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P 775.834.8080 • F 775.834.8003

Addendum No. 1

STEAD MAIN REPLACEMENT PHASE 2

PWP No.: WA-2017-040
TMWA Project No.: 10-0001.030

December 21, 2016

The following information, clarifications, changes and modifications are by reference incorporated into the bid documents for the above referenced project. Any work item or contract provision not changed or modified will remain in full force and effect. The bid date and time and construction schedule remain the same.

Information, Clarifications, Changes and Modifications

A. Technical Specifications:

1. Section 33 14 00 Water Utility Transmission and Distribution, REPLACE Part 2.11 with the following.
 - 2.11 Combination Air/Vacuum Valves
6-inch Combination Air/Vacuum Valves shall be Vent-O-Mat Series RBX DN150 with flanged ends, model number 150 RBX 19 41 E4; no equal. 1-inch Combination Air Valve depicted in TMWA Standard Detail 10L-4 shall meet the requirements of AWWA C512 and shall be NSF-61 certified.

B. Drawings:

1. REPLACE the following Drawings with the attached revised version of each Drawing containing Addendum No. 1 revisions:
 - Drawing P5 (sheet 7) – revised pipeline profile to eliminate high point at STA 27+07± and added note regarding removal of existing 8-inch water main if it is in conflict with the new water main installation.
 - Drawing P6 (sheet 8) – revised pipeline profile to accommodate revision from drawing P5
 - Drawing P10 (sheet 12) – revised pipeline profile to eliminate flat slope between STA 54+10± to STA 56+40±
 - Drawing P12 (sheet 14) – revised pipeline profile to eliminate flat slope between STA 67+25± to STA 69+40±
 - Drawing P20 (sheet 22) – added Combination Air Release Valve at STA 109+25±, reference Sheet Keynote #9

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Drawing D3 (sheet 33) – added TMWA Standard Details 10L-4 and 10H-2

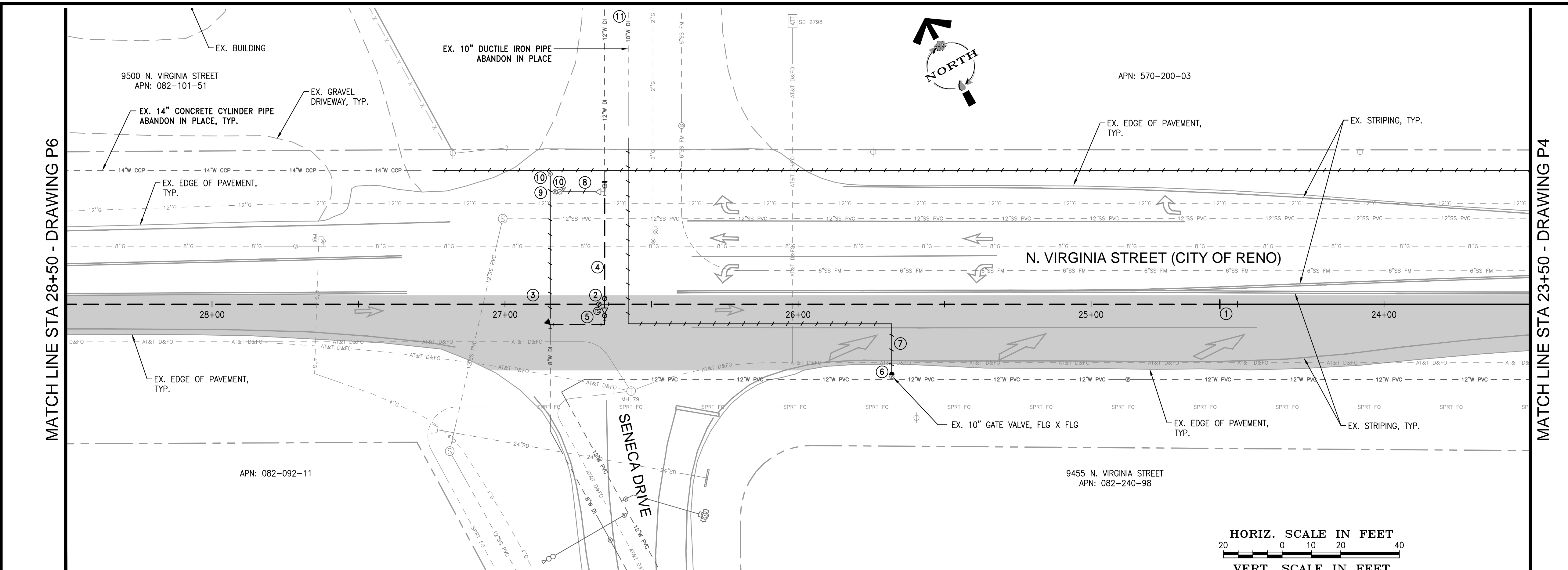
Drawing D4 (sheet 34) – added “MIN. 12” AIR GAP” dimension in section view

C. Geotechnical Investigation:

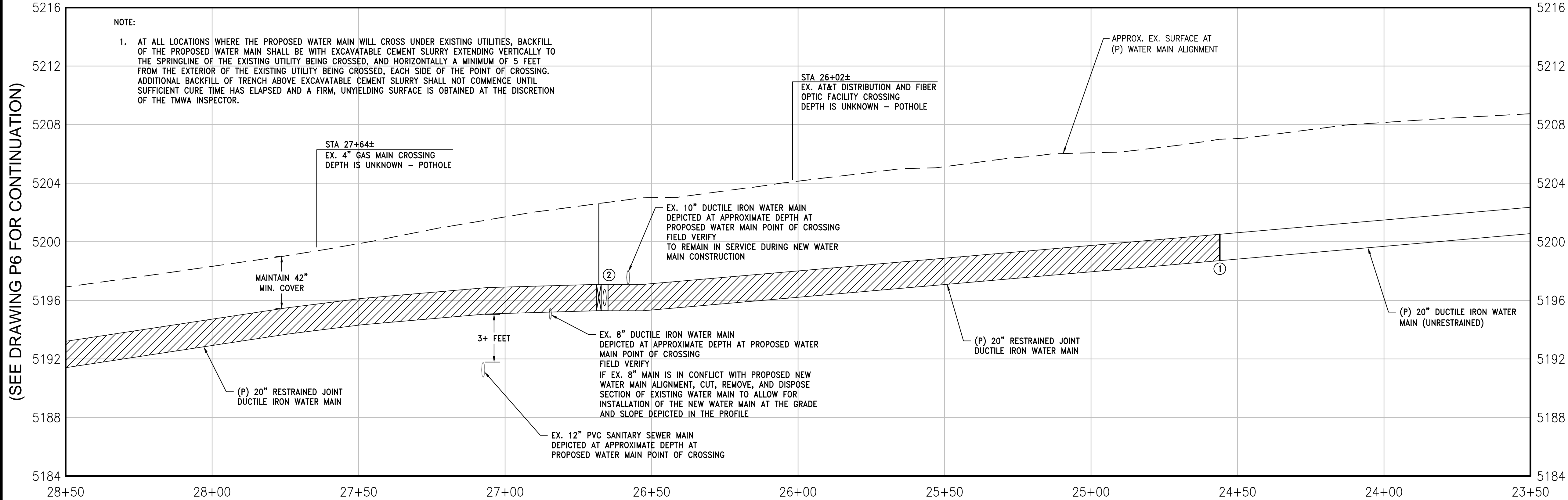
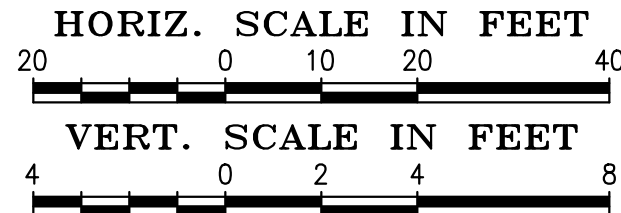
1. A geotechnical investigation report for the proposed casing and pipeline installation and receiving pits at the Union Pacific Railroad track crossing has been posted under the project tab on TMWA’s website.

END OF ADDEMDUM NO. 1

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N. VIRGINIA STREET



REVISION	DESCRIPTION	BY	APP	DATE
1	ADDRESS WASHOE COUNTY HEALTH DISTRICT COMMENTS	KM	CP	12/07/16

WORK ORDER NO. 10-0001.030
DESIGNED KM
DRAWN KM
DATE DECEMBER 2016
CHECKED MH
SUBMITTED
RECOMMENDED
APPROVED

TRUCKEE MEADOWS WATER AUTHORITY
1355 CAPITAL BLVD. / PO BOX 30013
RENO, NEVADA 89520-3013
PH 775-834-8000 / FX 775-834-8003

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AUTHORITY. RETURN UPON
COMPLETION OF PROJECT
(Per Homeland Security Act)

STEAD MAIN REPLACEMENT PHASE 2

N. VIRGINIA STREET PLAN AND PROFILE STA 23+50 TO 28+50

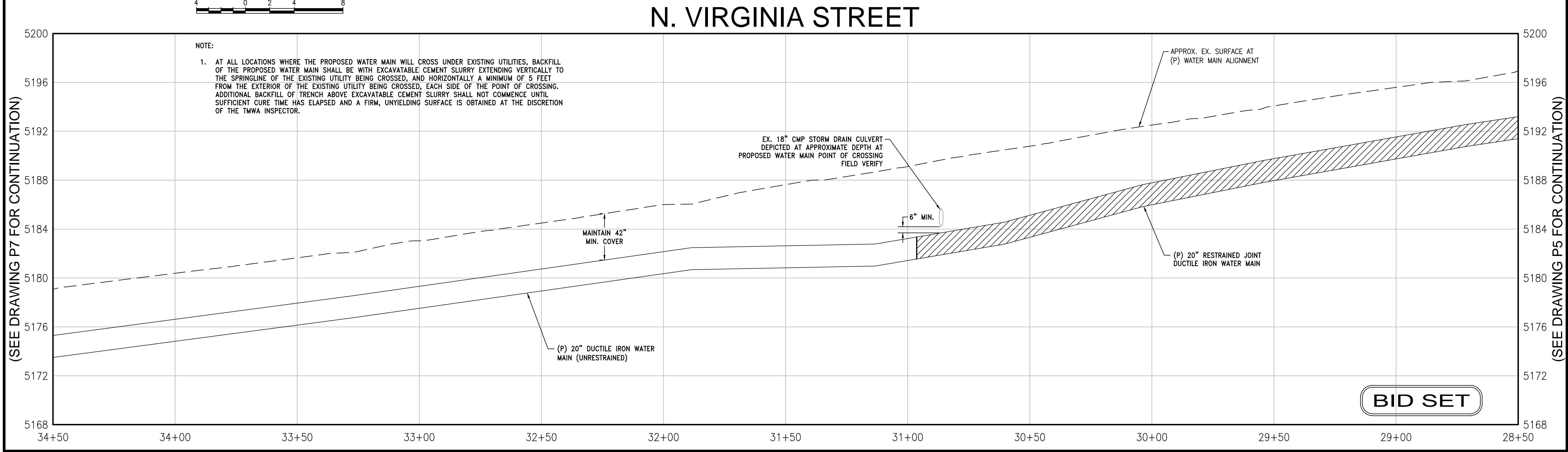
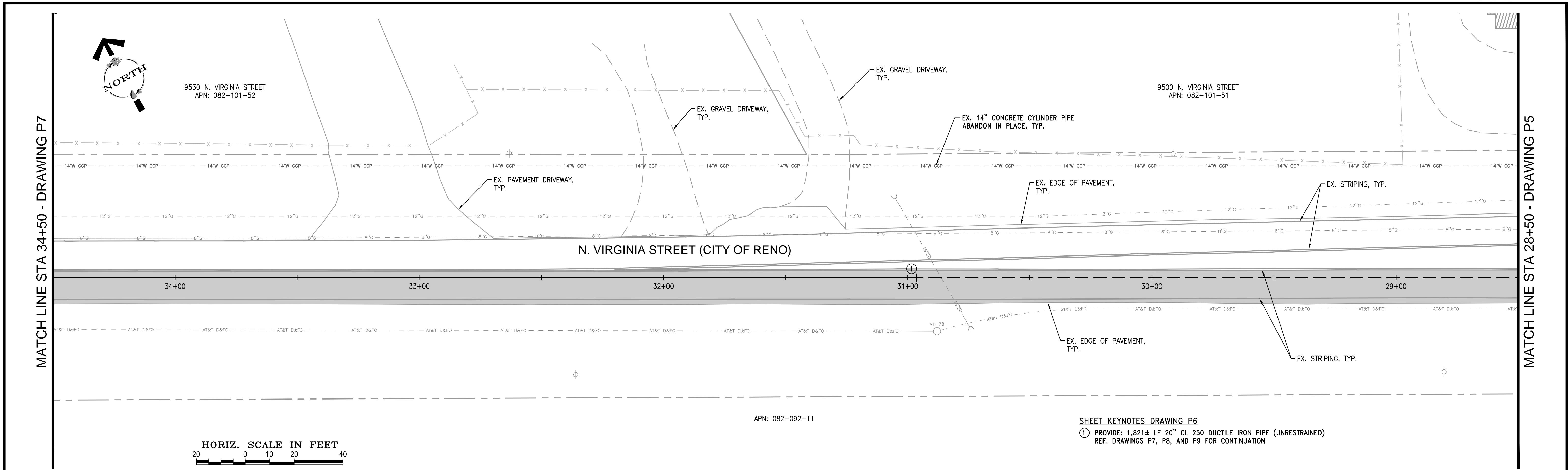


SHEET NUMBER
P5
7 OF 36

SHEET KEYNOTES DRAWING P5

- STA 24+56±, N = 14897532.70, E = 2264470.38
BEGIN RESTRAINED JOINT DUCTILE IRON PIPE
PROVIDE: 210 LF 20" CL 250 TR FLEX RESTRAINED JOINT DUCTILE IRON PIPE
- N = 14897633.83, E = 2264286.33 - FIELD VERIFY
PROVIDE: 20" X 12" FLG DUCTILE IRON CROSS
20" FLG X TR FLEX ADAPTER (EAST)
20" GATE VALVE, FLG X MJ, WITH MECHANICAL JOINT WEDGE ACTION RESTRAINT GLAND, AND WAX TAPE COATING SYSTEM (WEST)
12" GATE VALVE, FLG X MJ, WITH FLANGE INSULATING KIT, MECHANICAL JOINT WEDGE ACTION RESTRAINT GLAND, AND WAX TAPE COATING SYSTEM (NORTH)
12" FLG X 8" FLG DUCTILE IRON REDUCER (SOUTH)
8" GATE VALVE, FLG X MJ, WITH FLANGE INSULATING KIT, MECHANICAL JOINT WEDGE ACTION RESTRAINT GLAND, AND WAX TAPE COATING SYSTEM (SOUTH)
TEST/TRACER STATION PER DETAIL 2642-828 ON DRAWING D6
- PROVIDE: 430± LF 20" CL 250 TR FLEX RESTRAINED JOINT DUCTILE IRON PIPE
REF. DRAWING P6 FOR CONTINUATION
REF. TMWA STANDARD DETAIL 10L-11 FOR STORM DRAIN CROSSING
- CONNECT TO EXISTING 12" DUCTILE IRON WATER MAIN COMPLETE AFTER NEW 20" WATER MAIN IS IN SERVICE
PROVIDE: 42± LF 12" CL 350 RESTRAINED JOINT DUCTILE IRON PIPE
REMOVE AND DISPOSE EXISTING TEE, REDUCER, AND GATE VALVE
CONNECT TO EXISTING 12" DUCTILE IRON PIPE WITH A STRAIGHT COUPLING
- CONNECT TO EXISTING 8" DUCTILE IRON WATER MAIN COMPLETE AFTER NEW 20" WATER MAIN IS IN SERVICE
PROVIDE: 3± LF 8" CL 350 RESTRAINED JOINT DUCTILE IRON PIPE
8" 90° DUCTILE IRON HORIZONTAL BEND, MJ X MJ, WITH MECHANICAL JOINT WEDGE ACTION RESTRAINT GLANDS (2) AND WAX TAPE COATING SYSTEM - NO THRUST BLOCK REQUIRED
18± LF 8" CL 350 RESTRAINED JOINT DUCTILE IRON PIPE
8" 90° DUCTILE IRON HORIZONTAL BEND, MJ X MJ, WITH MECHANICAL JOINT WEDGE ACTION RESTRAINT GLANDS (2), WAX TAPE COATING SYSTEM, AND THRUST BLOCK PER TMWA STANDARD DETAIL 10L-2
REMOVE AND DISPOSE EXISTING PIPING, FITTINGS, AND APPURTENANCES REQUIRED TO MAKE CONNECTION TO EXISTING 8" DUCTILE IRON WATER MAIN
- PROVIDE: 10" DUCTILE IRON BLIND FLANGE ON EX. 10" GATE VALVE, FLG X FLG
REMOVE AND DISPOSE SECTION OF EX. 10" DUCTILE IRON PIPE AS REQUIRED FOR INSTALLATION AND EX. VALVE BOX
COMPLETE AFTER NEW 20" WATER MAIN IS IN SERVICE AND CONNECTION TO EXISTING 12" DUCTILE IRON WATER MAIN HAS BEEN MADE
- GROUT FILL 170± LF EX. 10" DUCTILE IRON PIPE
- GROUT FILL 18± LF EX. 8" DUCTILE IRON PIPE
- GROUT FILL 50± LF EX. 8" DUCTILE IRON PIPE
- REMOVE AND DISPOSE EX. VALVE BOX, TYP. OF 2
- PLUG EXISTING MJ GATE VALVE NEAR NVCC PRESSURE REDUCING STATION (NOT DEPICTED IN PLAN, COORDINATE LOCATION WITH TMWA INSPECTOR)
PROVIDE: 10" MJ PLUG
CUT, REMOVE, AND DISPOSE 4± LF EX. 10" DUCTILE IRON PIPE
REMOVE AND DISPOSE EX. VALVE BOX

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STEAD MAIN REPLACEMENT PHASE 2

N. VIRGINIA STREET
PLAN AND PROFILE
STA 28+50 TO 34+50

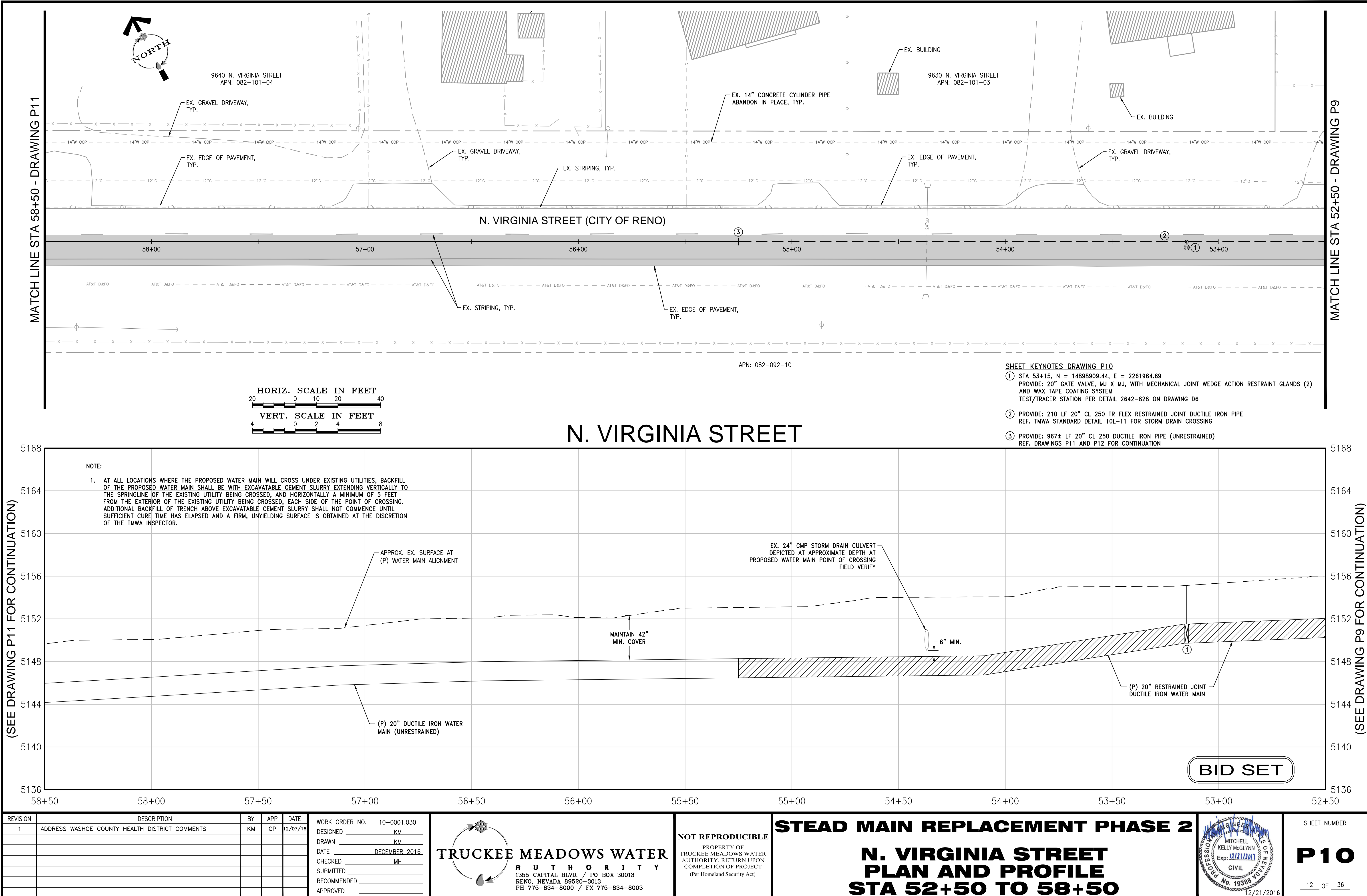
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SHEET NUMBER

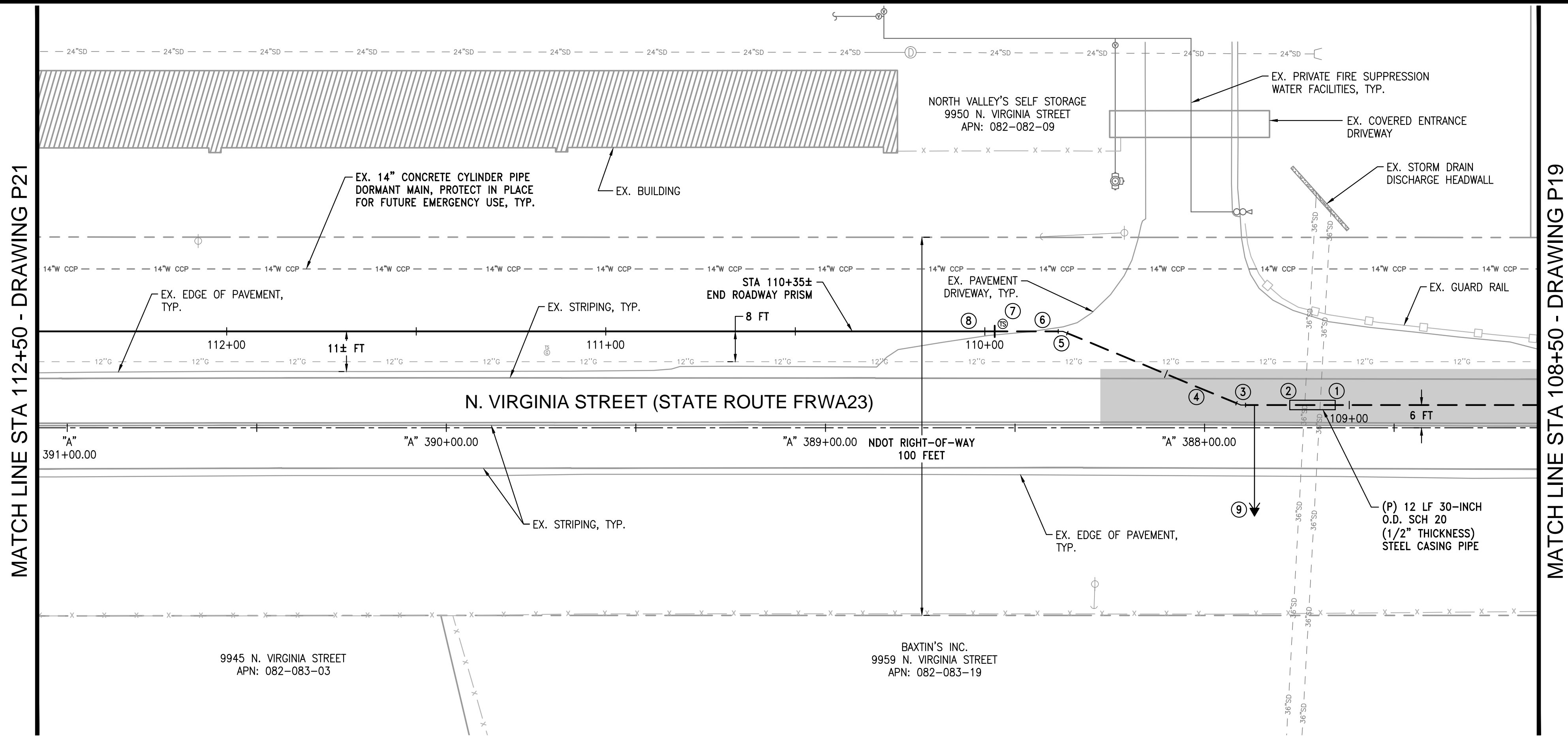
P6

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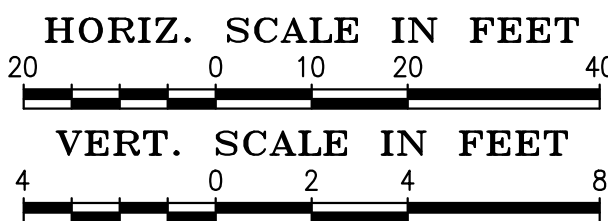
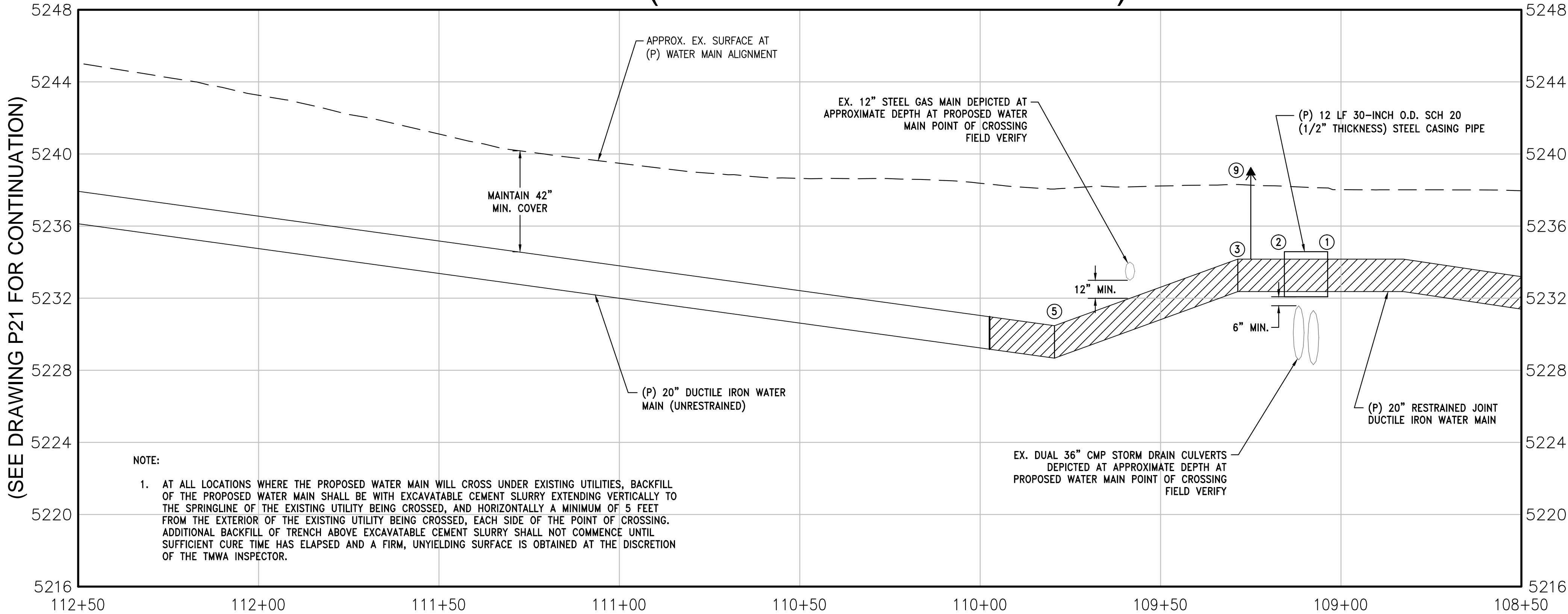
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SHEET KEYNOTES DRAWING P20

- ① STA 109+04, N = 14901590.30, E = 2257104.17
BEGIN INSTALLATION OF 30"Ø STEEL CASING
PROVIDE: 12 LF 30" O.D. SCH 20 (1/2" THICKNESS, EXTRA HEAVY) STEEL CASING PIPE, ASTM A 252 GRADE 2
- ② STA 109+16, N = 14901596.08, E = 2257093.65
END INSTALLATION OF 30"Ø STEEL CASING
- ③ N = 14901602.29, E = 2257082.34
PROVIDE: 20" 22.5' TR FLEX RESTRAINED JOINT DUCTILE IRON HORIZONTAL BEND
NO THRUST BLOCK REQUIRED
- ④ PROVIDE: 51± LF 20" CL 250 TR FLEX RESTRAINED JOINT DUCTILE IRON PIPE
- ⑤ N = 14901641.92, E = 2257050.58
PROVIDE: 20" 22.5' TR FLEX RESTRAINED JOINT DUCTILE IRON HORIZONTAL BEND
NO THRUST BLOCK REQUIRED
- ⑥ PROVIDE: 18 LF (1 FULL-LENGTH) 20" CL 250 TR FLEX RESTRAINED JOINT DUCTILE IRON PIPE
- ⑦ STA 109+95
PROVIDE: TEST/TRACER STATION PER DETAIL 2642-828 ON DRAWING D6
- ⑧ PROVIDE: 304± LF 20" CL 250 DUCTILE IRON PIPE (UNRESTRAINED)
REF. DRAWING P21 FOR CONTINUATION
- ⑨ STA 109+25±
PROVIDE: 1" COMBINATION AIR RELEASE VALVE PER TMWA STANDARD DETAIL 10L-4
1" SERVICE TAP PER TMWA STANDARD DETAIL 10H-2 (VERTICAL)
27± LF 1"Ø ASTM D2737 CTS SDR-9 HDPE 3608 TUBING

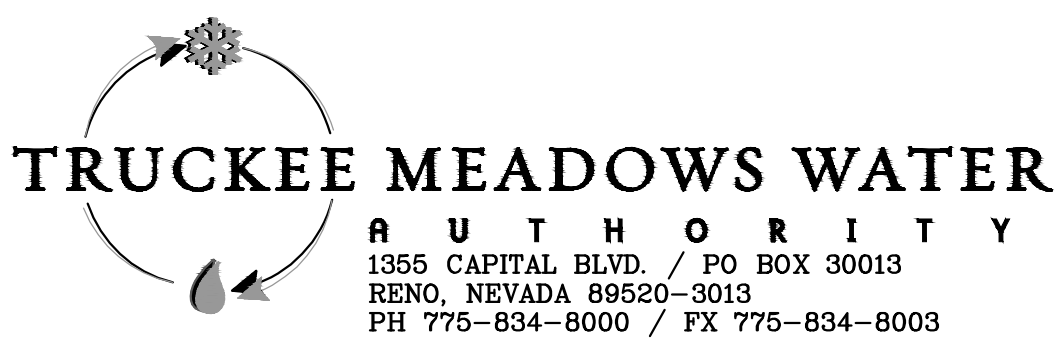
N. VIRGINIA STREET (STATE ROUTE FRWA23) CORRIDOR



BID SET

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STEAD MAIN REPLACEMENT PHASE 2
N. VIRGINIA STREET (STATE ROUTE FRWA23)
PLAN AND PROFILE
STA 108+50 TO 112+50

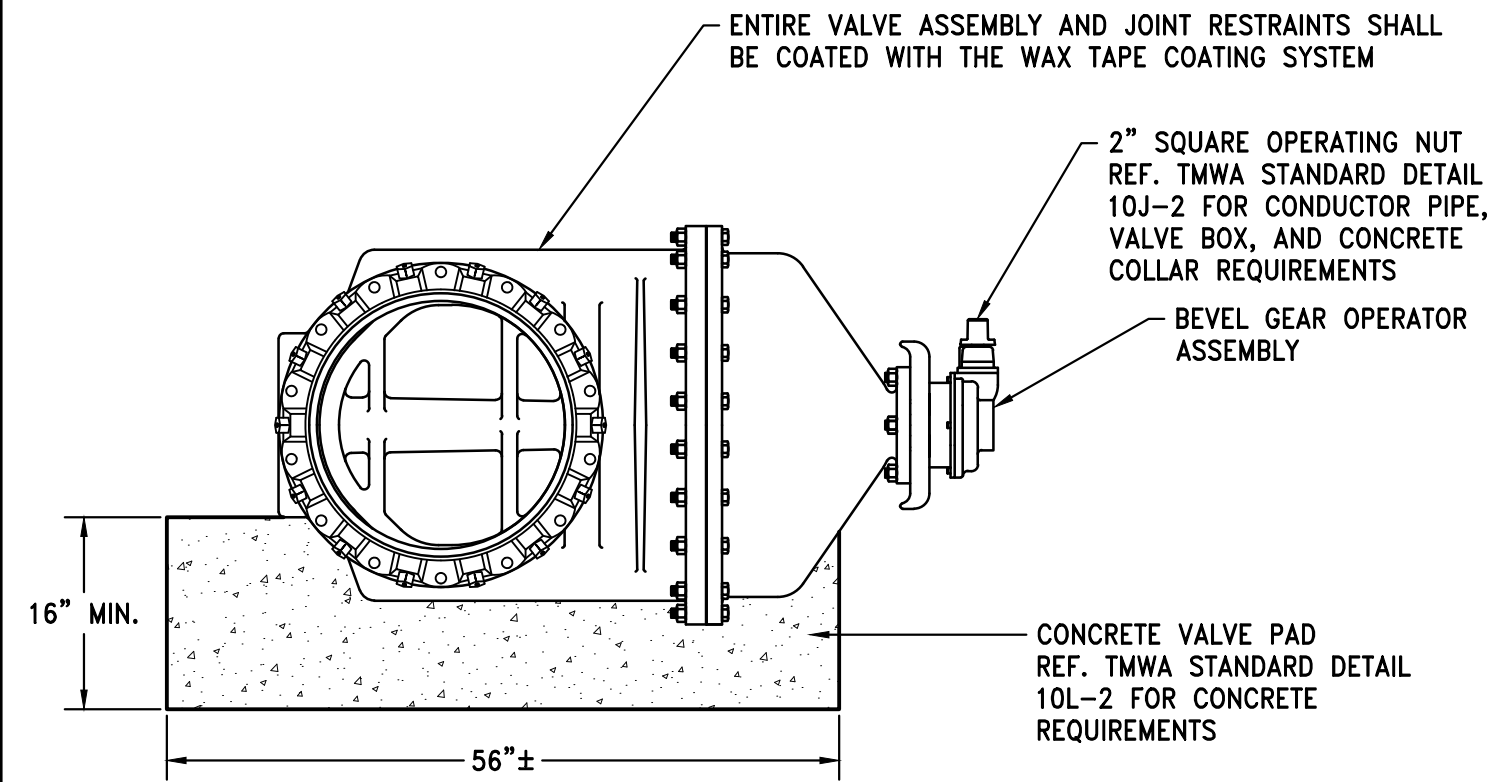


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P20

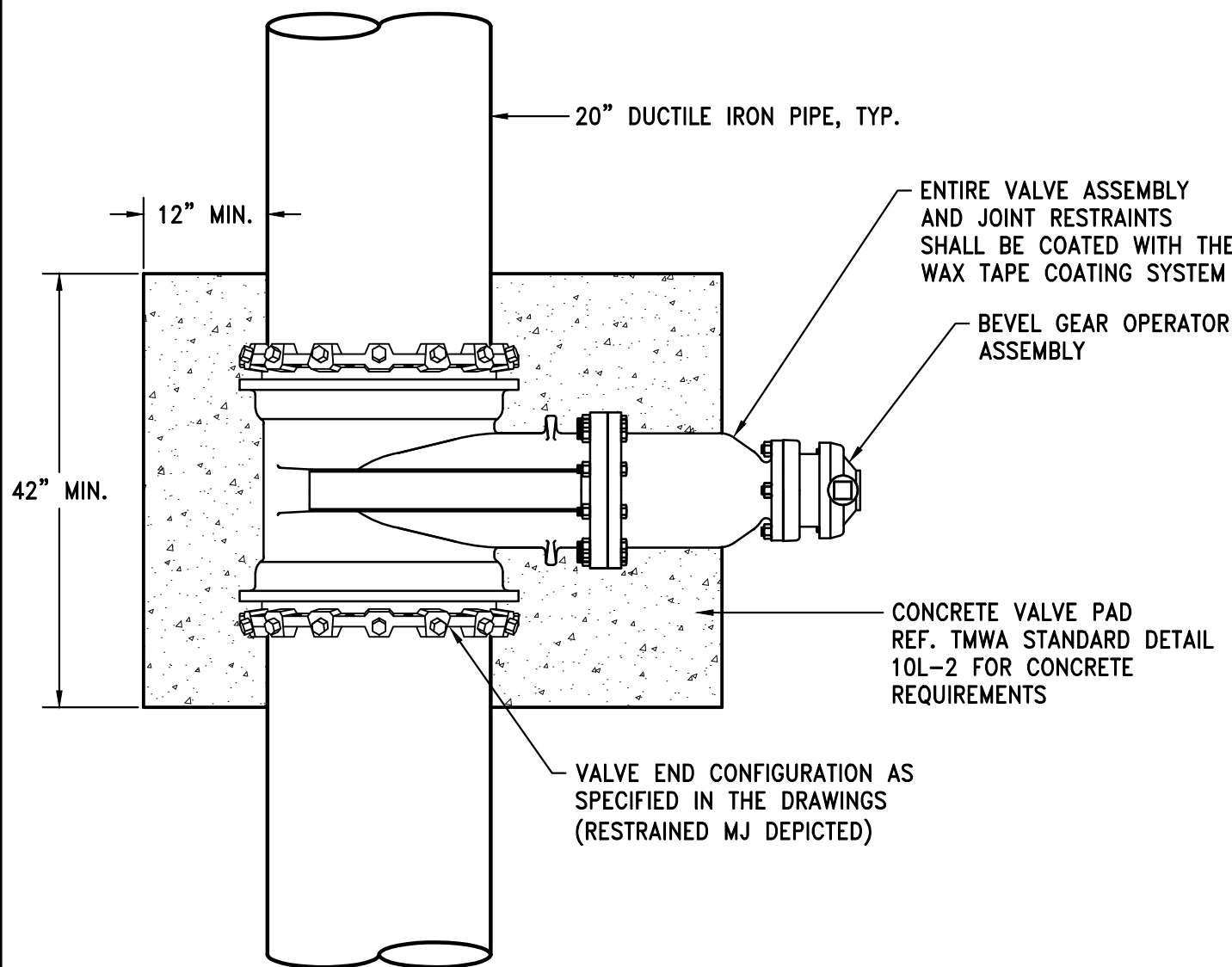
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HORIZONTAL INSTALLATION BEVEL GEAR 20-INCH GATE VALVE DETAIL - SECTION VIEW

SCALE: 3/4" = 1'



HORIZONTAL INSTALLATION BEVEL GEAR 20-INCH GATE VALVE DETAIL - PLAN VIEW

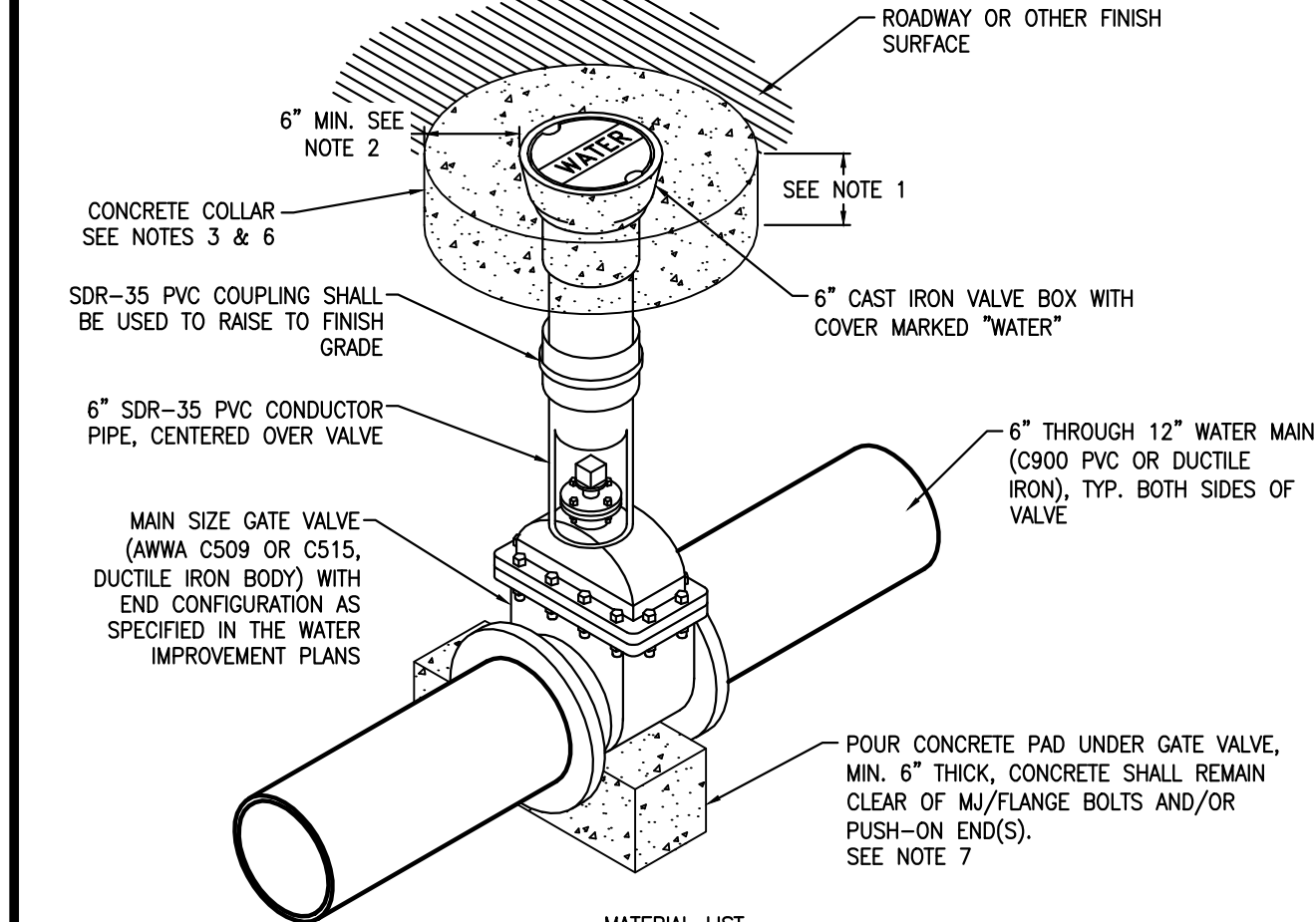
SCALE: 3/4" = 1'

NOTES:

1. OPERATING NUT EXTENSION SHALL BE FUSION BONDED EPOXY COATED.
2. OPERATING NUT EXTENSION REQUIRED WHERE VALVE OPERATING NUT IS IN EXCESS OF 30" DEEP BELOW FINISH GRADE.

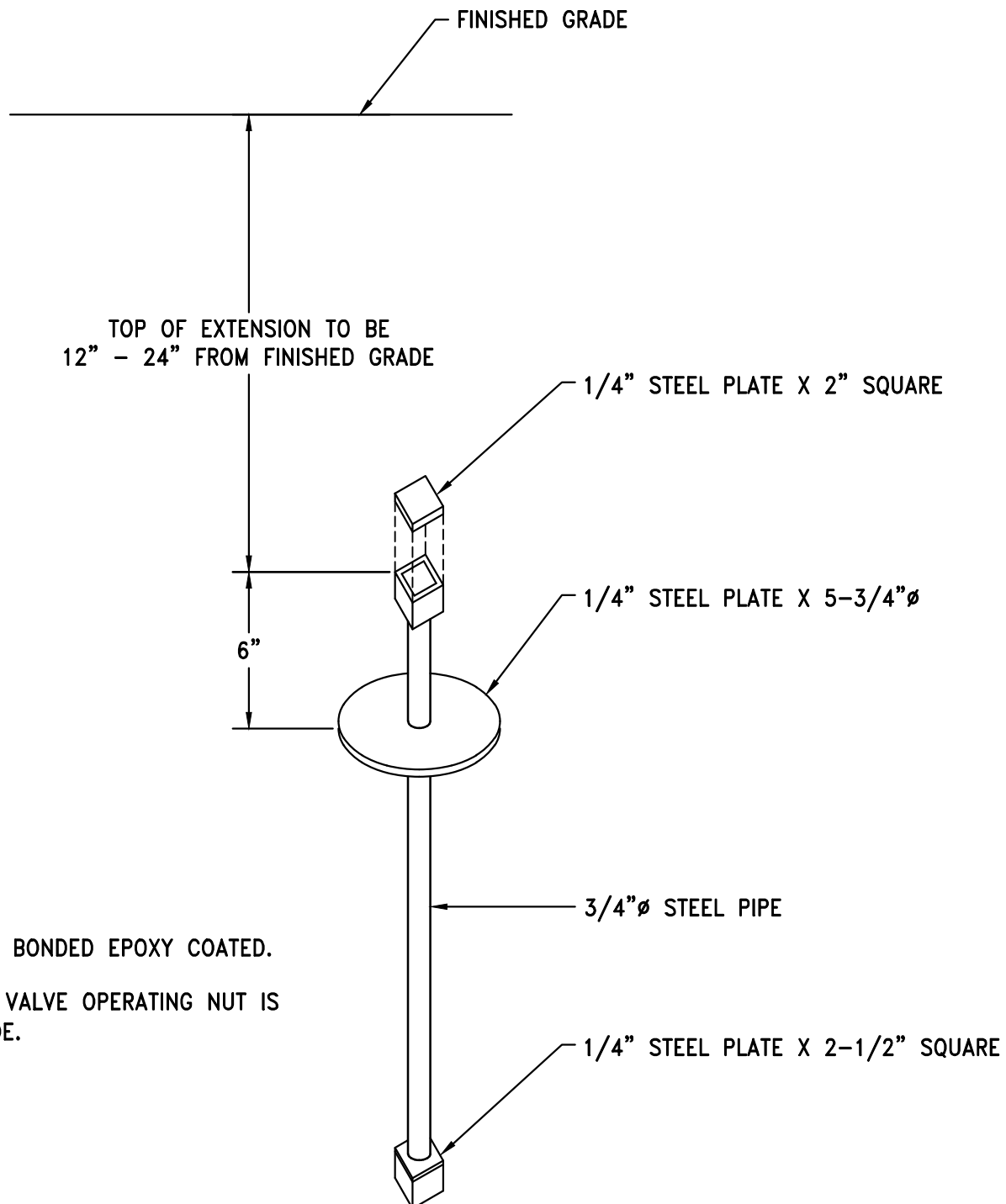
NOTES:

1. CONCRETE COLLAR SHALL BE MINIMUM 6-INCHES THICK OR MATCH PAVEMENT THICKNESS, WHICHEVER IS GREATER, UNLESS OTHERWISE SPECIFIED BY THE JURISDICTIONAL AGENCY RESPONSIBLE FOR THE ROADWAY.
2. FOR MULTIPLE VALVE/RISER BOXES IN CLOSE PROXIMITY, A MONOLITHIC CONCRETE COLLAR MAY BE POURED.
3. CONTRACTOR AND/OR DESIGN ENGINEER SHALL CONSULT WITH THE JURISDICTIONAL AGENCY RESPONSIBLE FOR THE ROADWAY FOR REQUIREMENTS THAT MAY VARY FROM THIS STANDARD PRIOR TO CONSTRUCTION.
4. ALL BOLTS AND EXPOSED METAL SHALL BE COATED WITH BRUSHED-ON MASTIC.
5. GATE VALVE, DUCTILE IRON PIPE, AND OTHER METAL PARTS SHALL BE ENCASED WITH POLYETHYLENE WRAP PER AWWA C105.
6. UNLESS OTHERWISE SPECIFIED BY THE JURISDICTIONAL AGENCY RESPONSIBLE FOR THE ROADWAY, PORTLAND CEMENT CONCRETE (P.C.C.) FOR CONCRETE COLLAR SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4,000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, MINIMUM 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAXIMUM WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% \pm 1.5%, SLUMP AT 1 TO 4 INCHES. BAG CONCRETE MIX IS NOT ACCEPTABLE.
7. CONCRETE FOR PAD SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 PSI AFTER 28 DAYS. BAG CONCRETE MIX IS NOT ACCEPTABLE.



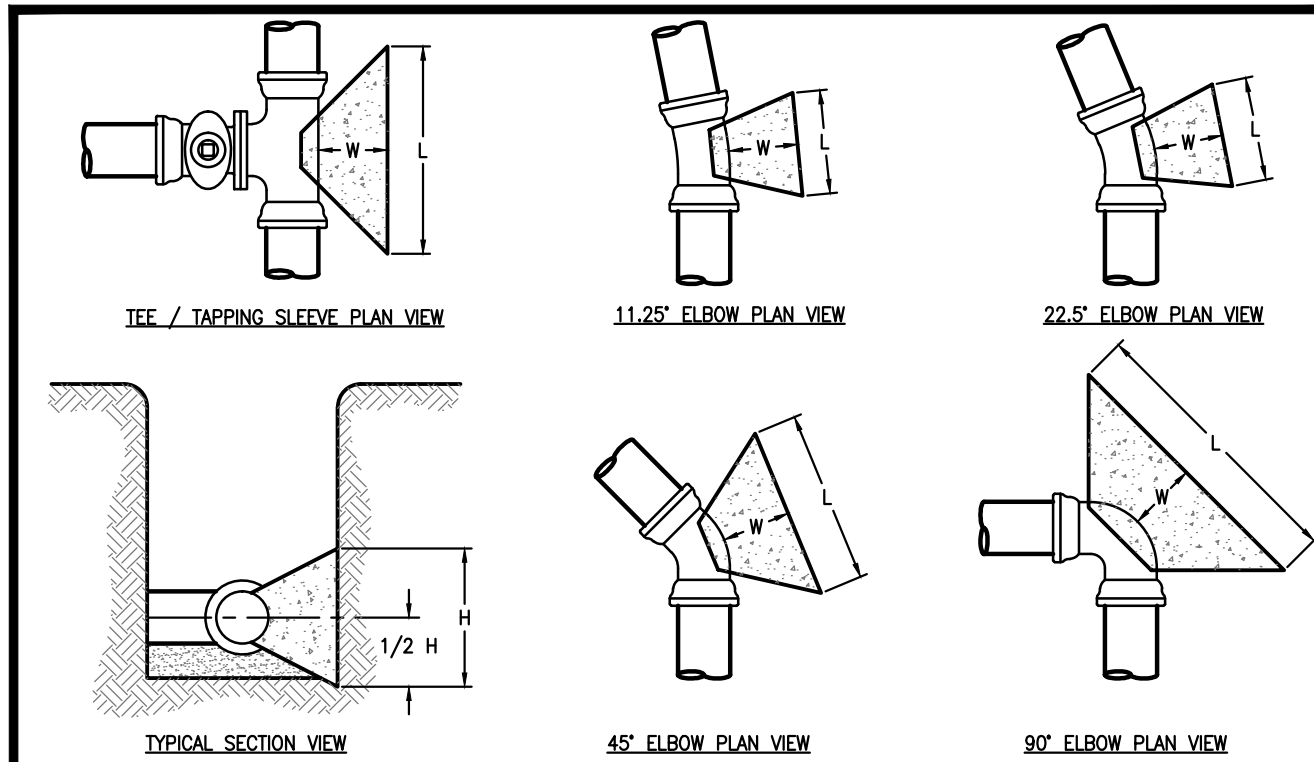
QTY	DESCRIPTION
1	MAIN SIZE GATE VALVE (AWWA C509 OR C515, DUCTILE IRON BODY) WITH END CONFIGURATION AS SPECIFIED IN THE WATER IMPROVEMENT PLANS
1	MASTIC (1 GALLON CAN - BRUSH ON)
1	6" ϕ SDR-35 PVC CONDUCTOR PIPE SECTION
1	6" ϕ CAST IRON VALVE BOX WITH COVER MARKED "WATER"
1	FULL FACE GASKET
1	CONCRETE BULK - PAD AND COLLAR

DATE	APPENDIX 10J	DRAWING NUMBER
1/2002	DISTRIBUTION VALVE INSTALLATION	10J-2
REV		
7/2011	IN-LINE GATE VALVE WITH CONCRETE COLLAR	



OPERATING NUT EXTENSION

NOT TO SCALE



		11.25° ELBOW			22.5° ELBOW			45° ELBOW			90° ELBOW		
BRANCH SIZE (INCHES)	L (FEET)	H (FEET)	W MIN. (FEET)	ELBOW SIZE (INCHES)	L (FEET)	H (FEET)	W MIN. (FEET)	L (FEET)	H (FEET)	W MIN. (FEET)	L (FEET)	H (FEET)	W MIN. (FEET)
4	1.5	1	1	4	1	1	1	1	1	1	1	2	1
6	2	1	1	6	1	1	1	1.5	1	1	2	2.5	2
8	3	2	1	8	1.5	1	1	1.5	1.5	1	2.5	4	2
10	3.5	2.5	1	10	2	1	1	2	2	1	3	5	2.5
12	4.5	3	1	12	2	1.5	1	2.5	2	1	4	6	3

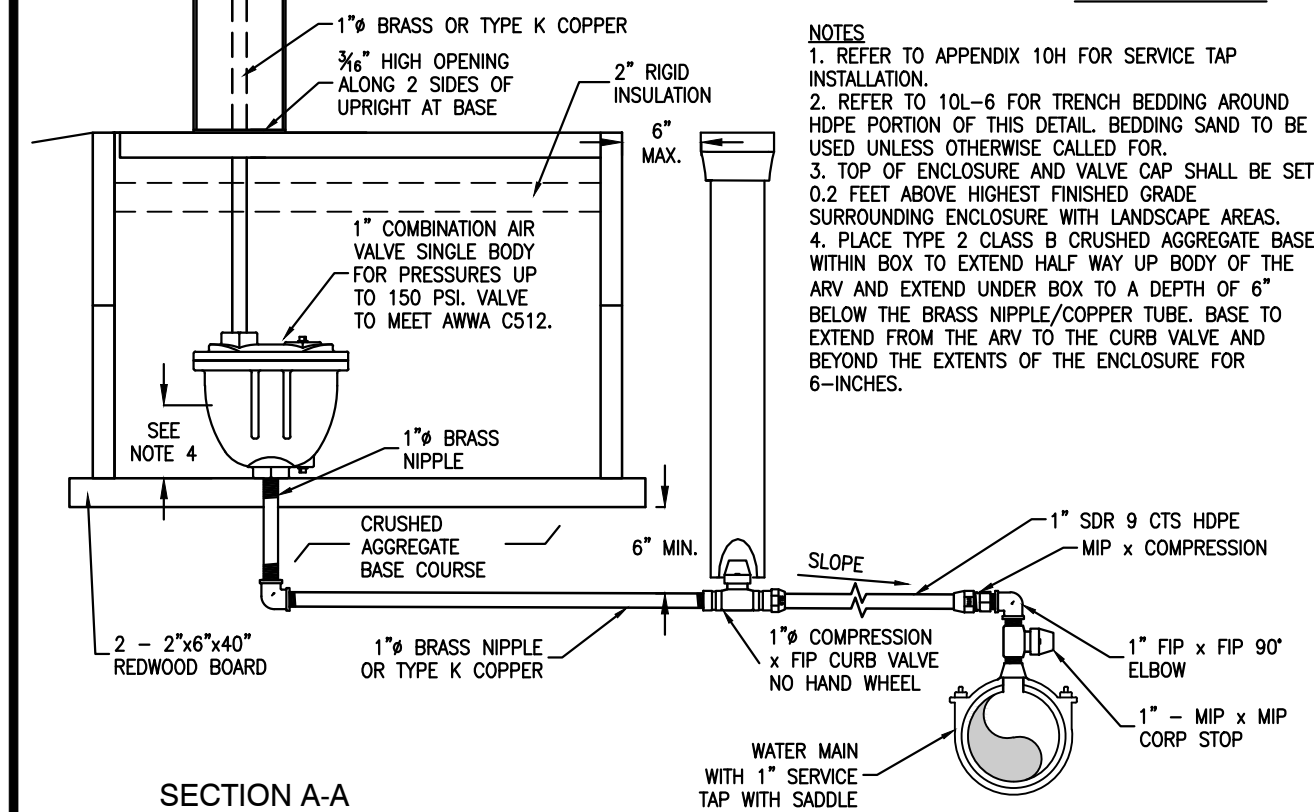
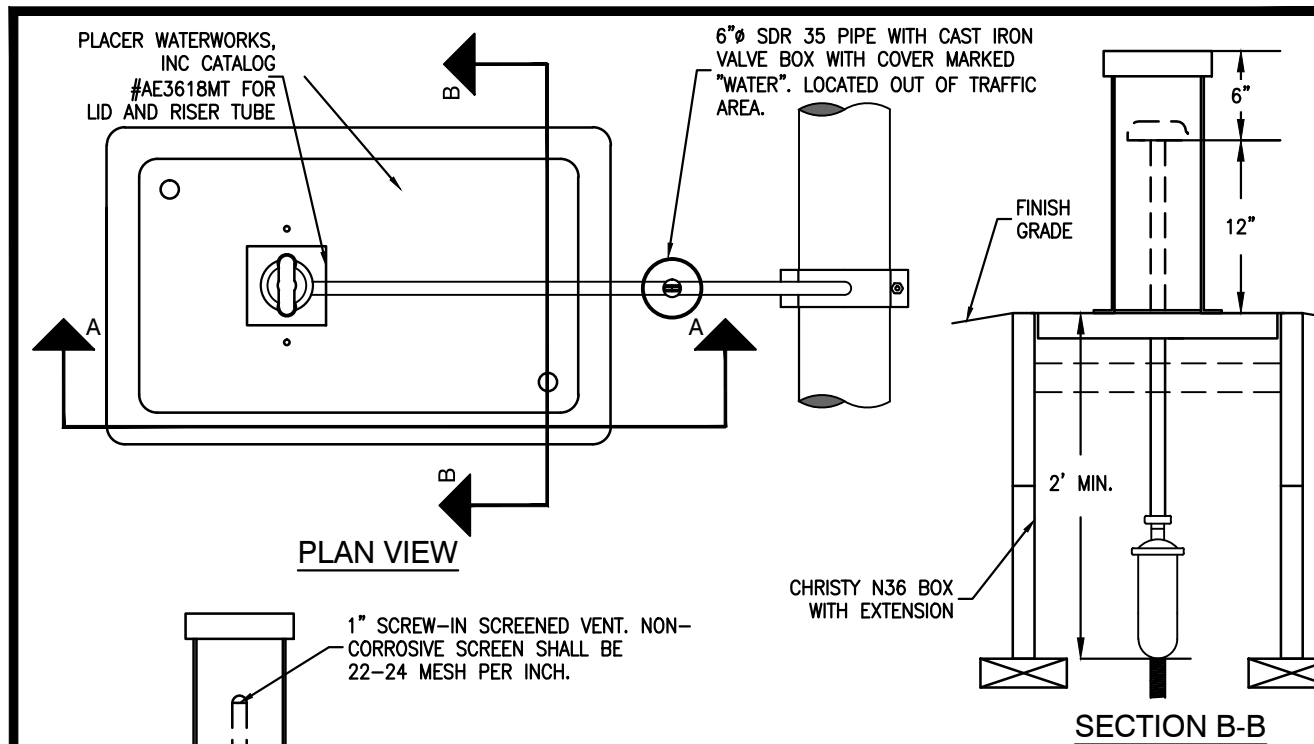
THRUST BLOCK DESIGN CRITERIA:

THRUST BLOCK SIZES HAVE BEEN CALCULATED USING THE METHOD AND EQUATIONS PUBLISHED IN *THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE*, SIXTH EDITION 2006 BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) UTILIZING THE FOLLOWING DESIGN PARAMETERS: DESIGN PRESSURE = 150 PSI (SEE NOTE #4 BELOW), SOIL BEARING CAPACITY = 2,000 PSF (SEE NOTE #4 BELOW), SAFETY FACTOR = 1.5, AND NOMINAL PIPE DIAMETER

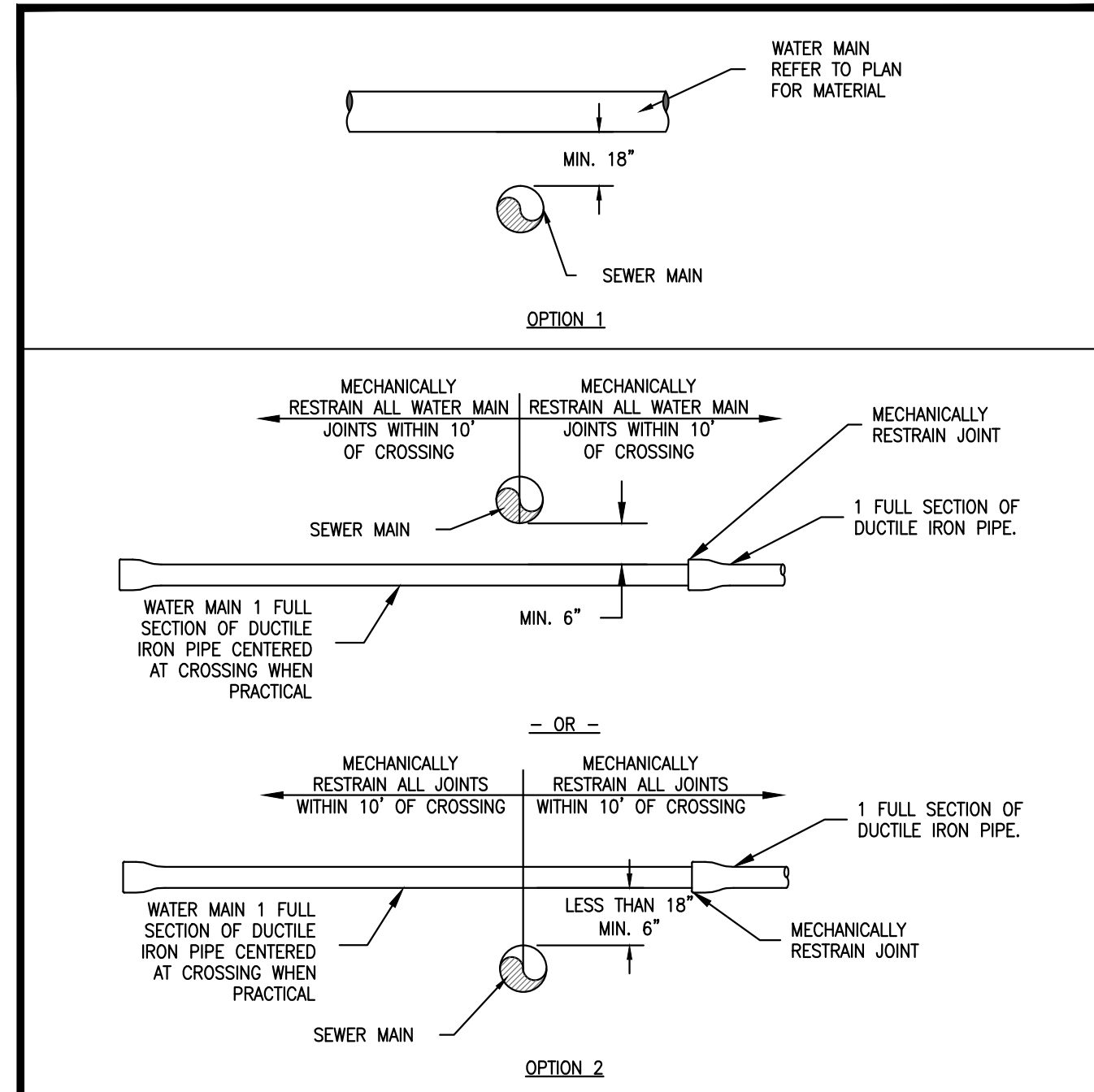
THRUST BLOCK NOTES:

1. CONCRETE FOR THRUST BLOCKS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI. REFERENCE SECTION 1.1.13 OF THE TRUCKEE MEADOWS WATER AUTHORITY ENGINEERING & CONSTRUCTION STANDARDS FOR ADDITIONAL REQUIREMENTS. BAG CONCRETE MIX IS NOT ACCEPTABLE.
2. ALL FITTINGS SHALL BE WRAPPED WITH POLYETHYLENE WRAP PER AWWA C105. MASTIC (BRUSH-ON) SHALL BE APPLIED TO ALL BOLTS, ETC.
3. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL. IN CASES WHERE THIS IS NOT PRACTICAL, BACKFILL AREA BEHIND WHERE THRUST BLOCK WILL BE POURED WITH TYPE 2, CLASS B AGGREGATE BASE (PER SECTION 200.01.03 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - ORANGE BOOK) COMPACTED TO 95% MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY PROCEDURES SET FORTH IN ASTM D 1557, CUT-BACK COMPACTED AGGREGATE BASE TO EXPOSE A FIRM SURFACE, THEN POUR THRUST BLOCK.
4. FOR SOIL BEARING CAPACITY LESS THAN 2,000 PSF AND/OR DESIGN PRESSURE IN EXCESS OF 150 PSI, INCREASE THRUST BLOCK BEARING AREAS ACCORDINGLY. REVISED THRUST BLOCK SCHEDULE FOR SPECIFIC CONDITIONS SHALL BE SUBMITTED BY THE DESIGN ENGINEER.

DATE	APPENDIX 10L	DRAWING NUMBER
7/2011	THRUST BLOCKS	10L-2
REV		
	TEES, TAPPING SLEEVES, DEAD ENDS 11.25, 22.5, 45 AND 90 DEGREE ELBOWS 4" TO 12"	



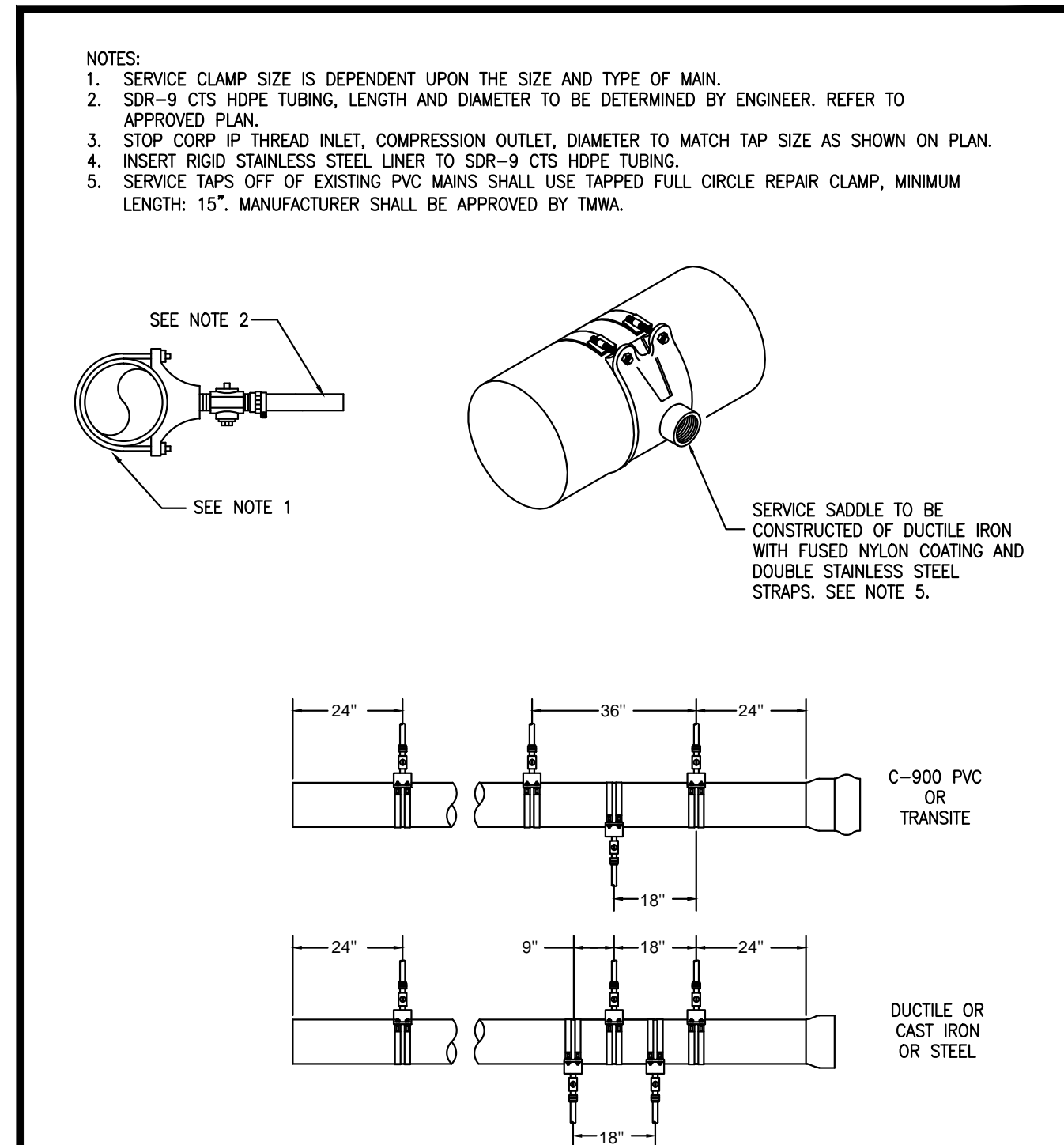
DATE	APPENDIX 10L	DRAWING NUMBER
7/2005	COMBINATION AIR RELEASE VALVE	10L-4
REV		
9/2016		



NOTES:

1. OPTION 1 SHOULD BE UTILIZED WHEN POSSIBLE.
2. NON-PRESSURIZED SEWER MAINS SHALL BE SDR 35 PVC. IF SEWER MAINS ARE NON SDR 35 PVC, SEWER MAINS SHALL BE ENCASED IN 4" OF EXCAVATABLE SLURRY, USE EXTERNAL JOINT SEALANT OR OTHER MITIGATION TO ENSURE JOINTS ARE WATERTIGHT. WHERE THE SEWER MAINS ARE PRESSURIZED THE SEWER MAINS SHALL HAVE MECHANICALLY RESTRAINED JOINTS OR SHALL USE WELDED OR FUSED PIPE.
3. ALL MECHANICALLY RESTRAINED WATER PIPES SHALL BE DUCTILE IRON WITH POLYETHYLENE WRAP PER AWWA C105.

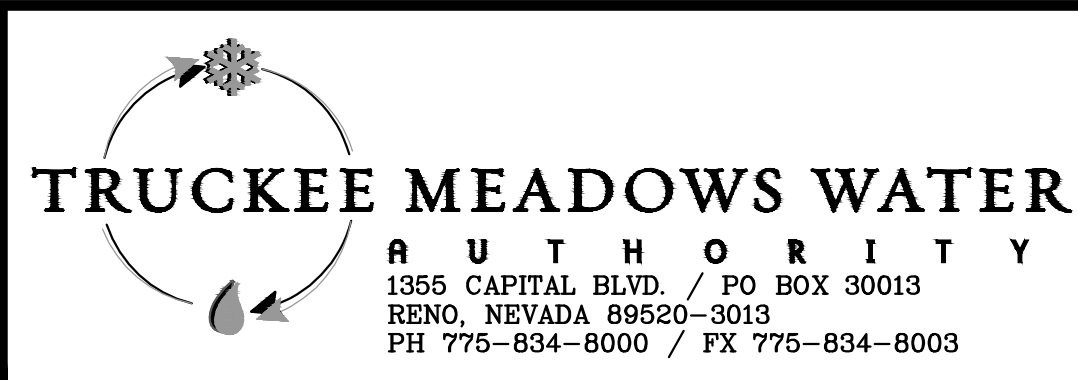
DATE	APPENDIX 10L	DRAWING NUMBER
02/2014	MISCELLANEOUS WATER DETAILS	10L-11
REV		
	WATER MAIN CROSSING SEWER MAIN	



DATE	APPENDIX 10H	DRAWING NUMBER
7/2001	SERVICE TAP INSTALLATIONS	10H-2
REV		
9/2016	FOR 1", 1.25", 1.5" AND 2" SERVICE TAPS	

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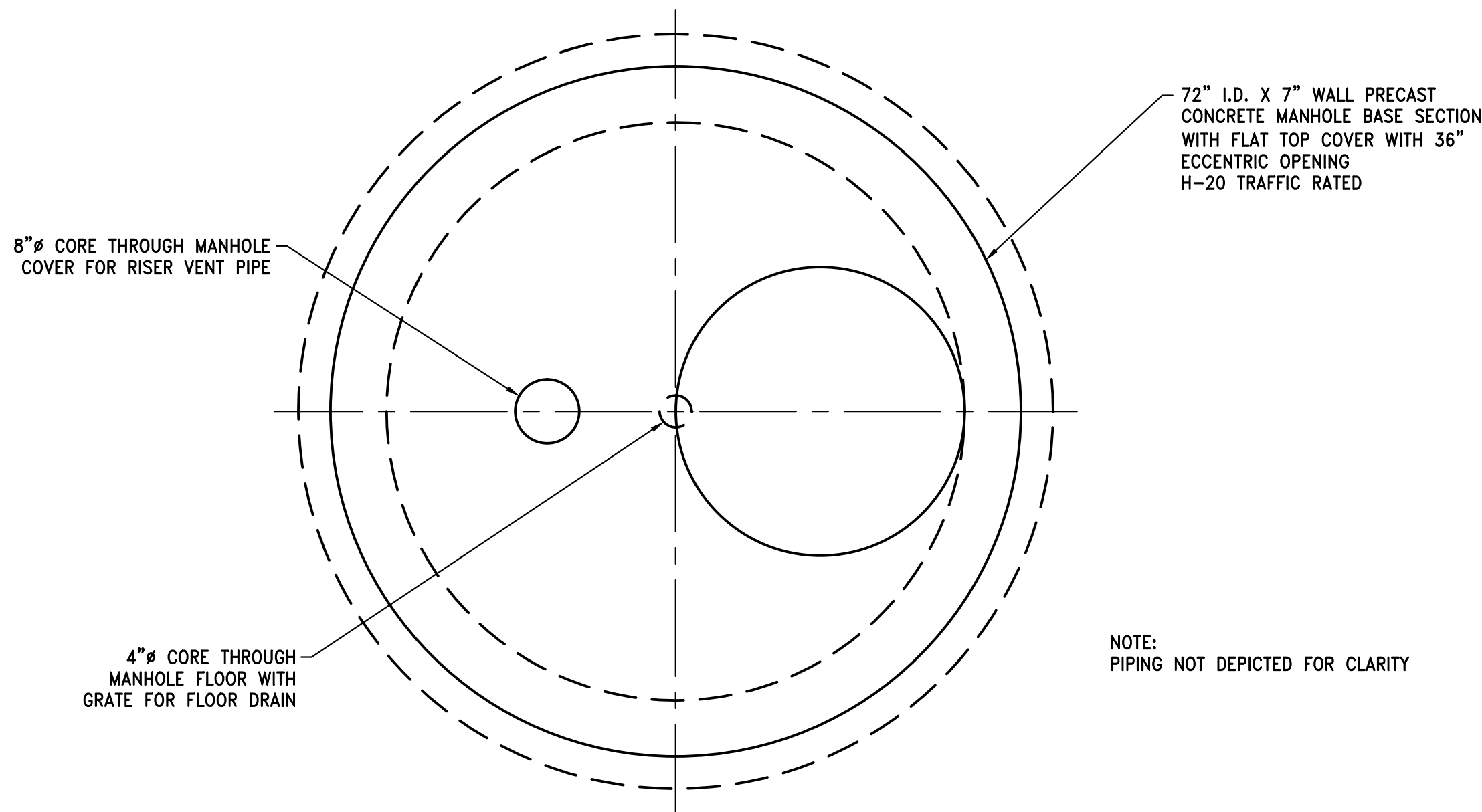
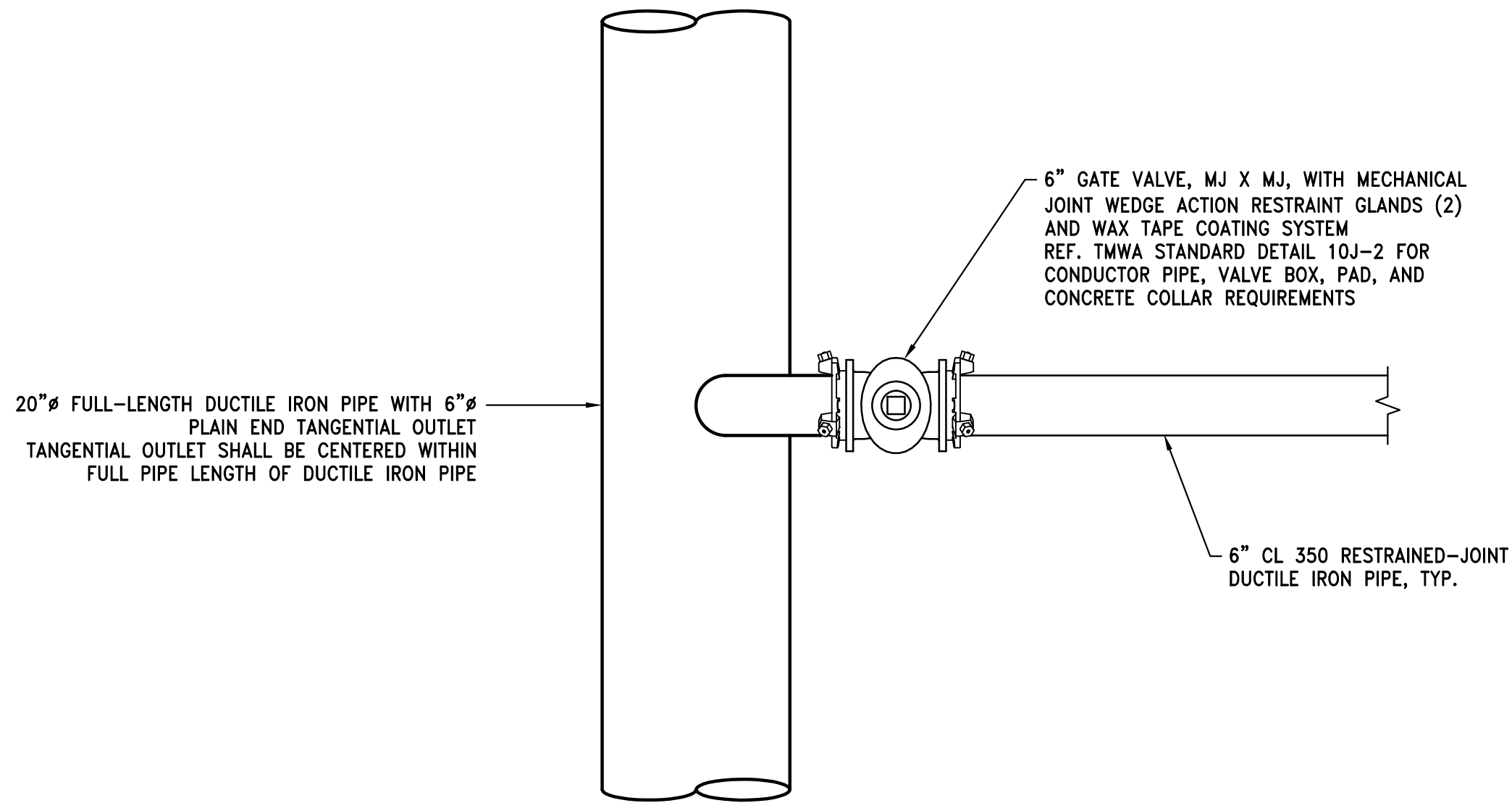


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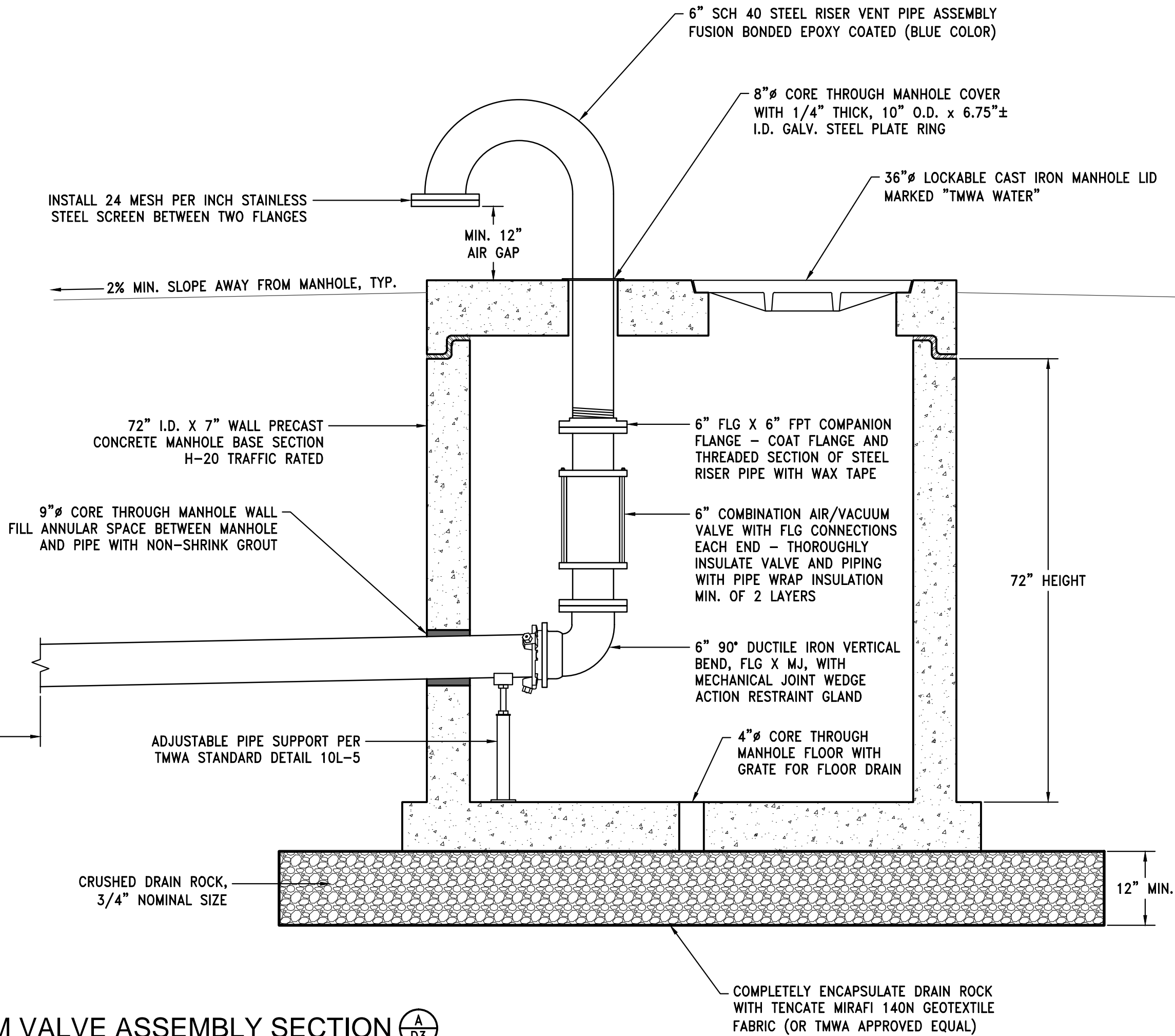
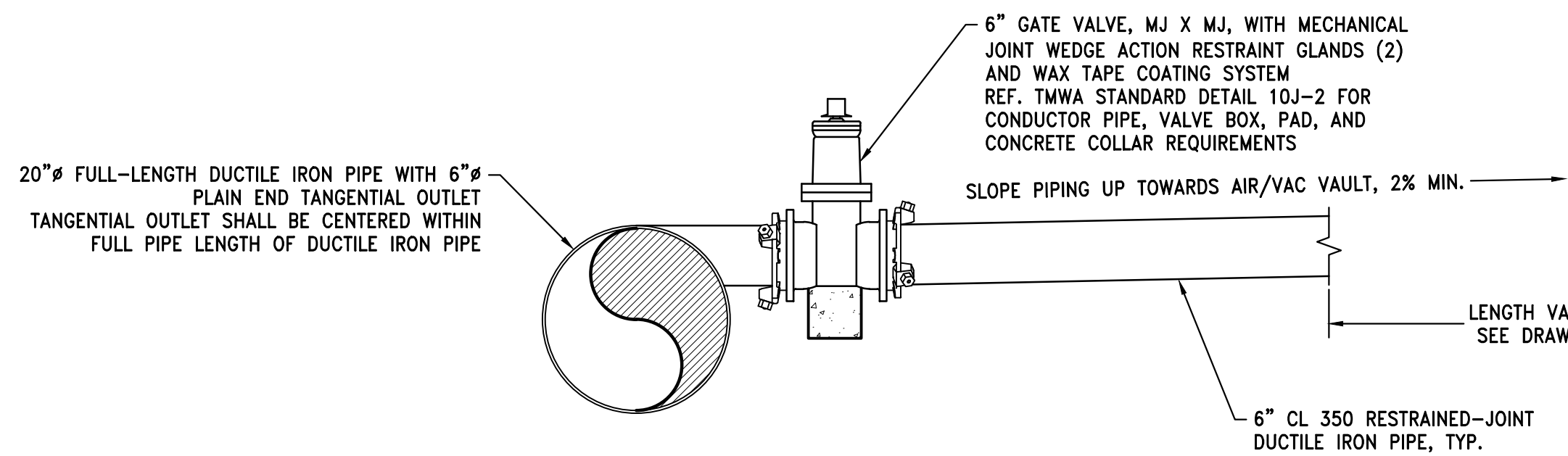
STEAD MAIN REPLACEMENT PHASE 2 BID SET PIPELINE DETAILS



SHEET NUMBER
D3
33 OF 36
12/21/2016



AIR/VACUUM VALVE ASSEMBLY PLAN VIEW
SCALE: 3/4" = 1'



AIR/VACUUM VALVE ASSEMBLY SECTION
SCALE: 3/4" = 1'

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STEAD MAIN REPLACEMENT PHASE 2
COMBINATION AIR/VACUUM VALVE DETAILS

PROFESSIONAL ENGINEER
MITCHELL
KELLY MCGLYNN
Exp. 12/31/2017
CIVIL
No. 19388
12/21/2016

SHEET NUMBER

D4

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