

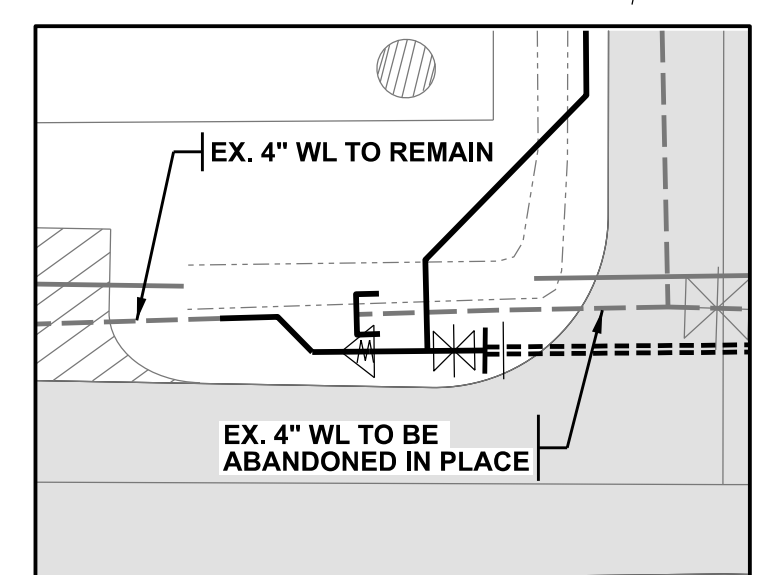
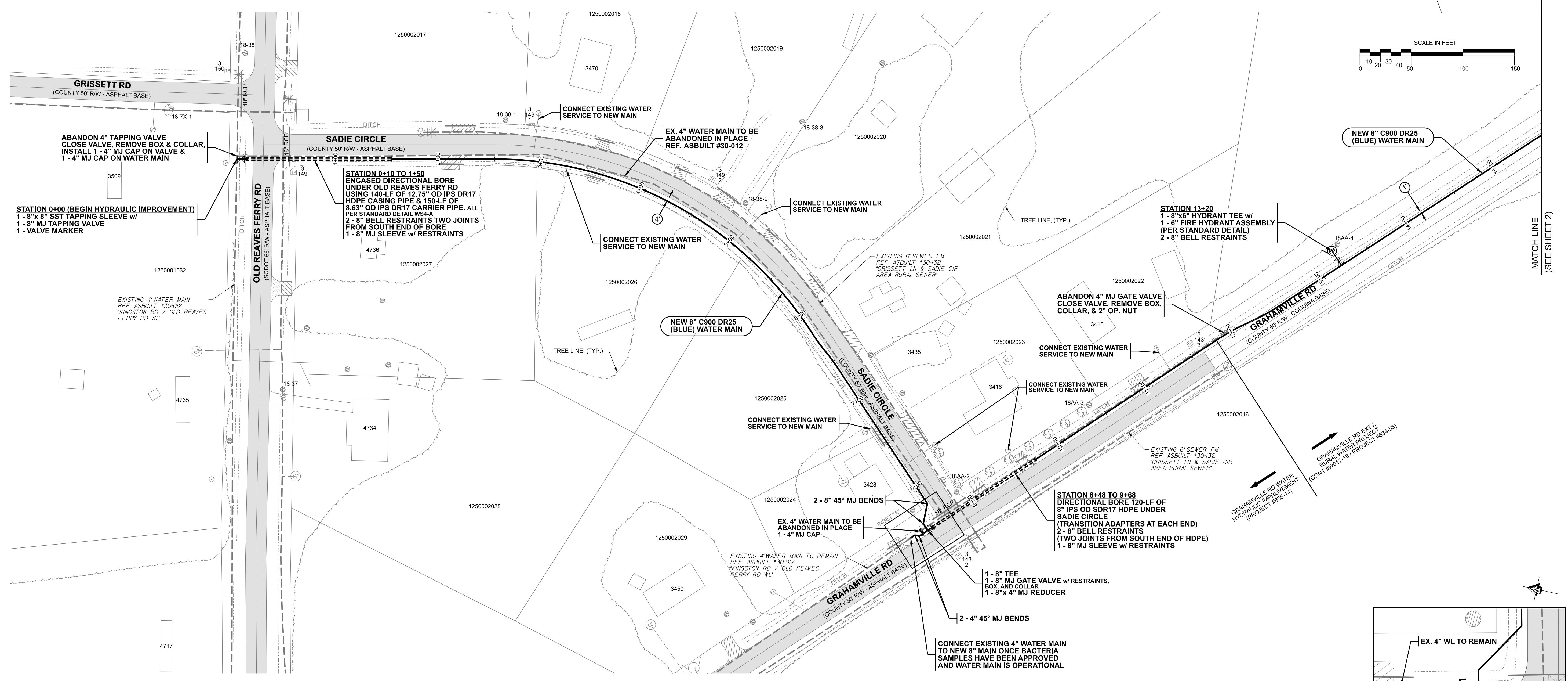
**FLUSHING CALCULATIONS**  
 8" WL (4,630-LF)  
 Flushing flow = 392 gpm (min.)  
 Flushing volume = 30,230 gal. (2.5 turnovers)  
 Flushing duration = 77 minutes

1. WORK WITHIN PUBLIC RIGHT-OF-WAYS OR PRIVATE EASEMENTS SHALL BE ACCOMPLISHED BY THE CONTRACTOR ACCORDING TO THE REQUIREMENTS OR CONDITIONS OF THE ENCROACHMENT PERMIT OR OTHER LEGAL DOCUMENTS AS THOUGH DOCUMENTS WERE ISSUED IN THE CONTRACTOR'S NAME. THE CONTRACTOR SHALL MAINTAIN COPIES OF THESE DOCUMENTS ON THE SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF PUBLIC RIGHTS-OF-WAY DURING CONSTRUCTION OF THE PROJECT AND UNTIL THE CONTRACTOR OBTAINS AND DELIVERS TO THE OWNER A WRITTEN SIGN-OFF FROM HORRY COUNTY AND/OR THE S.C.D.O.T. THAT THE PUBLIC AGENCY HAS ACCEPTED THE RIGHT-OF-WAY BACK FOR MAINTENANCE. FINAL PAYMENT AND RELEASE OF RETAINAGE WILL NOT BE MADE TO THE CONTRACTOR UNTIL WRITTEN SIGN-OFF HAS BEEN OBTAINED FROM THE APPROPRIATE PUBLIC AGENCY AND PROVIDED TO THE OWNER.
2. PROVISIONS SHALL BE MADE TO PREVENT EROSION AND SILTATION CAUSED BY CONSTRUCTION. TEMPORARY GRASSING, HAY BALES, SILT FENCES OR OTHER METHODS, AS CALLED FOR ON THE PLAN OR THAT MAY BE REQUIRED, SHALL BE USED.
3. DISTANCES SHOWN ON THE PLAN FOR THE DESIGNATED LOCATION OF THE PROPOSED LINE WHICH MAY BE FROM THE EDGE OF PAVEMENT OR OTHERWISE SHOWN IS INTENDED ONLY AS A DESIRED LOCATION FOR THIS INSTALLATION. HOWEVER, SHOULD A CONFLICT OCCUR AND/OR DUE TO UNFORESEEN OR OTHER UTILITIES DISCOVERED THAT ARE IN CONFLICT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FOR ANY AND ALL INSTALLATIONS AND DEVIATIONS OF ALIGNMENT NECESSARY TO ACHIEVE A CHANGED AND SATISFACTORY LOCATION FOR THIS INSTALLATION. THE INSTALLATION COSTS THAT MAY OCCUR DUE TO ALIGNMENT CHANGES ARE CONSIDERED TO BE A PART OF THE PRICE SUBMITTED FOR PIPE INSTALLATION AND NO ADDITIONAL COMPENSATION IS ALLOWED. THE FINAL LOCATION SELECTED FOR INSTALLATION BY THE CONTRACTOR OTHER THAN WHAT IS SHOWN ON THE PLANS SHALL BE FIRST APPROVED BY THE AUTHORITY PRIOR TO PROCEEDING WITH THE WORK AND ACTUAL INSTALLATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND EXISTENCE OF ALL UNDERGROUND UTILITIES BOTH PRIOR TO THE BID SUBMITTAL AND DURING CONSTRUCTION. LOCATION OF UTILITIES AS TENTATIVELY SHOWN ON THE PLANS, WHETHER FULLY AND CORRECTLY LOCATED OR PARTIALLY AND/OR INCORRECTLY LOCATED OR OMITTED WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OR LIABILITY FOR PROVIDING FOR ANY DEVIATION FROM THE PLANNED LOCATION AND FOR THE COMPLETE INSTALLATION AND/OR DAMAGE TO OTHER UTILITIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING LOCAL UTILITIES FOR ASSISTANCE IN LOCATING UTILITIES BOTH PRIOR TO BID PROPOSALS AND DURING INSTALLATIONS. THE CONTRACTOR MUST FULLY COMPLY WITH THE SOUTH CAROLINA UNDERGROUND UTILITIES DAMAGE PREVENTION ACT, GENERAL STATUTES 58-35, SECTIONS 20 THROUGH 120 AND ALL APPLICABLE STATUTES AND STATE APPROVED REQUIREMENTS.
4. WHEN THE CONTRACTOR IS UNABLE TO COMPLETE HIS WORK AS SHOWN ON THE PLANS BECAUSE OF AN EXISTING UTILITY, CONTRACTOR SHALL STAKE THE LOCATION OF THE UTILITY PRIOR TO PROCEEDING AND CONTACT THE ENGINEER.
5. THE CONTRACTOR SHALL NOTIFY ALL PUBLIC AGENCIES, THE OWNER, THE ENGINEER AND ALL OTHER CONCERNED PARTIES WHEN CONSTRUCTION IS TO COMMENCE SO THAT INSPECTIONS AND OTHER SITE VISITS MAY BE SCHEDULED.
6. DATA REQUIRED FOR PREPARATION OF AS-BUILT DRAWINGS SHALL BE OBTAINED BY THE CONTRACTOR AT THE TIME OF INSTALLATION. THIS DATA SHALL BE ACCUMULATED BY THE CONTRACTOR AND COORDINATED WITH THE PROJECT INSPECTOR ON A DAILY BASIS DURING THE CONSTRUCTION PERIOD AND BE SUBMITTED TO THE PROJECT INSPECTOR IN A NEAT AND LEGIBLE MANNER AFTER COMPLETION OF THE PROJECT.
7. ALL MATERIALS AND/OR INSTALLATION, UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AUTHORITY'S WATER AND SEWER STANDARDS AND SPECIFICATIONS, AND WHERE APPLICABLE, ALL FEDERAL, SOUTH CAROLINA AND LOCAL ORDINANCES, REGULATIONS, SPECIFICATIONS AND PERMITS.
8. SPECIAL NOTE: PRIOR TO ANY EXCAVATION THE CONTRACTOR IS REQUIRED TO CONTACT HORRY TELEPHONE COOPERATIVE FOR CABLE LOCATIONS AT 365-2151. THIS PROJECT HAS SEVERAL CABLES OFF EDGE OF PAVEMENT THAT THE CONTRACTOR WILL BE REQUIRED TO LOCATE AND EXPOSE PRIOR TO THE INSTALLATION OF ANY MATERIALS.
9. REPLACE IN KIND ALL AREAS PROPERTY OWNER HAS DEVELOPED SPECIAL GRASS, TURF, OR LANDSCAPING. ALL DISTURBED AREAS ARE TO BE RAKED AND SEEDED.
10. FINAL LOCATION AND SIZE OF E-ONE GRINDER PUMP STATIONS AND WATER SERVICES SHALL BE DETERMINED BY GSWSA. LOCATION OF PUMP STATIONS AND WATER SERVICES SHOWN ON PLANS ARE TENTATIVE AND SUBJECT TO CHANGE. GSWSA SHALL DETERMINE AND STAKE OUT ALL LOCATIONS PRIOR TO CONTRACTOR INSTALLATION.

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**LEGEND (APPLIES TYPICALLY THROUGHOUT PLAN SHEETS)**

DIRT/GRASS DRIVEWAY	WATER OR SEWER AIR RELEASE VALVE
COQUINA/GRAVEL DRIVEWAY	SEWER FM PUMPER CONNECTION ASSEMBLY
CONCRETE DRIVEWAY	SEWER FM PLUG VALVE
ASPHALT DRIVEWAY	SEWER MANHOLE
REINFORCED CONCRETE PIPE (RCP)	SEWER LIFT STATION
TELEPHONE PEDESTAL	SEWER S.T.E.P. TANK
T.V. CABLE PEDESTAL	SEWER GRINDER PUMP STATION
ELECTRIC POWER POLE	WATER FIRE HYDRANT
U.G. ELECTRIC TRANSFORMER	WATER POST HYDRANT
GAS MAIN	WATER BLOW-OFF ASSY
TELEPHONE/TV CABLE	WATER GATE VALVE
FIBER OPTIC CABLE	WATER/SEWER REDUCER
CATCH BASIN	WATER SERVICE METER
WATER WELL HOUSE	CUSTOMER TO RECEIVE WATER AND/OR SEWER SERVICE



DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 REVISION: \_\_\_\_\_

**GRAND STRAND WATER & SEWER AUTHORITY**  
 166 JACOBSON BLUFF RD.  
 P.O. BOX 2269  
 CONWAY, SC 29526-2269  
 (803) 343-0800 FAX: (803) 343-0808  
 E-MAIL: GSWSA@GSA.COM

**GRAHAMVILLE RD**  
 - EXT 2 RURAL WATER PROJECT (W017-18 / 634-55)  
 - WATER HYDRAULIC IMPROVEMENT (635-14)  
 (OFF OLD REAVES FERRY RD)

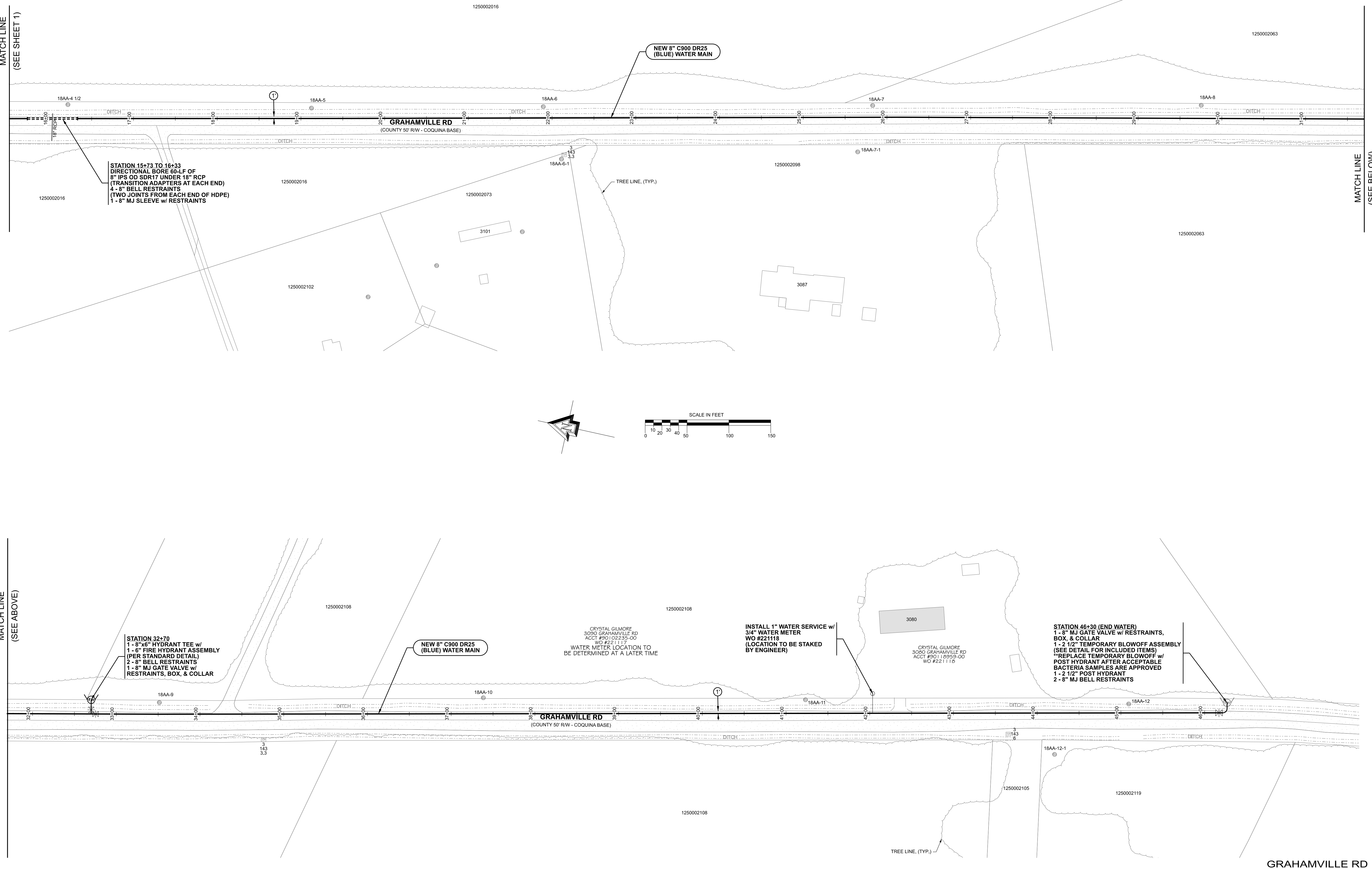
DATE: APRIL 2020  
 SCALE: AS SHOWN  
 FILENAME: DGN (Grahamville Rd Ext 2 (W017-18).dgn)

DESIGNED BY: LUIS MARIN  
 CHECKED BY: JASON L. POSTON  
 APPROVED BY: JASON L. POSTON, PE #26566

SHEET **1** OF 3

MATCH LINE  
(SEE SHEET 1)

MATCH LINE  
(SEE ABOVE)



STATION 15+73 TO 16+33  
 DIRECTIONAL BORE 60-LF OF  
 8" IPS OD SDR17 UNDER 18" RCP  
 (TRANSITION ADAPTERS AT EACH END)  
 4 - 8" BELL RESTRAINTS  
 (TWO JOINTS FROM EACH END OF HDPE)  
 1 - 8" MJ SLEEVE W/ RESTRAINTS

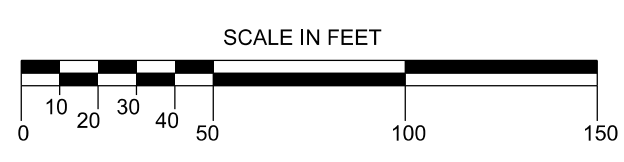
STATION 32+70  
 1 - 8"x6" HYDRANT TEE w/  
 1 - 6" FIRE HYDRANT ASSEMBLY  
 (PER STANDARD DETAIL)  
 2 - 8" BELL RESTRAINTS  
 1 - 8" MJ GATE VALVE w/  
 RESTRAINTS, BOX, & COLLAR

NEW 8" C900 DR25  
 (BLUE) WATER MAIN

CRYSTAL GILMORE  
 3090 GRAHAMVILLE RD  
 ACCT #501 02235-00  
 WO #221117  
 WATER METER LOCATION TO  
 BE DETERMINED AT A LATER TIME

INSTALL 1" WATER SERVICE w/  
 3/4" WATER METER  
 WO #221118  
 (LOCATION TO BE STAKED  
 BY ENGINEER)

STATION 46+30 (END WATER)  
 1 - 8" MJ GATE VALVE w/ RESTRAINTS,  
 BOX, & COLLAR  
 1 - 2 1/2" TEMPORARY BLOWOFF ASSEMBLY  
 (SEE DETAIL FOR INCLUDED ITEMS)  
 \*\*REPLACE TEMPORARY BLOWOFF w/  
 POST HYDRANT AFTER ACCEPTABLE  
 BACTERIA SAMPLES ARE APPROVED  
 1 - 2 1/2" POST HYDRANT  
 2 - 8" MJ BELL RESTRAINTS

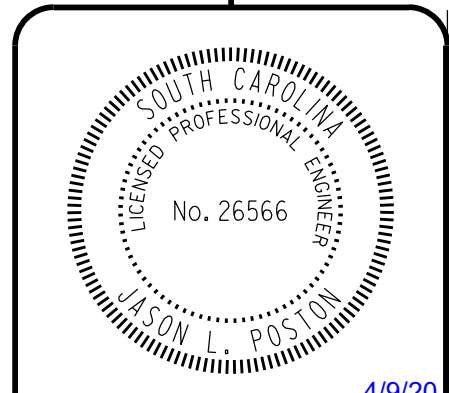


REVISION	BY	DATE

**GRAND STRAND**  
 WATER & SEWER  
 AUTHORITY

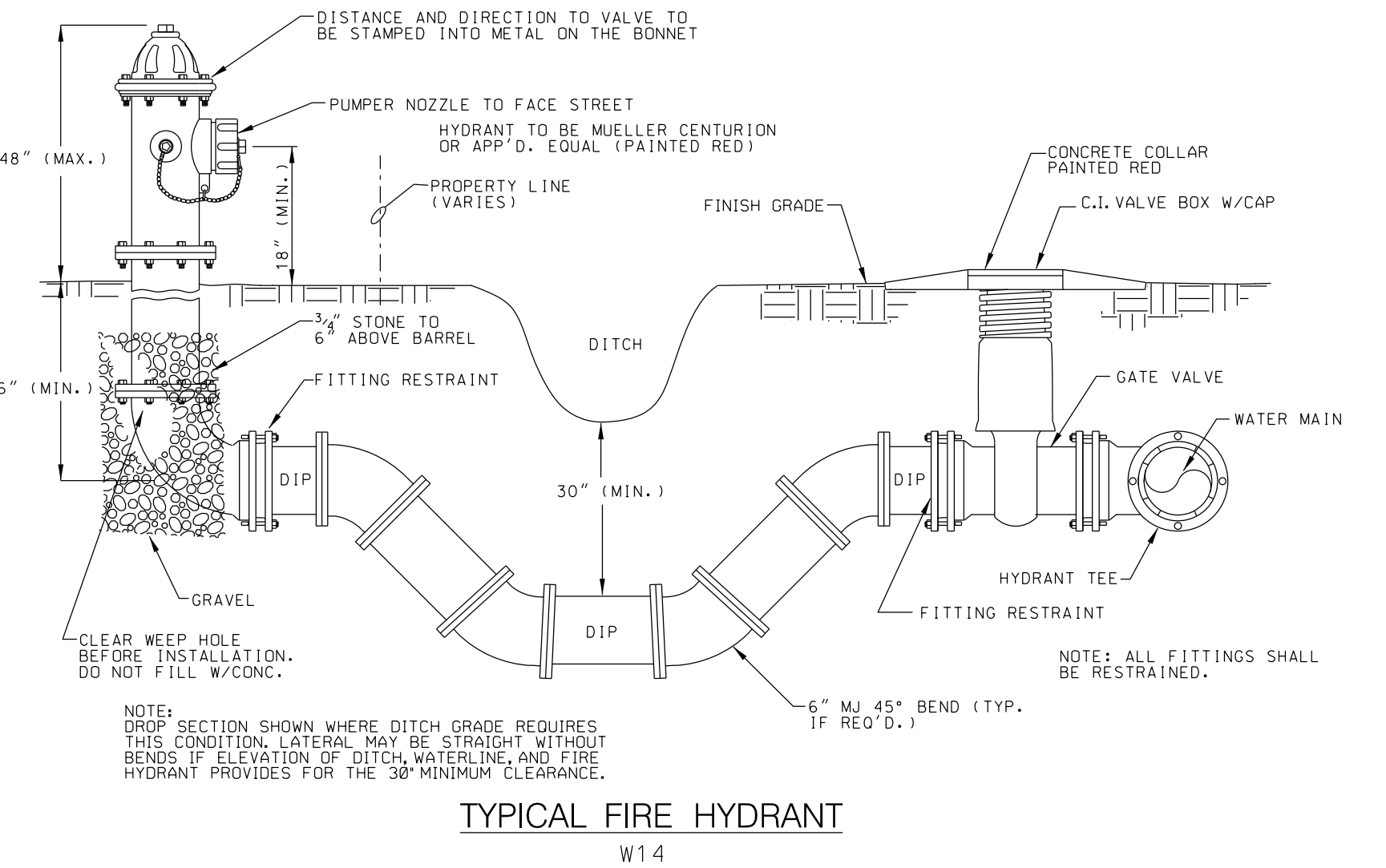
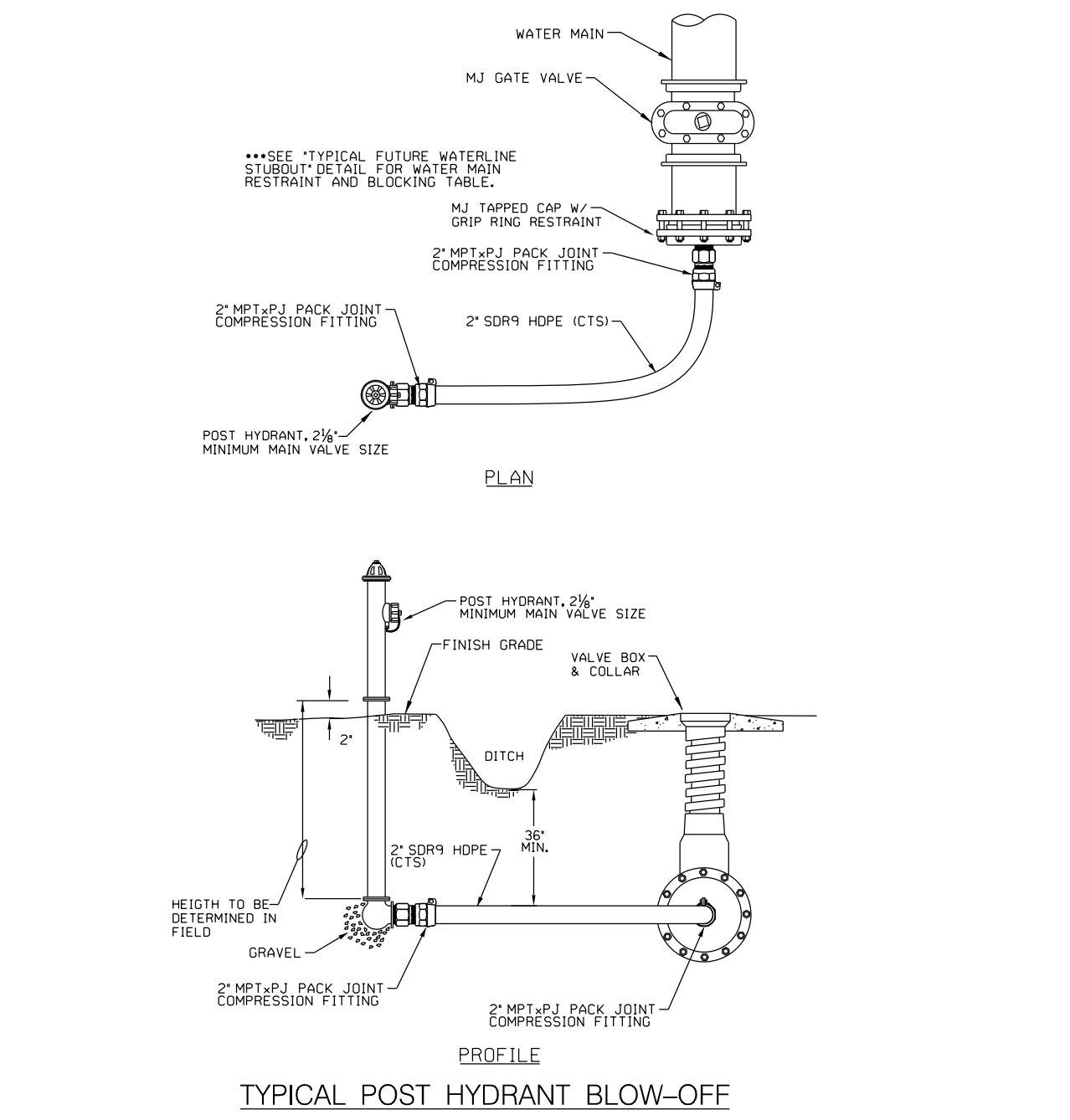
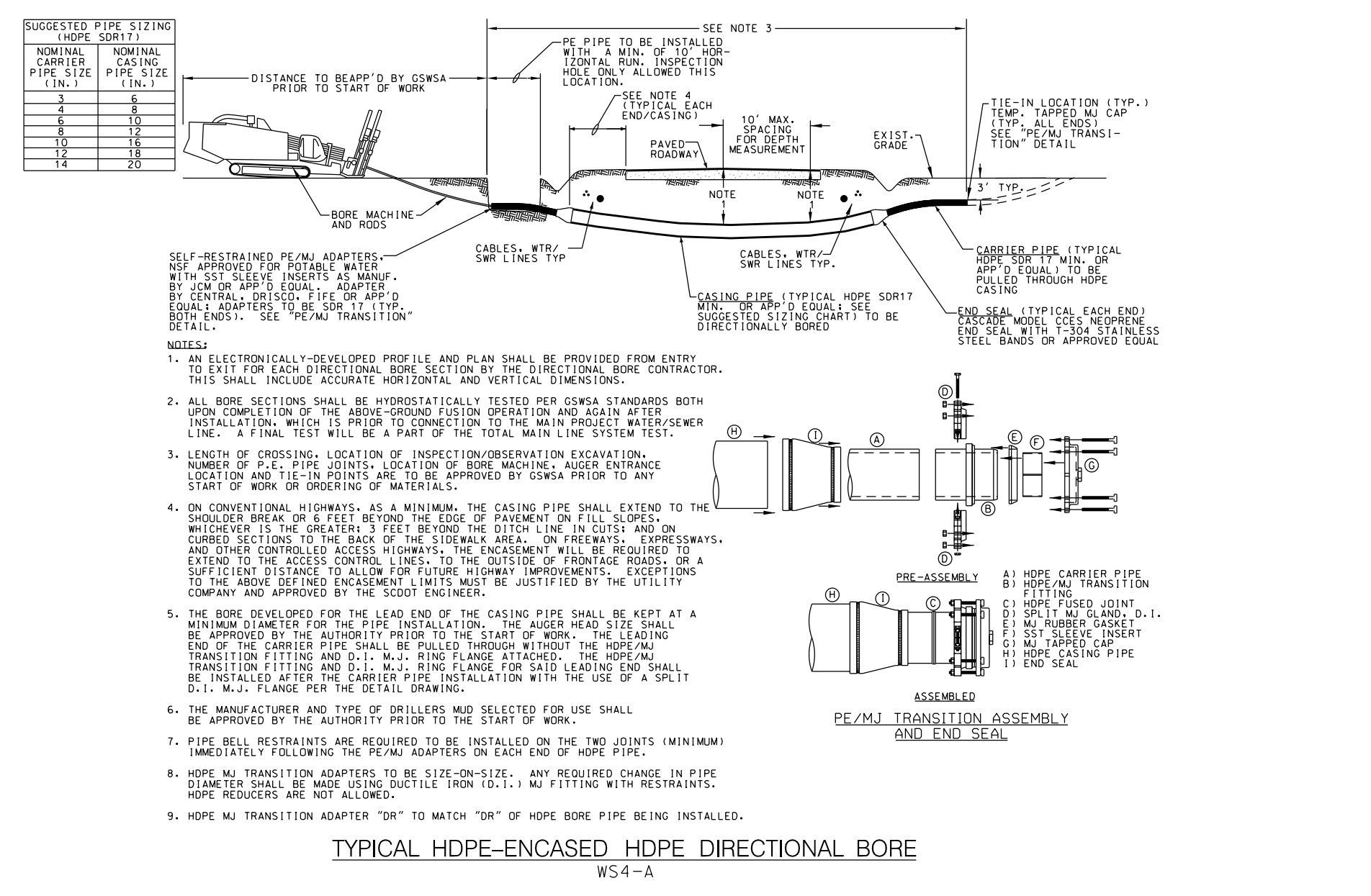
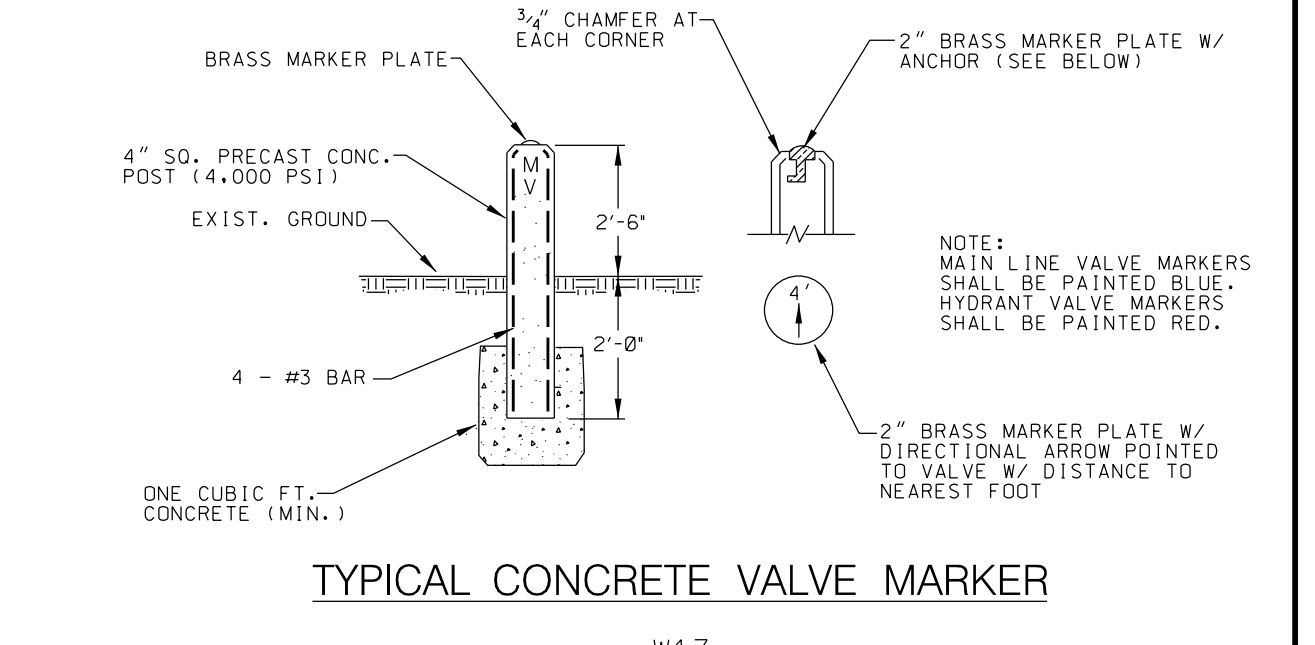
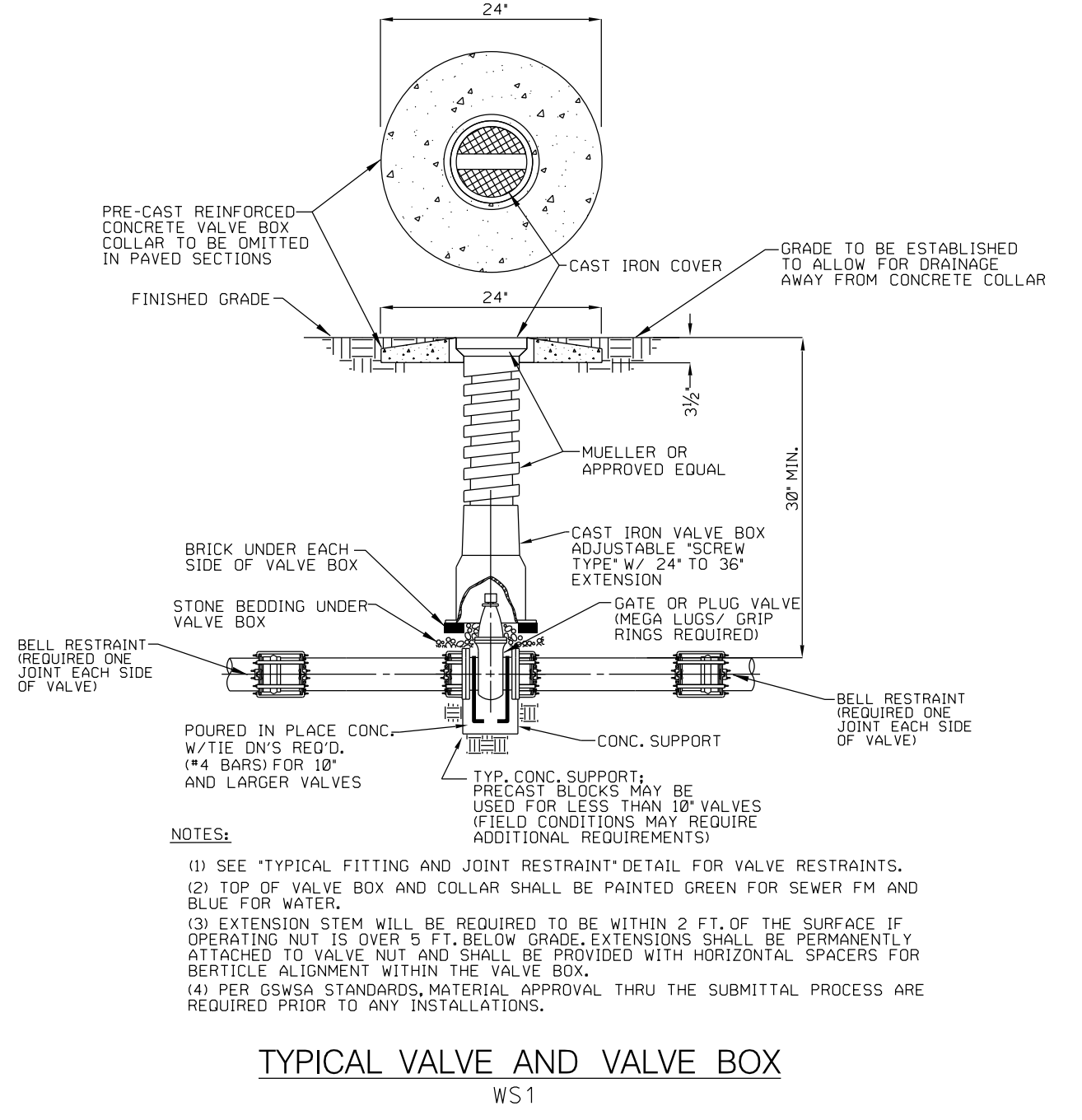
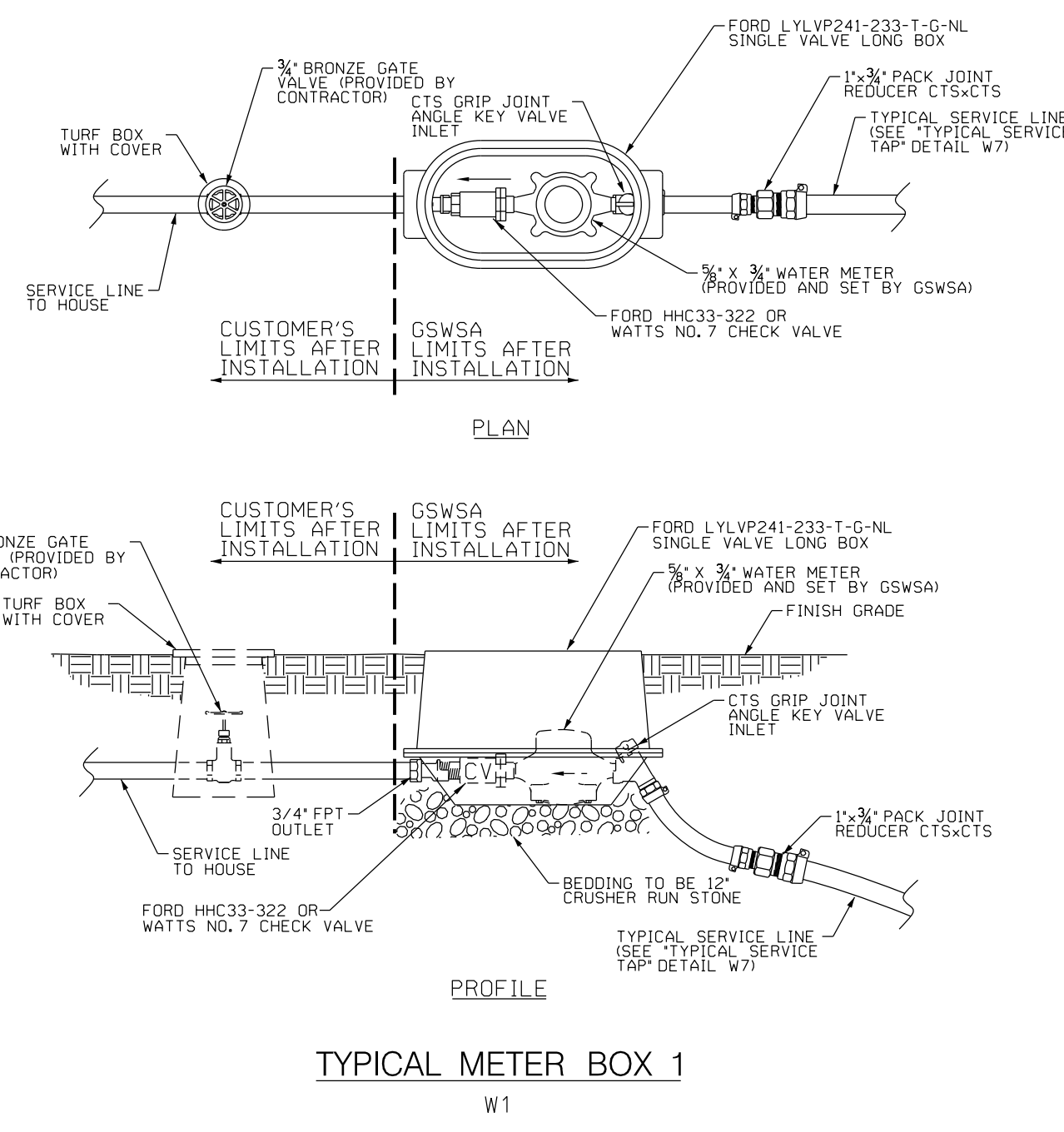
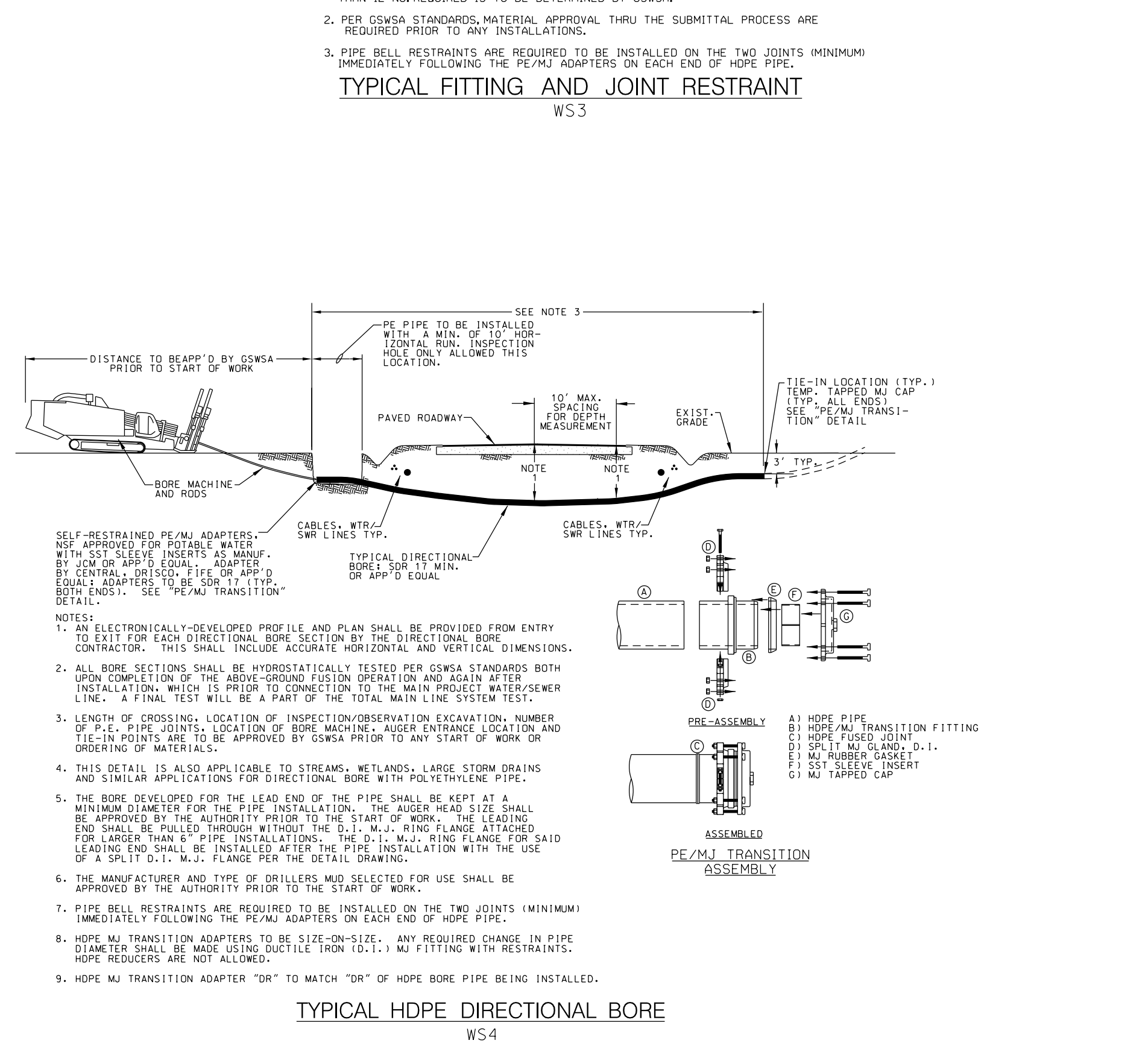
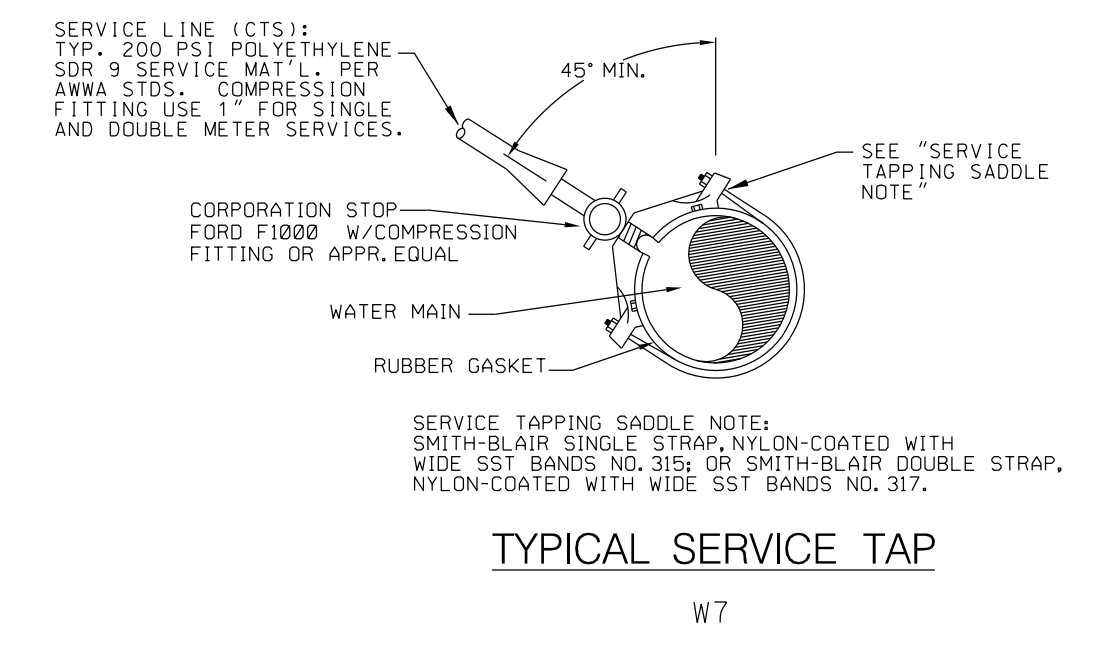
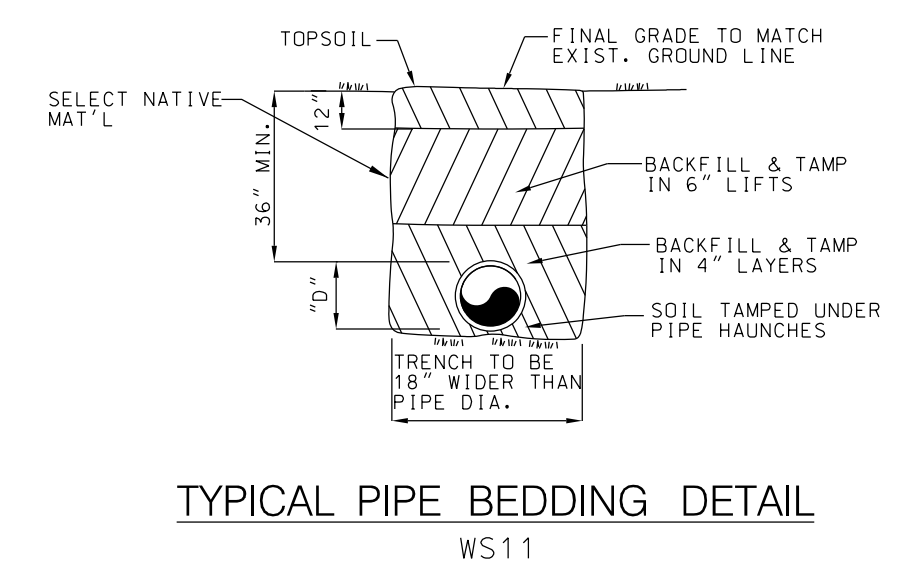
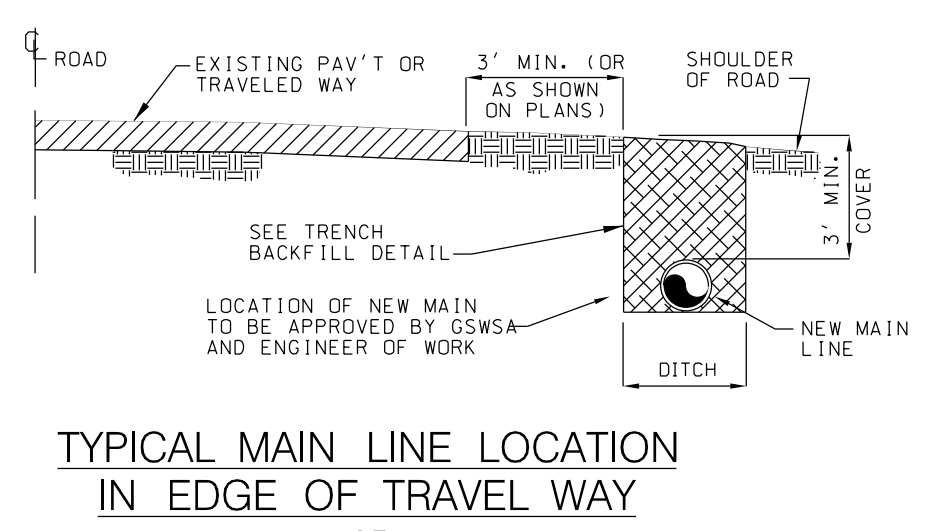
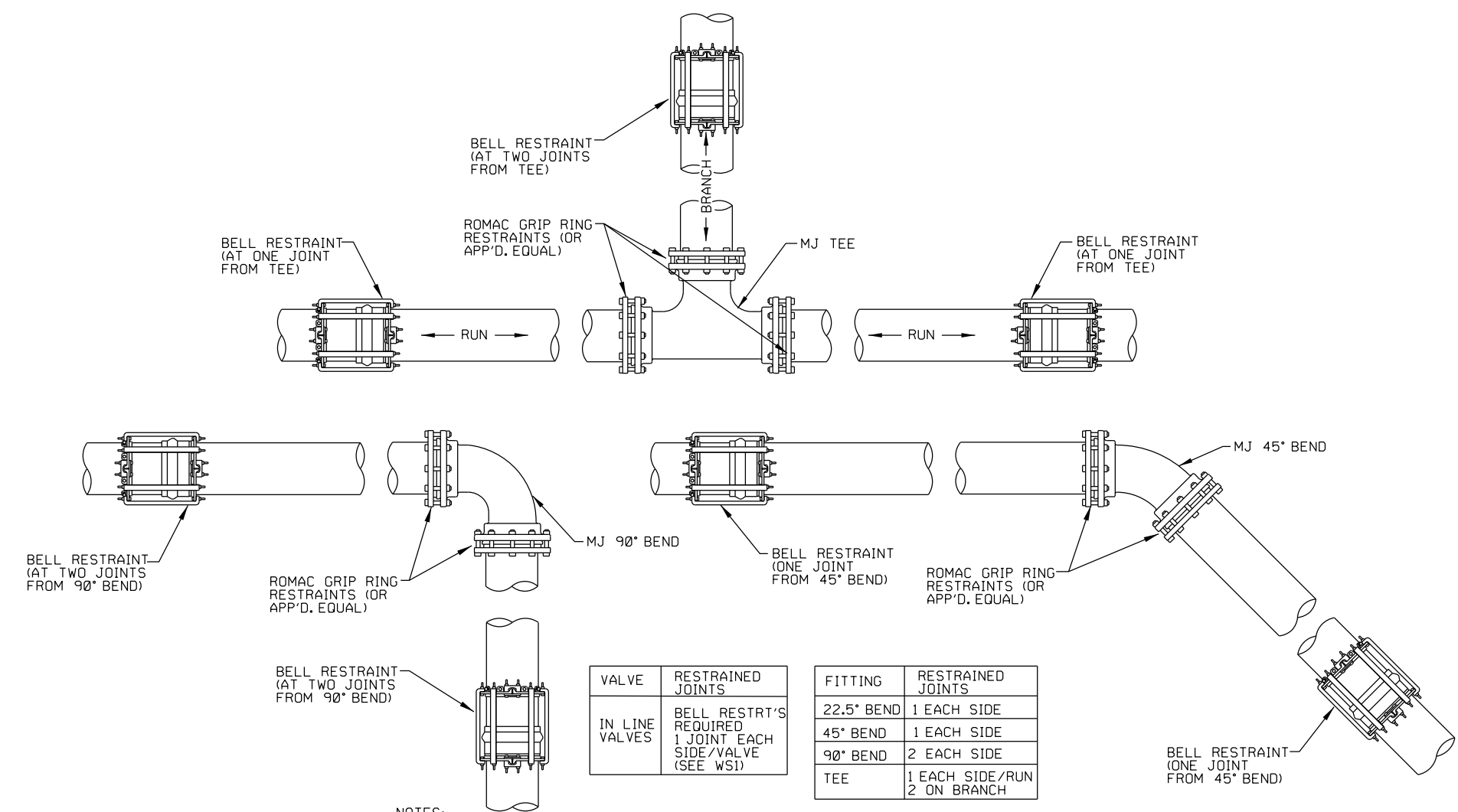
166 JACKSON BLUFF RD.  
 P.O. BOX 2369  
 CONWAY, SC 29526-2369  
 (843) 343-6800 FAX (843) 343-6841  
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**GRAND STRAND WATER & SEWER AUTHORITY**

166 JACKSON BLUFF RD.  
P.O. BOX 2868  
CONWAY, SC 29525-2868

(803) 343-6800 FAX: (803) 343-6801  
E-MAIL: GSWA@GSA.COM

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SHEET **3** OF 3

DETAILS