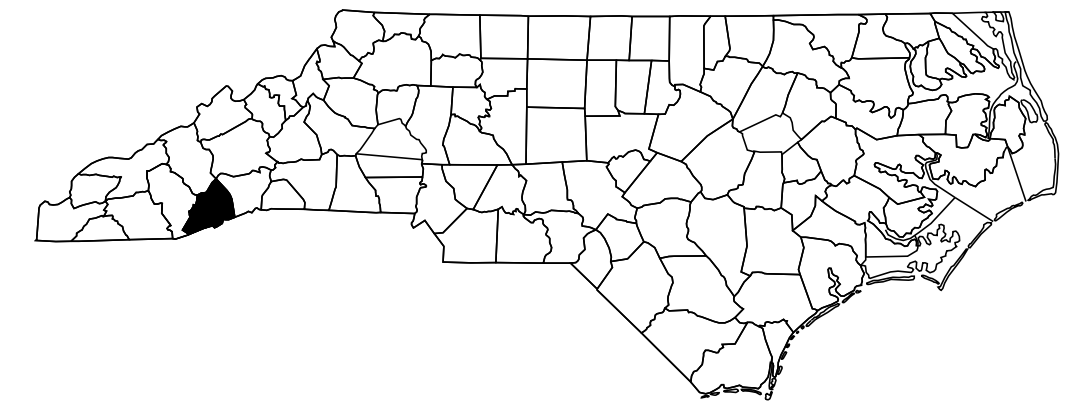


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TIP PROJECT: R-5799

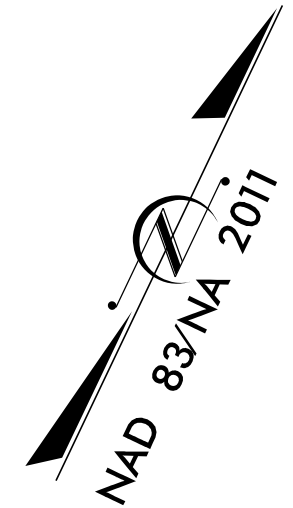
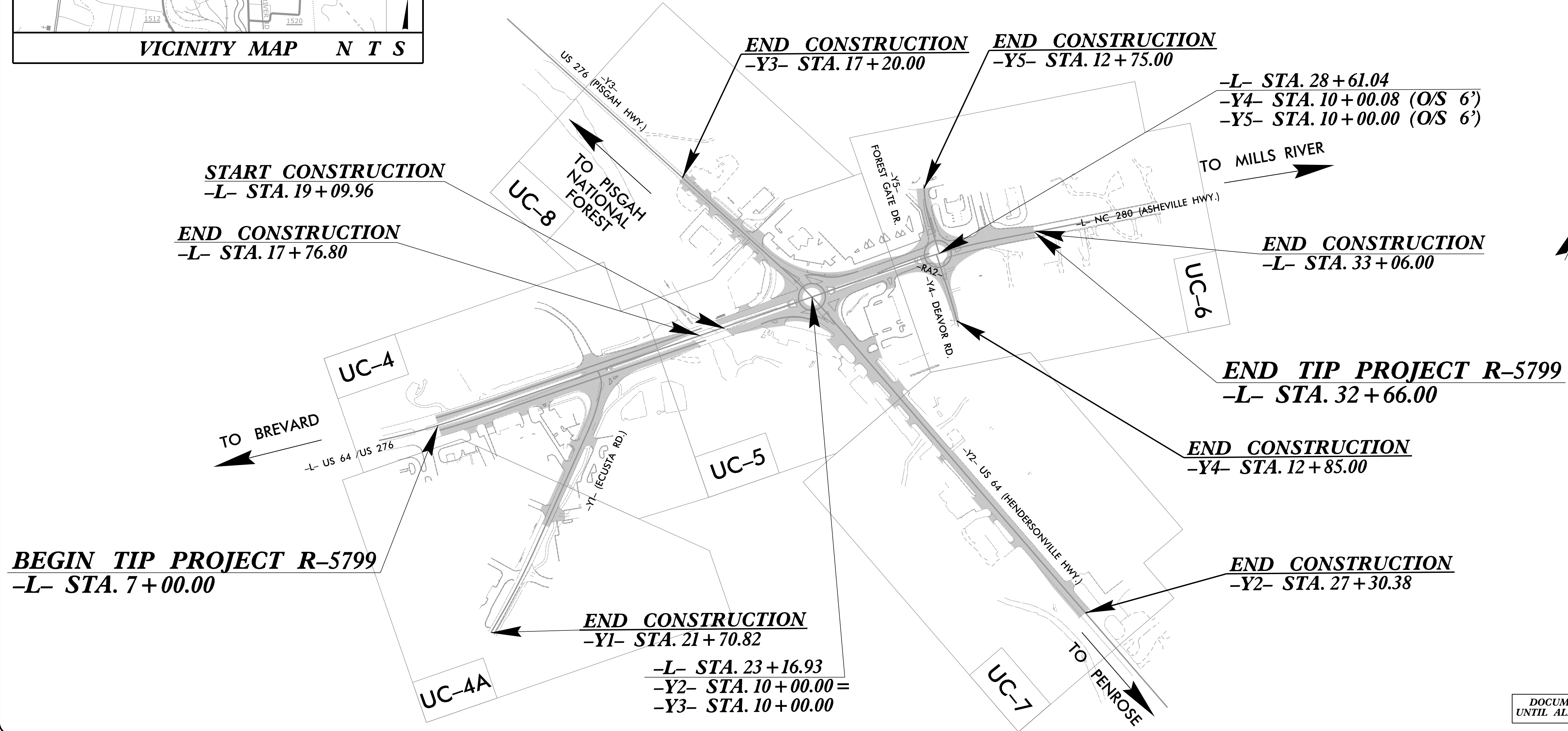
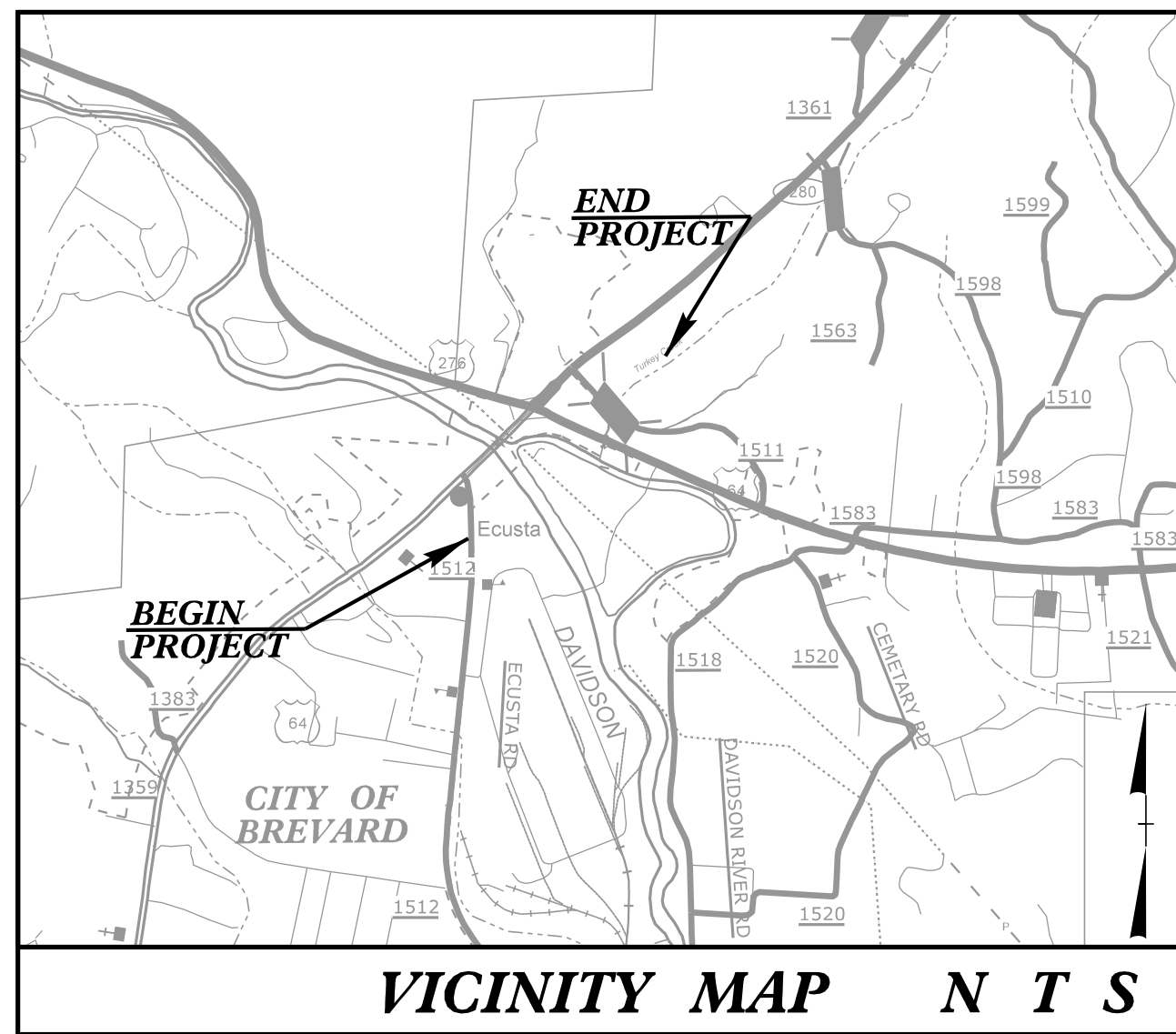
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

T.I.P. NO.	SHEET NO.
R-5799	UC-1

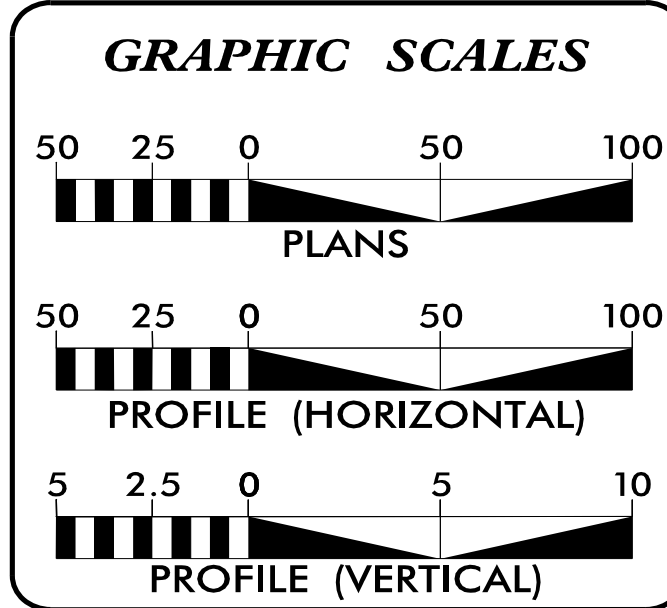


UTILITY CONSTRUCTION PLANS TRANSYLVANIA COUNTY

LOCATION: US 64 AT NC 280 /NC 64 INTERSECTION IMPROVEMENTS
TYPE OF WORK: WATER AND SEWER LINE CONSTRUCTION



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	NOTES
UC-3A THRU UC-3D	DETAILS
UC-4 THRU UC-8A	UTILITY CONSTRUCTION SHEETS

WATER AND SEWER OWNERS ON PROJECT

(A) WATER - CITY OF BREVARD
(B) SANITARY SEWER - CITY OF BREVARD

PREPARED IN THE OFFICE OF

V&M
Vaughn & Melton
Consulting Engineers

1318-F PATTON AVE
ASHEVILLE, NC 28806
828.253.2796

Jamie D. Noe, P.E. UTILITY PROJECT MANAGER
Matthew Davis, P.E. UTILITY PROJECT DESIGNER
James Montgomery UTILITY PROJECT COORDINATOR

SEAL

9/5/2023 | 4:14:23 PM EDT

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

Michael Bright, P.E. UTILITIES REGIONAL ENGINEER
Bob Golding DIVISION UTILITY ENGINEER
Amy Dupree UTILITIES AREA COORDINATOR

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R5799-UTL-UC-1.dgn
User: rmdominguez

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

UTILITIES PLAN SHEET SYMBOLS

PROPOSED WATER SYMBOLS

Water Line (Sized as Shown)	
11 1/4 Degree Bend	
22 1/2 Degree Bend	
45 Degree Bend	
90 Degree Bend	
Plug	
Tee	
Cross	
Reducer	
Gate Valve	
Butterfly Valve	
Tapping Valve	
Line Stop	
Line Stop with Bypass	
Blow Off	
Fire Hydrant	
Relocate Fire Hydrant	
Remove Fire Hydrant	
Water Meter	
Relocate Water Meter	
Remove Water Meter	
Water Pump Station	
RPZ Backflow Preventer	
DCV Backflow Preventer	
Relocate RPZ Backflow Preventer	
Relocate DCV Backflow Preventer	

PROPOSED SEWER SYMBOLS

Gravity Sewer Line (Sized as Shown)	
Force Main Sewer Line (Sized as Shown)	
Manhole (Sized per Note)	
Sewer Pump Station	

PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

Power Pole	
Telephone Pole	
Joint Use Pole	
Telephone Pedestal	
Utility Line by Others (Type as Shown)	
Trenchless Installation	
Encasement by Open Cut	
Encasement	

Thrust Block	
Air Release Valve	
Utility Vault	
Concrete Pier	
Steel Pier	
Plan Note	
Pay Item Note	

EXISTING UTILITIES SYMBOLS

Power Pole	
Telephone Pole	
Joint Use Pole	
Utility Pole	
Utility Pole with Base	
H-Frame Pole	
Power Transmission Line Tower	
Water Manhole	
Power Manhole	
Telephone Manhole	
Sanitary Sewer Manhole	
Hand Hole for Cable	
Power Transformer	
Telephone Pedestal	
CATV Pedestal	
Gas Valve	
Gas Meter	
Located Miscellaneous Utility Object	
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

*Underground Power Line	
*Underground Telephone Cable	
*Underground Telephone Conduit	
*Underground Fiber Optics Telephone Cable	
*Underground TV Cable	
*Underground Fiber Optics TV Cable	
*Underground Gas Pipeline	
Aboveground Gas Pipeline	
*Underground Water Line	
Aboveground Water Line	
*Underground Gravity Sanitary Sewer Line	
Aboveground Gravity Sanitary Sewer Line	
*Underground SS Forced Main Line	
Underground Unknown Utility Line	
SUE Test Hole	
Water Meter	
Water Valve	
Fire Hydrant	
Sanitary Sewer Cleanout	

*For Existing Utilities
 Utility Line Drawn from Record (Type as Shown)
 Designated Utility Line (Type as Shown)

UTILITY CONSTRUCTION

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 2018 OR LATEST EDITION AND CITY OF BREVARD DESIGN STANDARDS AND SPECIFICATIONS.

2. THE EXISTING UTILITIES BELONG TO THE CITY OF BREVARD.
WESLEY SHOOK - 828-884-2171

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 BREVARD, THE OWNER OR THE ENGINEER. THE PERMITS REQUIRE CERTIFICATION OF COMPLETION OF THE WATER SYSTEMS BY THE DEPARTMENT OF TRANSPORTATION 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 OR AUTHORIZED REPRESENTATIVES. THE CONTRACTOR SHALL ENSURE THE CONSTRUCTION SITE IS SAFE FOR ANY PERSONS WHO MAY BE ON SITE DURING NON-WORKING HOURS.

5. 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.

6. 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.

7. 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.

8. 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.

9. CONTRACTOR SHALL PROTECT EXISTING UTILITIES DURING CONSTRUCTION. REPAIRS SHALL BE MADE IN ACCORDANCE WITH APPLICABLE STANDARDS OF APPROPRIATE AGENCIES AT THE CONTRACTOR'S EXPENSE.

10. 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 BREVARD. CONTINUOUS SERVICE, PUBLIC HEALTH AND SAFETY CONSIDERATIONS SHALL EXCEED ALL OTHERS. CONTRACTOR'S SCHEDULE, PLANS AND WORK SHALL AT ALL TIMES BE SUBJECT TO ALTERATION AND REVISION IF NECESSARY FOR THESE CONSIDERATIONS.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TEMPORARY OR PERMANENT RELOCATION OF STRUCTURES AND UTILITIES, INCLUDING BUT NOT LIMITED TO SIGNS, FENCES, HYDRANTS, VALVES, PIPING, AND DRAINS THAT INTERFERE WITH THE POSITIONING OF THE WORK AS SHOWN ON THE DRAWINGS.

12. CONTRACTOR SHALL BE REQUIRED TO CONFORM AND COMPLY WITH ALL RESTRICTIONS AND EASEMENT CONDITIONS AND IS RESPONSIBLE FOR ALL RELATED INCIDENTAL COSTS INVOLVED.

13. CONTRACTOR SHALL BE REQUIRED TO USE NON-SLIP LIDS FOR ANY UTILITY STRUCTURE LID THAT IS PROPOSED TO BE LOCATED IN THE PROPOSED SIDEWALK. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

14. CONTRACTOR SHALL COORDINATE LOCATION OF ALL WATER METERS WITH THE UTILITY OWNER.

PROJECT REFERENCE NO. R-5799	SHEET NO. UC-3
DESIGNED BY: MRD	
DRAWN BY: SRW	
CHECKED BY: JDN	
APPROVED BY: JDN	
REVISED:	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
7/13/2023 11:41:58 PM EDT UTILITY CONSTRUCTION PLANS ONLY DOCUMENT NOT CONSIDERED FINAL UNTIL ALL SIGNATURES ARE COMPLETED	

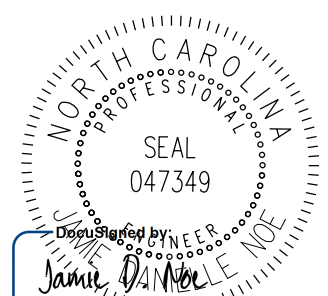
UTILITY CONSTRUCTION

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Consulting Engineers
Asheville, North Carolina
828-253-2796

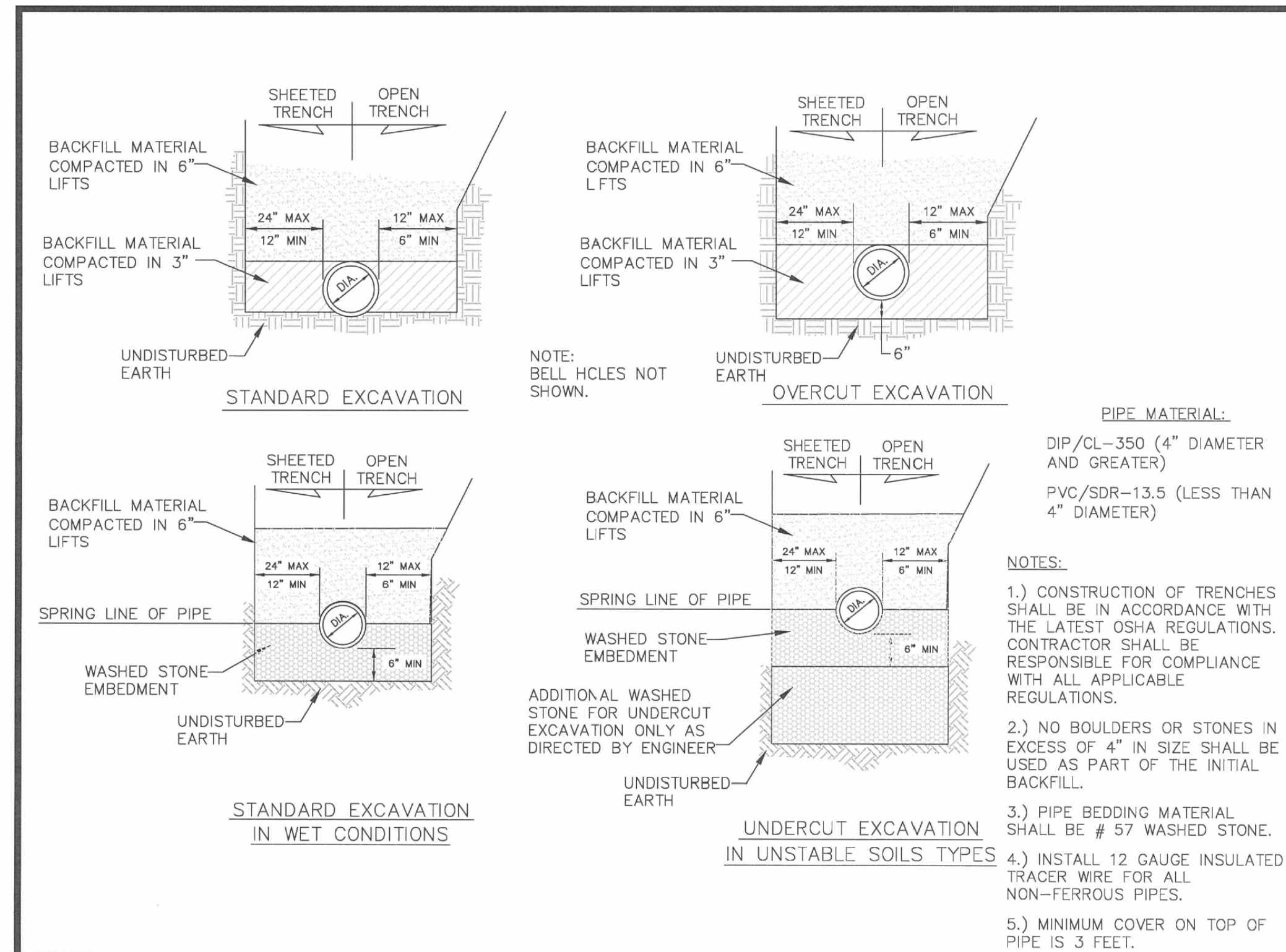
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CITY OF BREVARD WATER CONSTRUCTION DETAILS

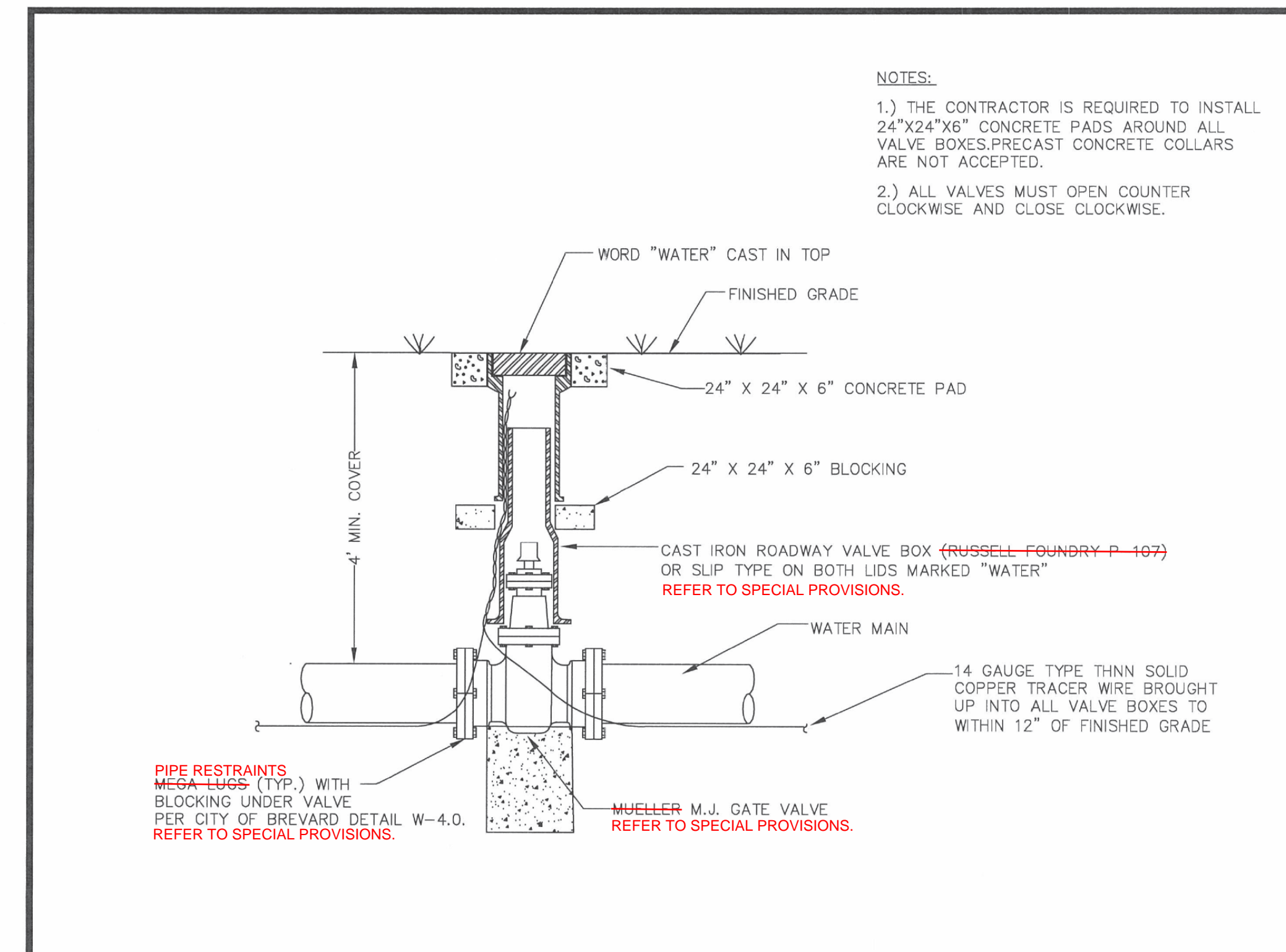
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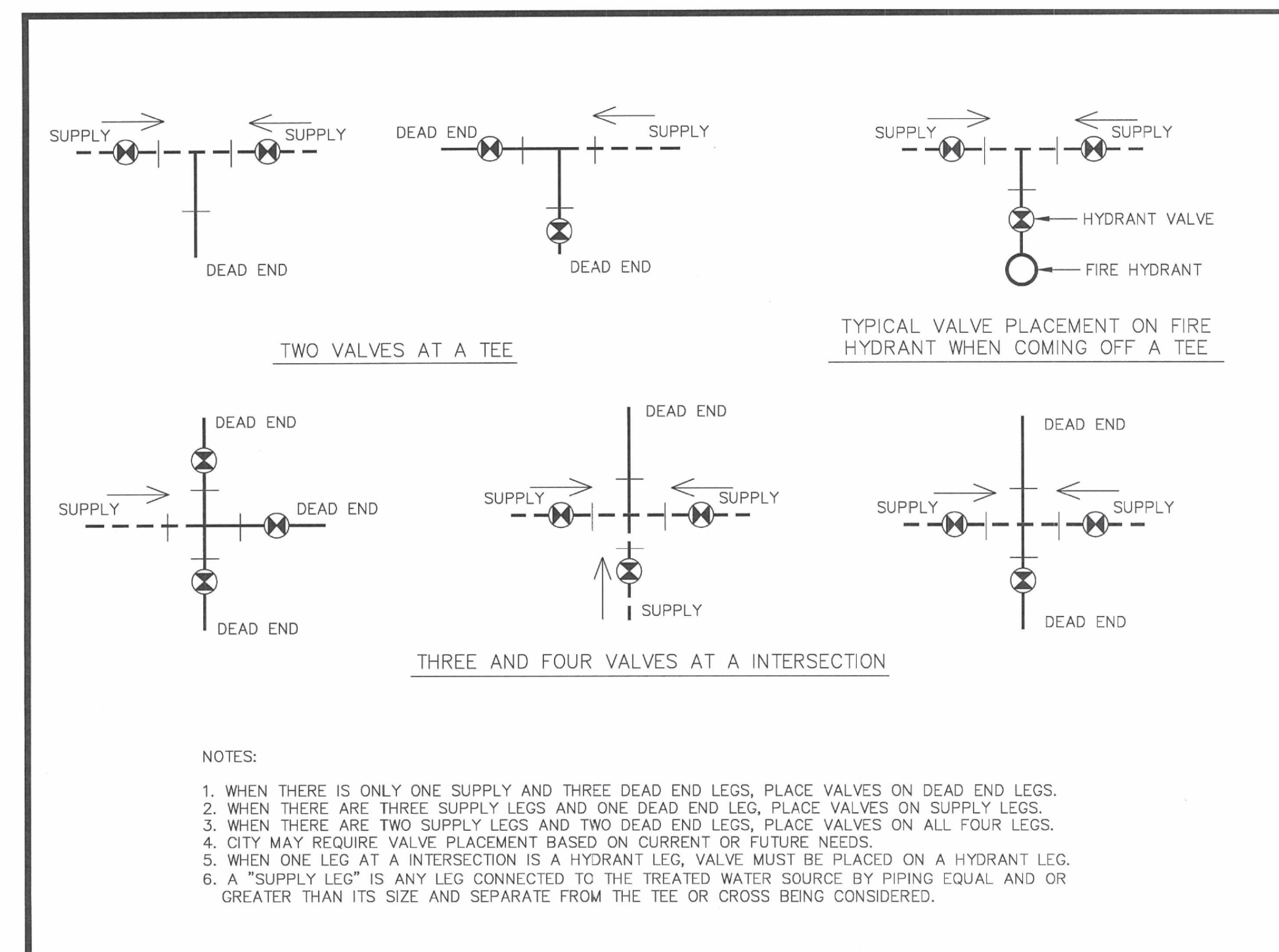
Brevard North Carolina
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 NOT TO SCALE

REVISIONS		STANDARD DETAIL
DATE	DESCRIPTION	
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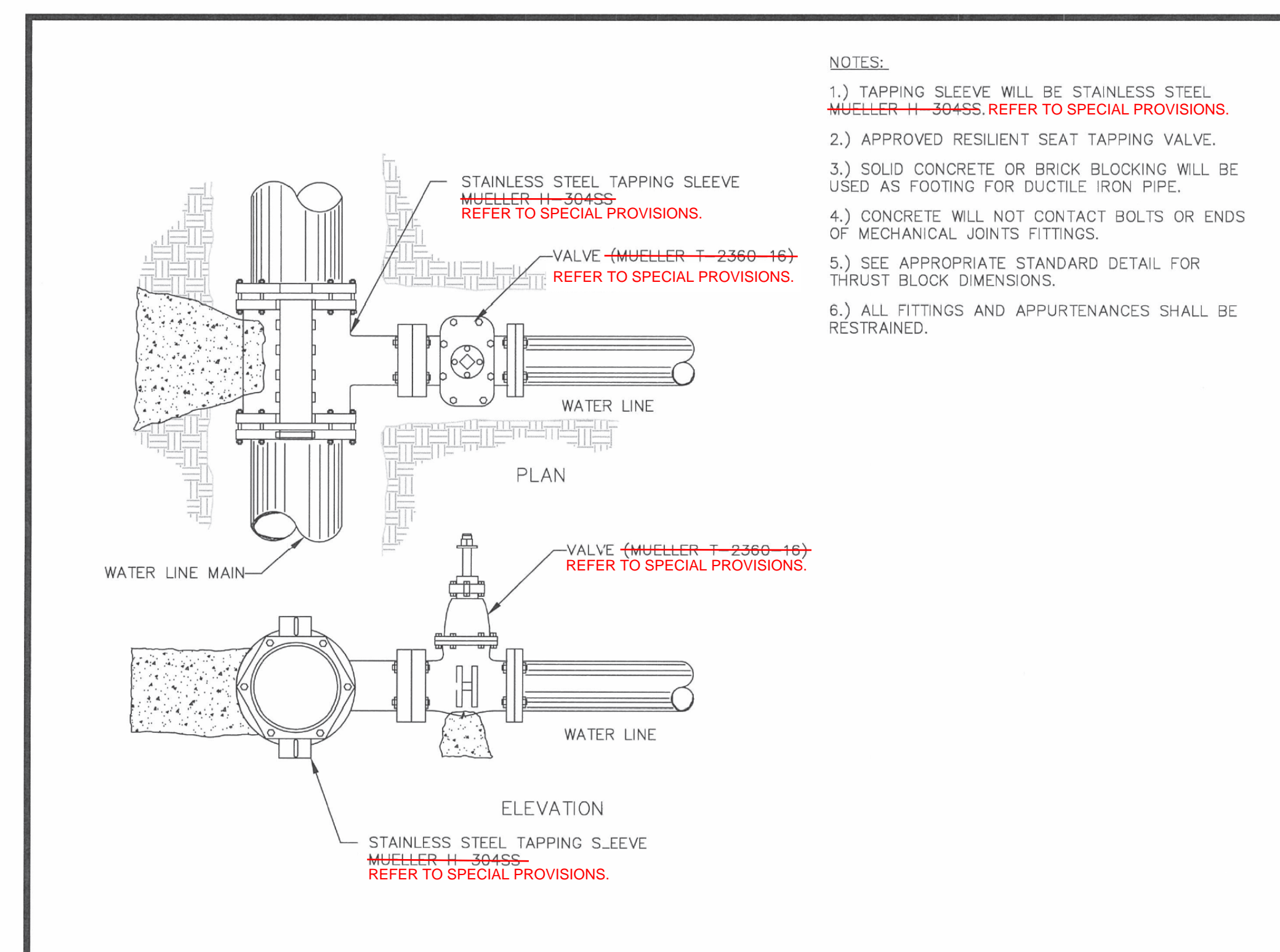
Brevard North Carolina
2" AND LARGER GATE VALVE INSTALLATION
 NOT TO SCALE

REVISIONS		STANDARD DETAIL
DATE	DESCRIPTION	
12/01/10	ISSUED	W-2.0



Brevard North Carolina
TYPICAL VALVING CONFIGURATION
 NOT TO SCALE

REVISIONS		STANDARD DETAIL
DATE	DESCRIPTION	
12/01/10	ISSUED	W-2.2



Brevard North Carolina
TAPPING SLEEVE AND VALVE ASSEMBLY
 NOT TO SCALE

REVISIONS		STANDARD DETAIL
DATE	DESCRIPTION	
12/01/10	ISSUED	W-2.3

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 Boone, NC 828-355-9933
 Kennesaw, GA 770-621-3590

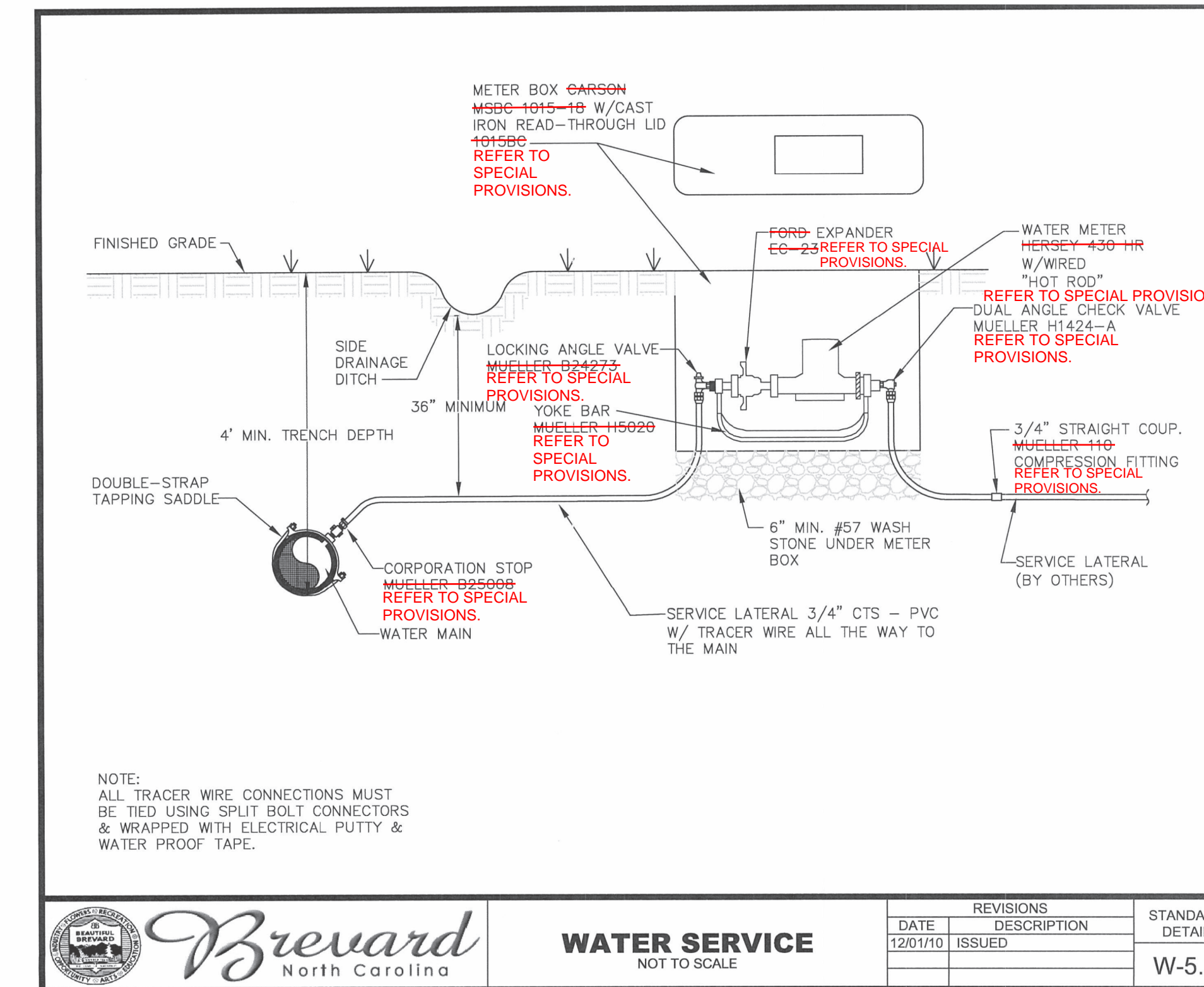
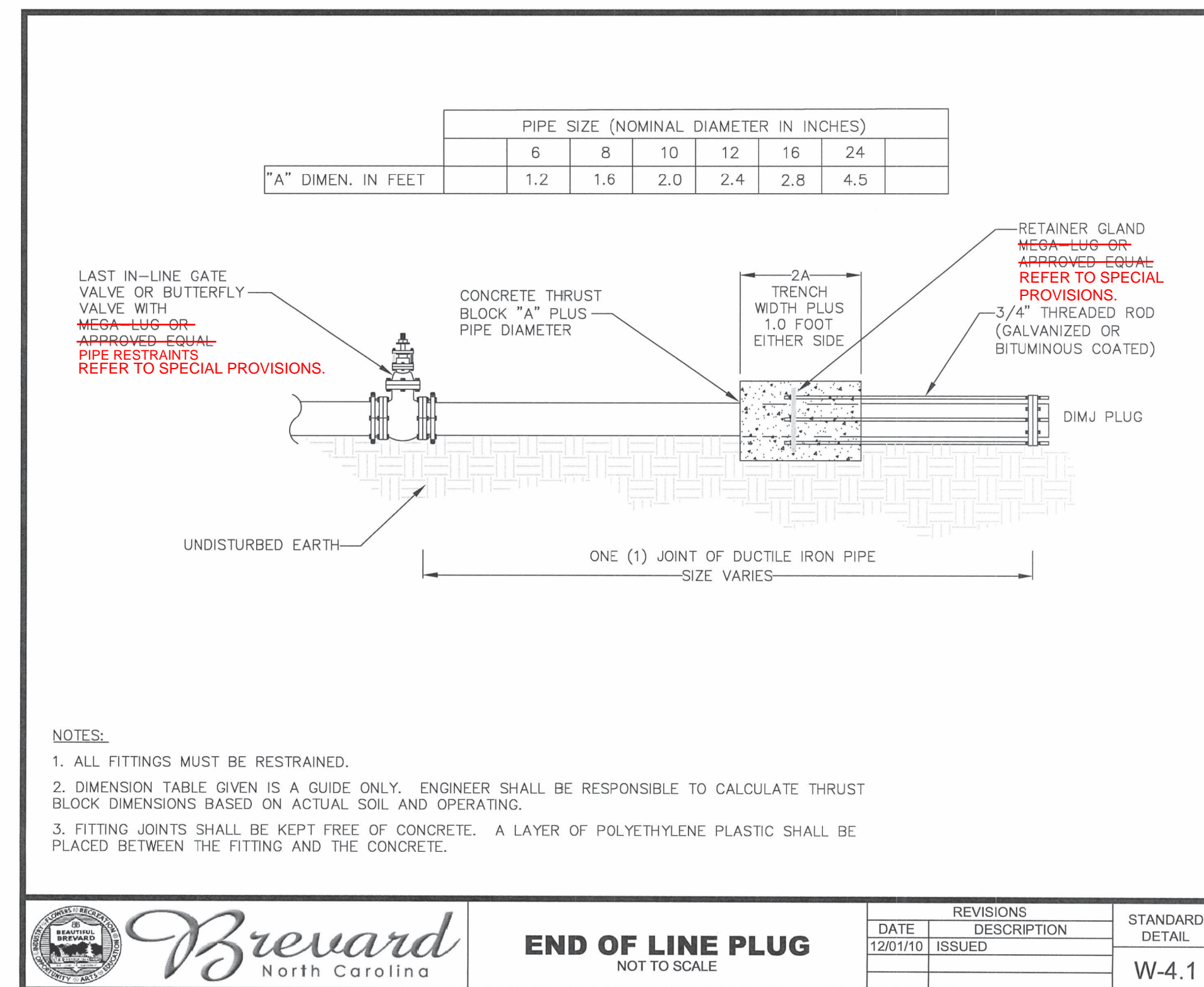
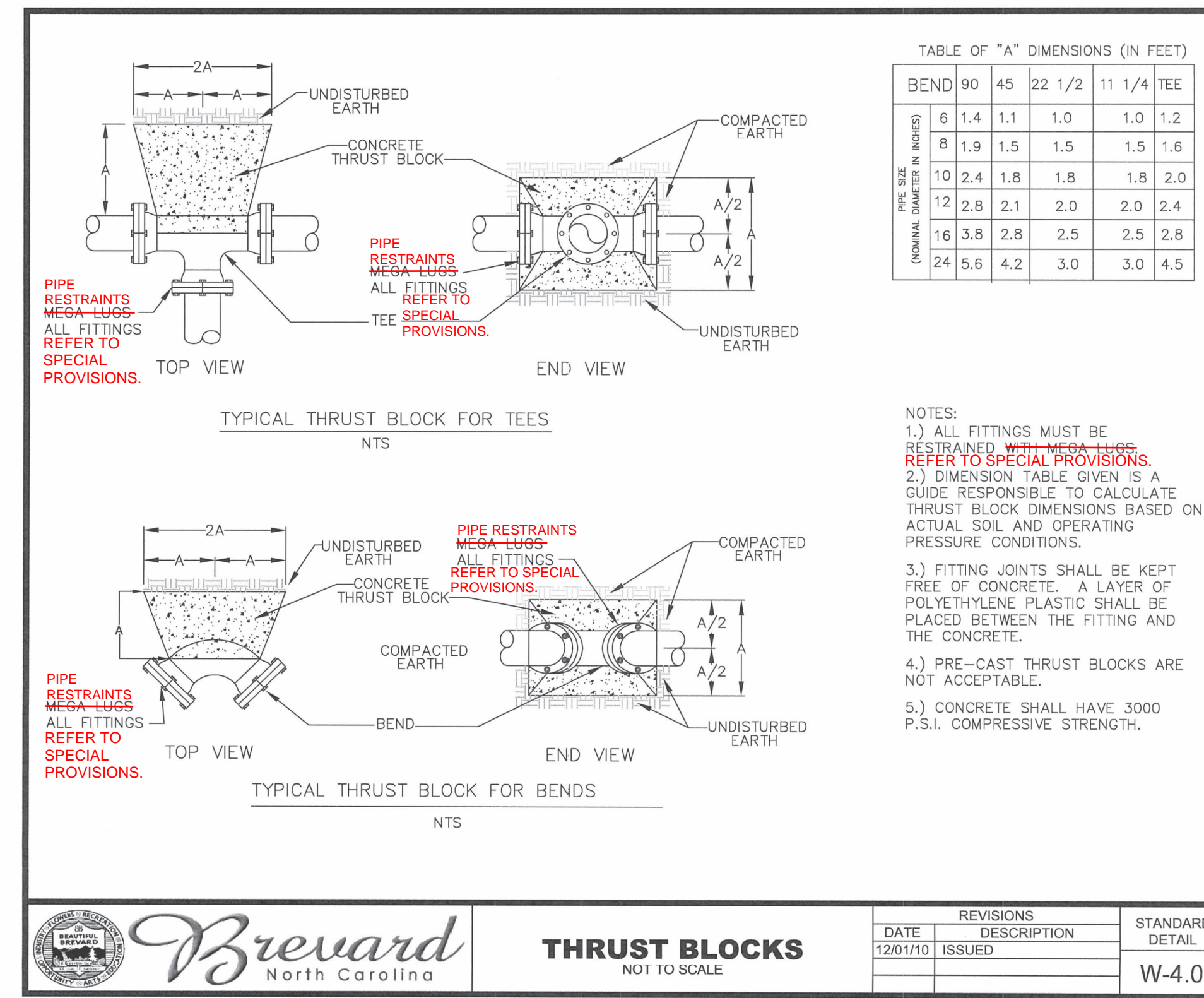
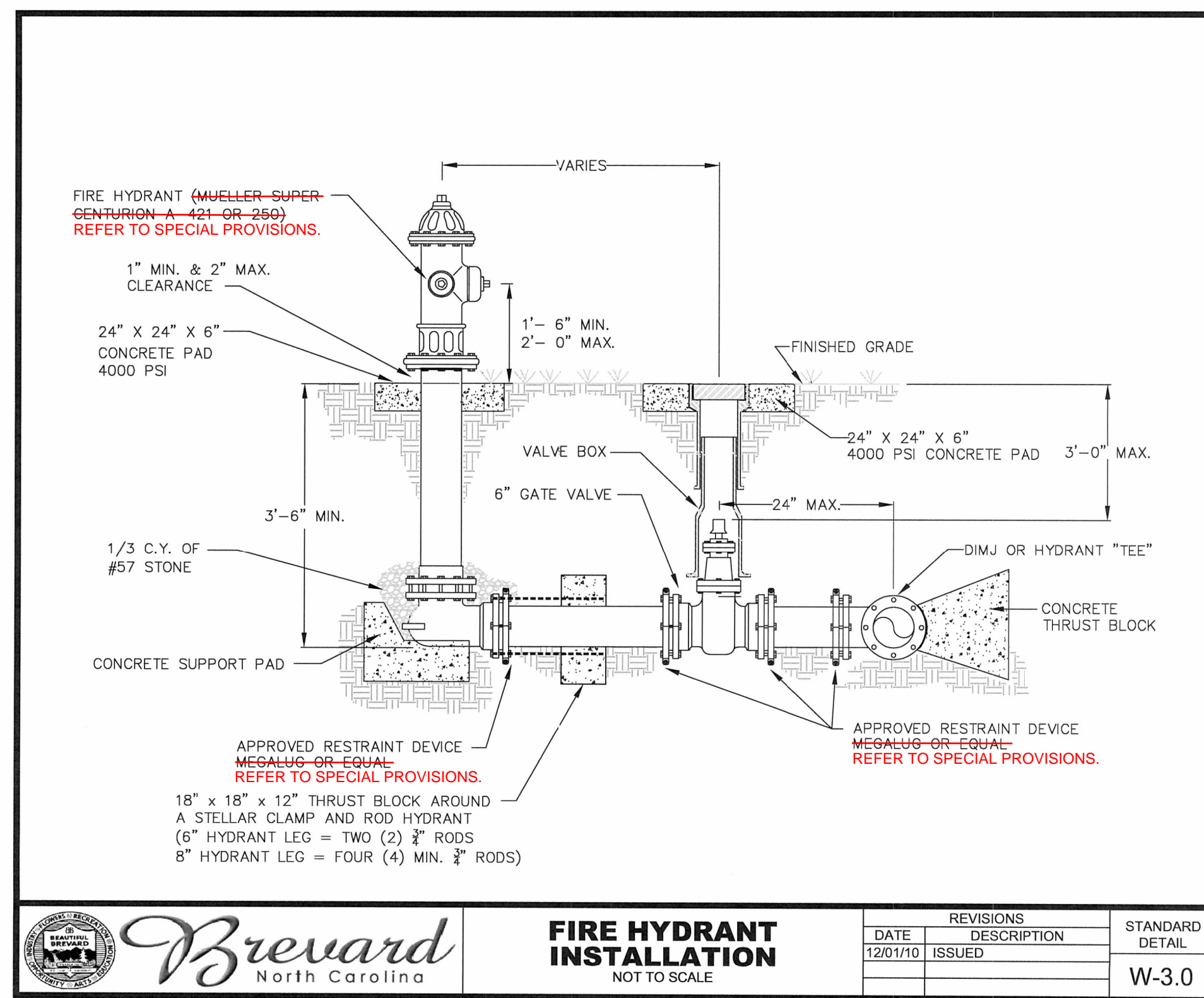
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11/18/19

CITY OF BREVARD WATER CONSTRUCTION DETAILS

PROJECT REFERENCE NO. R-5799	SHEET NO. UC-3B
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DRAWN BY: SRW	
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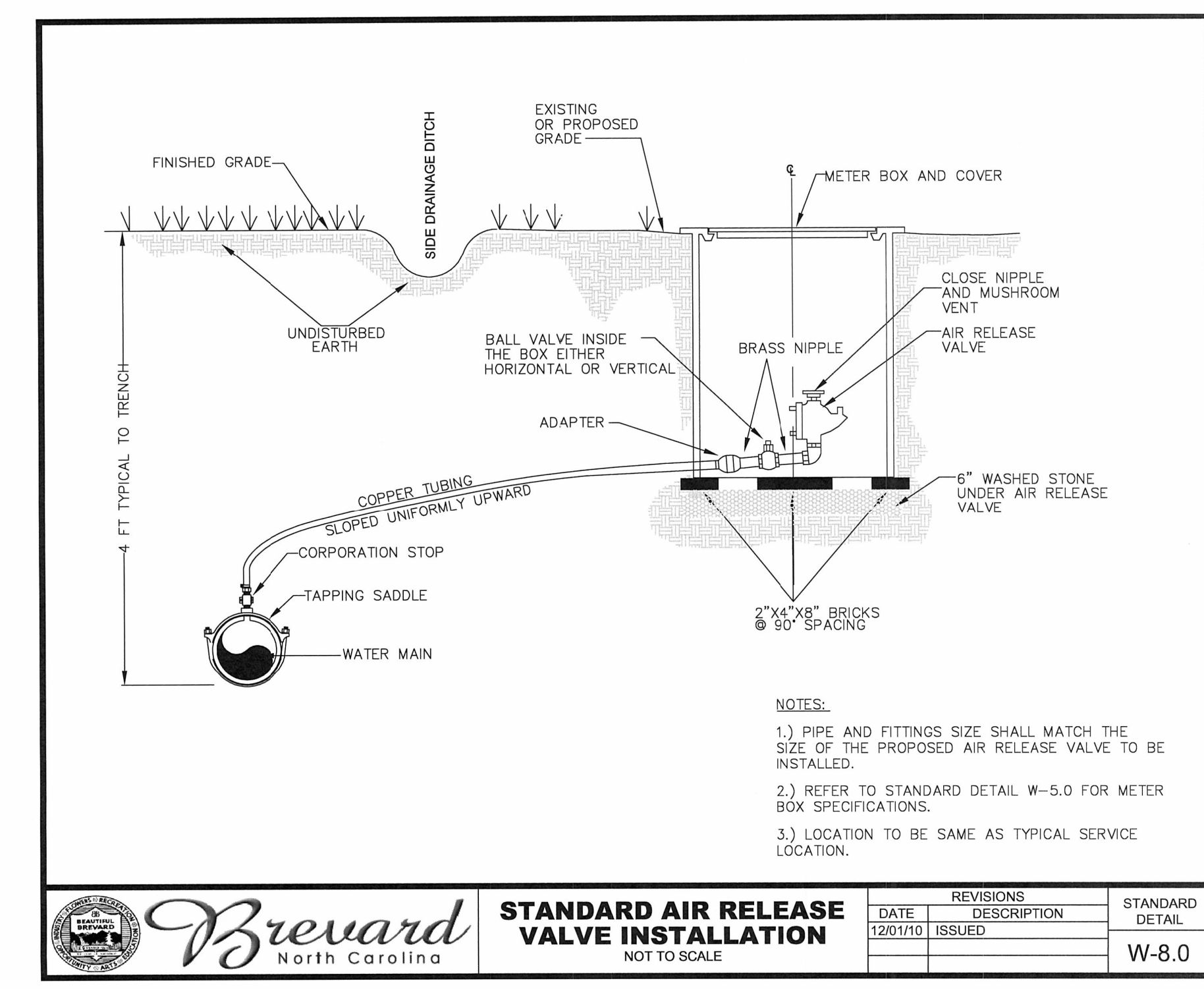
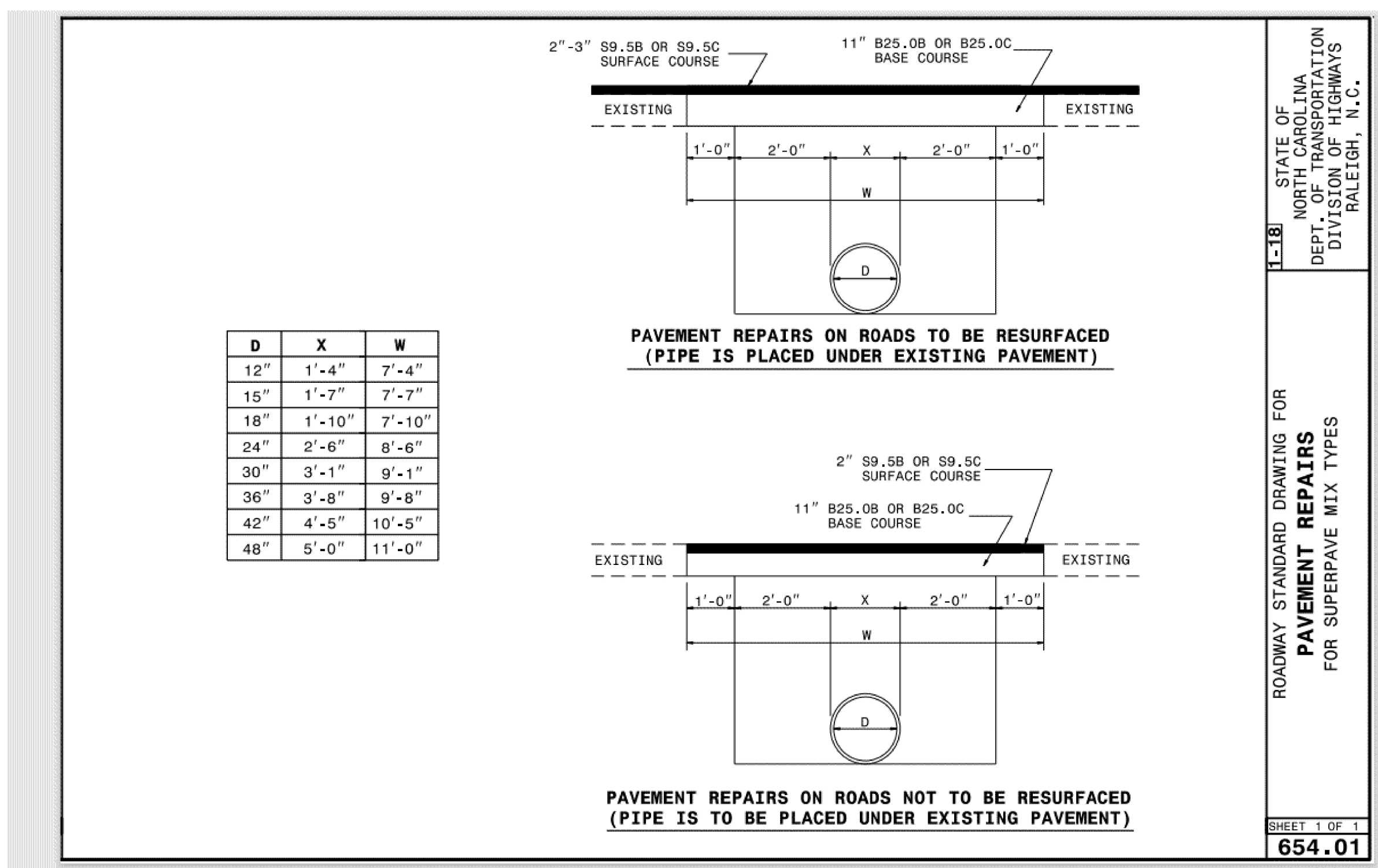
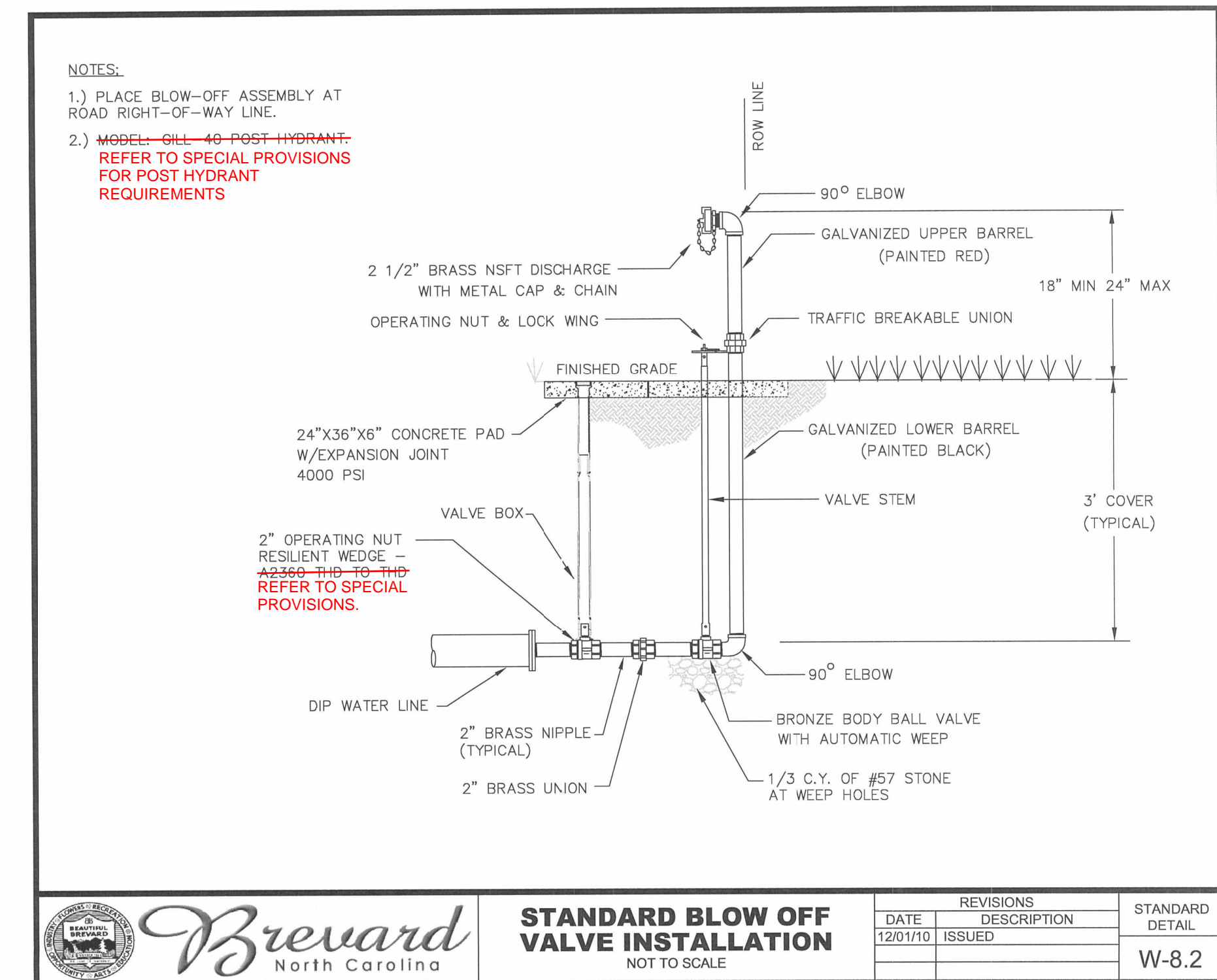
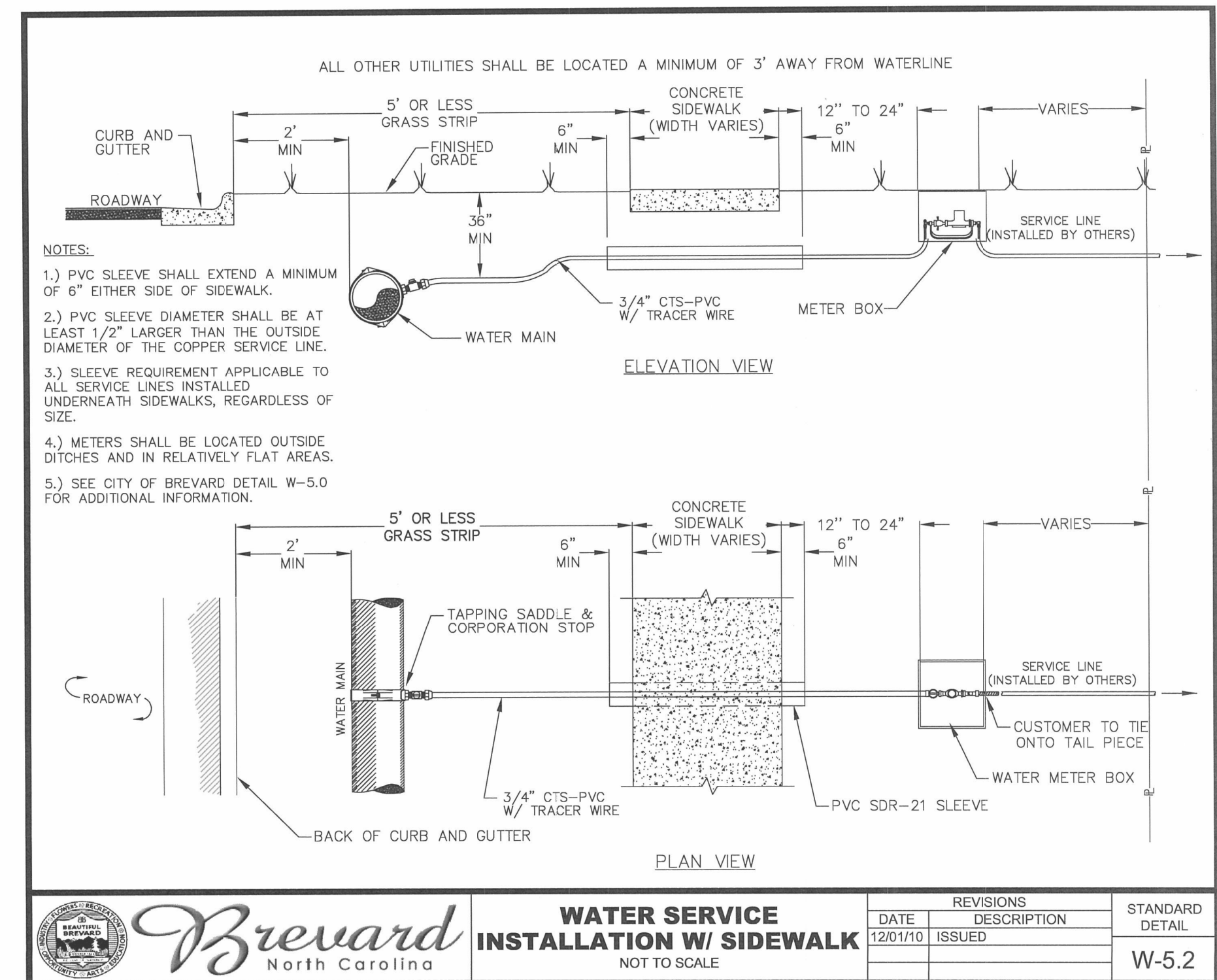
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CITY OF BREVARD WATER CONSTRUCTION DETAILS

PROJECT REFERENCE NO. R-5799	SHEET NO. UC-3C
DESIGNED BY: MRD	
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PROJECT REFERENCE NO. R-5799	SHEET NO. UC-3D
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UTILITY CONSTRUCTION	

CITY OF BREVARD SEWER CONSTRUCTION DETAILS

TRENCH FOR 15" & SMALLER PVC PIPE
NOT TO SCALE

REVISIONS	STANDARD DETAIL
DATE: 12/01/10 DESCRIPTION: ISSUED	S-1.1

NOTES:
 1.) PVC PIPES REQUIRE #57 WASHED STONE PIPE EMBEDMENT MATERIALS.
 2.) WHEN TRENCH IS SUBJECT TO INUNDATION, EMBEDMENT MATERIALS MUST EXTEND TO TOP OF PIPE.
 3.) NO BOULDERS OR STONES WILL BE USED IN INITIAL BACKFILL.
 4.) THIS DETAIL IS VALID FOR PVC SEWER PIPE INSTALLED AT DEPTHS OF UP TO 10 FEET.
 5.) PVC PIPE NOT ALLOWED WITH LESS THAN 3'-0" COVER.
 6.) WALL THICKNESS SHALL BE SDR 35.
 7.) USE DIP FOR DEPTHS GREATER THAN 10'. RUN DIP FROM MANHOLE TO MANHOLE (NO TRANSITIONING OF PIPE MATERIALS WITHIN RUN)

TRENCH FOR DIP PIPE
NOT TO SCALE

REVISIONS	STANDARD DETAIL
DATE: 12/01/10 DESCRIPTION: ISSUED	S-1.2

NOTES:
 1.) MINIMUM ALLOWABLE DEPTH OF COVER IS 3 FT. (SEE DETAIL S-1.3 FOR MAXIMUM ALLOWABLE DEPTHS)
 2.) IN ROCK OR WET SOIL, PIPE MUST BE BEDDED IN AT LEAST 6" OF CRUSHED STONED EMBEDMENT MATERIAL BELOW THE INVERT OF THE PIPE.
 3.) GRANULAR MATERIALS ARE DEFINED PER THE AASHTO SOIL CLASSIFICATION SYSTEM (ASTM D2487) OR THE UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D2487), WITH THE EXCEPTION THAT GRAVEL BEDDING / BACKFILL ADJACENT TO THE PIPE IS LIMITED TO 2" MAXIMUM PARTICLE SIZE PER ANSI/AWWA C650.
 4.) THESE PIPES ARE ADEQUATE FOR DEPTHS OF COVER FROM 3 FT. UP TO THE MAXIMUM SHOWN INCLUDING AN ALLOWANCE FOR A SINGLE H-20 TRUCK WITH A 1.5 IMPACT FACTOR UNLESS OTHERWISE NOTED.
 5.) RING DEFLECTION LIMITED TO 3%, MINIMUM SAFETY FACTOR OF 2. EARTH LOAD BASED ON SOIL WEIGHT OF 120 PCF.

PIPE SIZE	PRESSURE CLASS	LAYING CONDITION				
		TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V
4	350	53	61	69	85	100
6	350	26	31	37	47	65
8	350	16	20	25	34	50
10	350	11	15	19	26	45
12	350	10	15	19	28	44
14	250	-	11	15	23	36
14	300	-	13	17	26	42
14	350	-	14	19	27	44
16	250	-	11	15	24	34
16	300	-	13	17	26	39
16	350	-	15	20	28	44
18	250	-	10	14	22	31
18	300	-	13	17	26	36
18	350	-	15	19	28	41
20	250	-	10	14	22	30
20	300	-	13	17	26	35
20	350	-	15	19	28	38
24	200	-	8	12	17	25
24	250	-	11	15	23	29
24	300	-	13	17	24	32
24	350	-	15	19	28	37
30	200	-	8	12	16	24
30	250	-	11	15	19	27
30	300	-	12	16	21	29
30	350	-	15	19	25	33
36	200	-	8	12	15	23
36	250	-	10	14	18	26
36	300	-	12	16	20	28
36	350	-	15	19	24	32

Source: Ductile Iron Pipe for Wastewater Applications, DIPRA 2008

TRENCH CHART FOR DIP PIPE
NOT TO SCALE

REVISIONS	STANDARD DETAIL
DATE: 12/01/10 DESCRIPTION: ISSUED	S-1.3

STANDARD MANHOLE
NOT TO SCALE

REVISIONS	STANDARD DETAIL
DATE: 12/01/10 DESCRIPTION: ISSUED	S-2.0

MANHOLE NOTES:
 1.) MANHOLE STEPS TO BE VERTICALLY IN LINE WITH "INVERT OUT" FOR PIPE 18" AND LESS. OVER 18" TO BE LOCATED IN LINE WITH BENCH.
 2.) FOR MANHOLES LARGER THAN 4 FT. DIA., MAINTAIN FULL MANHOLE DIA. TO 8 FT. ABOVE INVERT BENCH.
 3.) FOR 5 FT. AND 6 FT. DIA. MANHOLES, USE A TRANSITION CONE TO REDUCE TO 4 FT. DIA.
 4.) FOR 7 FT. TO 10 FT. DIA. MANHOLES, USE A TRANSITION TOP TO REDUCE TO 4 FT. DIA.
 5.) INSTALL MASTIC ON MANHOLE LID WITHIN GROUT ON THE INSIDE AND OUTSIDE TO SEAL MANHOLES.

FORCEMAIN CONNECTION TYPE I
NOT TO SCALE

REVISIONS	STANDARD DETAIL
DATE: 12/01/10 DESCRIPTION: ISSUED	S-5.0

NOTES:
 1.) SEE ALSO SANITARY SEWER SERVICE DETAIL.
 2.) SEE STANDARD MANHOLE DETAILS FOR ADDITIONAL NOTES.

STANDARD MANHOLE FRAME & COVER
NOT TO SCALE

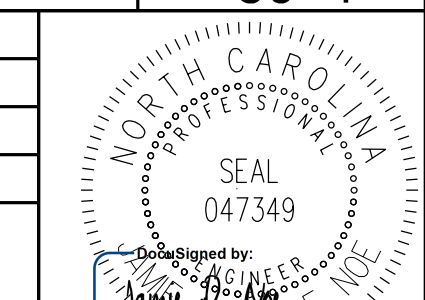
REVISIONS	STANDARD DETAIL
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NOTE: WHERE M.H. IS IN ROAD SHOULDER AND ROAD DOES NOT HAVE CURB AND GUTTER, DO NOT USE ANCHOR BOLTS IN FRAME.

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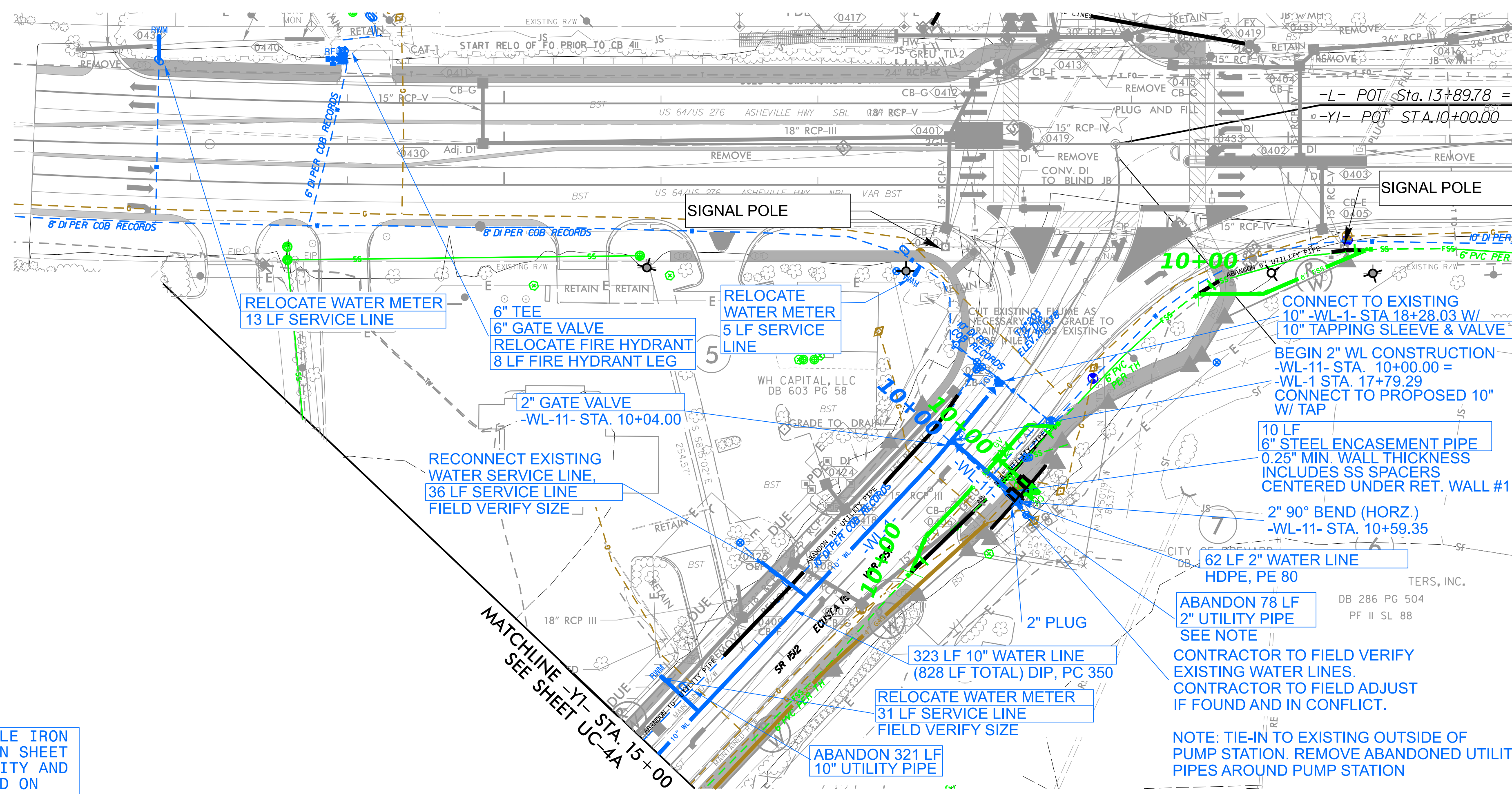
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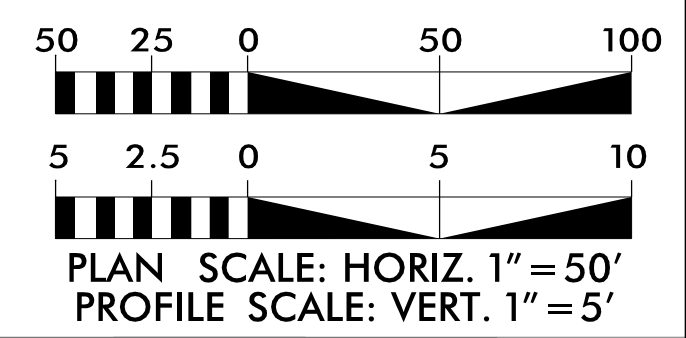
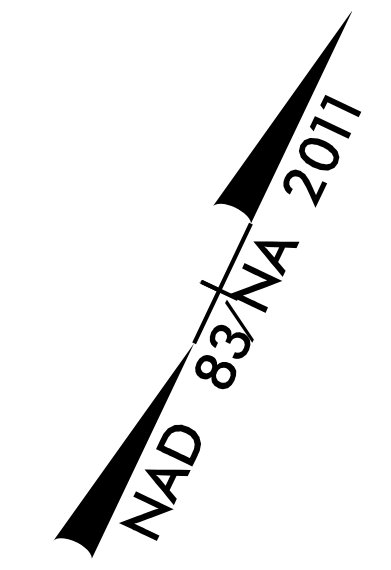
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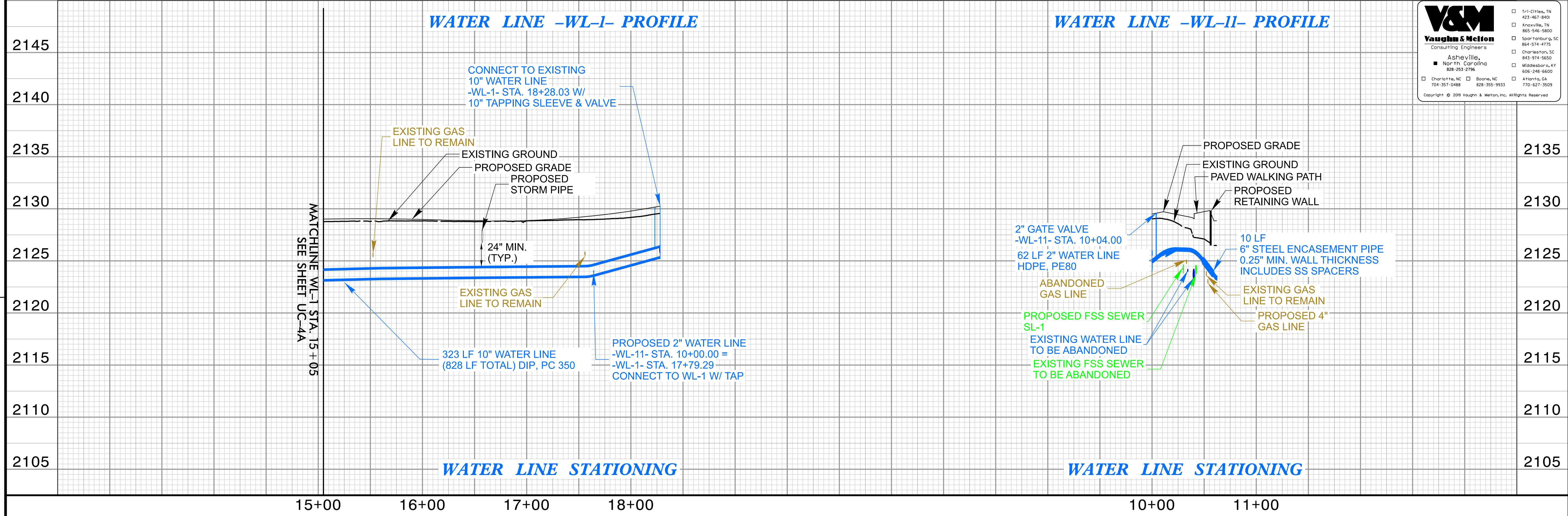
MATCHLINE -L- STA. 16 + 50 SEE SHEET UC-5



THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 195 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

WATER LINE -WL-I- PROFILE

WATER LINE -WL-II- PROFILE



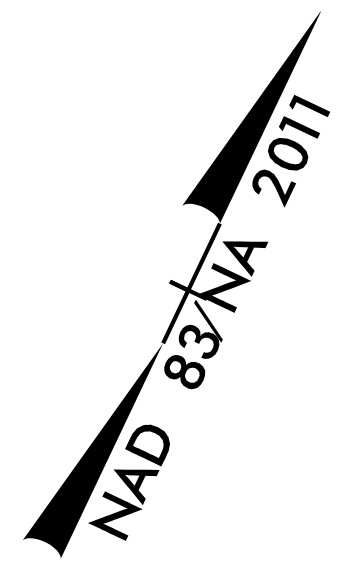
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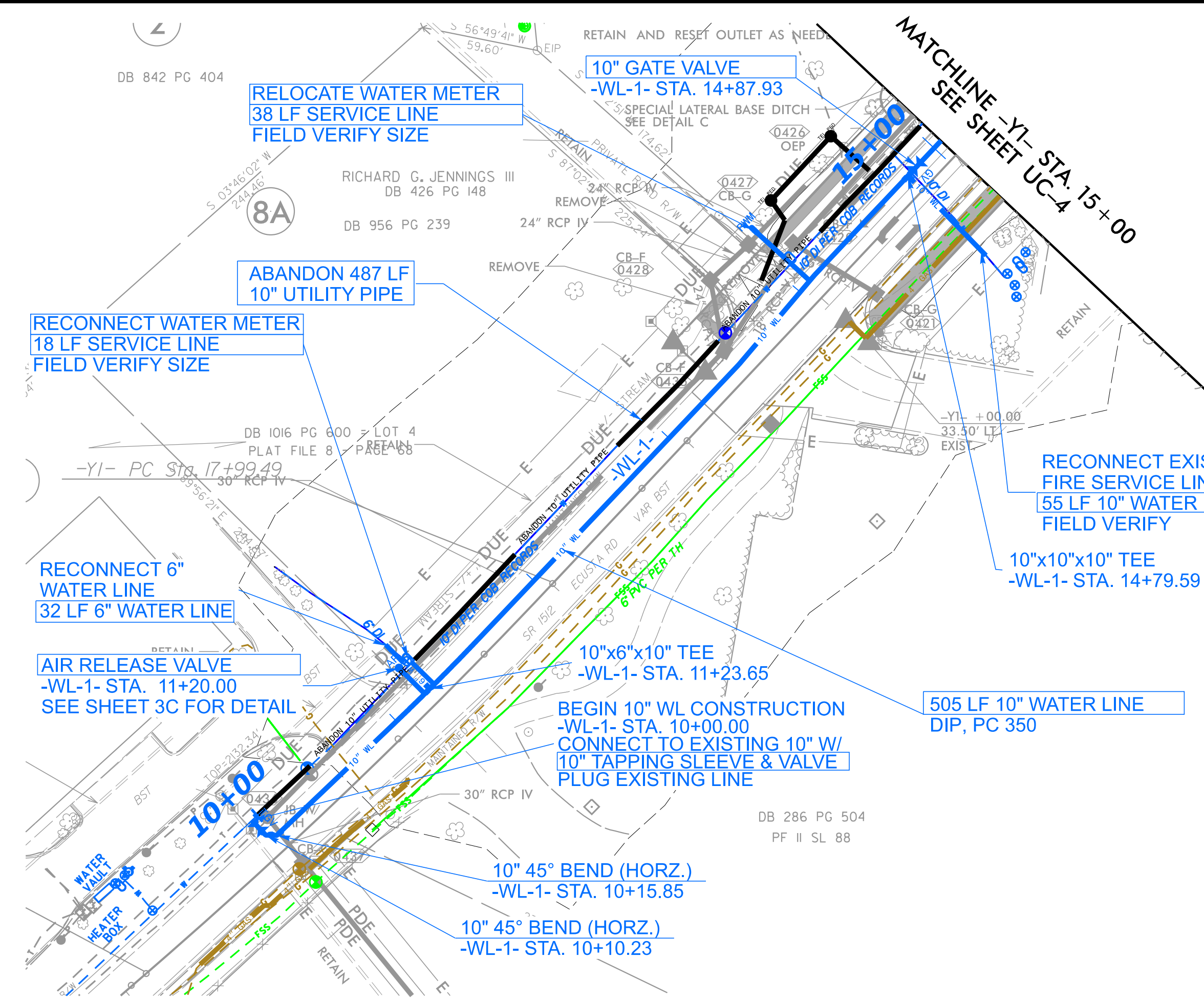
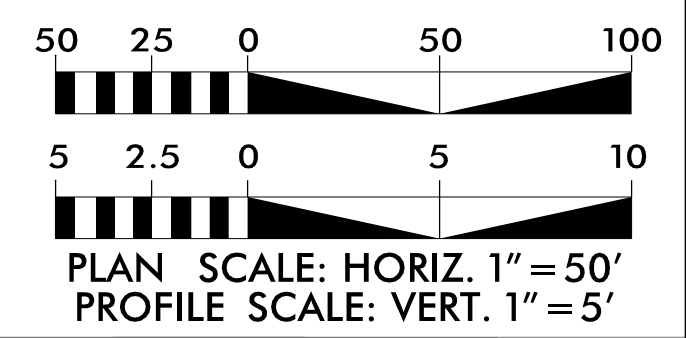
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R-5799	UC-4A
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APPROVED BY: JDN	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 7/13/2023 11:44:58 AM EDT UTILITY CONSTRUCTION PLANS ONLY
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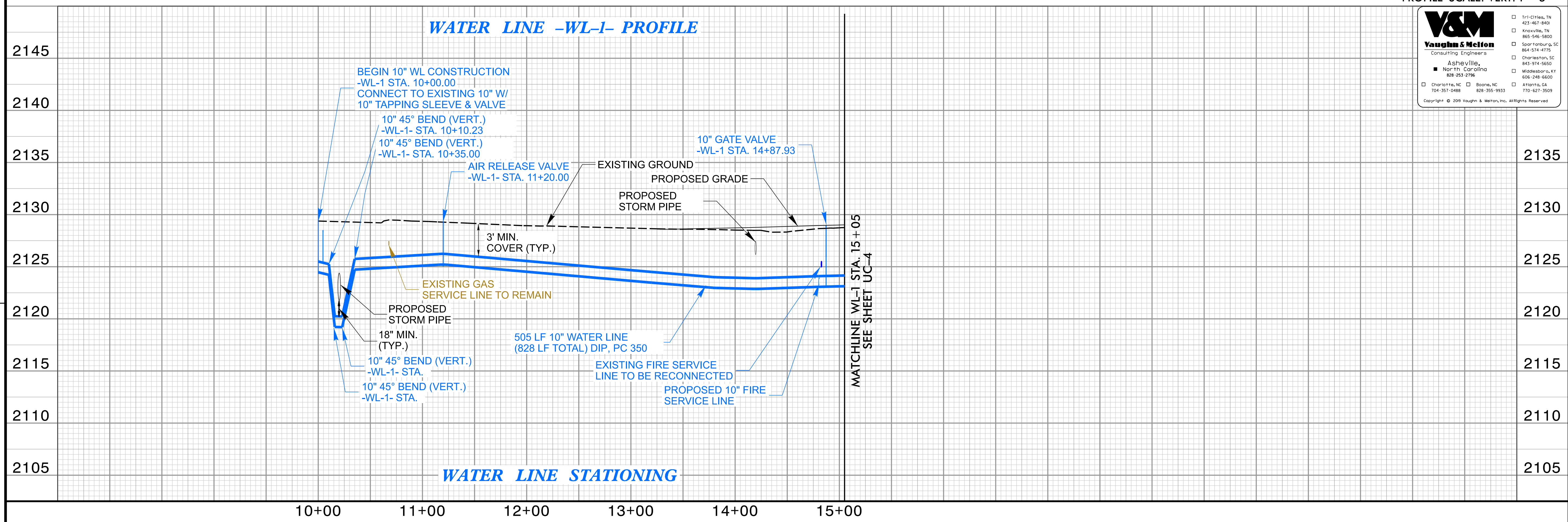
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THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1,555 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

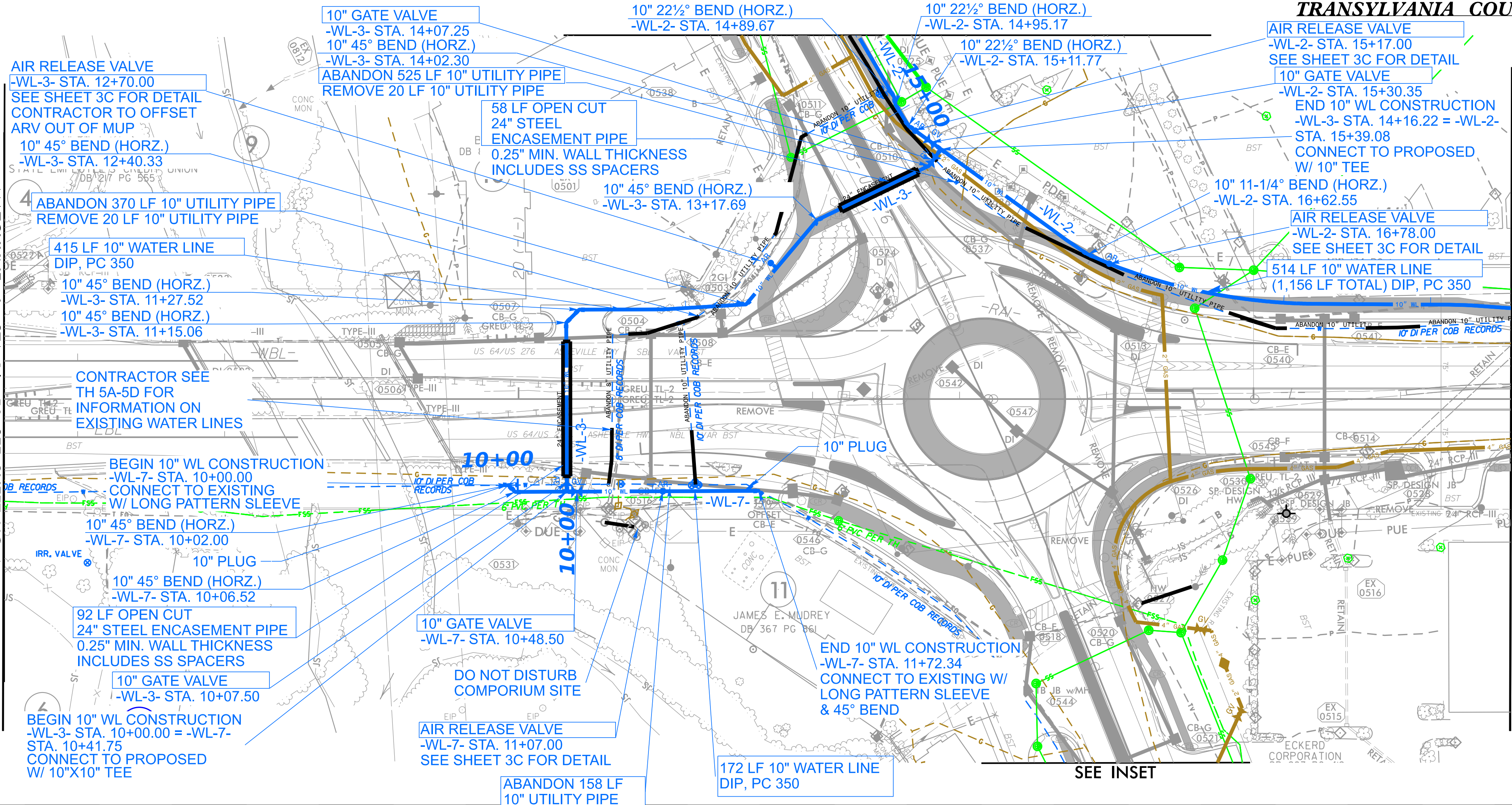


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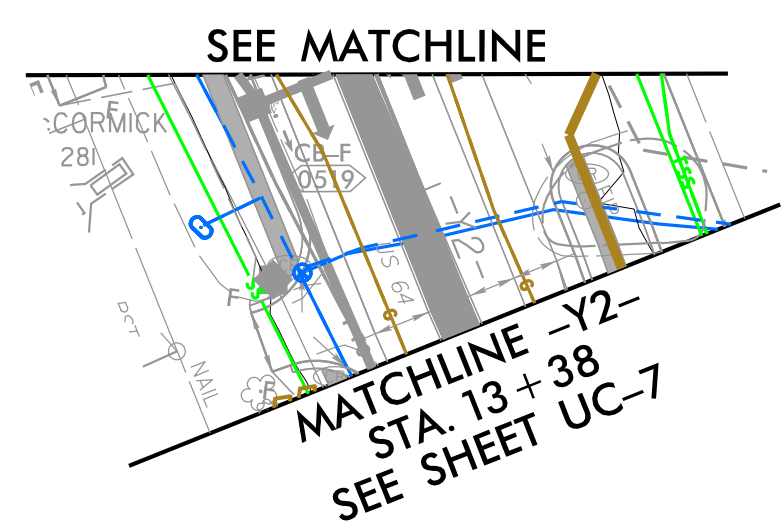


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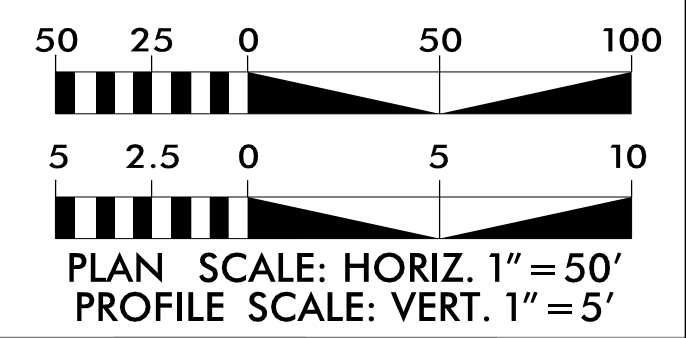
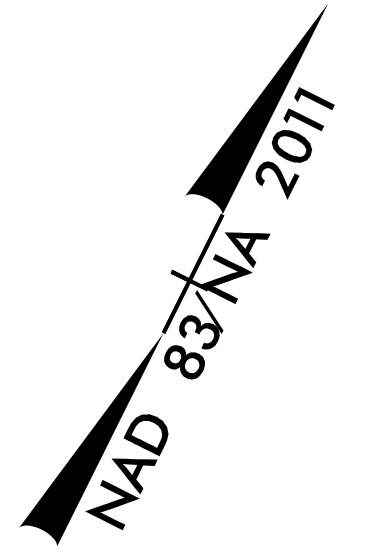
THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 3,180 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.



NOTE: WATER LINE SHALL BE PLACED IN STEEL ENCASMENT WHEN SEPARATION IS LESS THAN 5 FEET FROM MANHOLES. ALL LOCATIONS.
 ALL GASKETS SHALL BE HYDROCARBON RESISTANT GASKETS

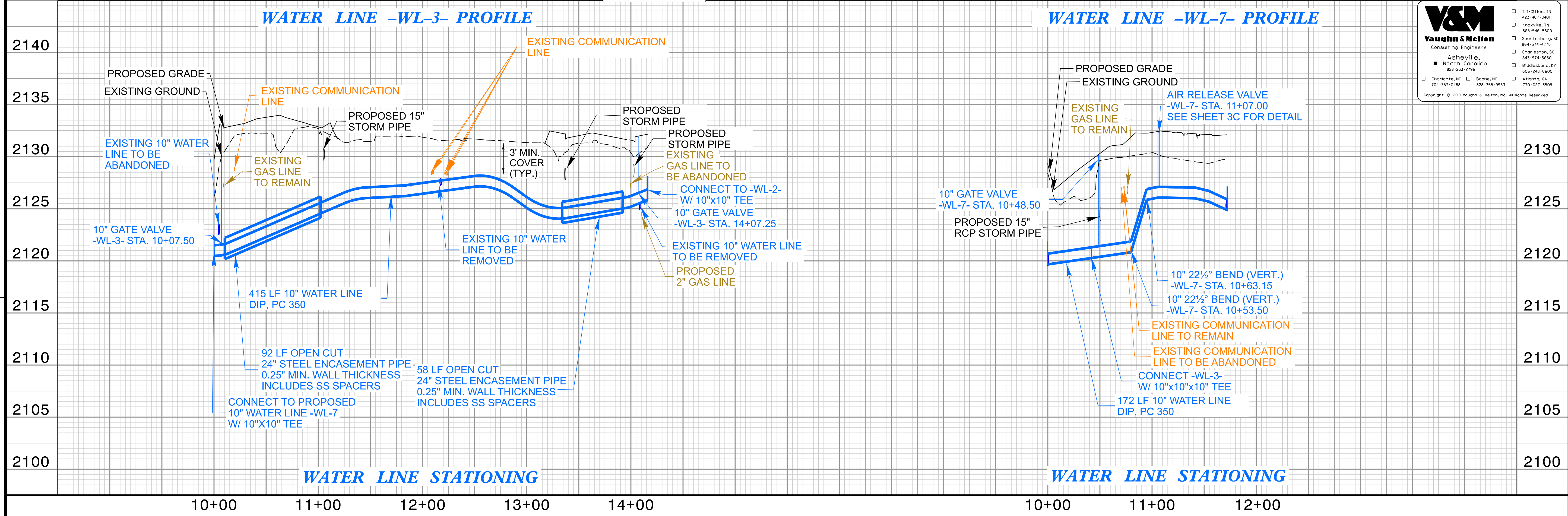


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WATER LINE -WL-3- PROFILE

WATER LINE -WL-7- PROFILE



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5/14/99

THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 0 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

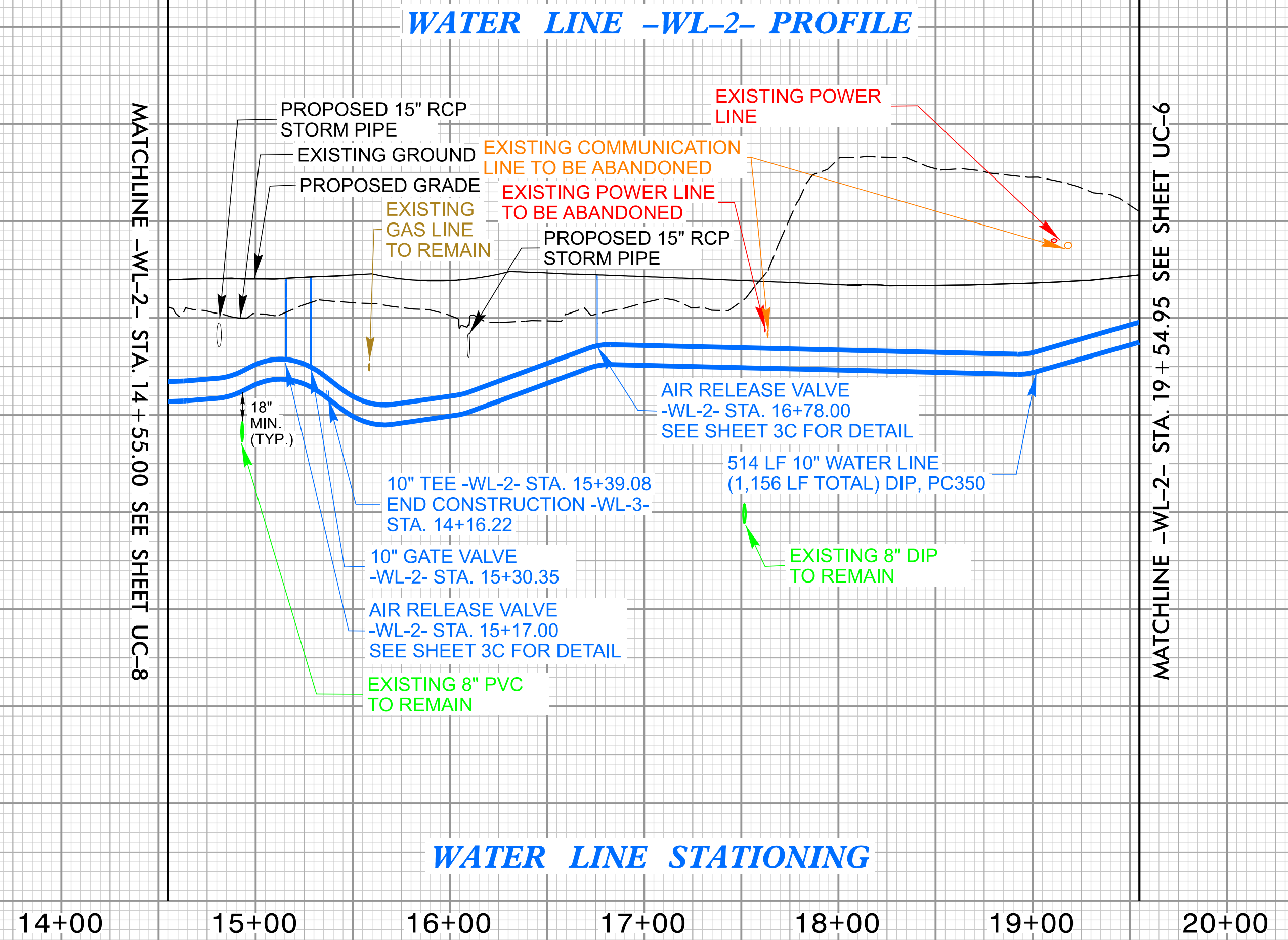
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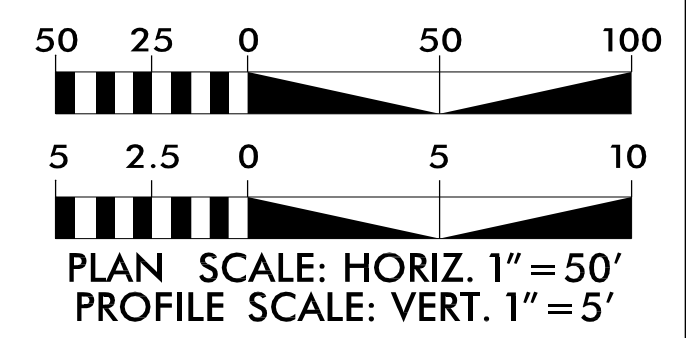
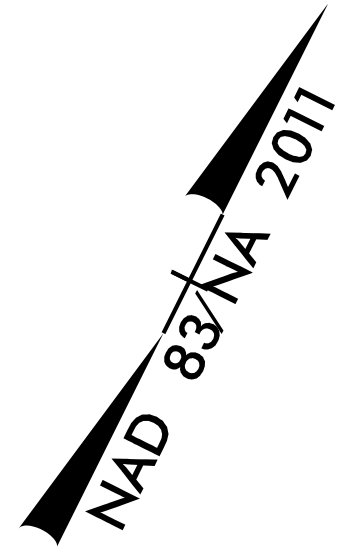
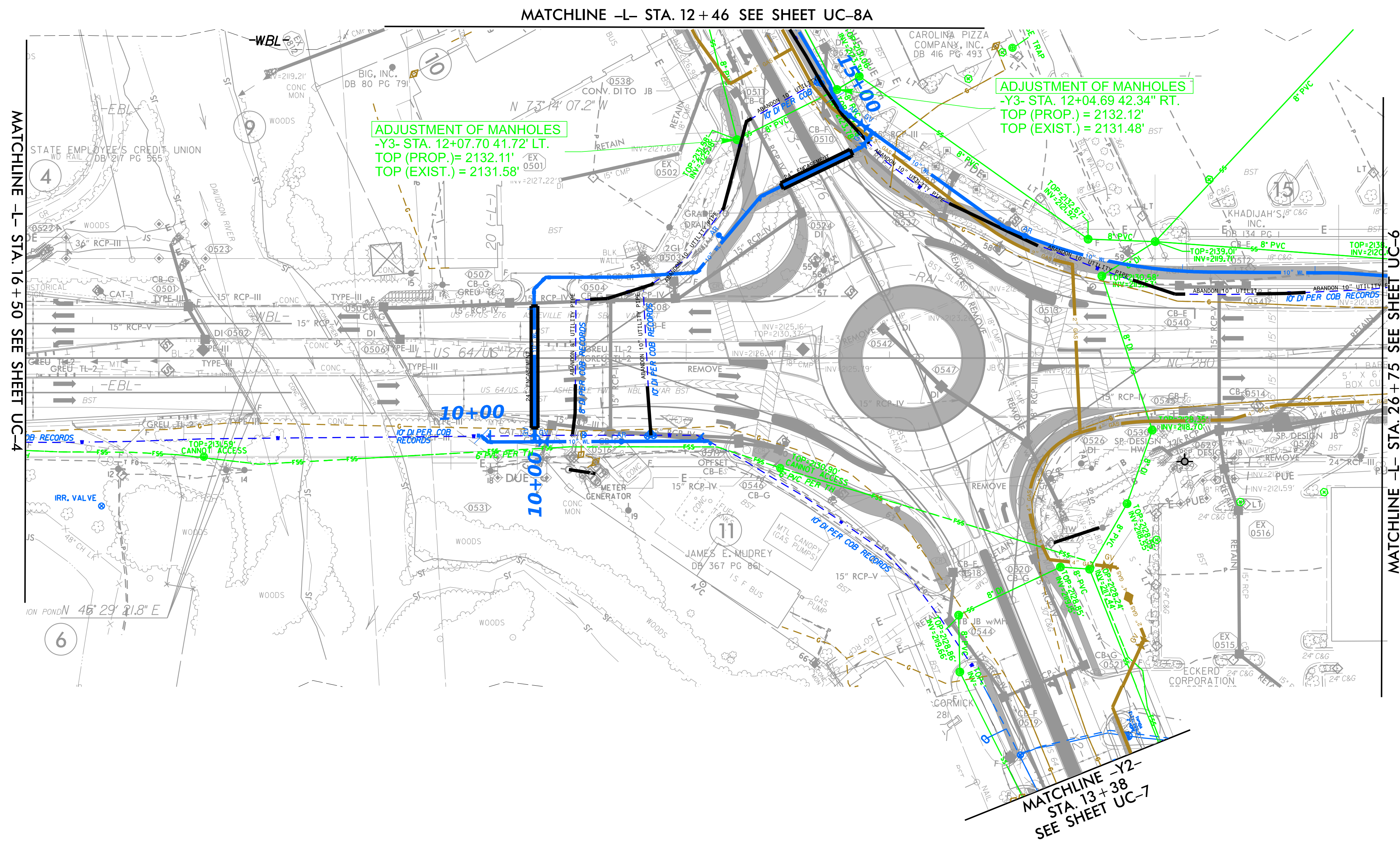
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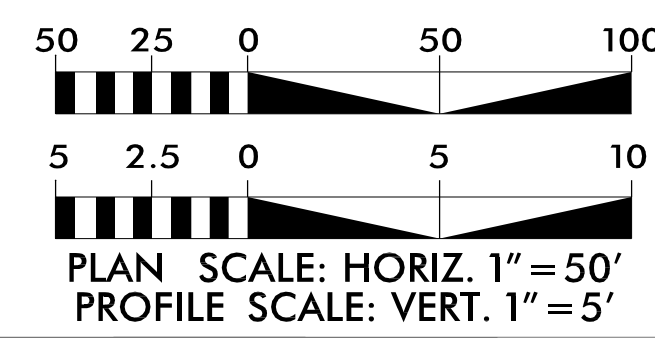
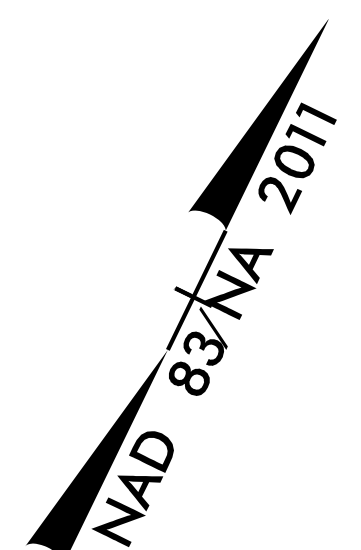
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THE ESTIMATED QUANTITY OF DUCTILE IRON WATER PIPE FITTINGS ON THIS PLAN SHEET IS 1,895 POUNDS. THE ACTUAL QUANTITY AND TYPE OF FITTINGS WILL VARY BASED ON FIELD CONDITIONS.

UTILITY CONSTRUCTION

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PROPOSED TEMPORARY 10" BYPASS
 CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR THE PROPOSED TEMPORARY 10" WATERLINE
 547 LF 10" WATER LINE (1,156 LF TOTAL) DIP, PC 350

MATCHLINE
 -L- STA. 26+75
 SEE SHEET UC-5

10" GATE VALVE
 -WL-2- STA. 20+15.77
 88 LF OPEN CUT
 24" STEEL ENCASEMENT PIPE
 0.25" MIN. WALL THICKNESS
 INCLUDES SS SPACERS
 10" 90° BEND (HORZ.)
 -WL-2- STA. 21+12.93
 10" 22½° BEND (HORZ.)
 -WL-2- STA. 21+20.02
 10" 22½° BEND (HORZ.)
 -WL-2- STA. 21+62.23
 24 LF WATER SERVICE
 RELOCATE 3 WATER METERS
 10"x6"x10" TEE
 6" GATE VALVE
 RELOCATE FIRE HYDRANT
 10 LF FIRE HYDRANT LEG
 -WL-2- STA. 21+85.29
 10" 45° BEND (HORZ.)
 -WL-2- STA. 21+96.73
 10" GATE VALVE
 -WL-2- STA. 22+02.85

10" 90° BEND (HORZ.)
 -WL-2- STA. 20+05.77

10" GATE VALVE
 -WL-2- STA. 21+25.56

ABANDON 375 LF
 10" UTILITY PIPE

AIR RELEASE VALVE
 -WL-2- STA. 21+42.73
 SEE SHEET 3C FOR DETAIL

ABANDON 280 LF
 6" UTILITY PIPE

10" LINE STOP

RELOCATE WATER METER
 26 LF WATER SERVICE

END 10" WL CONSTRUCTION
 -WL-2- STA. 25+14.46
 CONNECT TO EXISTING W/
 10" TAPPING SLEEVE & VALVE

73 LF OPEN CUT
 24" STEEL ENCASEMENT PIPE
 0.25" MIN. WALL THICKNESS
 INCLUDES SS SPACERS
 10" 45° BEND (HORZ.)
 -WL-2- STA. 24+30.20

END TIP PROJECT R-5799
 -L- STA. 32+66.00

10" GATE VALVE
 -WL-2- STA. 20+15.77

10" 22½° BEND (HORZ.)
 -WL-2- STA. 21+20.02

10" 22½° BEND (HORZ.)
 -WL-2- STA. 21+62.23

24 LF WATER SERVICE
 RELOCATE 3 WATER METERS

10"x6"x10" TEE
 6" GATE VALVE
 RELOCATE FIRE HYDRANT
 10 LF FIRE HYDRANT LEG

-WL-2- STA. 21+85.29
 10" 45° BEND (HORZ.)
 -WL-2- STA. 21+96.73

10" GATE VALVE
 -WL-2- STA. 22+02.85

RETAINING WALL 3

89 LF OPEN CUT
 24" STEEL ENCASEMENT PIPE
 0.25" MIN. WALL THICKNESS
 INCLUDES SS SPACERS
 REMOVE WATER METER

152 LF WATER SERVICE
 CONNECT TO EXISTING SERVICE LINE

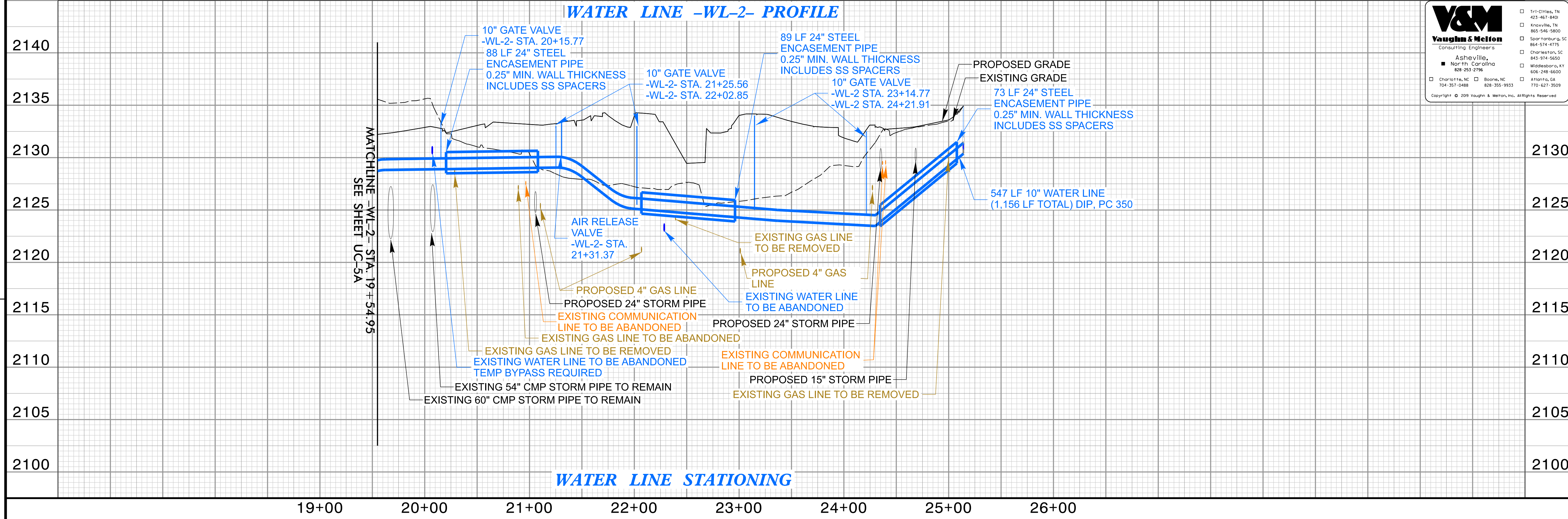
10" 22½° BEND (HORZ.)
 -WL-2- STA. 23+71.97
 10" 11¼° BEND (HORZ.)
 -WL-2- STA. 23+42.40

10" GATE VALVE
 -WL-2- STA. 23+14.77
 10" 22½° BEND (HORZ.)
 -WL-2- STA. 23+06.47

89 LF OPEN CUT
 24" STEEL ENCASEMENT PIPE
 0.25" MIN. WALL THICKNESS
 INCLUDES SS SPACERS
 REMOVE WATER METER

152 LF WATER SERVICE
 CONNECT TO EXISTING SERVICE LINE

WATER LINE -WL-2- PROFILE



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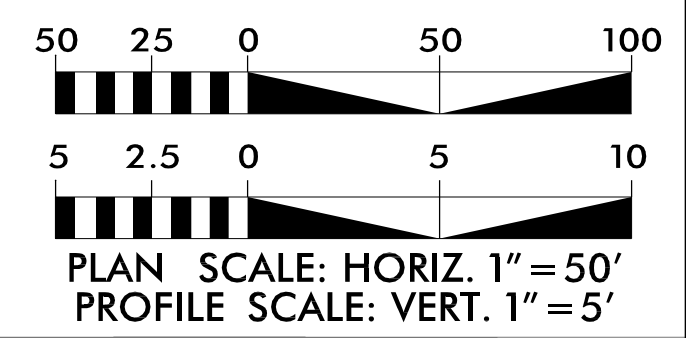
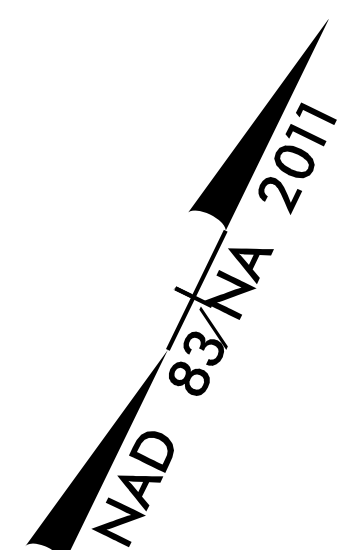
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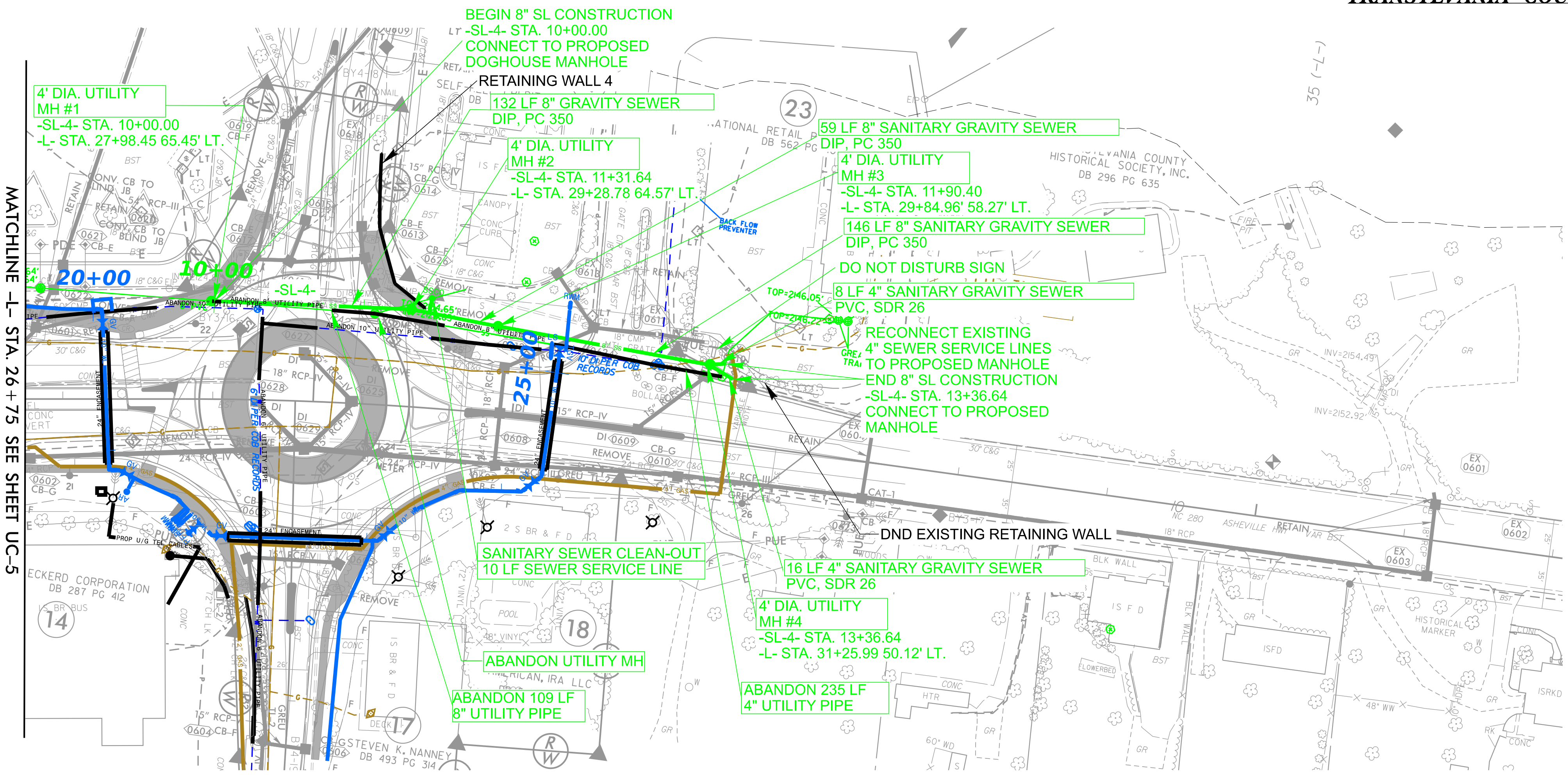
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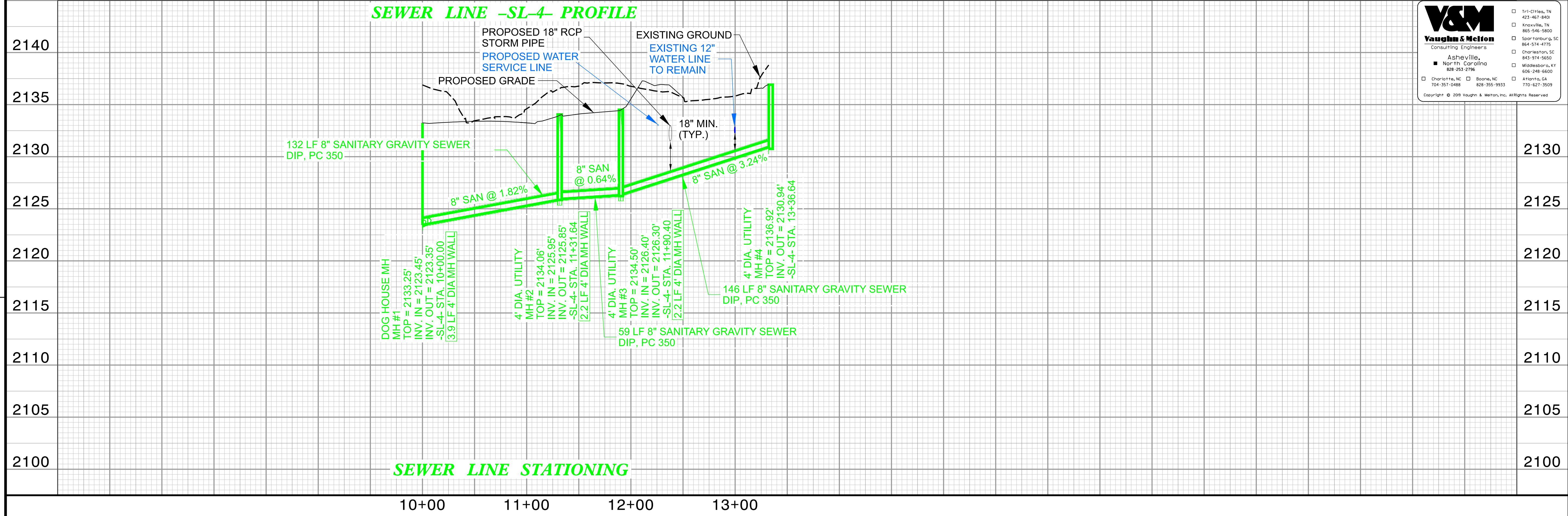
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MATCHLINE -L- STA. 26 + 75 SEE SHEET UC-5

SEWER LINE -SL-4- PROFILE



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