

-
- 6-4" DIAMETER
ROUND BASE
- MANHOLE
FRAME
- FORM SMOOTH
GROUT INVERT
- PLAN
- FINISHED GRADE
OR PAVEMENT

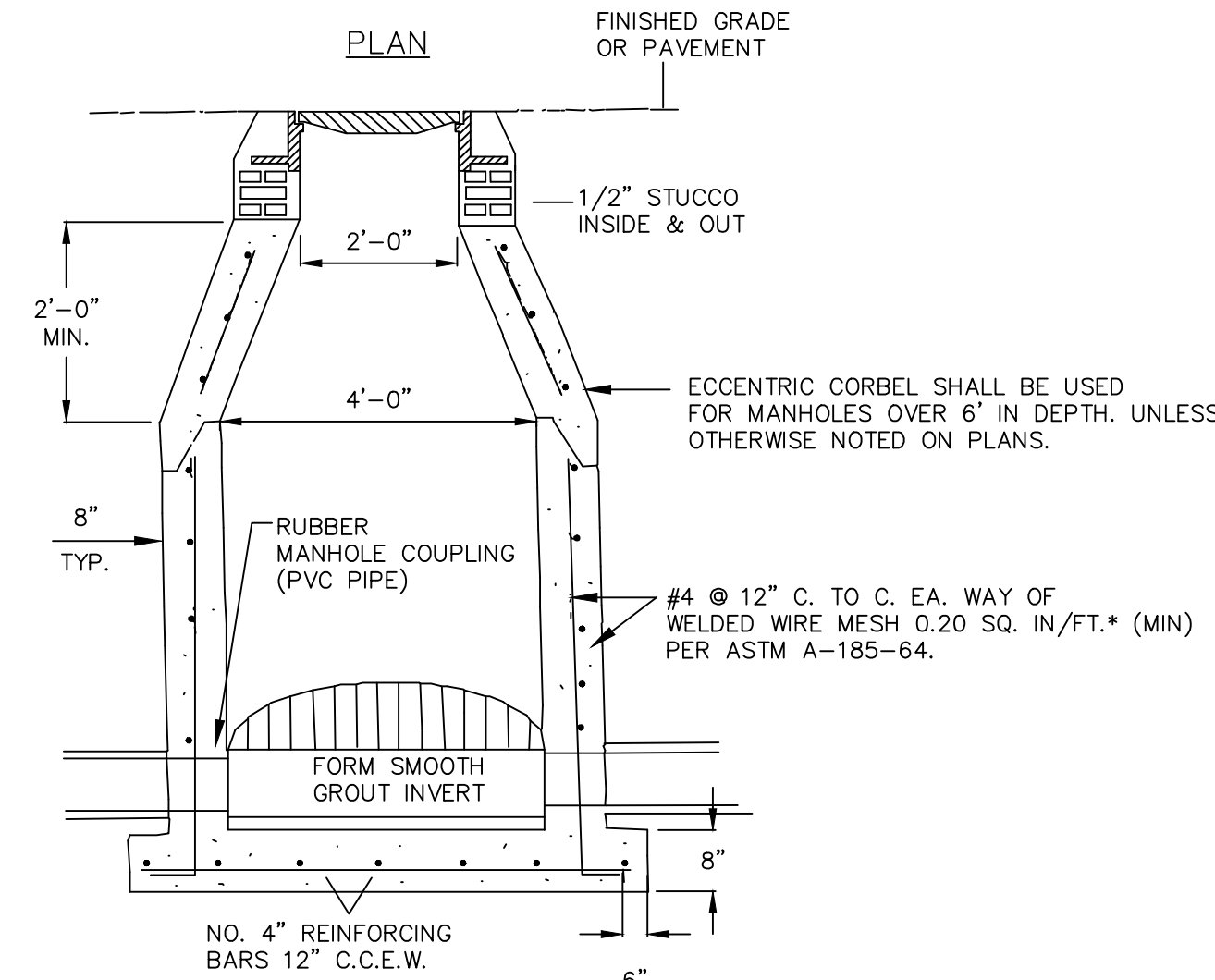


Diagram illustrating the cross-section of a sidewalk. The sidewalk is divided into two sections: "NEW SIDEWALK" and "EXISTING SIDEWALK". The "NEW SIDEWALK" section is labeled with a width of "5'-0\"

Figure 1 consists of two cross-sectional diagrams of joints, labeled Type 'A' and Type 'B'. Both diagrams show a joint with a width of 1/2 inch and a depth of 1/2 inch. The joint material is labeled as 'PREMOLDED EXPANSION JOINT MATERIAL'. In Type 'A', the material thickness is 3/8 inch. In Type 'B', the material thickness is 1/8 inch. The diagrams also show the joint material being installed into a pre-formed cavity in the concrete.

CAST IRON H=20
RATED GRADE
FOR DETAILS
SEE SHEET 4

PVC BODY

INLET AND OUTLET
ADAPTORS, AVAILABLE
4" THRU 6"

VARIOUS TYPES OF
OUTLETS WITH
WATERTIGHT ADAPTORS
FOR:
SDR-35 SEWER
A-2000 CORRUGATED PVC
ULTRA-RIB PVC
CORRUGATED POLYETHYLENE

7.5" ±(2)

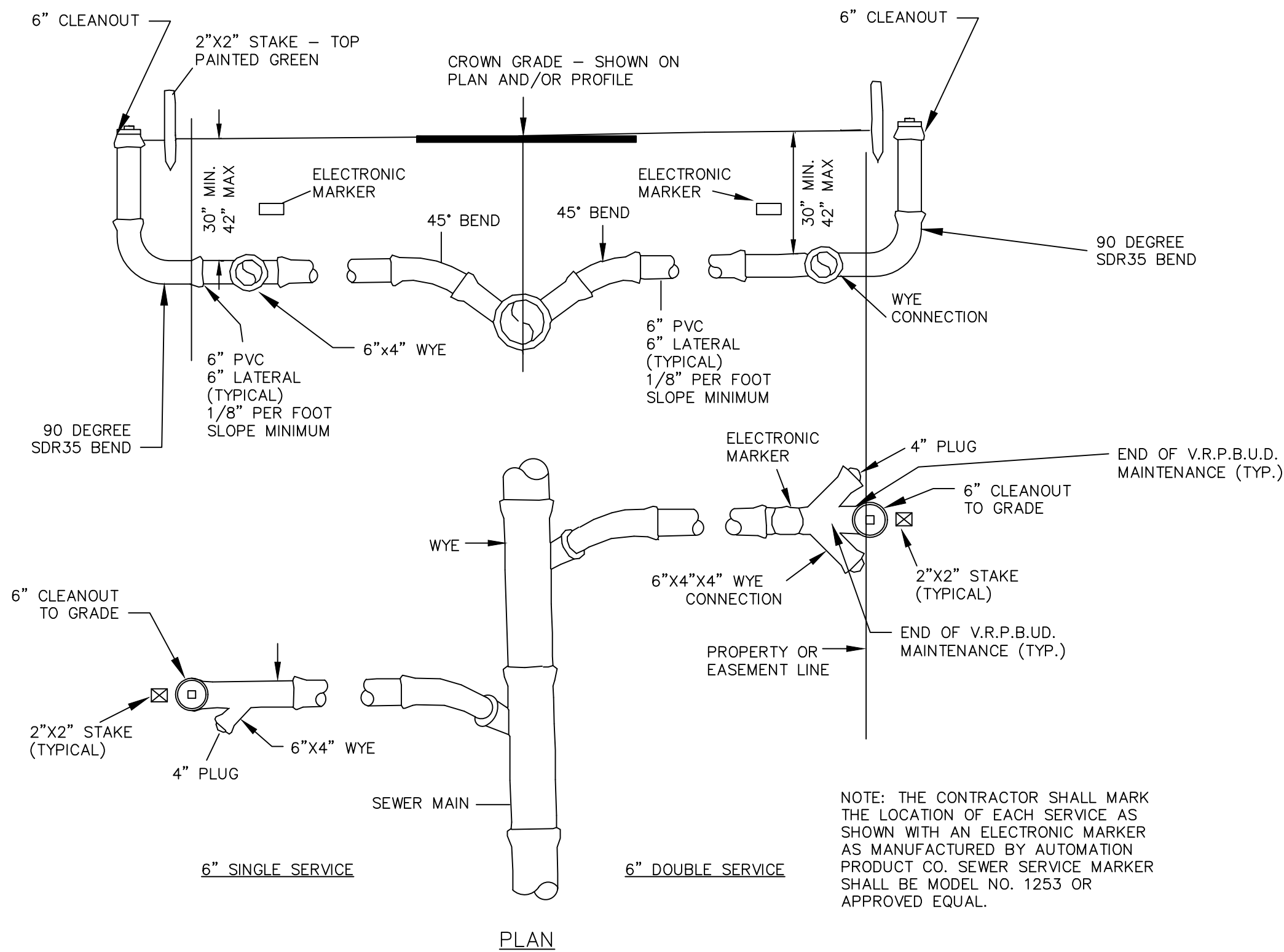
8"

13" ±(1)

* (1) FIXED OVERALL
HEIGHT

* (2) FIXED INVERT
HEIGHT

NYLOPLAST DETAILS



CLEAN OUT RING & COVER
U.S.F. No. 7621/RUSSCO C762

1" (TO ACCOMMODATE SOD)

FINISHED GRADE

PAVED SURFACE

1"

2"

THREADED P.V.C. PLUG

6" P.V.C. CLEANOUT

- ## TYPICAL CLEANOUT INSTALLATION

The four diagrams illustrate different types of pipe junctions:

- Top Left (Tee):** A horizontal pipe with a vertical branch at the center. Arrows indicate flow from both horizontal branches into the vertical branch.
- Top Right (Elbow):** A horizontal pipe that turns 90 degrees into a vertical pipe. Arrows indicate flow from the horizontal pipe into the vertical pipe.
- Bottom Left (Cross):** A horizontal pipe with a vertical branch at the center. Arrows indicate flow from both horizontal branches into the vertical branch.
- Bottom Right (Tee with branch):** A horizontal pipe with a vertical branch at the center. Arrows indicate flow from both horizontal branches into the vertical branch.

NOTES:

1. INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
2. SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOWS.
3. CHANNELS FOR FUTURE CONNECTIONS (STUB-OUTS) SHALL BE CONSTRUCTED, FILLED WITH SAND AND COVERED WITH 1" (ONE INCH) OF MORTAR.

1. WATER SERVICE PIPING SHALL BE POLYETHYLENE (P.E. 3406). WATER SERVICE TUBING (C.T.S.) CONFORMING TO ASTM D1248 AND D2737 WITH SDR OF 9.
2. ALL WATER METER SERVICE CONNECTIONS SHALL BE BRONZE FROM PLUG VALVE TO PLUG VALVE. NO GATE VALVES ARE TO BE USED (2" OR LESS).
3. PAVEMENT RESTORATION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
4. ALL TRENCHING, PIPE LAYING, BACKFILLING, PRESSURE TESTING AND DISINFECTING MUST COMPLY WITH THE TECHNICAL SPECIFICATIONS OF THE UTILITY DEPARTMENT OF THE VILLAGE OF ROYAL PALM BEACH.
5. ALL CONNECTIONS TO EXISTING MAINS SHALL BE MADE UNDER THE DIRECTION OF THE UTILITY DEPARTMENT.
6. ALL PIPE, ETC. SHALL BE TESTED UNDER A CONSTANT PRESSURE OF 150 PSI FOR A MINIMUM TEST TIME OF 30 MINUTES AND SHALL NOT EXCEED THE LEAKAGE REQUIREMENTS PER AWWA SPECIFICATIONS OF C800-82 LEAKAGE FORMULA:
$$Q = \frac{SD}{133,200} P$$

Q = ALLOWABLE LEAKAGE IN GALLONS PER HOUR
S = TOTAL LENGTH OF PIPE TESTED IN FEET
D = DIAMETER OF THE PIPE TESTED IN INCHES
P = AVERAGE TEST PRESSURE IN POUNDS PER SQUARE INCH
7. THE MINIMUM DEPTH OF COVER FOR WATER MAINS IS 30" EXCEPT IN THE CASE OF PV PIPE WHICH REQUIRES A MINIMUM DEPTH OF COVER OF 36".
8. DISINFECTION OF MAINS SHALL COMPLY WITH AWWA C801-81 STANDARD. BACTERIOLOGICAL SAMPLING POINTS SHALL BE DESIGNATED ON THE ENGINEERING PLANS.
9. MARKER TAPE:

MARKER TAPE SHALL BE INSTALLED WITH ALL NEW WATER MAINS CONTINUOUSLY, FOR THE ENTIRE LENGTH OF THE LINE. THE TAPE SHALL BE METALLIZED AND SHALL BE IMPRINTED WITH THE CONTINUOUS MESSAGE "CAUTION-WATER MAIN BURIED BELOW". THE TAPE MUST CONFORM TO ALLEN SYSTEMS, INC. DETECTATAPES OR AN APPROVED EQUAL. MINIMUM WIDTH SHALL BE 3" AND MAXIMUM DEPTH OF BURIAL SHALL BE 18".

1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO THE REQUIREMENTS OF ASTM C478 AND 647. MANHOLES MUST BE INSPECTED BY THE UTILITY BEFORE UNLOADING.
2. CONCRETE FOR PRECAST MANHOLES OR CAST-IN-PLACE MANHOLES SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
3. REINFORCING STEEL FOR MANHOLES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 AND A305, LATEST REVISION. SPLICES SHALL HAVE A MINIMUM LAP OF 24 BAR DIAMETERS.
4. ALL OPENINGS IN PRECAST MANHOLES SHALL BE CAST AT THE TIME OF MANUFACTURE.
5. PRECAST MANHOLE SHOP DRAWINGS SHALL BE SUBMITTED TO THE UTILITY FOR APPROVAL PRIOR TO FABRICATION.
6. ALL MANHOLES SHALL BE SET PLUMB TO LINE AND GRADE AND SHALL REST ON A FIRM, CAREFULLY GRADED SUBGRADE WHICH SHALL PROVIDE UNIFORM BEARING UNDER BASE.
7. MANHOLE SECTIONS SHALL BE JOINED WITH A MASTIC COMPOUND PRODUCING A WATERTIGHT BOND. THE REMAINING SPACE SHALL BE FILLED WITH CEMENT MORTAR AND FINISHED SO AS TO PRODUCE A SMOOTH CONTINUOUS SURFACE INSIDE AND OUTSIDE THE WALL SECTIONS.
8. ALL SPACES AROUND PIPES ENTERING OR LEAVING MANHOLES SHALL BE COMPLETELY FILLED WITH EMBCO MORTAR (NON-METALLIC) OR BONSAL (NON-SHRINKING).

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16035.01 JOB NO.	2	DATE	06/17/2016
		DRAWN	ETLB
		PROJECT ENGINEER	ACS
		PROJECT MANAGER	ACS

REVISIONS		
NO.	DATE	REMARKS BY

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