

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

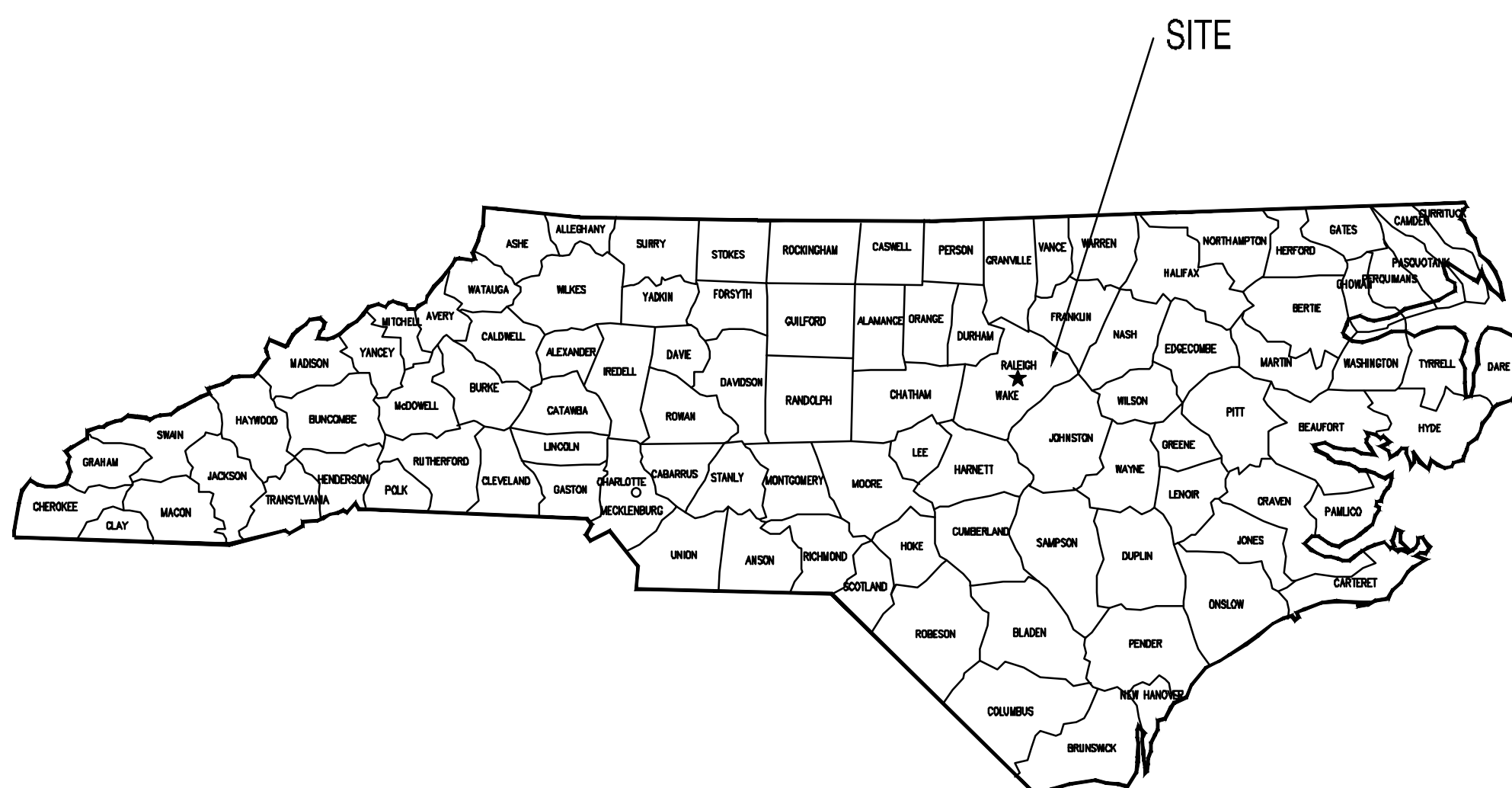
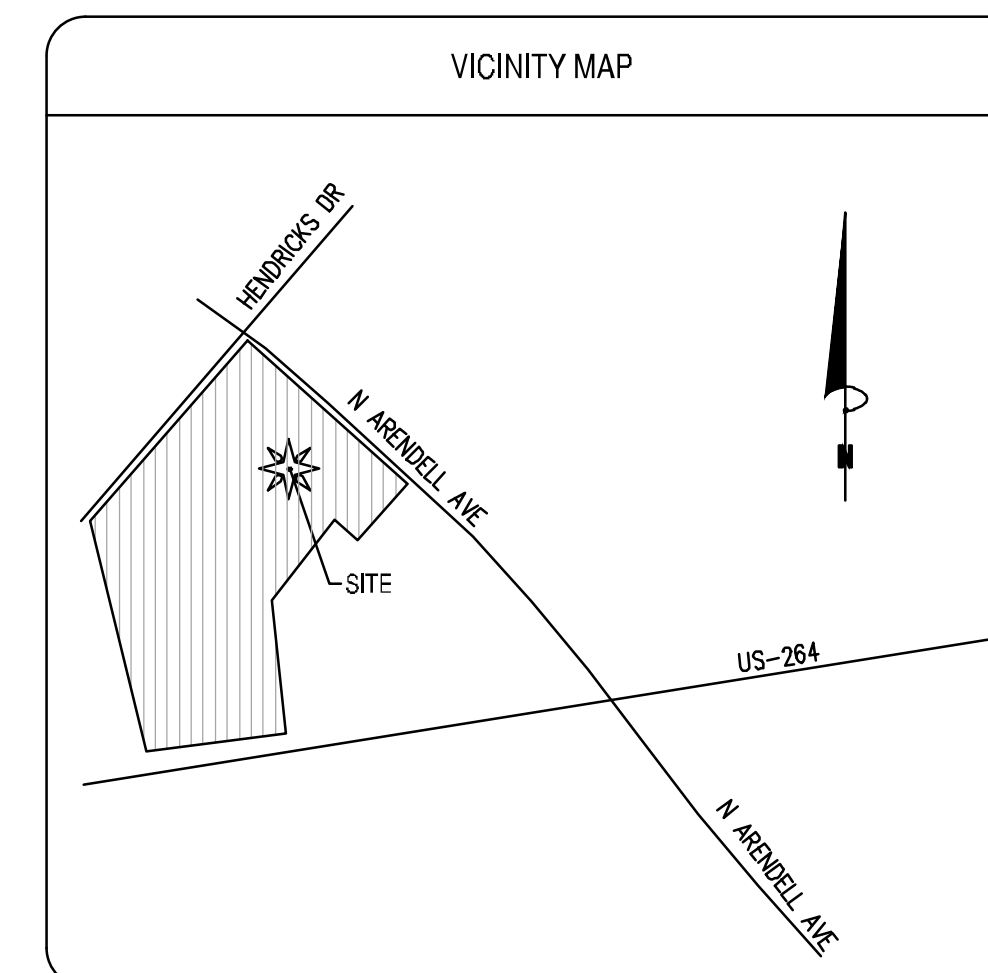
STORMWATER RETENTION AND DETENTION FACILITIES, STORAGE TANKS FOR ANY PURPOSE, UTILITY SUBSTATIONS, AND 3 BUILDINGS HOUSING UTILITY SUBSTATIONS AND BUILDINGS HOUSING UTILITY COMMODITIES OR EQUIPMENT ARE ALSO PROHIBITED IN REQUIRED BUFFERYARDS.

CONSTRUCTION DOCUMENTS

Proposed Rocket Wash

Project ID# 796479

N. Arendell Avenue & Hendricks Drive
Zebulon, North Carolina
Wake County



DEVELOPER
Bell Commercial
Attn. Baker Bell
120 Wind Chime Court
Raleigh, NC 27615
(919) 803-8169
baker@bellcommercial.com

CIVIL ENGINEER
Bowman North Carolina, Ltd.
4006 Barrett Drive, Suite 104
Raleigh, NC 27609
(919) 553-6570
mlowder@bowman.com
FIRM# F-1445

CURRENT PROPERTY OWNERS

Speedway, LLC
Property Tax Department
539 S. Main Street
Findlay, OH 45840



Know what's below.
Call before you dig.

IMPERVIOUS SUMMARY TABLE			
ON-SITE AREA = 429,809 SF (9.867 AC)			
BUILDINGS	2,880 SF	0.07 ACRES	0.67 % OF AREA
PAVEMENT	41,610 SF	0.96 ACRES	9.68 % OF AREA
SIDEWALK	4,510 SF	0.10 ACRES	10.49 % OF AREA
TOTAL IMPERVIOUS AREA	49,000 SF	1.12 ACRES	11.40 % OF AREA
GREEN/OPEN SPACE	380,809 SF	8.74 ACRES	88.60 % OF AREA
EXISTING IMPERVIOUS AREA	3,604 SF	0.08 ACRES	0.84 % OF AREA
INCREASE IN IMPERVIOUS AREA	45,396 SF	1.04 ACRE	

DEVELOPMENT DATA	
DEVELOPMENT NAME:	ROCKET EXPRESS
STREET ADDRESS:	N. ARENDELL AVENUE ZEBULON, NC WAKE COUNTY
PROJECT ID#	796479
PROPERTY IDENTIFICATION # (PIN):	2705-09-1834, 2706-00-2456, 2706-00-3316, 2706-00-3279, 2706-00-4241
PROPERTY #:	0111770, 0030085, 0057144, 0058906, 0039959
DEED BOOK/PAGE:	12474-2357
EXISTING ZONING:	HC-HEAVY COMMERCIAL
WATERSHED DISTRICT:	NONE
FLOOD ZONE:	NONE
TOTAL SITE ACRES:	429,809 SF (9.87 AC)
INSIDE TOWN LIMITS:	YES
EXISTING USE:	VACANT
PROPOSED BUILDING USE:	CAR WASH AND OUTPARCELS
PROPOSED TOTAL BUILDING AREA:	2,880 SF (CAR WASH)
MAX BUILDING HEIGHT:	50 FT
MIN LOT AREA:	6,000 SF
MIN LOT WIDTH:	50 FT
MAX. LOT COVERAGE:	80%
FRONT SETBACK:	30 FT
SIDE SETBACK (STREET):	30 FT
SIDE SETBACK (INTERIOR):	0, 5 FT IF PROVIDED
REAR SETBACK:	0' IF ABUTTED BY AN ALLEY, OTHERWISE 25FT
PARKING REQUIREMENTS:	2 PER WASH BAY
TOTAL PROVIDED:	25 (22 VACUUM SPACES + 3 EMPLOYEE SPACES)
ACCESSIBLE SPACES PROVIDED:	1
LOADING AREA:	1 PROVIDED
STACKING SPACES:	3 REQUIRED, 9 PROVIDED
BICYCLE SPACES:	2 REQUIRED, 2 PROVIDED
LANDSCAPE BUFFERS:	10FT TYPE A BUFFER (ADJACENT HC) 15FT STREETSCAPE BUFFER

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: CITY OF RALEIGH UTILITY DEPARTMENT TELEPHONE: 919-857-4540
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: CITY OF RALEIGH UTILITY DEPARTMENT TELEPHONE: 919-857-4540

EROSION CONTROL, STORMWATER AND FLOODPLAIN MANAGEMENT

APPROVED
EROSION CONTROL S- _____
STORMWATER MGMT. S- _____
FLOOD STUDY S- _____
DATE _____



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- _____
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- _____
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.

C1.0	COVER SHEET
C1.1	GENERAL NOTES
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C2.2	EROSION CONTROL PLAN - FINAL
C2.3	EROSION CONTROL NOTES
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C3.0	SITE PLAN
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C4.0	GRADING & DRAINAGE PLAN
C5.0	UTILITY PLAN
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C6.2	CONSTRUCTION DETAILS
C6.3A	CONSTRUCTION DETAILS
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C6.6	STORMWATER MANAGEMENT DETAILS
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A-2.0	OVERALL LAYOUT - UPPER STORY
A-2.1	ELEVATIONS
A-4.1	ELEVATIONS
A-4.1	DETAILS

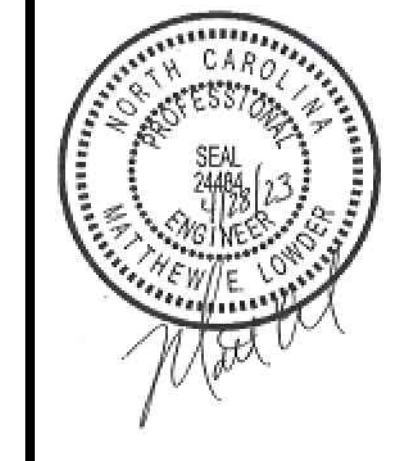
Bowman

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

COVER SHEET
Rocket Wash
Arendell Ave
Project ID#796479

Zebulon, NC
Wake County

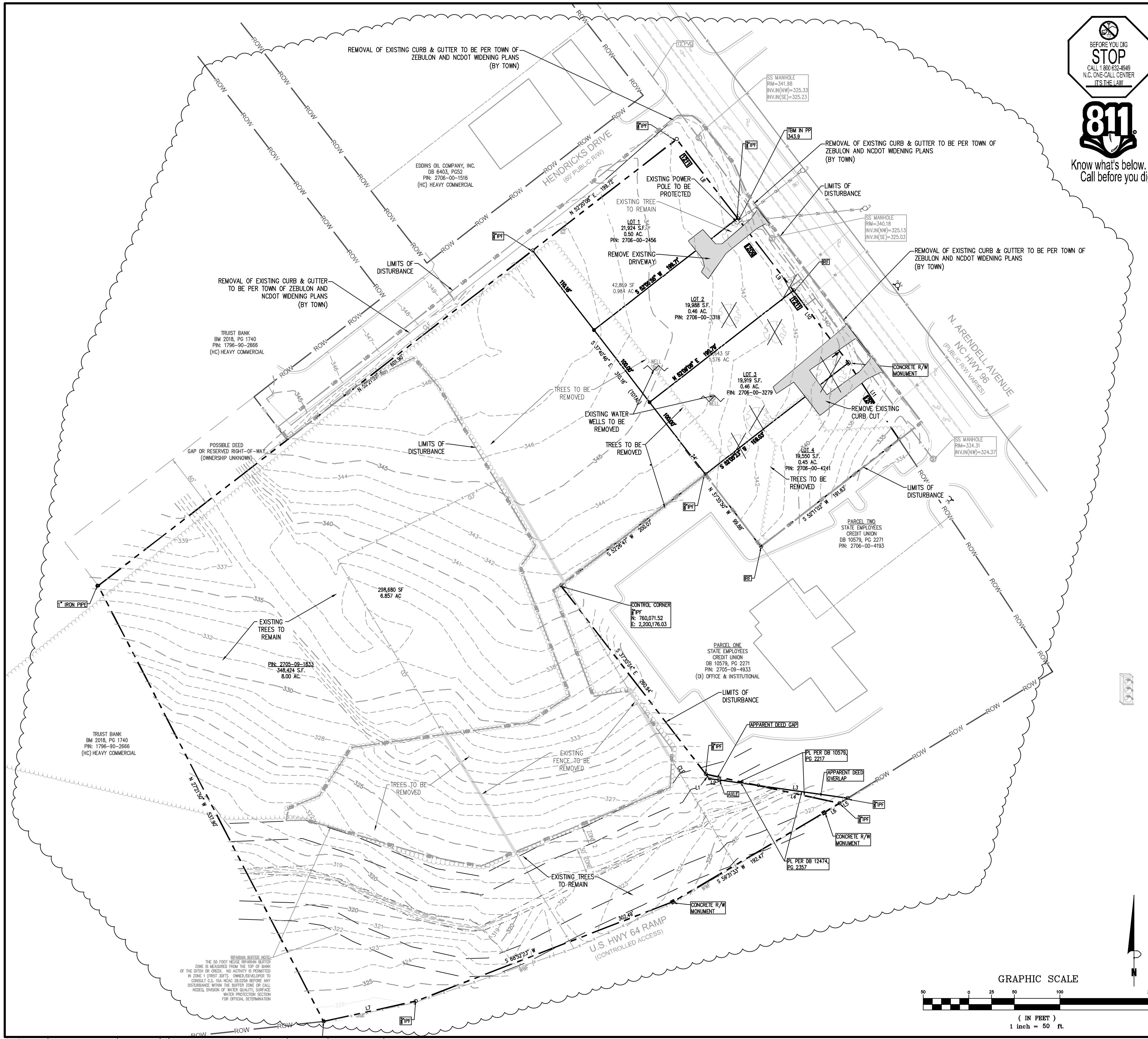
PRELIMINARY
DO NOT
USE FOR
CONSTRUCTION



PLAN STATUS		
6/20/22	SITE PLAN SUBMITTAL	
10/21/22	PER TOWN REVIEW	
4/28/23	PER TOWN REVIEW	

DATE	DESCRIPTION	MEL DESIGN	MEL DRAWN	XXX CHKD
JOB No.	220094-01-002			
DATE	June 20, 2022			
FILE No.	220094-01-002			
	220097-01-002			

SHEET C1.0



UTILITY STATEMENT
 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.

CAUTIONARY NOTE
 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.

DEMOLITION LEGEND

	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

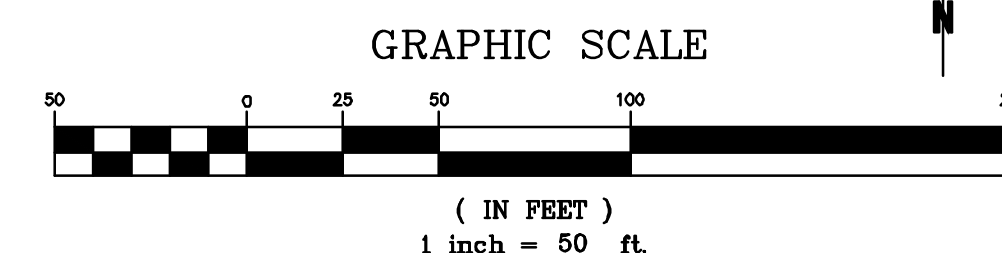
EROSION CONTROL NOTES:
 AN EROSION AND SEDIMENTATION CONTROL PERMIT SHALL BE REQUIRED BY WAKE COUNTY PRIOR TO START OF CONSTRUCTION.

SURVEY NOTE:
 ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY: NEWCOMB LAND SURVEYORS, LLC.

STREAM/WETLAND NOTE:
 THERE IS AN EXISTING STREAM FEATURE ON THE PROPOSED PARCEL. NO IMPACTS TO THE STREAM ARE PROPOSED.

FLOOD ZONE NOTE:
 THE PROPERTY IS LOCATED IN FLOOD ZONE X AS SHOWN ON FEMA FLOOD PANELS 3720179600K, 3720270600K, 3720179500K, & 3720270500K, DATED JULY 19, 2022. MAPS SUBJECT TO CHANGE BY FEMA.

- DEMOLITION NOTES**
- THE CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL EXISTING UTILITIES ON SITE PRIOR TO DEMOLITION.
 - THE CONTRACTOR SHALL PERFORM DEMOLITION ACTIVITIES AS NOTED AND SHOWN ON THESE PLANS AND AS DIRECTED BY THE OWNER.
 - IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY PERMITS AND PAY FEES REQUIRED FOR DEMOLITION AND HAUL-OFF FROM THE APPROPRIATE AUTHORITIES.
 - THE CONTRACTOR SHALL PREPARE ALL DOCUMENTS AND ACQUIRE APPROPRIATE PERMITS AS REQUIRED PRIOR TO THE COMMENCEMENT OF DEMOLITION.
 - 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.
 - CONTRACTOR TO COMPLETELY DEMOLISH AND DISPOSE OF OFFSITE IN A LAWFUL MANNER EXISTING BUILDINGS, INCLUDING FOUNDATIONS AND ALL APPURTENANCES LOCATED ON AND AROUND THE PROPERTY INCLUDING BUT NOT LIMITED TO BOLLARDS, GAS METERS, AIR CONDITIONING UNITS, SIGNS, CURBS, SIDEWALKS, ELECTRIC METERS, FENCING, ETC.
 - REMOVE AND DISPOSE OF ANY SIDEWALK, FENCES, STAIRS, WALLS, FOUNDATIONS, CONDUITS, LIGHT POLE BASES, DEBRIS AND RUBBISH REQUIRING REMOVAL FROM THE WORK AREA IN AN APPROVED LANDFILL.
 - 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.
 - 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.
 - 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.
 - INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AND TREE PROTECTION PRIOR TO BEGINNING DEMOLITION WORK.
 - THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES TO REMAIN IN PLACE.
 - 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.
 - SAWCUT AT INTERFACE OF PAVEMENT OR CURB TO REMAIN. SAWCUT EXISTING PAVEMENT.
 - ALL EXISTING ITEMS TO REMAIN WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE SOLE EXPENSE OF THE CONTRACTOR.
 - DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER AND THE LOCAL MUNICIPALITIES. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
 - SHOULD ANY UNCHARTERED OR INCORRECTLY CHARTERED EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
 - ASBESTOS OR HAZARDOUS MATERIAL, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIAL CONTRACTOR.
 - 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.
 - THE CONTRACTOR SHALL PROPERLY AND LEGALLY DISPOSE OF ALL DEMOLITION DEBRIS OFF OF THE SITE.

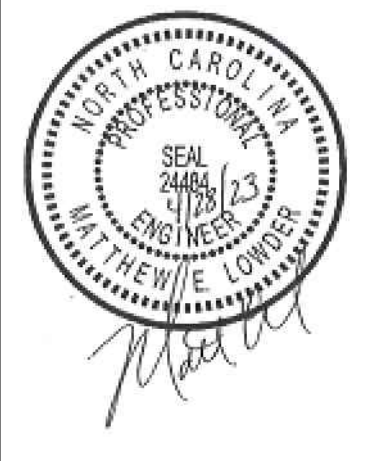


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DEMOLITION PLAN
 Rocket Wash
 Arendell Ave
 Project ID#796479
 Wake County
 Zebulon, NC

**PRELIMINARY
 DO NOT
 USE FOR
 CONSTRUCTION**



PLAN STATUS

6/20/22	SITE PLAN SUBMITTAL
10/21/22	PER TOWN REVIEW
4/28/23	PER TOWN REVIEW

DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN XXX CHKD
SCALE	H:
JOB No.	220094-01-002
DATE	June 20, 2022
FILE No.	220094-01-002
	220097-01-002

SHEET **C2.0**

EROSION CONTROL NARRATIVE:
ROCKET XPRSS, TOWN OF ZEBULON, WAKE COUNTY, NC

CONTRACTOR WILL FIRST INSTALL THE CONSTRUCTION ENTRANCE. THE CONTRACTOR SHALL THEN MOBILIZE ON SITE AND INSTALL THE TEMPORARY EROSION CONTROL DEVICES INCLUDING SILT FENCE, INLET PROTECTION, SKIMMER BASIN, AND OTHER DEVICES IN ACCORDANCE WITH THE PLANS (CLEARING ONLY AS NECESSARY TO INSTALL THESE ITEMS). BEGIN DEMOLITION, CLEARING AND SITE GRADING OPERATIONS. STABILIZATION OF EXISTING STRUCTURES IS REQUIRED IMMEDIATELY AFTER INSTALLATION. THE ON-SITE STORM SEWER SYSTEM CAN NOW BE INSTALLED. IMMEDIATELY AFTER AN INLET IS INSTALLED, INLET PROTECTION SHALL BE PROPERLY INSTALLED ON THE STRUCTURE. THE ON-SITE SANITARY SEWER AND WATER SYSTEMS MAY ALSO BE INSTALLED ONCE THE SITE IS BROUGHT UP TO GRADE. THE SITE PAD WILL BE PREPARED FOR THE PROPOSED BUILDING. THE ROUGH GRADE WILL THEN BE ESTABLISHED FOR THE SITE. INSTALLATION OF CURB AND GUTTER WILL THEN BE PERFORMED. BASE STONE WILL THEN BE PLACED AND FINE GRADED. ALL DISTURBED AREAS WILL BE DRESSED AND SEEDING. REMOVE ALL INLET PROTECTION FROM STORM STRUCTURES WHEN PAVING IS TO BEGIN. PAVING AND STRIPING WILL THEN BE COMPLETED. FINALIZE STORMWATER POND STRUCTURE ONCE UPSTREAM AREAS HAVE BEEN STABILIZED (REMOVE ACCUMULATED SEDIMENT). ALL LANDSCAPING SHALL BE COMPLETED. THE ON-SITE STORM SEWER SYSTEM SHALL BE CLEANED OF ANY ACCUMULATED SEDIMENT WHICH SHALL BE DISPOSED OF IN A LAWFUL MANNER. ALL ACCUMULATED SEDIMENT BEHIND SILT FENCE AND OTHER SEDIMENT DEVICES SHALL BE REMOVED AND DISPOSED OF IN A LAWFUL MANNER, ACCORDING TO THE GROUND STABILIZATION REQUIREMENTS ON THIS SHEET. REMOVE ALL REMAINING EROSION CONTROL MEASURES FROM THE SITE. CONTRACTOR SHALL MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL LAND DISTURBANCE AND FINAL VEGETATION STABILIZATION OF THE SITE.

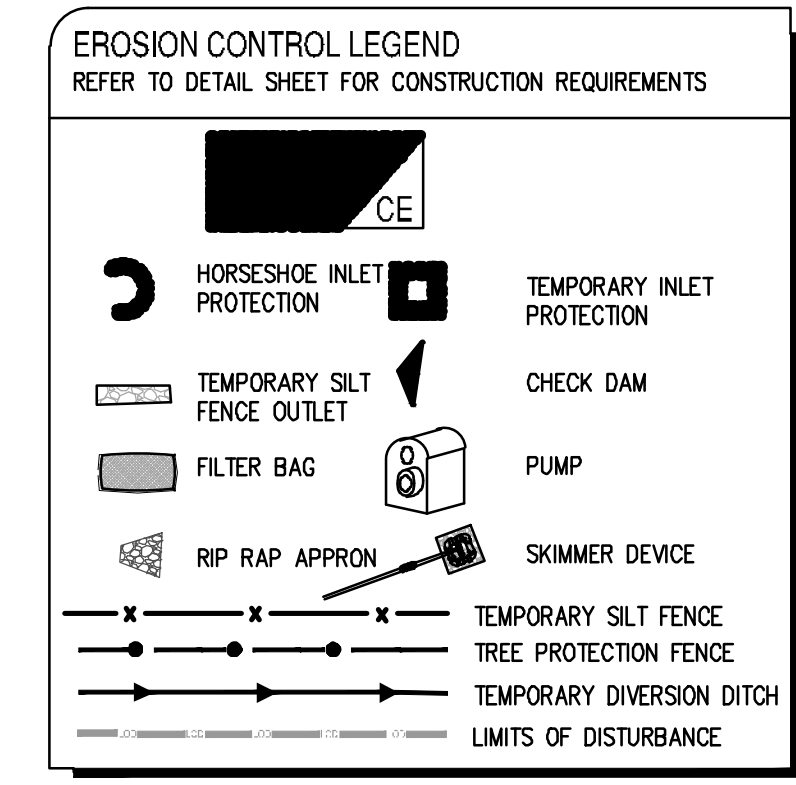
THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES ARE INTENDED TO TRAP ANY STORMWATER RUNOFF FROM THE CONSTRUCTION SITE AND DETAIN IT LONG ENOUGH FOR SEDIMENT AND POLLUTANTS TO SETTLE OUT OF THE STORMWATER BEFORE DISCHARGE. VARIOUS EROSION CONTROL MEASURES ARE USED TO PREVENT POLLUTANT-LOADED STORMWATER RUNOFF FROM FLOWING ONTO ADJACENT PROPERTIES.

TRUST BANK
BM 2018, PG 1740
PIN: 1796-90-2666
(HC) HEAVY COMMERCIAL

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PIN: 1796-90-2666
(HC) HEAVY COMMERCIAL

GENERAL NOTES:
THE 50 FOOT BUFFER ZONE IS MEASURED FROM THE TOP OF BANK OF THE DITCH OR CHECK. NO ACTIVITY IS PERMITTED IN ZONE 1 (FIRST 30 FT). OWNER/DEVELOPER TO CONSIDER 15 MIN BEFORE ANY DISTURBANCE WITHIN THE BUFFER ZONE OR CALL HOUSING DIVISION OF WAKE COUNTY SURFACE WATER PROTECTION SECTION FOR OFFICIAL DETERMINATION.

- BASIN REMOVAL SEQUENCE:**
- SCHEDULE A SITE MEETING WITH THE ENVIRONMENTAL ENGINEER/CONSULTANT TO DETERMINE IF A BASIN CAN BE REMOVED. INSTALL SILT FENCING OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED PRIOR TO REMOVAL OF THE BASIN.
 - REMOVE BASINS AND ASSOCIATED TEMPORARY DIVERSION DITCHES. IF CULVERT PIPES NEED TO BE EXTENDED, PERFORM THIS OPERATION AT THIS TIME. FINE GRADE AREA IN PREPARATION FOR SEEDING.
 - PERFORM SEEDING PREPARATION, SEED, MULCH AND ASPHALT TACK ON THE EROSION CONTROL PLAN.
 - INSTALL VELOCITY DISSIPATORS AND/OR LEVEL SPREADERS AS REQUIRED ON THE EROSION CONTROL PLAN.
 - WHEN SITE IS FULLY STABILIZED, CALL ENVIRONMENTAL ENGINEER/CONSULTANT FOR APPROVAL OF REMOVING REMAINING TEMPORARY EROSION CONTROL MEASURES AND ADVISE ON WHEN SITE CAN BE ISSUED A CERTIFICATE OF COMPLETION.
- NOTE: A MEETING SHOULD ALSO BE SCHEDULED WITH THE ENVIRONMENTAL ENGINEER/CONSULTANT TO DETERMINE WHEN A BASIN MAY BE CONVERTED FOR STORMWATER USE. SOME MUNICIPALITIES MAY ALSO REQUIRE THIS.



STABILIZATION TIMEFRAME

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
BASIN & TEMPORARY DIVERSION DITCHES	IMMEDIATELY	NONE
PERIMETER DICES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50FT IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES

GROUND COVER REQUIREMENTS:

THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION-CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, ACCORDING TO THE FOLLOWING CHART, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION. PROVISIONS FOR PERMANENT GROUND COVER SUFFICIENT TO RETAIN EROSION MUST BE ACCOMPLISHED FOR ALL DISTURBED AREAS ACCORDING TO THE FOLLOWING CHART FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.

NOTE TO CONTRACTOR:
EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO THE BEGINNING OF DEMOLITION & TREE REMOVAL.

- WAKE COUNTY CONSTRUCTION SEQUENCE:**
- SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH THE WATERSHED MANAGER, KARVIN PAGEAU WITH WAKE COUNTY AT 919-796-8769. OBTAIN A LAND-DISTURBING PERMIT.
 - INSTALL GRAVEL CONSTRUCTION PAD, TEMPORARY DIVERSIONS, SILT FENCE, SKIMMER BASINS, WAKE COUNTY SKIMMER BASIN OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSIONS, BERMS AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
 - CALL KARVIN PAGEAU WITH WAKE COUNTY AT 919-796-8769 FOR AN ON-SITE INSPECTION BY THE WATERSHED MANAGER TO OBTAIN A CERTIFICATE OF COMPLIANCE.
 - BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED. ROUGH GRADE SITE.
 - INSTALL STORM SEWER, IF SHOWN, AND PROTECT CATCH BASIN CURB INLETS WITH BLOCK AND GRAVEL INLET CONTROLS, PROTECT AREA DRAIN/YARD INLETS WITH STANDARD INLET PROTECTION, SEDIMENT TRAPS OR OTHER APPROVED MEASURES AS SHOWN ON THE PLAN. BEGIN CONSTRUCTION, BUILDING, ETC.
 - STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC. PREPARE A SEEDBED, FERTILIZE, LIME, SEED, MULCH AND ASPHALT TACK ALL DISTURBED AREAS WITHIN THE STABILIZATION TIMEFRAME OF COMPLETION OF ANY PHASE OF CONSTRUCTION OR STOPPAGE OF WORK ON ANY PHASE OF CONSTRUCTION.
 - CONTRACTOR TO CONTACT PROJECT ENGINEER BETWEEN SEDIMENT AND EROSION CONTROL PHASES OF DEVELOPMENT AND FOR THE REMOVAL OR CONVERSION OF SEDIMENT AND EROSION CONTROL MEASURES.
 - WAKE COUNTY OR JURISDICTIONAL MUNICIPALITY MUST GRANT PERMISSION TO CONVERT THE SEDIMENT BASIN OVER TO STORMWATER USE PRIOR TO COMPLETING ANY RELATED WORK.
 - WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL KARVIN PAGEAU WITH WAKE COUNTY AT 919-796-8769 FOR AN INSPECTION BY THE WATERSHED MANAGER.
 - IF SITE IS APPROVED, REMOVE TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OUT OR STABILIZE ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATORS, SHOULD NOW BE INSTALLED.
 - WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE WATERSHED MANAGER, KARVIN PAGEAU WITH WAKE COUNTY AT 919-796-8769. OBTAIN A CERTIFICATE OF COMPLETION.

BASIN NOTES

- SKIMMER BASIN DESIGN BASED ON 3 DAYS TO DRAIN.
- BASIN AND DIVERSIONS SHALL BE SEED, MULCHED AND ANCHORED/LINED AND PINNED UPON INSTALLATION OF MEASURES.

NOTE TO CONTRACTOR:
THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE EROSION CONTROL INSPECTOR OF THE LOCATION OF ANY OFF-SITE BORROW SOURCE OR OFF-SITE WASTE MATERIAL DISPOSAL SITE. OFF-SITE DISTURBANCES COUNT TOWARDS THE OVERALL PROJECT DISTURBED AREA AND MUST BE COVERED BY THE PERMIT FOR THIS PROJECT AND/OR THE PERMIT FROM ANOTHER ACTIVE WAKE COUNTY OR NEEDED PERMITTED SITE THAT IS APPROPRIATE FOR THE INTENDED USE (I.E. APPLICABLE MINING REQUIREMENTS). NO OFF-SITE ACTIVITIES SHALL OCCUR UNTIL THE PERMIT FOR THIS PROJECT HAS BEEN MODIFIED TO INCLUDE THE AFFECTED AREAS OR IT HAS BEEN VERIFIED WITH THE EROSION CONTROL INSPECTOR THAT THE OFF-SITE AREAS ARE COVERED UNDER APPLICABLE WAKE COUNTY OR NEEDED PERMITS.

CONSTRUCTION NOTE
ALL MATERIALS AND CONSTRUCTION METHODS PER THE LATEST EDITION OF WAKE COUNTY SPECIFICATIONS AND STANDARD DETAILS

- EROSION CONTROL NOTES**
- REFER TO GENERAL NOTES SHEET FOR ADDITIONAL EROSION CONTROL REQUIREMENTS.
 - REFER TO DETAIL SHEETS FOR CONSTRUCTION DETAILS OF THE PROPOSED EROSION CONTROL MEASURES TO BE USED IN THE DEVELOPMENT OF THIS SITE.
 - REFER TO DETAIL SHEETS FOR TEMPORARY AND PERMANENT SEEDING SCHEDULES FOR PROVIDING GROUND COVER FOR THE DEVELOPMENT.

- STOCKPILE DESIGN CRITERIA:**
- A 25-FOOT TEMPORARY MAINTENANCE AND ACCESS EASEMENT SHALL BE SHOWN AROUND ALL PROPOSED STOCKPILES (EROSION CONTROL MEASURES SURROUNDING THE STOCKPILE SHALL BE SHOWN AT THE OUTER LIMIT OF THIS EASEMENT).
 - STOCKPILE FOOTPRINTS SHALL BE SETBACK A MINIMUM OF 25' FROM ADJACENT PROPERTY LINES.
 - STOCKPILE HEIGHT SHALL NOT EXCEED 35 FEET.
 - STOCKPILE SLOPES SHALL BE 2:1 OR FLATTER.
 - APPROVED BMP'S SHALL BE SHOWN ON A PLAN TO CONTROL ANY POTENTIAL SEDIMENT LOSS FROM A STOCKPILE.
 - STOCKPILING MATERIALS ADJACENT TO A DITCH, DRAINAGEWAY, WATERCOURSE, WETLAND, STREAM BUFFER, OR OTHER BODY OF WATER SHALL BE AVOIDED UNLESS AN ALTERNATIVE LOCATION IS DEMONSTRATED TO BE UNAVAILABLE.
 - ANY CONCENTRATED FLOW LIKELY TO AFFECT THE STOCKPILE SHALL BE DIVERTED TO AN APPROVED BMP.
 - OFF-SITE SPOIL OR BORROW AREAS MUST BE IN COMPLIANCE WITH WAKE COUNTY UDO AND STATE REGULATIONS. ALL SPOIL AREAS OVER AN ACRE ARE REQUIRED TO HAVE AN APPROVED SEDIMENT CONTROL PLAN. DEVELOPER/CONTRACTOR SHALL NOTIFY WAKE COUNTY OF ANY OFF-SITE DISPOSAL OF SOIL, PRIOR TO DISPOSAL. FILL OF FEMA FLOODWAYS AND NON-ENCROACHMENT AREAS ARE PROHIBITED EXCEPT AS OTHERWISE PROVIDED BY SUBSECTION 14-19-2 OF THE WAKE COUNTY UNIFIED DEVELOPMENT ORDINANCE (CERTIFICATIONS AND PERMITS REQUIRED).

- STOCKPILE MAINTENANCE REQUIREMENTS:**
- SEEDING OR COVERING STOCKPILES WITH TARPS OR MULCH IS REQUIRED AND WILL REDUCE EROSION PROBLEMS. TARPS SHOULD BE KEPT IN AT THE TOP OF THE SLOPE TO KEEP WATER FROM RUNNING UNDERNEATH THE PLASTIC.
 - IF A STOCKPILE IS TO REMAIN FOR FUTURE USE AFTER THE PROJECT IS COMPLETE (BUILDERS, ETC.), THE FINANCIAL RESPONSIBLE PARTY MUST NOTIFY WAKE COUNTY OF A NEW RESPONSIBLE PARTY FOR THAT STOCKPILE.
 - THE APPROVED PLAN SHALL PROVIDE FOR THE USE OF STAGED SEEDING AND MULCHING ON A CONTINUAL BASIS WHILE THE STOCKPILE IS IN USE.
 - ESTABLISH AND MAINTAIN A VEGETATIVE BUFFER AT THE TOE OF THE SLOPE (WHERE PRACTICAL).

811
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GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.

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Bowman North Carolina Ltd.

EROSION CONTROL PLAN - INITIAL

Rocket Wash
Arendell Ave
Zebulon, NC
Project ID#796479

PRELIMINARY DO NOT USE FOR CONSTRUCTION

PLAN STATUS
6/20/22 SITE PLAN SUBMITTAL
10/21/22 PER TOWN REVIEW
4/28/23 PER TOWN REVIEW

DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN XXX
SCALE	H: 1" = 40'
JOB No.	220094-01-002
	220097-01-002
DATE	June 20, 2022
FILE No.	220094-01-002
	220097-01-002

SHEET **C2.1**

EROSION CONTROL NARRATIVE:
ROCKET WASH, TOWN OF ZEBULON, WAKE COUNTY, NC

CONTRACTOR WILL FIRST INSTALL THE CONSTRUCTION ENTRANCE. THE CONTRACTOR SHALL THEN MOBILIZE ON SITE AND INSTALL THE TEMPORARY EROSION CONTROL DEVICES INCLUDING SILT FENCE, INLET PROTECTION, SKIMMER BASIN, AND OTHER DEVICES IN ACCORDANCE WITH THE PLANS (CLEARING ONLY AS NECESSARY TO INSTALL THESE ITEMS). BEGIN DEMOLITION, CLEARING AND SITE GRADING OPERATIONS. STABILIZATION OF EXISTING STRUCTURES IS REQUIRED IMMEDIATELY AFTER INSTALLATION. THE ON-SITE STORM SEWER SYSTEM CAN NOW BE INSTALLED. IMMEDIATELY AFTER AN INLET IS INSTALLED, INLET PROTECTION SHALL BE PROPERLY INSTALLED ON THE STRUCTURE. THE ON-SITE SANITARY SEWER AND WATER SYSTEMS MAY ALSO BE INSTALLED ONCE THE SITE IS BROUGHT UP TO GRADE. THE SITE PAD WILL BE PREPARED FOR THE PROPOSED BUILDING. THE ROUGH GRADE WILL THEN BE ESTABLISHED FOR THE SITE. INSTALLATION OF CURB AND GUTTER WILL THEN BE PERFORMED. BASE STONE WILL THEN BE PLACED AND FINE GRADED. ALL DISTURBED AREAS WILL BE DRESSED AND SEEDING. REMOVE ALL INLET PROTECTION FROM STORM STRUCTURES WHEN PAVING IS TO BEGIN. PAVING AND STRIPING WILL THEN BE COMPLETED. FINALIZE STORMWATER POND STRUCTURE ONCE UPSTREAM AREAS HAVE BEEN STABILIZED (REMOVE ACCUMULATED SEDIMENT). ALL LANDSCAPING SHALL BE COMPLETED. THE ON-SITE STORM SEWER SYSTEM SHALL BE CLEANED OF ANY ACCUMULATED SEDIMENT WHICH SHALL BE DISPOSED OF IN A LAWFUL MANNER. ALL ACCUMULATED SEDIMENT BEHIND SILT FENCE AND OTHER SEDIMENT DEVICES SHALL BE REMOVED AND DISPOSED OF IN A LAWFUL MANNER, ACCORDING TO THE GROUND STABILIZATION REQUIREMENTS ON THIS SHEET. REMOVE ALL REMAINING EROSION CONTROL MEASURES FROM THE SITE. CONTRACTOR SHALL MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL LAND DISTURBANCE AND FINAL VEGETATION STABILIZATION OF THE SITE.

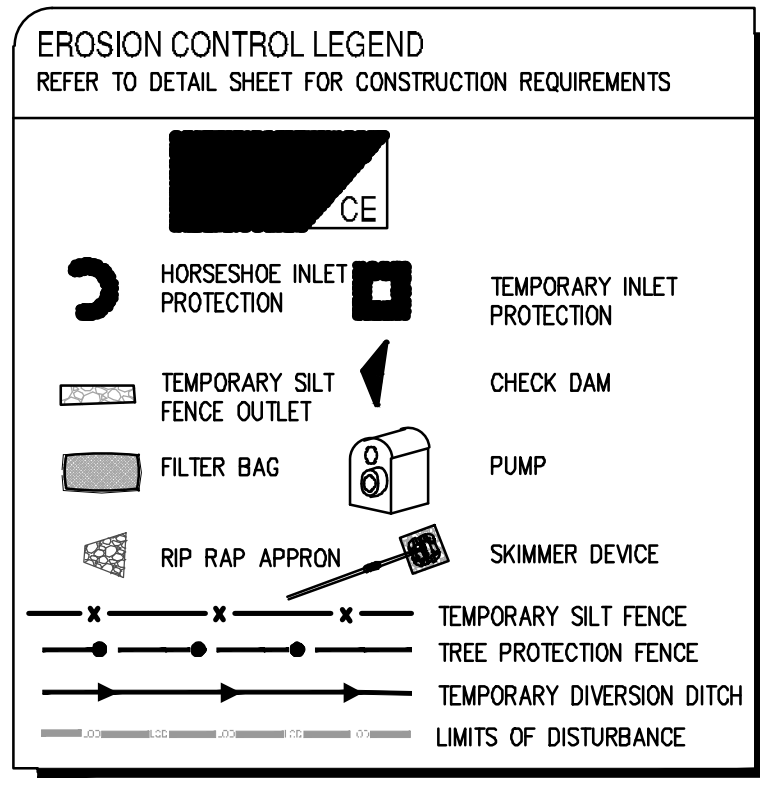
THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES ARE INTENDED TO TRAP ANY STORMWATER RUNOFF FROM THE CONSTRUCTION SITE AND DETAIN IT LONG ENOUGH FOR SEDIMENT AND POLLUTANTS TO SETTLE OUT OF THE STORMWATER BEFORE DISCHARGE. VARIOUS EROSION CONTROL MEASURES ARE USED TO PREVENT POLLUTANT-LOADED STORMWATER RUNOFF FROM FLOWING ONTO ADJACENT PROPERTIES.

TRUST BANK
BM 2018, PG 1740
PIN: 1796-90-2666
(HC) HEAVY COMMERCIAL

TRUST BANK
BM 2018, PG 1740
PIN: 1796-90-2666
(HC) HEAVY COMMERCIAL

GENERAL NOTES:
THE 50 FOOT BUFFER ZONE IS MEASURED FROM THE TOP OF BANK OF THE DITCH OR CHECK. NO ACTIVITY IS PERMITTED IN ZONE 1 (FIRST 30 FT). OWNER/DEVELOPER TO CONDUCT A 15 MIN. VISUAL INSPECTION BEFORE ANY DISTURBANCE WITHIN THE BUFFER ZONE OR CALL NOTICED DIVISION OF HIGH QUALITY SURFACE WATER PROTECTION SECTION FOR OFFICIAL DETERMINATION.

- BASIN REMOVAL SEQUENCE:**
- SCHEDULE A SITE MEETING WITH THE ENVIRONMENTAL ENGINEER/CONSULTANT TO DETERMINE IF A BASIN CAN BE REMOVED. INSTALL SILT FENCING OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED PRIOR TO REMOVAL OF THE BASIN.
 - REMOVE BASIN(S) AND ASSOCIATED TEMPORARY DIVERSION DITCHES, IF CULVERT PIPES NEED TO BE EXTENDED, PERFORM THIS OPERATION AT THIS TIME. FINE GRADE AREA IN PREPARATION FOR SEEDING.
 - PERFORM SEEDING PREPARATION, SEED, MULCH AND ASPHALT TACK ON THE EROSION CONTROL PLAN.
 - INSTALL VELOCITY DISSIPATORS AND/OR LEVEL SPREADERS AS REQUIRED ON THE EROSION CONTROL PLAN.
 - WHEN SITE IS FULLY STABILIZED, CALL ENVIRONMENTAL ENGINEER/CONSULTANT FOR APPROVAL OF REMOVING REMAINING TEMPORARY EROSION CONTROL MEASURES AND ADVISE ON WHEN SITE CAN BE ISSUED A CERTIFICATE OF COMPLETION.
- NOTE: A MEETING SHOULD ALSO BE SCHEDULED WITH THE ENVIRONMENTAL ENGINEER/CONSULTANT TO DETERMINE WHEN A BASIN MAY BE CONVERTED FOR STORMWATER USE. SOME MUNICIPALITIES MAY ALSO REQUIRE THIS.



STABILIZATION TIMEFRAME

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
BASIN & TEMPORARY DIVERSION DITCHES	IMMEDIATELY	NONE
PERIMETER DICES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50FT IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES

GROUND COVER REQUIREMENTS:
THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION-CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, ACCORDING TO THE FOLLOWING CHART, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION. PROVISIONS FOR PERMANENT GROUND COVER SUFFICIENT TO RETAIN EROSION MUST BE ACCOMPLISHED FOR ALL DISTURBED AREAS ACCORDING TO THE FOLLOWING CHART FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.

NOTE TO CONTRACTOR:
EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO THE BEGINNING OF DEMOLITION & TREE REMOVAL.

- WAKE COUNTY CONSTRUCTION SEQUENCE:**
- SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH THE WATERSHED MANAGER, KARVIN PAGEAU WITH WAKE COUNTY AT 919-796-8769. OBTAIN A LAND-DISTURBANCE PERMIT.
 - INSTALL GRAVEL CONSTRUCTION PAD, TEMPORARY DIVERSIONS, SILT FENCE, SKIMMER BASINS, WAKE COUNTY SKIMMER BASIN OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSIONS, BERMS AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
 - CALL KARVIN PAGEAU WITH WAKE COUNTY AT 919-796-8769 FOR AN ON-SITE INSPECTION BY THE WATERSHED MANAGER TO OBTAIN A CERTIFICATE OF COMPLIANCE.
 - BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED. ROUGH GRADE SITE.
 - INSTALL STORM SEWER, IF SHOWN, AND PROTECT CATCH BASIN CURB INLETS WITH BLOCK AND GRAVEL INLET CONTROLS, PROTECT AREA DRAIN/YARD INLETS WITH STANDARD INLET PROTECTION, SEDIMENT TRAPS OR OTHER APPROVED MEASURES AS SHOWN ON THE PLAN. BEGIN CONSTRUCTION, BUILDING, ETC.
 - STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC. PREPARE A SEEDBED, FERTILIZE, LIME, SEED, MULCH AND ASPHALT TACK ALL DISTURBED AREAS WITHIN SPECIFIED STABILIZATION TIMEFRAME OF COMPLETION OF ANY PHASE OF CONSTRUCTION OR STOPPAGE OF WORK ON ANY PHASE OF CONSTRUCTION.
 - CONTRACTOR TO CONTACT PROJECT ENGINEER BETWEEN SEDIMENT AND EROSION CONTROL PHASES OF DEVELOPMENT AND FOR THE REMOVAL OR CONVERSION OF SEDIMENT AND EROSION CONTROL MEASURES.
 - WAKE COUNTY OR JURISDICTIONAL MUNICIPALITY MUST GRANT PERMISSION TO CONVERT THE SEDIMENT BASIN OVER TO STORMWATER USE PRIOR TO COMPLETING ANY RELATED WORK.
 - WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL KARVIN PAGEAU WITH WAKE COUNTY AT 919-796-8769 FOR AN INSPECTION BY THE WATERSHED MANAGER.
 - IF SITE IS APPROVED, REMOVE TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OUT OR STABILIZE ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATORS, SHOULD NOW BE INSTALLED.
 - WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE WATERSHED MANAGER, KARVIN PAGEAU WITH WAKE COUNTY AT 919-796-8769. OBTAIN A CERTIFICATE OF COMPLETION.

BASIN NOTES
-SKIMMER BASIN DESIGN BASED ON 3 DAYS TO DRAIN.
-BASIN AND DIVERSIONS SHALL BE SEEDING, MULCHED AND ANCHORED/LINED AND PINNED UPON INSTALLATION OF MEASURES.

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THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE EROSION CONTROL INSPECTOR OF THE LOCATION OF ANY OFF-SITE BORROW SOURCE OR OFF-SITE WASTE MATERIAL DISPOSAL SITE. OFF-SITE DISTURBANCES COUNT TOWARDS THE OVERALL PROJECT DISTURBED AREA AND MUST BE COVERED BY THE PERMIT FOR THIS PROJECT AND/OR THE PERMIT FROM ANOTHER ACTIVE WAKE COUNTY OR NOTED PERMITTED SITE THAT IS APPROPRIATE FOR THE INTENDED USE (I.E. APPLICABLE MINING REQUIREMENTS). NO OFF-SITE ACTIVITIES SHALL OCCUR UNTIL THE PERMIT FOR THIS PROJECT HAS BEEN MODIFIED TO INCLUDE THE AFFECTED AREAS OR IT HAS BEEN VERIFIED WITH THE EROSION CONTROL INSPECTOR THAT THE OFF-SITE AREAS ARE COVERED UNDER APPLICABLE WAKE COUNTY OR NOTED PERMITS.

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 - ESTABLISH AND MAINTAIN A VEGETATIVE BUFFER AT THE TOE OF THE SLOPE (WHERE PRACTICAL).

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GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

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Bowman North Carolina Ltd.

EROSION CONTROL PLAN - FINAL
Rocket Wash
Arendell Ave
Project ID#796479

Zebulon, NC Wake County

PRELIMINARY DO NOT USE FOR CONSTRUCTION

PLAN STATUS
6/20/22 SITE PLAN SUBMITTAL
10/21/22 PER TOWN REVIEW
4/28/23 PER TOWN REVIEW

DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN XXX
SCALE	H: 1" = 40'
	V: 1" = 40'
JOB No.	220094-01-002
	220097-01-002
DATE	June 20, 2022
FILE No.	220094-01-002
	220097-01-002

SHEET **C2.2**

EROSION CONTROL NOTES:

REFER TO DETAIL SHEETS FOR CONSTRUCTION DETAILS OF THE PROPOSED EROSION CONTROL MEASURES TO BE USED IN THE DEVELOPMENT OF THIS SITE.

REFER TO DETAIL SHEETS FOR TEMPORARY AND PERMANENT SEEDING SCHEDULES FOR PROVIDING GROUND COVER FOR THE DEVELOPMENT.

BASIN NOTES:

SKIMMER BASIN DESIGN BASED ON 3 DAYS TO DRAIN.

BASIN AND DIVERSIONS SHALL BE SEED, MULCHED AND ANCHORED/LINED AND PINNED UPON INSTALLATION OF MEASURES.

NOTE TO CONTRACTOR:

EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO THE BEGINNING OF DEMOLITION & TREE REMOVAL

NOTE TO CONTRACTOR:

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE EROSION CONTROL INSPECTOR OF THE LOCATION OF ANY OFF-SITE BORROW SOURCE OR OFF-SITE WASTE MATERIAL DISPOSAL SITE. OFF-SITE DISTURBANCES COUNT TOWARDS THE OVERALL PROJECT DISTURBED AREA AND MUST BE COVERED BY THE PERMIT FOR THIS PROJECT AND/OR THE PERMIT FROM ANOTHER ACTIVE NCEQ PERMITTED SITE THAT IS APPROPRIATE FOR THE INTENDED USE (I.E. APPLICABLE MINING REQUIREMENTS). NO OFF-SITE ACTIVITIES SHALL OCCUR UNTIL THE PERMIT FOR THIS PROJECT HAS BEEN MODIFIED TO INCLUDE THE AFFECTED AREAS OR IT HAS BEEN VERIFIED WITH THE EROSION CONTROL INSPECTOR THAT THE OFF-SITE AREAS ARE COVERED UNDER ACTIVE APPLICABLE NCEQ PERMITS.

EROSION CONTROL NOTES:

- TOTAL AREA DISTURBED = 2.66 ACRES
TOTAL SITE AREA = 9.87 ACRES
SOIL TYPE = VANCE SANDY LOAM & HELENA SANDY LOAM
- UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE NCEQ EROSION AND SEDIMENT CONTROL HANDBOOK
- THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT THE PROJECT CONSTRUCTION ALL EROSION CONTROL MEASURES SHOWN WITHIN THESE PLANS IN ACCORDANCE WITH APPLICABLE NORTH CAROLINA EROSION AND SEDIMENT CONTROL REGULATIONS.
- CONSTRUCTION WORK SHALL BE IN COMPLIANCE WITH REGULATIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER GENERAL PERMIT.
- EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEARING AND/OR LAND DISTURBANCE.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE NCEQ EROSION CONTROL INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.
- APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS. A REVISED PLAN SHOWING OFF-SITE IMPACTS SHOULD BE SUBMITTED AND APPROVED PRIOR TO ANY OFF-SITE GRADING. CONTACT PROJECT ENGINEER AND PROJECT EROSION CONTROL INSPECTOR TO ENSURE ADDITIONAL EROSION CONTROL MEASURES ARE INSTALLED PRIOR TO OFF-SITE GRADING.
- PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS, STAGING OR STORAGE AREAS), THE CONTRACTOR SHALL PREPARE AND SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND TO NCEQ FOR APPROVAL. CONTRACTOR SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT NO SEPARATE PAYMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE AMENDED PERMIT.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED CONTINUOUSLY, RELOCATED WHEN AND AS NECESSARY, AND SHALL BE CHECKED AFTER EVERY RAINFALL. SEEDING AREAS SHALL BE CHECKED REGULARLY AND SHALL BE WATERED, FERTILIZED, RE-SEED AND MULCHED AS NECESSARY TO OBTAIN A DENSE STAND OF GRASS.
- STABILIZATION IS THE BEST FORM OF EROSION CONTROL. ALL DISTURBED AREAS WHICH ARE NOT OTHERWISE STABILIZED SHALL BE TOP SOILED AND SEED, TEMPORARILY OR PERMANENTLY IN ACCORDANCE WITH THE NCEQ SEDIMENT CONTROL REGULATIONS. PERMANENT SEEDING AND GRASS ESTABLISHMENT IS REQUIRED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE.
- WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR HAS BEEN PUSHED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION.
- TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS INTO NON-PAVED AREA. SIX INCHES OF STONE SHALL BE USED FOR THE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE.
- ALL DRAINAGE INLETS SHALL BE PROTECTED FROM SILTATION. INEFFECTIVE PROTECTION DEVICES SHALL BE IMMEDIATELY REPLACED AND THE INLET CLEANED. FLUSHING IS NOT AN ACCEPTABLE METHOD OF CLEANING.
- SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP-SLOPE LAND DISTURBANCE TAKES PLACE.
- ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS COMPLETED.
- DURING DE-WATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET.
- THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

EROSION CONTROL NARRATIVE:

ROCKET CARWASH, TOWN OF ZEBULON, WAKE COUNTY, NC

CONTRACTOR WILL FIRST INSTALL THE CONSTRUCTION ENTRANCE. THE CONTRACTOR SHALL THEN MOBILIZE ON SITE AND INSTALL THE TEMPORARY EROSION CONTROL DEVICES INCLUDING SILT FENCE, INLET PROTECTION, SKIMMER BASINS, AND OTHER DEVICES IN ACCORDANCE WITH THE PLANS (CLEARING ONLY AS NECESSARY TO INSTALL THESE ITEMS). BEGIN DEMOLITION, CLEARING AND SITE GRADING OPERATIONS. STABILIZATION OF EARTHEN STRUCTURES IS REQUIRED IMMEDIATELY AFTER INSTALLATION. THE ON-SITE STORM SEWER SYSTEM AND THE LEVEL-SPREADER FILTER STRIP CAN NOW BE INSTALLED. IMMEDIATELY AFTER AN INLET IS INSTALLED, INLET PROTECTION SHALL BE PROPERLY INSTALLED ON THE STRUCTURE. ONCE THE SITE IS READY TO BRING UP TO GRADE, REMOVE SKIMMER BASIN #2. THE ON-SITE SANITARY SEWER AND WATER SYSTEMS MAY ALSO BE INSTALLED ONCE THE SITE IS BROUGHT UP TO GRADE. THE SITE PAD WILL BE PREPARED FOR THE PROPOSED BUILDING. THE ROUGH GRADE WILL THEN BE ESTABLISHED FOR THE SITE. INSTALLATION OF CURB AND GUTTER WILL THEN BE PERFORMED. BASE STONE WILL THEN BE PLACED AND FINE GRADED. ALL DISTURBED AREAS WILL BE DRESSED AND SEED. REMOVE ALL INLET PROTECTION FROM STORM STRUCTURES WHEN PAVING IS TO BEGIN. PAVING AND STRIPING WILL THEN BE COMPLETED. FINALIZE STORMWATER POND STRUCTURE AND DISCHARGE PIPES ONCE UPSTREAM AREAS HAVE BEEN STABILIZED (REMOVE ACCUMULATED SEDIMENT). ALL LANDSCAPING WILL BE COMPLETED. THE ON-SITE STORM SEWER SYSTEM SHALL BE CLEANED OF ANY ACCUMULATED SEDIMENT WHICH SHALL BE DISPOSED OF IN A LAWFUL MANNER. ALL ACCUMULATED SEDIMENT BEHIND SILT FENCE AND OTHER SEDIMENT DEVICES SHALL BE REMOVED AND DISPOSED OF IN A LAWFUL MANNER. ACCORDING TO THE GROUND STABILIZATION REQUIREMENTS ON THIS SHEET, REMOVE ALL REMAINING SEDIMENT CONTROL MEASURES FROM THE SITE. CONTRACTOR SHALL MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL LAND DISTURBANCE AND FINAL VEGETATION STABILIZATION OF THE SITE.

THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES ARE INTENDED TO TRAP ANY STORMWATER RUNOFF FROM THE CONSTRUCTION SITE AND DETAIN IT LONG ENOUGH FOR SEDIMENT AND POLLUTANTS TO SETTLE OUT OF THE STORMWATER BEFORE DISCHARGE. VARIOUS EROSION CONTROL MEASURES ARE USED TO PREVENT POLLUTANT-LADEN STORMWATER RUNOFF FROM FLOWING ONTO ADJACENT PROPERTIES.

GENERAL NOTES:

- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, EQUIPMENT, ETC. THAT MAY BE REQUIRED.
- THE CONTRACTOR SHALL NOTE THAT THE DRAWINGS ARE SCHEMATIC IN NATURE AND DO NOT SHOW EVERY OFFSET, TRANSITION, FITTING, ETC. THAT MAY BE REQUIRED FOR A COMPLETE AND WORKING SYSTEM.
- THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
- CONTRACTOR SHALL MAINTAIN AN "AS BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE ENGINEER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE OWNER.
- IF DEPARTURES FROM THE SPECIFICATIONS OR DRAWINGS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE WRITTEN PERMISSION OF THE OWNER.
- THE CONTRACTOR MUST, AT ALL TIMES, KEEP THE PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIALS OR RUBBISH CAUSED BY HIM, HIS EMPLOYEES OR HIS WORK. ALL DEBRIS SHALL BE REMOVED FROM THE PROJECT SITE ON A DAILY BASIS.

SEDIMENT & EROSION CONTROL NOTES:

- THE EROSION AND SEDIMENTATION CONTROL MEASURES (BMPs) WERE DESIGNED USING THE NORTH CAROLINA NCEQ REQUIREMENTS AND SHALL BE INSTALLED ACCORDINGLY. CONTRACTOR SHALL PERFORM ALL ACTIVITIES IN STRICT COMPLIANCE WITH THE NORTH CAROLINA NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (GENERAL PERMIT).
- REFER TO THE EROSION AND SEDIMENT CONTROL DETAIL SHEETS FOR EROSION CONTROL DETAILS AND DESIGN TABLES FOR SEDIMENT BASINS, DIVERSION DITCHES, AND CULVERTS, SLOPE DRAINS, RIP-RAP APRONS AND OTHER EROSION CONTROL MEASURES.
- EXISTING BOUNDARIES, TOPOGRAPHY, 100-YR FLOODPLAIN, UTILITY AND ROAD INFORMATION TAKEN FROM AN EXISTING CONDITIONS SURVEY. ALL EXISTING INFORMATION IS TO BE FIELD VERIFIED BY THE CONTRACTOR.
- SEE THE LANDSCAPE PLAN FOR LOCATIONS OF PROPOSED PLANTINGS AND FINAL STABILIZATION.
- TEMPORARY DIVERSION DITCHES AND BERMS SHALL BE MAINTAINED AS THE SITE IS BROUGHT TO GRADE.
- DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE EROSION CONTROL INSPECTORS SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.
- SEE THE GENERAL NOTES SHEET AND THE GRADING AND DRAINAGE PLAN FOR OTHER NOTES REGARDING GRADING ACTIVITIES.
- SEE SITE PLAN, GRADING AND DRAINAGE PLAN, UTILITY PLAN, PLANTING PLAN AND OTHER PLAN SHEETS FOR DETAILED DESIGN INFORMATION OF PERMANENT SITE APPURTENANCES SHOWN ON THIS SHEET.
- WHERE THE LIMITS OF DISTURBANCE AND TEMPORARY FENCE (SF, SF-PF, OR PF) LIMITS ARE ADJACENT, THE TEMPORARY FENCE LINE IS THE LIMITS OF DISTURBANCE. THE LINE TYPES ARE SHOWN SEPARATED FOR ILLUSTRATIVE PURPOSES ONLY.
- CONTRACTOR SHALL NOT DISTURB ANY EXISTING VEGETATIVE GROUND COVER OR TREES OUTSIDE OF THE LIMITS OF DISTURBANCE OR WITHIN ANY REQUIRED BUFFER LIMITS UNLESS OTHERWISE NOTED OR ILLUSTRATED.
- PROVIDE CONTROLS OF POLLUTANTS, INCLUDING, BUT NOT LIMITED TO DUST CONTROL, DE-WATERING, SOLID WASTE DISPOSAL, AND HAZARDOUS MATERIALS.
- CLEAR ONLY AS REQUIRED TO INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES. MASS CLEARING AND GRUBBING CAN BEGIN ONLY AFTER ALL DOWNSTREAM MEASURES HAVE BEEN INSTALLED.
- USE ROCK OR WASHED STONE TO BRING CONSTRUCTION EXIT TO GRADE. IMPLEMENT WHEEL WASHES AS NECESSARY THROUGHOUT ALL PHASES OF CONSTRUCTION.
- DIVERT STORM WATER RUNOFF OFF THE FACE OF THE SEDIMENT BASIN SLOPES USING DIVERSION DITCHES AND SLOPE DRAINS. CONTRACTOR SHALL MAINTAIN AND RELOCATE DIVERSION DITCHES AND SLOPE DRAINS TO ENSURE STORM WATER RUNOFF DOES NOT ERODE THE FACE OF FINAL SLOPES.
- MAINTAIN POSITIVE FLOW TO THE SEDIMENT BASINS THROUGHOUT ALL PHASES OF CONSTRUCTION. PLACE EXCAVATED SOILS ALONG DOWNSTREAM EDGE OF THE DIVERSION DITCHES TO PROVIDE ADDITIONAL CAPACITY.
- REFER TO THE GRADING AND DRAINAGE PLAN FOR FINAL SITE AND PAVEMENT GRADES AND ELEVATIONS OF THE PROPOSED STORM SEWER SYSTEMS.
- LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE APPROVED EROSION AND SEDIMENT CONTROL DRAWINGS DURING CONSTRUCTION OPERATIONS.
- GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
- ALL WORK SHALL BE CONFINED TO PERMIT LIMITS SHOWN ON PLANS. UNLESS OTHERWISE NOTED, THE SITE PLAN PROPERTY LIMITS SHALL BE CONSIDERED THE PERMIT LIMITS.
- SUFFICIENT EROSION CONTROL PRACTICES MUST BE INSTALLED AND MAINTAINED TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF THE SITE.
- ADDITIONAL EROSION CONTROL MEASURES OR SILT BARRIERS TO BE PLACED AS SHOWN AND/OR DIRECTED BY THE PROJECT ENGINEER AND/OR LOCAL JURISDICTIONAL INSPECTOR.
- FOR ALL CONSTRUCTION ALONG AND/OR ACROSS WATERWAYS, BANK PROTECTION AND STABILIZATION SHALL BE REQUIRED AS PER LOCAL JURISDICTIONAL EROSION CONTROL LAWS.
- ALL TREE PROTECTION AND EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING CONSTRUCTION AND SHALL BE MAINTAINED IN PROPER WORKING ORDER UNTIL ALL DISTURBED AREAS ARE STABILIZED AND GROUND COVER IS ESTABLISHED. CONSTRUCTION ENTRANCE PADS SHALL BE INSTALLED BY THE CONTRACTOR AT CONSTRUCTION ACCESS POINTS PRIOR TO LAND DISTURBANCE.
- ALL EASEMENTS DISTURBED MUST BE DRESSED AND GRASSED TO CONTROL EROSION IN ACCORDANCE WITH EASEMENT PLATS PRIOR TO ACCEPTANCE.
- CONSTRUCTION LIMITS SHALL NOT BE EXCEEDED WITHOUT THE APPROVAL OF NCEQ INSPECTOR.

NORTH CAROLINA CONSTRUCTION GENERAL PERMIT NOTE:

As of April 1, 2019, all new construction activities are required to complete and submit an electronic Notice of Intent (NOI) form requesting a Certificate of Coverage (COC) under the NCG010000 Construction Stormwater General Permit. This form MUST be submitted prior to the commencement of any land disturbing activity on the above named project. The NOI form may be accessed at deq.nc.gov/NGC01. Please direct questions about the NOI form to Paul Clark at Paul.Clark@ncdenr.gov.

After you submit a complete and correct NOI Form, a COC will be emailed to you within three business days. Initially, DEMLR will not charge a fee for coverage under the NCG01 permit. However, on or after May 1, 2019, a \$100 fee will be charged annually. This fee is to be sent to the DEMLR Stormwater Central Office staff in Raleigh.

- Title 15A NCAC 4B .0118(a) and the NCG01 permit require that the following documentation be kept on file at the job site:
- The approved E&S plan as well as any approved deviation.
 - The NCG01 permit and the COC, once it is received.
 - Records of inspections made during the previous 30 days.
 - The Certificate of Approval

NOTIFICATION OF COMBINED SELF-MONITORING AND SELF-INSPECTION FORM:

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TOOK EFFECT OCTOBER 1, 2010.

TO SIMPLIFY DOCUMENTATION OF SELF-INSPECTION REPORTS AND NPDES SELF-MONITORING REPORTS, DWO AND DEMLR DEVELOPED A COMBINED FORM. THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE WEEKLY SELF-MONITORING PROGRAM OF THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN. THE INSPECTIONS SHOULD BE CONDUCTED AFTER EACH PHASE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED. THE FORM CAN BE ACCESSED AT: [HTTP://PORTAL.NC DENR.ORG/WEB/LR/EROSION](http://portal.ncdenr.org/web/LR/EROSION)

IF YOU HAVE QUESTIONS OR CANNOT ACCESS THE FORM, PLEASE CALL THE APPLICABLE NCDENR REGIONAL OFFICE: (RALEIGH: 919-791-4200) (FAYETTEVILLE: 910-433-3300) (WILMINGTON: 910-796-7215) (WASHINGTON: 252-946-6481) (WINSTON-SALEM: 336-771-5000) (MOORESVILLE: 704-663-1699) (ASHEVILLE: 828-296-4500).

TREE PROTECTION NOTES:

- THE CONTRACTOR SHALL PROTECT ALL TREES AND SHRUBS OUTSIDE OF CUT/FILL LINES, IN ADDITION TO THOSE THAT RECEIVE TREE/SHRUB PROTECTION BARRIERS. THE CONTRACTOR IS ALSO REQUESTED TO SAVE ALL OTHER EXISTING TREES AND SHRUBS WHERE POSSIBLE.
- WHEN ROOT PRUNING IS NECESSARY, CUT ROOTS CLEANLY USING A DISC TRENCHER AND IMMEDIATELY COVER ALL ROOT CUT SURFACES LARGER THAN TWO INCHES IN DIAMETER WITH TREE WOUND DRESSING. USE PLYWOOD FORMS WHEN TREE ROOTS ARE ADJACENT TO PROPOSED CURB & GUTTER OR SIDEWALK.
- NO SOIL DISTURBANCE OR COMPACTION, CONSTRUCTION MATERIALS, TRAFFIC, BURIAL PITS, TRENCHING OR OTHER LAND DISTURBING ACTIVITY ALLOWED IN THE TREE PROTECTION ZONE. TREE BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION, GRADING OR CONSTRUCTION BEGINS, AND NOT REMOVED UNTIL FINAL INSPECTION.
- NO GRUBBING WITHIN TREE PROTECTION ZONE. LEAVE SOIL AND LEAF LITTER UNDISTURBED. SUPPLEMENT WITH 1-2 INCHES OF MULCH. RE-SEED WITH GRASS ONLY IN DISTURBED/GRADED AREAS.
- TREE BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION, CLEARING, GRADING OR CONSTRUCTION BEGINS AND IS NOT TO BE REMOVED UNTIL AFTER CONSTRUCTION.
- TREE PROTECTION FENCE IS TO BE LOCATED 1 FOOT PER TREE DIAMETER INCH AWAY FROM THE TREE.

Bowman

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4006 BARRIETT DR
Suite 104
RALEIGH, NC 27609
Phone: (919)558-6570
bowman.com
Bowman North Carolina Ltd.

EROSION CONTROL NOTES

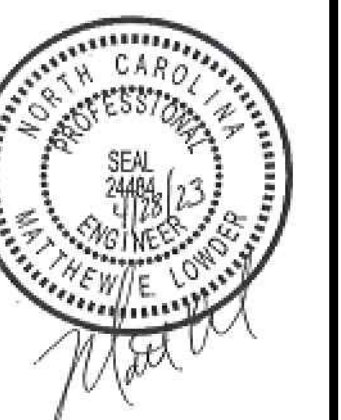
Rocket Wash
Arendell Ave

Wake County

Project ID#796479

Zebulon, NC

PRELIMINARY
DO NOT
USE FOR
CONSTRUCTION



DATE	DESCRIPTION
6/20/22	SITE PLAN SUBMITTAL
10/21/22	PER TOWN REVIEW
4/28/23	PER TOWN REVIEW

DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN XXX CHKD
SCALE	H: N/A V: N/A
JOB No.	220094-01-002 220097-01-002
DATE	June 20, 2022
FILE No.	220094-01-002 220097-01-002

SHEET C2.3

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCGO1 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 NCGO1 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

Table with columns: Site Area Description, Required Ground Stabilization Timeframes, and Timeframe variations. Rows include perimeter dikes, high quality water zones, slopes steeper than 3:1, slopes 3:1 to 4:1, and areas with slopes flatter than 4:1.

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.

GROUND STABILIZATION SPECIFICATION

Table with columns: Temporary Stabilization and Permanent Stabilization. Lists methods like temporary grass seed, hydroseeding, and permanent grass seed, straw mulch, etc.

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

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

EQUIPMENT AND VEHICLE MAINTENANCE

- 1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide oily pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. 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

- 1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. 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.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

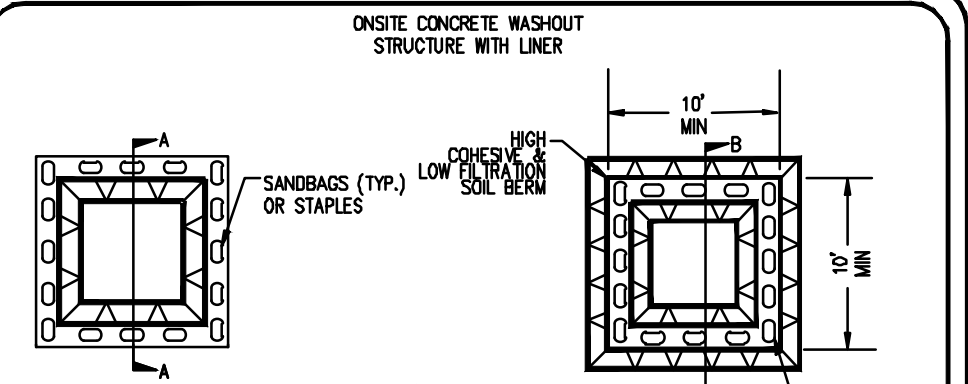
- 1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint wastebats at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, staked and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

- 1. 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.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. 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 units.

EROSION STOCKPILE MANAGEMENT

- 1. Show stockpile locations on plans. Locate erodible-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment control and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with all fence installed along top of slope with a minimum offset of five feet from the base of slope.
3. Provide stable stone access point when feasible.
4. 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 restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



NOTES: 1. ACTUAL LOCATION DETERMINED IN FIELD. 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY. 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SURNAME NOTING DEVICE.

CONCRETE WASHOUTS: 1. Do not discharge concrete or cement slurry from the site. 2. Install, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility. 3. 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.

HERBICIDES, PESTICIDES AND RODENTICIDES: 1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions. 2. 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. 3. 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. 4. Do not stockpile these materials on-site.

HAZARDOUS AND TOXIC WASTE

- 1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. 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 next 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 were delayed shall be noted in the inspection record.

Table with columns: Inspect, Frequency (during normal business hours), and Inspection records must include. Rows include drainage maintenance, EESC measures, silt fence, and ground stabilization measures.

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

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. EESC Plan Documentation
The approved EESC plan as well as any approved deviation shall be kept on the site. The approved EESC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the EESC plan shall be kept on site and available for inspection at all times during normal business hours.

Table with columns: Item to Document and Documentation Requirements. Rows include EESC Plan Documentation, grading phase, ground cover, and maintenance/repair.

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.
(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (PAC: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (PAC: 40 CFR 302.4) or G.S. 145-25.5.
(d) Anticipated bypasses and unanticipated bypasses.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

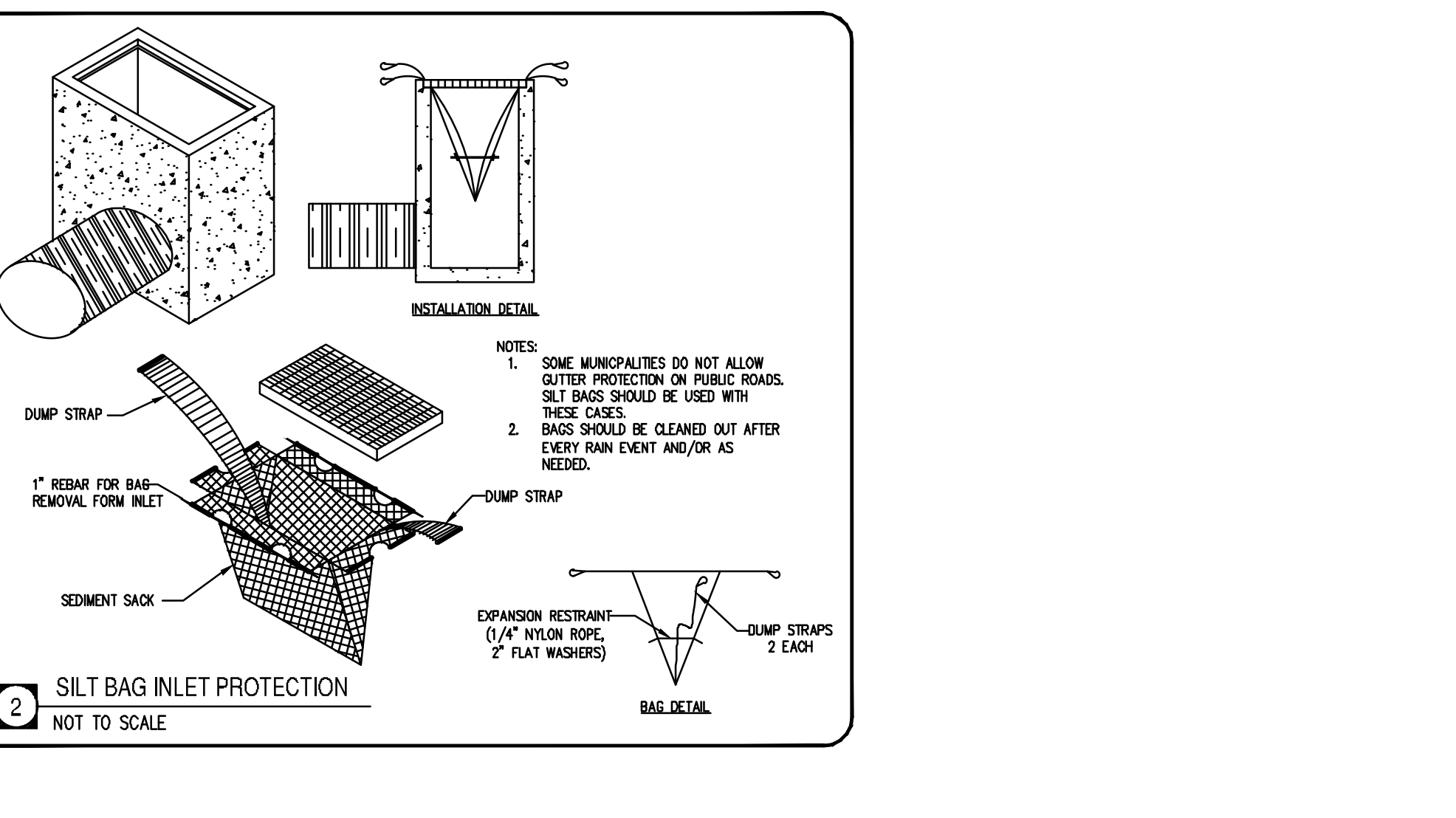
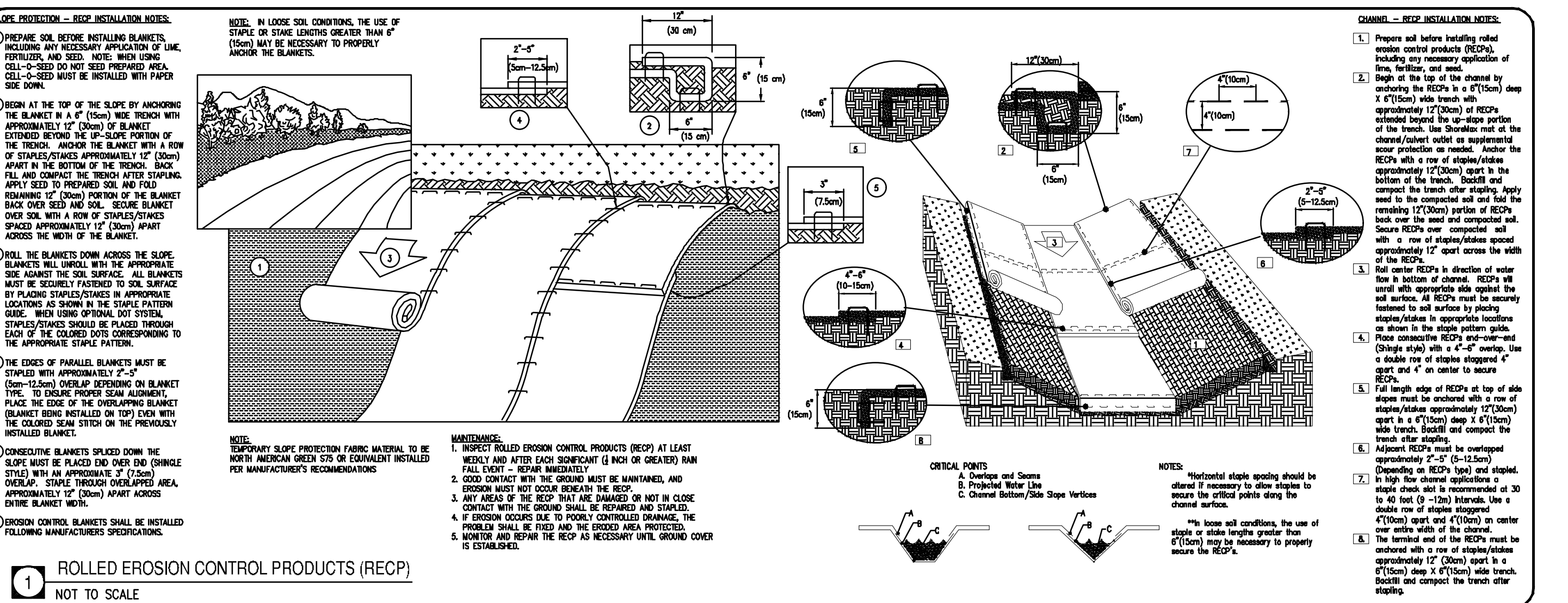
3. Documentation to be Retained for Three Years

All data used to complete the e-NIO 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 II, SECTION G, ITEM (4) DRAIN DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- (a) The EESC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the EESC plan authority has approved these items.
(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (4) of this permit.
(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sized, designed and maintained dewatering tanks, wet tanks, and filtration systems.
(d) Vegetated, upland areas of the sites or a properly designed stone pile is used to the extent feasible at the outlet of the dewatering treatment devices described in item (c) above.
(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
(f) Sediment removed from the dewatering treatment devices described in item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.



Bowman North Carolina Ltd. 4006 BARRETT DR Suite 104 RALEIGH, NC 27609 Phone: (919)555-6570 bowman.com Bowman North Carolina Ltd.

NORTH CAROLINA GENERAL PERMIT (NCGO1) Rocket Wash Arendell Ave Project ID#796479 Wake County Zebulon, NC

PRELIMINARY DO NOT USE FOR CONSTRUCTION

Table with columns: PLAN STATUS and DATE. Rows show dates for site plan submittal, town review, and permit review.

Table with columns: DATE and DESCRIPTION. Rows show design, scale, and job numbers.

Table with columns: DATE and DESCRIPTION. Rows show dates for town review, permit review, and sheet information.

GENERAL NOTES

- Property line and right-of-way monuments shall not be disturbed by construction. If disturbed, they shall be reset to their original locations at the Contractor's expense by a Registered Land Surveyor.
- Proof Roll Building and all parking areas. Notify Owner of any unacceptable areas.
- Building dimensions shown on the Civil Engineering Plans are for reference purposes only. Contractor shall use the Architectural and Structural Plans for exact Building dimensions.
- All site dimensions are referenced to the back of curb or edge of paving unless otherwise noted.
- All sidewalks, curb and gutter, street paving, curb cuts, driveway approaches, handicap ramps, etc. constructed outside the property line in the right-of-way shall conform to all municipal and/or State specifications and requirements.
- All disturbance incurred to any adjoining property due to construction or demolition shall be restored to the previous condition or better, and to the satisfaction of the City or State Authority.



Know what's below.
Call before you dig.

- 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
- 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

- GENERAL NOTES**
- 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.
 - THE CONTRACTOR SHALL PROTECT ALL MONUMENTS, IRON PINS, AND PROPERTY CORNERS DURING CONSTRUCTION.
 - 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.
 - COORDINATE ALL CURB AND STREET GRADES IN INTERSECTIONS WITH INSPECTOR.
 - 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.
 - 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.
 - THE CONTRACTOR SHALL PROVIDE SMOOTH TRANSITIONS FROM PROPOSED FEATURES TO EXISTING FEATURES AS NECESSARY.
 - 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.
 - THE CONTRACTOR SHALL REPAIR, RESURFACE, RECONSTRUCT OR REFINISH ANY AREAS DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, HIS SUBCONTRACTORS OR SUPPLIERS AT NO ADDITIONAL COST TO THE OWNER.
 - ALL PAVEMENT JOINTS SHALL BE SAW-CUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
 - 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.
 - 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.
 - CONTRACTOR SHALL INSTALL ACCESSIBLE RAMPS PER LOCAL MUNICIPALITY AND ADA STANDARDS AT ALL DRIVE AND BUILDING LOCATIONS AS REQUIRED.
 - 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 CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENTS FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE.
 - ACCESSIBLE RAMPS TO BE PROVIDED IN ACCORDANCE WITH NCDOT AND TOWN OF ZEBULON STANDARDS.
 - ALL PLANTING ISLANDS WITH A SHADE TREE SHALL BE A MINIMUM OF 350 SQUARE FEET.
 - ALL SIDEWALKS MUST BE ACCESSIBLE TO PERSONS WHO ARE BLIND, HAVE LOW VISION AND PEOPLE WITH MOBILITY DISABILITIES. PEDESTRIAN EXISTING ROUTES AND ALTERNATE PEDESTRIAN ROUTES DURING CONSTRUCTION WILL BE REQUIRED TO BE COMPLIANT WITH THE PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG), 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

SIGN LEGEND

LEGEND	QTY.
	1
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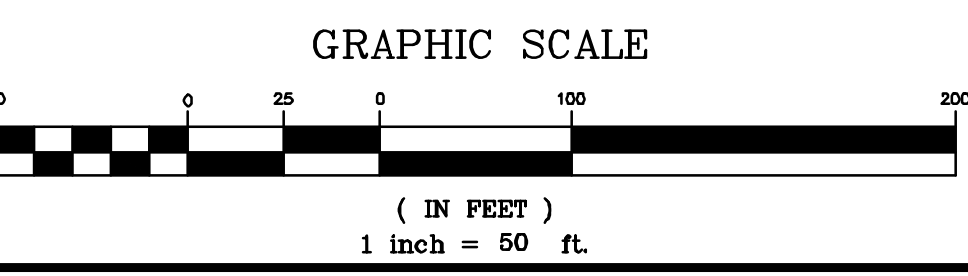
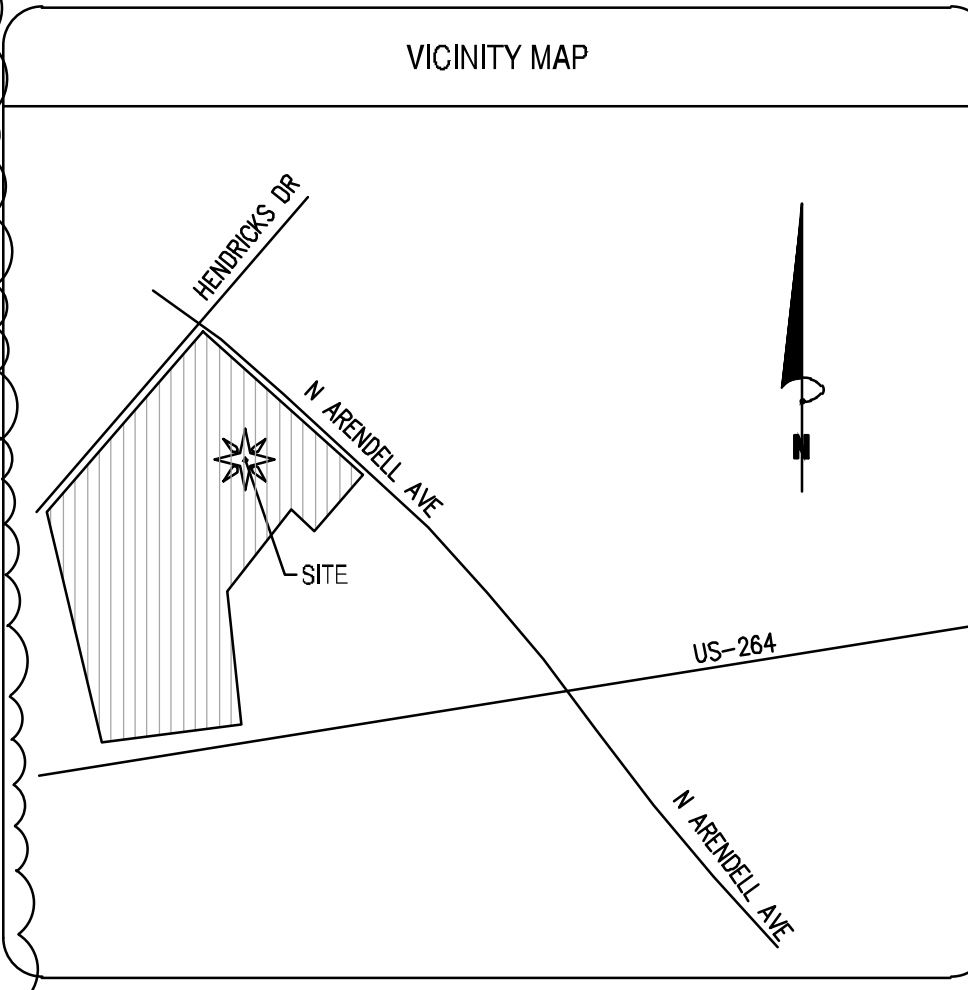
DEVELOPMENT DATA

DEVELOPMENT NAME:	ROCKET EXPRESS
STREET ADDRESS:	N. ARENDELL AVENUE
	ZEBULON, NC WAKE COUNTY
PROJECT ID#:	220097
PROPERTY IDENTIFICATION # (PIN):	2706-08-1833, 2706-00-2456, 2706-00-3318, 2706-00-3279, 2706-00-4241
PROPERTY #:	011170, 0030085, 0057144, 0058906, 0038956
DEED BOOK/PAGE:	12474-2357
EXISTING ZONING:	HC-HEAVY COMMERCIAL
WATERSHED DISTRICT:	NONE
FLOOD ZONE:	NONE
TOTAL SITE ACRES:	429,809 SF (9.87 AC)
INSIDE TOWN LIMITS:	YES
EXISTING USE:	VACANT
PROPOSED BUILDING USE:	CAR WASH AND OUTPARCELS
PROPOSED TOTAL BUILDING AREA:	2,880 SF (CAR WASH)
MAX BUILDING HEIGHT:	50 FT
MIN LOT AREA:	6,000 SF
MIN LOT WIDTH:	50 FT
MAX LOT COVERAGE:	80%
FRONT SETBACK:	30 FT
SIDE SETBACK (STREET):	30 FT
SIDE SETBACK (INTERIOR):	0, 5 FT IF PROVIDED
REAR SETBACK:	0 IF ABUTTED BY AN ALLEY, OTHERWISE 25FT
PARKING REQUIREMENTS:	2 PER WASH BAY
TOTAL PROVIDED:	25 (22 VACUUM SPACES + 3 EMPLOYEE SPACES)
ACCESSIBLE SPACES PROVIDED:	1
LOADING AREA:	1 PROVIDED
STACKING SPACES:	3 REQUIRED, 2 PROVIDED
BICYCLE SPACES:	10FT TYPE A BUFFER (ADJACENT HC)
LANDSCAPE BUFFERS:	15FT STREETSCAPE BUFFER

- SITE KEYNOTES**
- DUMPSTER ENCLOSURE
 - INSTALL NEW CONCRETE PAD OF 4000 PSI BROOM FINISHED CONCRETE WITH 6"x6"x 1/8" WWF STEEL REINFORCEMENT. REFER TO DETAIL SHEET
 - ASPHALT PAVEMENT PARKING LINES 4" WIDE PAINTED WHITE
 - CONSTRUCT 6" HIGH CONC. CURB & GUTTER CONTINUOUS AROUND SITE. BACKFILL TO TOP OF CURB. REFER TO DETAIL
 - PROVIDE HANDICAP RAMP PER FEDERAL & LOCAL ACCESSIBILITY REQUIREMENTS. REFER TO DETAIL
 - HANDICAP PARKING SIGN. REFER TO DETAIL SHEET
 - NEW BROOM FINISHED CONCRETE SIDEWALK SLOPED AT 1/8"/FT. MAX. FOR POSITIVE DRAINAGE.
 - ASPHALT PAVEMENT DESIGN AS PER GEOTECHNICAL REPORT SPECIFICATIONS.
 [Symbol] STANDARD DUTY ASPHALT PAVEMENT
 [Symbol] HEAVY DUTY ASPHALT PAVEMENT
 [Symbol] CONCRETE PAVEMENT
 - LANDSCAPING - SEE LANDSCAPING PLAN.
 - VACUUM BOOM SYSTEM
 - SEEDING AREA
 - SITE LIGHT
 - PROPOSED PARKING COUNT

IMPERVIOUS SUMMARY TABLE

ON-SITE AREA =	429,809 SF (9.867 AC)		
BUILDINGS	2,880 SF	0.07 ACRES	0.67 % OF AREA
PAVEMENT	41,610 SF	0.96 ACRES	9.68 % OF AREA
SIDEWALK	4,510 SF	0.10 ACRES	10.49 % OF AREA
TOTAL IMPERVIOUS AREA	49,000 SF	1.12 ACRES	11.40 % OF AREA
GREEN/OPEN SPACE	380,809 SF	8.74 ACRES	88.60 % OF AREA
EXISTING IMPERVIOUS AREA	3,604 SF	0.08 ACRES	0.84 % OF AREA
INCREASE IN IMPERVIOUS AREA	45,396 SF	1.04 ACRE	



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SITE PLAN

Rocket Wash
Arendell Ave

Zebulon, NC
Project ID#736479

PRELIMINARY
DO NOT
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CONSTRUCTION

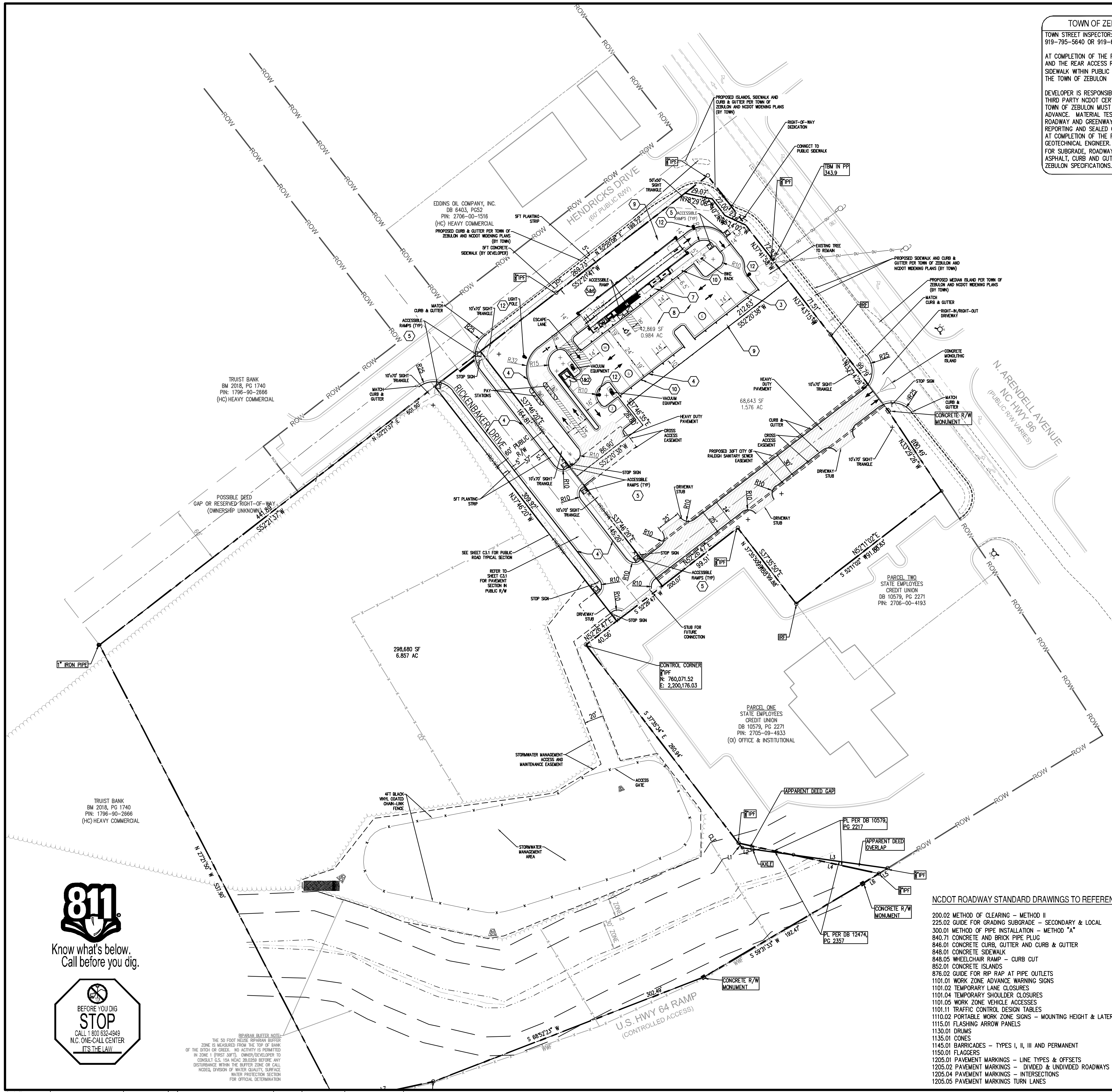


PLAN STATUS

6/20/22	SITE PLAN SUBMITTAL
10/21/22	PER TOWN REVIEW
4/28/23	PER TOWN REVIEW

DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN XXX CHKD
SCALE	H
JOB No.	220094-01-002
	220097-01-002
DATE	June 20, 2022
FILE No.	220094-01-002
	220097-01-002

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TOWN OF ZEBULON NOTES

TOWN STREET INSPECTOR: JASON BROWN
919-795-5640 OR 919-625-3362

AT COMPLETION OF THE PROJECT EAST HENDRICKS AND THE REAR ACCESS ROADWAY AND ALL SIDEWALK WITHIN PUBLIC R/W TO BE DEDICATED TO THE TOWN OF ZEBULON

DEVELOPER IS RESPONSIBLE FOR CONTRACTING WITH THIRD PARTY NCDOT CERTIFIED TESTING FIRM. TOWN OF ZEBULON MUST APPROVE THE FIRM IN ADVANCE. MATERIAL TESTING IS REQUIRED FOR ALL ROADWAY AND GREENWAY TRAIL WORK. FINAL REPORTING AND SEALED CERTIFICATION IS REQUIRED AT COMPLETION OF THE PROJECT BY THE GEOTECHNICAL ENGINEER. TESTING IS REQUIRED FOR SUBGRADE, ROADWAY/GREENWAY STONE, AND ASPHALT, CURB AND GUTTER PER TOWN OF ZEBULON SPECIFICATIONS.

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 5' 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 RADI, 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.

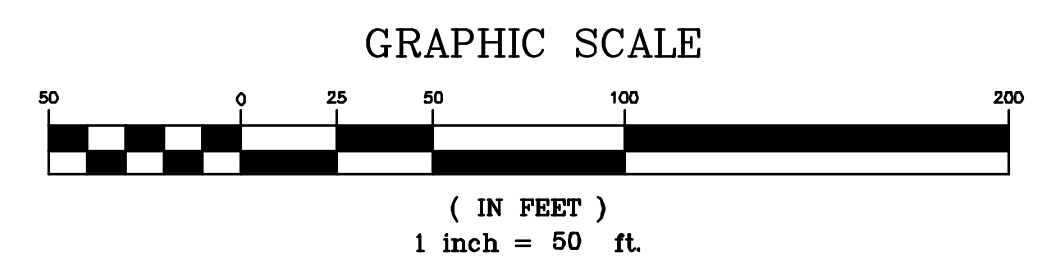
MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE NCDOT ROADWAY STANDARDS AND SPECIFICATIONS (LATEST EDITION).

PAVEMENT MARKING SCHEDULE

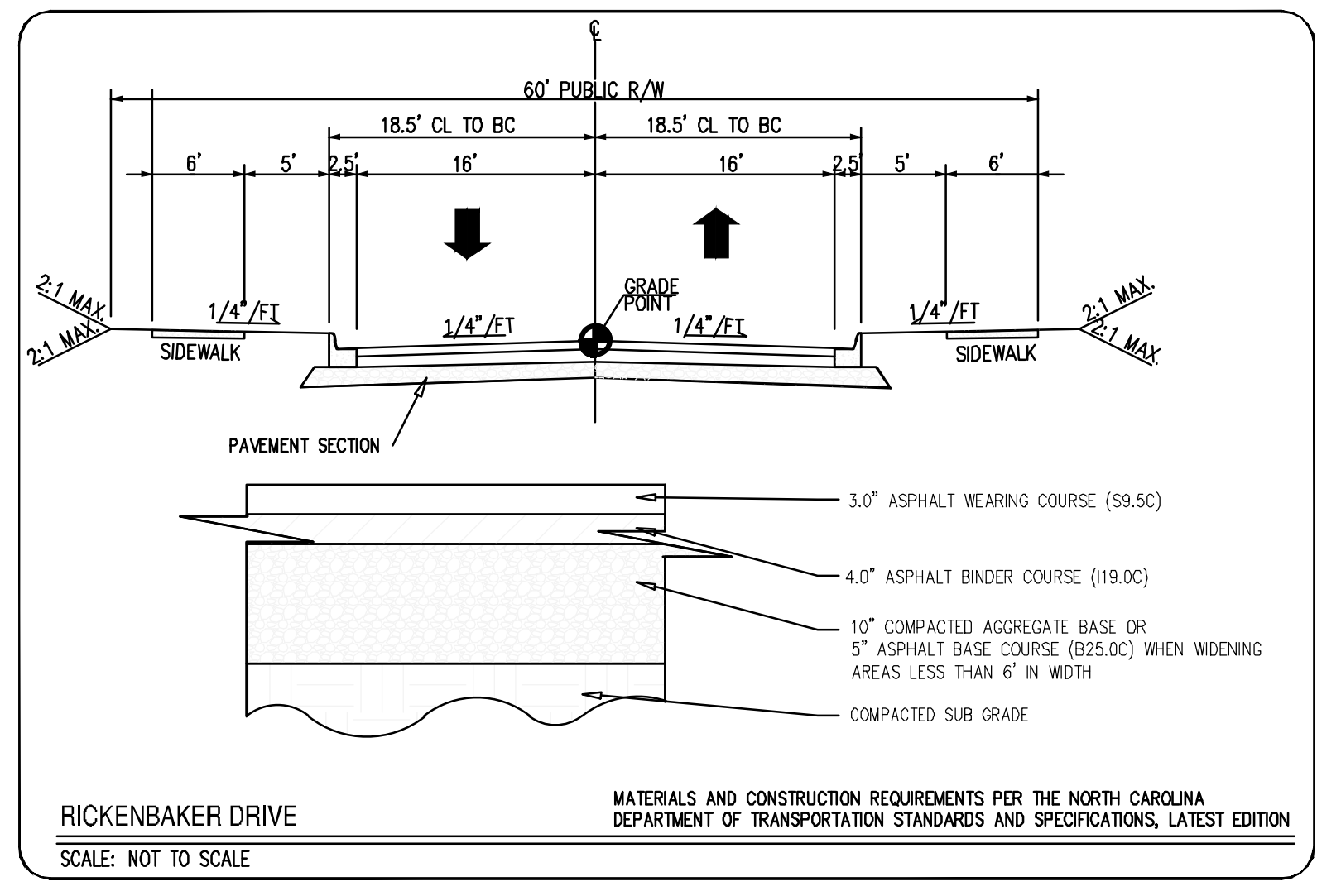
TA	WHITE EDGE LINE (4",90MIL)	
TI	NCDOT STD DETAIL 1205.01	
TH	DOUBLE YELLOW CENTERLINE (4",90MIL)	
TI	NCDOT STD DETAIL 1205.01	
TH	YELLOW LANE LINE (4",90MIL)	
TI	NCDOT STD DETAIL 1205.01	
TC	3" WHITE MINI-SKIP LINE (4",90MIL)	
TI	NCDOT STD DETAIL 1205.01	
TC	10' WHITE SKIP LINE (4",90MIL)	
TI	NCDOT STD DETAIL 1205.01	
TE	WHITE SOLID LANE LINE (4",90MIL)	
TI	NCDOT STD DETAIL 1205.01	
UA	LEFT TURN LANE ARROW (90MIL)	
TI	NCDOT STD DETAIL 1205.08	
UB	RIGHT TURN LANE ARROW (90MIL)	
TI	NCDOT STD DETAIL 1205.08	
UC	STRAIGHT ARROW (90MIL)	
TI	NCDOT STD DETAIL 1205.08	
UD	COMBO LEFT/STRAIGHT TURN LANE ARROW (90MIL)	
TI	NCDOT STD DETAIL 1205.08	
UE	COMBO RIGHT/STRAIGHT TURN LANE ARROW (90MIL)	
TI	NCDOT STD DETAIL 1205.08	
TV	YELLOW DIAGONAL LINES (4",90MIL)	
TI	NCDOT STD DETAIL 1205.09	
TY	3" YELLOW MINI-SKIP LINES (4",90MIL)	
TI	NCDOT STD DETAIL 1205.01	
TF	YELLOW SKIP CENTER LINES (4",90MIL)	
TI	NCDOT STD DETAIL 1205.01	
TZ	STOP BAR (24",90MIL)	
TI	NCDOT STD DETAIL 1205.01	
I	12" YIELD LINE SYMBOL (90MIL)	
TI	NCDOT STD DETAIL 1205.08 (THIS SHEET)	

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.



- 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
 - 848.01 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



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ROADWAY
Rocket Wash
Arendell Ave
Project ID#796479

Zebulon, NC Wake County

PRELIMINARY
DO NOT
USE FOR
CONSTRUCTION



PLAN STATUS

6/20/22	SITE PLAN SUBMITTAL
10/21/22	PER TOWN REVIEW
4/28/23	PER TOWN REVIEW

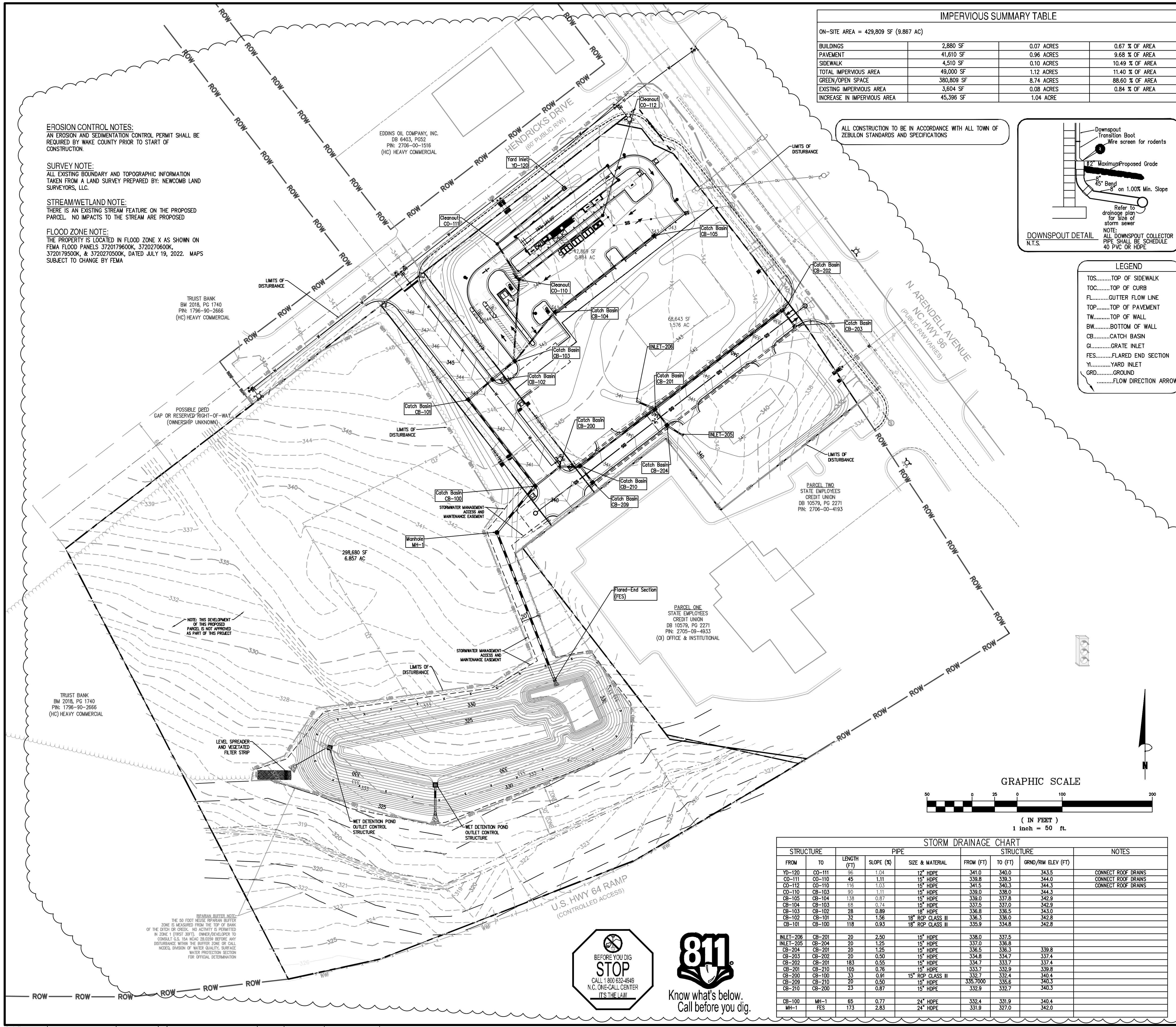
DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN XXX CHKD
SCALE	H
JOB No.	220094-01-002
	220097-01-002
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SHEET **C3.1**



BEFORE YOU DIG
CALL 1-800-832-4849
N.C. ONE-CALL CENTER
IT'S THE LAW.

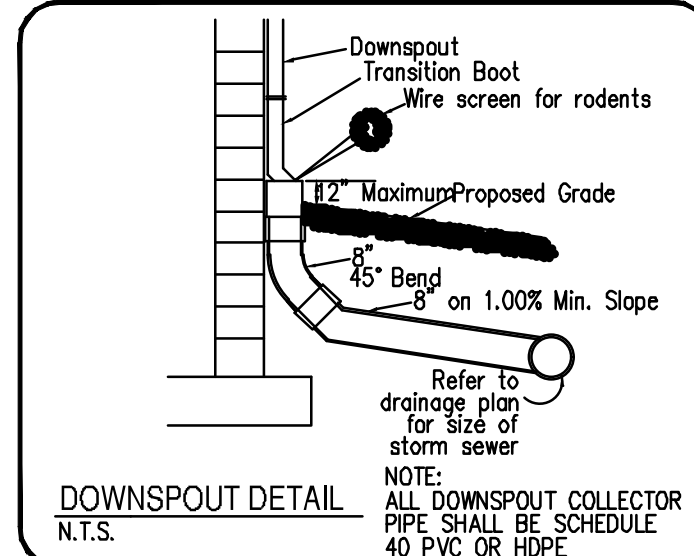
THE 50 FOOT BUFFER ZONE IS MEASURED FROM THE TOP OF BANK OF THE DITCH OR GREEK. NO ACTIVITY IS PERMITTED IN ZONE I (FIRST 30 FT.). OWNER/DEVELOPER TO CONSULT G.S. 15A N.C.G.S. 28.02(b) BEFORE ANY OCCURRENCE WITHIN THE BUFFER ZONE OR CALL NCDOT, DIVISION OF WATER QUALITY, SURFACE WATER PROTECTION SECTION FOR OFFICIAL DETERMINATION



IMPERVIOUS SUMMARY TABLE

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PAVEMENT	41,610 SF	0.96 ACRES	9.68 % OF AREA
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EXISTING IMPERVIOUS AREA	3,604 SF	0.08 ACRES	0.84 % OF AREA
INCREASE IN IMPERVIOUS AREA	45,396 SF	1.04 ACRE	

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



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

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

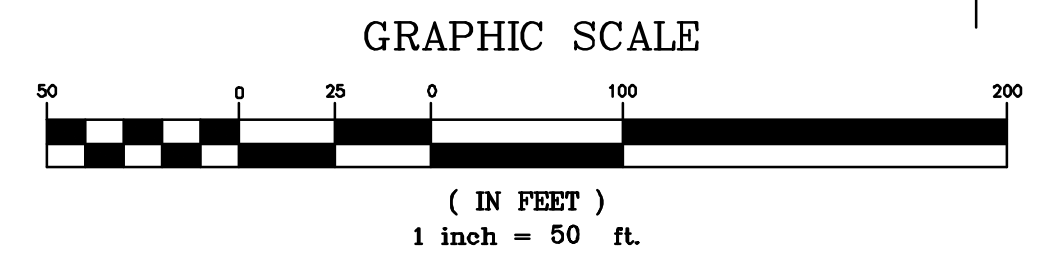
SURVEY NOTE:
ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A LAND SURVEY PREPARED BY: NEWCOMB LAND SURVEYORS, LLC.

STREAM/WETLAND NOTE:
THERE IS AN EXISTING STREAM FEATURE ON THE PROPOSED PARCEL. NO IMPACTS TO THE STREAM ARE PROPOSED.

FLOOD ZONE NOTE:
THE PROPERTY IS LOCATED IN FLOOD ZONE X AS SHOWN ON FEMA FLOOD PANELS 3720179600K, 3720270600K, 3720179500K, & 3720270500K, DATED JULY 19, 2022. MAPS SUBJECT TO CHANGE BY FEMA

- GRADING NOTES:**
- REFER TO THE SITE PLAN FOR RELATED NOTES.
 - ALL CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES.
 - ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.
 - 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.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES, AND SHALL REPAIR ALL DAMAGE TO EXISTING UTILITIES THAT OCCUR DURING CONSTRUCTION.
 - THE CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
 - LIMITS OF CLEARING SHOWN ON GRADING PLAN ARE BASED UPON THE APPROXIMATE CUT AND FILL SLOPE LIMITS, OR OTHER GRADING REQUIREMENTS.
 - 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.
 - 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.
 - ANY GRADING, BEYOND THE LIMITS OF CONSTRUCTION AS SHOWN ON THE GRADING PLAN, IS PROHIBITED.
 - LAND DISTURBANCE WITHOUT AN APPROVED ESC PLAN IS PROHIBITED.
 - 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.
 - ALL GRADED AREAS ARE TO BE STABILIZED (SEEDED OR LANDSCAPED) WITHIN 14 DAYS OF HAVING REACHED FINAL GRADE.
 - EXISTING GRADES, CONTOURS, UTILITIES AND OTHER EXISTING FEATURES FROM FIELD RUN SURVEY.
 - THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ANY DEWATERING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS.
 - 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 PERTAINING TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS. THE DESIGN ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE DESIGN(S) TO INSTALL SAID ITEMS.
 - 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.
 - 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.
 - ALL FOUNDATION EXCAVATION SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL REPRESENTATIVE TO DETERMINE WHETHER UNSTABLE MATERIAL MUST BE REMOVED. ALL UNDESIRABLE MATERIAL SHALL BE REMOVED, BACKFILLED AND COMPACTED AS REQUIRED BY THE GEOTECHNICAL REPRESENTATIVE.
 - ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED OR DEPICTED.
 - 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.
 - CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
 - CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
 - 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.
 - CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

- DRAINAGE NOTES:**
- A MINIMUM GRADE OF 0.50 % SHALL BE MAINTAINED ON ALL PIPES, UNLESS OTHERWISE NOTED.
 - PIPE LENGTHS AND SLOPES INDICATED ON THE PLANS ARE APPROXIMATE ONLY.
 - 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.
 - CATCH BASINS, MANHOLES, FRAMES, GRATES, ETC. SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE TOWN OF ZEBULON STANDARD DRAWINGS AND SPECIFICATIONS.
 - ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
 - STORM PIPE SHALL BE AS FOLLOWS 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 MPT-97 TYPE S, SMOOTH INTERIOR/ANNULAR 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.
 - ALL STORM DRAINAGE WITHIN THE PUBLIC ROADS SHALL BE CLASS III REINFORCED CONCRETE PIPE UNLESS OTHERWISE NOTED.
 - EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE SILT AND DEBRIS.
 - IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
 - ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUDED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
 - PRECAST STRUCTURES MAYBE USED AT CONTRACTORS OPTION.
 - 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".
 - STRUCTURE TOP ELEVATIONS SHOWN HERE ARE APPROXIMATE. CONTRACTOR SHALL ADJUST AS NECESSARY.
 - RIM ELEVATIONS AS NOTED ARE TO THE GUTTER FLOW LINE.



STORM DRAINAGE CHART

STRUCTURE		PIPE		STRUCTURE			NOTES
FROM	TO	LENGTH (FT)	SLOPE (%)	SIZE & MATERIAL	FROM (FT)	TO (FT)	
YD-120	CO-111	96	1.04	12" HDPE	341.0	340.0	343.5
CO-111	CO-110	45	1.11	15" HDPE	339.8	339.3	344.0
CO-110	CO-109	116	1.03	15" HDPE	341.5	340.3	344.3
CO-110	CB-103	90	1.11	15" HDPE	339.0	338.0	344.3
CB-105	CB-104	138	0.87	15" HDPE	339.0	337.8	342.9
CB-104	CB-103	68	0.74	15" HDPE	337.5	337.0	342.9
CB-103	CB-102	28	0.89	18" HDPE	336.8	336.5	343.0
CB-102	CB-101	32	1.56	18" RCP CLASS III	336.3	336.0	342.8
CB-101	CB-100	118	0.93	18" RCP CLASS III	335.9	334.8	342.8
INLET-206	CB-201	20	2.50	15" HDPE	338.0	337.5	
INLET-205	CB-204	20	1.25	15" HDPE	337.0	336.8	
CB-204	CB-201	20	1.25	15" HDPE	336.5	336.3	339.8
CB-203	CB-202	20	0.50	15" HDPE	334.8	334.7	337.4
CB-202	CB-201	183	0.55	15" HDPE	334.7	333.7	337.4
CB-201	CB-210	105	0.76	15" HDPE	333.7	332.9	339.8
CB-200	CB-100	33	0.91	15" RCP CLASS III	332.7	332.4	340.4
CB-209	CB-210	20	0.50	15" HDPE	335.7000	335.6	340.3
CB-210	CB-200	23	0.87	15" HDPE	332.9	332.7	340.3
CB-100	MH-1	65	0.77	24" HDPE	332.4	331.9	340.4
MH-1	FES	173	2.83	24" HDPE	331.9	327.0	342.0



Bowman

Bowman North Carolina Ltd.
4006 BARRETT DR
Suite 104
RALEIGH, NC 27609
Phone: (919) 555-6570
bowman.com

GRADING & DRAINAGE PLAN

Rocket Wash
Arendell Ave
Project ID#796479

Zebulon, NC Wake County

PRELIMINARY DO NOT USE FOR CONSTRUCTION

PLAN STATUS

6/20/22	SITE PLAN SUBMITTAL
10/21/22	PER TOWN REVIEW
4/28/23	PER TOWN REVIEW

DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN XXX CHKD
SCALE	H: V:
JOB No.	220094-01-002
DATE	June 20, 2022
FILE No.	220094-01-002
	220097-01-002

SHEET **C4.0**

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 Care or Townhouse
 - 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 PR designation from NCUC for Apartment projects only)

CROSS-CONNECTION NOTE

A CERTIFICATE OF COMPLIANCE FOR ALL BACKFLOWS WILL NEED TO BE DIGITALLY AFFIXED TO THE BUILDING SUBMITTAL PRIOR TO THE ISSUANCE OF BUILDING PERMITS. CONTACT CROSS.CONNECTION@RALEIGHNC.GOV FOR MORE INFORMATION.

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 NPT THREADED 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

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 watertight 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 by 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 watertight 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 24" 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
 - 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
 - 3.0' minimum cover is required on all water mains & sewer forcemains. 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 top at main & removal of service from ROW or easement per CORPUD Handbook procedure
 - Install 2" PVC copper water services with meters located at ROW or within a 2'x2' 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
 - Install 4" 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 NCDQM, USACE &/or FEMA for any riparian buffer, wetland &/or floodplain impacts (respectively) prior to construction.
 - NCDOT / 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 CORPUD FOG Program Coordinator prior to issuance of a Building Permit. Contact Stephen Galvey at (919) 999-2334 or Stephen.Galvey@raleighnc.gov for more information
 - Cross-connection control protection devices are required based on degree of health hazard involved as listed in Appendix-B of the Rules Governing Public Utility Systems in North Carolina. These guidelines are the minimum requirements. The devices shall meet American Society of Sanitary Engineering (ASSE) standards or be on the University of Southern California approval list. 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 Joanie Helvey at (919) 212-5923 or joanie.helvey@raleighnc.gov for more information.

UTILITY SERVICE NOTES

- WATER SERVICE**
GENERAL CONTRACTOR TO PROVIDE AND INSTALL A 4" 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 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: NATURAL GAS
TELEPHONE:

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 # _____
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 # _____
Authorization to Construct _____
See digital signature

ATTENTION CONTRACTORS

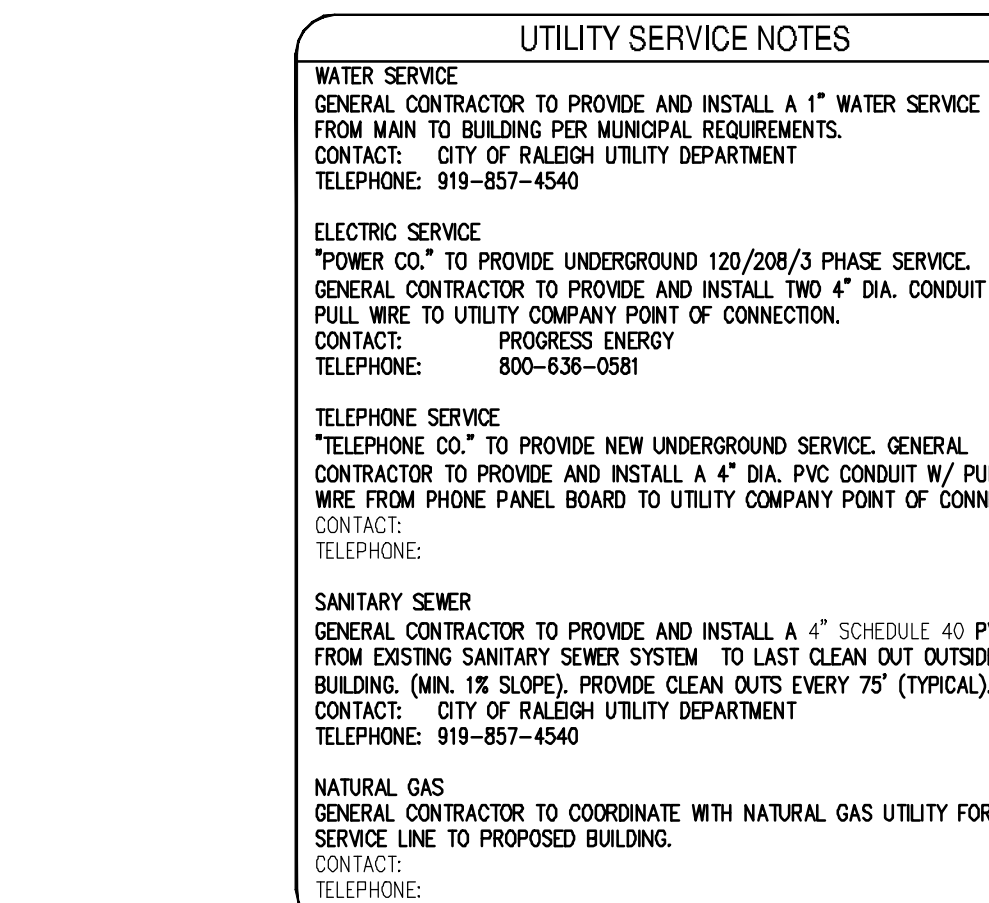
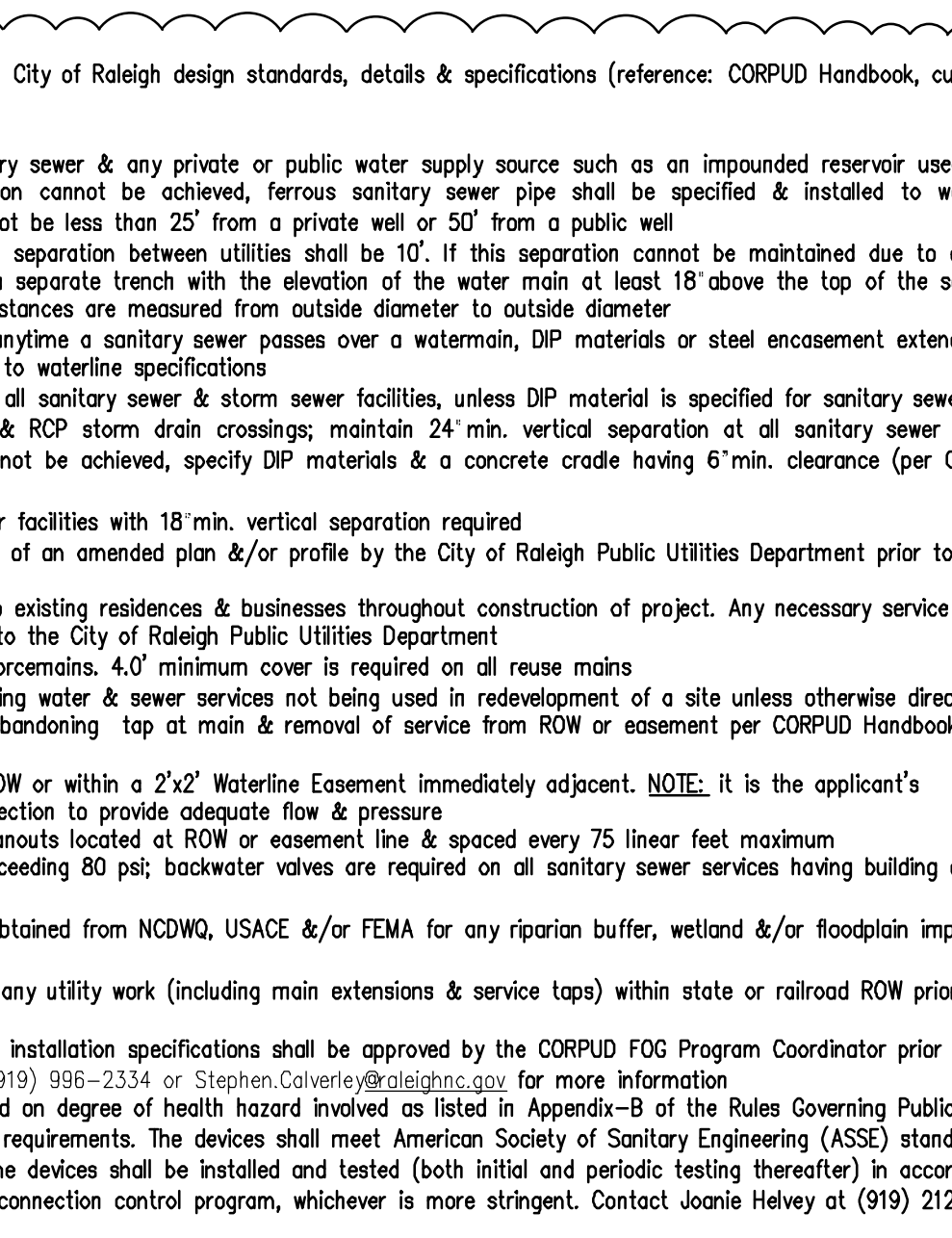
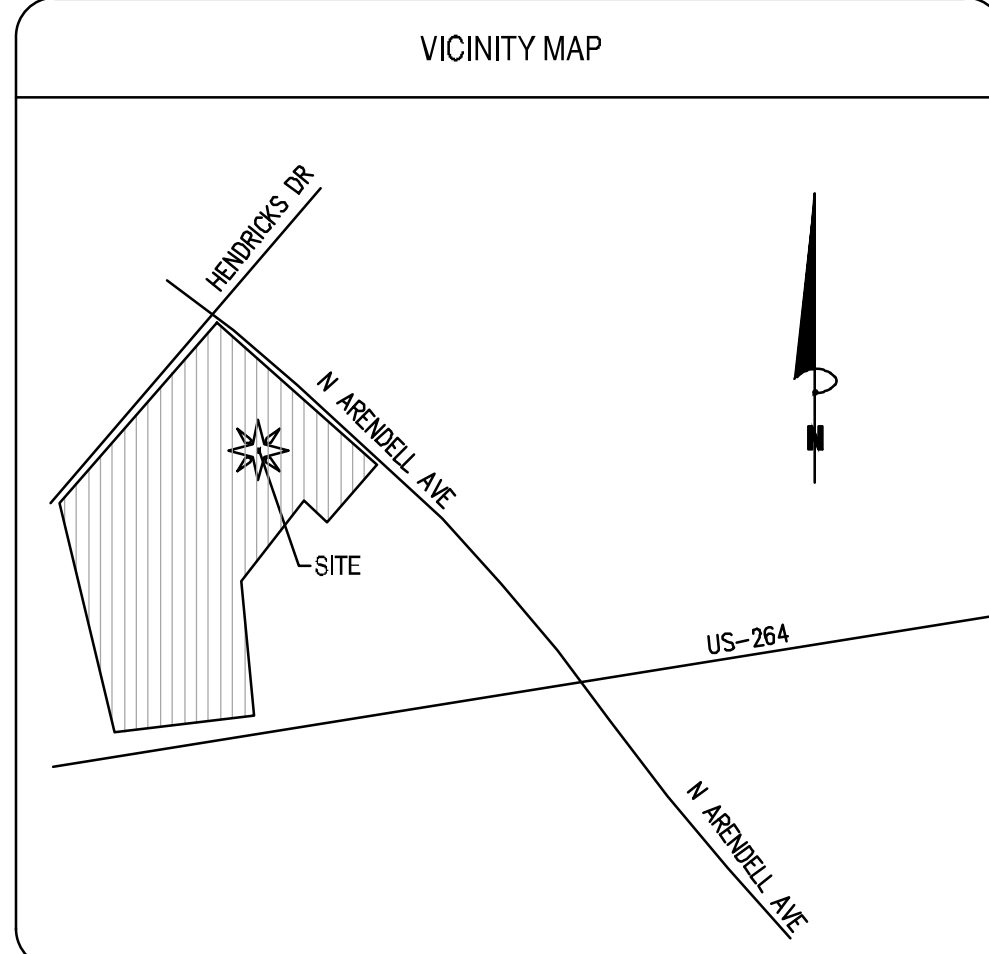
The Construction Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Public Utilities Department at (919) 996-4540 at least twenty four hours prior to beginning any of their construction.

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

CONDITION OF APPROVAL

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



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

STOP
BEFORE YOU DIG
CALL 1 800 632-4848
N.C. ONE-CALL CENTER
IT'S THE LAW

GRAPHIC SCALE
1 inch = 50 ft.

Bowman

Bowman North Carolina Ltd.
4006 BARRIETT DR
Suite 104
RALEIGH, NC 27609
Phone: (919) 955-6570
bowman.com

UTILITY PLAN
Rocket Wash
Arendell Ave
Project ID#736479

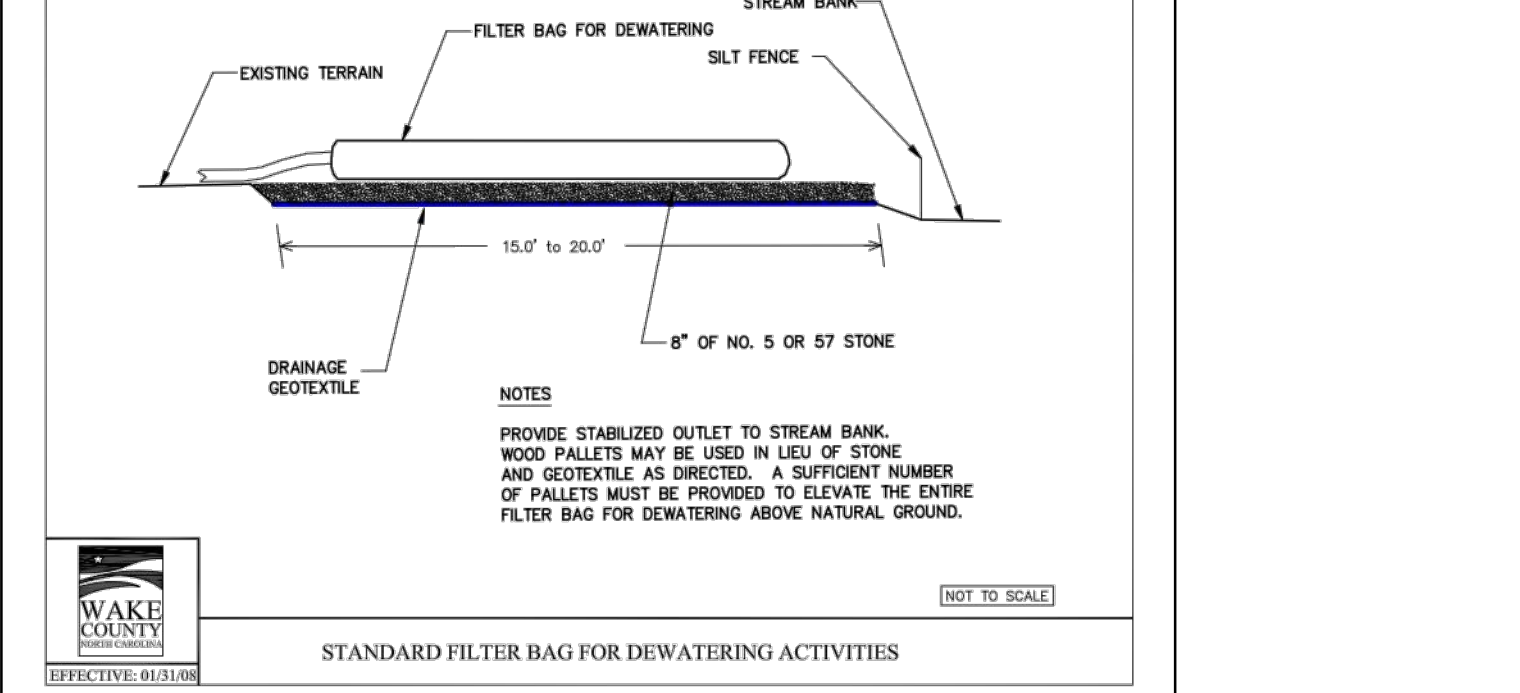
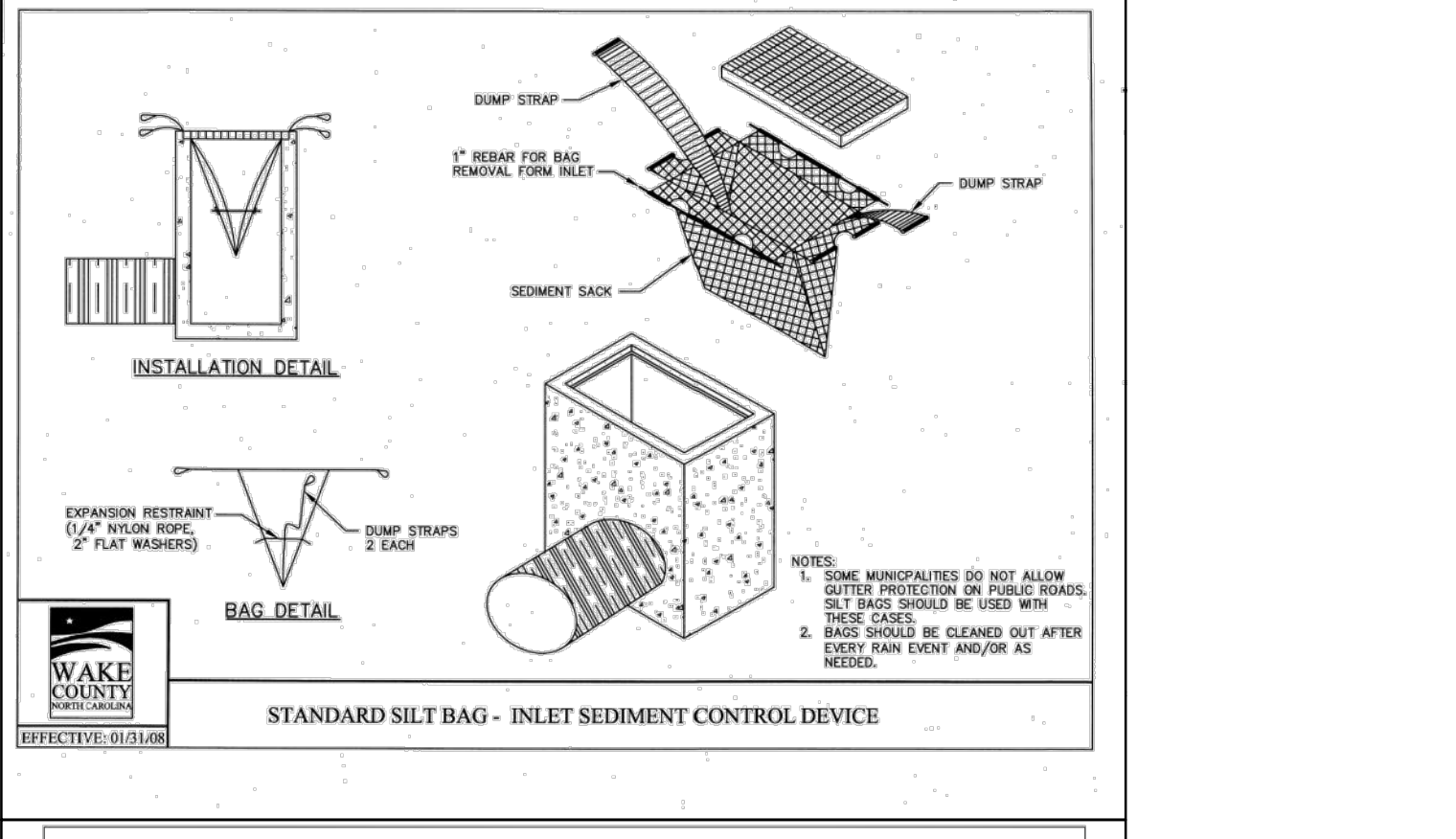
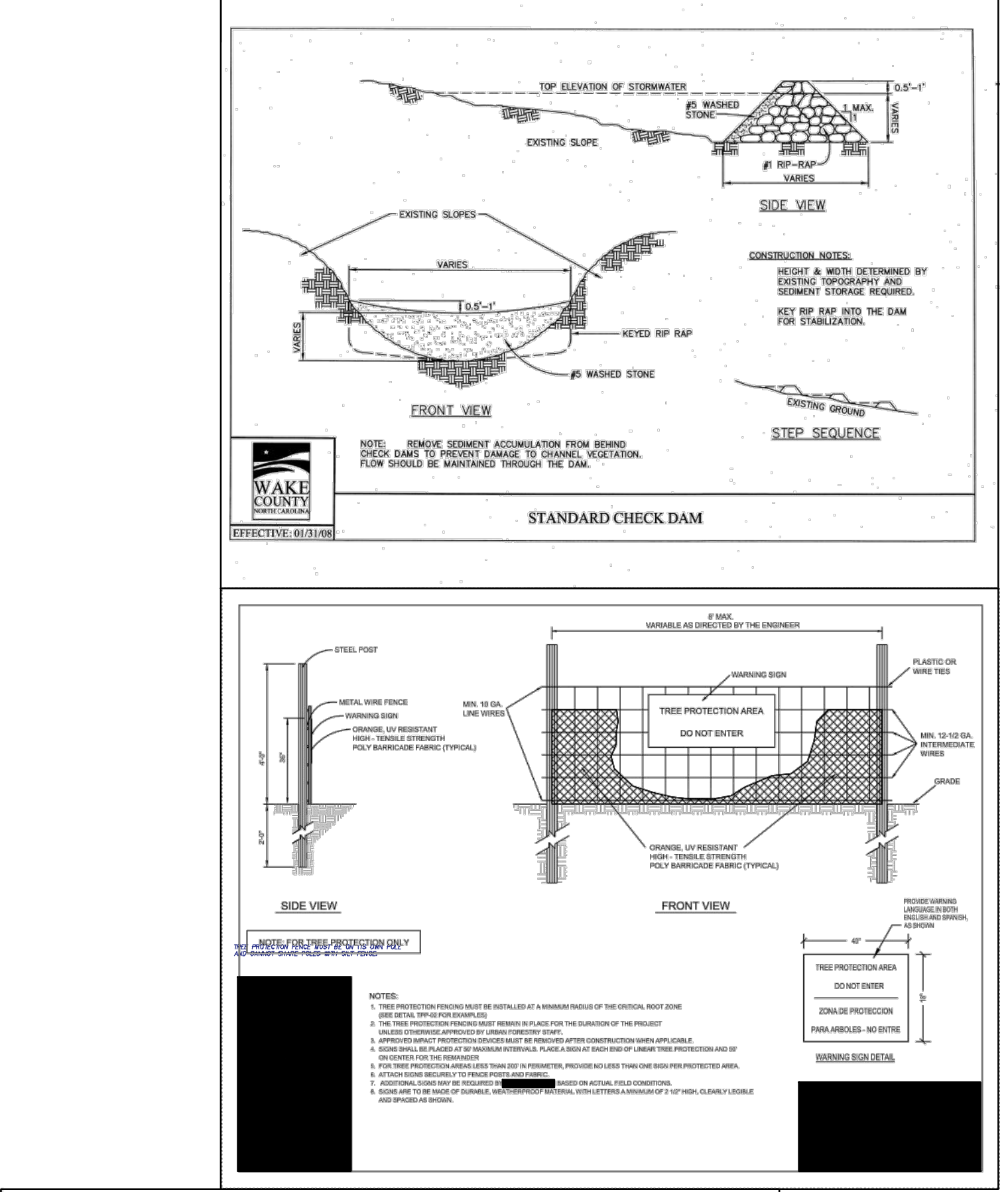
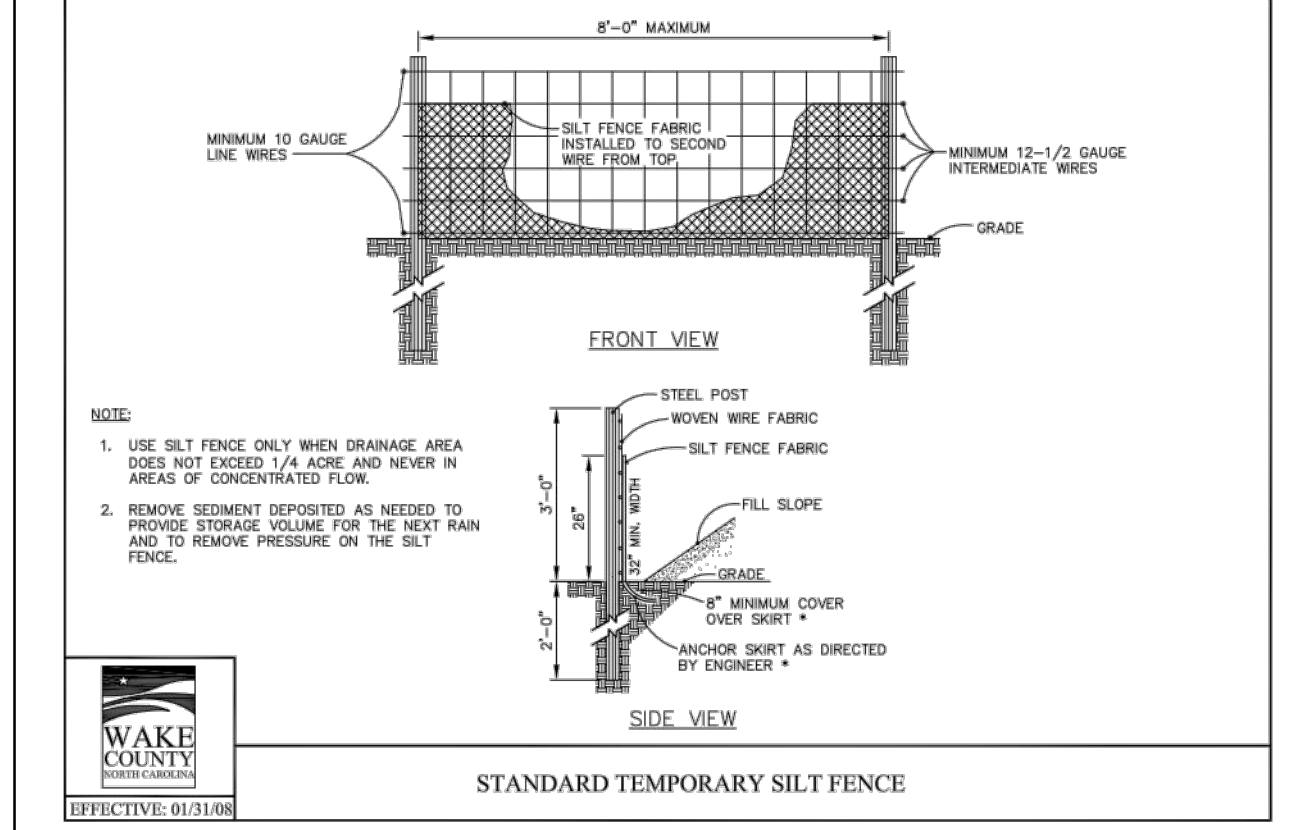
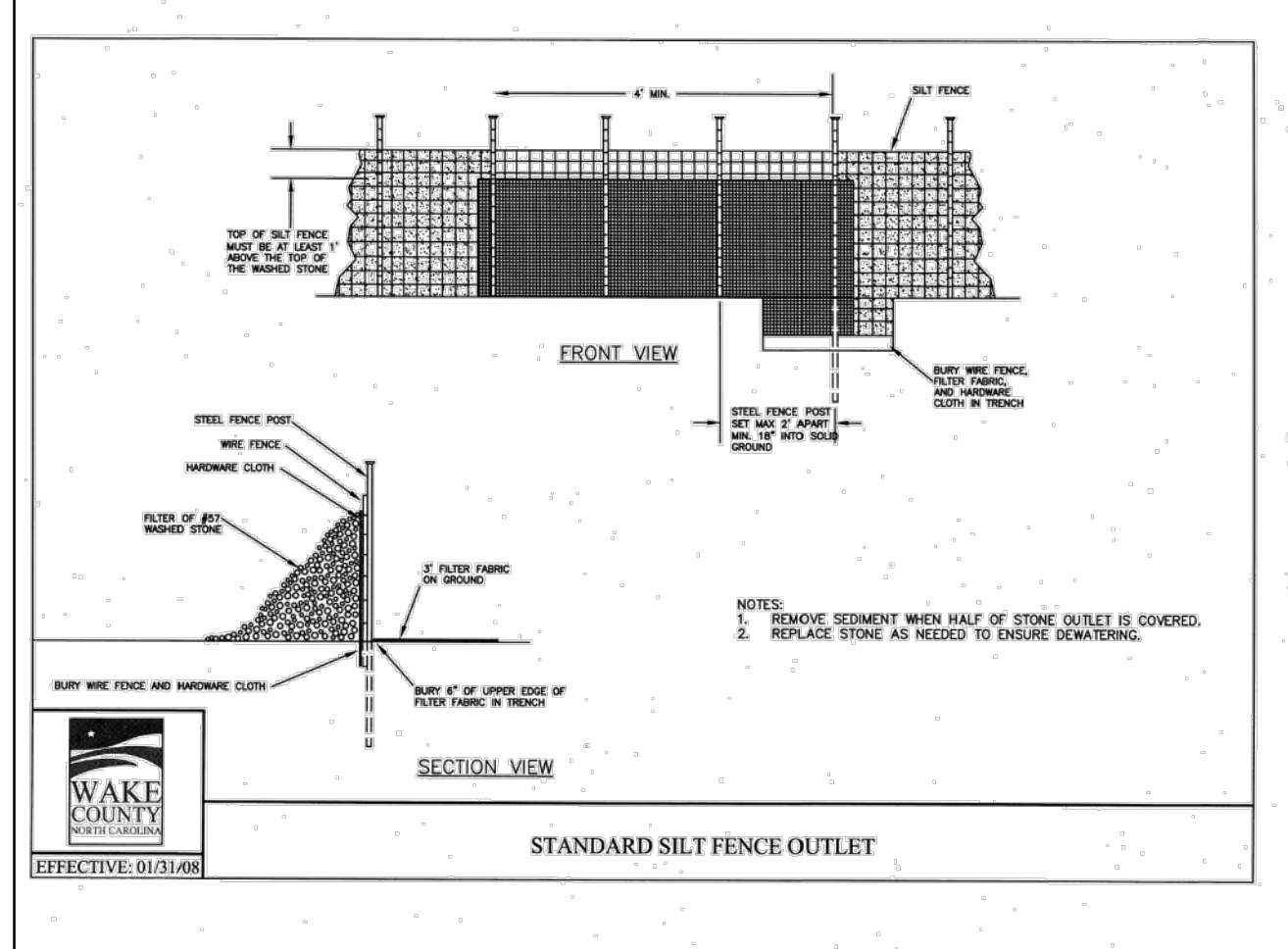
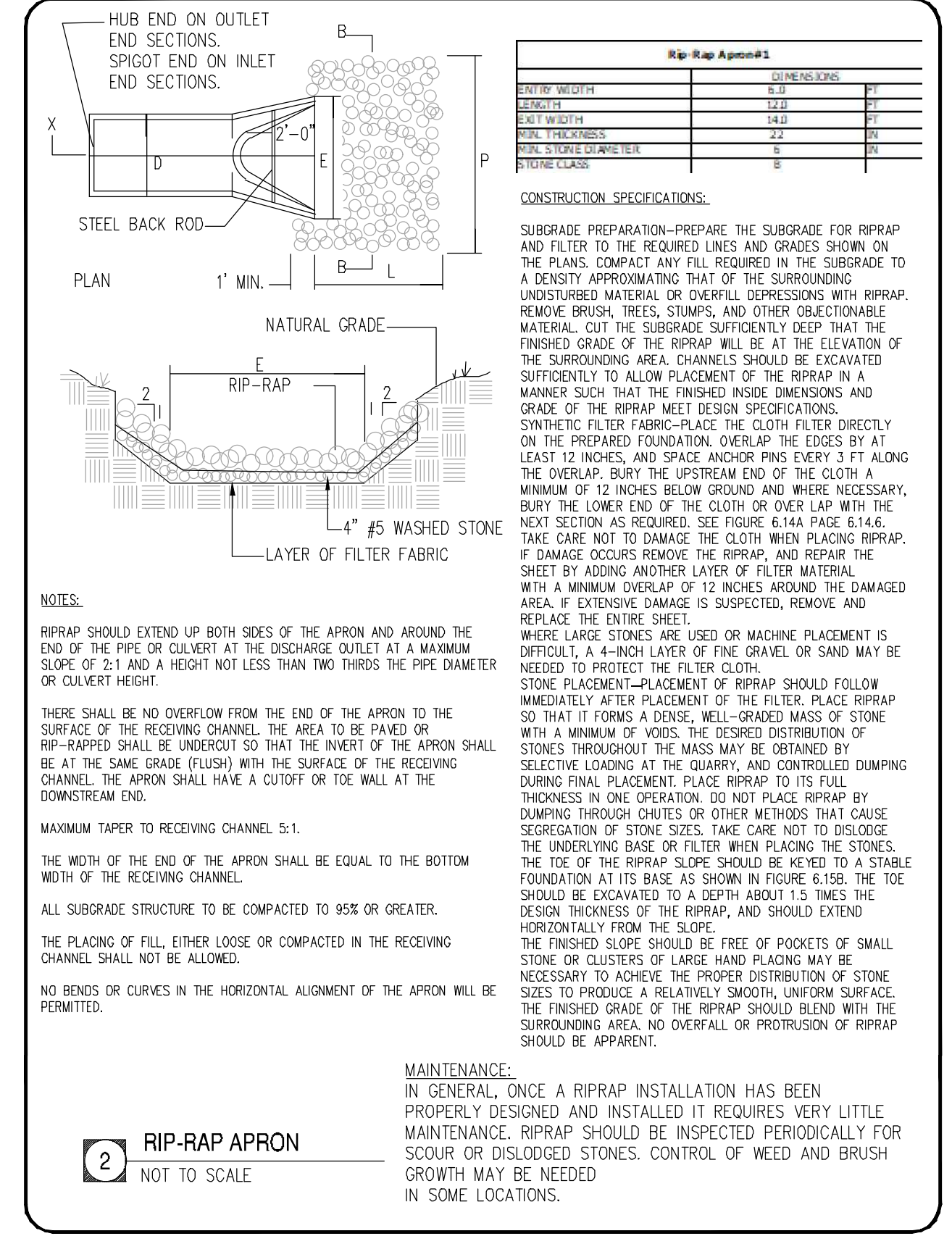
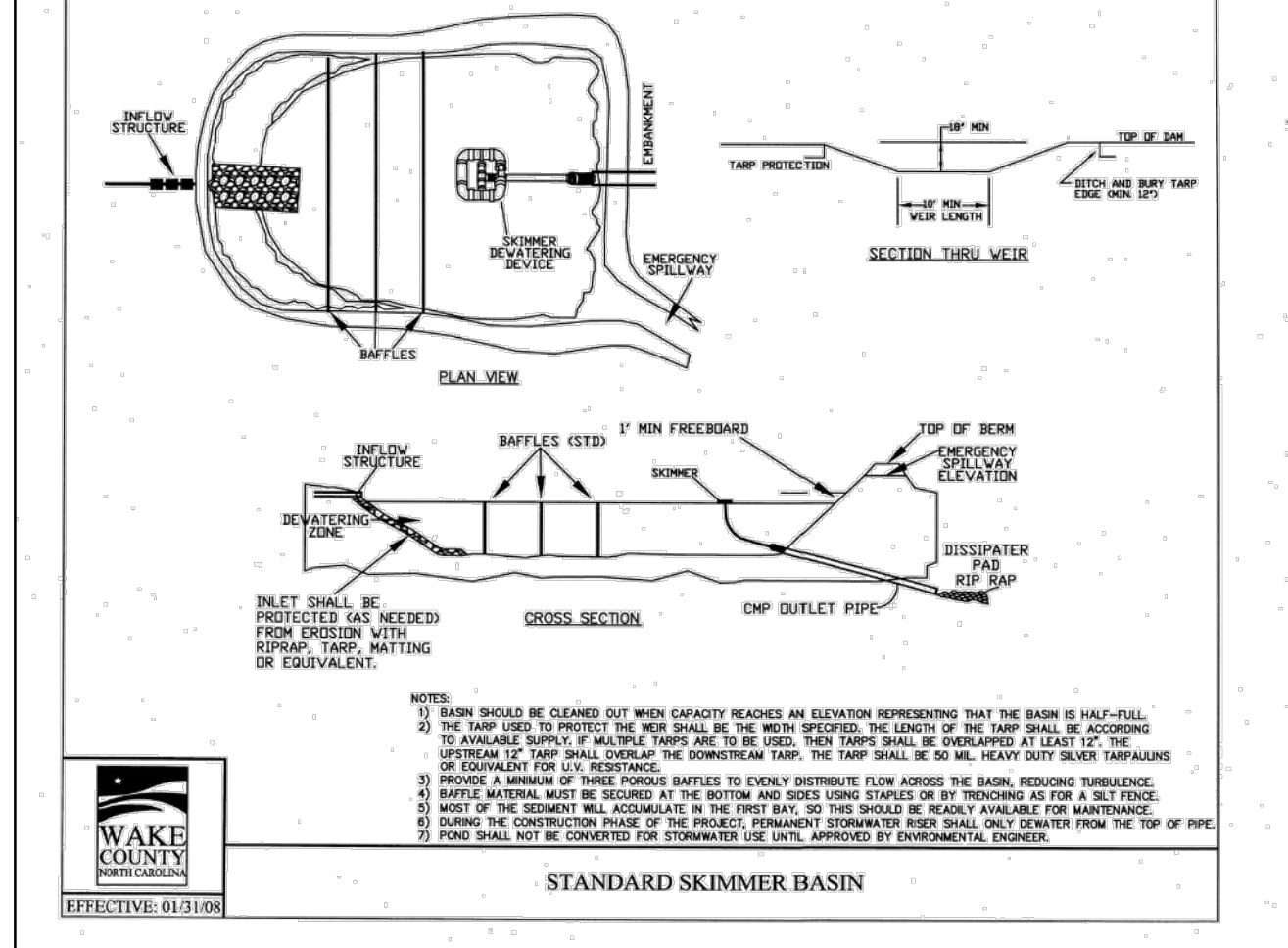
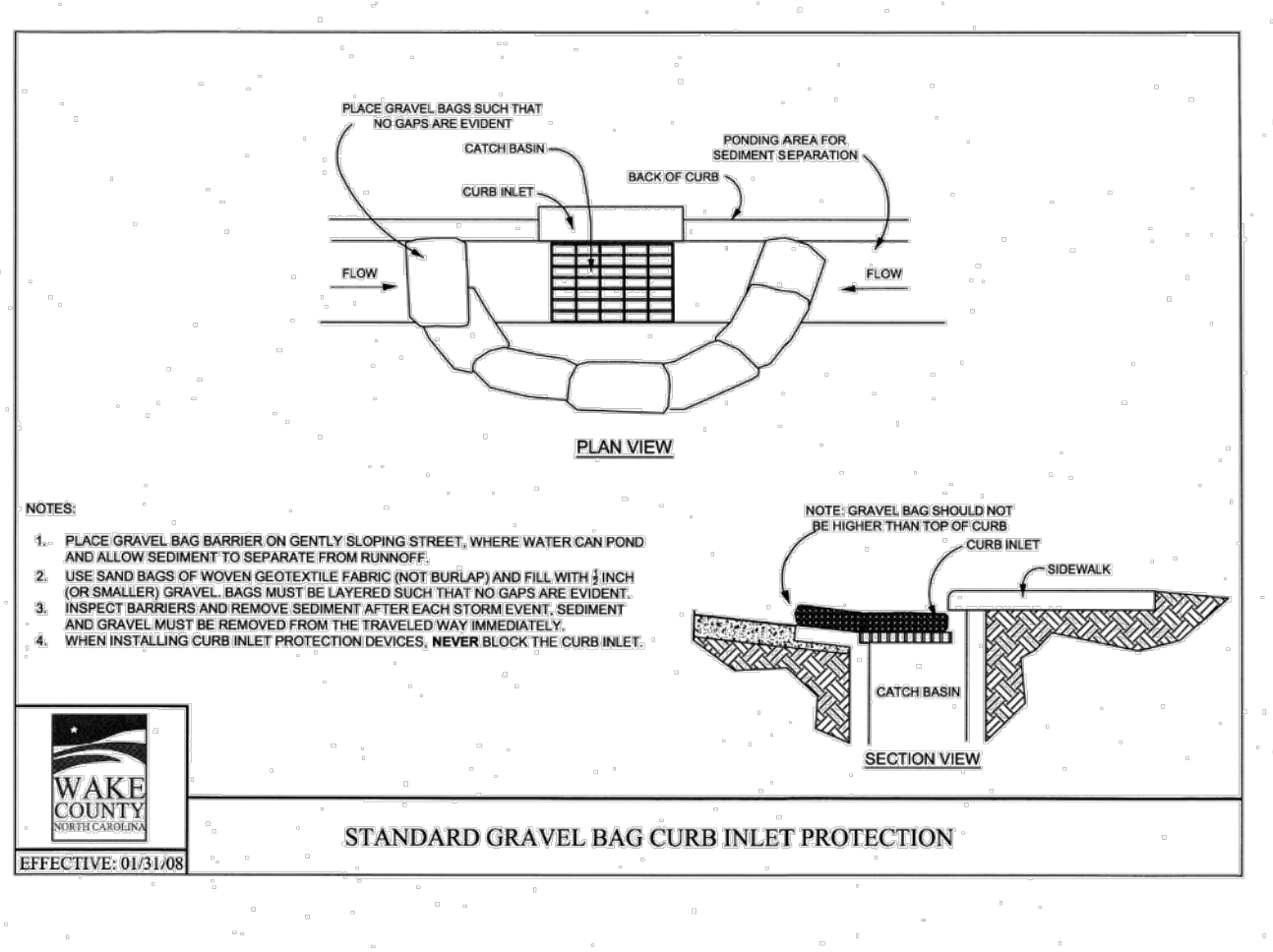
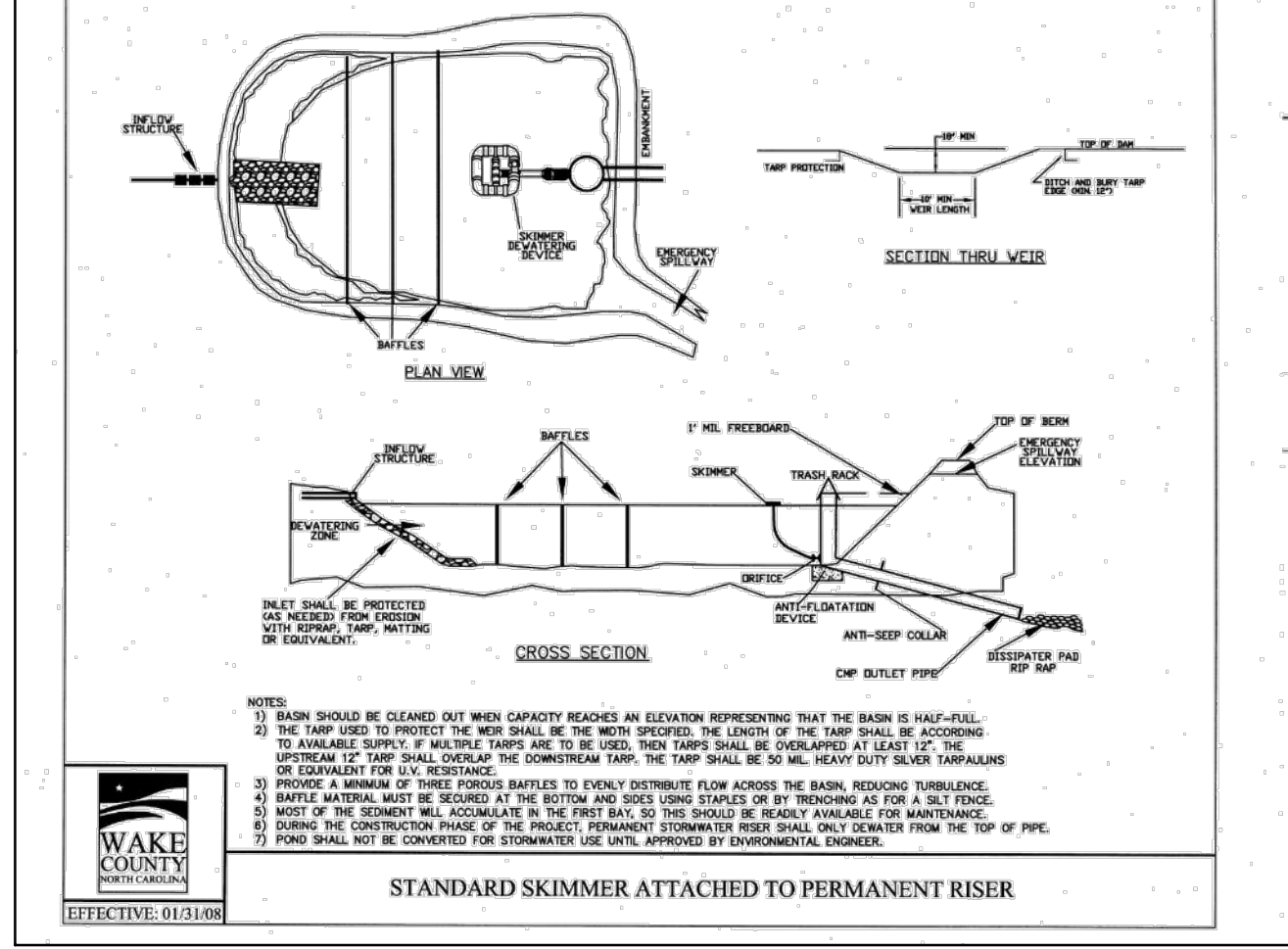
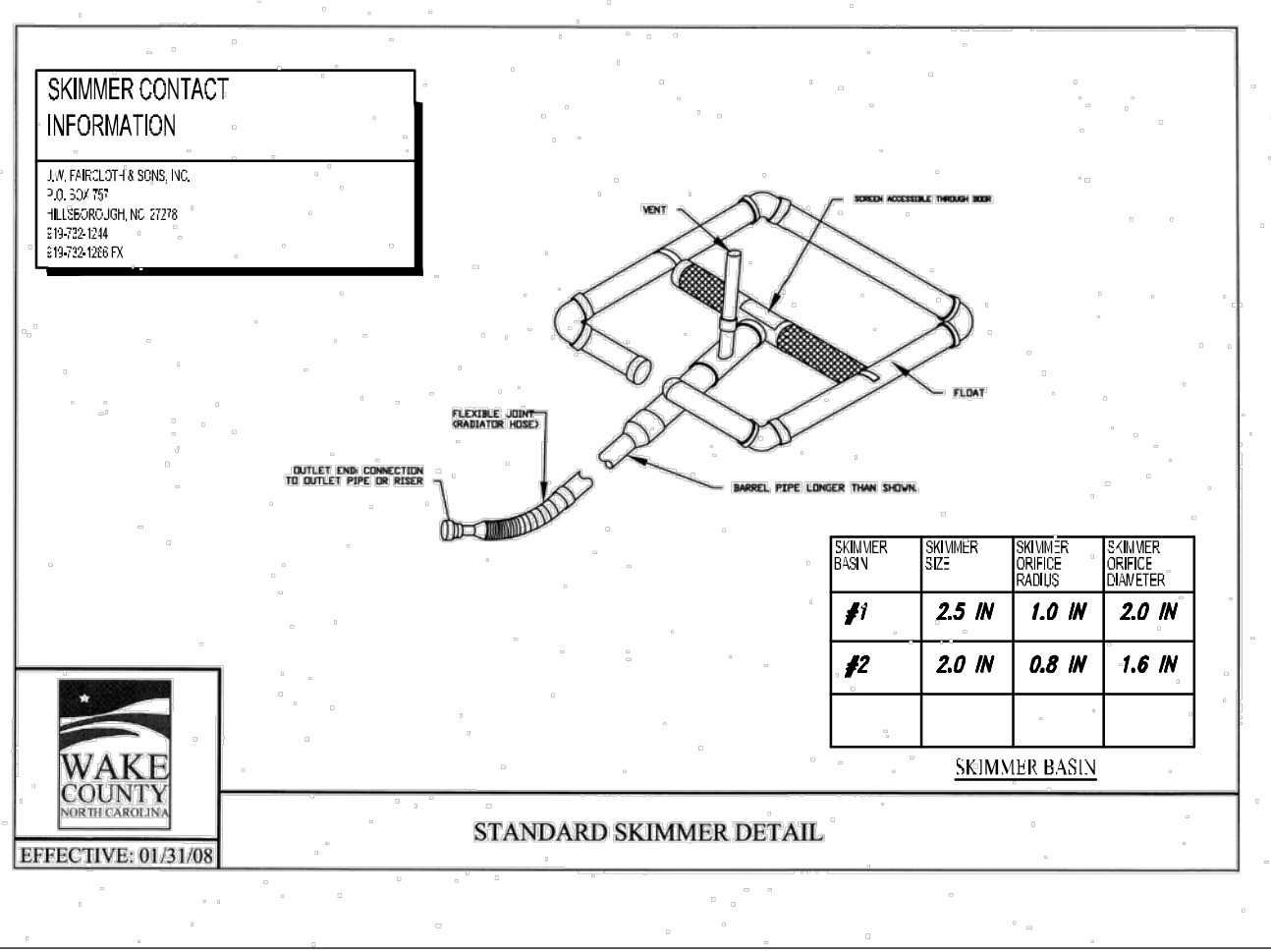
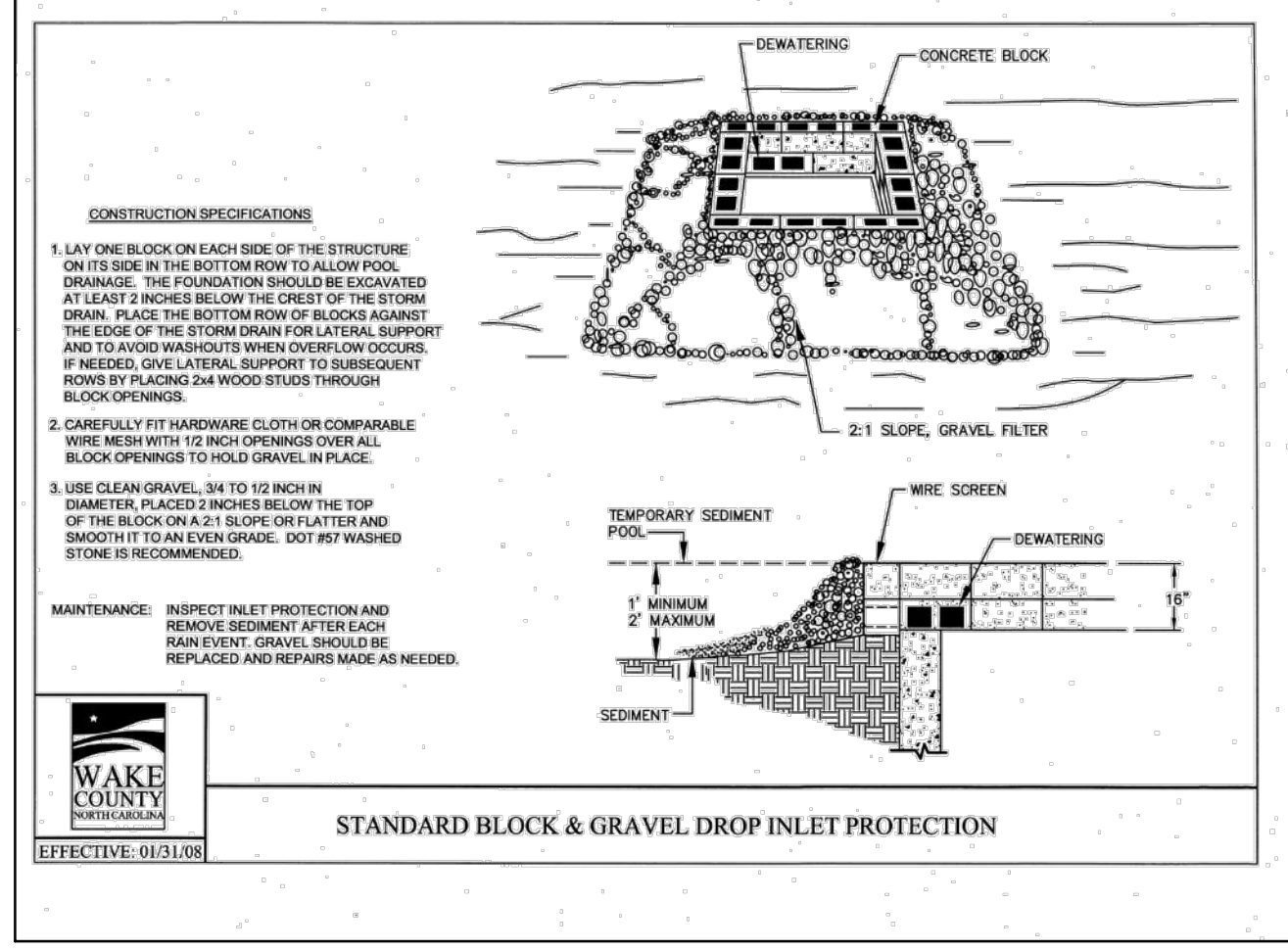
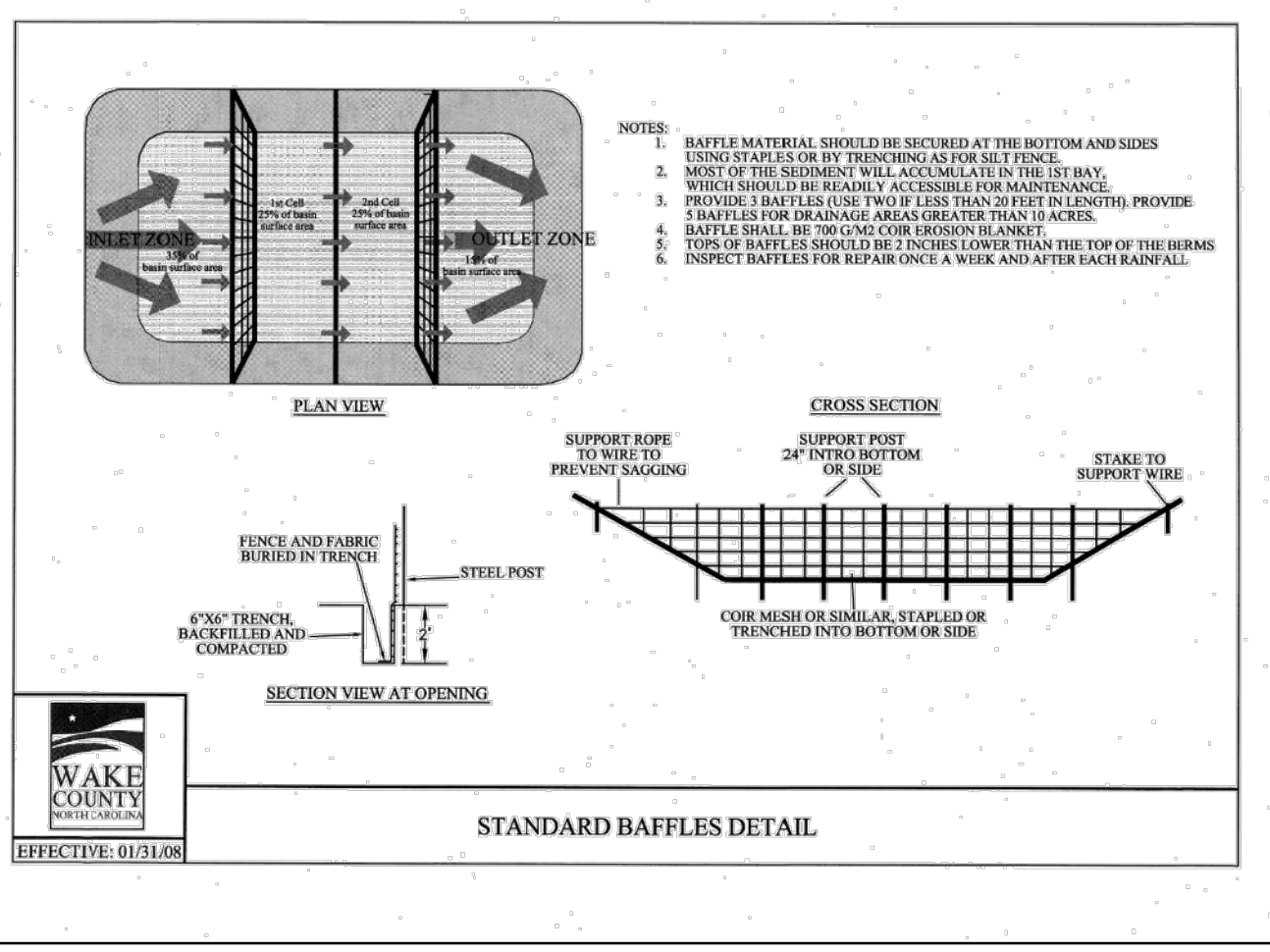
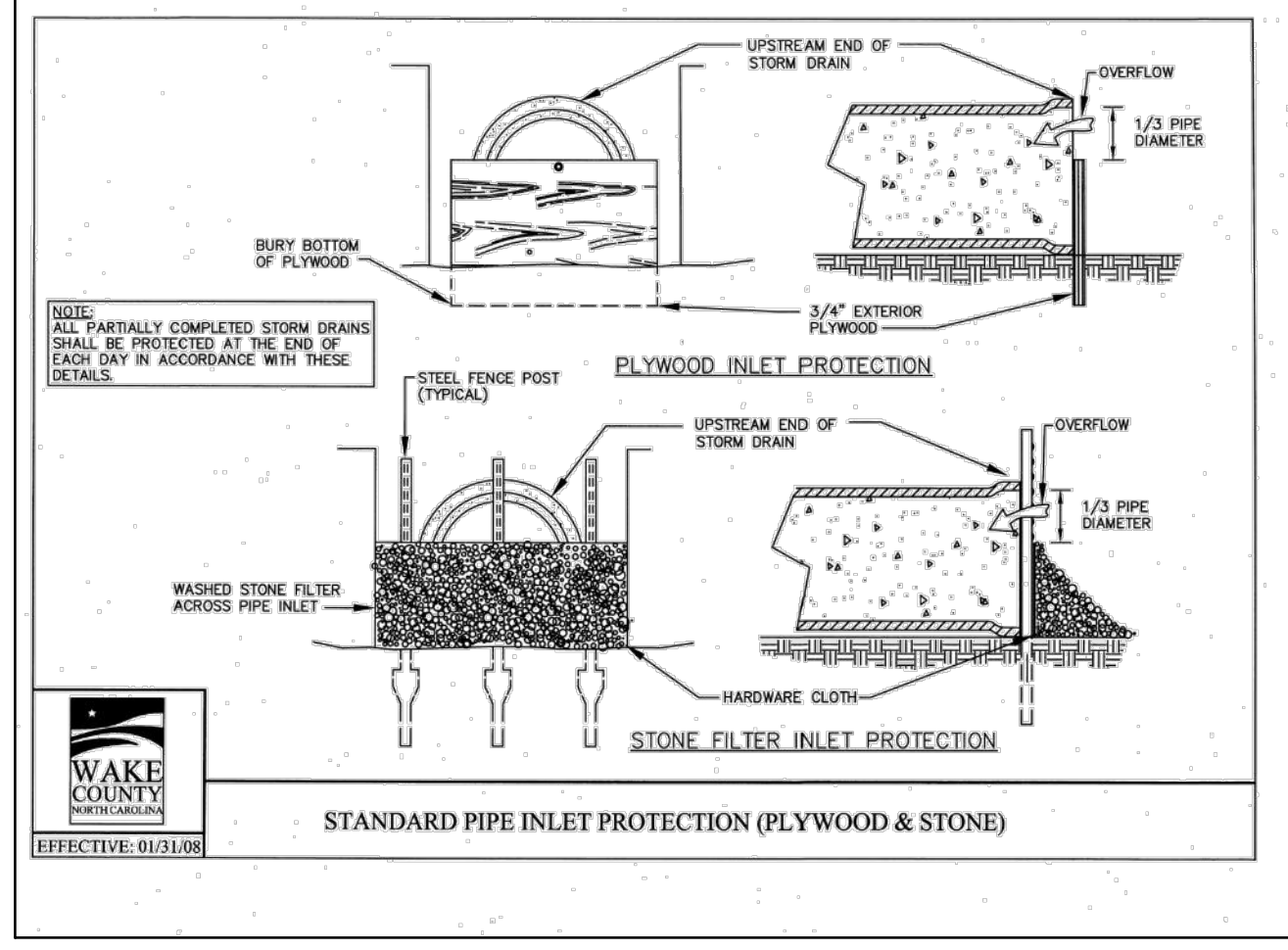
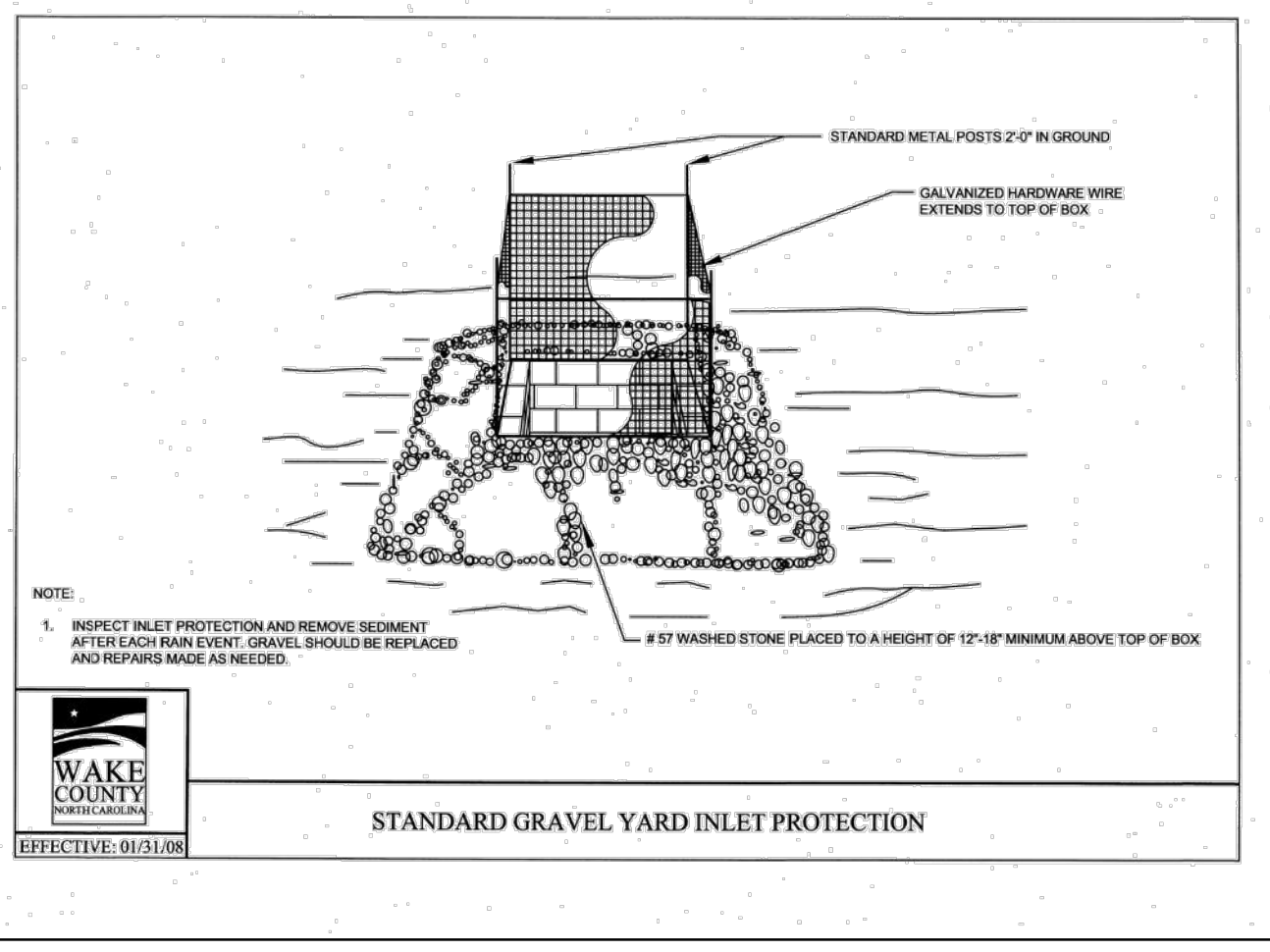
PRELIMINARY DO NOT USE FOR CONSTRUCTION

PLAN STATUS

6/20/22	SITE PLAN SUBMITTAL
10/21/22	PER TOWN REVIEW
4/28/23	PER TOWN REVIEW

DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN
SCALE	XXX CHKD
JOB No.	220094-01-002
DATE	220097-01-002
FILE No.	June 20, 2022
	220094-01-002
	220097-01-002

SHEET **C5.0**



SEDIMENT BASIN REQUIREMENTS:

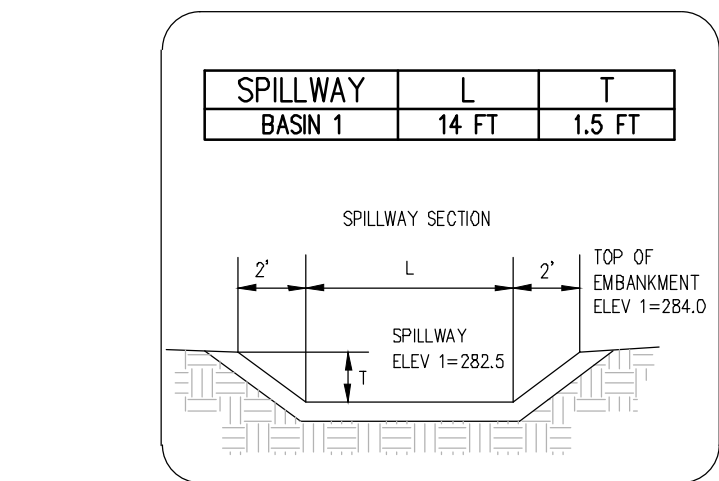
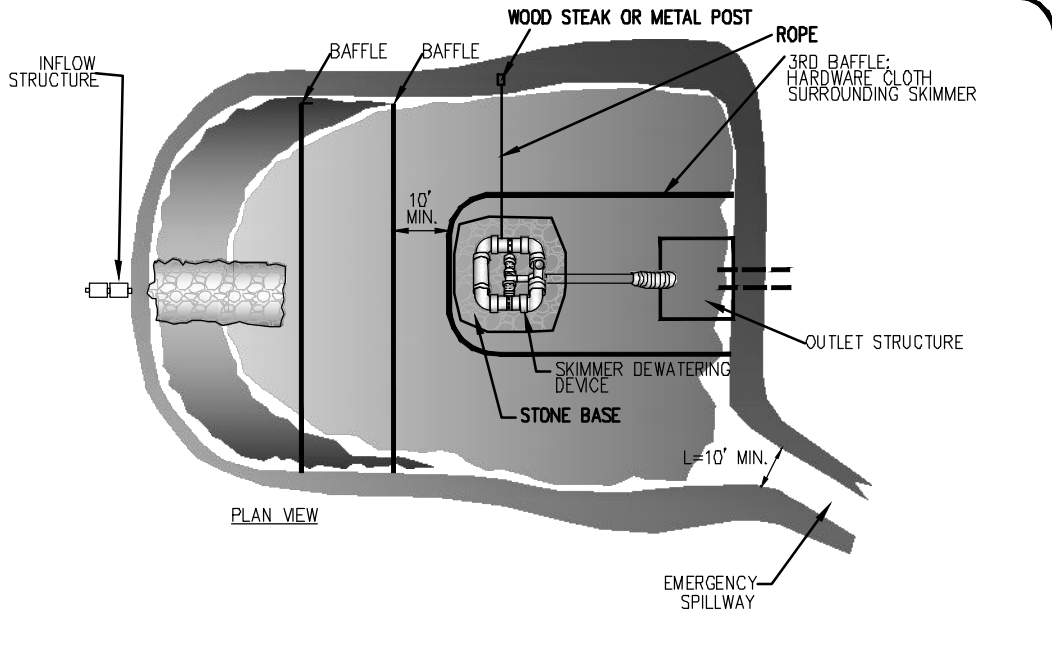
SEDIMENT BASINS AND TRAPS SHALL MEET THE FOLLOWING REQUIREMENTS:

- OUTLET STRUCTURES SHALL BE UTILIZED THAT WITHDRAW WATER FROM THE SURFACE.
- FOR BASINS OR TRAPS THAT HAVE A DRAINAGE AREA OF LESS THAN 10 ACRES, DRAIN-DOWN DESIGNS SPECIFIED IN THE DIVISION OF LAND RESOURCES OR DELEGATED LOCAL PROGRAM REQUIREMENTS ARE ACCEPTABLE.

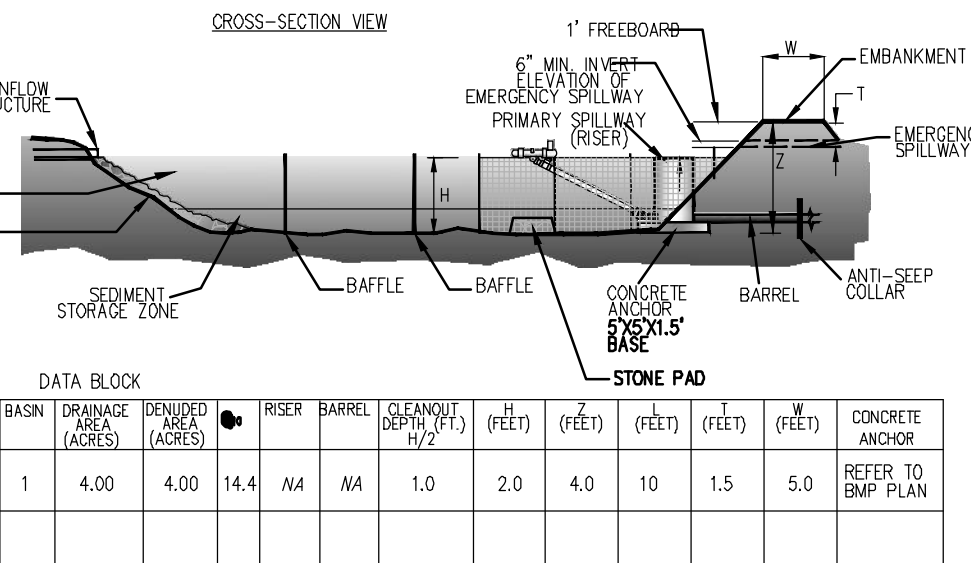
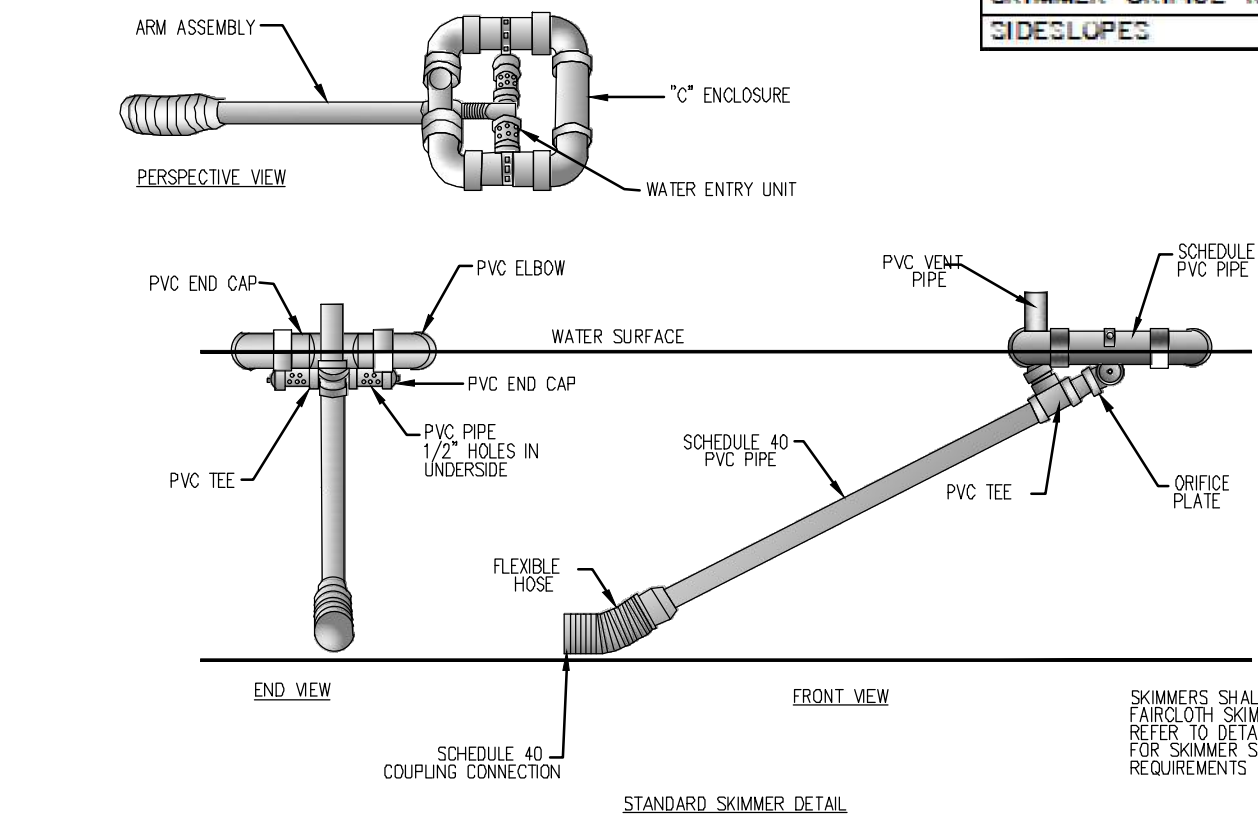
CHEMICAL TREATMENT:

- ALL TREATMENT CHEMICALS MUST BE STORED IN LEAK-PROOF CONTAINERS THAT ARE KEPT UNDER STORM-RESISTANT COVER OR SURROUNDED BY SECONDARY CONTAINMENT STRUCTURES DESIGNED TO PROTECT ADJACENT SURFACE WATERS.
- ALL TREATMENT CHEMICALS MUST BE USED IN ACCORDANCE WITH Dosing SPECIFICATIONS AND APPLICATION RATES PROVIDED BY THE MANUFACTURER, SUPPLIER AND AS SPECIFIED BY THE DIVISION OF WATER QUALITY.
- THE PERMITTEE MUST ONLY USE CHEMICALS THAT HAVE BEEN APPROVED BY THE NC DIVISION OF WATER QUALITY AND LISTED ON THEIR NORTH CAROLINA DIVISION OF WATER QUALITY APPROVED PANS/FLOCCULANTS LIST FOUND ON THEIR MIB SITE AT: <http://portal.wq.nc.gov/mib/mib.nx>.
- THE PERMITTEE MUST ROUTE STORMWATER TREATED WITH POLYMERS, FLOCCULANTS, OR OTHER TREATMENT CHEMICALS THROUGH SEDIMENT TRAPPING, FILTERING, AND/OR SETTLING DEVICES TO ENSURE ADEQUATE REMOVAL OF SEDIMENT FLOCCULANT PRIOR TO DISCHARGE TO SURFACE WATERS.
- DISCHARGE REQUIREMENT - DISCHARGES MUST MEET THE STATUTORY REQUIREMENTS OF THE SEDIMENT POLLUTION CONTROL ACT AND UTILIZE THE PROVISIONS OF SECTION 874 OF THE DESIGN AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL TO ASSURE THAT BUFFERS AND VEGETATED AREAS WILL BE USED TO REDUCE THE POTENTIAL FOR VISIBLE SILTATION OUTSIDE OF THE 255 BUFFER ZONE NEAREST THE LAND-DISTURBING ACTIVITY.

Skimmer Basin #1			
SURFACE AREA REQUIRED	6,201	CF	
SURFACE AREA PROVIDED	6,334	CF	
VOLUME REQUIRED	7,200	CF	
VOLUME PROVIDED	11,472	CF	
STORAGE DEPTH	2.0	FT	
STORAGE ELEVATION	11.4	x 56	202.00
TOP OF DAM	12.2	x 6.4	204.00
EMG. SPILLWAY LENGTH	1.4	FT	202.50
BOTTOM OF BASIN	106	x 42	200.00
SKIMMER SIZE	2.5	IN	
SKIMMER ORIFICE DIAMETER	2.0	IN	
SKIMMER ORIFICE RADIUS	1.0	IN	
SIDESLOPES	2:1		



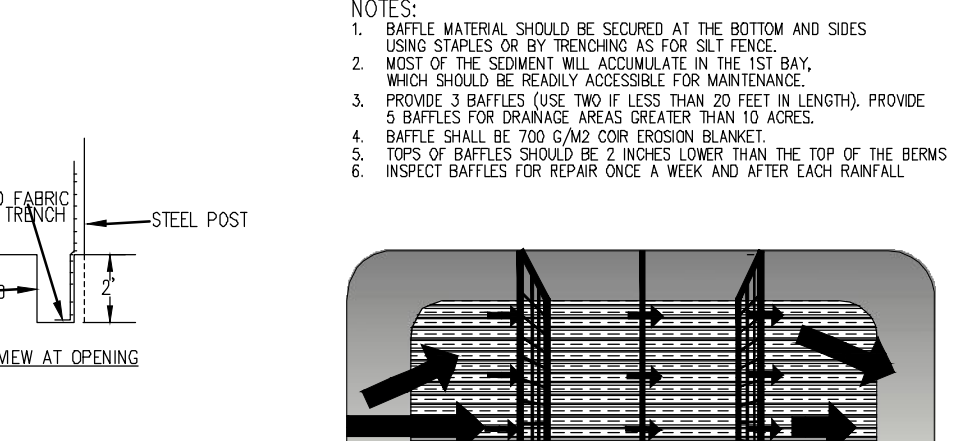
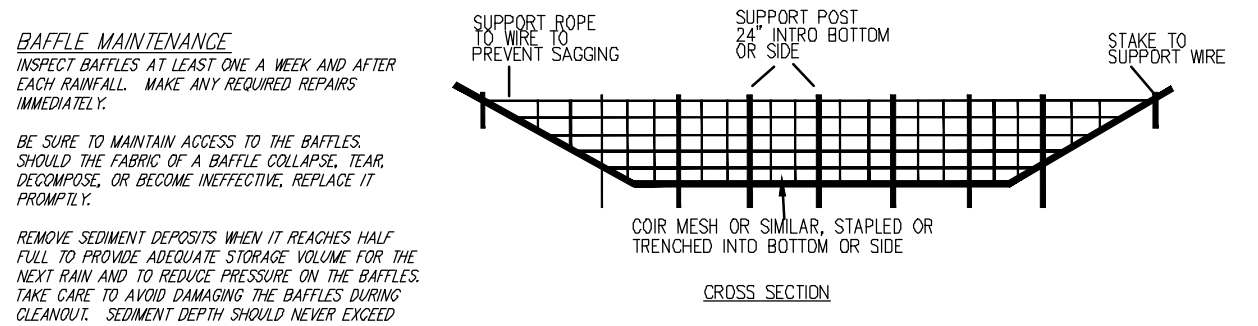
SPILLWAY BASIN 1	L	T
	14 FT	1.5 FT



BASIN DRAINAGE AREA (ACRES)	DESIGN FLOW (CFS)	DESIGN RAINFALL (IN/H)	DESIGN WIND SPEED (MPH)	DESIGN WIND DIRECTION	DESIGN WIND PERIOD (HRS)	DESIGN WIND RETURN PERIOD (YRS)	DESIGN WIND REPEAT PERIOD (HRS)	DESIGN WIND REPEAT PERIOD (MIN)	DESIGN WIND REPEAT PERIOD (SEC)	
1	4.00	4.00	14.4	N4	1.0	2.0	4.0	10	1.5	5.0

SKIMMER CONTACT INFORMATION

J.W. FARLOTH & SONS, INC.
 P.O. BOX 757
 HILLSBOROUGH, NC 27278
 919-732-1244
 919-732-1266-FX



BAFFLE MAINTENANCE:

INSPECT BAFFLES AT LEAST ONCE A WEEK AND AFTER EACH MAJOR RAINFALL EVENT AND REPAIR IMMEDIATELY. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OF A BAFFLE COLLAPSE, REPAIR, RECONSTRUCT, OR REPLACE THE BAFFLE IMMEDIATELY.

REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FULL TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BAFFLES. TAKE CARE TO AVOID DAMAGING THE BAFFLES DURING CLEANING. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGN STORAGE DEPTH.

AFTER THE CONTROLLING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, REMOVE ALL BAFFLE MATERIALS AND UNDESIRABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE, AND STABILIZE IT.

SKIMMER BASIN MAINTENANCE:

INSPECT SKIMMER BASIN AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ONE-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXAMINED. CHECK THE SEDIMENT FROM THE CENTRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER.

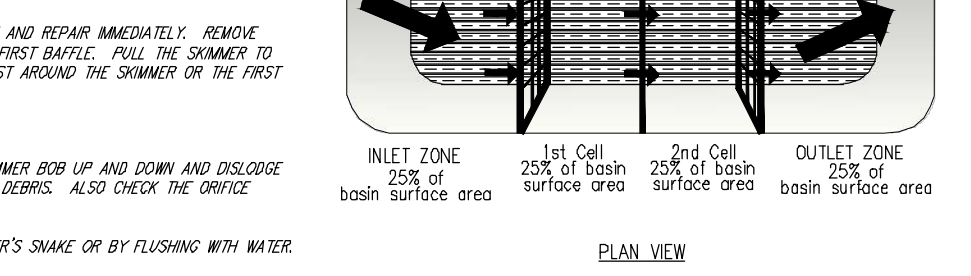
REPAIR THE BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM.

IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY ARISING ON THE ROPE, MAKE THE SKIMMER ROPE UP AND DOWN AND DISCLOSE THE ROPE AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE. MAKE THE SKIMMER TO SIZE IF IT IS CLOGGED, IF SO REPLACE THE DEBRIS.

IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLOUSING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.

CHECK THE FABRIC LINED SPILLWAY FOR DAMAGES AND MAKE ANY REQUIRED REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT SPILLWAYS AND BUILT FOR EROSION DAMAGE AND ASBEST. THE EMBANKMENT FOR PILING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE SKIMMER AND POOL AREAS.

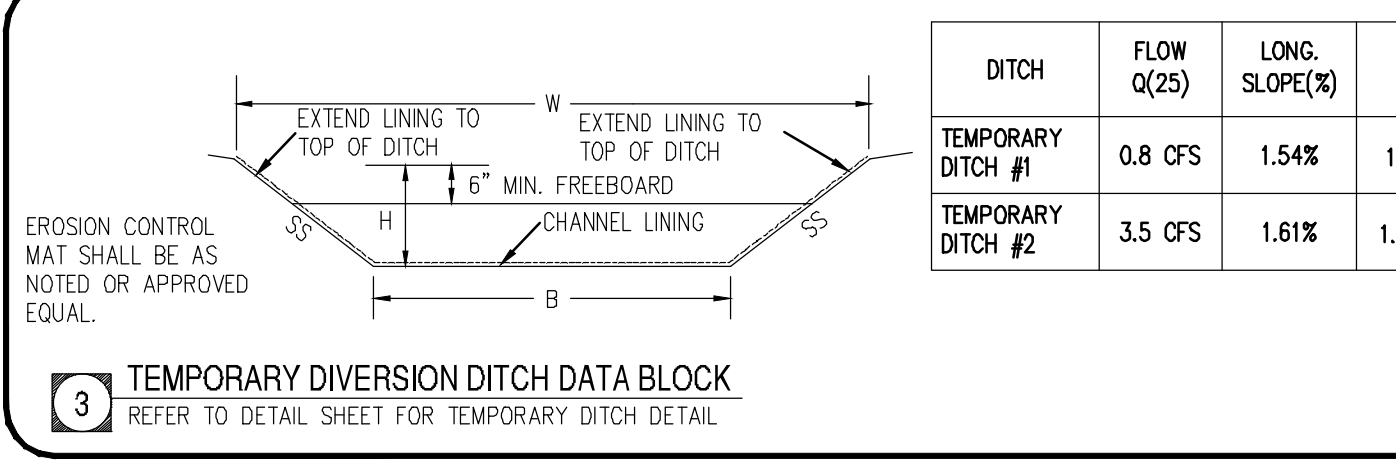
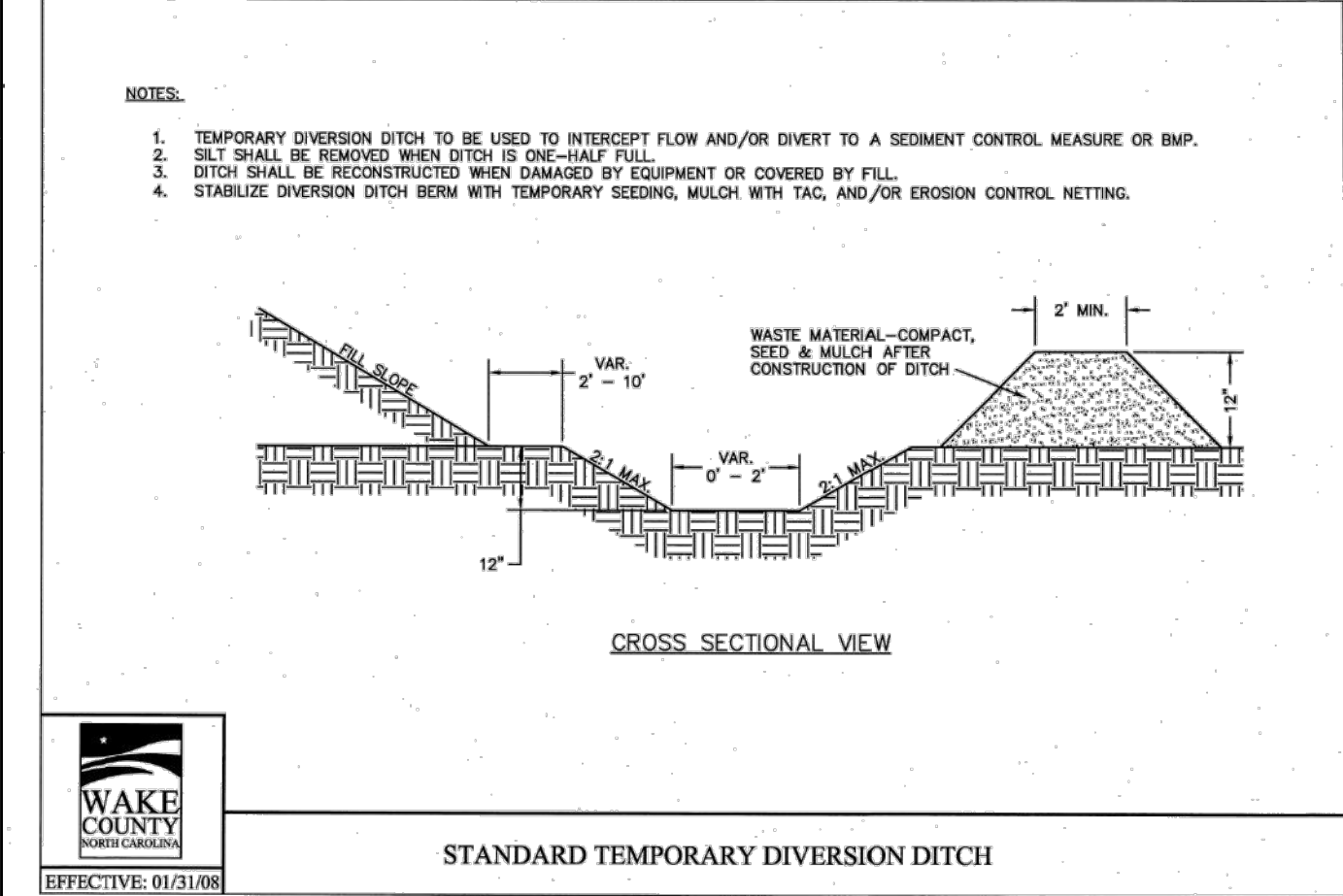
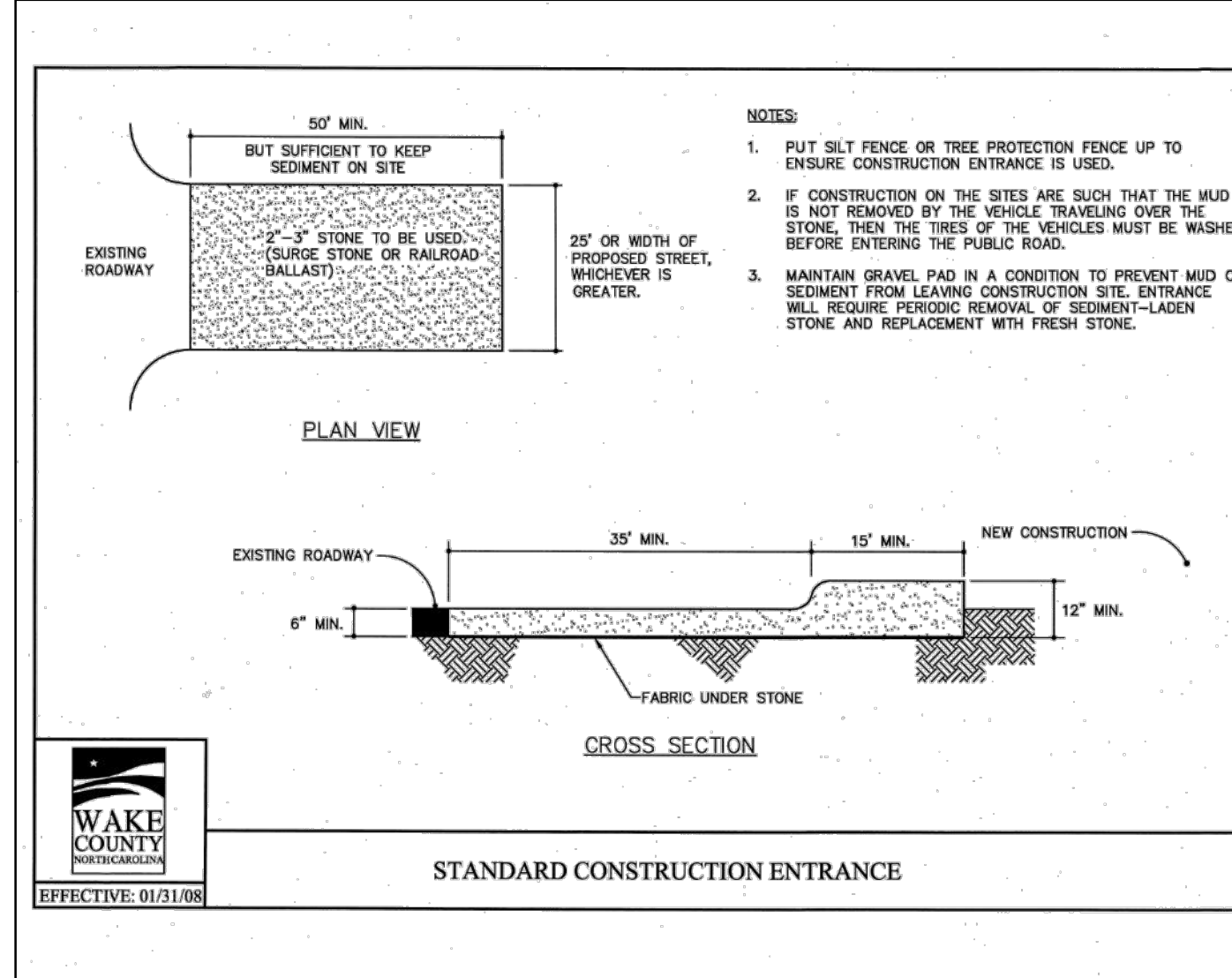
FRONTING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM FLOUSING WITH ICE.



1 SKIMMER BASIN
NOT TO SCALE

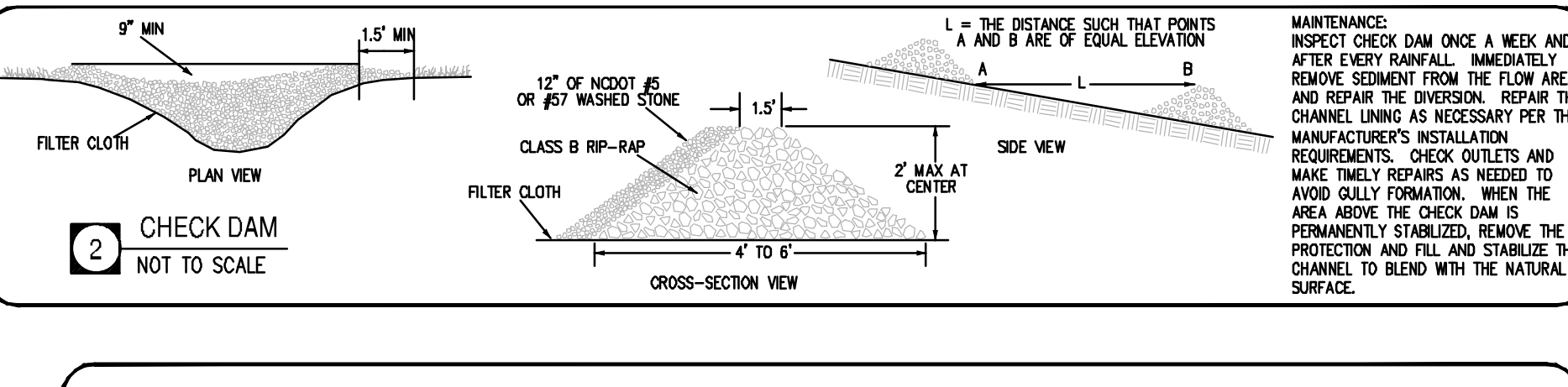
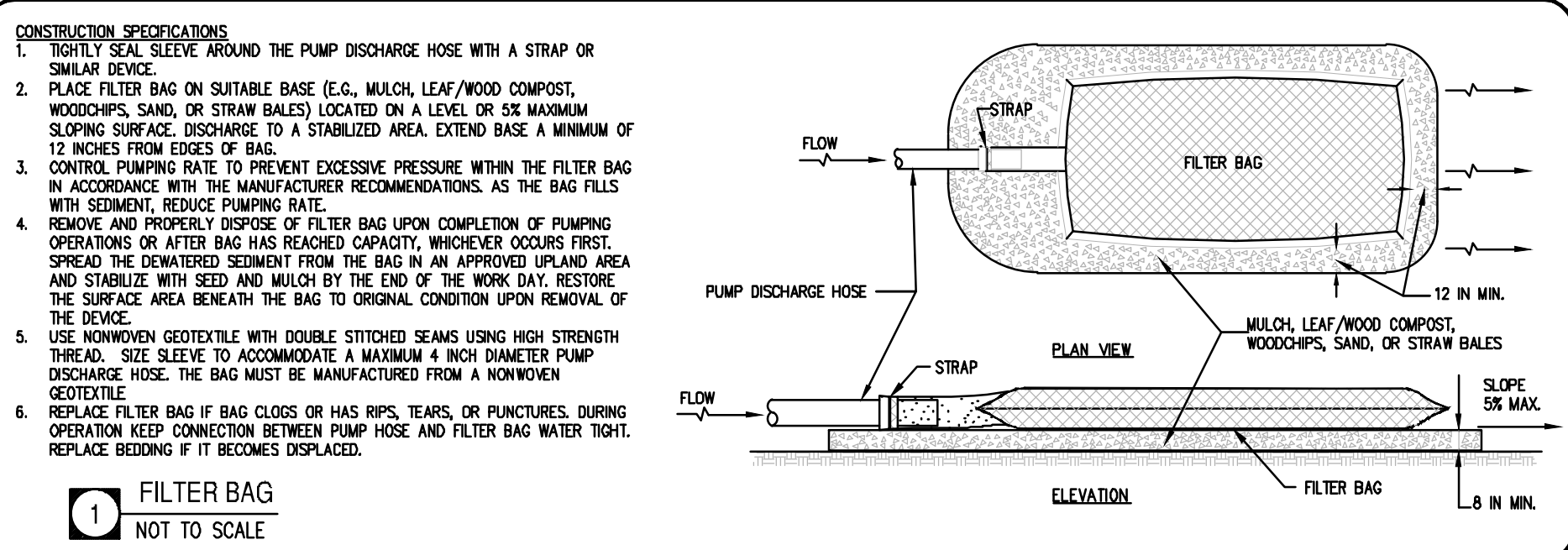
CONSTRUCTION SPECIFICATIONS:

- CLEAR, GRUB AND STRIP THE AREA UNDER THE EMBANKMENT OF ALL VEGETATION AND ROOT MAT. REMOVE ALL SURFACE SOIL CONTAINING HIGH AMOUNTS OF ORGANIC MATTER AND STOCKPILE OR DISPOSE OF IT PROPERLY. Haul all objectionable material to the designated disposal area. PLACE TEMPORARY SEDIMENT CONTROL MEASURES BELOW BASIN AS NEEDED.
- INSURE THAT FILL MATERIAL FOR THE EMBANKMENT IS FREE OF ROOTS, MOODY VEGETATION, ORGANIC MATTER, AND OTHER OBJECTIONABLE MATERIAL. PLACE THE FILL IN LOTS NOT TO EXCEED 8 INCHES, AND MACHINE COMPACT IT OVER FILL THE EMBANKMENT 8 INCHES TO ALLOW FOR SETTLEMENT.
- SHAPE THE BASIN TO THE SPECIFIED DIMENSIONS. PREVENT THE SKIMMER FROM SETTLING INTO THE MUD BY EXCAVATING A SHOULDER PIT UNDER THE SKIMMER OR PROVIDING A LOW SUPPORT UNDER THE SKIMMER OF STONE OR TIMBER.
- PLACE THE BARREL (TYPICALLY 4-INCH SCHEDULE 40 PVC PIPE) ON A FIRM, SMOOTH FOUNDATION OF IMPROVED SOIL. DO NOT USE PERISHABLE MATERIAL, SUCH AS SAND, GRAVEL, OR CRUSHED STONE AS BACKFILL AROUND THE PIPE. PLACE THE FILL MATERIAL AROUND THE PIPE SPILLWAY IN 4-INCH LAYERS AND COMPACT IT UNDER AND AROUND THE PIPE TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. CARE MUST BE TAKEN NOT TO RAISE THE PIPE FROM THE FIRM CONTACT WITH ITS FOUNDATION WHEN COMPACTING UNDER THE PIPE HANDS. PLACE A MIN. DEPTH OF 2 FEET OF COMPACTED BACKFILL OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT. IN NO CASE SHOULD THE PIPE CONTACT BE INSTALLED BY CUTTING A TRENCH THROUGH THE DAM AFTER THE EMBANKMENT IS COMPLETE.
- ASSEMBLE THE SKIMMER FOLLOWING THE MANUFACTURER'S INSTRUCTIONS OR AS DESIGNED.
- LAY THE ASSEMBLED SKIMMER ON THE BOTTOM OF THE BASIN WITH THE FLEXIBLE JOINT AT THE MOUTH OF THE BARREL PIPE. ATTACH THE FLEXIBLE JOINT TO THE BARREL PIPE AND POSITION THE SKIMMER OVER THE EXCAVATED PIT OR SUPPORT. BE SURE TO ATTACH A ROPE TO THE SKIMMER AND ANCHOR IT TO THE SIDE OF THE BASIN. THIS WILL BE USED TO PULL THE SKIMMER TO THE SIDE FOR MAINTENANCE.
- EARTHEN SPILLWAYS-INSTALL THE SPILLWAY IN UNDISTURBED SOIL TO THE GREATEST EXTENT POSSIBLE. THE ACHIEVEMENT OF PLANNED ELEVATIONS, GRADE, DESIGN WIDTH, AND ENTRANCE AND EXIT CHANNEL SLOPES ARE CRITICAL TO THE SUCCESSFUL OPERATION OF THE SPILLWAY. THE SPILLWAY SHOULD BE LINED WITH A UNLINED PLASTIC OR IMPERMEABLE GEOTEXTILE FABRIC. THE FABRIC MUST BE PROPERLY SECURED TO COVER THE BOTTOM AND SIDES AND EXTEND OVER THE TOP OF THE DAM FOR ANCHORING IN A TRENCH. THE EDGES MAY BE SECURED WITH 8-INCH STAPLES OR PINS. THE FABRIC MUST BE LONG ENOUGH TO EXTEND DOWN THE SLOPE AND CUT INTO STABLE COLLARS. THE WIDTH OF THE FABRIC MUST BE ONE PIECE NOT JOINED OR SPLICED. OTHERWISE WATER CAN GET UNDER THE FABRIC. IF THE LENGTH OF THE FABRIC IS INSUFFICIENT FOR THE ENTIRE LENGTH OF THE SPILLWAY, MULTIPLE SECTIONS, SPANNING THE COMPLETE WIDTH, MAY BE USED. THE UPPER SECTIONS SHOULD OVERLAP THE LOWER SECTIONS SO THAT WATER CANNOT FLOW UNDER THE FABRIC. SECURE THE UPPER EDGE AND SIDES OF THE FABRIC WITH A TRENCH WITH STAPLES OR PINS.
- MULCH-DISCHARGE WATER INTO THE BASIN IN A MANNER TO PREVENT GROOMING. USE TEMPORARY SOPE DRAINS OR DIVERSIONS WITH OUTLET PROTECTION TO DIVER SEDIMENT-LADEN WATER TO THE UPPER END OF THE POOL AREA TO IMPROVE BASIN TRAP EFFICIENCY.
- EROSION CONTROL-CONSTRUCT THE STRUCTURE SO THAT THE DISTURBED AREA IS IMMEDIATELY COVERED. WATER AWAY FROM BASIN AREAS. COMPLETE THE EMBANKMENT BEFORE THE AREA IS CLEARED. STABILIZE THE EMERGENCY SPILLWAY EMBANKMENT AND ALL OTHER DISTURBED AREAS ABOVE THE CREST OF THE PROPOSED SPILLWAY IMMEDIATELY AFTER CONSTRUCTION.
- INSTALL PROPOSED BAFFLES AS SPECIFIED IN PRACTICE 6.65, PROPOSED BAFFLES.
- AFTER ALL THE SEDIMENT-PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE THE STRUCTURE AND ALL THE UNSTABLE SEDIMENT. SMOOTH THE AREA TO BLEND WITH THE ALLOWING AREAS AND STABILIZE PROPERLY.



DITCH	FLOW Q(25)	LONG. SLOPE(%)	H	B	W	SS	CHANNEL LINING
TEMPORARY DITCH #1	0.8 CFS	1.54%	1.0'	1.0'	5.0'	2:1	STRAW WITH NET NAG DS75
TEMPORARY DITCH #2	3.5 CFS	1.61%	1.25'	1.0'	6.0'	2:1	STRAW WITH NET NAG DS75

3 TEMPORARY DIVERSION DITCH DATA BLOCK
REFER TO DETAIL SHEET FOR TEMPORARY DITCH DETAIL.



TEMPORARY SEEDING SPECIFICATIONS/SCHEDULE

Date	Type	Planting Rate
March - Oct.	Bromtop Millet	40 lbs/acre
Nov - Feb.	Wheat	120 lbs/acre

PERMANENT SEEDING SPECIFICATIONS/SCHEDULE

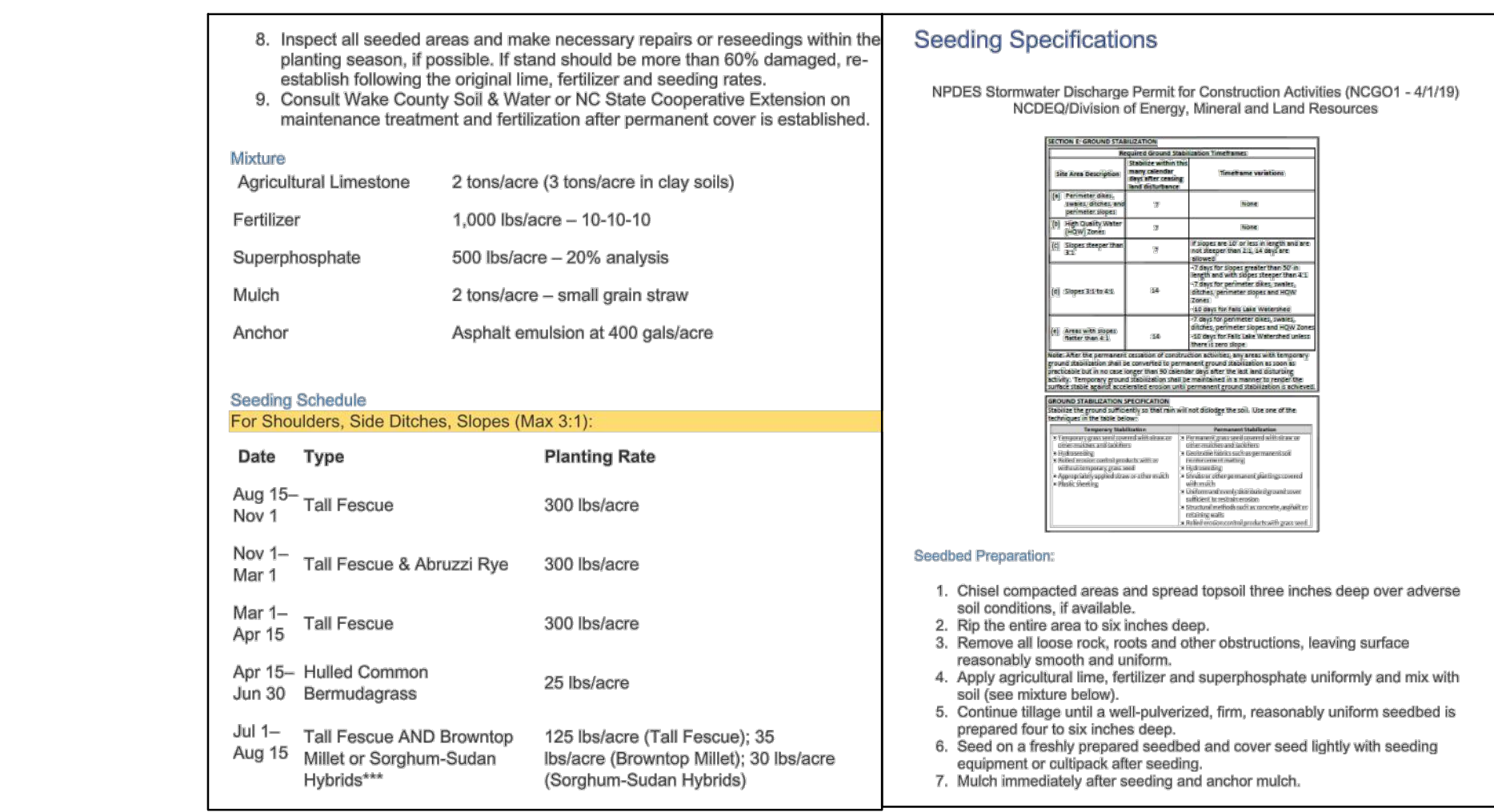
Date	Type	Planting Rate
Aug 15 - Nov 1	Deer Tongue	300 lbs/acre
Nov 1 - Mar 1	Deer Tongue & Abruzzi Rye	300 lbs/acre
Mar 1 - Apr 15	Deer Tongue	300 lbs/acre
Apr 15 - Jun 30	Hulled Common Bermuda Grass	25 lbs/acre
Jul 1 - Aug 15	Deer Tongue & Bromtop Millet or Sorghum-Sudan Hybrids	240 lbs/acre - Deer Tongue: 35 lbs/acre Bromtop Millet 30 lbs/acre Sorghum-Sudan Hybrids

FOR SHOULDERS, SIDE DITCHES, SLOPES (3:1 - 2:1)

Date	Type	Planting Rate
Mar 1 - Jun 1	Switchgrass & the following combinations:	50 lbs/acre (Switchgrass)
Mar 1 - Apr 15	Add Deer Tongue	240 lbs/acre
Mar 1 - Jun 30	or Add Hulled Common Bermuda Grass	25 lbs/acre
Jun 1 - Sep 1	Deer Tongue & Bromtop Millet or Sorghum-Sudan Hybrids	240 lbs/acre Deer Tongue 35 lbs/acre Bromtop Millet 30 lbs/acre Sorghum-Sudan Hybrids
Sep 1 - Mar 1	Switchgrass & Deer Tongue	70 lbs/acre Switchgrass 240 lbs/acre Deer Tongue
Nov 1 - Mar 1	Add Abruzzi Rye	25 lbs/acre

CONSULT SBAEC ENGINEER FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENuded AREAS. THE ABOVE VEGETATION RATES ARE THOSE THAT DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

*** TEMPORARY: RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW MORE THAN 12\"/>



PLAN STATUS

DATE	DESCRIPTION
6/20/22	SITE PLAN SUBMITTAL
10/21/22	PER TOWN REVIEW
4/28/23	PER TOWN REVIEW

DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN
SCALE	1\"/>
JOB No.	220094-01-002
DATE	June 20, 2022
FILE No.	220094-01-002

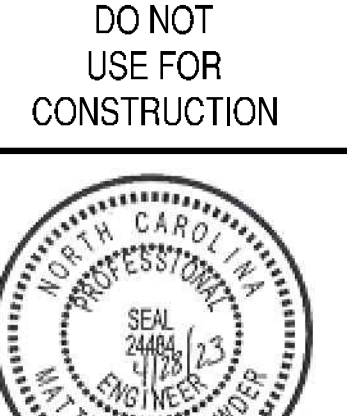
Bowman

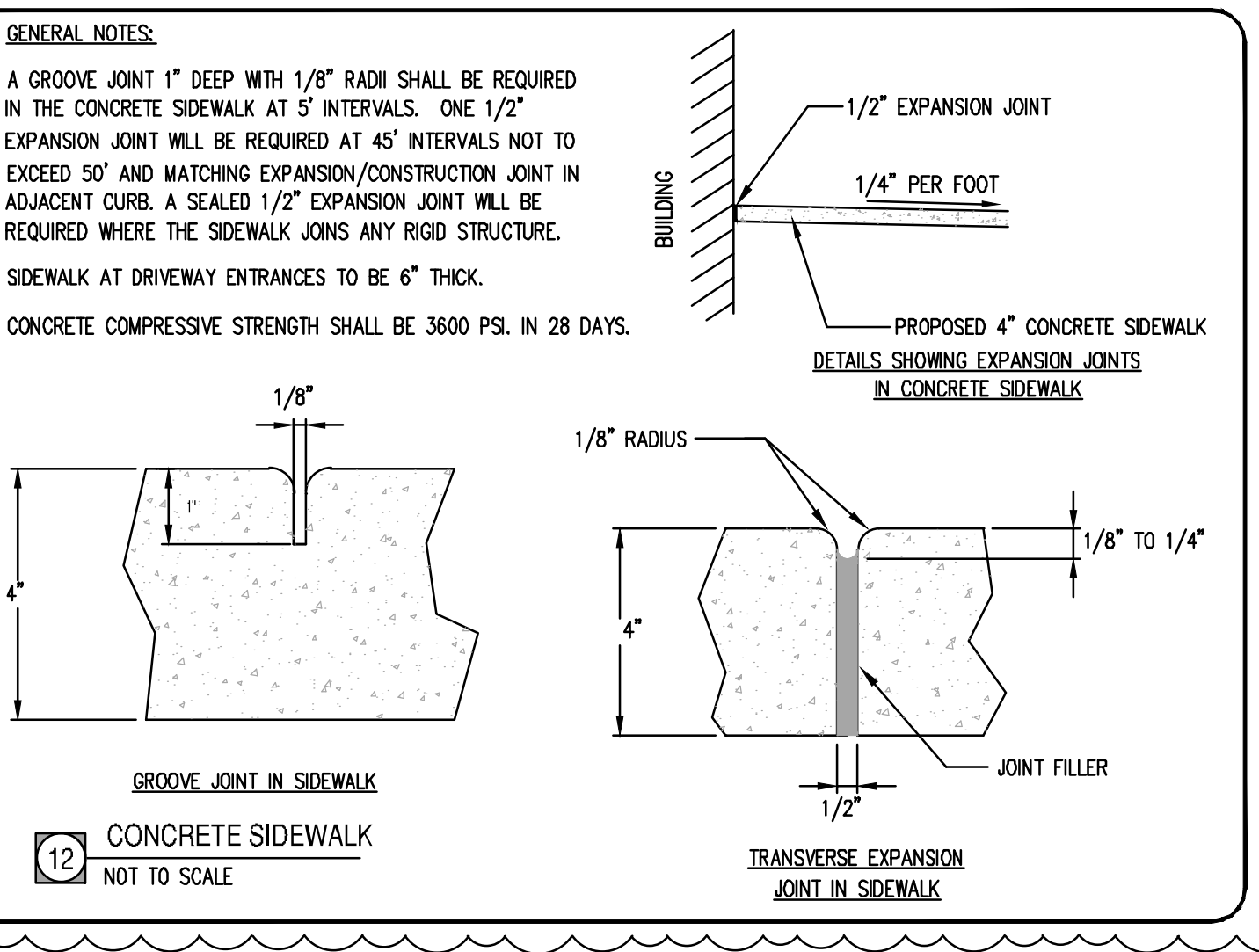
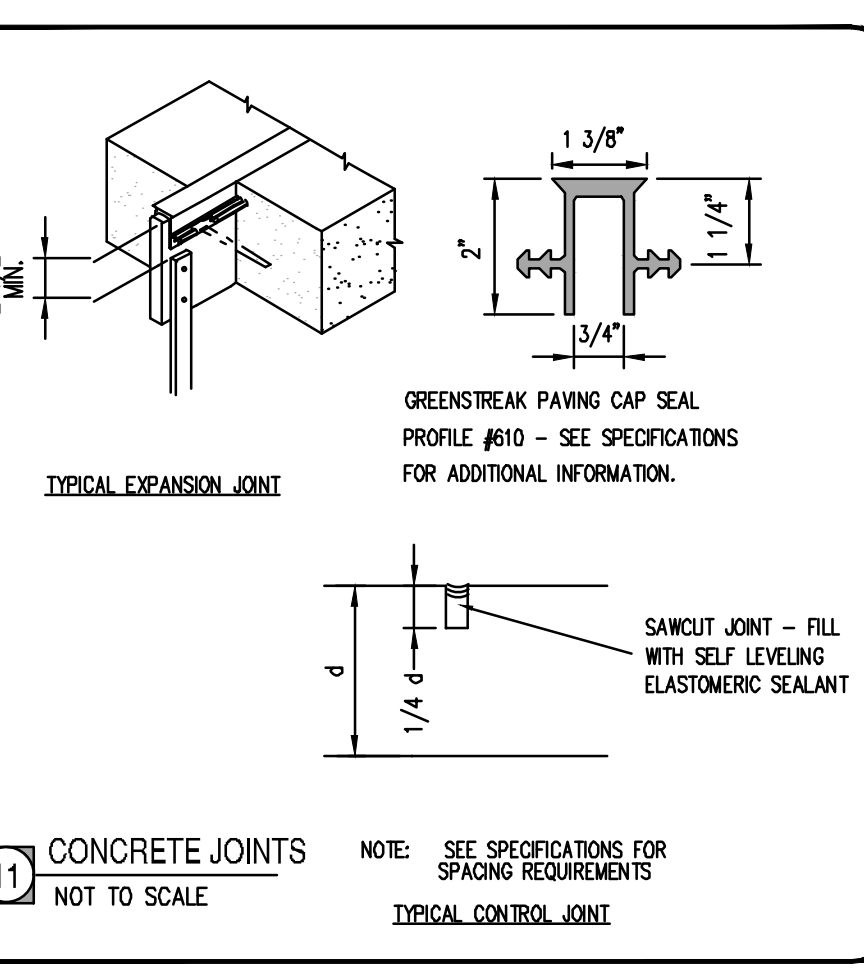
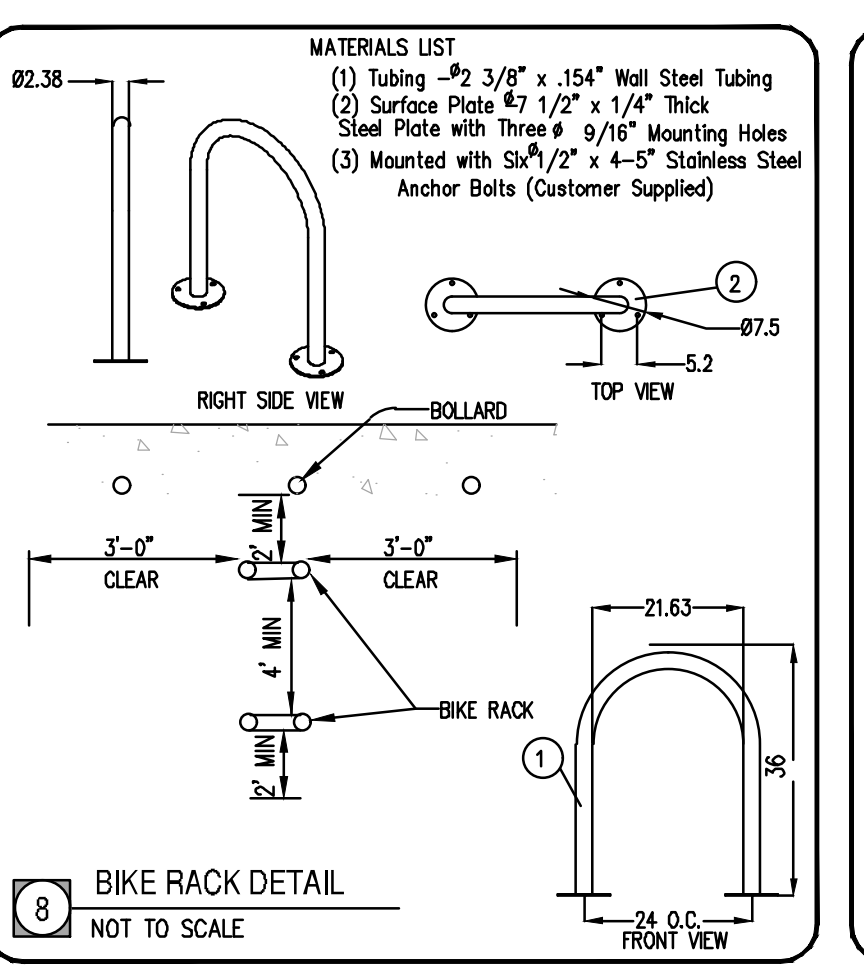
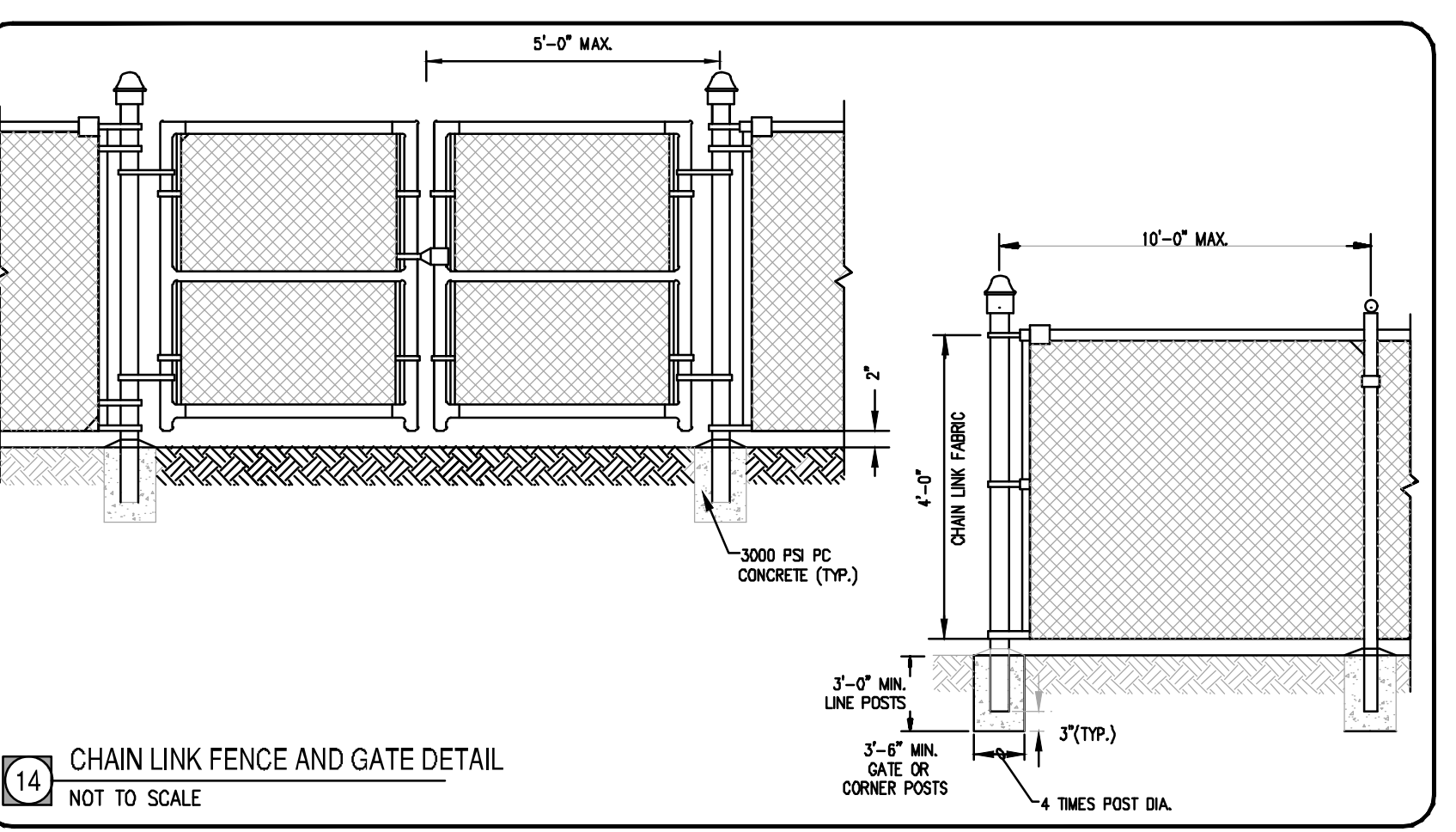
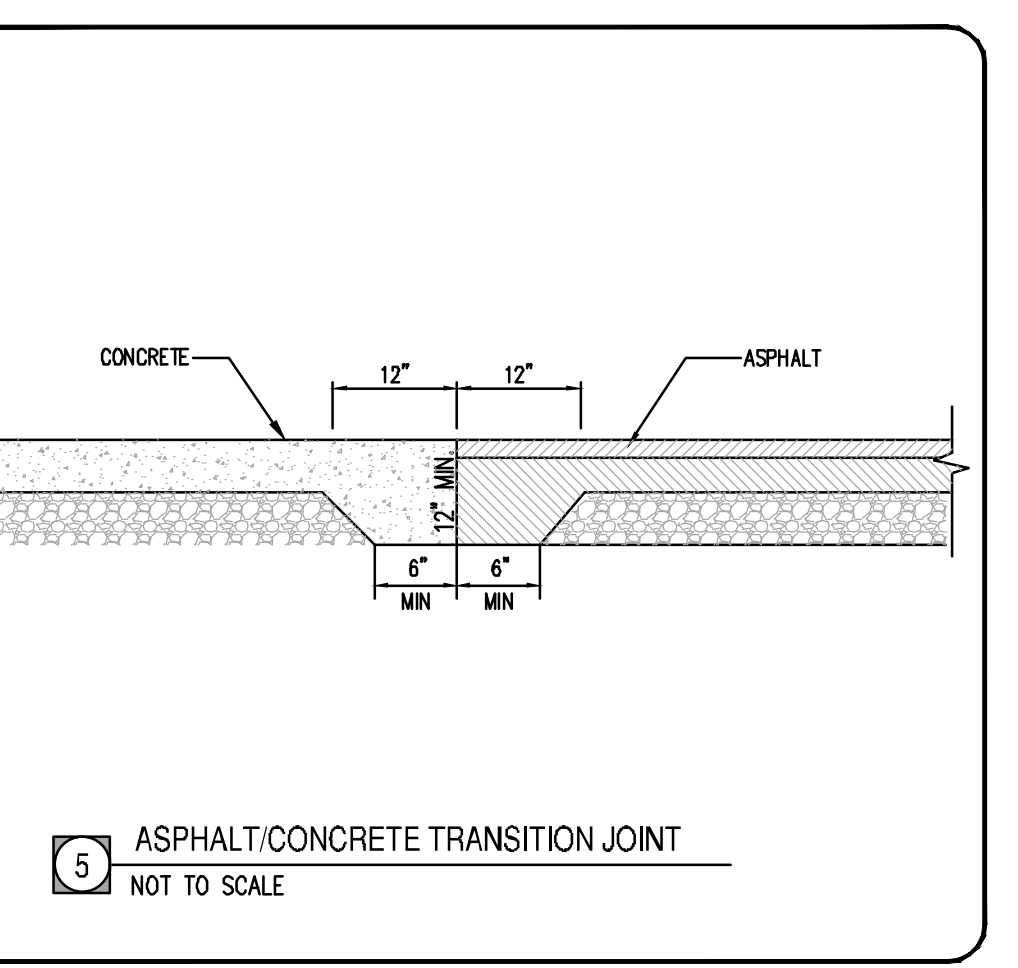
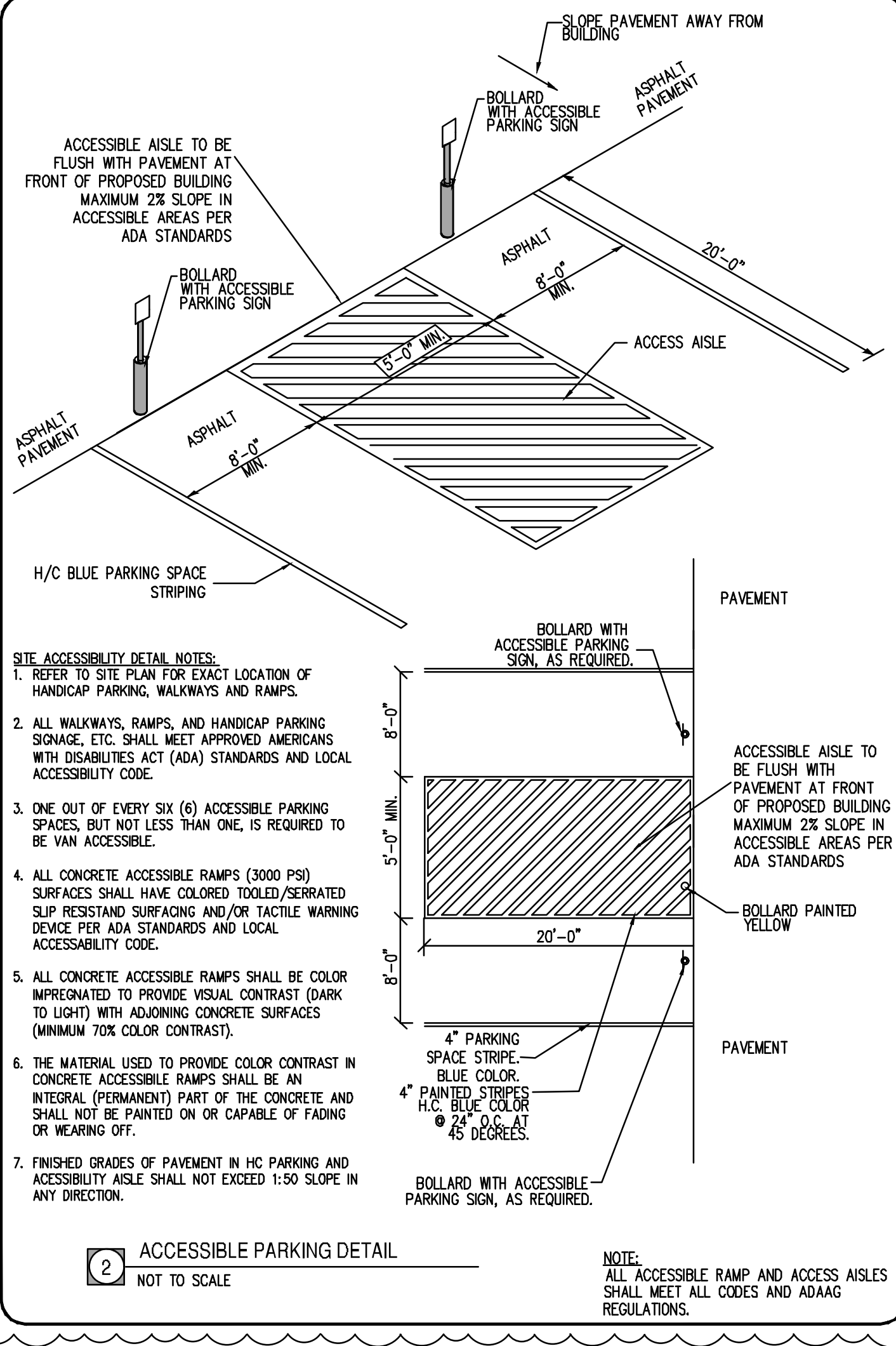
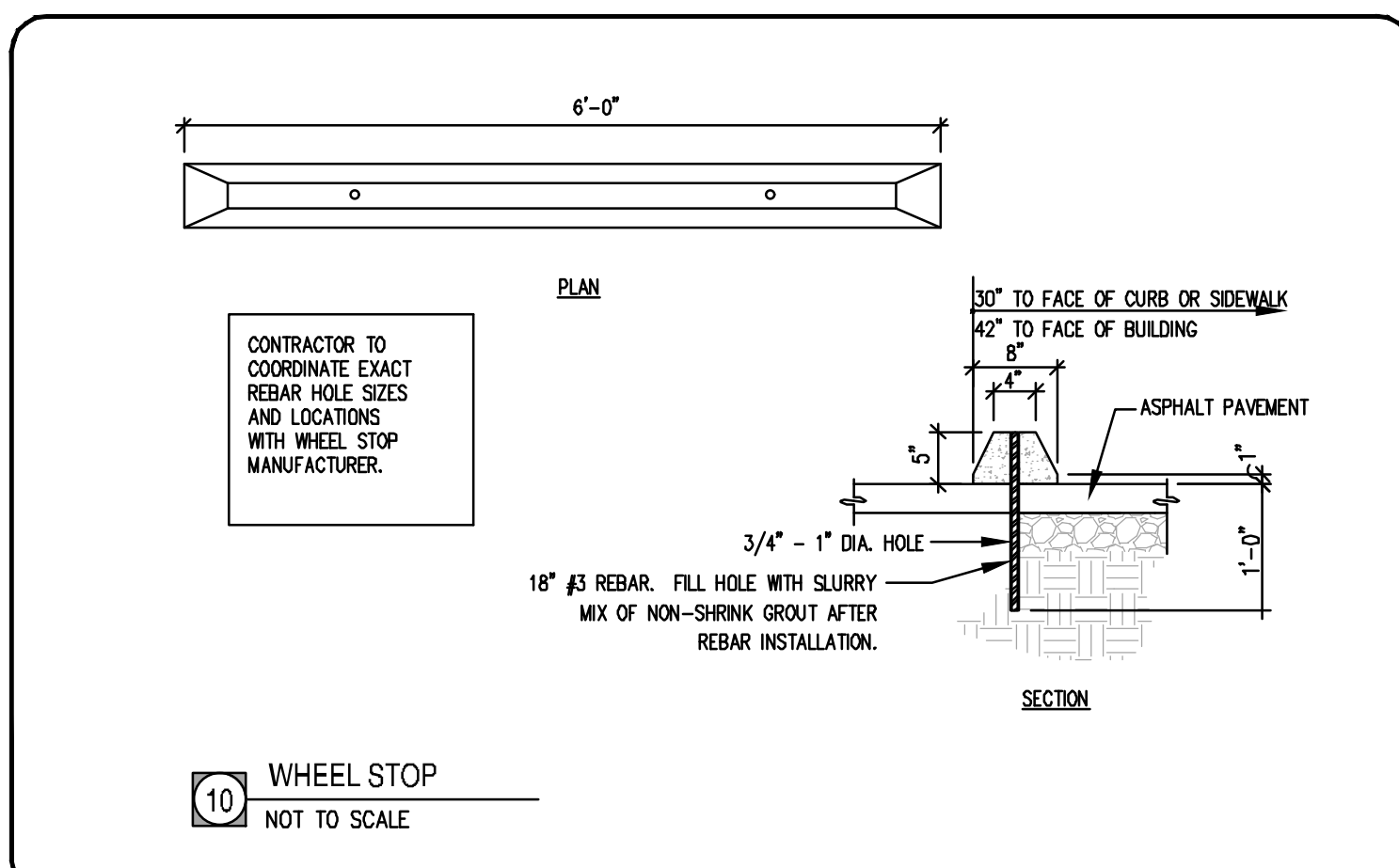
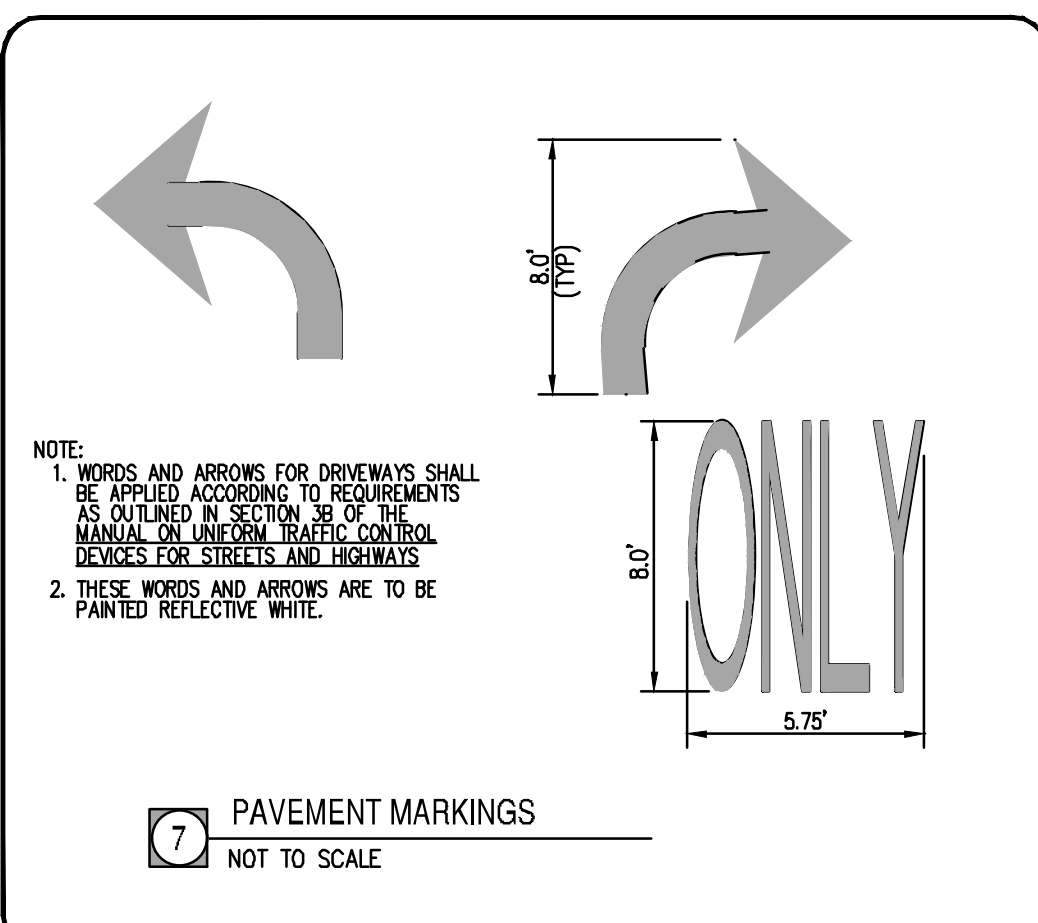
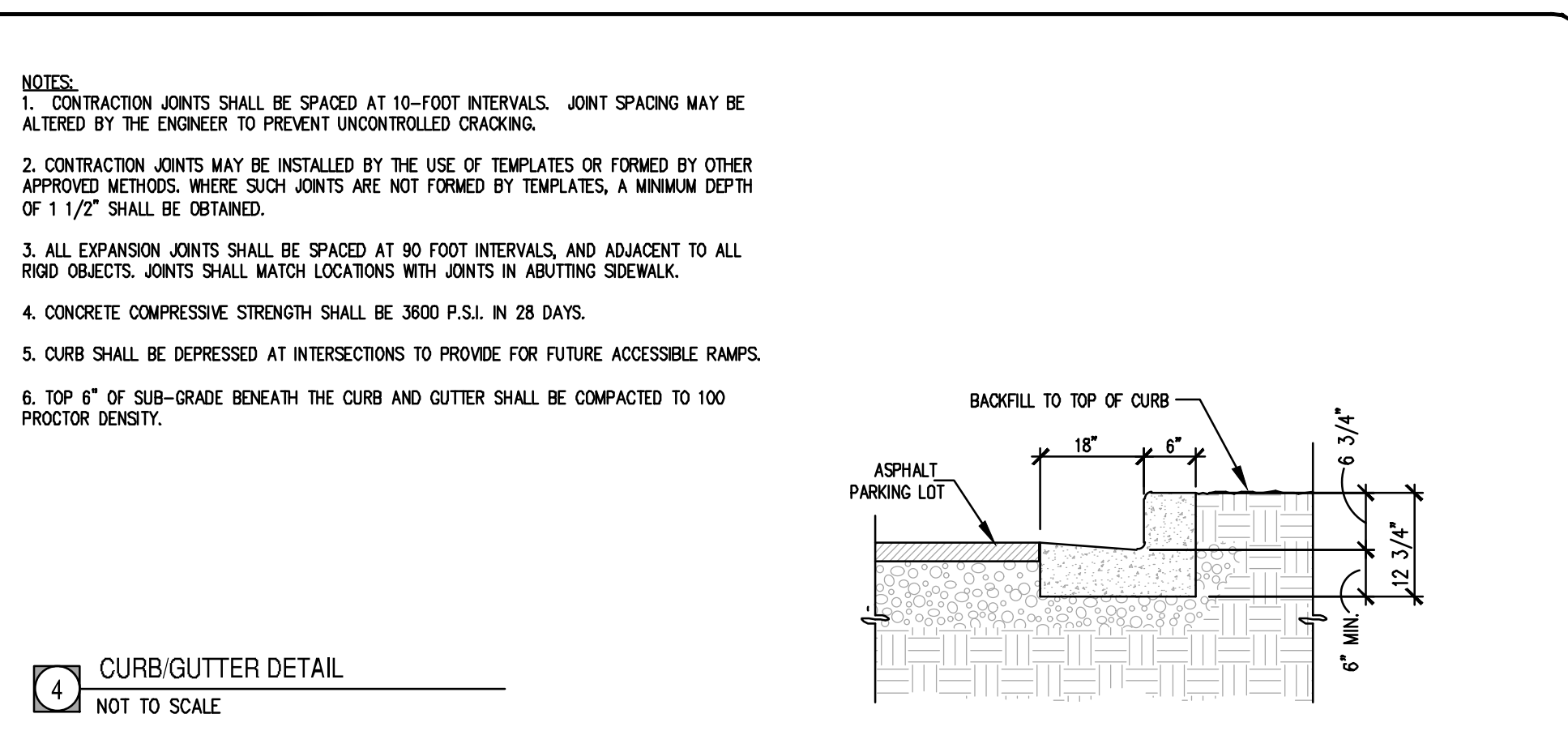
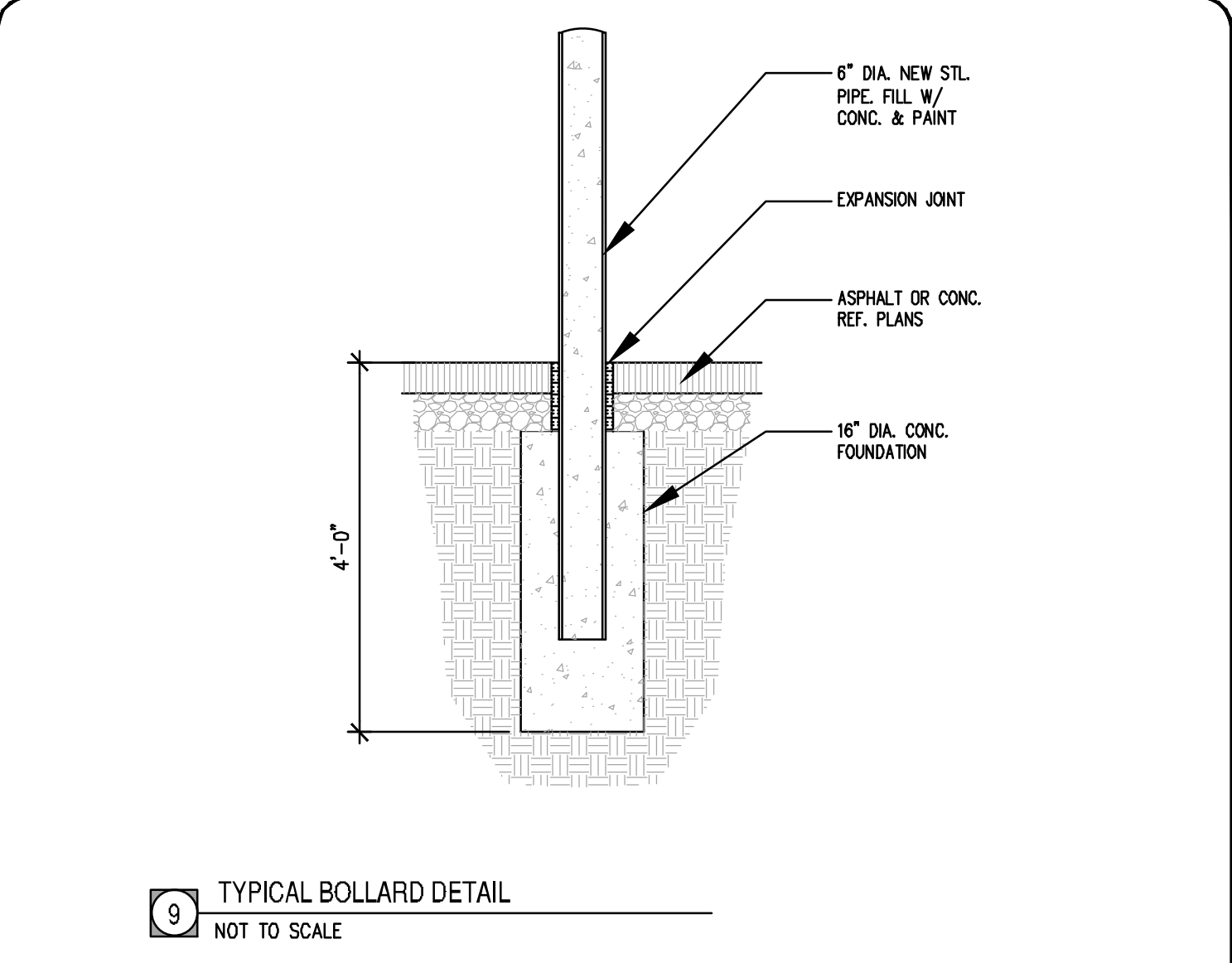
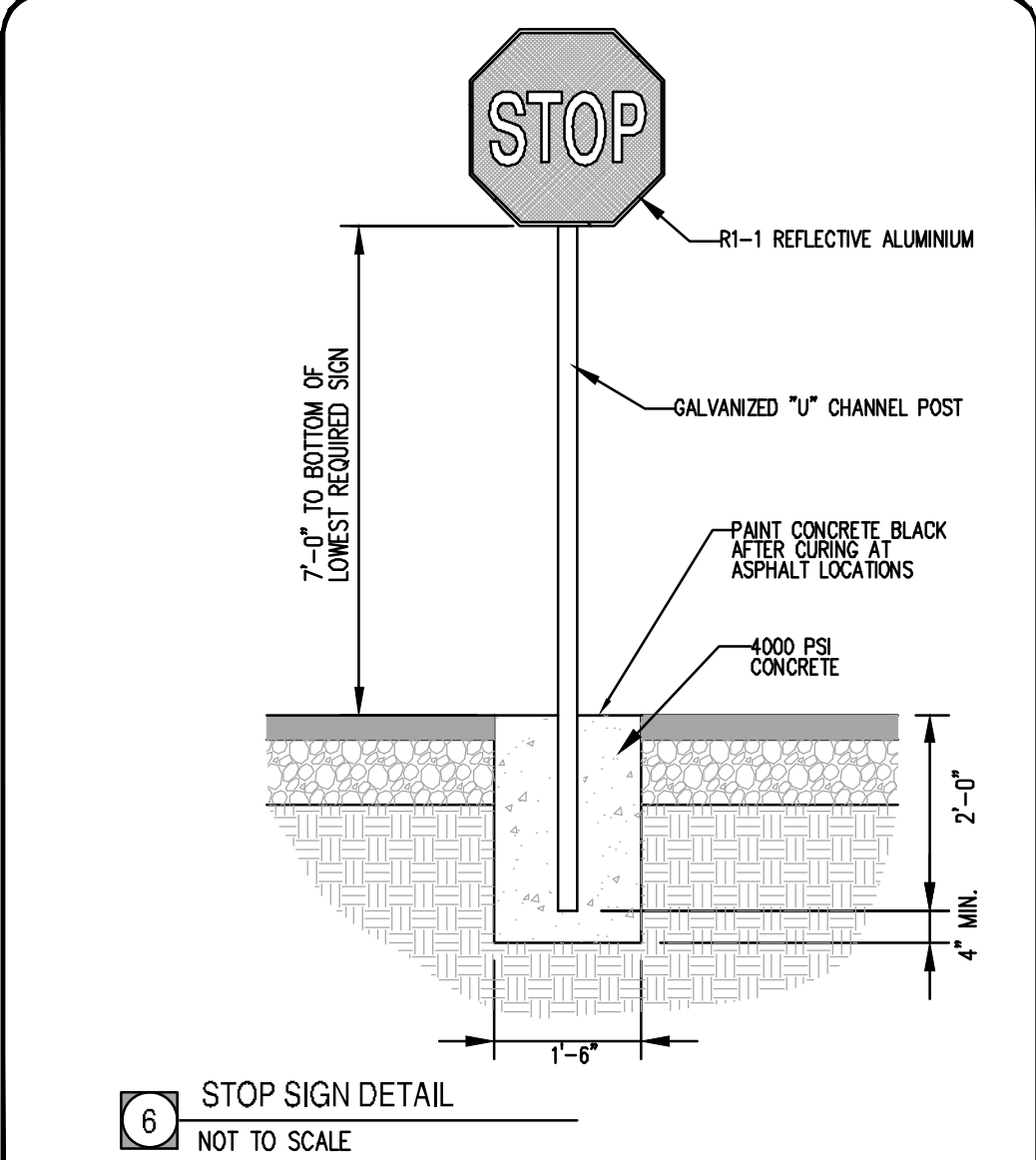
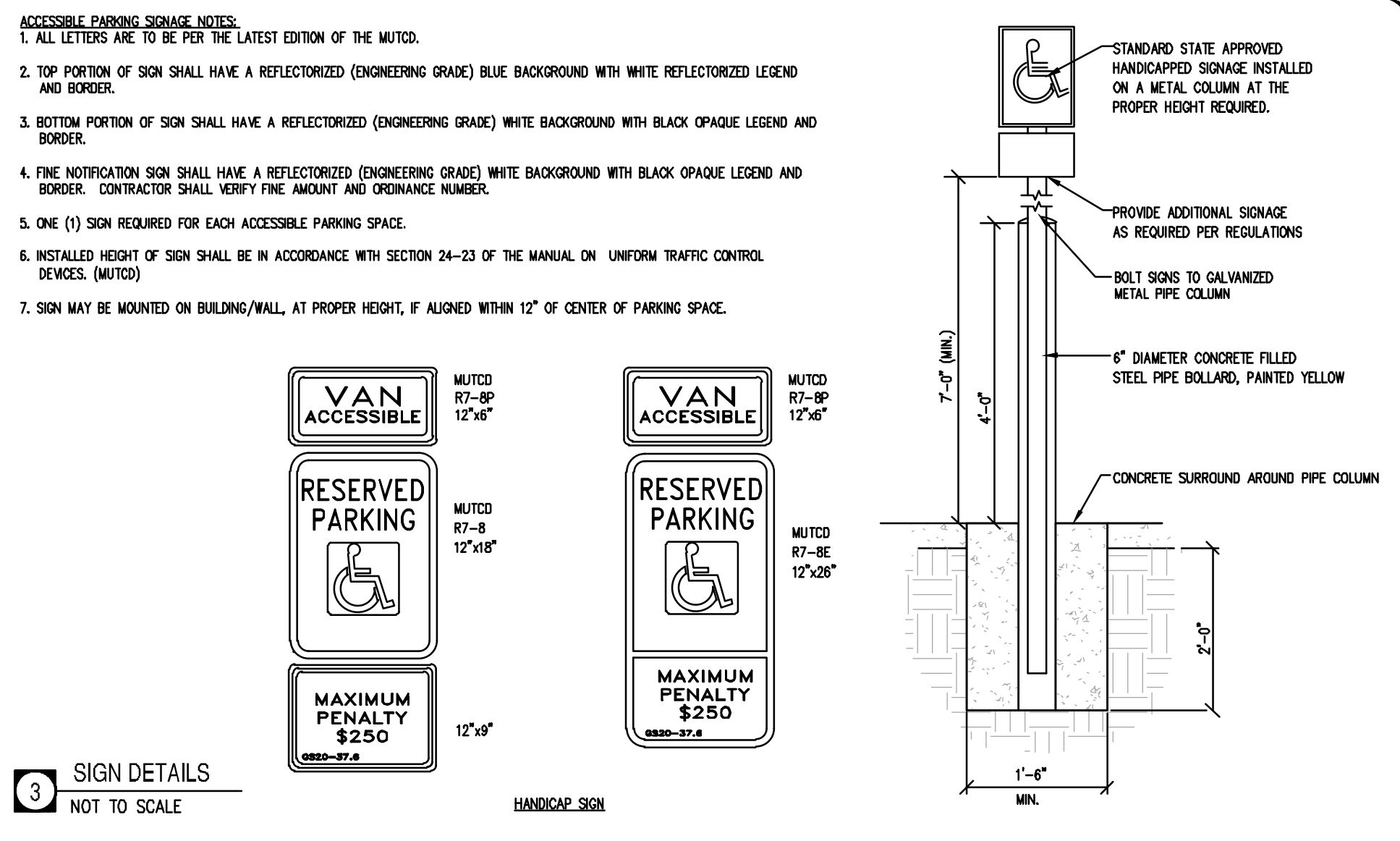
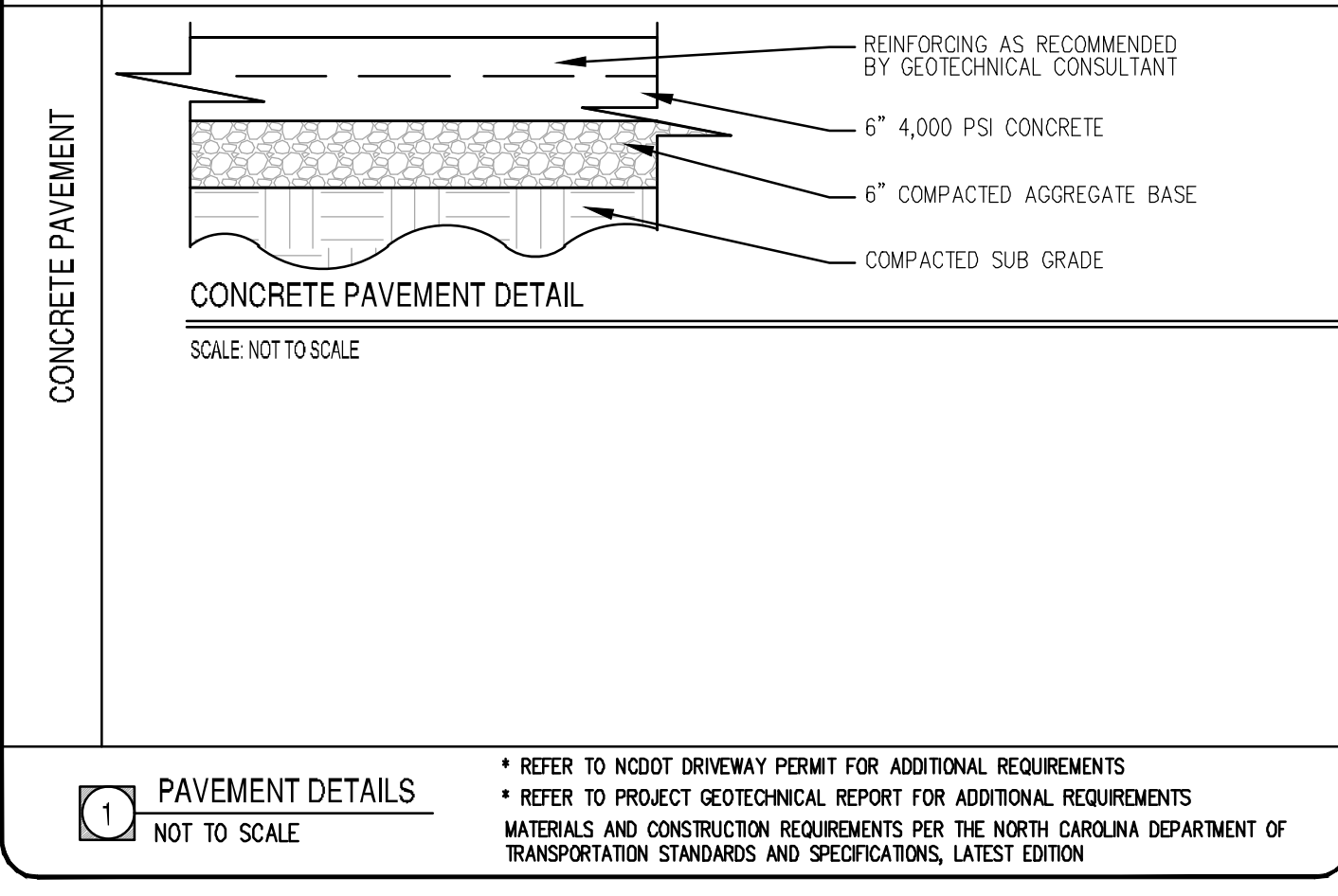
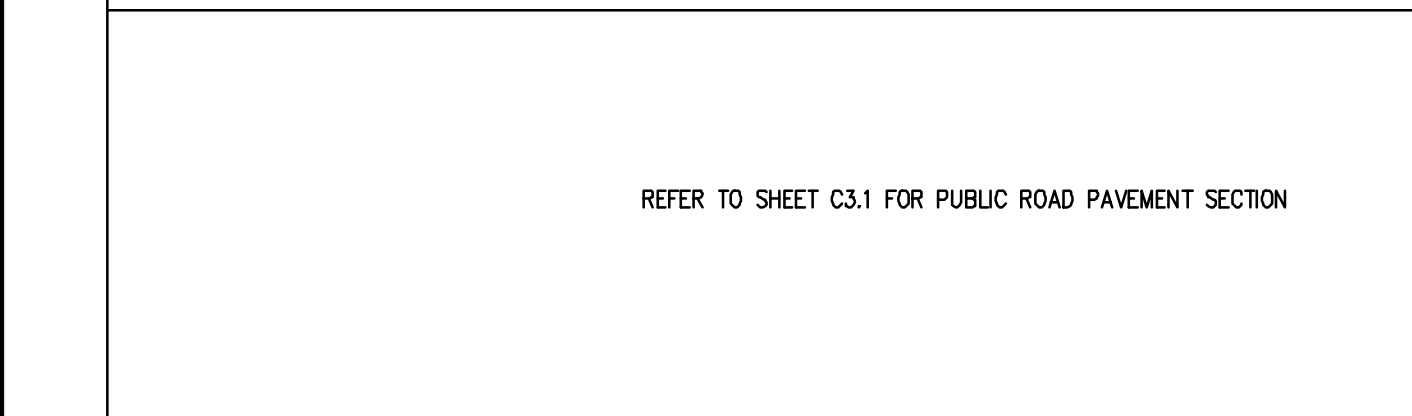
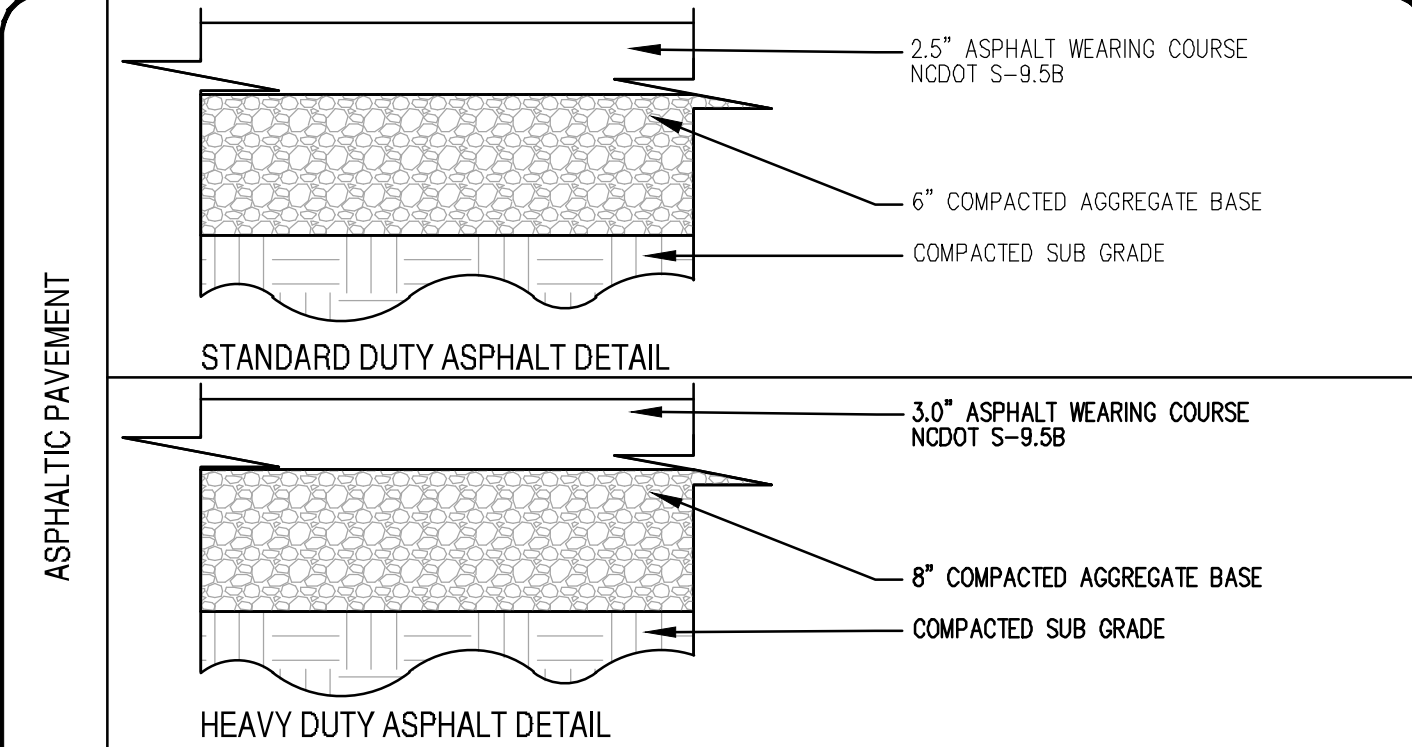
Bowman North Carolina Ltd.
 4006 BARRIETT DR
 SUITE 104
 RALEIGH, NC 27609
 Phone: (919) 955-6570
 bowman.com

Wake County
 Project ID#736479

EROSION CONTROL DETAILS
 Rocket Wash
 Arendell Ave
 Zebulon, NC

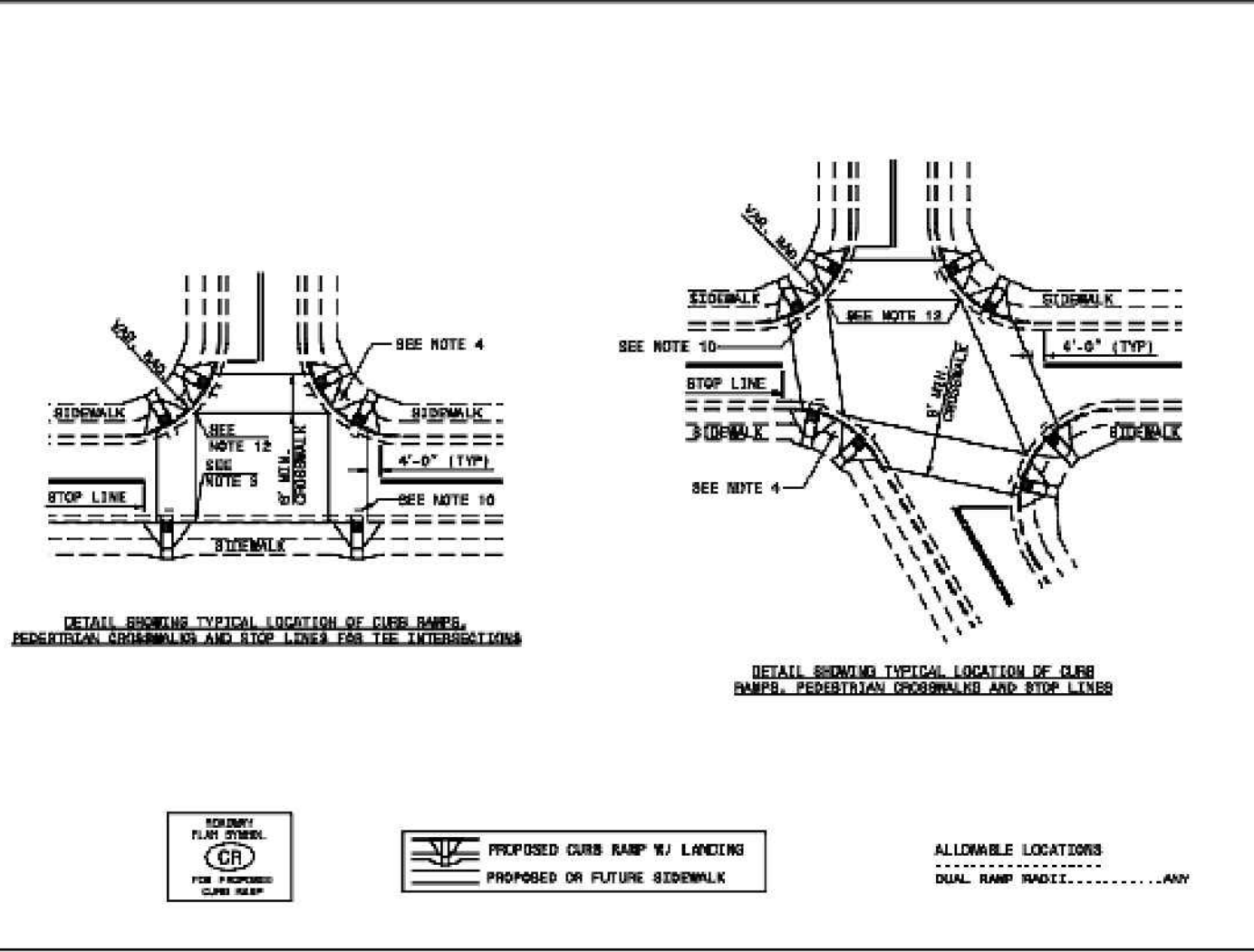
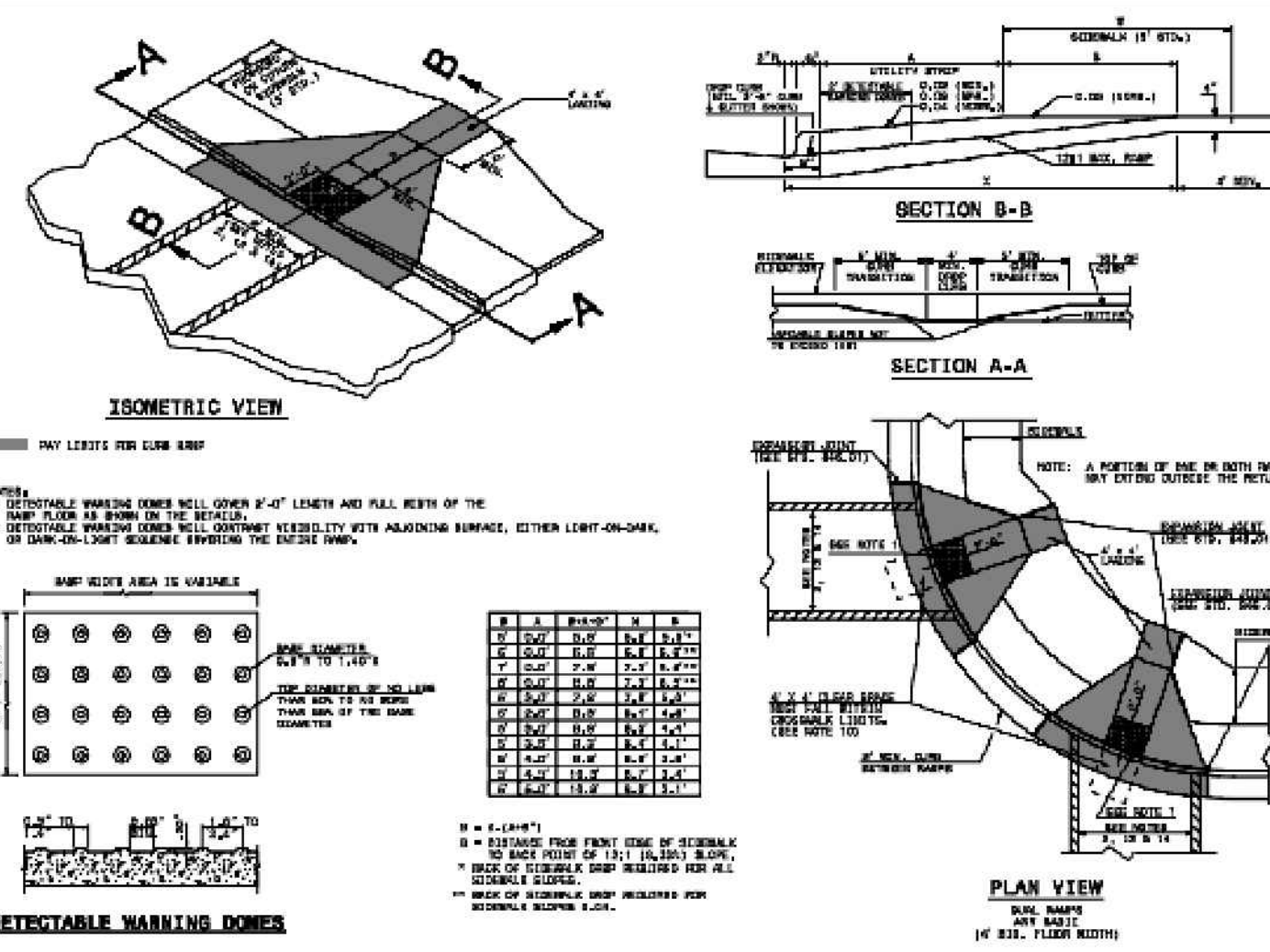
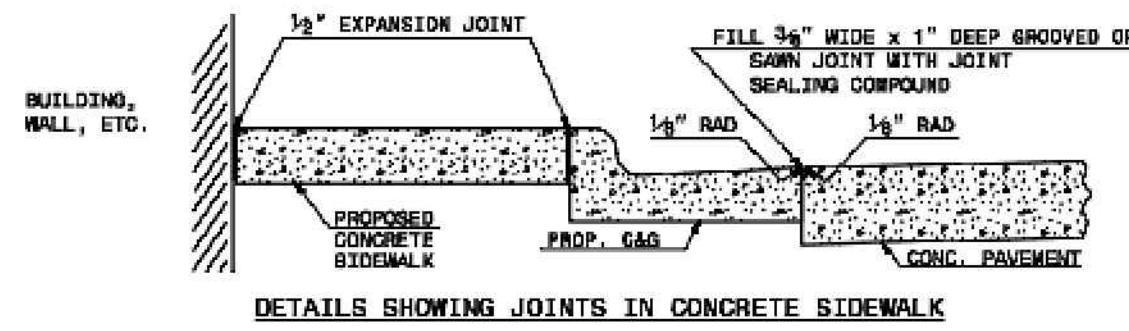
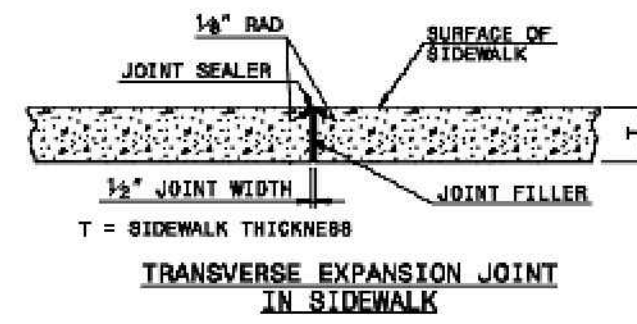
PRELIMINARY
 DO NOT
 USE FOR
 CONSTRUCTION





PLAN STATUS		
6/20/22	SITE PLAN SUBMITTAL	
10/21/22	PER TOWN REVIEW	
4/28/23	PER TOWN REVIEW	
DATE	DESCRIPTION	
MEL DESIGN	MEL DRAWN	XXX CHKD
SCALE	H: 1" = 20' V: 1" = 40'	
JOB No.	220094-01-002	
DATE	June 20, 2022	
FILE No.	220094-01-002	

NOTES:
 CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.
 PLACE A GROOVE JOINT 1" DEEP WITH 1/8" RADIUS IN THE CONCRETE SIDEWALK AT 5' INTERVALS.
 ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
 SEE STD. DWG. 848.05 FOR CURB RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.



STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CONCRETE SIDEWALK

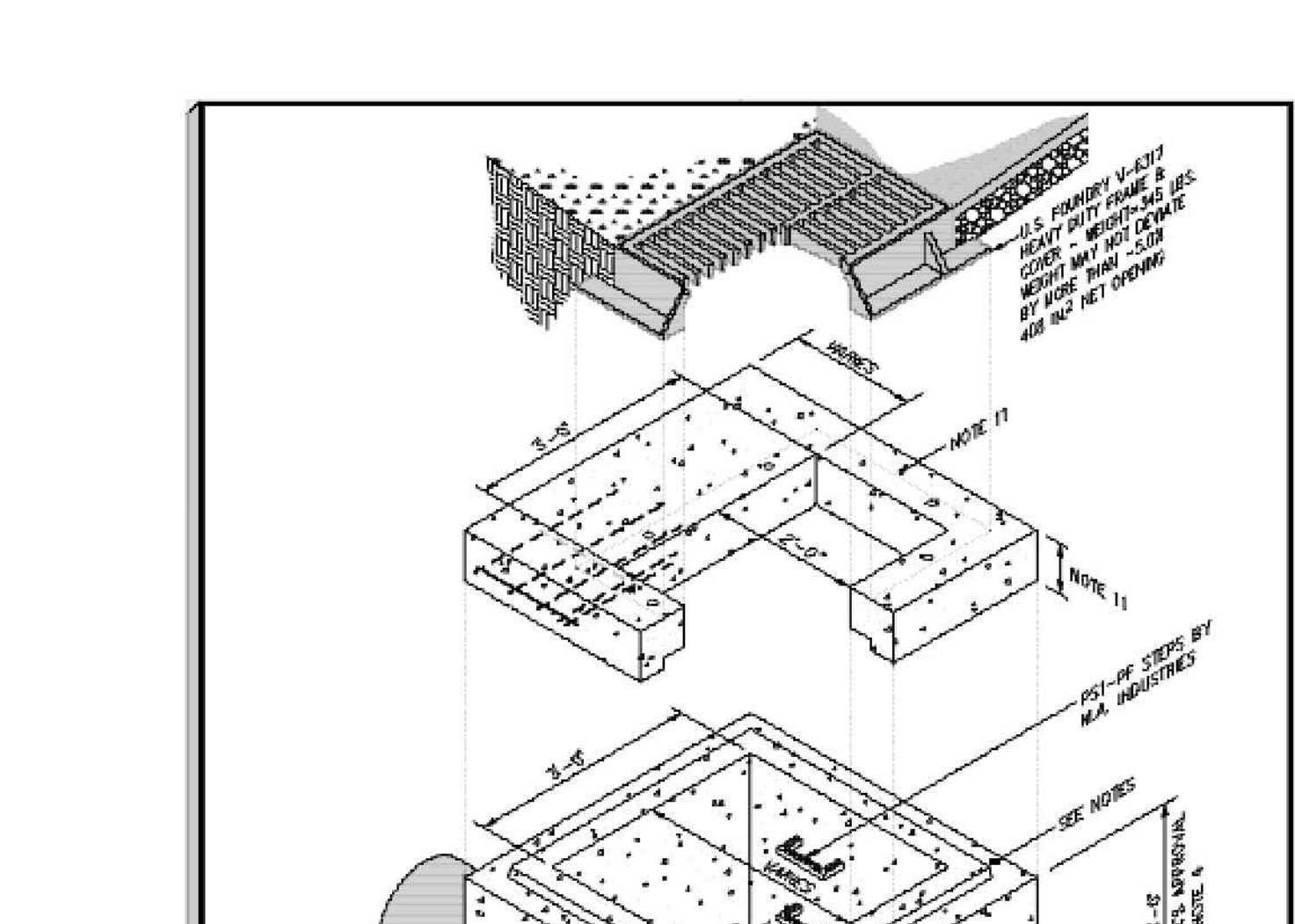
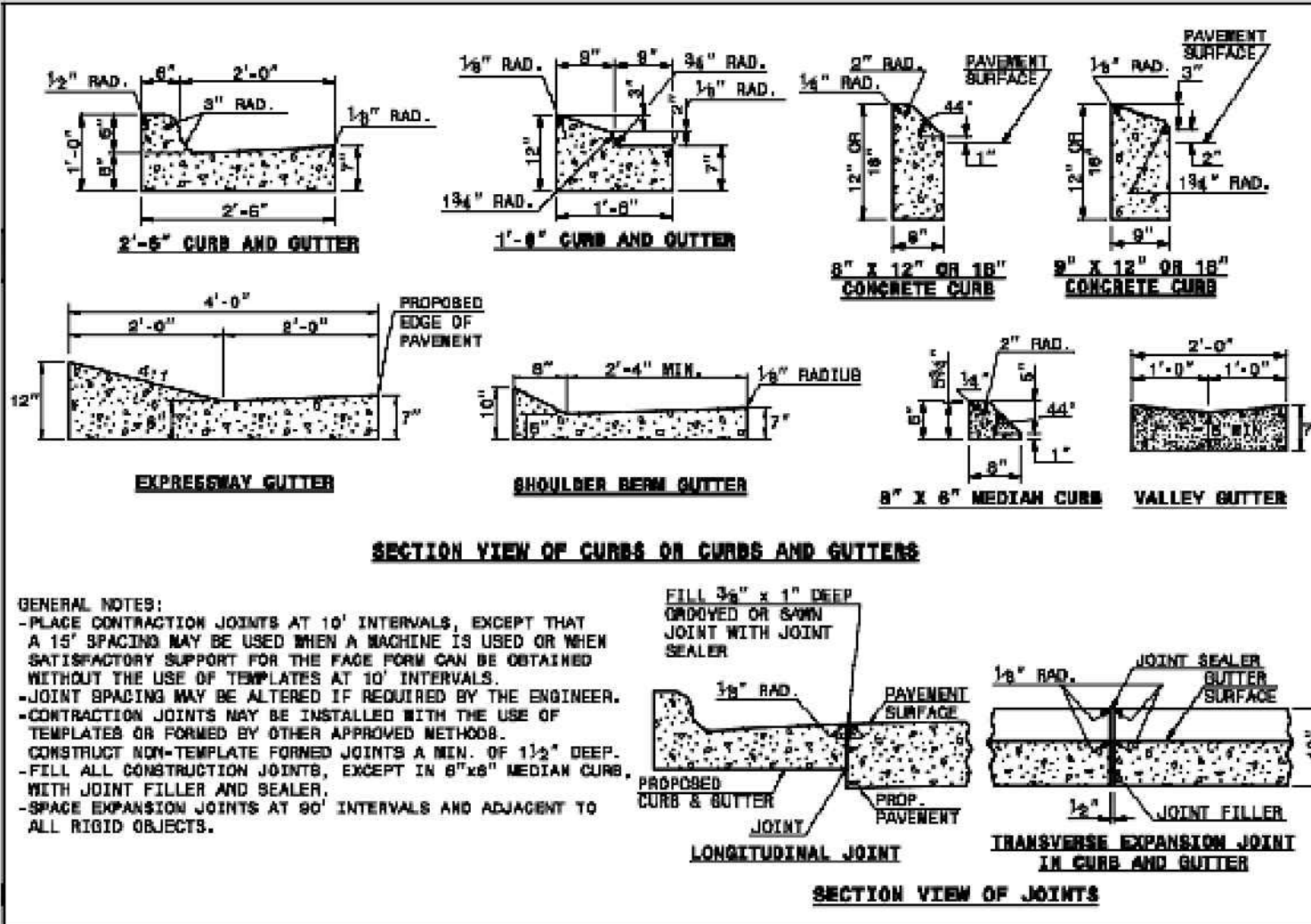
STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP

STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP AND GUTTER

- NOTES:
- CONSTRUCT THE RAMP SURFACE TO BE STABLE, FIRM, AND SLIP RESISTANT. CONSTRUCT THE CURB RAMP TYPE AS SHOWN IN THE PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER.
 - LOCATE CURB RAMP AND PLACE PEDESTRIAN CROSSWALK MARKINGS AS SHOWN IN THE PAVEMENT MARKING PLANS. WHEN FIELD ADJUSTMENTS REQUIRE MOVING CURB RAMP OR MARKINGS AS SHOWN, CONTACT THE SURVEY AND DELINEATION UNIT OR LOCATE AS DIRECTED BY THE ENGINEER.
 - COORDINATE THE CURB RAMP AND THE PEDESTRIAN CROSSWALK MARKINGS TO A 4" CLEAR SPACE AT THE BASE OF THE CURB RAMP SHALL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.
 - SET BACK DISTANCE FROM 24520E CROSSWALK MARKING TO REAR EDGE OF TRAVEL LANE IS 4' MINIMUM.
 - REFER TO THE PAVEMENT MARKING PLANS FOR STOP BAR LOCATIONS AT SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR LOCATE AS DIRECTED BY THE ENGINEER.
 - TERMINATE PARKING A MINIMUM OF 20' BACK OF A PEDESTRIAN CROSSWALK.
 - CONSTRUCT CURB RAMP AS A MINIMUM OF 4" WIDE.
 - CONSTRUCT THE RUNNING SLOPE OF THE RAMP 0.33% MAXIMUM.
 - ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMP SHALL BE 2% MAXIMUM.
 - CONSTRUCT THE EDGE FLARE SLOPE A MAXIMUM OF 10% MEASURED ALONG THE CURB LINE.
 - CONSTRUCT THE COUNTER SLOPE OF THE CUTTER OR STREET AT THE BASE OF THE CURB RAMP A MAXIMUM OF 5% AND MAINTAIN A SMOOTH TRANSITION.
 - CONSTRUCT LANDINGS FOR SIDEWALK A MINIMUM OF 4'x4' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. CONSTRUCT LANDINGS FOR MEDIAN ISLANDS A MINIMUM OF 5'x5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
 - USE A MEDIAN ISLAND AS A PEDESTRIAN REFUGE AREA. MEDIAN ISLANDS WILL BE A MINIMUM OF 6' WIDE. CONSTRUCT MEDIAN ISLANDS TO PROVIDE PASSAGE OVER OR THROUGH THE ISLAND.
 - SMALL SIGNALIZATION ISLANDS THAT CAN NOT PROVIDE A 5'x5' LANDING AT THE TOP OF A RAMP, WILL BE CUT THROUGH LEVEL WITH THE SURFACE STREET.
 - CURB RAMP WITH REINFORCED CONCRETE SHALL NOT NORMALLY BE USED FOR SIDEWALKS. THE ADJACENT SIDEWALK SHALL BE PLACED ON OTHER NON-REINFORCED SURFACE OR THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED.
 - PLACE A 1/2" EXPANSION JOINT WHERE THE CONCRETE CURB RAMP JOINS THE CURB AS SHOWN IN ROADWAY STANDARD DRAWING 848.01
 - PLACE ALL PEDESTRIAN PUSH BUTTON ACTUATORS AND CROSSWALK SIGNALS AS SHOWN IN THE PLANS OR AS SHOWN IN THE NOTES.
 - CURB RAMP THROUGH MEDIAN ISLANDS, SIDEWALK RAMP AT DUAL CROSSWALKS OR LIMITED R/W SITUATIONS, WILL BE HANDLED BY SPECIAL DETAILS. CONTACT THE CONTRACT STANDARDS AND DEVELOPMENT UNIT FOR THE DETAILS OR FOR A SPECIAL ORDER.

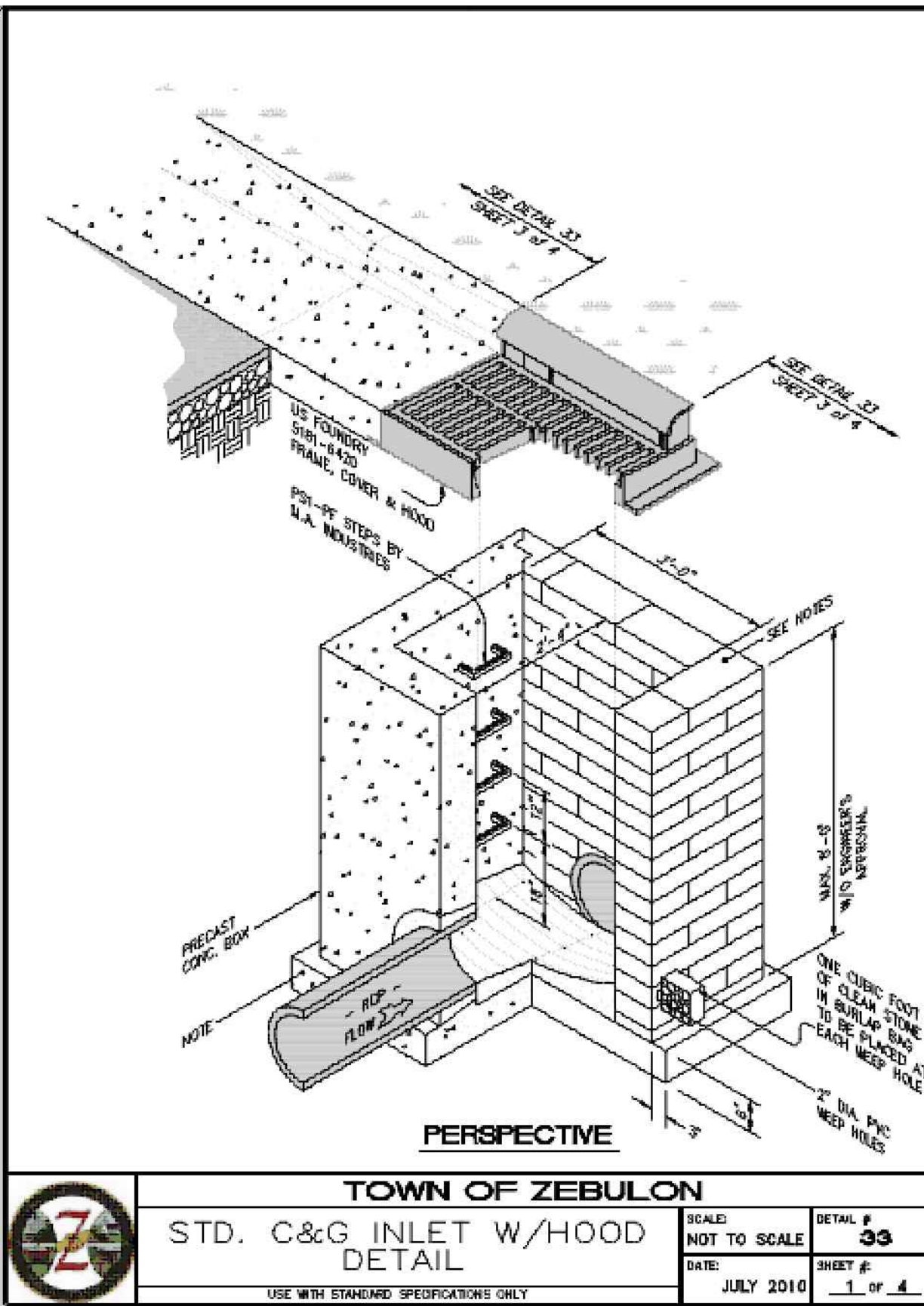


STATE OF NORTH CAROLINA
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 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR
CURB RAMP NOTES

STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

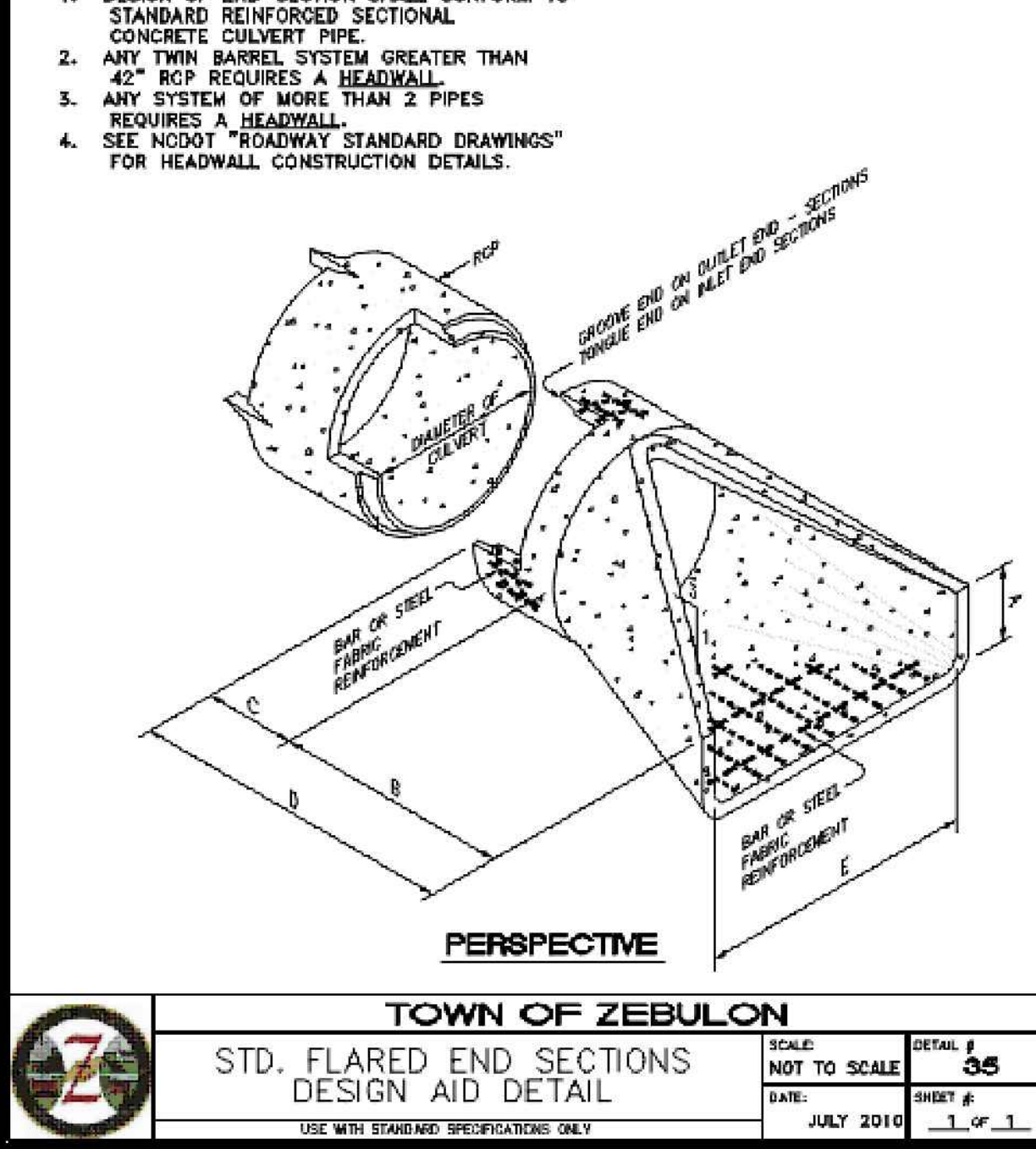
ROADWAY STANDARD DRAWING FOR
CONCRETE CURB, GUTTER AND CURB & GUTTER



END SECTION DIMENSIONS

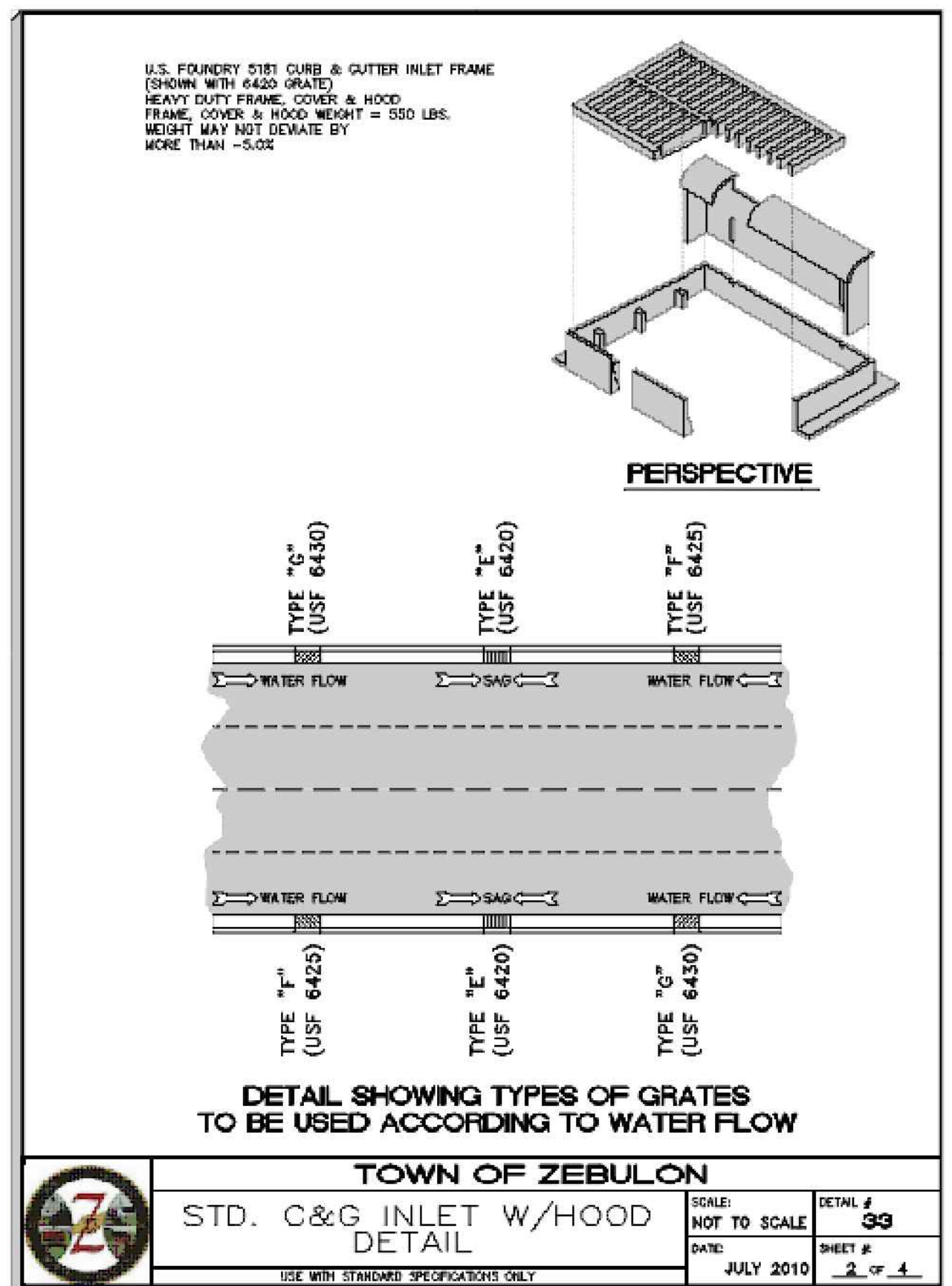
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18"	9"	2'-3"	3'-11 3/4"	6'-2 3/4"	3'-0"
34"	9"	3'-3"	3'-1"	6'-8"	3'-11 3/4"
30"	1'-0"	4'-6 1/2"	1'-10 1/2"	6'-5"	5'-0"
36"	1'-4"	5'-0"	3'-10 1/2"	6'-1 1/2"	5'-11"
42"	1'-10 1/4"	5'-1 3/8"	3'-1"	6'-2 3/8"	6'-5 1/4"

NOTES:
 1. DESIGN OF END-SECTION SHALL CONFORM TO STANDARD REINFORCED SECTIONAL CONCRETE CULVERT PIPE.
 2. ANY TWIN BARREL SYSTEM GREATER THAN 42" RCP REQUIRES A HEADWALL.
 3. ANY SYSTEM OF MORE THAN 2 PIPES REQUIRES A HEADWALL.
 4. SEE NCDOT "ROADWAY STANDARD DRAWINGS" FOR HEADWALL CONSTRUCTION DETAILS.



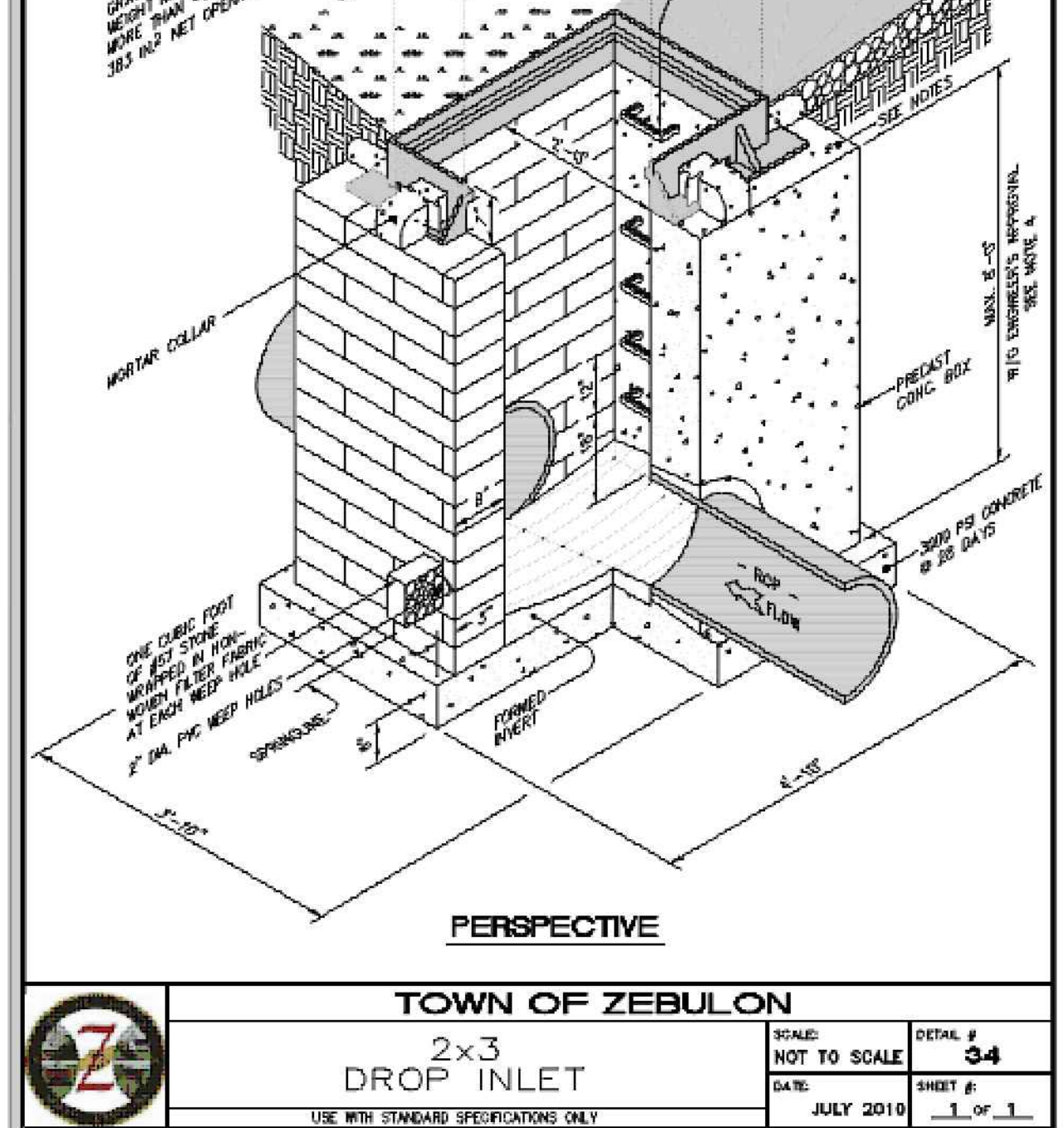
TOWN OF ZEBULON
 STD. 3' x VARIABLE LENGTH PRECAST BOX WITH 2' x 3' C.B.

SCALE: NOT TO SCALE
 DATE: JULY 2010
 SHEET # 2 OF 2



TOWN OF ZEBULON
 2x3 DROP INLET

SCALE: NOT TO SCALE
 DATE: JULY 2010
 SHEET # 1 OF 1



TOWN OF ZEBULON
 2x3 DROP INLET

SCALE: NOT TO SCALE
 DATE: JULY 2010
 SHEET # 1 OF 1

Bowman

Bowman North Carolina Ltd.
 4006 BARRETT DR
 Suite 104
 RALEIGH, NC 27609
 Phone: (919)555-6570
 bowman.com

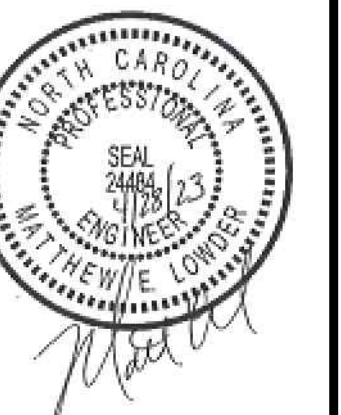
CONSTRUCTION DETAILS
 Rocket Wash
 Arendell Ave
 Zebulon, NC
 Project ID#736479

PRELIMINARY
 DO NOT
 USE FOR
 CONSTRUCTION

PLAN STATUS
 6/20/22 SITE PLAN SUBMITTAL
 10/21/22 PER TOWN REVIEW
 4/28/23 PER TOWN REVIEW

DATE DESCRIPTION
 MEL DESIGN MEL DRAW XXX
 SCALE H: 1" = 40'
 V: 1" = 400'
 JOB No. 220094-01-002
 220097-01-002
 DATE June 20, 2022
 FILE No. 220094-01-002
 220097-01-002

SHEET C6.3A



PLAN STATUS	
6/20/22	SITE PLAN SUBMITTAL
10/21/22	PER TOWN REVIEW
4/28/23	PER TOWN REVIEW

DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN XXX CHKD
SCALE	H: 1" = 40'
	V: 1" = XXX'
JOB No.	220094-01-002
	220097-01-002
DATE	June 20, 2022
FILE No.	220094-01-002
	220097-01-002

SECTIONAL VIEW

SECTIONAL VIEW

PLAN VIEW

TOWN OF ZEBULON
SIDEWALK DETAIL X-ING EX. DRIVEWAYS
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 14
DETAIL # 14
USE WITH STANDARD SPECIFICATIONS ONLY

SECTIONAL VIEW

TOWN OF ZEBULON
TYP SIDEWALK in CUT or FILL SECTIONS
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 18
DETAIL # 18
USE WITH STANDARD SPECIFICATIONS ONLY

SECTIONAL VIEW

TOWN OF ZEBULON
TYP SIDEWALK in CUT or FILL SECTIONS
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 12
DETAIL # 12
USE WITH STANDARD SPECIFICATIONS ONLY

SECTIONAL VIEW

TOWN OF ZEBULON
FULL DEPTH ASPHALT REPAIR DETAIL FOR UTILITY CUTS
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 9
DETAIL # 9
USE WITH STANDARD SPECIFICATIONS ONLY

SECTIONAL VIEW

SECTIONAL VIEW

TOWN OF ZEBULON
STD. CURB & GUTTER & VALLEY GUTTER DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 3
DETAIL # 3
USE WITH STANDARD SPECIFICATIONS ONLY

ELEVATIONAL VIEW

TOWN OF ZEBULON
STANDARD COMBINATION "STOP" AND "STREET" SIGN
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 60
DETAIL # 60
USE WITH STANDARD SPECIFICATIONS ONLY

PERSPECTIVE

SECTION A-A

TOWN OF ZEBULON
IN-WALK HANDICAP RAMP
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 22
DETAIL # 22
USE WITH STANDARD SPECIFICATIONS ONLY

SECTION A-A

SECTION B-B

TOWN OF ZEBULON
DOUBLE HANDICAP RAMP DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 21
DETAIL # 21
USE WITH STANDARD SPECIFICATIONS ONLY

PERSPECTIVE

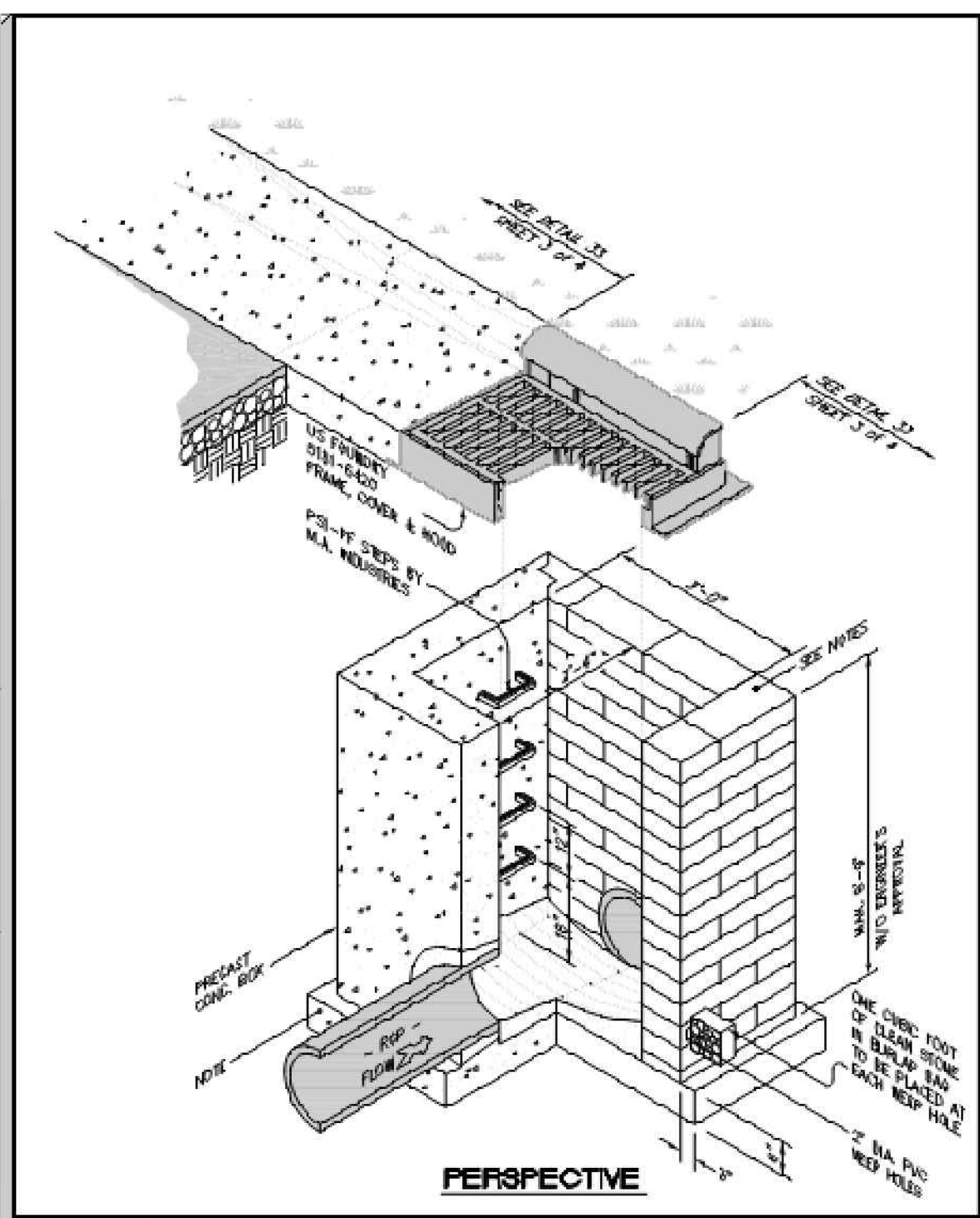
TOWN OF ZEBULON
STANDARD ADA WHEELCHAIR SIDEWALK ACCESS AT CURB RETURNS
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 21
DETAIL # 21
USE WITH STANDARD SPECIFICATIONS ONLY

LONGITUDINAL SECTION

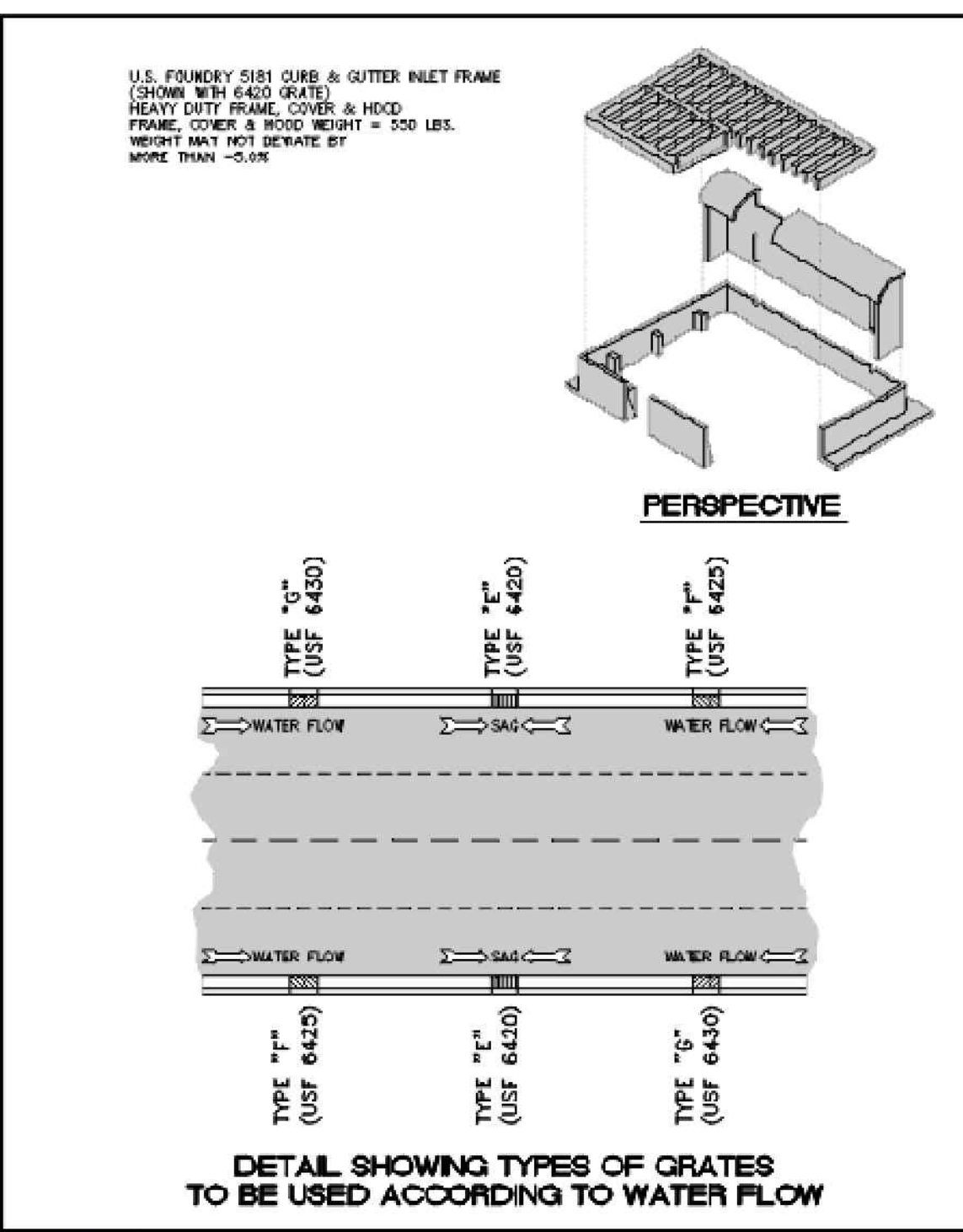
SECTION A-A

SINGLE ACCESS ISOMETRIC VIEW

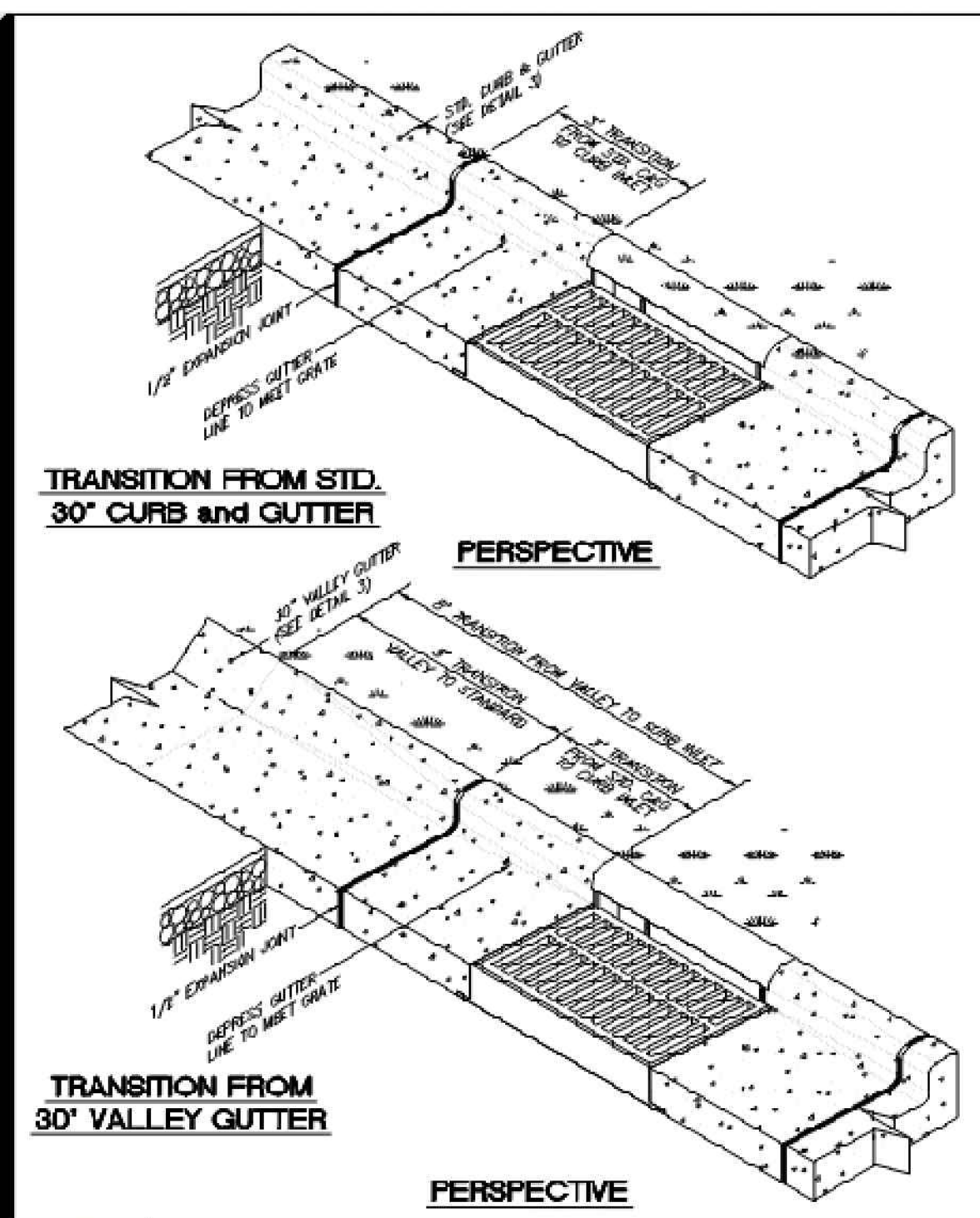
TOWN OF ZEBULON
SINGLE HANDICAP RAMP DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 20
DETAIL # 20
USE WITH STANDARD SPECIFICATIONS ONLY



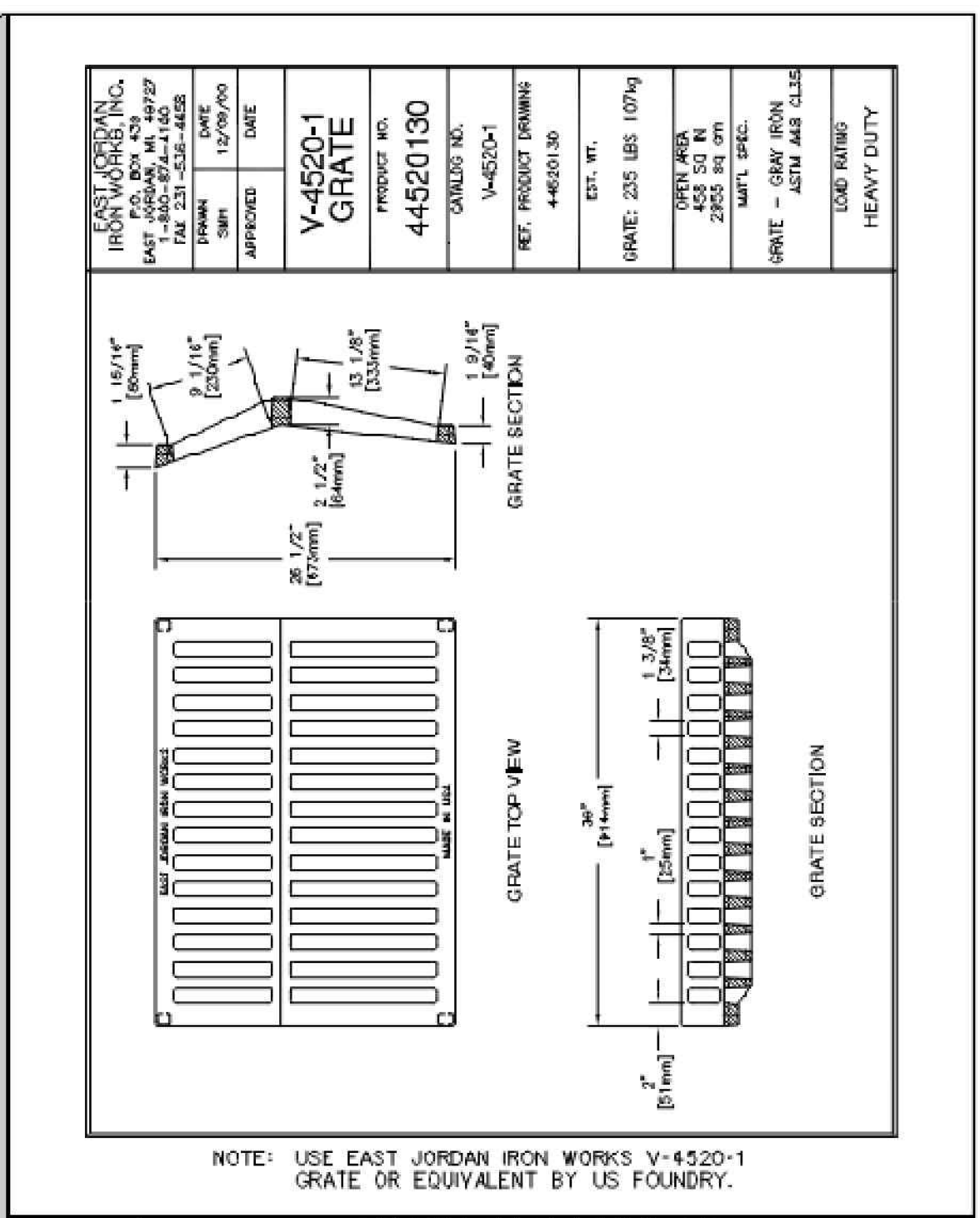
TOWN OF ZEBULON
STD. C&G INLET W/HOOD
DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 33 OF 4



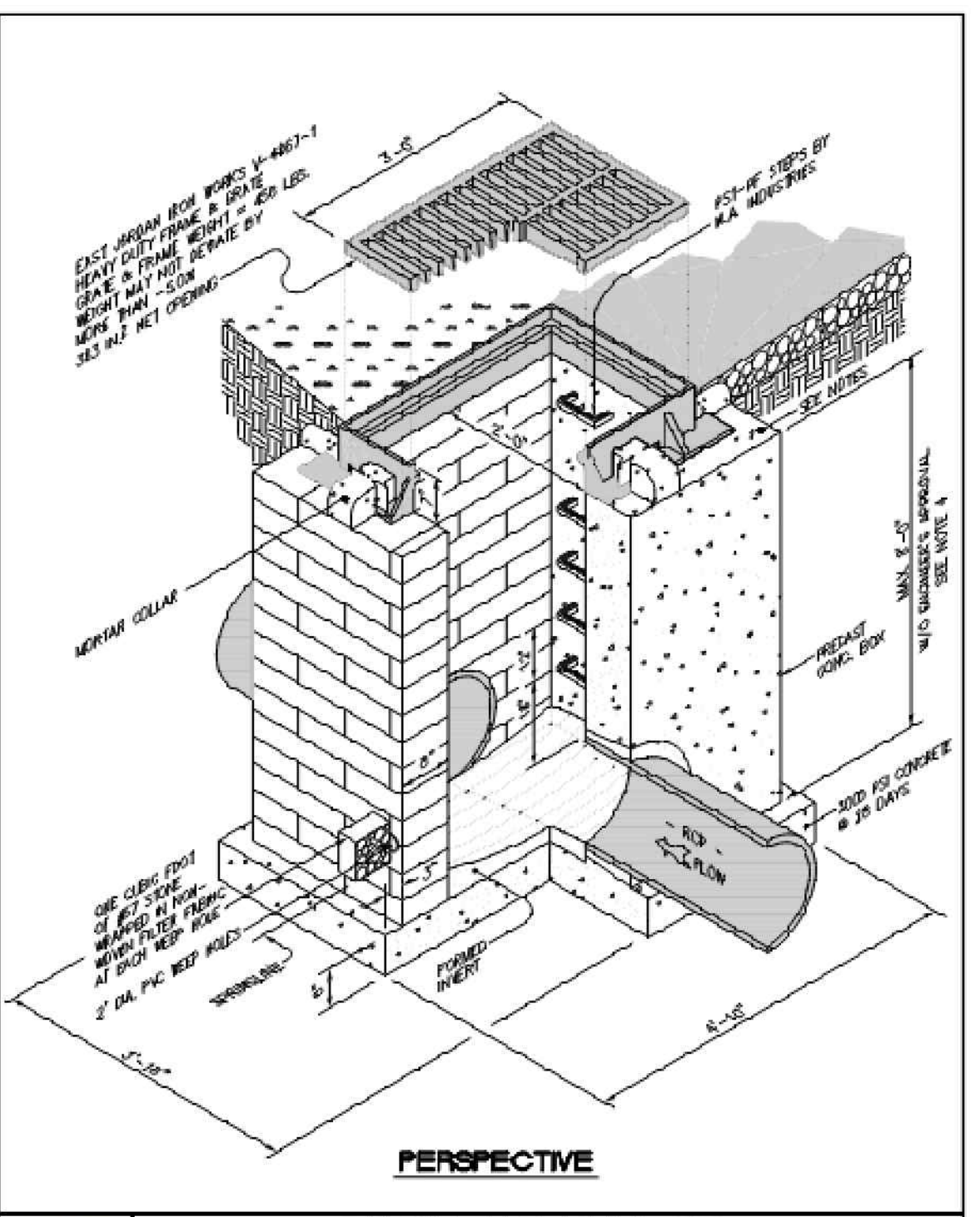
TOWN OF ZEBULON
STD. C&G INLET W/HOOD
DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 33 OF 4



TOWN OF ZEBULON
STD. TRANSITION FROM INLET
TO STD. C&G / VALLEY GUTTER
DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 33 OF 4



TOWN OF ZEBULON
DETAIL FOR STORM DRAIN
WITH DRIVEWAY CONFLICT
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 33 OF 4



TOWN OF ZEBULON
2x3
DROP INLET
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 34 OF 1

END SECTION DIMENSIONS				
DIA.	A	B	C	D
15"	7"	2'-3 1/4"	3'-11 1/2"	6'-2 3/4"
18"	9"	2'-3"	3'-11 3/4"	6'-2 3/4"
24"	0"	3'-2"	3'-1"	6'-8"
30"	1'-0"	4'-8 1/2"	1'-10 1/2"	6'-5"
36"	1'-8"	5'-0"	3'-1 1/2"	8'-11"
42"	1'-10 1/4"	6'-1 3/8"	3'-1"	8'-2 1/8"

NOTES:
1. DESIGN OF END-SECTION SHALL CONFORM TO STANDARD REINFORCED SECTIONAL CONCRETE CULVERT PIPE.
2. ANY TRENCH SYSTEM GREATER THAN 48" REQ. HEADWALL.
3. ANY SYSTEM OF MORE THAN 2 PIPES REQUIRES 4 HEADWALL.
4. SEE MCDOT "ROADWAY STANDARD DRAWINGS" FOR HEADWALL CONSTRUCTION DETAILS.

TOWN OF ZEBULON
STD. FLARED END SECTIONS
DESIGN AID DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 35 OF 1

PIPE DIA.	MAX. BURY	MAX. BURY (0.01 TRENCH)	MAX. BURY (0.01 TRENCH)
15"	4'	8.5'	14.5'
18"	4'	8.5'	15.0'
24"	4'	12.0'	23.5'
30"	5.5'	15.0'	17.0'
36"	6'	16.0'	18.0'
42"	6.5'	13.0'	19.0'
48"	7'	13.0'	20.0'
60"	8'	13.0'	18.0'
72"	10'	13.0'	18.0'

NOTES:
1. FOR OTHER BURY DEPTHS THAN SHOWN (H), NORTH CAROLINA PE TO PROVIDE CALCS ON PIPE BURY THAT EXCEED THOSE GIVEN IN THIS CHART FOR THE CONDITIONS IN WHICH IT IS PROPOSED TO BE USED.
2. THIS TABLE OF BURY DEPTHS (H) APPLIES EQUALLY TO A CLASS C STONE BEDDING, TYPE 4 LAYING CONDITIONS.
3. MINIMUM COVER NOT SHOWN BUT NO LESS THAN 12" W/O ENGINEERS APPROVAL UP TO 48" PIPE.

TOWN OF ZEBULON
STD. TRENCH INSTALLATION
FOR CONCRETE PIPE
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 36 OF 5

Table 1 Equivalent USCS and AASHTO Soil Classification for SDD Soil Designations			
SDD Soil	Representative Soil Types	Percent Compaction	
Gravelly Sand (Category 1)	SW, SP, SM, SF	100	95
	AL/A3	95	90
		80	80
Sand (Category 1)	SM, SW, ML, AL/A3, SO, SC	100	95
	AL/A4	95	90
		80	80
Silty Sand (Category 1)	SM, SW, ML, AL/A3, SO, SC	100	95
	AL/A4	95	90
		80	80
Silty Clay (Category 1)	CL, ML, OL, SO	100	90
	AE/A6	95	85
		80	80
OH		100	90
		95	85
		80	80

TOWN OF ZEBULON
STD. TRENCH INSTALLATION
(TRENCH CONDITION SHOWN)
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 38 OF 8

Table 2 Standard EMBANKMENT Installation Soils and Minimum Compaction Requirements			
Installation Type	Bedding Thickness	Haunch and Outer Bedding	Lower Side
Type 1	D ₁₅ /24 minimum, not less than 75 mm (3"). If rock foundation, use D ₁₅ /12 minimum, not less than 150 mm (6").	90% Category I or 85% Category II	90% Category I, 80% Category II, or 70% Category III
Type 2	D ₁₅ /24 minimum, not less than 75 mm (3"). If rock foundation, use D ₁₅ /12 minimum, not less than 150 mm (6").	90% Category I or 85% Category II	90% Category I, 80% Category II, or 70% Category III
Type 3	D ₁₅ /24 minimum, not less than 75 mm (3"). If rock foundation, use D ₁₅ /12 minimum, not less than 150 mm (6").	90% Category I, 80% Category II, or 85% Category III	90% Category I, 80% Category II, or 70% Category III
Type 4	D ₁₅ /24 minimum, not less than 75 mm (3"). If rock foundation, use D ₁₅ /12 minimum, not less than 150 mm (6").	No compaction required, except if Category III, use 85% Category III	No compaction required, except if Category II, use 85% Category II

Notes:
1. Compaction and soils symbols - i.e. "90% Category I" refers to Category I soil material with a minimum standard Proctor compaction of 90%. See Table 1 for equivalent modified Proctor values.
2. Soil in the outer bedding, haunch, and lower side zones, except within D₀/3 from the pipe springline, shall be compacted to at least the same compaction as the majority of the soil in the overfill zone.
3. Subtrenches
3.1 A subtrench is defined as a trench with its top below finished grade by more than 0.1 m or, for roadways, its top is at an elevation lower than 0.3 m (1') below the bottom of the pavement base material.
3.2 The minimum width of a subtrench shall be 1.35 D₀ or wider if required for adequate space to attain the specified compaction in the haunch and bedding zones.
3.3 For subtrenches with wall of natural soil, any portion of the lower side zone in the subtrench wall shall be at least as firm as an equivalent soil placed to the compaction requirements specified for the lower side zone and as firm as the majority of soil in the overfill zone, or shall be removed and replaced with soil compacted to the specified level.
4. Type 1 installation = relatively high quality material & high compaction effort.
Type 4 installation = little or no control over material and compaction.

TOWN OF ZEBULON
STD. TRENCH INSTALLATION
(TRENCH CONDITION SHOWN)
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 38 OF 8

Table 2 Standard EMBANKMENT Installation Soils and Minimum Compaction Requirements			
Installation Type	Bedding Thickness	Haunch and Outer Bedding	Lower Side
Type 1	D ₁₅ /24 minimum, not less than 75 mm (3"). If rock foundation, use D ₁₅ /12 minimum, not less than 150 mm (6").	90% Category I or 85% Category II	90% Category I, 80% Category II, or 70% Category III
Type 2	D ₁₅ /24 minimum, not less than 75 mm (3"). If rock foundation, use D ₁₅ /12 minimum, not less than 150 mm (6").	90% Category I or 85% Category II	90% Category I, 80% Category II, or 70% Category III
Type 3	D ₁₅ /24 minimum, not less than 75 mm (3"). If rock foundation, use D ₁₅ /12 minimum, not less than 150 mm (6").	90% Category I, 80% Category II, or 85% Category III	90% Category I, 80% Category II, or 70% Category III
Type 4	D ₁₅ /24 minimum, not less than 75 mm (3"). If rock foundation, use D ₁₅ /12 minimum, not less than 150 mm (6").	No compaction required, except if Category III, use 85% Category III	No compaction required, except if Category II, use 85% Category II

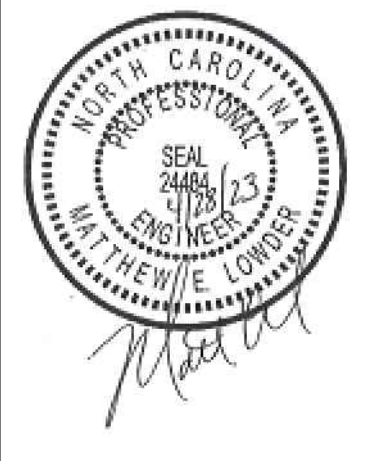
Notes:
1. Compaction and soils symbols - i.e. "90% Category I" refers to Category I soil material with a minimum standard Proctor compaction of 90%. See Table 1 for equivalent modified Proctor values.
2. Soil in the outer bedding, haunch, and lower side zones, except within D₀/3 from the pipe springline, shall be compacted to at least the same compaction as the majority of the soil in the overfill zone.
3. Subtrenches
3.1 A subtrench is defined as a trench with its top below finished grade by more than 0.1 m or, for roadways, its top is at an elevation lower than 0.3 m (1') below the bottom of the pavement base material.
3.2 The minimum width of a subtrench shall be 1.35 D₀ or wider if required for adequate space to attain the specified compaction in the haunch and bedding zones.
3.3 For subtrenches with wall of natural soil, any portion of the lower side zone in the subtrench wall shall be at least as firm as an equivalent soil placed to the compaction requirements specified for the lower side zone and as firm as the majority of soil in the overfill zone, or shall be removed and replaced with soil compacted to the specified level.
4. Type 1 installation = relatively high quality material & high compaction effort.
Type 4 installation = little or no control over material and compaction.

TOWN OF ZEBULON
STD. TRENCH INSTALLATION
(TRENCH CONDITION SHOWN)
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 38 OF 8

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Suite 104
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Phone: (919)555-6570
bowman.com
Bowman North Carolina Ltd.

CONSTRUCTION DETAILS
Rocket Wash
Arendell Ave
Project ID#796479
Wake County
Zebulon, NC

PRELIMINARY
DO NOT
USE FOR
CONSTRUCTION



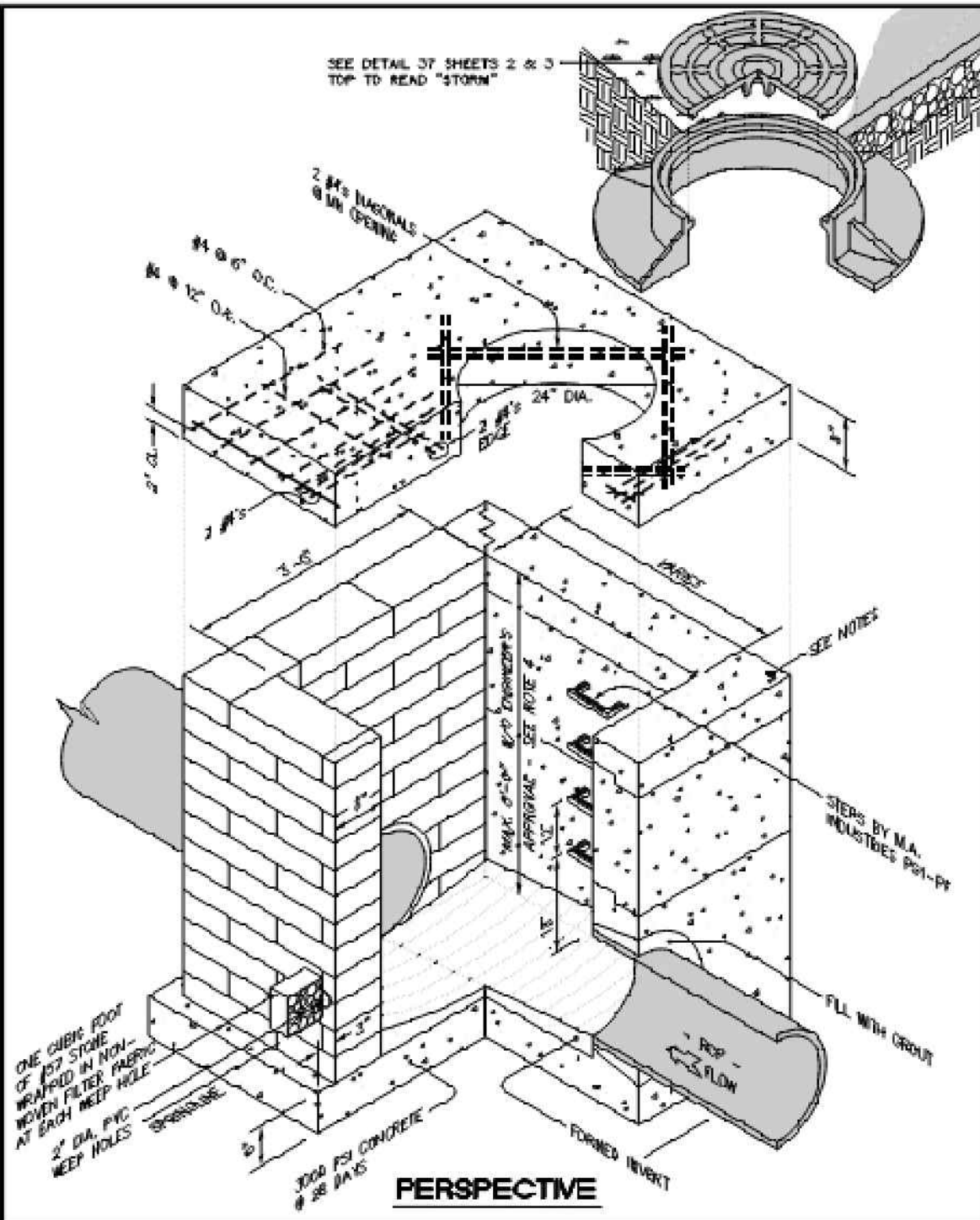
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6/20/22	SITE PLAN SUBMITTAL
10/21/22	PER TOWN REVIEW
4/28/23	PER TOWN REVIEW

DATE	DESCRIPTION
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SCALE	H: 1" = 40'
	V: 1" = 400'
JOB No.	220094-01-002
	220097-01-002
DATE	June 20, 2022
FILE No.	220094-01-002
	220097-01-002

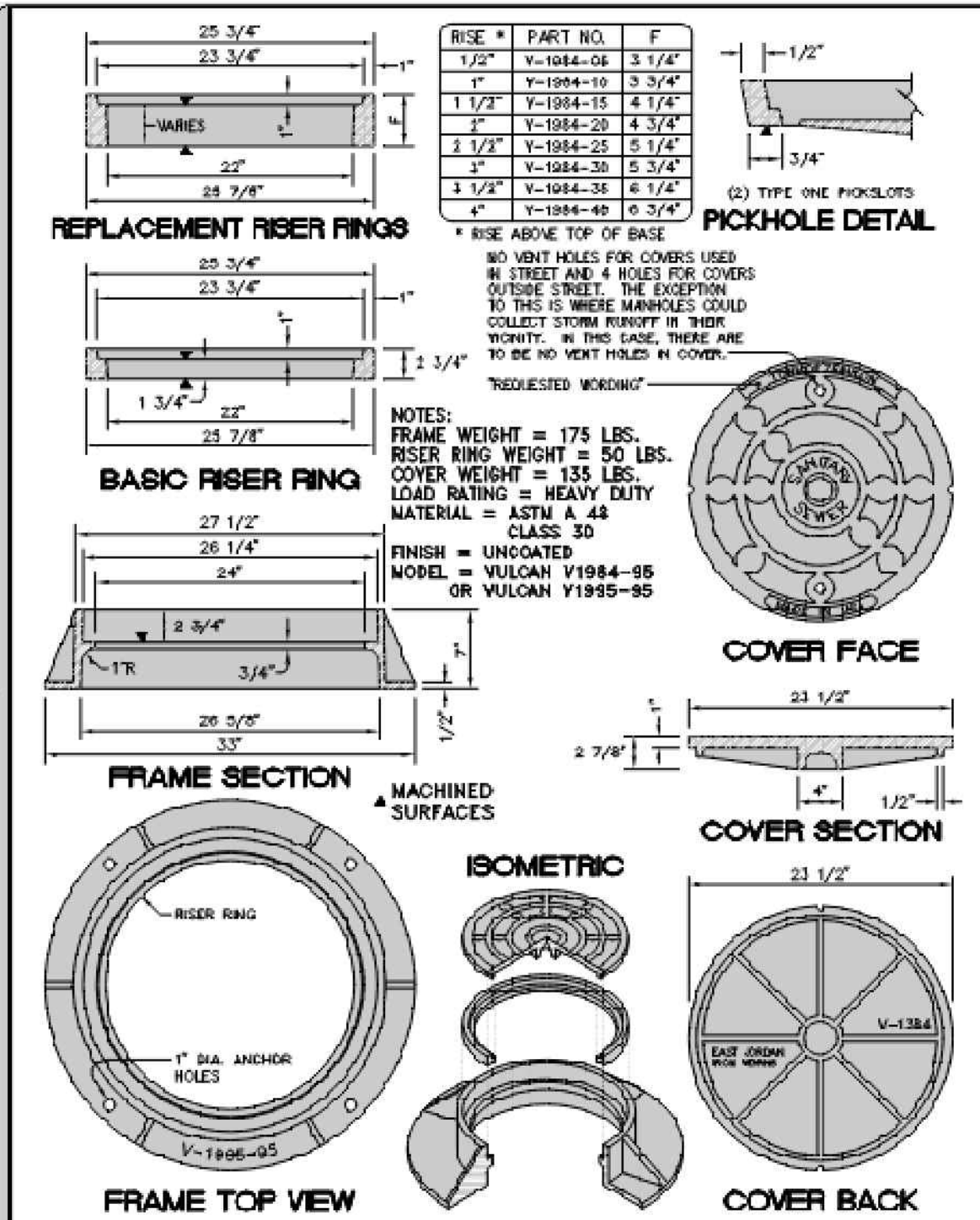
SHEET C6.3C

Installation Type	Soils and Bedding	Minimum Compaction Requirements
Type 1	Soils: 80% Category I, 20% Category II, 100% Category III	80% Category I, 80% Category II, 100% Category III
Type 2	Soils: 80% Category I, 20% Category II, 100% Category III	80% Category I, 80% Category II, 100% Category III
Type 3	Soils: 80% Category I, 20% Category II, 100% Category III	80% Category I, 80% Category II, 100% Category III
Type 4	Soils: 80% Category I, 20% Category II, 100% Category III	80% Category I, 80% Category II, 100% Category III

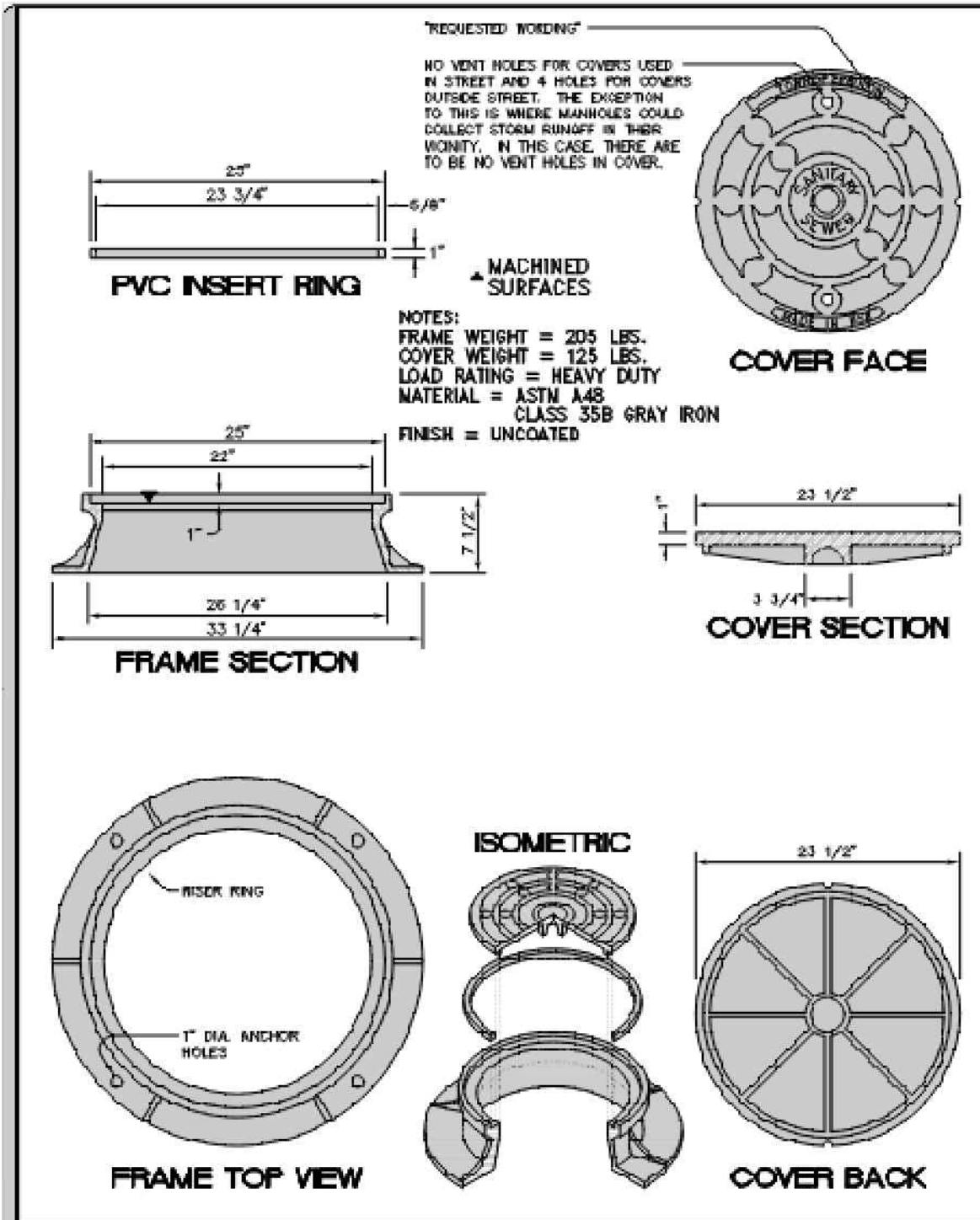
- Notes:**
- Compaction and soils symbols - i.e. "80% Category I" refers to Category I soil materials with minimum standard Proctor compaction of 98%. See Table 1 for equivalent modified Proctor values.
 - The trench top elevation shall be no lower than 0.1 H below finished grade or, for roadways, its top shall be no lower than an elevation of 0.3 m (1') below the bottom of the pavement base material.
 - Soil in bedding and haunch zones shall be compacted to at least the same compaction as specified for the majority of soil in the backfill zone.
 - The trench width shall be wider than shown if required for adequate space to attain the specified compaction in the haunch and bedding zone.
 - For trench walls that are within 10 degrees of vertical, the compaction or firmness of the soil in the trench walls and lower side zone need not be considered.
 - For trench walls with greater than 10 degree slope that consist of embankment, the lower side shall be compacted to at least the same compaction as specified for the soil in the backfill zone.
 - Type 1 installation = relatively high quality material & high compaction effort. Type 4 installation = little or no control over material and compaction.



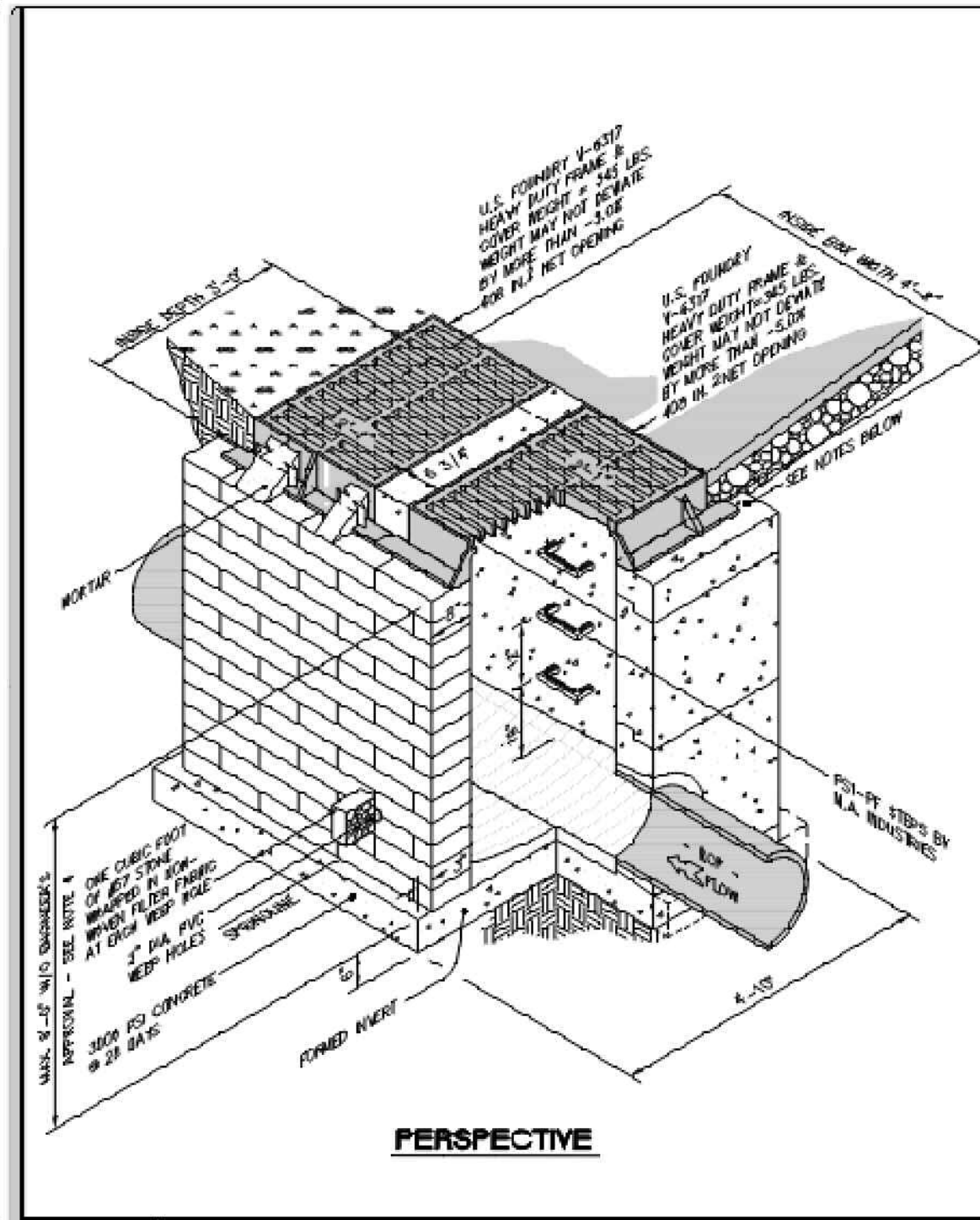
TOWN OF ZEBULON
STD. M.H. J.B. VARIABLE LENGTH
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 37 OF 3



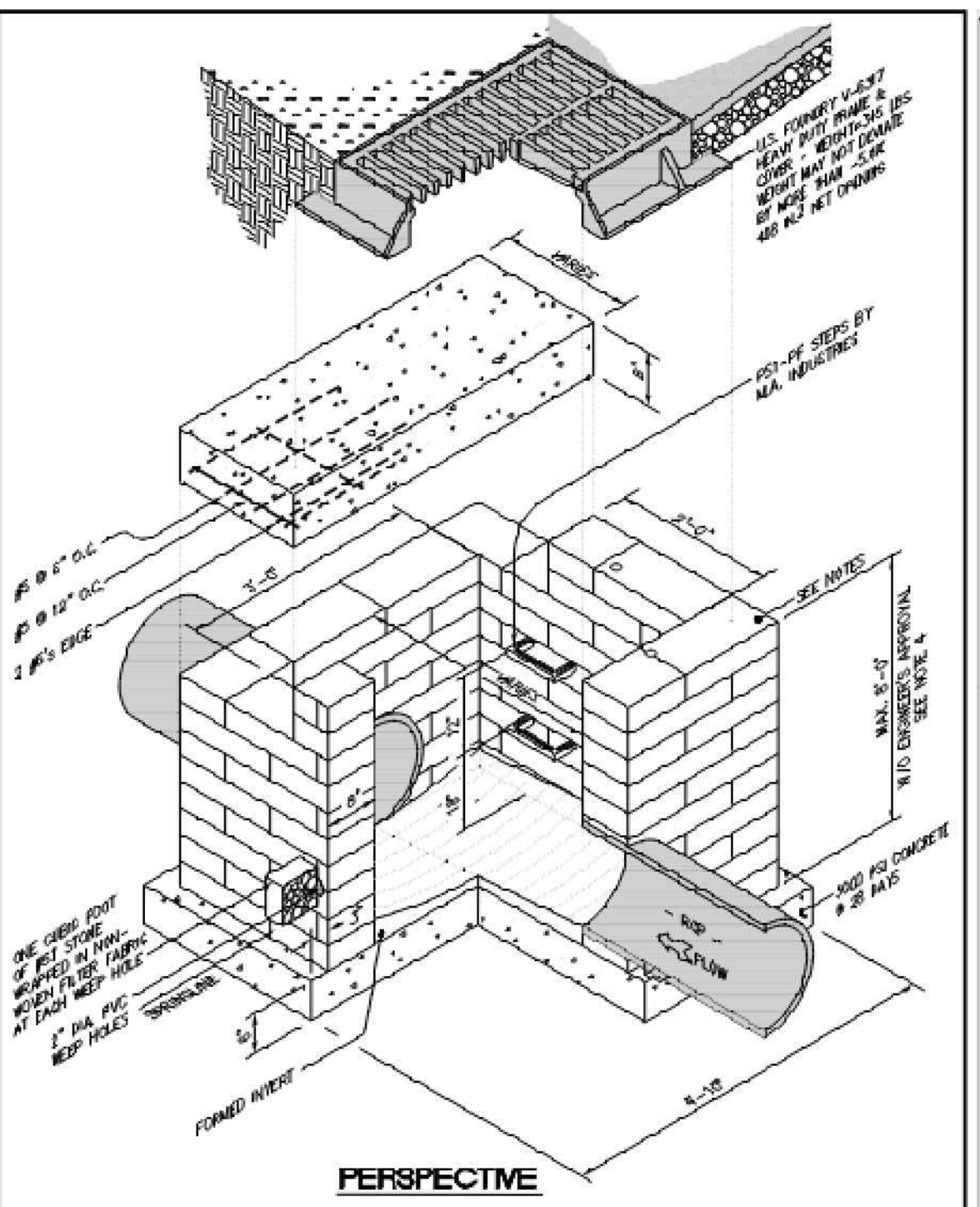
TOWN OF ZEBULON
STANDARD MANHOLE COVER & RING ADJUSTABLE - EAST JORDAN IRON WORKS Y-1984
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 37 OF 3



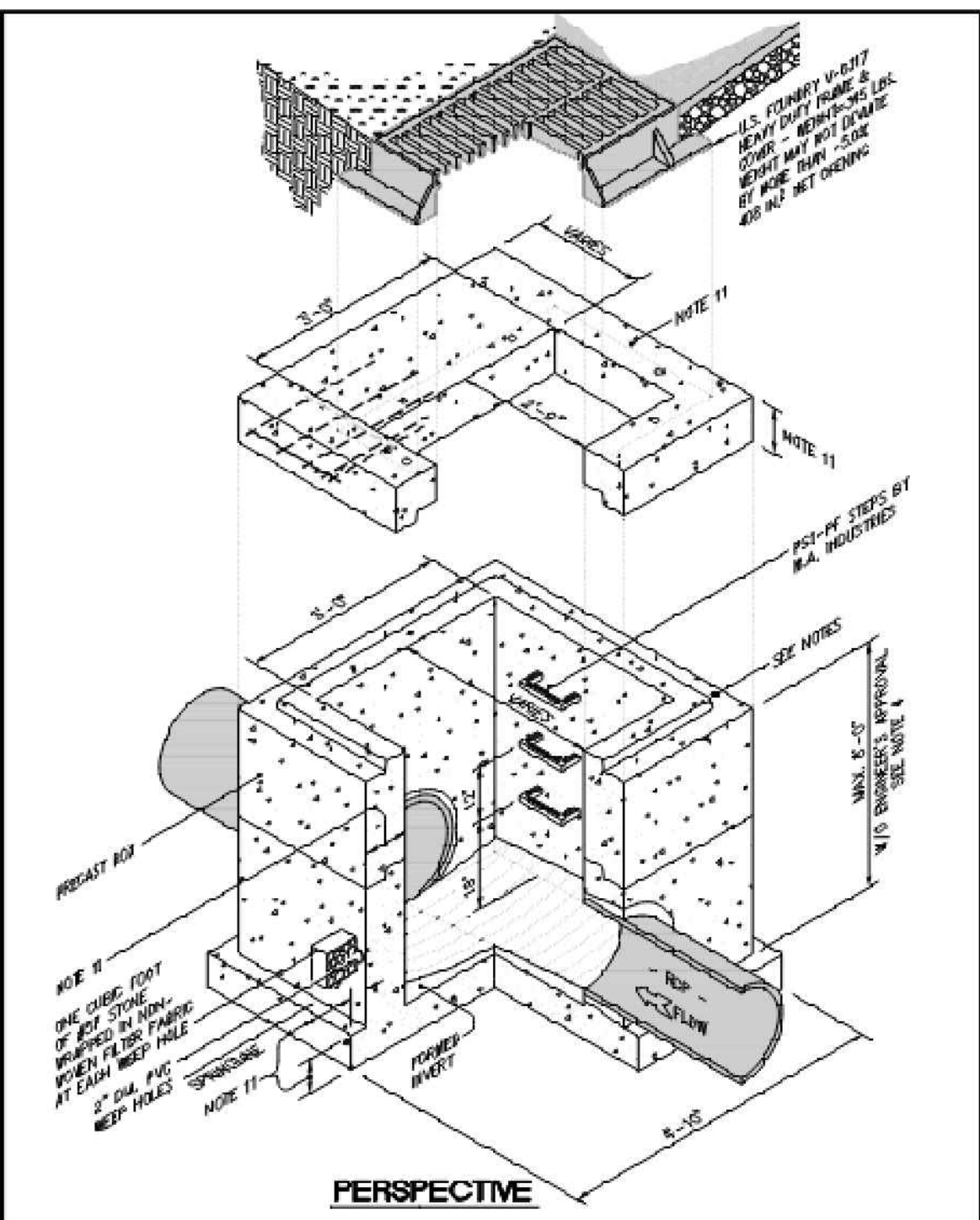
TOWN OF ZEBULON
STANDARD MANHOLE & RING US FOUNDRY 700 KL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 37 OF 3



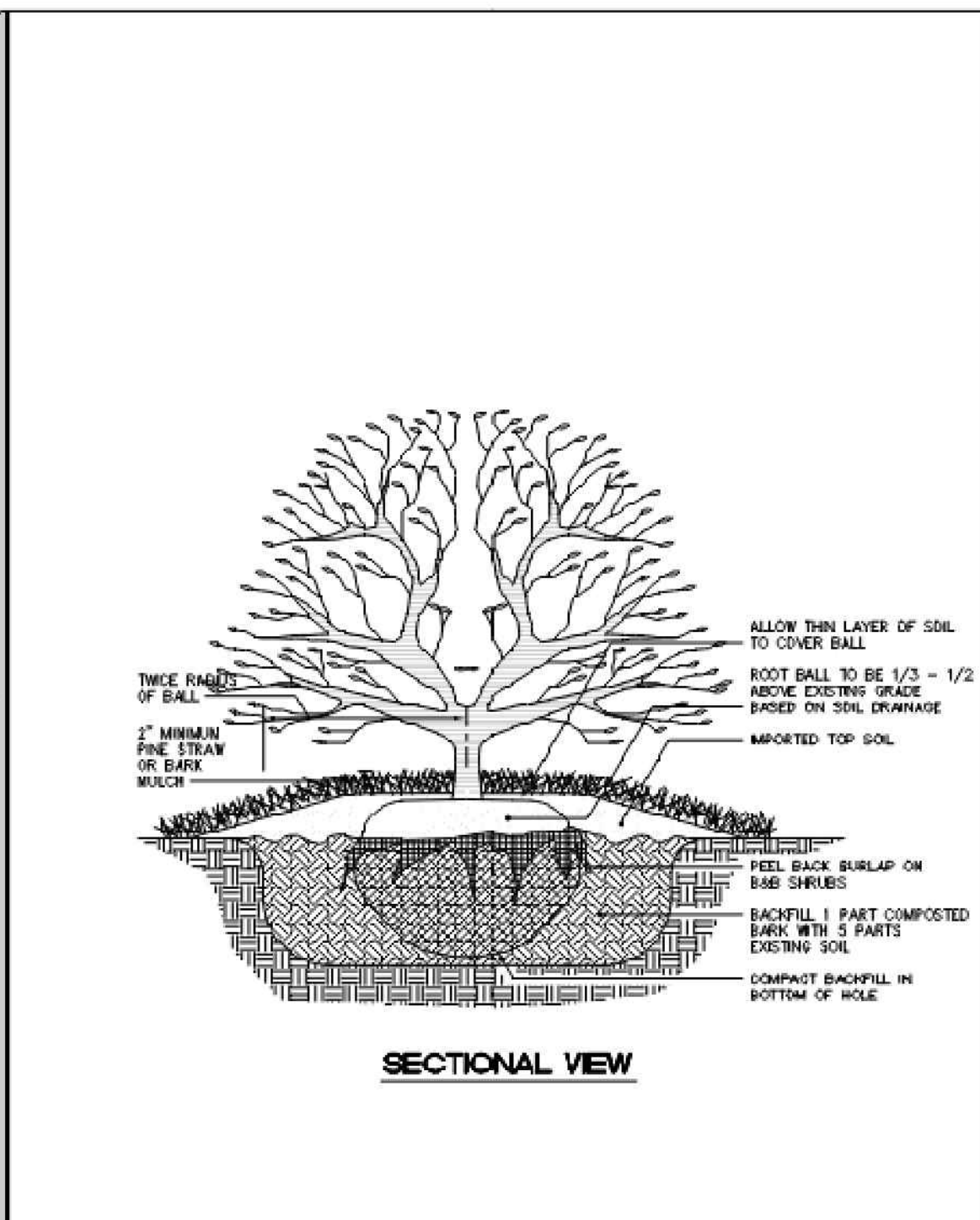
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STD. MULTIPLE 2' x 3' CATCH BASIN DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 38 OF 1



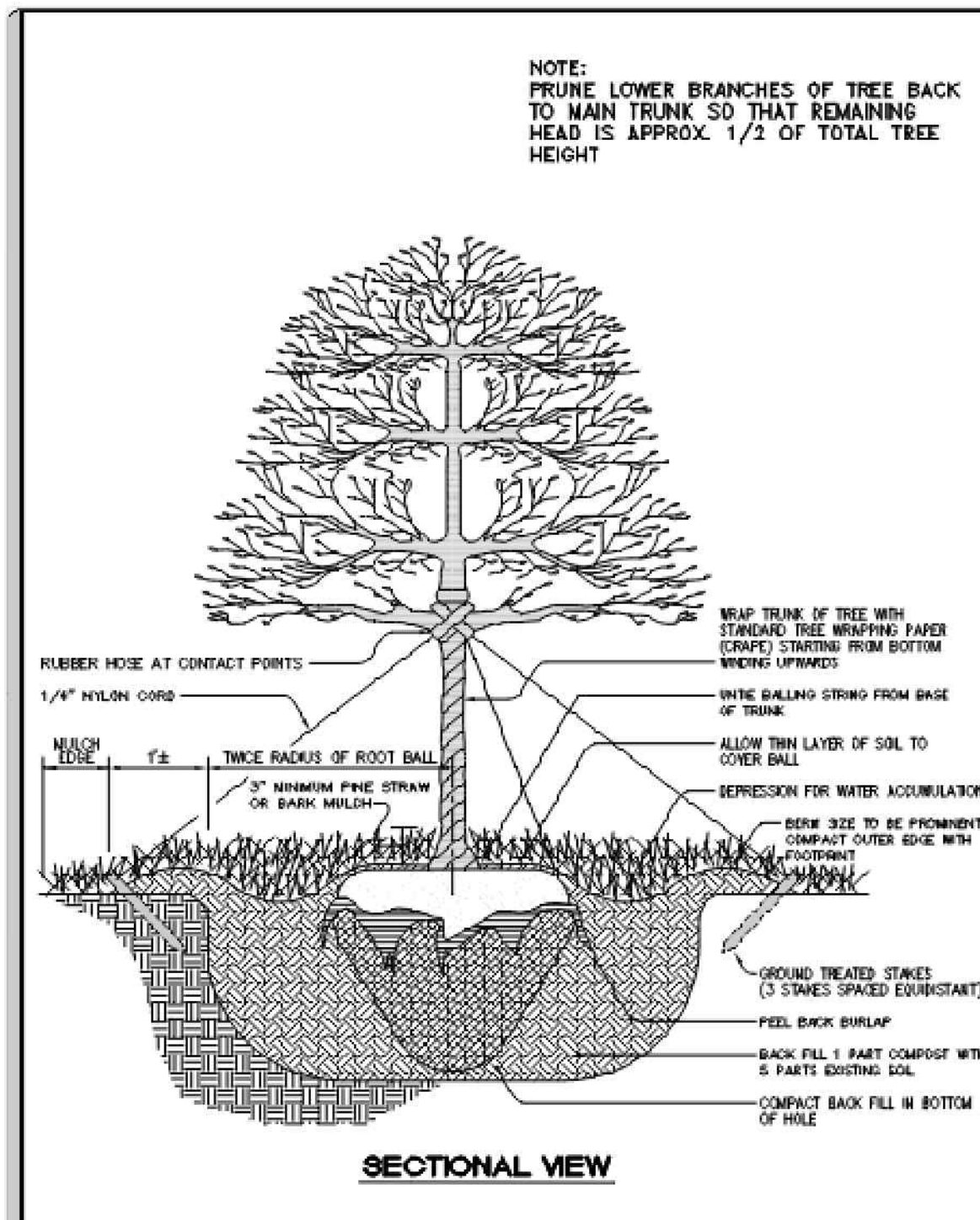
TOWN OF ZEBULON
STD. 3' x VARIABLE LENGTH BOX WITH 2' x 3' C.B.
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 39 OF 3



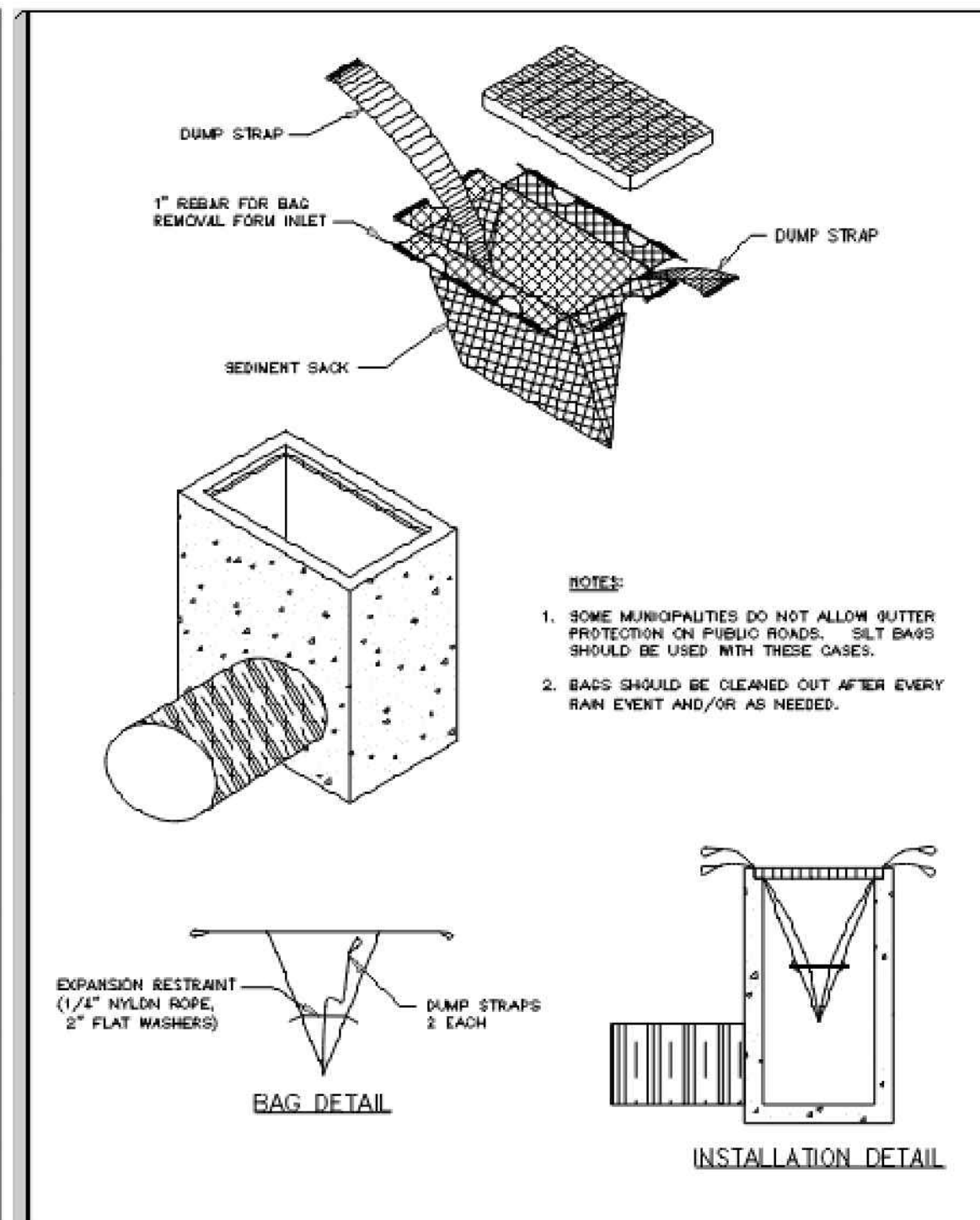
TOWN OF ZEBULON
STD. 3' x VARIABLE LENGTH PRECAST BOX WITH 2' x 3' C.B.
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 39 OF 3



TOWN OF ZEBULON
TYPICAL SHRUB PLANTING DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 43 OF 1



TOWN OF ZEBULON
TYPICAL TREE STAKING and PLANTING DETAIL
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 44 OF 1



TOWN OF ZEBULON
CATCH BASIN - SEDIMENT CONTROL DEVICES
SCALE: NOT TO SCALE
DATE: JULY 2010
SHEET # 50 OF 1

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Phone: (919) 555-6570
bowman.com
Bowman North Carolina Ltd.

CONSTRUCTION DETAILS
Rocket Wash
Arendell Ave
Zebulon, NC
Project ID#796479
Wake County

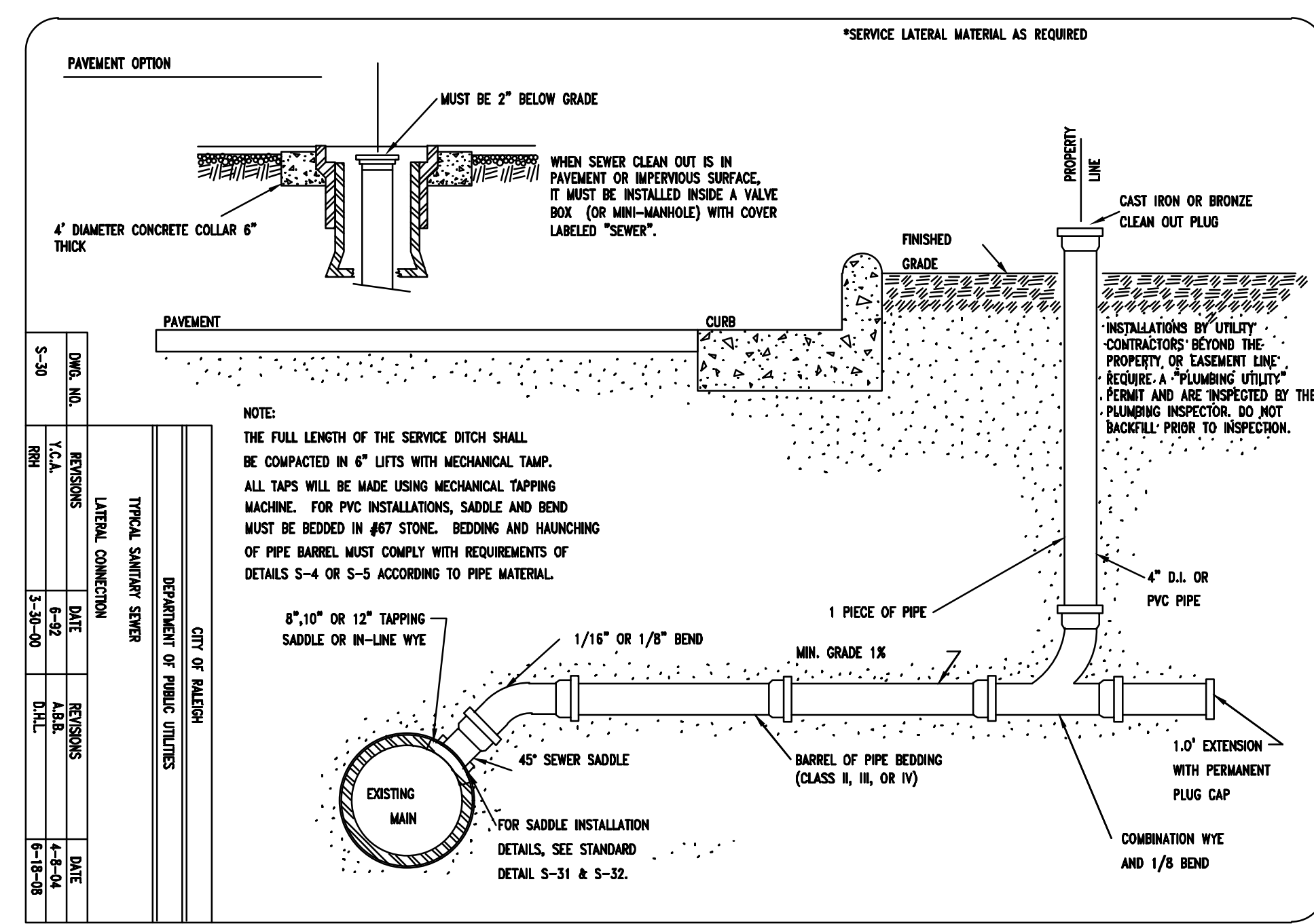
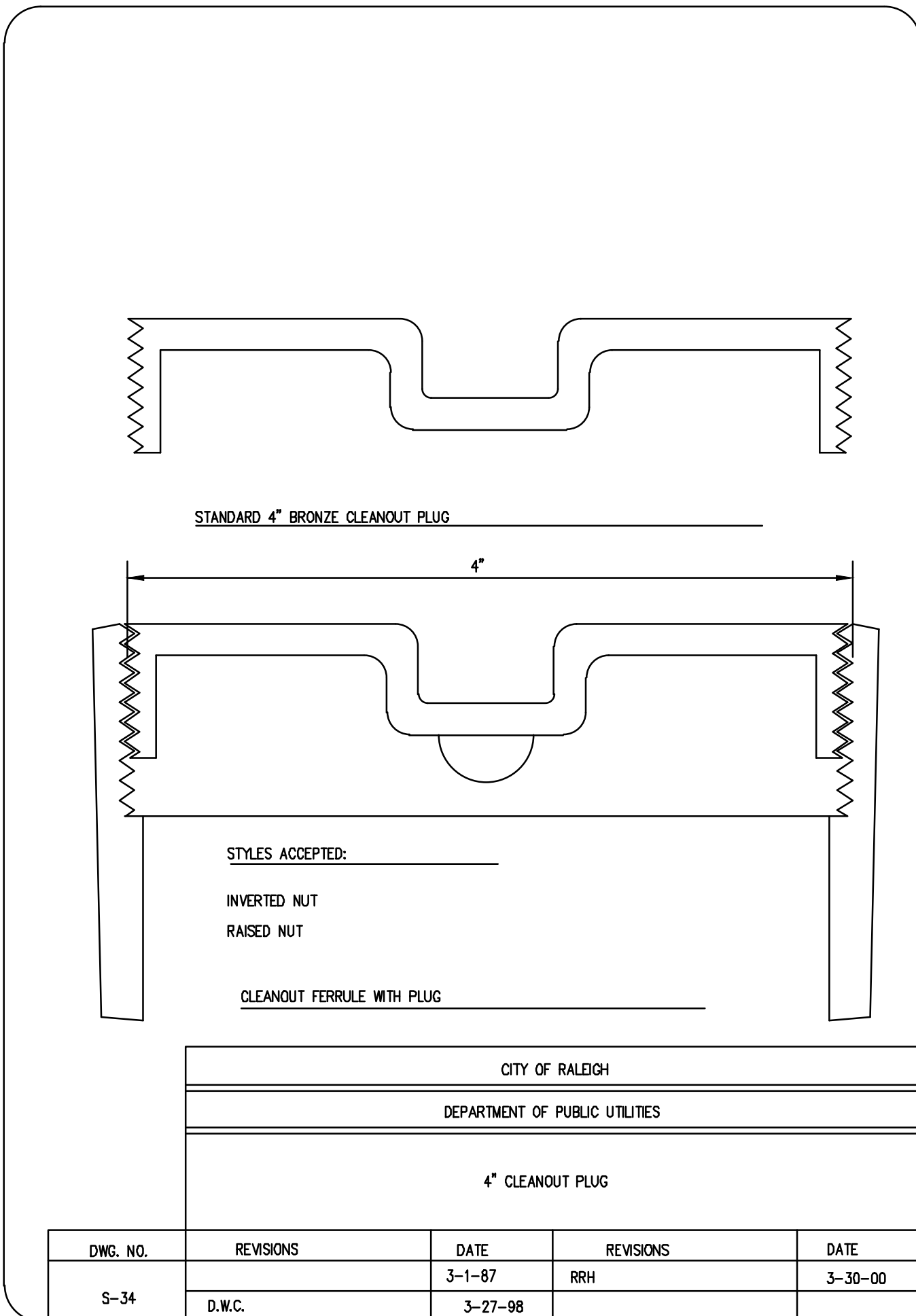
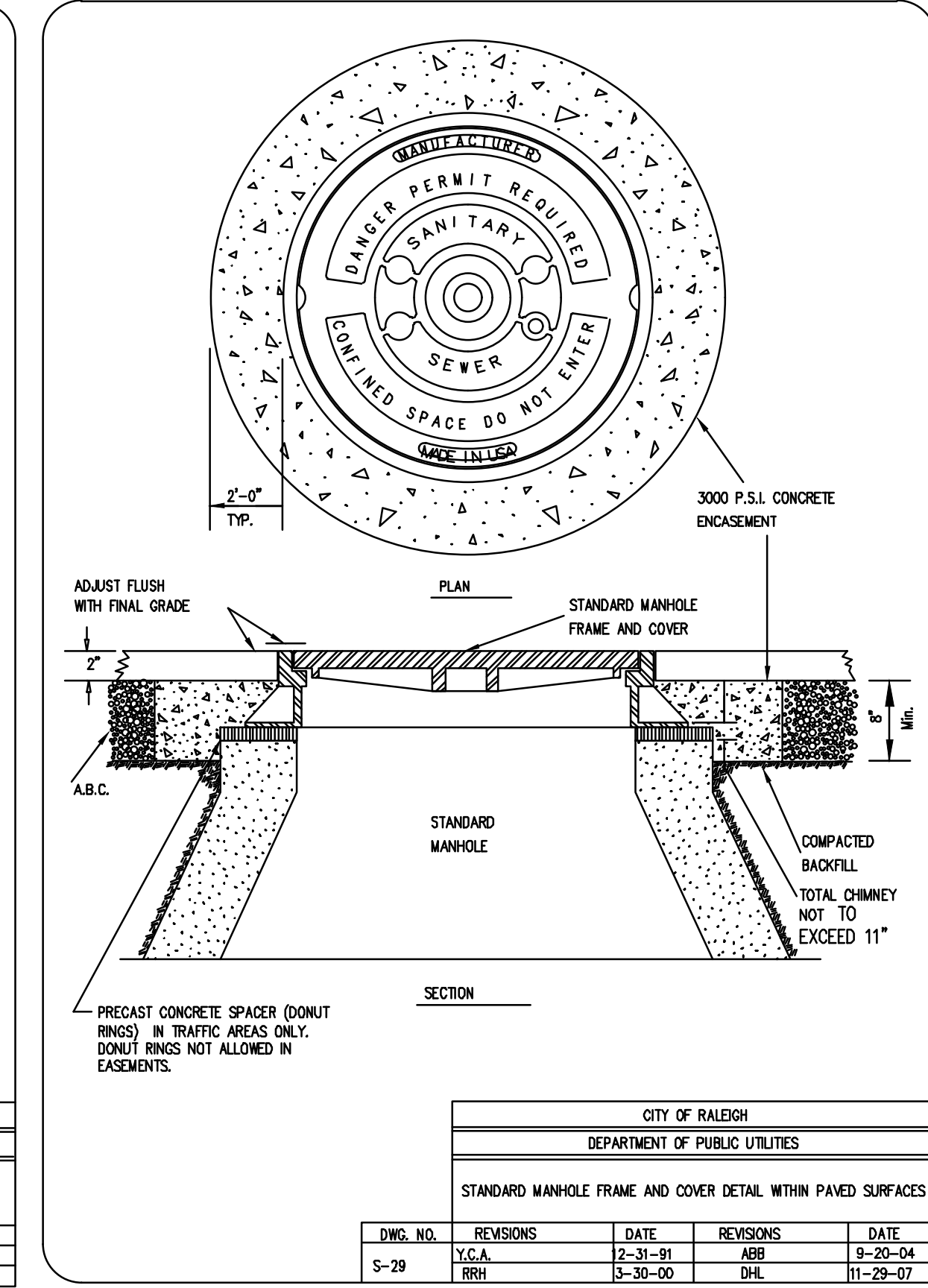
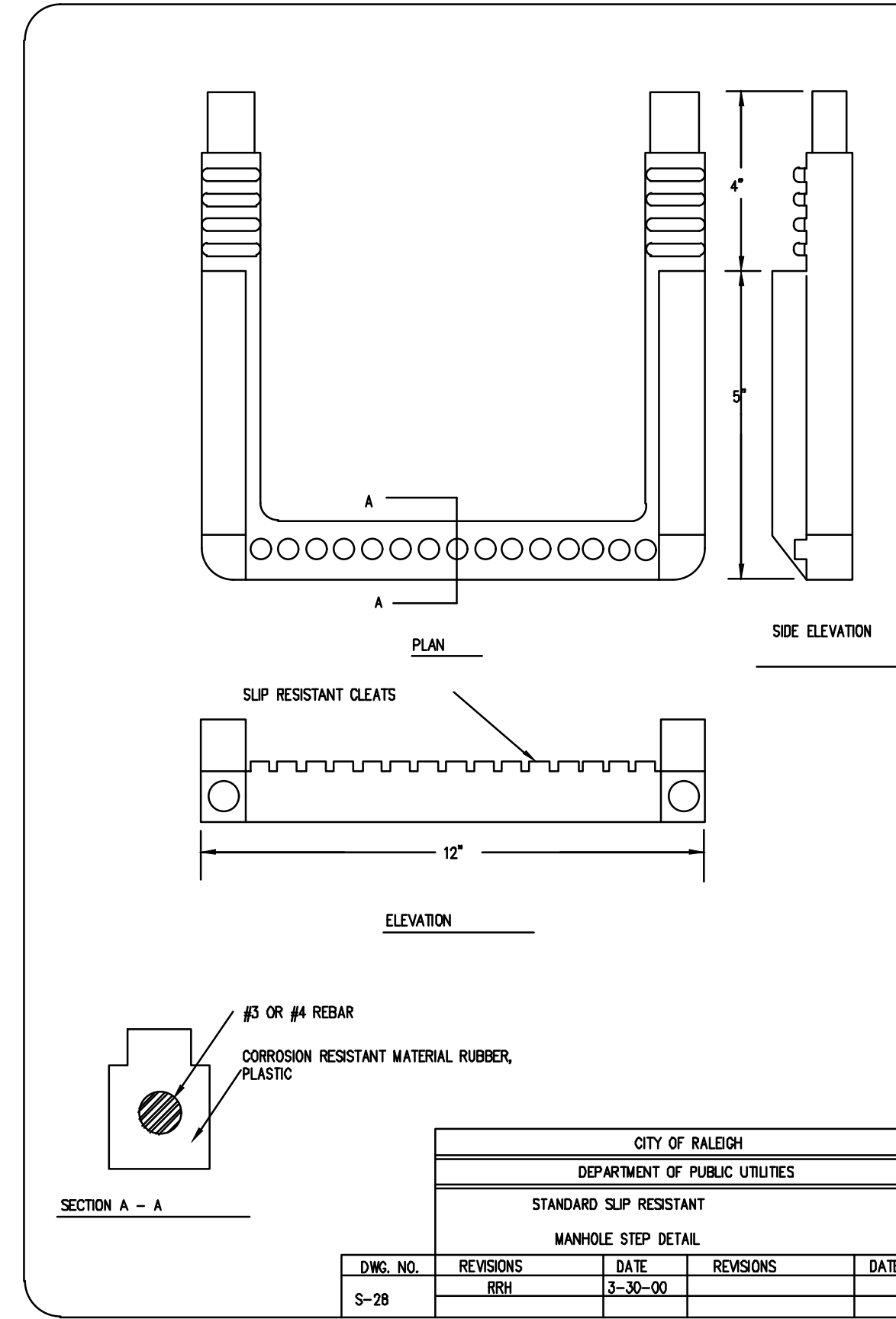
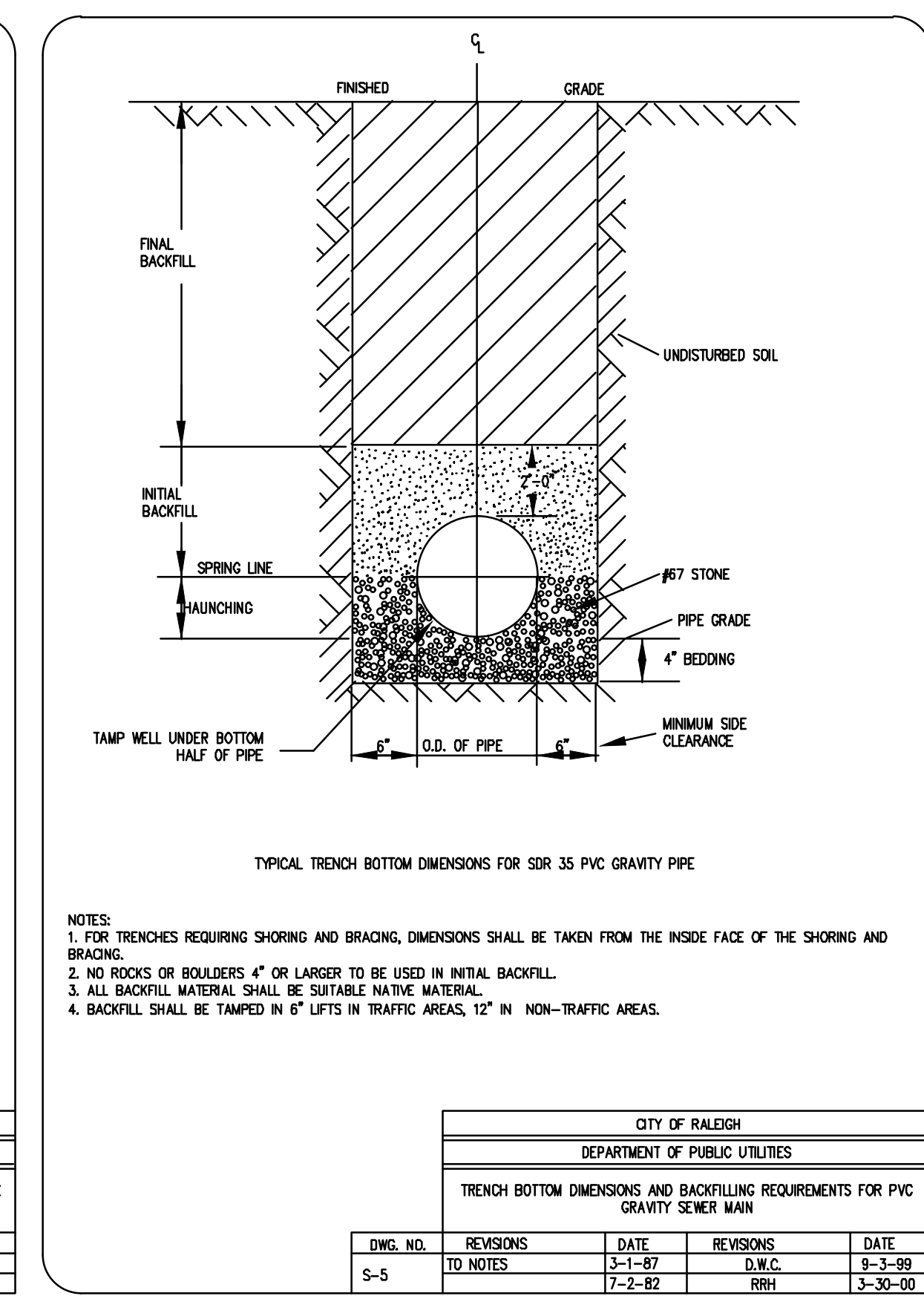
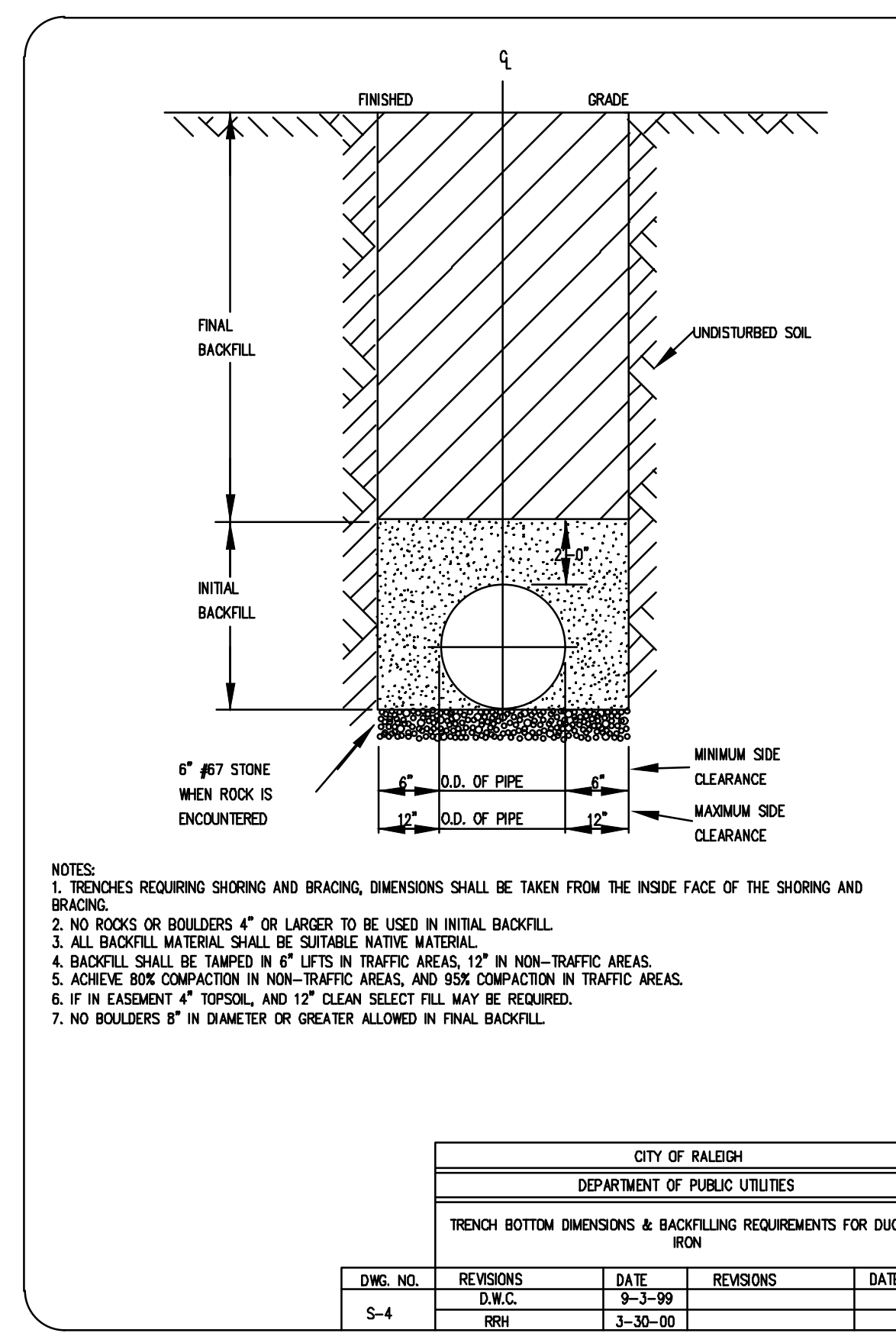
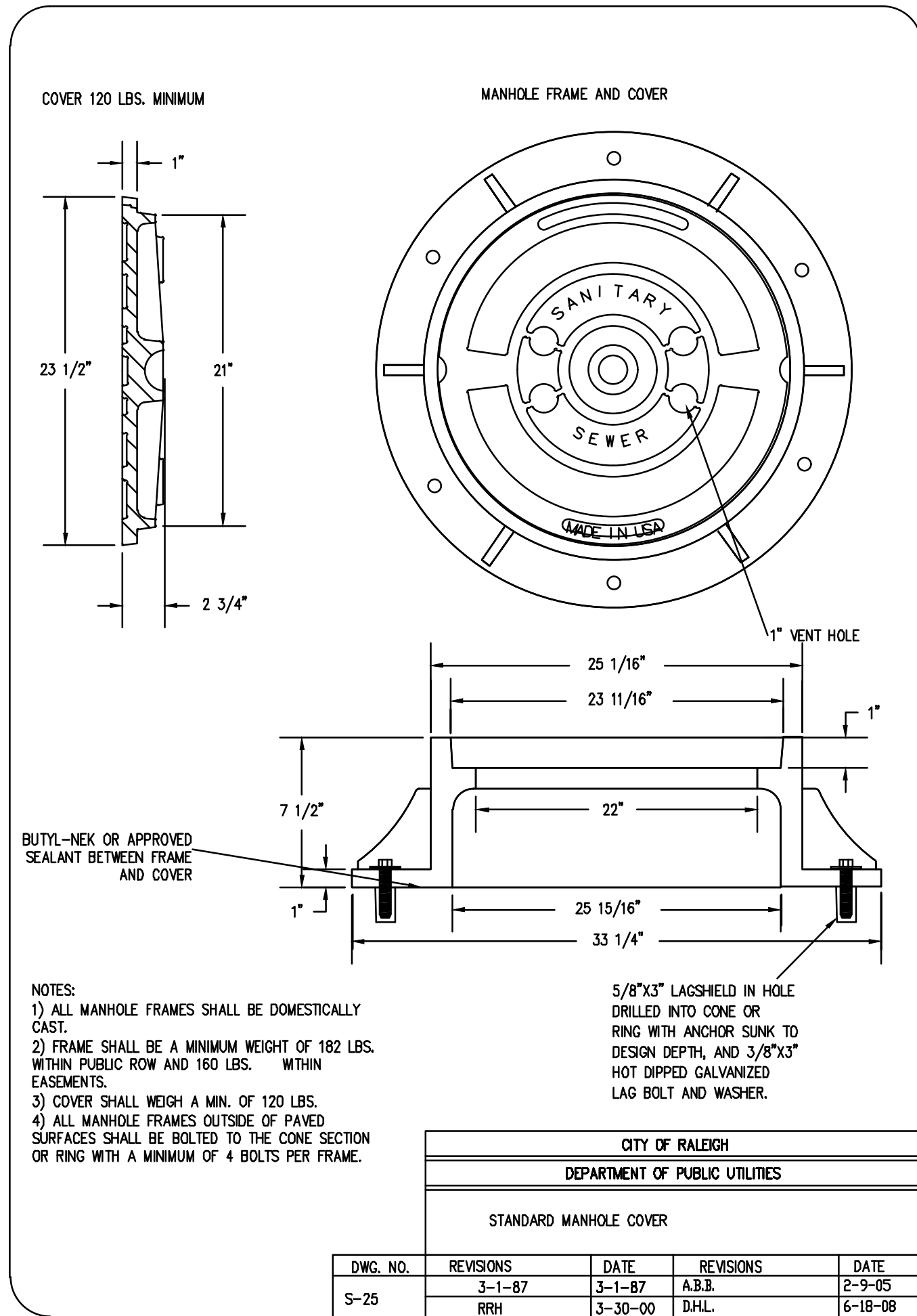
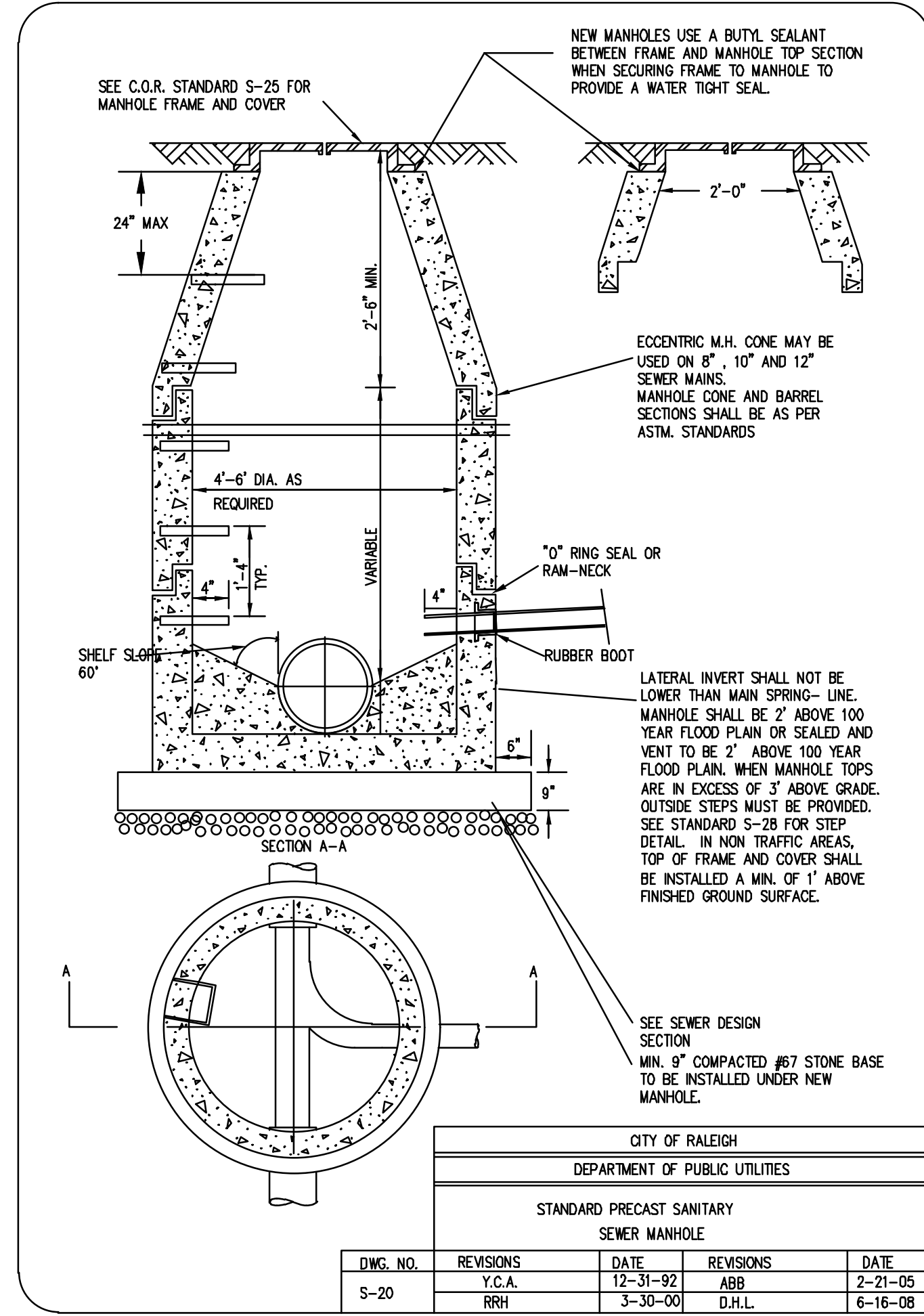
PRELIMINARY
DO NOT
USE FOR
CONSTRUCTION



DATE	DESCRIPTION
6/20/22	SITE PLAN SUBMITTAL
10/21/22	PER TOWN REVIEW
4/28/23	PER TOWN REVIEW

DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN XXXX CHKD
SCALE	H: 1" = 40'
	V: 1" = XXX'
JOB No.	220094-01-002
	220097-01-002
DATE	June 20, 2022
FILE No.	220094-01-002
	220097-01-002

SHEET C6.3D



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 # _____
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 # _____
Authorization to Construct _____ See digital signature

ATTENTION CONTRACTORS

The Construction Contractor responsible for the extension of water, sewer, and/or reuse, as approved in those 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.

Bowman

Bowman North Carolina Ltd.
4006 BARRIETT DR
Suite 104
RALEIGH, NC 27609
Phone: (919)555-6570
bowman.com
Bowman North Carolina Ltd.

UTILITY DETAILS
Rocket Wash
Arendell Ave
Project ID#796479

Zebulon, NC Wake County

PRELIMINARY
DO NOT
USE FOR
CONSTRUCTION

PLAN STATUS
6/20/22 SITE PLAN SUBMITTAL
10/21/22 PER TOWN REVIEW
4/28/23 PER TOWN REVIEW

DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN XXX CHKD
SCALE	H: V:
JOB No.	220094-01-002
DATE	June 20, 2022
FILE No.	220094-01-002

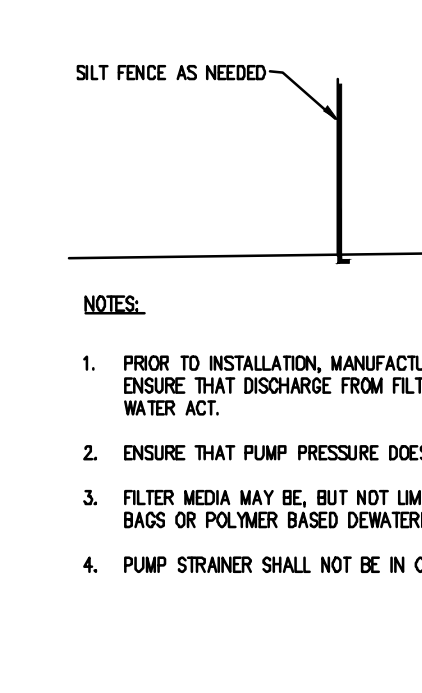
SHEET C6.4B

CONSTRUCTION SEQUENCE FOR WET DETENTION POND:

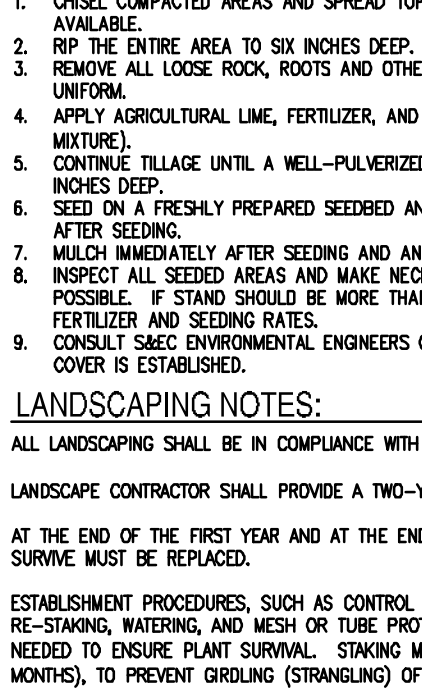
1. INSTALL EROSION CONTROLS.
2. CONSTRUCT DAM BASE AND AREAS BELOW THE NORMAL POOL. CONSTRUCTION TO BE PERFORMED UNDER THE INSPECTION OF THE GEOTECHNICAL ENGINEER. SEE UPON COMPLETION.
3. INSTALL OUTLET PIPE, RIP-RAP APRON AND STONE FILTER RING.
4. CONSTRUCT OUTLET STRUCTURE.
5. REMOVE ACCUMULATED SEDIMENT AND SEED UPON COMPLETION.



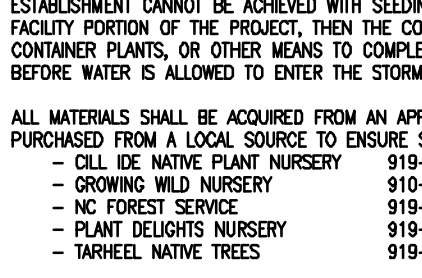
PROFILE OF WET POND DETENTION SYSTEM
SCALE: N.T.S.



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



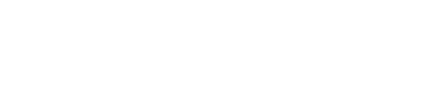
PVC DRAIN OUTLET
SCALE: N.T.S.



STORMWATER MANAGEMENT NOTES:

1. THE DEVELOPER OR HIS AGENT SHALL CONTACT THE DESIGN ENGINEER WHEN THE BEST MANAGEMENT PRACTICES ARE CONSTRUCTED AND ABOUT TO BECOME OPERATIONAL, SO A FINAL INSPECTION CAN BE PERFORMED TO DETERMINE COMPLIANCE WITH THE APPROVED PLAN CAN BE PERFORMED.
2. 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 RECORDATION OF ANY DEED(S) SHOWING STORMWATER BMP/CONTROL STRUCTURES.
3. 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.
4. A FINAL INSPECTION OF THE SITE AND STORMWATER MANAGEMENT BMP/CONTROLS TO BE SCHEDULED WITH AND COMPLETED BY THE PROJECT ENGINEER.
5. NDEQ AND THEIR ASSIGNS HAVE RIGHT TO ACCESS THE STORMWATER CONTROL(S) FOR INSPECTIONS OR MAINTENANCE AS NECESSARY.
6. 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.
7. THE PROPERTY OWNER IS RESPONSIBLE FOR MAINTAINING THE STORMWATER CONTROL(S) ACCORDING TO THE APPROVED MAINTENANCE PLAN AND DIRECTION OF NDEQ.

TRASH RACK DETAIL



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 UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE SEEDING MIXTURE).
5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDING AREAS AND MAKE NECESSARY REPAIRS OR RE-SEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE MORE THAN BOX DAMAGED, RE-ESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT SMC ENVIRONMENTAL ENGINEERS ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

LANDSCAPING NOTES:

- ALL LANDSCAPING SHALL BE IN COMPLIANCE WITH THE NEEDED 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 MESH OR TUBE PROTECTION REPLACEMENT, SHALL BE IMPLEMENTED TO THE EXTENT NEEDED TO ENSURE PLANT SURVIVAL. STAKING MUST BE REMOVED AFTER ESTABLISHMENT (APPROXIMATELY 12 MONTHS), TO PREVENT GROUNDING (STRANGLING) OF ALL WOODY PLANTS.
- SOD WITHIN BMP AND SURROUNDING AREAS TO BE BERBERIDIA OR CENTROPIDE GRASS.
- GRASS OR MIDFLOWER 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 MIDFLOWER SOD, PLUGS, 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 NCEQ PLANT VENDOR. PLANT MATERIAL SHOULD BE PURCHASED FROM A LOCAL SOURCE TO ENSURE SURVIVABILITY. LOCAL VENDORS FOR THIS SITE INCLUDE:
- CILL IBE NATIVE PLANT NURSERY 919-662-5566
 - CROWNING WILD NURSERY 919-559-5351
 - NC FOREST SERVICE 919-731-7988
 - PLANT DELIGHTS NURSERY 919-772-4794
 - THORNE NATIVE TREES 919-553-5927
- IMMEDIATELY AFTER THE WET DETENTION BASIN IS ESTABLISHED, THE PLANTS ON THE VEGETATED SHELF AND PERIMETER OF THE BASIN SHOULD BE WATERED TWICE WEEKLY IF NEEDED UNTIL THE PLANTS BECOME ESTABLISHED (COMMONLY SIX WEEKS).

LANDSCAPING NOTES:

1. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES REGARDING LANDSCAPING.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A HEALTHY STAND OF GRASS ON ALL SEEDBED AREAS.
3. CONTRACTOR SHALL PROVIDE NATURAL TOPSOIL THAT IS FERTILE, FRAGILE, 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-OR ORGANIC MATTER BY WEIGHT AND HAVE A PH RANGE OF 5.5 TO 7.0.
4. 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.
5. CONTRACTOR TO VERIFY QUANTITIES PRIOR TO COMMENCING WORK.
6. ANY DISTURBED AREAS NOT SCHEDULED FOR HARDSCAPE, PLANTINGS, OR MULCH SHALL BE SEEDED LAWN. REFER TO SITE PLAN FOR LOCATION OF AREAS TO BE SEEDED.
7. NO PLANT SUBSTITUTIONS ARE PERMITTED WITHOUT WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
8. 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.
9. 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 DESIGN WET DETENTION POND:

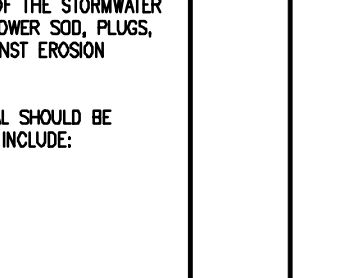
RIVER BASIN: NEUSE
RECEIVING STREAM: LITTLE RIVER
STREAM INDEX: 27-57 (7.5)
STREAM CLASS: WS-I(H)N(S)W(CA)
HUC: 0302020115
PROJECT COORDINATES: 35.8379333N, -78.324658W

POND DESIGN SUMMARY

	PRE-DEVELOPED TO POND	POST-DEVELOPED THROUGH POND	POST DEVELOPED BYPASS	POST DEVELOPED COMBINED
DRAINAGE AREA:	9.87	8.56 AC	1.51 AC	
CURVE NUMBER:	73.5	92.8	72.0	
TIME OF CONCENTRATION:	15.4 MIN	5 MIN	10 MIN	

1.0" STORM EVENT: 10.69 CFS, 31.20 CFS, 0.022 CFS, 1.486 CFS, 1.667 CFS
1-YEAR STORM EVENT: 16.13 CFS, 39.06 CFS, 0.629 CFS, 2.286 CFS, 2.915 CFS
2-YEAR STORM EVENT: 33.48 CFS, 60.69 CFS, 3.853 CFS, 4.822 CFS, 6.675 CFS
10-YEAR STORM EVENT: 64.38 CFS, 95.43 CFS, 49.52 CFS, 9.451 CFS, 58.97 CFS

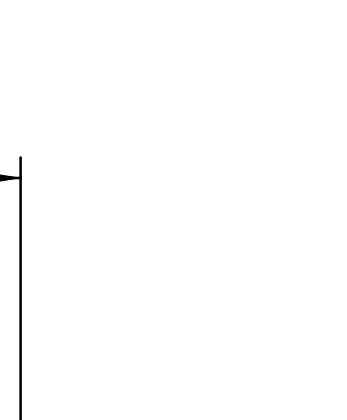
TYPICAL LITTORAL SHELF VEGETATION DETAIL



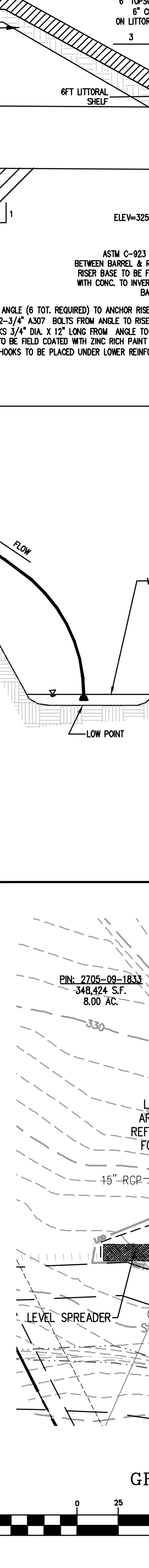
TYPICAL LITTORAL SHELF PLANTING SCHEDULE

SCIENTIFIC NAME	COMMON NAME	PLANTING ZONE	QUANTITY	NURSERY CONTAINER TYPE	SPACING	PLANTING SEASON
<i>Eupatoriadelphus maculatus</i>	Spotted Trumpetweed	SHALLOW WATER	281	PEAT POT	6' O.C.	SPRING/SUMMER
<i>Eupatorium purpureum</i>	Joe-Pye Weed	SHALLOW WATER	281	PEAT POT	6' O.C.	SPRING/SUMMER
<i>Rhynchospora colorata</i>	Starush Whitepot	SHALLOW WATER	281	PEAT POT	6' O.C.	SPRING/SUMMER

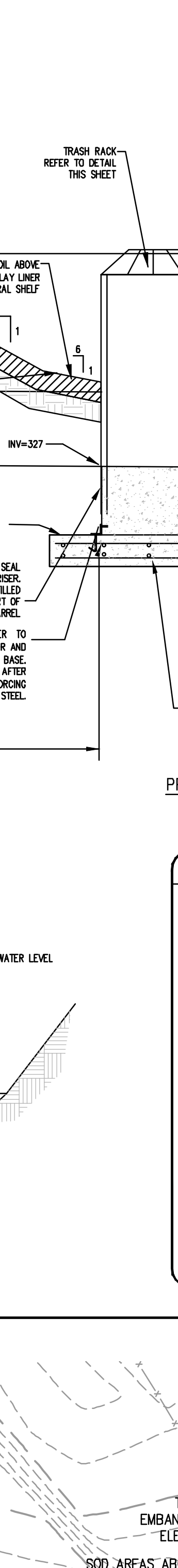
GRAPHIC SCALE



PLAN VIEW



STORMWATER MANAGEMENT SYSTEM DETAILS



NOT TO SCALE

SCM element

SCM element	Potential problems:	How to remediate the problem:
The entire SCM	Trash/debris is present.	Remove the trash/debris.
The perimeter of the wet pond	Areas of bare soil and/or erosive gullies have formed.	Regrade the soil if necessary to remove the gully, plant ground cover and water until it is established. Provide lime and a one-time fertilizer application.
The 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 to remove the gully, plant ground cover and water until it is established. Provide lime and a one-time fertilizer application.
The forebay	Sediment has accumulated to a depth greater than the original design sediment storage 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.
	Erosion has occurred.	Provide additional erosion protection such as reinforced turf matting or stone if needed to prevent future erosion problems.
	Weeds are present.	Remove the weeds, preferably by hand. If pesticide is used, wipe it on the plants rather than spraying.
The vegetated shelf	Best professional practices show that pruning is needed to maintain optimal plant health.	Prune according to best professional practices.
	Plants are dead, diseased or dying.	Determine the source of the problem: soil, hydrology, diseases, etc. Remove the problem and replace plants. Provide a one-time fertilizer application to establish the ground cover if a soil test indicates it is necessary.
	Weeds are present.	Remove the weeds, preferably by hand. If pesticide is used, wipe it on the plants rather than spraying.
The main treatment area	Sediment has accumulated to a depth greater than the original design sediment storage 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.
	Algal growth covers over 50% of the area.	Consult a professional to remove and control the algal growth.
	Cattails, phragmites or other invasive plants cover 50% of the basin surface.	Remove the plants by wiping them with pesticide (do not spray).
	Shrubs have started to grow on the embankment.	Remove shrubs immediately.
The embankment	Evidence of muskrat or beaver activity is present.	Consult a professional to remove muskrat or beaver activity and repair any holes or erosion.
	A tree has started to grow on the embankment.	Consult a dam safety specialist to remove the tree.
The outlet device	An annual inspection by an appropriate professional shows that the embankment needs repair.	Make all needed repairs immediately.
	Clogging has occurred.	Clean out the outlet device and dispose of any sediment in a location where it will not cause impacts to streams or the SCM.
	The outlet device is damaged.	Repair or replace the outlet device.
Floating wetland island (if applicable)	Weeds or volunteer trees are growing on the mat.	Remove the weeds or trees.
	The anchor cable is damaged, disconnected or missing.	Restore the anchor cable to its design state.
The 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 wet pond are causing erosion or sedimentation in the receiving water.	Contact the local NCEQ Regional Office.

Bowman

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STORMWATER MANAGEMENT DETAILS

Rocket Wash
Arendell Ave
Project ID#736479

PRELIMINARY DO NOT USE FOR CONSTRUCTION

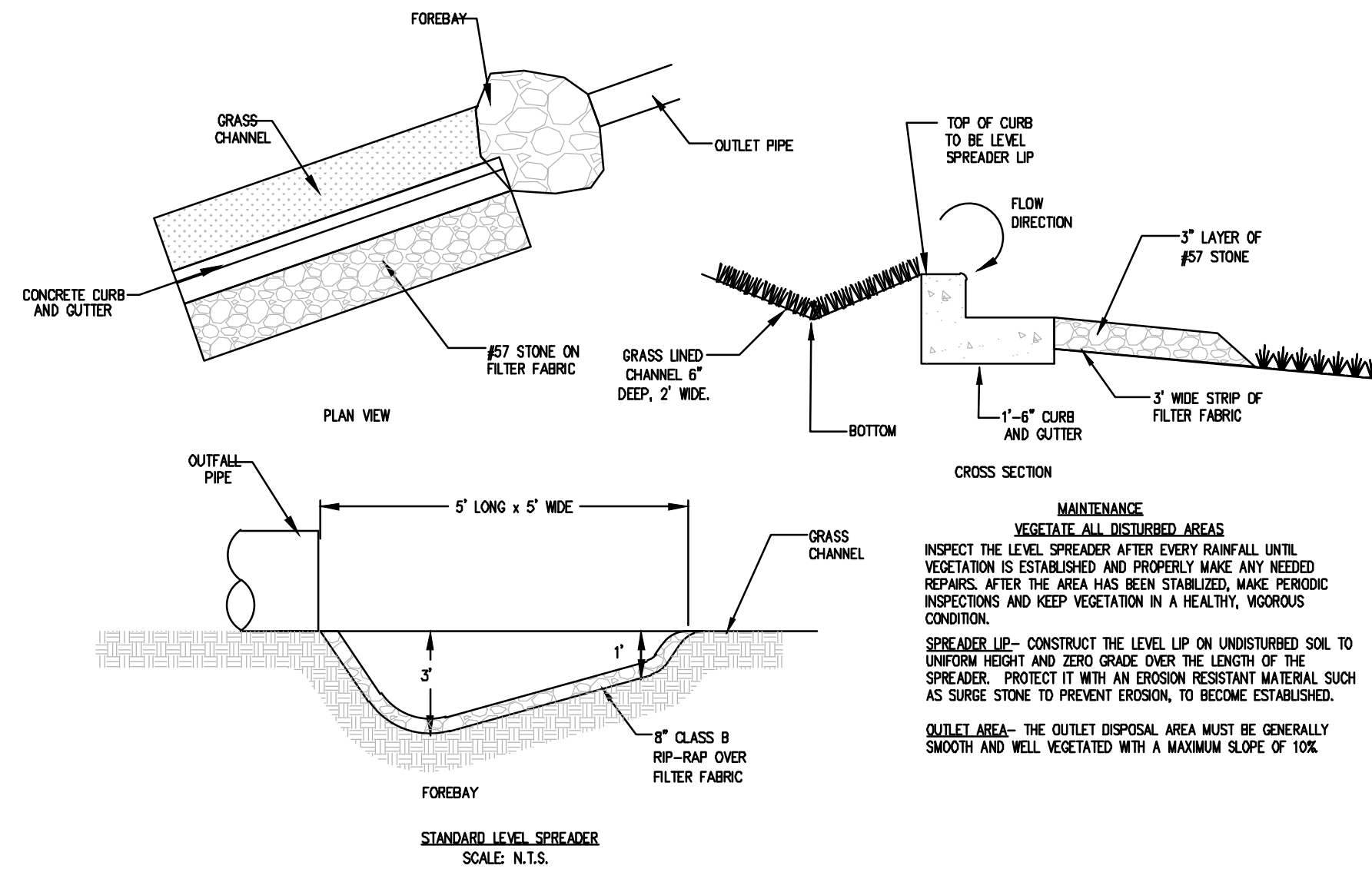


PLAN STATUS

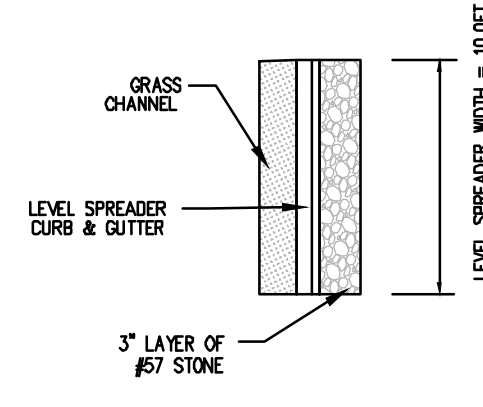
6/20/22	SITE PLAN SUBMITTAL
10/21/22	PER TOWN REVIEW
4/28/23	PER TOWN REVIEW

DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN XXXX CHKD
SCALE	H: 1" = 40'-0"
JOB No.	220094-01-002
DATE	June 20, 2022
FILE No.	220094-01-002

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 lime 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.
Forebay	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.
	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.
Deep pool, shallow water and shallow land areas	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.
	Algal growth covers over 30% of the deep pool and shallow water areas.	Consult a professional to remove and control the algal growth.
Embankment	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.
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.
	Clogging has occurred.	Clean out the outlet device. Dispose of the sediment off-site.
Outlet Structure	The outlet device is damaged	Repair or replace the outlet device.
	Erosion or other signs of damage have occurred at the outlet.	Repair the damage and improve the flow dissipation structure.
Receiving water	Discharges from the wetland are causing erosion or sedimentation in the receiving water.	Contact the local NCDQ Regional Office.



- CONSTRUCTION SPECIFICATIONS**
- THE MATTING SHOULD BE A MINIMUM OF 4 FEET WIDE EXTENDING 6 INCHES OVER THE LIP AND BURIED 6 INCHES DEEP IN A VERTICAL TRENCH ON THE LOWER EDGE. THE UPPER EDGE SHOULD BUTT AGAINST SMOOTHLY CUT SOIL AND BE SECURELY HELD IN PLACE WITH CLOSELY SPACED HEAVY DUTY WIRE STAPLES AT LEAST 12 INCHES LONG.
 - ENSURE THAT THE SPREADER IS LEVEL FOR UNIFORM SPREADING OF STORM RUNOFF.
 - CONSTRUCT THE LEVEL SPREADER ON UNDISTURBED SOIL (NOT ON FILL).
 - CONSTRUCT A 20 FOOT TRANSITION SECTION FROM THE OVERSPILL CHANNEL TO BLEND SMOOTHLY WITH THE WIDTH AND DEPTH OF THE LEVEL SPREADER.
 - DISPERSE RUNOFF FROM THE SPREADER ACROSS A PROPERLY STABILIZED SLOPE, NOT TO EXCEED 10% MAKE SURE THAT THE SLOPE IS SUFFICIENTLY SMOOTH TO KEEP THE FLOW FROM CONCENTRATING.
 - IMMEDIATELY AFTER IT'S CONSTRUCTION, APPROPRIATELY SEED AND MULCH THE ENTIRE DISTURBED AREA OF THE LEVEL SPREADER.



LEVEL SPREADER
SCALE: N.T.S.

GRASS NOTE:
GRASS SHALL BE EITHER HYBRID BERMUDA GRASS OR CENTIPEDE

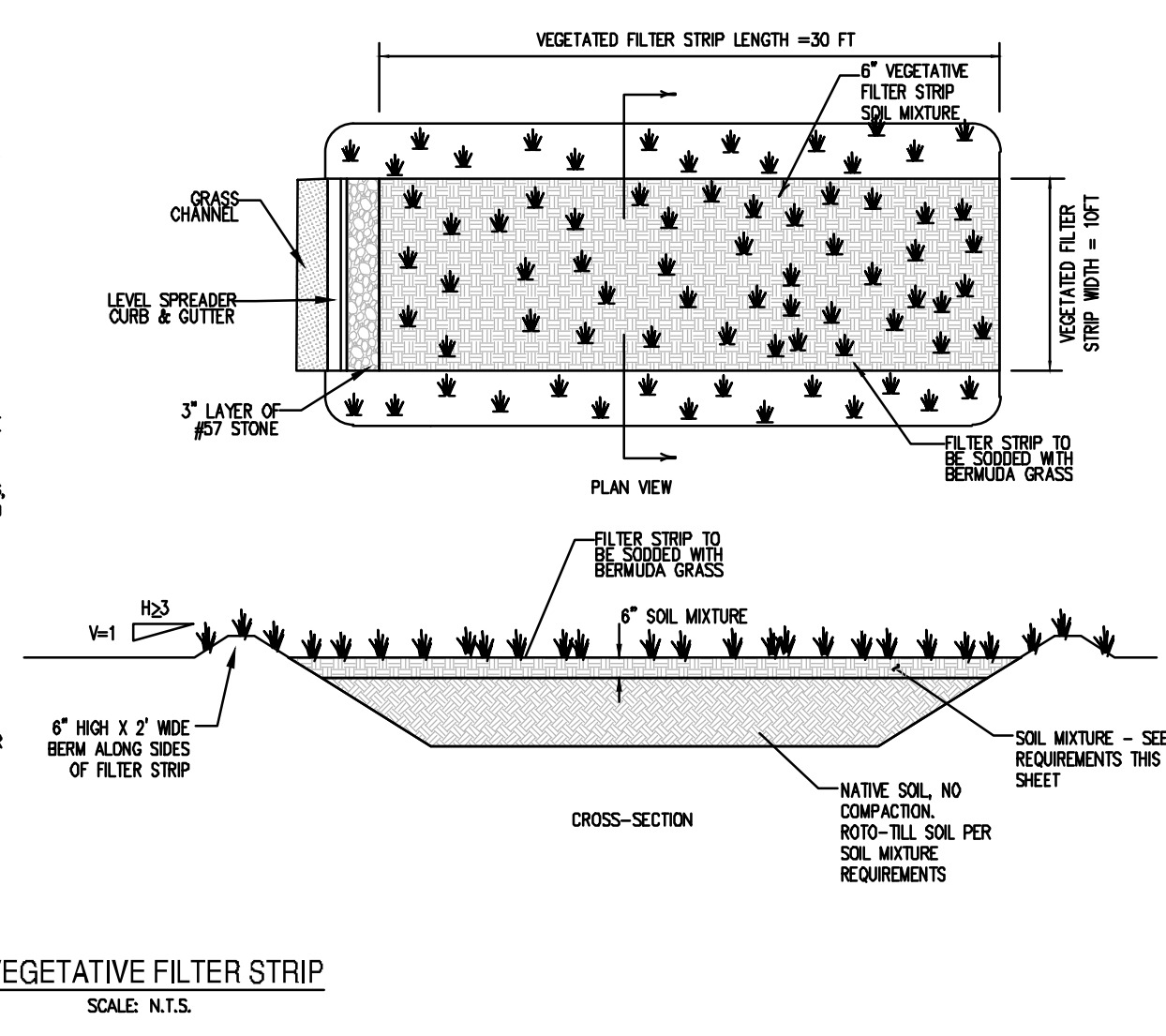
VEGETATIVE FILTER STRIP - SOIL MIXTURE

ITEM	PERCENT BY WEIGHT	MATERIAL
SAND	85-88%	CONSTRUCTION SAND
FINES	8%-12%	SILT
ORGANIC MATTER	3%-5%	COMPOST/PEAT MOSS

SOIL MIXTURE SHALL BE PLACED AND GRADED USING LOW GROUND-CONTACT PRESSURE EQUIPMENT OR BY EXCAVATORS AND/OR BACKHOES OPERATING ON THE GROUND ADJACENT TO THE VEGETATIVE FILTER STRIP FACILITY. NO HEAVY EQUIPMENT SHALL BE USED WITHIN THE PERIMETER OF THE VEGETATIVE FILTER STRIP FACILITY BEFORE, DURING, OR AFTER THE PLACEMENT OF THE SOIL MIXTURE. THE SOIL MIXTURE SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED 4 INCHES FOR THE ENTIRE AREA OF THE VEGETATIVE FILTER STRIP FACILITY. IF THE SOIL MIXTURE BECOMES CONTAMINATED DURING THE CONSTRUCTION OF THE VEGETATIVE FILTER STRIP FACILITY, THE CONTAMINATED MATERIAL SHALL BE REMOVED AND REPLACED WITH UNCONTAMINATED MATERIAL AT NO ADDITIONAL COST. FINAL GRADING OF THE VEGETATIVE FILTER STRIP SHALL BE PERFORMED AFTER A 24-HOUR SETTLING PERIOD. FINAL ELEVATIONS SHALL BE WITHIN 2 INCHES OF ELEVATIONS SHOWN ON THE CONTRACT PLANS.

THE SOIL MIXTURE SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES EXCLUDING MULCH. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE VEGETATIVE FILTER STRIP AREA THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS.

PRIOR TO PLACING THE SOIL MIXTURE, THE BOTTOM OF THE EXCAVATION SHALL BE ROTO-TILLED TO A MINIMUM DEPTH OF 6 INCHES TO ALEVIATE ANY COMPACTION OF THE FACILITY BOTTOM. ANY SUBSTITUTE METHOD FOR ROTO-TILLING MUST BE APPROVED BY THE ENGINEER PRIOR TO USE. ANY PONDED WATER SHALL BE REMOVED FROM THE BOTTOM OF THE FACILITY AND THE SOIL SHALL BE FRABLE BEFORE ROTO-TILLING.



VEGETATIVE FILTER STRIP
SCALE: N.T.S.

OPERATION & MAINTENANCE

North Carolina storm water rules require annual inspections by the regulating agency of level spreader-filter strip areas as a minimum. More frequent inspections by the land owner or system operator are strongly encouraged to ensure the proper operation of level spreader-filter strip areas.

- Rainfall Event**
 - Inspect the SCM after every runoff-producing rainfall event.
- Monthly Inspection**
 - Inspect the SCM monthly.
 - Check the level spreader-filter strip area side slopes; remove trash and repair eroded areas before the next rainfall event.
 - Check the vegetative and rock filters for sediment accumulation, erosion and proper operation of the flow spreader mechanism and repair as necessary.
 - Visually inspect and repair soil erosion on a monthly basis.
 - Remove any void areas whenever necessary. Replacement of mulch layers may be necessary every two or three years. Mulch should be replaced in the spring. When the mulch layer is replaced, the previous layer should be removed first.
 - Remove and replace all dead and diseased vegetation considered beyond treatment. This should be done twice a year, once in the spring and once in the fall. Treat all diseased trees and shrubs that are not beyond treatment as needed.
- Quarterly Inspection**
 - Inspect the collection system (i.e. catch basins, pipes and grass swales) for proper functioning. Clear accumulated trash from basin groves and basin bottoms. Check piping for obstructions.
 - Check SCM inlet pipes for undercutting, replace rip-rap and repair broken pipes.
 - Re-seed grassed swales, including the vegetated filter if applicable, twice a year as necessary. Repair eroded areas immediately.
- Six Month Inspection**
 - Remove accumulated sediment from the bottom of the outlet structure or other areas where accumulated sediment is noted.
 - Inspect the embankment taking note of any wet areas where water may be seeping through the soil.
- General Inspection**
 - Minimum grass height is to be 6 in.
 - No woody vegetation shall be allowed to grow in the bio-retention area.
 - Debris shall be removed from blocking the inlet and outlet structures and from areas of potential clogging.
 - Periodic removal of dead vegetation shall be accomplished.
 - All components of the level spreader-filter strip system must be kept in good working order.



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STORMWATER MANAGEMENT DETAILS
Rocket Wash
Arendell Ave
Zebulon, NC
Project ID#796479
Wake County

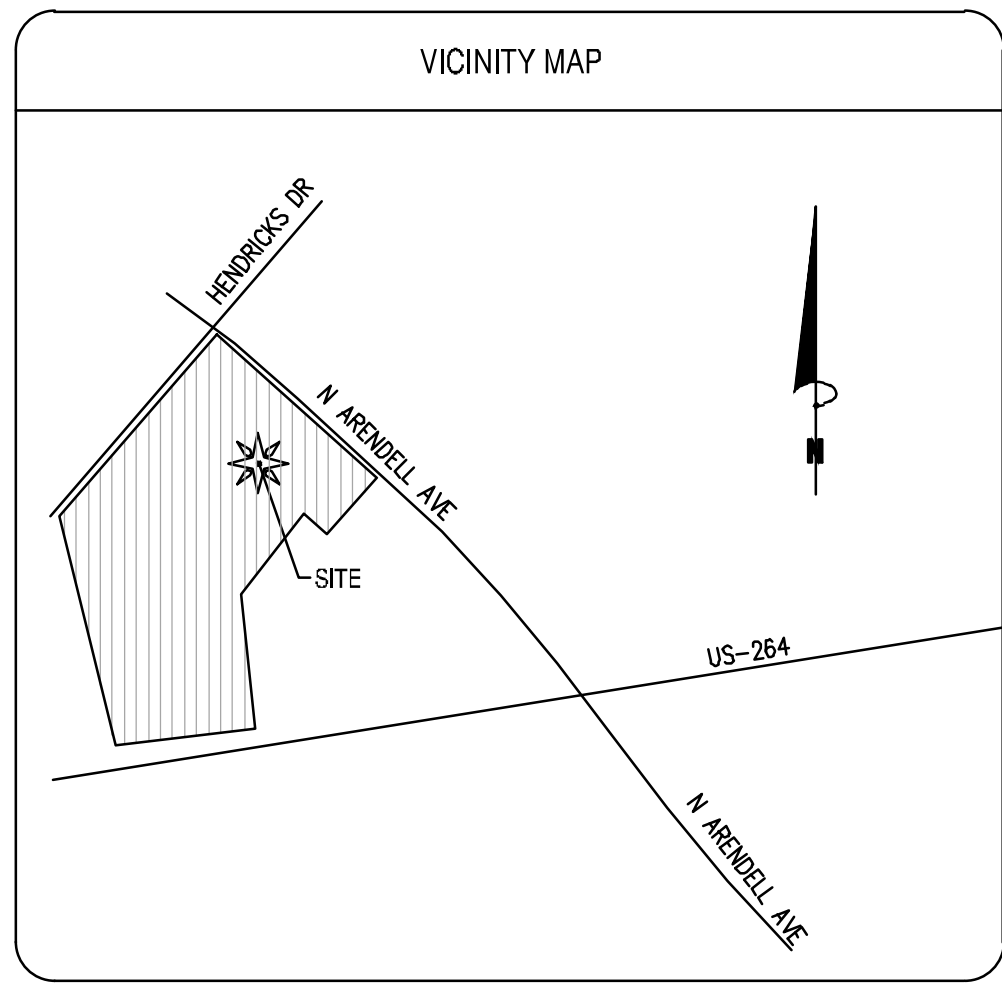
PRELIMINARY
DO NOT
USE FOR
CONSTRUCTION



PLAN STATUS

6/20/22	SITE PLAN SUBMITTAL
10/21/22	PER TOWN REVIEW
4/28/23	PER TOWN REVIEW

DATE	DESCRIPTION
MEL	DESIGN
MEL	DRAWN
XXX	CHKD
SCALE	H: 1" = XXX'
	V: 1" = XXX'
JOB No.	220094-01-002
	220097-01-002
DATE	June 20, 2022
FILE No.	220094-01-002
	220097-01-002



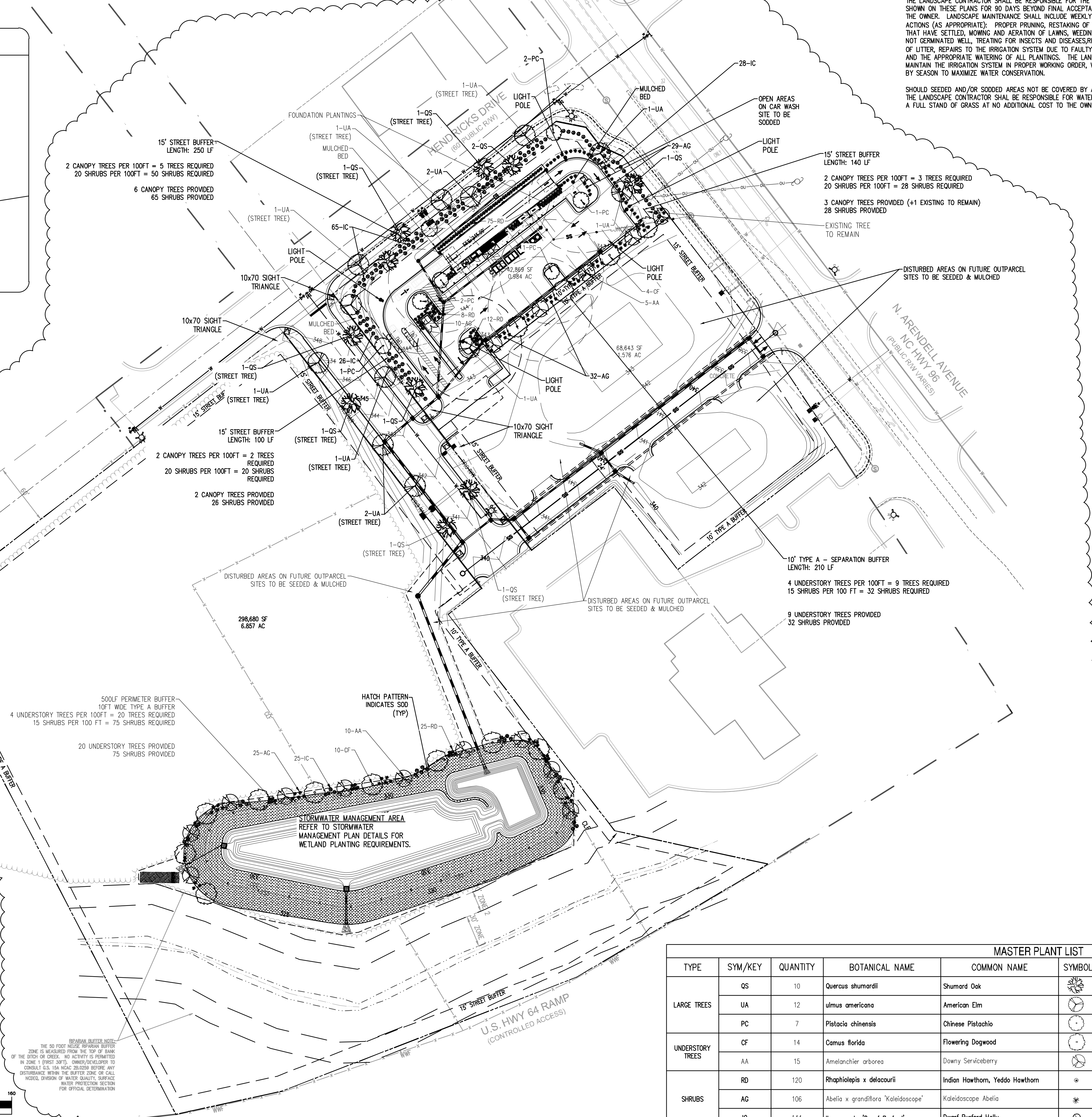
LANDSCAPE NOTES:
 HYDROMULCH ALL DISTURBED AREAS OUTSIDE OF PROPERTY LIMITS (UNLESS SHOWN AS SOD).
 THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER. LANDSCAPE MAINTENANCE SHALL INCLUDE WEEKLY SITE VISITS FOR THE FOLLOWING ACTIONS (AS APPROPRIATE): PROPER PRUNING, RESTAKING OF TREES, RESETTling 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 UTILER, 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 SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL STAND OF GRASS AT NO ADDITIONAL COST TO THE OWNER.



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/SEEDDED 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 SEEDDED 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, TREES, 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.

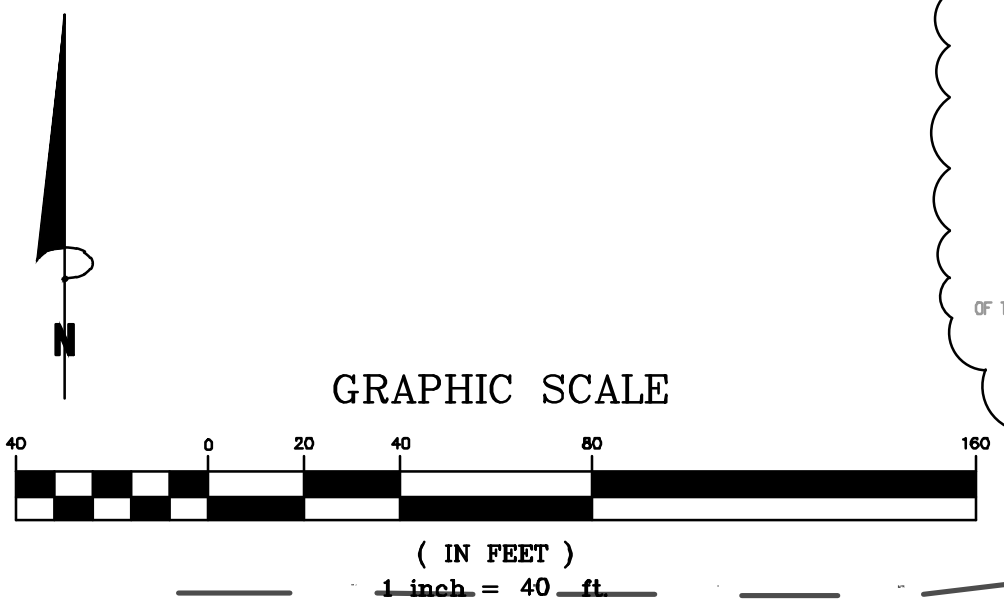
- GENERAL LANDSCAPE NOTES:**
- ANY DISTURBED AREAS NOT SCHEDULED FOR HARDSCAPE, PLANTINGS, OR MULCH SHALL BE SEEDDED LAWN.
 - NO PLANT SUBSTITUTIONS ARE PERMITTED WITHOUT WRITTEN APPROVAL OF THE OWNERS REPRESENTATIVE.
 - ALL PLANT AND BED LINE LOCATIONS SHALL BE STAKED IN THE FIELD AND APPROVED BY THE 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.



500LF PERIMETER BUFFER
 10FT WIDE TYPE A BUFFER
 4 UNDERSTORY TREES PER 100FT = 20 TREES REQUIRED
 15 SHRUBS PER 100 FT = 75 SHRUBS REQUIRED
 20 UNDERSTORY TREES PROVIDED
 75 SHRUBS PROVIDED

STORMWATER MANAGEMENT AREA
 REFER TO STORMWATER
 MANAGEMENT PLAN DETAILS FOR
 WETLAND PLANTING REQUIREMENTS.

MASTER PLANT LIST											
TYPE	SYM/KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SYMBOL	CALIPER	HEIGHT	SPREAD	ROOT	SPACING	OTHER
LARGE TREES	OS	10	<i>Quercus shumardii</i>	Shumard Oak	(Symbol)	2.5"	8' MIN		B&B	AS SHOWN	
	UA	12	<i>Ulmus americana</i>	American Elm	(Symbol)	2.5"	8' MIN		B&B	AS SHOWN	
	PC	7	<i>Pistacia chinensis</i>	Chinese Pistachio	(Symbol)	2.5"	8' MIN		B&B	AS SHOWN	
UNDERSTORY TREES	CF	14	<i>Camus florida</i>	Flowering Dogwood	(Symbol)	1.5"	4' MIN		B&B	AS SHOWN	
	AA	15	<i>Amelanchier arborea</i>	Downy Serviceberry	(Symbol)	1.5"	4' MIN		B&B	AS SHOWN	
SHRUBS	RD	120	<i>Rhaphiolepis x delcourii</i>	Indian Hawthorn, Yeddo Hawthorn	(Symbol)	-	18" MIN		3 GAL	AS SHOWN	
	AG	106	<i>Abelia x grandiflora 'Kaleidoscope'</i>	Kaleidoscope Abelia	(Symbol)	-	18" MIN		3 GAL	AS SHOWN	
	IC	144	<i>Ilex cornuta 'Dwarf Burford'</i>	Dwarf Burford Holly	(Symbol)	-	18" MIN		3 GAL	AS SHOWN	



REPAIR BUFFER NOTE:
 THE 50 FOOT NARROW REPAIR BUFFER ZONE IS MEASURED FROM THE TOP OF BANK OF THE CATCH OR CREEK. NO ACTIVITY IS PERMITTED IN ZONE 1 (FIRST 20 FT). OWNER DEVELOPER TO CONSULT G.S. 15A NCAC 2B.0209 BEFORE ANY DISTURBANCE WITHIN THE BUFFER ZONE OR CALL WATERS PROTECTION SECTION FOR OFFICIAL DETERMINATION.

Bowman

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 4006 BARRIETT DR
 Suite 104
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 Phone: (919) 655-6570
 bowman.com

Wake County

LANDSCAPE PLAN
 Rocket Wash
 Arendell Ave
 Project ID#796479

Zebulon, NC

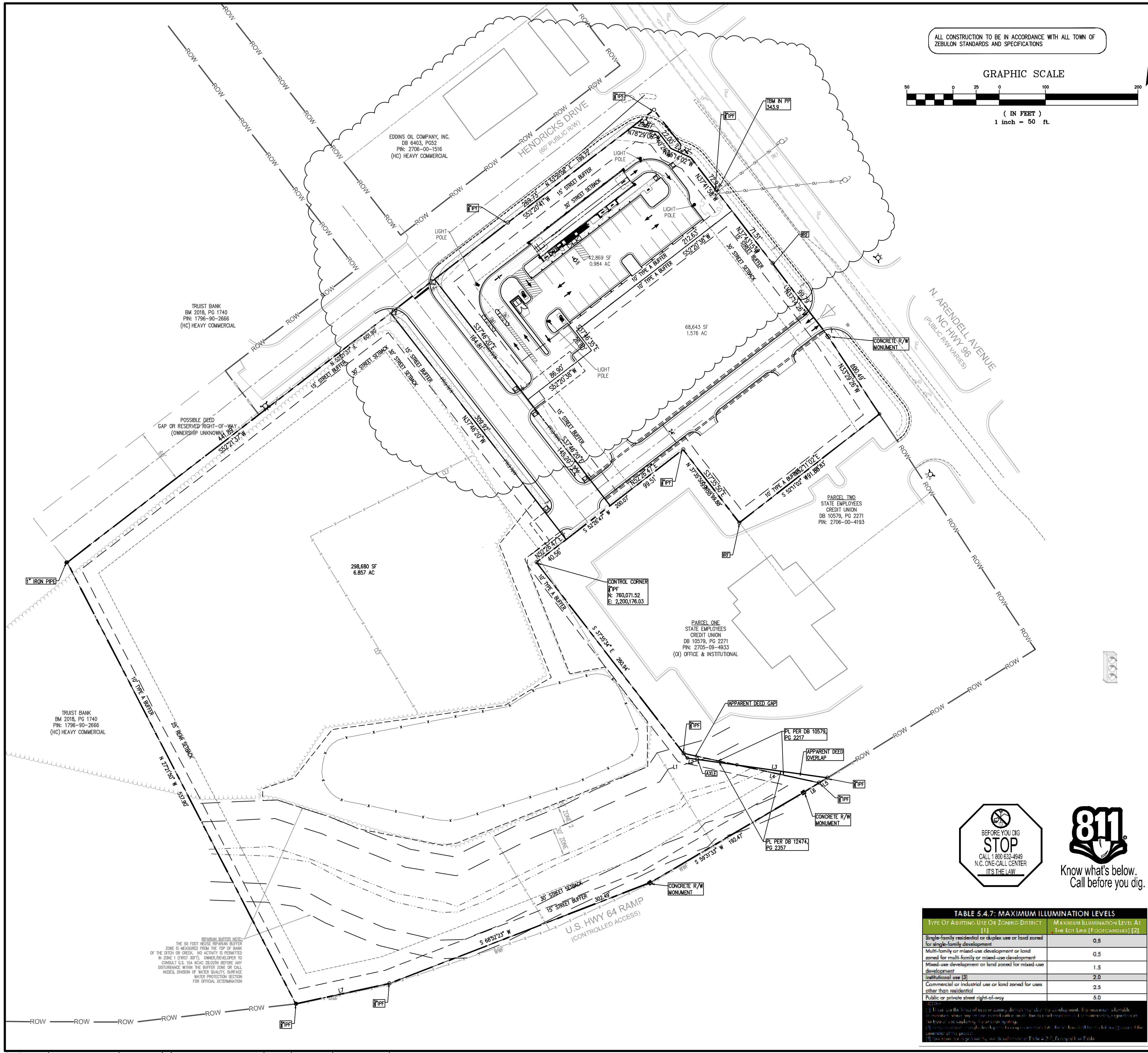
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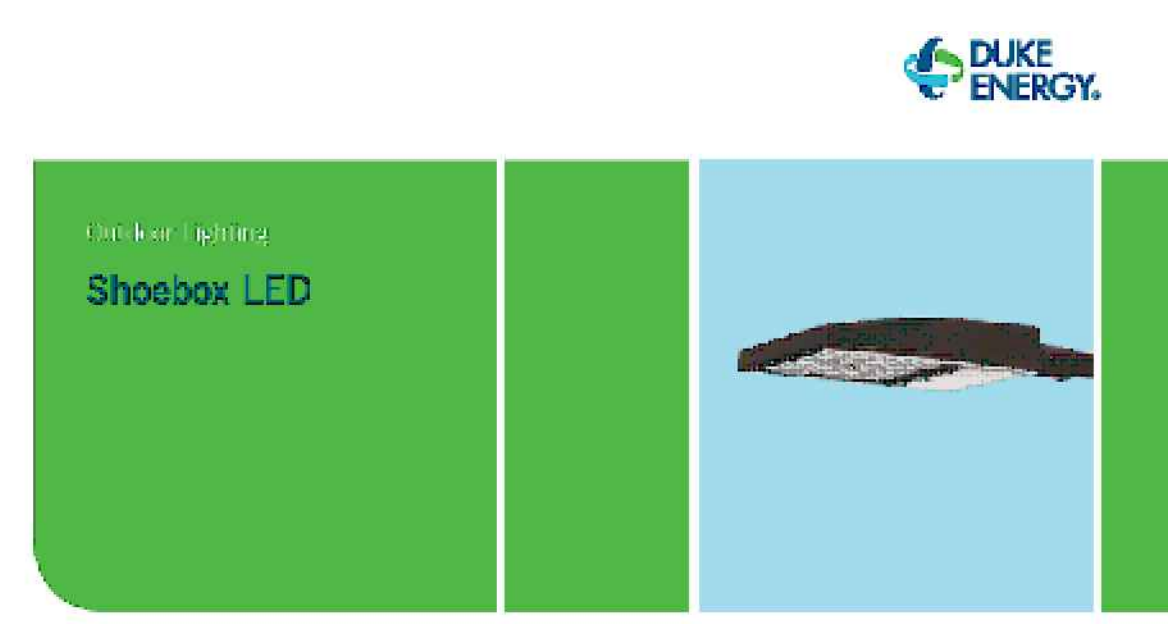
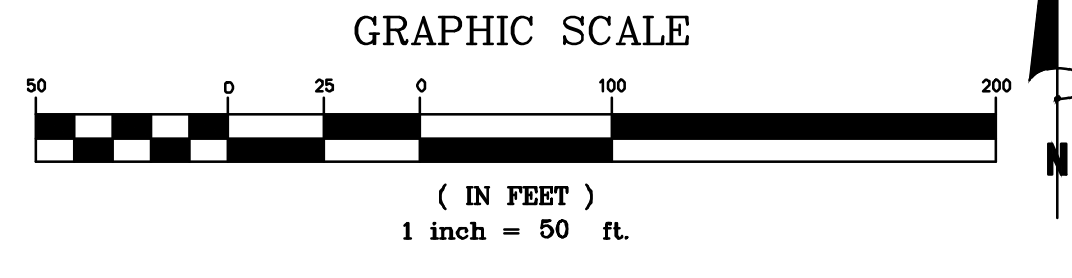
PLAN STATUS
 6/20/22 SITE PLAN SUBMITTAL
 10/21/22 PER TOWN REVIEW
 4/28/23 PER TOWN REVIEW

DATE DESCRIPTION
 MEL DESIGN MEL DRAWN XXX CHKD
 SCALE H: V:
 JOB No. 220094-01-002
 220097-01-002
 DATE June 20, 2022
 FILE No. 220094-01-002
 220097-01-002

SHEET C7.0



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



The energy-efficient Shoobox LED is a great solution and great fit for commercial parking lots, malls, office buildings and streets providing a "white light" that will enhance the appearance of your site. The Shoobox LED delivers light where it is needed, while increasing visibility and reducing light spill to adjoining properties. Selected to be an alternative to the metal halide light fixture, this fixture provides a white light source that will enhance colors, adding to visual clarity and improving area uniformity.

LED (light-emitting diode)	219 421 watts
Mounting height	30' - 35' SOFT MAX. MOUNTING HEIGHT
Color	Dark bronze Black
Poles	Tension top concrete Promenade concrete
Applications	Neighborhoods Parkways Shopping centers

For additional information, visit us at dive-energy.com/lighting or call us toll-free at 866.760.6417.



Light source: LED (white)
Wattage: 219 | 421
Light patterns:
LED 219 | 421 | IES Type V (circular)
LED 219 | 421 | IES Type IV (forward throw)
LED 219 | IES Type III (down)
IESNA cutoff classification: Full cutoff
Color temperature: 4,000K
Warm-up and recycle time: Instant on (no warm-up or recycle time)

Name	Mounting Height	Color
Tension top concrete	30' - 35' SOFT MAX. MOUNTING HEIGHT	Gray
Promenade concrete	30' - 35' SOFT MAX. MOUNTING HEIGHT	Bronze

Features	Benefits
Little or no installation cost	Free up capital for other projects
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance included	Eliminates high and unexpected repair bills
Electricity included	Less expensive than traditional service
Warranty included	Worry-free
One low monthly cost on your electric bill	Convenience and savings for you
Turnkey operation	Provides hassle-free installation and service
Backed by over 40 years of experience	A name you can trust today... and tomorrow

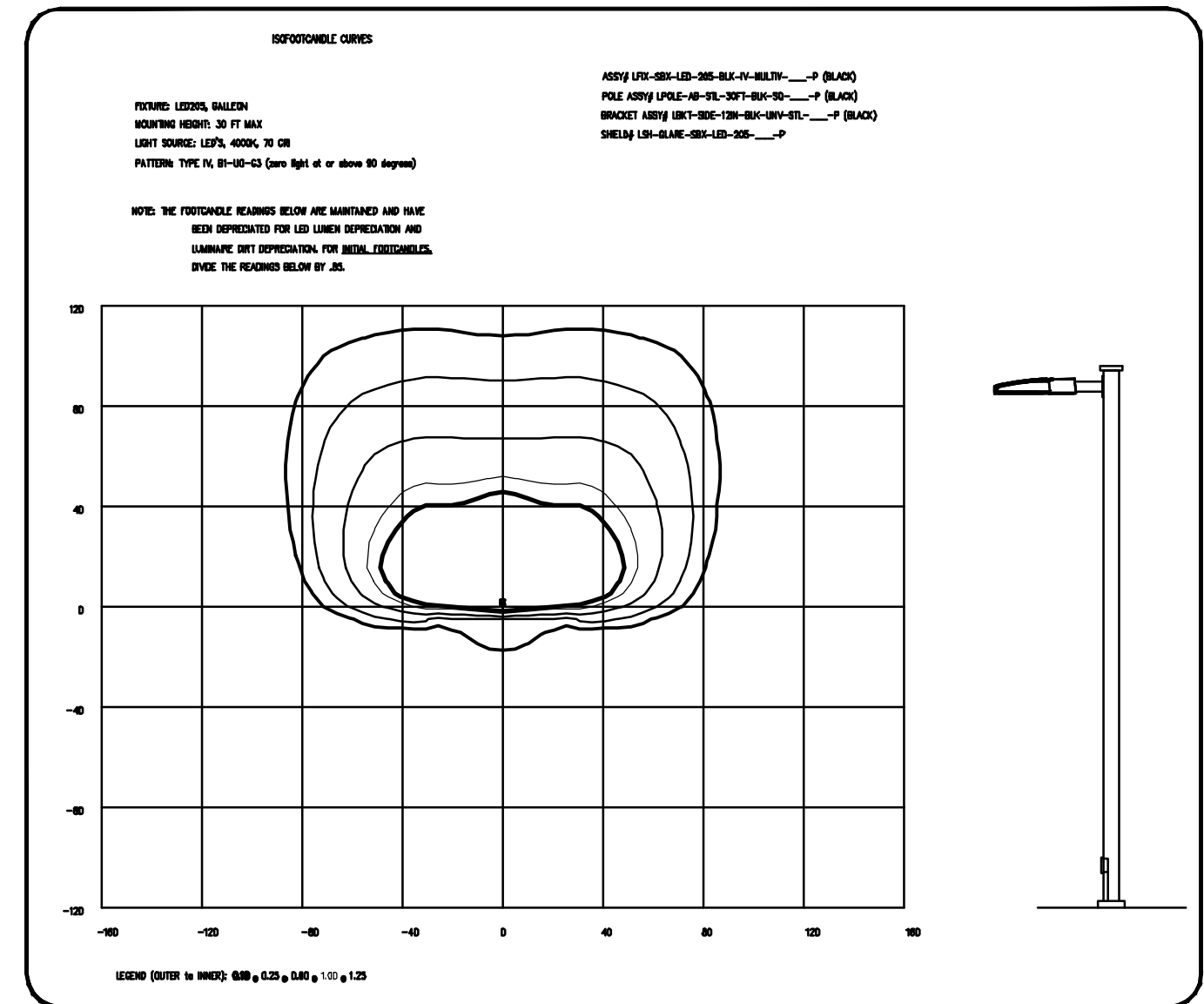


811
Know what's below.
Call before you dig.

TABLE 5.4.7: MAXIMUM ILLUMINATION LEVELS

Type of Adjoining Use or Zoning District	Maximum Illumination Level At The Lot Line (Footcandles) [2]
Single-family residential or duplex use or land zoned for single-family development	0.5
Multi-family or mixed-use development or land zoned for multi-family or mixed-use development	0.5
Mixed-use development or land zoned for mixed-use development	1.5
Institutional use [3]	2.0
Commercial or industrial use or land zoned for uses other than residential	2.5
Public or private street right-of-way	5.0

[1] Foot-candle is the unit of measurement for light intensity. For maximum illuminance, the maximum illuminance level should be maintained at all times. [2] For maximum illuminance, the maximum illuminance level should be maintained at all times. [3] For maximum illuminance, the maximum illuminance level should be maintained at all times.



Bowman

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bowman.com
Bowman North Carolina Ltd.

Wake County

Project ID#796479

Zebulon, NC

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PLAN STATUS

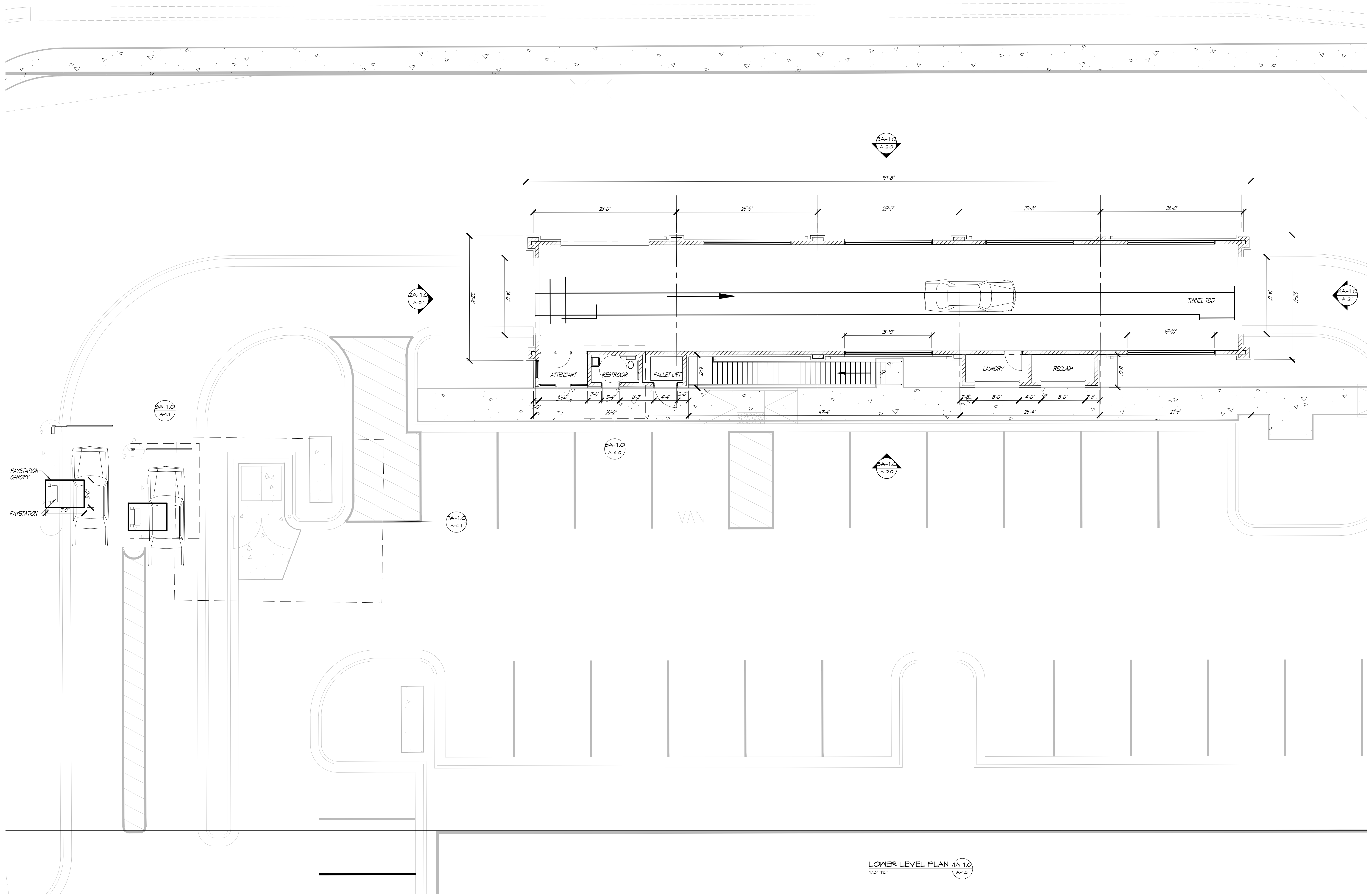
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10/21/22	PER TOWN REVIEW
4/28/23	PER TOWN REVIEW

DATE	DESCRIPTION
MEL DESIGN	MEL DRAWN XXX CHKD
SCALE	H:
JOB No.	220094-01-002 220097-01-002
DATE	June 20, 2022
FILE No.	220094-01-002 220097-01-002

SHEET **C7.1**

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MOUNT AIRY, NC 27030
OFFICE: 743-999-6734
WWW.NSDGRP.COM



CAR WASH
ROCKET WASH - ZEBULON
ZEBULON, NC
OVERALL LAYOUT

PRE-SEAL REVISIONS	BY	DATE

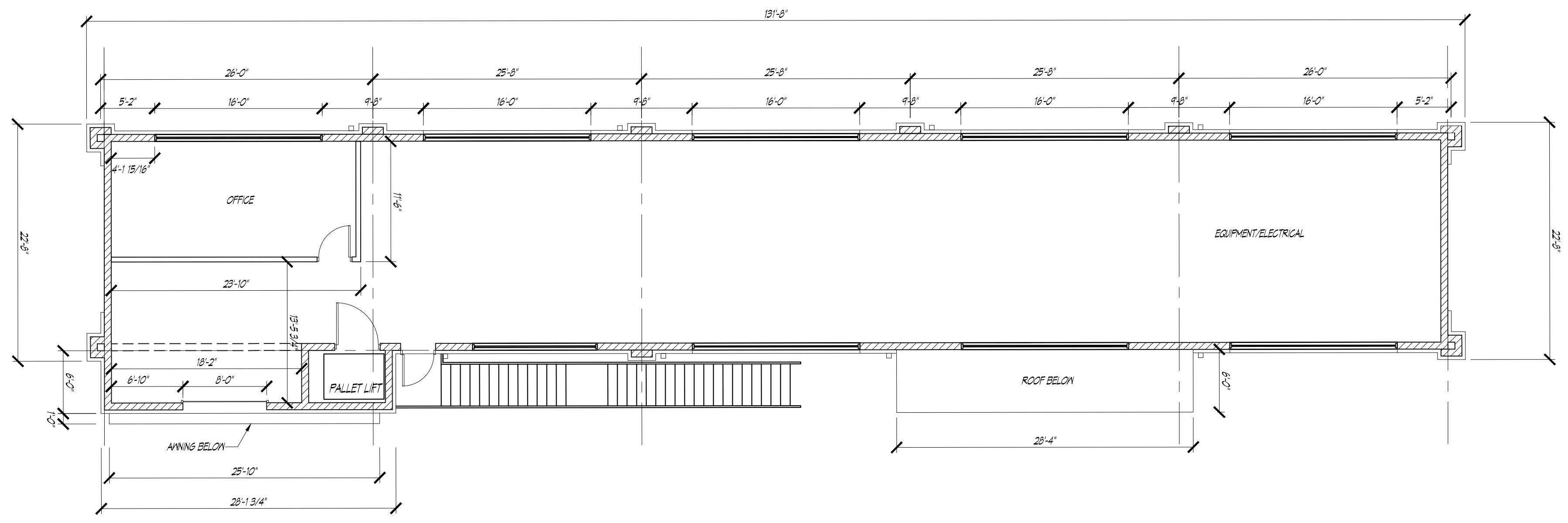
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PROJECT NO.
23-1004
DRAWN BY
M. FARRINGTON

LOWER LEVEL PLAN (A-1.0)
1/8"=1'-0"

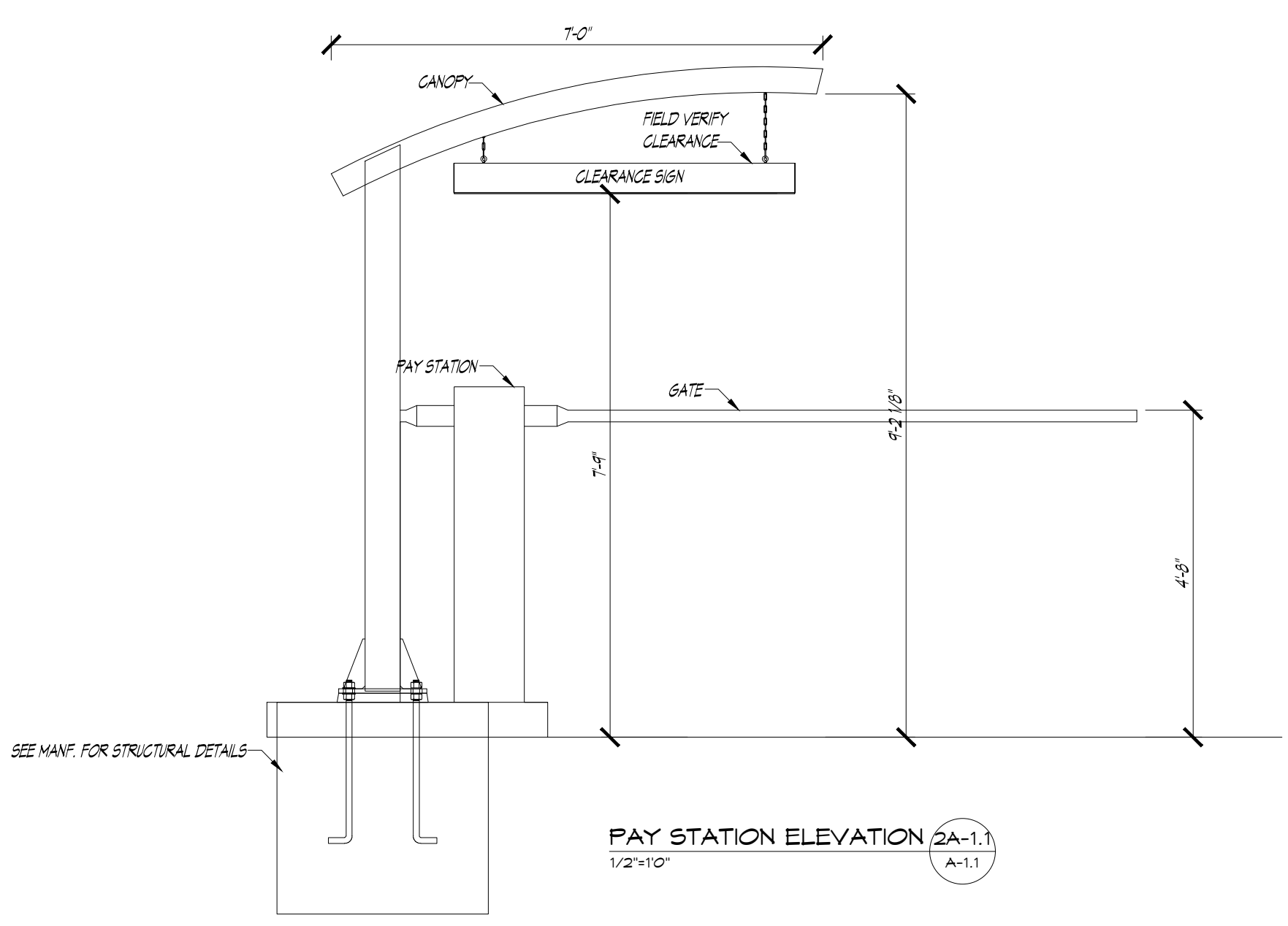
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A-1.0

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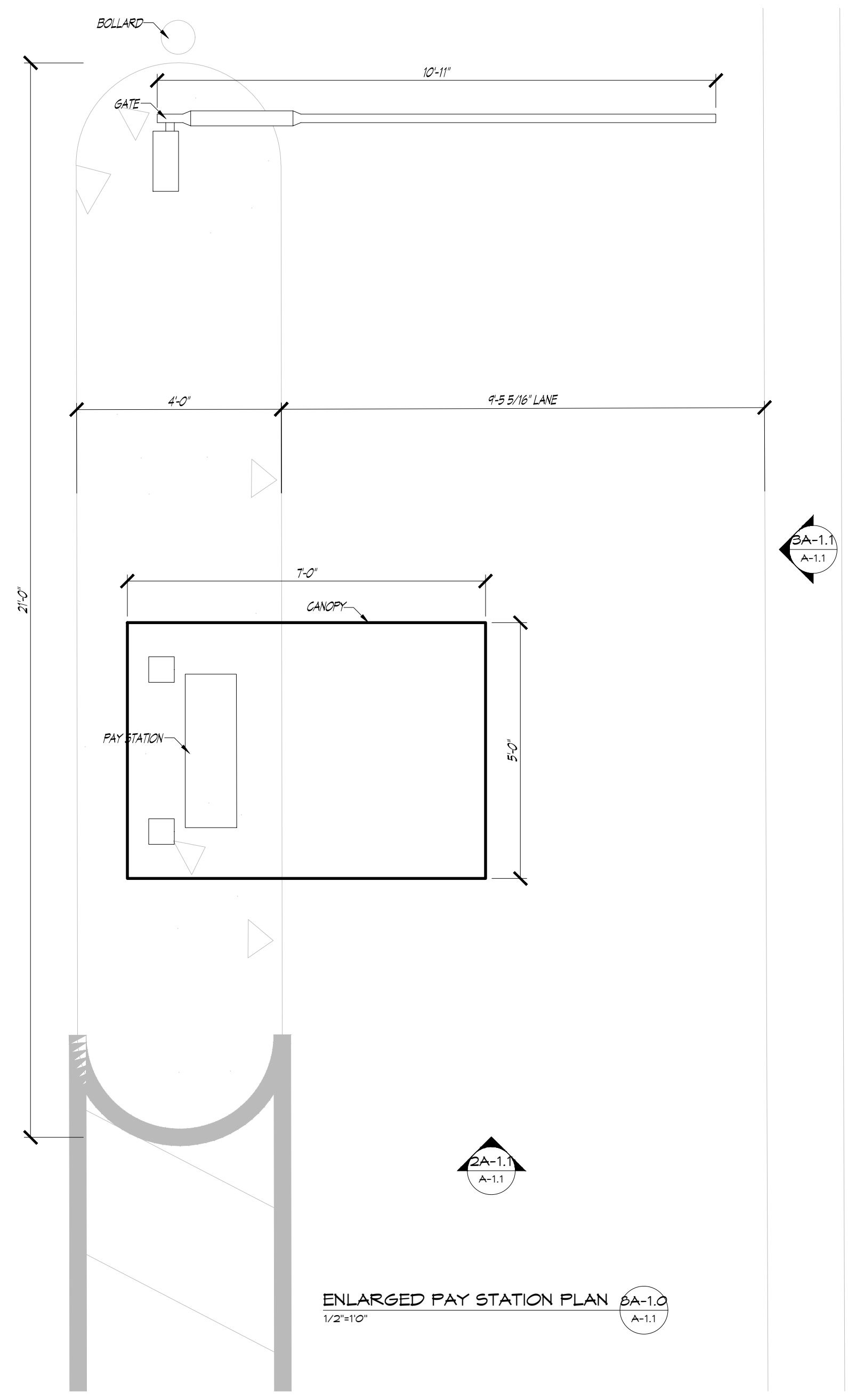
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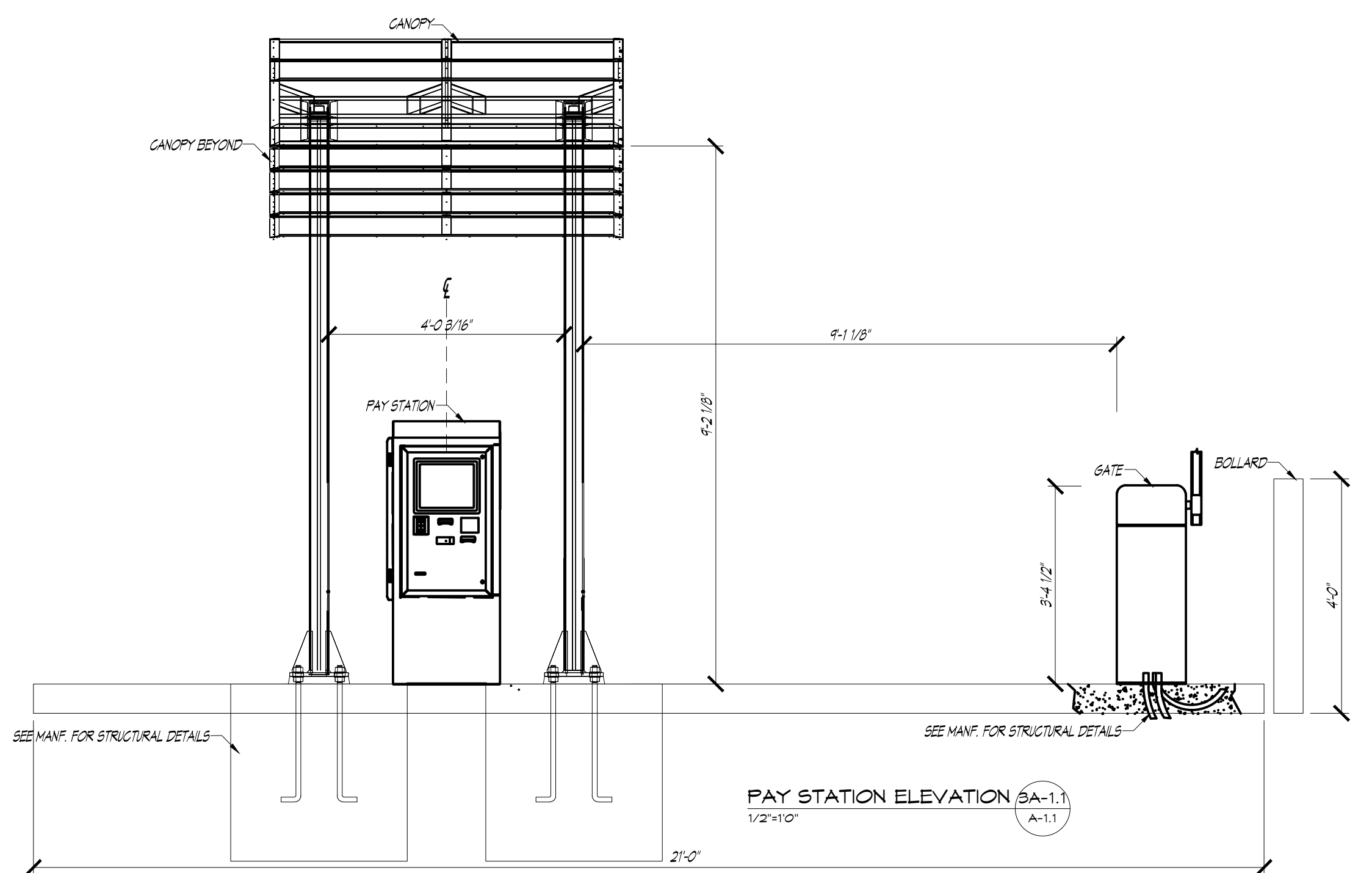
UPPER LEVEL PLAN (1A-1.1)
1/8"=1'-0"



PAY STATION ELEVATION (2A-1.1)
1/2"=1'-0"



ENLARGED PAY STATION PLAN (2A-1.0)
1/2"=1'-0"



PAY STATION ELEVATION (2A-1.1)
1/2"=1'-0"

CAR WASH
ROCKET WASH - ZEBULON
ZEBULON, NC
OVERALL LAYOUT - UPPER STORY

PRE-SEAL REVISIONS	BY DATE

PRELIMINARY
DATE: 03.14.2023
PROJECT NO: 23-1004
DRAWN BY: M. FARRINGTON
SHEET: **A-1.1**

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CAR WASH
ROCKET WASH - ZEBULON
ZEBULON, NC
ELEVATIONS

PRE-SEAL REVISIONS	BY DATE

PRELIMINARY

DATE
03.14.2023

PROJECT NO.
23-1004

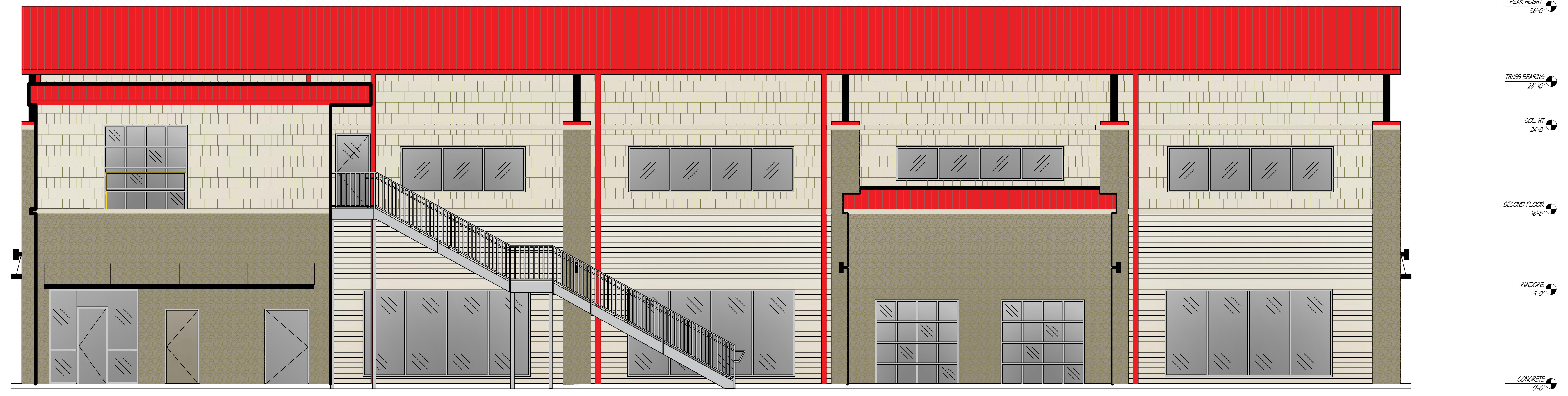
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M. FARRINGTON

SHEET
A-2.0

NOTE:
SECONDARY WALLS SHALL BE CONFIGURED SO THAT 1/30% OF THE GROUND FLOOR & 1/20% OF ANY SECOND FLOOR FACADE IS OCCUPIED BY:
- VISUALLY TRANSPARENT WINDOWS OR DOORS IN REGULAR SPACING
- FALSE OR OPAQUE WINDOWS/DOORS IN REGULAR SPACING
- ARTICULATED WALL FORMS DESIGNED TO HINGE WINDOW OPENINGS THAT ALSO INCLUDE AN OVERHANG OR AVING

PROVIDED PERCENTAGES:
- UPPER STORY - APPROX. 20%
- LOWER STORY - APPROX. 30.75%

ALL UPPER & LOWER STORY WINDOWS & DOORS SHALL BE OPAQUE OR FALSE EXCEPT RR DOOR & ATTENDANT OFFICE
RR DOOR SHALL BE 4M DOOR PAINTED TO MATCH SHAKE OR STONE
ATTENDANT OFFICE WINDOWS SHALL HAVE VISUAL TRANSPARENCY AT 35%
ALL WINDOWS SHALL BE STOREFRONT GLASS

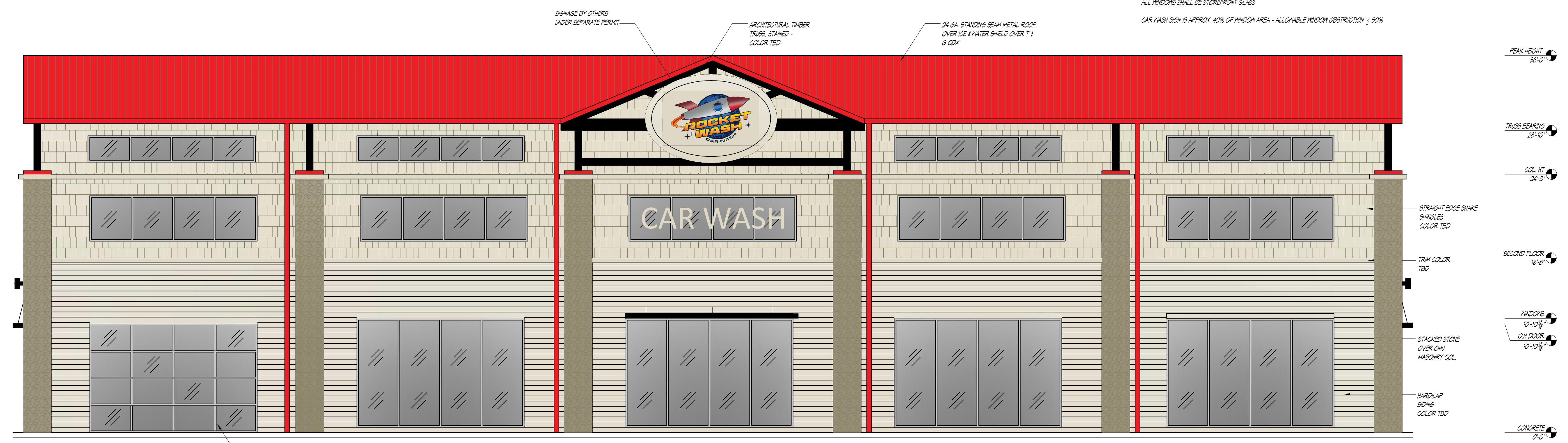


ELEVATION - SECONDARY 5A-1.0
3/16"=1'-0" A-2.0

NOTE:
PRIMARY WALLS SHALL BE CONFIGURED SO THAT:
- 1/40% OF FIRST FLOOR PORTION OF THE PRIMARY WALL IS OCCUPIED BY VISUALLY TRANSPARENT WINDOWS OR DOORS
- 1/30% OF A SECOND FLOOR PORTION OF THE PRIMARY WALL (IF PROVIDED) IS OCCUPIED BY VISUALLY TRANSPARENT WINDOWS OR DOORS
- A WINDOW OR FUNCTIONAL GENERAL ACCESS DOORWAY IS LOCATED 1/20 FEET ALONG THE FACADE
- NO MORE THAN 50% OF ANY SINGLE WINDOW OR DOOR IS OBSTRUCTED BY A WINDOW SIGN OR OTHER OPAQUE DISPLAY

PROVIDED PERCENTAGES:
- UPPER STORY - APPROX. 31%
- LOWER STORY - APPROX. 40.2%

ALL WINDOWS & DOORS SHALL HAVE VISUAL TRANSPARENCY AT 35%
ALL WINDOWS SHALL BE STOREFRONT GLASS
CAR WASH SIGN IS APPROX. 40% OF WINDOW AREA - ALLOWABLE WINDOW OBSTRUCTION 1/50%



ELEVATION - PRIMARY 5A-1.0
3/16"=1'-0" A-2.0

35% TRANSPARENT GLASS
SECTIONAL OH DOOR

SIGNAGE BY OTHERS
UNDER SEPARATE PERMIT

ARCHITECTURAL TRUSS
TRUSS STAINED -
COLOR TBD

24 GA. STANDING SEAM METAL ROOF
OVER ICE & WATER SHIELD OVER T &
G GDN

STRAIGHT EDGE SHAKE
SHINGLES
COLOR TBD

TRIM COLOR
TBD

STACKED STONE
OVER CMU
MASONRY COL.

HARDLAP
STONE
COLOR TBD

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NOTE:
PRIMARY WALLS SHALL BE CONFIGURED SO THAT:
- 40% OF FIRST FLOOR PORTION OF THE PRIMARY WALL IS OCCUPIED BY VISUALLY TRANSPARENT WINDOWS OR DOORS
- 30% OF A SECOND FLOOR PORTION OF THE PRIMARY WALL (IF PROVIDED) IS OCCUPIED BY VISUALLY TRANSPARENT WINDOWS OR DOORS
- A WINDOW OR FUNCTIONAL GENERAL ACCESS DOORWAY IS LOCATED 1' 20 FEET ALONG THE FACADE
- NO MORE THAN 50% OF ANY SINGLE WINDOW OR DOOR IS OBSTRUCTED BY A WINDOW SIGN OR OTHER OPAQUE DISPLAY

PROVIDED PERCENTAGES:
- UPPER STORY - APPROX. 42.2%
- LOWER STORY - APPROX. 31%

ALL WINDOWS & DOORS SHALL HAVE VISUAL TRANSPARENCY AT 35%
ALL WINDOWS SHALL BE STOREFRONT GLASS



ELEVATION - PRIMARY
1/4"=1'0"
AA-1.0
A-2.1



ELEVATION - PRIMARY
1/4"=1'0"
2A-1.0
A-2.1

CAR WASH
ROCKET WASH - ZEBULON
ZEBULON, NC
ELEVATIONS

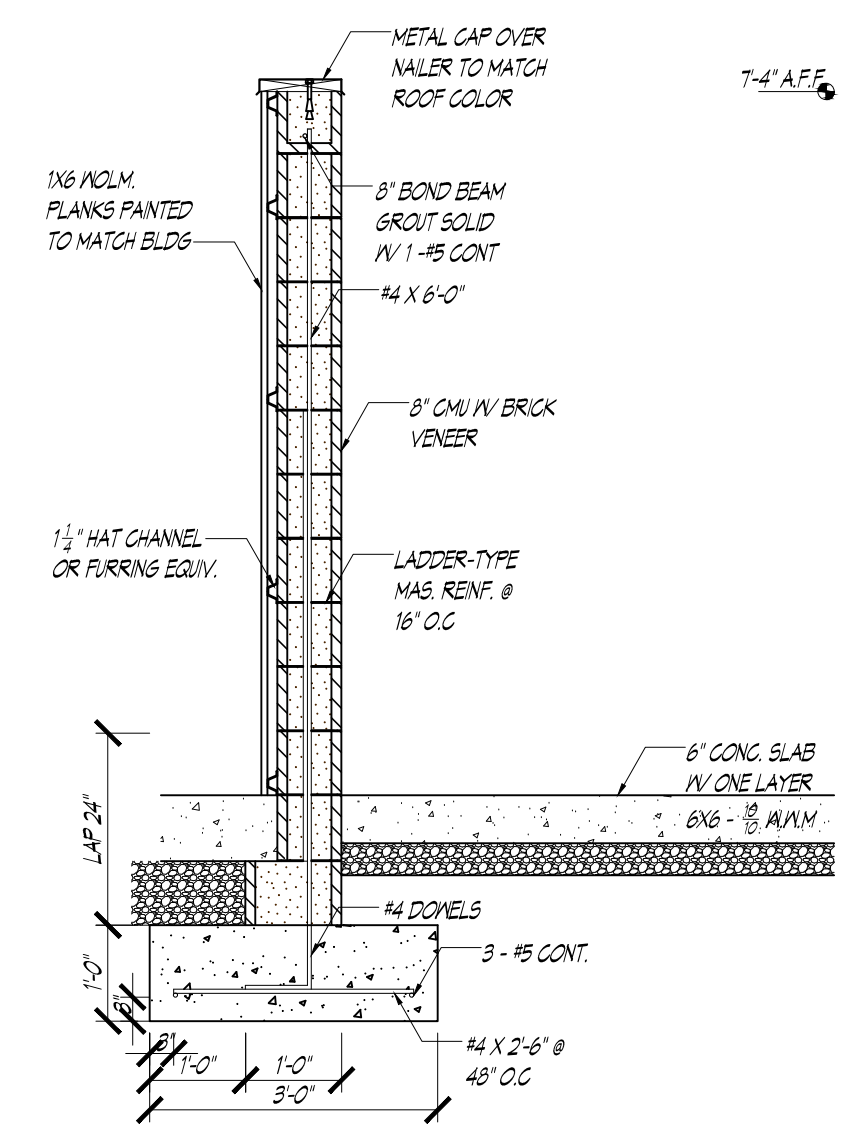
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SHEET
A-2.1

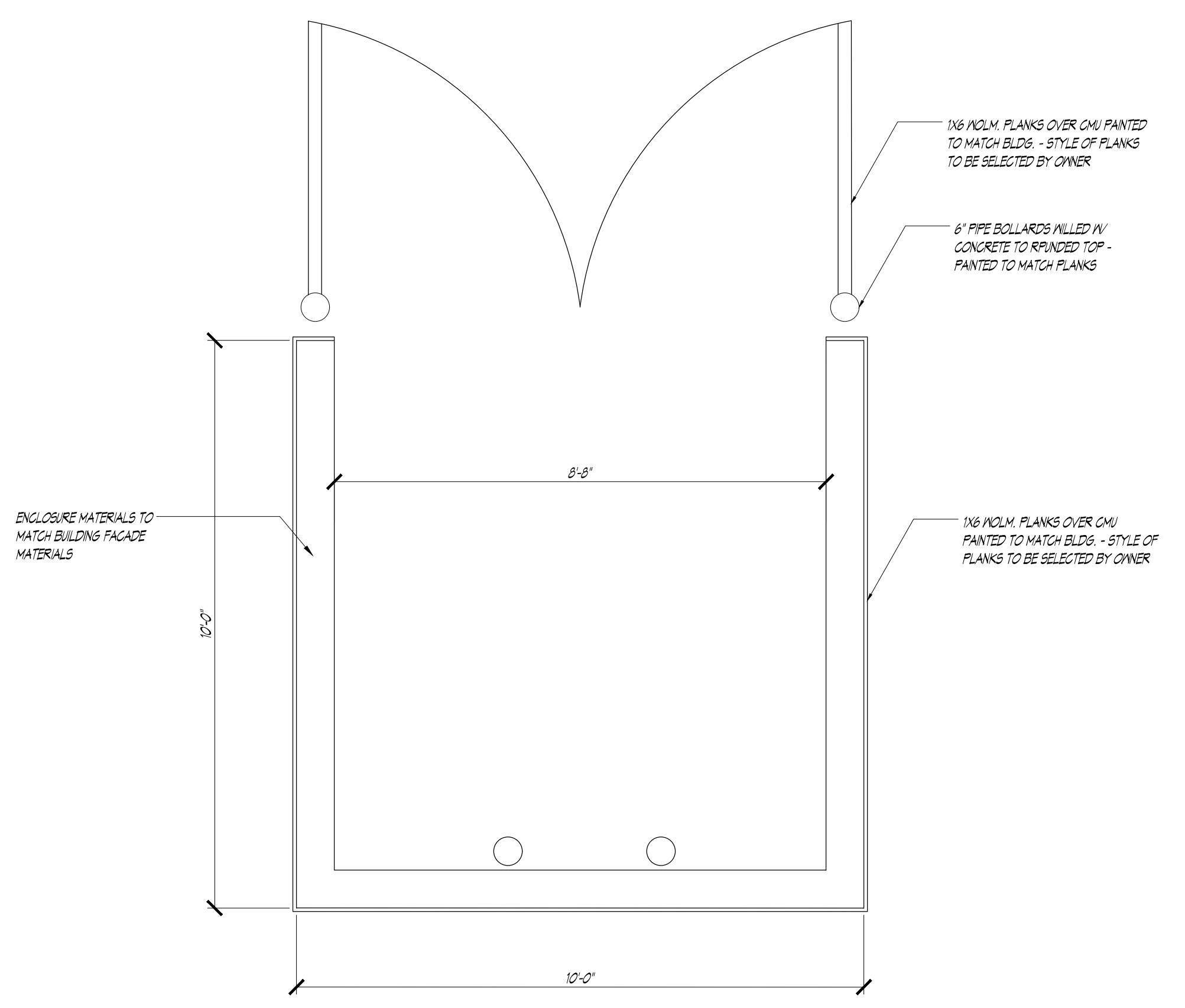
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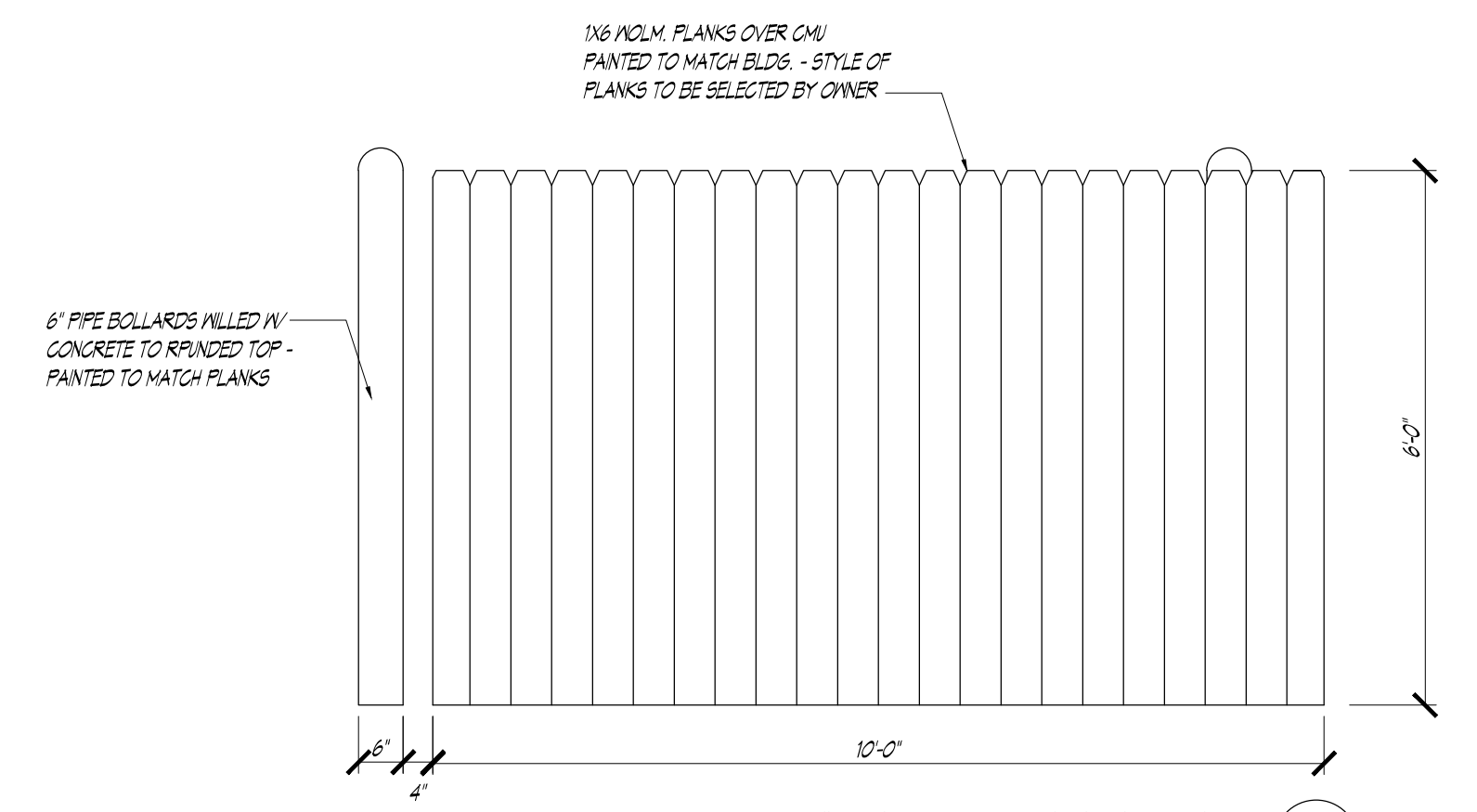
CAR WASH
ROCKET WASH - ZEBULON
ZEBULON, NC
DETAILS



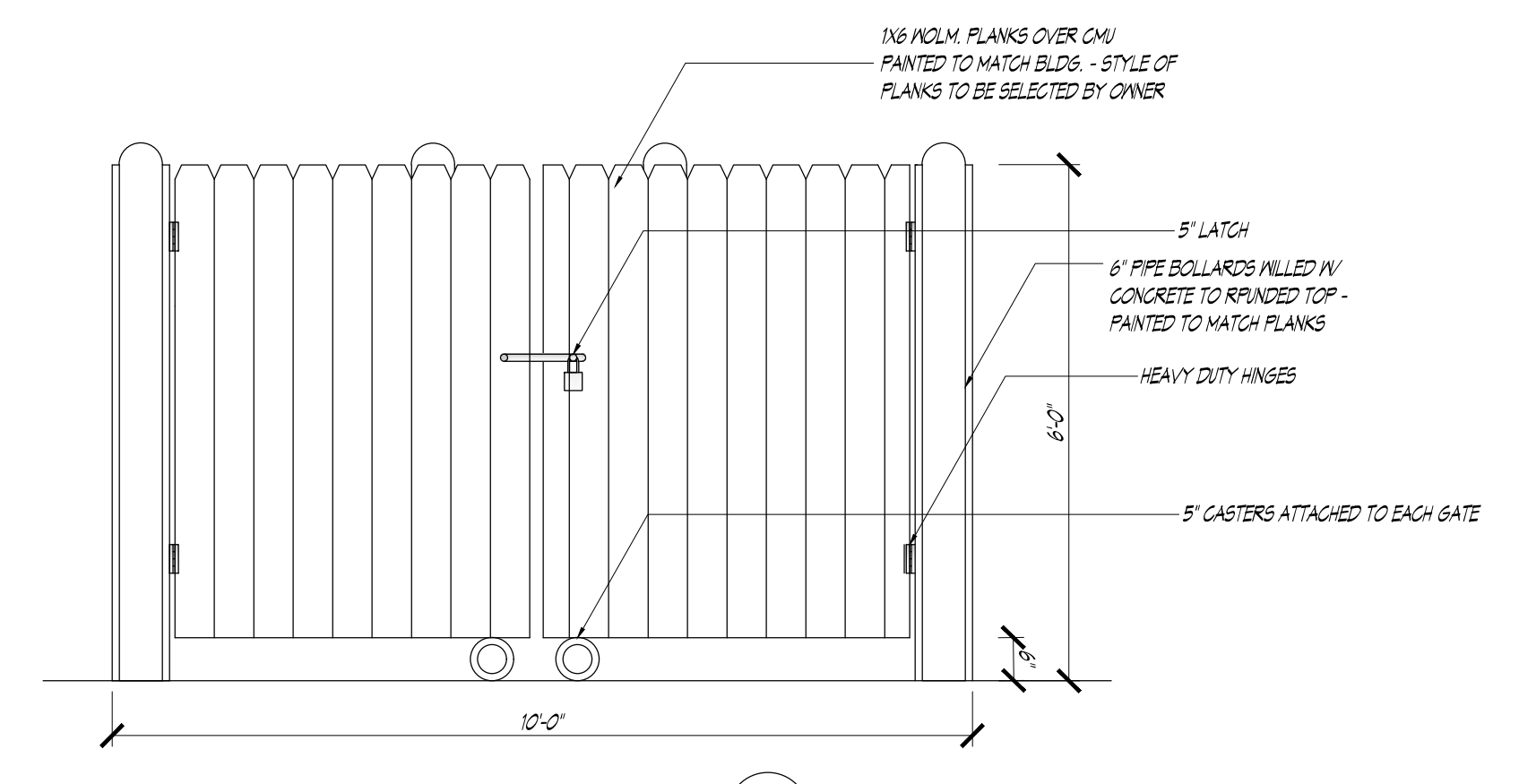
DUMPSTER WALL SECTION (A-4.1)
1/2"=1'-0"



DUMPSTER ENCLOSURE PLAN (A-4.1.0)
1/2"=1'-0"



DUMPSTER ENCLOSURE ELEVATION (A-4.1)
1/2"=1'-0"



DUMPSTER ENCLOSURE ELEVATION (A-4.1.1)
1/2"=1'-0"

PRE-SEAL REVISIONS	BY DATE

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SHEET A-4.1	