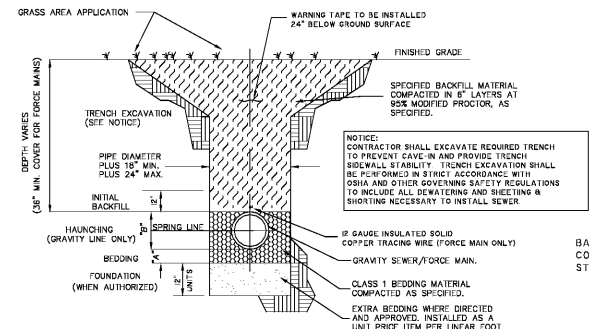


WATER NOTES:

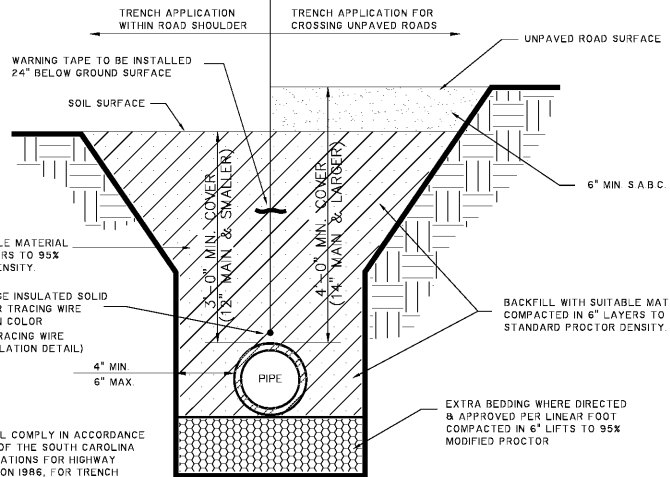
1. WATER INSTALLATION SHALL BE IN ACCORDANCE WITH "TEN STATES STANDARDS," S.C.D.H.C. AND S.C.S. REGULATIONS.
2. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH B.C.W.S. AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.
3. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOUND IN THE FIELD OR ON THE DRAWINGS PRIOR TO BEGINNING OR CONTINUING WORK. ANY DEVIATIONS FROM THE CONSTRUCTION PLANS SHALL NEED TO BE APPROVED IN WRITING BY B.C.W.S.
4. CONNECTION TO EXISTING WATER SYSTEM SHALL BE MADE IN THE PRESENCE OF B.C.W.S. INSPECTOR WITH AT LEAST 72 HOURS ADVANCED NOTICE.
5. ALL WATER LINES SHALL HAVE A MINIMUM COVER OF 36"
6. D.I.P. SHALL BE INSTALLED:
 - AT ALL ROAD CROSSINGS UNDER PAVEMENT
 - WHEN CROSSING UNDER AN OPEN DITCH WITH LESS THAN 5' OF CLEARANCE
 - WHEN CROSSING UNDER PAVED STORM DRAINAGE WITH LESS THAN 2' OF CLEARANCE
7. FIRE HYDRANTS, WATER VALVES AND OTHER WATER SYMBOLS MAY BE SHOWN IN LARGE SCALE FOR CLARITY. WATER VALVES, VALVE BOXES AND COVERS SHALL NOT BE LOCATED WITHIN PAVED AREAS. FIRE HYDRANTS SHALL BE PLACED AS CLOSE AS POSSIBLE TO THE WATER MAIN IN ORDER TO BE WITHIN THE RIGHT-OF-WAY.
8. HYDRANTS SHALL BE INSTALLED BASED ON THE BURY DEPTH OF THE WATER MAIN UNLESS OTHERWISE NOTED. HYDRANT EXTENSION ARE NOT ALLOWED UNLESS THE DEPTH OF THE WATER MAIN EXCEEDS 4'.
9. WATER SERVICE AND SEWER SERVICE FOR EACH LOT SHALL MAINTAIN A MINIMUM 6' OF SEPARATION.
10. DEFLECT WATER LINES IN LIEU OF FITTINGS IN ACCORDANCE WITH THE PIPE MANUFACTURER'S SPECIFICATIONS.
11. ALL FITTINGS, VALVES AND HYDRANTS SHALL BE PROVIDED WITH RESTRAINED JOINT FITTINGS PER B.C.W.S. REQUIREMENTS.
12. WATER SERVICE STUBOUTS SHALL BE INSTALLED WITHIN THE RIGHT-OF-WAY AND NO MORE THAN 18" FROM THE COMMON PROPERTY CORNER UNLESS OTHERWISE NOTED ON THE CONSTRUCTION PLANS.
13. CONTRACTOR SHALL SCHEDULE ALL REQUIRED TESTS AND INSPECTIONS WITH B.C.W.S. AT LEAST 72 HOURS IN ADVANCE. A SET OF RECORD DRAWINGS SHALL BE PROVIDED TO B.C.W.S. INSPECTOR FOR FINAL INSPECTION.
14. CONTRACTOR SHALL KEEP A RED-LINED SET OF THE CONSTRUCTION DRAWINGS ON SITE AT ALL TIMES.



DEPTH SCHEDULE FOR HAUNCHING (GRAVITY LINE ONLY) AND BEDDING

PIPE Ø	4"-10"	12"-18"	24"	36"
"A"	6"	8"	10"	12"
	TO 10P OF PIPE			
	20"	27"		

EMBEDMENT COMPACTION SHALL BE THE MINIMUM DENSITIES INDICATED IN TABLE 2 OF ASTM D2321-LR.



WATER MAIN TRENCH DETAIL

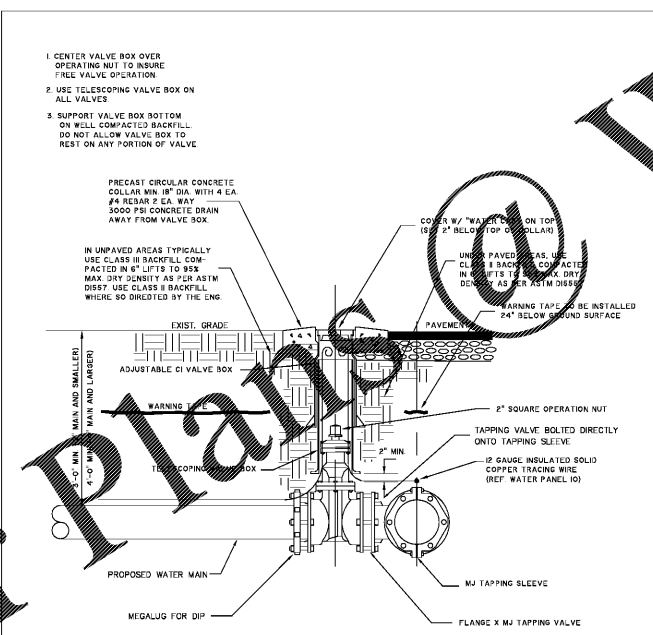
NOT TO SCALE

FORCEMAIN/GRAVITY LINE TRENCH DETAIL

NOT TO SCALE

SEWER NOTES:

1. SEWER INSTALLATION SHALL BE IN ACCORDANCE WITH "TEN STATES STANDARDS," S.C.D.H.C. AND S.C.W.S. REGULATIONS.
2. ALL SANITARY SEWER SERVICES SHALL BE LAID ON A MINIMUM SLOPE OF 0.5% AND SHALL BE 6" PVC UNLESS INDICATED OTHERWISE IN NOTE NO. 10 OR OTHERWISE SPECIFIED.
3. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH S.C.W.S. AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.
4. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOUND IN THE FIELD OR ON THE DRAWINGS PRIOR TO BEGINNING OR CONTINUING WORK. ANY DEVIATIONS FROM THE CONSTRUCTION PLANS SHALL NEED TO BE APPROVED IN WRITING BY S.C.W.S.
5. CONNECTION TO EXISTING SEWER SYSTEM SHALL BE MADE IN THE PRESENCE OF S.C.W.S. INSPECTOR WITH AT LEAST 72 HOURS ADVANCED NOTICE.
6. CONTRACTOR SHALL PLACE 6" SERVICES AND STUB UP TO EXISTING GRADE. CONCRETE COLLARS SHALL BE PLACED AROUND 6" PLUGGED CLEAN OUT.
7. WATERTIGHT RINGS AND COVERS SHALL BE INSTALLED ON MANHOLES IN SIDEWALK, AREAS AFFECTED BY STREET RUNOFF OR BELOW THE 50 YEAR FLOOD ELEVATION.
8. MANHOLES RECEIVING FORCE MAIN DISCHARGE SHALL BE COATED WITH RAVEN 408 LINER.
9. ALL DUCTILE IRON PIPES, JOINTS AND FITTINGS SHALL BE LINED WITH PROTECTO 401 CERAMIC EPOXY COATING.
10. THICKNESS CLASS 52 DIP OR DR-26 PVC IN STEEL OR HDPE CASING SHALL BE USED WHEN:
 - CROSSING BENEATH STORM DRAINAGE PIPE WITH LESS THAN 2' OF CLEARANCE;
 - CROSSING WATER MAIN WITHIN 18"
11. SELECTION OF PIPE MATERIALS SHALL COMPLY WITH THE FOLLOWING:
 - LESS THAN THREE (3) FT OF COVER CLASS 52 DIP;
 - GREATER THAN 3 FEET BUT LESS THAN 15 FEET (3' BUT <15') IN DEPTH: DR-26 PVC AND IN ACCORDANCE WITH CROSSING REQUIREMENTS LISTED ABOVE;
 - GREATER THAN 15 FEET BUT LESS THAN 24 FEET (15' BUT <24') IN DEPTH: CLASS 52 DIP OR DR-18 CBOD PVC;
 - GREATER THAN 24 FEET (24') IN DEPTH: CLASS 52 DIP.
12. SEWER SERVICE CONNECTIONS LOCATED AT DEPTHS GREATER THAN 18" SHALL BE MADE WITH DUCTILE IRON FITTINGS LINED WITH PROTECTO 401 COATING.
13. CLEAN OUTS SHALL BE INSTALLED WITHIN THE RIGHT-OF-WAY AND NO MORE THAN 18" OFF OF THE COMMON PROPERTY CORNER UNLESS OTHERWISE NOTED ON THE CONSTRUCTION PLANS.
14. CONTRACTOR SHALL KEEP A RED-LINED SET OF THE CONSTRUCTION DRAWINGS ON SITE AT ALL TIMES.
15. UPON COMPLETION OF CONSTRUCTION OF THE SEWER SYSTEM, THE FOLLOWING APPROVAL PROCEDURES MUST BE FOLLOWED:
 - A. THE CONTRACTOR SHALL SCHEDULE ALL REQUIRED TESTS AND INSPECTIONS WITH S.C.W.S. AT LEAST 72 HOURS IN ADVANCE.
 - B. THE CONTRACTOR SHALL CONDUCT A PRELIMINARY INSPECTION TO LOCATE ANY DEFECTS AND DETERMINE WHEN THE SEWER SYSTEM IS READY FOR TESTS AND FINAL INSPECTION. PRIOR TO INSPECTION, THE SEWER SYSTEM SHALL BE FLUSHED AND CLEANED OF DEBRIS.
 - C. THE ENGINEER SHALL CONDUCT A LOW PRESSURE AIR TEST AND DEFLECTION TEST WITH S.C.W.S. DEFLECTION TEST SHALL BE CONDUCTED PRIOR TO LOW PRESSURE AIR TEST.
 - D. THE CONTRACTOR SHALL NOTIFY THE OWNER'S ENGINEER A 48-HOUR SURVEY, INCLUDING THE SERVICE LATERAL INFORMATION, THE LOCATIONS OF WHICH SHALL HAVE BEEN STAKED IN THE FIELD.
 - E. A SET OF PRELIMINARY RECORD DRAWINGS SHALL BE PROVIDED TO S.C.W.S. INSPECTOR FOR CCTV INSPECTION VIDEO REVIEW.
 - F. CCTV/INSPECTION VIDEOS SHALL BE SUBMITTED FOR S.C.W.S. REVIEW. ANY NECESSARY REPAIRS ARE TO BE COMPLETED PRIOR TO SCHEDULING A FINAL INSPECTION.
 - G. THE ENGINEER SHALL SUBMIT THE TEST RESULTS, RECORD DRAWINGS, CONTINUITY TEST CERTIFICATION LETTER AND ALL OTHER REQUIRED DOCUMENTS TO S.C.W.S. FOR REVIEW AND APPROVAL.
 - H. THE ENGINEER SHALL SCHEDULE A FINAL INSPECTION WITH S.C.W.S. AT LEAST 72 HOURS IN ADVANCE.
16. LIMESTONE IS NOT AN APPROVED EMBEDMENT MATERIAL. USE #7 GRANITE, AIR COOLED BLAST FURNACE SLAG OR APPROVED MATERIALS LISTED IN S.C.W.S. SPECIFICATIONS.
17. SEWER SERVICE CONNECTIONS TO MANHOLES SHALL BE TIED IN AT THE INVERT OF THE MANHOLE.

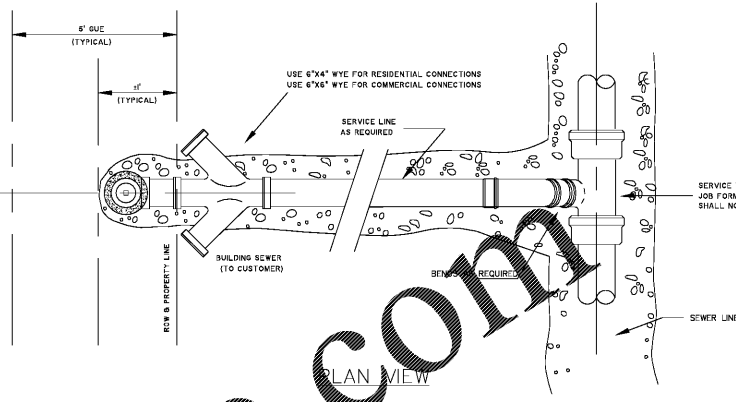


TYPICAL DETAIL TAPPING SLEEVE AND VALVE

NOT TO SCALE

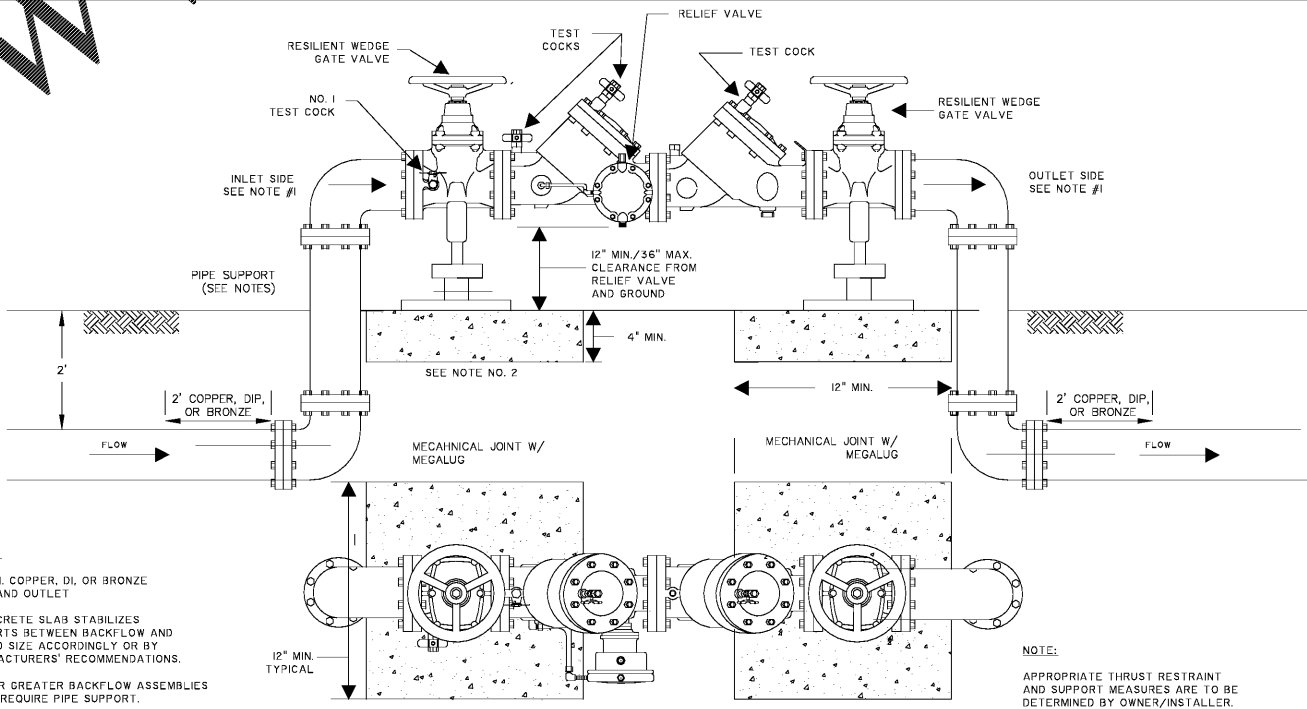
WATER PANEL 6

BERKELEY COUNTY WATER AND SANITATION
POTABLE WATER & SANITARY SEWER STANDARDS
REVISED 08/07/09



SERVICE CONNECTION DETAIL

NOT TO SCALE



NOTES:

1. 2" MIN. COPPER, DI, OR BRONZE INLET AND OUTLET
2. CONCRETE SLAB STABILIZES SUPPORTS BETWEEN BACKFLOW AND GROUND SIZE ACCORDINGLY OR BY MANUFACTURERS' RECOMMENDATIONS.
3. 4" OR GREATER BACKFLOW ASSEMBLIES SHALL REQUIRE PIPE SUPPORT.

NOTE: APPROPRIATE THRUST RESTRAINT AND SUPPORT MEASURES ARE TO BE DETERMINED BY OWNER/INSTALLER.

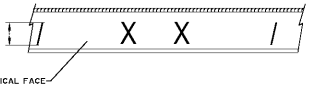
TYPICAL REDUCED PRESSURE PRINCIPLE ASSEMBLY (ALL SIZES) BACKFLOW PREVENTION ASSEMBLY ABOVE GROUND INSTALLATION

BERKELEY COUNTY WATER AND SANITATION
POTABLE WATER & SANITARY SEWER STANDARDS
REVISED 02/23/16

LOCATOR SERVICES:

- PRIOR TO EXCAVATION, CONTRACTOR SHALL ARRANGE FOR LOCATING AND MOVING, IF NECESSARY, UNDERGROUND UTILITIES AS FOLLOWS:
- GAS LINES — SOUTH CAROLINA ELECTRIC AND GAS CO 1-800-922-0983
 - TELEPHONE CABLES — SOUTHERN BELL 1-800-922-0983
 - WATER LINES — BERKELEY COUNTY WATER AND SANITATION 572-4400
 - POWER CABLES — SOUTH CAROLINA ELECTRIC AND GAS CO 1-800-922-0983 AND BERKELEY CO-OP 553-5020
 - SEWER LINES — B.C.W.S. 572-4400
 - T.V. CABLES — STORER CABLE COMMUNICATIONS 554-4100
 - PALMETTO UTILITY PROTECTION SERVICES (PUPS) 1-803-939-1117

- NOTES:**
1. CURB MARKING SHALL BE PERPENDICULAR TO SERVICE LOCATION
 2. CURB MARKING SHALL BE EMBOSSED INTO CURB FACE
 3. WATER SERVICES SHALL BE DENOTED WITH "W" AND PAINTED BLUE
 4. SEWER SERVICES SHALL BE DENOTED WITH "S" AND PAINTED GREEN
 5. VALVES SHALL BE DENOTED WITH A "V" UNLESS CONCRETE MARKERS ARE INSTALLED AND IDENTIFIED



CURB MARKING TYPICAL

NOT TO SCALE



NO.	REVISIONS	DATE	BY

THOMAS & HUTTON
682 Johnnie Dodds Boulevard • Suite 100
Mt. Pleasant, SC 29464 • 843.849.0200
www.thomasandhutton.com

PAVILION DEVELOPMENT COMPANY
BERKELEY COUNTY, SOUTH CAROLINA
FIRESTONE SITE DEVELOPMENT
WATER AND SEWER DETAILS

JOB NO:	J-23390.8120
DATE:	10/04/19
DRAWN:	JSA
DESIGNED:	CAE
REVIEWED:	SCG
APPROVED:	SCG
SCALE:	1" = 1'

C2.3

PERMIT SET - FOR REVIEW PURPOSES ONLY