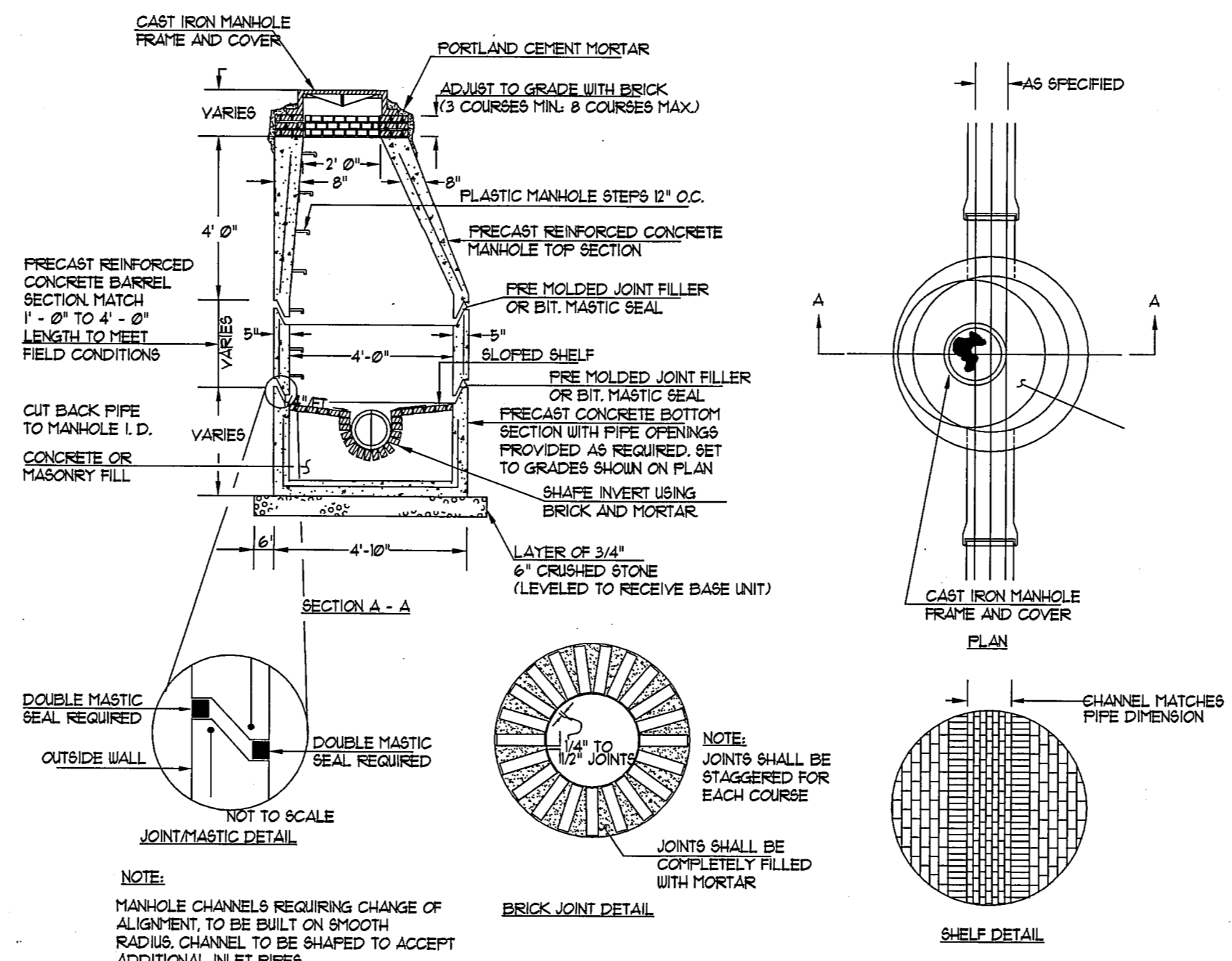


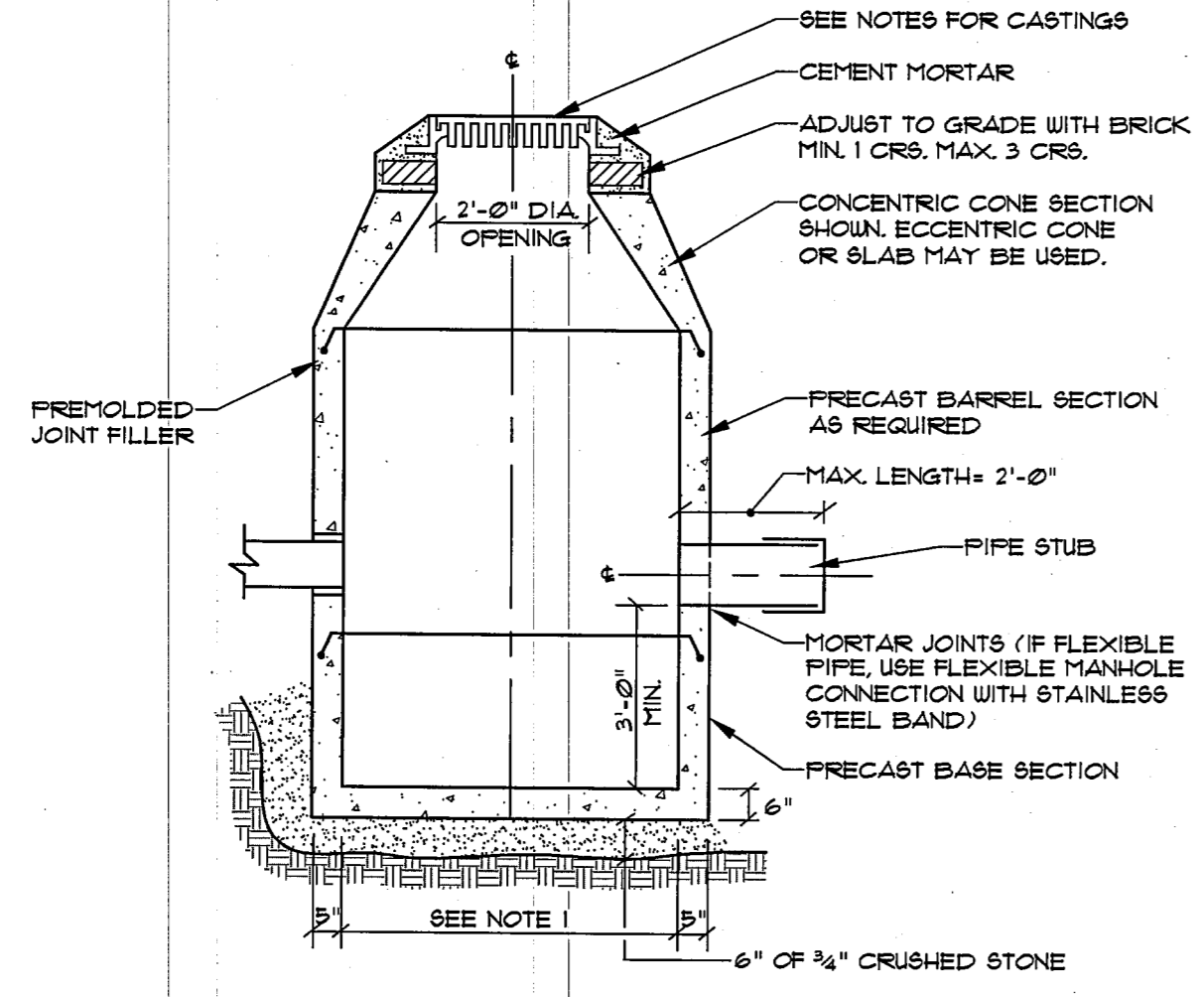
**TYPICAL PAVEMENT GRADING ON SLOPES FOR CATCH BASIN AND INLET**  
NOT TO SCALE

**GENERAL NOTES FOR MANHOLES AND CATCH BASINS**

- ALL CONCRETE SHALL BE CLASS "A" AND HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000-psi. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
- FRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-418-67.
- SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATION ON C-32-63, GRADE MA AND SA.
- ALL MANHOLES SHALL HAVE A BITUMINOUS WATERPROOFING APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTED OF BRICK MASONRY, SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 1/2" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPECIFICATIONS SECTION 604.
- CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35. ALL PARTS OF CASTINGS, EXCEPT FINISHED SURFACE, SHALL RECEIVE A COAT OF COAL TAR PITCH VARNISH OR ASPHALTUM PAINT WHICH SHALL BE SMOOTH AND TOUGH BUT NOT BRITTLE.
- MANHOLES MAY BE CONSTRUCTED OF MASONRY, FRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
- ALL FRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION AND GESSET, PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
- EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
- ALL WORK WITHIN THE STREET RIGHT-OF-WAY SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
- ALL CATCH BASIN OUTLET PIPES SHALL BE INSTALLED WITH AN OIL AND FLOATABLES SEPARATOR. THE SEPARATOR SHALL BE THE "BOUT" OR AN APPROVED EQUAL AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- MANHOLE FRAME, GRATE AND COVERS SHALL COMPLY WITH CITY OF PORTLAND TECHNICAL STANDARDS AND REQUIREMENTS.

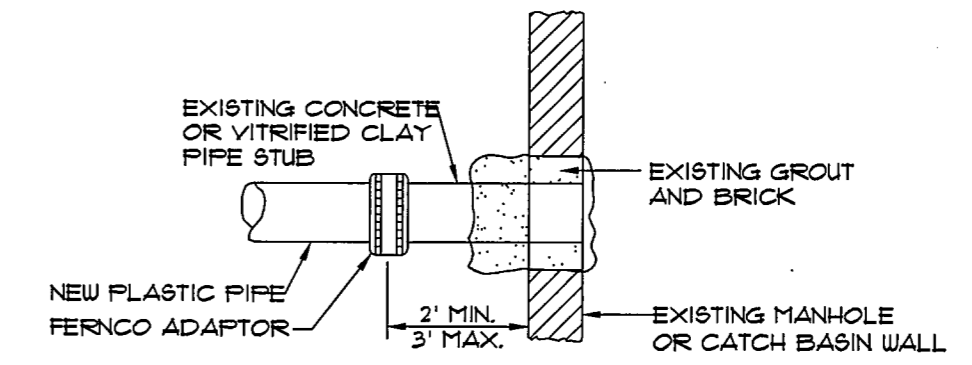


**PRECAST CONCRETE MANHOLE TYPE "A"**  
NOT TO SCALE



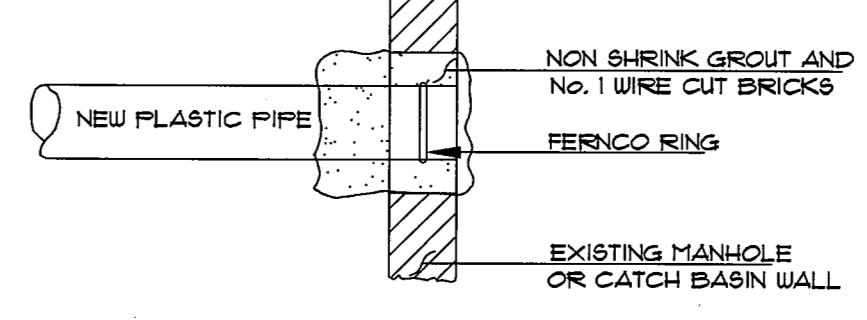
- NOTES:**
- 4'-0" I.D. TYPICAL. SOME STRUCTURES MAY REQUIRE LARGER I.D. PROVIDE SHOP DRAWINGS.
  - DRAINAGE STRUCTURES TO BE DESIGNED FOR H-20 LOADING.
  - PIPE SIZES AND INVERTS AS NOTED ON PLANS.
  - CATCH BASIN FRAME AND GRATE TO BE EAST JORDAN FOUNDRY 5250, OR APPROVED EQUAL.
  - DRAINAGE MANHOLE FRAME AND COVER TO BE EAST JORDAN FOUNDRY I23, TYPE A, OR APPROVED EQUAL. COVER SHALL BE MARKED "DRAIN".
  - ALL DRAIN MANHOLES SHALL HAVE SHELVES AND CHANNELS INSTALLED.

**TYPICAL DRAINAGE MANHOLE/CATCH BASIN**  
NOT TO SCALE

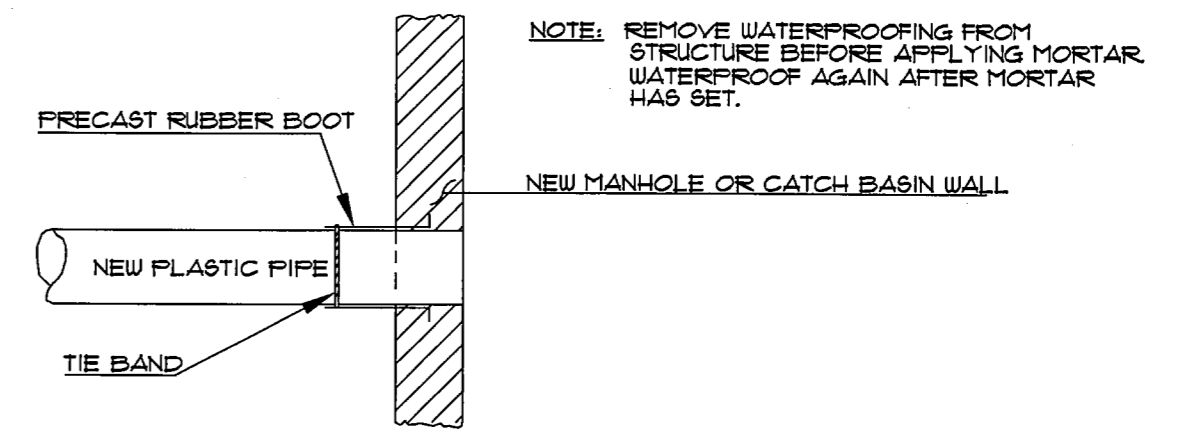


**METHOD 4 - NEW PIPE TO EXISTING STRUCTURE STUB**

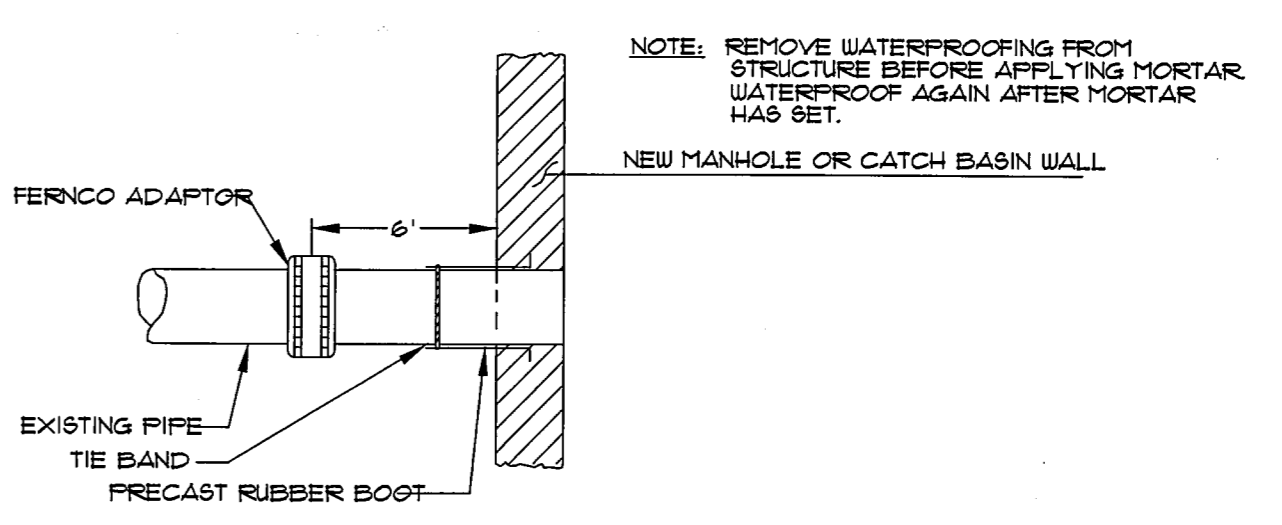
NOTE: EXISTING MANHOLE OR CATCH BASIN SHALL BE CORE DRILLED FOR PIPE INSTALLATION. IF PIPE DIAMETER IS SO LARGE THAT CORE DRILLING IS PROHIBITED, THE CONTRACTOR MAY USE ANY COMBINATION OF JACK HAMMERING AND SAW CUTTING THE STRUCTURE TO CREATE PIPE OPENING. THE NEW OPENING MUST THEN BE SEALED AND WATERTIGHT BOTH INSIDE AND OUTSIDE THE STRUCTURE.



**METHOD 3 - NEW PIPE INTO EXISTING STRUCTURE**

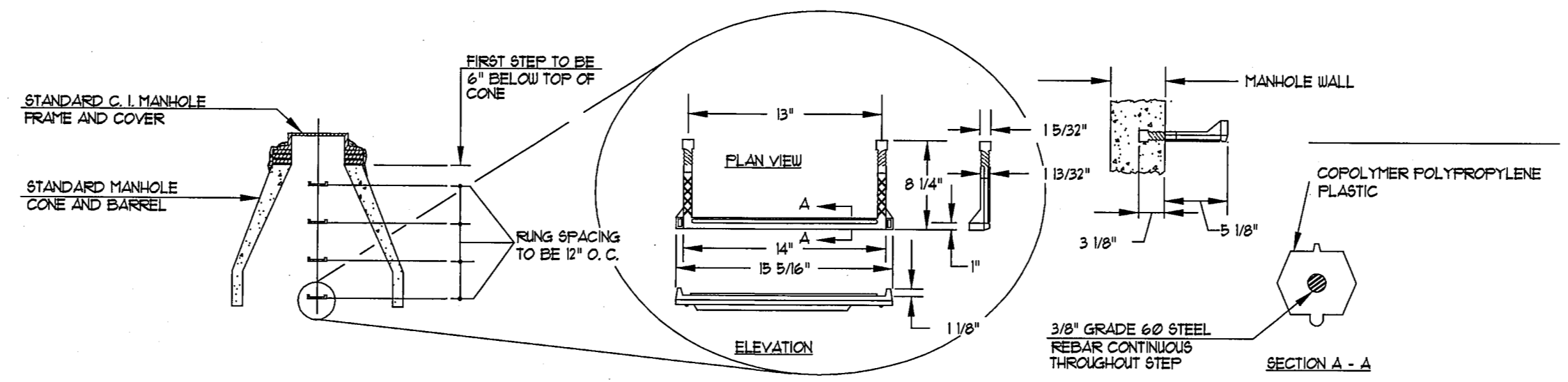


**METHOD 2 - NEW CONSTRUCTION**

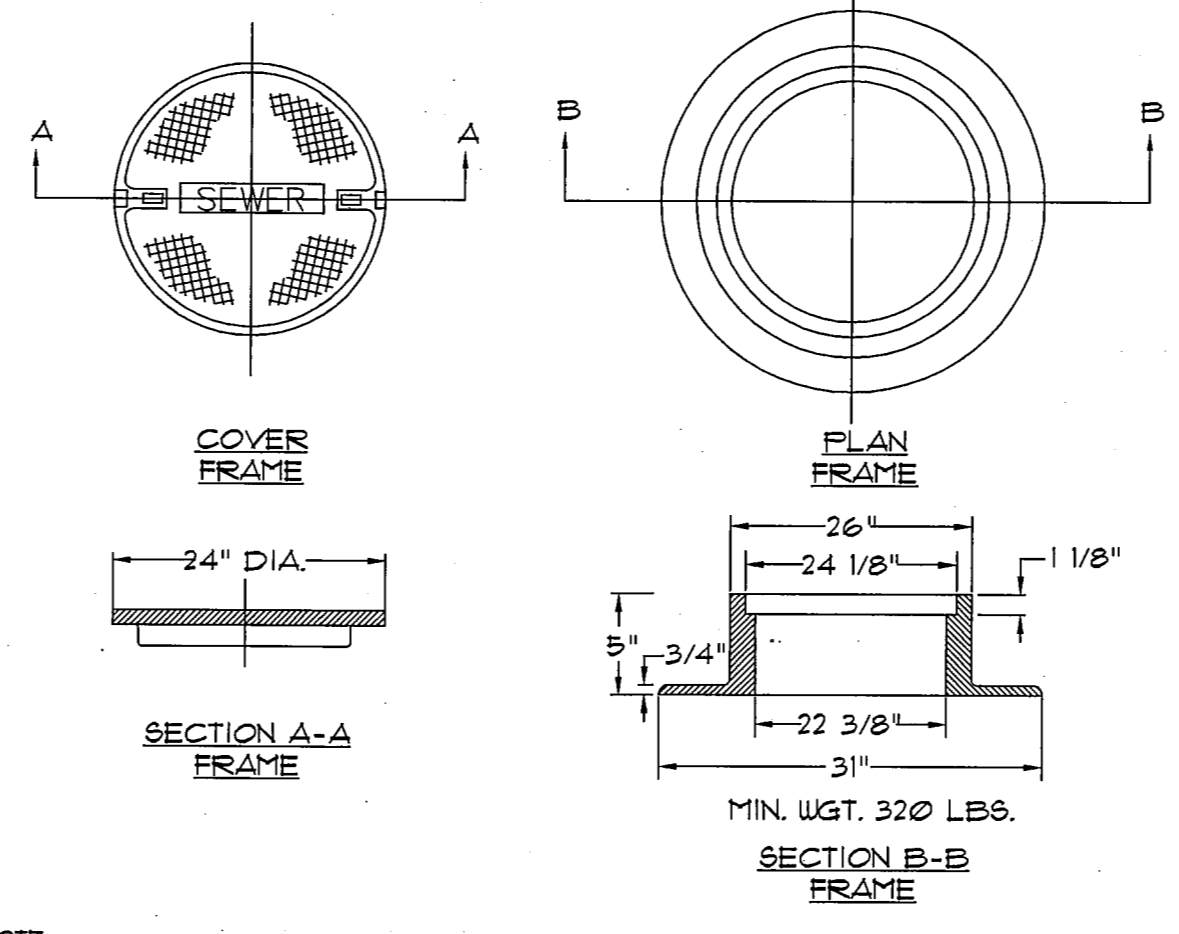


**METHOD 1 - EXISTING PIPE INTO NEW STRUCTURE**

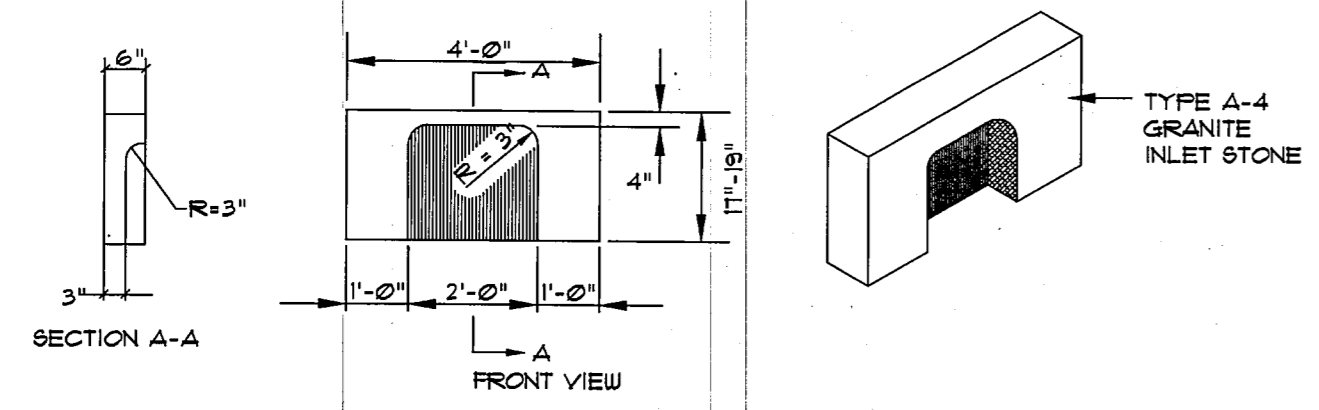
**PLASTIC PIPE CONNECTION DETAIL**  
NOT TO SCALE



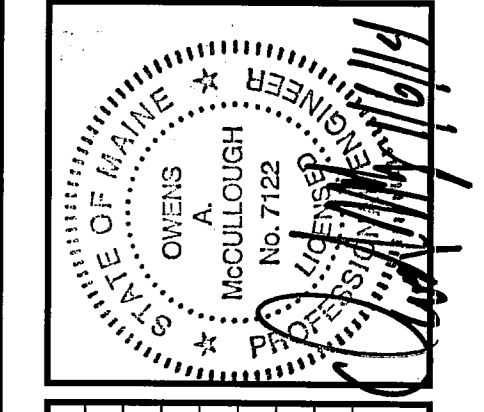
**PLASTIC MANHOLE STEPS**  
NOT TO SCALE



**CAST IRON MANHOLE COVER AND FRAME**  
NOT TO SCALE



**TYPE A-4 GRANITE CATCH BASIN INLET STONE DETAIL**  
(FOR EXISTING BASIN AT HANCOCK STREET)  
NOT TO SCALE



CITY SUBMITTAL 7	01-07-13	WTC	BY:	DATE:	STATUS:
CITY SUBMITTAL 6	10-15-13	WTC	BY:	DATE:	STATUS:
CITY SUBMITTAL 5	10-03-13	WTC	BY:	DATE:	STATUS:
CITY SUBMITTAL 4	09-17-13	WTC	BY:	DATE:	STATUS:
CITY SUBMITTAL 3	09-03-13	WTC	BY:	DATE:	STATUS:
CITY SUBMITTAL 2	07-29-13	WTC	BY:	DATE:	STATUS:
CITY SUBMITTAL 1	07-29-13	WTC	BY:	DATE:	STATUS:

**SEBAGO TECHNICAL SERVICES**  
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South Portland, ME 04106  
Tel: 207-262-5100

PROJECT NO. 13251  
DESIGN CHD  
FIELD BOOK WTC  
DRAWN WTC  
MAL

**DETAILS OF:**  
SEAPORT LOFTS  
NEWBURY/HANCOCK STREET  
PORTLAND, MAINE

**FOR:**  
113 NEWBURY STREET, LLC  
35 FAY STREET, SUITE 107B  
BOSTON, MA 02118-4320

DATE: 07-26-13  
SCALE: AS SHOWN