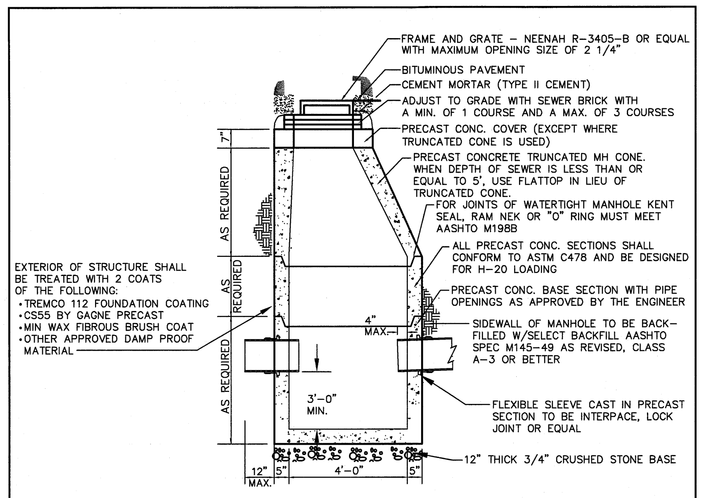
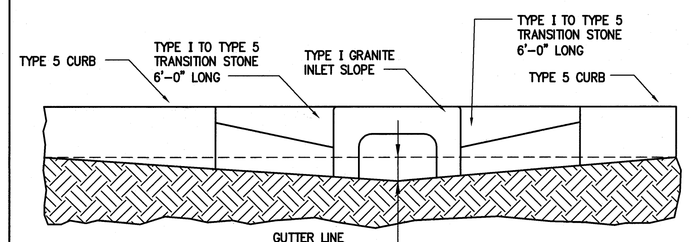


NOTE: CATCH BASIN WITH CURB INLET TO BE USED ONLY WHERE SPECIFICALLY REQUIRED BY THE GRADING AND DRAINAGE PLAN

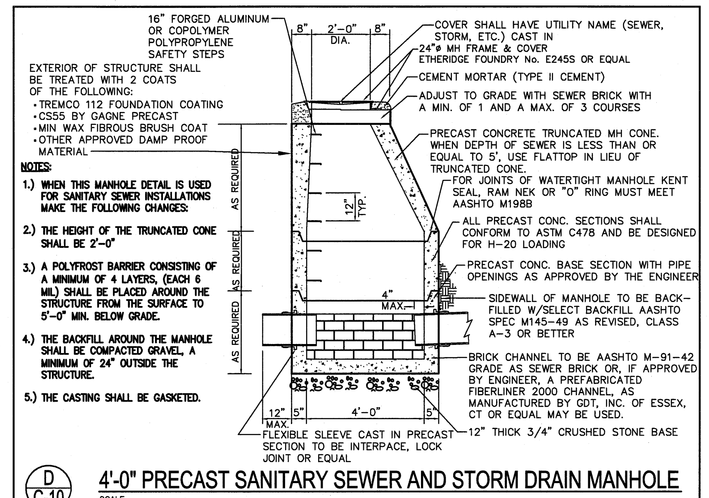
WHEN A CURB INLET IS USED THE CATCH BASIN MUST HAVE A FLAT TOP WITH A 24" x 28" RECTANGULAR OPENING.

ALL INLETS ADJACENT TO GRANITE CURB TO HAVE TYPE I HEADSTONE. WHEN ADJACENT TO TYPE V CURB USE THE FOLLOWING CURBING:

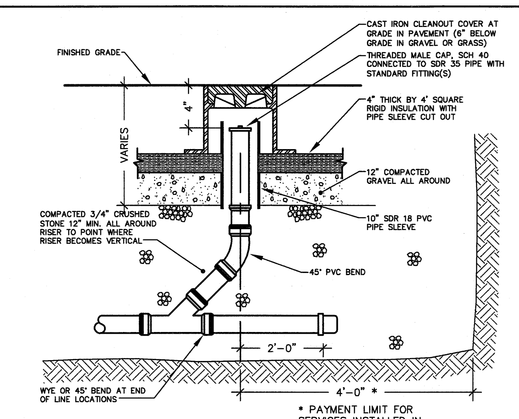


NOTE: SEE PLAN VIEW FOR CURB TYPE.

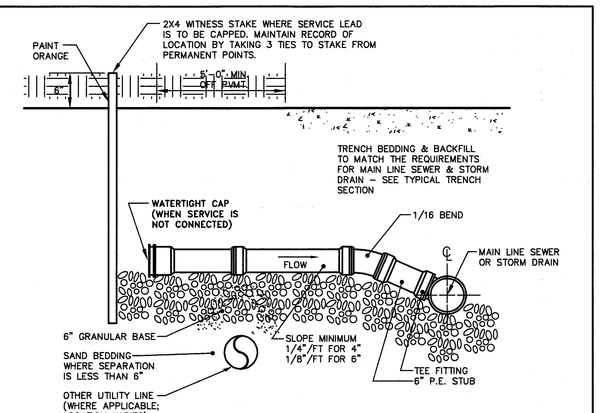
A C-10 **4'–0" PRECAST CATCH BASIN**
N.T.S.



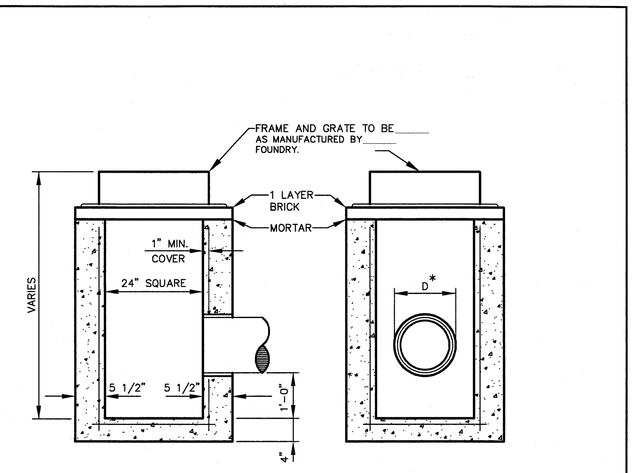
D C-10 **4'–0" PRECAST SANITARY SEWER AND STORM DRAIN MANHOLE**
SCALE



G C-10 **CLEANOUT DETAIL**
N.T.S.



I C-10 J C-14 **TYPE 2 SERVICE LEADS**
N.T.S. (FOR USE WHERE AVAILABLE HEAD IS SUFFICIENT)



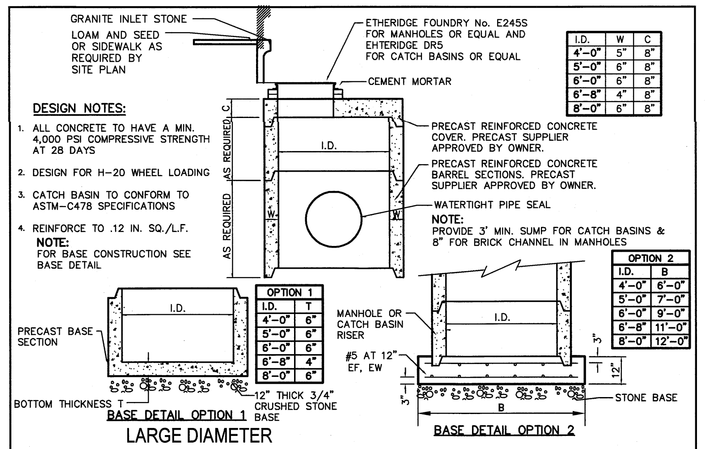
NO CORRUGATED PIPE TO BE USED IN THE CITY OF PORTLAND

NOTES:
ENTIRE CATCH BASIN WITH EXCEPTION OF LEVELING BRICK FRAME AND GRATE TO BE PRECAST AS SINGLE PORTLAND CEMENT CONCRETE UNIT.

ACCEPTABLE FOR MINOR INLETS WHERE TRIBUTARY AREA IS LESS THAN 10,000 S.F.

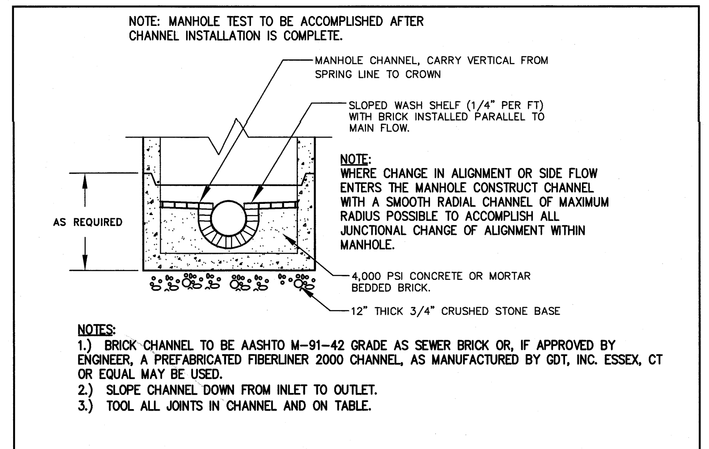
* DIAMETER OF HOLE (D) TO BE 3" LARGER THAN THE INSIDE DIAMETER OF FLEXIBLE PIPE OR THE OUTSIDE DIAMETER OF RIGID PIPE.

N C-10 **FIELD INLET OR CATCH BASIN TYPE "D"**
N.T.S.



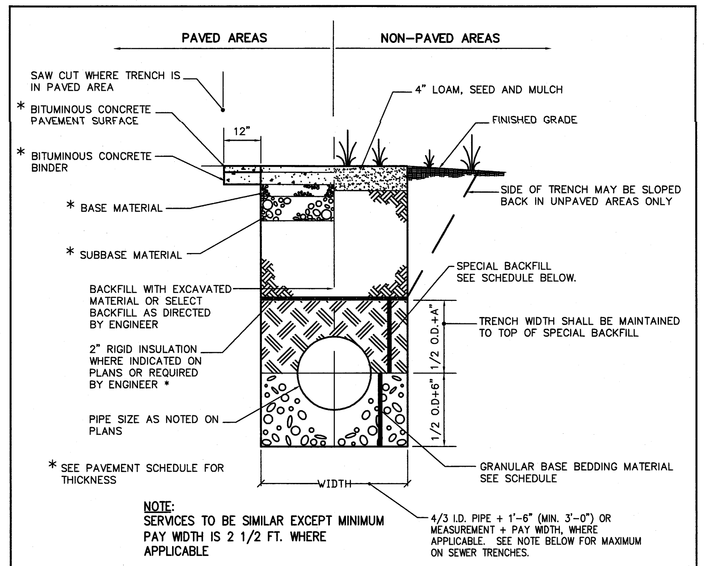
LARGE DIAMETER

B C-10 **STORM DRAIN MANHOLE AND CATCH BASIN WITH FLAT TOP**
N.T.S. NOTE: THE CONTRACTOR SHALL USE BASE OPTION 2 UNLESS ANTIFLOATATION COMPUTATIONS ARE PROVIDED BY THE CONTRACTOR DEMONSTRATING OPTION 1 CAN BE USED AT THIS SITE. APPROVAL IS SUBJECT TO APPROVAL OF THE ENGINEER.



NOTES:
1.) BRICK CHANNEL TO BE AASHTO M–91–42 GRADE AS SEWER BRICK OR, IF APPROVED BY ENGINEER, A PREFABRICATED FIBERLINER 2000 CHANNEL, AS MANUFACTURED BY GDT, INC. ESSEX, CT OR EQUAL MAY BE USED.
2.) SLOPE CHANNEL DOWN FROM INLET TO OUTLET.
3.) TOOL ALL JOINTS IN CHANNEL AND ON TABLE.

E C-10 **STORM & SANITARY MANHOLE CHANNEL DETAIL**
N.T.S.



NOTE:
SERVICES TO BE SIMILAR EXCEPT MINIMUM PAY WIDTH IS 2 1/2 FT. WHERE APPLICABLE

SCHEDULE OF BASE BACKFILL FOR NON–SANITARY INSTALLATIONS

TYPE OF PIPE	BEDDING MATERIAL	SPECIAL BACKFILL	SPECIAL BACKFILL COVER "A" (in)	SELECT BACKFILL
CONCRETE	3/4" CRUSHED STONE	GRANULAR AASHTO M145–49 A–3 OR BETTER	12	GRANULAR AASHTO M145–49 A–3 OR BETTER
PVC	3/4" CRUSHED STONE	GRANULAR AASHTO M145–49 A–3 OR BETTER	6	GRANULAR AASHTO M145–49 A–3 OR BETTER
CMP	3/4" CRUSHED STONE	GRANULAR AASHTO M145–49 A–3 OR BETTER	6	GRANULAR AASHTO M145–49 A–3 OR BETTER
DUCTILE IRON	GRANULAR AASHTO M145–49 A–3 OR BETTER	GRANULAR AASHTO M145–49 A–3 OR BETTER	6	GRANULAR AASHTO M145–49 A–3 OR BETTER

SCHEDULE OF BASE BACKFILL FOR SANITARY INSTALLATIONS

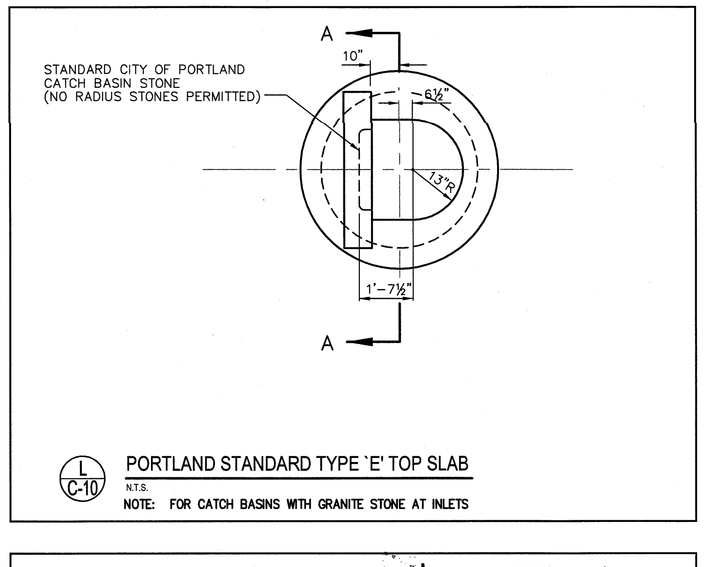
TYPE OF PIPE	BEDDING MATERIAL	SPECIAL BACKFILL	SPECIAL BACKFILL COVER "A" (in)	SELECT BACKFILL
PVC PRESSURE	3/4" CRUSHED STONE	3/4" CRUSHED STONE	6	GRANULAR AASHTO M145–49 A–3 OR BETTER
PVC GRAVITY	3/4" CRUSHED STONE	GRANULAR AASHTO M145–49 A–3 OR BETTER	6	GRANULAR AASHTO M145–49 A–3 OR BETTER
DUCTILE IRON	3/4" CRUSHED STONE	GRANULAR AASHTO M145–49 A–3 OR BETTER	6	GRANULAR AASHTO M145–49 A–3 OR BETTER

MAXIMUM ALLOWABLE TRENCH WIDTHS FOR SEWERS

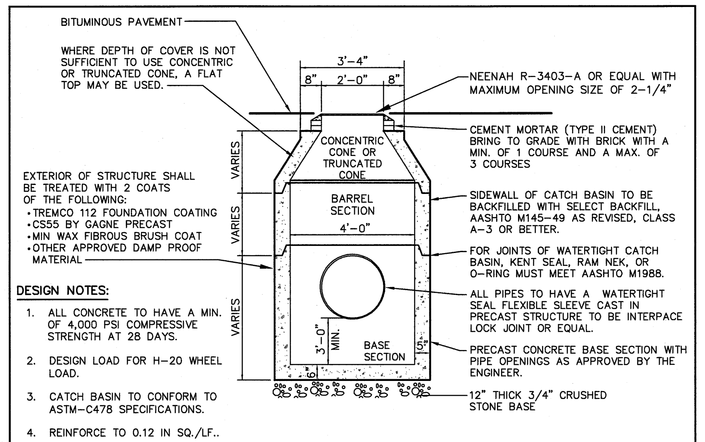
PIPE SIZE 10" OR LESS	MAXIMUM WIDTH
12 TO 15	4'–0"
18	4'–6"
24	5'–0"
30	5'–6"
36	6'–0"
42	6'–6"
48	7'–0"

SHEETING, IF REQUIRED, SHALL BE CUT OFF 2'–0" BELOW FINISH GRADE.

I C-10 I C-14 **TYPICAL SEWER, WATER MAIN, AND STORM DRAIN TRENCH SECTION**
N.T.S.

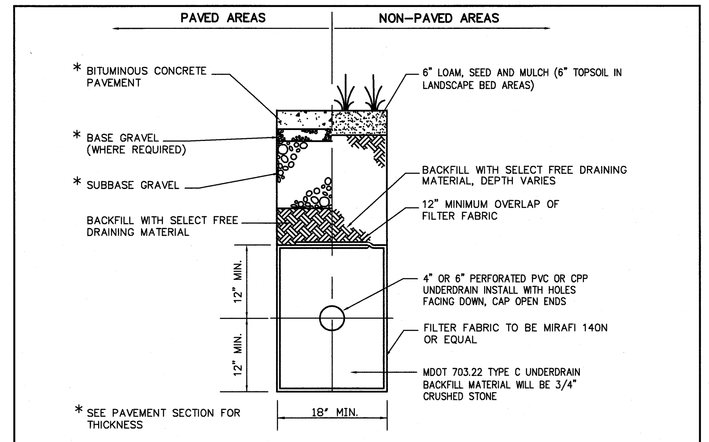


K C-10 **UNDERDRAIN DETAIL (PIPES OVER 6" IN DIAMETER)**
N.T.S.

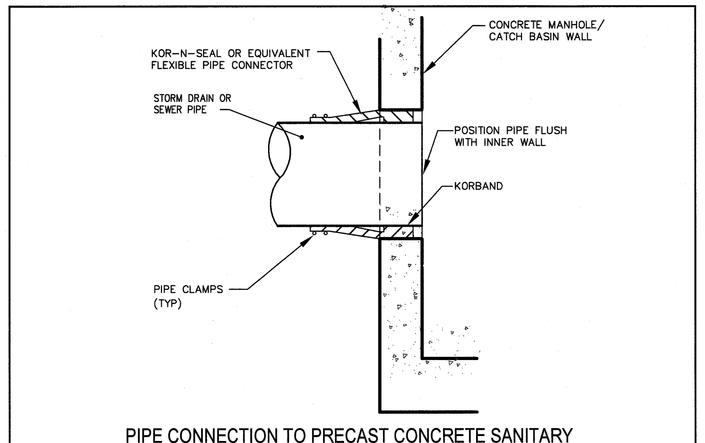


DESIGN NOTES:
1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H–20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM–C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF..

C C-10 **4'–0" PRECAST CATCH BASIN**
N.T.S.

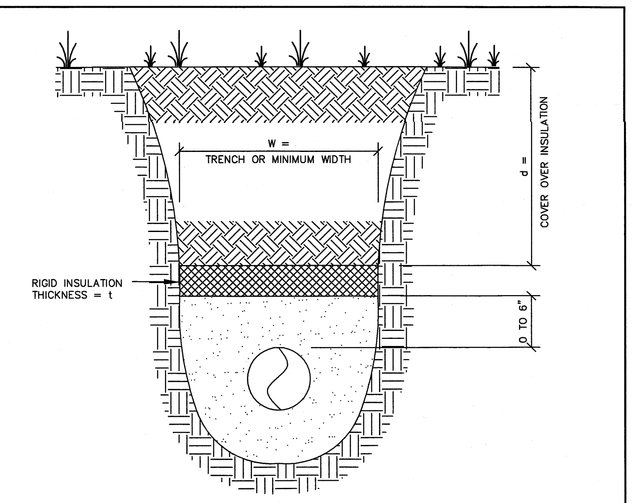


F C-10 **TYPICAL UNDERDRAIN TRENCH SECTION PIPES 6" IN DIA. OR LESS**
N.T.S.



M C-10 **PIPE CONNECTION TO PRECAST CONCRETE SANITARY SEWER AND STORM DRAINAGE STRUCTURE**
N.T.S.

L C-10 **PORTLAND STANDARD TYPE 'E' TOP SLAB**
N.T.S.
NOTE: FOR CATCH BASINS WITH GRANITE STONE AT INLETS



SCHEDULE

COVER OVER RIGID INSULATION (d)	MINIMUM WIDTH OF INSULATION	MINIMUM THICKNESS OF INSULATION
4' TO 5'	PIPE OD + 2'	1"
3' TO 4'	PIPE OD + 4'	2"
LESS THAN 3'	PIPE OD + 6'	4"

O C-10 **RIGID INSULATION DETAILS**
N.T.S.

STATE OF MAINE
WILLIAM G. HOFFMAN
14105
REGISTERED PROFESSIONAL ENGINEER
P.E. William G. Hoffman
LIC. #4105

Revisions:
1 02/24/2004 Submitted for P.B. workshop
2 05/24/2004 Submission
3 06/28/2004 Released for Bid

East End Elementary School
Portland Public Schools
Portland, Maine

Job No.: 2370
Date: March 22, 2004
Scale: As noted
Drawn by: nls
Checked by:wgh

Drawing Title:
Stormwater and Sewer Details

C-18

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