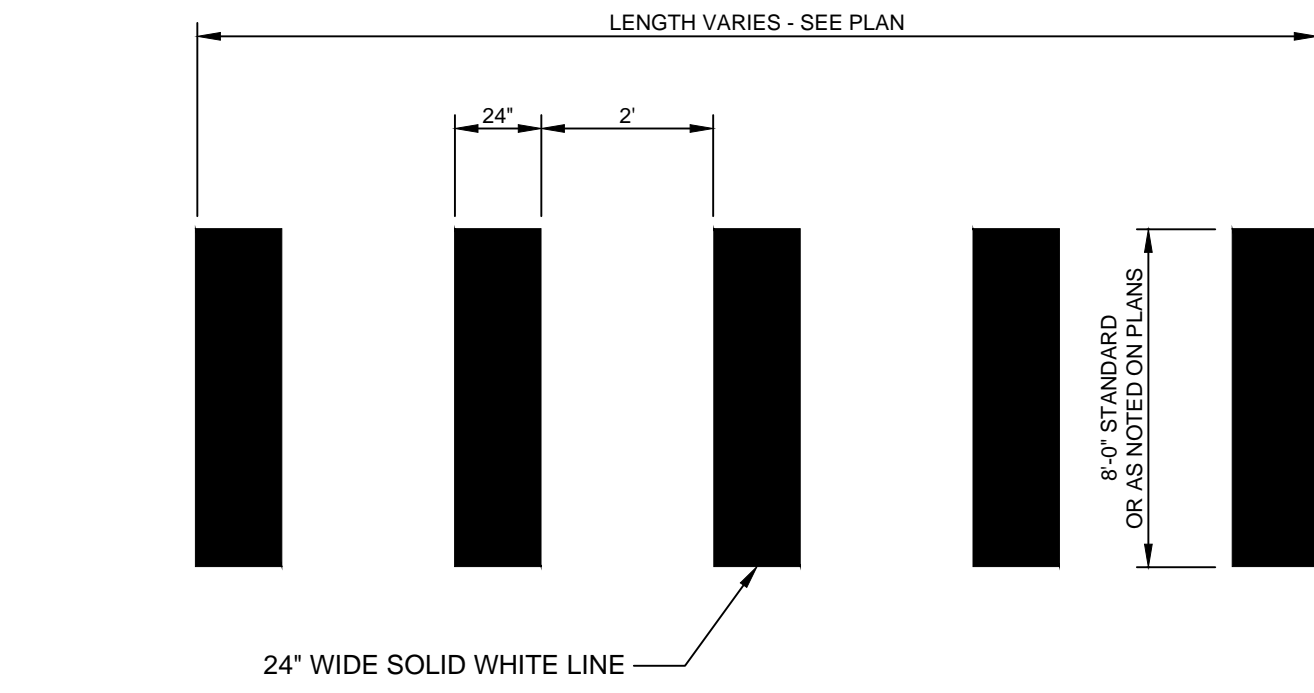
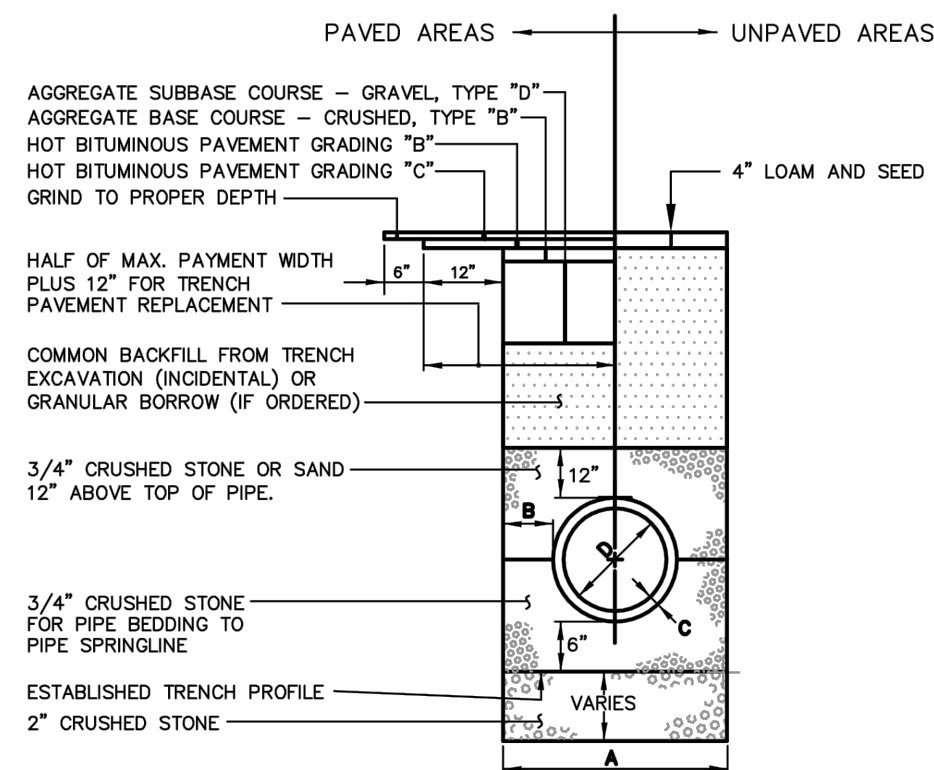


(A) ORANGE CONSTRUCTION FENCE DETAIL
N.T.S.



(C) CROSSWALK STRIPING DETAIL
N.T.S.

NOTES:
DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
ANY ALTERNATE TRENCHING OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES.



TYPICAL PIPE TRENCH INSTALLATION
NOT TO SCALE

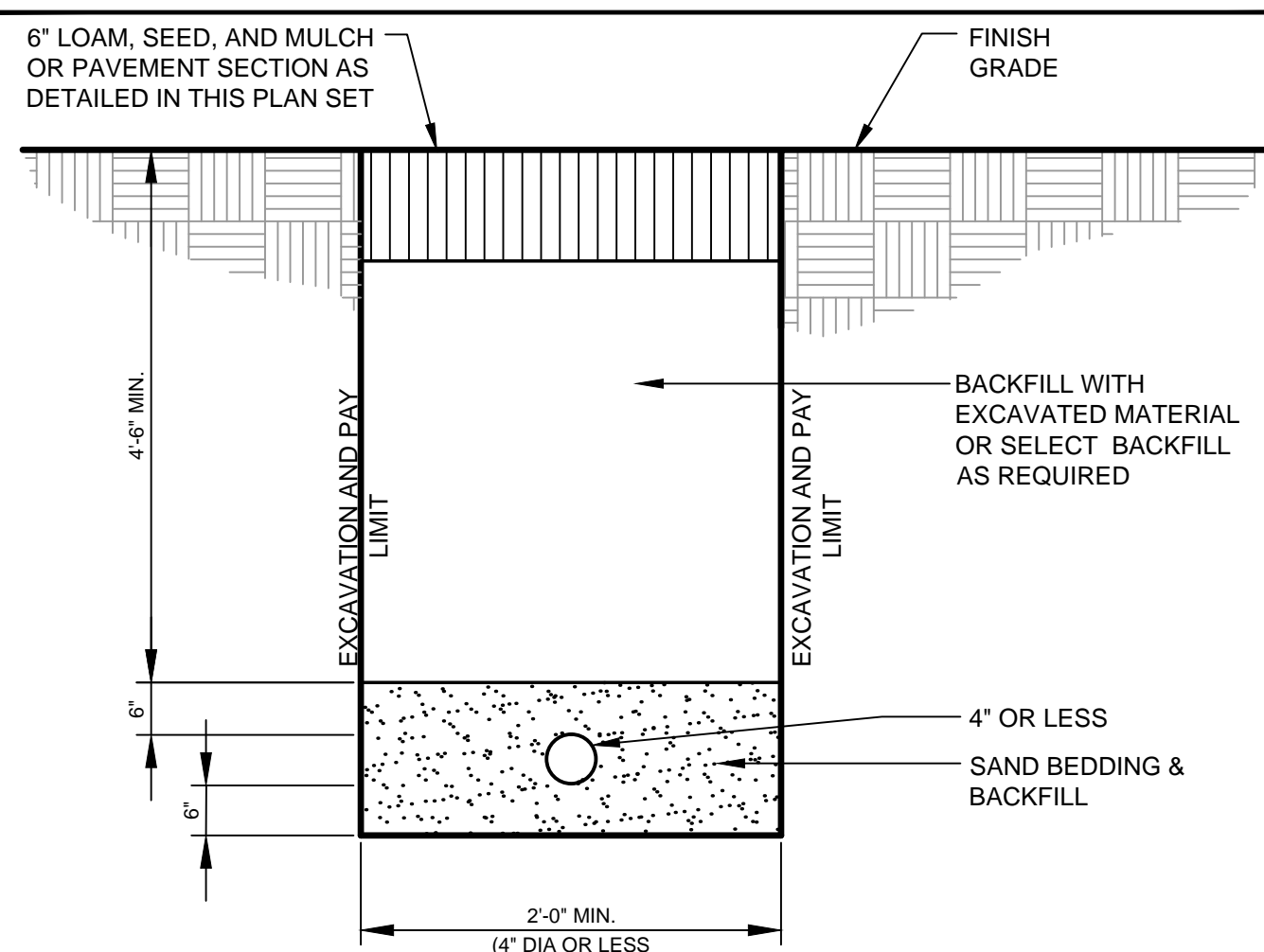
NOTES

1. ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
2. DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE, BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 6".
3. DIMENSION A IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE FOLLOWING TABLE.

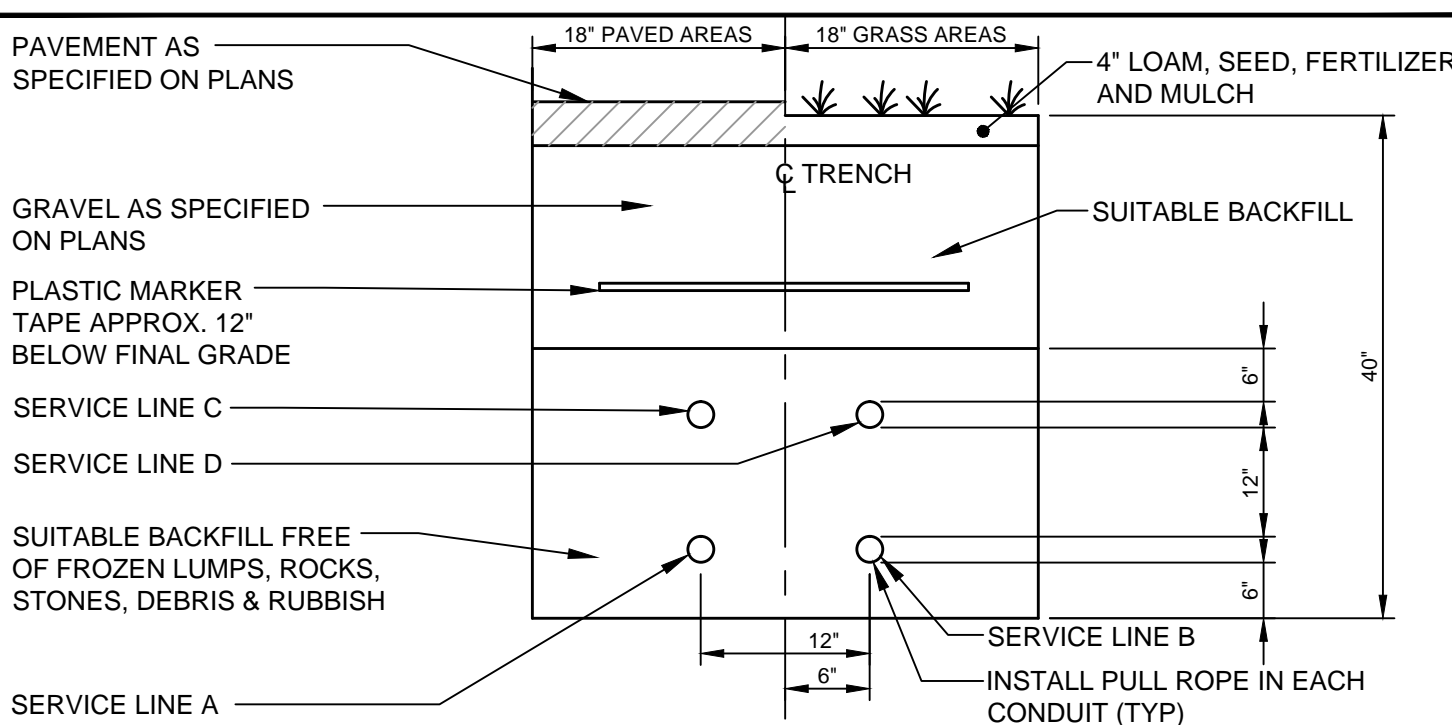
PIPE DIAMETER, D (INCHES)	MAX. TRENCH WIDTH, A (FEET)
4	4.0
6	4.0
8	4.0
10	4.0
12	5.0
15	5.0
18	5.0
21	5.0
24	6.0
27	6.0
30	6.0
36	7.0
42	7.0
48	7.0

(B) TYPICAL PIPE TRENCH INSTALLATION AND NOTES
N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"



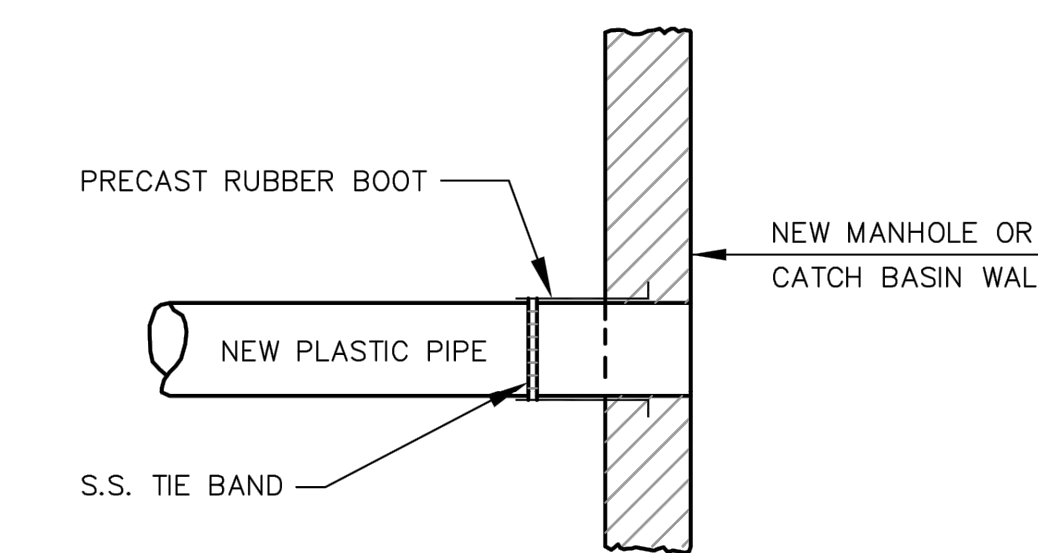
(D) WATER SERVICE TRENCH DETAIL
N.T.S.



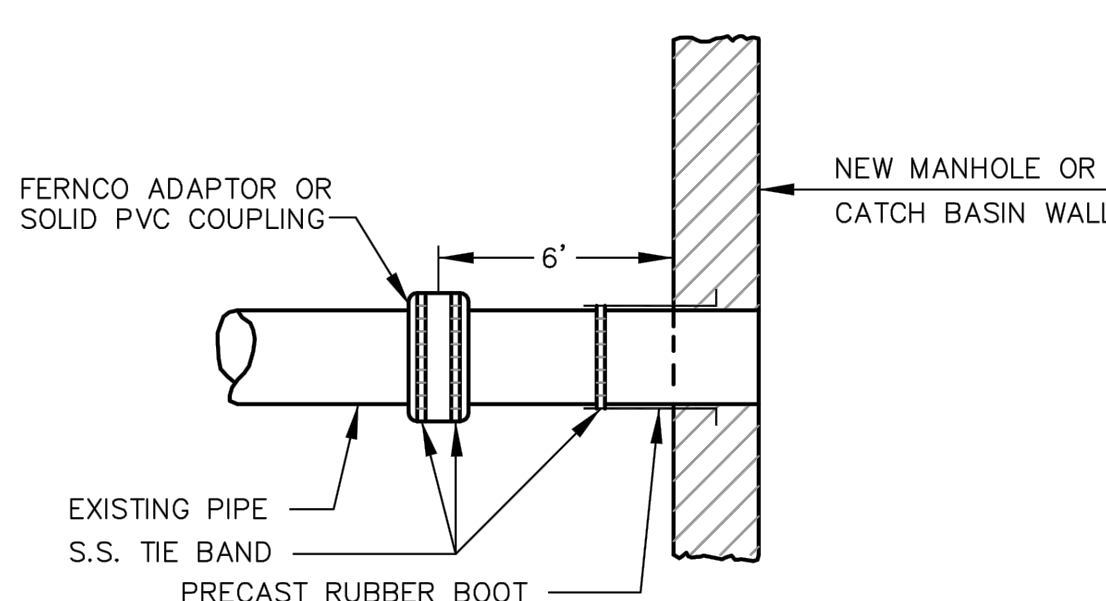
SERVICE	CONDUIT SIZE	CONDUIT TYPE		UTILITY	REMARKS
		GRASS AREAS	PAVED AREAS		
A	2-5"	SCHEDULE 40 PVC ELECTRICAL GRADE	RIGID GALVANIZED STEEL, ASTM A120	POWER	SEE NOTE
B	2-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	TELEPHONE	SEE NOTE
C	2-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	COMMUNICATION	SEE NOTE
D	2-4"	SCHEDULE 40 PVC	RIGID GALVANIZED STEEL, ASTM A120	SPARES	SEE NOTE

- NOTES:
1. ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10" ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS. COORDINATE WITH ELECTRICAL SITE PLANS BY BENNETT ENGINEERING.
2. IN CITY RIGHT OF WAY, CONDUITS TO HAVE 36" MIN. COVER AND BE ENCASED WITH MIN. 3" CONCRETE ON ALL SIDES.

(E) UTILITY TRENCH - PRIMARY ELEC., TEL. & COMM.
N.T.S.



METHOD 2 - NEW CONSTRUCTION



METHOD 1 - EXISTING PIPE INTO NEW STRUCTURE

PLASTIC PIPE CONNECTIONS

NOT TO SCALE

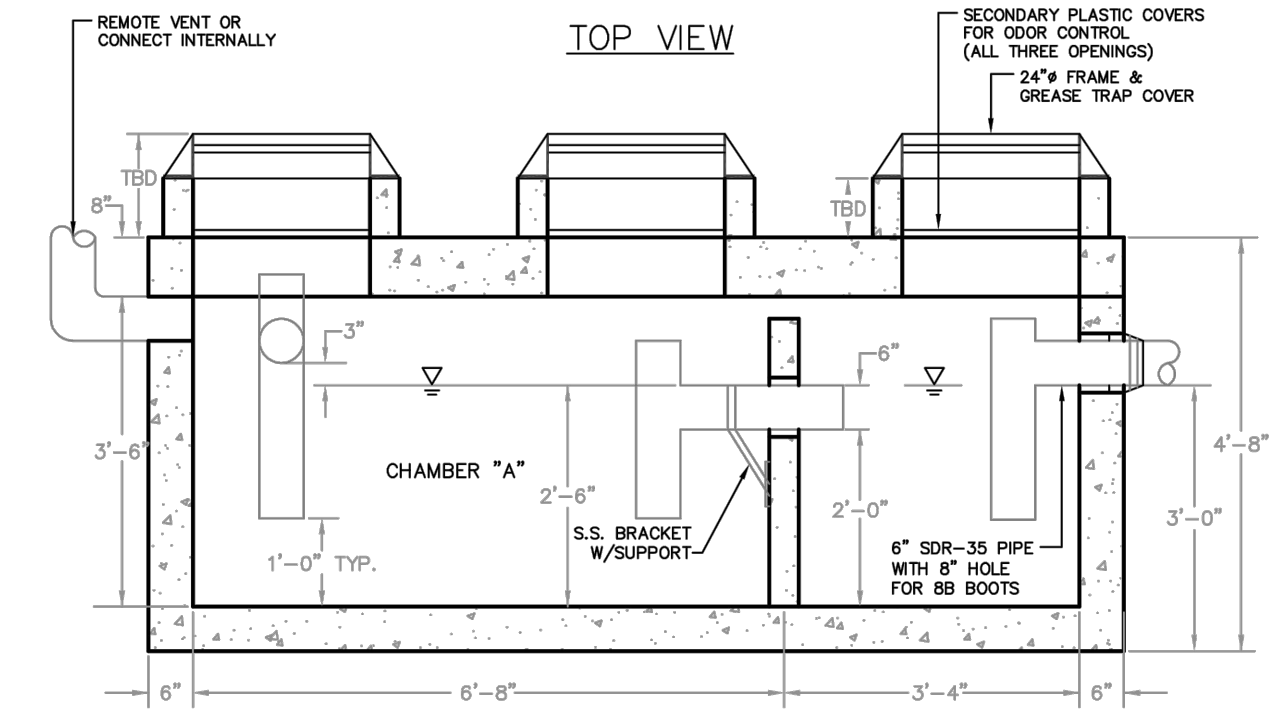
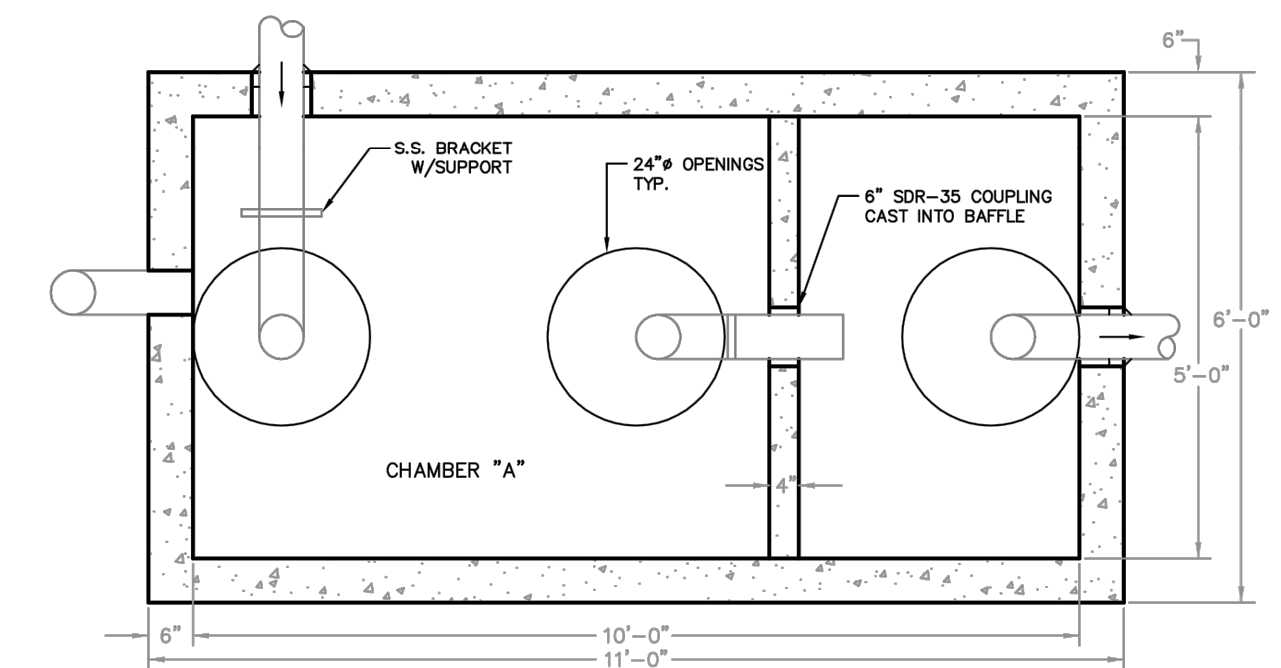
(F) PLASTIC PIPE CONNECTION METHODS 1 & 2
N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"

- DESIGN NOTES:
1. CONCRETE 5000 PSI AT 28 DAYS.
2. H-20 LOADING
3. JOINTS SEALED WITH BUTYL RUBBER JOINT SEALANT (ASHTO M-19)
4. ALL TEES/BAPFLES PROVIDED BY PRECAST.

THIS STRUCTURE MUST DISCHARGE TO A CITY OF PORTLAND STANDARD MANHOLE WITH CHANNEL (CONTROL/SAMPLING MANHOLE).

FORMULA FOR SIZING THE TRAP: CHAMBER "A" (2/3 OF TANK VOLUME) MUST BE EQUIVALENT TO THE AVERAGE DAILY PROCESS FLOW FROM THE FACILITY WITH NO SANITARY OR OTHER EXTRANEOUS WASTES FLOWING THROUGH IT.

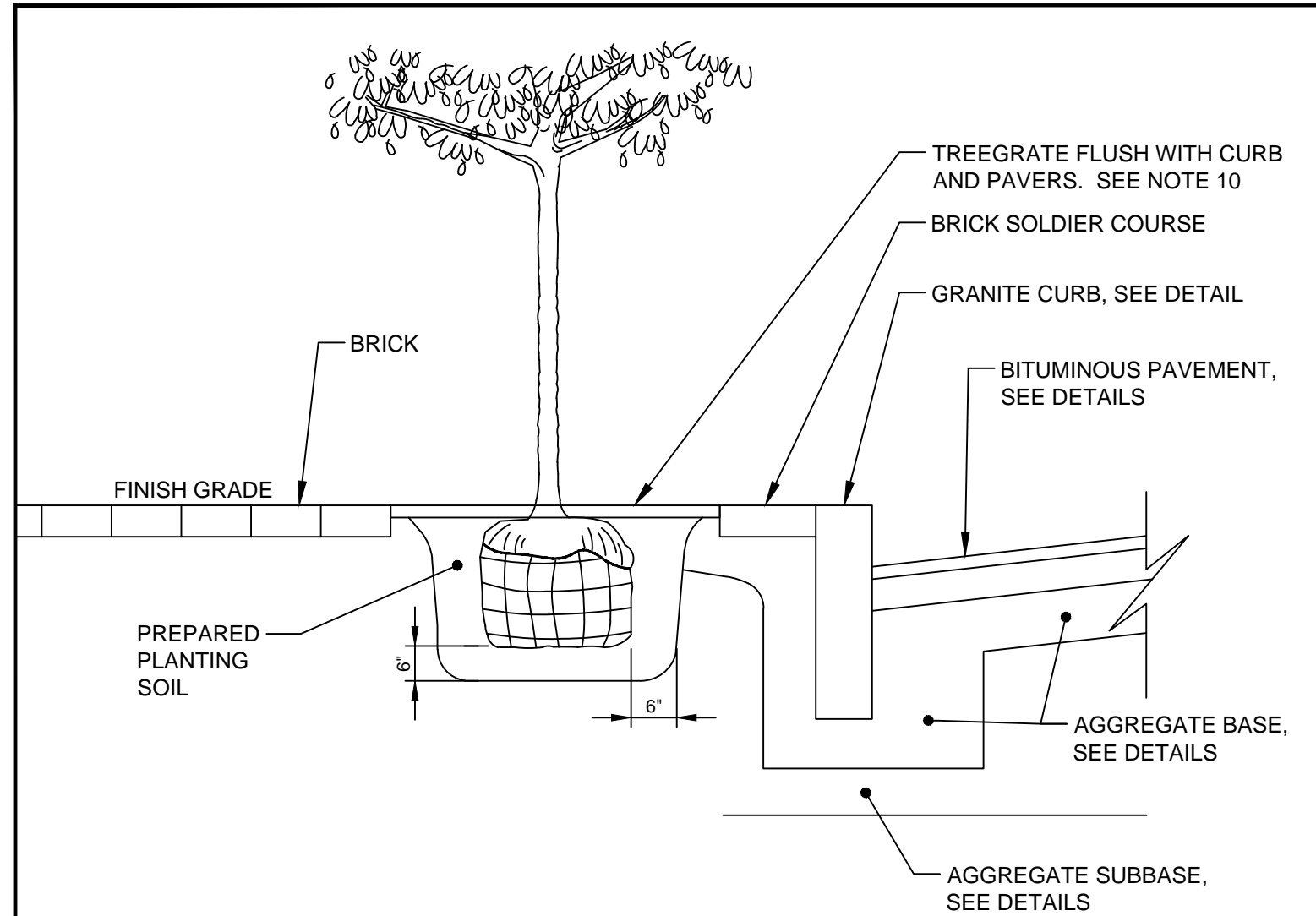


(H) 1,000 GALLON GREASE TRAP DETAIL
N.T.S.

AS OBTAINED FROM THE CITY OF PORTLAND "TECHNICAL MANUAL"

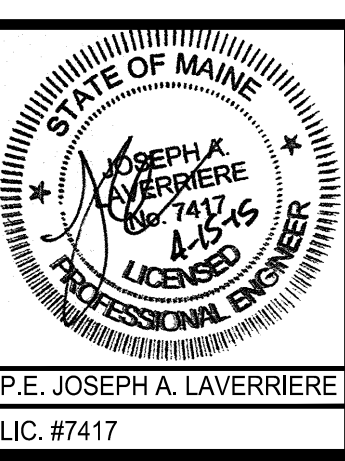
LANDSCAPE NOTES

1. THE LANDSCAPE CONTRACTOR SHALL BE ADVISED OF THE EXISTENCE OF UNDERGROUND UTILITIES. CONTRACTOR SHALL VERIFY UTILITIES PRIOR TO COMMENCING DIGGING OPERATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY UTILITIES, WALKS, PAVING, CURBING, ETC. DAMAGED IN PERFORMANCE OF THIS JOB AT NO COST TO THE OWNER.
3. ALL PLANT MATERIALS SHALL MEET THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK", BY THE AMERICAN NURSERYMAN'S ASSOCIATION, LATEST EDITION.
4. ALL PLANTING SHALL BE COMPLETED IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES, INCLUDING PROPER BED PREPARATION, SOIL MIX, PRUNING, STAKING, WRAPPING AND OTHER MAINTENANCE UNTIL ACCEPTED BY THE OWNER.
5. ALL GRASS, DEBRIS AND OTHER EXTRANEOUS MATERIALS SHALL BE REMOVED FROM THE PLANTING AREAS PRIOR TO INSTALLATION OF PLANT MATERIALS.
6. ALL PLANTS SHALL BE LOCATED IN ACCORDANCE WITH THE PLANS. ANY DEVIATION FROM THESE PLANS SHALL BE APPROVED BY THE OWNER AND LANDSCAPE ARCHITECT PRIOR TO PLANTING.
7. CONTRACTOR SHALL SUPPLY QUANTITIES OF PLANTS SUFFICIENT TO COMPLETE THE WORK INDICATED ON THE PLAN. ANY DISCREPANCY BETWEEN THE PLANT LIST AND PLAN SHALL NOT ENTITLE THE CONTRACTOR TO ADDITIONAL REMUNERATION.
8. NO LANDSCAPING SHALL BE INSTALLED UNTIL FINAL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
9. PLANTING SOIL MIX SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS COMPOST AND ONE PART PERLITE. ROTOTILL TO A DEPTH OF 8" MINIMUM.
10. TREE GRATE AND FRAME SHALL BE CAST IRON, R-8908-103 RECTANGULAR TREE GRATE WITH 4 FOOT HIGH TYPE 'C' TREE GUARDS FROM NEENAH FOUNDRY AND INSTALLED PER MANUFACTURER'S RECOMMENDATION.



(G) TREE PLANTING DETAIL & LANDSCAPE NOTES
N.T.S.

REV	DATE	DESCRIPTION
5	04.15.15	REVISED PER STAFF COMMENTS & RESUBMITTED TO CITY
4	02.06.15	SUBMITTED FINAL SITE PLAN APPLICATION TO CITY
3	07.08.14	REVISED PER ENGINEERING PEER REVIEW COMMENTS AND RESUBMITTED TO CITY
2	06.12.14	REVISED PER PLANNING REVIEW STAFF COMMENTS AND RESUBMITTED TO CITY
1	05.05.14	SUBMITTED TO CITY



PROJECT	16 MIDDLE STREET PORTLAND, MAINE
SHEET TITLE	UTILITY & MISCELLANEOUS DETAILS
CLIENT	BATEMAN PARTNERS LLC

FST FAY, SPOFFORD & THORNDIKE ENGINEERS - PLANNERS - SCIENTISTS 778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106	
DRAWN: CDD	DATE: MAY 2014
DESIGNED: JAL	SCALE: N.T.S.
CHECKED: JAL	JOB NO. SP-M150
FILE NAME: SP-M150-DET	
SHEET	C-6.1

PRELIMINARY - NOT FOR CONSTRUCTION

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