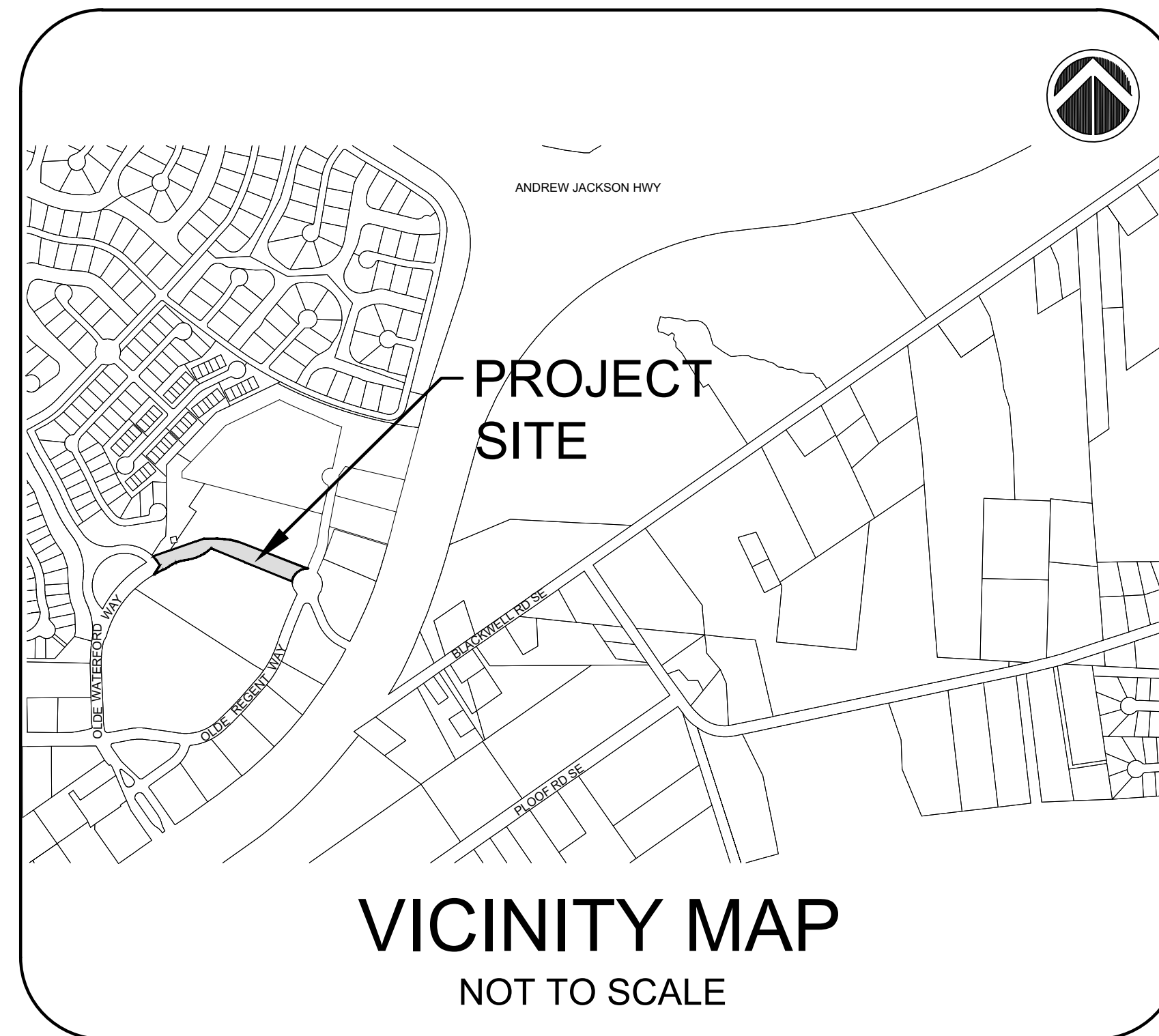


CONSTRUCTION PLANS

FOR

OLDE WATERFORD WAY EXTENSION

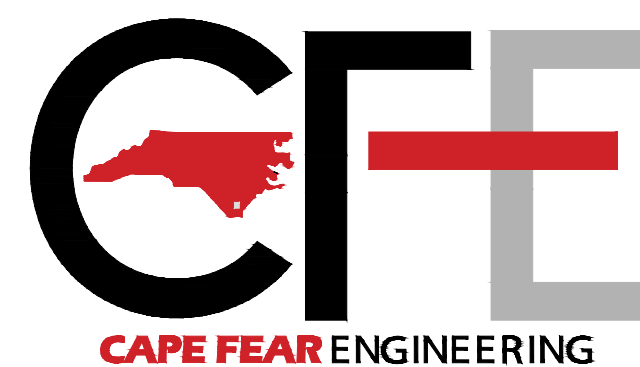
Waterford Commercial
Leland, North Carolina



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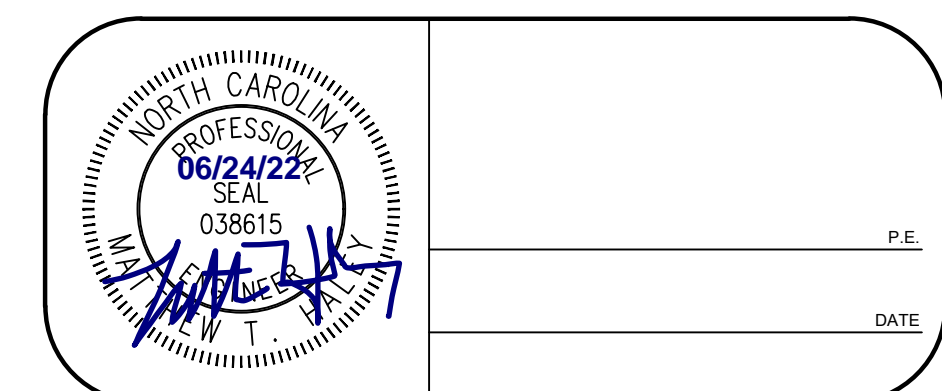
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CIVIL GENERAL NOTES:

- ALL CONSTRUCTION SHALL COMPLY WITH THE TOWN OF LELAND DEVELOPMENT REGULATIONS AND STANDARDS.
- EXISTING UTILITY INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, VERIFICATION, SUPPORT AND PROTECTION OF ALL ABOVEGROUND AND UNDERGROUND UTILITIES TO REMAIN IN PLACE, INCLUDING ANY UTILITIES NOT INDICATED ON CONTRACT DRAWINGS. ANY CONFLICTS OR DISCREPANCIES SHALL BE BROUGHT TO THE OWNER'S AND ENGINEER'S ATTENTION IMMEDIATELY.
- CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, TREES, PAVEMENT, UTILITIES, AND OTHER PROPERTY UNLESS THEY ARE TO BE DEMOLISHED. ANY PROPERTY NOT AUTHORIZED FOR REMOVAL, BUT DAMAGED BY THE CONTRACTOR SHALL BE RESTORED BY THE CONTRACTOR TO THE OWNER'S SATISFACTION AT NO ADDITIONAL EXPENSE TO THE OWNER.
- CONTRACTOR SHALL MAKE EVERY EFFORT TO SAVE PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES. PROPERTY IRONS, MONUMENTS, AND OTHER PERMANENT POINTS OF REFERENCE DESTROYED BY THE CONTRACTOR SHALL BE REPLACED BY A NORTH CAROLINA LICENSED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL MAKE SURE THAT WORK PERFORMED UNDER THIS CONTRACT SHALL NOT IMPACT THE OPERATION OF ANY ADJACENT PROPERTIES.
- CONTRACTOR SHALL SEQUENCE WORK AS NECESSARY TO ENSURE THAT ALL UTILITY SERVICES, INCLUDING FIRE HYDRANTS, REMAIN OPERATIONAL DURING CONSTRUCTION.
- THE CONTRACTOR SHALL RESTORE ANY ACCESS ROADS AND STAGING AREAS USED BACK TO THEIR ORIGINAL CONDITION. ALL DISTURBED AREAS SHALL BE VEGETATED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- THE CONTRACTOR SHALL TAKE ADEQUATE PROTECTIVE MEASURES TO ENSURE THAT EXISTING PAVEMENT SURFACES ARE NOT DAMAGED FROM TRACKED CONSTRUCTION EQUIPMENT OR ANY OTHER POSSIBLE SOURCE WHEN EQUIPMENT IS BEING MOVED DURING AND AFTER WORK IS BEING CONDUCTED. CONTRACTOR SHALL REPAIR ANY PAVED AREAS DAMAGED DURING CONSTRUCTION TO THE SATISFACTION OF THE OWNER.
- EXISTING PAVEMENTS AND ALL OTHER AREAS ADJACENT TO THE SITE SHALL BE KEPT CLEAN AT ALL TIMES. DO NOT ALLOW BUILD UP OF SOIL, MUD, DUST OR OTHER DEBRIS.
- CONTRACTOR IS RESPONSIBLE FOR ALL SURVEYING AND STAKING TO COMPLETE THE WORK.
- ANY AND ALL MATERIAL QUANTITIES INDICATED ON THIS PLAN SET ARE FOR REFERENCE ONLY. CONTRACTOR MUST VERIFY ALL MATERIAL QUANTITIES SHOWN.

EXISTING CONDITION AND SURVEY NOTES:

- ALL HORIZONTAL DATUM IS BASED ON NAD 83 NORTH CAROLINA STATE PLANE US FOOT AND VERTICAL DATUM IS BASED ON NAVD 88.
- THE UTILITIES, SITE FEATURES AND ONSITE TOPOGRAPHY SHOWN IN THESE CONSTRUCTION DRAWINGS HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION PERFORMED BY CAPE FEAR ENGINEERING, INC.
- ALL DISTANCES ARE GROUND HORIZONTAL & IN FEET UNLESS OTHERWISE NOTED.
- THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES AND SITE FEATURES SHOWN COMPRISE ALL UTILITIES AND SITE FEATURES IN THE AREA EITHER IN SERVICE OR ABANDONED. CAPE FEAR ENGINEERING, INC. FURTHER DOES NOT WARRANT THAT THE UTILITIES AND SITE FEATURES SHOWN ARE IN THE EXACT LOCATION INDICATED. CAPE FEAR ENGINEERING HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
- NO NATURAL SURFACE WATERS, WETLANDS, REGULATORY FLOOD ZONES, PROTECTED VEGETATED SETBACKS, AND PROTECTED RIPARIAN BUFFERS EXIST WITHIN THE PROJECT BOUNDARY.

DEMOLITION PLAN NOTES:

- ALL CONSTRUCTION DEBRIS NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL LOCATE UNDERGROUND UTILITIES AND COORDINATE DEMOLITION AND / OR RELOCATION WORK. ONCE LOCATED IN THE FIELD POSITIVE VERIFICATION BY POTHOLING MAY BE REQUIRED. REPORT ANY CONFLICTS OR DISCREPANCIES TO ENGINEER IMMEDIATELY.
- CONTRACTOR SHALL MINIMIZE IMPACT OF TEMPORARY STORAGE OF EXCAVATED SOILS.
- DIMENSIONS SHOWN ARE FOR GENERAL REFERENCE. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL ITEMS, INCLUDING ALL EXCAVATED MATERIALS NECESSARY TO COMPLETE WORK WITHIN THIS CONTRACT.
- WHERE ASPHALT/CONCRETE DEMOLITION IS REQUIRED, CONTRACTOR SHALL USE A SAW CUT AT THE LIMITS OF DEMOLITION OR NEAREST JOINT TO OBTAIN A CLEAN VERTICAL EDGE.
- DEMOLITION AND SUBSEQUENT CONSTRUCTION OF STORMDRAIN FACILITIES SHALL BE PERFORMED IN SUCH A MANNER THAT THE OLD PIPE AND STRUCTURES ARE REMOVED AND NEW STRUCTURES AND PIPING ARE IMMEDIATELY PUT INTO SERVICE. CONTRACTOR SHALL ENSURE THAT STORMDRAIN DOES NOT REMAIN OUT OF SERVICE FOR LONGER THAN 12-HOURS AT A TIME. CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO MAINTAIN PROPER STORM DRAINAGE DURING CONSTRUCTION.
- DEDICATED DEMOLITION AND OTHER WASTE AREAS/EARTHEN MATERIAL STOCKPILES MUST BE LOCATED AT LEAST 50' FROM STORMDRAINS OR STREAMS.
- REMOVE AND DISPOSE OF ALL TREES AND STUMPS AS REQUIRED FOR PROJECT CONSTRUCTION.
- ALL PIPING INDICATED FOR DEMOLITION TO BE REMOVED UNLESS NOTED FOR ABANDONMENT.
- THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY IMPACTED LANDSCAPE AREAS IN LIKE KIND.

SIGNAGE, STRIPING, AND MARKING NOTES:

- CONTRACTOR SHALL COMPLY WITH THE CURRENT TOWN OF LELAND AND NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, NCDOT ROADWAY STANDARD DRAWINGS, AND THE 2018 NCDOT PROJECT SPECIAL PROVISIONS UNLESS OTHERWISE NOTED.
- CONFORM ALL SIGNS AND TRAFFIC CONTROL DEVICES TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). (CURRENT VERSION)
- USE THE COLOR WHITE FOR ALL PAVEMENT MARKINGS AND SYMBOLS UNLESS OTHERWISE NOTED.
- DO NOT LOCATE PAVEMENT MARKING SYMBOLS AS TO ENCROACH INTO INTERSECTION AREAS.
- ANY EXISTING PAVEMENT MARKINGS IN THE VICINITY OF THE PROJECT LIMITS THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED.
- PEDESTRIAN CROSSWALKS AT NON CONTROLLED LOCATIONS SHALL BE HIGH VISIBILITY. ALL CONTROLLED LOCATIONS SHALL BE STANDARD.
- ALL STRIPING SHALL BE THERMOPLASTIC.

PAVEMENT NOTES:

- CONTRACTOR SHALL PROVIDE JOINTS IN CONCRETE PAVEMENT (CONTRACTION, EXPANSION AND DOWELED CONSTRUCTION JOINTS) AS REQUIRED TO CONTROL CRACKING.
- WHERE CONCRETE PAVEMENT ABUTS ASPHALT PAVEMENT, BUILDINGS, OR OTHER STRUCTURE, THE CONTRACTOR SHALL INSTALL A THICKENED CONCRETE EDGE AND EXPANSION JOINT.
- ALL PAVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH CURRENT TOWN AND NCDOT STANDARDS AND SPECIFICATIONS.
- PAVEMENT SECTIONS FOR THIS PROJECT WILL BE CONFIRMED BY A GEOTECHNICAL ENGINEER PRIOR TO ISSUING FOR CONSTRUCTION.

STORMWATER AND GRADING NOTES:

- PROJECT SITE WILL DRAIN OFF-SITE TO EXISTING STATE STORMWATER PERMIT SW8 020510.
- THERE ARE NO WETLANDS LOCATED WITHIN THE PROJECT BOUNDARY.
- ALL RUNOFF IS TO BE DIRECTED TO THE STORMWATER COLLECTION SYSTEM.
- CONTRACTOR SHALL COORDINATE WITH THE UTILITY PROVIDERS FOR REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS.
- ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
- DURING CONSTRUCTION, CONTRACTOR SHALL PERFORM GRADING IN A MANNER AND SEQUENCE THAT WILL PROVIDE PROPER DRAINAGE AT ALL TIMES.
- UPON THE COMPLETION OF CONSTRUCTION AND SITE STABILIZATION, ALL PROPOSED AND EXISTING PIPES AFFECTED BY CONSTRUCTION SHALL BE CLEANED OUT TO REMOVE ALL ACCUMULATED SILT AND DEBRIS.
- ALL STORMDRAIN TO BE REINFORCED CONCRETE PIPE (RCP) CLASS III UNLESS NOTED OTHERWISE.
- UNLESS OTHERWISE NOTED, ALL STORMDRAIN MATERIALS, CONSTRUCTION AND WORKMANSHIP SHALL CONFORM TO TOWN AND NCDOT STANDARDS AND SPECIFICATIONS.

SEDIMENTATION OPERATION & MAINTENANCE NOTES:

- THE TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 1.93 ACRES.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
- TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSPECTED WEEKLY IN ORDER TO KEEP SEDIMENT FROM BEING TRANSPORTED OFFSITE.

SEQUENCE OF PRELIMINARY LAND DISTURBANCE:

- PRECONSTRUCTION CONFERENCE TO BE HELD PRIOR TO BEGINNING.
- DETERMINE AND MARK LIMITS OF DISTURBANCE.
- INSTALL TEMPORARY CONSTRUCTION ENTRANCE, SILT FENCE, AND INLET PROTECTION ON EXISTING STRUCTURES.
- TOPSOIL REMOVAL AND/OR STORAGE.
- INSTALL NEW STORMDRAIN AND NEW INLET PROTECTION.
- BRING SITE TO ROUGH FINAL GRADE.
- INSPECT AND MAINTAIN ALL EROSION CONTROL DEVICES EVERY 7 DAYS AND AFTER EACH SIGNIFICANT RAINFALL EVENT (1.0" OR GREATER).
- PLACE TEMPORARY SEEDING ON ALL PERIMETER SWALES AND ALL AREAS WITH SLOPES GREATER THAN 3:1 THAT ARE TO BE LEFT IDLE FOR MORE THAN 7 DAYS. PLACE TEMPORARY SEEDING ON ALL OTHER DISTURBED AREAS THAT ARE TO BE LEFT IDLE FOR MORE THAN 14 DAYS.

SEQUENCE OF FINAL LAND DISTURBANCE:

- RELOCATE SILT FENCE AND SILT FENCE ROCK OUTLETS ADJACENT TO POND AS INDICATED ON PLAN FOR STORMDRAIN INSTALLATION.
- INSTALL STORMDRAIN FACILITIES.
- INSTALL TEMPORARY INLET PROTECTION.
- BRING SITE TO FINAL GRADE.
- MAINTAIN TEMPORARY GRAVEL CONSTRUCTION ENTRANCE, SILT FENCE, SILT FENCE ROCK OUTLETS, AND SEDIMENT BASIN.
- INSPECT AND MAINTAIN ALL EROSION CONTROL DEVICES EVERY 7 DAYS AND AFTER EACH SIGNIFICANT RAINFALL EVENT (1.0" OR GREATER).
- PLACE TEMPORARY SEEDING ON ALL PERIMETER SWALES AND ALL AREAS WITH SLOPES GREATER THAN 3:1 THAT ARE TO BE LEFT IDLE FOR MORE THAN 7 DAYS. PLACE TEMPORARY SEEDING ON ALL OTHER DISTURBED AREAS THAT ARE TO BE LEFT IDLE FOR MORE THAN 14 DAYS.
- PERMANENT GRASS SHALL BE INSTALLED FOR ALL AREAS AT FINAL GRADE AND IN SEASON. FERTILIZE, WATER AND RESEED AS REQUIRED TO ESTABLISH A VIGOROUS STAND OF GRASS.
- AFTER COMPLETION OF CONSTRUCTION AND THE SITE IS STABILIZED, REMOVE ALL ACCUMULATED SEDIMENT FROM SILT FENCE AND SPREAD EVENLY ACROSS THE SITE. REMOVE ALL ACCUMULATED SEDIMENT FROM SEDIMENT BASIN (POND #14). GRASS THESE AREAS IMMEDIATELY AND REMOVE ALL EROSION CONTROL MEASURES.

POND BACKFILL AND COMPACTION:

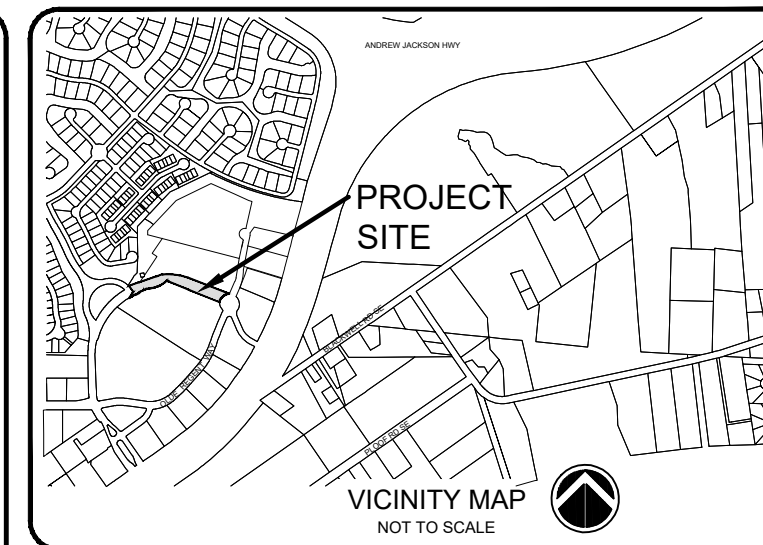
- DEWATER EXISTING POND/BASIN.
- ENSURE ALL CONTRIBUTING DRAINAGE PIPE AND FLOWS TO THE POND ARE TERMINATED AND RE-ROUTED.
- REMOVE VEGETATION AND DEMUCK TO REMOVE ALL COLLECTED SEDIMENT AND ORGANIC MATERIAL. THIS CAN BE 24" OR GREATER.
- EXPOSED SUBGRADE SHOULD BE EVALUATED BY GEOTECHNICAL ENGINEER PRIOR TO FILL PLACEMENT AND UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED.
- BACKFILL WITH STRUCTURAL FILL (MAX 8-10" LOOSE LIFTS) AND COMPACT TO 95% STANDARD PROCTOR (ASTM D698).
- COMPACT TOP 12" TO 98% OF STANDARD PROCTOR (ASTM D698).

LEGEND

- PROPERTY BOUNDARY
- EX. CONTOUR
- EX. EASEMENT
- EX. STORMDRAIN
- EX. 8" WATERLINE
- EX. 12" WATERLINE
- EX. 2" FORCEMAIN
- EX. GRAVITY SEWER
- EX. WATER VALVE
- EX. FIRE HYDRANT
- EX. SSMH
- ADJOINER
- EX. SD INLET
- EX. JUNCTION BOX
- EXISTING FES
- EXISTING POND
- EXISTING ASPHALT
- ASPHALT PAVEMENT
- HEAVY DUTY CONCRETE
- SIDEWALK
- CURBING
- CROSSWALK
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- HIGH/LOW POINT
- PROPOSED SPOT ELEVATION
- RIGHT OF WAY
- TEMPORARY CONSTRUCTION EASEMENT
- STORMDRAIN PIPE
- STORMDRAIN INLET
- JUNCTION BOX
- INLET PROTECTION
- SILT FENCE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION ENTRANCE
- SILT FENCE ROCK OUTLET

ABBREVIATIONS

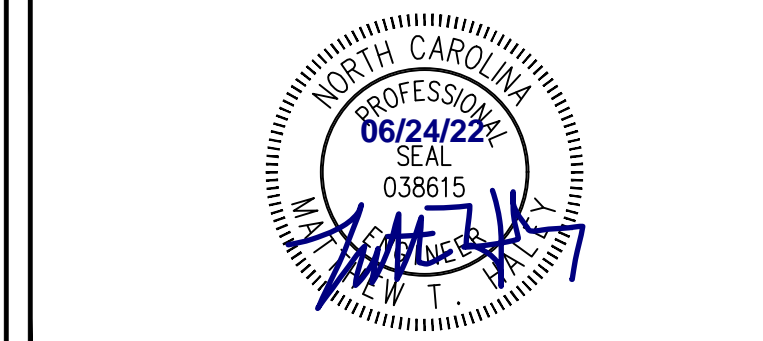
- ADA AMERICAN DISABILITY ACT
- CO CLEANOUT
- CL CENTERLINE
- D.E DRAINAGE EASEMENT
- DIP DUCTILE IRON PIPE
- ESMT. EASEMENT
- EX. EXISTING
- EXT. EXTENSION
- FES FLARED END SECTION
- FH FIRE HYDRANT
- FM FORCEMAIN
- GV GATE VALVE AND BOX
- HI HIGH
- JB JUNCTION BOX
- LF LINEAR FEET
- LO LOW
- MAX. MAXIMUM
- M.C MAP CABINET
- MEP MECHANICAL-ELECTRICAL-PLUMBING
- MIN. MINIMUM
- NCDOT NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY
- MUTCD NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
- NDB MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
- PG NYOPLAST DRAINAGE BASIN
- ROW PAGE
- SD RIGHT OF WAY
- SEP. STORMDRAIN
- SR SEPARATION
- SS STATE ROAD
- SSMH SANITARY SEWER
- STA. SANITARY SEWER MANHOLE STATION
- SW STORMWATER
- TYP. TYPICAL
- U.E. UTILITY EASEMENT
- WL WATERLINE



LEGEND:
SEE THIS SHEET FOR LEGEND AND GENERAL NOTES.

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CAPE FEAR ENGINEERING

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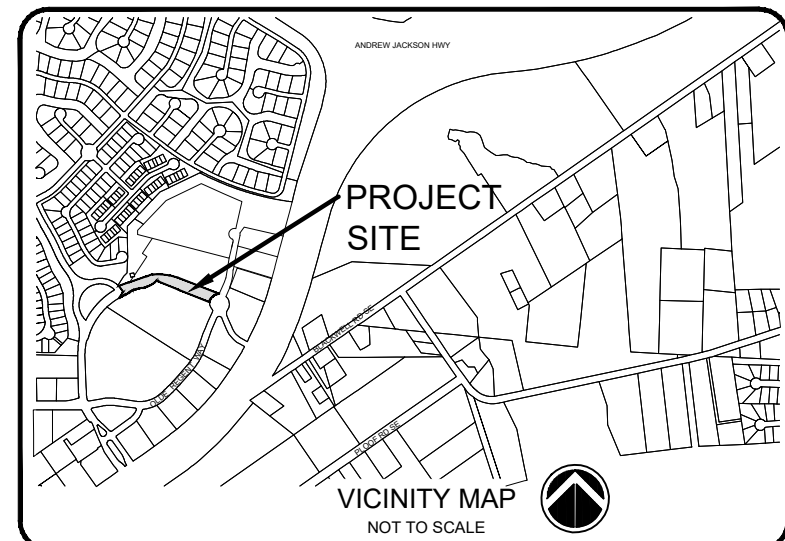
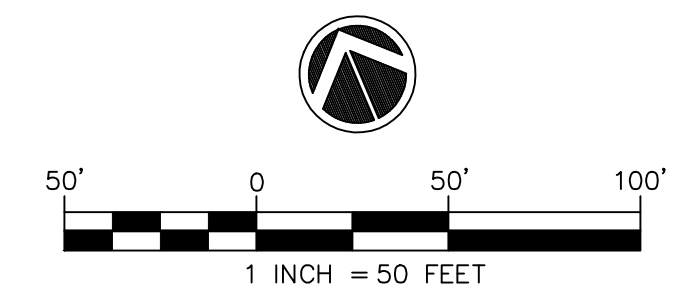
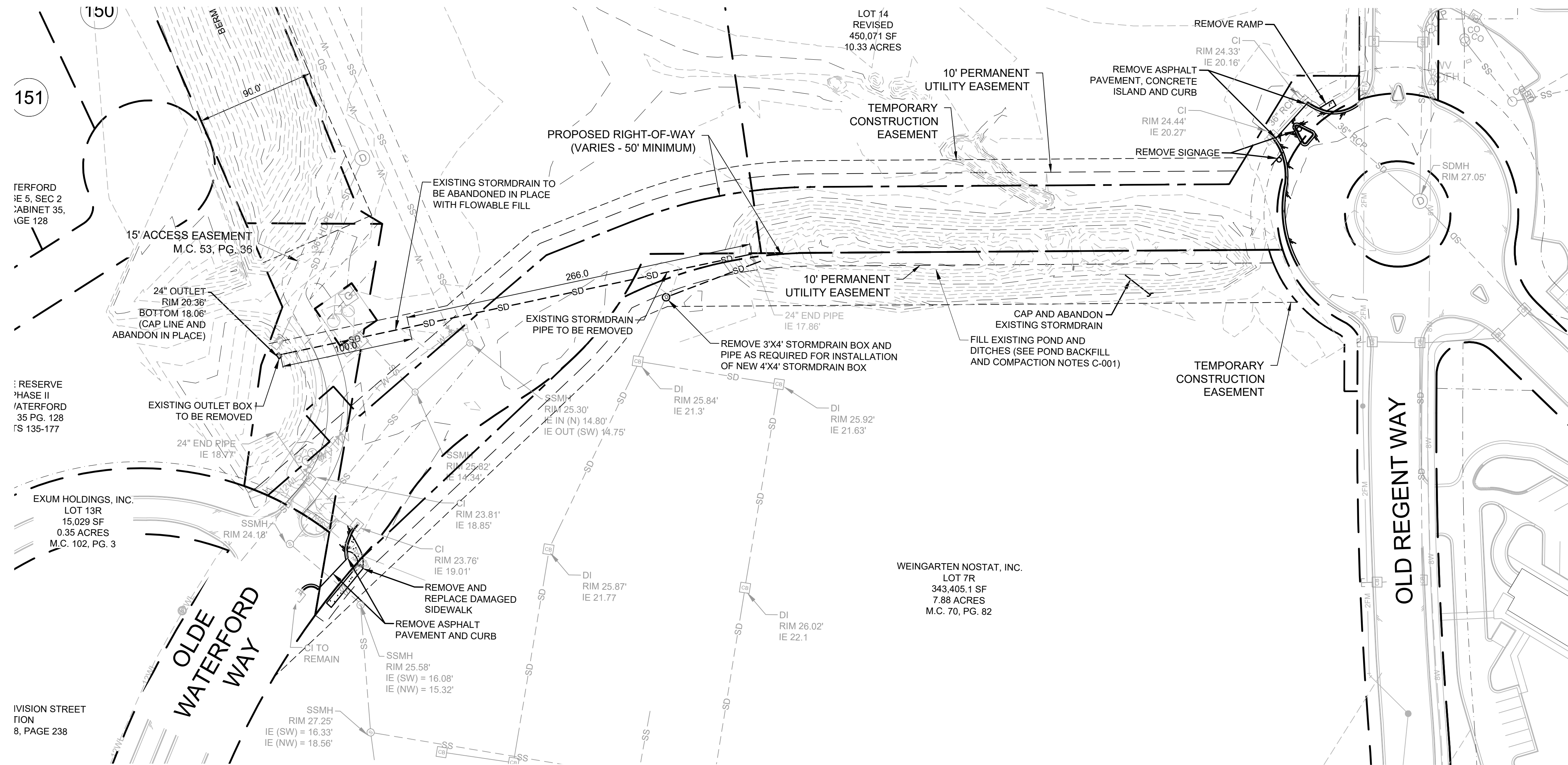
OLDE WATERFORD WAY EXTENSION

GENERAL NOTES, LEGEND, AND ABBREVIATIONS

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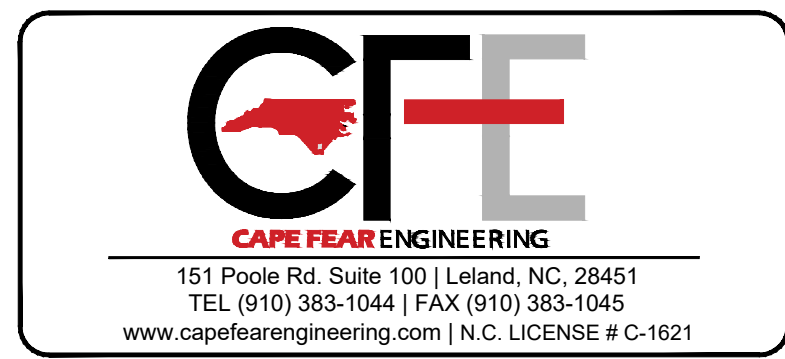
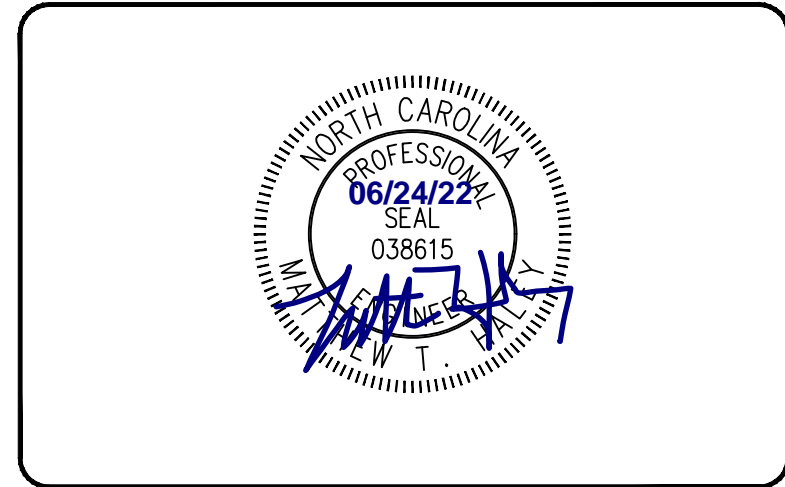
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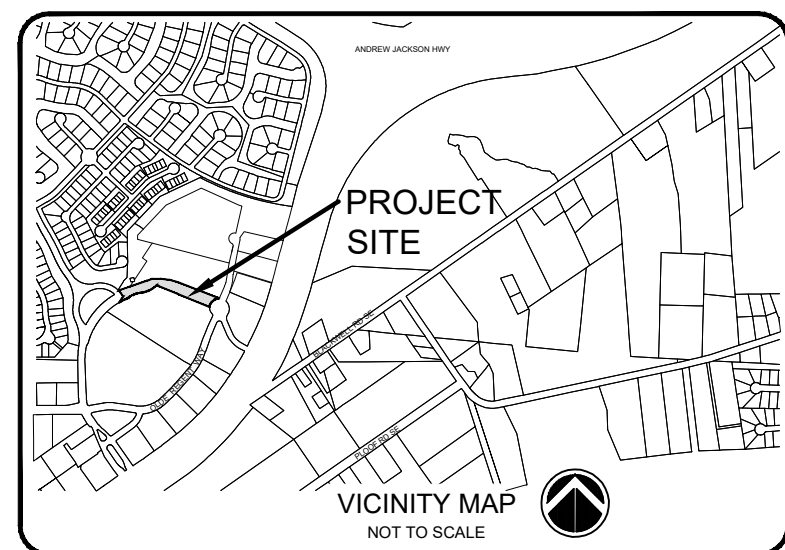
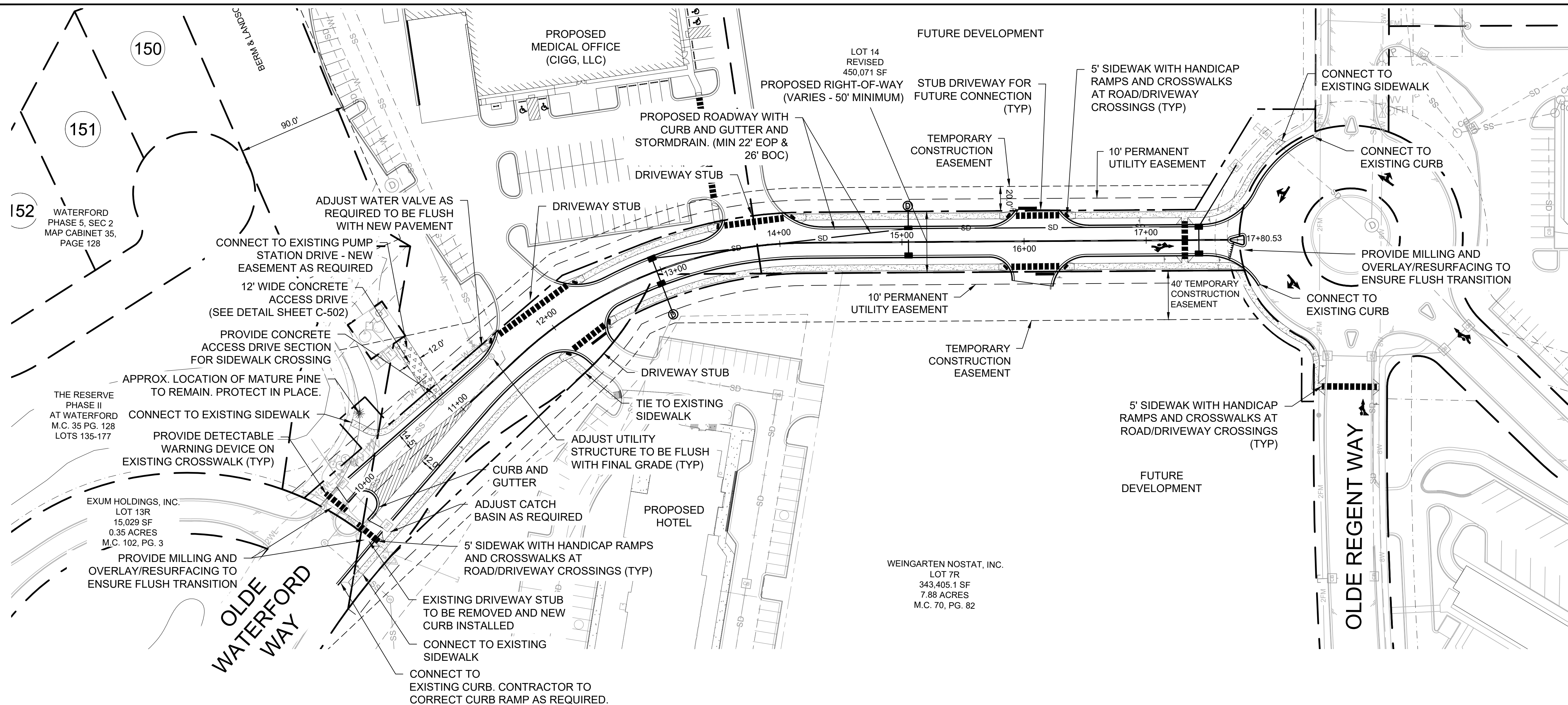


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OLDE WATERFORD WAY EXTENSION

EXISTING CONDITIONS AND DEMOLITION PLAN

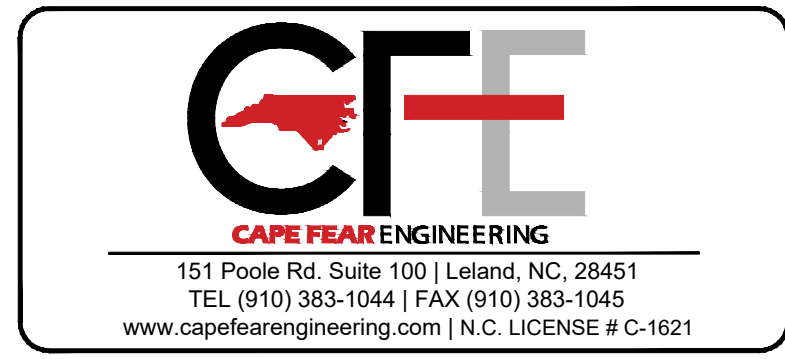
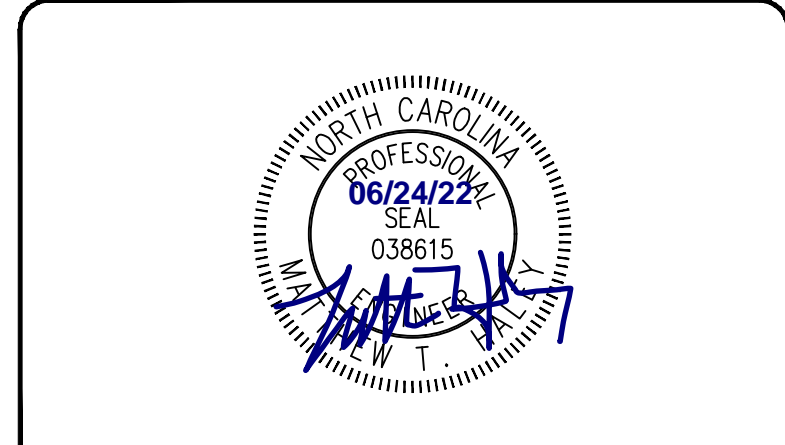
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LEGEND:
SEE SHEET C-001 FOR LEGEND AND GENERAL NOTES.

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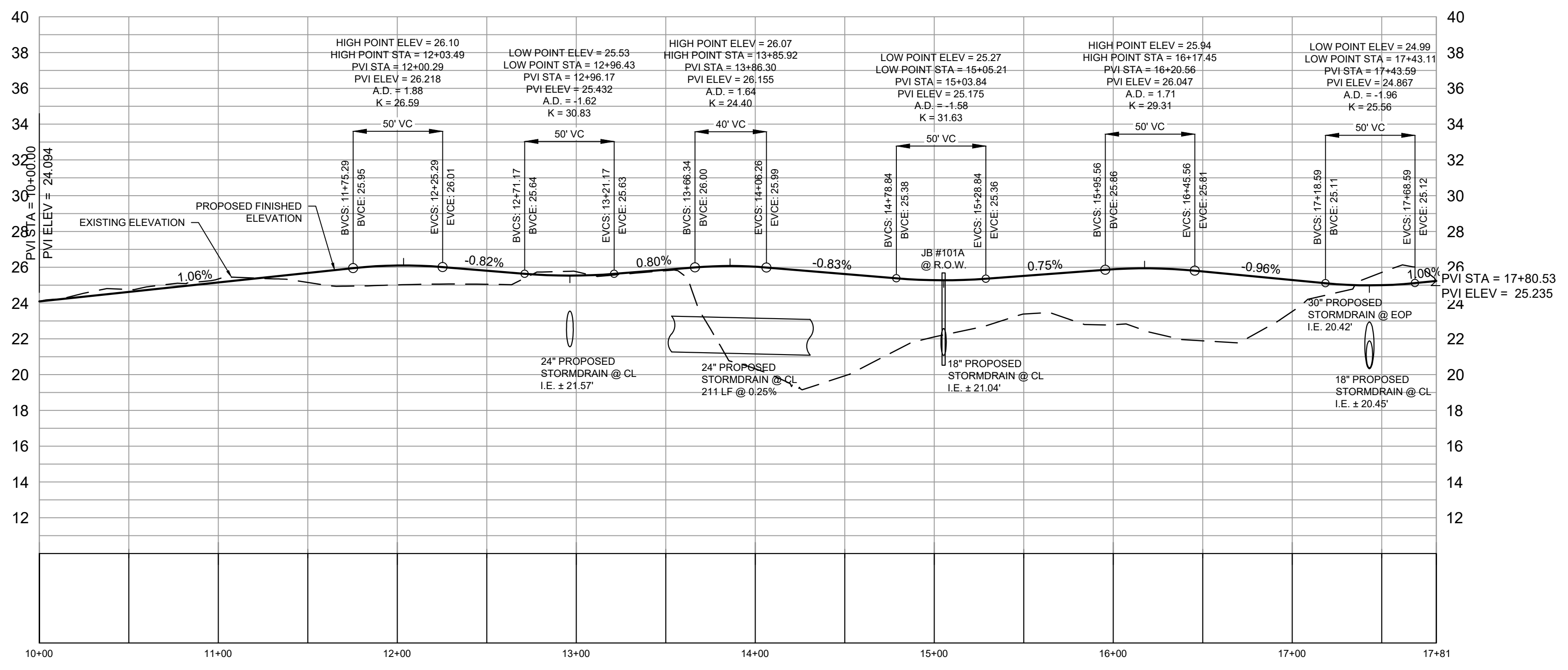


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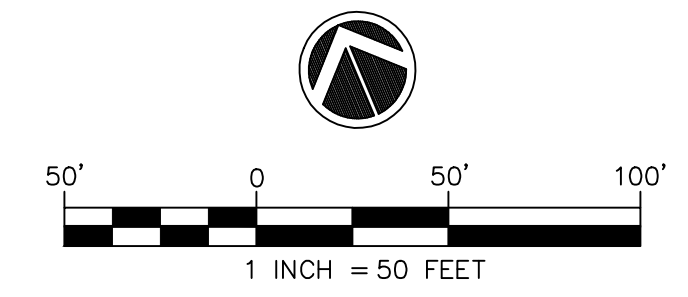
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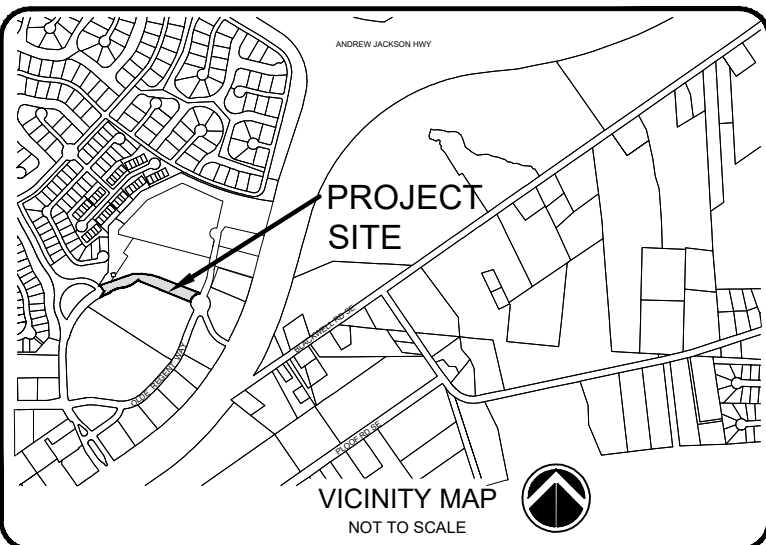
ROADWAY PLAN AND PROFILE

PROJECT NUMBER: 541-09 SHEET NUMBER: CS101



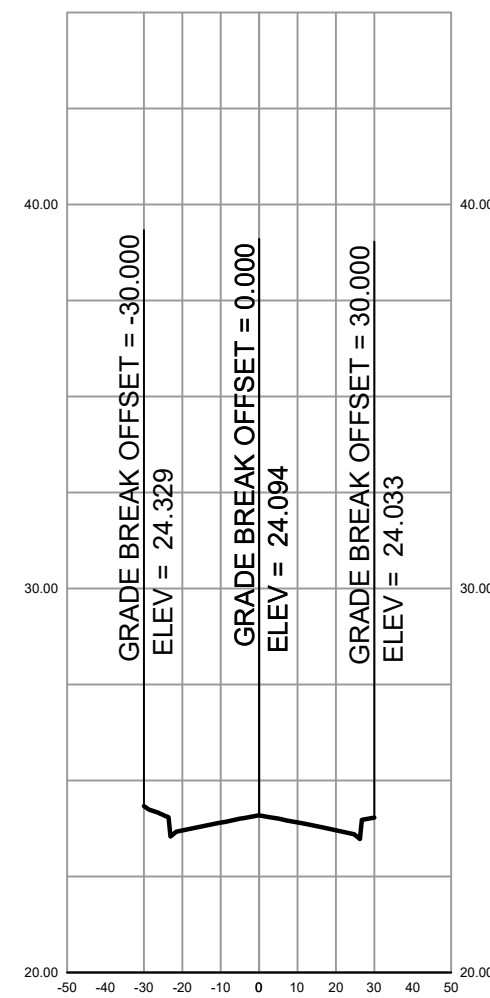
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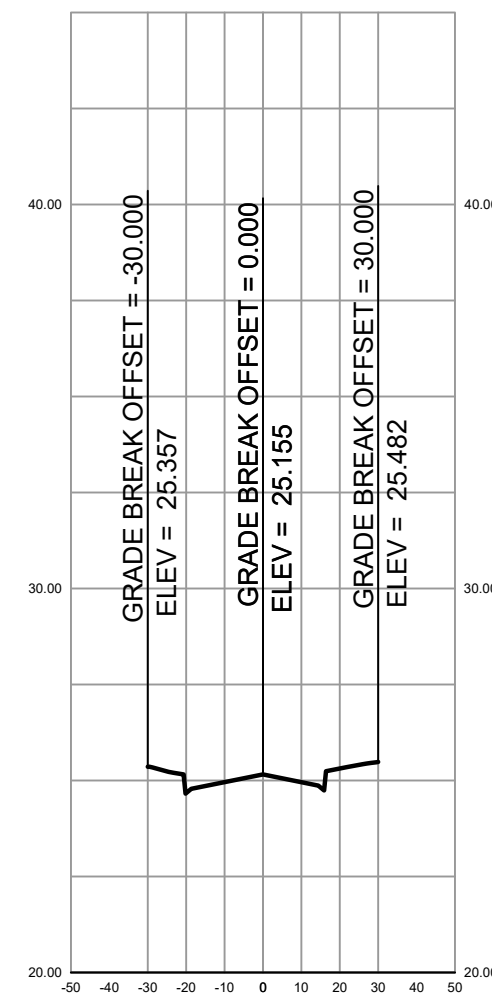


LEGEND:
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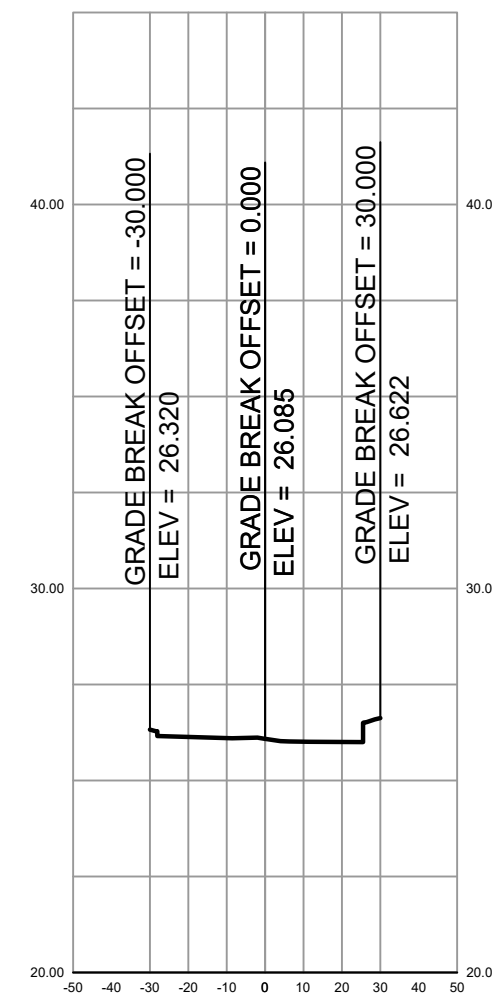
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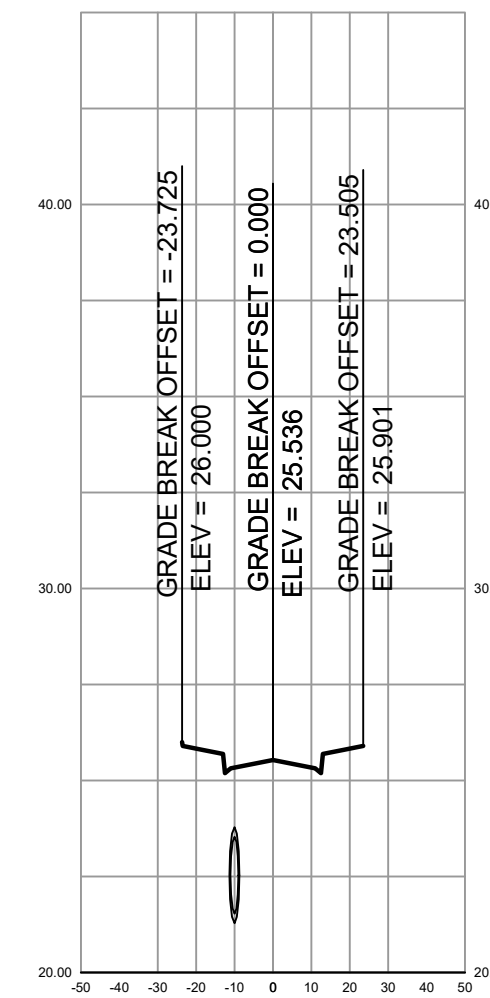
OLDE WATERFORD WAY EXTENSION
CROSS SECTION 10+00



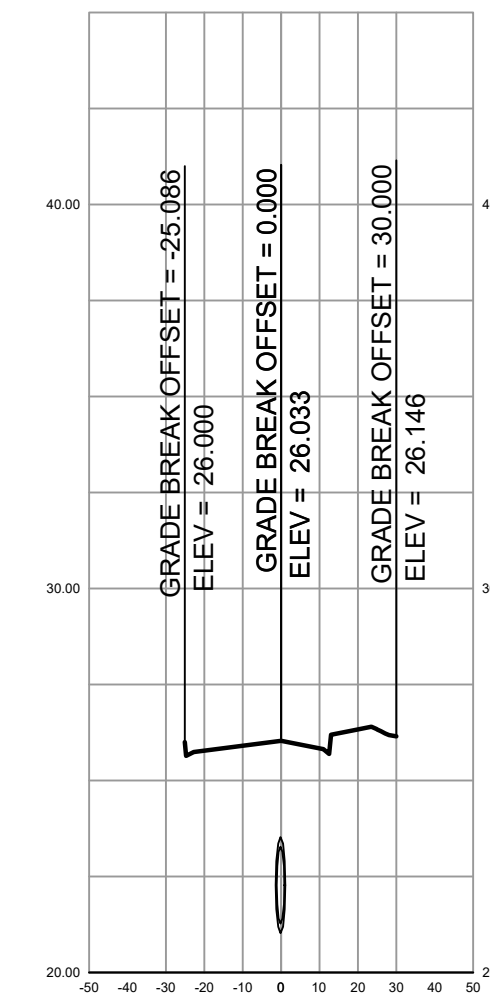
OLDE WATERFORD WAY EXTENSION
CROSS SECTION 11+00



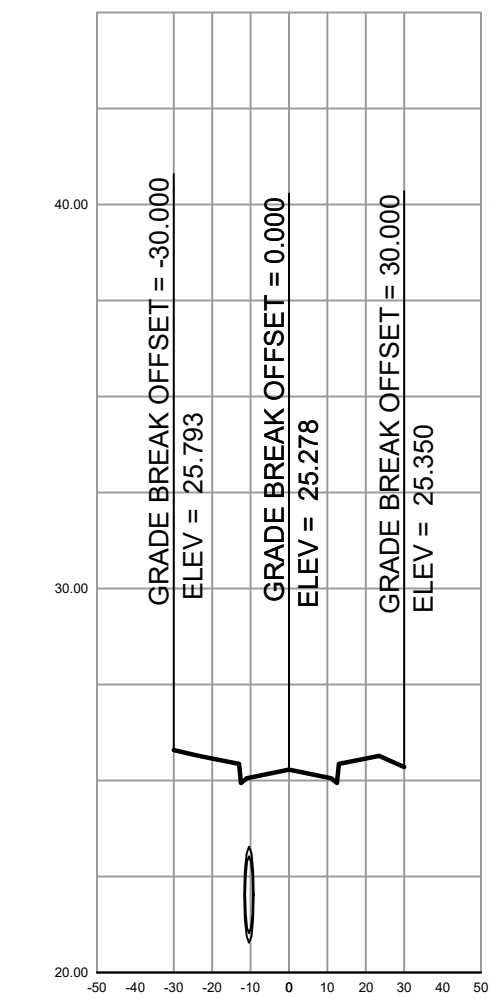
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CROSS SECTION 12+00



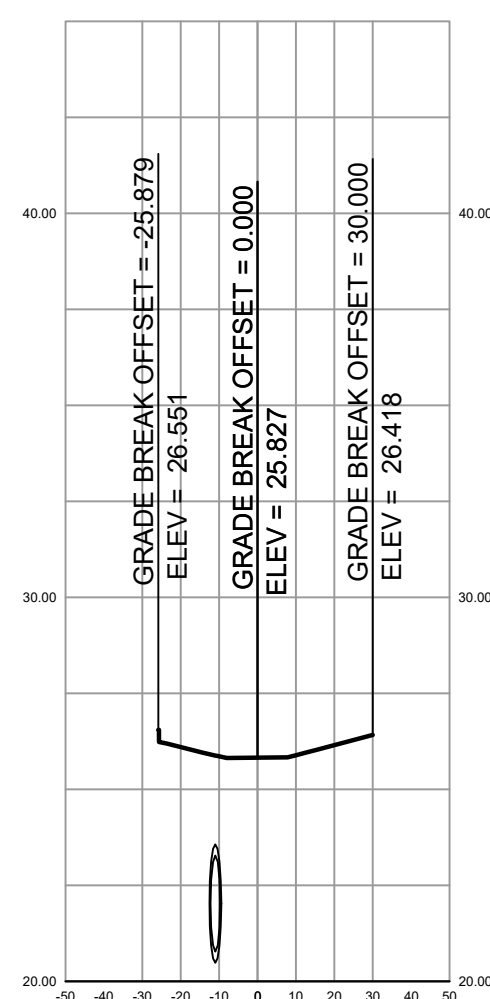
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CROSS SECTION 13+00



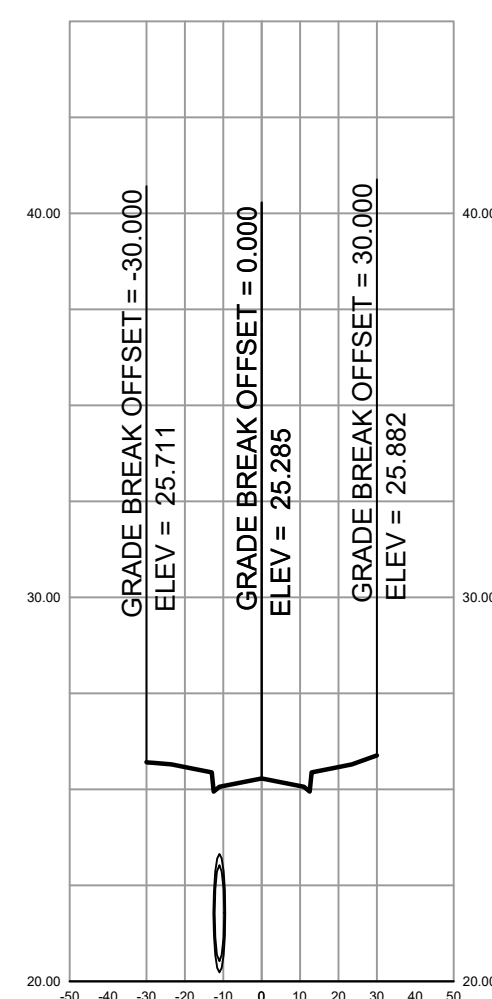
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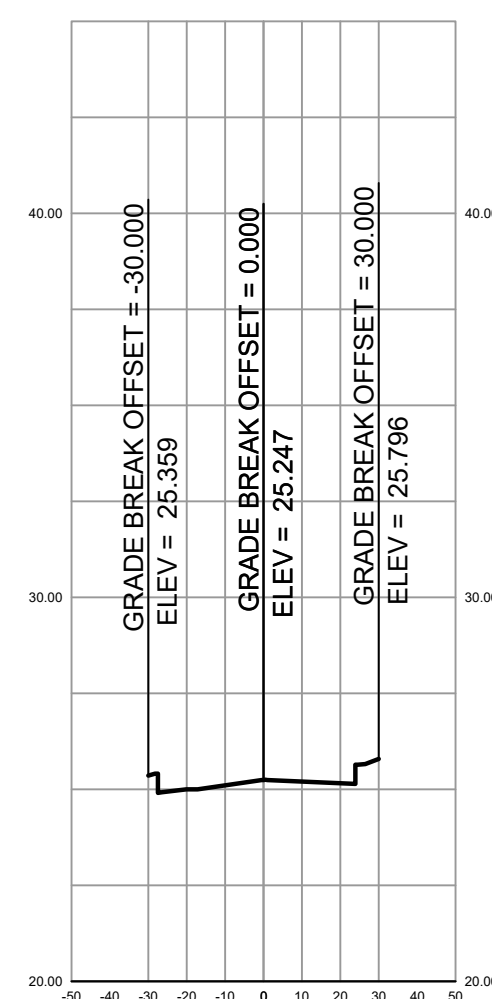
OLDE WATERFORD WAY EXTENSION
CROSS SECTION 15+00



OLDE WATERFORD WAY EXTENSION
CROSS SECTION 16+00

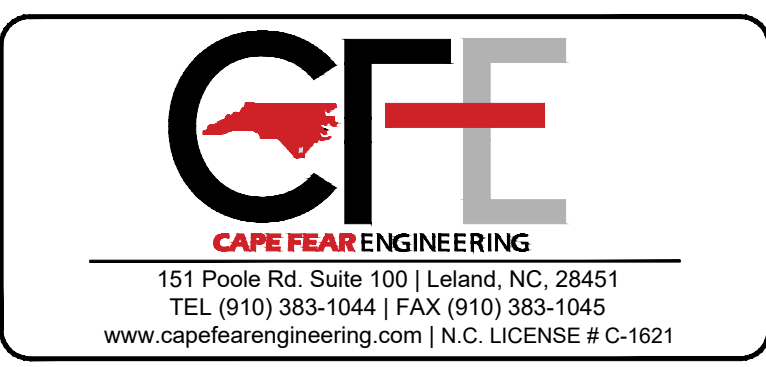
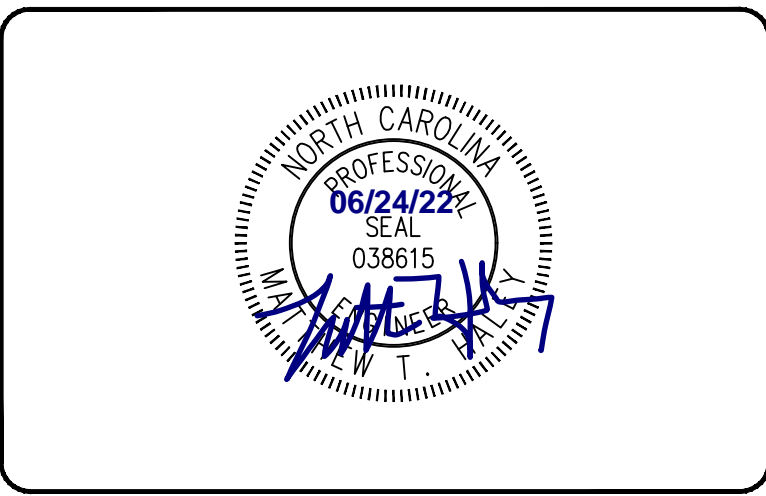


OLDE WATERFORD WAY EXTENSION
CROSS SECTION 17+00



OLDE WATERFORD WAY EXTENSION
CROSS SECTION 17+80.53

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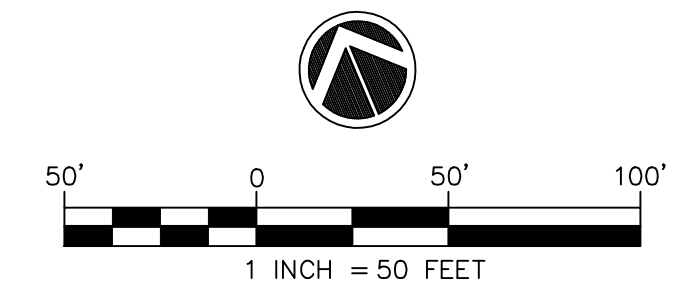


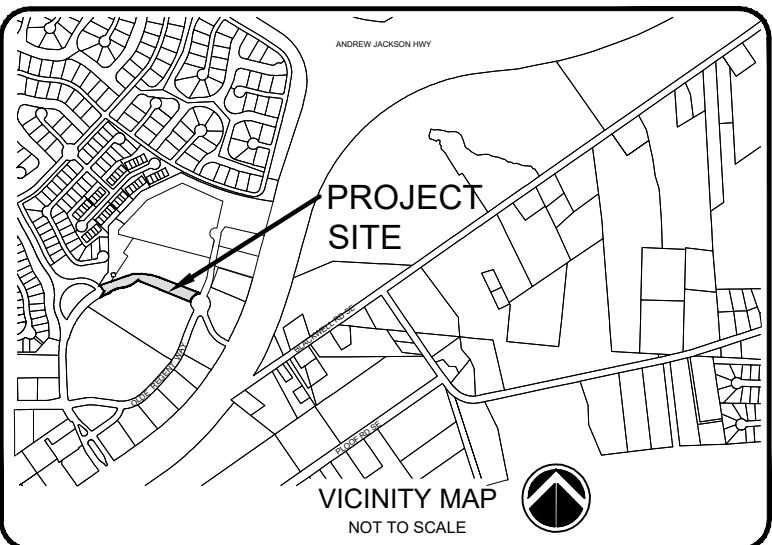
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**OLDE WATERFORD WAY
EXTENSION**

**ROADWAY
CROSS SECTIONS**

PROJECT NUMBER	SHEET NUMBER
541-09	CS101A





LEGEND:
SEE SHEET C-001 FOR LEGEND AND GENERAL NOTES.

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REV. #	DESCRIPTION	REV. BY	DATE
0	ISSUED FOR CONSTRUCTION	MTH	06/27/22
REVISIONS			

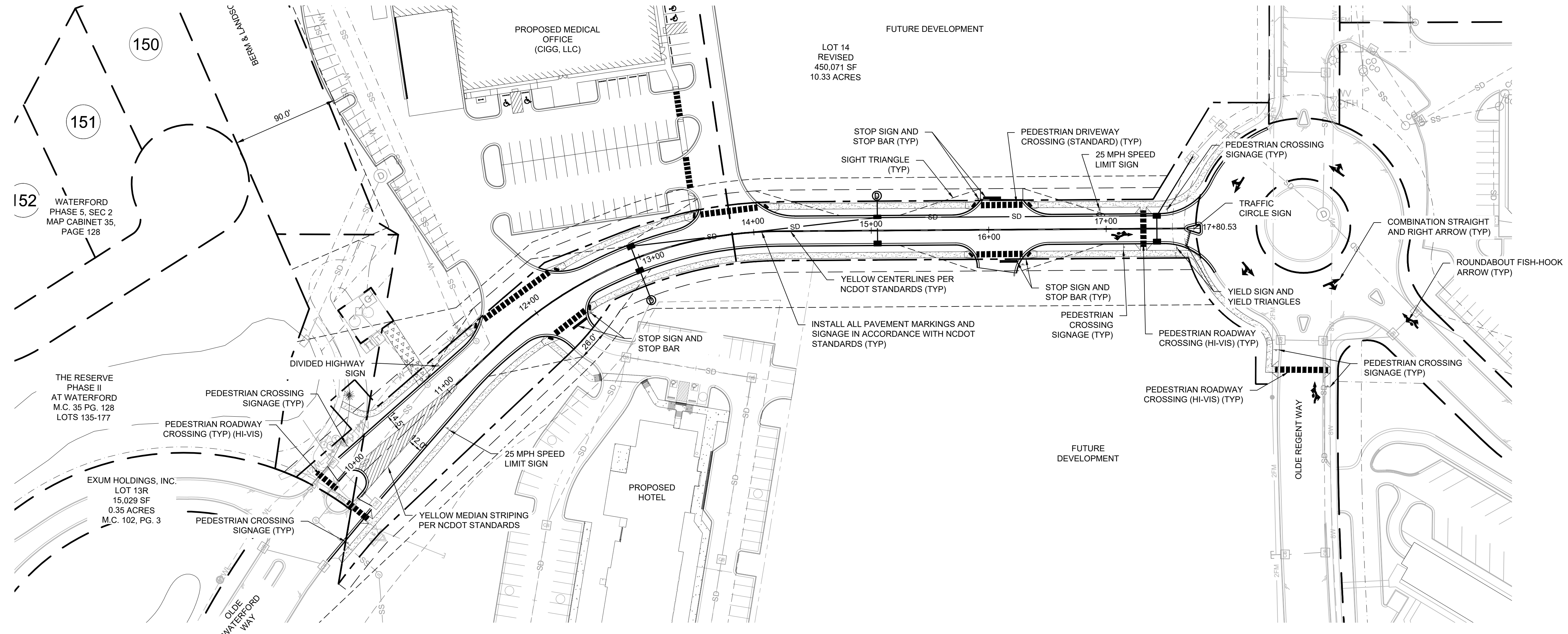


PROJECT NUMBER :	541-09
SCALE :	AS SHOWN
DATE :	

OLDE WATERFORD WAY EXTENSION

PAVEMENT MARKING & SIGNAGE PLAN

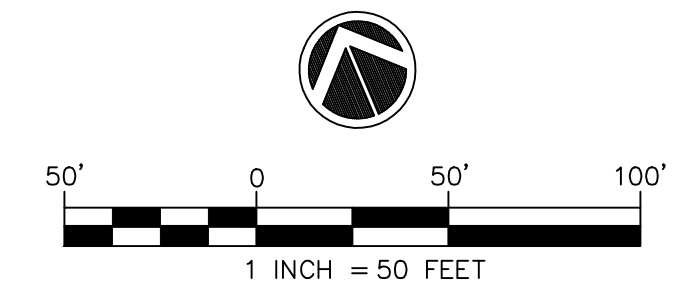
PROJECT NUMBER	SHEET NUMBER
541-09	CS102



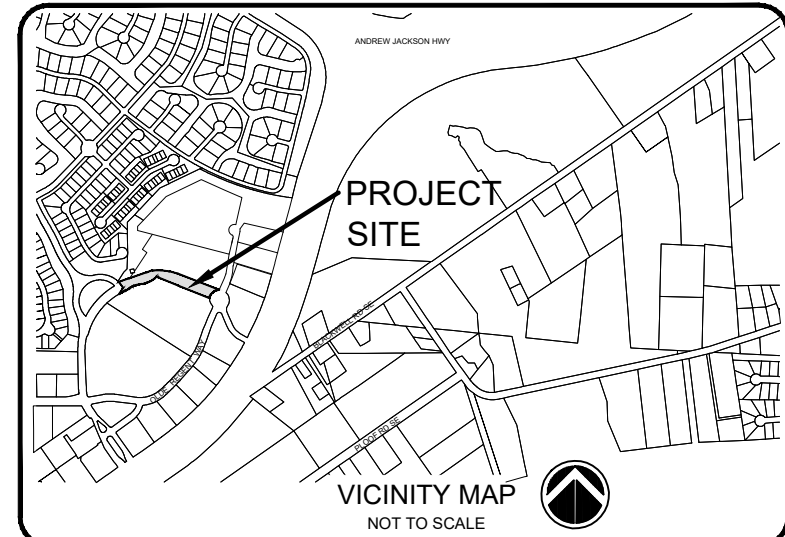
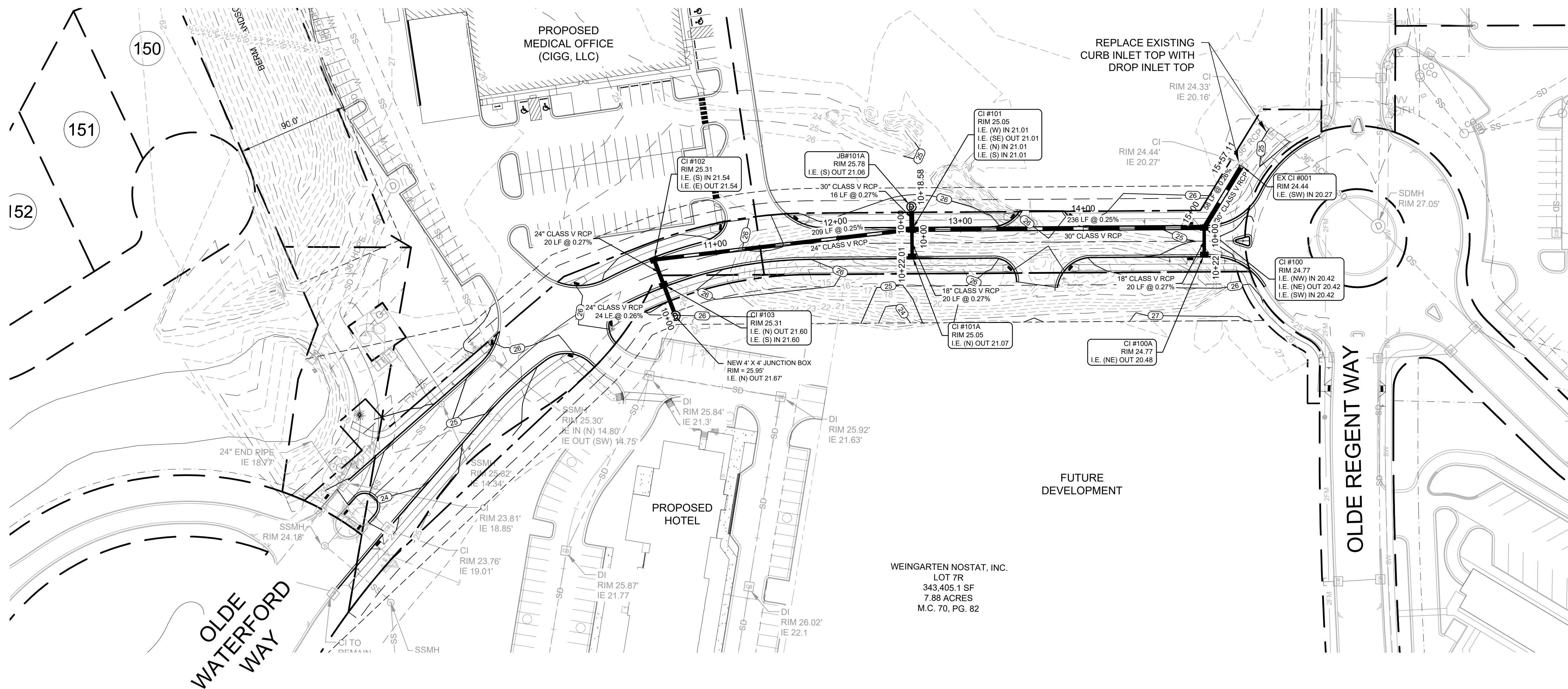
SIGNAGE SCHEDULE* (PER MUTCD):

SIGNAGE	CODE	QTY
STOP SIGN	R1-1	3
SPEED LIMIT	R2-1	2
YIELD SIGN	R1-2	1
DIVIDED HIGHWAY SIGN	W6-1	1
PEDESTRIAN CROSSING	W11-2 W/ W16-7P	6
ROUNDAABOUT	W16-17P	1

*PROVIDE ADDITIONAL SIGNAGE AS REQUIRED PER MUTCD AND TOWN REQUIREMENTS. SCHEDULE REPRESENTS THE MINIMUM ONLY AND THE OWNER MAY REQUIRE ADDITIONAL SIGNAGE.



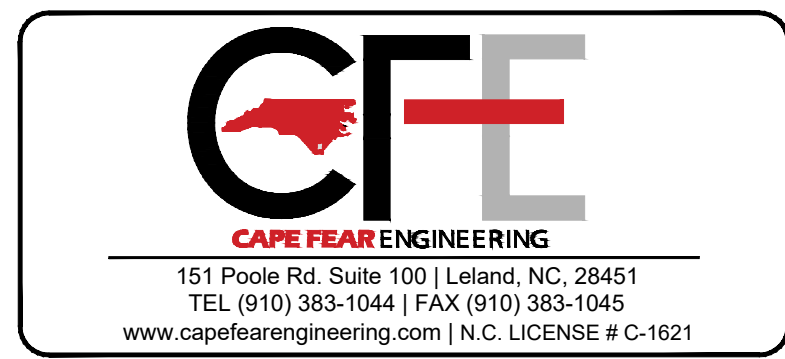
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LEGEND:
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0	ISSUED FOR CONSTRUCTION		MTH		06/27/22

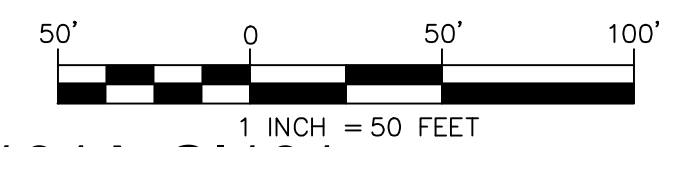
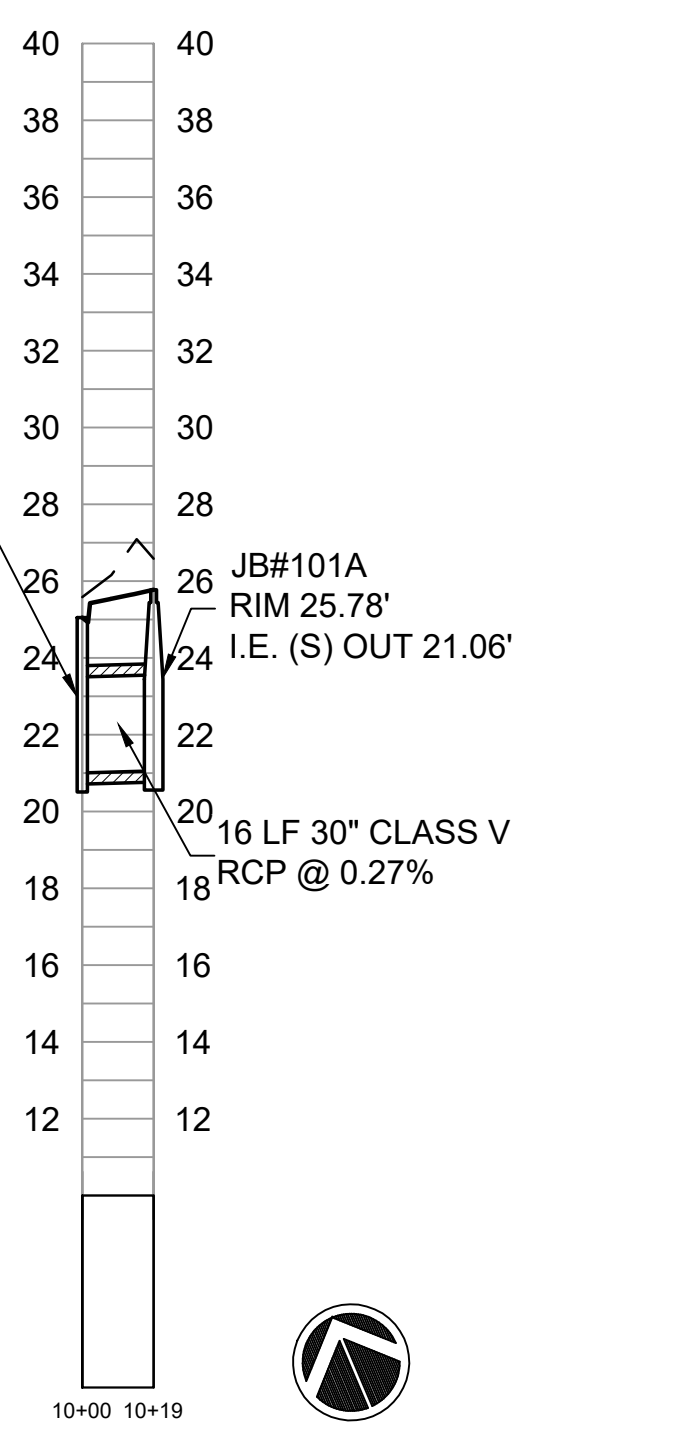
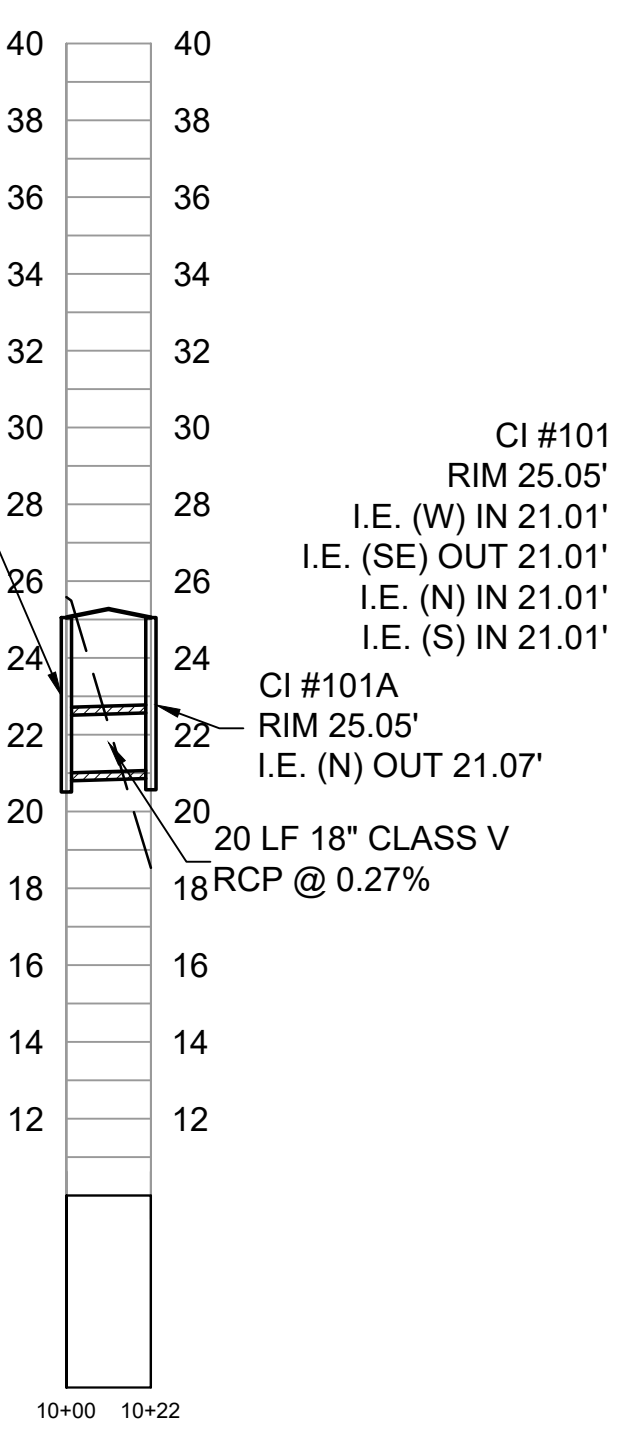
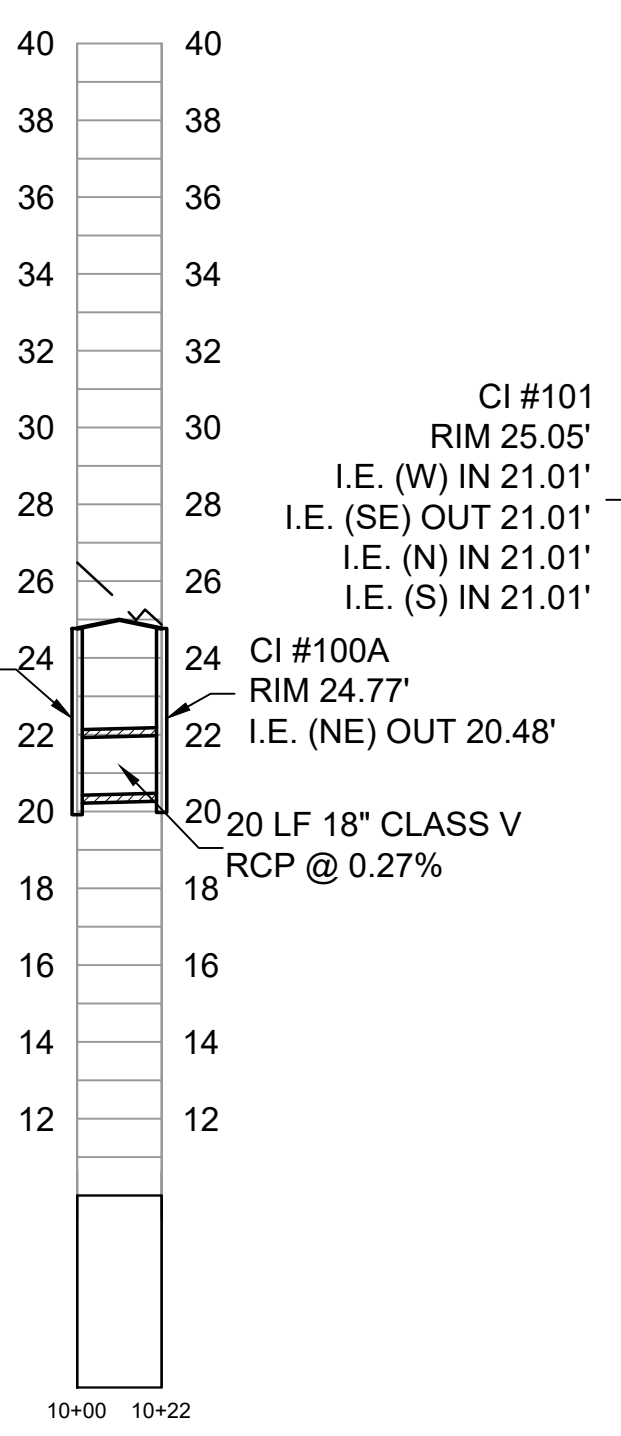
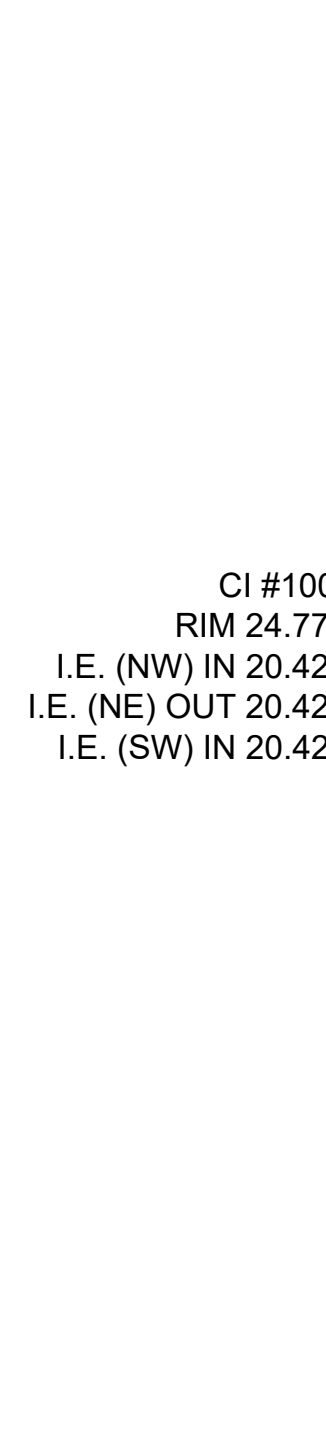
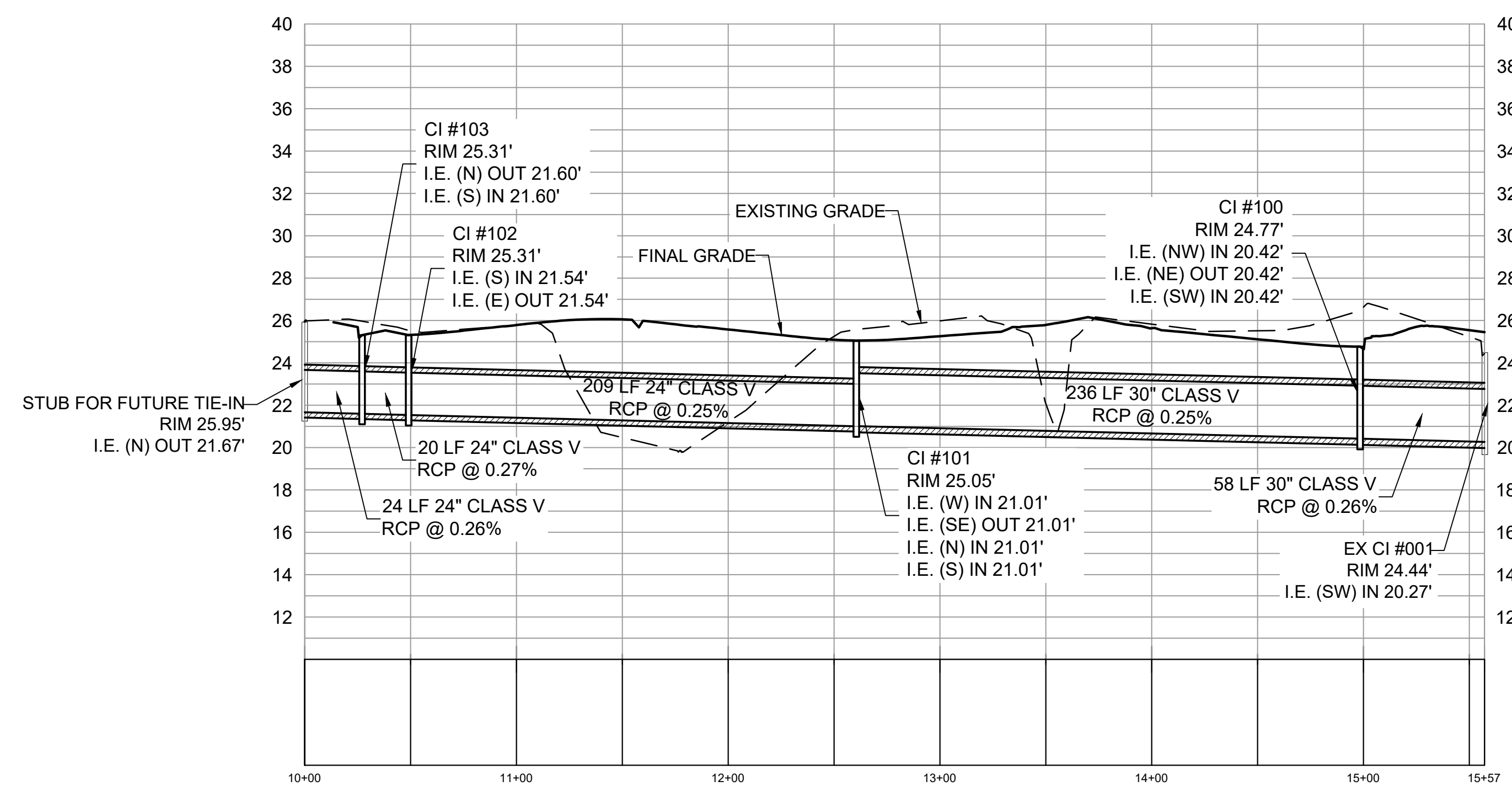


PROJECT NUMBER: 541-09
SCALE: AS SHOWN
DATE:

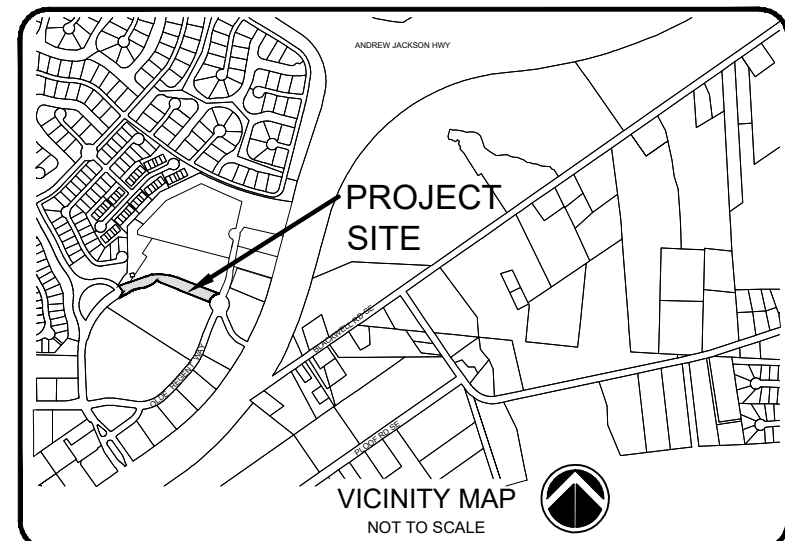
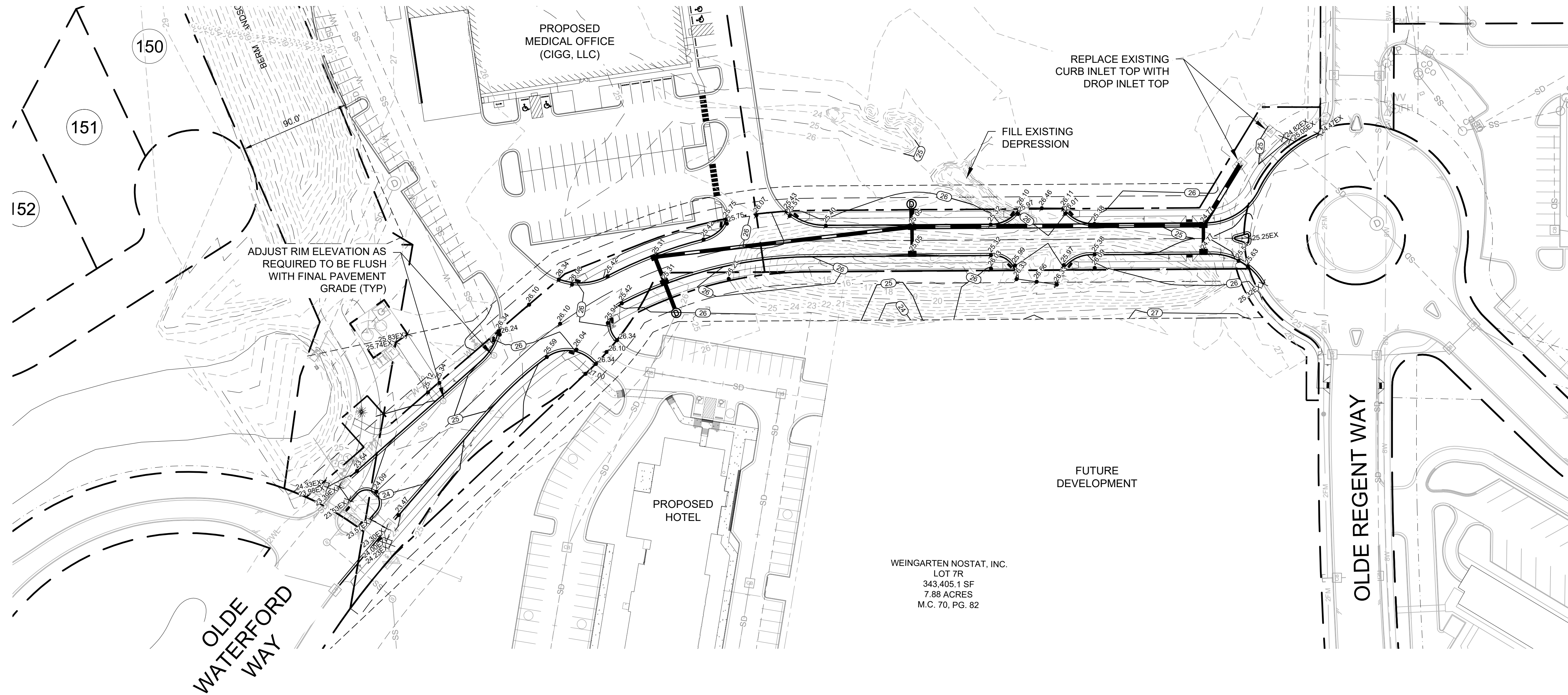
OLDE WATERFORD WAY EXTENSION

STORMDRAIN PLAN

PROJECT NUMBER: 541-09
SHEET NUMBER: CG101



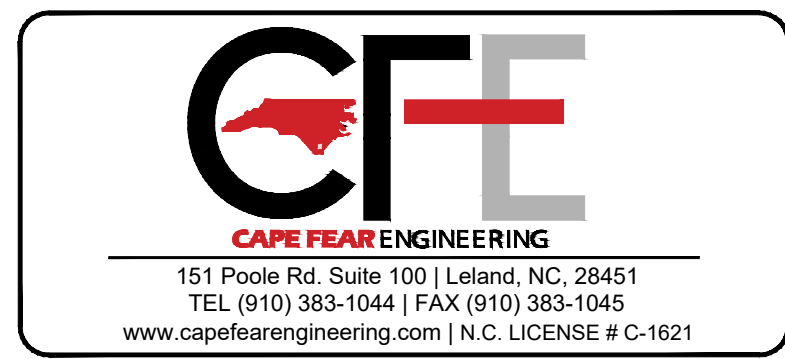
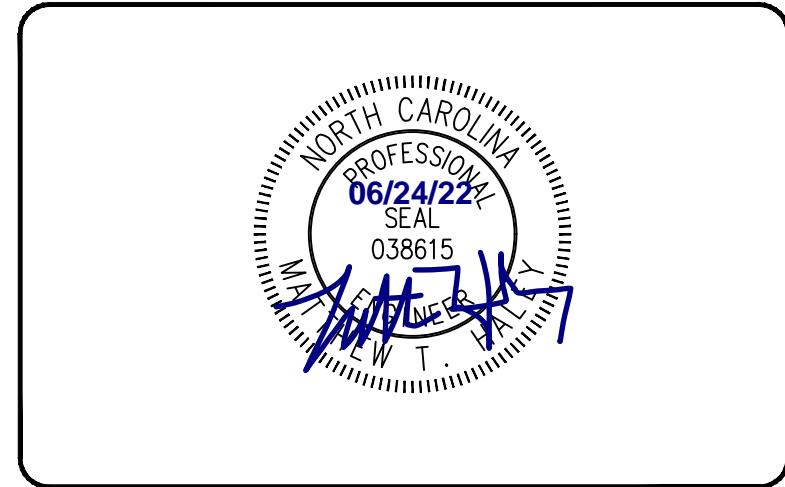
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LEGEND:
SEE SHEET C-001 FOR LEGEND AND GENERAL NOTES.

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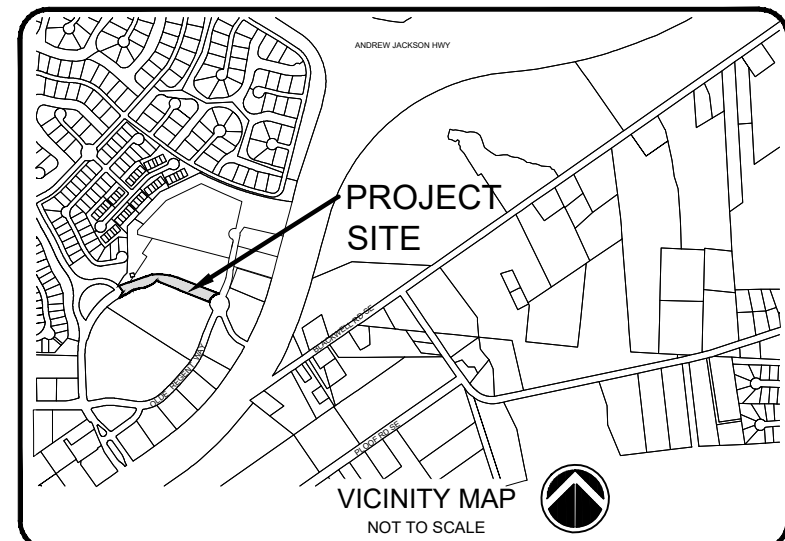
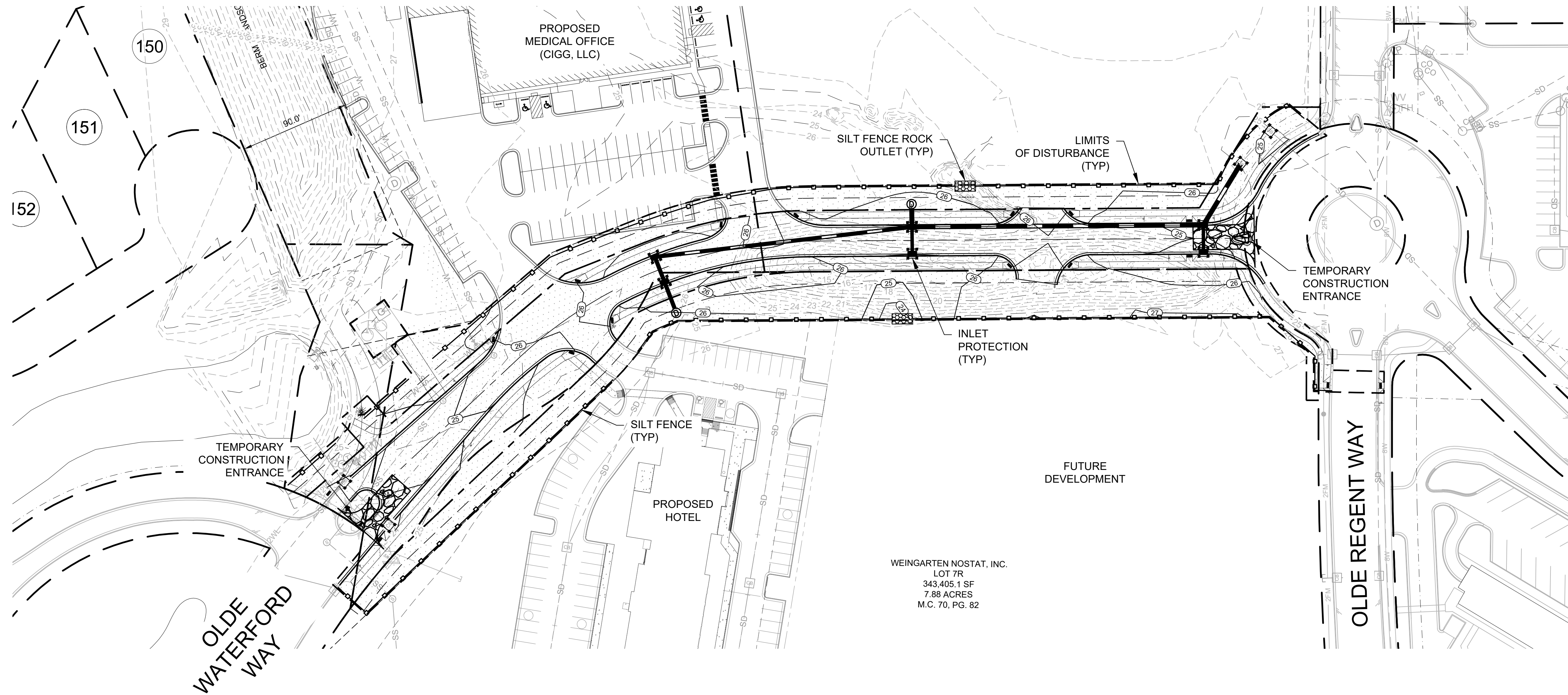
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SCALE :	AS SHOWN
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OLDE WATERFORD WAY EXTENSION

GRADING PLAN

PROJECT NUMBER	SHEET NUMBER
541-09	CG102

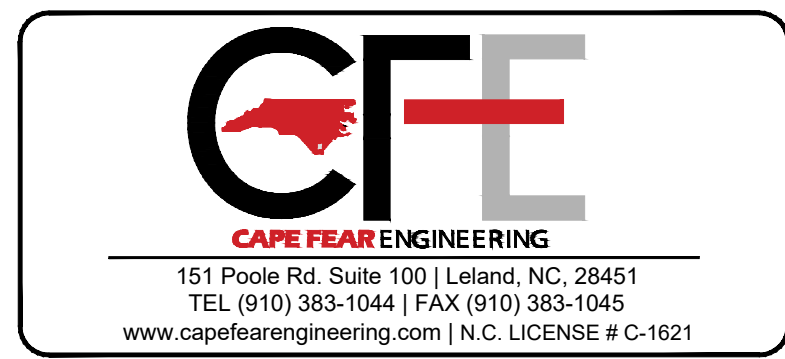
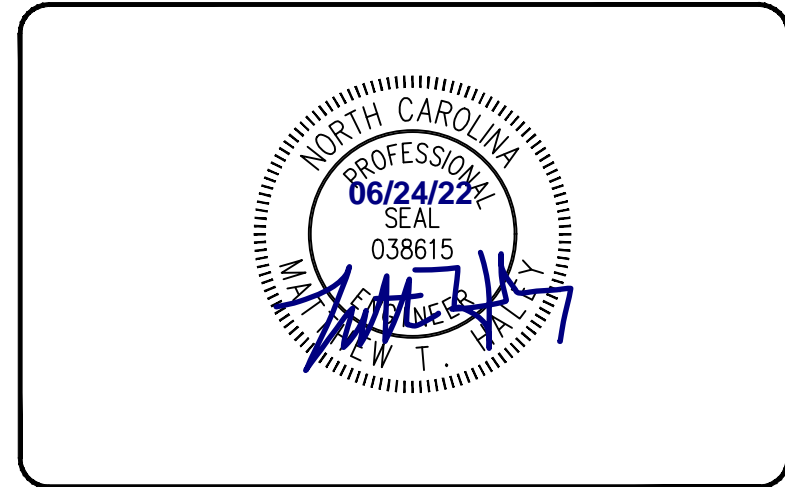
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LEGEND:
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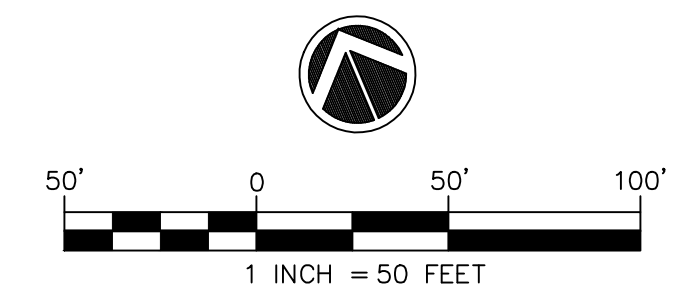


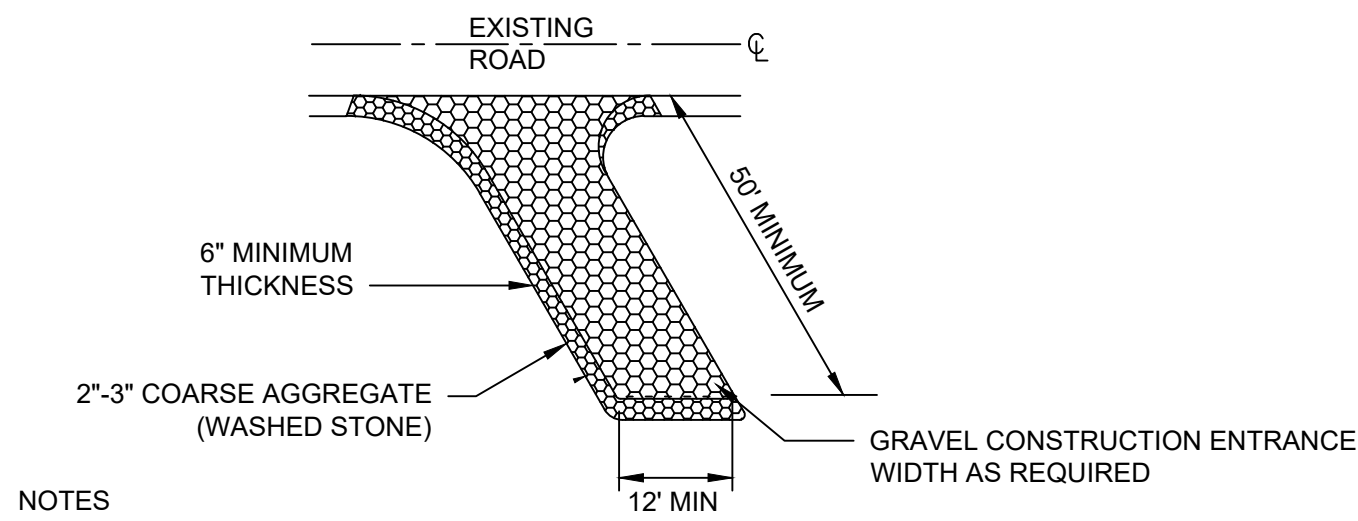
PROJECT NUMBER :	541-09
SCALE :	AS SHOWN
DATE :	

OLDE WATERFORD WAY EXTENSION

EROSION CONTROL PLAN

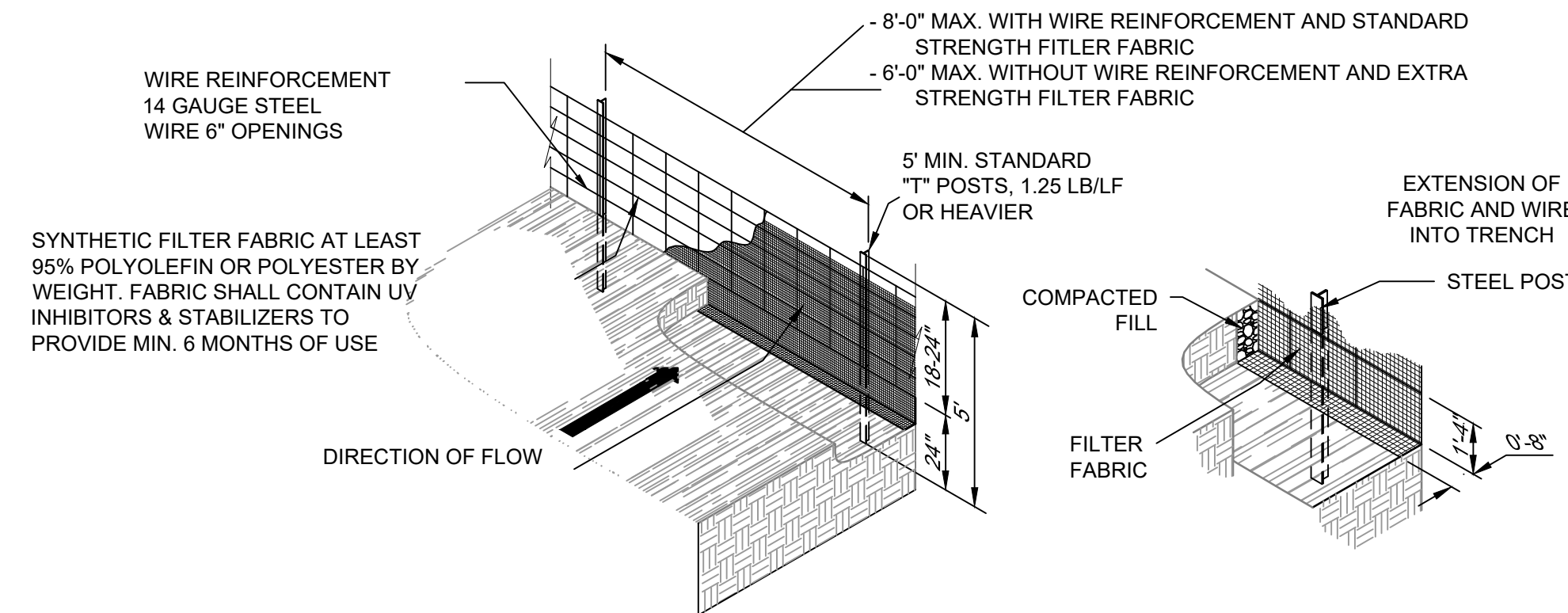
PROJECT NUMBER	SHEET NUMBER
541-09	CG103





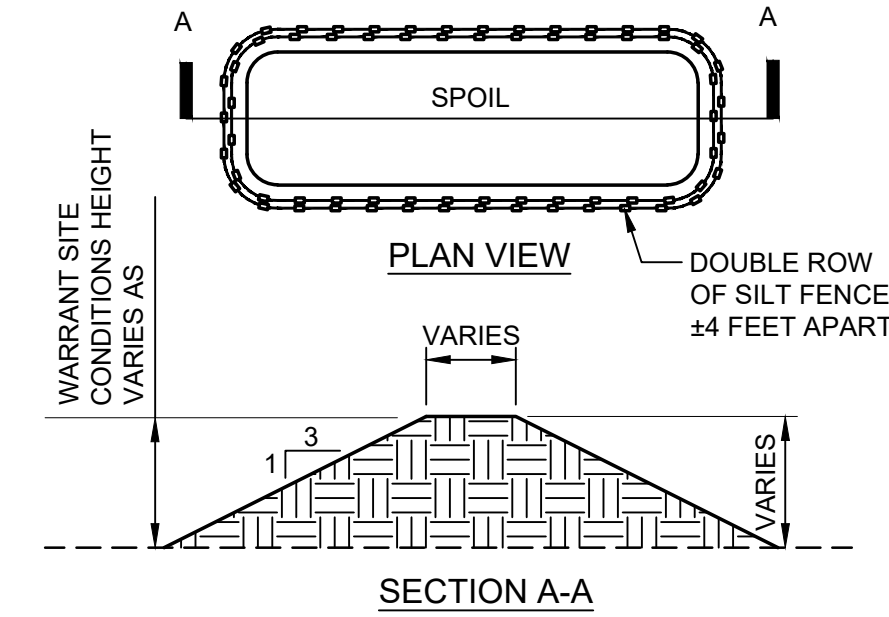
- NOTES
1. FILTER FABRIC UNDERLAY SHALL BE INSTALLED BETWEEN STONE AND SOIL FOUNDATION.
 2. TEMPORARY CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH SECTION 6.06 OF THE NCDEQ EROSION CONTROL PLANNING AND DESIGN MANUAL.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
NOT TO SCALE



- NOTES:
1. ALL SILT FENCE MATERIAL SHALL MEET OR EXCEED ASTM D 6461
 2. SILT FENCE SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH SECTION 6.62 OF THE NCDEQ EROSION CONTROL PLANNING AND DESIGN MANUAL.

TEMPORARY SILT FENCE
NOT TO SCALE



NOTE: CONTRACTOR SHALL LOCATE STOCKPILES AS NEEDED FOR CONSTRUCTION SEQUENCE/PHASING. STOCKPILES SHALL NOT BE LOCATED NEAR PLANNED CUT/FILL LINES, IMMEDIATELY ADJACENT TO PROJECT LIMIT LINE OR IN ANY OTHER AREA THAT MAY INCREASE POTENTIAL FOR EROSION OR NEGATIVELY IMPACT THE SITE

SPOIL STORAGE BERM
NOT TO SCALE

MULCHING MATERIALS AND APPLICATION RATES

MATERIAL	RATE PER ACRE	QUALITY	NOTES
STRAW	2 TONS	DRY, UNCHOPPED, UNWEATHERED; AVOID WEEDS	SHOULD COME FROM WHEAT OR OATS SPREAD BY HAND OR MACHINE, MUST BE TACKED DOWN

TEMPORARY SEEDING

TIME OF SEEDING	GRASS TYPE	AMOUNT/ ACRE	FERTILIZATION/ ACRE	FERTILIZATION/ACRE MAINTENANCE
DEC 1-APR 15	RYE (GRAIN) & LESPEDEZA, KOBE	120 LBS. & 50 LBS.	750 LBS. 10-10-10	NA NA
APR 15-AUG 15	GERMAN MILLET	40 LBS.	750 LBS. 10-10-10	NA NA
AUG 15-DEC 30	RYE (GRAIN)	120 LBS.	1,000 LBS. 10-10-10	NA NA

PERMANENT SEEDING

NCDEQ ESCM SEED MIX	TIME OF SEEDING	GRASS TYPE	AMOUNT/ ACRE	FERTILIZATION/ ACRE
NO. 1CP (WELL TO POORLY DRAINED SOILS W/ GOOD MOISTURE RET; LOW MAINTENANCE)	15 FEB - 30 APR OR 01 SEPT - 31 OCT	TALL FESCUE PENSACOLA BAHIAGRASS SERICEA LESPEDEZE KOBE LESPEDEZA	80 LBS 50 LBS 30 LBS 10 LBS	1,000 LBS 10-10-10 *
NO. 2CP (POORLY DRAINED SOILS W/ GOOD MOISTURE RET; HIGH MAINTENANCE)	15 FEB - 30 APR AND 01 SEPT - 31 OCT	TALL FESCUE RYE (GRAIN)	200 LBS 25 LBS	1,000 LBS 10-10-10 *
NO. 4CP (WELL DRAINED SANDY LOAMS TO DRY SANDS; LOW-MED MAINTENANCE)	01 MAR - 31 JUNE	CENTIPEDEGRASS	10-20 LBS 33 BU/AC (SPRIGS)	300 LBS 10-10-10 *
NO. 5CP (WELL DRAINED SANDY LOAMS TO DRY SANDS; LOW MAINTENANCE)	01 APR - 15 JULY	PENSACOLA BAHIAGRASS SERICEA LESPEDEZA COMMON BERMUDAGRASS GERMAN MILLET	50 LBS 30 LBS 10 LBS 10 LBS	500 LBS 10-10-10 *

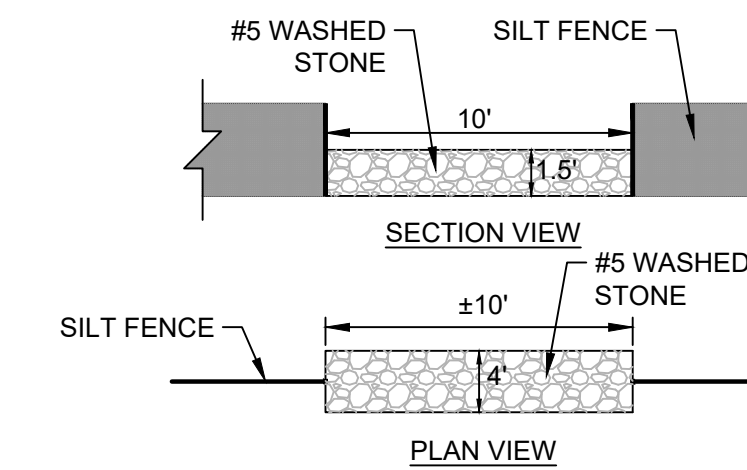
NOTE: FERTILIZATION RATES ABOVE ARE GENERAL GUIDANCE BASED ON THE NORTH CAROLINA SEDIMENTATION AND EROSION CONTROL MANUAL. CONTRACTOR SHALL HAVE THE ONSITE SOILS TESTED TO DETERMINE THE SPECIFIC NUTRIENT REQUIREMENTS. SUBMIT SOIL TEST RECOMMENDATIONS AND RESULTS FOR ENGINEER REVIEW. CONTRACTOR MAY SUBMIT OTHER SPECIES OF TEMPORARY SEED FOR APPROVAL PROVIDED SPECIES ARE IN ACCORDANCE WITH NCDEQ ESCM.

NEW STABILIZATION TIMEFRAMES

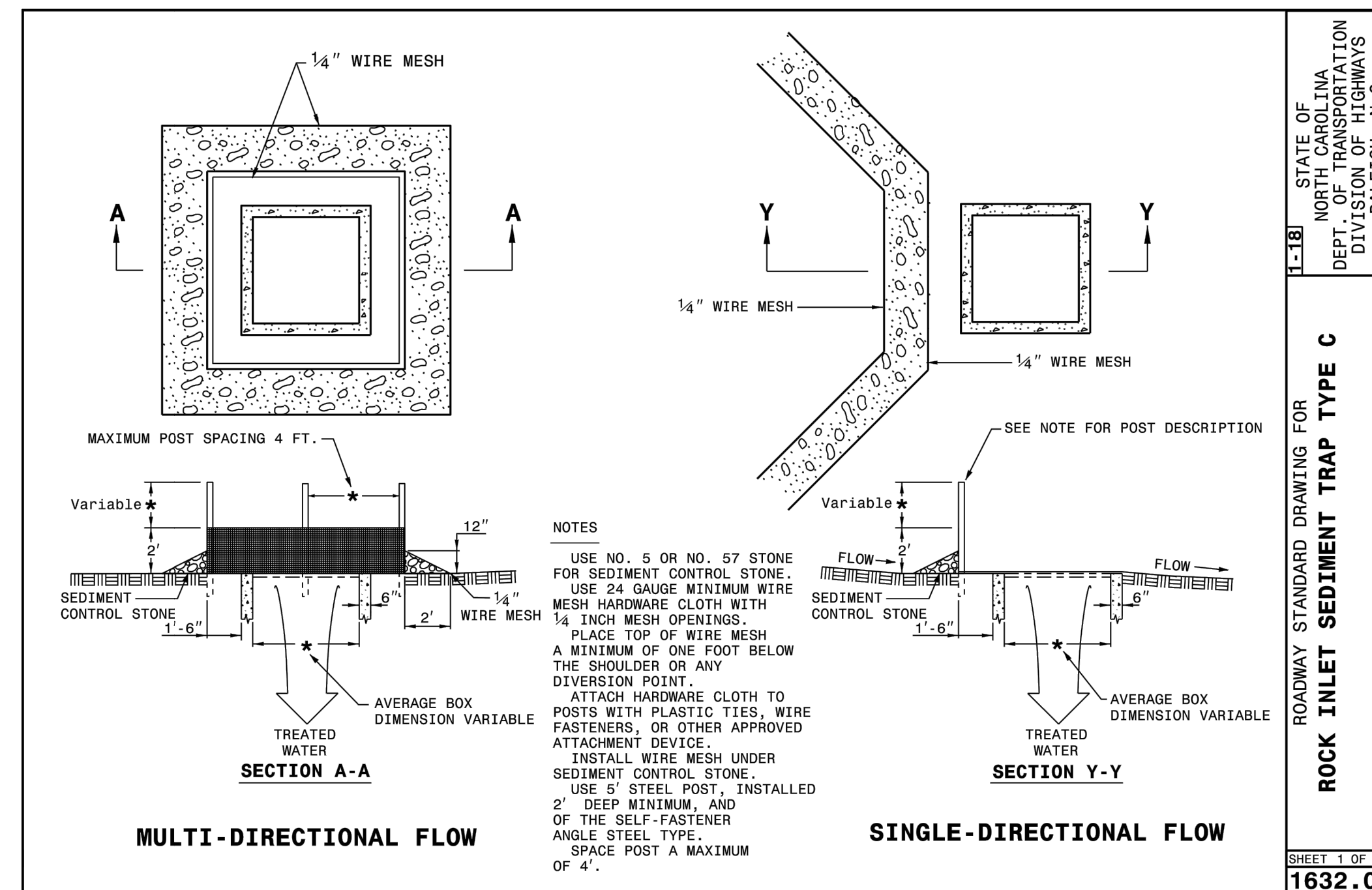
SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS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

NOTE: TEMPORARY SEEDING SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH SECTION 6.10 OF THE NCDEQ EROSION CONTROL PLANNING AND DESIGN MANUAL.

VEGETATION SCHEDULE
NOT TO SCALE

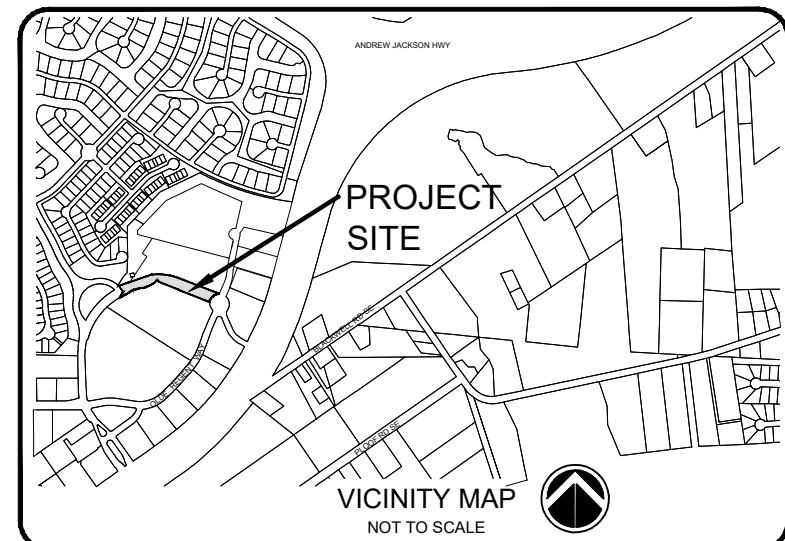


SILT FENCE ROCK OUTLET
NOT TO SCALE



- NOTES
1. USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.
 2. USE 24 GAUGE MINIMUM WIRE MESH HARDWARE CLOTH WITH 1/4 INCH MESH OPENINGS.
 3. PLACE TOP OF WIRE MESH A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR ANY DIVERSION POINT.
 4. ATTACH HARDWARE CLOTH TO POSTS WITH PLASTIC TIES, WIRE FASTENERS, OR OTHER APPROVED ATTACHMENT DEVICE.
 5. INSTALL WIRE MESH UNDER SEDIMENT CONTROL STONE.
 6. USE 5" STEEL POST, INSTALLED 2' DEEP MINIMUM, AND OF THE SELF-FASTENER ANGLE STEEL TYPE.
 7. SPACE POST A MAXIMUM OF 4'.

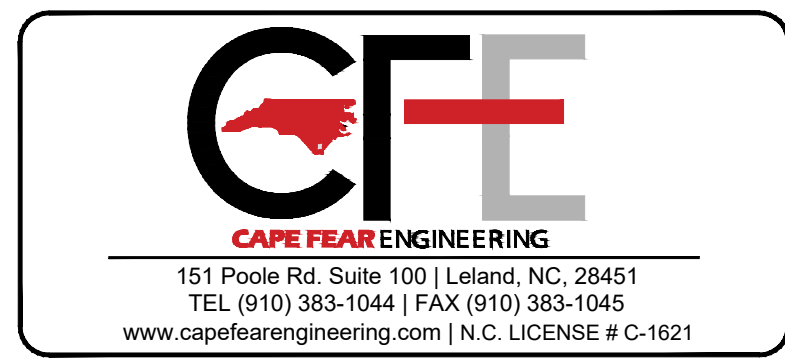
ROCK INLET SEDIMENT TRAP TYPE "C"
NOT TO SCALE



LEGEND:
SEE SHEET C-001 FOR LEGEND AND GENERAL NOTES.

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PROJECT NUMBER :	541-09
SCALE :	AS SHOWN
DATE :	

OLDE WATERFORD WAY EXTENSION

SEDIMENT AND EROSION CONTROL DETAILS-1

PROJECT NUMBER	541-09	SHEET NUMBER	C-500
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GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

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

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1
		-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones
(e) Areas with slopes flatter than 4:1	14	-10 days for Falls Lake Watershed
		-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

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

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> Temporary grass seed covered with straw or other mulches and tackifiers Hydroseeding Rolled erosion control products with or without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting 	<ul style="list-style-type: none"> Permanent grass seed covered with straw or other mulches and tackifiers Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding Shrubs or other permanent plantings covered with mulch Uniform and evenly distributed ground cover sufficient to restrain erosion Structural methods such as concrete, asphalt or retaining walls Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

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

EQUIPMENT AND VEHICLE MAINTENANCE

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

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

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

PAINT AND OTHER LIQUID WASTE

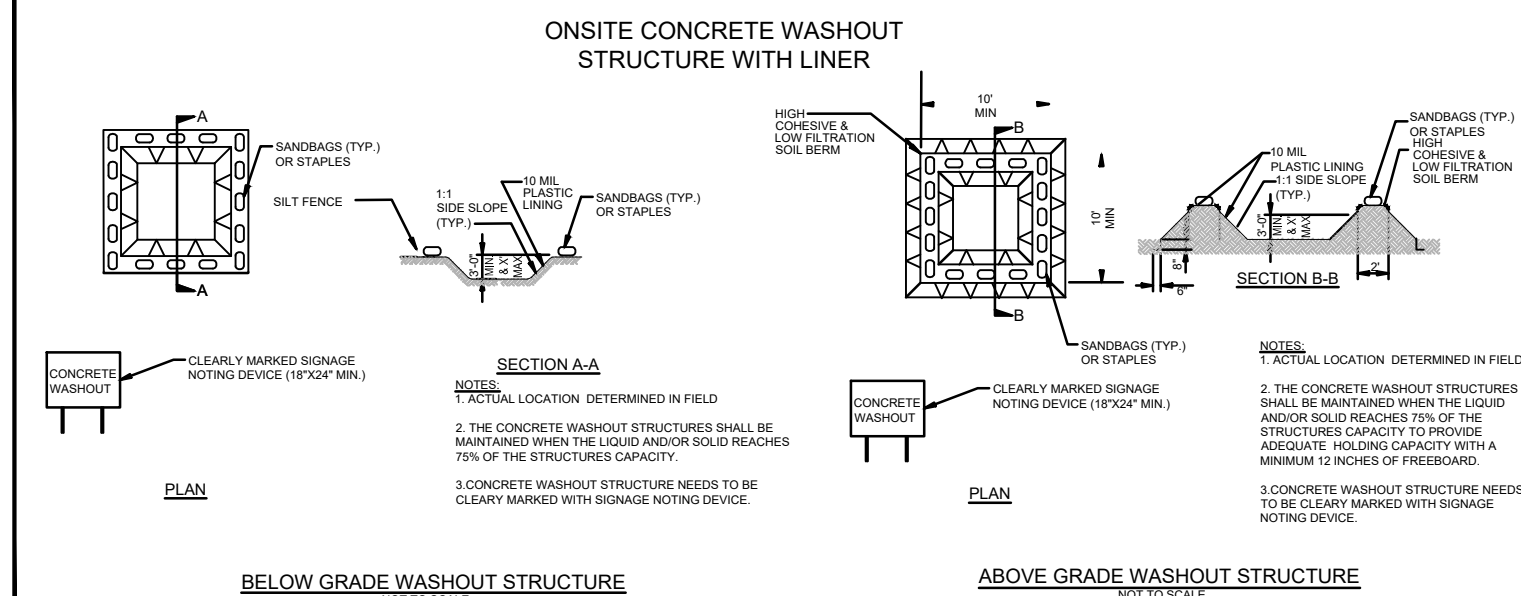
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled,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

PORTABLE TOILETS

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

EARTHEN STOCKPILE MANAGEMENT

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



CONCRETE WASHOUTS

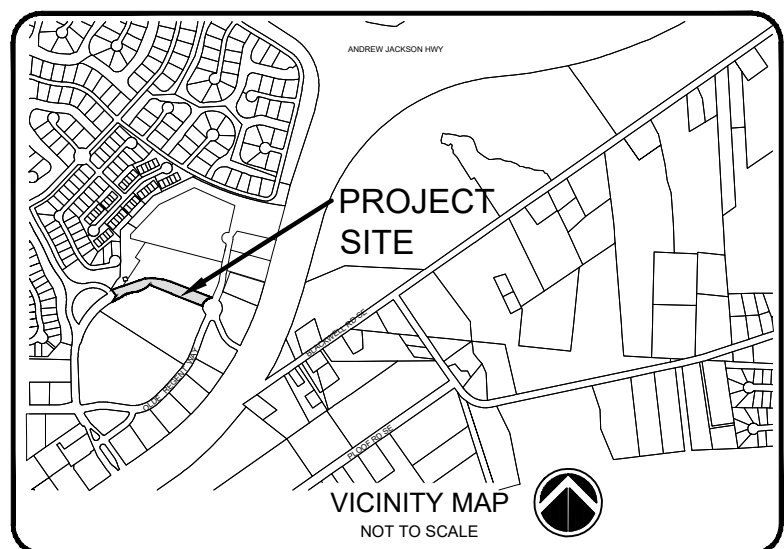
- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

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

HAZARDOUS AND TOXIC WASTE

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



LEGEND:
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REVISIONS				



PROJECT NUMBER :	541-09
SCALE :	AS SHOWN
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OLDE WATERFORD WAY EXTENSION

SEDIMENT AND EROSION CONTROL DETAILS-2

PROJECT NUMBER	SHEET NUMBER
541-09	C-500A

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

PATH: P:\541 TOWN OF LELAND\541-09 OLDE WATERFORD WAY ENGINEERING\DWG\CONSTRUCTION\541-09 OLDE WATERFORD WAY EXTENSION - MASTER.DWG

**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.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event \geq 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event \geq 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event \geq 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event \geq 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

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

**PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING**

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

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

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

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

3. Documentation to be Retained for Three Years

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

**PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING**

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

- (a) Visible sediment deposition in a stream or wetland.
- (b) Oil spills if:
 - They are 25 gallons or more,
 - They are less than 25 gallons but cannot be cleaned up within 24 hours,
 - They cause sheen on surface waters (regardless of volume), or
 - They are within 100 feet of surface waters (regardless of volume).
- (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (d) Anticipated bypasses and unanticipated bypasses.
- (e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul style="list-style-type: none"> • Within 24 hours, an oral or electronic notification. • Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	<ul style="list-style-type: none"> • Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> • A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> • Within 24 hours, an oral or electronic notification. • Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(l)(7)]	<ul style="list-style-type: none"> • Within 24 hours, an oral or electronic notification. • Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6)]. • Division staff may waive the requirement for a written report on a case-by-case basis.

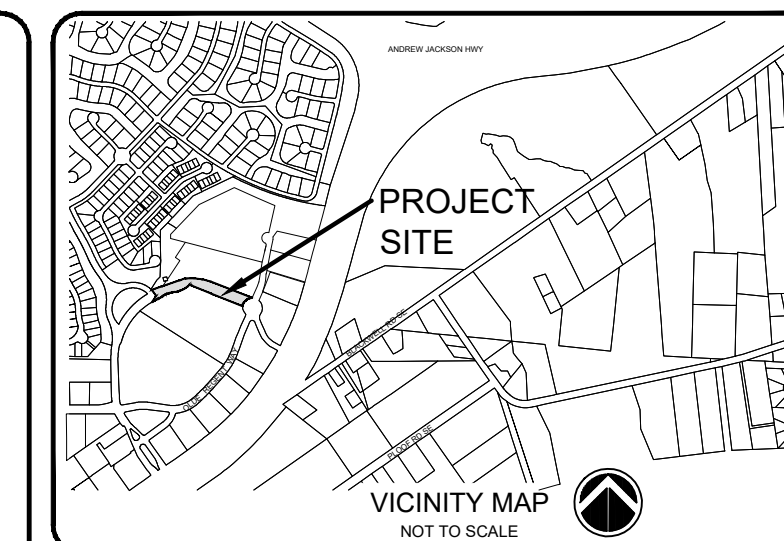
**PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT**

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 E&SC 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 E&SC 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 (d) 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 sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
- (d) Vegetated, upland areas of the sites or a properly designed stone pad 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.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19



LEGEND:
SEE SHEET C-001 FOR LEGEND AND GENERAL NOTES.

**ISSUED FOR
CONSTRUCTION**

REV. #	DESCRIPTION	MTH	REV. BY
0	ISSUED FOR CONSTRUCTION	06/27/22	
REVISIONS			



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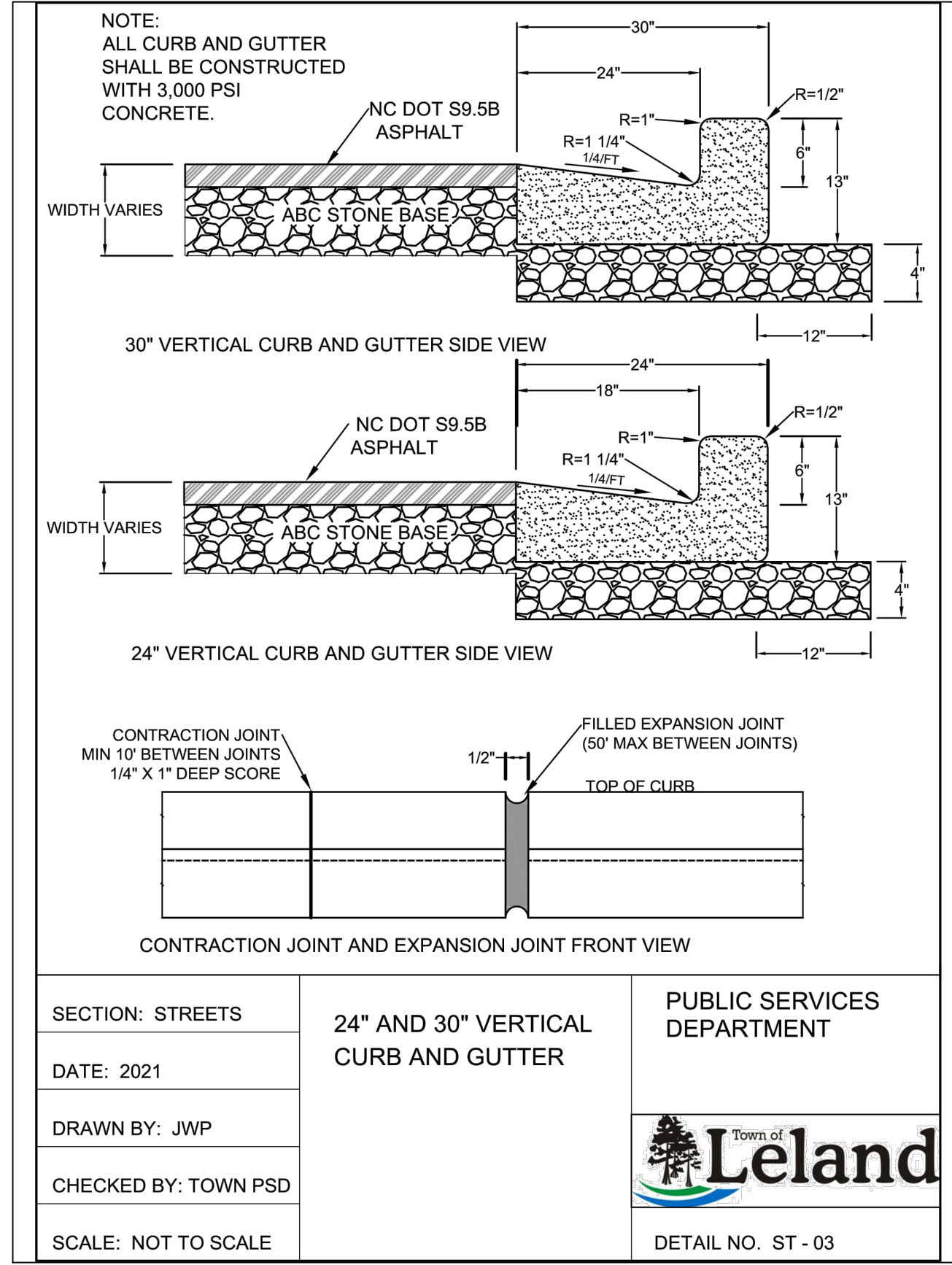
PROJECT NUMBER :	541-09
SCALE :	AS SHOWN
DATE :	

**OLDE WATERFORD WAY
EXTENSION**

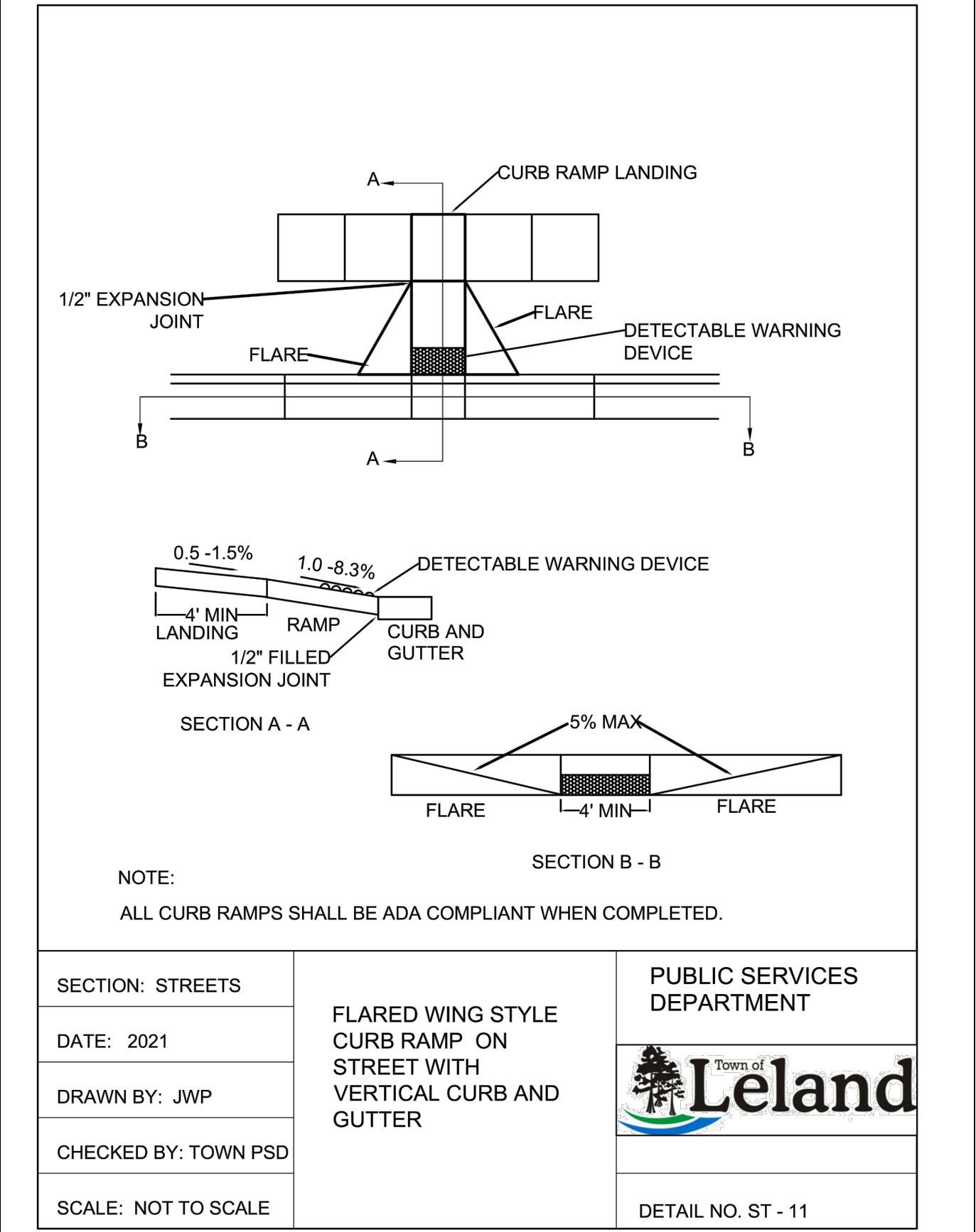
**SEDIMENT AND EROSION
CONTROL DETAILS-3**

PROJECT NUMBER	SHEET NUMBER
541-09	C-500B

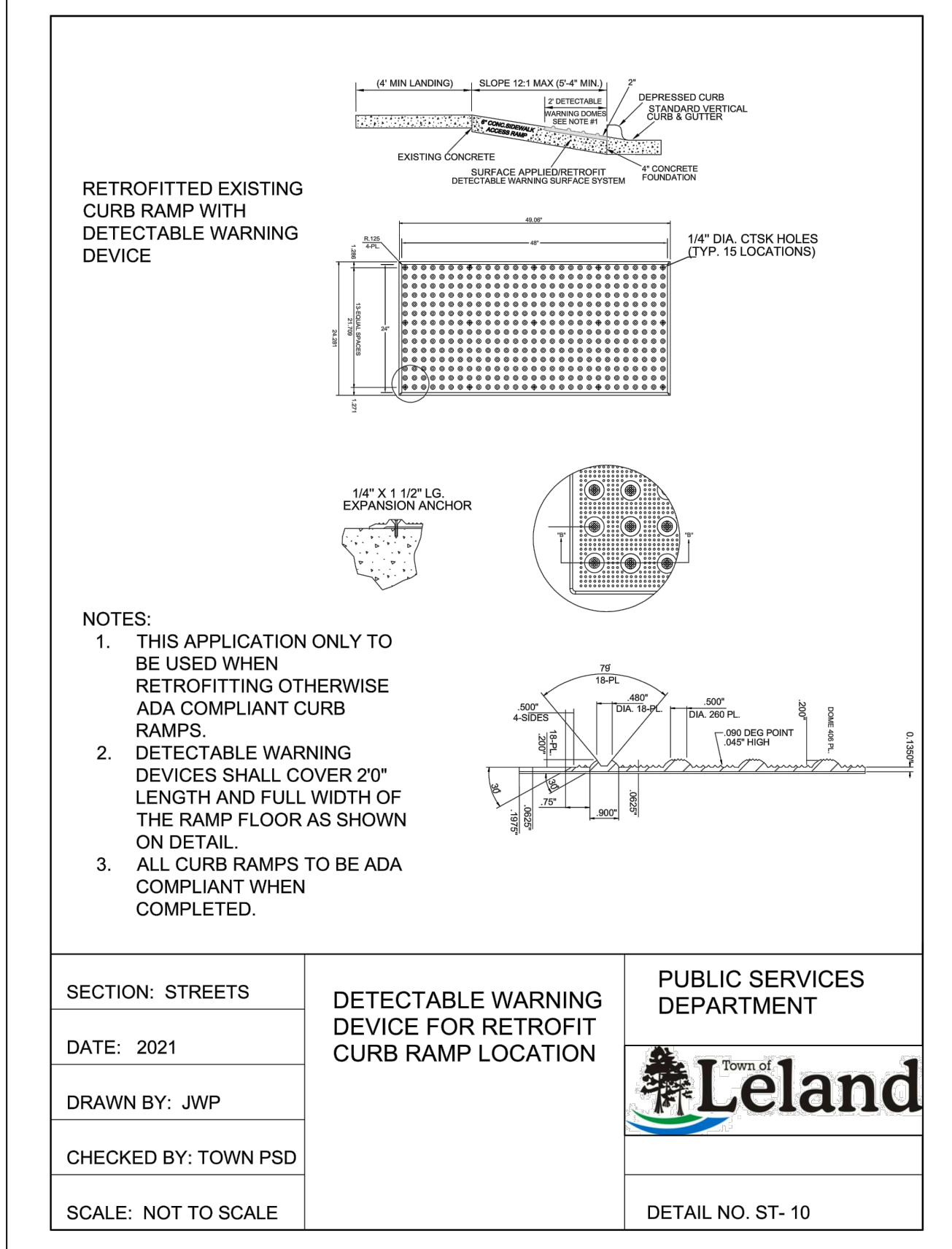
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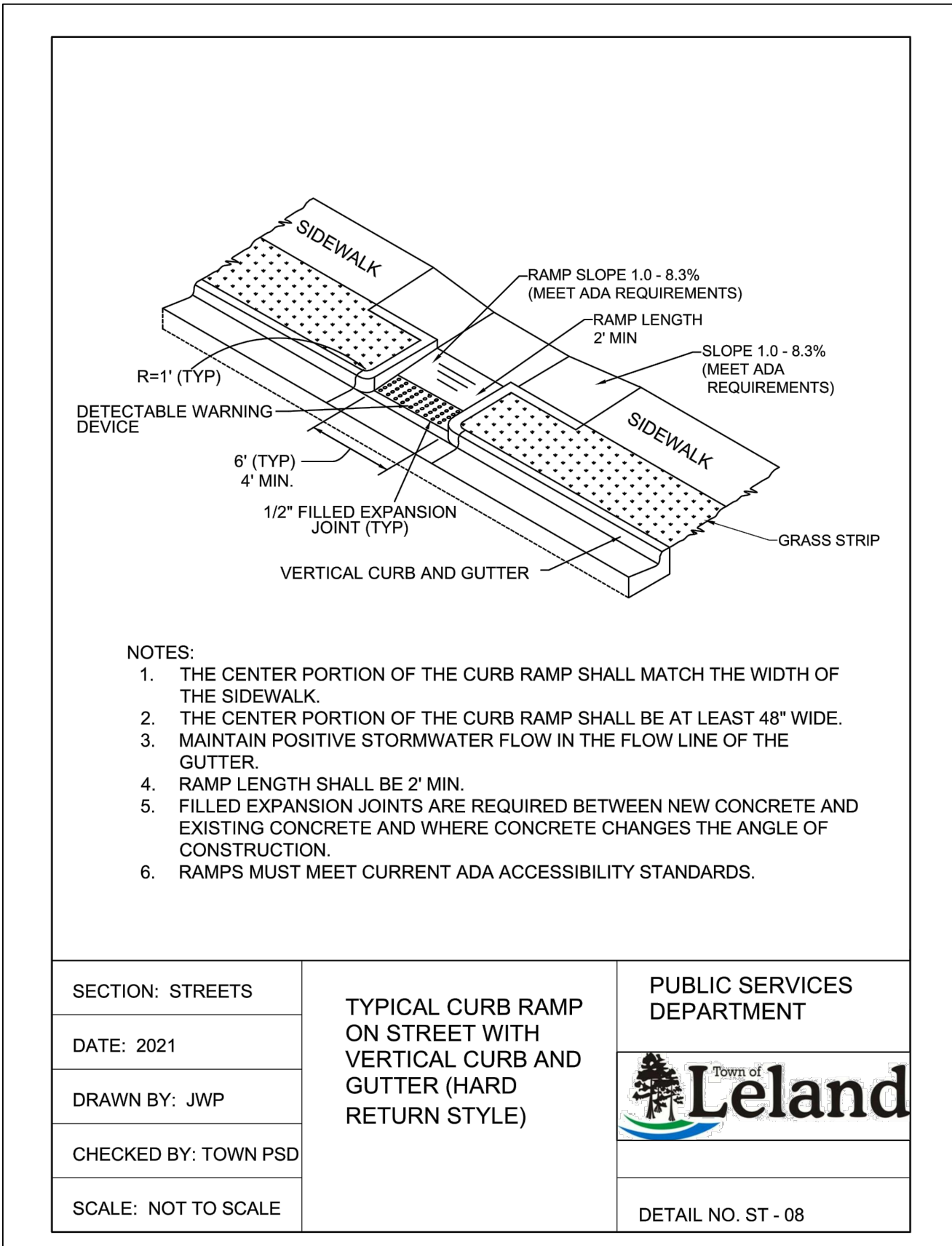
24" & 30" VERTICAL CURB & GUTTER
NOT TO SCALE



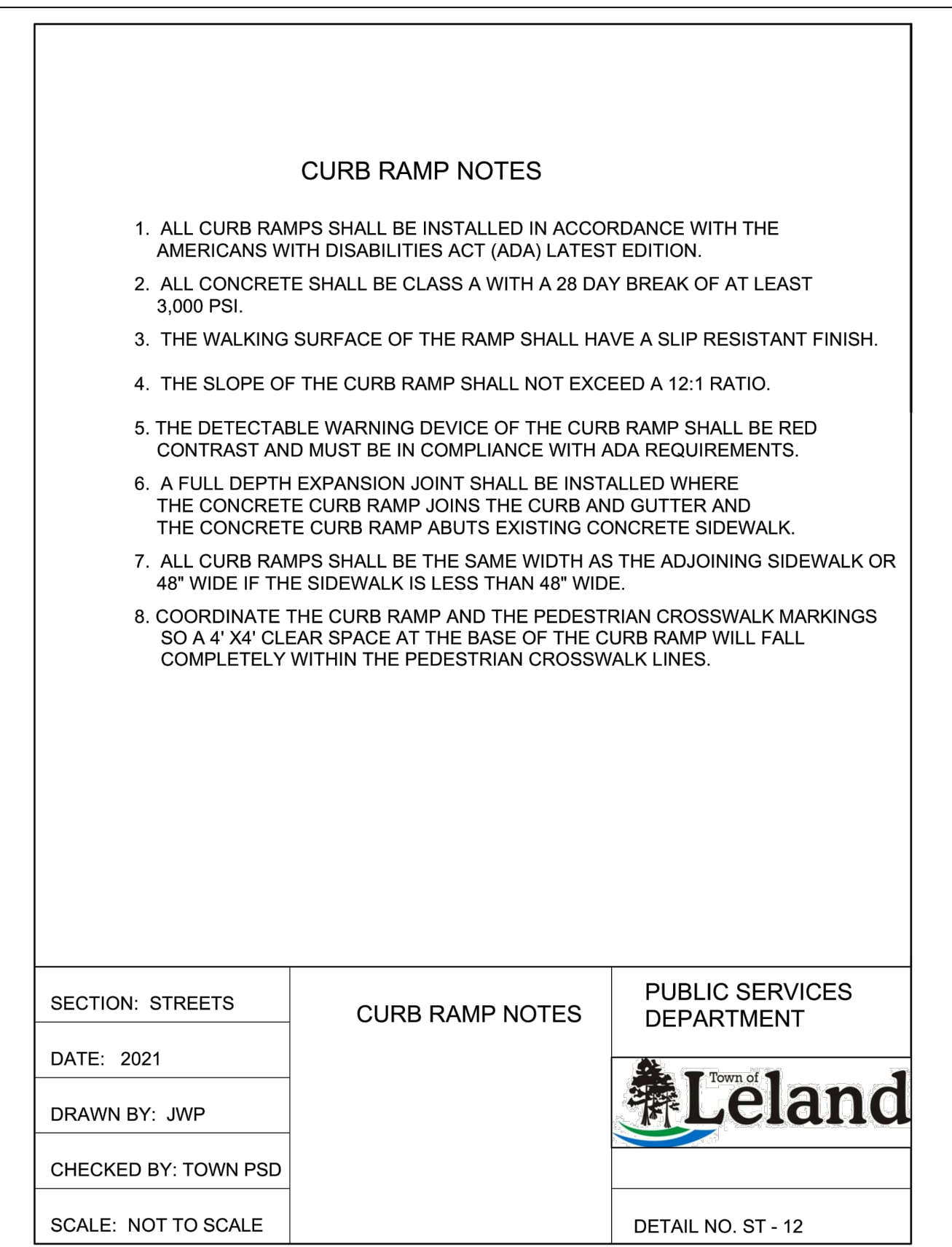
FLARED WING STYLE CURB RAMP
NOT TO SCALE



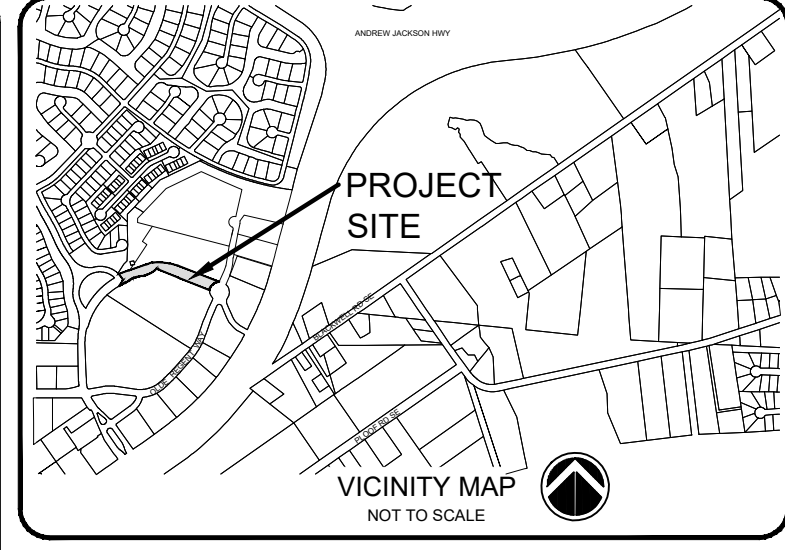
DETECTABLE WARNING DEVICE
NOT TO SCALE



CURB RAMP WITH CURB & GUTTER
NOT TO SCALE



DETAIL NO. ST - 12



LEGEND:

SEE SHEET C-001 FOR LEGEND AND GENERAL NOTES.

ISSUED FOR CONSTRUCTION

REV. #	DESCRIPTION	REV. BY	DATE
0	ISSUED FOR CONSTRUCTION	MTH	06/27/22
REVISIONS			

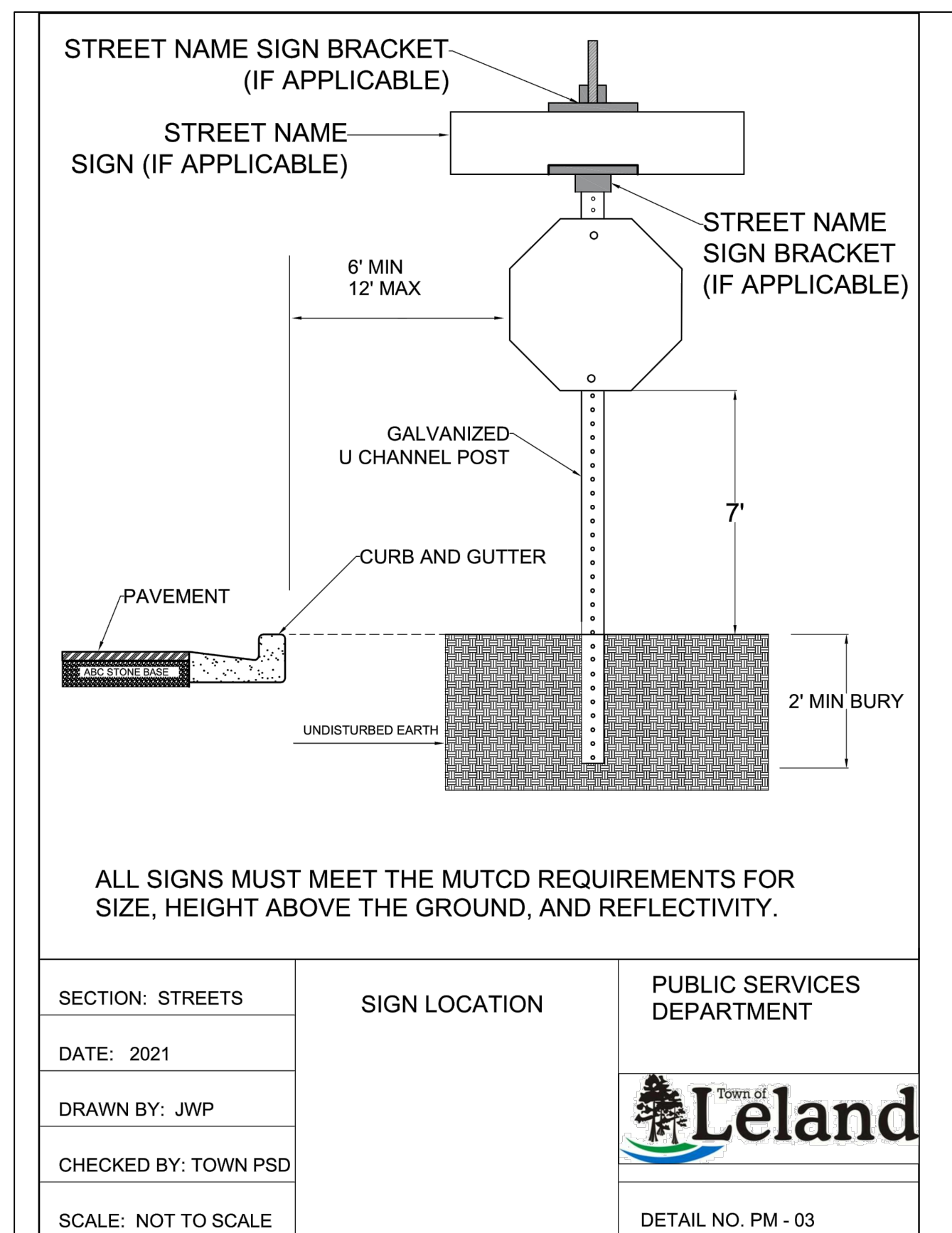


PROJECT NUMBER :	541-09
SCALE :	AS SHOWN
DATE :	

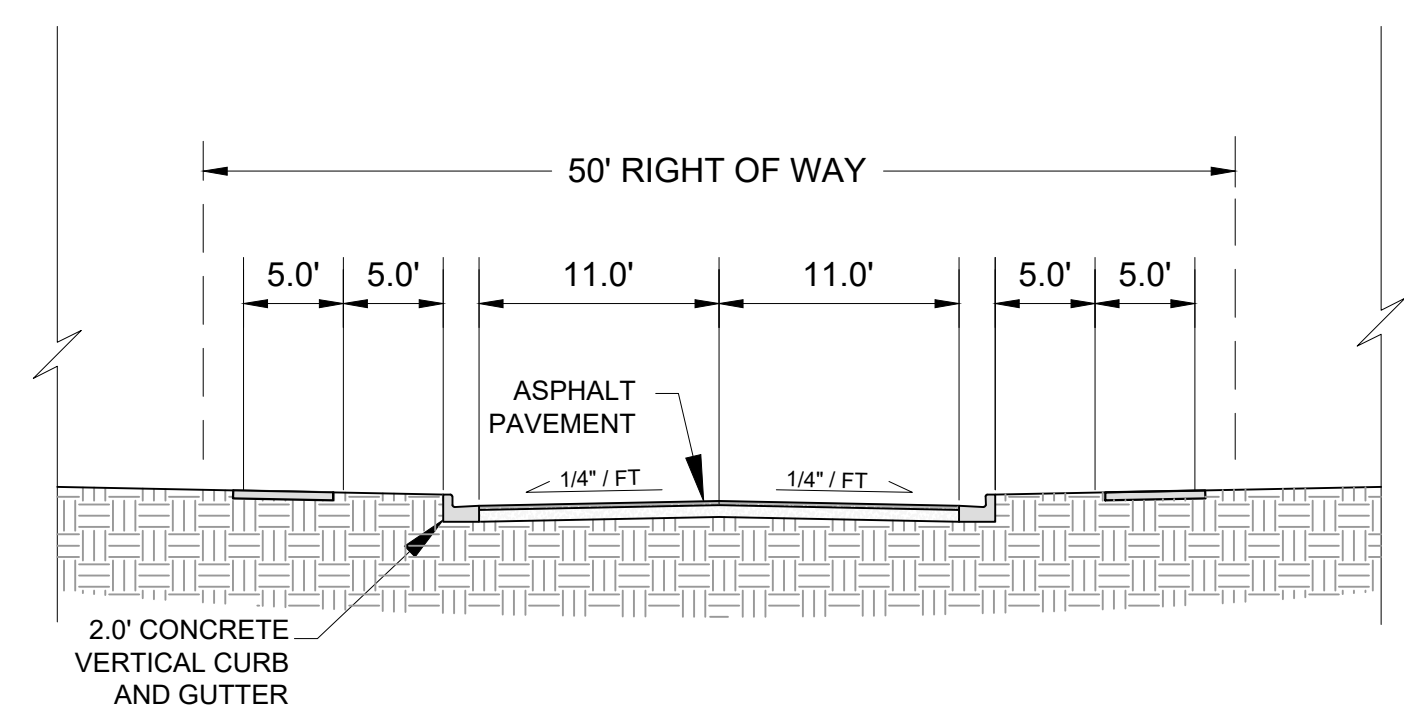
OLDE WATERFORD WAY EXTENSION

SITE DETAILS-1

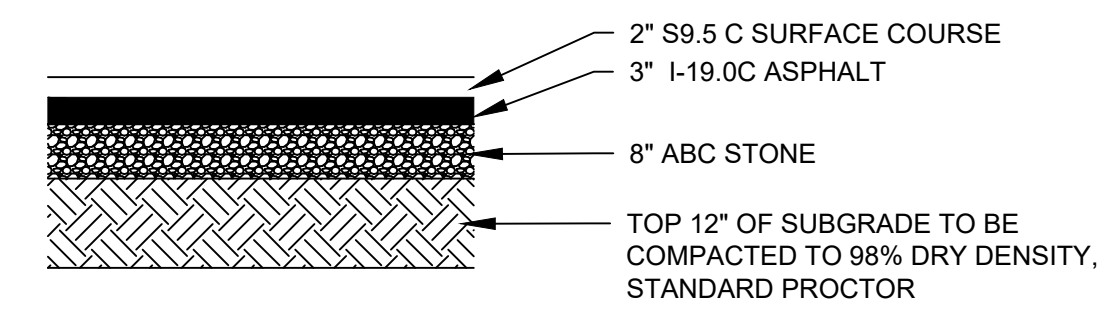
PROJECT NUMBER	541-09	SHEET NUMBER	C-501
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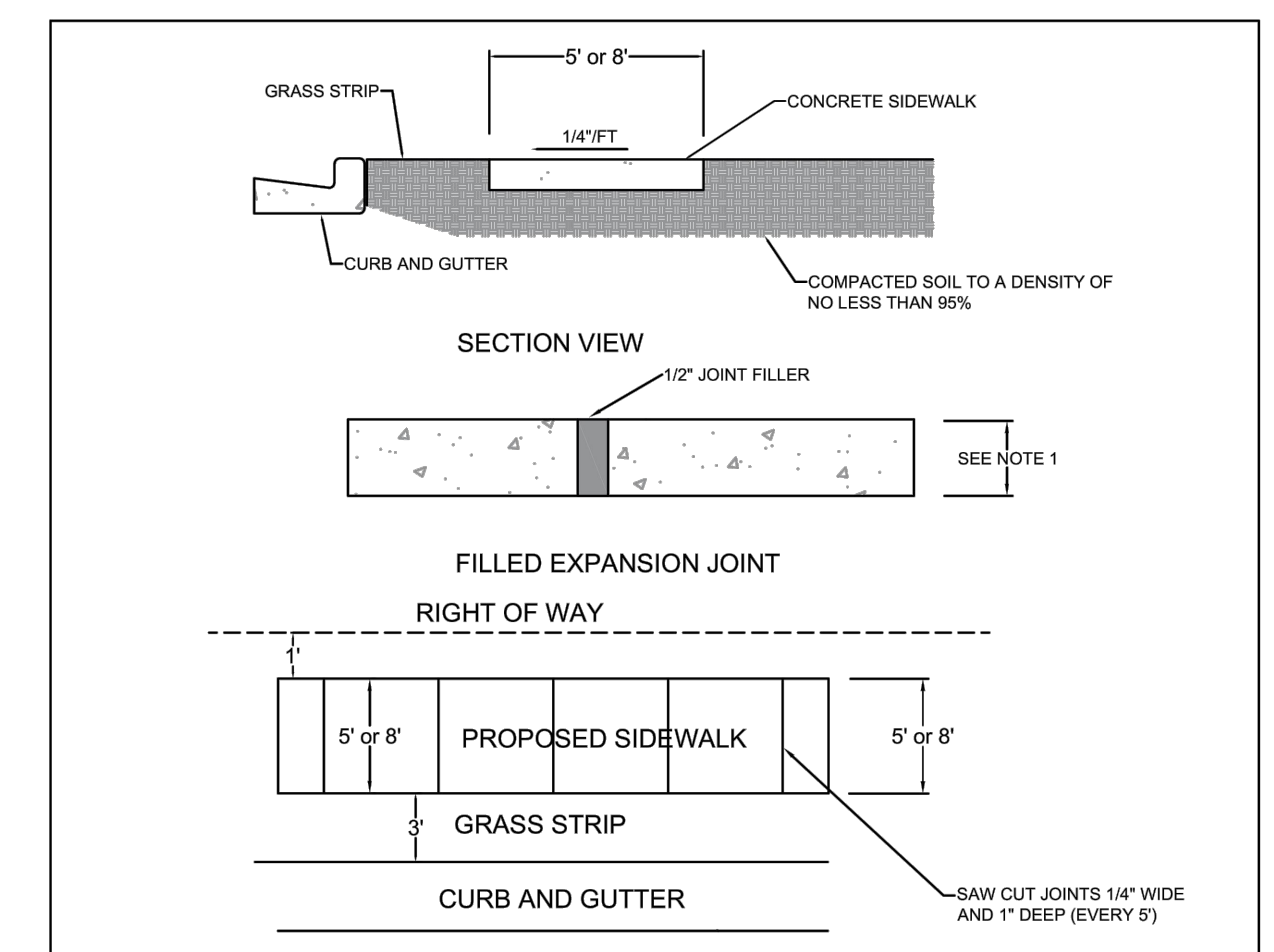
TYPICAL GROUND MOUNT SIGN SUPPORT
NOT TO SCALE



TYPICAL STREET SECTION
NOT TO SCALE



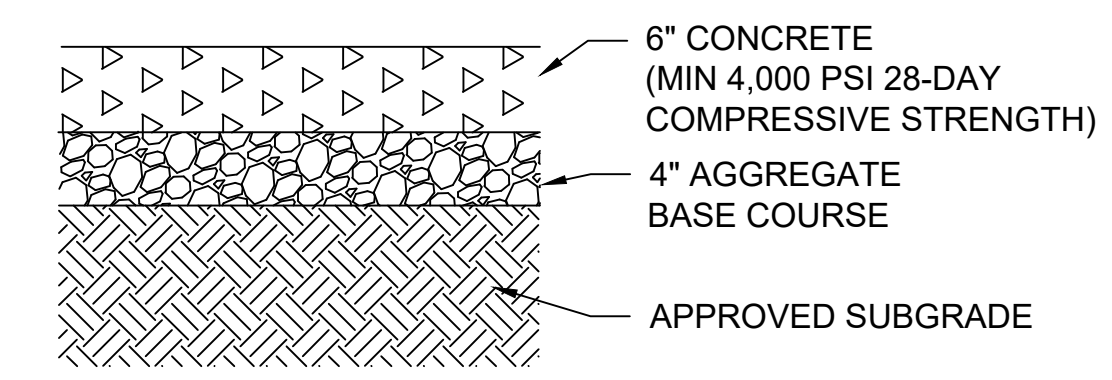
ASPHALT PAVEMENT DETAIL
NOT TO SCALE



- NOTES:
- SIDEWALK DEPTH SHALL BE 4" EXCEPT AT DRIVEWAYS WHERE THE DEPTH SHALL BE 6".
 - THE DISTANCE BETWEEN FILLED EXPANSION JOINTS SHALL BE 50' MAX.
 - ALL SIDEWALKS SHALL BE CONSTRUCTED WITH 3,000 PSI CONCRETE.
 - ALL MANHOLES, WATER VALVES AND METER BOXES MUST BE LOCATED OUTSIDE OF THE SIDEWALK AREA.
 - ALL SIDEWALK REPAIRS SHOULD BE FROM CONTRACTION JOINT TO CONTRACTION JOINT.
 - THE SIDEWALK WIDTH SHALL BE DETERMINED BY TOWN STAFF.

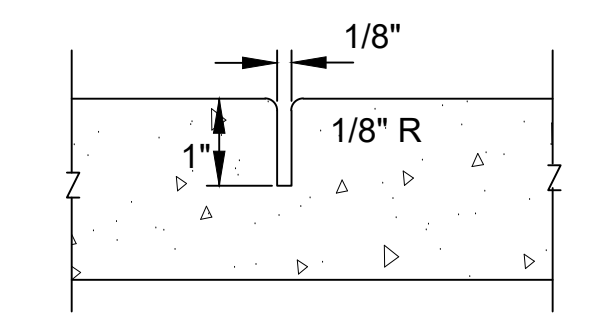
SECTION: STREETS	5' AND 8' WIDE CONCRETE SIDEWALK	PUBLIC SERVICES DEPARTMENT
DATE: 2021		
DRAWN BY: JWP		
CHECKED BY: TOWN PSD		
SCALE: NOT TO SCALE		
		 DETAIL NO. ST - 13

CONCRETE SIDEWALK
NOT TO SCALE

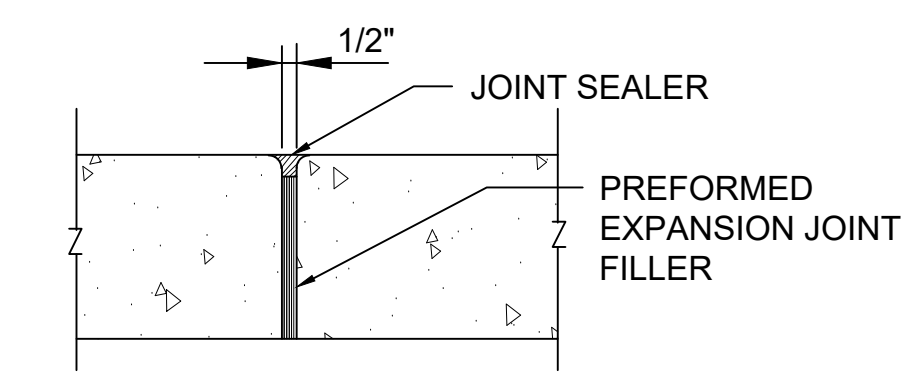


NOTE: PROVIDE EXPANSION JOINTS AT A MAXIMUM SPACING OF 50' AND BETWEEN ADJACENT PAVEMENTS. PROVIDE CONTRACTION JOINTS SPACED AT A MAXIMUM DISTANCE OF 6'.

CONCRETE ACCESS DRIVE
NOT TO SCALE

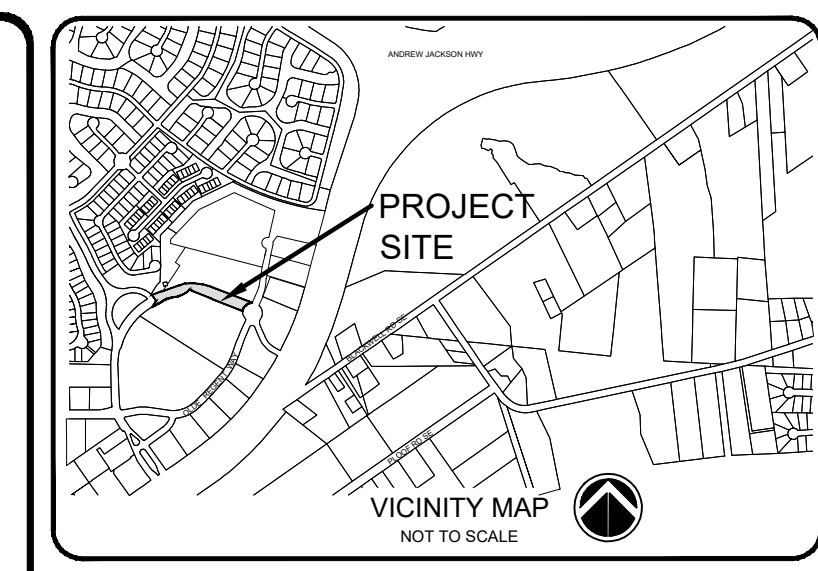


CONTRACTION JOINT (CJ)



EXPANSION JOINT (EJ)

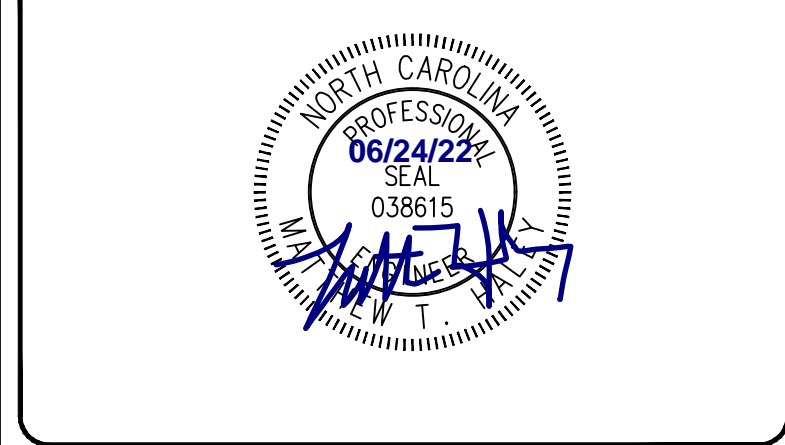
TYPICAL CONCRETE JOINTS
NOT TO SCALE



LEGEND:
SEE SHEET C-001 FOR LEGEND AND GENERAL NOTES.

ISSUED FOR CONSTRUCTION

REV. #	DESCRIPTION	REVISIONS	MTH	REV. BY	DATE
0	ISSUED FOR CONSTRUCTION		MTH		06/27/22



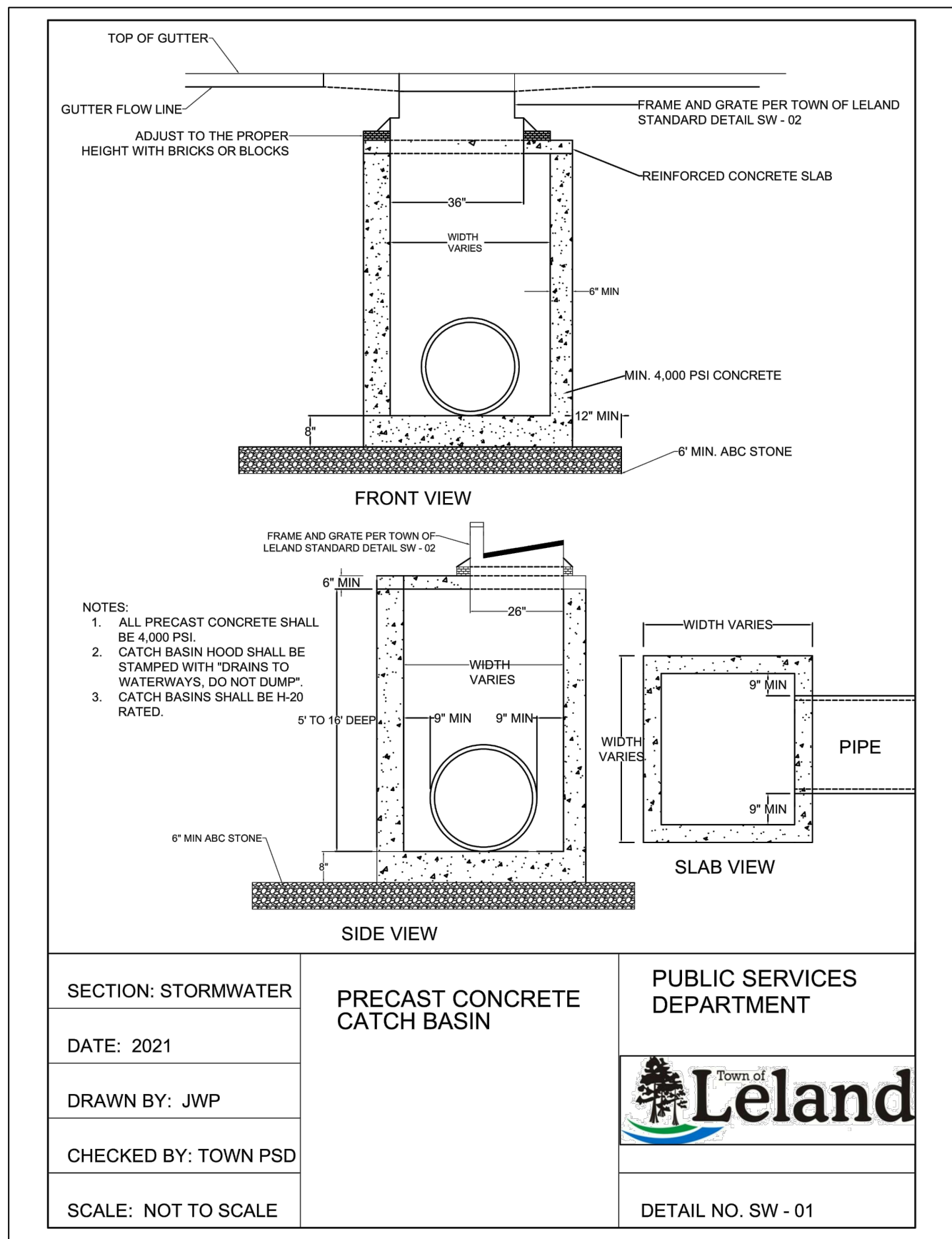
PROJECT NUMBER :	541-09
SCALE :	AS SHOWN
DATE :	

OLDE WATERFORD WAY EXTENSION

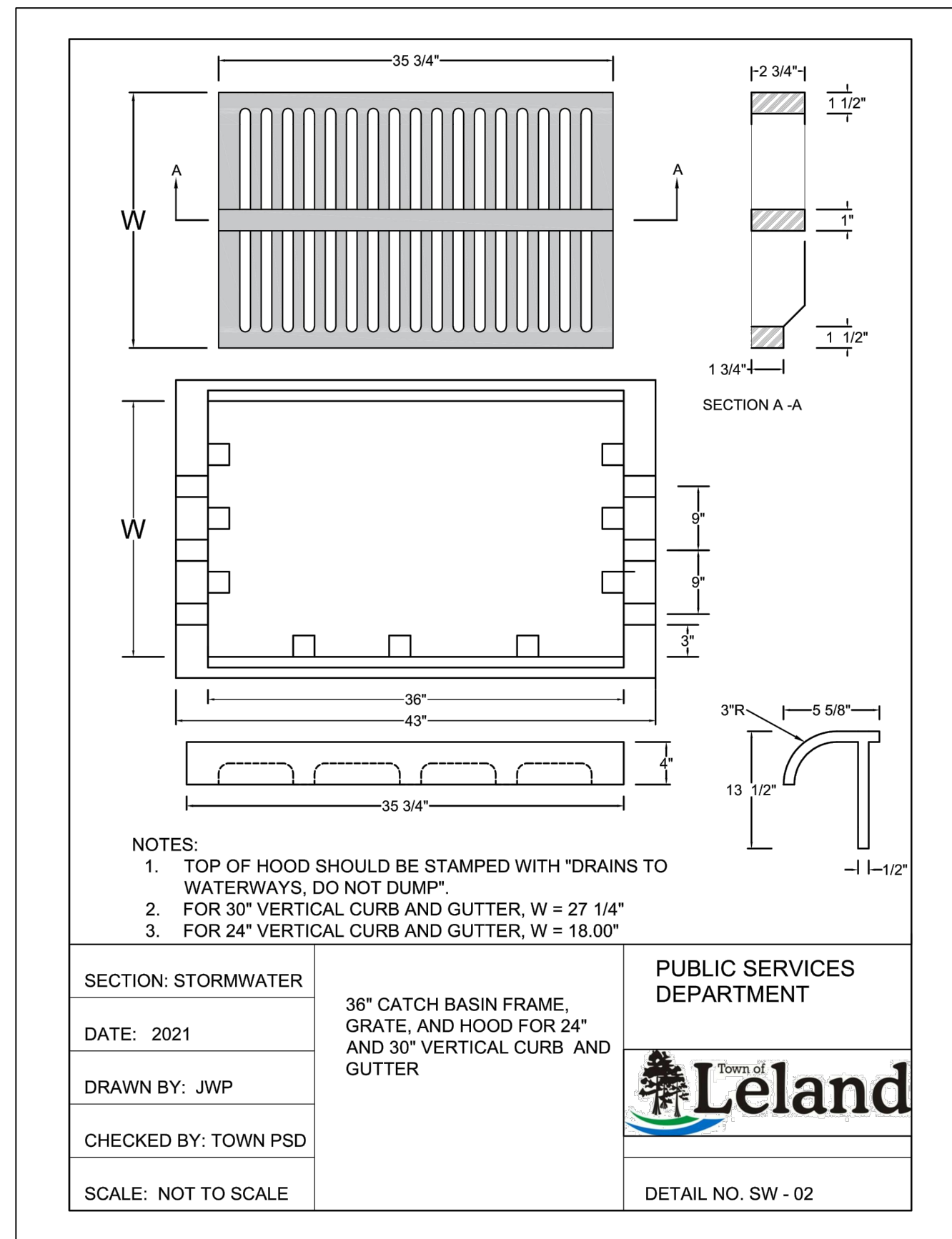
SITE DETAILS-2

PROJECT NUMBER	541-09	SHEET NUMBER	C-502
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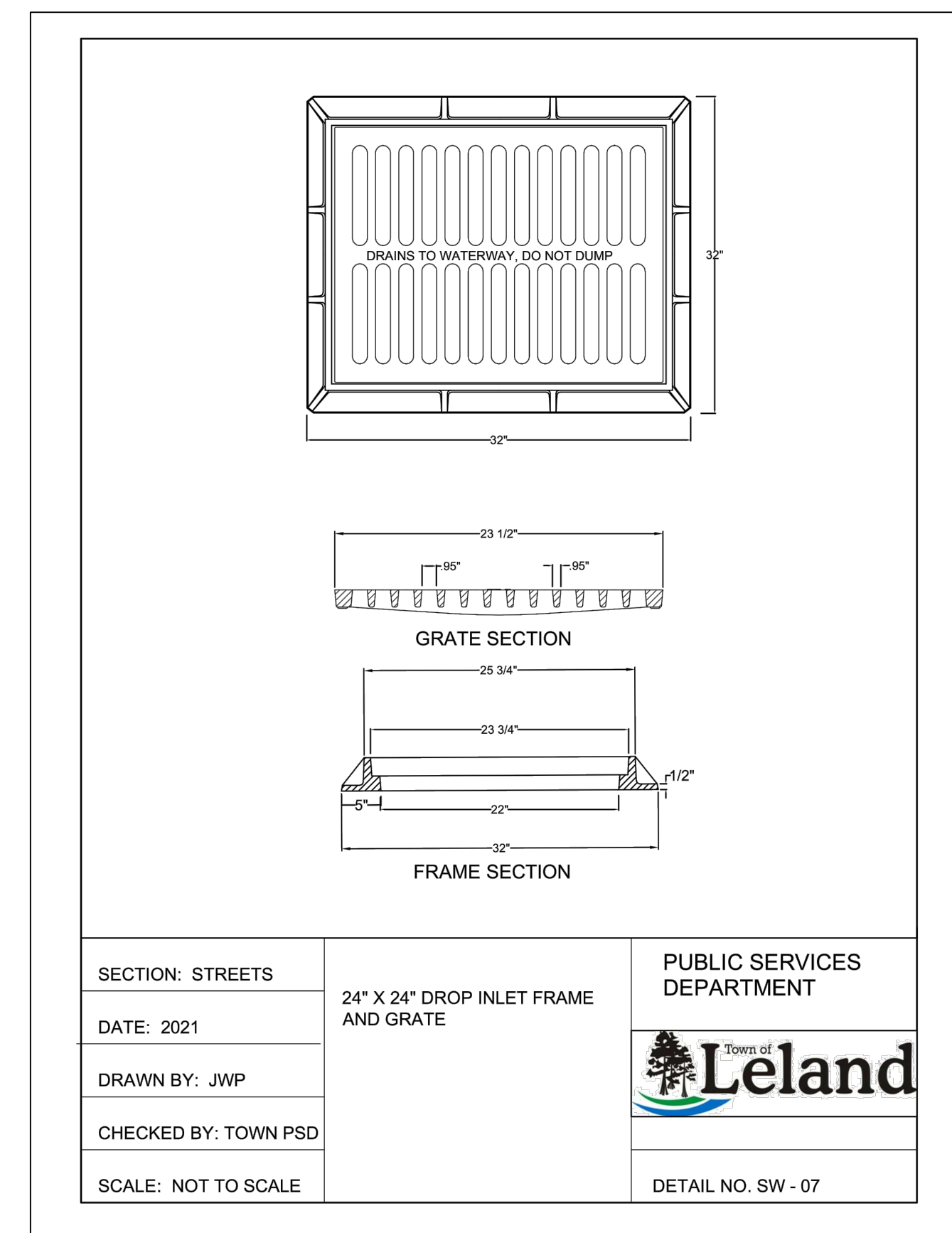
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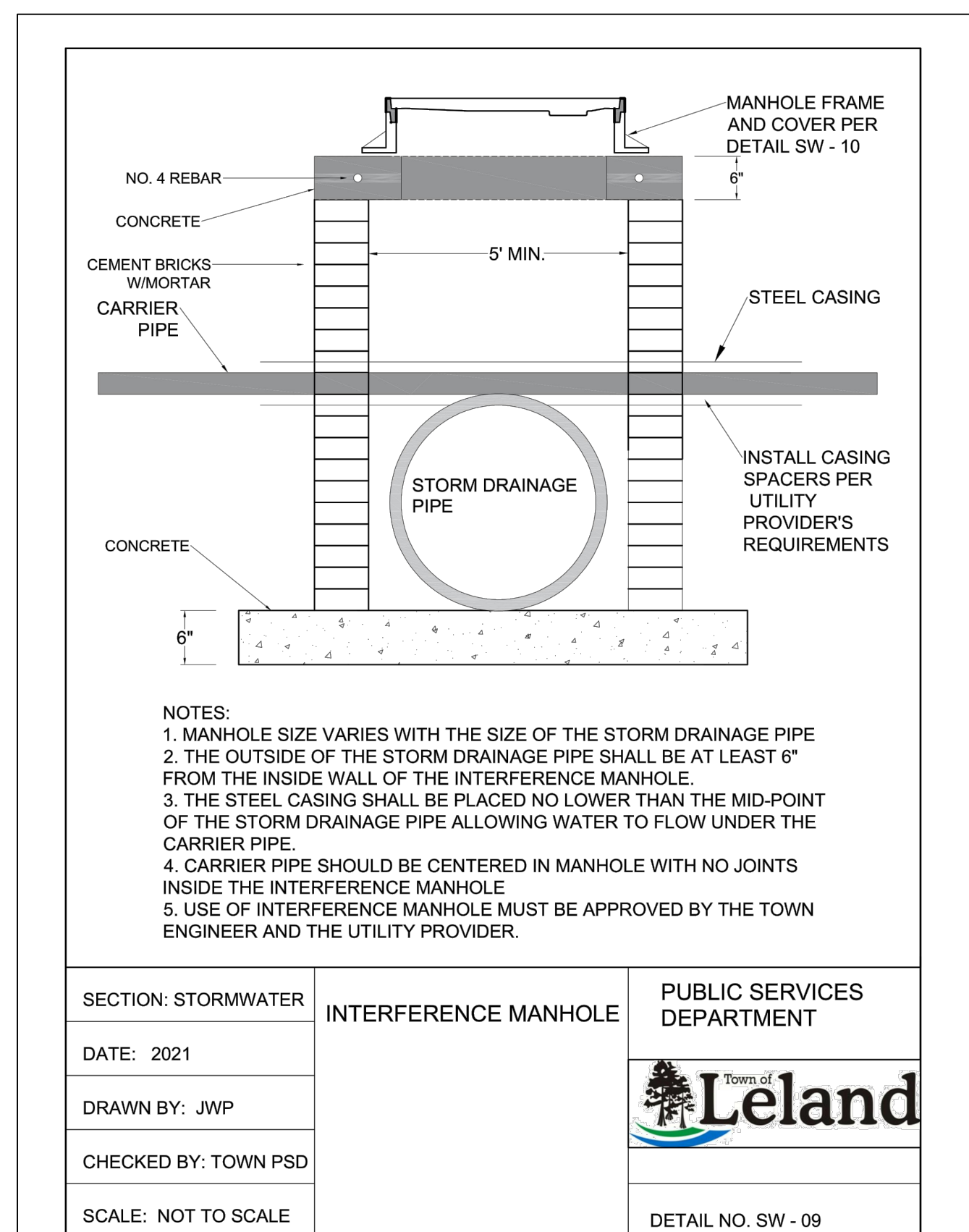
PRECAST CONCRETE CATCH BASIN
NOT TO SCALE



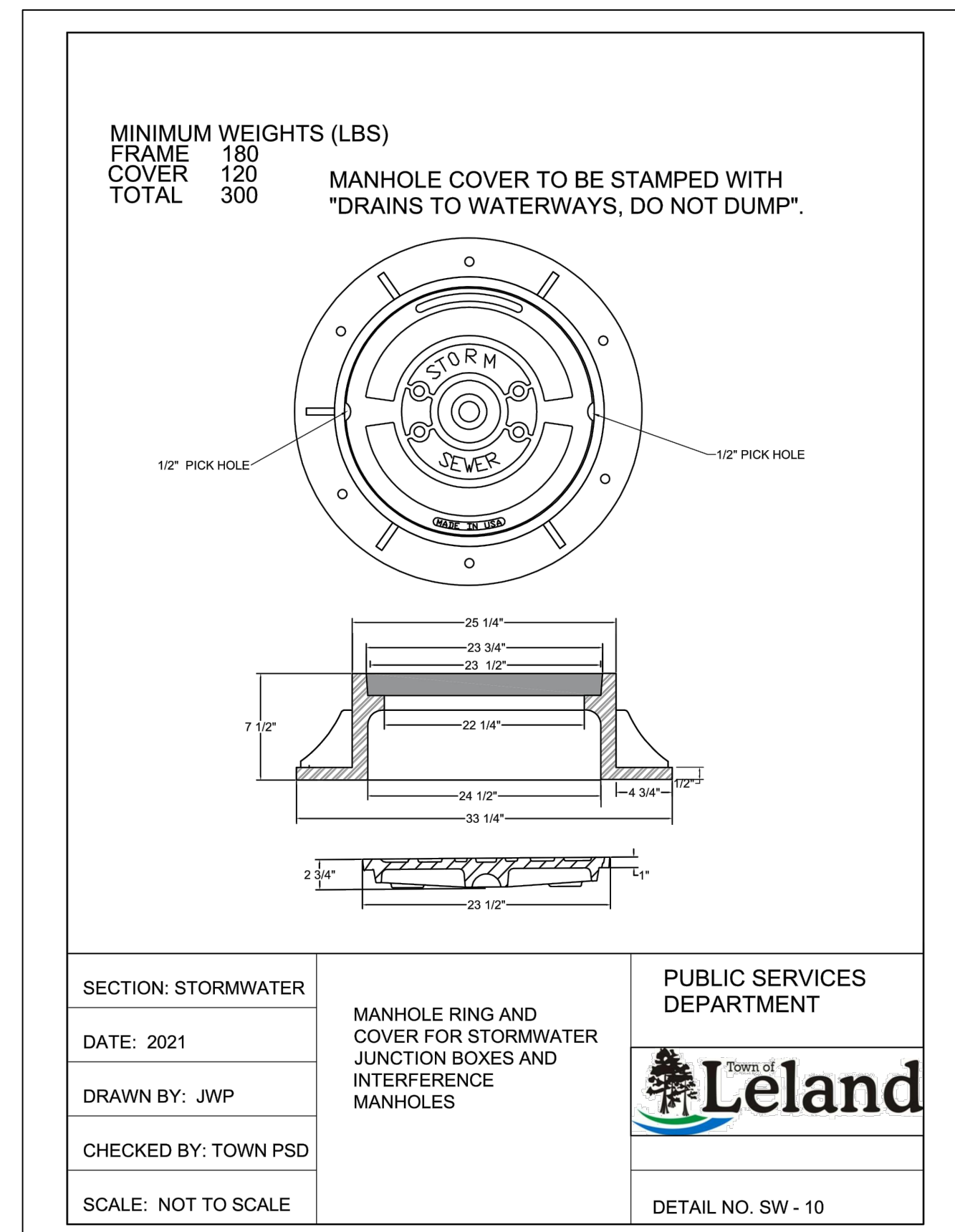
CATCH BASIN FRAME, GRATE, AND HOOD
NOT TO SCALE



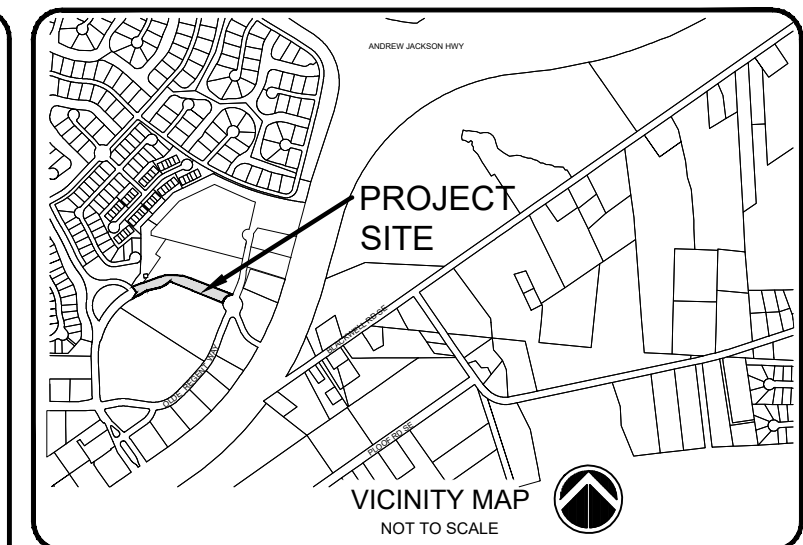
DROP INLET FRAME AND GRATE
NOT TO SCALE



INTERFERENCE MANHOLE
NOT TO SCALE



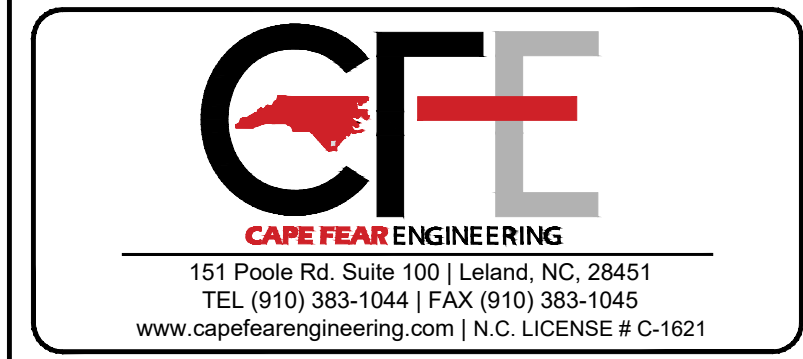
MANHOLE RING AND COVER
NOT TO SCALE



LEGEND:
SEE SHEET C-001 FOR LEGEND AND GENERAL NOTES.

ISSUED FOR CONSTRUCTION

0	ISSUED FOR CONSTRUCTION	MTH 06/27/22
REV. #	DESCRIPTION	REV. BY DATE
	REVISIONS	



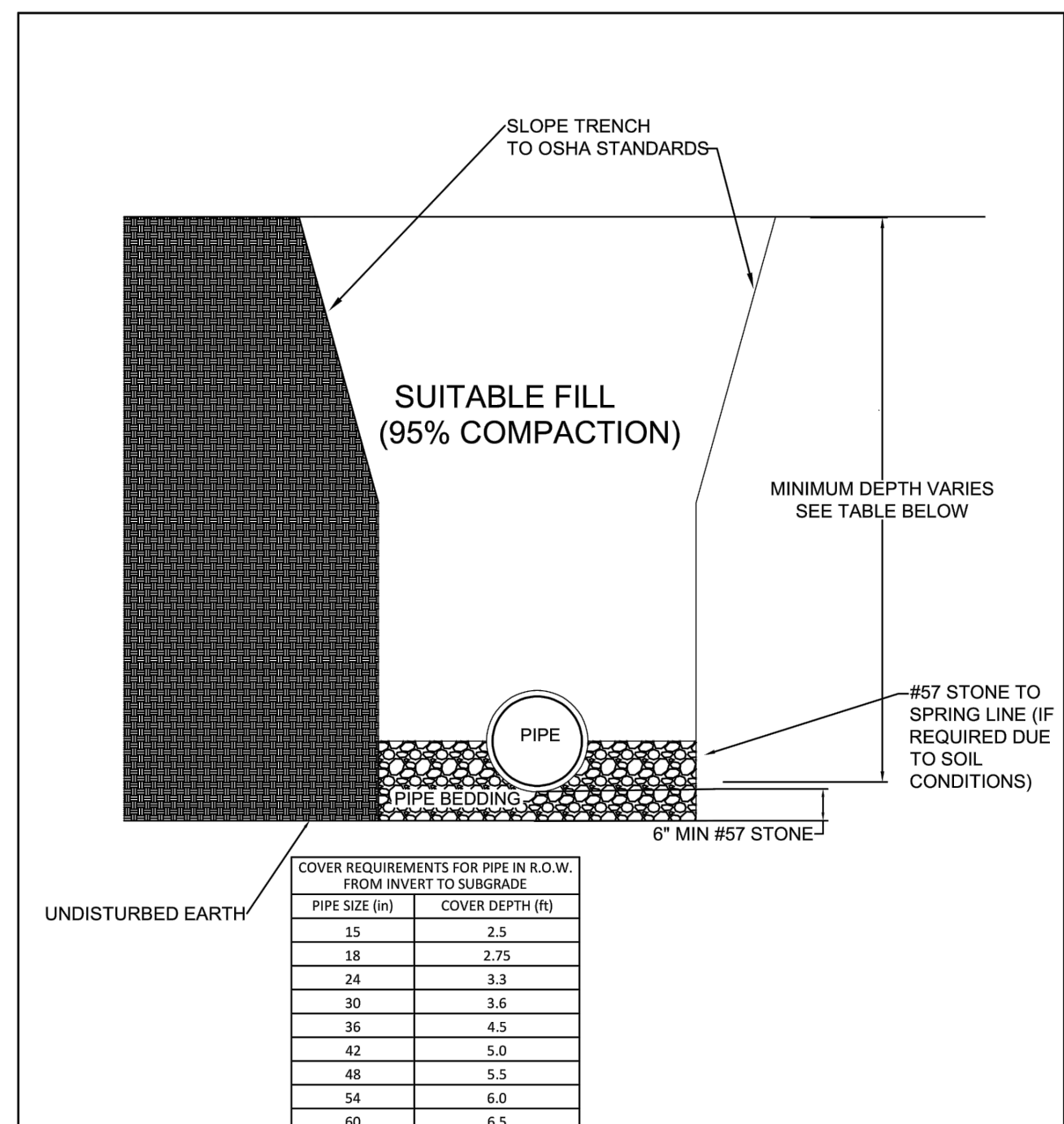
PROJECT NUMBER :	541-09
SCALE :	AS SHOWN
DATE :	

OLDE WATERFORD WAY EXTENSION

STORMDRAIN DETAILS - 1

PROJECT NUMBER	SHEET NUMBER
541-09	C-503

PATH:P:\641 TOWN OF LELAND\641-09 OLDE WATERFORD WAY\ENGINEERING\DWG\CONSTRUCTION\641-09 - OLDE WATERFORD WAY EXTENSION - MASTER.DWG




COVER REQUIREMENTS FOR PIPE IN R.O.W. FROM INVERT TO SUBGRADE	
PIPE SIZE (IN)	COVER DEPTH (IN)
15	2.5
18	2.75
24	3.3
30	3.6
36	4.5
42	5.0
48	5.5
54	6.0
60	6.5

SECTION: STORMWATER
 DATE: 2021
 DRAWN BY: JWP
 CHECKED BY: TOWN PSD
 SCALE: NOT TO SCALE

BEDDING FOR REINFORCED CONCRETE PIPE

PUBLIC SERVICES DEPARTMENT



DETAIL NO. SW - 03

REINFORCED CONCRETE PIPE BEDDING
 NOT TO SCALE

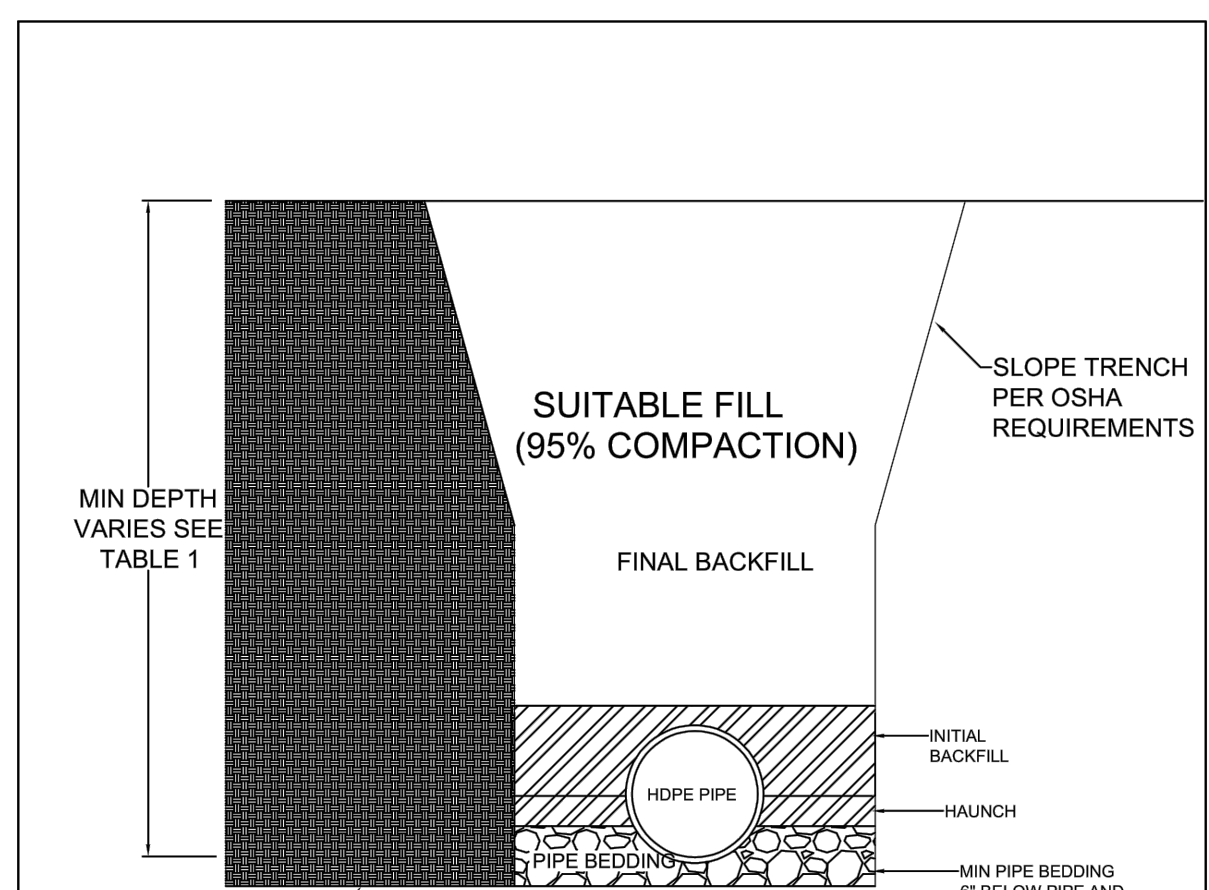



TABLE 1 COVER REQUIREMENTS FOR PIPE IN R.O.W. FROM INVERT TO SUBGRADE	
PIPE SIZE (IN)	COVER DEPTH (IN)
15	2.5
18	2.75
24	3.3
30	3.6
36	4.5
42	5.0
48	5.5
54	6.0
60	6.5

- NOTES:
1. HAUNCH COMPACTED IN ACCORDANCE WITH ASTM D2221
 2. INITIAL BACKFILL COMPACTED TO 100% DENSITY
 3. INSTALL PER HDPE PIPE MANUFACTURER'S RECOMMENDATIONS

SECTION: STORMWATER
 DATE: 2021
 DRAWN BY: JWP
 CHECKED BY: TOWN PSD
 SCALE: NOT TO SCALE

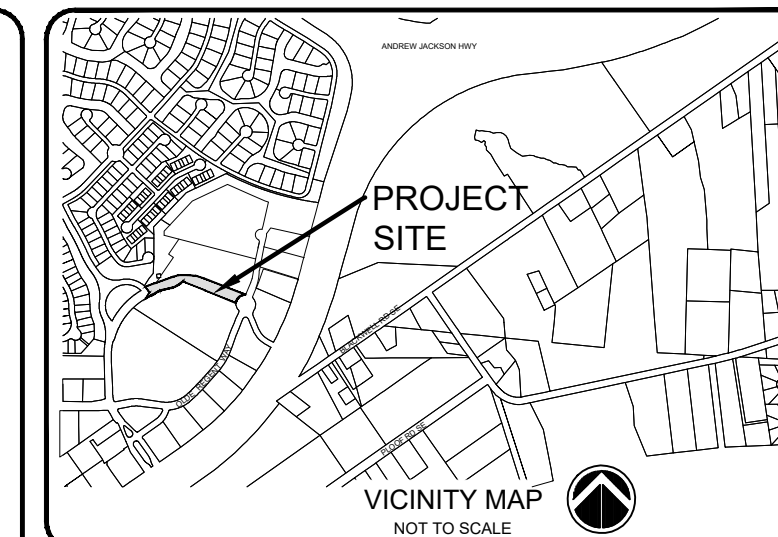
BEDDING FOR HDPE PIPE

PUBLIC SERVICES DEPARTMENT



DETAIL NO. SW - 04

HDPE PIPE BEDDING
 NOT TO SCALE



LEGEND:
 SEE SHEET C-001 FOR LEGEND AND GENERAL NOTES.

ISSUED FOR CONSTRUCTION

REV. #	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	MTH 06/27/22



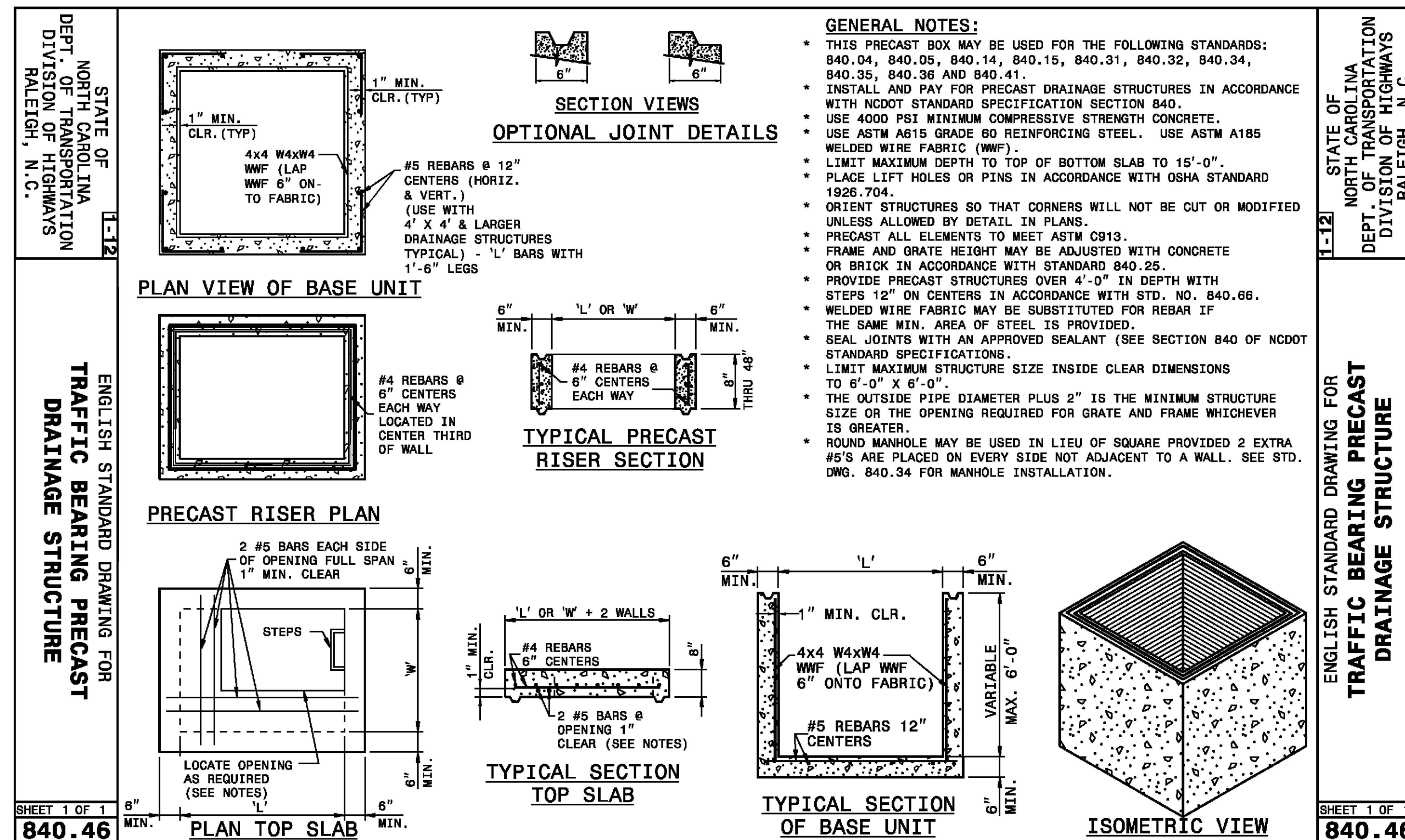
PROJECT NUMBER : 541-09
 SCALE : AS SHOWN
 DATE :

OLDE WATERFORD WAY EXTENSION

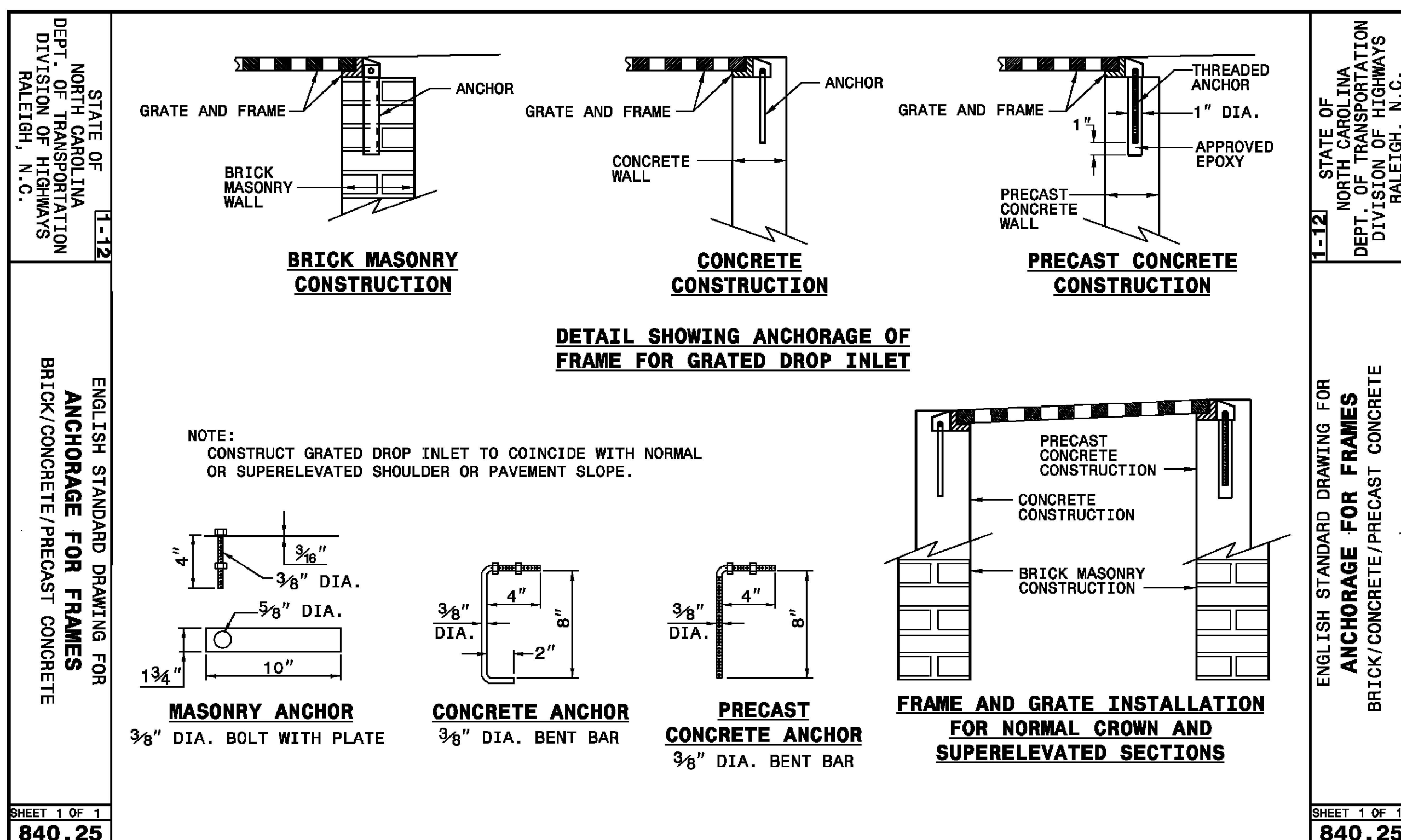
STORMDRAIN DETAILS - 2

PROJECT NUMBER: 541-09 SHEET NUMBER: C-504

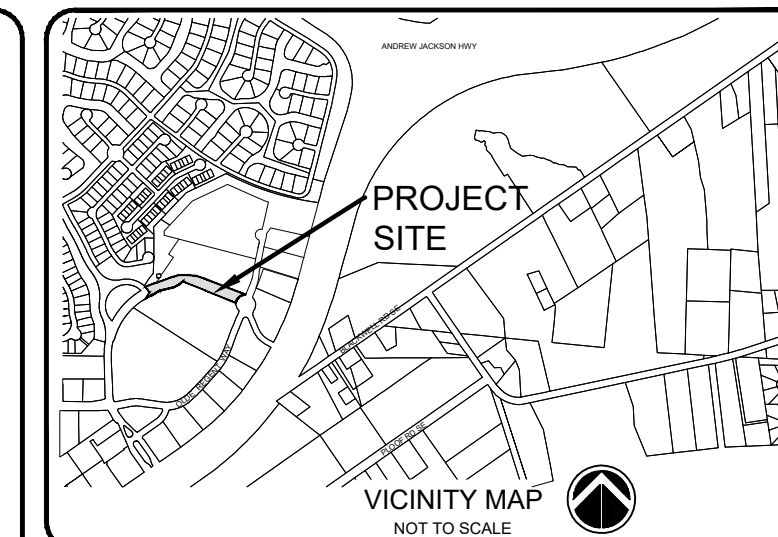
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TRAFFIC BEARING PRE-CAST DRAINAGE STRUCTURE
NOT TO SCALE



ANCHORAGE FOR FRAME AND GRATE
NOT TO SCALE



LEGEND:
SEE SHEET C-001 FOR LEGEND AND GENERAL NOTES.

ISSUED FOR CONSTRUCTION

REV. #	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	MTH 06/27/22
		REV. BY
		DATE



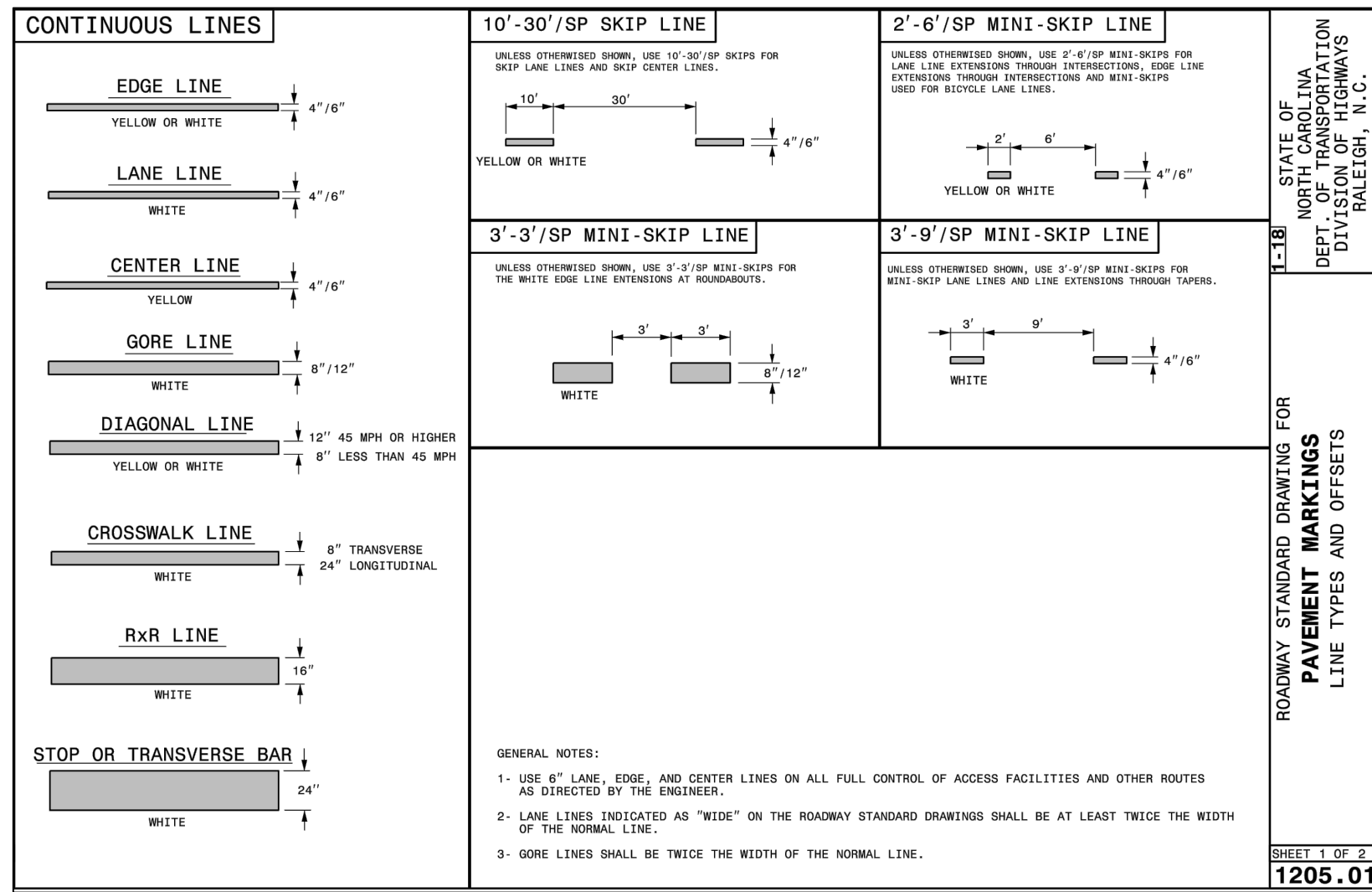
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PROJECT NUMBER :	541-09
SCALE :	AS SHOWN
DATE :	

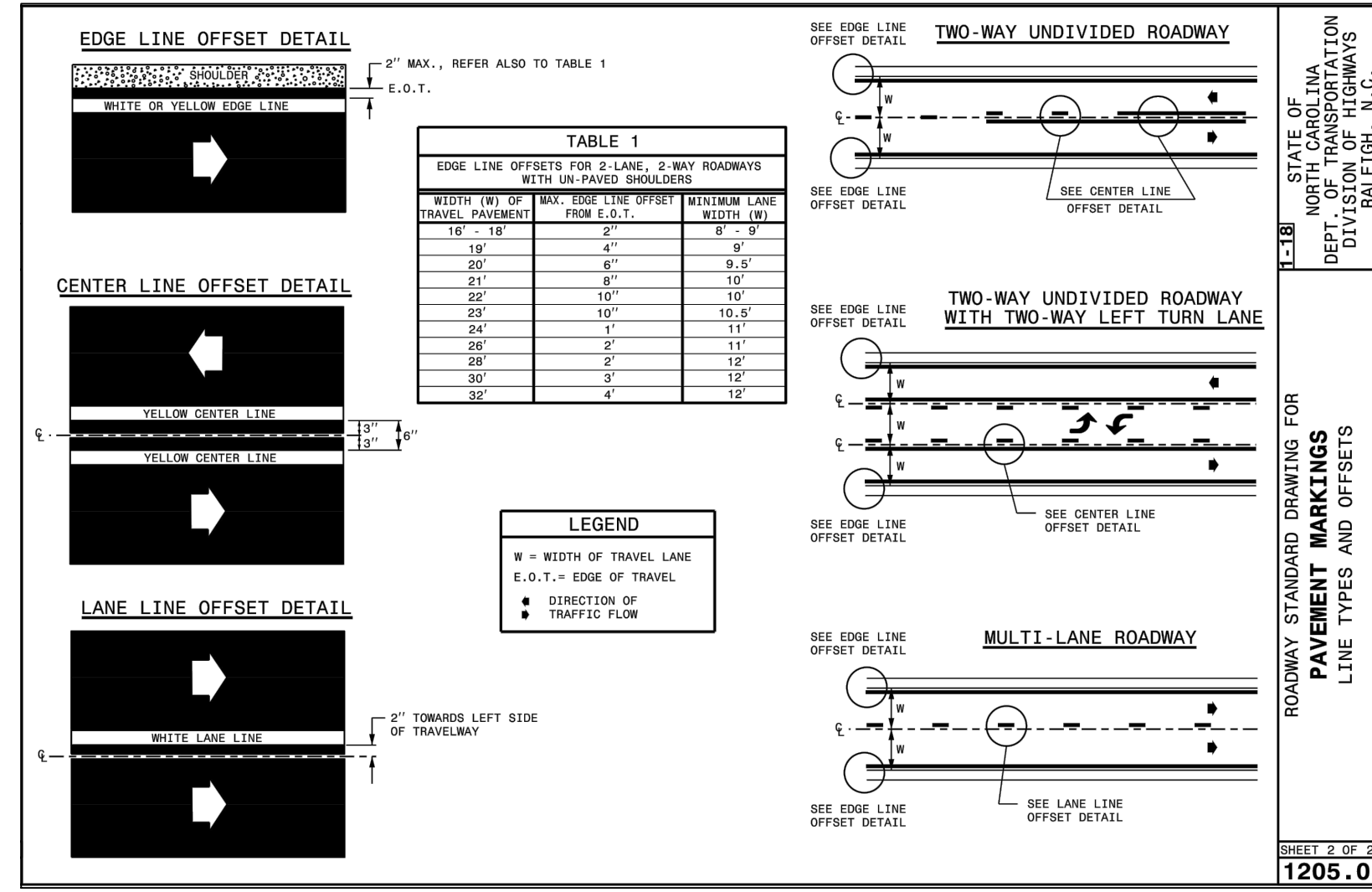
OLDE WATERFORD WAY EXTENSION

STORMDRAIN DETAILS -3

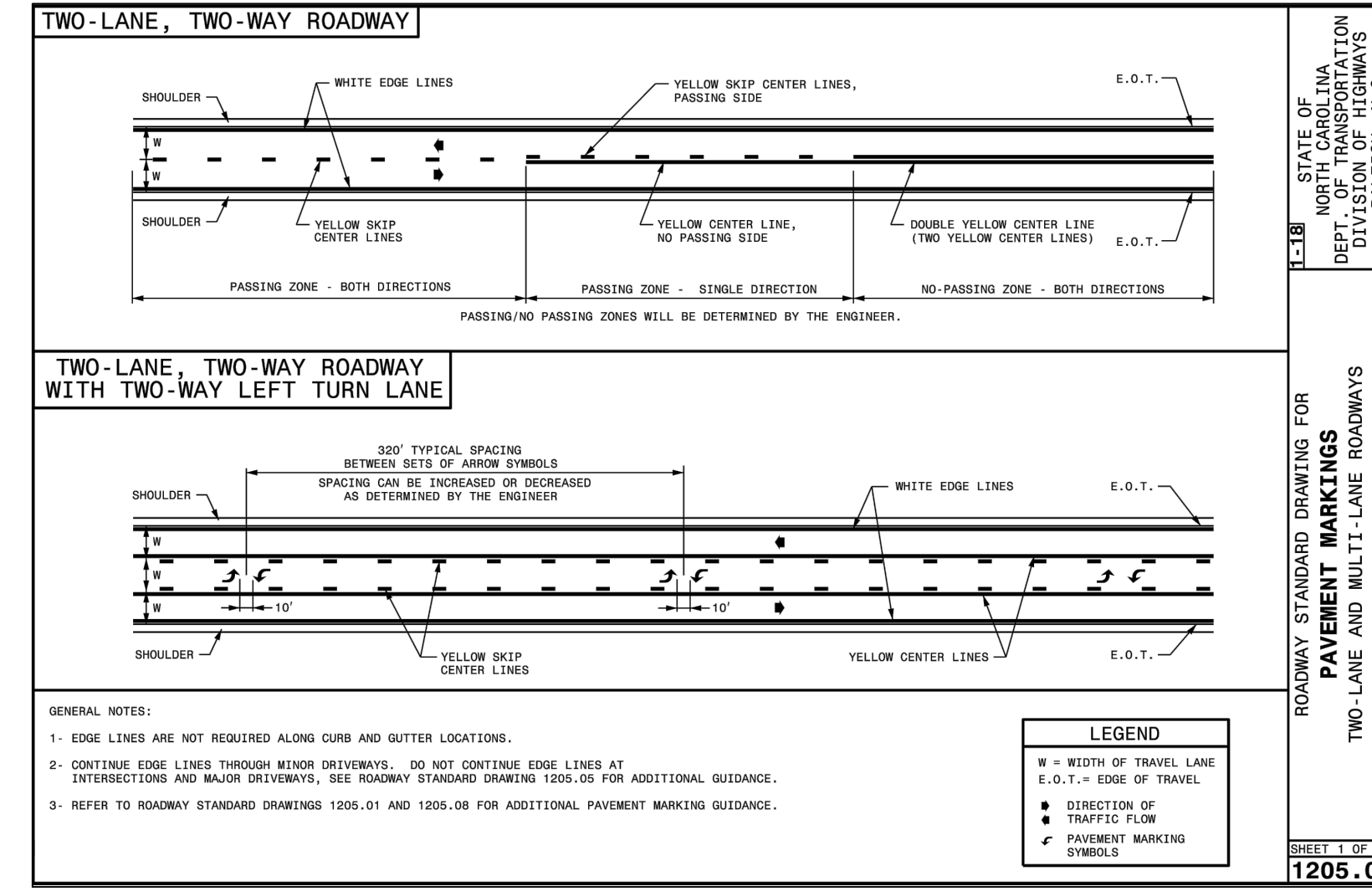
PROJECT NUMBER	SHEET NUMBER
541-09	C-505



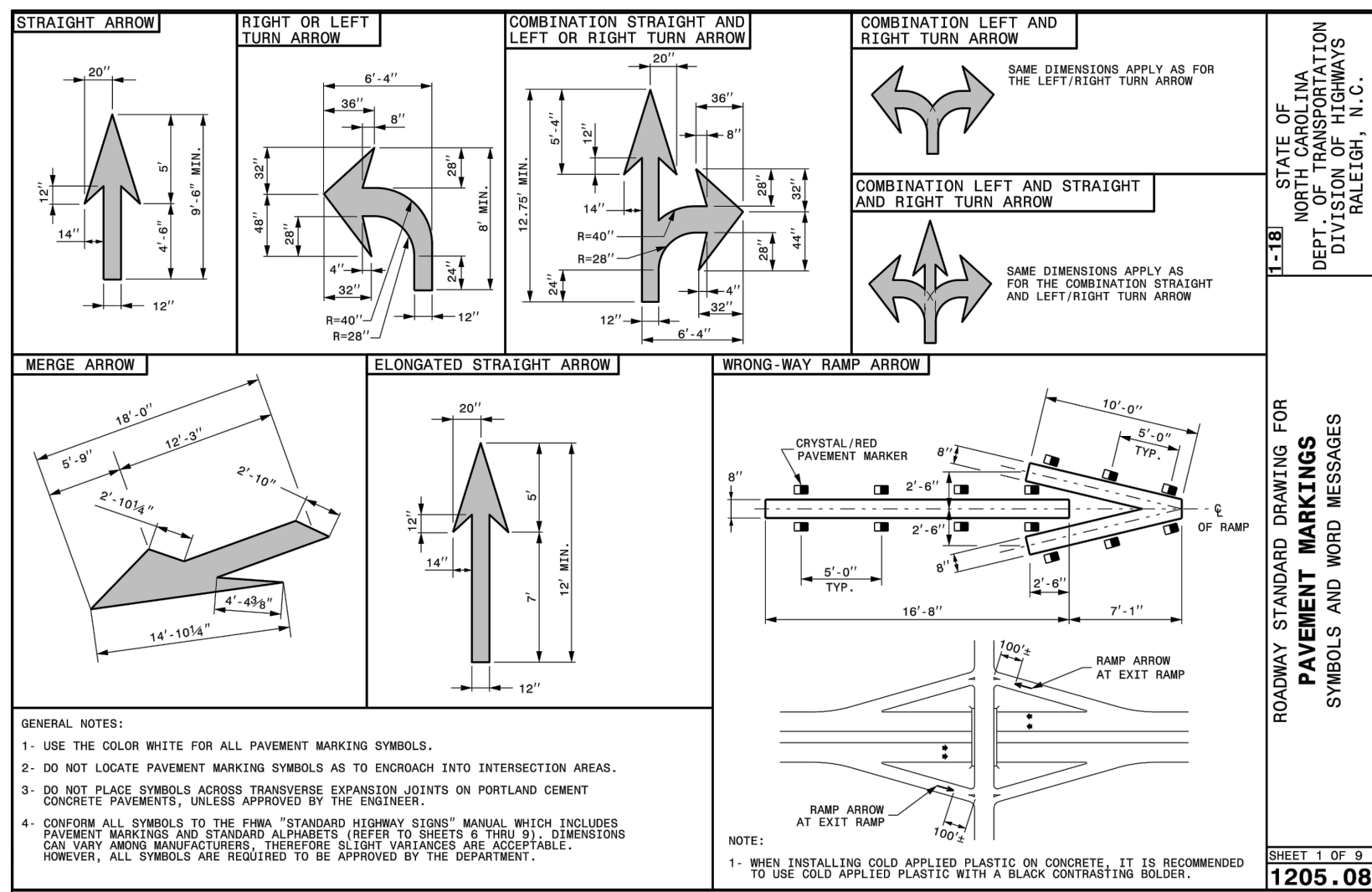
NCDOT STANDARD PAVEMENT MARKINGS - 1
NOT TO SCALE



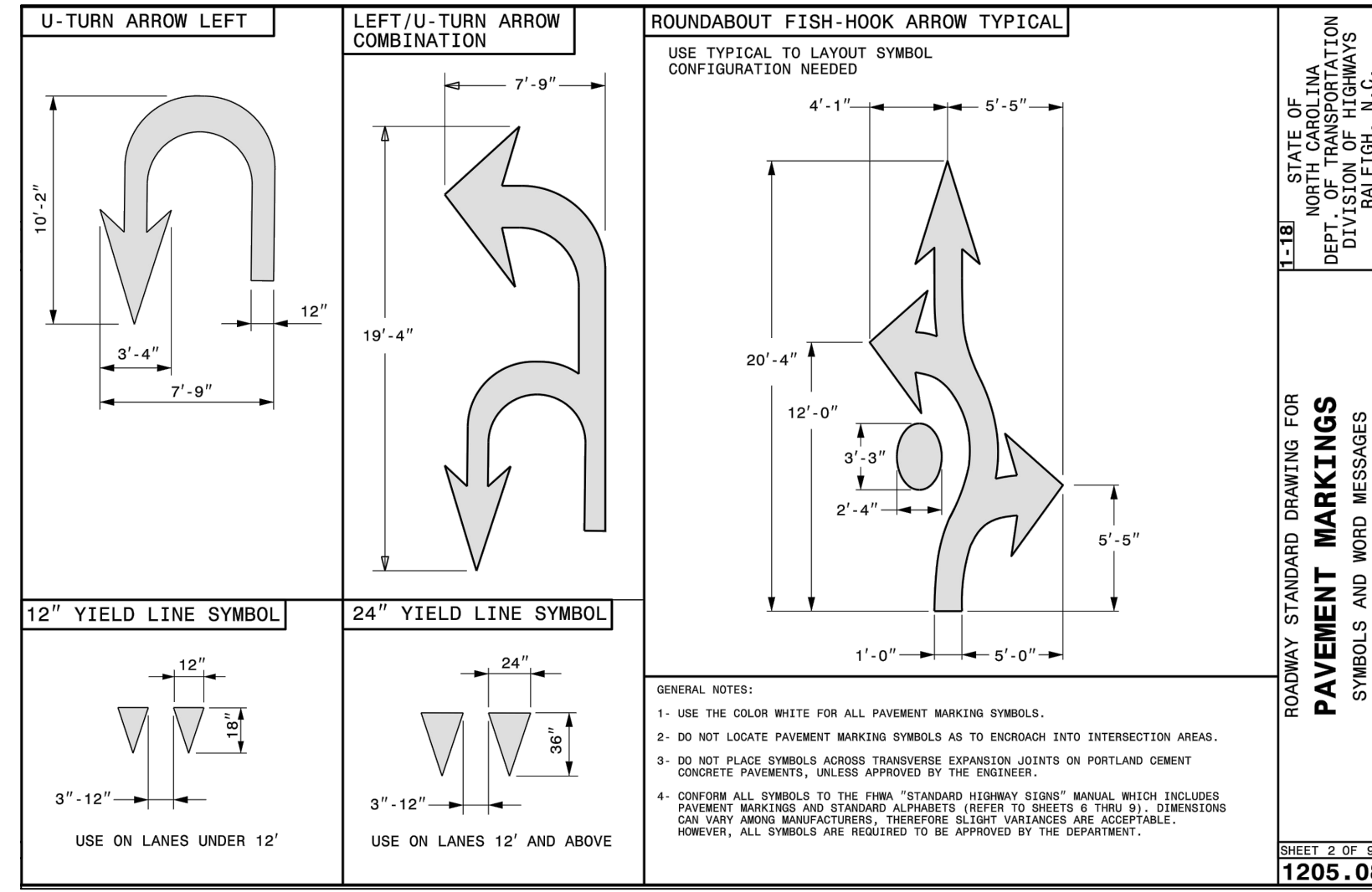
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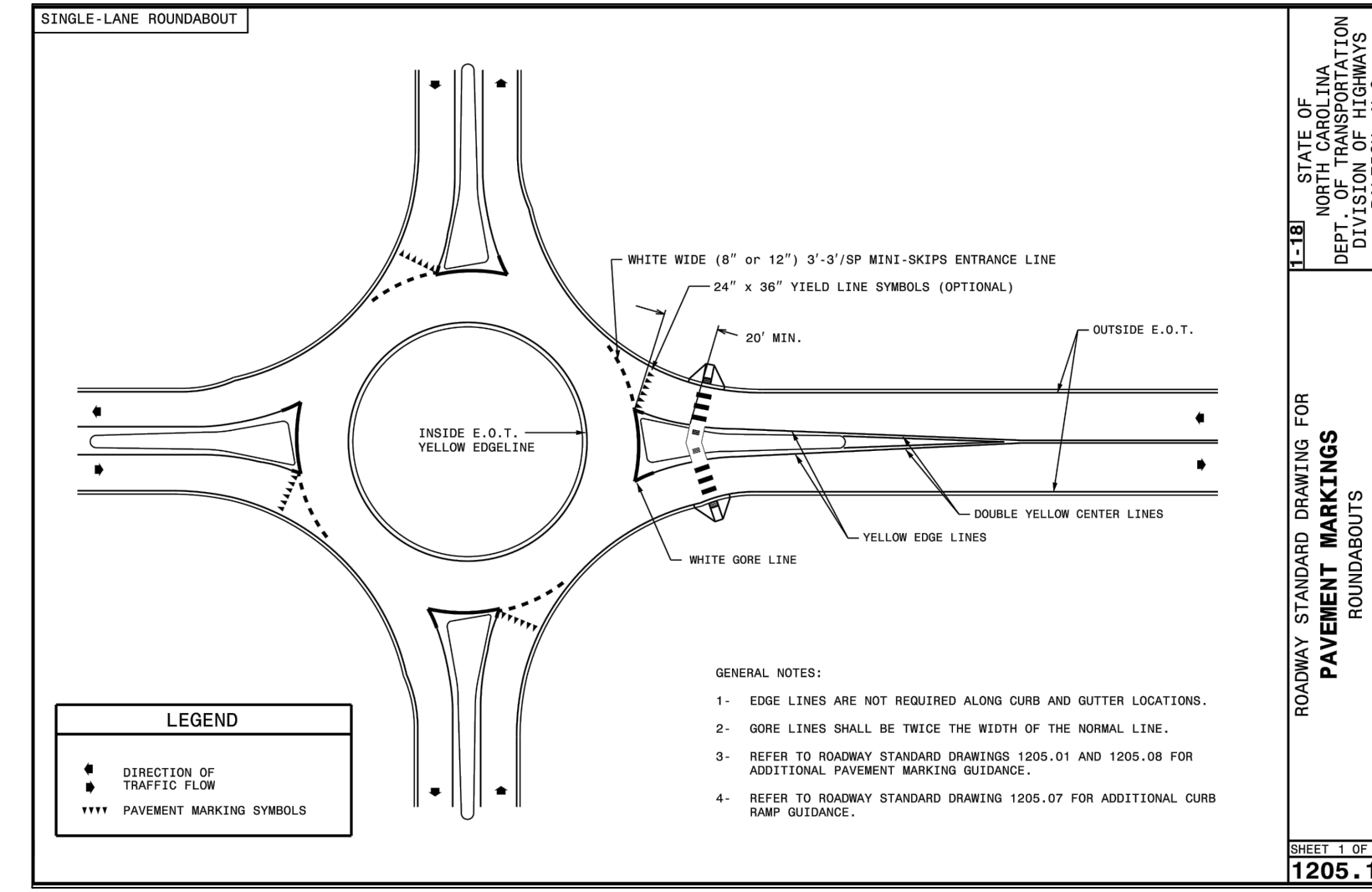
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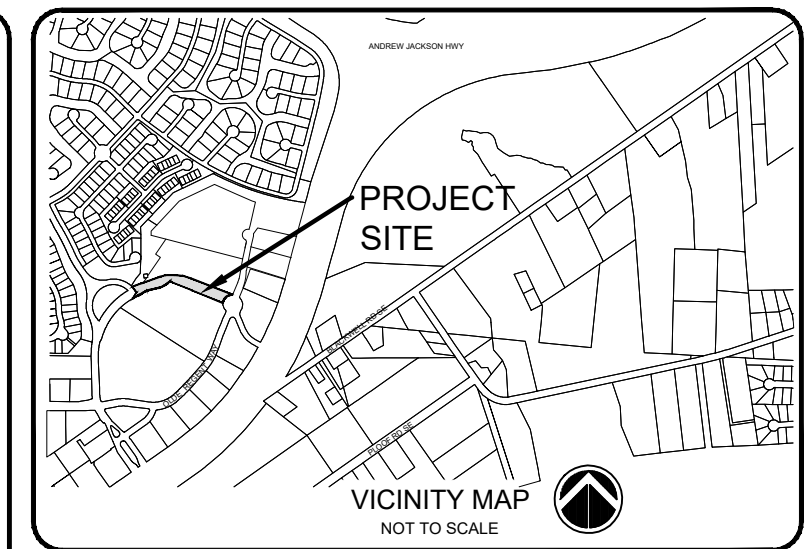
NCDOT STANDARD PAVEMENT MARKINGS - 4
NOT TO SCALE



NCDOT STANDARD PAVEMENT MARKINGS - 5
NOT TO SCALE



NCDOT STANDARD PAVEMENT MARKINGS - 6
NOT TO SCALE

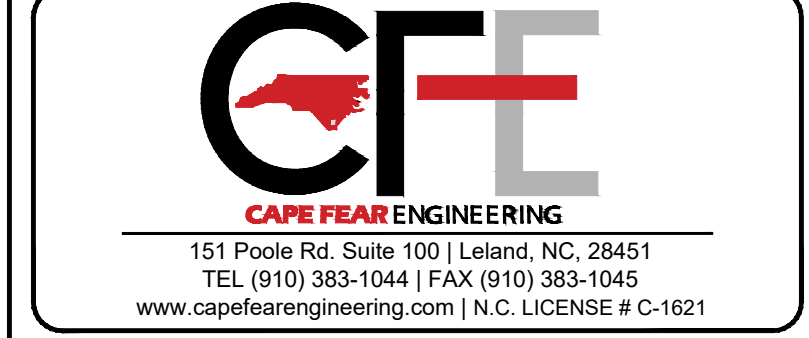
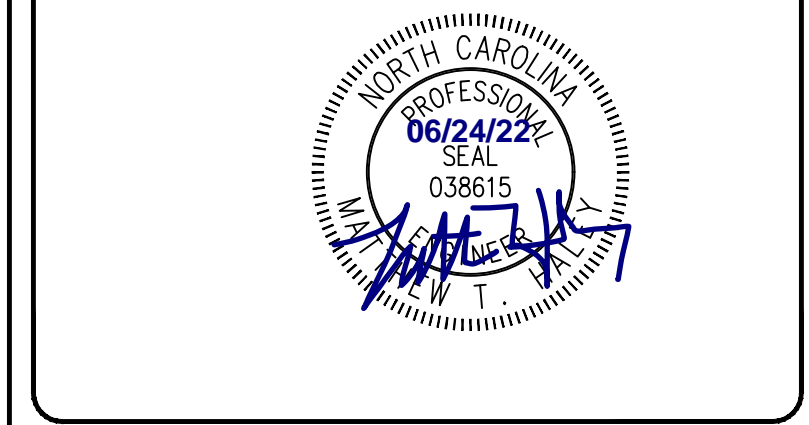


LEGEND:

SEE SHEET C-001 FOR LEGEND AND GENERAL NOTES.

ISSUED FOR CONSTRUCTION

0	ISSUED FOR CONSTRUCTION	MTH 06/27/22
REV. #	DESCRIPTION	REV. BY DATE
REVISIONS		



PROJECT NUMBER :	541-09
SCALE :	AS SHOWN
DATE :	

OLDE WATERFORD WAY EXTENSION

PAVEMENT MARKING DETAILS

PROJECT NUMBER : 541-09
SHEET NUMBER : C-506

PATH-P1041 TOWN OF LELAND\541-09 OLDE WATERFORD WAY\ENGINEERING\DWG\CONSTRUCTION\541-09 - OLDE WATERFORD WAY EXTENSION - MASTER.DWG