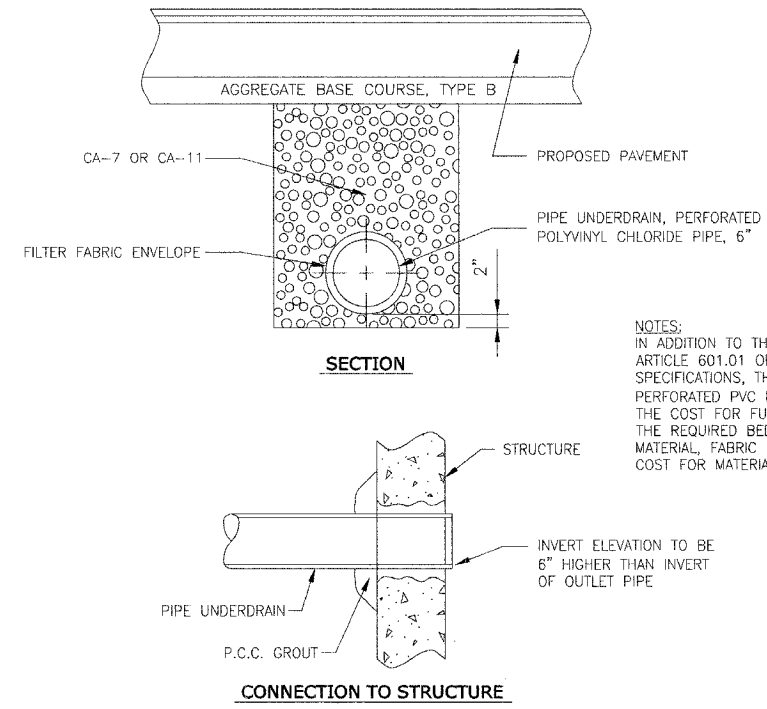


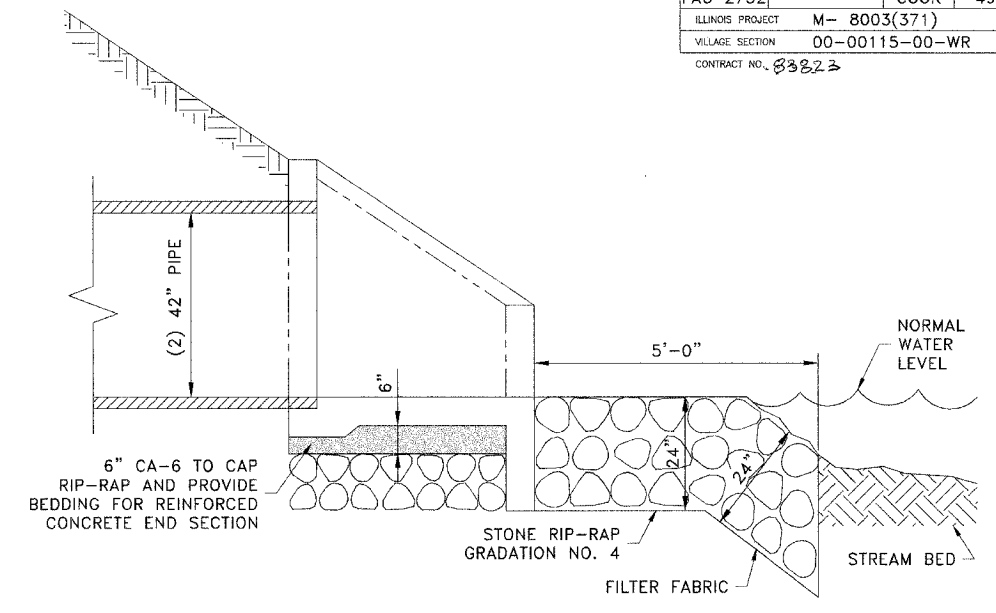
**RESTRICTED DEPTH COMBINED MANHOLE**

**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.

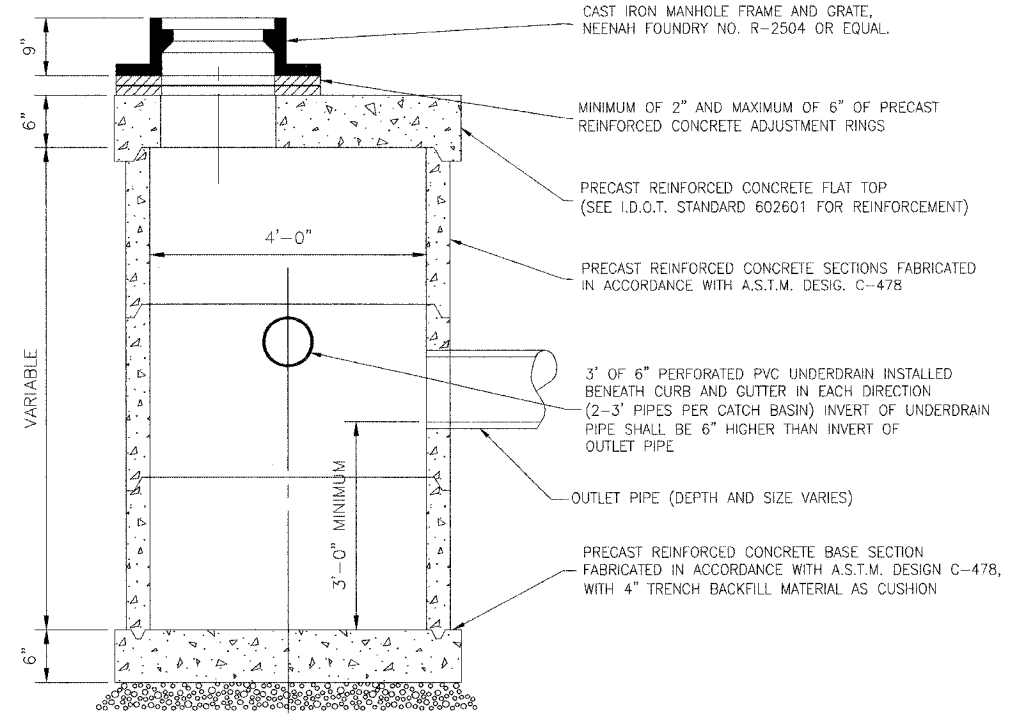
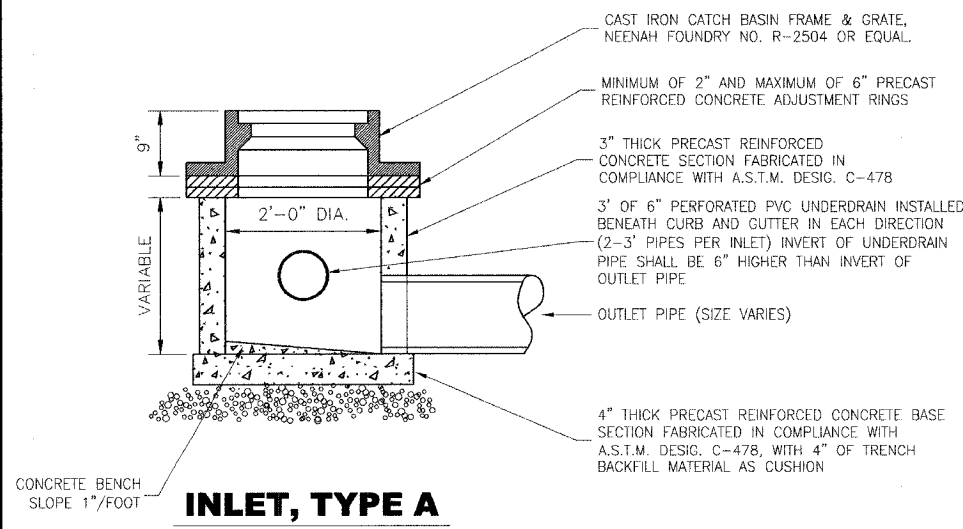


**PIPE UNDERDRAIN DETAIL**

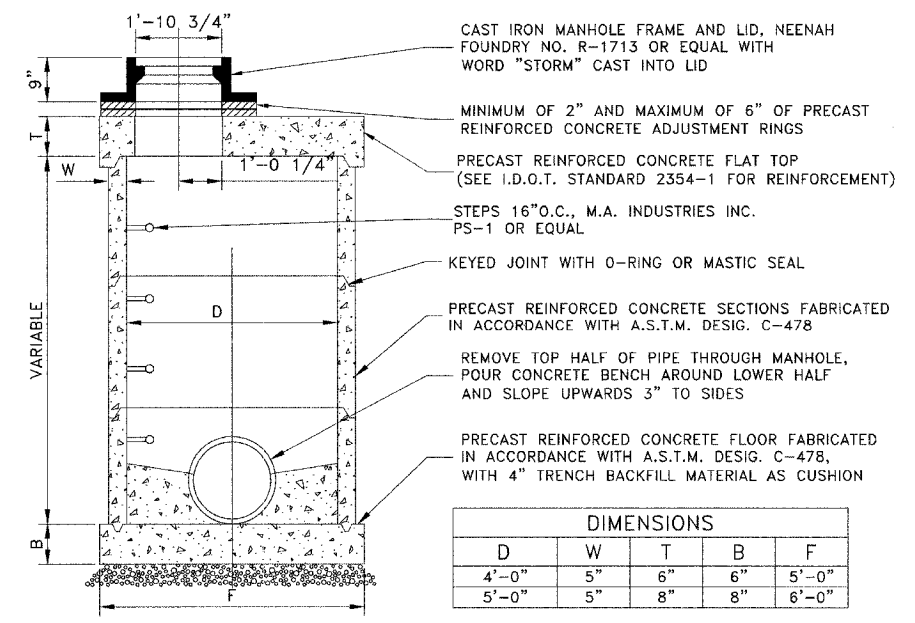


**42" REINFORCED CONCRETE END SECTION RIP-RAP DETAIL**

- NOTES:**
1. NEENAH R-5050-SF42 AUTOMATIC DRAINAGE GATE ATTACHED TO EACH 42" STORM SEWER OUTLET PIPE



**RESTRICTED DEPTH CATCH BASIN**



**RESTRICTED DEPTH STORM MANHOLE**