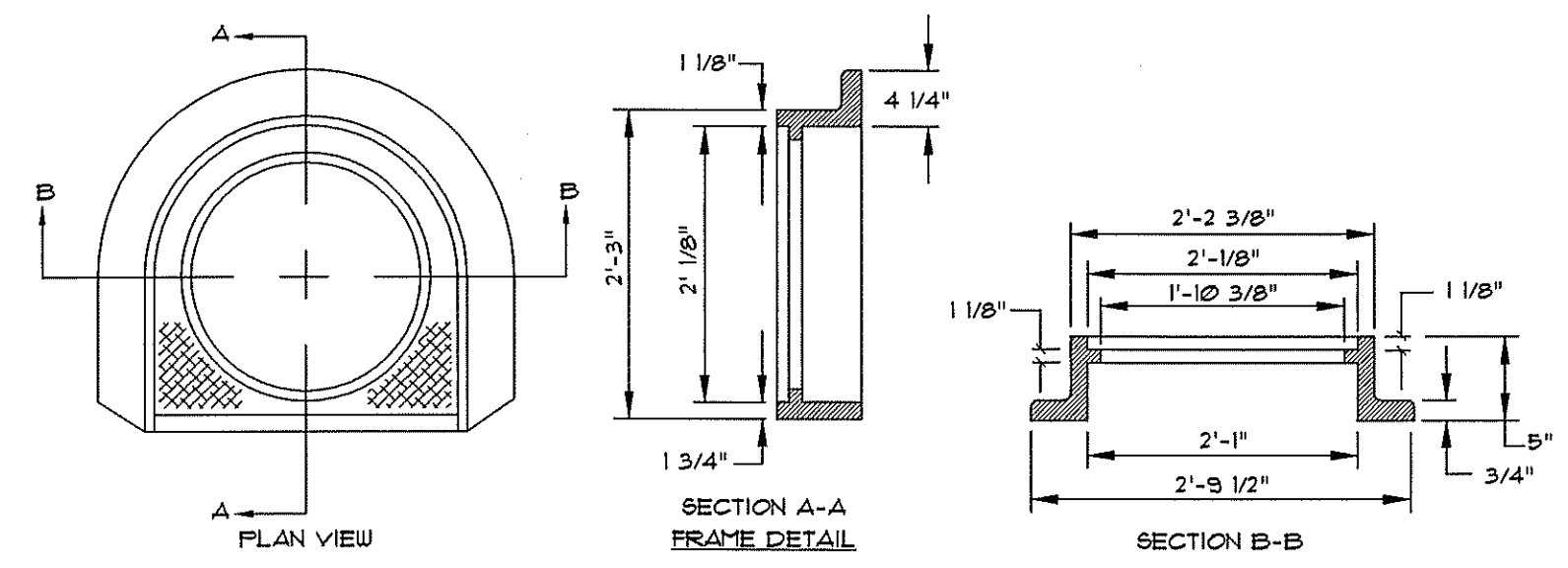
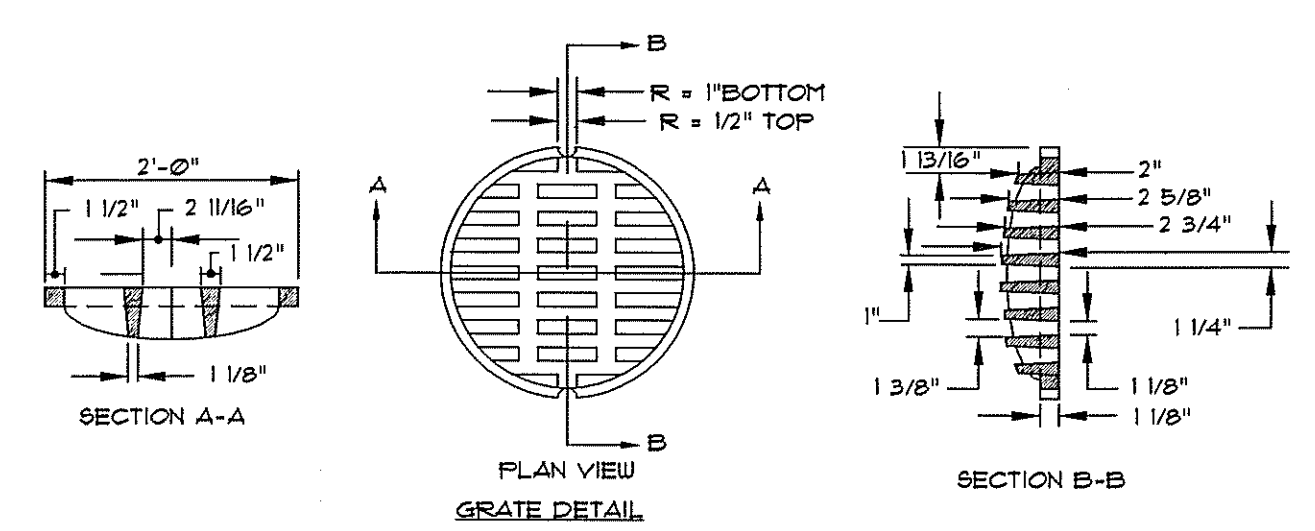
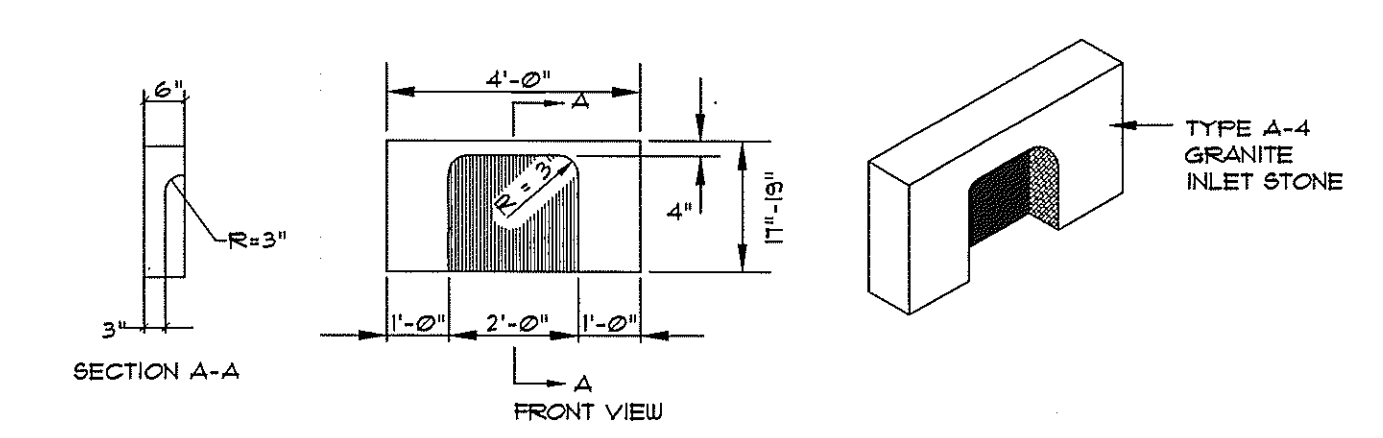


- NOTES:**
- 4'-0" I.D. TYPICAL. SOME STRUCTURES MAY REQUIRE LARGER I.D. PROVIDE SHOP DRAWINGS FOR APPROVAL.
 - DRAINAGE STRUCTURES TO BE DESIGNED FOR H-20 LOADING.
 - PIPE SIZES AND INVERTS AS NOTED ON PLANS.
 - CATCH BASIN FRAME AND GRATE TO ACCOMMODATE 2" MIN. GRATE (H-20 LOADING & BICYCLE SAFE). PROVIDE SHOP DRAWINGS FOR ENGINEER'S / OWNER REPRESENTATIVE'S APPROVAL.
 - SUMPS TO BE 3' WITHIN CITY OF PORTLAND RIGHT-OF-WAY AND 2' MIN. IN ALL OTHER LOCATIONS.

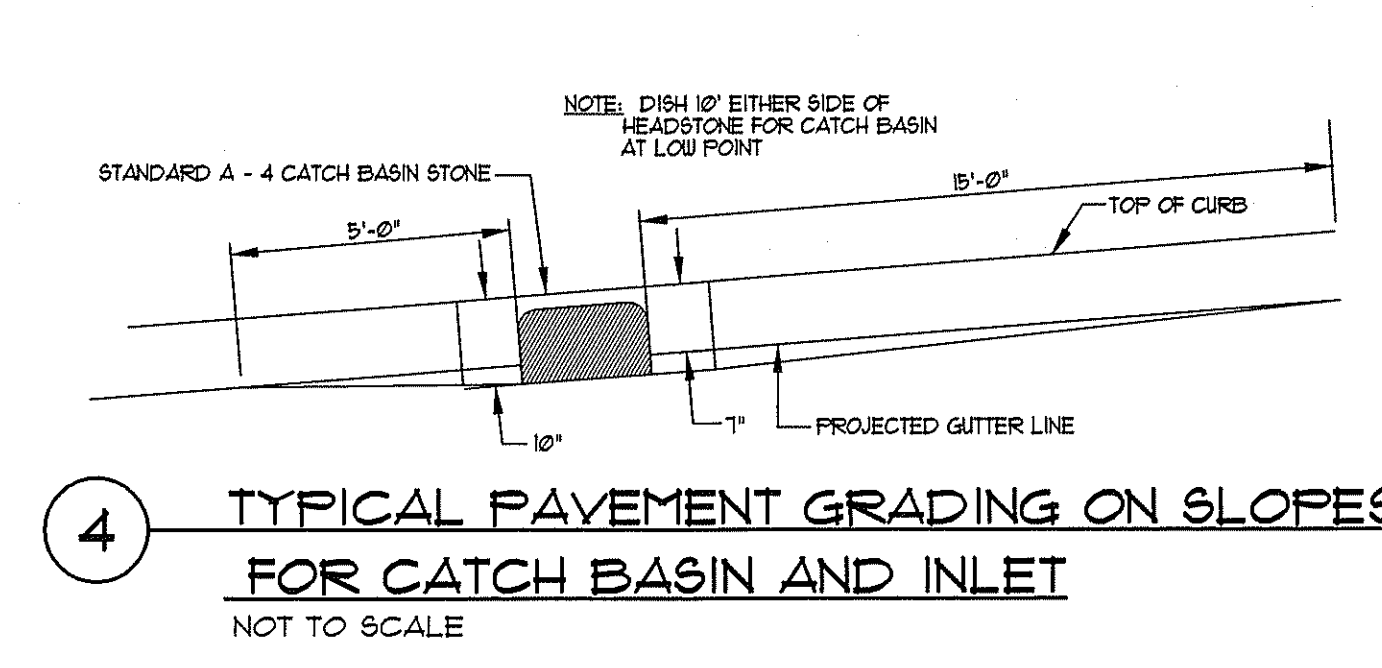
1 PRECAST CONCRETE CATCH BASIN - TYPE "E"
NOT TO SCALE



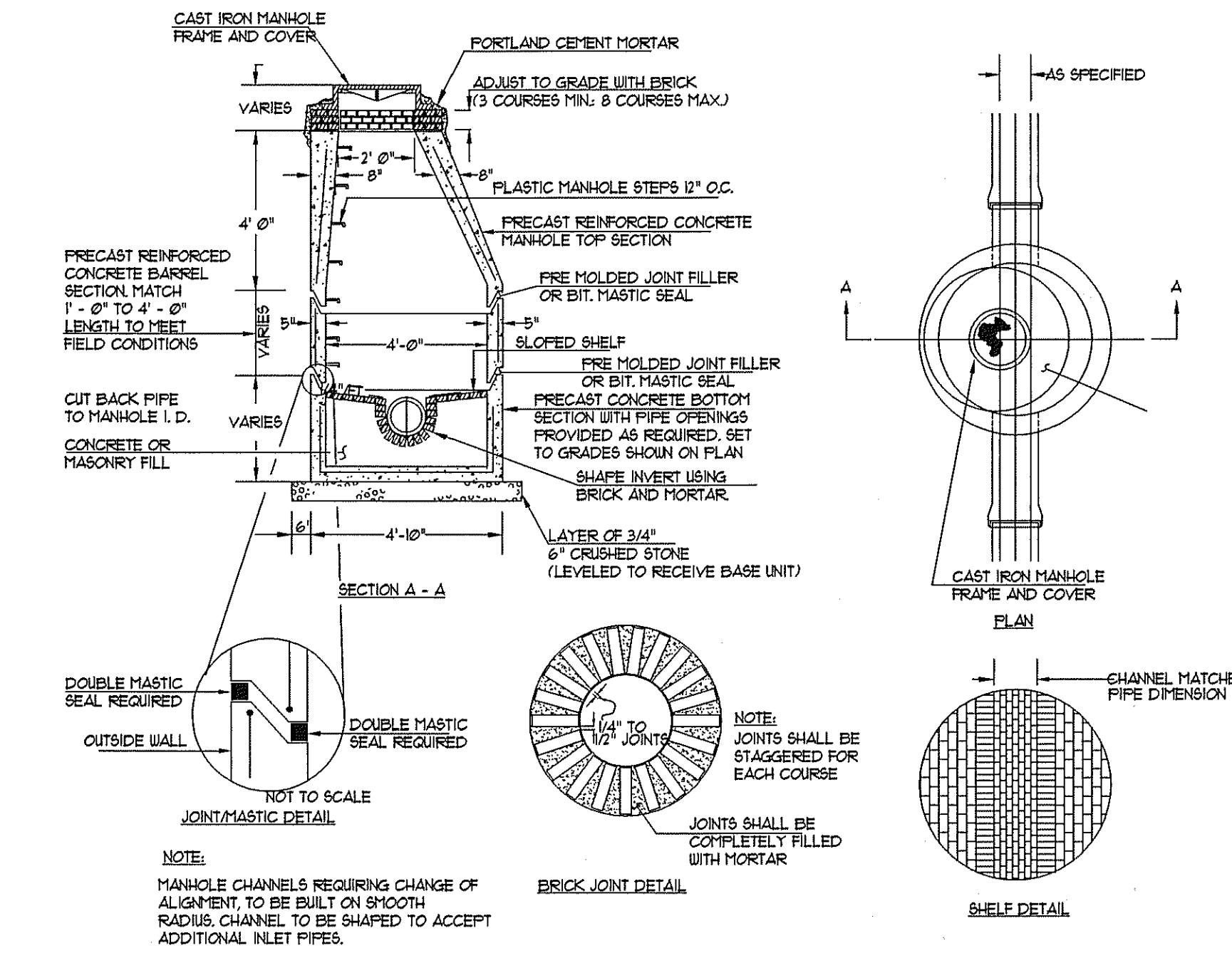
2 CATCH BASIN TYPE "D"-FRAME & COVER DETAIL
NOT TO SCALE



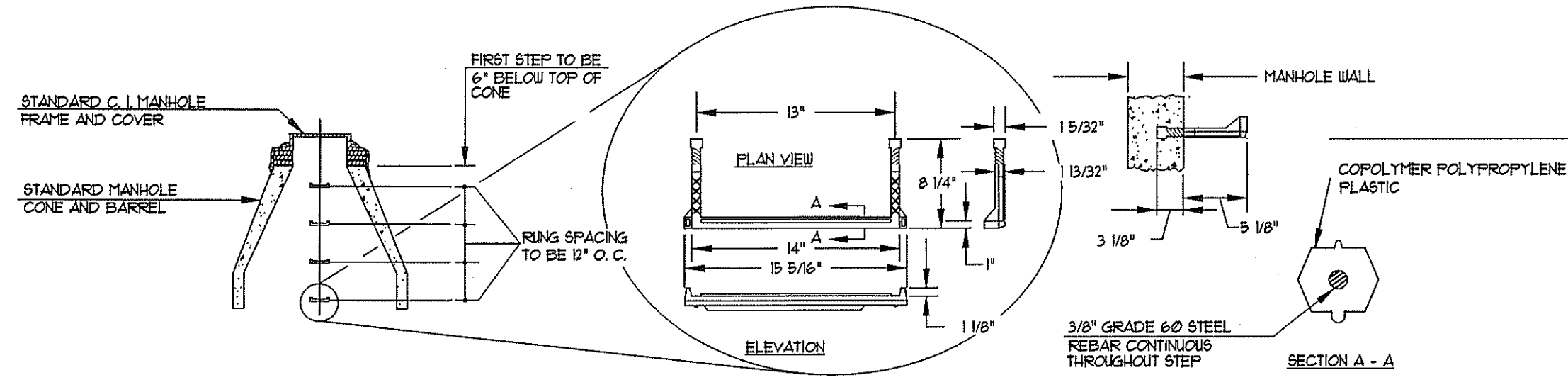
3 TYPE A-4 GRANITE CATCH BASIN INLET STONE DETAIL
NOT TO SCALE



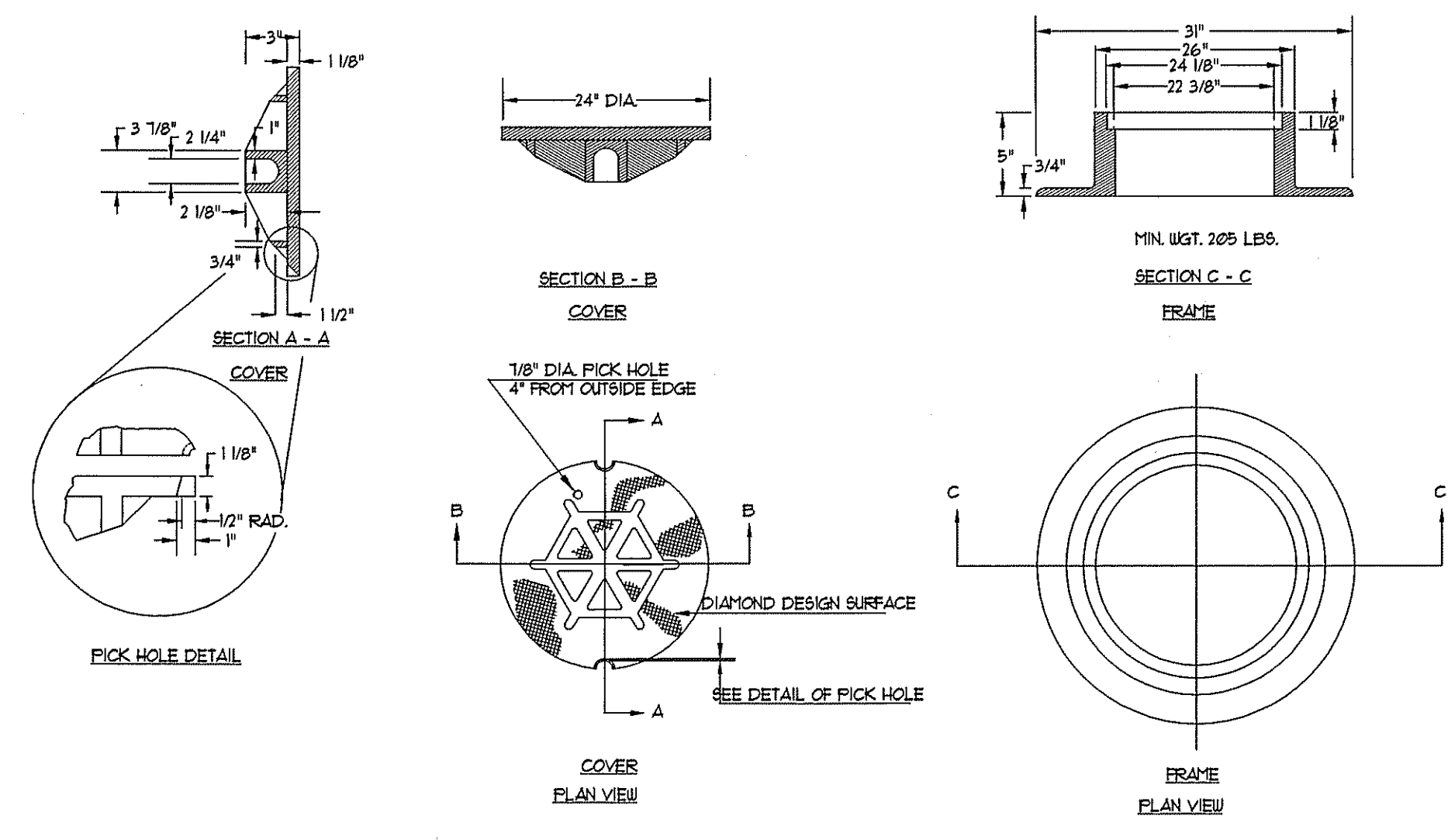
4 TYPICAL PAVEMENT GRADING ON SLOPES FOR CATCH BASIN AND INLET
NOT TO SCALE



5 PRECAST CONCRETE MANHOLE TYPE "A"
NOT TO SCALE



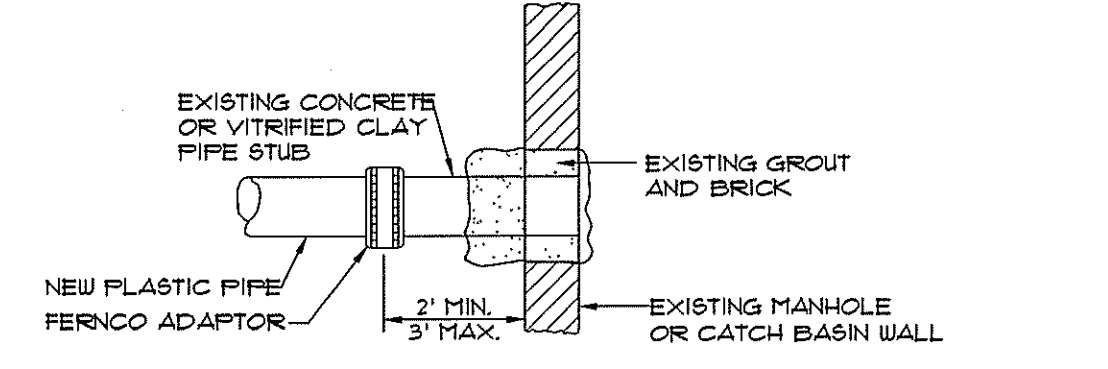
6 PLASTIC MANHOLE STEPS
NOT TO SCALE



7 TYPE "A" CAST IRON MANHOLE COVER AND FRAME
NOT TO SCALE

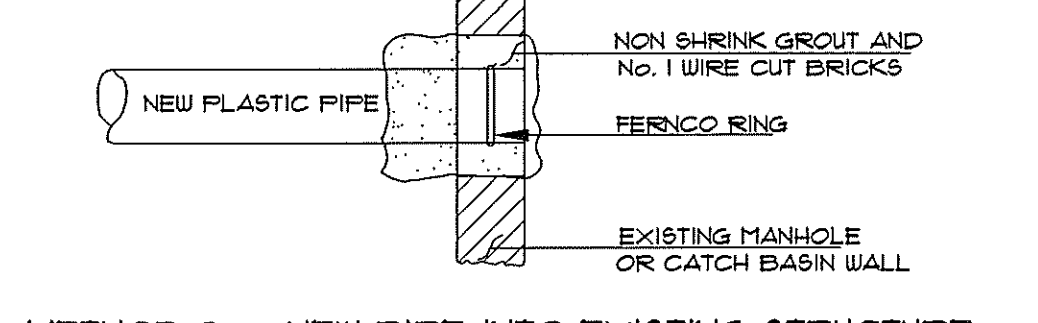
GENERAL NOTES FOR MANHOLES AND CATCH BASINS

- 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.
- PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478-61
- SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE 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 3/8" 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 20. 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, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
- ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION AND OFFSET, PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
- STORM AND SEWER MANHOLES SHALL HAVE SOLID COVERS WITH ONE DRILLED PICK HOLE.
- EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.

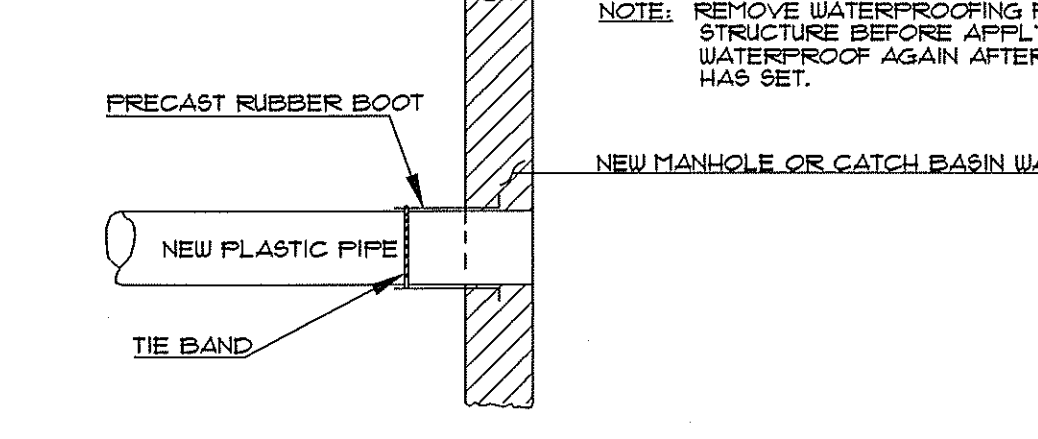


METHOD 4 - NEW PIPE TO EXISTING STRUCTURE STUB

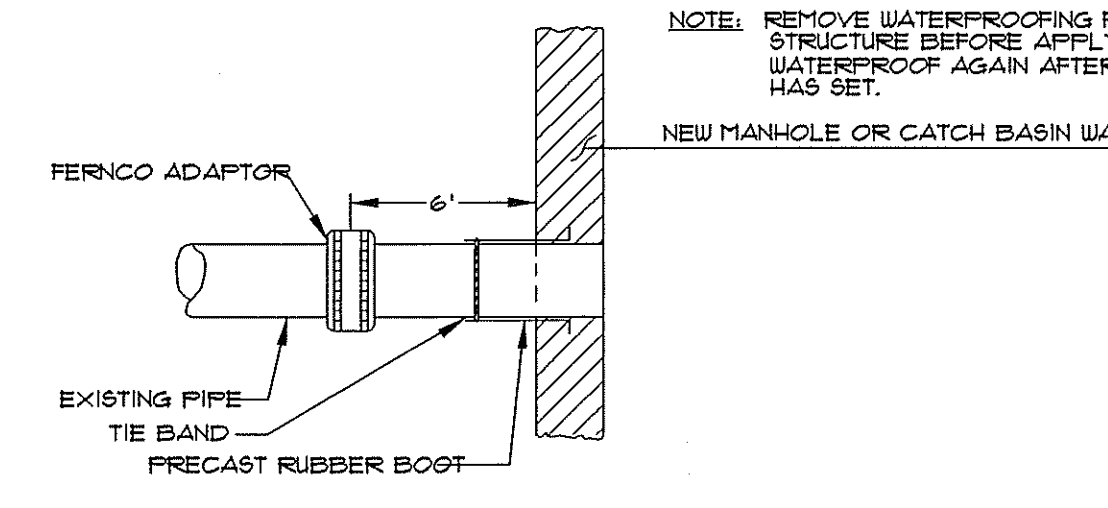
NOTE: EXISTING MANHOLE OR CATCH BASIN SHALL BE CORE DRILLED FOR PIPE INSTALLATION. IF PIPE DIAMETER IS SO LARGE THAT CORE DRILLING IS PROHIBITED, THE CONTRACTOR MAY USE ANY COMBINATION OF JACK HAMMERING AND SAW CUTTING THE STRUCTURE TO CREATE PIPE OPENING. THE NEW OPENING MUST THEN BE SEALED AND WATERTIGHT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



METHOD 3 - NEW PIPE INTO EXISTING STRUCTURE

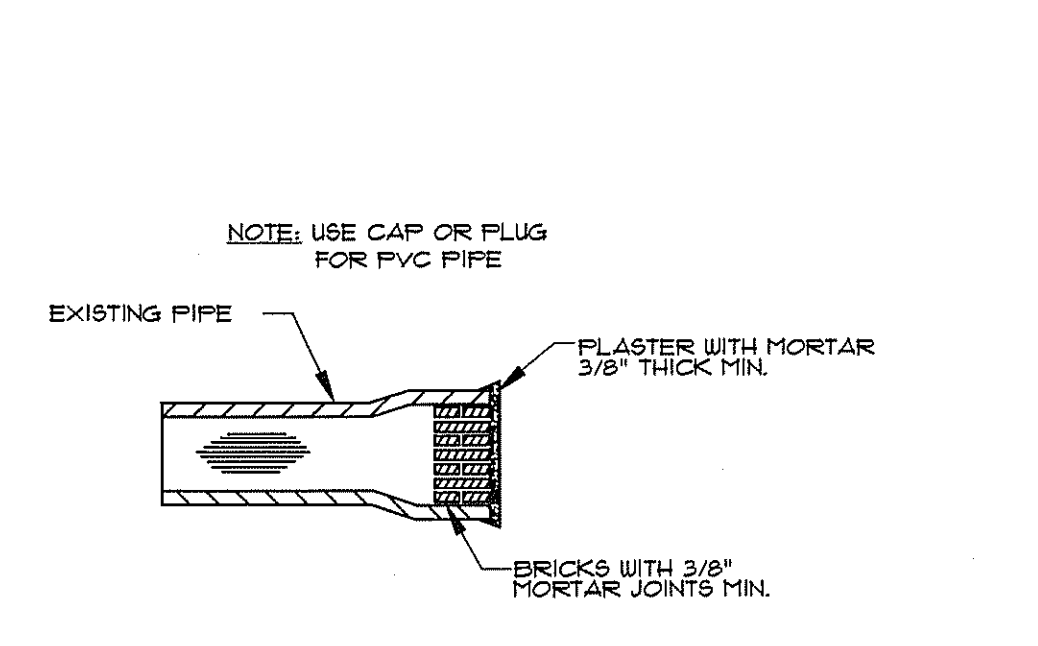


METHOD 2 - NEW CONSTRUCTION

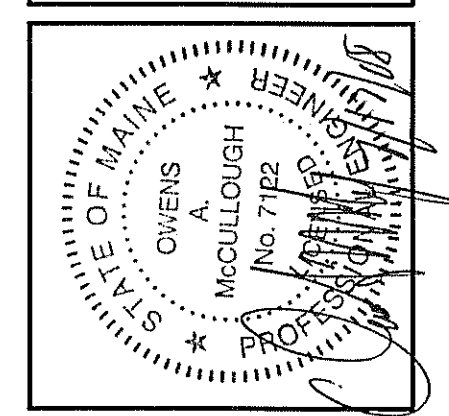


METHOD 1 - EXISTING PIPE INTO NEW STRUCTURE

8 PLASTIC PIPE CONNECTION DETAIL
NOT TO SCALE



9 MASONRY PLUG DETAIL
NOT TO SCALE



REV.	BY:	DATE:	STATUS:
1	CD	7/17/08	REVISED AND SUBMITTED FOR CONSTRUCTION BID
2	CD	2-2-07	SUBMITTED FOR CONSTRUCTION BIDS

Sebago Technics
Engineering Expertise You Can Build On
One Chestnut Street
Westbrook, Me 04095-1339
Tel (207) 865-0277

DETAILS OF:
THE BAY HOUSE
112 NEWBURY ST., 115 NEWBURY ST., 40 HANCOCK ST.
PORTLAND, MAINE
FOR
THE VILLAGE AT OCEAN GATE, LLC
133 PEARL STREET, SUITE 400
BOSTON, MA 02110
05109-BID-D.dwg. TAB-D2

DATE	SCALE
8/3/05	AS SHOWN

SHEET 11 OF 14