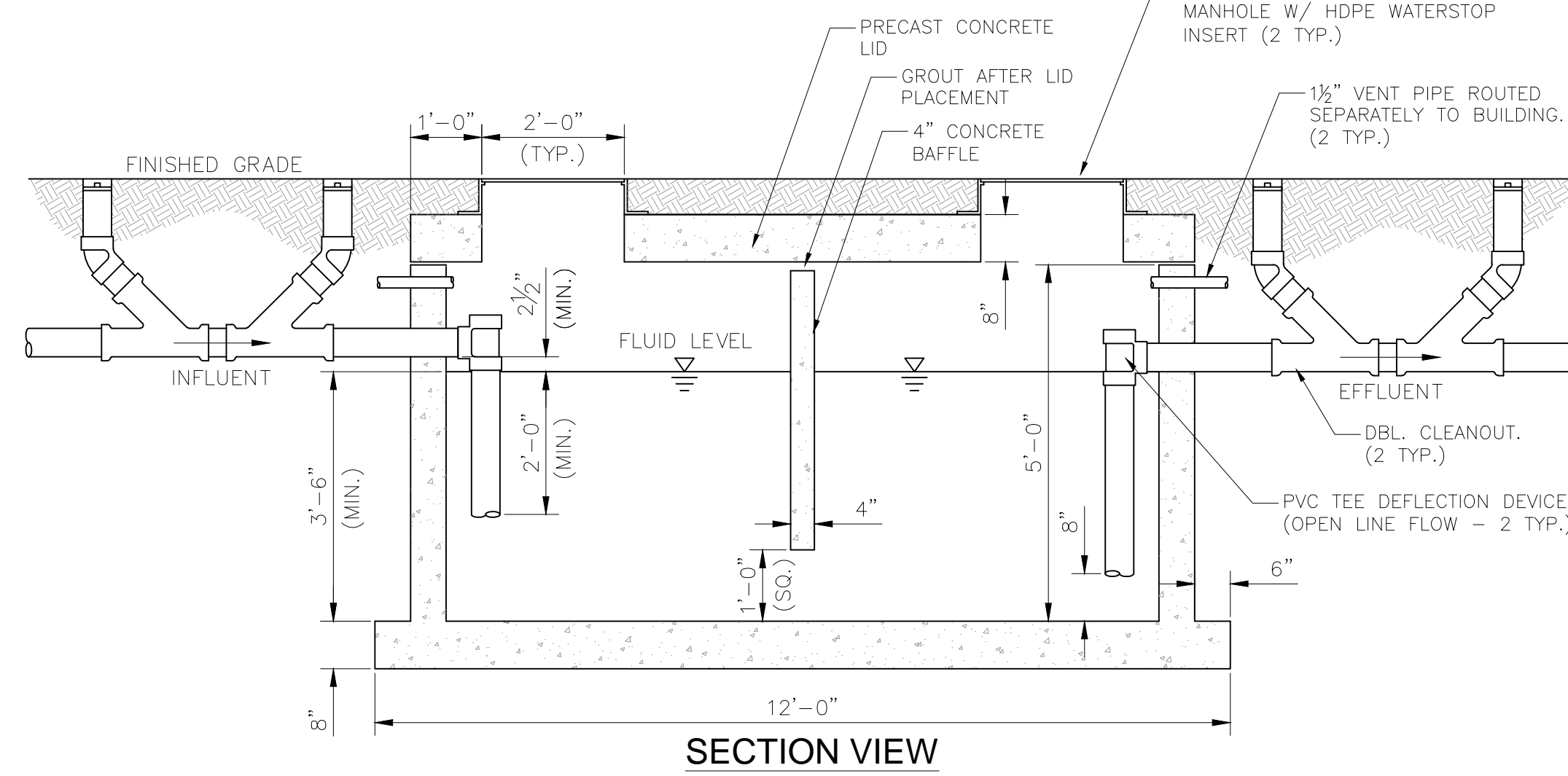


SANITARY SEWER SHALLOW DEPTH MANHOLE

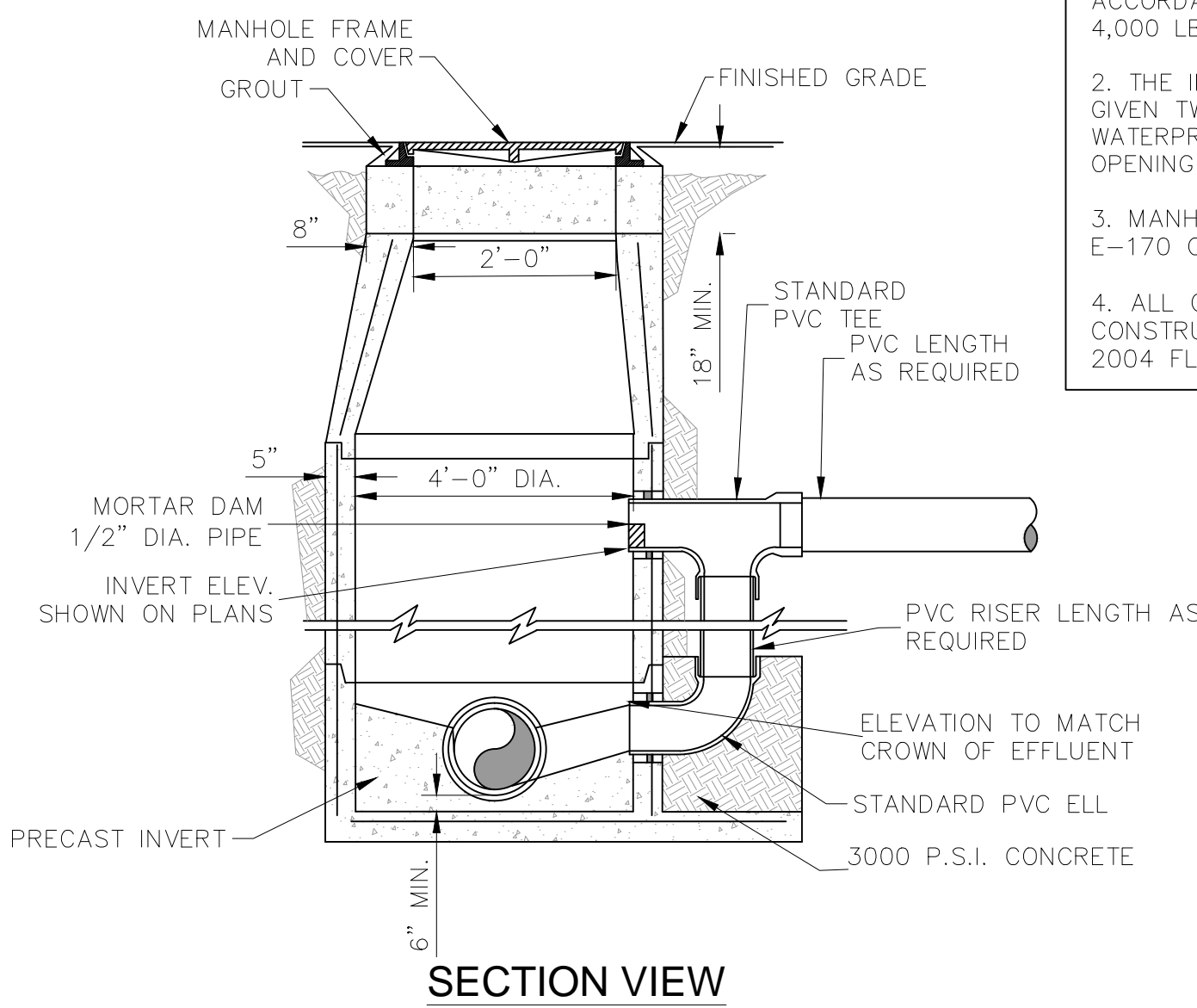
N.T.S. (8"-21" SEWERS)



GREASE INTERCEPTOR

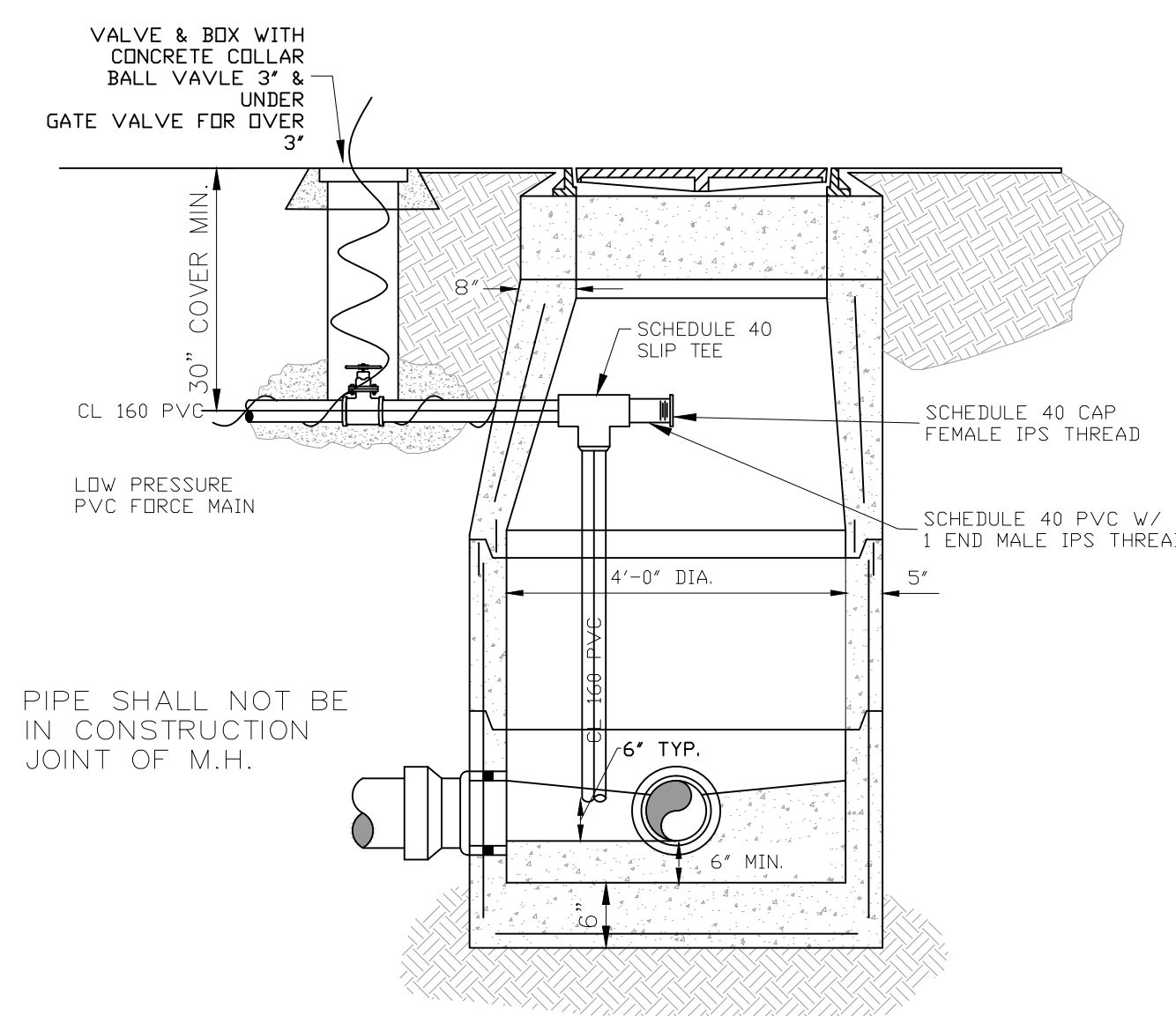
N.T.S.

- NOTES:**
1. PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH LATEST EDITIONS OF ASTM C-478 WITH 4,000 LB. CONCRETE, TYPE II CEMENT.
 2. THE INTERIOR AND EXTERIOR OF MANHOLE SHALL BE GIVEN TWO COATS OF FABRITITE BITUMINOUS WATERPROOFING MATERIAL, DO NOT COAT JOINT OR PIPE OPENING SURFACES.
 3. MANHOLE FRAME AND COVER SHALL BE U.S. FOUNDRY E-170 OR EQUIVALENT.
 4. ALL GREASE INTERCEPTORS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CHAPTER 10 OF THE 2004 FLORIDA BUILDING CODE, PLUMBING SECTION.



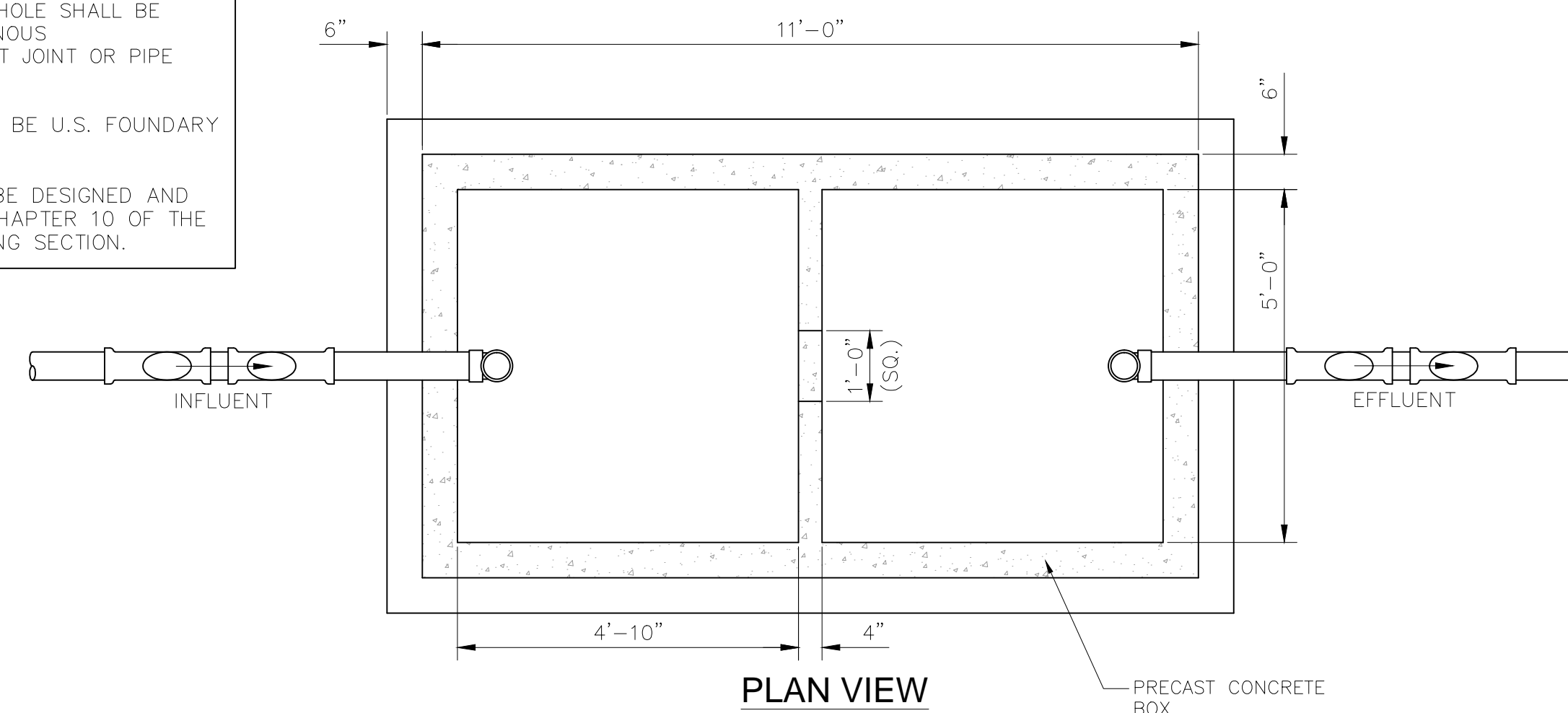
SANITARY SEWER DROP MANHOLE

N.T.S. (8"-21" SEWERS)

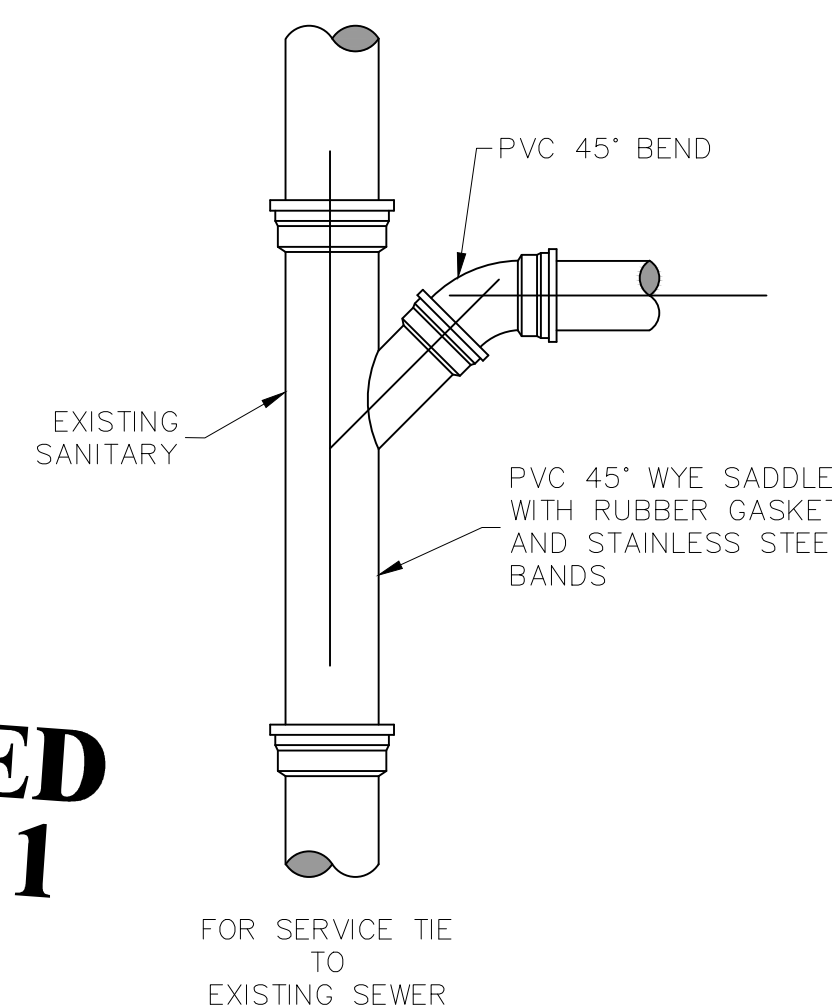


**SANITARY SEWER STANDARD MANHOLE
LOW PRESSURE FORCE MAIN TIE IN**

N.T.S.

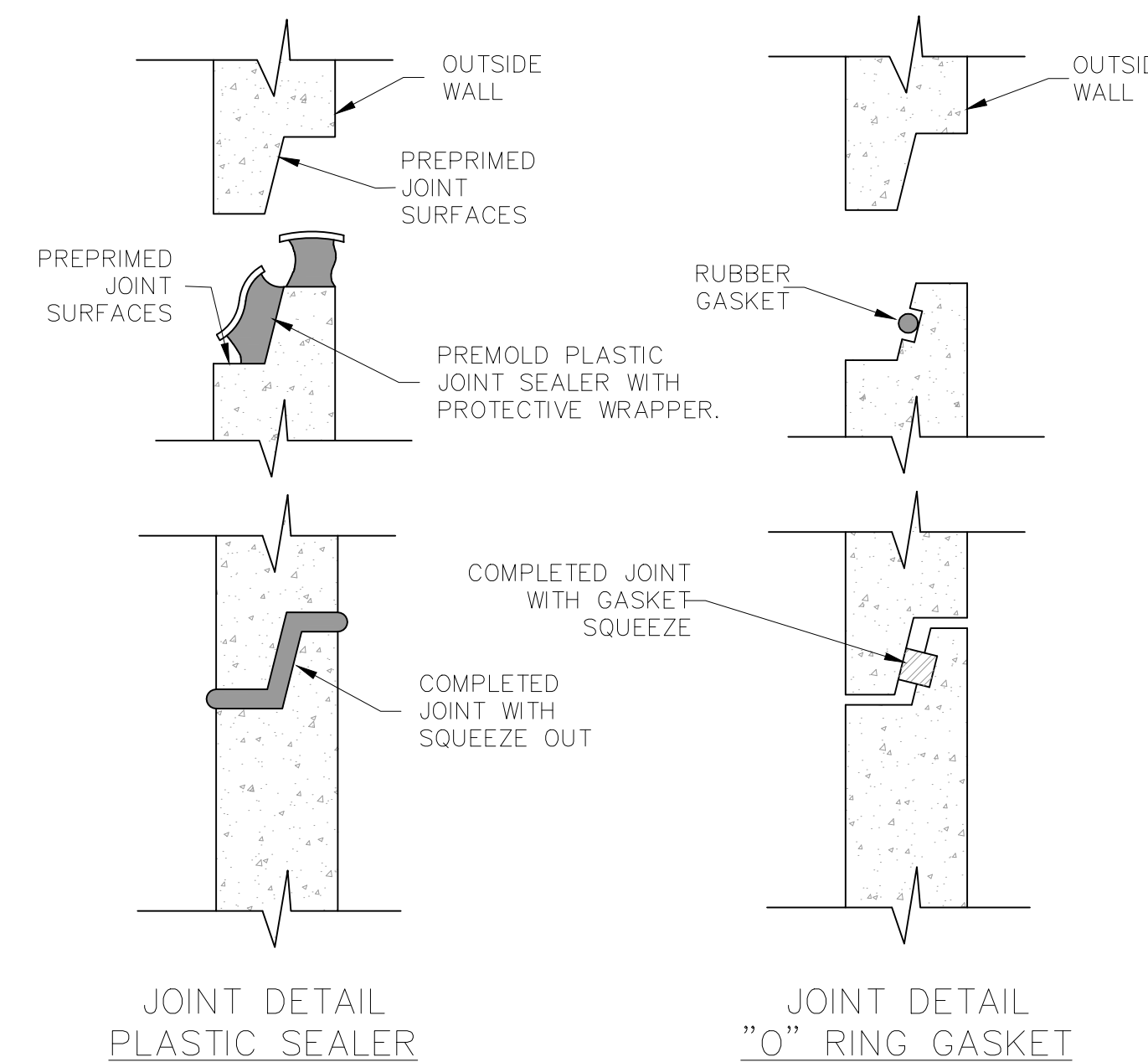


PLAN VIEW



**SANITARY SEWER SERVICE
CONNECTION DETAILS**

N.T.S.



**JOINT DETAIL
PLASTIC SEALER**

**JOINT DETAIL
"O" RING GASKET**

NOTE:
USE HYDRAULIC CEMENT GROUT INSIDE AND OUT AT JOINTS AND COAT WITH TWO COATS OF FABRITITE BITUMINOUS WATER PROOFING MATERIAL.

TYPICAL MANHOLE JOINT DETAIL

N.T.S.

GENERAL NOTES:

1. A) VALVE VAULT SHALL BE COATED WITH KOP-COAT COAL TAR EPOXY 300-M INSIDE AND OUT. (TWO COATS, 9 MILS EACH)
- B) WET WELL SHALL BE COATED WITH KOP-COAT COAL TAR EPOXY 300-M ON THE EXTERIOR ONLY (TWO COATS, 9 MILS EACH) BY FABRICATOR. INTERIOR OF WET WELL SHALL BE COATED WITH 100 MIL OF RAVEN 405 MOISTURE TOLERANT BLUE EPOXY RESIN OR EQUAL (PER RU SPECIFICATION 11.1-11.2 PROTECTIVE COATINGS) AFTER THE WET WELL HAS BEEN CONSTRUCTED IN PLACE.
2. BASE AND FIRST RISER UNIT TO BE CAST MONOLITHIC.
3. VALVE VAULT SHALL BE SIZED TO PERMIT EASY REMOVAL OF CHECK VALVE SPINDLES WITH MINIMUM CLEARANCES AS SHOWN FOR 6" DIAMETER PIPE AND SMALLER CLEARANCES SHALL INCREASE AS REQUIRED FOR LARGER PIPE SIZES. SIZE OF HATCH ON VALVE VAULT IS FOR 4" PIPE AND SHALL INCREASE ACCORDINGLY WITH LARGER PIPE SIZES.
4. ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL OR VALVE VAULT SHALL BE MADE WATERTIGHT WITH WALL SLEEVE OR NON-SHRINK GROUT.
5. THERE SHALL BE NO VALVES OR ELECTRICAL JUNCTION BOXES IN WET WELL.
6. WET WELL AND VALVE VAULT COVERS SHALL BE ALUMINUM WITH 316 S.S. HARDWARE SIZE AS REQUIRED BY PUMP MANUFACTURER AND APPROVED BY FLORIDA COMMUNITY SERVICES.
7. FLEXIBLE COUPLING SHALL BE SLEEVE TYPE.
8. ALL HARDWARE IN WET WELL AND VALVE BOX TO BE STAINLESS STEEL.
9. ALL ENCLOSURES SHALL BE NEMA 3R OR BETTER EXCEPT CONTROL PANEL WHICH SHALL BE NEMA 4.
10. ALL MECHANICAL JOINT FITTINGS ON PRESSURE PIPE SHALL HAVE BOTH "MEGALUG" TYPE JOINT RESTRAINING GLANDS AND THRUST BLOCKS.
11. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND MEETING THE REQUIREMENTS OF REGIONAL UTILITIES STANDARD DETAILS AND SPECIFICATIONS LATEST EDITION.
12. ANY LOCATION WHERE PRESSURE PIPELINES CURVATURE EXCEEDS MANUFACTURER'S SPECIFICATIONS; APPROPRIATE MECHANICAL JOINT FITTINGS SHALL BE USED.
13. ALL 2-INCH VALVES SHALL BE BALL TYPE - 2-INCH GATE VALVES SHALL NOT BE USED.
14. ALL TIE IN TO EXISTING PRESSURIZED PIPELINES SHALL BE BY TAPPING SLEEVE (3 INCH TAP AND LARGER) (OR TAPPING SADDLE, 2 INCH TAP AND SMALLER) AND VALVE.
15. DEVELOPERS OF PRIVATE PROJECTS SHALL PROVIDE ALL WETLANDS PERMITS NECESSARY FOR UTILITY CONSTRUCTION.
16. ALL MANHOLES SHALL HAVE FINISHED GRADING AROUND THEM FOR PROTECTION PRIOR TO ACCEPTANCE BY REGIONAL UTILITIES.
17. ALL SEWER MAINS SHALL BE COVERED TO FINISH GRADING FOR PROTECTION PRIOR TO ACCEPTANCE BY REGIONAL UTILITIES.

SANITARY SEWER GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE INSTALLATION OF SANITARY SEWERS WITH ALL OTHER UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
2. TELEVISION INSPECTION IS REQUIRED FOR ALL GRAVITY SEWERS. A FULL REPORT SHALL BE GIVEN TO REGIONAL UTILITIES UPON COMPLETION. COST OF TELEVISION INSPECTION SHALL BE DONE BY THE CONTRACTOR.
3. NO SANITARY SEWER CONSTRUCTION SHALL COMMENCE UNTIL SHOP DRAWING SUBMITTALS HAVE BEEN APPROVED.
4. A PRE-CONSTRUCTION CONFERENCE IS REQUIRED PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY REGIONAL UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. A REGIONAL UTILITIES REPRESENTATIVE MUST WITNESS ALL TIES TO EXISTING LINES AND TESTS OF NEW LINES.
5. CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS IN ACCORDANCE WITH REGIONAL UTILITIES SPECIFICATIONS.
6. LOCATOR BALLS AS MANUFACTURED BY 3M PART NO. 1404 TO BE PLACED ON NORTH SIDE OF ALL MANHOLES NOT WITHIN PAVED AREAS. MANHOLES OUTSIDE OF PAVED AREAS SHALL BE CONSTRUCTED WITH TOP 6" ABOVE GRADE.
7. LOCATOR BALLS AS MANUFACTURED BY 3M PART NO. 1404 REQUIRED AT ALL FORCE MAIN VALVE LOCATIONS.
8. ALL FORCE MAINS SHALL HAVE 12 GAUGE TRACER WIRE WRAPPED ON THEM WITH 2 FEET OF EXTRA WIRE AT ALL VALVE BOXES.
9. ALL GRAVITY SEWER SHALL BE VISUALLY INSPECTED (I.E. LAMPED) BY REGIONAL UTILITIES PRIOR TO FINAL ACCEPTANCE.
10. ALL MECHANICAL JOINT CONNECTIONS SHALL BE RESTRAINED USING MEGA-LUG TYPE RESTRAINTS OR APPROVED EQUAL.
11. MIN. SERVICE SLOPE: 4" = 1/4" PER FOOT, 6" = 1/8" PER FOOT.
12. USE 6" SERVICES FOR ALL SINGLE FAMILY HOME CONNECTIONS. USE 6" SERVICES FOR MULTI-FAMILY AND COMMERCIAL CONNECTIONS.
13. INSTALL 12 GAUGE LOCATOR WIRE AROUND ALL SERVICES AND MAINS.
14. A 4" BALL MARKER AS MANUFACTURED BY 3M PART NO. 1404 SHALL BE PLACED ABOVE AND AT THE END OF ALL SEWER LATERALS.
15. LOCATIONS OF SERVICE STUB TO BE MARKED BY THE LETTER "S" SCRIBED A MINIMUM OF 2" HIGH & 1/4" DEEP IN CURB.
16. IF NO CURBING IS INSTALLED A "3" SQUARE STEEL TAG INSCRIBED WITH A 2" LETTER "S" IS TO BE ATTACHED TO STREET PAVEMENT.
17. EXTEND SERVICE CONNECTION A SUFFICIENT DISTANCE BEYOND CLEAN-OUT TO ALLOW FOR FUTURE CONNECTION TO THE STUB OUT WITHOUT UNDERMINING THE CLEAN-OUT ASSEMBLY
18. SERVICE TRENCHING TO CONFORM TO CITY/COUNTY STANDARDS FOR PIPE INSTALLATION.
19. USE HYDRAULIC CEMENT GROUT TO SEAL INTERIOR AND EXTERIOR OF ALL PRECAST MANHOLE JOINTS.
20. ALL GRAVITY SEWER AND SEWER SERVICES SHALL HAVE CONCRETE ENCASMENT WHERE COVER IS LESS THAN 30 INCHES UNDER PAVEMENT OR LESS THAN 18 INCHES IN GREEN AREAS.
21. AT ALL HIGH POINTS CRESTED DURING FORCE MAIN CONSTRUCTION, AIR RELEASE VALVES SHALL BE CONSTRUCTED.
22. EXTERNAL DROP TYPE MANHOLES ARE REQUIRED WHERE MANHOLE INVERT ELEVATIONS VARY BY OVER TWO FEET.
23. MANHOLE TOPS IN GREEN AREAS SHALL BE ELEVATED TO PROHIBIT STORM WATER ENTRY.
24. SEWER SERVICES SHALL BE CONSTRUCTED AT THE LOWER SIDE OF LOTS AS MAY BE APPLICABLE.
25. ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH REGIONAL UTILITIES WRITTEN SPECIFICATIONS, LATEST EDITION.

**APPROVED
FOR 2011**

REGIONAL UTILITIES
OPERATED BY FLORIDA COMMUNITY SERVICES
CORPORATION OF WALTON COUNTY INC.

70 Logan Lane
Grayton Beach, FL 32459
Phone: (850) 231-5114
Fax: (850) 231-4924

**SANITARY SEWER
STANDARD DETAILS**

PROJECT NAME:

SCALE:

DRAWN BY: RT CHECKED BY: NOC

PROJECT NO.: 000-000

DRAWING SCALE: N.T.S.

PLOT DATE: 6/22/10

SHEET NO. 2 OF 2

SHEET: S-2