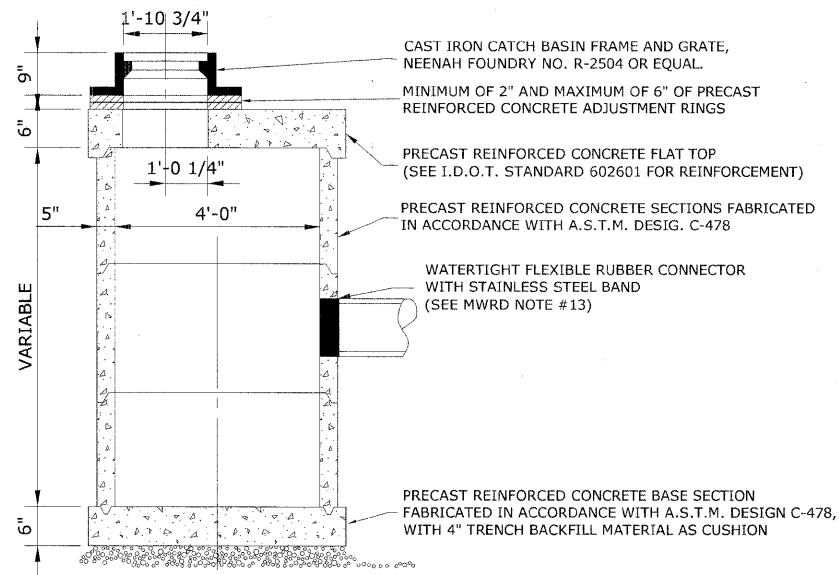


ALL WATER MAIN RELOCATION SHALL BE DONE WITH SHUT DOWN CONNECTIONS

**WATER MAIN ADJUSTMENT DETAIL**

**DUCTILE IRON PIPE SPECIFICATIONS**

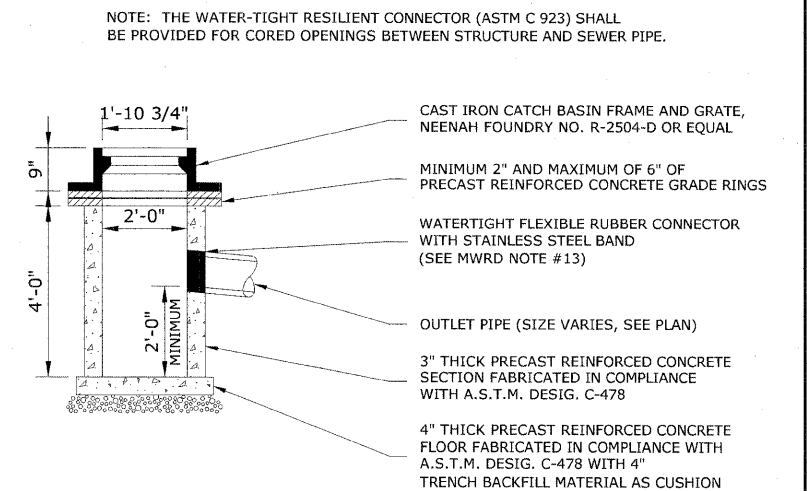
1. ALL DUCTILE IRON PIPE WATER MAINS AND SEWER MAINS SHALL BE CLASS 52, CEMENT-LINED AND TAR-COATED, MEETING THE REQUIREMENTS OF SPECIFICATIONS ANSI/AWWA C151/A21.51 WITH "PUSH-ON" JOINTS MEETING THE REQUIREMENTS OF SPECIFICATIONS ANSI/AWWA C111/A21.11. WHERE SPECIFIED ON THE PLANS, OR IN THE SPECIFICATIONS, MECHANICAL JOINTS AND "LOCK-TYPE" JOINTS SHALL BE USED IN LIEU OF "PUSH-ON" JOINTS.
2. ALL PIPE FITTINGS AND SPECIAL CASTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C153/A21.53 AND ANSI/AWWA C111/A21.11 SPECIFICATIONS AND SHALL MEET THE MINIMUM REQUIREMENTS OF CLASS 150 DUCTILE IRON PIPE. IF CERTAIN FITTINGS ARE NOT MANUFACTURED IN DUCTILE IRON, CAST IRON FITTINGS SHALL BE ACCEPTABLE. MECHANICAL JOINT TYPE FITTINGS SHALL BE USED.
3. ALL PROPOSED DUCTILE IRON PIPE WATER MAIN AND SEWER MAIN WILL BE ENCASED WITHIN FOUR (4) MIL THICK, HIGH-DENSITY POLYETHYLENE TUBING. ALL FITTINGS SHALL BE ENCASED IN A DOUBLE-LAYER OF POLYETHYLENE TUBING. THE POLYETHYLENE MATERIAL SHALL BE MANUFACTURED AND INSTALLED IN COMPLIANCE WITH ANSI/AWWA C105/A21.5. ALL PROPOSED WATER AND SEWER SERVICES SHALL BE ENCASED IN POLYETHYLENE TUBING FOR A MINIMUM DISTANCE OF THREE FEET (3') FROM THE PROPOSED WATER MAIN AND SEWER MAIN.



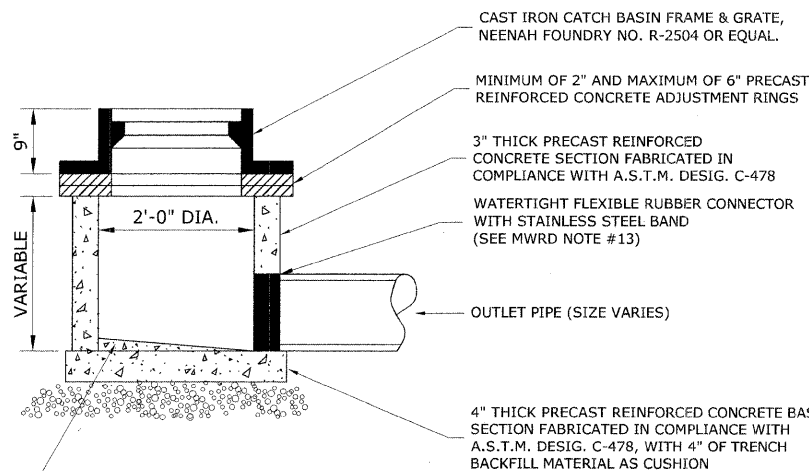
**RESTRICTED DEPTH CATCH BASIN**

NOTE:

A WATERTIGHT RESILIENT CONNECTOR (ASTM C-923) SHALL BE USED FOR ALL NEW STRUCTURES AND CORED OPENINGS IN EXISTING STRUCTURES BETWEEN STRUCTURE WALL AND SEWER PIPE.

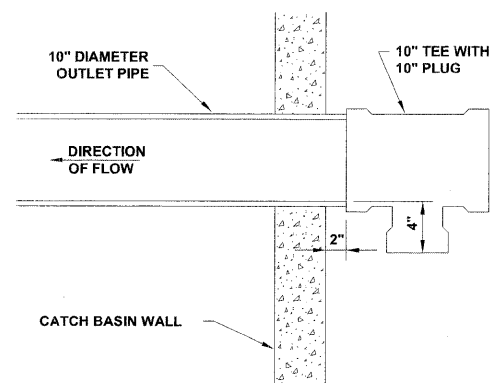


**CATCH BASIN, TYPE C**

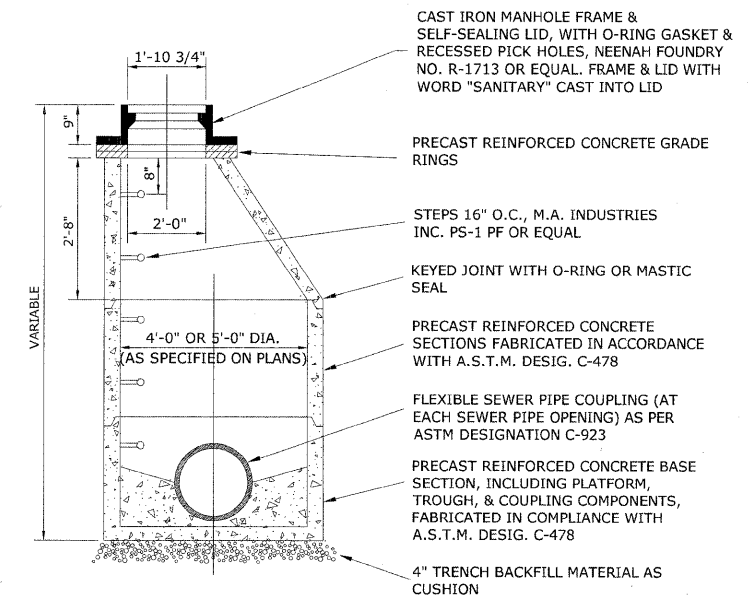


**INLET, TYPE A**

NOTE: THE WATER-TIGHT RESILIENT CONNECTOR (ASTM C 923) SHALL BE PROVIDED FOR CORED OPENINGS BETWEEN STRUCTURE AND SEWER PIPE.



**(10" X 4") CATCH BASIN RESTRICTOR**



**STANDARD COMBINED SEWER MANHOLE**

NOTE: THE WATER-TIGHT RESILIENT CONNECTOR (ASTM C 923) SHALL BE PROVIDED FOR CORED OPENINGS BETWEEN STRUCTURE AND SEWER PIPE.

Drawing file: W:\Projects\65082900 - St Charles Rd\48\_Drainage - Details.dwg Dec 07, 2009 - 10:51am

**HANCOCK ENGINEERING**  
 Civil Engineers  
 Municipal Consultants  
 Established 1911  
 9933 Binwood Road  
 Woodbury, Illinois 61571-2786  
 Phone: 708/862-0100  
 Fax: 708/862-0122

USER NAME -	DESIGNED - MK/SBC	REVISED -
PLOT SCALE -	DRAWN - MK/LEV	REVISED -
PLOT DATE -	CHECKED - SBC/JGMV	REVISED -
	DATE - 11-30-09	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**DRAINAGE AND UTILITIES DETAILS**

SCALE: NONE SHEET NO. 2 OF 4 SHEETS STA. TO STA.

F.A.U. RTE. 1397	SECTION 09-00129-00-PV	COUNTY COOK	TOTAL SHEETS 103	SHEET NO. 49
CONTRACT NO. 63428			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-9003 (267)	
E.H.E PROJECT NO. 565-08-29001				