

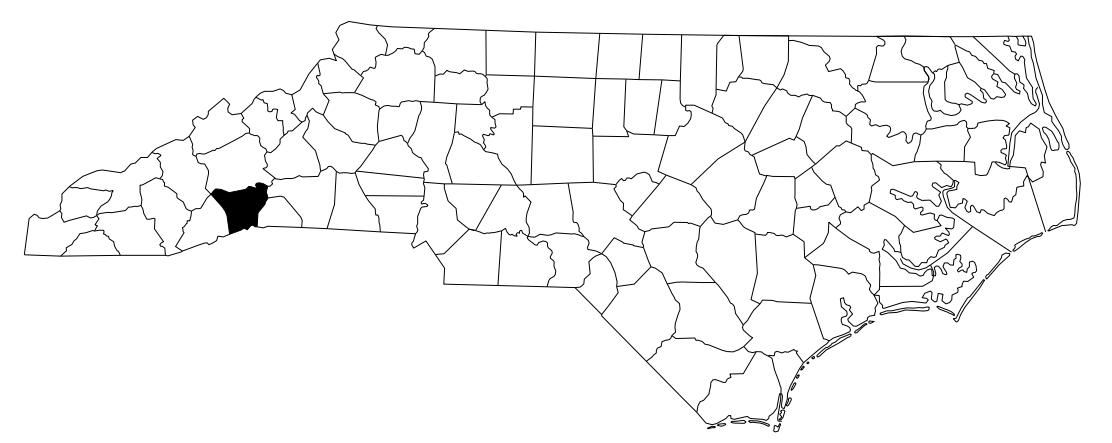
T.I.P. NO.	SHEET NO.
U-5783	UC-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

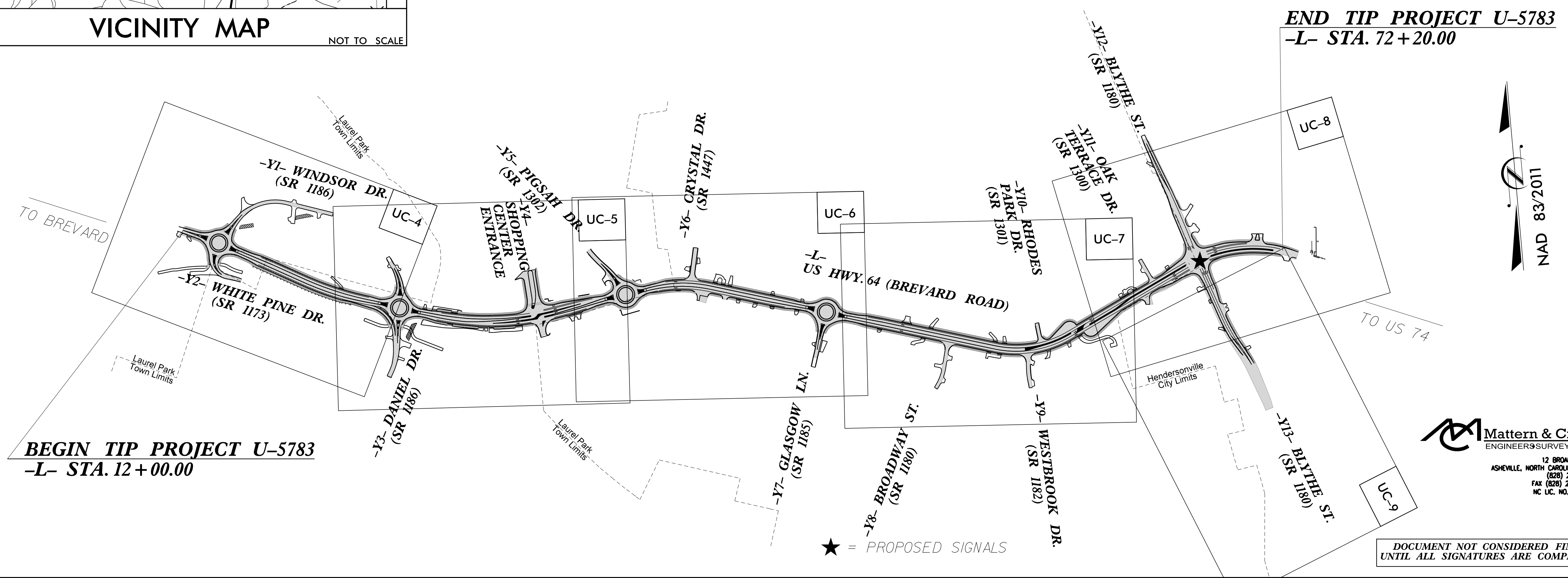
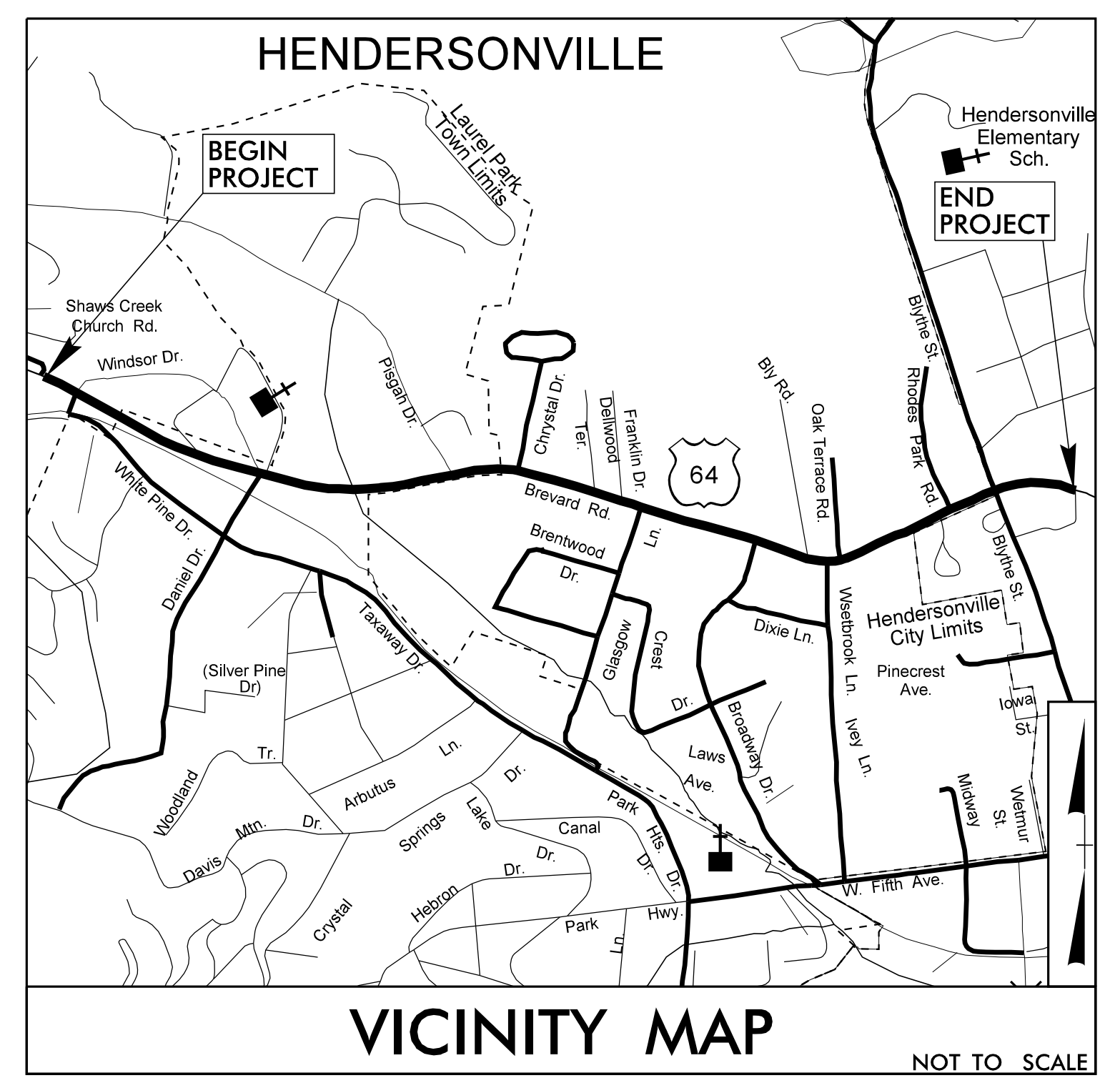
**UTILITY CONSTRUCTION PLANS
HENDERSON COUNTY**

LOCATION: US-64 (BREVARD ROAD) FROM SR 1173 (WHITE PINE DRIVE) TO SR 1180 (BLYTHE STREET)

TYPE OF WORK: RELOCATION OF WATER AND SEWER

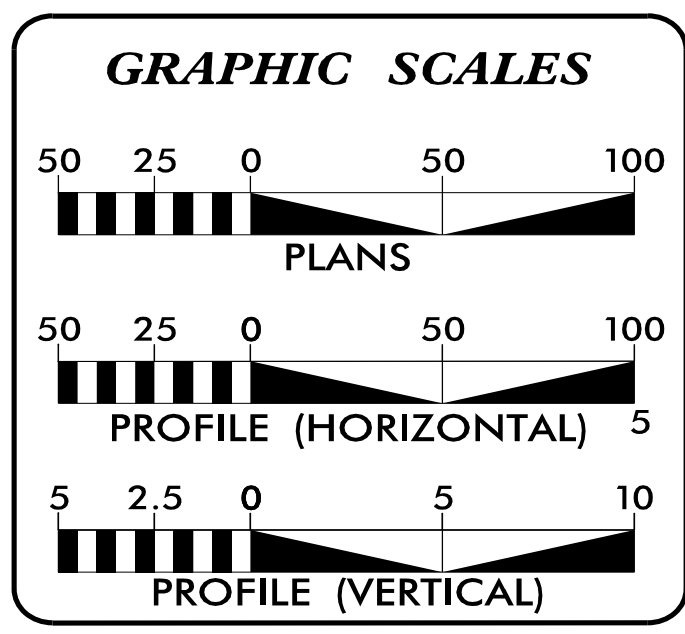


TIP PROJECT: U-5783



Mattern & Craig
ENGINEERS & SURVEYORS
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
PHONE (919) 707-6690
FAX (828) 254-4562
NC LIC. NO. C-1154

DOCUMENT NOT CONSIDERED FINAL
UNTIL ALL SIGNATURES ARE COMPLETED



INDEX OF SHEETS

SHEET NO.:	DESCRIPTION:
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3 THRU UC-3A	NOTES
UC-3B THRU UC-3F	DETAILS
UC-4 THRU UC-9	PLAN AND PROFILE SHEETS

WATER AND SEWER OWNERS ON PROJECT

(A) WATER - CITY OF HENDERSONVILLE
(B) SEWER - CITY OF HENDERSONVILLE

PREPARED IN THE OFFICE OF
JMT
JOHNSON, MIRMIRAN, & THOMPSON, INC.
1318-F Patton Ave.
Asheville, NC 28806

Jamie D. Noe, P.E. PROJECT ENGINEER
Reece Schuler, P.E. PROJECT UTILITY MANAGER
James Montgomery PROJECT UTILITY COORDINATOR

SEAL
NORTH CAROLINA
PROFESSIONAL ENGINEER
JAMIE D. NOE
047349
5/1/2024 | 3:16:58 PM EDT

DIVISION OF HIGHWAYS UTILITIES UNIT
1555 MAIL SERVICES CENTER
RALEIGH, NC 27699-1555
PHONE (919) 707-6690
FAX (919) 250-4151

Bob Golding DIVISION UTILITY ENGINEER
Robert Willcox, P.E. DIVISION UTILITY COORDINATOR
Donald E. Hampton WESTERN UTILITY ENGINEER

5/14/24

UTILITY CONSTRUCTION

HENDERSON COUNTY

PROJECT REFERENCE NO. U-5783	SHEET NO. UC-3
DESIGNED BY: MRD	
DRAWN BY: MRD	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY DOCUMENT NOT CONSIDERED FINAL UNTIL ALL SIGNATURES ARE COMPLETED	

GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2024 OR LATEST EDITION AND THE CONTRACT SPECIAL PROVISIONS.
2. THE EXISTING UTILITIES BELONG TO THE CITY OF HENDERSONVILLE. CONTACT: CHRIS CONARD, CONSTRUCTION & INSPECTION DIVISION MANAGER; 828-243-3238; CCONARD@HVLNC.GOV
3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. ALL SEWER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, WATER QUALITY SECTION PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.
4. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER, AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.
5. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPORTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

6. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.
7. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEMS WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.
8. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, OR ON HOLIDAYS IF NECESSARY.
9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT SITE. SEE 1500-7, "SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE NCDOT STANDARD SPECIFICATIONS.

PROJECT SPECIFIC NOTES

1. WATER CONSTRUCTION ON THIS SITE IS AUTHORIZED BY PERMITS ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ) AND AUTHORIZED BY THE REPRESENTATIVES OF NCDEQ, THE CITY OF HENDERSONVILLE, THE OWNER OR THE ENGINEER. THE PERMITS REQUIRE CERTIFICATION OF COMPLETION OF THE WATER SYSTEMS BY THE ENGINEER AND THE APPLICANT PRIOR TO ISSUANCE OF FINAL OPERATION APPROVAL.
2. MATERIALS AND INSTALLATION FOR WATER CONSTRUCTION SHALL CONFORM TO THE LATEST VERSIONS OF CITY SPECIFICATION AND DETAILS AND AWWA STANDARDS AND REQUIREMENTS.
3. CONTRACTOR SHALL NOTIFY NC811 & APPROPRIATE UTILITIES AGENCIES PRIOR TO PERFORMING ANY WORK.
4. REGULAR WORKING HOURS SHALL BE FROM 7:00 A.M. TO 5:00 P.M. MONDAY THROUGH FRIDAY, EXCEPT IN CASES OF EMERGENCY OR OTHERWISE APPROVED IN WRITING BY THE CITY OF AUTHORIZED REPRESENTATIVES. THE CONTRACTOR SHALL ENSURE THE CONSTRUCTION SITE IS SAFE FOR ANY PERSONS WHO MAY BE ON SITE DURING NON-WORKING HOURS.
5. ALL PERSONS SHALL BE COURTEOUS AND RESPECTFUL TO THE PUBLIC. CURSING OR FOUL LANGUAGE IS NOT PERMITTED AND WILL NOT BE TOLERATED.
6. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL ON ALL ROADWAYS DURING THE PROJECT. THE CONTRACTOR SHALL NOTIFY LOCAL EMERGENCY, SCHOOL AND OTHER NECESSARY AUTHORITIES PRIOR TO ANY STREET CLOSING OR TRAFFIC CHANGE.
7. THE CONTRACTOR AT HIS OWN EXPENSE SHALL KEEP THE CONSTRUCTION SITE AND ADJACENT PUBLIC AND PRIVATE ROADWAYS CLEAN DURING THE PROJECT. THE CONTRACTOR IS ALSO RESPONSIBLE FOR CONTROLLING DUST WITHIN THE PROJECT AREA.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION IN ACCORDANCE WITH THE LINES, GRADES AND ELEVATIONS SHOWN ON THE PLANS OR AS GIVEN BY THE ENGINEER IN THE FIELD.

9. CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND THE ELEVATION FOR ALL UTILITIES, DRAINAGE AND OTHER UNDERGROUND FACILITIES BOTH EXISTING AND PROPOSED, AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO CONSTRUCTION.
10. CONTRACTOR SHALL PROTECT EXISTING UTILITIES DURING CONSTRUCTION. REPAIRS SHALL BE MADE IN ACCORDANCE WITH APPLICABLE STANDARDS OF APPROPRIATE AGENCIES AT THE CONTRACTOR'S EXPENSE.
11. DURING CONSTRUCTION THE CONTRACTOR SHALL MAINTAIN THE OPERATION OF EXISTING UTILITIES WITH THE LEAST AMOUNT OF SERVICE INTERRUPTION POSSIBLE IN COORDINATION WITH THE CITY OF HENDERSONVILLE. CONTINUOUS SERVICE, PUBLIC HEALTH AND SAFETY CONSIDERATIONS SHALL EXCEED ALL OTHERS AND CONTRACTOR'S SCHEDULE, PLANS AND WORK SHALL AT ALL TIMES BE SUBJECT TO ALTERATION AND REVISION IF NECESSARY FOR THESE CONSIDERATIONS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TEMPORARY OR PERMANENT RELOCATION OF STRUCTURES AND UTILITIES, INCLUDING BUT NOT LIMITED TO POLES, SIGNS, FENCES, HYDRANTS, VALVES, PIPING, CONDUITS AND DRAINS THAT INTERFERE WITH THE POSITIONING OF THE WORK AS SHOWN ON THE DRAWINGS.
13. CONTRACTOR SHALL BE REQUIRED TO CONFORM AND COMPLY WITH ALL RESTRICTIONS AND EASEMENT CONDITIONS AND IS RESPONSIBLE FOR ALL RELATED INCIDENTAL COSTS INVOLVED.
14. EXISTING WATER SERVICES SHALL BE REPLACED TO THE EXISTING METER UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY. SPLICING OF THE WATER SERVICE ON THE DOWNSTREAM SIDE OF THE METER IS NOT PERMITTED.

UTILITY CONSTRUCTION

5/14/24



UTILITY CONSTRUCTION

HENDERSON COUNTY

PROJECT REFERENCE NO. U-5783	SHEET NO. UC-3A
DESIGNED BY: MRD	
DRAWN BY: MRD	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

DOCUMENT NOT CONSIDERED FINAL UNTIL ALL SIGNATURES ARE COMPLETED
UTILITY CONSTRUCTION

PROJECT SPECIFIC NOTES:

15. ALL DISTURBED AREAS, INCLUDING BUT NOT LIMITED TO ASPHALT, CONCRETE, DRIVEWAYS, ROADS, LANDSCAPING, SHALL BE REPAIRED TO EQUAL OR BETTER CONDITION THAN THE ORIGINAL SITE. GRASS AND LANDSCAPED AREAS FILL MATERIAL MUST BE REPLACED IN TRENCH TO GRADE AS SOON AS WATERLINE CONSTRUCTION ALLOWS. ADEQUATE SEEDING AND STRAW OR MULCH SHALL THEN BE APPLIED TO THE DISTURBED TRENCH AREA. ADDITIONAL FILL AND SITE RESTORATION MAY BE REQUIRED WITHIN THE WARRANTY PERIOD AT THE CITY'S DISCRETION.

16. CONTRACTOR SHALL PROVIDE EROSION CONTROL DEVICES TO CONTROL RUNOFF AS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR ANY FINES THAT MAY BE LEVIED DUE TO RUNOFF FROM CONSTRUCTION.

17. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW ALL APPLICABLE FEDERAL, STATE AND LOCAL HEALTH AND SAFETY REGULATIONS PERTAINING TO CONSTRUCTION OPERATIONS.

18. ALL WATER MAINS SHALL HAVE 3 FEET MINIMUM COVER.

19. INSTALL FERROUS PIPING FOR BOTH WATER AND SEWER WITHIN 10 FT. OF A CROSSING IF:

19.1. SEWER LINE CROSSES OVER WATER, OR

19.2. VERTICAL CLEARANCE BETWEEN WATER AND SEWER IS LESS THAN 18 INCHES.

19.3. MAINTAIN 10 FEET HORIZONTAL SEPARATION BETWEEN SEWER AND WATER MAINS UNLESS LAID IN SEPARATE TRENCHES WITH THE BOTTOM OF THE WATER LINE AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER LINE OR USE FERROUS MATERIAL FOR BOTH WATER AND SEWER.

DISCLAIMER:

THE STANDARD WATER DETAILS ARE FOR THE SOLE USE OF PROJECTS DIRECTLY FOR, OR THOSE PROJECTS IN WHICH OWNERSHIP WILL BE TRANSFERRED TO THE CITY OF HENDERSONVILLE. THESE TYPICALS ARE INTENDED TO SHOW THE CITY OF HENDERSONVILLE'S EXPECTATIONS FOR THE GENERAL LAYOUT, ARRANGEMENT, AND THE QUALITY OF EQUIPMENT AND MATERIALS FOR WATER DISTRIBUTION SYSTEM ITEMS AND THEIR RELATED APPURTENANCES. IT REMAINS THE SOLE RESPONSIBILITY OF THE ENGINEER IN RESPONSIBLE CHARGE (ERC) OF EACH APPLICATION TO DETERMINE, DESIGN TO, AND CERTIFY TO THE DESIGN PARAMETERS FOR EACH INSTALLATION. THE ERC MUST ALSO ENSURE THE DESIGN COMPLIES WITH THE MINIMUM DESIGN CRITERIA OF NC DIVISION OF ENVIRONMENTAL QUALITY AND ALL LOCAL AND STATE LAWS AND REGULATIONS.

20. MAINTAIN 18 INCHES VERTICAL SEPARATION BETWEEN STORM DRAIN AND WATER, OR INSTALL FERROUS MATERIAL WATER LINE WITHIN 10 FEET EACH SIDE OF CROSSING.

21. TAPS GREATER THAN ONE-INCH IN DIAMETER IN EXISTING, ACTIVE WATER MAIN ARE TO BE PERFORMED BY THE CITY UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY. TAPS IN NEW CONSTRUCTION ARE TO BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH CITY REQUIREMENTS.

22. ALL WATER METERS WILL BE SET BY CITY STAFF UNLESS THE CONTRACTOR IS GRANTED WRITTEN PERMISSION BY THE CITY.

22.1. THE CONTRACTOR WILL PROVIDE THE CITY NOTICE OF 10 WORKING DAYS MINIMUM PRIOR TO THE DATE OF METER INSTALLATION.

22.2. THE CONTRACTOR WILL PROVIDE A LICENSED PLUMBER DURING THE METER INSTALLATION TO VERIFY LINES SERVICES IN ALL MULTI-METER BOXES.

23. ALL PUBLIC WATER MAIN CONSTRUCTION SHALL BE PERFORMED BY A NORTH CAROLINA LICENSED UTILITY CONTRACTOR.

24. ALL WATER APPURTENANCES ARE TO BE MADE USING LEAD FREE MATERIALS. PIPE, FITTINGS, VALVES, HYDRANTS, PIPE CLAMPS, RESTRAINTS, FLANGES, CASTINGS, REBAR, HATCHES, INLETS, METER BOXES AND ALL OTHER CAST IRON COMPONENTS SHALL BE MANUFACTURED IN THE USA.

25. RESTRAINED JOINTS BY AN APPROVED PIPE MANUFACTURER ARE TO BE USED FOR ALL PUBLIC WATER LINES WHERE THRUST RESTRAINING IS REQUIRED IN ACCORDANCE WITH THE PLANS AND MANUFACTURER'S SPECIFICATION. CONCRETE THRUST BLOCKS ARE PERMITTED ONLY WHERE CONNECTIONS ARE MADE TO EXISTING WATER LINES OR WHERE THE USE OF MECHANICAL RESTRAINT IS NOT FEASIBLE.

26. ALL FIRE HYDRANTS, VAULTS, BACKFLOW PREVENTERS, HOT BOXES AND WATER METERS ARE TO BE INSTALLED ON RELATIVELY FLAT AREAS OUTSIDE OF PAVEMENT.

27. TAMPERING WITH OR ILLEGAL USE OF THE PUBLIC WATER SUPPLY WILL RESULT IN SUSPENSION OF WATER SERVICE, INCLUDING DOMESTIC AND COMMERCIAL, UNTIL FINAL APPROVAL BY THE CITY IS ISSUED. A PERSON FOUND TO BE USING WATER ILLEGALLY SHALL BE SUBJECT TO PENALTIES OR FINES, AS PRESCRIBED AND APPROVED BY CITY COUNCIL.

28. THE INTERNAL SURFACE OF UTILITY MANHOLE #3 SHALL BE COATED WITH AN EPOXY SYSTEM TO PREVENT SEWER GAS CORROSION TO THE INSIDE OF THE MANHOLE. REFER TO SPECIAL PROVISIONS FOR MORE INFORMATION.

29. CONTRACTOR TO CONFIRM RECONNECTION OF ALL ACTIVE SERVICES. CONTRACTOR MAY BE REQUIRED TO SMOKE AND/OR DYE TEST TO VERIFY SERVICE LOCATIONS. CONTRACTOR TO COORDINATE WITH THE UTILITY OWNER FOR ANY RECONNECTIONS IN QUESTION.

30. NO ADDITIONAL PAYMENT FOR TEMPORARY SHORING, INCLUDING POSITIVE PROTECTION SHORING FOR THE MAINTENANCE OF TRAFFIC OR THE PROTECTION OF BUILDING OR OTHER STRUCTURES, REQUIRED FOR THE BORE PITS AS THE SHORING SHALL BE INCIDENTAL TO THE WORK REQUIRED UNDER SECTION 1550, TRENCHLESS INSTALLATION OF UTILITIES.

TESTING & INSPECTION:

1. NOTIFY THE CITY OF HENDERSONVILLE AND ENGINEER AT LEAST 5 WORKING DAYS BEFORE STARTING CONSTRUCTION OF WATER FACILITIES TO SCHEDULE A PRE-CONSTRUCTION CONFERENCE. THE ENGINEER SHALL PERIODICALLY INSPECT THE PROGRESS OF INSTALLATION AT A MINIMUM AND SHALL COMPLETE A FINAL WATER CERTIFICATION.

2. ALL CHANGES TO THE APPROVED CONSTRUCTION PLANS AND SUBMITTALS MUST BE APPROVED IN WRITING BY THE CITY & NCDOT PRIOR TO IMPLEMENTATION IN THE FIELD.

3. THE CONTRACTOR SHALL FURNISH SECURE AND PROVIDE ALL NECESSARY TESTING MATERIALS, EQUIPMENT, LABOR. THE CONTRACTOR SHALL COORDINATE TESTING, FLUSHING, DISINFECTION, AND BACTERIOLOGICAL SAMPLING WITH CITY INSPECTOR.

4. THE ENGINEER OF CONTRACTOR SHALL NOTIFY THE CITY CONSTRUCTION INSPECTORS 72 HOURS (MINIMUM) PRIOR TO ANY WATER MAIN OR TESTING OPERATIONS. AT A MINIMUM CITY STAFF SHALL BE NOTIFIED PRIOR TO TAPS, TESTING, FLUSHING, DISINFECTION'S, AND SAMPLING.

5. PRESSURE TEST WATER MAINS TO 200 PSI MIN. FOR A MINIMUM OF TWO HOURS IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND AWWA C600.

6. DISINFECT WATER LINES AND PROVIDE ACCEPTABLE BACTERIOLOGICAL TEST FROM A CERTIFIED TESTING LABORATORY IN ACCORDANCE WITH CITY REQUIREMENTS AND AWWA C651. THE CONTRACTOR MAY ELECT TO USE THE CITY'S CERTIFIED TESTING LABORATORY.

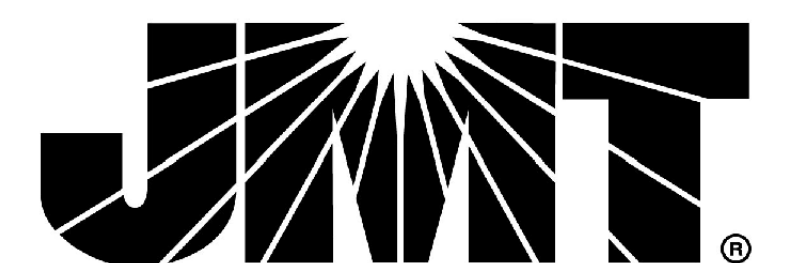
7. PRIVATELY OWNED FIRE SYSTEMS SHALL BE APPROVED BY THE APPROPRIATE LOCAL PERMITTING AUTHORITY. THE CITY ENGINEERING OR WATER SEWER DEPARTMENTS ARE NOT RESPONSIBLE FOR ENSURING COMPLIANCE WITH APPROPRIATE FIRE PROTECTION REGULATIONS. THE CITY DOES NOT PROVIDE ANY GUARANTEE OF ITS WATER SYSTEM'S CAPABILITY TO DELIVER WATER FLOW AND RESIDUAL PRESSURE THE FIRE PERMITTING AUTHORITY MAY REQUIRE.

8. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE USC APPROVED AND REVIEWED BY THE CITY'S ENVIRONMENTAL COMPLIANCE COORDINATOR. PROTECTION OF THE PUBLIC WATER DISTRIBUTION SYSTEM SHALL BE ASSURED BY INSPECTION OF THE INSTALLATION AND TESTING OF BACKFLOW PREVENTION ASSEMBLY. THIS ASSEMBLY INSTALLATION MUST BE TESTED BY A LICENSED PLUMBER AND TEST RESULTS SUBMITTED TO THE CITY BEFORE USE OF CONSTRUCTION WATER.

9. CONSTRUCTION WATER SOURCING MUST BE APPROVED IN WRITING BY THE CITY. CONSTRUCTION WATER CONNECTIONS SHALL BE PAIRED WITH AN IRRIGATION METER AND APPROVED BACKFLOW PREVENTION ASSEMBLY. THIS ASSEMBLY INSTALLATION MUST BE TESTED BY A LICENSED PLUMBER AND TEST RESULTS SUBMITTED TO THE CITY BEFORE USE OF CONSTRUCTION WATER.

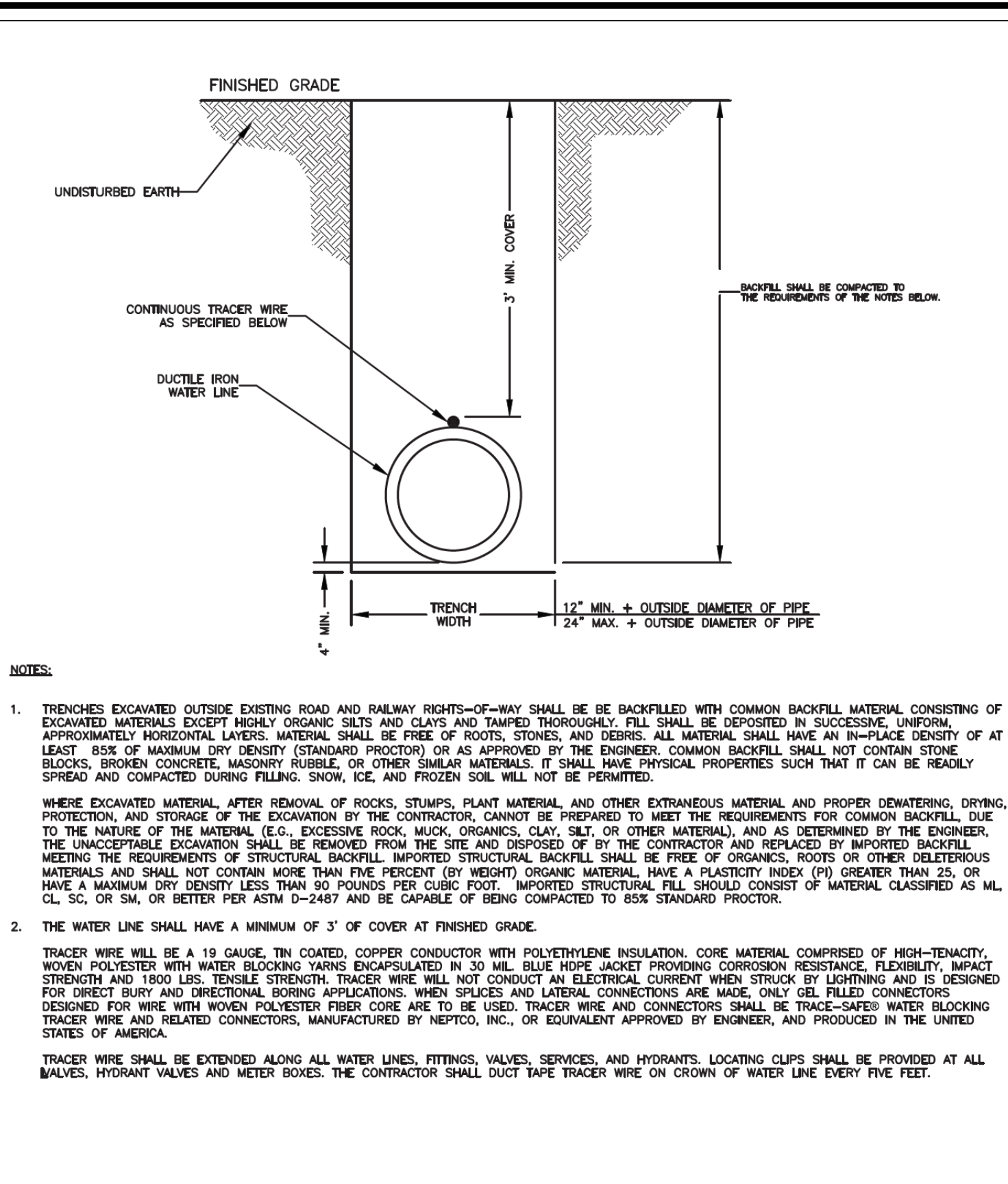
10. SECURE FINAL WRITTEN ACCEPTANCE FROM THE CITY OF HENDERSONVILLE PRIOR TO ACTIVATION OF THE SYSTEM. WATER SERVICE WILL NOT BE PROVIDED UNTIL WRITTEN ACCEPTANCE OF THE SYSTEM IS ISSUED BY THE CITY.

11. THE ENGINEER SHALL SUPPLY THE CITY WITH FINAL AS-BUILT DRAWINGS AND COMPLETE ALL PROJECT CLOSE OUT REQUIREMENTS.



5/14/19

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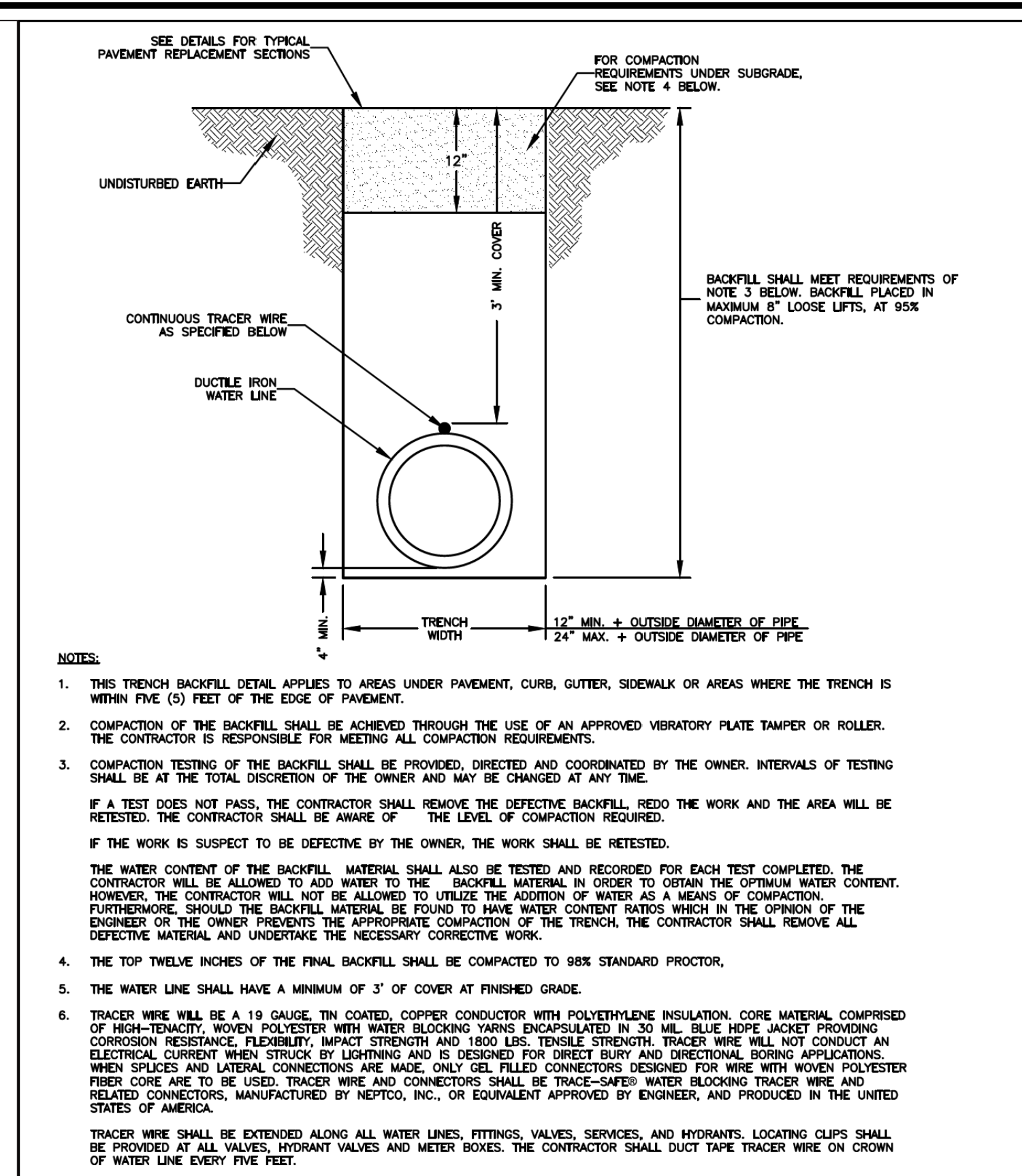


DATE: 01/12/2019 WD DWG. NO. 2

SCALE: NOT TO SCALE

City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org

WATER TRENCH CONSTRUCTION
OUTSIDE PAVEMENT

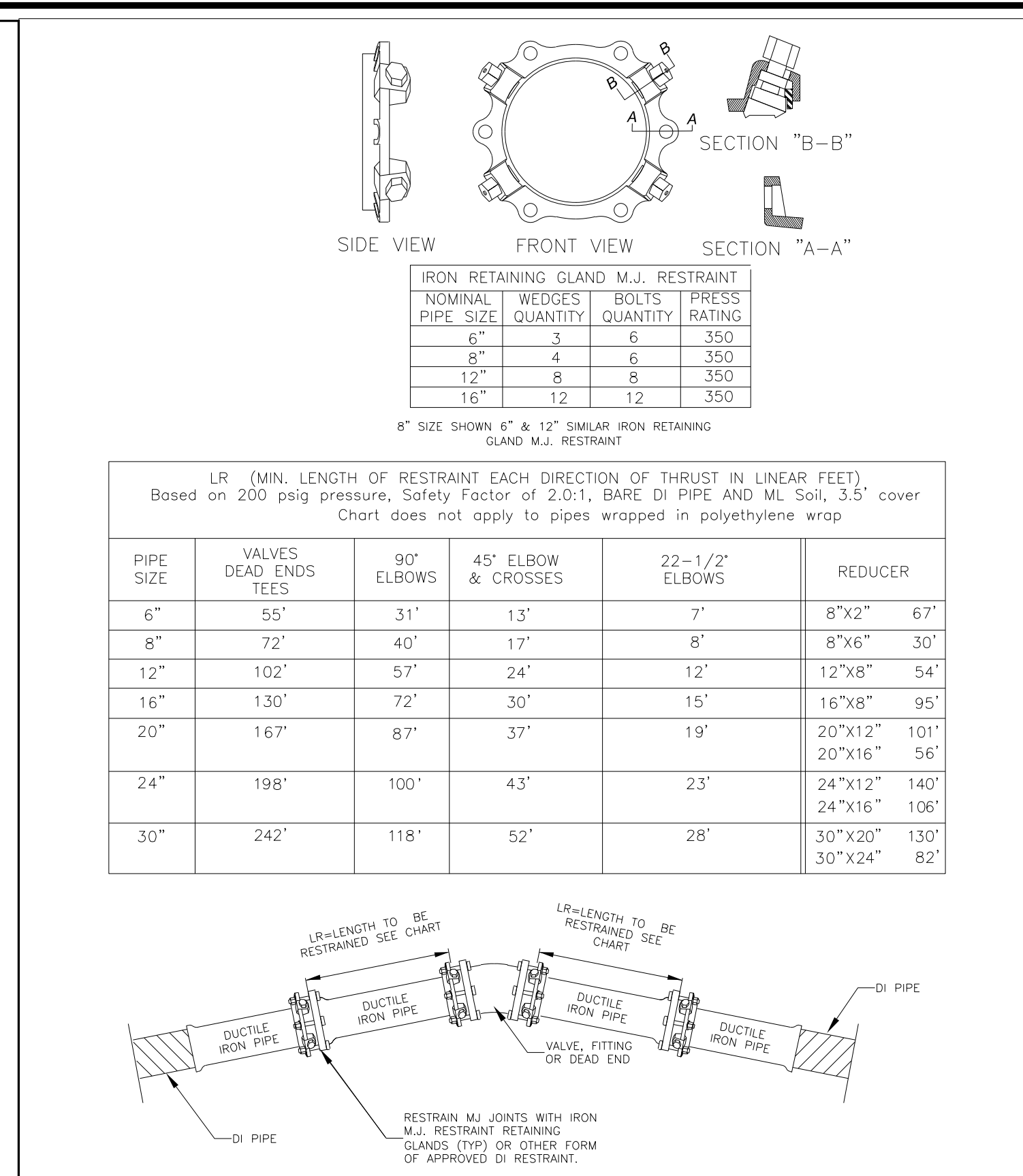


DATE: 06/10/2019 WD DWG. NO. 3

SCALE: NOT TO SCALE

City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org

WATER TRENCH CONSTRUCTION
UNDER PAVEMENT



DATE: 07/07/2019 WD DWG. NO. 4-1

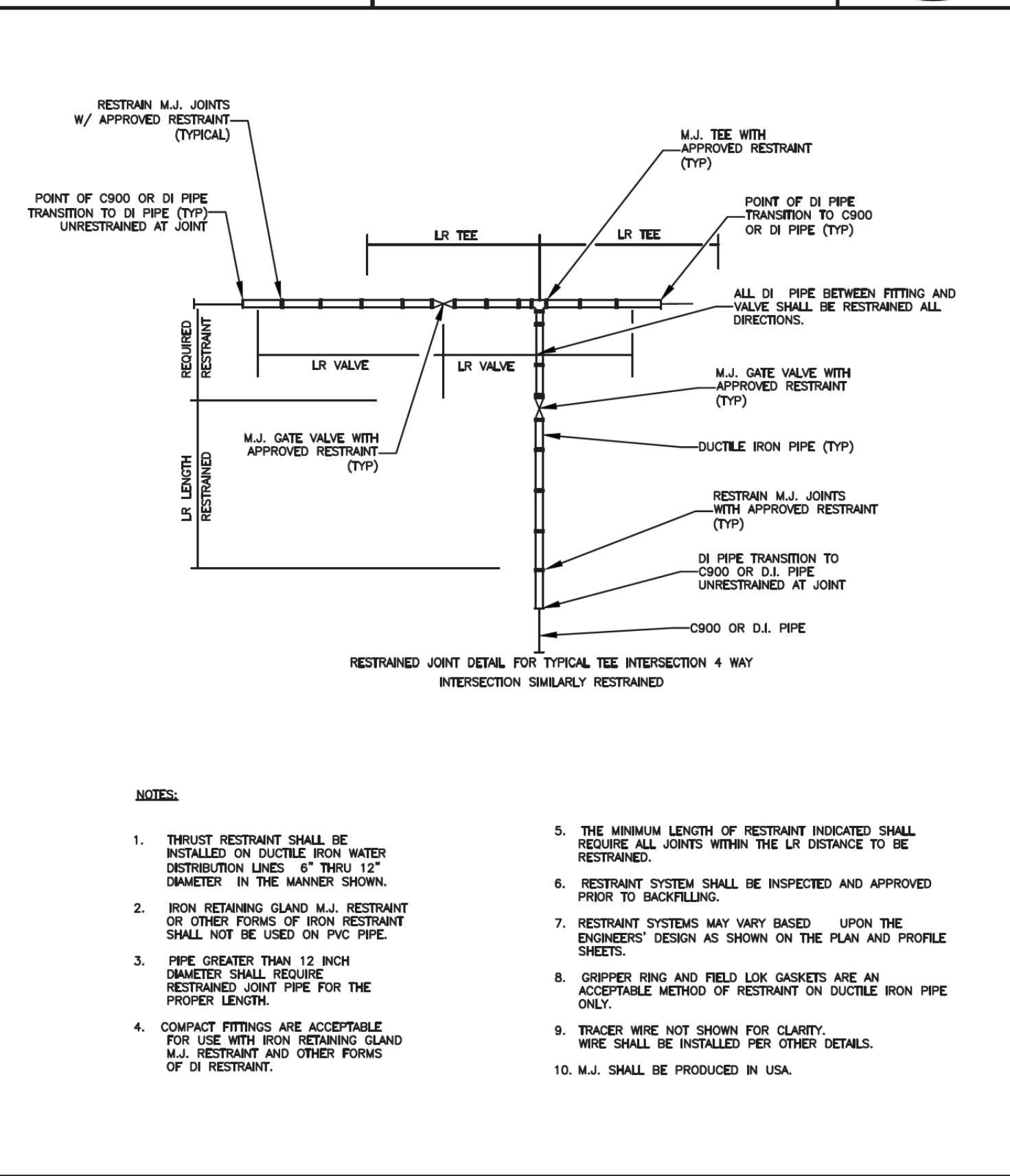
SCALE: NOT TO SCALE

City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
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DUCTILE IRON PIPE
RESTRAINT DETAIL

SHEET 1 OF 2

MODIFIED 01/09/24



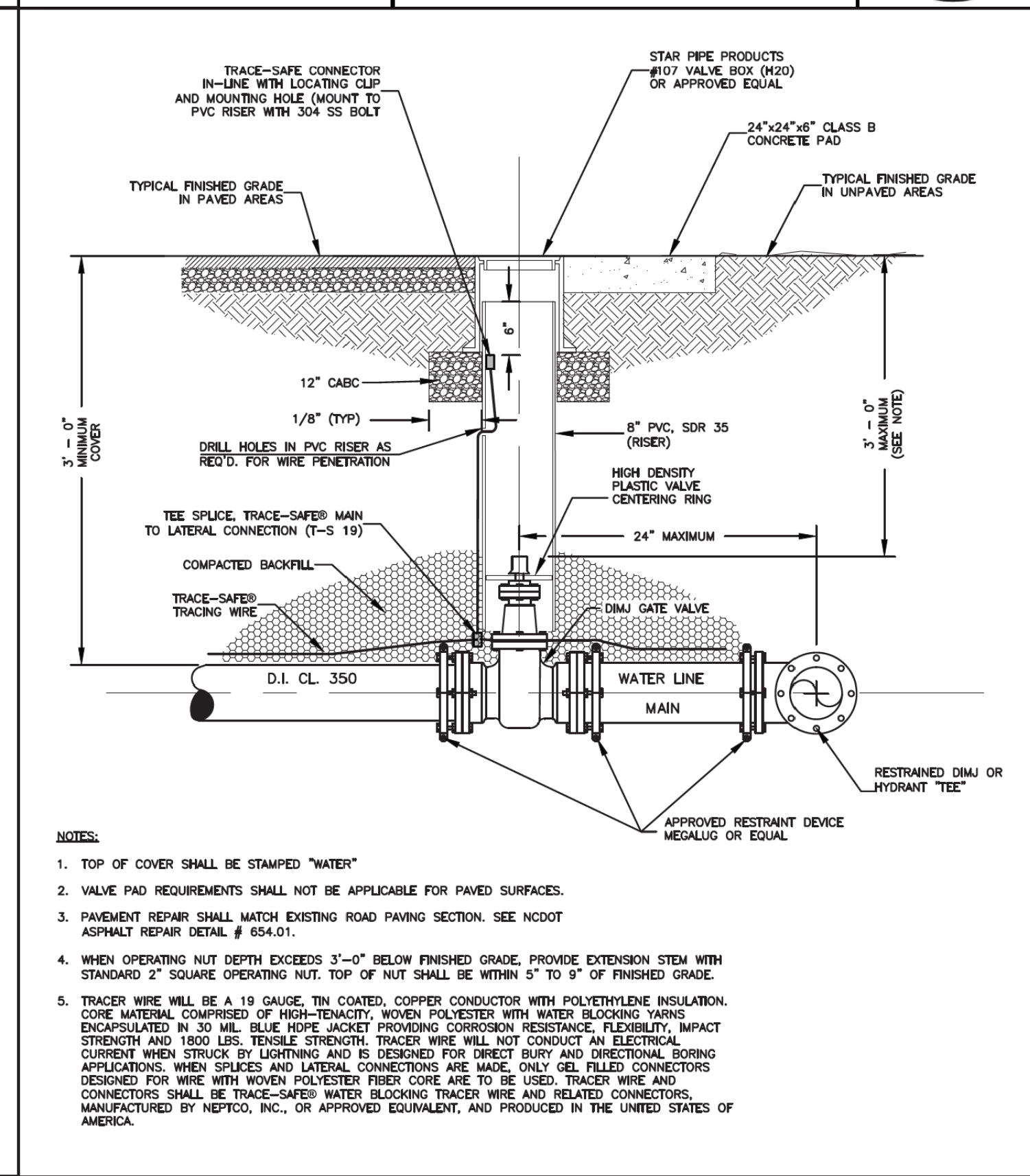
DATE: 01/12/2019 WD DWG. NO. 4-2

SCALE: NOT TO SCALE

City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org

DUCTILE IRON PIPE
RESTRAINT DETAIL

SHEET 2 OF 2

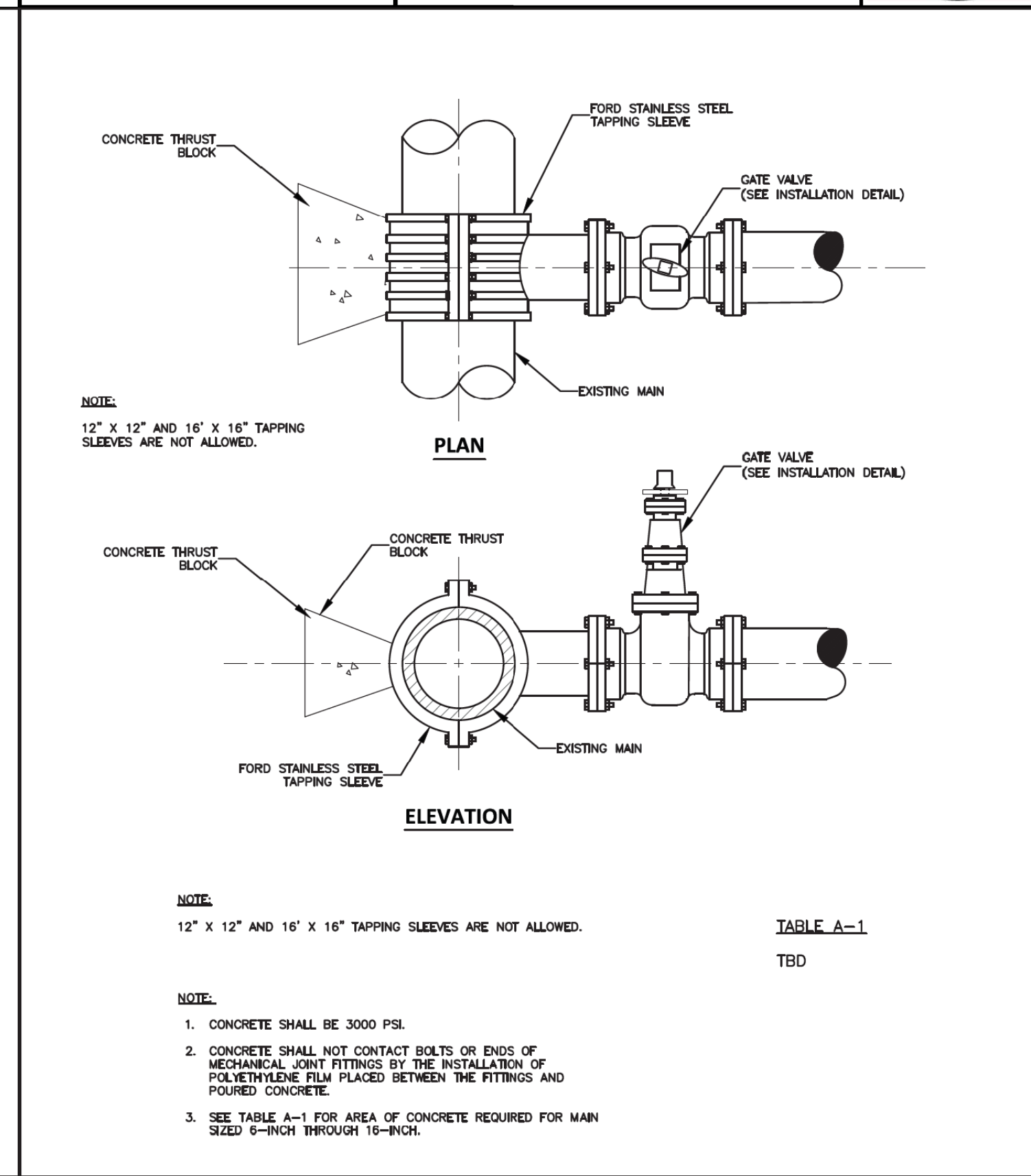


DATE: 01/12/2019 WD DWG. NO. 5

SCALE: NOT TO SCALE

City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org

VALVE INSTALLATION DETAIL



DATE: 01/12/2019 WD DWG. NO. 6

SCALE: NOT TO SCALE

City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org

STANDARD TAPPING SLEEVE
AND VALVE ASSEMBLY

HENDERSON COUNTY

PROJECT REFERENCE NO. U-5783 SHEET NO. UC-3B

DESIGNED BY: MRD
DRAWN BY: MRD
CHECKED BY: JDN
APPROVED BY: JDN

REVISER:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

UTILITIES ENGINEERING SECTION
PHONE: (919) 707-6690
FAX: (919) 250-4151

UTILITY CONSTRUCTION PLANS ONLY

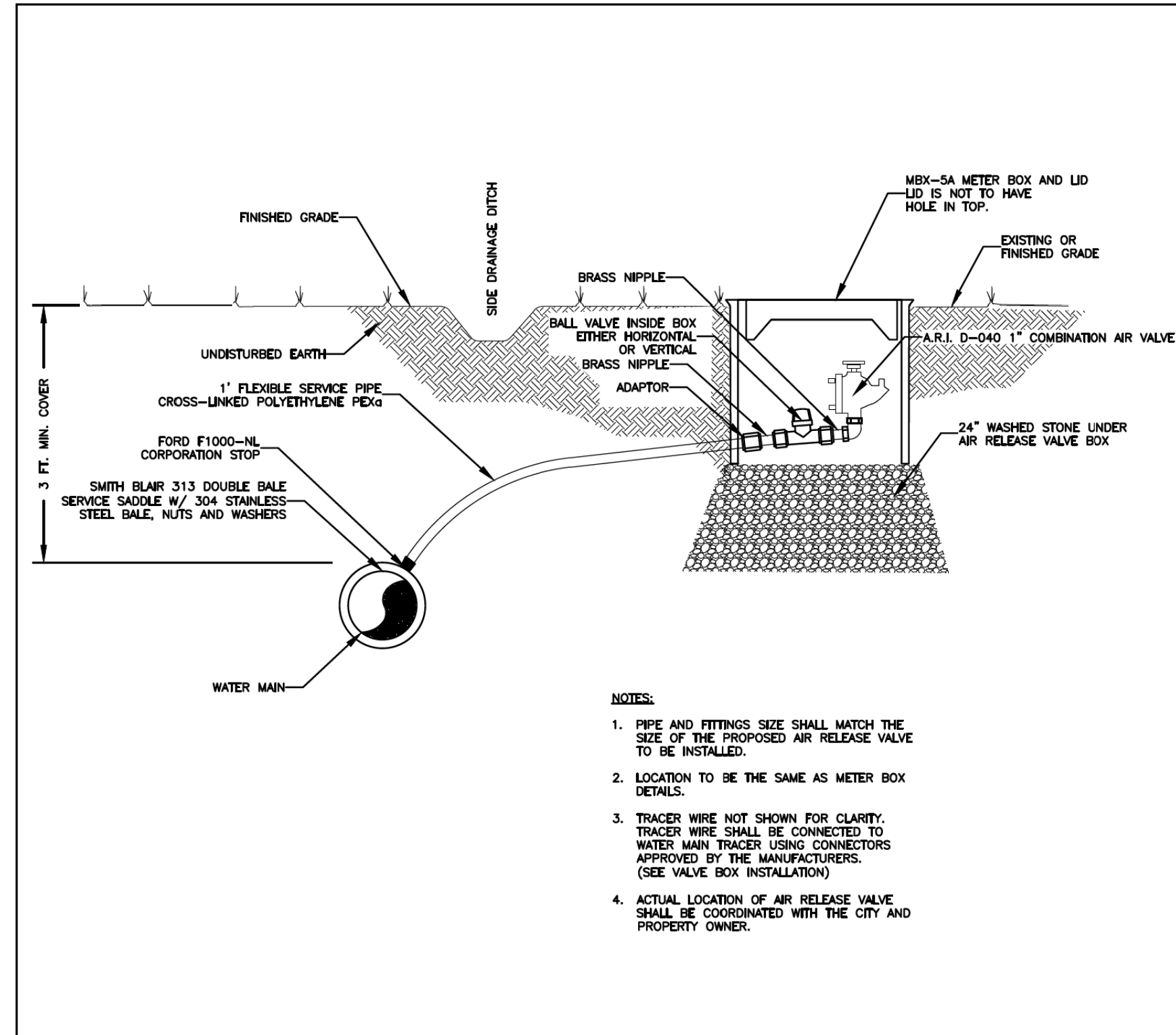
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UTILITY CONSTRUCTION

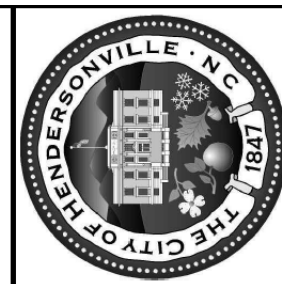


PROJECT REFERENCE NO. U-5783	SHEET NO. UC-3C
DESIGNED BY: MRD	
DRAWN BY: MRD	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
5/1/2024 1:31:58 PM EDT UTILITY CONSTRUCTION PLANS ONLY	

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UTILITY CONSTRUCTION

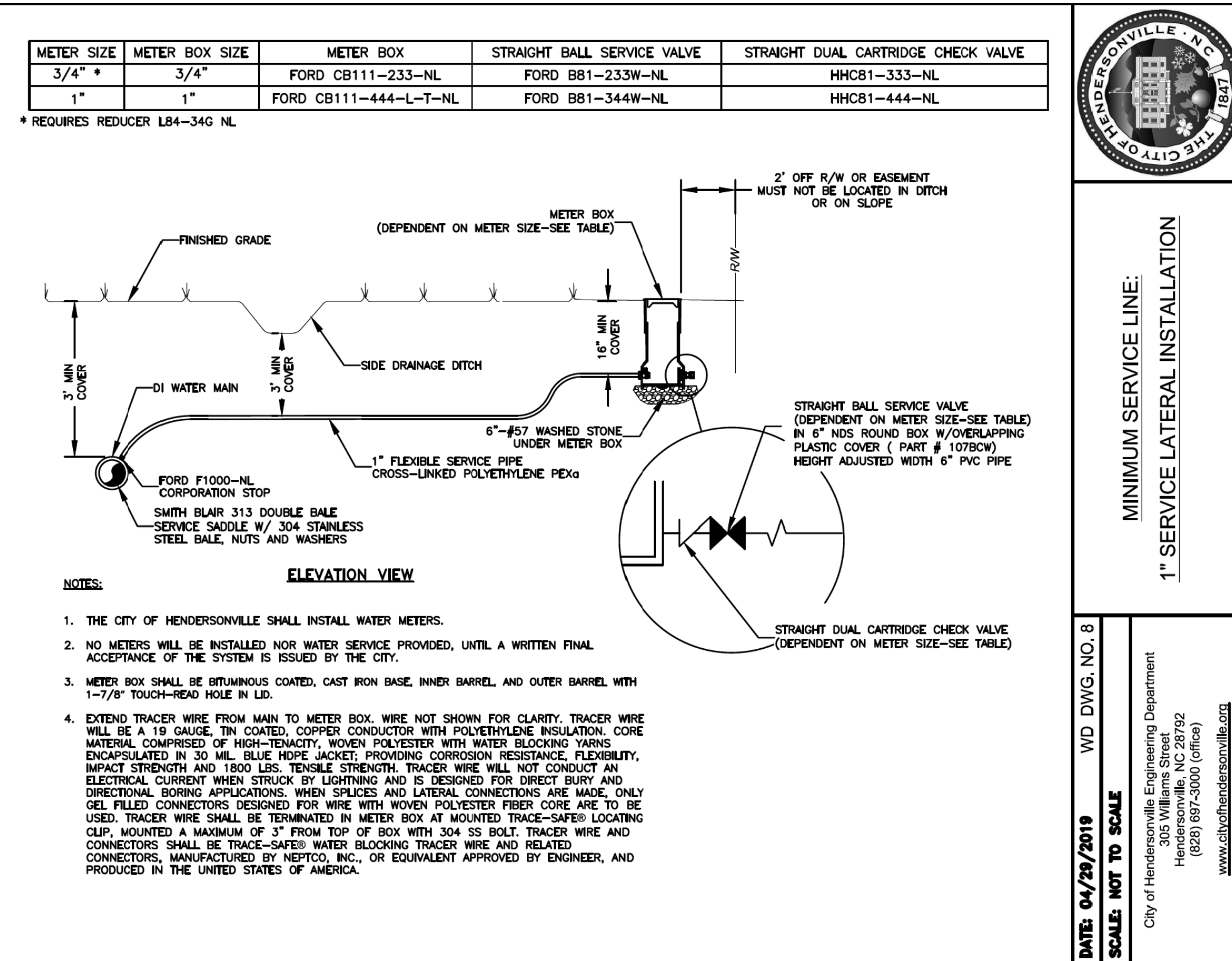


- NOTES:
- PIPE AND FITTINGS SIZE SHALL MATCH THE SIZE OF THE PROPOSED AIR RELEASE VALVE TO BE INSTALLED.
 - LOCATION TO BE THE SAME AS METER BOX DETAILS.
 - TRACER WIRE NOT SHOWN FOR CLARITY. TRACER WIRE SHALL BE CONNECTED TO WATER MAIN TRACER USING CONNECTORS APPROVED BY THE MANUFACTURERS. (SEE VALVE BOX INSTALLATION)
 - ACTUAL LOCATION OF AIR RELEASE VALVE SHALL BE COORDINATED WITH THE CITY AND PROPERTY OWNER.

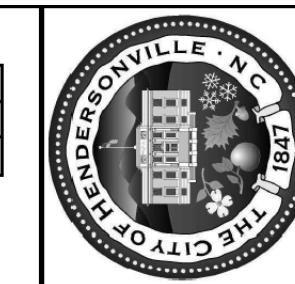


STANDARD AIR RELEASE VALVE INSTALLATION DETAIL

DATE: 04/09/2019
 SCALE: NOT TO SCALE
 City of Hendersonville Engineering Department
 305 Williams Street
 Hendersonville, NC 28736
 (828) 897-3400 (Office)
 www.cityofhendersonville.com

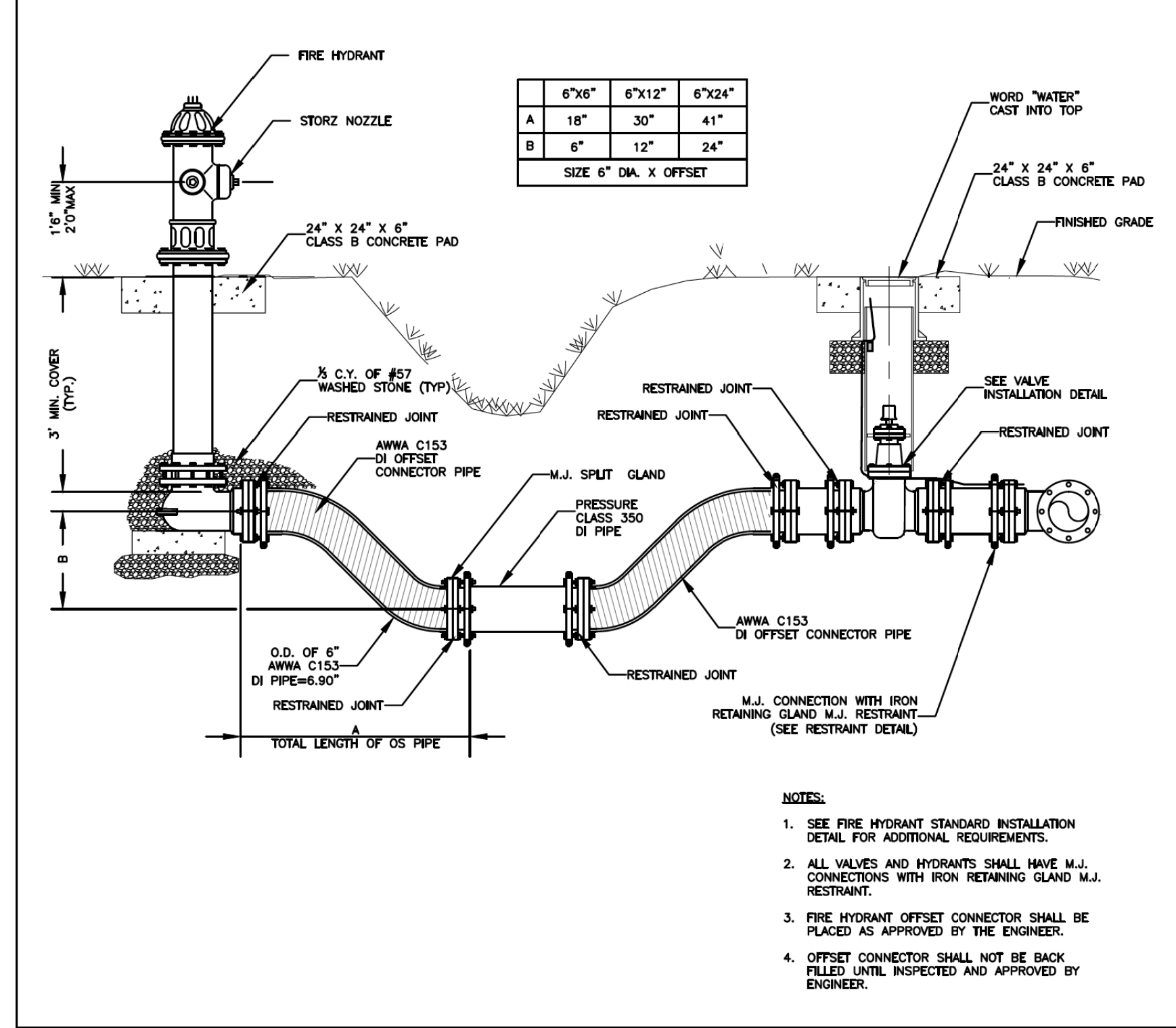


- NOTES:
- THE CITY OF HENDERSONVILLE SHALL INSTALL WATER METERS.
 - NO METERS WILL BE INSTALLED NOR WATER SERVICE PROVIDED, UNTIL A WRITTEN FINAL ACCEPTANCE OF THE SYSTEM IS ISSUED BY THE CITY.
 - METER BOX SHALL BE BITUMINOUS COATED, CAST IRON BASE, INNER BARREL, AND OUTER BARREL WITH 1-7/8" TOUCH-READ HOLE IN LID.
 - EXTEND TRACER WIRE FROM MAIN TO METER BOX. WIRE NOT SHOWN FOR CLARITY. TRACER WIRE WILL BE A 18 GAUGE, TIN COATED COPPER CONDUCTOR WITH POLYETHYLENE INSULATION. CORE MATERIAL COMPRISED OF HIGH-TENSACITY, WOVEN POLYESTER WITH WATER BLOCKING YARN. ENCAPSULATED IN 30 MIL BLUE HOPE JACKET, PROVIDING CORROSION RESISTANCE, FLEXIBILITY, IMPACT STRENGTH AND 1800 LBS. TENSILE STRENGTH. TRACER WIRE WILL NOT CONDUCT AN ELECTRICAL CURRENT WHEN STRUCK BY LIGHTNING AND IS DESIGNED FOR DIRECT BURY AND DIRECTIONAL BORING APPLICATIONS. WHEN SPICES AND LATERAL CONNECTIONS ARE MADE, ONLY GEL FILLED CONNECTORS DESIGNED FOR WIRE WITH WOVEN POLYESTER FIBER CORE ARE TO BE USED. TRACER WIRE SHALL BE TERMINATED IN METER BOX AT MOUNTED TRACE-SAFE® LOCATING CLIP, MOUNTED A MAXIMUM OF 1" FROM TOP OF BOX WITH 304 SS BOLT. TRACER WIRE AND CONNECTORS SHALL BE TRACE-SAFE® WATER BLOCKING TRACER WIRE AND RELATED CONNECTORS, MANUFACTURED BY HERTCO, INC., OR EQUIVALENT APPROVED BY ENGINEER, AND PRODUCED IN THE UNITED STATES OF AMERICA.



MINIMUM SERVICE LINE: 1" SERVICE LATERAL INSTALLATION

DATE: 04/29/2019
 SCALE: NOT TO SCALE
 City of Hendersonville Engineering Department
 305 Williams Street
 Hendersonville, NC 28736
 (828) 897-3400 (Office)
 www.cityofhendersonville.com

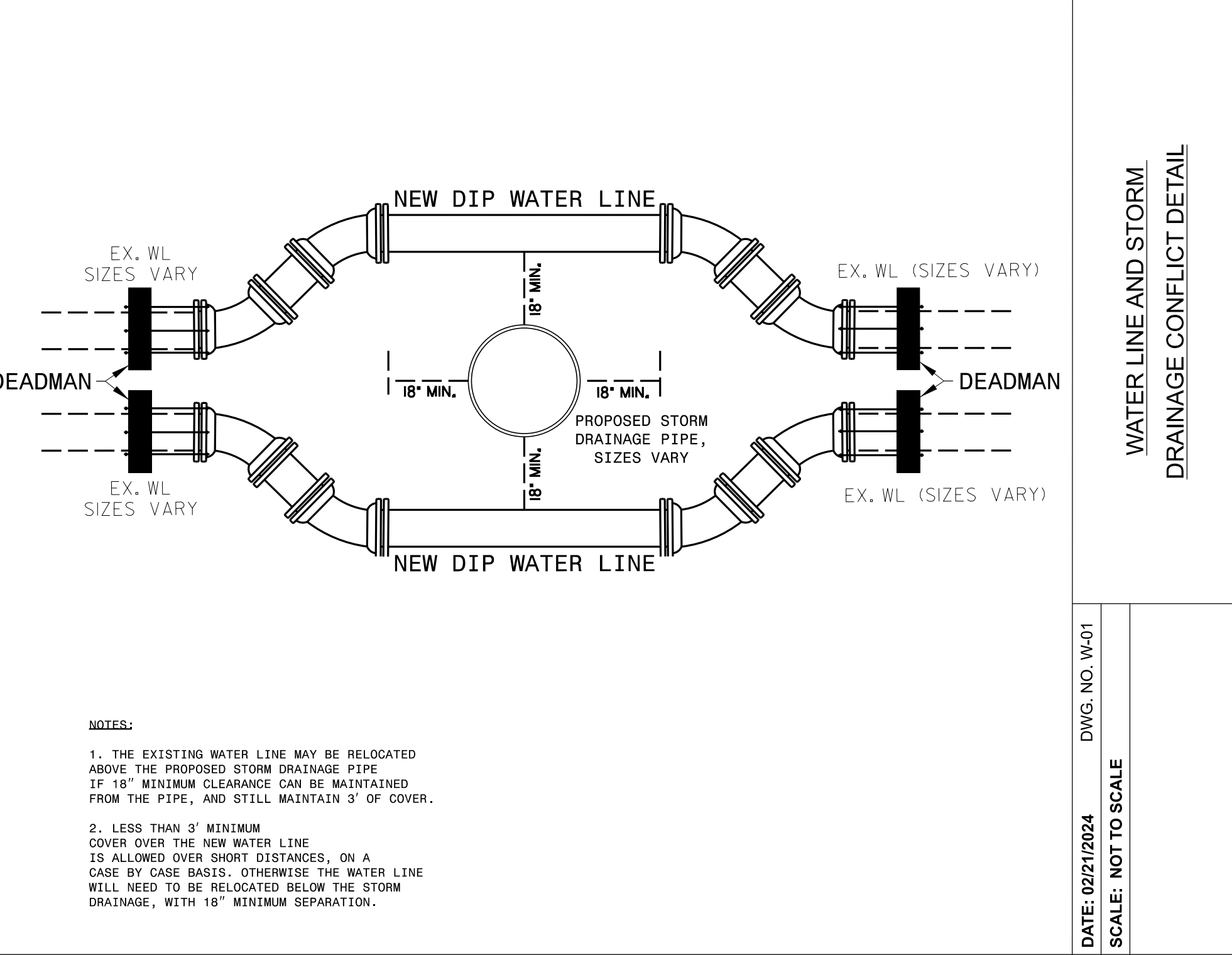


- NOTES:
- SEE FIRE HYDRANT STANDARD INSTALLATION DETAIL FOR ADDITIONAL REQUIREMENTS.
 - ALL VALVES AND HYDRANTS SHALL HAVE M.J. CONNECTIONS WITH IRON RETAINING GLAND M.J. RESTRAINT.
 - FIRE HYDRANT OFFSET CONNECTOR SHALL BE PLACED AS APPROVED BY THE ENGINEER.
 - OFFSET CONNECTOR SHALL NOT BE BACK FILLED UNTIL INSPECTED AND APPROVED BY ENGINEER.

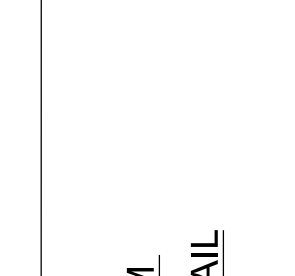


FIRE HYDRANT DITCH INSTALLATION DETAIL

DATE: 01/12/2019
 SCALE: NOT TO SCALE
 City of Hendersonville Engineering Department
 305 Williams Street
 Hendersonville, NC 28736
 (828) 897-3400 (Office)
 www.cityofhendersonville.com

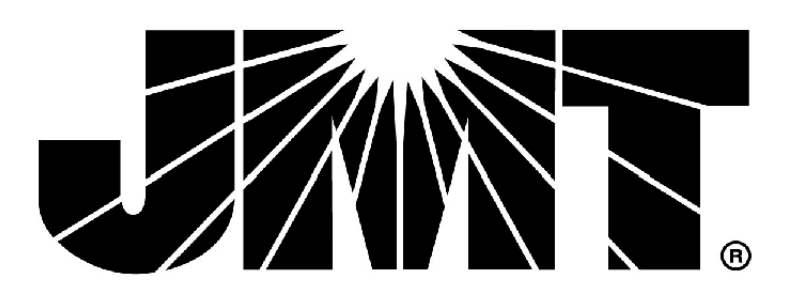


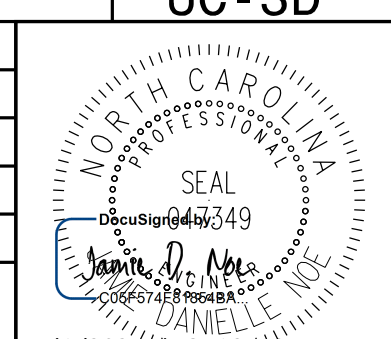
- NOTES:
- THE EXISTING WATER LINE MAY BE RELOCATED ABOVE THE PROPOSED STORM DRAINAGE PIPE IF 18" MINIMUM CLEARANCE CAN BE MAINTAINED FROM THE PIPE, AND STILL MAINTAIN 3' OF COVER.
 - LESS THAN 3' MINIMUM COVER OVER THE NEW WATER LINE IS ALLOWED OVER SHORT DISTANCES, ON A CASE BY CASE BASIS. OTHERWISE THE WATER LINE WILL NEED TO BE RELOCATED BELOW THE STORM DRAINAGE, WITH 18" MINIMUM SEPARATION.

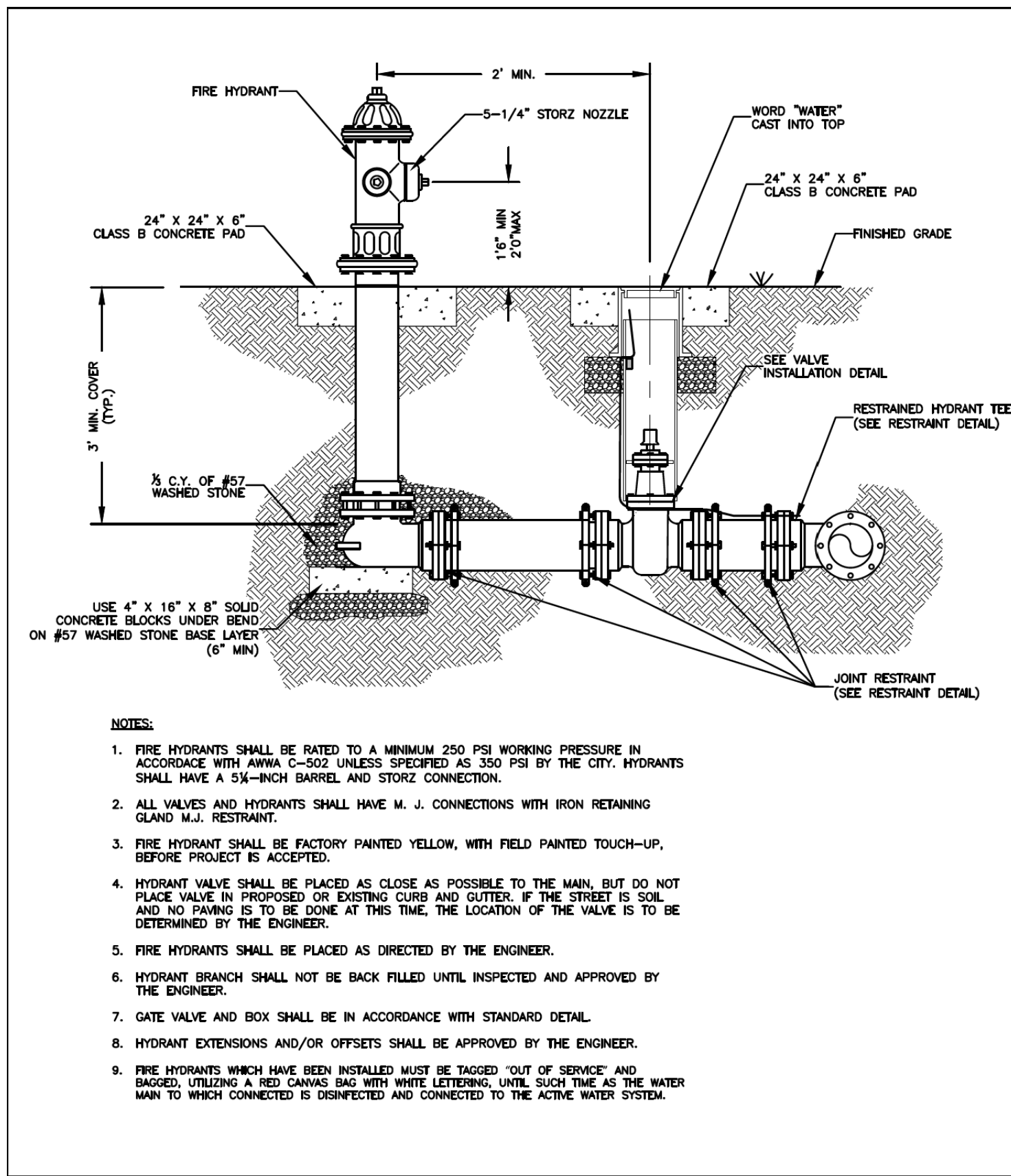


WATER LINE AND STORM DRAINAGE CONFLICT DETAIL

DATE: 02/21/2024
 SCALE: NOT TO SCALE
 DWG. NO. W-01



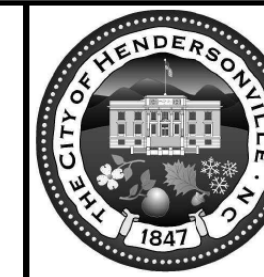
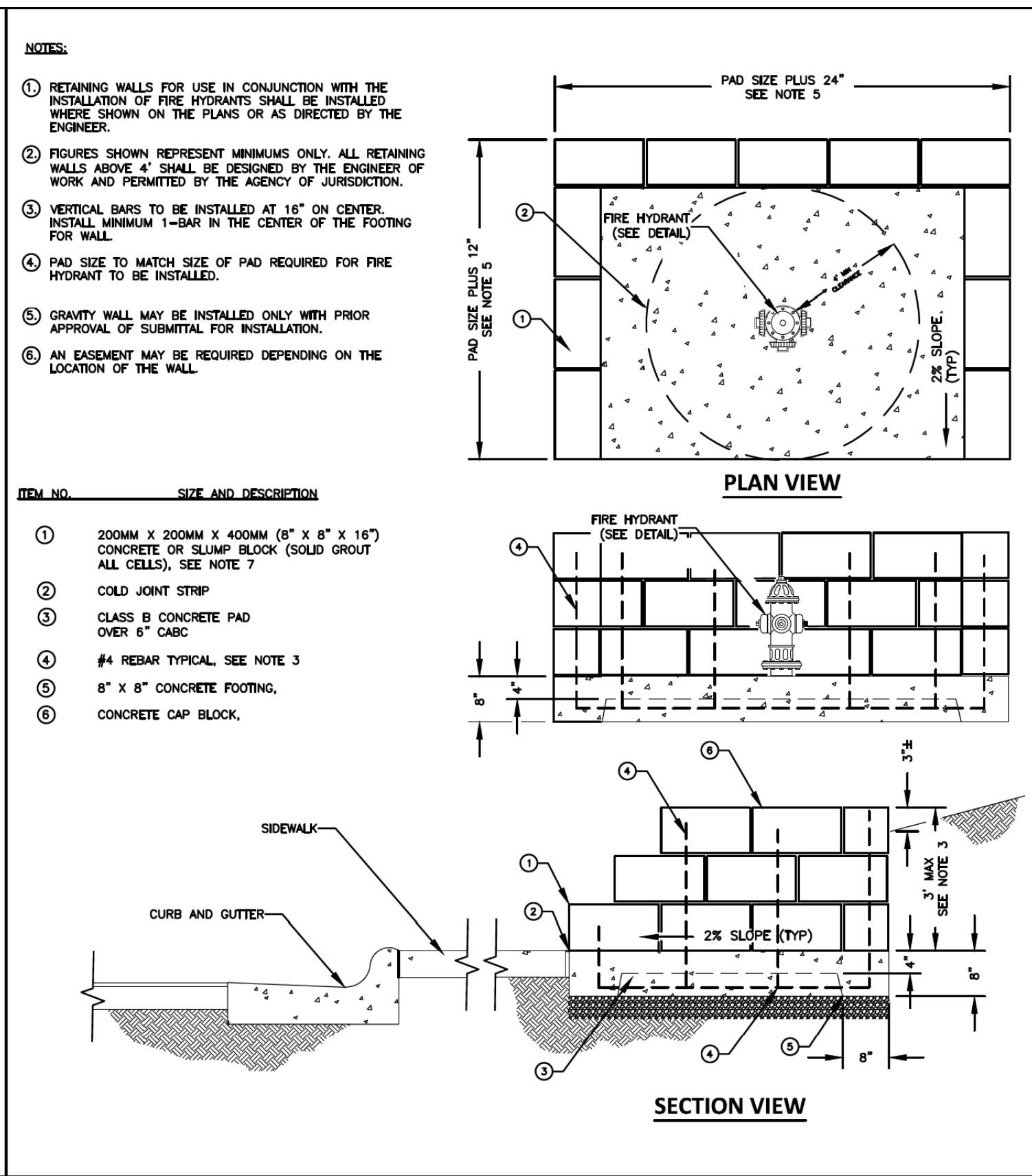
PROJECT REFERENCE NO. U-5783	SHEET NO. UC-3D
DESIGNED BY: MRD	
DRAWN BY: MRD	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
5/1/2024 11:18:16 AM EDT UTILITY CONSTRUCTION PLANS ONLY	
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DATE: 04/24/2019 WD DWG. NO. 12
SCALE: NOT TO SCALE

FIRE HYDRANT STANDARD INSTALLATION DETAIL

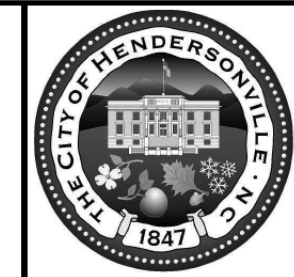
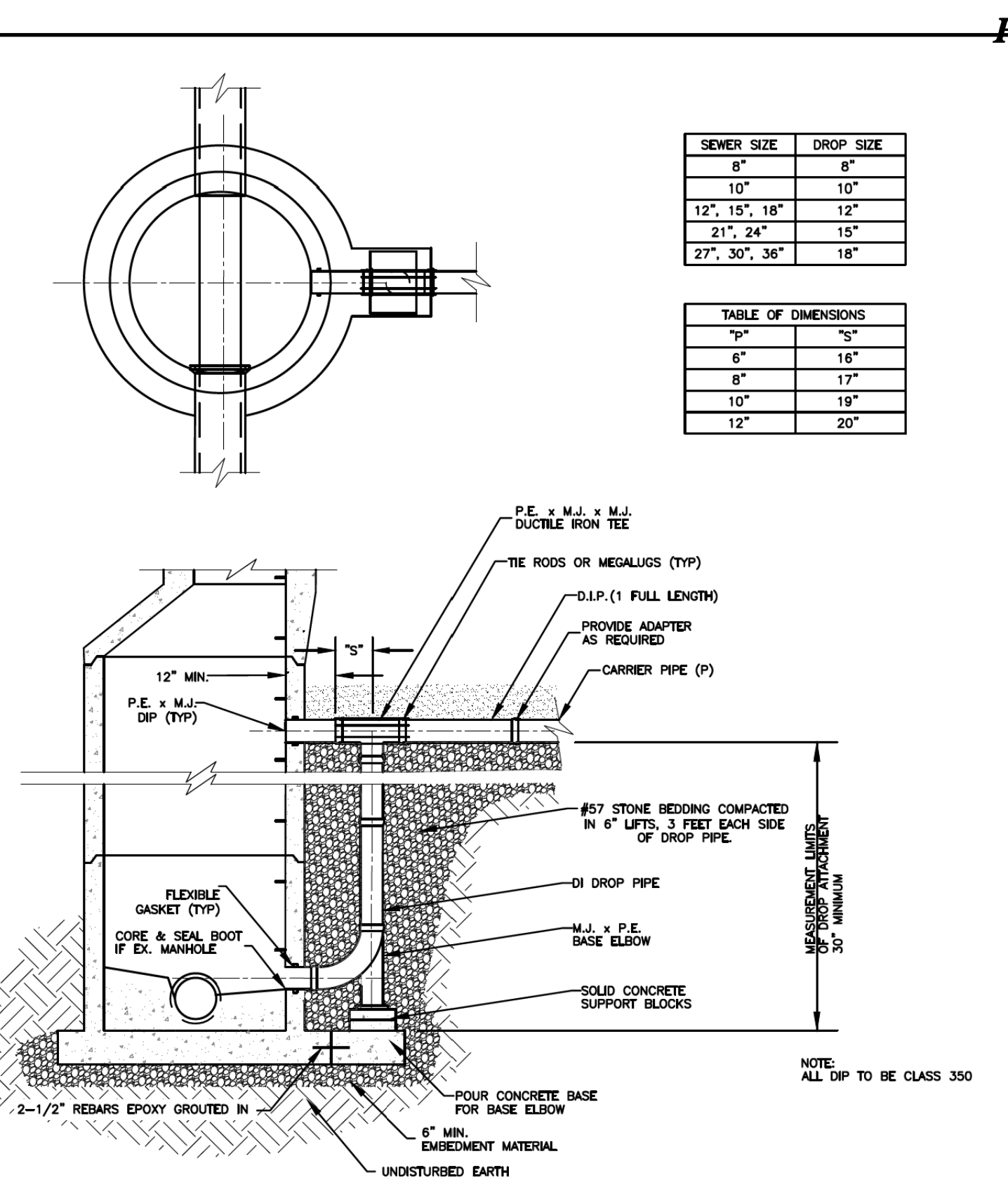
City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org

DATE: 01/12/2019 WD DWG. NO. 14
SCALE: NOT TO SCALE

FIRE HYDRANT SLOPE INSTALLATION DETAIL

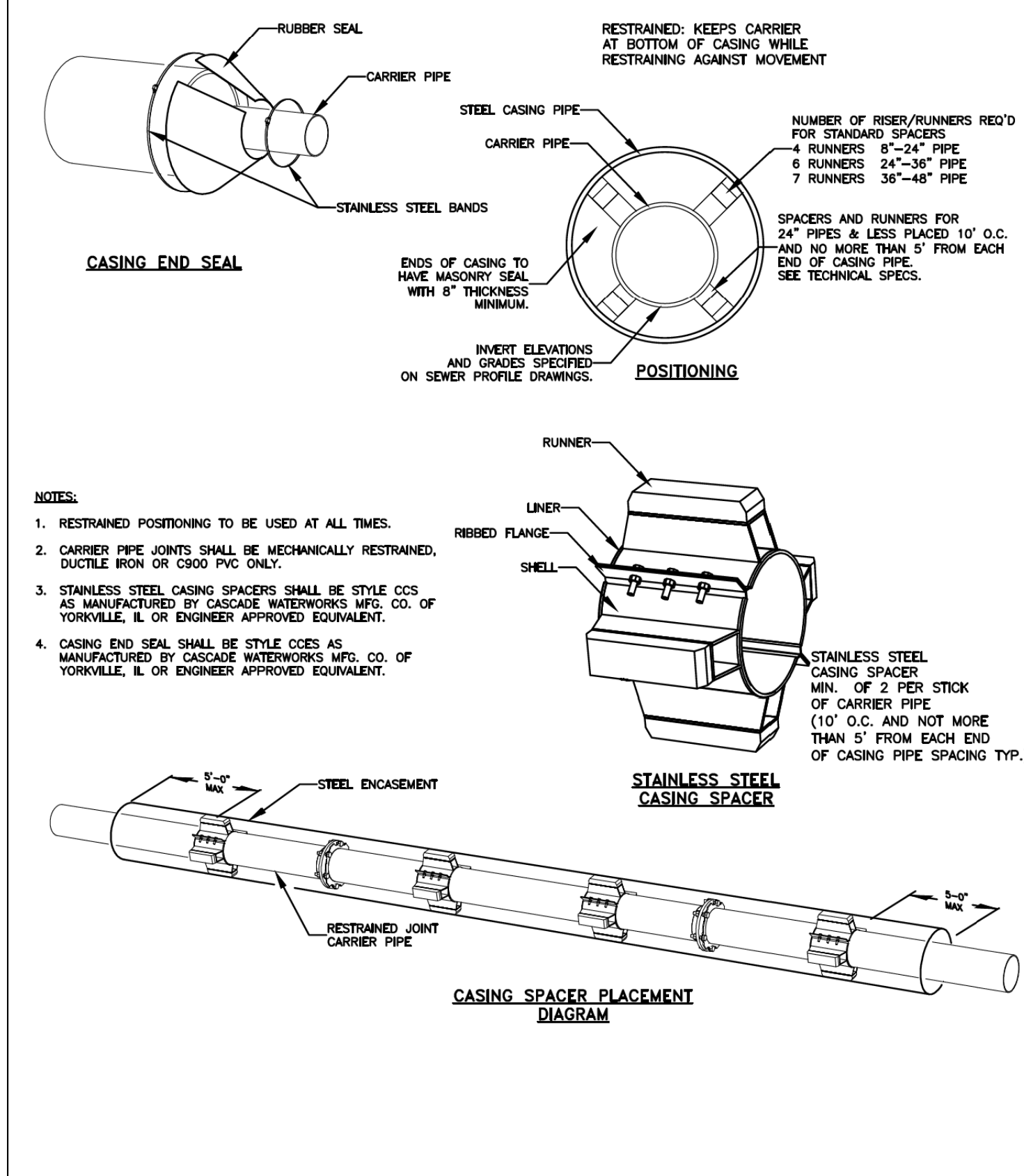
City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org

DATE: 02/15/2021 SS-D DWG. NO. 9
SCALE: NOT TO SCALE

DROP MANHOLE


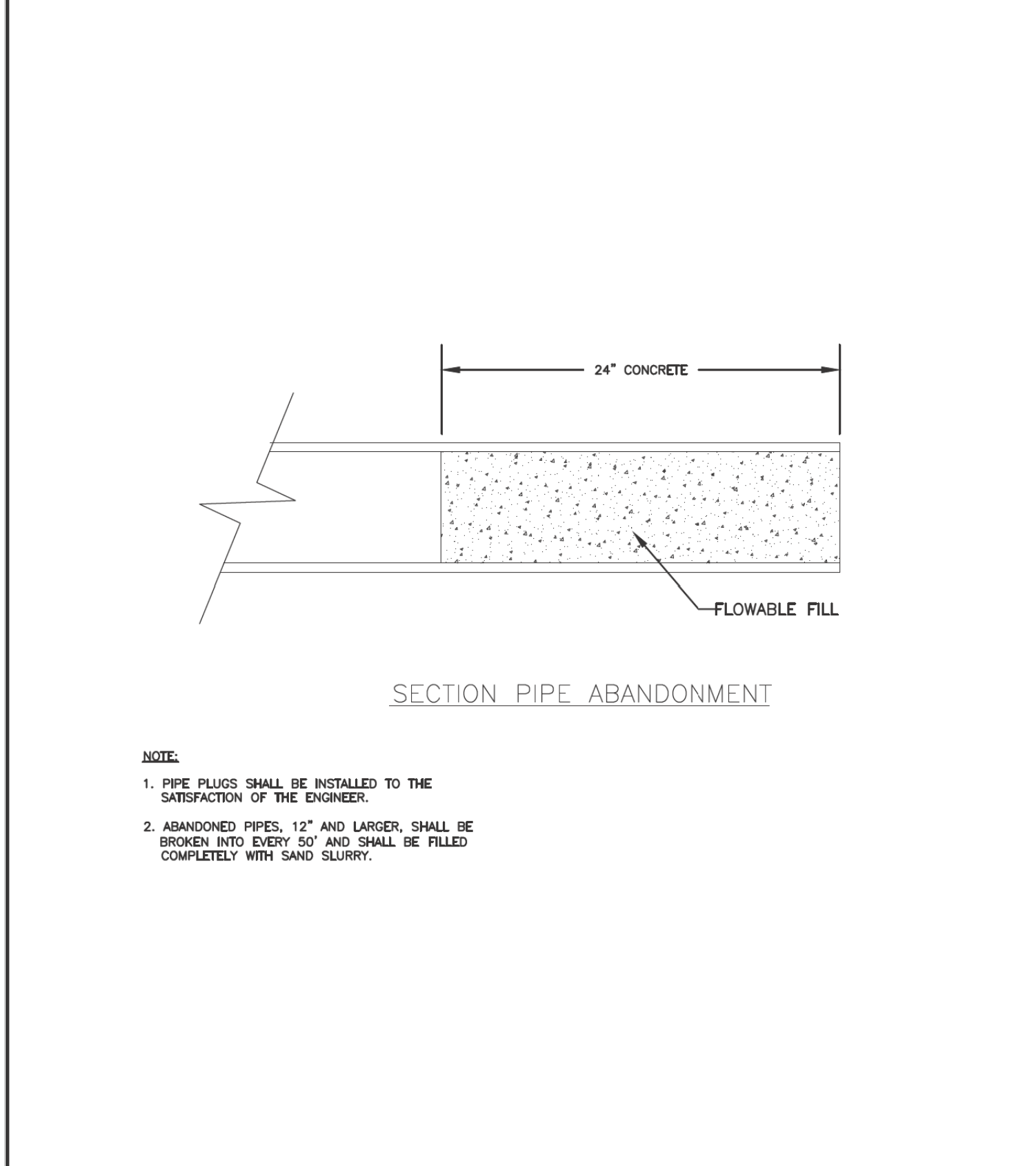
City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org

DATE: 01/12/2019 WD DWG. NO. 16
SCALE: NOT TO SCALE

CARRIER PIPE IN STEEL ENCASUREMENT DETAIL

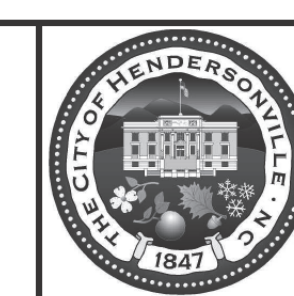
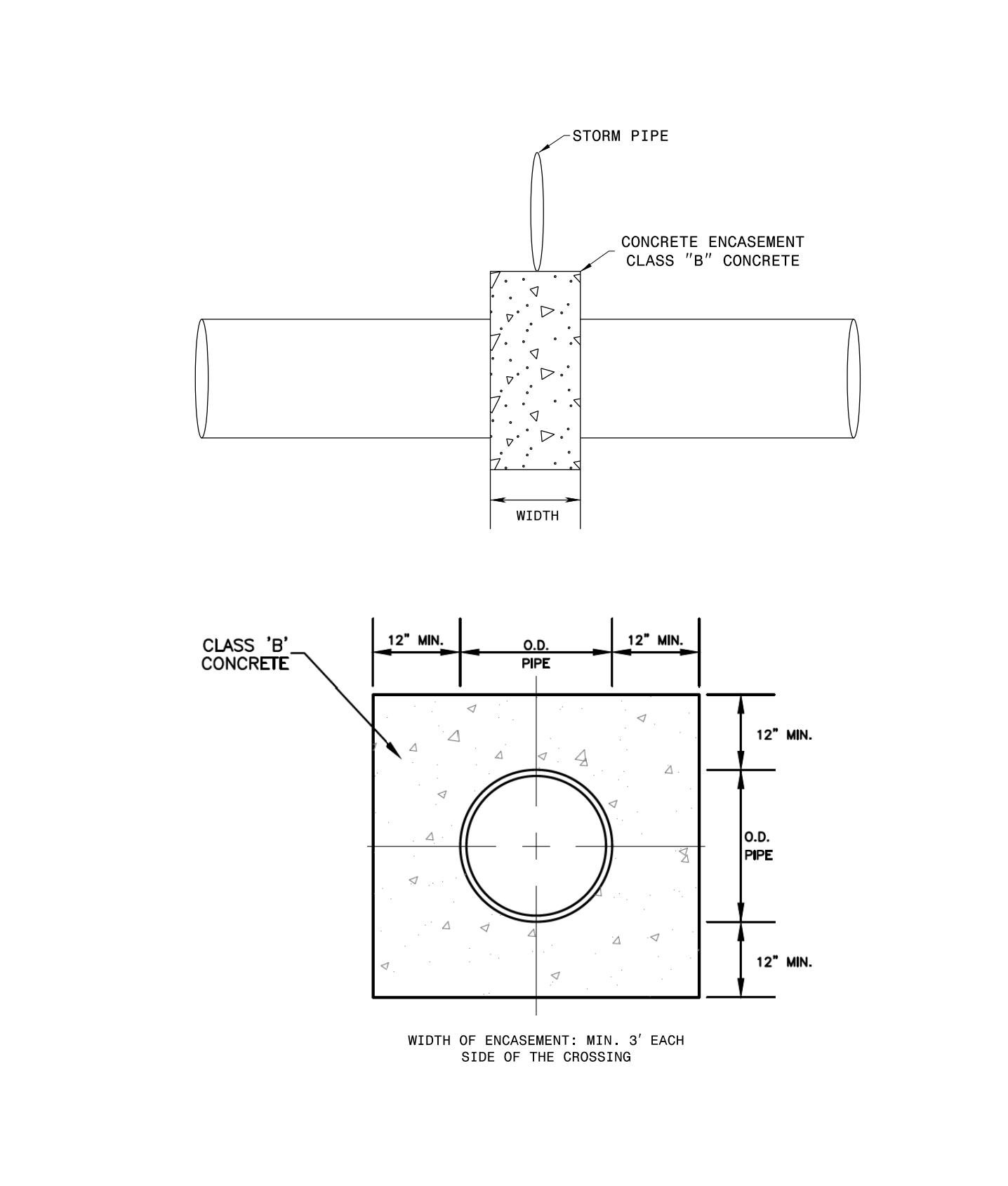
City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org

DATE: 01/12/2019 SS-D DWG. NO. 24
SCALE: NOT TO SCALE

PIPE ABANDONMENT

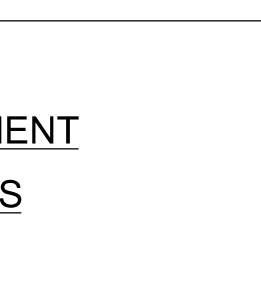
City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
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DATE: 04/19/2024 DWG. NO. S-01
SCALE: NOT TO SCALE

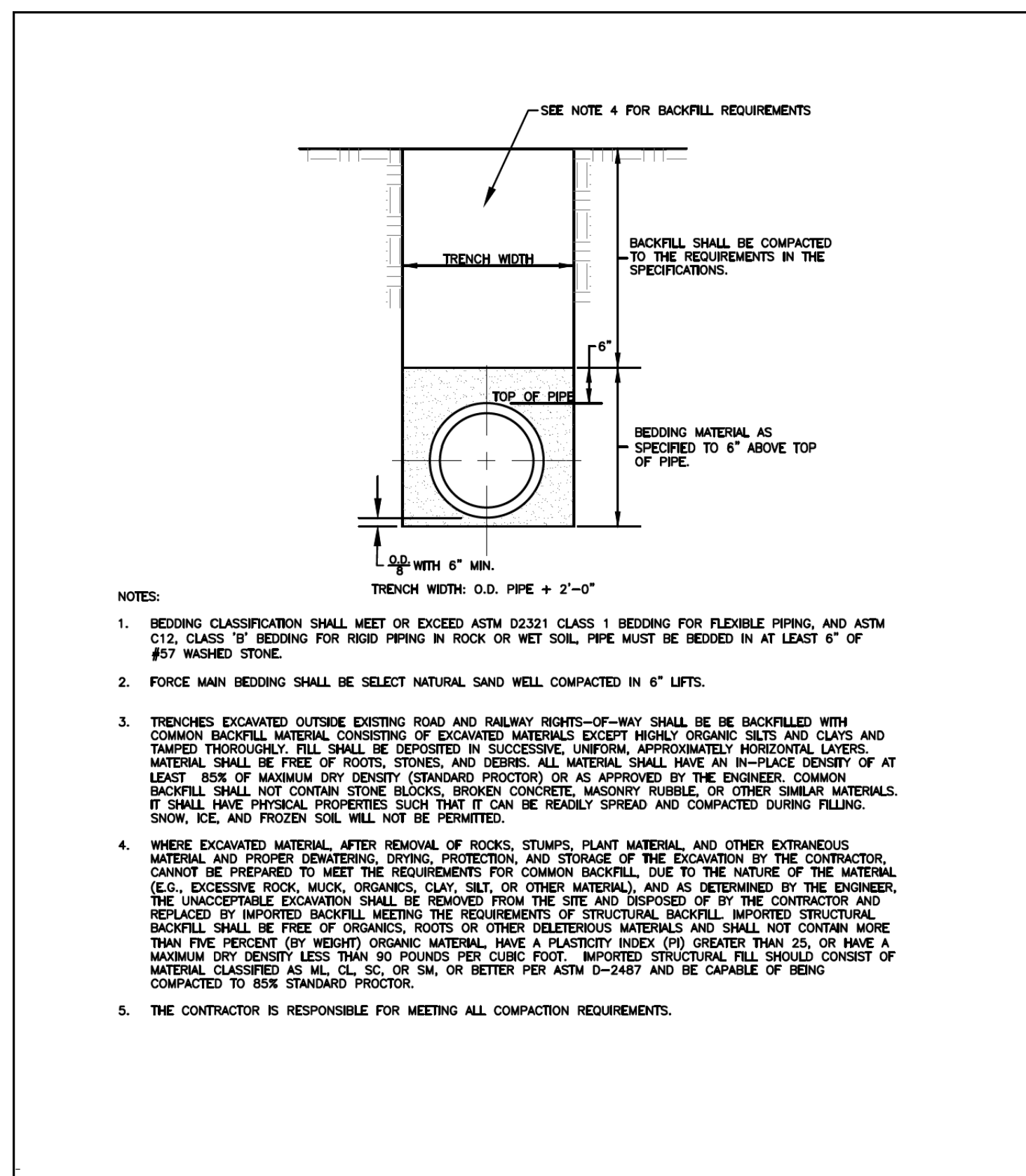
CONCRETE PIPE ENCASEMENT FOR UTILITY CROSSINGS

City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org




5/14/99
4/19/2024 9:55:41 AM JLUC-3D.dgn
JLUC-3D.dwg

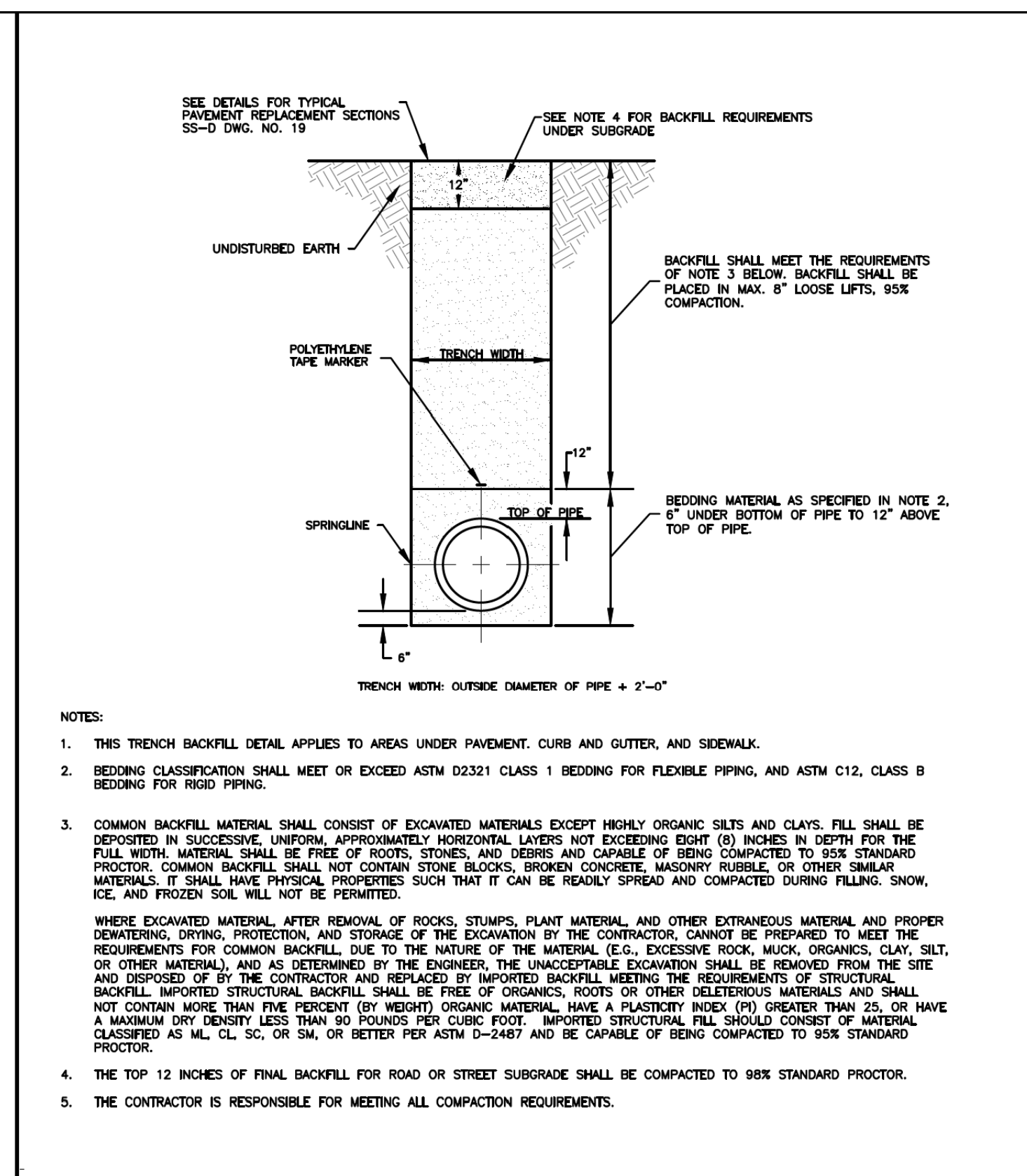
PROJECT REFERENCE NO.	SHEET NO.
U-5783	UC-3E
DESIGNED BY: MRD	
DRAWN BY: MRD	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151 5/1/2024 1:31:16 PM EDT UTILITY CONSTRUCTION PLANS ONLY
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DATE: 06/19/2019 SS-D DWG. NO. 1
SCALE: NOT TO SCALE

**GRAVITY SEWER
TRENCH CONSTRUCTION
OUTSIDE PAVEMENT**

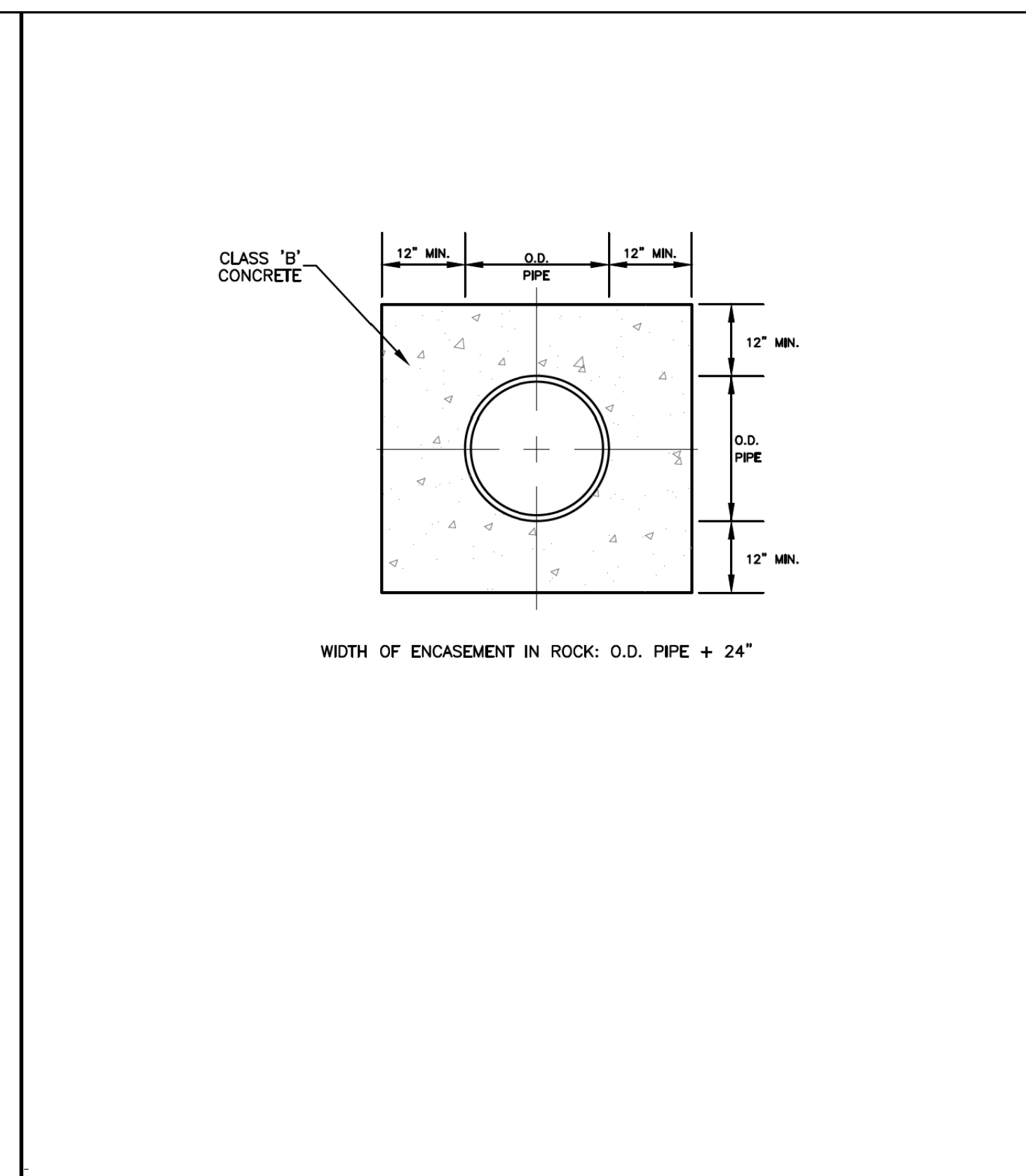
City of Hendersonville Engineering Department
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Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org



DATE: 05/14/2019 SS-D DWG. NO. 2
SCALE: NOT TO SCALE

**GRAVITY SEWER
TRENCH CONSTRUCTION
UNDER PAVEMENT**

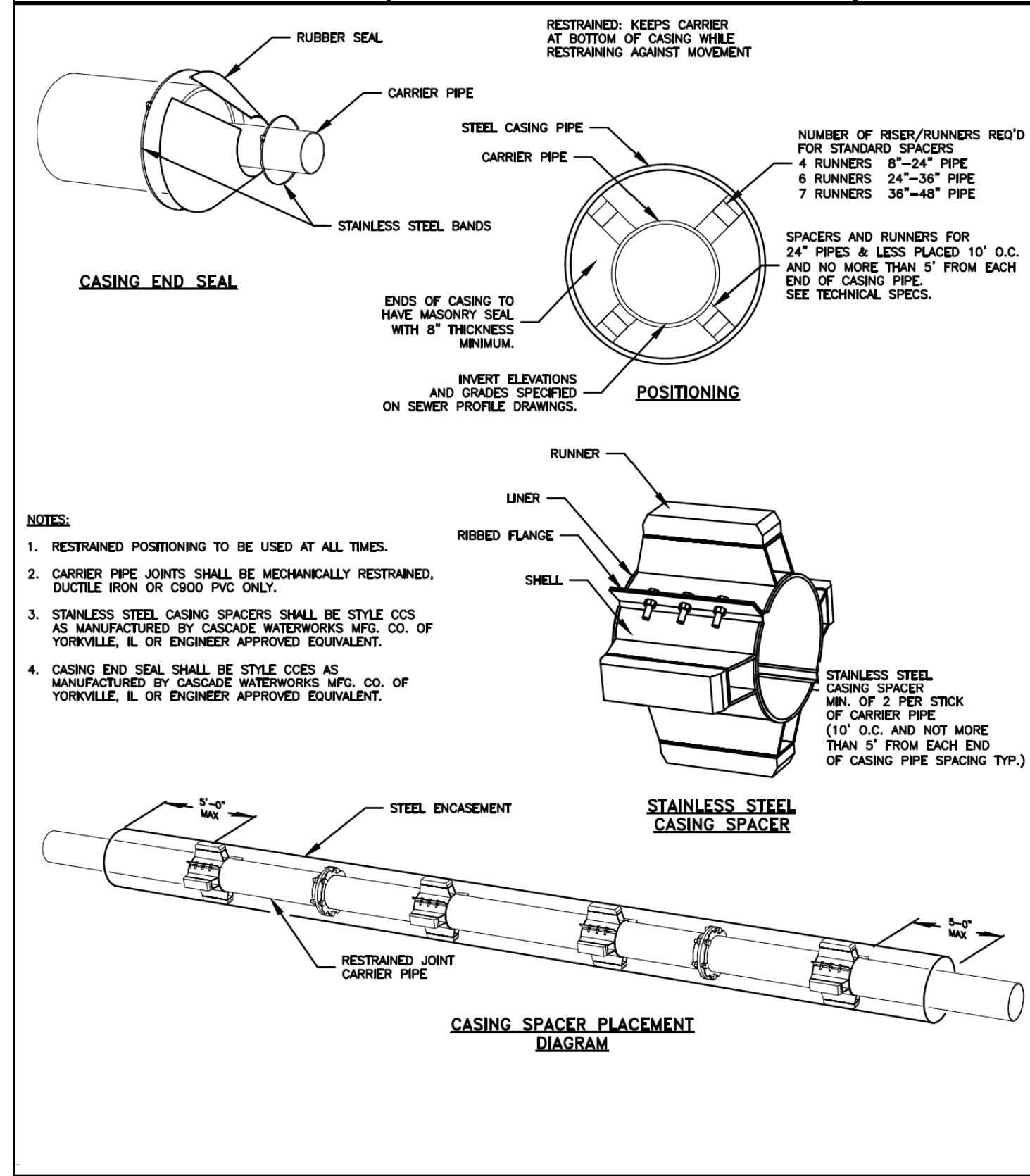
City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
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DATE: 01/12/2019 SS-D DWG. NO. 3
SCALE: NOT TO SCALE

CONCRETE PIPE ENCASEMENT

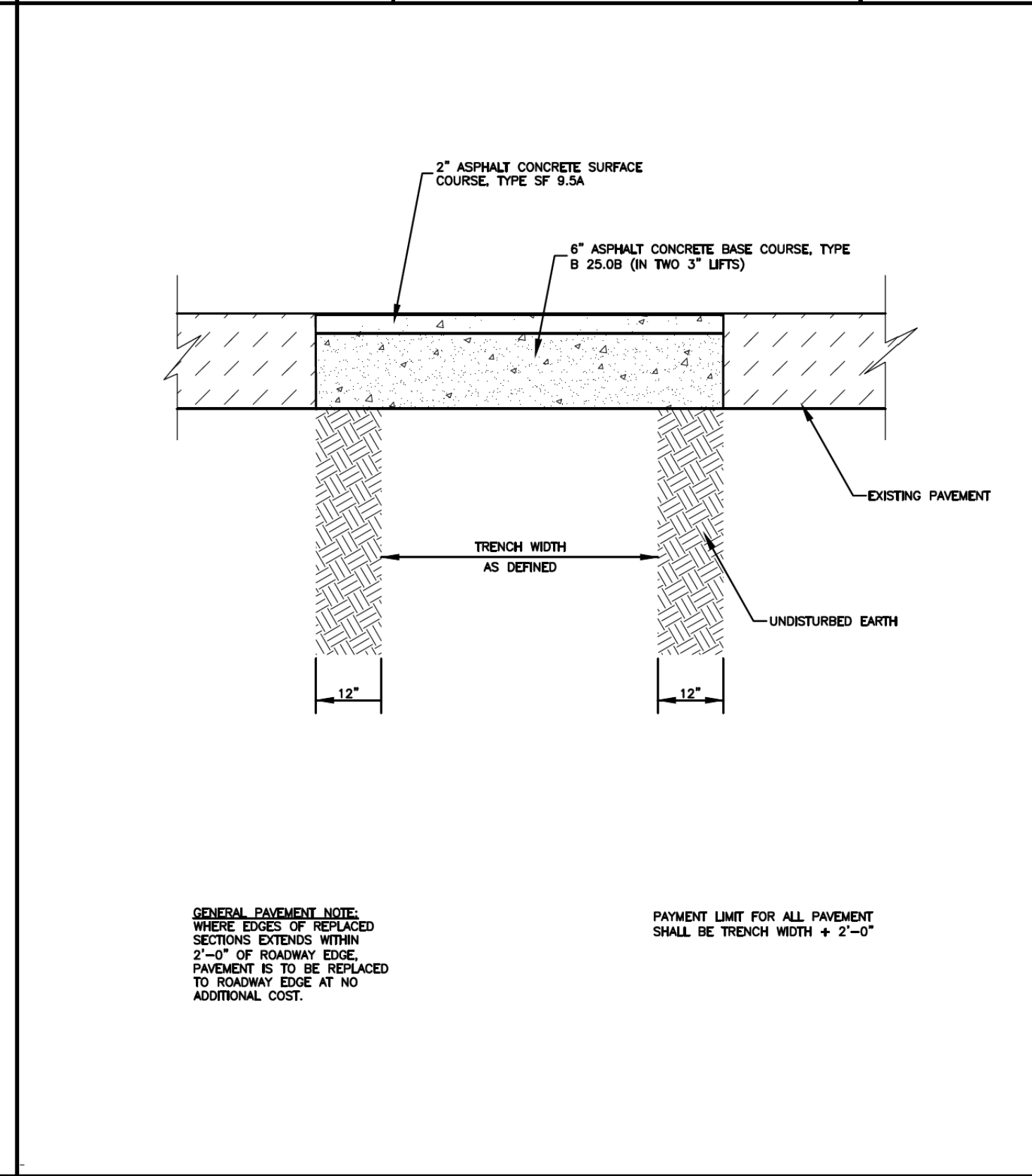
City of Hendersonville Engineering Department
305 Williams Street
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DATE: 01/12/2019 SS-D DWG. NO. 14
SCALE: NOT TO SCALE

**PIPE BORING
AND
ENCASEMENT**

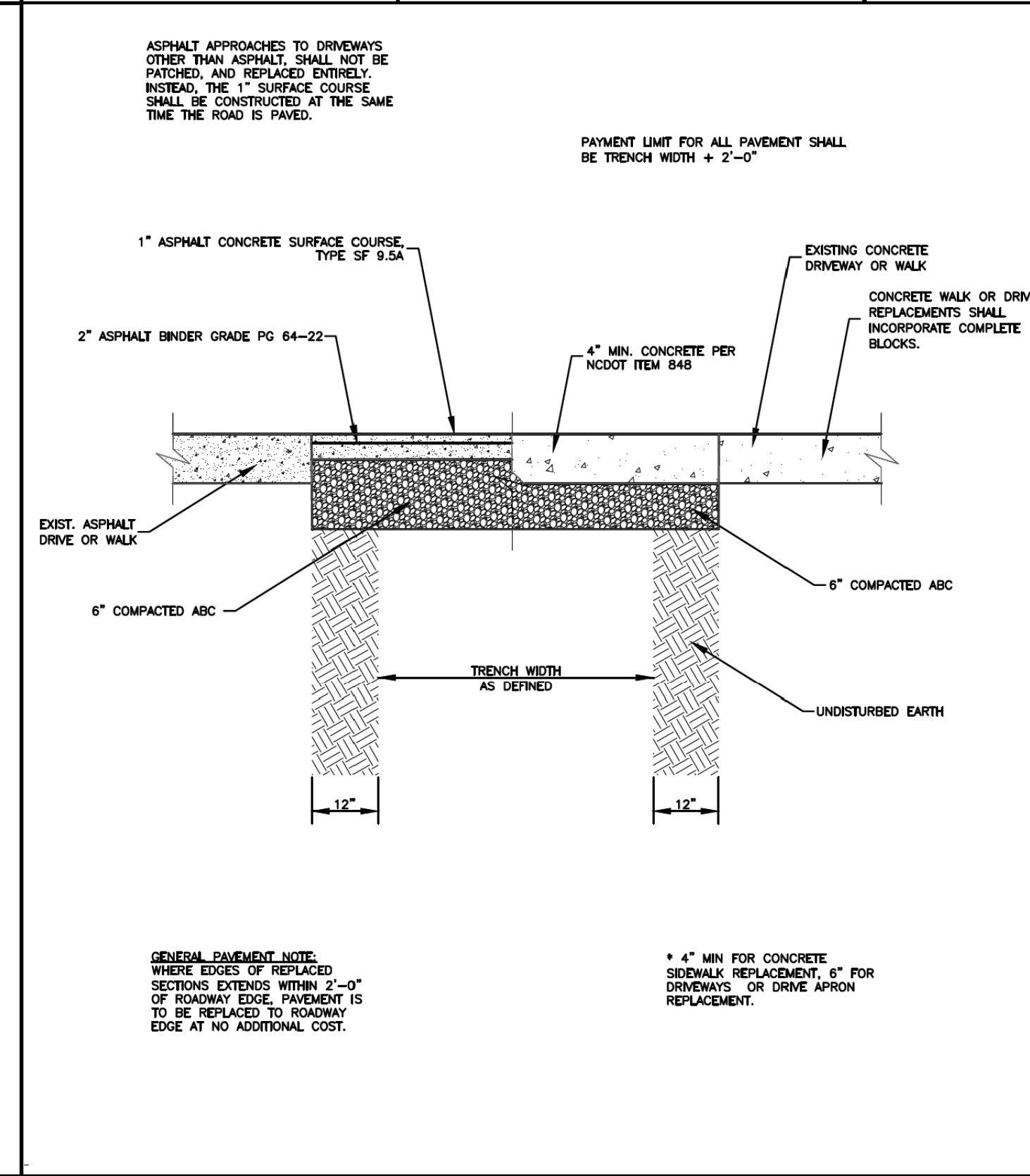
City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org



DATE: 01/12/2019 SS-D DWG. NO. 17
SCALE: NOT TO SCALE

**ASPHALT CONCRETE
REPLACEMENT**

City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org



DATE: 01/12/2019 SS-D DWG. NO. 18
SCALE: NOT TO SCALE

**ASPHALT OR CONCRETE
DRIVEWAY AND WALKWAY**

City of Hendersonville Engineering Department
305 Williams Street
Hendersonville, NC 28792
(828) 697-3000 (office)
www.cityofhendersonville.org



5/14/99

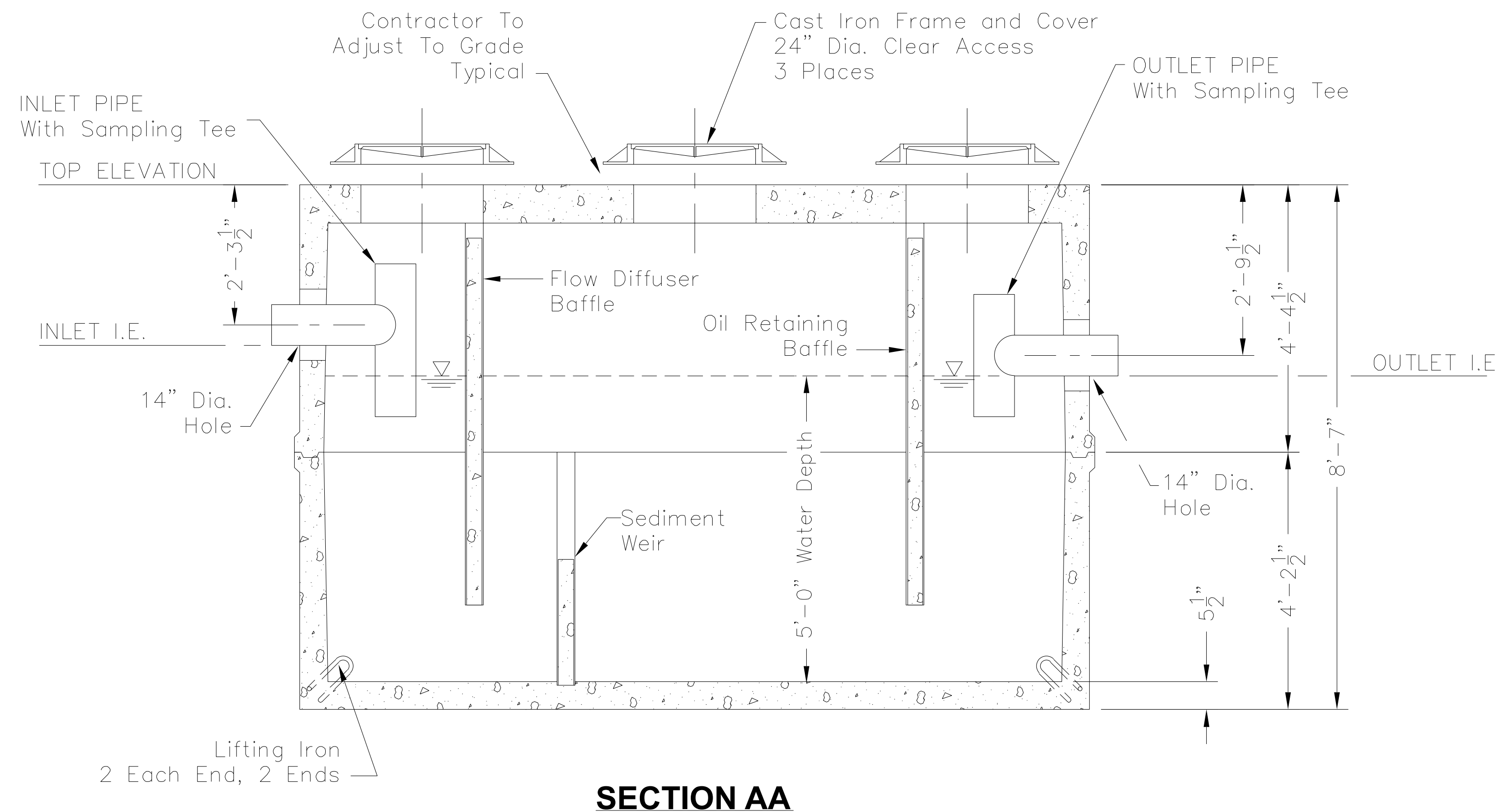
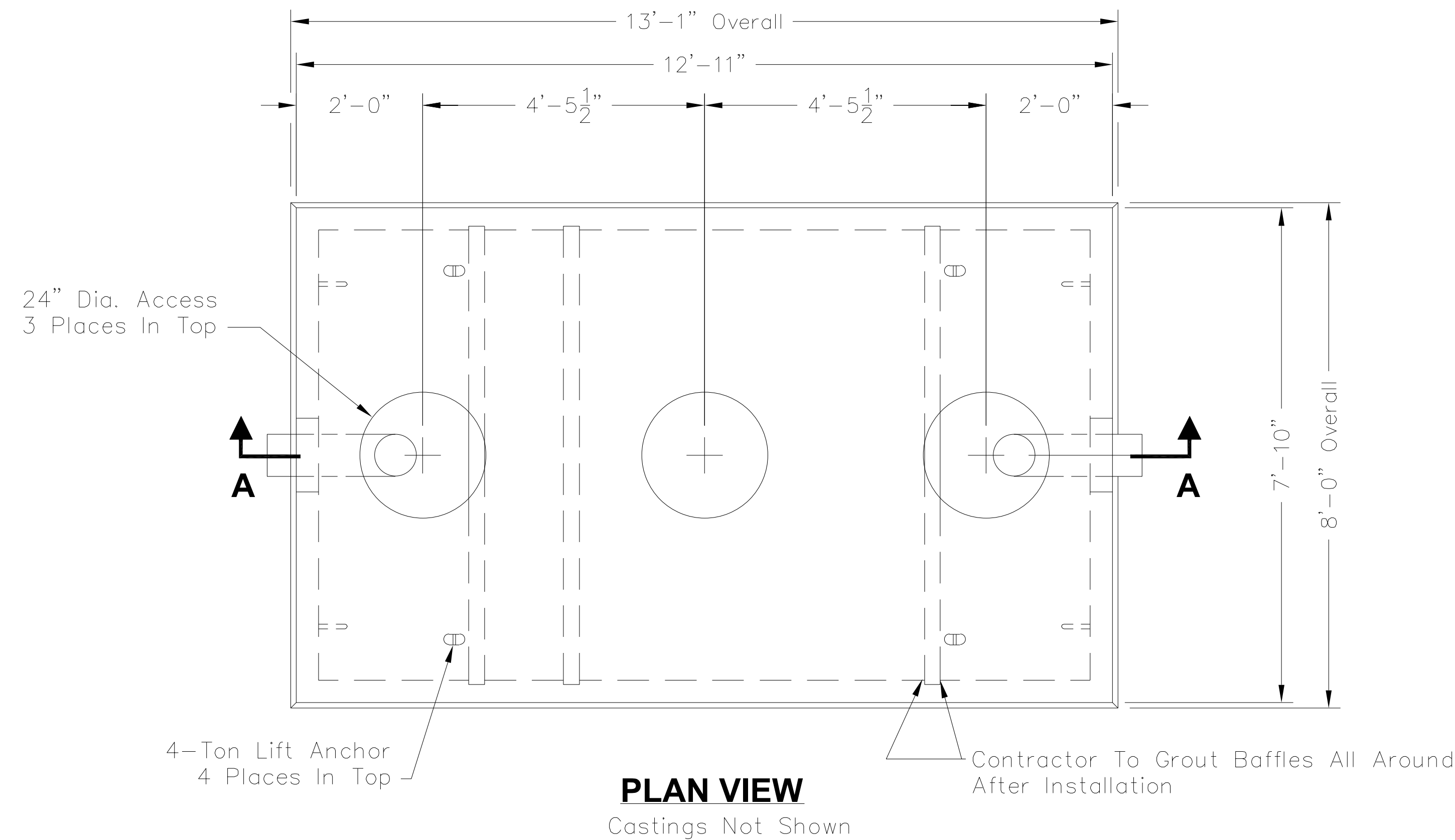
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HENDERSON COUNTY

PROJECT REFERENCE NO.	SHEET NO.
U-5783	UC-3F
DESIGNED BY: MRD	
DRAWN BY: MRD	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
5/1/2024 11:19:18 PM EDT	
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UTILITY CONSTRUCTION

3,500 GALLON OIL WATER SEPARATOR DETAIL



SCALE: 1/4" = 1'-0"

STRUCTURAL NOTES:

- Concrete: 28 Day Compressive Strength $f'c = 7000$ psi
- Rebar: ASTM A-615 Grade 60
- Mesh: ASTM A-185 Grade 65
- Design: ACI-318-05 Building Code
ASTM C-890 "Minimum Structural Design Loading For Underground Precast Concrete Water and Wastewater Structures"
- Loads: HS-20 Truck Wheel w/ 30% Impact Per AASHTO

GENERAL NOTES:

- All Baffles and Weirs To Be Precast Concrete
- Contractor to:
Supply and Install All Piping & Sampling Tees
Grout In All Pipes
Fill With Clean Water Prior To "Start-Up" Of System
Verify All Blockout Sizes and Locations

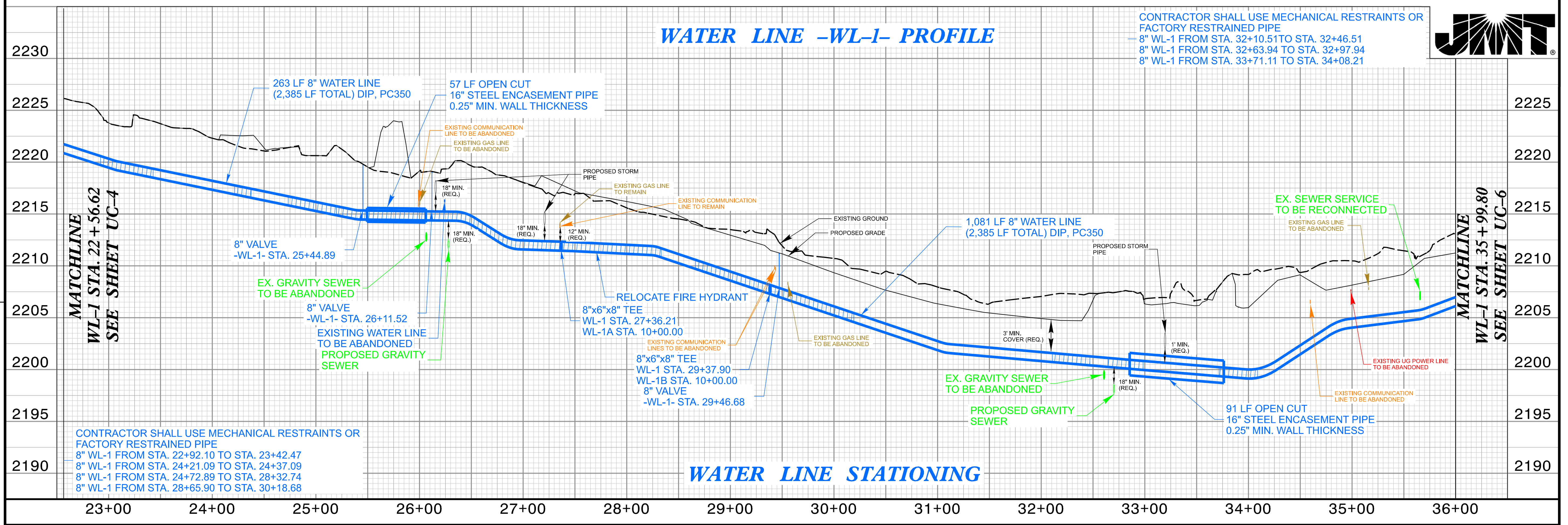
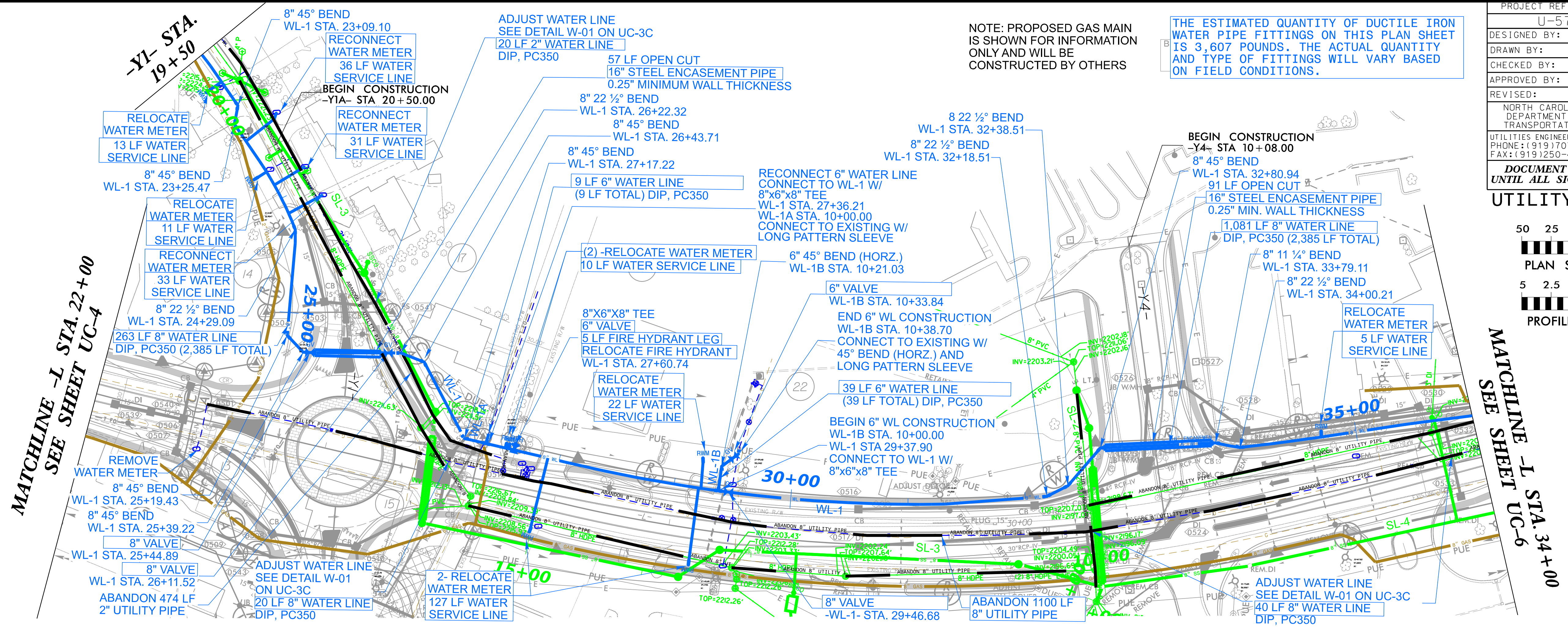
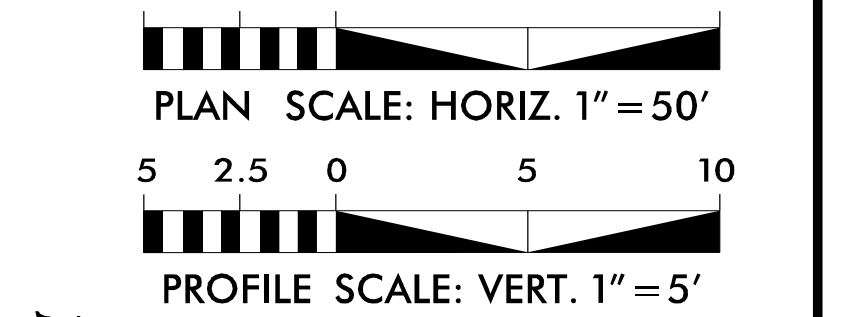


4/16/24

PROJECT REFERENCE NO.	SHEET NO.
U-5783	UC-5
DESIGNED BY: MRD	
DRAWN BY: MRD	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	5/1/2024 11:52:45 PM EDT UTILITY CONSTRUCTION PLANS ONLY

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UTILITY CONSTRUCTION



REVISIONS

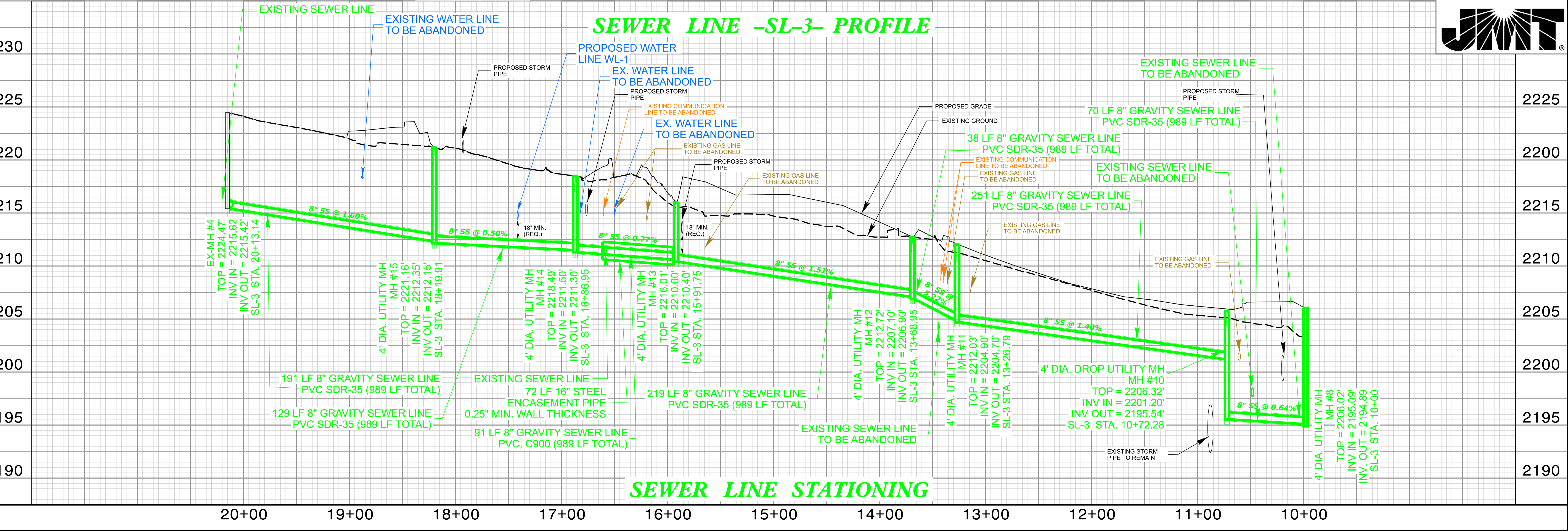
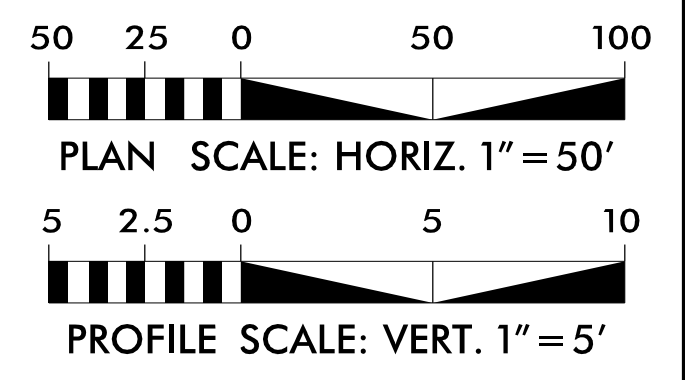
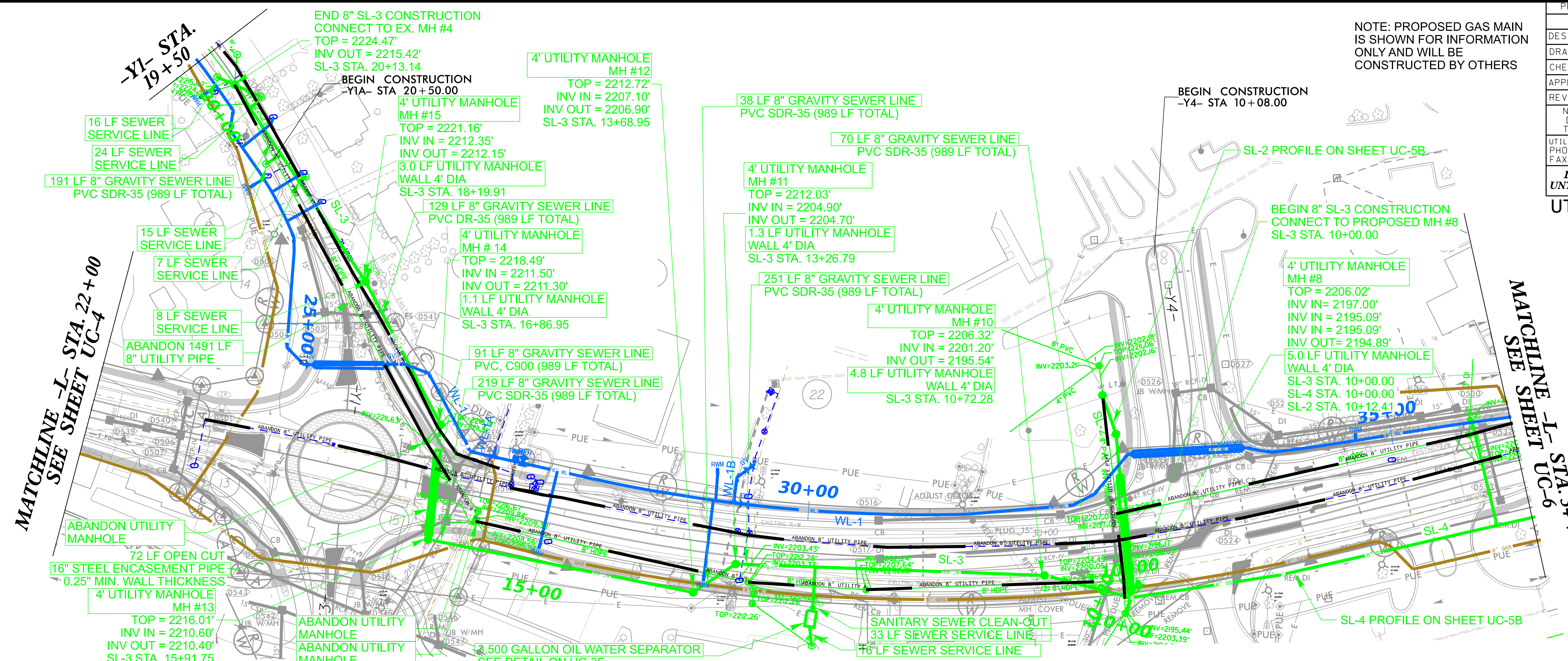
MATCHLINE -L STA. 22+00 SEE SHEET UC-4

MATCHLINE -L STA. 34+00 SEE SHEET UC-6

4/18/24

PROJECT REFERENCE NO.	SHEET NO.
U-5783	UC-5A
DESIGNED BY: MRD	
DRAWN BY: MRD	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
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NOTE: PROPOSED GAS MAIN IS SHOWN FOR INFORMATION ONLY AND WILL BE CONSTRUCTED BY OTHERS



REVISIONS

MATCHLINE -L- STA. 22+00
SEE SHEET UC-4

MATCHLINE -L- STA. 34+00
SEE SHEET UC-6

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2225
2220
2215
2210
2205
2200
2195
2190

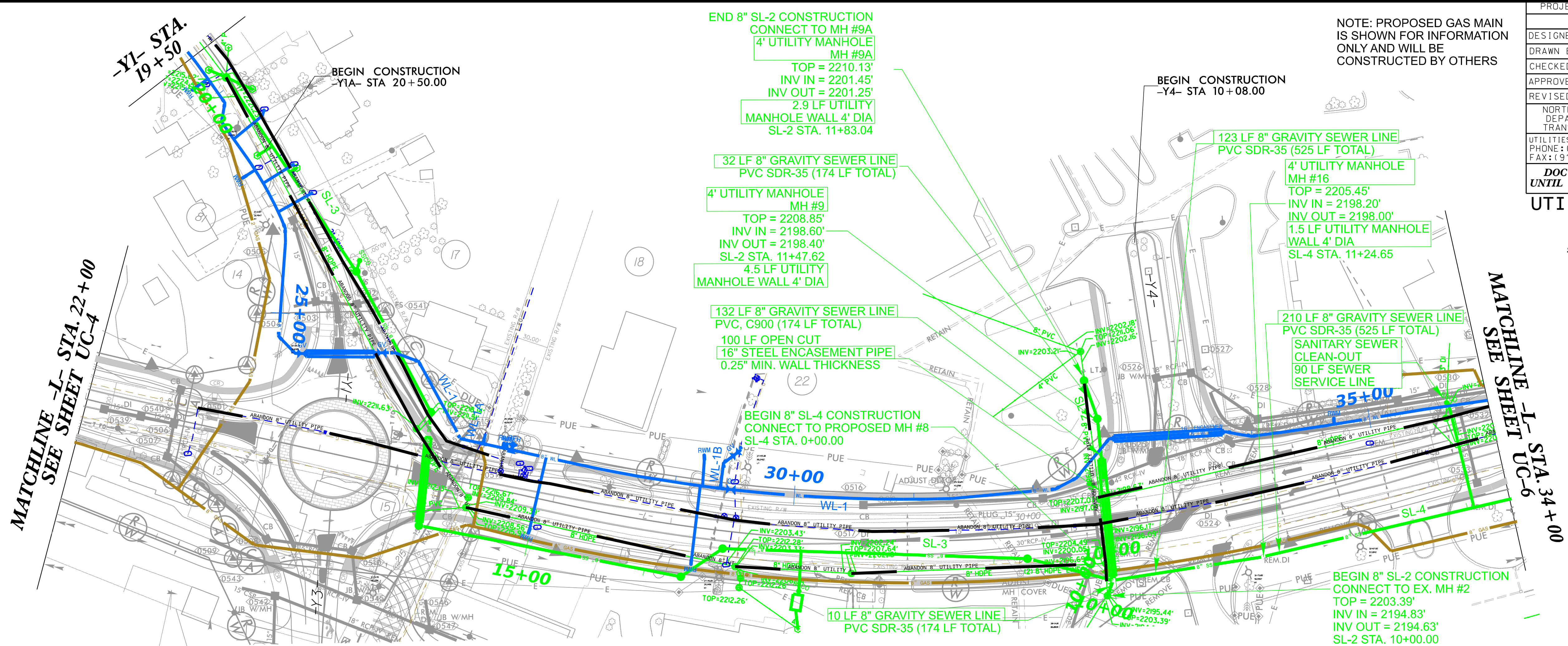
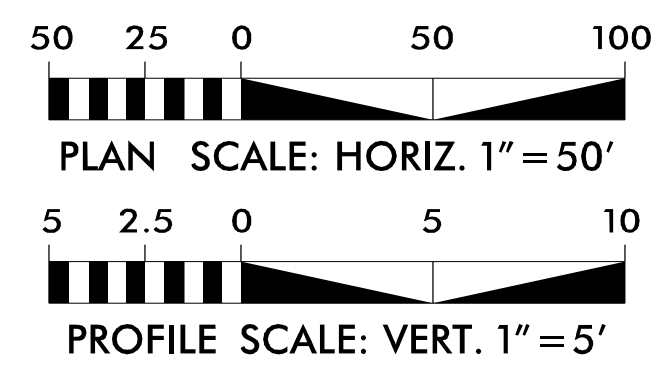
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20+00 19+00 18+00 17+00 16+00 15+00 14+00 13+00 12+00 11+00 10+00

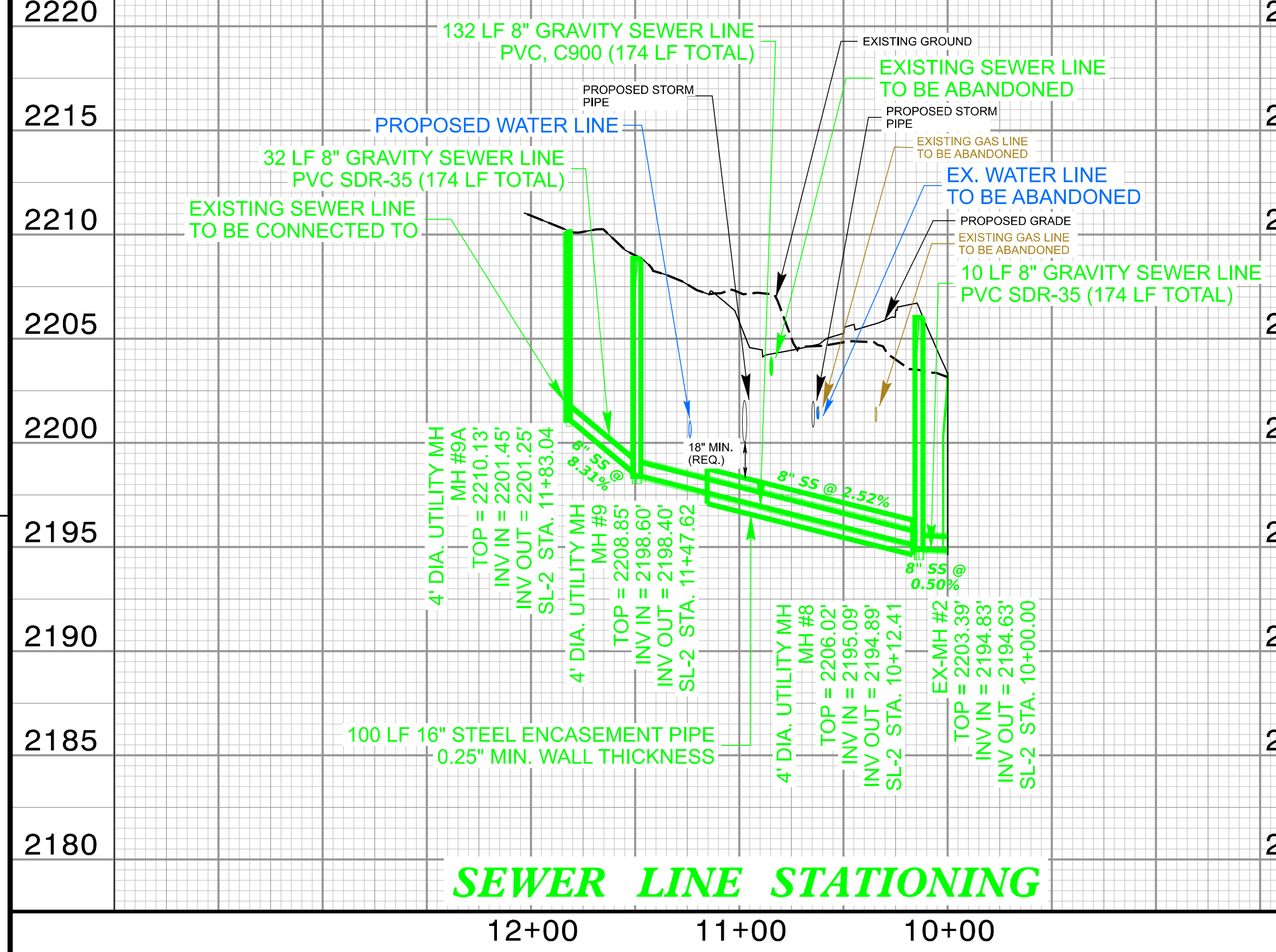
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PROJECT REFERENCE NO.	SHEET NO.
U-5783	UC-5B
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DRAWN BY: MRD	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	5/1/2024 11:57:46 AM EDT
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UTILITY CONSTRUCTION

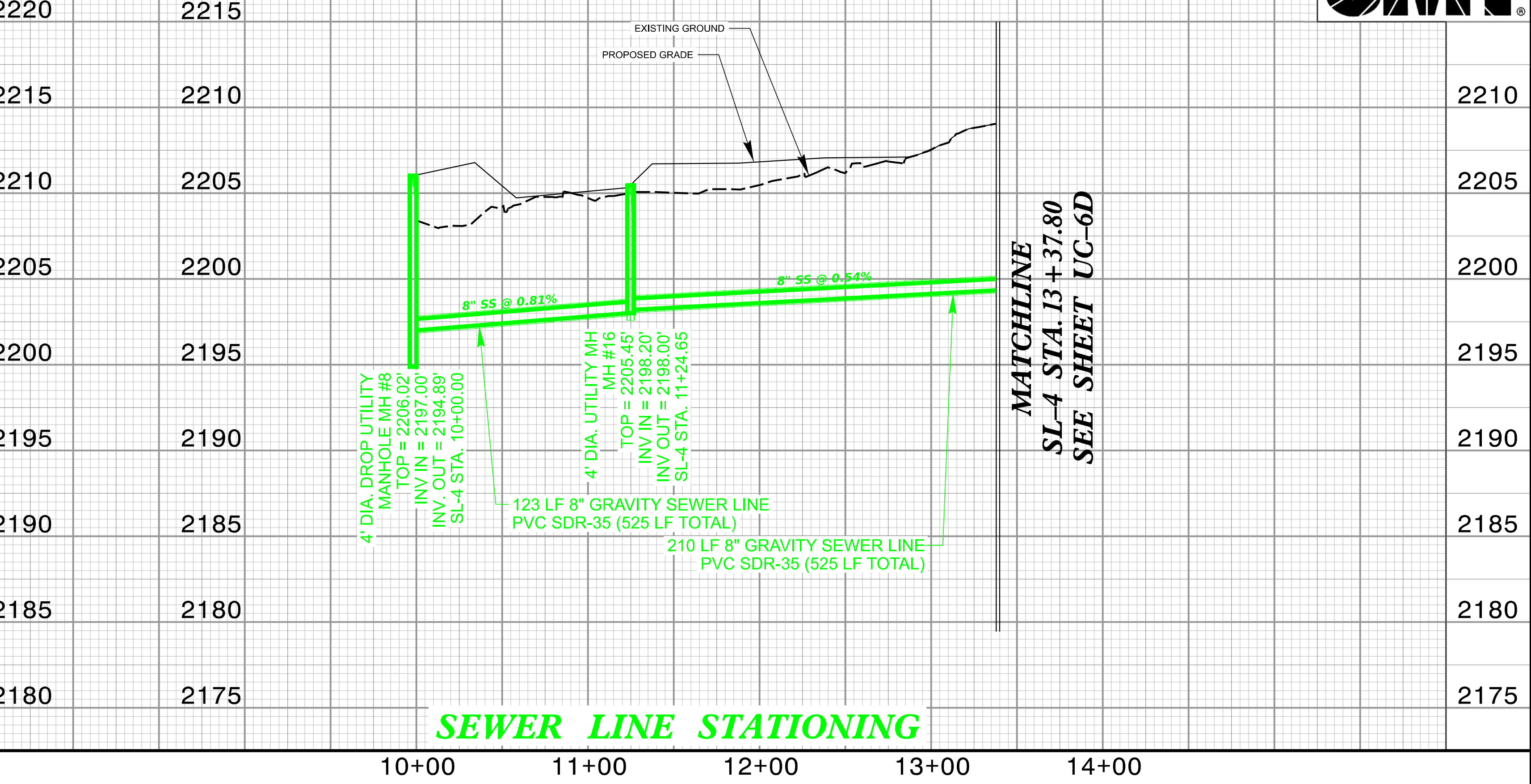


SEWER LINE -SL-2- PROFILE



SEWER LINE STATIONING

SEWER LINE -SL-4- PROFILE



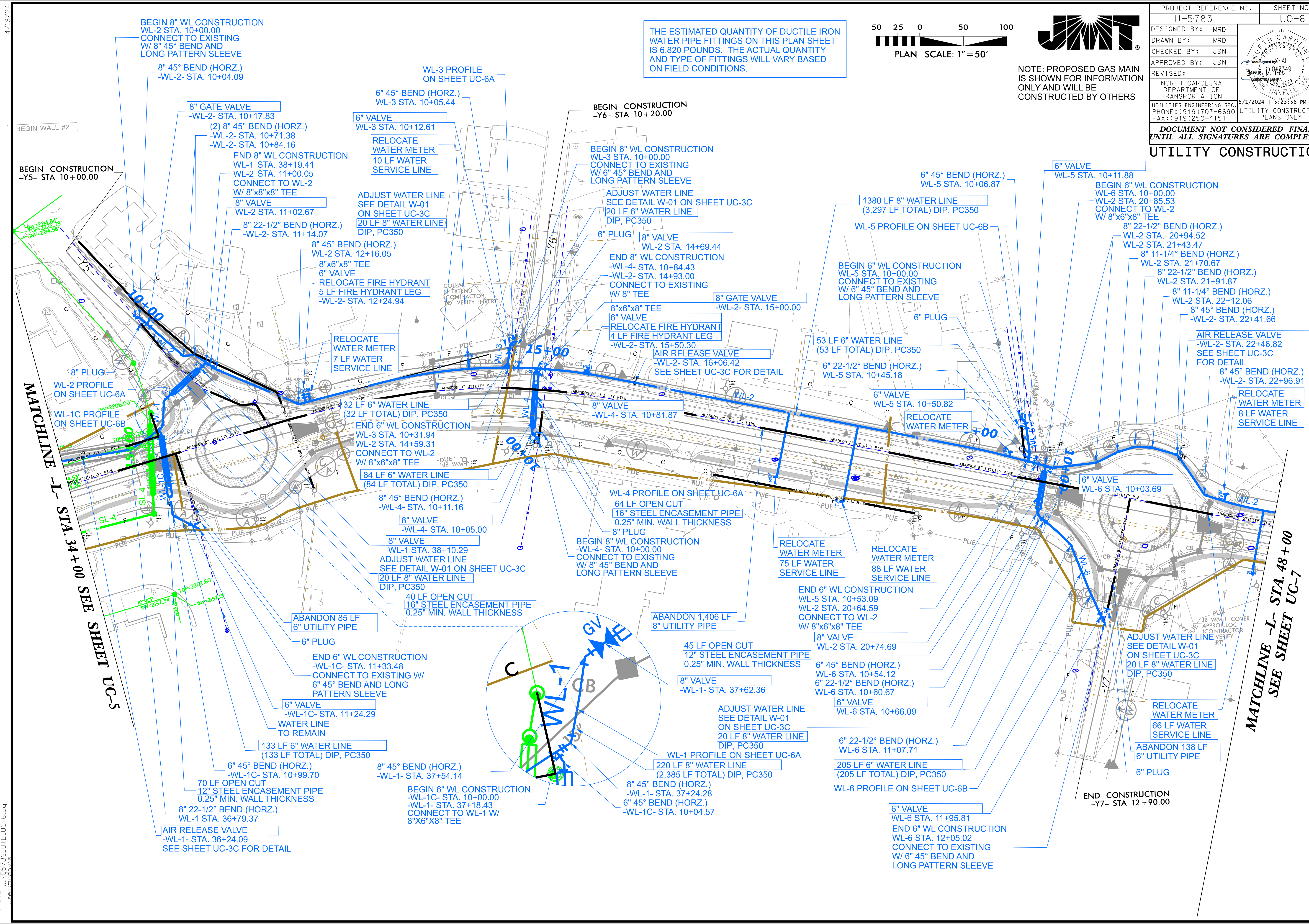
SEWER LINE STATIONING



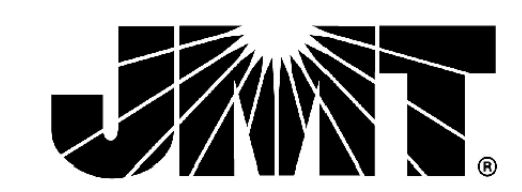
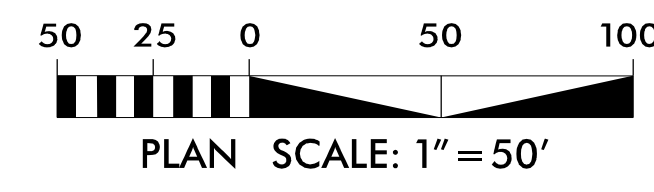
MATCHLINE SL-4 STA. 13 + 37.80 SEE SHEET UC-6D

REVISIONS

4/16/24
4/18/2024 4:26:59 PM
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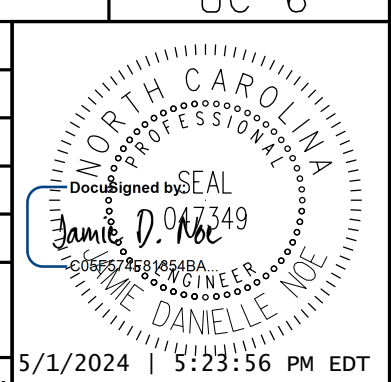


THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 6,820 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



NOTE: PROPOSED GAS MAIN IS SHOWN FOR INFORMATION ONLY AND WILL BE CONSTRUCTED BY OTHERS

PROJECT REFERENCE NO.	UC-6
SHEET NO.	U-5783
DESIGNED BY:	MRD
DRAWN BY:	MRD
CHECKED BY:	JDN
APPROVED BY:	JDN
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
5/1/2024 11:23:56 PM EDT	
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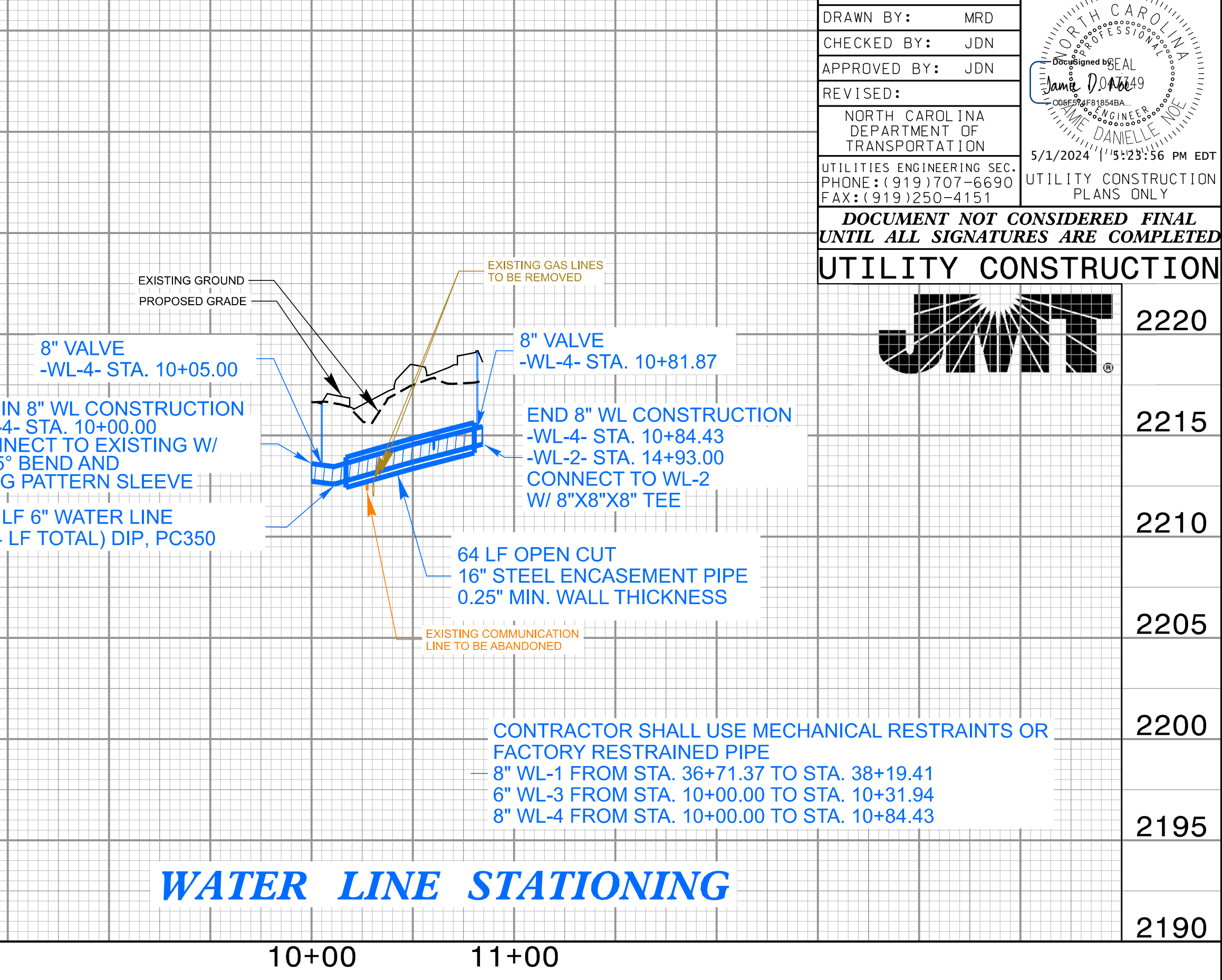
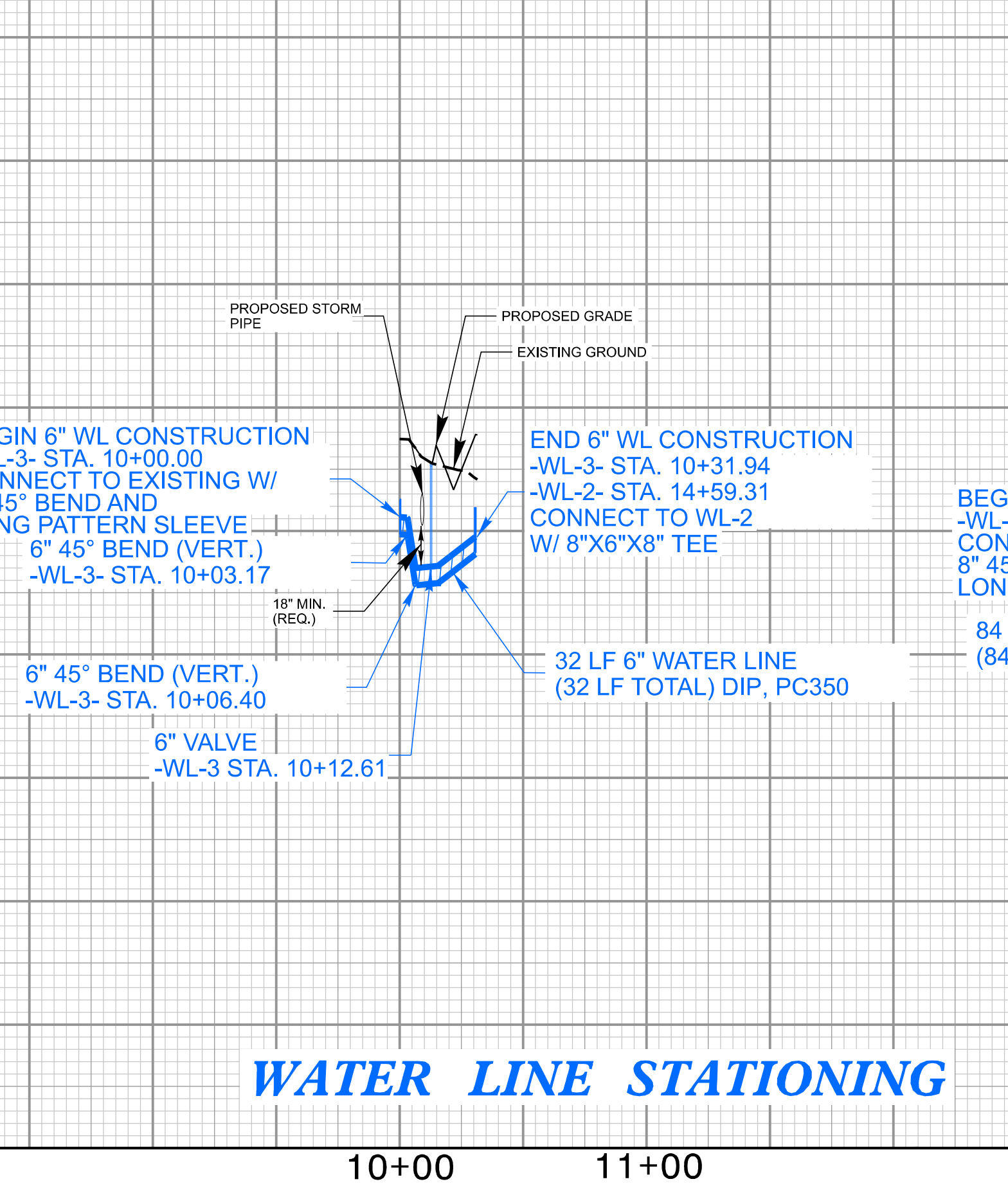
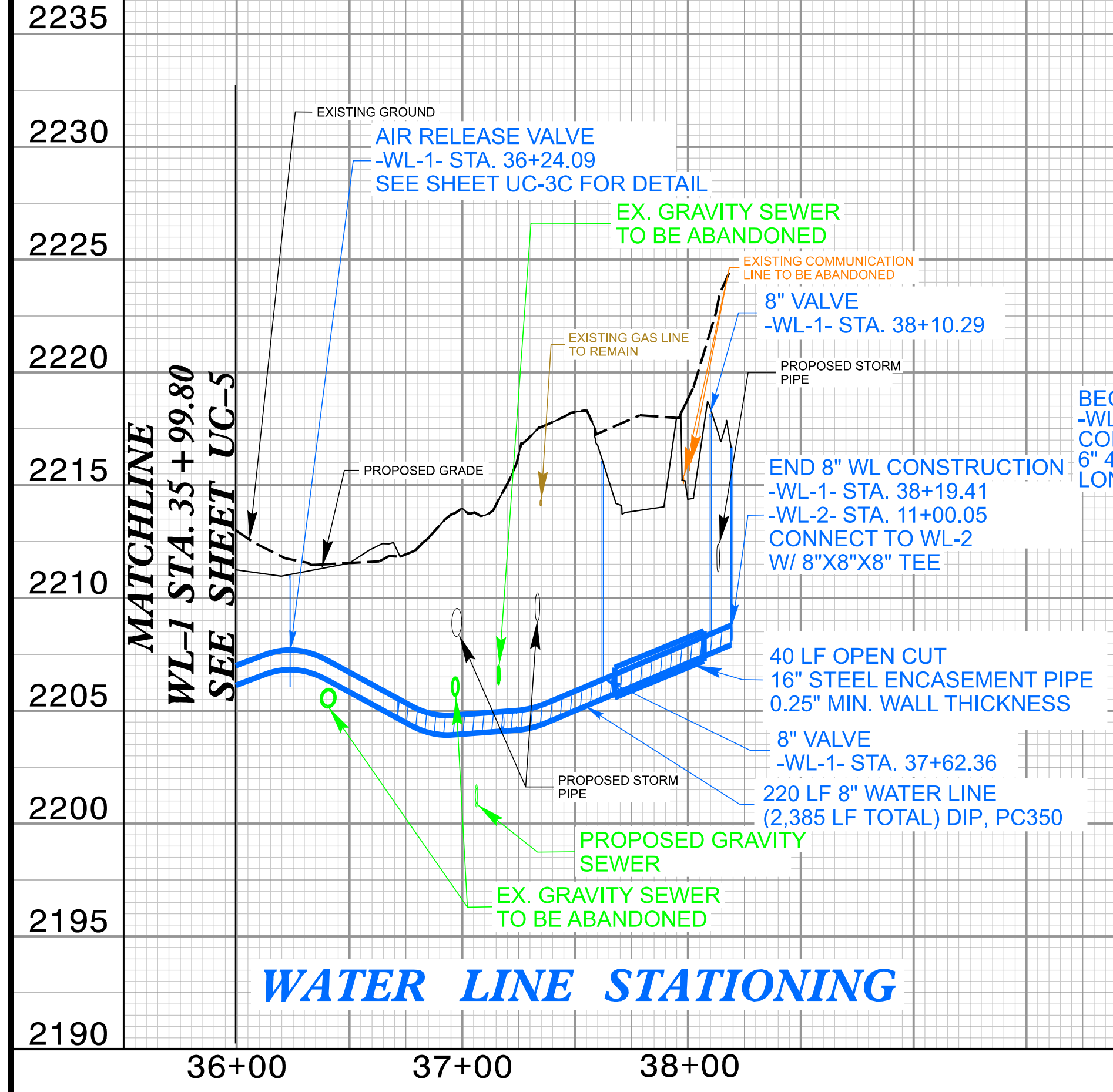


4/16/24

WATER LINE -WL-1- PROFILE

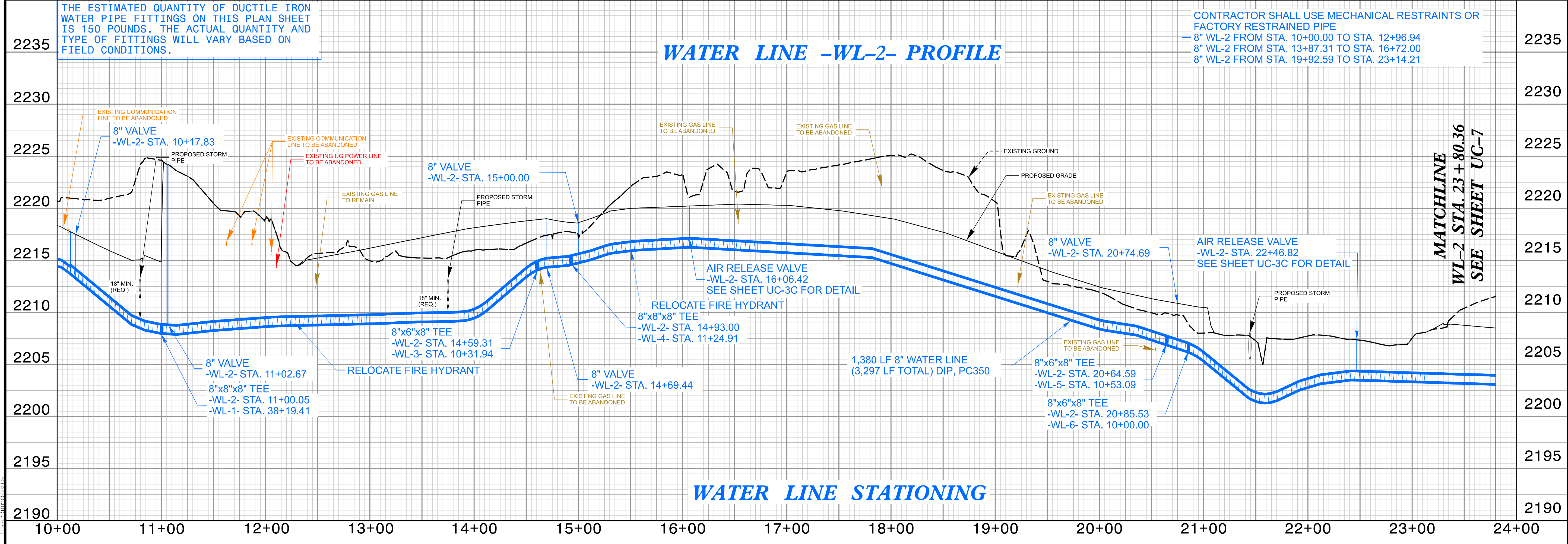
WATER LINE -WL-3- PROFILE

WATER LINE -WL-4- PROFILE

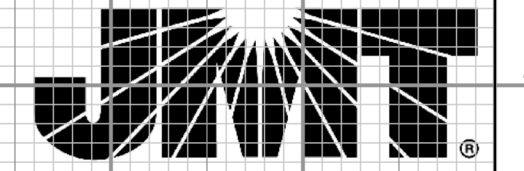


THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 150 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

WATER LINE -WL-2- PROFILE



PROJECT REFERENCE NO.	SHEET NO.
U-5783	UC-6A
DESIGNED BY: MRD	
DRAWN BY: MRD	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	5/1/2024 11:52:36 PM EDT
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UTILITY CONSTRUCTION	

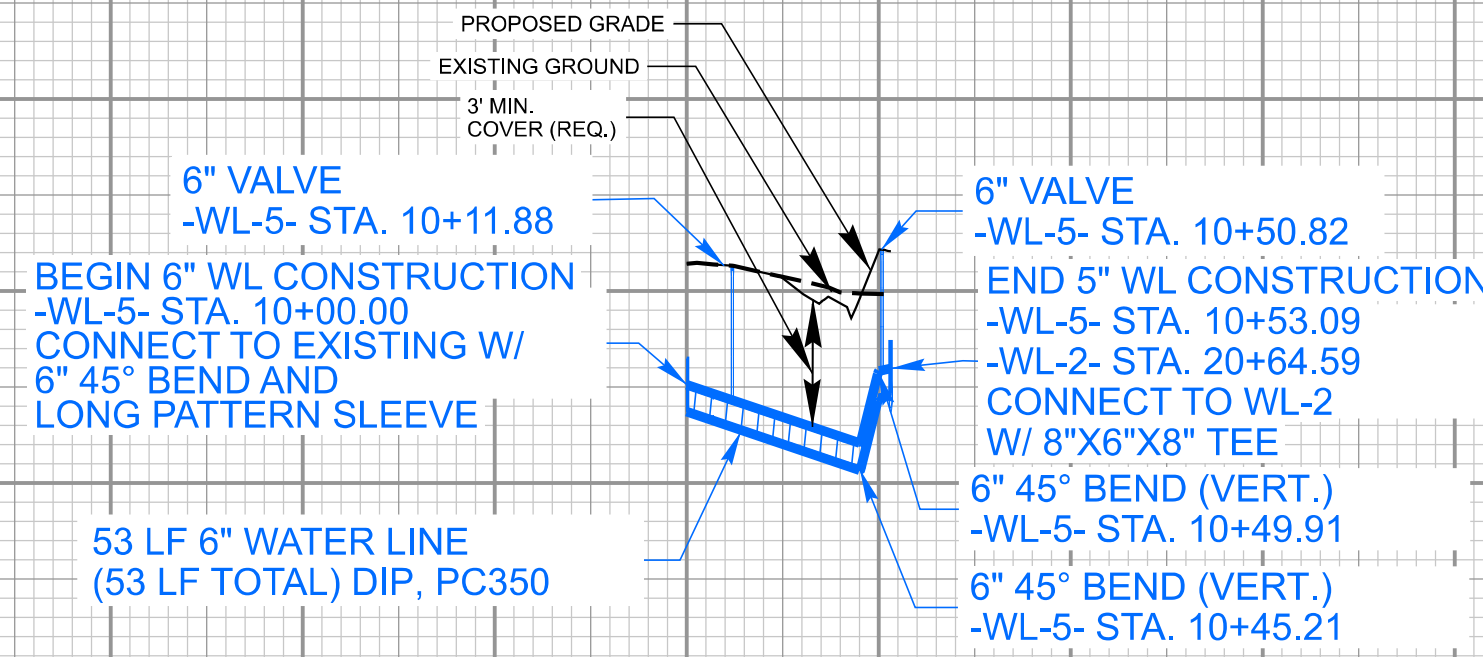


4/18/2024 4:26:59 PM
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4/16/24

WATER LINE -WL-5- PROFILE

2235
2230
2225
2220
2215
2210
2205
2200
2195
2190



CONTRACTOR SHALL USE MECHANICAL RESTRAINTS OR
FACTORY RESTRAINED PIPE

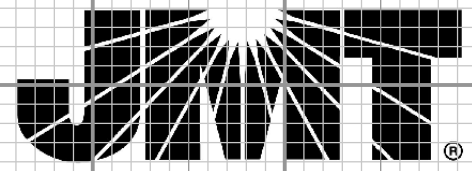
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6" WL-1C FROM STA. 10+00.00 TO STA. 10+17.56
6" WL-1C FROM STA. 10+70.03 TO STA. 11+33.48
6" WL-6 FROM STA. 10+00.00 TO STA. 11+21.09
6" WL-6 FROM STA. 11+40.81 TO STA. 12.05.02

WATER LINE STATIONING

10+00 11+00

THE ESTIMATED QUANTITY OF DUCTILE IRON
WATER PIPE FITTINGS ON THIS PLAN SHEET
IS 150 POUNDS. THE ACTUAL QUANTITY AND
TYPE OF FITTINGS WILL VARY BASED ON
FIELD CONDITIONS.

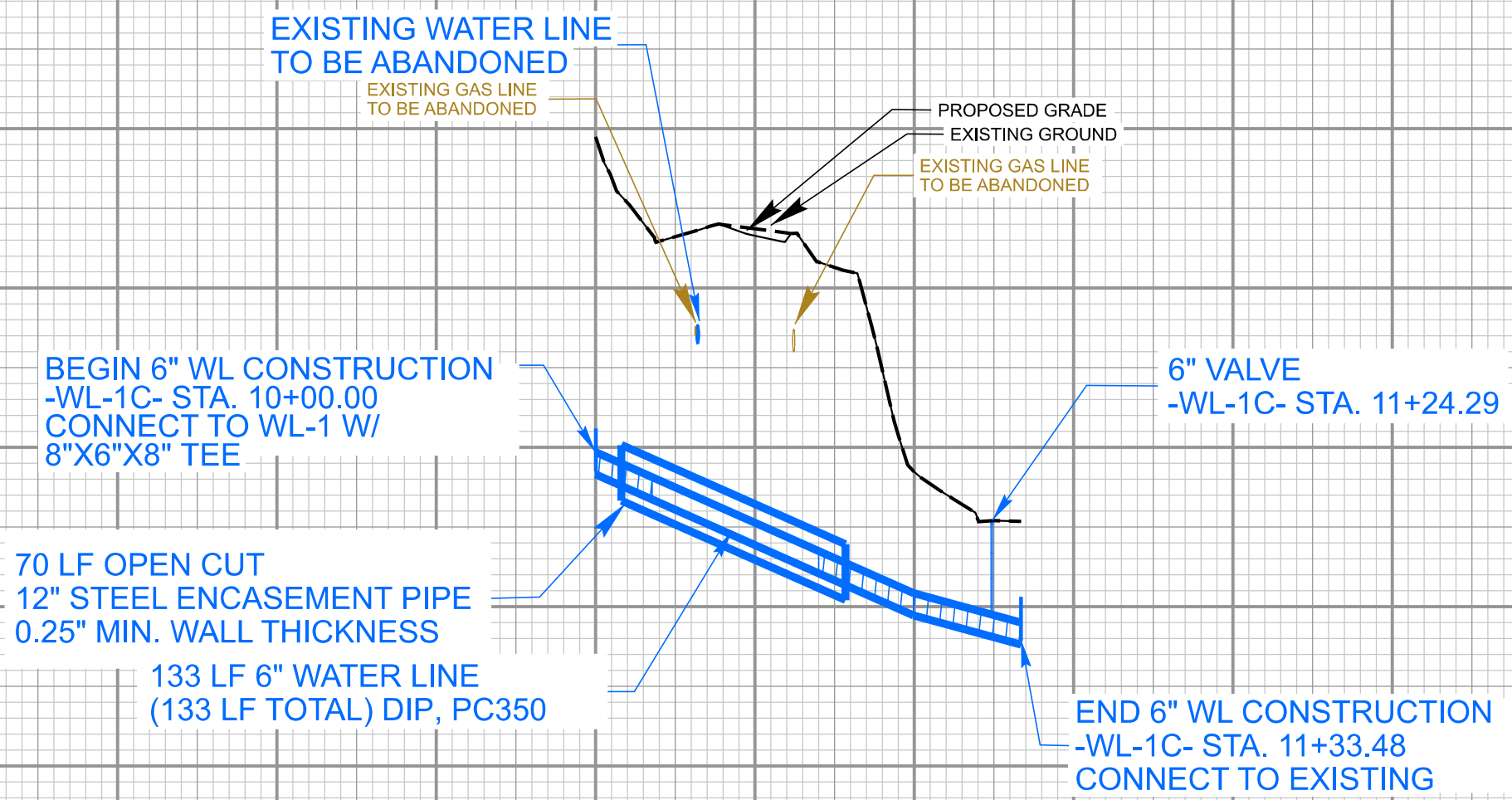
PROJECT REFERENCE NO.	SHEET NO.
U-5783	UC-6B
DESIGNED BY: MRD	
DRAWN BY: MRD	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
5/1/2024 11:01:18 PM EDT	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY
DOCUMENT NOT CONSIDERED FINAL UNTIL ALL SIGNATURES ARE COMPLETED	
UTILITY CONSTRUCTION	



2220
2215
2210
2205
2200
2195
2190

WATER LINE -WL-1C- PROFILE

2225
2220
2215
2210
2205
2200
2195
2190
2185
2180

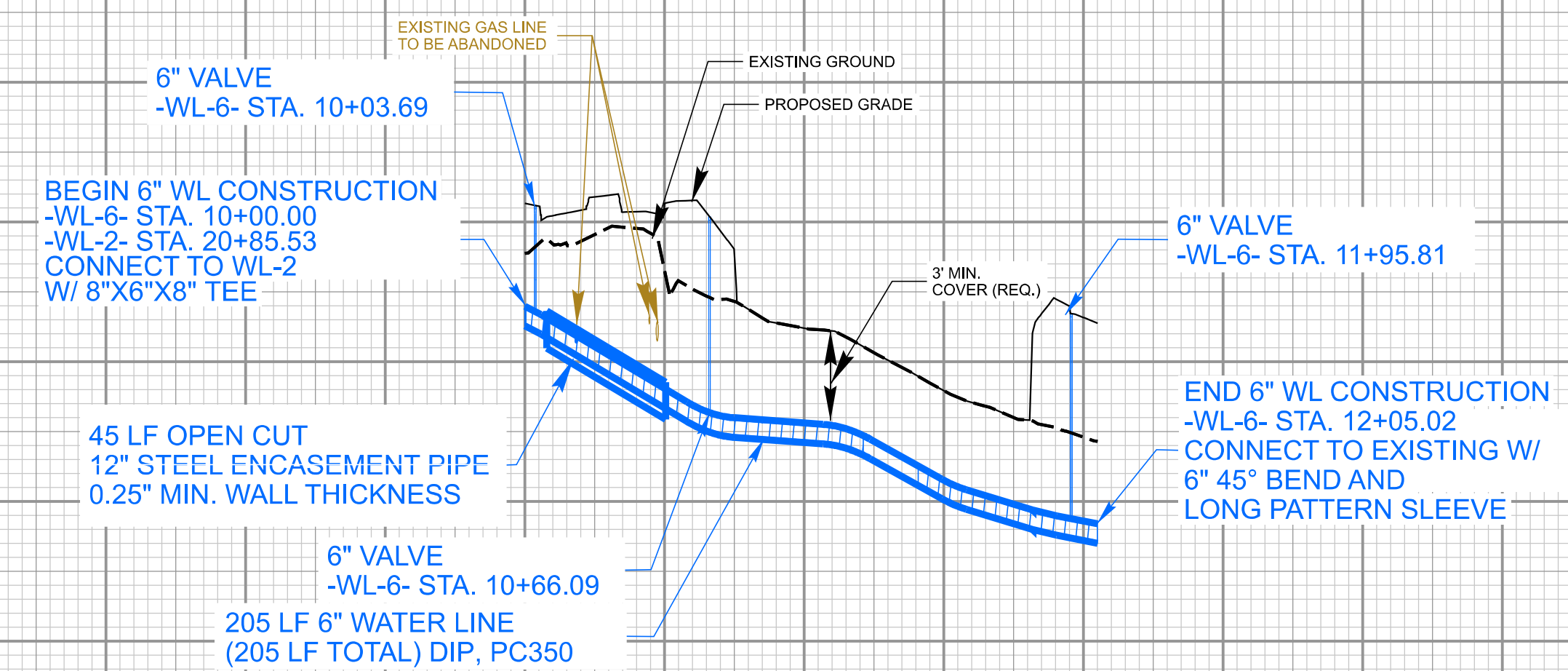


WATER LINE STATIONING

10+00 11+00 12+00

WATER LINE -WL-6- PROFILE

2225
2220
2215
2210
2205
2200
2195
2190
2185
2180



WATER LINE STATIONING

10+00 11+00 12+00

5/1/2024 5:08:01 PM
U:\5783\UC-6.dgn
jrc

PROJECT REFERENCE NO.	SHEET NO.
U-5783	UC-6C
DESIGNED BY: MRD	
DRAWN BY: MRD	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	5/1/2024 11:50:34 AM EDT
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	UTILITY CONSTRUCTION PLANS ONLY
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UTILITY CONSTRUCTION	

NOTE: PROPOSED GAS MAIN IS SHOWN FOR INFORMATION ONLY AND WILL BE CONSTRUCTED BY OTHERS



BEGIN WALL #2 AND HANDRAIL (SEE SHEET 2C-1)
-Y4- STA 11+49 LT TO
-L- STA 34+78 LT

BEGIN CONSTRUCTION
-Y5- STA 10+00.00

BEGIN CONSTRUCTION
-Y6- STA 10+20.00

ABANDON 145 LF 8" UTILITY PIPE

END 8" SL-4 CONSTRUCTION CONNECT TO MH #19
SL-4 STA. 15+37.31

4' UTILITY MANHOLE MH #19
TOP = 2217.08'
INV IN = 2206.70'
INV OUT = 2206.50'
4.6 LF UTILITY MANHOLE WALL 4' DIA
SL-4 STA. 15+37.31

11 LF 8" GRAVITY SEWER LINE
PVC SDR-35 (525 LF TOTAL)

MATCHLINE -L- STA. 34+00
SEE SHEET UC-5

4' UTILITY MANHOLE MH #18
TOP = 2216.63'
INV IN = 2206.00'
INV OUT = 2201.00'
9.6 LF UTILITY MANHOLE WALL 4' DIA
SL-4 STA. 15+24.02

75 LF OPEN CUT 16" STEEL ENCASEMENT PIPE
0.25" MIN. WALL THICKNESS

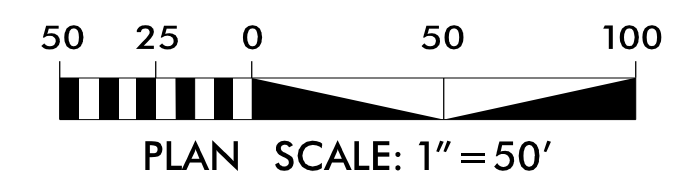
96 LF 8" GRAVITY SEWER LINE
PVC, C900 (525 LF TOTAL)

4' UTILITY MANHOLE MH #17
TOP = 2207.22'
INV IN = 2200.00'
INV OUT = 2199.80'
1.4 LF UTILITY MANHOLE WALL 4' DIA
SL-4 STA. 14+23.94

85 LF 8" GRAVITY SEWER LINE
PVC SDR-35 (525 LF TOTAL)
SL-4 PROFILE ON SHEET UC-6D

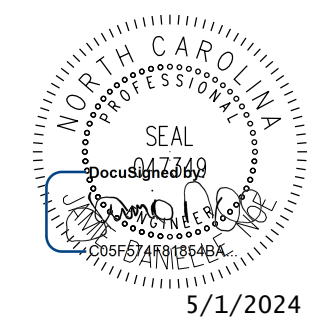
END CONSTRUCTION
-Y7- STA 12+90.00

MATCHLINE -L- STA. 48+00
SEE SHEET UC-7



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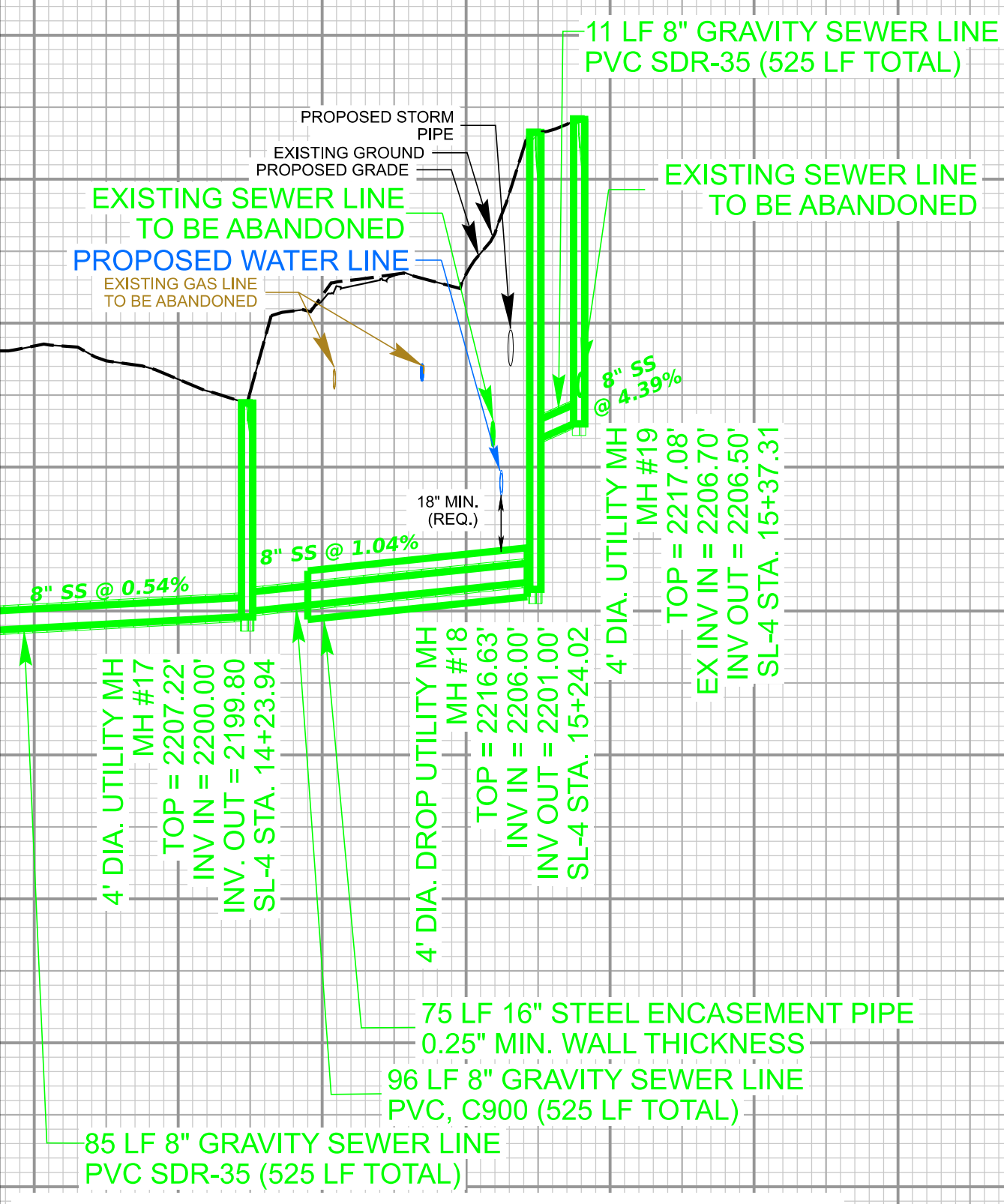
4/16/24

PROJECT REFERENCE NO.	SHEET NO.
U-5783	UC-6D
DESIGNED BY: MRD	
DRAWN BY: MRD	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	
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UTILITY CONSTRUCTION	

SEWER LINE -SL-4- PROFILE

2220
2215
2210
2205
2200
2195
2190
2185
2180

MATCHLINE SL-4 STA. 13+37.80
SEE SHEET UC-5B



SEWER LINE STATIONING

13+00 14+00 15+00 16+00

2195
2190
2185
2180

