

2/2/2 7:36:19

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NOTES:

- 1. THRUST BLOCKS SHALL BE INSTALLED ON PVC WATER DISTRIBUTION LINES 6" THRU 12" DIA. IN THE MANNER SHOWN. SEE FAYPWC STANDARD ALT. **RESTRAINING DETAIL W.18 FOR** ACCEPTABLE ALTERNATE RESTRAINING SYSTEMS.
- 2. PIPE GREATER THAN 12 INCH DIAMETER SHALL REQUIRE RESTRAINT JOINT PIPE FOR THE PROPER LENGTH.
- 3. COMPACT FITTINGS ARE NOT ACCEPTABLE. STANDARD FITTINGS SHALL BE USED WITH CONCRETE
- AREA OF BEARING
- 4. THRUST BLOCKS SHALL BE INSTALLED ON SEWER FORCE MAIN IN THE MANNER SHOWN.

THRUST BLOCKING.

- 5. IF SAC-CRETE IS USED, MIXING MUST BE ON SITE UTILIZING A MECHANICAL MIXER.
- 6. NO CONCRETE SHALL BE PLACED ON BOLTS. WRAP JOINT FITTINGS WITH PLASTIC.
- 7. CONCRETE SHALL BE A MINIMUM 3,000 psi.
- 8. ALL BEARING SURFACES SHALL BE AGAINST UNDISTURBED SOIL AND SHALL BE APPROVED BY FAYPWC PROJECT COORDINATOR PRIOR TO PLACEMENT OF CONCRETE.
- 9. USE OF RESTRAINED JOINT DUCTILE IRON WILL BE REQUIRED IF SOIL CONDITIONS DO NOT ALLOW THE USE
- OF THRUST BLOCKS. 10. ALL VERTICAL BENDS SHALL BE RESTRAINED USING RESTRAINED JOINT DUCTILE IRON PIPE.

| NO. | DATE | REVISION |
|-----|---------|--|
| 1 | SEPT 05 | REVISED TABLE |
| 2 | FEB 07 | ADDED NOTES 9&10 |
| 3 | JULY 13 | ADDED TAPPING SLEEVE AND VALVE DETAIL |
| | | |

2015-W17 THRUSTBLOCK.dwg

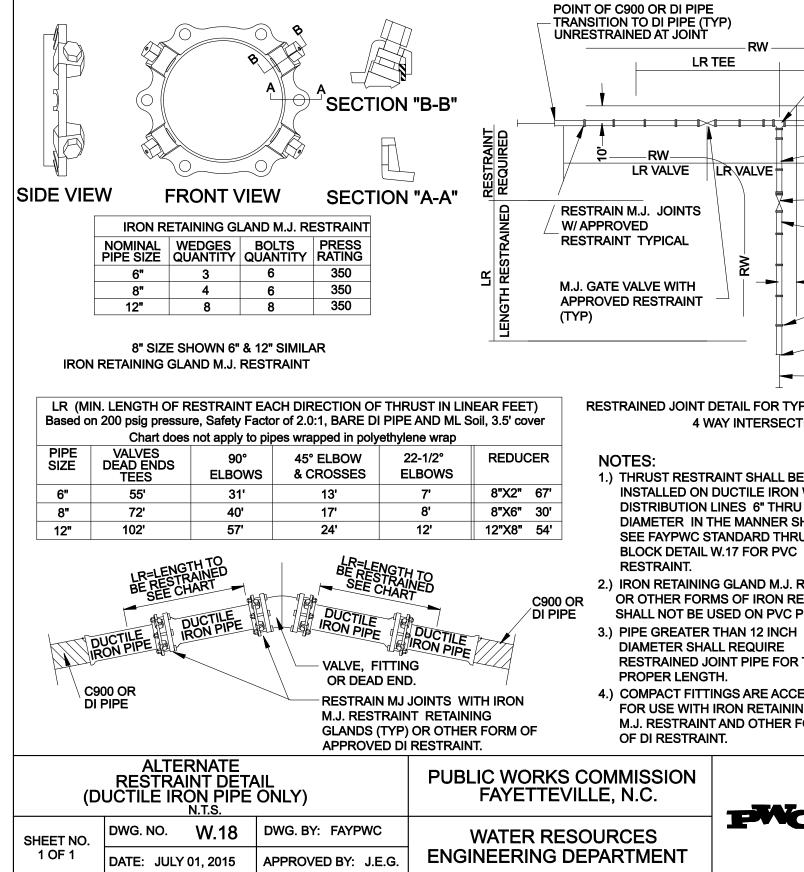
1. ALL EXCAVATIONS SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE CONSTRUCTION STANDARDS FOR EXCAVATIONS IN OSHA "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION", CHAPTER XV11 OF TITLE 29, CFR, PART 1926. THE CONTRACTOR SHALL HAVE A COMPETENT PERSON ON SITE AT ALL TIMES DURING EXCAVATION AND BACKFILLING.

2. CONTRACTOR SHALL USE TRENCH BOX SHORING IN ALL OPEN CUTS IN PAVED AREAS. TRENCH WIDTH SHALL BE MAINTAINED AT THE MINIMUM PRACTICAL WIDTH.

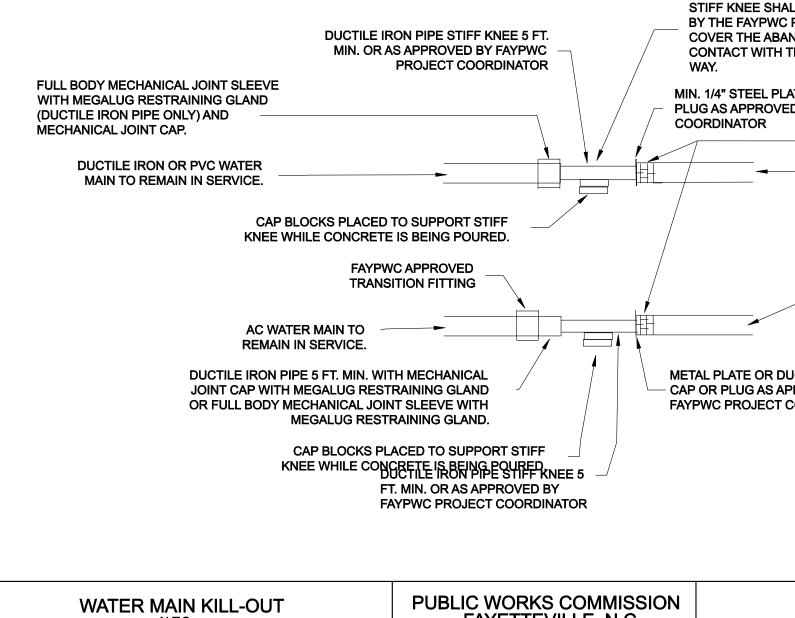
- 3. TYPE 3 TRENCH CONDITIONS AND A MINIMUM OF 4' OF COVER MUST BE MAINTAINED WHERE RESTRAINT JOINT PIPE IS SPECIFIED AND 3.5' OF COVER IN ALL OTHER LOCATIONS UNLESS SHOWN OTHERWISE ON THE PLAN PROFILE.
- 4. LOOSE SOIL OR SELECT MATERIAL IS DEFINED AS "NATIVE" SOIL EXCAVATED FROM THE TRENCH. FREE OF ROCKS, FOREIGN MATERIAL, AND
- 5. BEDDING MATERIAL SHALL EXTEND TO UNDISTURBED TRENCH WALLS AND TRENCH BOTTOM. BEDDING MATERIAL WILL NOT BE PAID FOR UNLESS SPECIFICALLY APPROVED BY THE PROJECT REPRESENTATIVE AND ONLY
- 6. BEDDING MATERIAL SHALL BE PROPERLY RODDED
- 7. TEST FOR DENSITY OF COMPACTION MAY BE MADE AT THE OPTION OF THE ENGINEER AND DEFICIENCIES SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE ENGINEER MAY HAVE COMPACTION TEST PERFORMED AFTER THE BACKFILL IS COMPLETE. CONTRACTOR SHALL BE REQUIRED TO EXCAVATE TO VARIOUS ELEVATIONS FOR DENSITY TESTING EXCAVATION, BACKFILL AND RECOMPACTION SHALL BE PERFORMED AT NO

| 10. | DATE | REVISION |
|-----|--------|------------------------------|
| 1 | 7/1/13 | REVISED NOTE RE: TRACER WIRE |
| | | |
| | | |

2015-W19 WATER BEDDING.dwg



- NOTES: 1. KILL OUT SHALL BE DONE A MIN. OF 5 FT. FROM ANY FITTING ON THE EXISTING WATER MAIN THAT IS TO REMAIN IN SE 2. IRON PIPE SHALL BE 4" DIAMETER FOR MAINS 12" OR LESS. UTILIZE 8" PIPE OR LARGER AS DIRECTED BY THE FAYPW COORDINATOR FOR ALL MAINS LARGER THAN 12".
- ALLOW CONCRETE TO SET-UP PRIOR TO PLACING BACKFILL.
- VOLUME OF CONCRETE FOR THRUST BLOCK SHALL BE IN ACCORDANCE WITH FAYPWC STANDARD DETAIL W.17.
- 5. ALL OUTAGES SHALL BE COORDINATED WITH THE FAYPWC PROJECT COORDINATOR. 6. PIPE SHALL BE GROUT OR REMOVED IN ACCORDANCE WITH NCDOT SPECIFICATIONS WHEN LOCATED IN THE STATE
- WAY. ALL OTHER INSTANCES SHALL BE IN ACCORDANCE WITH FAYPWC SPECIFICATIONS.



| | N.T.S. | | FAYETTEVILLE, N.C. | |
|---------------------|---------------------|---------------------|------------------------|--|
| SHEET NO. 1 OF 1 | DWG. NO. W.22 | DWG. BY: FAYPWC | WATER RESOURCES | |
| | DATE: JULY 01, 2015 | APPROVED BY: J.E.G. | ENGINEERING DEPARTMENT | |

| | | | OCUMENT NOT CONSIDERED F | | B | REFERENCE NO. 4490 | SHEET NO. UC-3F |
|--------------------------------|----------------------------|-------------------------|---|----|---|----------------------------|---|
| | | M.J. TEE W APPROVED | | | DESIGNED BY DRAWN BY NC CHECKED BY APPROVED BY | DNE | NOR THE CAROLANIA |
| | LRT | F | POINT OF DI PIPE TRANSITION TO C900 OR DI PIPE (TYP) | | REVISED: NORTH CA DEPARTME TRANSPOR | ROLINA INT OF TATION | SEAL 7952 54 VGI NEER 54 VID POE 10 P |
| | | VAL | DI PIPE BETWEEN FITTING AND /E SHALL BE RESTRAINED ALL ECTIONS. | | UTILITIES ENG PHONE:(919 FAX:(919)2 | | |
| | | APPI (TYP | GATE VALVE WITH ROVED RESTRAINT ?) TILE IRON PIPE (TYP) | UI | ILIIY | CONST | RUCTION |
| - 10 | RW | | TRAIN M.J. JOINTS WITH ROVED RESTRAINT (TYP) | | | | |
| | | C900 UNR | PE TRANSITION TO) OR D.I. PIPE ESTRAINED AT JOINT) OR D.I. PIPE | | | | |
| | | NTERSECTI RLY RESTR | ON | | | | |
| e I Wate J 12'' Showi | | INDIC WITH | MINIMUM LENGTH OF RESTRAINT CATED SHALL REQUIRE ALL JOINTS IN THE LR DISTANCE TO BE FRAINED. | | | | |
| UST RESTI | RAINT | BE IN FAYP | FRAINT SYSTEM SHALL ISPECTED AND APPROVED WC PRIOR TO BACKFILLING. | | | | |
| ESTR/ PIPE. | AINT | BASE | FRAINT SYSTEMS MAY VARY ED UPON THE ENGINEERS' GN AS SHOWN ON THE I AND PROFILE SHEETS. | | | | |
| EPTAL NG GL FORM | AND | GAS | PPER RING AND FIELD LOK KETS ARE AN ACCEPTABLE HOD OF RESTRAINT ON TILE IRON PIPE ONLY. | | | | |
| | NO. | DATE | REVISION | | | | |
| 9 | 1 | 11/16/2007 | REVISED TABLE, ADDED NOTE 8 | | | | |
| | | | 2015-W18 RESTRAINT DETAIL.dwg |] | | | |
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| APPRO | le iro)ved e Rdinat | BY | | | | | |

| NO. | DATE | REVISION |
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| | | |
| | | |
| | | 2015-W22 WATERMAIN KILLOUT.dwg |

Prepared by:



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