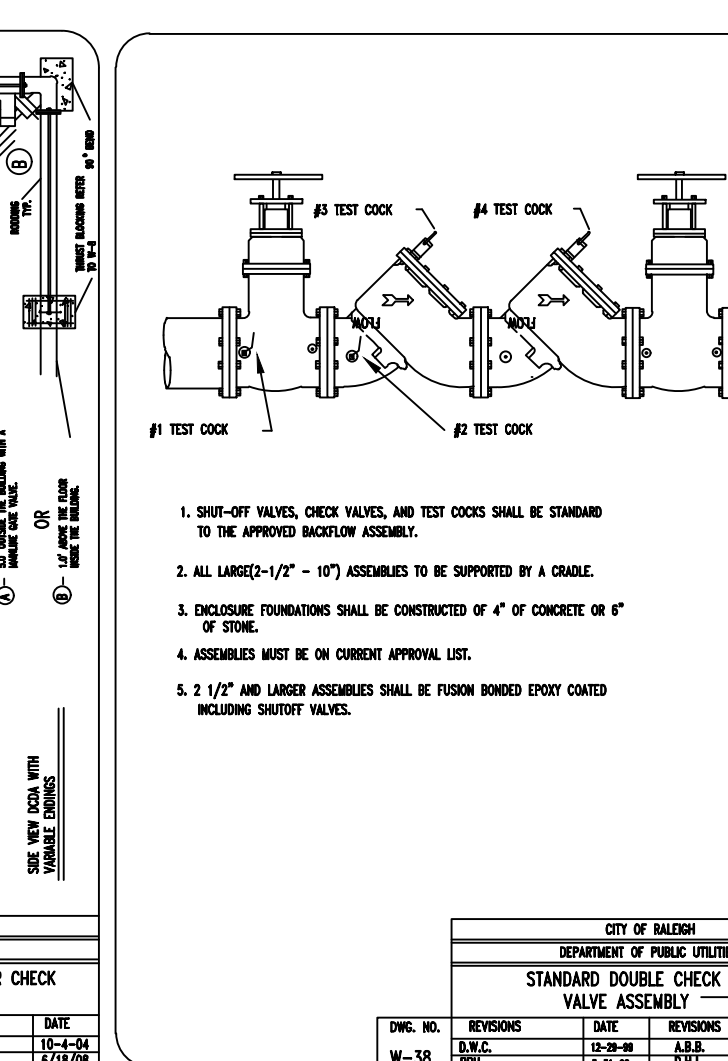
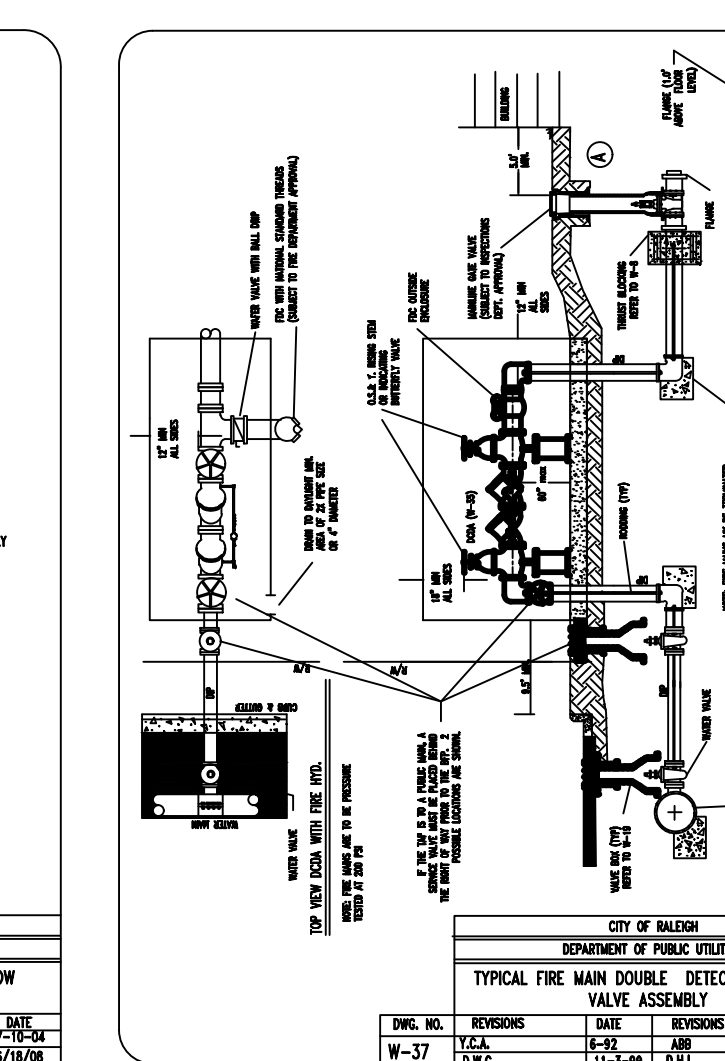
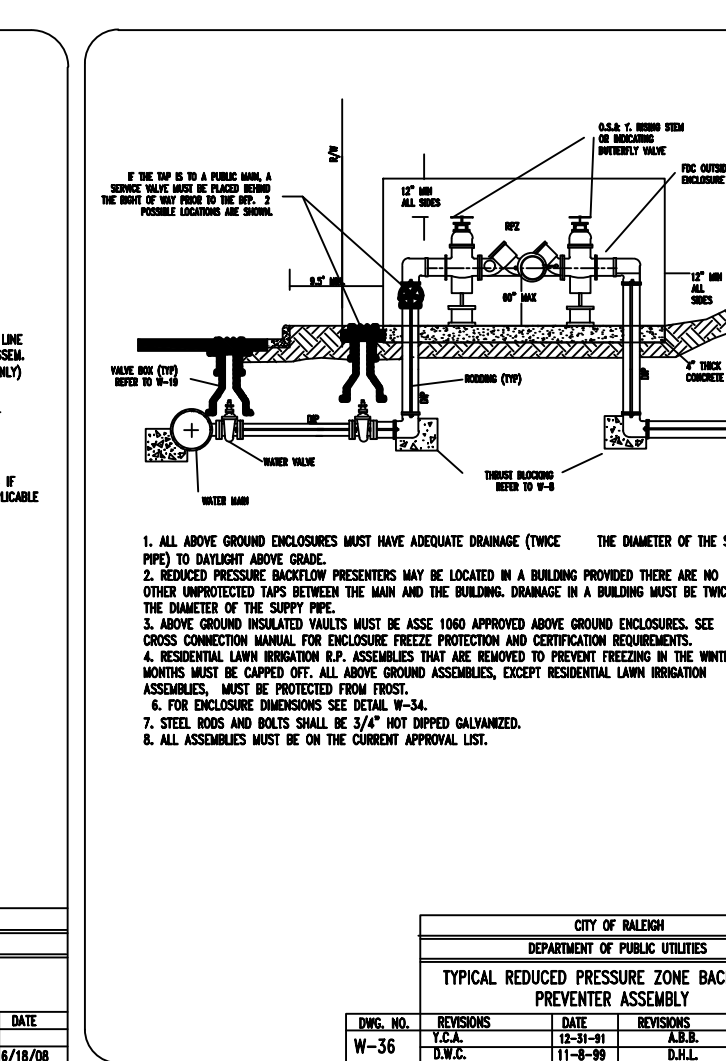
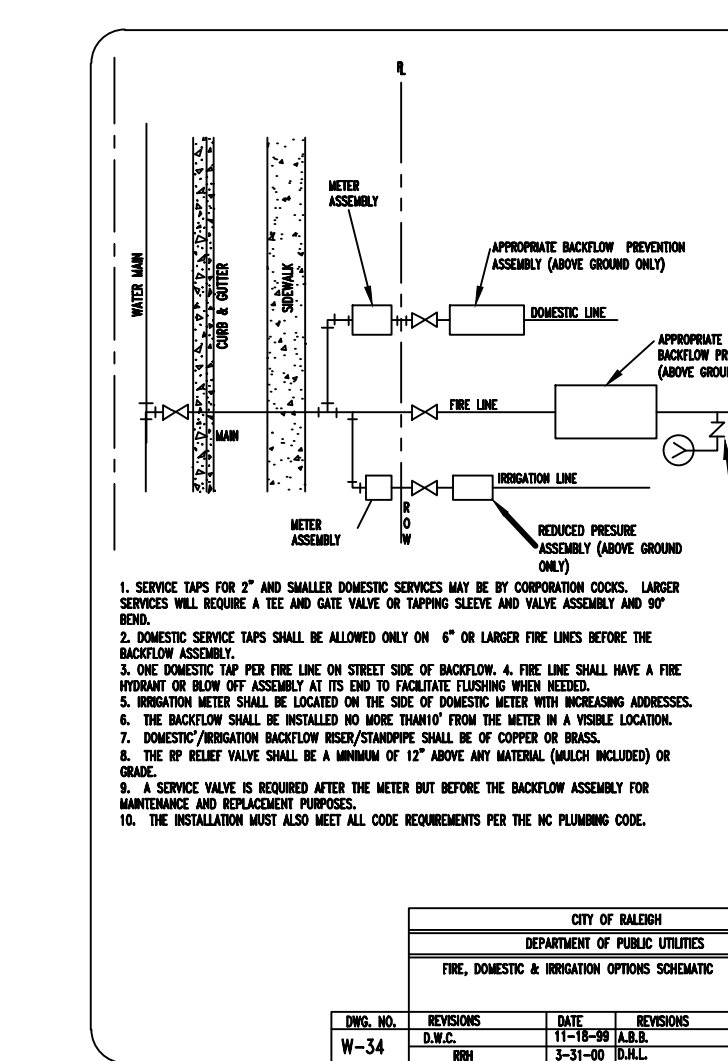
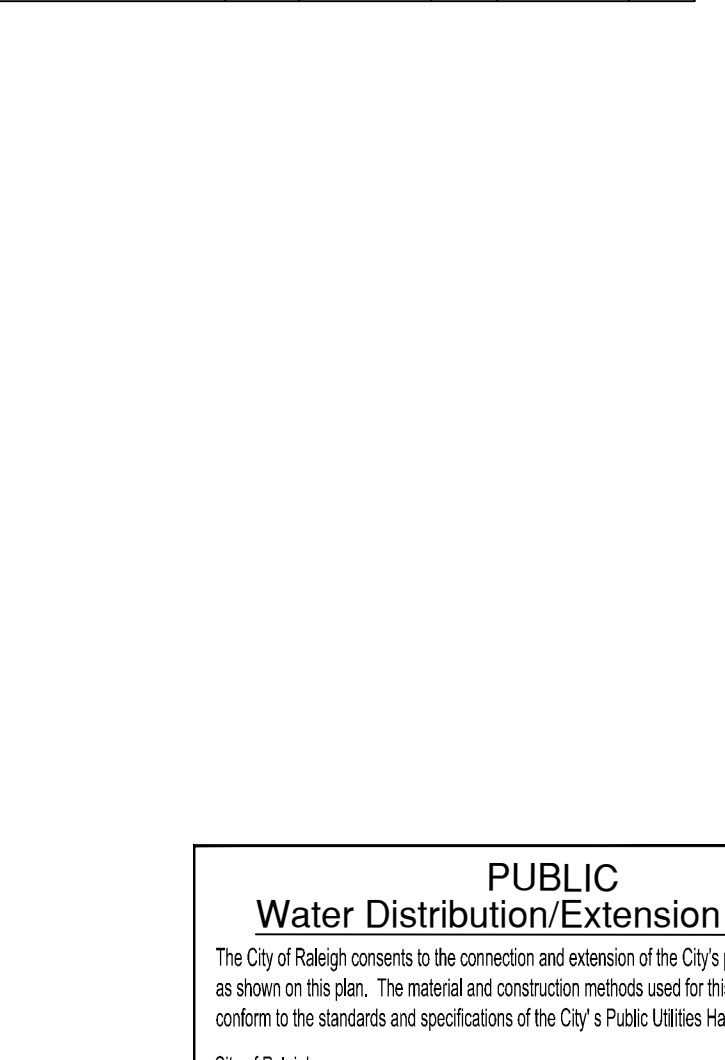
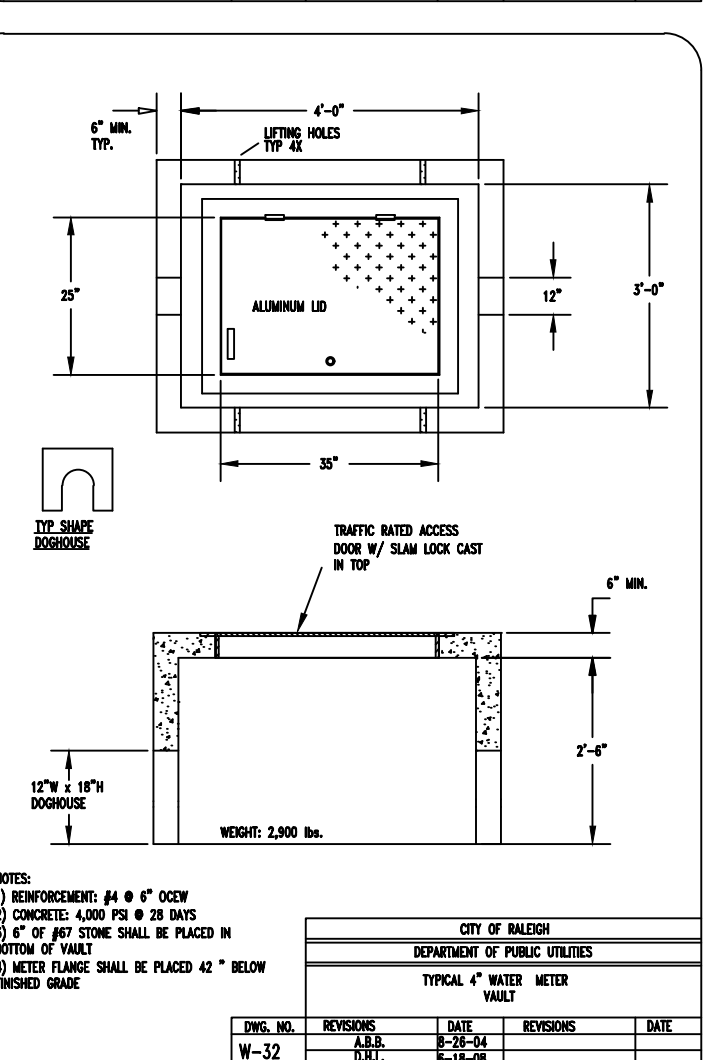
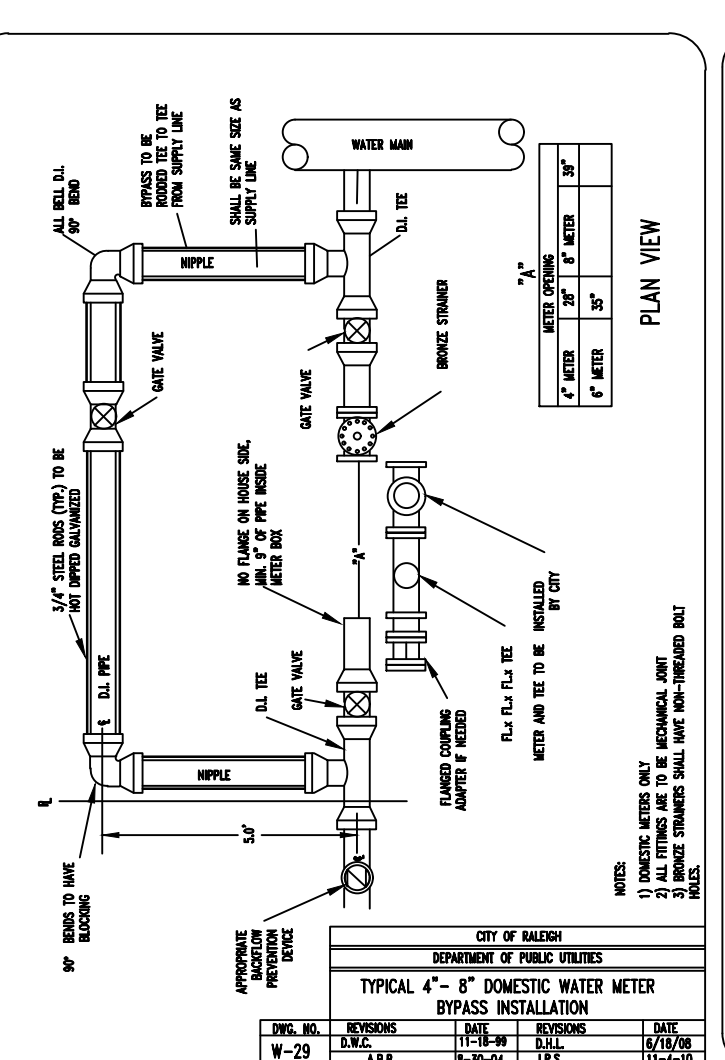
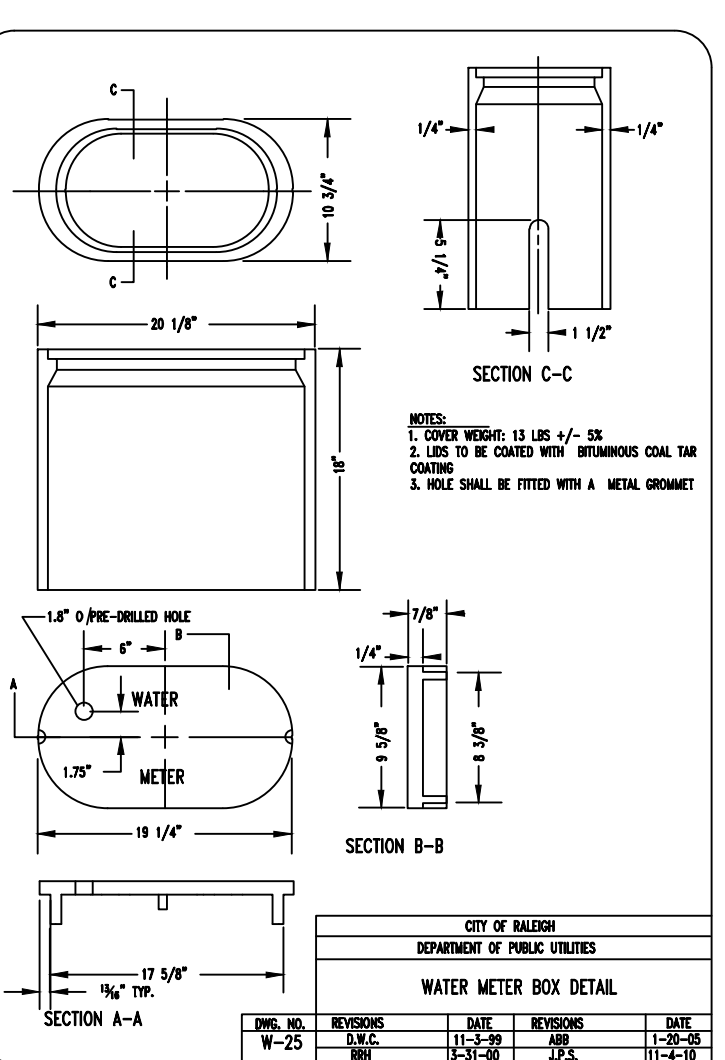
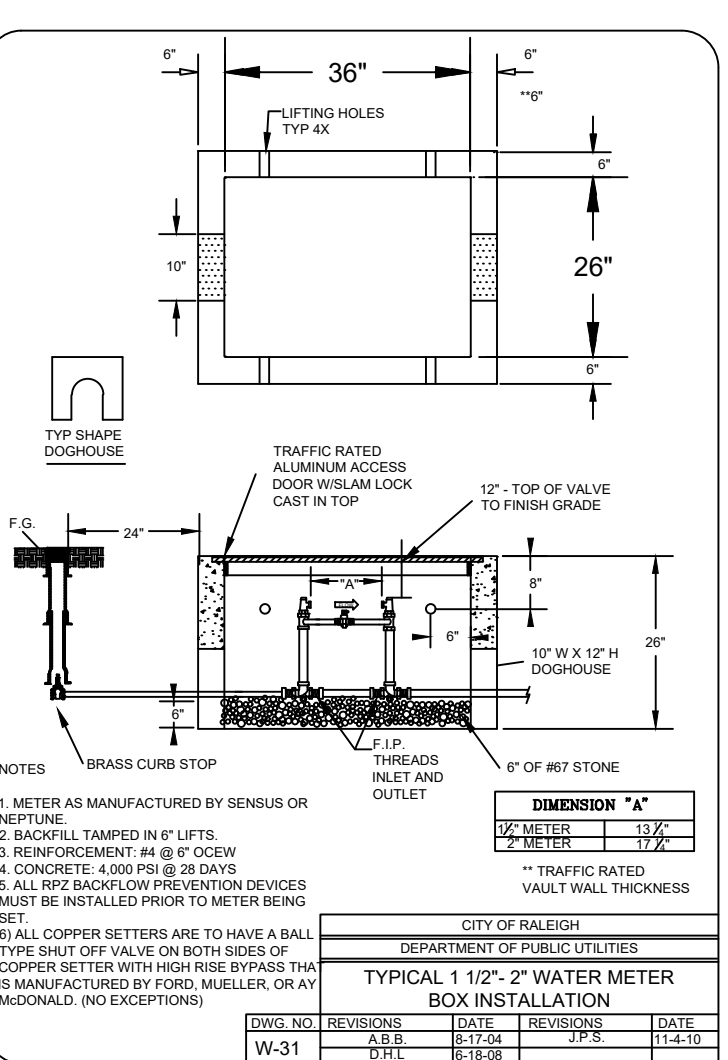
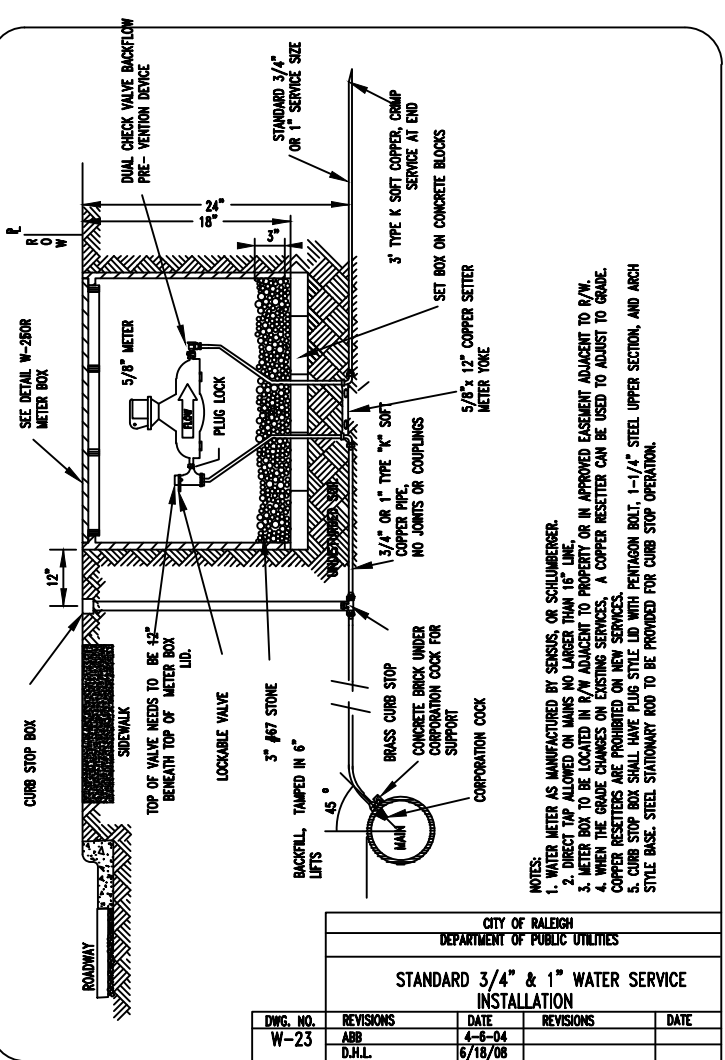
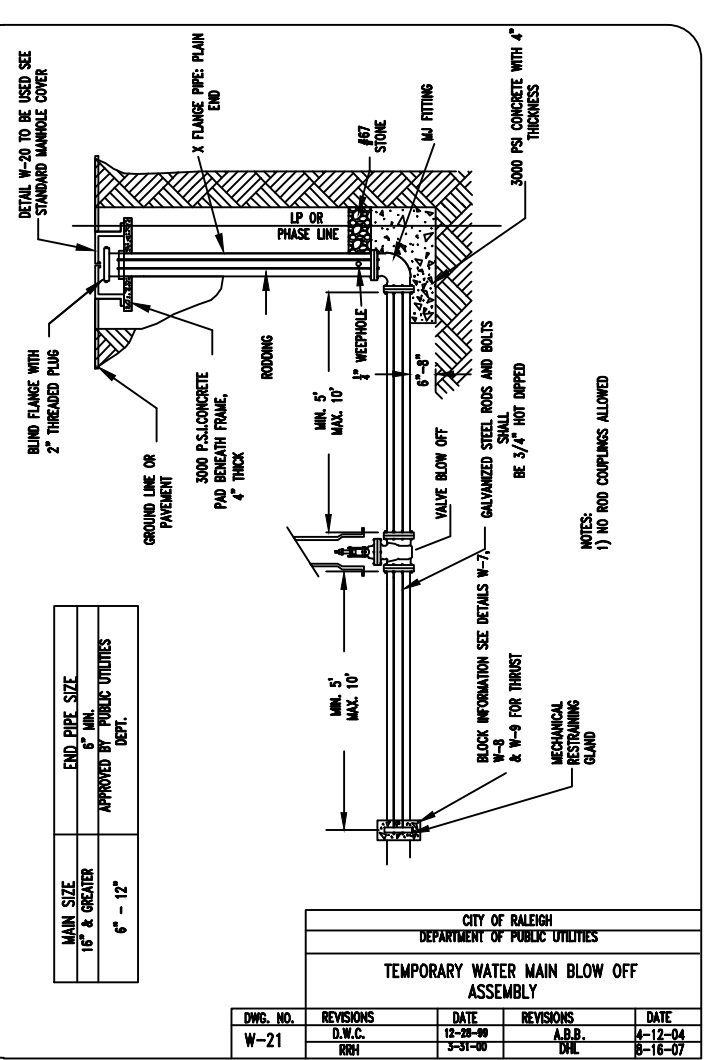
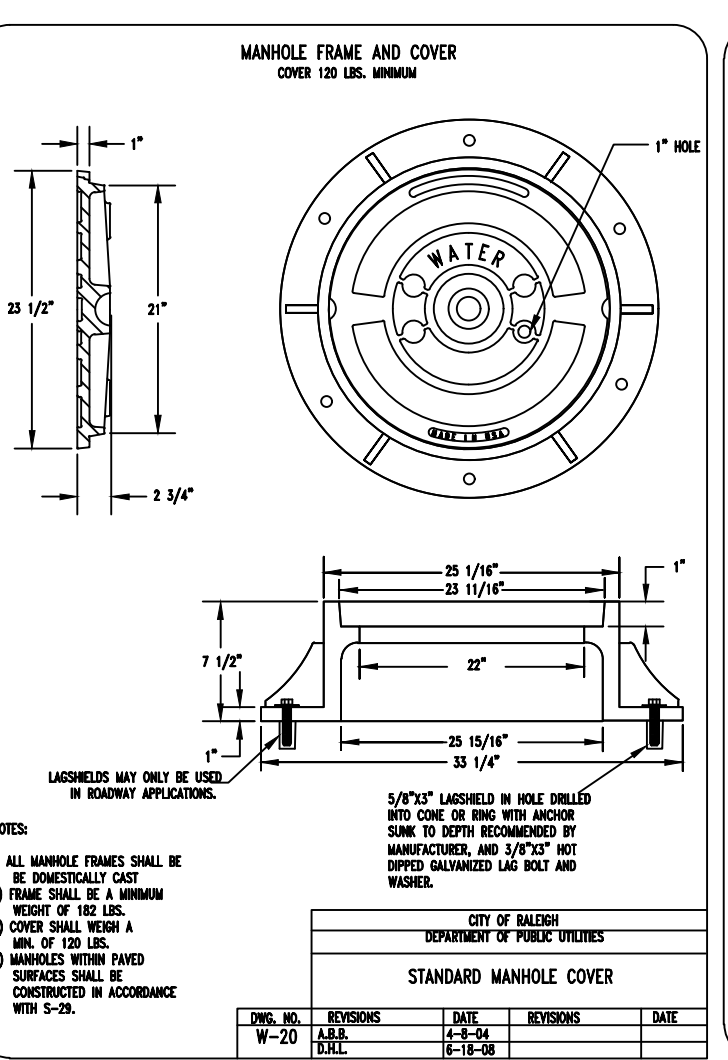
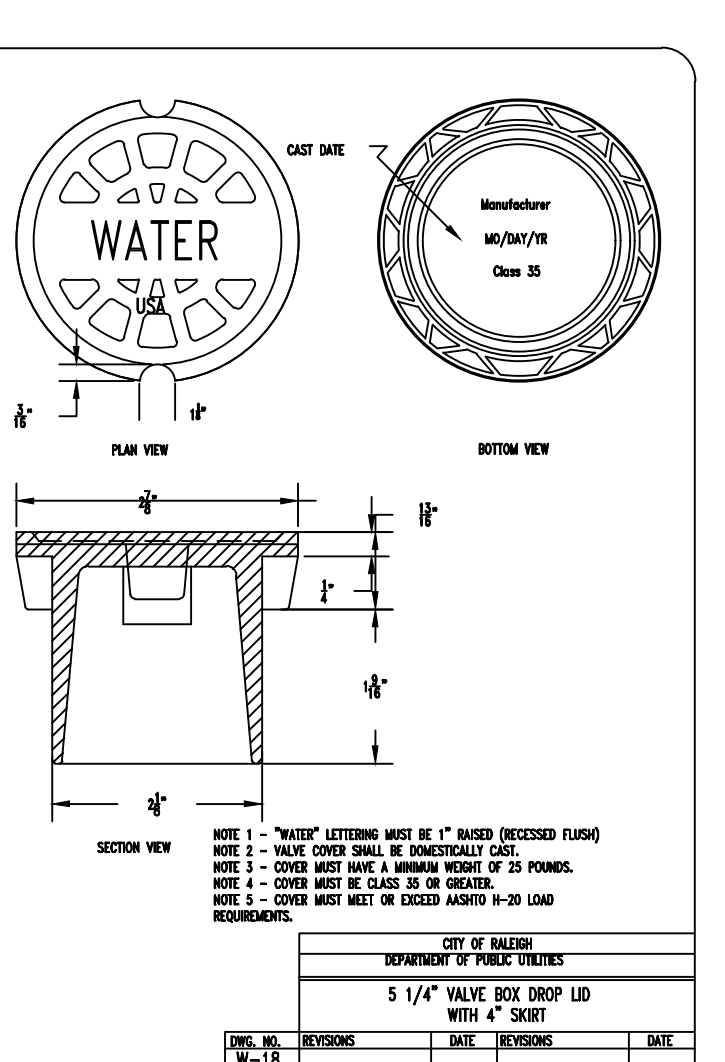
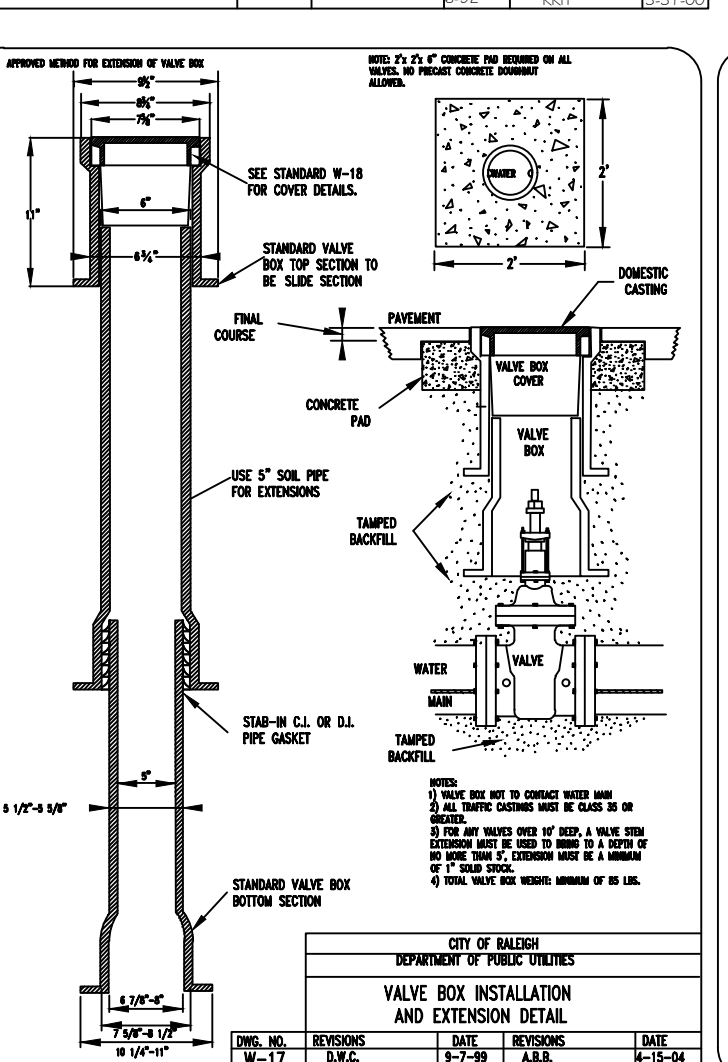
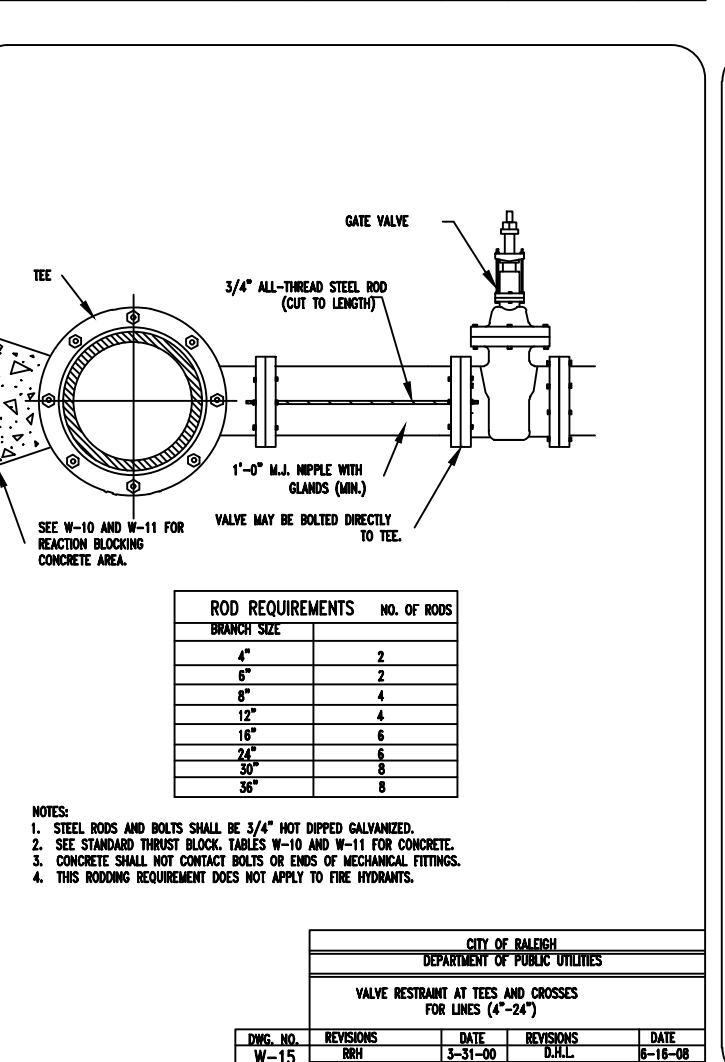
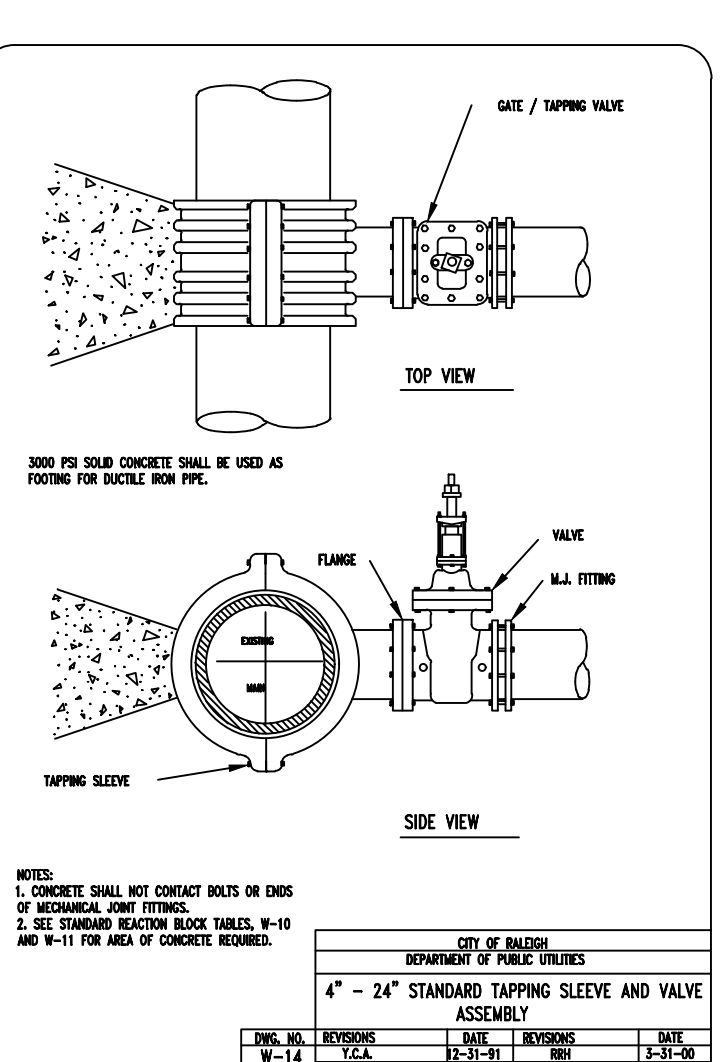
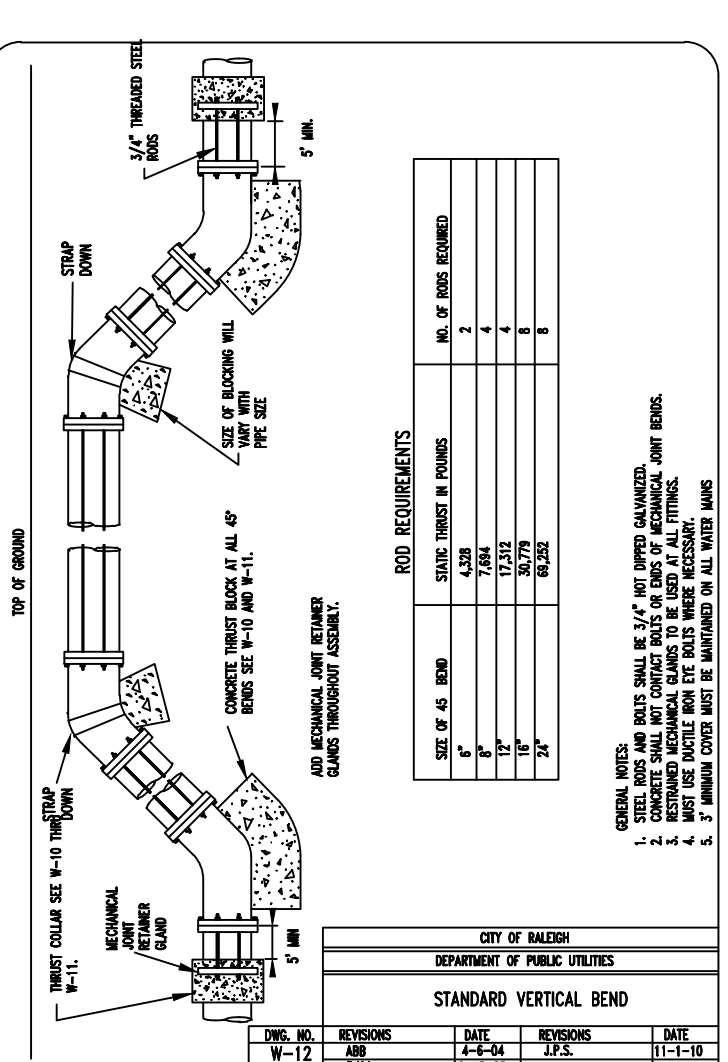
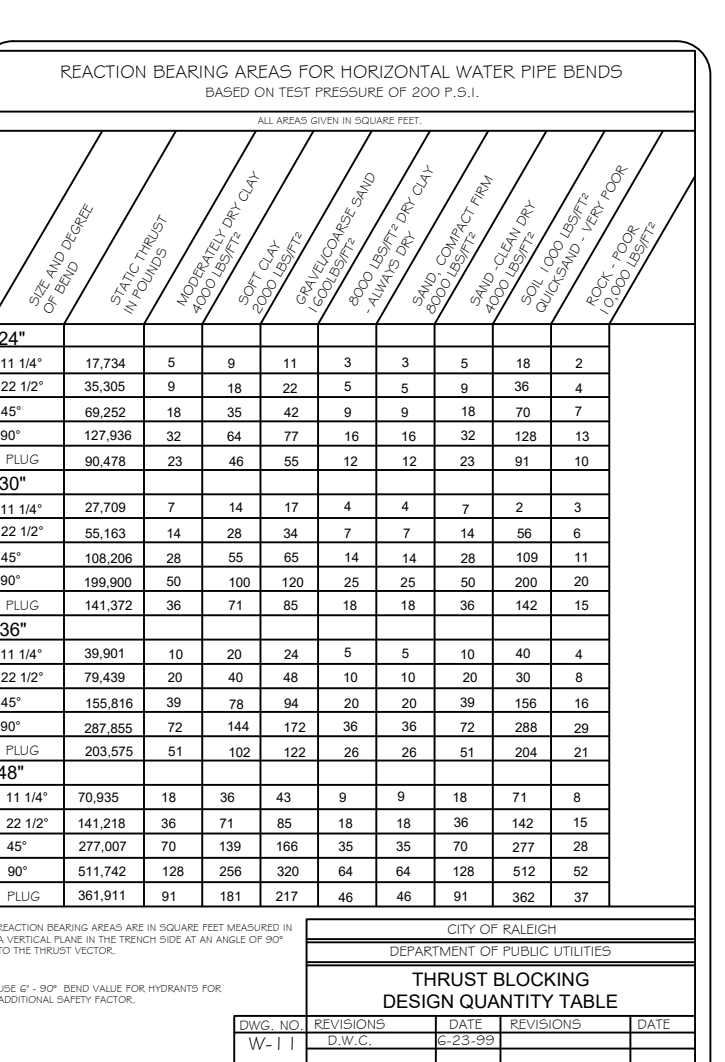
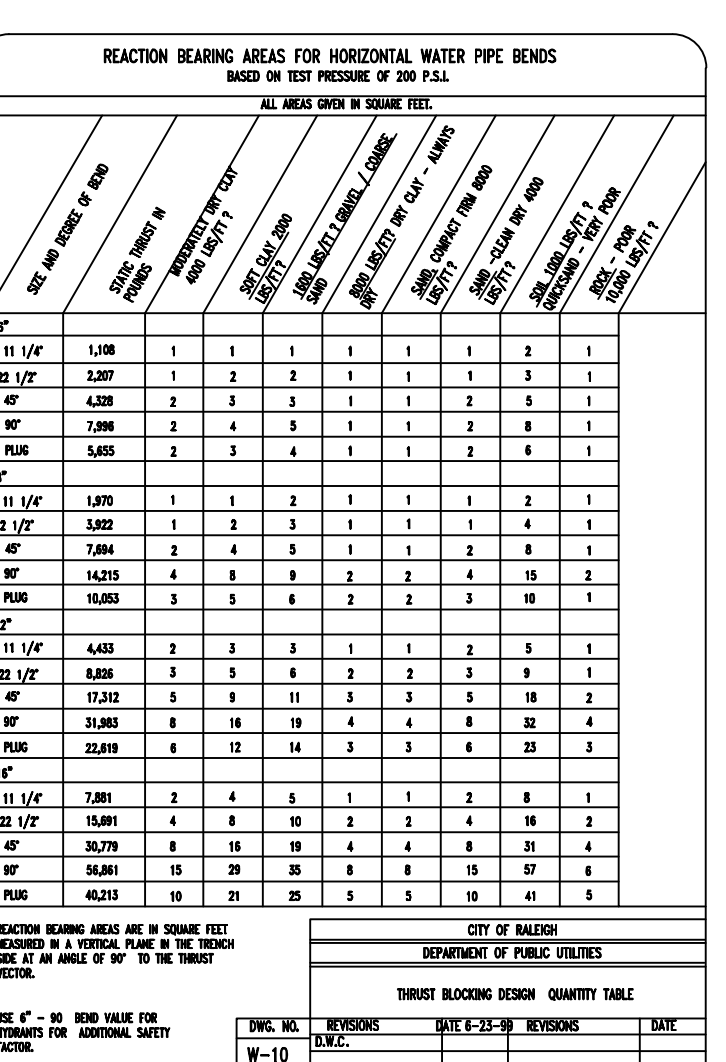
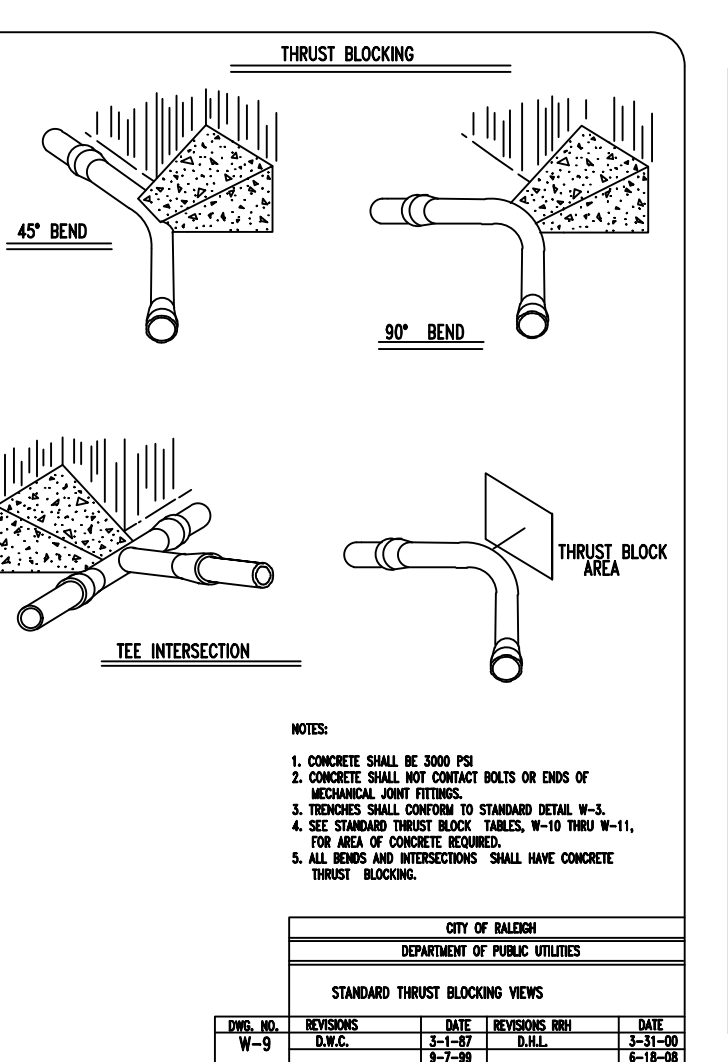
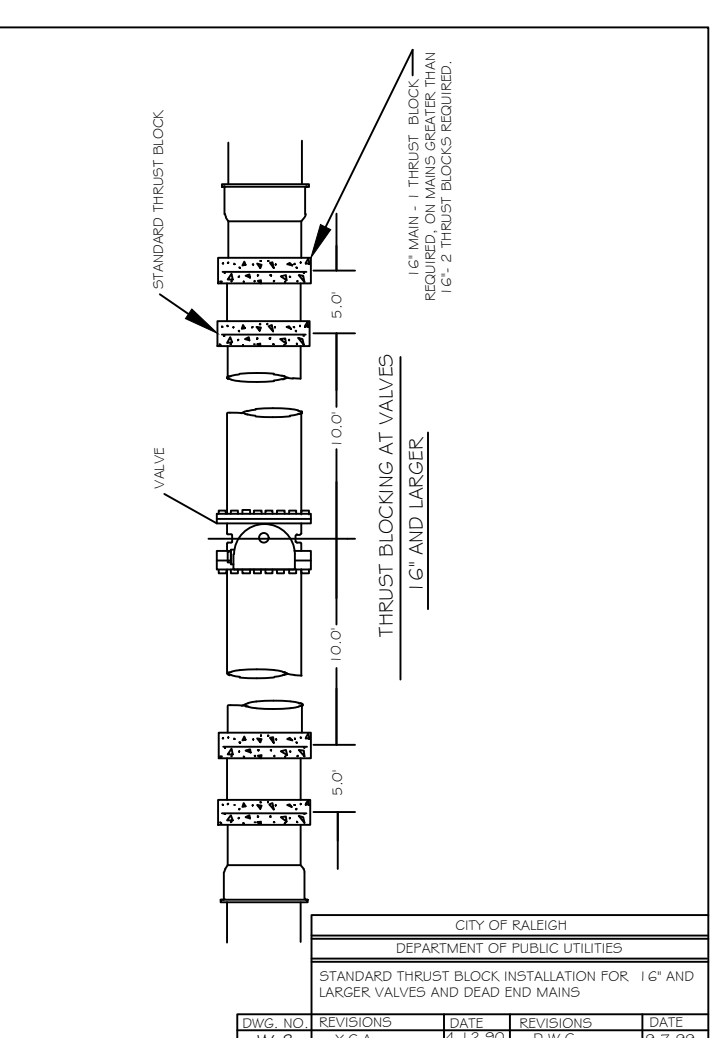
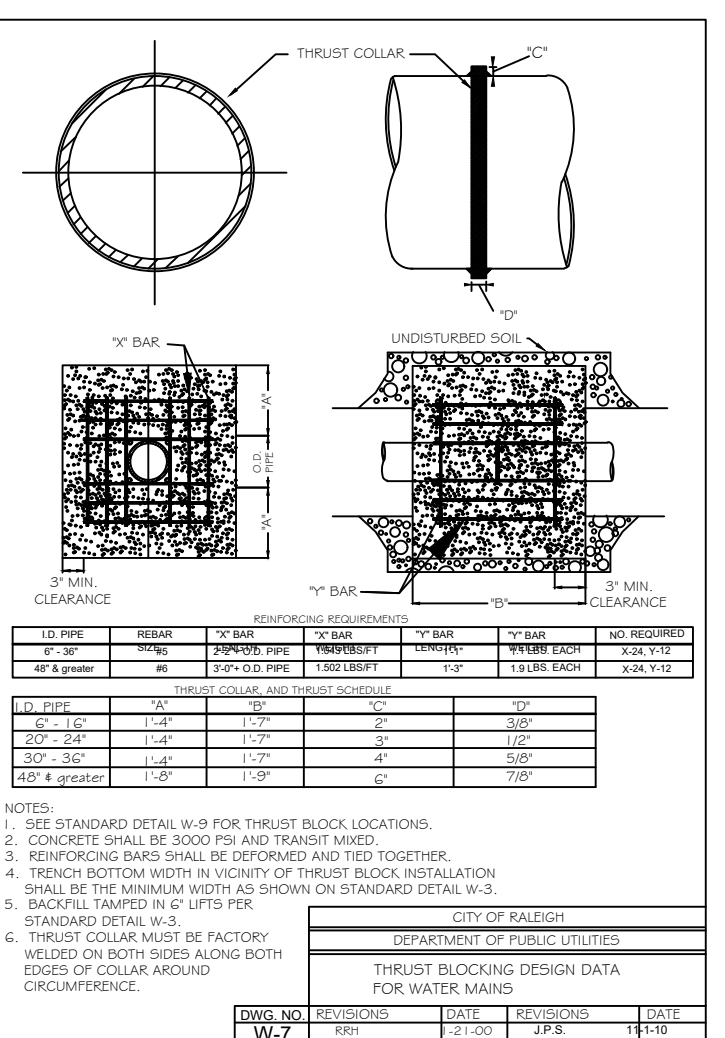
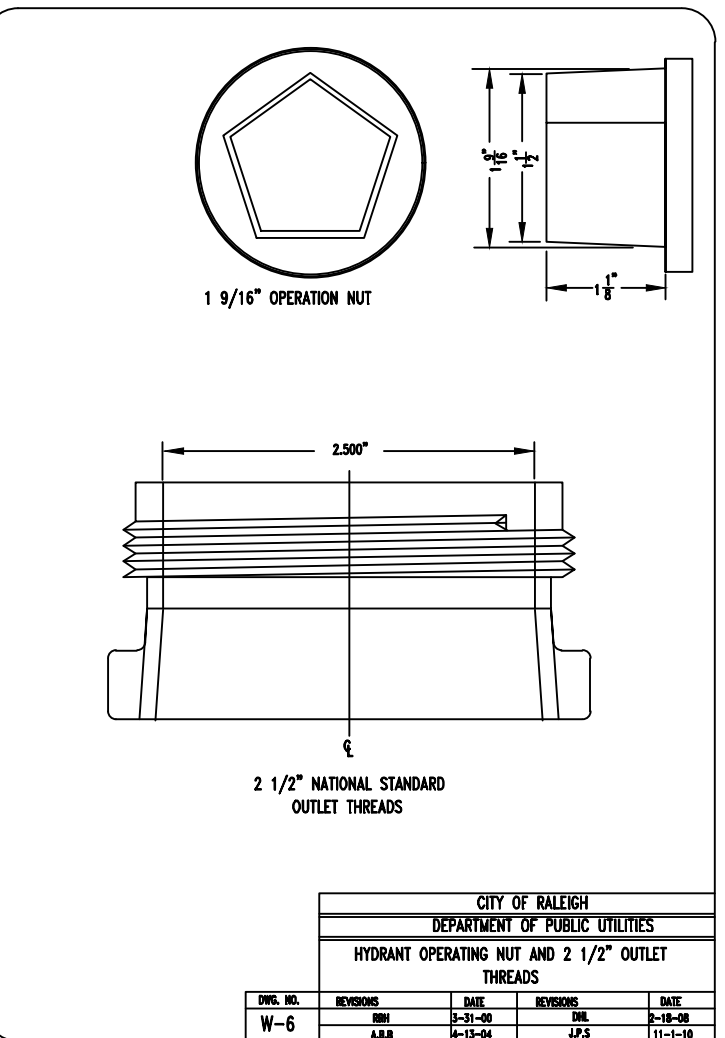
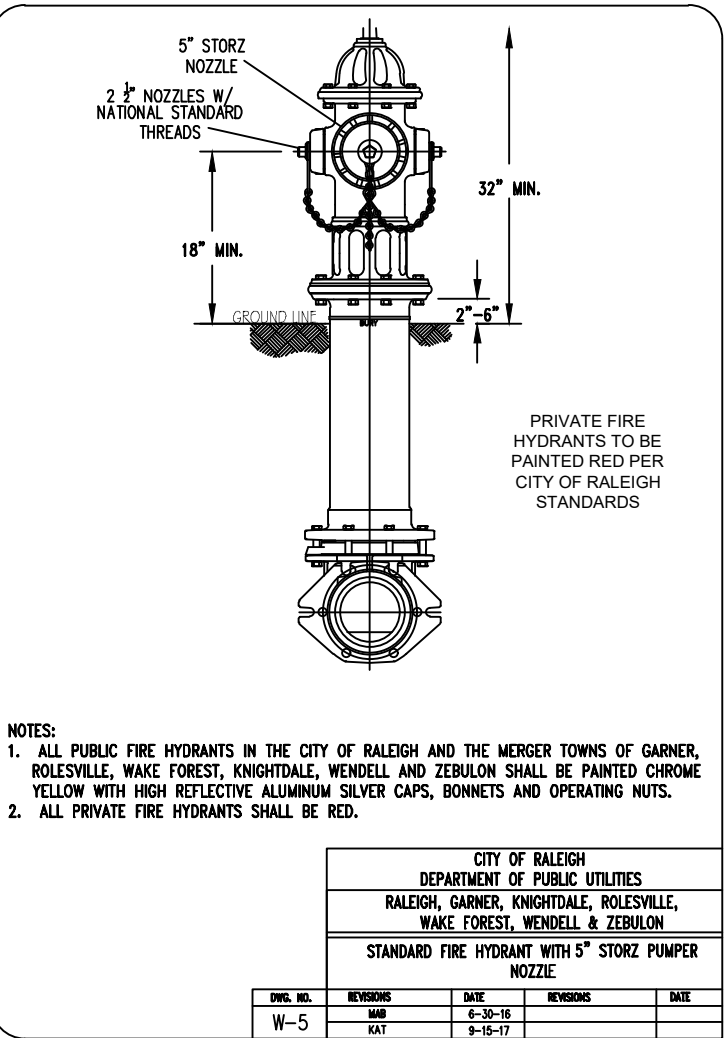
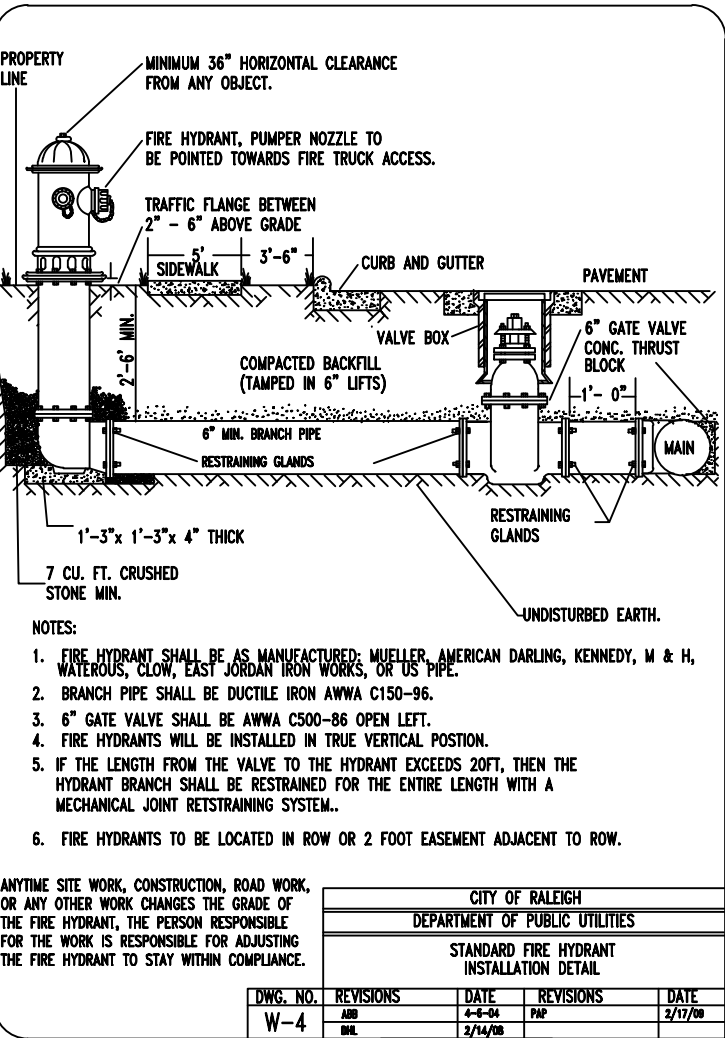
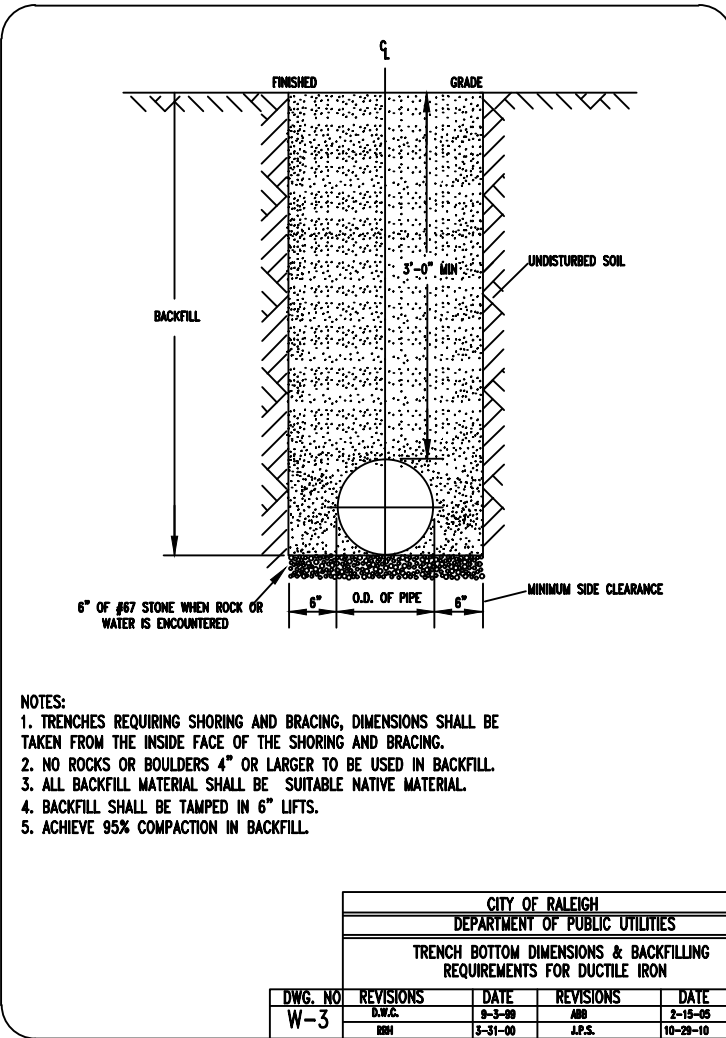
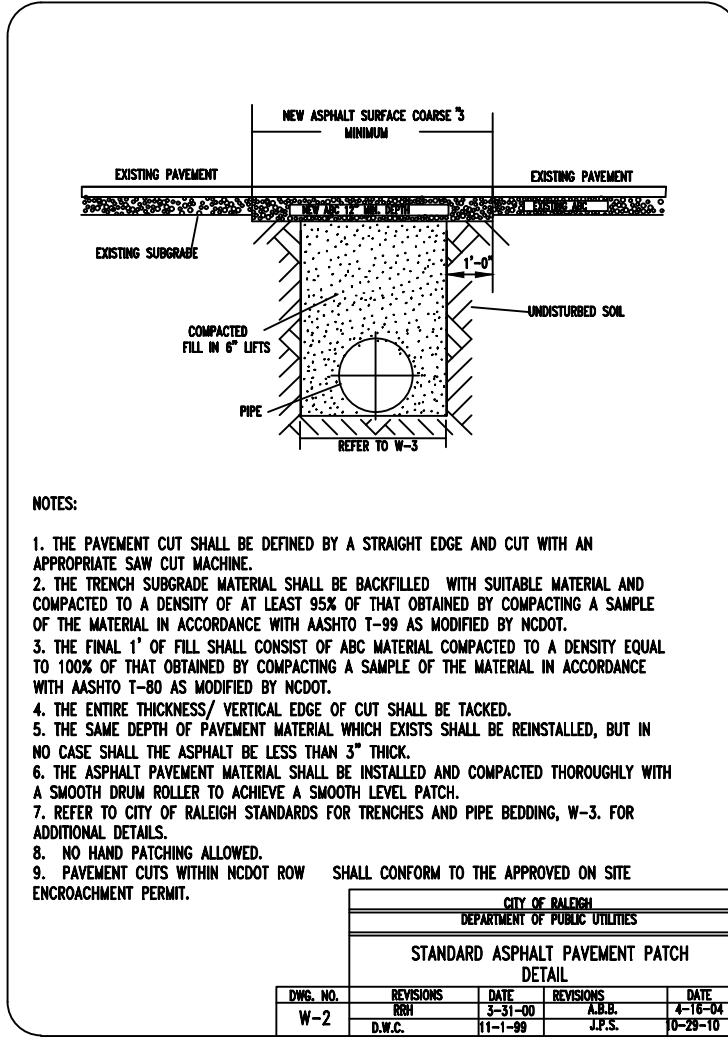
DGMR: BRM & MCB

PM/DP: ML

RVWR: ML

ISSUE DATE: 04/08/2024

ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27597



DATE	REVISION DESCRIPTION
11/10/11	1. TOWN OF ZEBULON REVIEW
11/10/11	2. TOWN OF ZEBULON REVIEW
11/10/11	3. TOWN OF ZEBULON REVIEW
11/10/11	4. TOWN OF ZEBULON REVIEW
11/10/11	5. TOWN OF ZEBULON REVIEW
11/10/11	6. TOWN OF ZEBULON REVIEW
11/10/11	7. TOWN OF ZEBULON REVIEW
11/10/11	8. TOWN OF ZEBULON REVIEW
11/10/11	9. TOWN OF ZEBULON REVIEW
11/10/11	10. TOWN OF ZEBULON REVIEW

PUBLIC Water Distribution/Extension System
The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh
Public Utilities Department Permit # W-4087
Authorization to Construct See digital signature

PUBLIC Sewer Collection/Extension System
The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh
Public Utilities Department Permit # S-5404
Authorization to Construct See digital signature

ATTENTION CONTRACTORS
The Construction Contractor responsible for the extension of water, sewer, and/or gas, as approved in these plans, is responsible for contacting the **Public Utilities Department at 919-996-4540** at least **twenty four hours** prior to beginning any of their construction.
Failure to notify both **City Departments** in advance of beginning construction, will result in the issuance of **monetary fines** and require **reinstallation** of any water or sewer facilities not inspected as a result of this notification failure.
Failure to call for **Inspection, Install a Downstream Plug, have Permitted Plans on the Jobsite, or any other Violation of City of Raleigh Standards** will result in a **Fine and Possible Exclusion** from future work in the City of Raleigh.

SCM element:	Potential problems:	How to remediate the problem:
The entire wetland	Trash/debris is present.	Remove the trash/debris.
The perimeter of wetland	Areas of bare soil and/or erosive gullies have formed.	Regrade the soil if necessary to remove the gully, and then plant a ground cover and water until it is established. Provide time and a one-time fertilizer application.
Inlet device	The inlet pipe is clogged (if applicable).	Unclog the pipe. Dispose of the sediment in a location where it will not cause impacts to streams or the SCM.
	The inlet pipe is cracked or otherwise damaged (if applicable).	Repair or replace the pipe.
	Erosion is occurring in the swale (if applicable).	Regrade the swale if necessary and provide erosion control devices such as reinforced turf matting or riprap to avoid future problems with erosion.
Forebay	Sediment has accumulated in the forebay to a depth of less than 15" or that inhibits the forebay from functioning well.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the SCM.
	Erosion has occurred.	Provide additional erosion protection such as reinforced turf matting or riprap if needed to prevent future erosion problems.
	Weeds are present.	Remove the weeds, preferably by hand. If a pesticide is used, wipe it on the plants rather than spraying.
Deep pool, shallow water and shallow land areas	Algal growth covers over 30% of the deep pool and shallow water areas.	Consult a professional to remove and control the algal growth.
	Cattails, phragmites or other invasive plants cover 30% of the deep pool and shallow water areas.	Remove the invasive plants by hand or by wiping them with pesticide (do not spray) - consult a professional.
	The temporary inundation zone remains flooded more than 5 days after a storm event.	Unclog the outlet device immediately.
	Plants are dead, diseased or dying.	Determine the source of the problem: soils, hydrology, disease, etc. Remedy the problem and replace plants. Provide a one-time fertilizer application to establish the ground cover if necessary.
	Sediment has accumulated and reduced the depth to 75% of the original design depth of the deep pools.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the SCM.
Embankment	A tree has started to grow on the embankment.	If tree is <6" in diameter, remove the tree. If the tree is >6" in diameter, consult a dam safety specialist to remove the tree.
	An annual inspection by an appropriate professional shows that the embankment needs repair.	Make all needed repairs.
	Evidence of muskrat or beaver activity is present.	Consult a professional to remove muskrats or beavers and repair any holes or erosion.
Micropool	Sediment has accumulated and reduced the depth to 75% of the original design depth.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the SCM.
Outlet Structure	Clogging has occurred.	Clean out the outlet device. Dispose of the sediment off-site.
	The outlet device is damaged.	Repair or replace the outlet device.
Receiving water	Erosion or other signs of damage have occurred at the outlet.	Repair the damage and improve the flow dissipation structure.
	Discharges from the wetland are causing erosion or sedimentation in the receiving water.	Contact the local NCDQ Regional Office.

TYPICAL SHALLOW WATER PLANTING SCHEDULE								
	SCIENTIFIC NAME	COMMON NAME	PLANTING ZONE	QUANTITY	HEIGHT	IDEAL DEPTH	NURSERY CONTAINER TYPE	SPACING
	<i>Juncus effusus</i>	Common Rush	SHALLOW WATER	291	9" FOLIAGE HEIGHT	0-2"	4" TEA POT	2' O.C.
	<i>Llaoesple carolinensis</i>	Carolina Grasswort	SHALLOW WATER	291	9" FOLIAGE HEIGHT	0-9"	4" TEA POT	2' O.C.
	<i>Scheuchzeria palustrum</i>	Softstem Bulrush	SHALLOW WATER	291	9" FOLIAGE HEIGHT	0-6"	4" TEA POT	2' O.C.

TYPICAL TEMPORARY INUNDATION ZONE PLANTING SCHEDULE							
	SCIENTIFIC NAME	COMMON NAME	PLANTING ZONE	QUANTITY	HEIGHT	NURSERY CONTAINER TYPE	SPACING
	<i>Eutrochium dubium</i>	Coastal Joy Jay Weed	SHALLOW LAND	219	9" FOLIAGE HEIGHT	4" TEA POT	2' O.C.
	<i>Eupatorium erfolium</i>	Bonaset	SHALLOW LAND	219	9" FOLIAGE HEIGHT	4" TEA POT	2' O.C.
	<i>Rhynchospora colorata</i>	Stomah Whitlop	SHALLOW LAND	219	9" FOLIAGE HEIGHT	4" TEA POT	2' O.C.

PLANTINGS

SEEDBED PREPARATION:

- CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
- RIP THE ENTIRE AREA TO SIX INCHES DEEP.
- REMOVE ALL LOOSE ROCK, ROOTS AND OTHER OBSTRUCTIONS, LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE SEEDING MIXTURE).
- CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
- SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
- MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
- INSPECT ALL SEEDBED AREAS AND MAKE NECESSARY REPAIRS OR RE-SEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE MORE THAN 60% DAMAGED, RE-ESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
- CONSULT SACS ENVIRONMENTAL ENGINEERS ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

LANDSCAPING NOTES:

ALL LANDSCAPING SHALL BE IN COMPLIANCE WITH THE NCDQ BMP REQUIREMENTS.

LANDSCAPE CONTRACTOR SHALL PROVIDE A TWO-YEAR WARRANTY FOR BMP PLANTING SURVIVAL/REPLACEMENT.

AT THE END OF THE FIRST YEAR AND AT THE END OF THE TWO-YEAR WARRANTY PERIOD, ALL PLANTS THAT DO NOT SURVIVE MUST BE REPLACED.

ESTABLISHMENT PROCEDURES, SUCH AS CONTROL OF INVASIVE WEEDS, ANIMAL AND VANDAL DAMAGE, MULCHING, RE-STAKING, WATERING, AND MOW OR TUE PROTECTION REPLACEMENT, SHALL BE IMPLEMENTED TO THE EXTENT NEEDED TO ENSURE PLANT SURVIVAL. STAKING MUST BE REMOVED AFTER ESTABLISHMENT (APPROXIMATELY 12 MONTHS), TO PREVENT GIRDLING (STRANGLING) OF ALL WOODY PLANTS.

SOO TO BE BERBERIS OR CENTAUREA GRASS. REFER TO LANDSCAPE PLAN FOR LOCATION OF AREAS TO BE SOODED.

GRASS OR WILDFLOWER SEED MUST BE APPLIED AT THE RATES SPECIFIED BY THE SUPPLIERS. IF PLANT ESTABLISHMENT CANNOT BE ACHIEVED WITH SEEDING BY THE TIME OF SUBSTANTIAL COMPLETION OF THE STORMWATER FACILITY PORTION OF THE PROJECT, THEN THE CONTRACTOR SHALL PLANT THE AREA WITH WILDFLOWER SOO, PLUMS, CONTAINER PLANTS, OR OTHER MEANS TO COMPLETE THE SPECIFIED PLANTING AND PROTECT AGAINST EROSION BEFORE WATER IS ALLOWED TO ENTER THE STORMWATER BMP FACILITY.

ALL MATERIALS SHALL BE ACQUIRED FROM AN APPROVED NCDQ PLANT VENDOR. PLANT MATERIAL SHOULD BE PURCHASED FROM A LOCAL SOURCE TO ENSURE SURVIVABILITY. LOCAL VENDORS FOR THIS SITE INCLUDE:
 - CALL BE NATIVE PLANT NURSERY 919-662-5565
 - GROWING WILD NURSERY 910-259-6361
 - NO FOREST SERVICE 919-731-7988
 - PLANT DELIGHTS NURSERY 919-772-4794
 - TARBEELE NATIVE TREES 919-553-5927

REFER TO PLANTINGS ON THIS SHEET FOR TYPE AND LOCATION OF SHALLOW WATER AND TEMPORARY INUNDATION ZONE PLANTINGS.

IMMEDIATELY AFTER THE STORMWATER WETLAND DETENTION POND IS ESTABLISHED, THE PLANTS ABOVE THE PERMANENT POOL ELEVATION AND PERIMETER OF THE BASIN SHOULD BE WATERED TWICE WEEKLY IF NEEDED UNTIL THE PLANTS BECOME ESTABLISHED (COMMONLY SIX WEEKS)

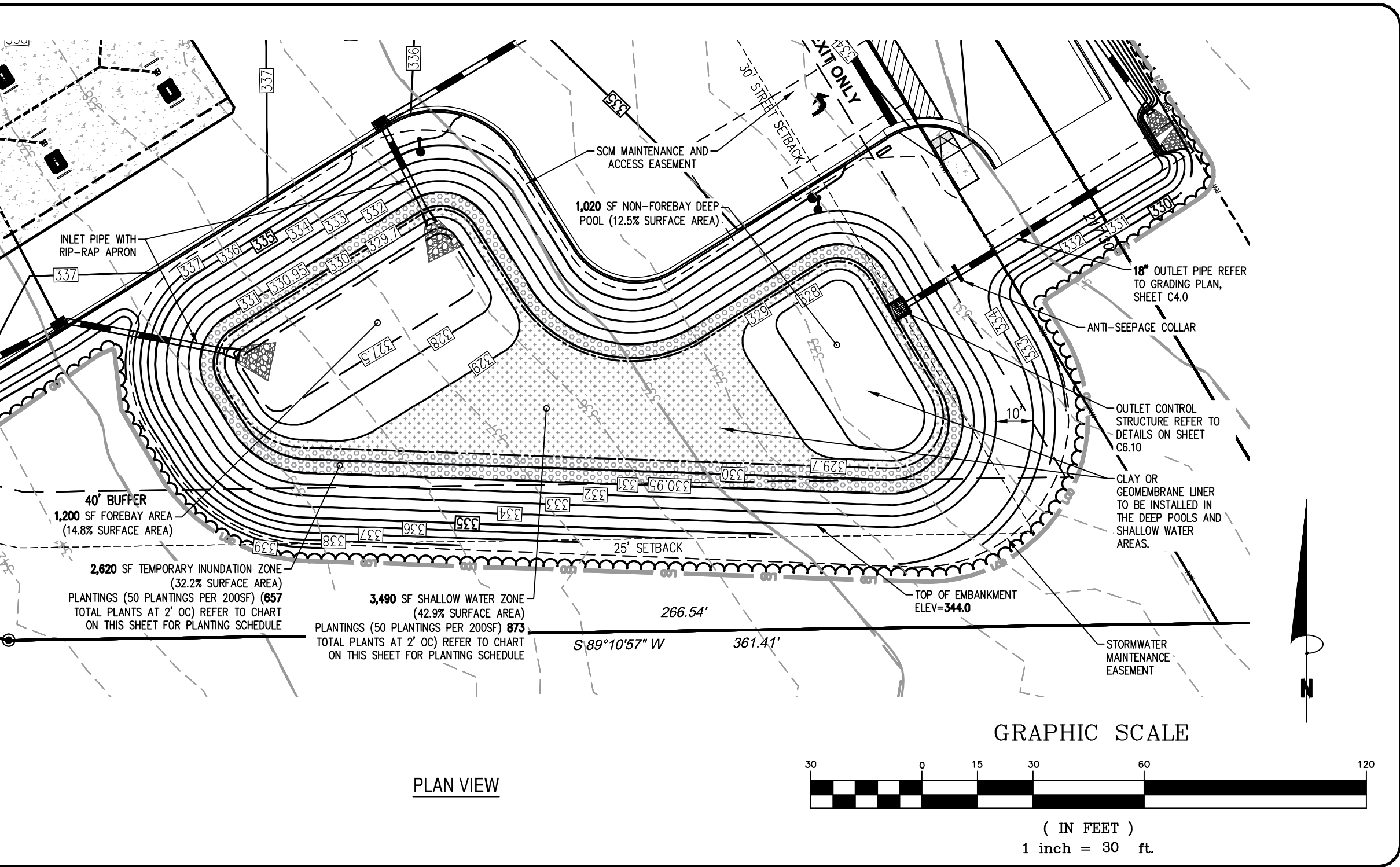
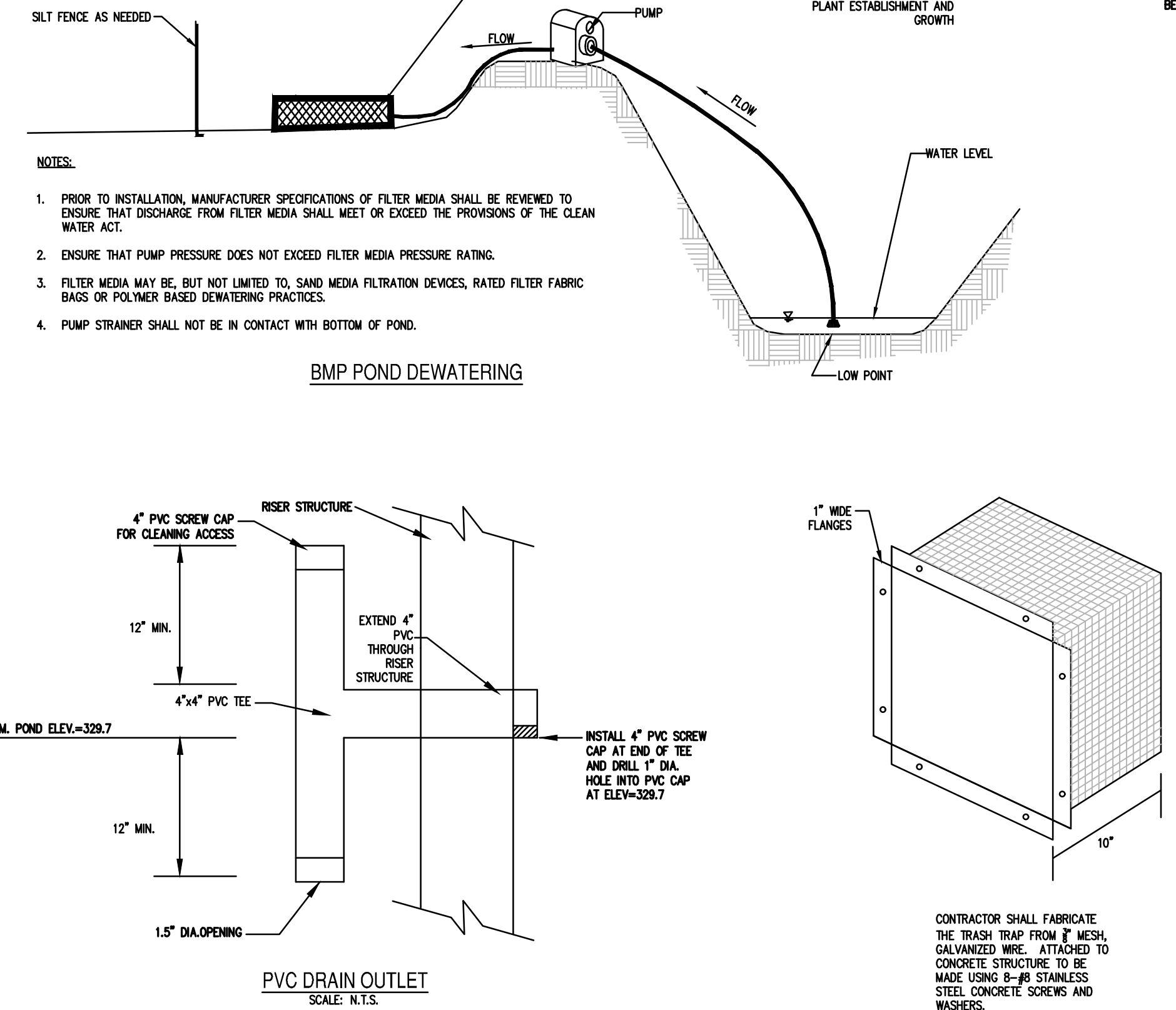
NO PORTION OF THE STORMWATER WETLAND DETENTION POND SHOULD BE FERTILIZED AFTER THE FIRST INITIAL FERTILIZATION THAT IS REQUIRED TO ESTABLISH THE PLANTS.

LANDSCAPING NOTES:

- CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES REGARDING LANDSCAPING.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A HEALTHY STAND OF GRASS ON ALL SEEDBED AREAS.
- CONTRACTOR SHALL PROVIDE NATURAL TOPSOIL THAT IS FERTILE, FRIABLE, WITHOUT MIXTURE OF SUBSOIL MATERIALS, AND OBTAINED FROM A WELL DRAINED, AVAILABLE SITE. IT SHALL NOT CONTAIN SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. TOPSOIL SHALL BE SODDED AND FREE FROM CLAY, LIMPS, STONES, ROOTS, PLANTS, OR SIMILAR SUBSTANCES 1" OR MORE IN DIAMETER, DEBRIS, OR OTHER OBJECTS WHICH MIGHT BE A HINDERANCE TO PLANTING OPERATIONS. TOPSOIL SHALL CONTAIN AT LEAST 4-6% ORGANIC MATTER BY WEIGHT AND HAVE A PH RANGE OF 5.5 TO 7.0.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE WATERING AND THE MAINTENANCE OF ALL LANDSCAPED AREAS UNTIL THE LATER OF: (a) THIRTY (30) DAYS FOLLOWING THE PLANTING OF THE GRASS AND SHRUBS, OR (b) THE DATE THAT STORE OPENS FOR BUSINESS TO THE PUBLIC. CONTRACTOR SHALL ALSO BE RESPONSIBILITY FOR THE SURVIVAL OF THE BMP PLANTING MATERIALS DURING THE TWO-YEAR WARRANTY PERIOD AND SHALL REPLACE ALL PLANTS THAT DO NOT SURVIVE AT THE END OF THE FIRST YEAR AND AT THE END OF THE SECOND YEAR OF THE WARRANTY PERIOD.
- CONTRACTOR TO VERIFY QUANTITIES PRIOR TO COMMENCING WORK.
- ANY DISTURBED AREAS NOT SCHEDULED FOR HARDSCAPE, PLANTINGS, OR MULCH SHALL BE SEEDED LAWN. REFER TO LANDSCAPE PLAN FOR LOCATION OF AREAS TO BE SOODED.
- NO PLANT SUBSTITUTIONS ARE PERMITTED WITHOUT WRITTEN APPROVAL OF THE OWNERS REPRESENTATIVE.
- FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL, SUB-BASE AND CONSTRUCTION DEBRIS; REMOVE COMPACTED SOIL AND ADD 18" NEW TOPSOIL, OR TILL AND AMEND THE TOP 18" OF EXISTING SOIL TO MEET TOPSOIL/PLANTING MIX STANDARDS FOR TREES.
- ADJUST TREE PLANTING LOCATIONS TO AVOID UNDERGROUND UTILITIES. PLANT 15' FROM ALL UNDERGROUND UTILITIES (SEWER AND STORM DRAINAGE, GAS, WATER, PHONE, AND ELECTRICAL LINES).

STORMWATER MANAGEMENT NOTES:

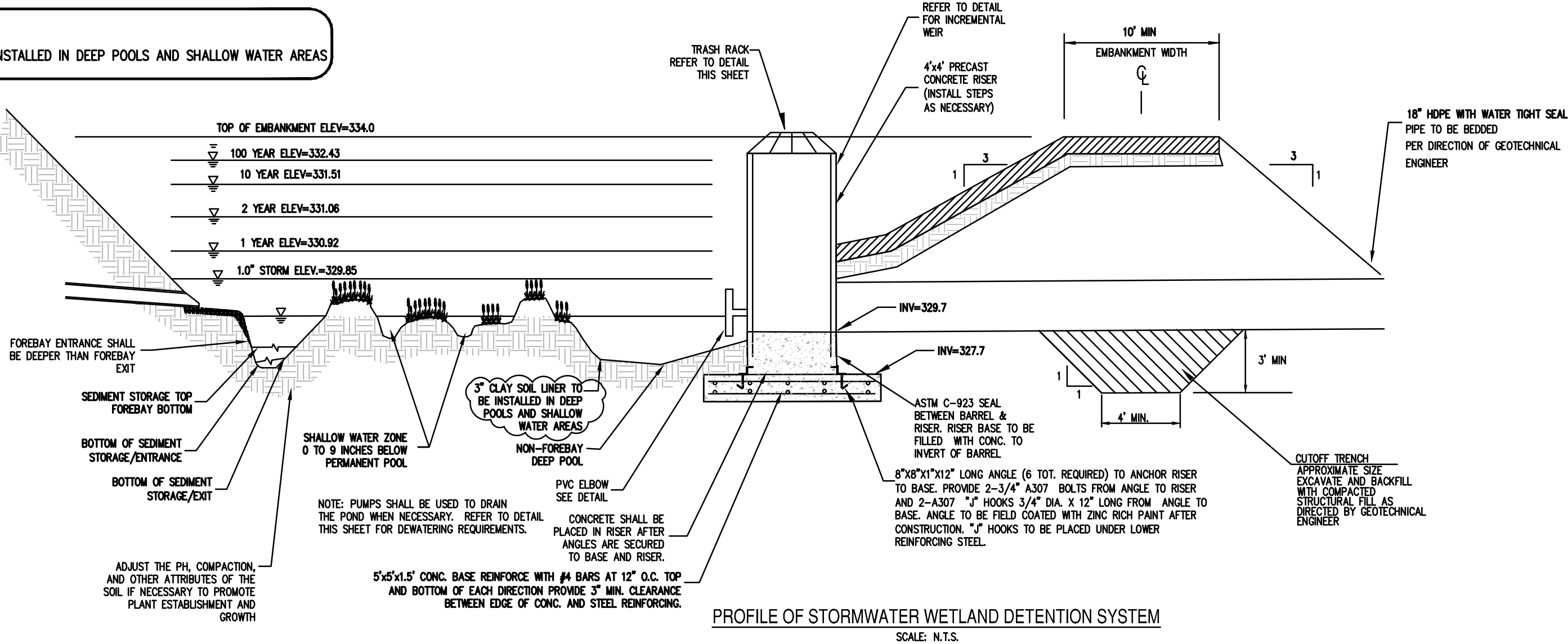
- THE DEVELOPER OR HIS AGENT SHALL CONTACT THE DESIGN ENGINEER WHEN THE BEST MANAGEMENT PRACTICE(S) ARE CONSTRUCTED AND ABOUT TO BECOME OPERATIONAL SO A FINAL INSPECTION CAN BE PERFORMED TO DETERMINE COMPLIANCE WITH THE APPROVED PLAN CAN BE PERFORMED.
- ANNUAL MAINTENANCE INSPECTION AND REPORT REQUIRED - THE OWNER OF A PERMITTED STRUCTURAL STORMWATER BMP/CONTROL SHALL ANNUALLY SUBMIT A MAINTENANCE AND INSPECTION REPORT FOR EACH BMP TO THE STORMWATER ADMINISTRATOR. ANNUAL INSPECTIONS SHALL BEGIN WITHIN ONE YEAR OF THE RECOMBINATION OF ANY DEVICES) SHOWING STORMWATER BMP/CONTROL STRUCTURES.
- UPON COMPLETION OF THE PROJECT, AND BEFORE A CERTIFICATE OF OCCUPANCY SHALL BE GRANTED, THE ENGINEER OF RECORD SHALL CERTIFY THAT THE COMPLETED PROJECT IS IN ACCORDANCE WITH THE APPROVED STORMWATER MANAGEMENT PLANS AND DESIGNS.
- A FINAL INSPECTION OF THE SITE AND STORMWATER MANAGEMENT BMP/CONTROLS TO BE SCHEDULED WITH AND COMPLETED BY THE PROJECT ENGINEER.
- NCDQ AND THEIR ASSIONS HAVE RIGHT TO ACCESS THE STORMWATER CONTROL(S) FOR INSPECTIONS OR MAINTENANCE AS NECESSARY.
- THE ENGINEER'S CERTIFICATION OF COMPLETION WILL BE REQUIRED PRIOR TO THE FINAL PLAT OR CERTIFICATE OF OCCUPANCY. THE STORMWATER CONTROL IS TO BE INSPECTED TO ENSURE IT IS FUNCTIONING AS DESIGNED AND HAS FULL DESIGN VOLUME PRIOR TO ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY.
- THE PROPERTY OWNER IS RESPONSIBLE FOR MAINTAINING THE STORMWATER CONTROL(S) ACCORDING TO THE APPROVED MAINTENANCE PLAN AND DIRECTION OF NCDQ.



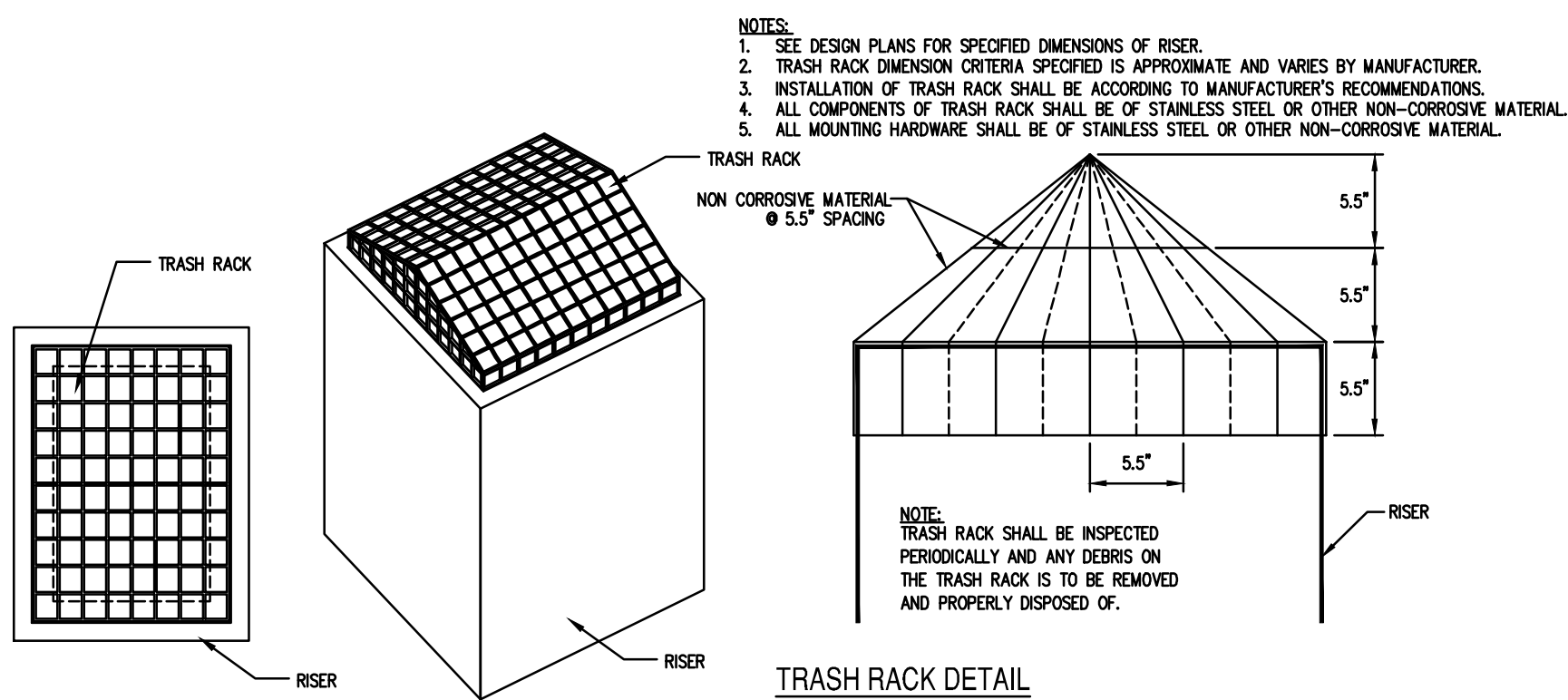
PLAN VIEW

(IN FEET)
1 inch = 30 ft.

LINER NOTE:
3" CLAY SOIL LINER TO BE INSTALLED IN DEEP POOLS AND SHALLOW WATER AREAS



PROFILE OF STORMWATER WETLAND DETENTION SYSTEM
SCALE: N.T.S.



OUTLET CONTROL STRUCTURE - INCREMENTAL WEIR
SCALE: N.T.S.

STAGE/STORAGE TABLE				
STAGE (FT)	ELEVATION (FT)	CONTOUR AREA (SF)	INCREMENTAL STORAGE (CF)	TOTAL STORAGE (CF)
0.0	329.7	8,130	0	0
0.3	330.0	8,980	2,566	2,566
1.25	330.95	10,770	9,381	11,946 (100%)
1.5	331.0	10,840	540	12,486
2.3	332.0	12,400	11,620	24,106
3.3	333.0	14,010	13,205	37,313
4.3	334.0	15,680	14,845	52,158

STORMWATER MANAGEMENT DESIGN STORMWATER WETLAND:

RIVER BASIN:	NEUSE				
RECEIVING STREAM:	MOCCASIN CREEK				
STREAM INDEX:	27-86-2-4				
STREAM CLASS:	C,NSW				
HUC:	03020203				
PROJECT COORDINATES:	35.836261N, -78.321664W				
POND DESIGN SUMMARY					
DRAINAGE AREA TO POND:				3.16 ACRES	
SITE IMPERVIOUS AREA TO POND:				1.77 ACRES	
OFF-SITE DESIGN IMPERVIOUS AREA TO POND:				0.14 ACRES	
TOTAL DESIGN IMPERVIOUS AREA TO POND:				1.91 ACRES	
	PRE-DEVELOPED TO POND	POST-DEVELOPED TO POND	POST DEVELOPED THROUGH POND	POST DEVELOPED COMBINED	
DRAINAGE AREA:	3.41 AC	3.16 AC		0.13 AC	
CURVE NUMBER:	57	83		73	
TIME OF CONCENTRATION:	24 MIN	5 MIN		10 MIN	
1.0" STORM EVENT:		0.245 CFS	0.018 CFS		
1-YEAR STORM EVENT:	0.224 CFS	7.077 CFS	0.062 CFS	0.136 CFS	0.198 CFS
2-YEAR STORM EVENT:	0.743 CFS	9.702 CFS	0.263 CFS	0.212 CFS	0.475 CFS
10-YEAR STORM EVENT:	3.321 CFS	17.25 CFS	2.445 CFS	0.449 CFS	2.867 CFS
100-YEAR STORM EVENT:	9.617 CFS	30.29 CFS	10.72 CFS	0.822 CFS	11.62 CFS

1 STORMWATER MANAGEMENT SYSTEM DETAILS NOT TO SCALE

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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY

DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1/20/23	TOWN OF ZEBULON REVIEW	1/20/23	TOWN OF ZEBULON REVIEW
2/2/23	TOWN OF ZEBULON REVIEW	2/2/23	TOWN OF ZEBULON REVIEW
2/2/23	WAKE COUNTY REVIEW	2/2/23	WAKE COUNTY REVIEW
2/2/23	TOWN OF ZEBULON REVIEW	2/2/23	TOWN OF ZEBULON REVIEW
2/2/23	TOWN OF ZEBULON REVIEW	2/2/23	TOWN OF ZEBULON REVIEW
2/2/23	TOWN OF ZEBULON REVIEW	2/2/23	TOWN OF ZEBULON REVIEW

STORE OR BLDG NO.: N/A

VERSION OR PROJECT ID: N/A

DESIGN TEAM: DGNR, BRM & MCB

PM/DP: MIL

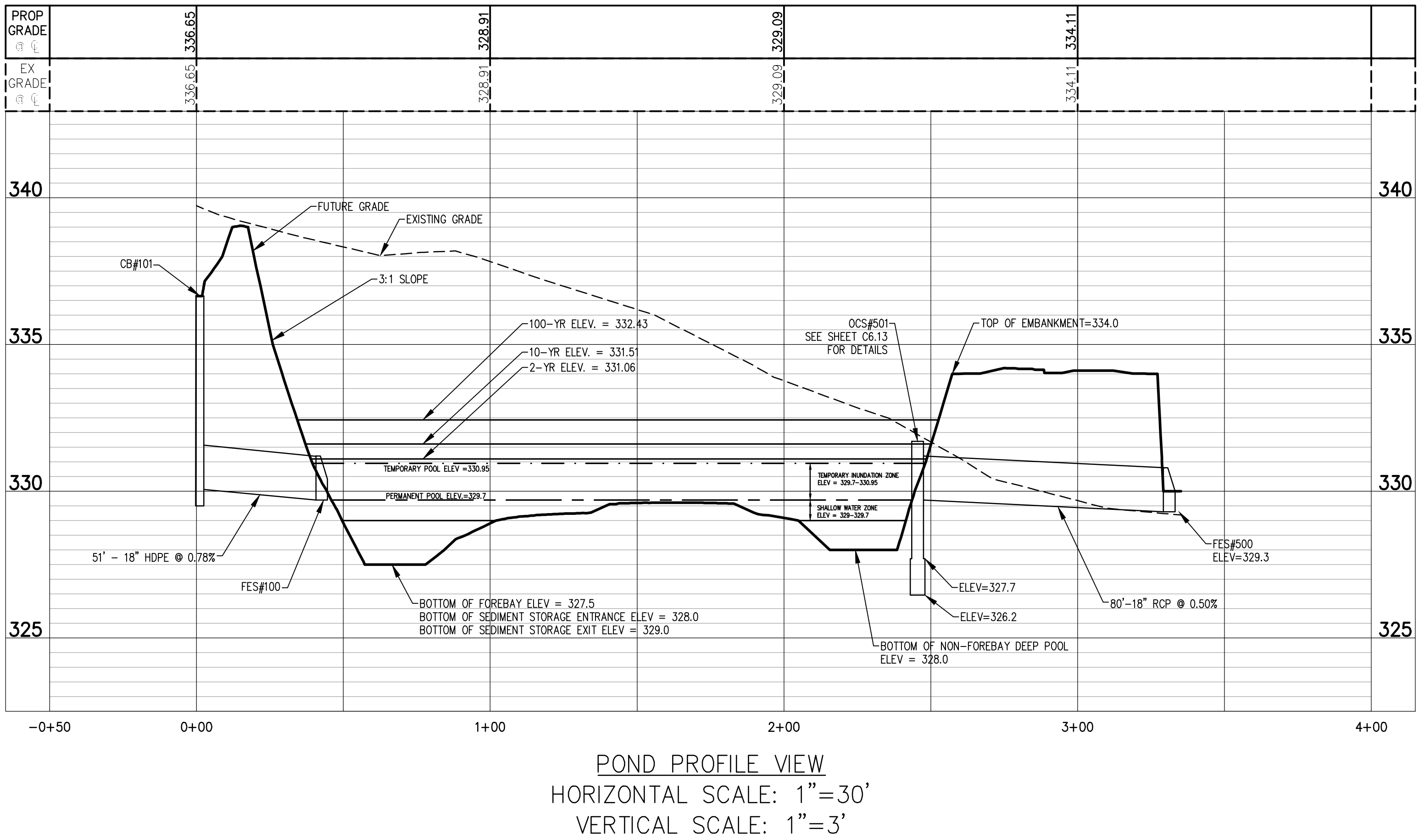
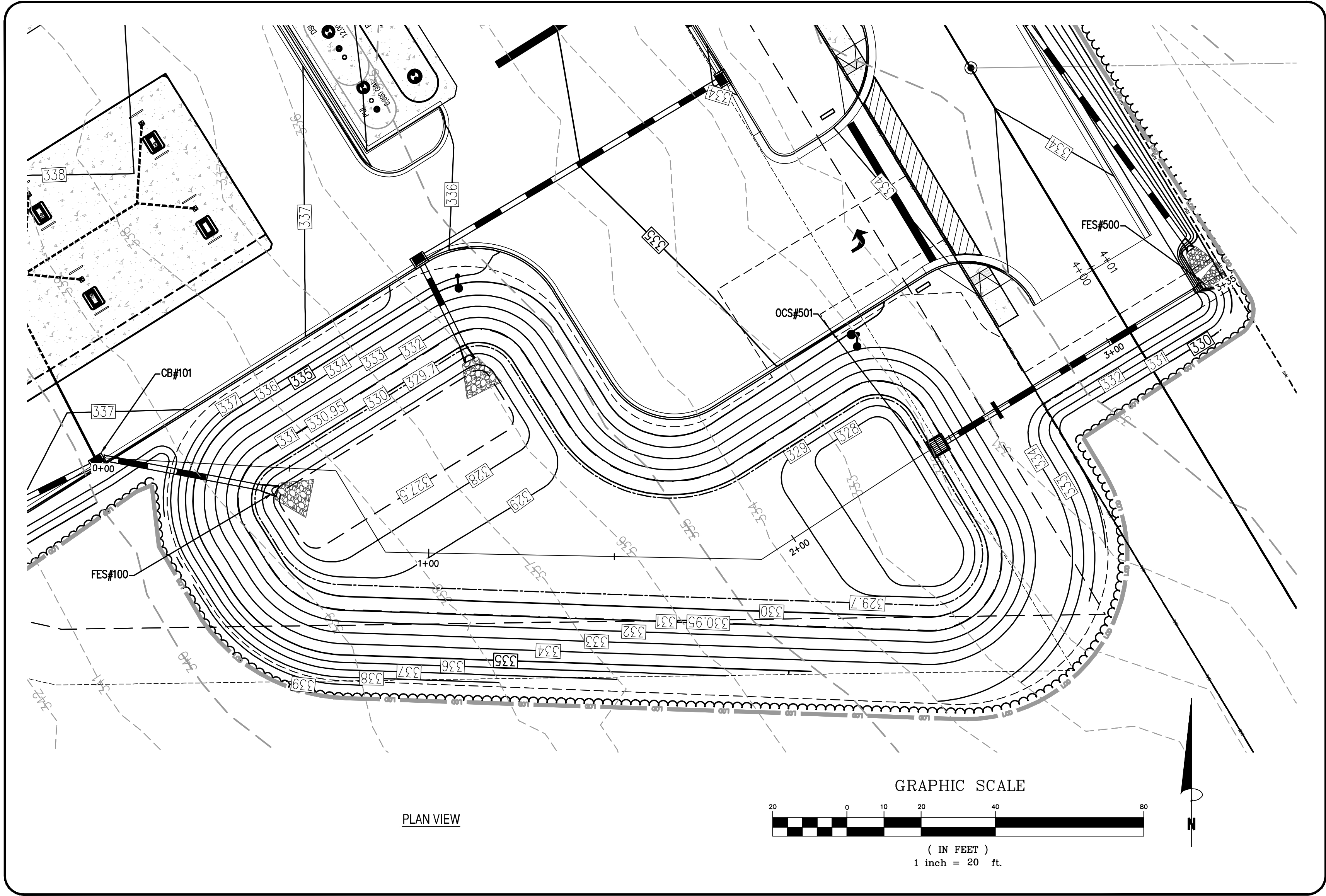
RVWR: MIL

ISSUE DATE: 04/08/2024

ADDRESS: 1106 N ARENDELL AVE, ZEBULON, NC 27597

SHEET TITLE: **STORMWATER MANAGEMENT DETAILS**

DRWG. NO.: **C6.13**



MARK	REVISION	DATE	REVISION DESCRIPTION	REVIEWED BY	DATE	REVISION DESCRIPTION
1	BRW/MCB	02/23	TOWN OF ZEBULON REVIEW			
2	BRW/MCB	02/23	TOWN OF ZEBULON REVIEW			
3	MCB	02/23	WAKE COUNTY REVIEW			
4	BRW/MCB	03/24	TOWN OF ZEBULON REVIEW			
5	BRW/MCB	04/24	TOWN OF ZEBULON REVIEW			
6	BRW/MCB	04/24	TOWN OF ZEBULON REVIEW			

STORE OR BLDG NO.:
N/A

VERSION OR PROJECT ID:
N/A

DESIGN TEAM
DCNR, BRW & MCB

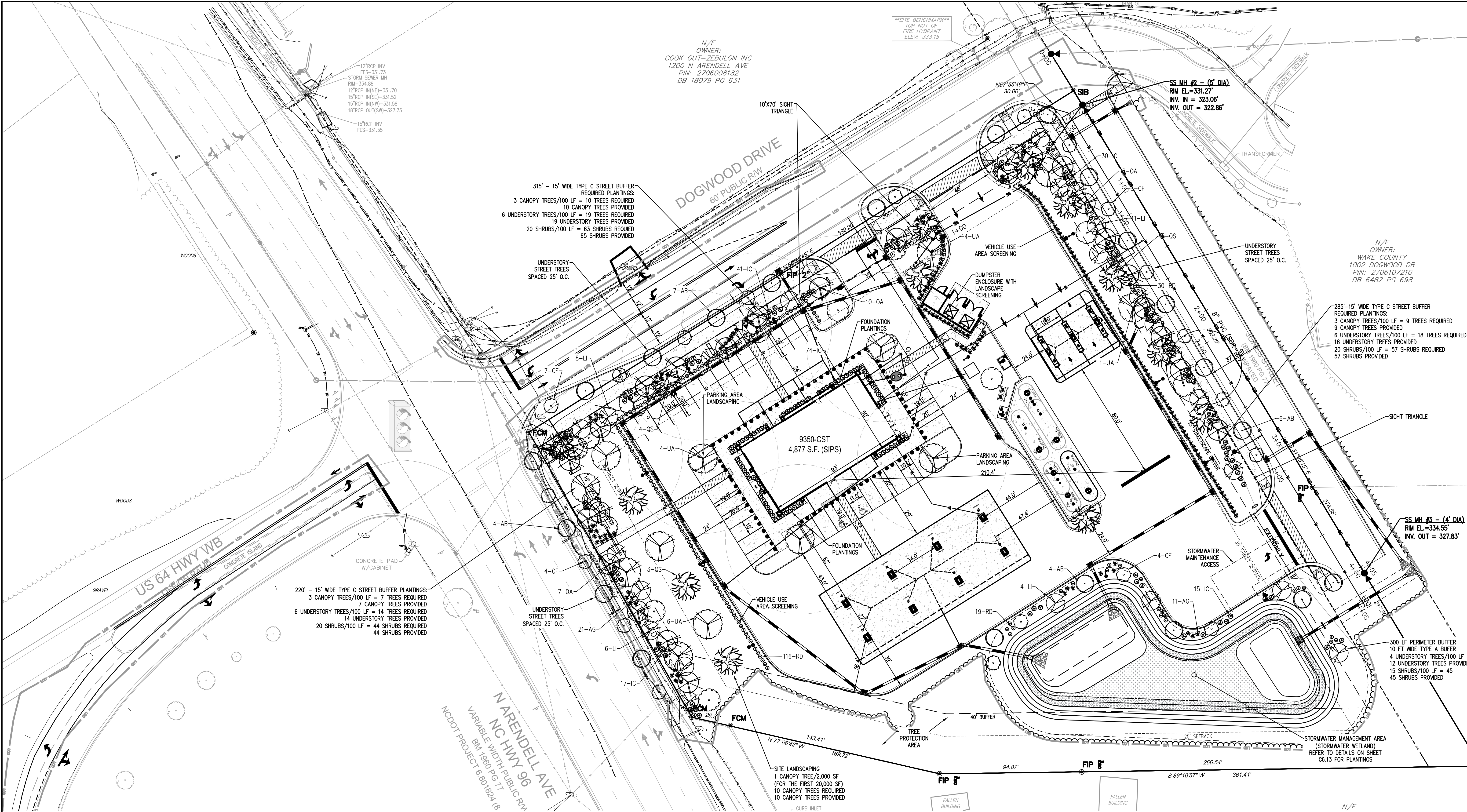
PM/DP: ML

RVWR: ML

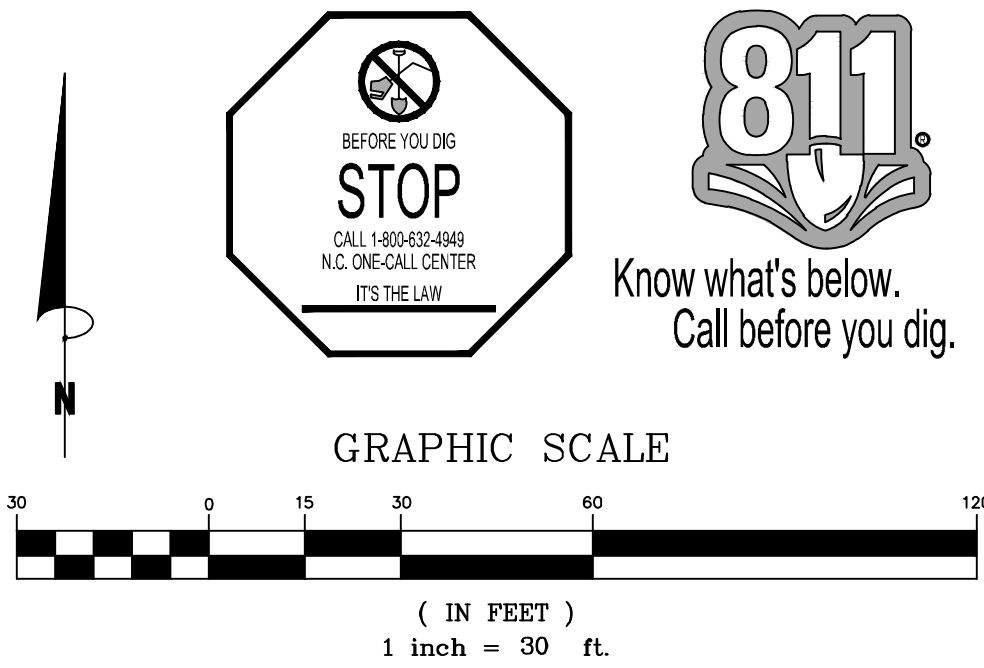
ISSUE DATE: 04/08/2024

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DRWG. NO. **C6.14**



MASTER PLANT LIST											
TYPE	SYM/KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SYMBOL	CALIPER	HEIGHT	SPREAD	ROOT	SPACING	OTHER
LARGE TREES	QS	13	Quercus phellos	Willow Oak		2.5"	8' MIN		B&B	AS SHOWN	
	UA	15	Liriodendron tulipifera	Tulip Poplar		2.5"	8' MIN		B&B	AS SHOWN	
	PC	12	Pistacia chinensis	Chinese Pistachio		2.5"	8' MIN		B&B	AS SHOWN	
UNDERSTORY TREES	OA	25	OXYDENDRUM ARBOREUM	Sourwood		1.5"	4' MIN		B&B	AS SHOWN	
	AB	21	Acer buergeranum	Trident Maple		1.5"	4' MIN		B&B	AS SHOWN	
	LI	29	Amelanchier arborea	Downy Serviceberry		-	4' MIN		B&B	AS SHOWN	
	CF	21	Camus florida	Flowering Dogwood		1.5"	4' MIN		B&B	AS SHOWN	
SHRUBS	RD	165	Chamaecyparis pisifera 'Golden Mop'	Gold Mop Cypress		-	18" MIN		3 GAL	AS SHOWN	
	AG	189	Abelia grandiflora	Glossy Abelia		-	18" MIN		3 GAL	AS SHOWN	
	IC	177	Ilex cornuta 'Dwarf Burford'	Dwarf Burford Holly		-	18" MIN		3 GAL	AS SHOWN	



DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1	REVISED	1	REVISED
2	REVISED	2	REVISED
3	REVISED	3	REVISED
4	REVISED	4	REVISED
5	REVISED	5	REVISED
6	REVISED	6	REVISED
7	REVISED	7	REVISED
8	REVISED	8	REVISED
9	REVISED	9	REVISED
10	REVISED	10	REVISED

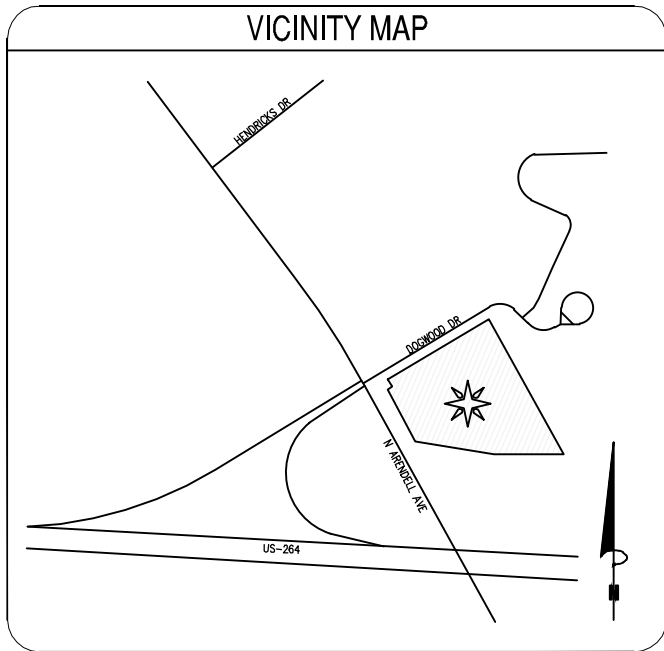
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DESIGN TEAM	DGNR, BRM & MCB
PM/DP: ML	
RVWR: ML	
ISSUE DATE:	04/08/2024
ADDRESS	1106 N ARENDELL AVE ZEBULON, NC 27597

LANDSCAPE NOTES:

HYDROMULCH ALL DISTURBED AREAS OUTSIDE OF PROPERTY LIMITS (UNLESS SHOWN AS SOD).

THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER. LANDSCAPE MAINTENANCE SHALL INCLUDE WEEKLY SITE VISITS FOR THE FOLLOWING ACTIONS (AS APPROPRIATE): PROPER PRUNING, RESTAKING OF TREES, RESETING OF PLANTS THAT HAVE SETTLED, MOWING AND AERATION OF LAWNS, WEEDING, RESEEDING AREAS WHICH HAVE NOT GERMINATED WELL, TREATING FOR INSECTS AND DISEASES.REPLACEMENT OF MULCH, REMOVAL OF LITTER, REPAIRS TO THE IRRIGATION SYSTEM DUE TO FAULTY PARTS AND/OR WORKMANSHIP, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN PROPER WORKING ORDER, WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION.

SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHAL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL STAND OF GRASS AT NO ADDITIONAL COST TO THE OWNER.



EROSION CONTROL NOTES:

AN EROSION AND SEDIMENTATION CONTROL PERMIT SHALL BE REQUIRED BY WAKE COUNTY PRIOR TO START OF CONSTRUCTION.

SURVEY NOTE:

ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY: KCI ASSOCIATES OF NC

STREAM/WETLAND NOTE:

THERE ARE NO EXISTING STREAM/AND OR WETLAND FEATURES ON THE PROPOSED PARCEL. THERE ARE NO PROPOSED IMPACTS TO AN EXISTING STREAM AND/OR WETLAND FEATURES

FLOOD ZONE NOTE:

THE PROPERTY IS LOCATED IN FLOOD ZONE X AS SHOWN ON FEMA FLOOD PANED 370207000K & 370207000L, BOTH DATED JULY 19, 2022. MAPS SUBJECT TO CHANGE BY FEMA

IRRIGATION NOTE:

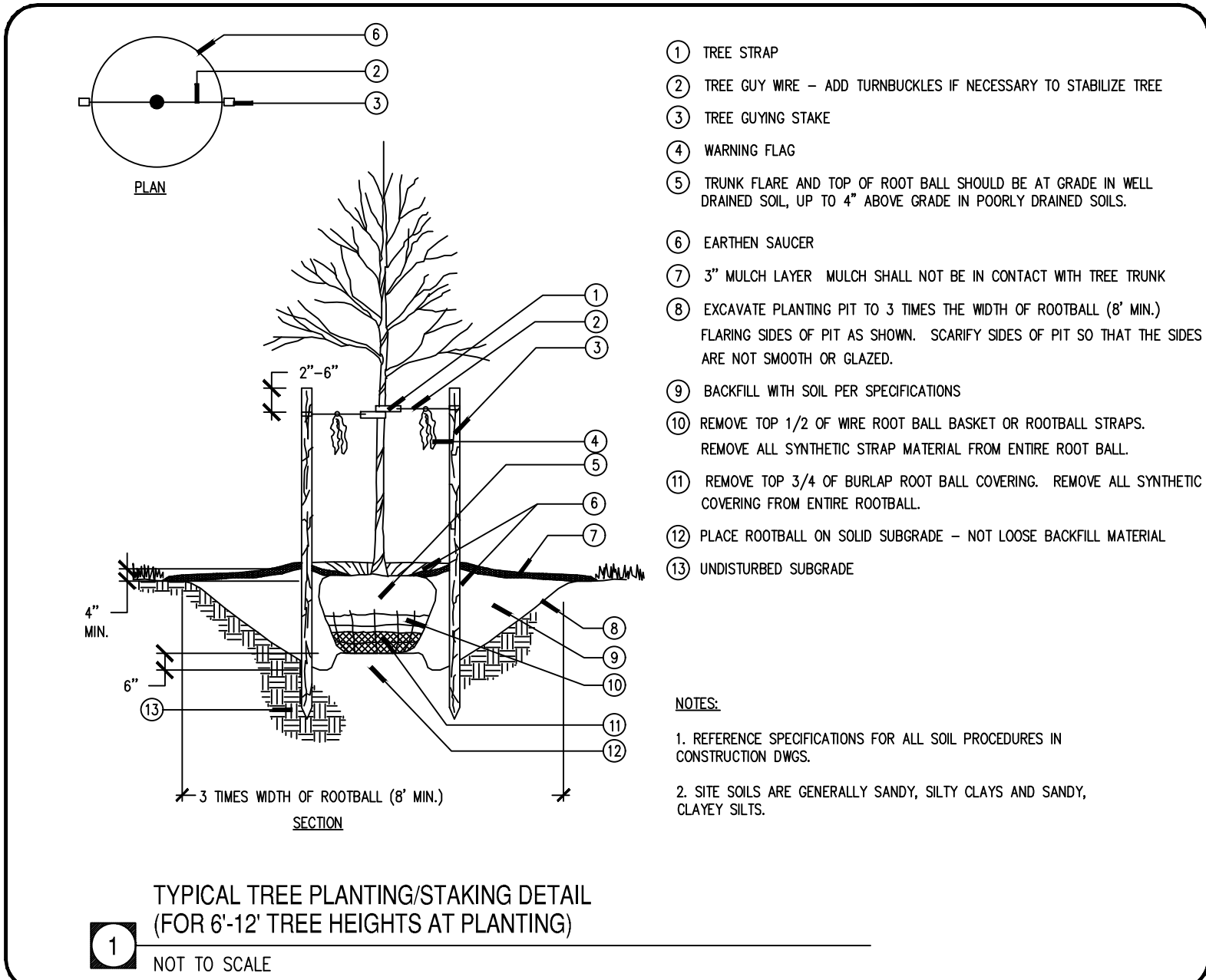
IRRIGATION SYSTEM TO BE A DESIGN-BUILD SYSTEM PROVIDED BY THE CONTRACTOR. IRRIGATION HEADS TO BE A MINIMUM OF 3" FROM EDGE OF CURB LINE. ALL LANDSCAPE BEDS TO HAVE CUT EDGE OR COMMERCIAL EDGING MATERIAL INSTALLED FULLY SEPARATING THE MULCH BED FROM ADJACENT LAWN AREA. ANY TREES OVER 2" CALIPER MUST BE STAKED AND TIED.

LANDSCAPING NOTES:

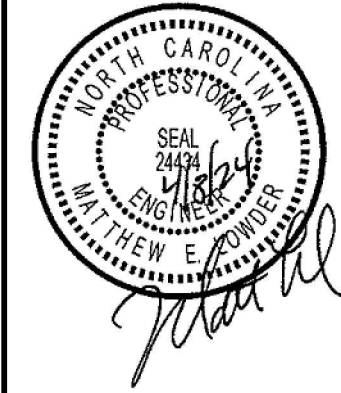
- CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING ALL REQUIRED LANDSCAPING FOR THE ENTIRE SITE, TO INCLUDE BUT NOT LIMITED TO: SODDED/SEEDED AREAS, SHRUB BEDS, PARKING LOT ISLANDS, ROADSIDE SIGN BASE(S) AND MONUMENT PLANTERS.
- CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES REGARDING LANDSCAPING.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A HEALTHY STAND OF GRASS ON ALL SEEDED AREAS.
- IN THE EVENT THAT PLANTING BEDS AND MULCH ARE REQUIRED, THE CONTRACTOR SHALL INSTALL BLACK FABRIC WEED BLOCK LANDSCAPE MESH UNDER THE MULCH TO PREVENT WEED GROWTH.
- CONTRACTOR SHALL PROVIDE NATURAL TOPSOIL THAT IS FERTILE, FRIABLE, WITHOUT MIXTURE OF SUBSOIL MATERIALS, AND OBTAINED FROM A WELL DRAINED, AVAILABLE SITE. IT SHALL NOT CONTAIN SUBSTANCES WHICH MAY BE HARMFUL TO PLANT GROWTH. TOPSOIL SHALL BE SCREENED AND FREE FROM CLAY, LUMPS, STONES, ROOTS, PLANTS, OR SIMILAR SUBSTANCES 1" OR MORE IN DIAMETER, DEBRIS, OR OTHER OBJECTS WHICH MIGHT BE A HINDERANCE TO PLANTING OPERATIONS. TOPSOIL SHALL CONTAIN AT LEAST 4-6% ORGANIC MATTER BY WEIGHT AND HAVE A PH RANGE OF 5.5 TO 7.0.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE WATERING AND THE MAINTENANCE OF ALL LANDSCAPED AREAS UNTIL THE LATER OF; (a) THIRTY (30) DAYS FOLLOWING THE PLANTING OF THE GRASS AND SHRUBS, OR (b) THE DATE THAT BUILDINGS OPEN FOR BUSINESS TO THE PUBLIC.
- GENERAL CONTRACTOR IS TO CLEAN ENTIRE SITE OF ALL CONSTRUCTION DEBRIS AND RAKE ALL GRASS AREAS.
- PROVIDE LANDSCAPE PLANS TO OWNER AND AS REQUIRED BY LOCAL JURISDICTION TO THE BLDG. DEPT. FOR REVIEW AND APPROVAL PRIOR TO START OF WORK.
- ALL LANDSCAPING, TRESS, SHRUBS, ETC. SHALL NOT INTERFERE WITH THE VISIBILITY OF PROJECT SIGNAGE
- CONTRACTOR TO VERIFY QUANTITIES PRIOR TO COMMENCING WORK.
- OPEN AREAS WITHIN PLANTING BEDS SHALL BE MULCHED.

GENERAL LANDSCAPE NOTES:

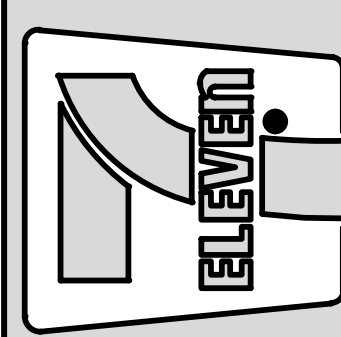
- ANY DISTURBED AREAS NOT SCHEDULED FOR HARDSCAPE, PLANTINGS, OR MULCH SHALL BE SEEDED LAWN.
- NO PLANT SUBSTITUTIONS ARE PERMITTED WITHOUT WRITTEN APPROVAL OF THE OWNERS REPRESENTATIVE.
- ALL PLANT AND BED LINE LOCATIONS SHALL BE STAKED IN THE FIELD AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- ALL PLANTINGS SHALL BE INSTALLED WITH THE SPECIFIED LAYER OF MULCH. REFERENCE DETAILS AND SPECIFICATIONS FOR DEPTH AND TYPE OF MULCH. ALL TREES AND SHRUBS SHALL BE PLANTED IN MULCH BEDS AND SHALL BE SEPARATED FROM TURF GRASS AREAS.
- GRASS COVERAGE TO EXTEND FROM PROPERTY LINES TO BACK OF CITY SIDEWALKS AND/OR CURBS.
- MINIMUM TREE SIZE AT PLANTING IS 2" CALIPER (FOR SINGLE STEM TREES). ALL MULTI-STEM PLANTS MUST BE TREE FORM, MAXIMUM 3 TO 5 TRUNKS, AND MINIMUM 8 FEET TALL.
- ALL STRAPPING AND TOP 2/3 OF WIRE BASKET MUST BE CUT AWAY AND REMOVED FROM ROOT BALL PRIOR TO BACKFILLING PLANTING PIT. REMOVE TOP 1/3 OF THE BURLAP FROM ROOT BALL.
- FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL SUB-BASE AND CONSTRUCTION DEBRIS; REMOVE COMPACTED SOIL AND ADD 18" NEW TOPSOIL, OR TILL AND AMEND THE TOP 18" OF EXISTING SOIL TO MEET TOPSOIL/PLANTING MIX STANDARDS FOR TREES.
- LARGE MATURING TREES MAY NOT BE PLANTED WHERE THERE ARE OVERHEAD DISTRIBUTION OR TRANSMISSION LINES. IF TREES CONFLICT WITH POWER LINES OR SIGNS, CALL URBAN FORESTER TO RESOLVE BEFORE PLANTING.
- ADJUST TREE PLANTING LOCATIONS TO AVOID UNDERGROUND UTILITIES. PLANT 15' FROM ALL UNDERGROUND UTILITIES (SEWER AND STORM DRAINAGE, GAS, WATER, PHONE, AND ELECTRICAL LINES.)
- ATTENTION LANDSCAPER: NOTIFY OWNER OF ANY SIGN, POWER LINE, OR OTHER CONFLICTS BEFORE PLANTING NEW TREES.



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Crosland Southeast
7-Eleven Store #42378
Zebulon, NC
WAKE COUNTY



MARK	REVISION	DATE	REVISION DESCRIPTION	DATE	REVISION DESCRIPTION
1	ENR	02/23	TOWN OF ZEBULON REVIEW		
2	BRM	02/23	TOWN OF ZEBULON REVIEW		
3	MCB	02/23	WAKE COUNTY REVIEW		
4	BRM	02/24	TOWN OF ZEBULON REVIEW		
5	BRM	02/24	TOWN OF ZEBULON REVIEW		
6	BRM	02/24	TOWN OF ZEBULON REVIEW		

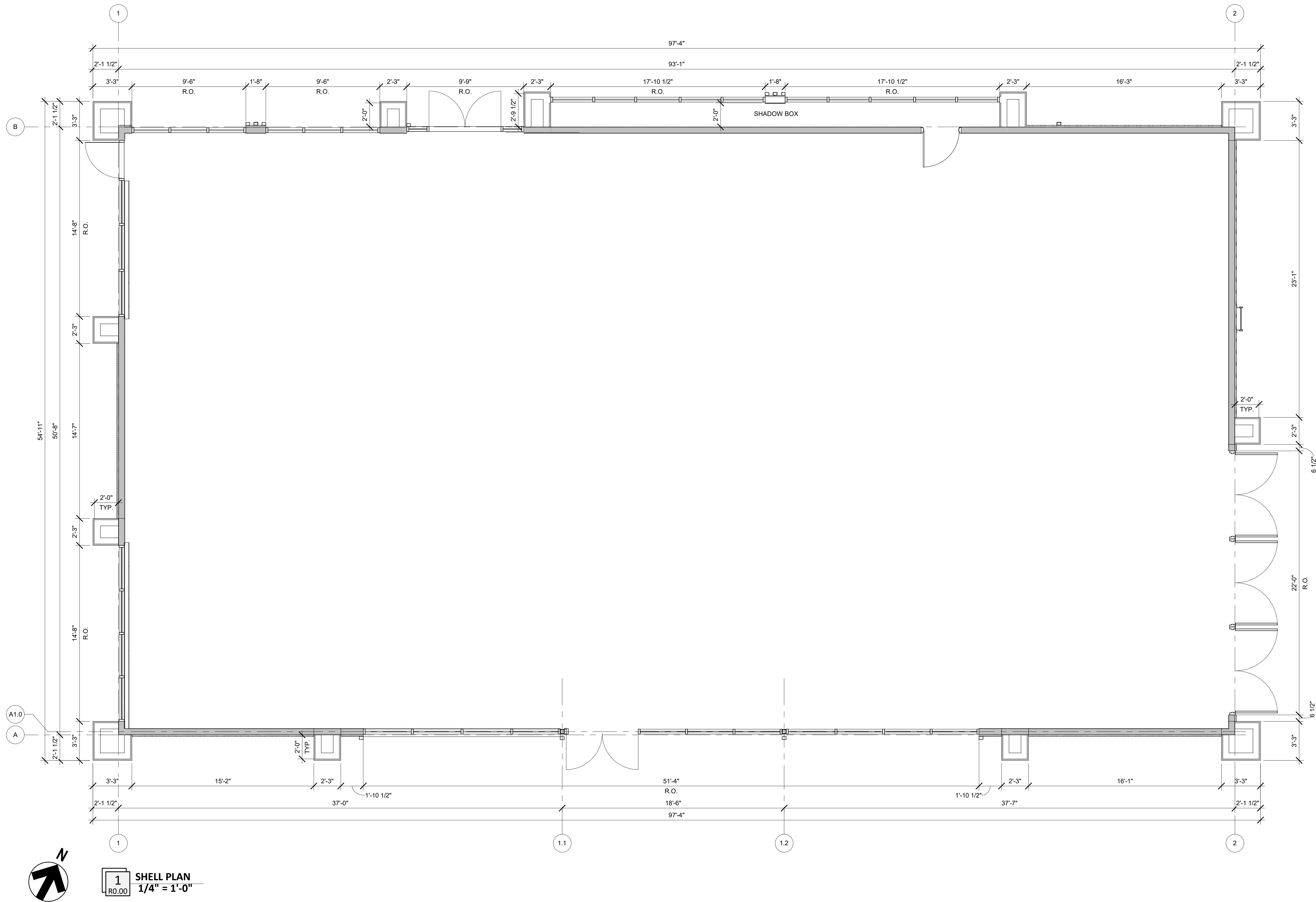
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N/A
VERSION OR PROJECT ID:
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DESIGN TEAM
DGNR. BRM & MCB
PM/DP. ML
RVWR. ML
ISSUE DATE: 04/08/2024
ADDRESS
1106 N ARENDELL AVE
ZEBULON, NC 27597

SHEET TITLE
LANDSCAPING
NOTES

DRWG. NO.
C7.1

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702 SE 5TH ST, SUITE 30
BENTONVILLE, AR 72712
TEL: 479.579.9959

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Contractor is responsible for confirming and correlating dimensions at job site. The Architect will not be responsible for construction means, methods, techniques, sequence or procedures, or for safety precautions and programs in connection with the project.

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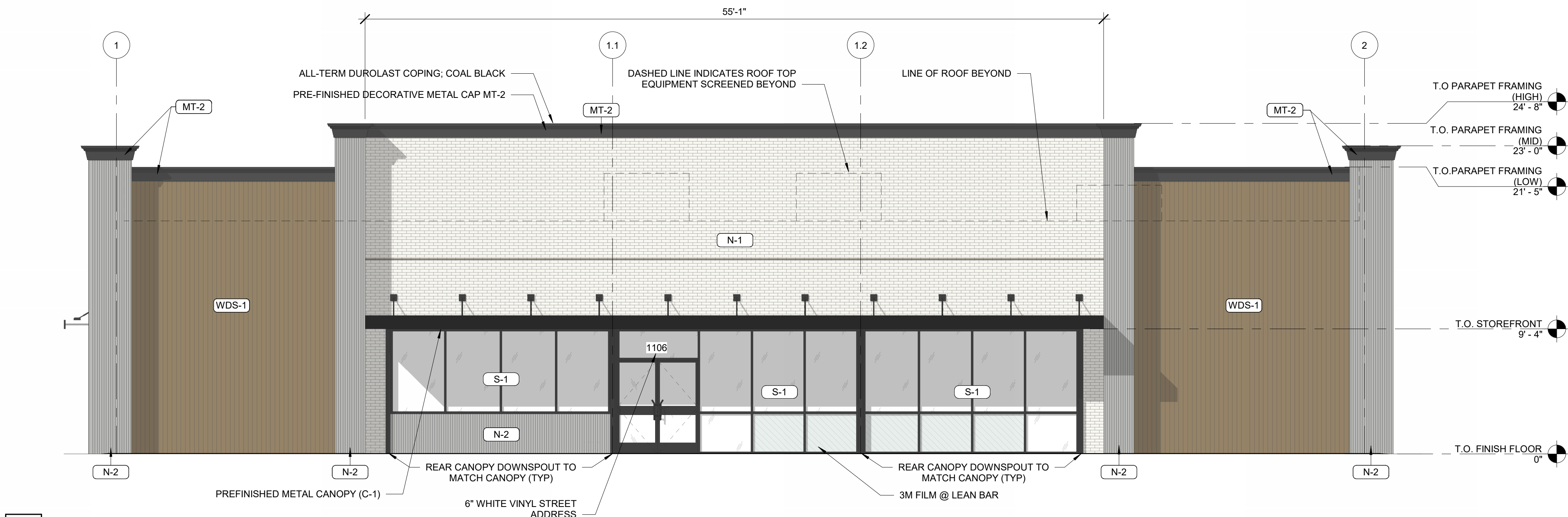
CLIENT NAME
CROSLAND SOUTHEAST
121 W TRADE ST.
CHARLOTTE, NC, 28202

TENANT

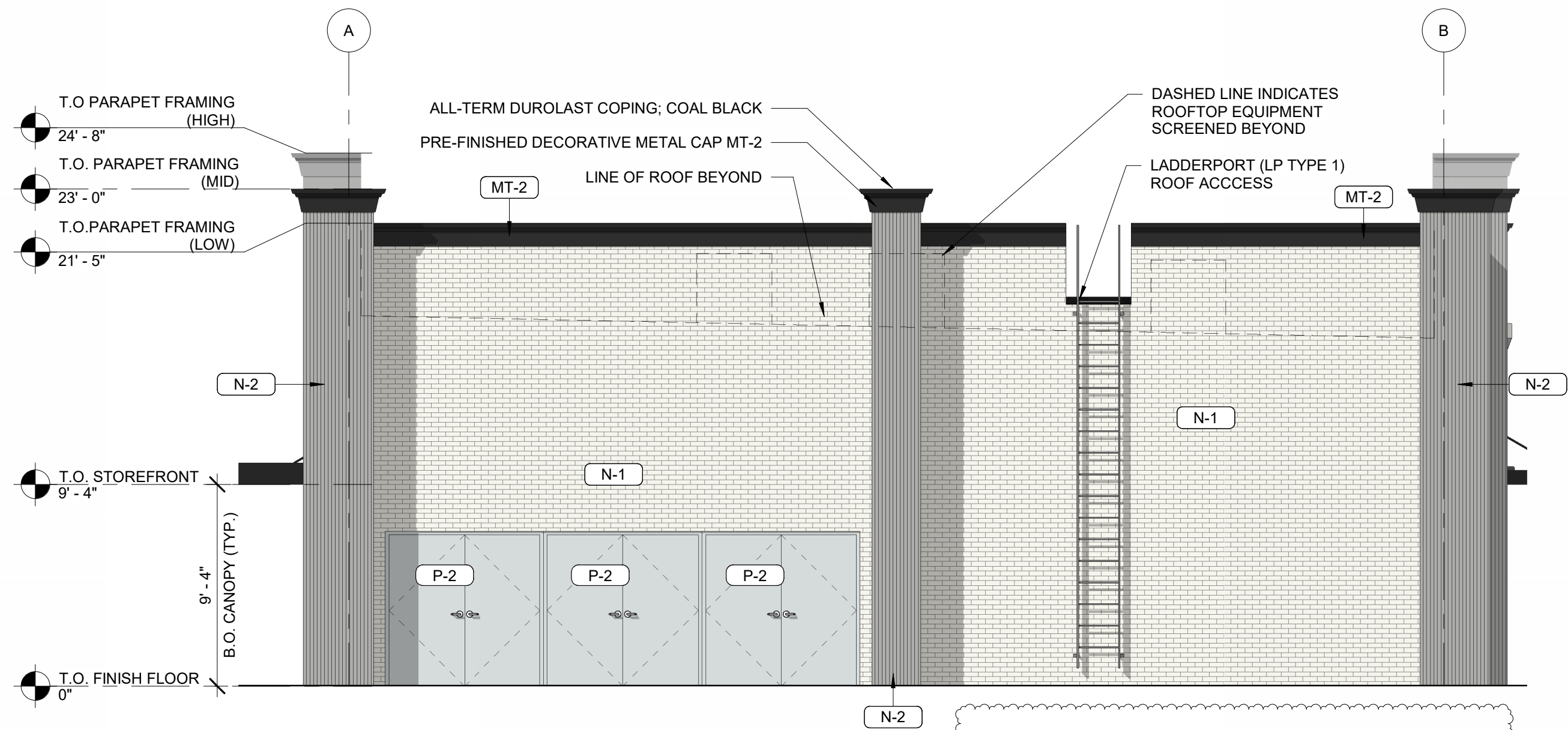
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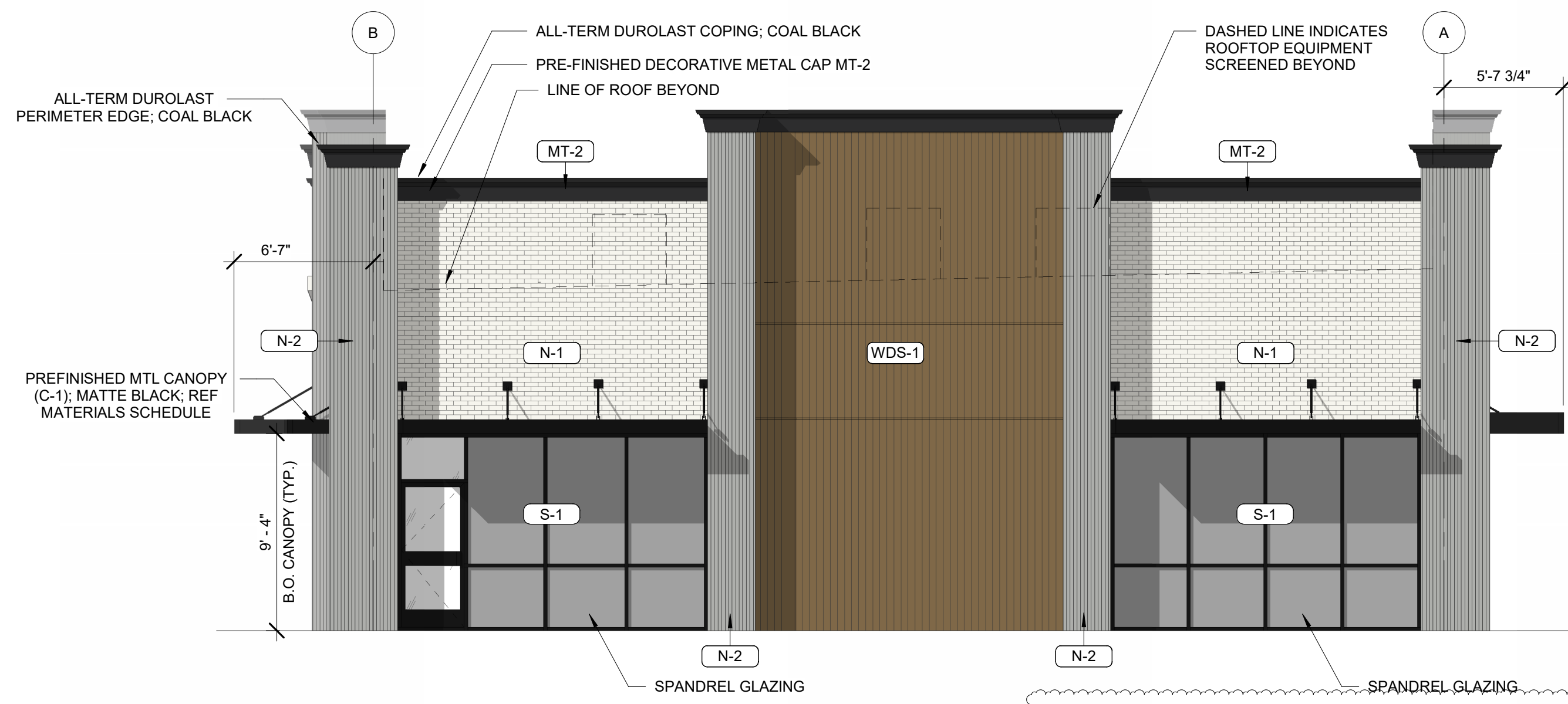
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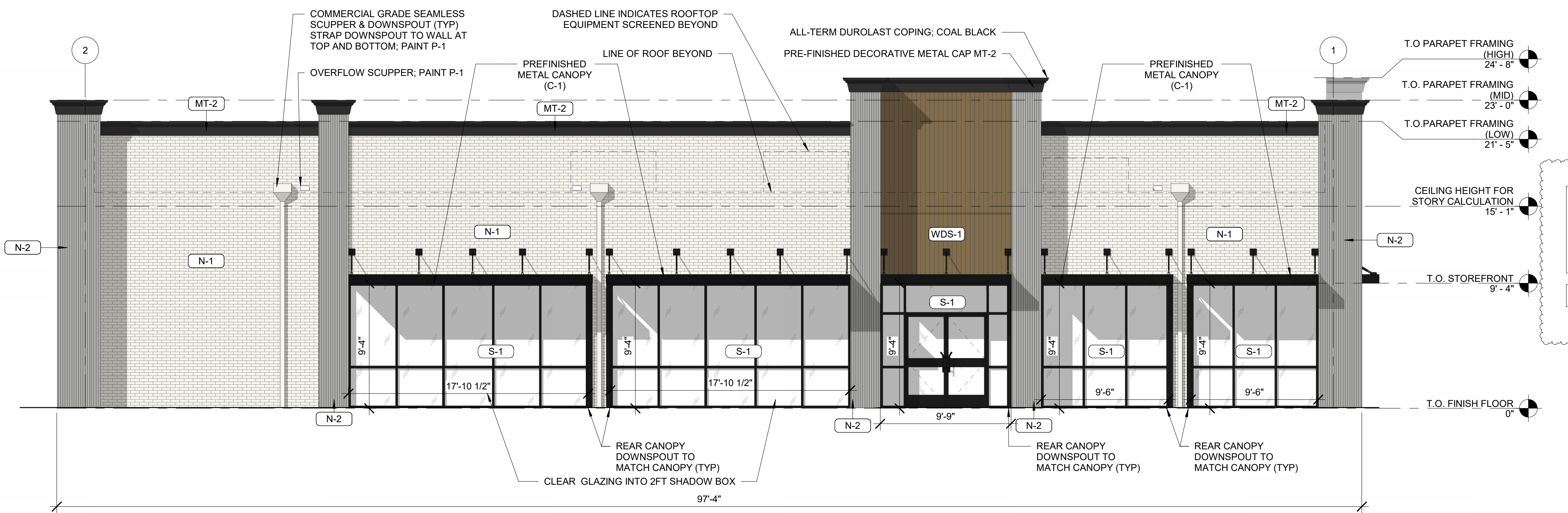
4 ELEVATION - FACING SOUTH
3/16" = 1'-0"



2 ELEVATION - FACING EAST
3/16" = 1'-0"



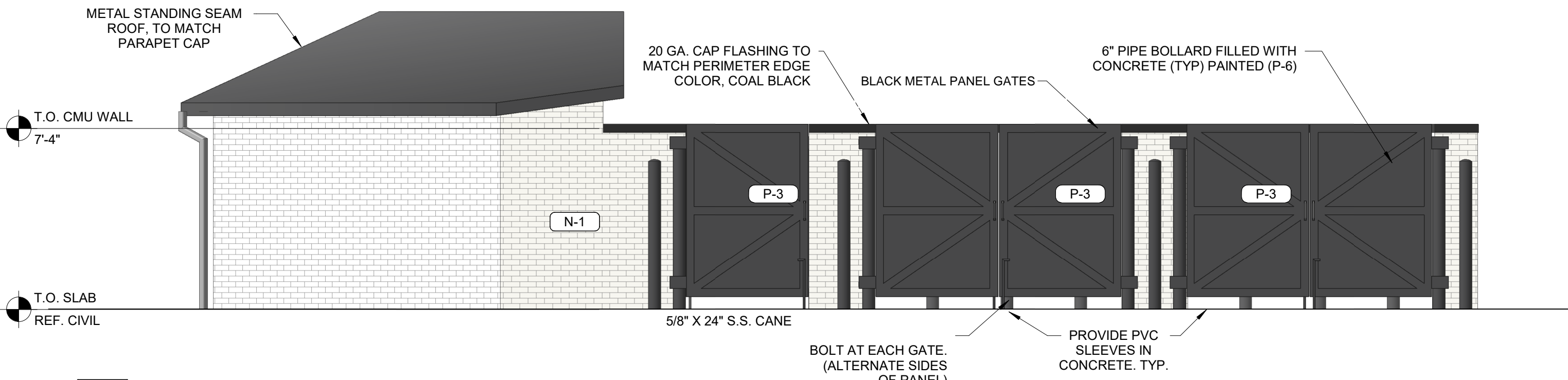
3 ELEVATION - FACING WEST
3/16" = 1'-0"



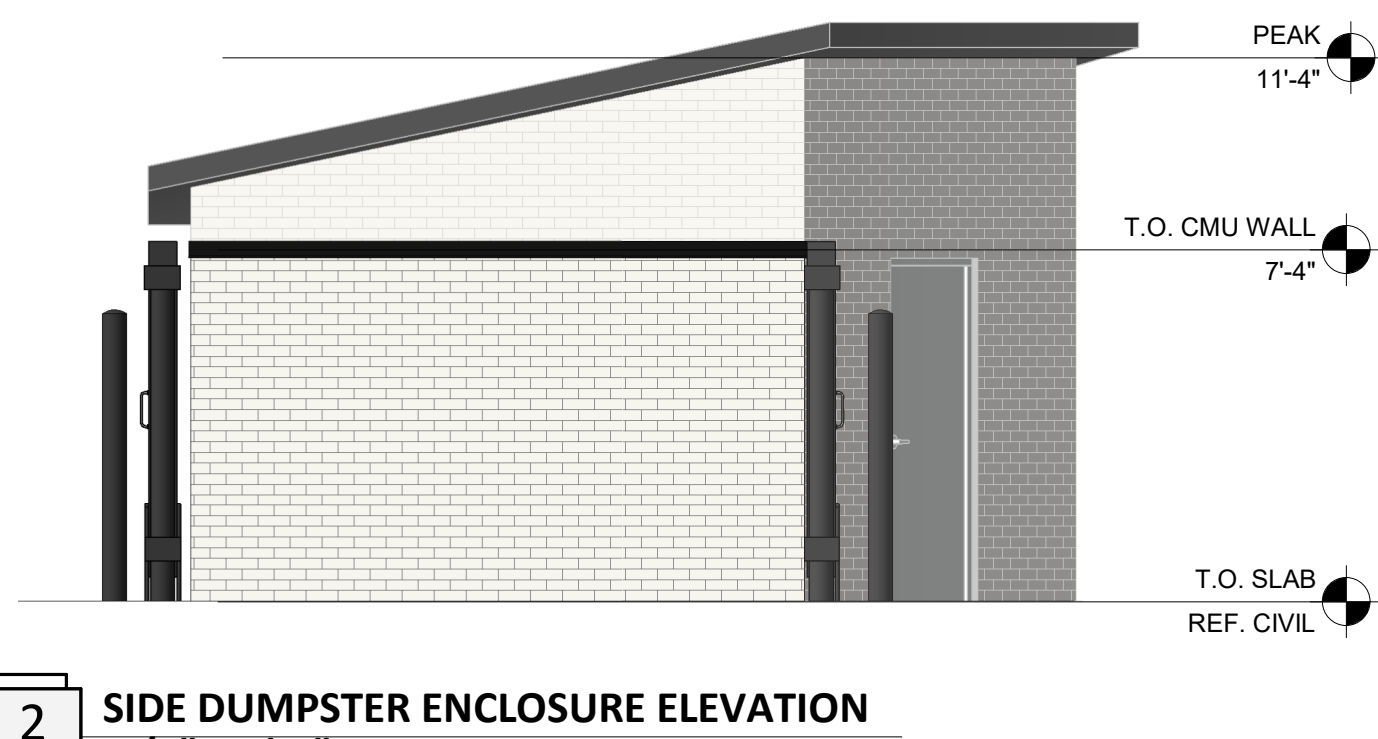
1 ELEVATION - FACING NORTH
3/16" = 1'-0"

EXTERIOR MATERIALS SCHEDULE			
(NOT ALL MATERIALS IN SCHEDULE ARE USED)			
NO.	MATERIAL	MANUFACTURER	COLOR
MR-1	MEMBRANE ROOFING	DUROLAST	WHITE
N-1	FIBER CEMENT PANEL	NICHIHA	VINTAGE BRICK, PAINTED SHERWIN WILLIAMS SW7005 "PURE WHITE"
N-2	FIBER CEMENT PANEL	NICHIHA	RIBBED, COLOR TO MATCH SHERWIN WILLIAMS SW7659 "GRIS"
CP-1	EDGE METAL PARAPET CAP	DUROLAST - ALL TERM EDGE	COAL BLACK
P-2	EXTERIOR HM DOORS, FRAMES, TRASH ENCLOSURE GATE, GRAVEL GUARDS, AND LIGHT POLES	SHERWIN WILLIAMS	SHERWIN WILLIAMS SW6232 "MISTY"
MT-2	PRE-FINISHED METAL PARAPET DETAIL		COLOR TO MATCH SHERWIN WILLIAMS SW6232 "TRICORN BLACK"
P-6	EXTERIOR BOLLARDS	SHERWIN WILLIAMS	SHERWIN WILLIAMS SW6258 "TRICORN BLACK"
S-1	ALUMINUM STOREFRONT GLAZING	KAWNEER	451T VG - #29 BLACK FINISH
C-1	PRE-FINISHED ALUMINUM CANOPY	MAPES LUMSHADE CANOPY	MATTE BLACK BAKED ENAMEL W/ REAR GUTTER CONNECTIONS
WDS-1	WOOD LOOK SIDING	NICHIHA	VINTAGE WOOD - CEDAR - VERTICAL

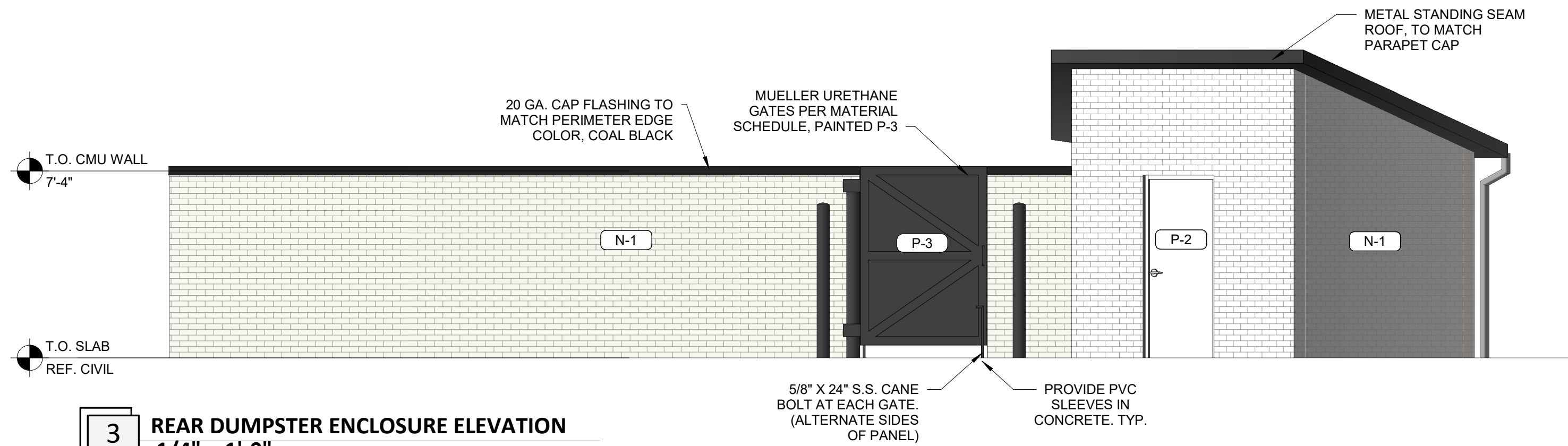




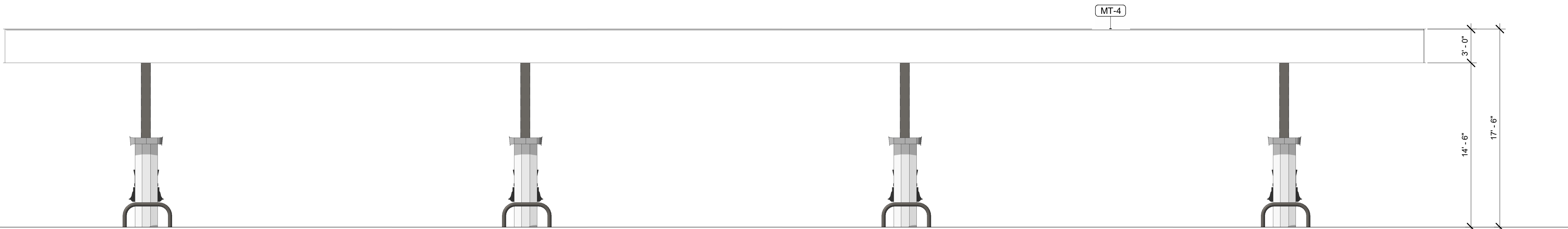
1 FRONT DUMPSTER ENCLOSURE ELEVATION
1/4" = 1'-0"



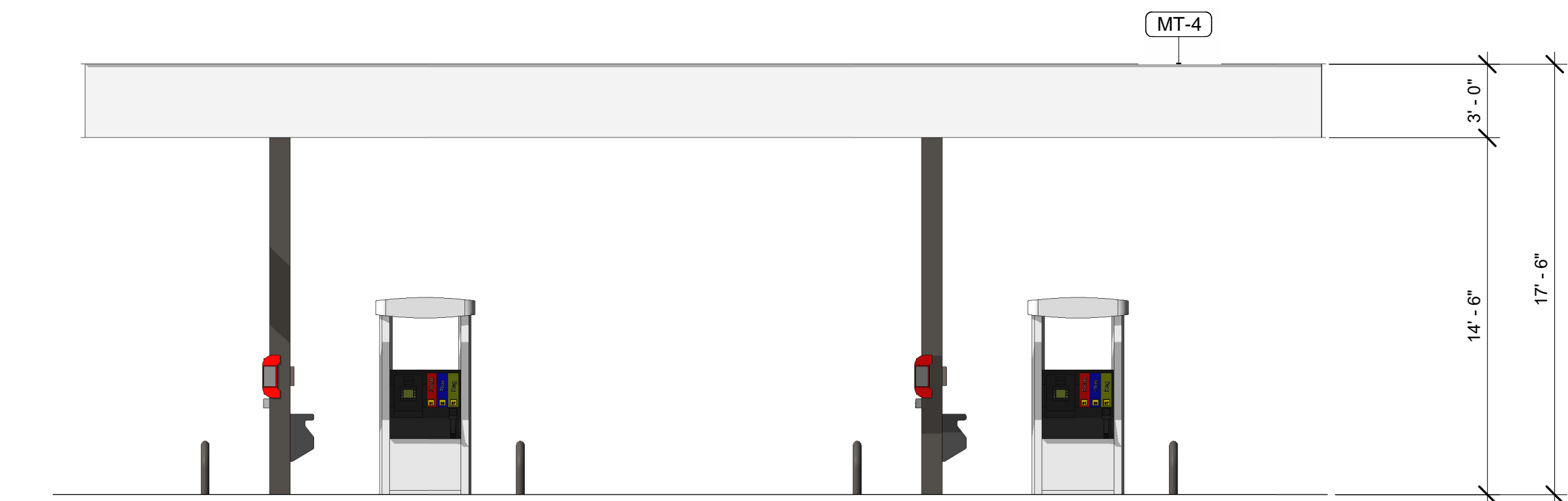
2 SIDE DUMPSTER ENCLOSURE ELEVATION
1/4" = 1'-0"



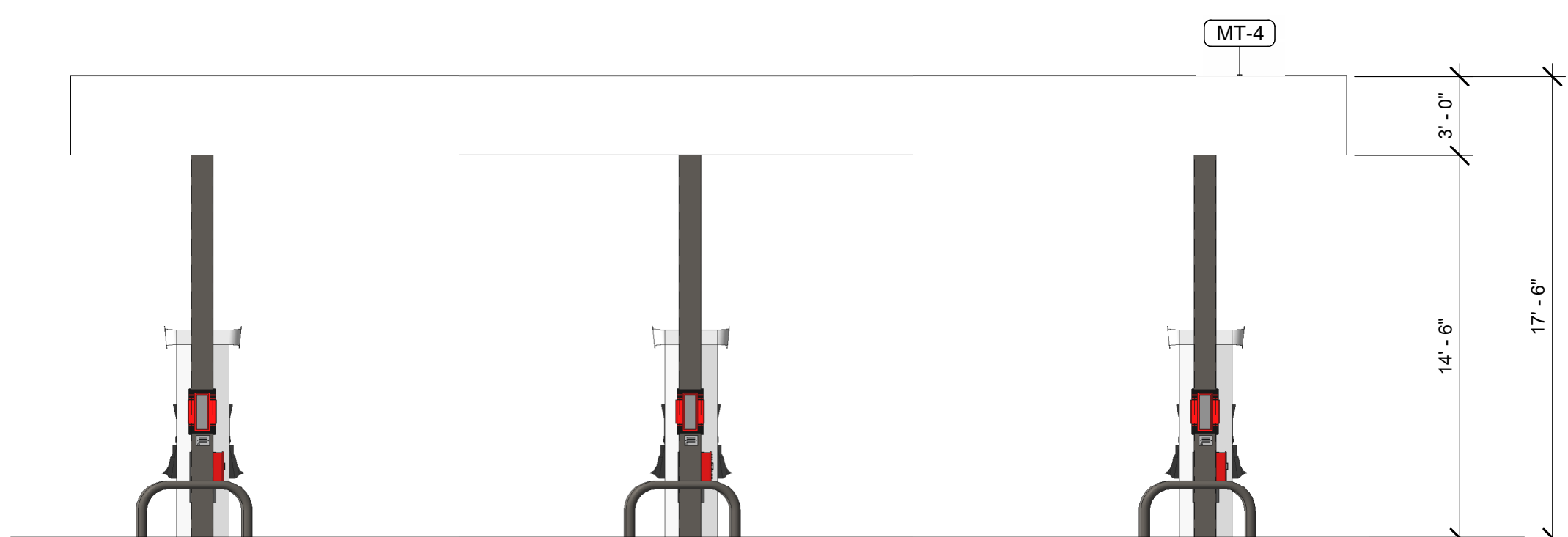
3 REAR DUMPSTER ENCLOSURE ELEVATION
1/4" = 1'-0"



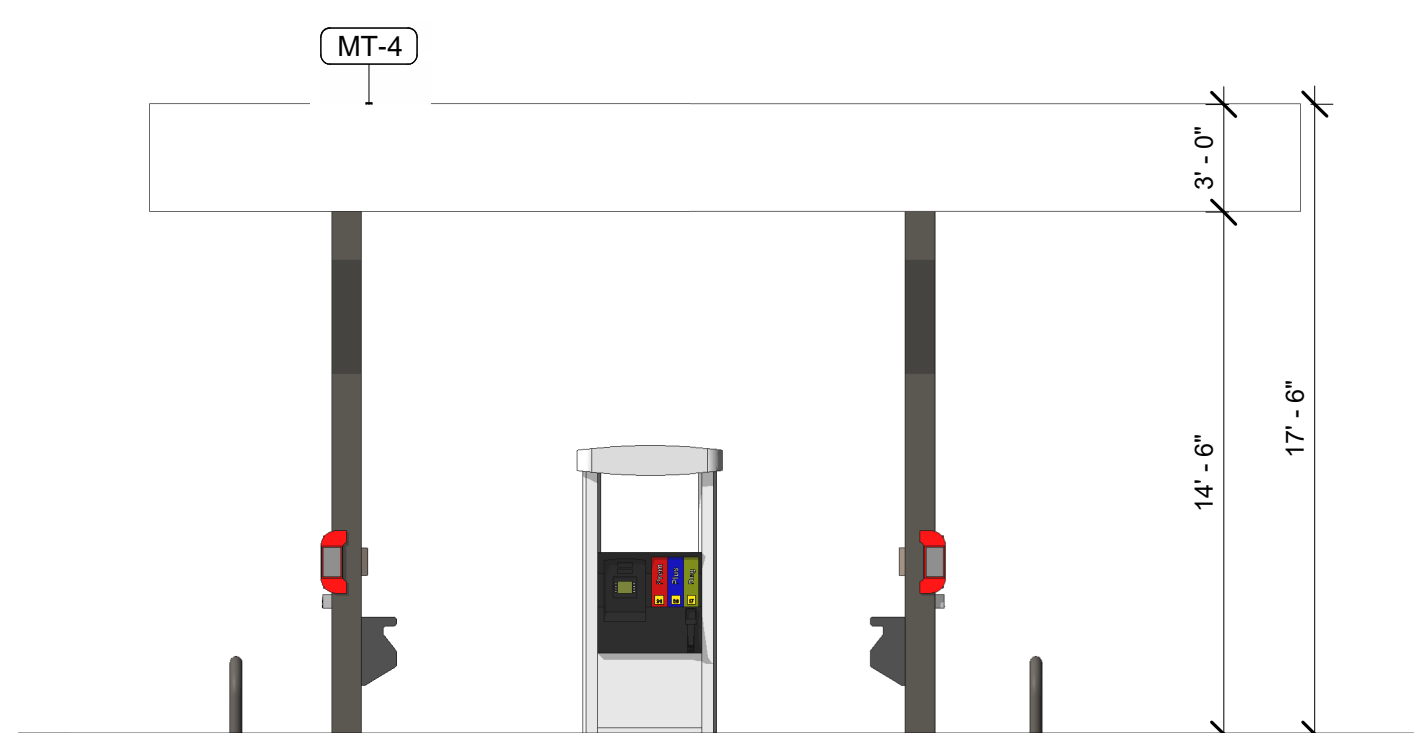
4 FUEL CANOPY LONG ELEVATION - 8 DISPENSERS TOTAL
3/16" = 1'-0"



5 FUEL CANOPY SHORT ELEVATION
3/16" = 1'-0"



6 DIESEL CANOPY LONG ELEVATION
3/16" = 1'-0"



7 DIESEL CANOPY SHORT ELEVATION
3/16" = 1'-0"

EXTERIOR MATERIALS SCHEDULE			
(NOT ALL MATERIALS IN SCHEDULE ARE USED)			
NO.	MATERIAL	MANUFACTURER	COLOR
MR-1	MEMBRANE ROOFING	DUROLAST	WHITE
N-1	FIBER CEMENT PANEL	NICHIHA	VINTAGE BRICK, PAINTED SHERWIN WILLIAMS SW7005 "PURE WHITE"
N-2	FIBER CEMENT PANEL	NICHIHA	RIBBED, COLOR TO MATCH SHERWIN WILLIAMS SW7659 "GRIS"
CP-1	EDGE METAL PARAPET CAP	DUROLAST - ALL TERM EDGE	COAL BLACK
P-2	EXTERIOR HM DOORS, FRAMES, TRASH ENCLOSURE GATE, GRAVEL GUARDS, AND LIGHT POLES	SHERWIN WILLIAMS	SHERWIN WILLIAMS SW6232 "MISTY"
MT-2	PREFINISHED METAL PARAPET DETAIL		COLOR TO MATCH SHERWIN WILLIAMS SW6258 "TRICORN BLACK"
P-6	EXTERIOR BOLLARDS	SHERWIN WILLIAMS	SHERWIN WILLIAMS SW6258 "TRICORN BLACK"
S-1	ALUMINUM STOREFRONT GLAZING	KAWNEER	451T VG - #29 BLACK FINISH
C-1	PREFINISHED ALUMINUM CANOPY	MAPES LUMISHADE CANOPY	MATTE BLACK BAKED ENAMEL W/ REAR GUTTER CONNECTIONS
WDS-1	WOOD LOOK SIDING	NICHIHA	VINTAGE WOOD - CEDAR - VERTICAL
MT-4	FUEL CANOPY FASCIA	REYNOBOND	EASTMAN WHITE - PY-25



NICHIHA
VINTAGE WOOD
CEDAR
(WDS-1)



NICHIHA
VINTAGE BRICK
PAINTED SHERWIN
WILLIAMS
SW7005
"PURE WHITE"
(N-1)



NICHIHA
RIBBED
COLOR MATCH
SHERWIN WILLIAMS
SW7659
"GRIS"
(N-2)



KAWNEER #29
BLACK
(S-1)