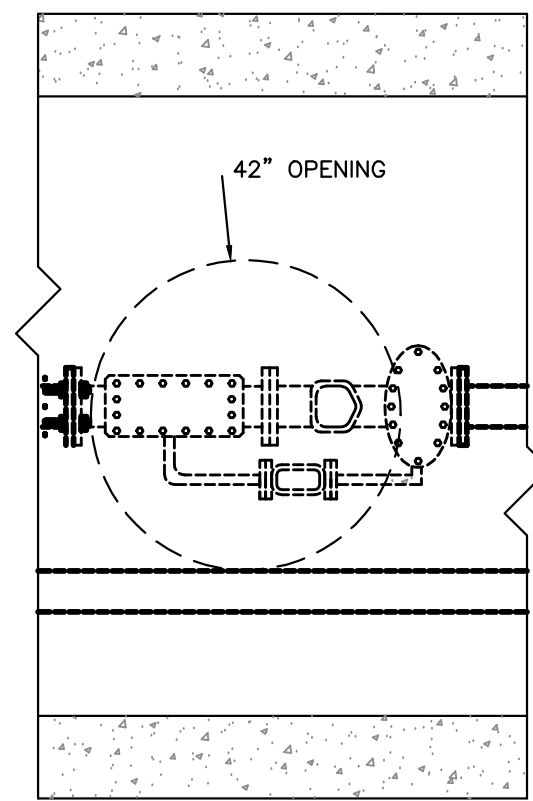
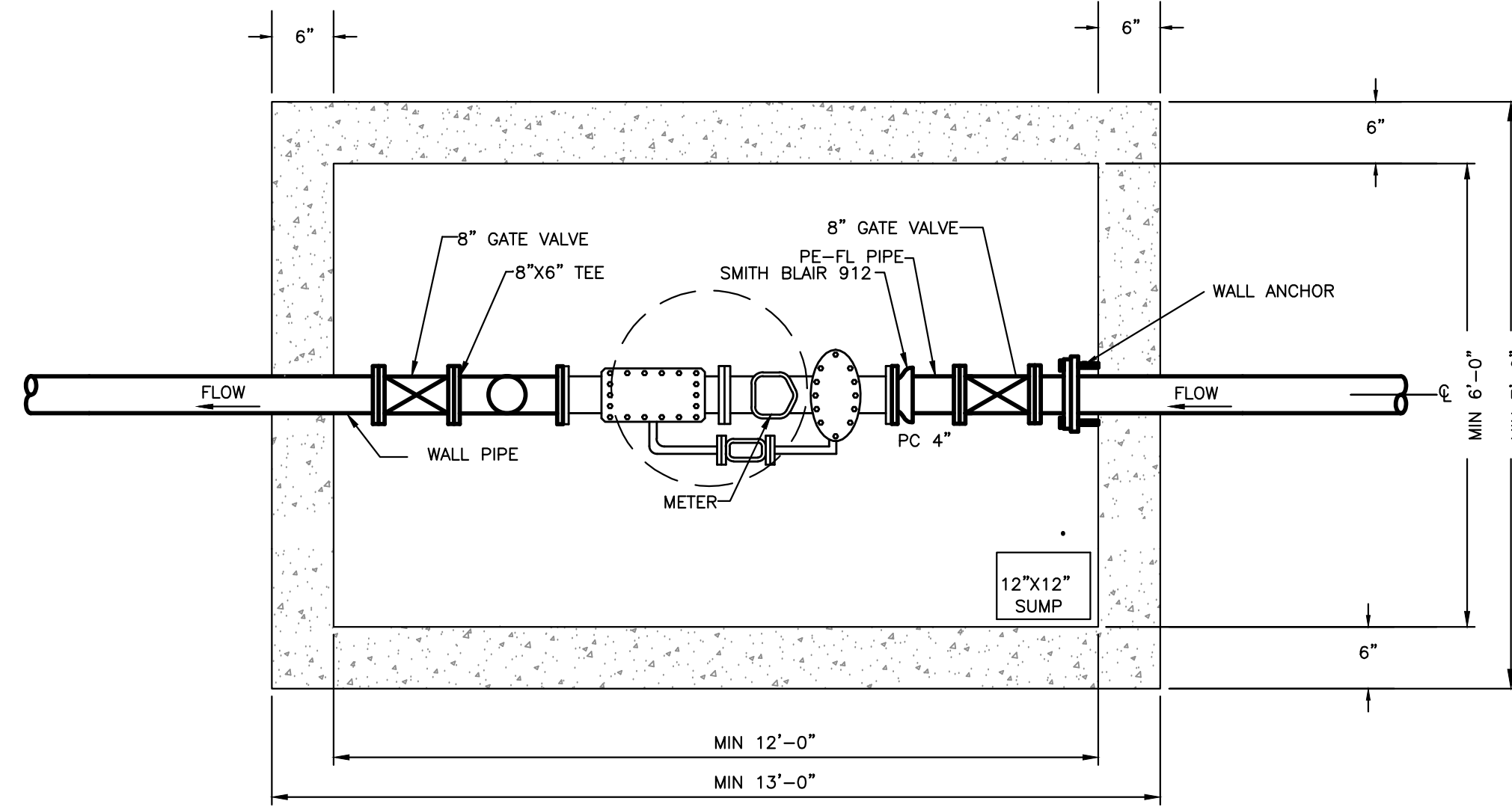


SIDE-ARM BLOW-OFF 4" & LARGER MAINS

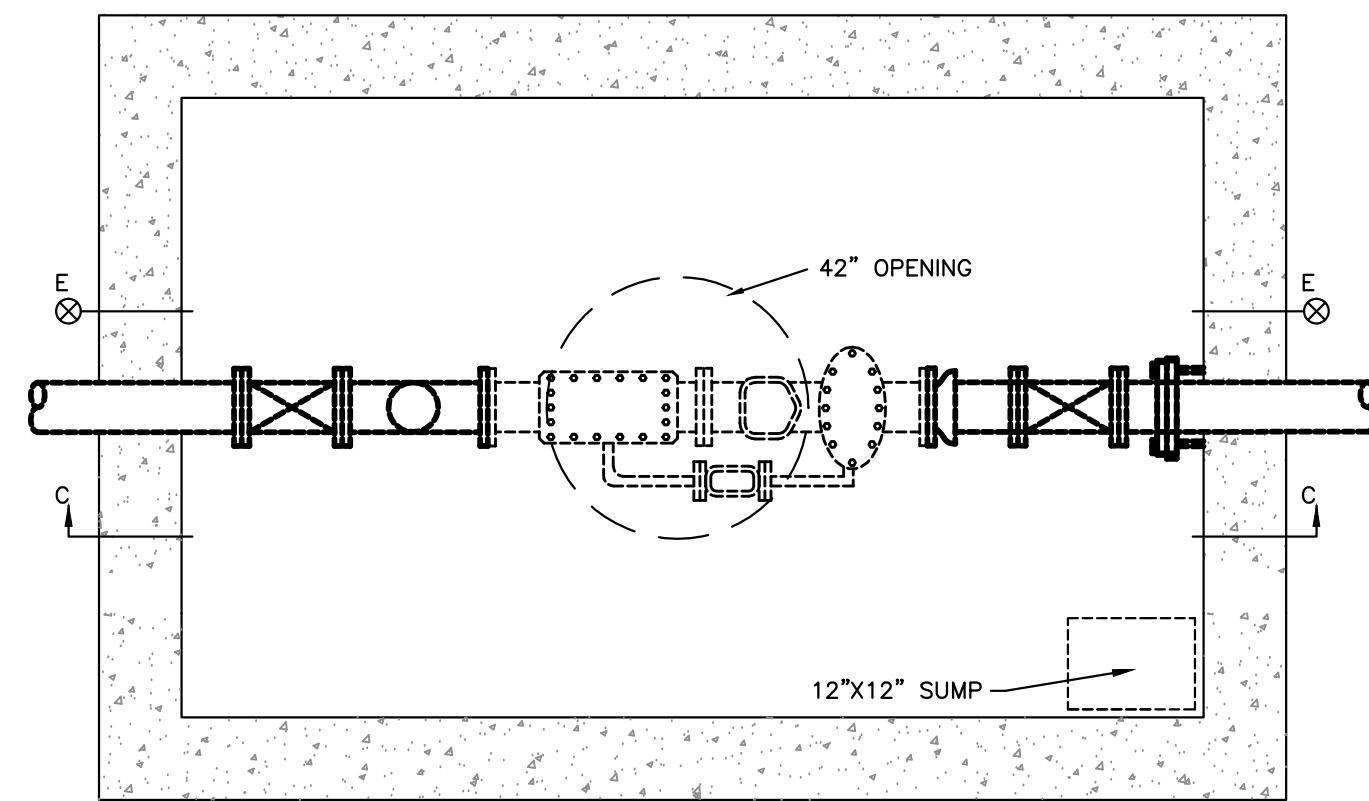
- NOTES:
- SHOP DRAWING SUBMITTAL REQUIRED TO THE ENGINEER.
  - ALL JOINTS TO BE WATERTIGHT WITH USE OF TWO (2) STRIPS OF CONEAL.
  - COVER AND STRUCTURE LOADING SHALL BE FOR H2O.
  - STRUCTURAL DESIGN OF THE VAULT TO BE APPLICABLE FOR THE ANTICIPATED LOADING AND A MIN. OF H2O LOADING.
  - WATER METER SHALL BE "OMNI F" METER AS MANUFACTURED BY SENSUS. WATER METER SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. FINAL METER SIZE TO BE DETERMINED BY A MECHANICAL ENGINEER, WRIGHT-RYAN TO COORDINATE. FOR BIDDING PURPOSES AN 8" METER SHALL BE ASSUMED.
  - PRE-CAST CONCRETE METER PIT AND APPURTENANCES SHALL BE AS MANUFACTURED BY GEORGE R. ROBERTS CO., OR APPROVED EQUAL.
  - 5,000 PSI @ 28 DAYS.
  - CEMENT SHALL BE TYPE III PER ASTM C150-81.
  - SHALL BE CONSTRUCTED IN ACCORDANCE WITH PORTLAND WATER DISTRICT STANDARDS.
  - 12" HOLES SHALL BE CONSTRUCTED FOR 8" PIPE.
  - THE PORTLAND WATER DISTRICT HAS REQUESTED THAT NO METER BYPASS PIPING BE ALLOWED AT THIS SITE. FINAL DIMENSIONS OF THE PRE-CAST CONCRETE METER PIT TO BE DETERMINED WITH AN APPROVED SHOP DRAWING SUBMITTAL.



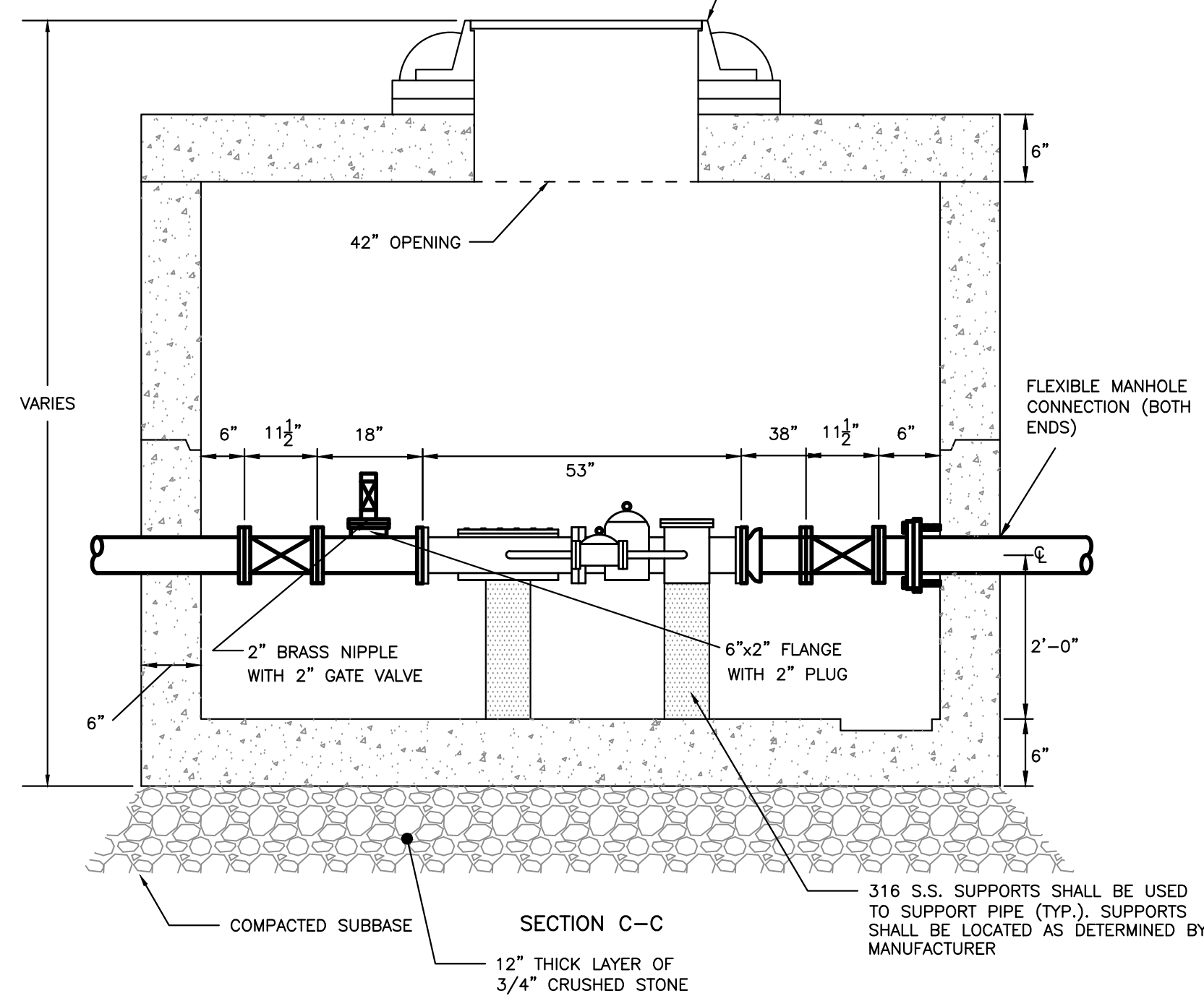
PLAN - TRAFFIC-RATED COVER



SECTION E-E 42" CAST IRON FRAME & COVER. BRICK AND MORTAR TO GRADE WITH NO MORE THAN 6 COURSES AND NO LESS THAN 2 COURSES.



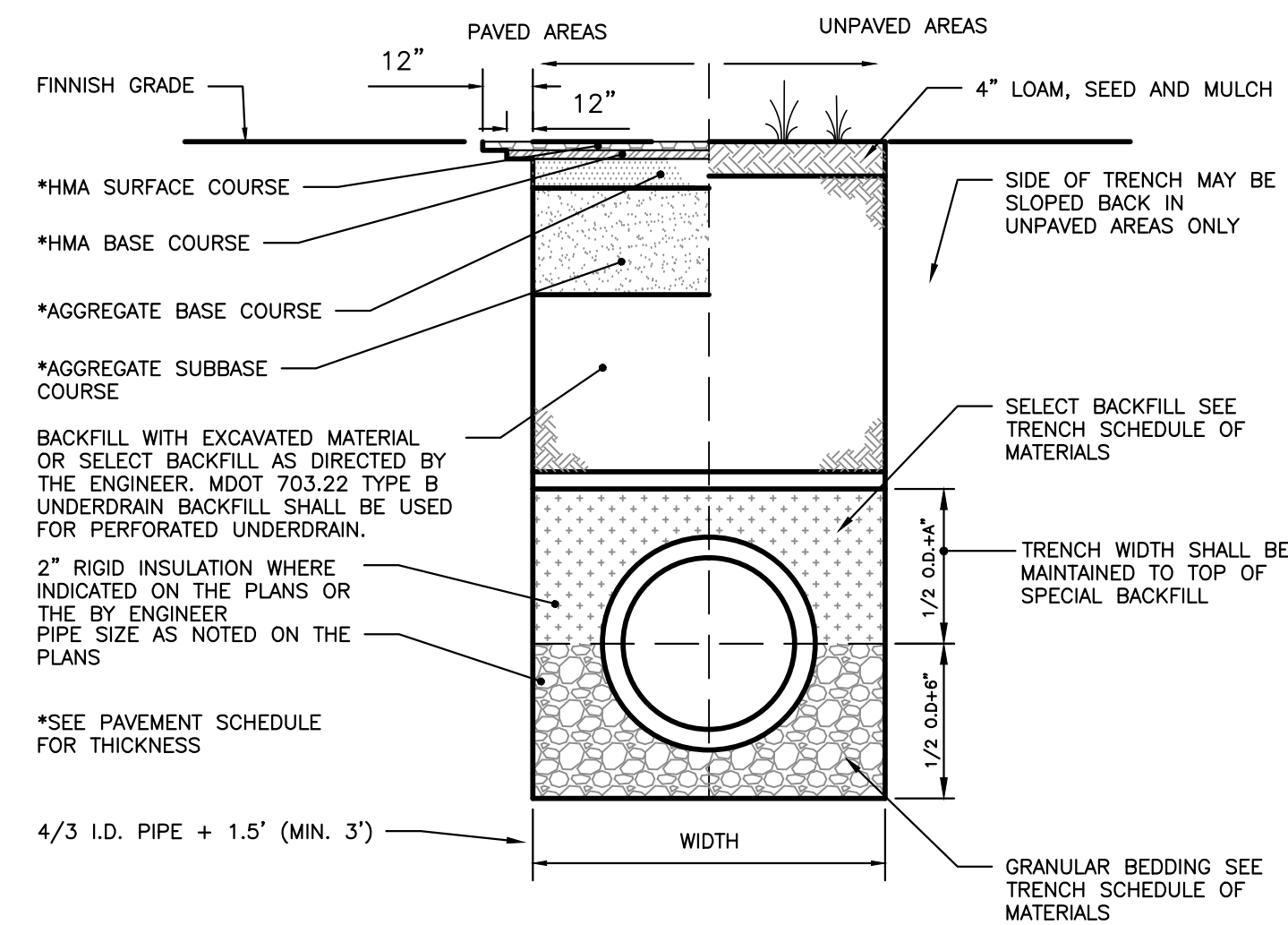
PLAN



SECTION C-C 316 S.S. SUPPORTS SHALL BE USED TO SUPPORT PIPE (TYP.). SUPPORTS SHALL BE LOCATED AS DETERMINED BY MANUFACTURER.

8-IN FIRE LINE METER DETAIL

NOT TO SCALE

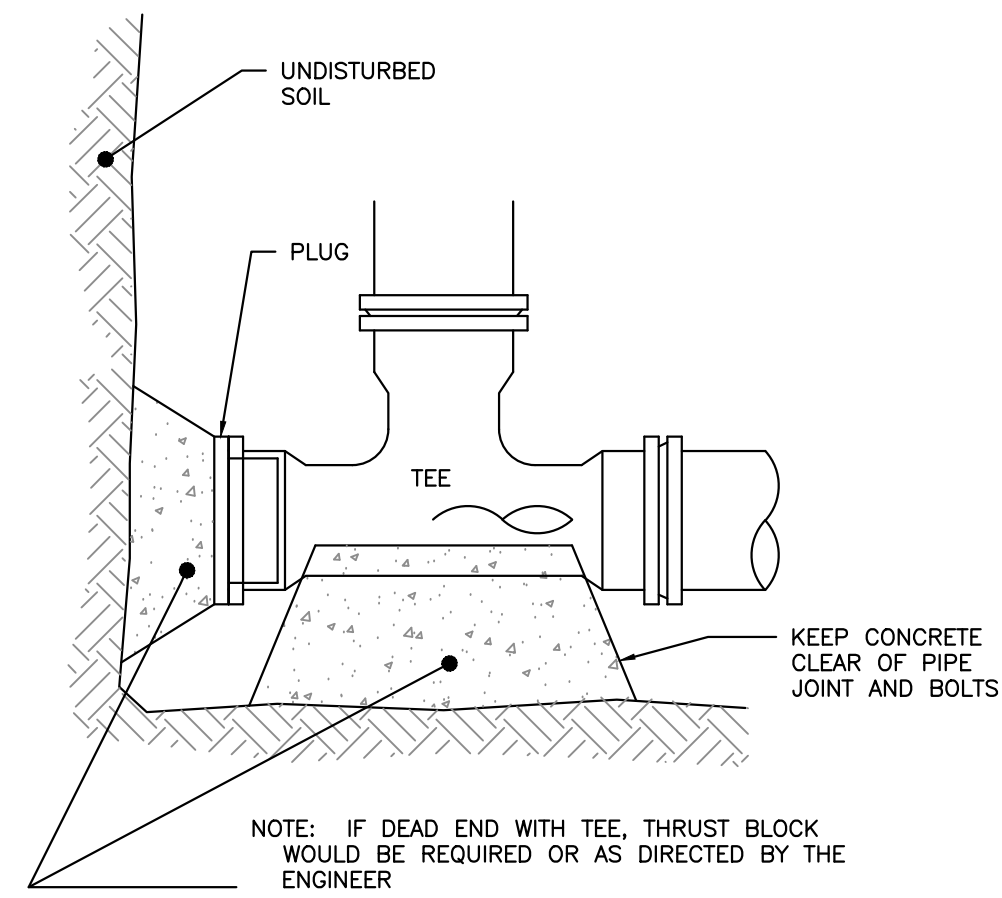


STORM DRAIN, SEWER AND WATER TYPICAL TRENCH SECTION

NOT TO SCALE

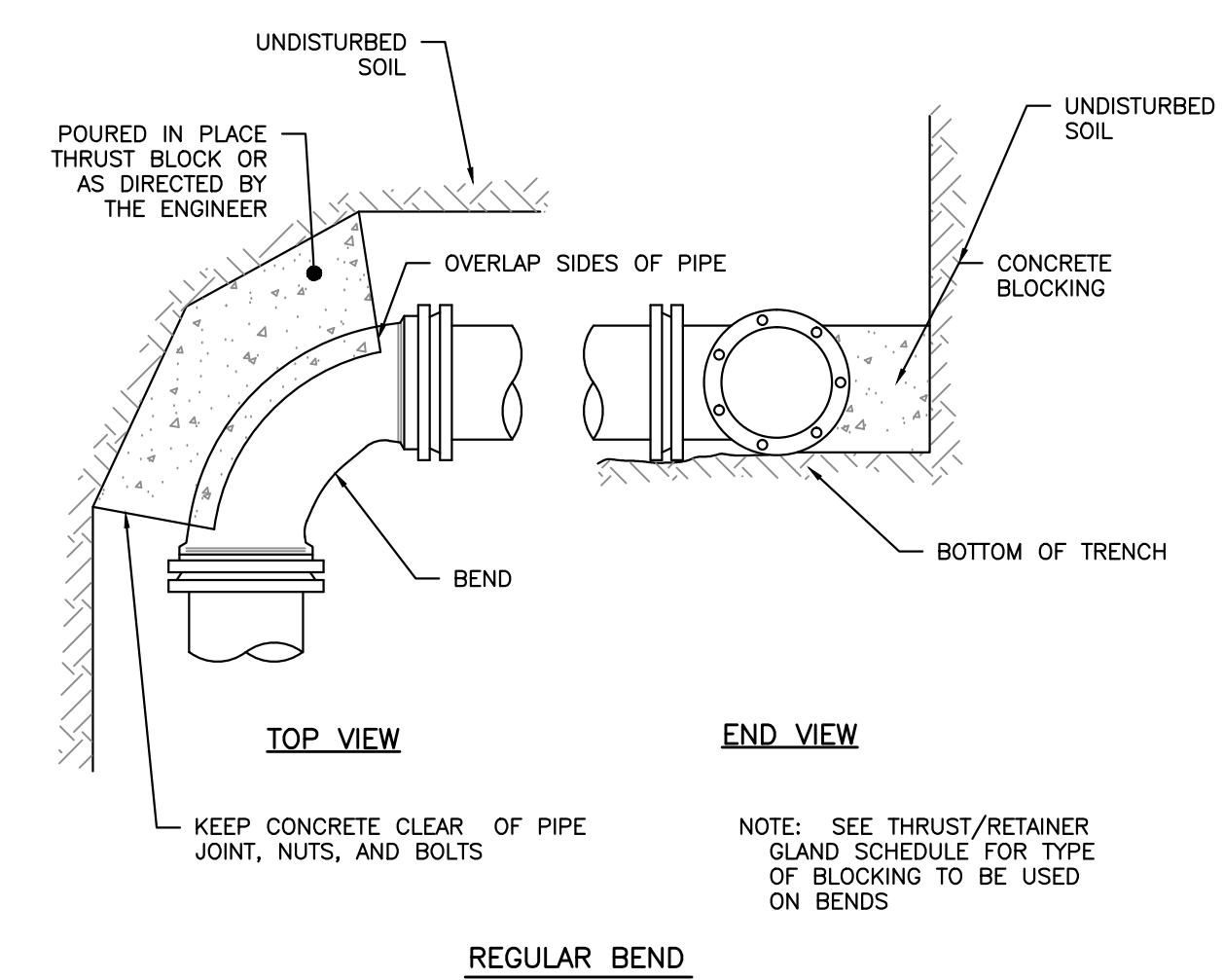
SCHEDULE OF MATERIALS		
TYPE OF PIPE	GRANULAR BEDDING	SELECT BACKFILL
CMP	MDOT 703.22 TYPE B UD	MDOT 703.22 TYPE B UD
DUCTILE IRON RCP	TYPE B UD BACKFILL	TYPE B UD BACKFILL
PVC/HOPE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE B UD BACKFILL
CMP	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE

- NOTE:
- BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
  - STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION. COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION.
  - INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES AT THE TOP OF SUBGRADE.
  - MINIMUM COVER
    - 2'-0" - STORM DRAIN
    - 5'-6" - WATER
    - 5'-0" - SEWER
  - ALL PROPOSED TREES WITHIN 5' PROXIMITY OF THE SEWER PIPE SHALL BE PLANTED AT A DEPTH NO GREATER THAN 3' DEEP. PERMEABLE LANDSCAPE FABRIC SHALL CREATE A ROOT BARRIER AROUND THE SEWER PIPES. CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE DRAWINGS.



END SECTION

THRUST SCHEDULE BEARING SURFACE REQUIRED FOR WATER PIPES (VALUES IN SF)					
PIPE SIZE	1/32 BEND	1/16 BEND	1/8 BEND	1/4 BEND	TEES/ CAPS
8"	2.0	3.0	6.0	10.0	16.0



REGULAR BEND

THRUST BLOCKING

NOT TO SCALE

PERMIT DRAWINGS NOT FOR CONSTRUCTION

ISSUED FOR	BY	DATE
WORKSHOP #2	WHS	11/12/13
FINAL SUBMISSION	WHS	12/2/13
MAINE DEP MCGP	WHS	12/16/13

REVISION

REV.	DATE	BY
1	12/2/13	WHS
2	12/4/13	WHS
3	12/7/13	WHS
4	12/7/13	WHS

STAFF COMMENTS

DRAWING NAME: PORTLAND WATER DISTRICT DETAILS - 2

PROJECT NAME: MUNJOY HEIGHTS

CLIENT: REDFERN MUNJOY, LLC. P.O. BOX 8816, PORTLAND, MAINE 04104

**A C O R N**  
ENGINEERING, INC.

ACORN ENGINEERING, INC.  
1200 PORTLAND AVENUE, SUITE 200, PORTLAND, MAINE 04104  
P.O. BOX 3372, PORTLAND, MAINE 04104  
(207) 775-2655

FILE#47\_details 1-17-14.dwg

DATE: 7/11/13

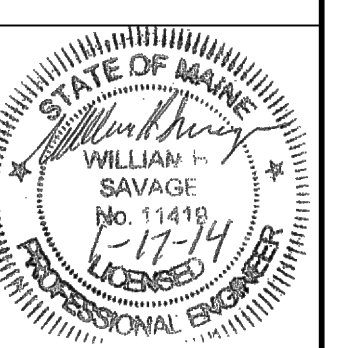
JN: 302-001

SCALE: NTS

DESIGN BY: WHS

DRAWN BY: ZRJ

CHECKED BY: WHS



DRAWING NO. C-45