

NOTES:
 1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE CIVIL ENGINEER FOR FURTHER DIRECTIONS BEFORE FINAL ANY ADDITIONAL WORK PROCEEDS.

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
 2. DO NOT SCALE THESE DRAWINGS. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS, AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO THE CIVIL ENGINEER FOR FURTHER DIRECTIONS BEFORE FINAL ANY ADDITIONAL WORK PROCEEDS.

3. COORDINATE ALL UTILITY ENTRY POINTS WITH ARCHITECTURAL PLANS PRIOR TO START OF CONSTRUCTION.

4. COORDINATE EXIT POINT FOR SECONDARY ELECTRIC SERVICE WITH ARCHITECT/ELECTRIC ENGINEER. SECONDARY ELECTRIC LINES NOT DEPICTED AT THIS TIME WITHIN THE UTILITY PLAN.

5. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN ALL NECESSARY PERMITS FOR THE INSTALLATION OF THE UTILITIES WITHIN THE PUBLIC WAY. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY IN ACCORDANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL PRIOR TO ANY WORK.

6. THE DEPTH OF UTILITY INSTALLATION SHALL BE BASED UPON THE PROPOSED GRADES AND NOT THE EXISTING.

7. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COMPLETE THE INSTALLATION OF THE WATER SERVICE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT'S STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL NOTIFY THE DISTRICT 72 HOURS PRIOR TO DISRUPTING WATER SERVICE. PORTLAND WATER DISTRICT CONTACT: RICO SPUGNARDI, PE.

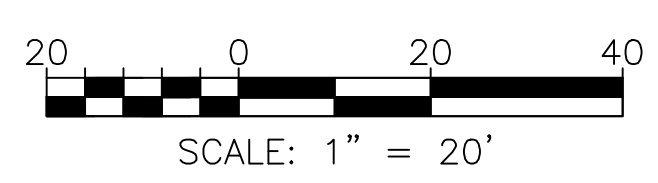
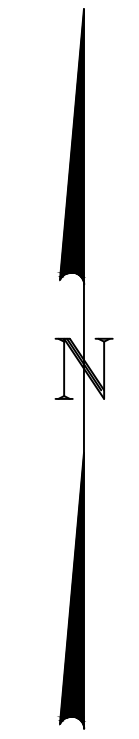
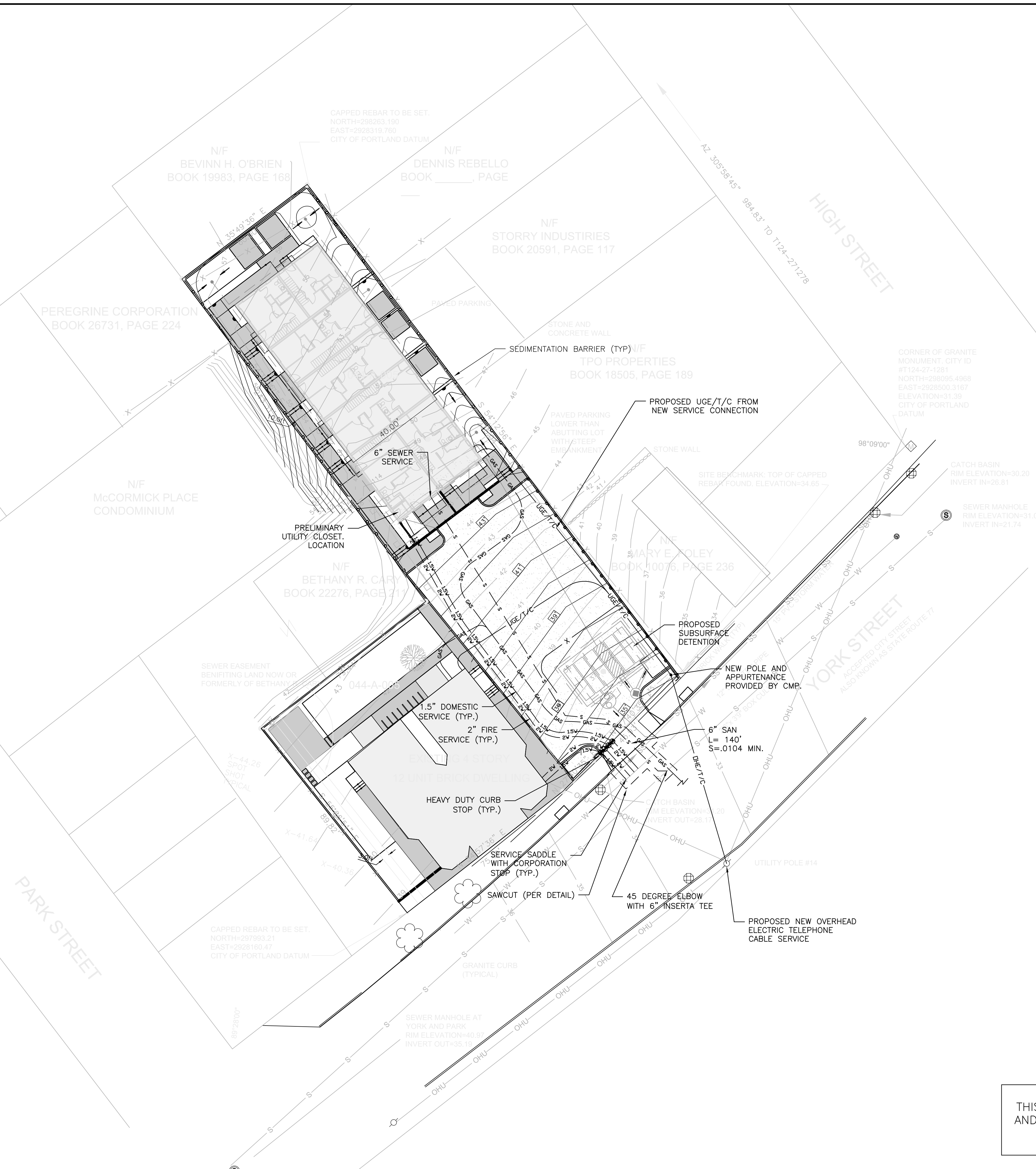
8. ALL SEWER UTILITY MATERIALS, INSTALLATION METHODS, INSPECTIONS AND TESTING SHALL CONFORM TO THE CITY OF PORTLAND REQUIREMENTS. PORTLAND PUBLIC SERVICES CONTACT: DAVID MARGOLIS-PINEO (207) 874-8850

9. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE ONSITE NATURAL GAS SUPPLY SYSTEM WITH UNILIT. THE GAS COMPANY SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE GAS LINE, APPURTENANCES AND ANY TEMPORARY STUB. CONTACT: KELLY FOWLER (207) 541-2505

10. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF OVERHEAD AND UNDERGROUND TELEPHONE AND CABLE UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS. TIME WARNER CONTACT: MARK PELLETIER (207) 253-2324

11. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE OVERHEAD AND UNDERGROUND ELECTRIC WITH CENTRAL MAINE POWER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TOTAL INSTALLATION OF THE UNDERGROUND SERVICE INCLUDING BUT NOT LIMITED TO, ALL TRENCHING, CONDUIT, PRIMARY AND SECONDARY CABLES, TERMINATORS, CONNECTORS, PULL WIRES, SPARE CONDUIT, ETC. CENTRAL MAINE POWER CONTACT JAMIE COUGH (207) 842-2367.

12. THE CONTRACTOR SHALL PROVIDE THE CIVIL ENGINEER WITH THE LOCATION, ELEVATION, AND TYPE OF MATERIAL OF ANY UTILITY STUBS.



THIS PLAN IS FOR PERMITTING AND SHALL NOT BE USED FOR CONSTRUCTION

ISSUED FOR	BY	DATE
ABILITY TO SERVE	WHS	03/14/11
PRELIMINARY	WHS	02/17/11
FINAL SITE/SUB	WHS	02/08/11
COMMENT RESPONSE	WHS	02/17/11
REVISION	REV.	DATE
UTILITIES	WHS	02/27/11

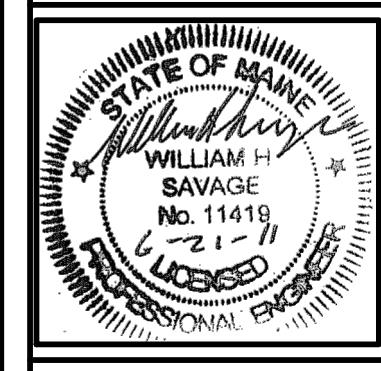
UTILITY PLAN
HARBORVIEW DEVELOPMENT, LLC
HARBORVIEW DEVELOPMENT, LLC
PO BOX 8816, PORTLAND, MAINE 04104

DRAWING NAME: **UTILITY PLAN**
 PROJECT NAME: **HARBORVIEW DEVELOPMENT, LLC**
 CLIENT: **HARBORVIEW DEVELOPMENT, LLC**
 PO BOX 8816, PORTLAND, MAINE 04104

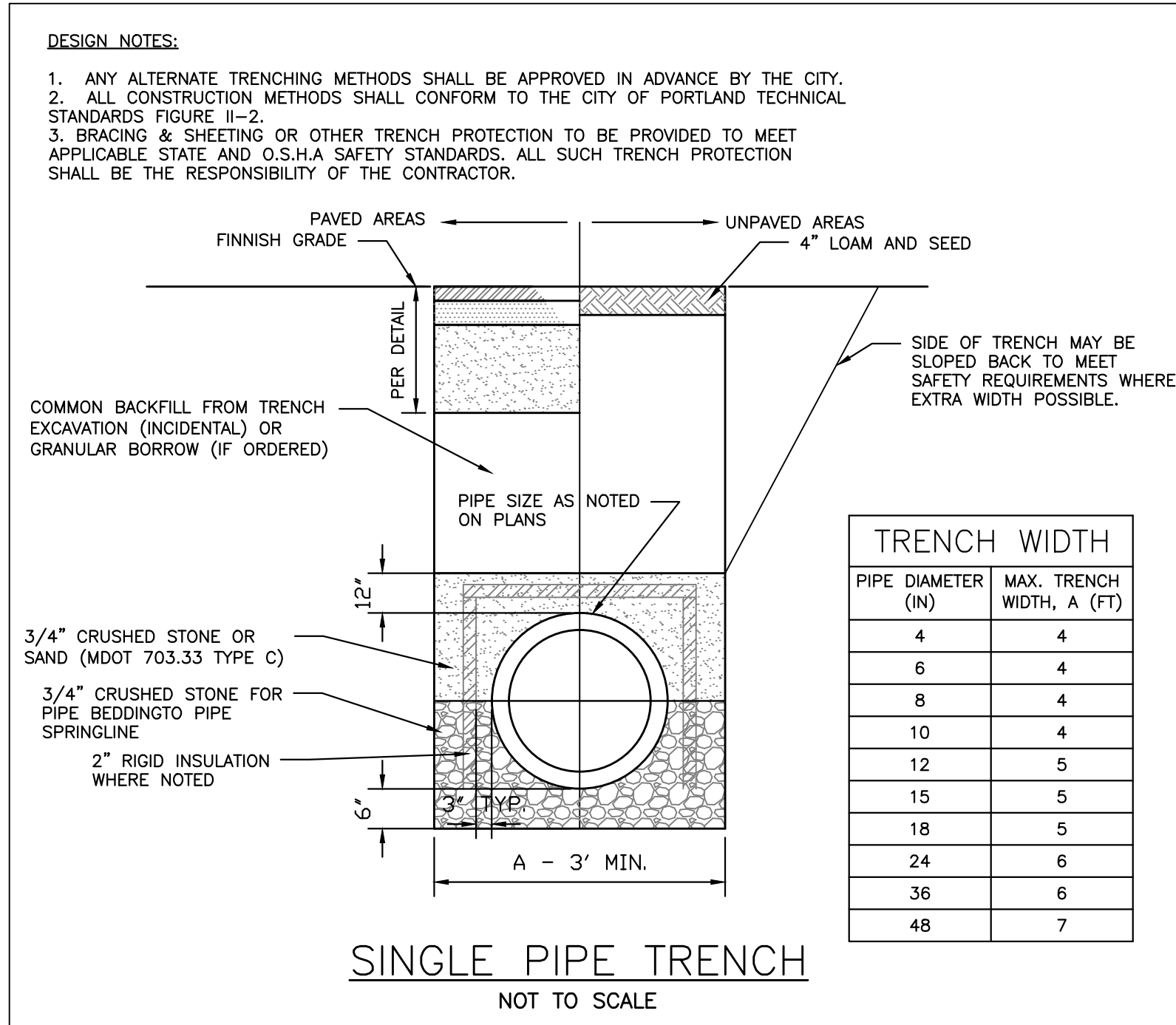
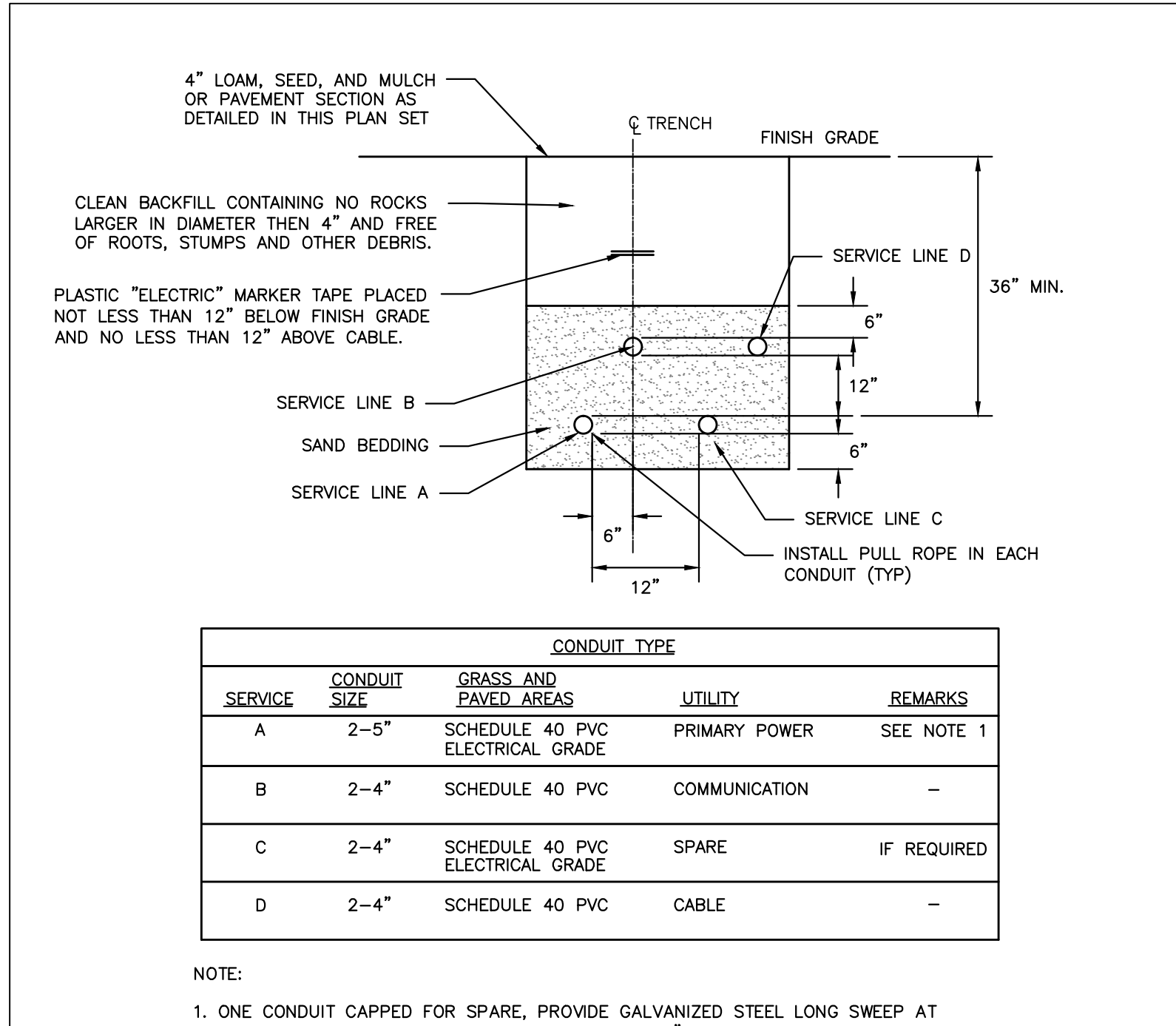
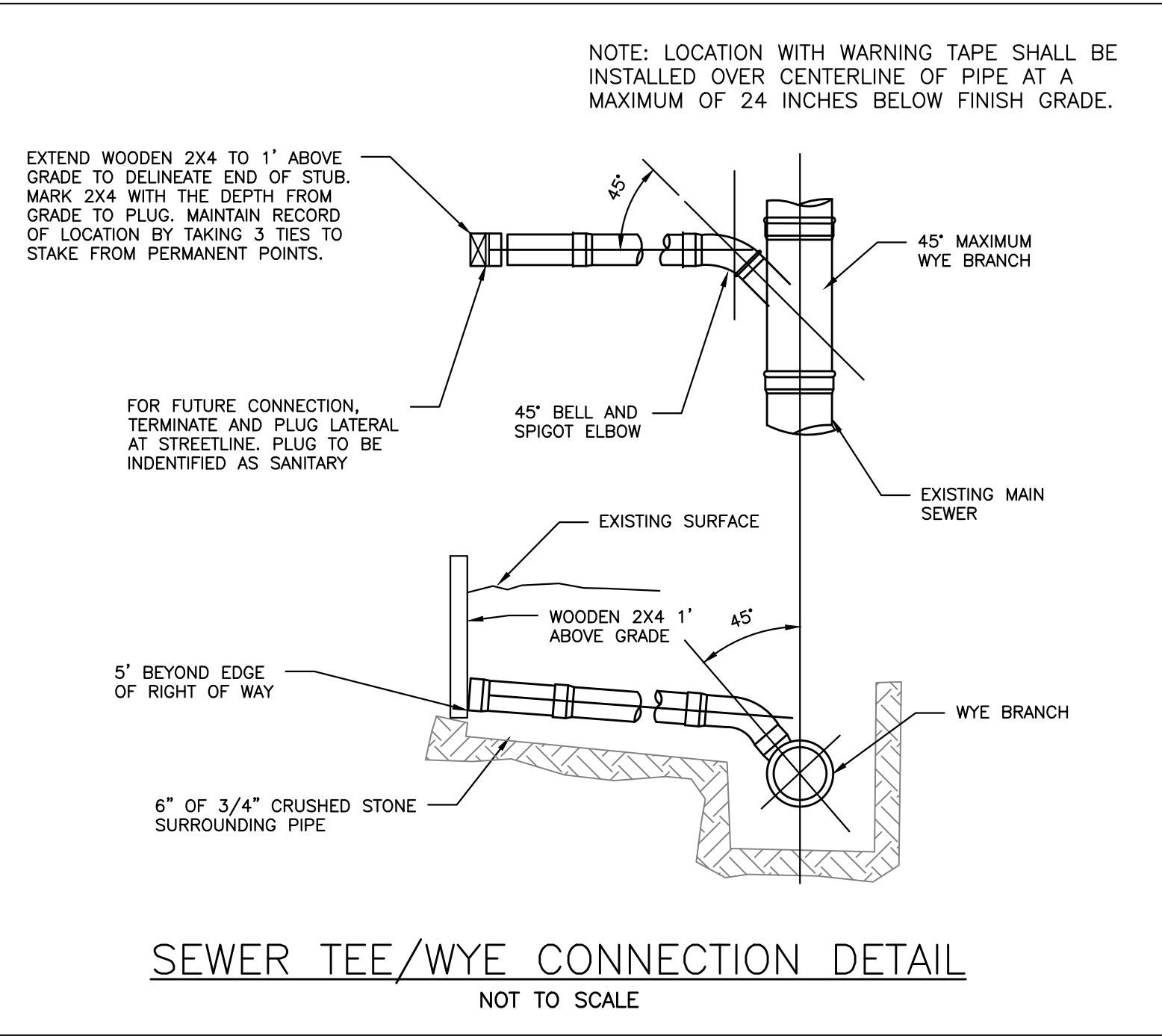
A C O R N
ENGINEERING, INC.

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY SUCH MODIFICATION, OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE: ACORNPLAN
DATE: 03/14/11
JN: 1035
SCALE: 1"=20'
DESIGNED BY: WHS
DRAWN BY: WHS
CHECKED BY: HPS

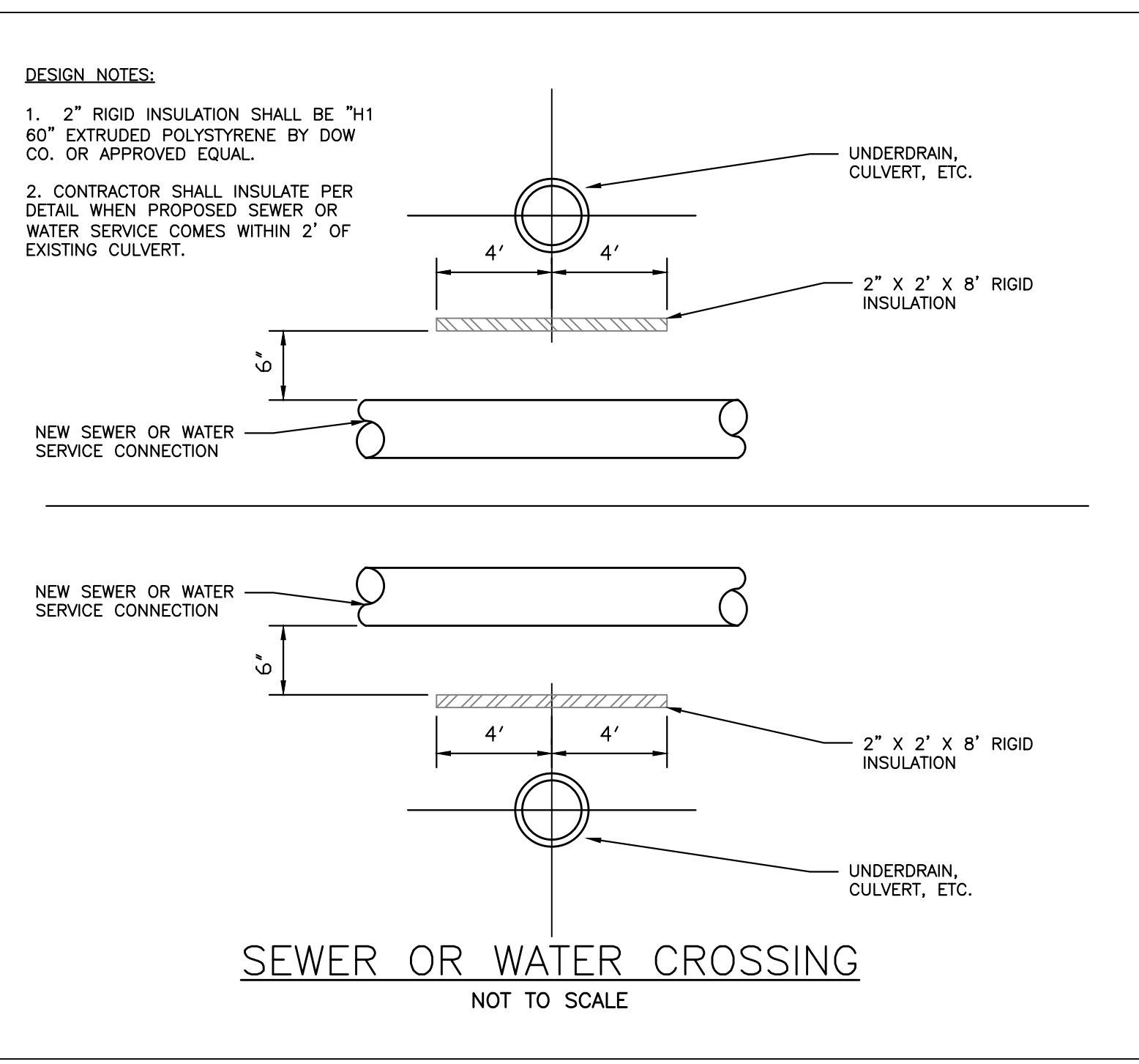
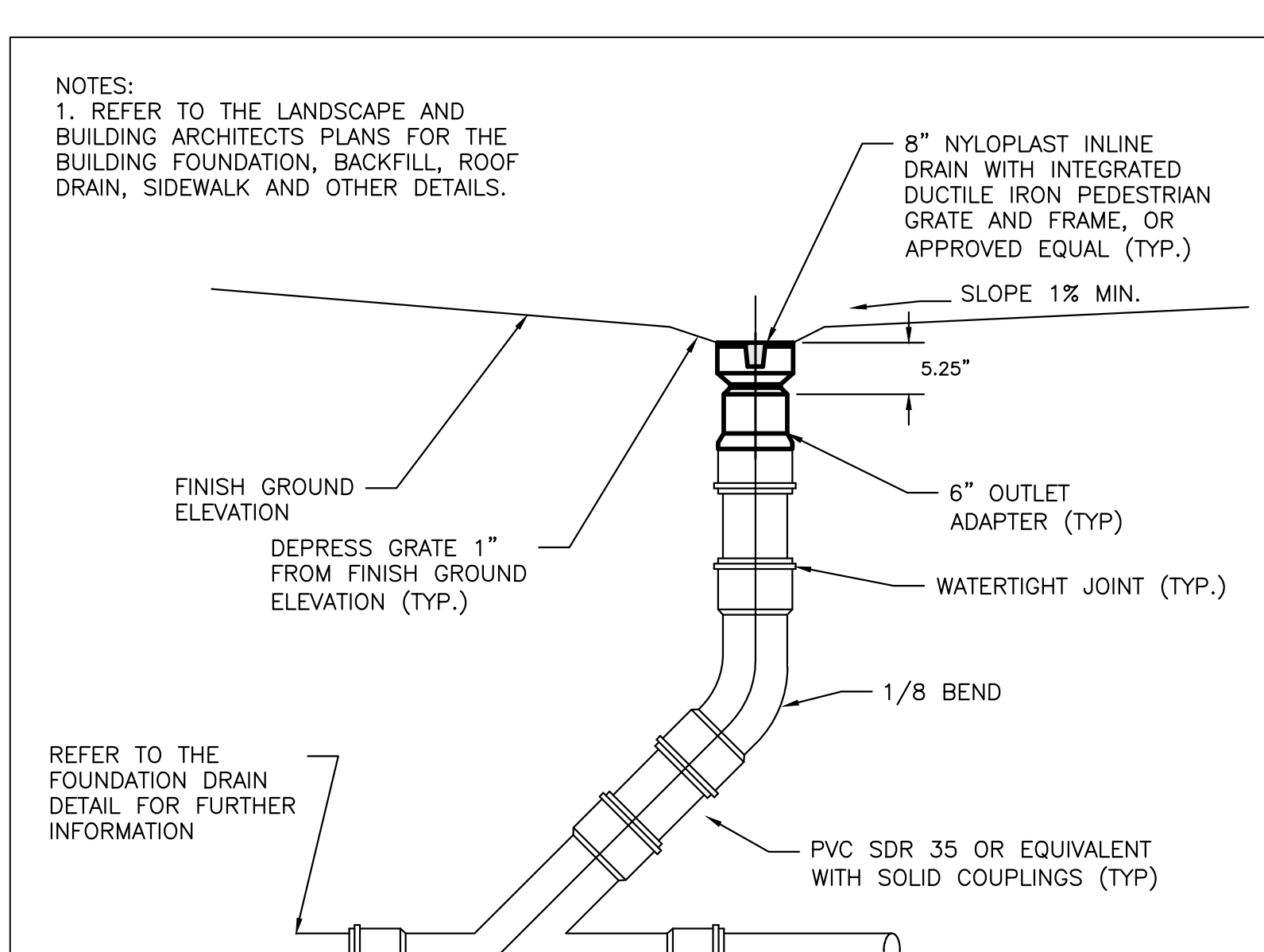
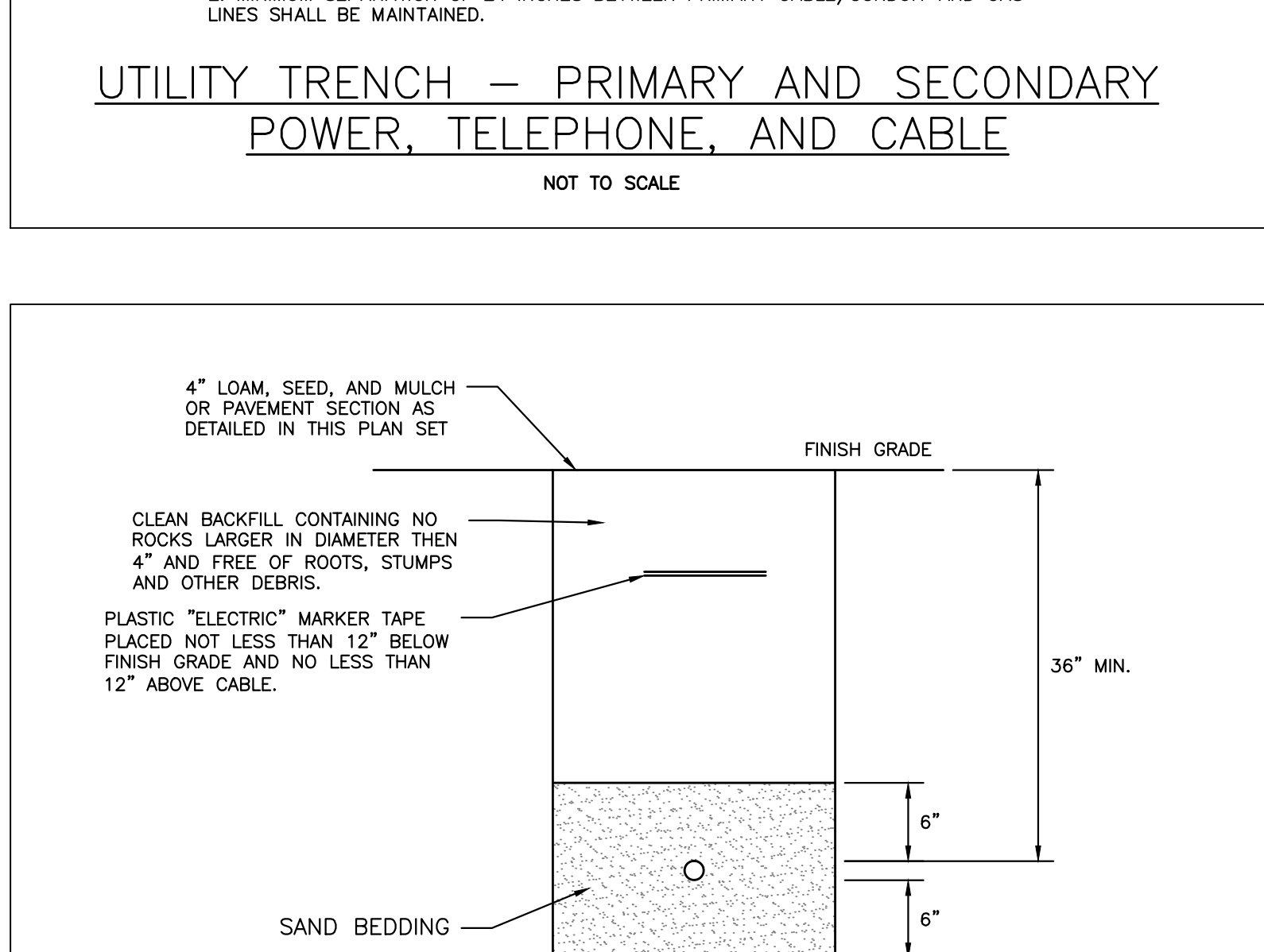
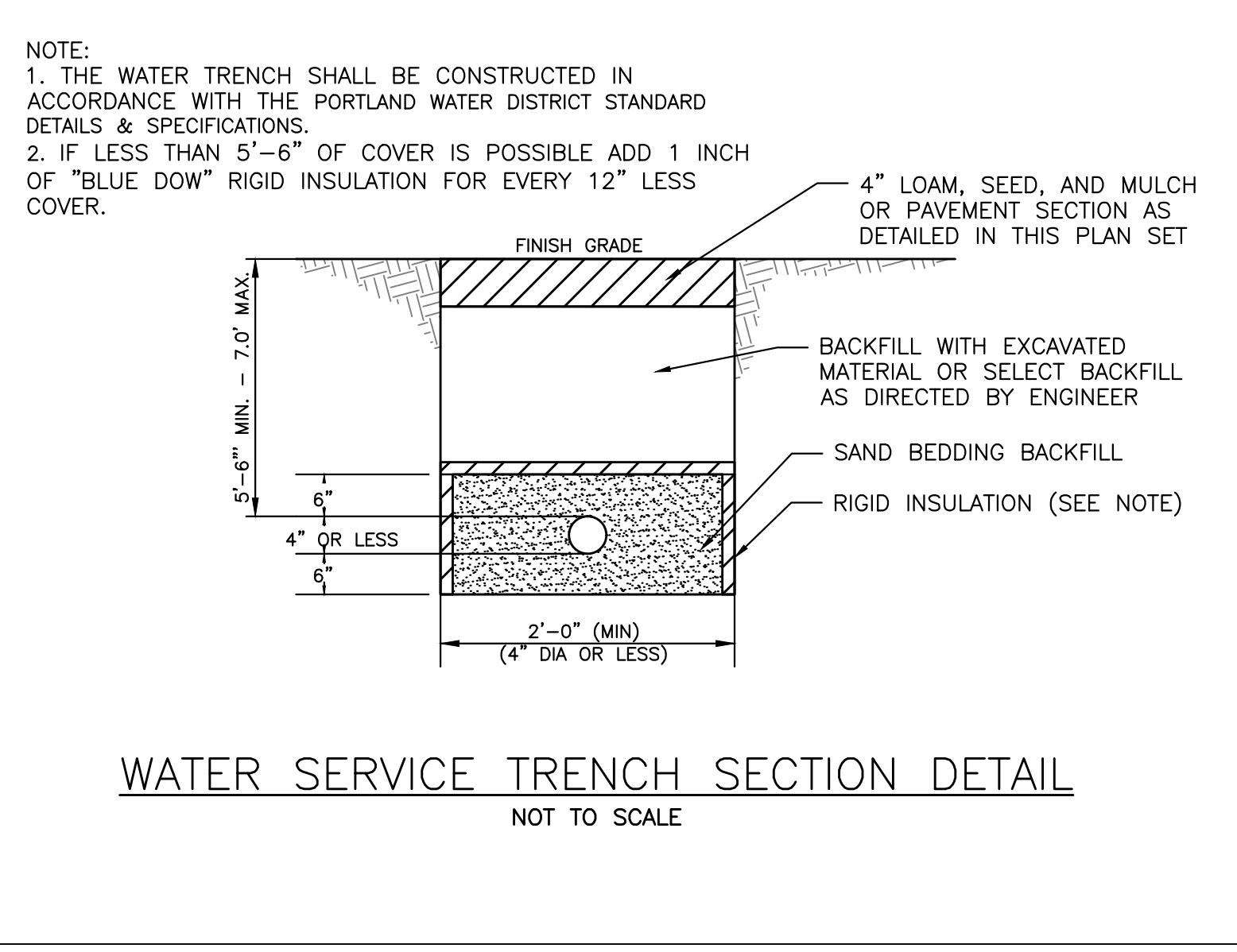


DRAWING NO.
C-1



ABBREVIATIONS:

- PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE CONTACT THE ENGINEER FOR ANY CLARIFICATION:
- EX. = EXISTING
 - PROP. = PROPOSED
 - PVC = POLYVINYL CHLORIDE
 - SDR = STANDARD DIMENSION RATIO
 - PE = PROFESSIONAL ENGINEER
 - PLS = PROFESSIONAL LAND SURVEYOR
 - TYP = TYPICAL
 - ELEV. = ELEVATION
 - INV. = INVERT
 - BOT. = BOTTOM
 - MAX. = MAXIMUM
 - CB = CATCH BASIN
 - ID = INNER DIMENSION
 - DIA. = DIAMETER
 - IN. = INCH
 - FT. = FEET
 - PSI = POUNDS PER SQUARE INCH



ISSUED FOR	BY
FINAL SITE/SUB.	WHS
COMMENT RESPONSE	WHS
DATE	08/06/11
DATE	08/23/11
REVISION	REV. DATE
UTILITIES	WHS
DATE	08/23/11

DRAWING NAME: **DETAIL SHEET 1**

PROJECT NAME: **HARBORVIEW DEVELOPMENT, LLC**

CLIENT: **HARBORVIEW DEVELOPMENT, LLC**

PO BOX 8816, PORTLAND, MAINE 04104

ENGINEERING, INC.

ACORN ENGINEERING, INC.

FILE: ACORNPLAN

DATE: 12/6/10

JN: 1035

SCALE: N/A

DESIGNED BY: WHS

DRAWN BY: WHS

CHECKED BY: HPS

STATE OF MAINE

WILLIAM F. SAVAGE

No. 11415

EXPIRES 12/31/11

PROFESSIONAL ENGINEER

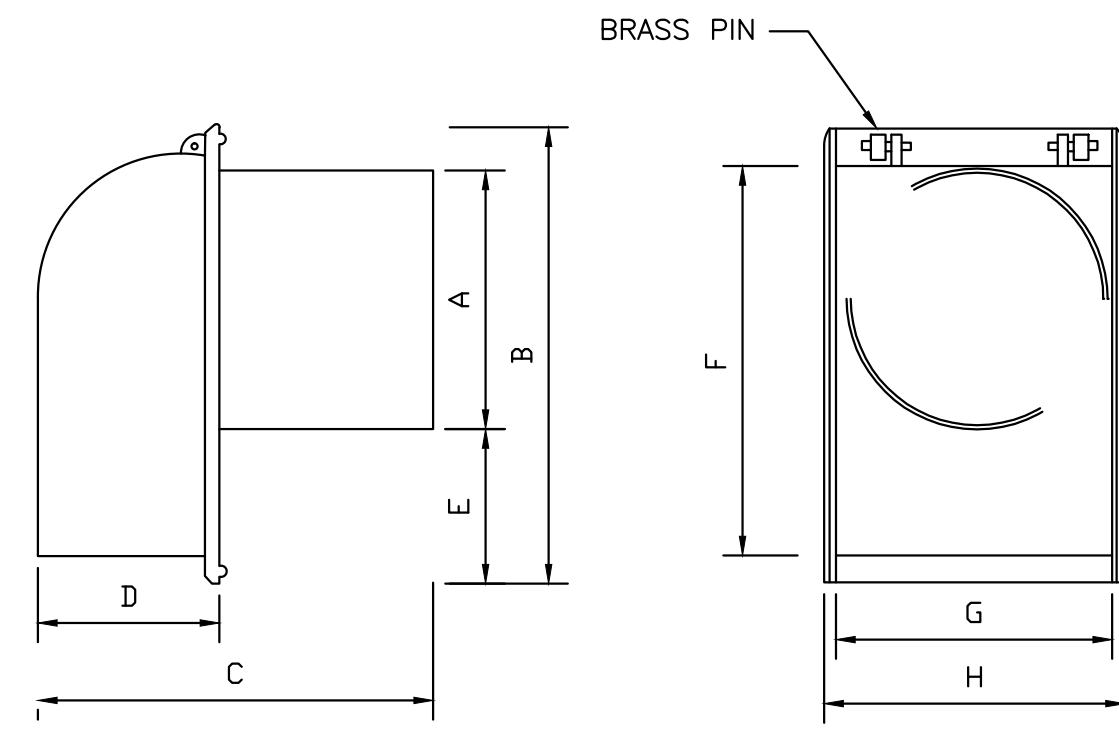
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DRAWING NO. **C-3**

THIS PLAN IS FOR PERMITTING AND SHALL NOT BE USED FOR CONSTRUCTION

NOTES:

- 1. INSTALL ETHERIDGE FOUNDRY CASCO TRAP IN ALL CATCH BASINS WITH A 12" OR 15" OUTLET PIPE.
- 2. THE CASCO TRAP IS AN ETHERIDGE STYLE DESIGNED TO ELIMINATE CEMENTING OF THE TRAP.
- 3. TO INSTALL, THE CASCO TRAP IS INSERTED INTO THE SEWER PIPE WITH THE HOOD DOWN.



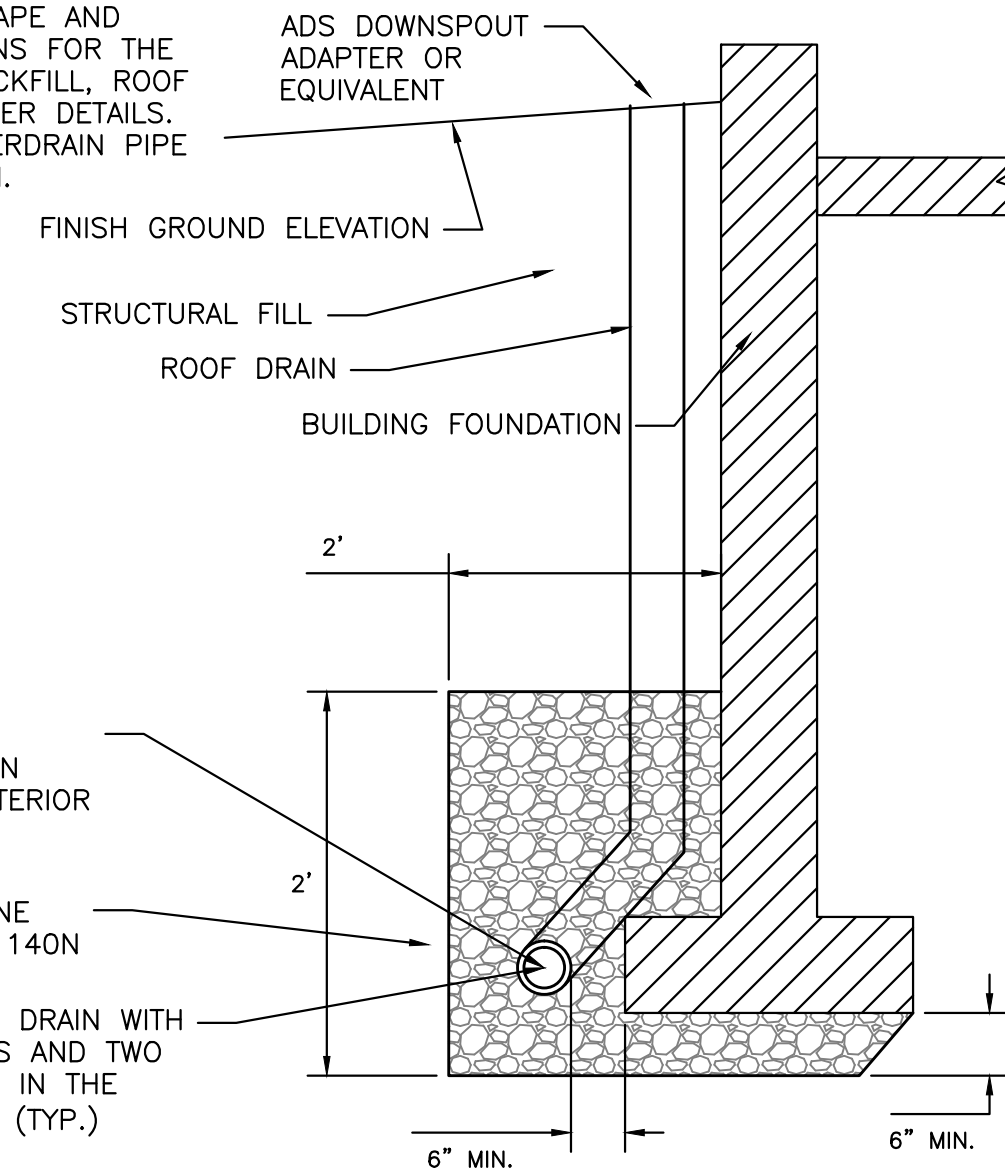
SIZE	A	B	C	D	E	F	G	H
6"	5 1/2	13 3/8	13 3/8	5 3/8	5 7/8	11 5/8	6 1/2	7 1/4
8"	7 1/2	15	15 3/8	5 1/2	5 3/8	13 3/4	8 3/4	9 3/8
10"	9 1/2	16	16 1/4	6	4 1/2	14 1/8	11 1/2	12 3/8
12"	11 1/2	17	22	8	3 1/2	17	12 1/2	13 3/8
15"	14 1/2	21	3/4 22	3/4 10	1/4	7	20 1/2	14 1/4 15 3/4

CASCO TRAP DETAIL

NOT TO SCALE

NOTES:

- 1. REFER TO THE LANDSCAPE AND BUILDING ARCHITECTS PLANS FOR THE BUILDING FOUNDATION, BACKFILL, ROOF DRAIN, SIDEWALK AND OTHER DETAILS.
- 2. PERFORATIONS IN UNDERDRAIN PIPE SHALL BE ORIENTED DOWN.

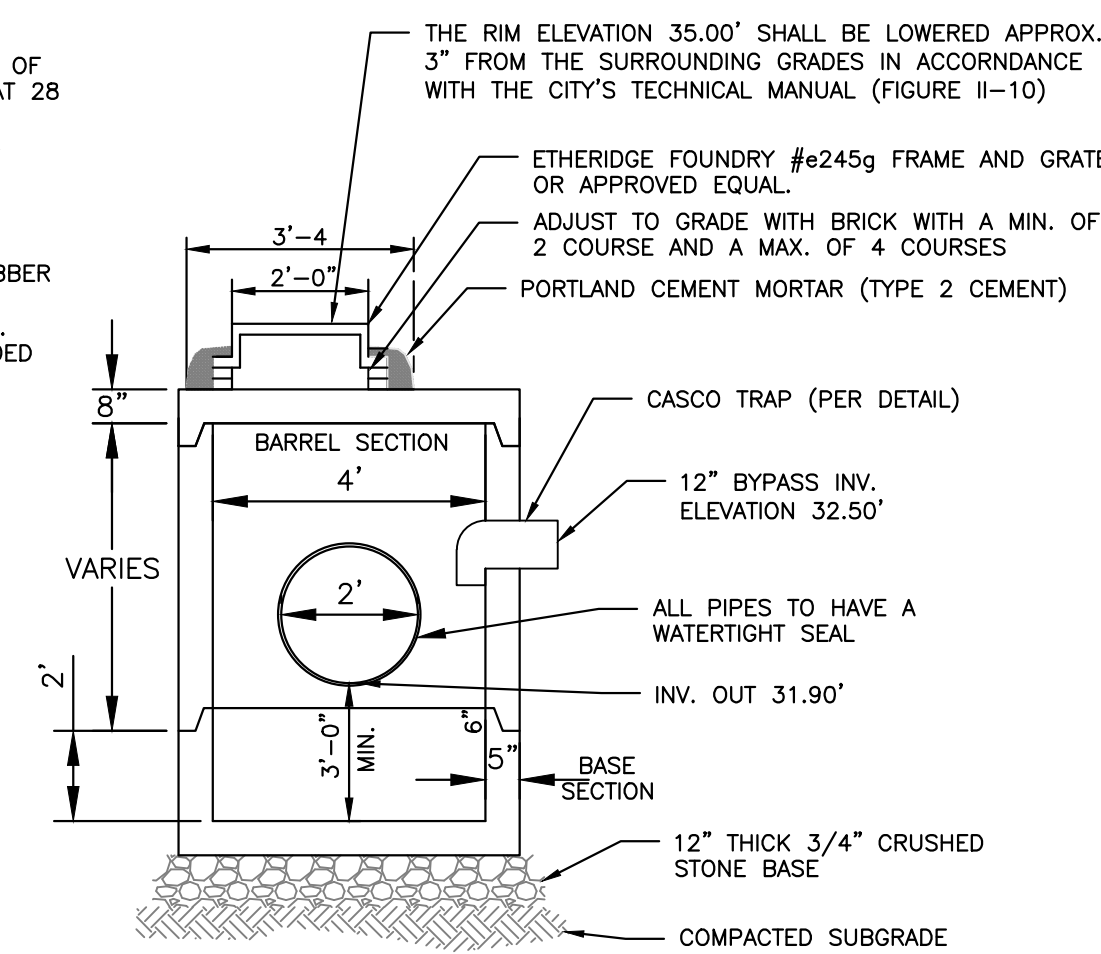


FOUNDATION DRAIN DETAIL

NOT TO SCALE

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.
- 5. JOINTS SEALED WITH BUTYL RUBBER OR GROUTED IN PLACE.
- 6. POLYPROPYLENE STEPS 12" O.C.
- 5. CASCO TRAPS SHALL BE PROVIDED ON ALL PIPES 12" OR LESS

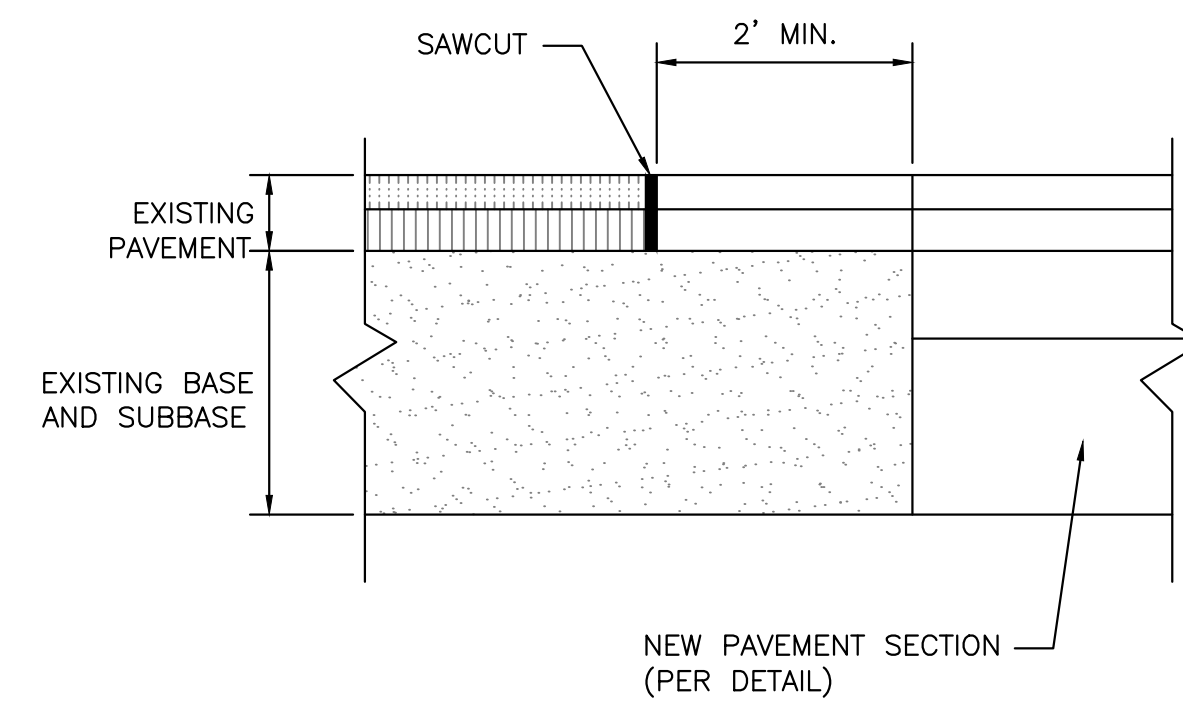


4'-0" PRECAST CATCH BASIN WITH FLAT TOP

NOT TO SCALE

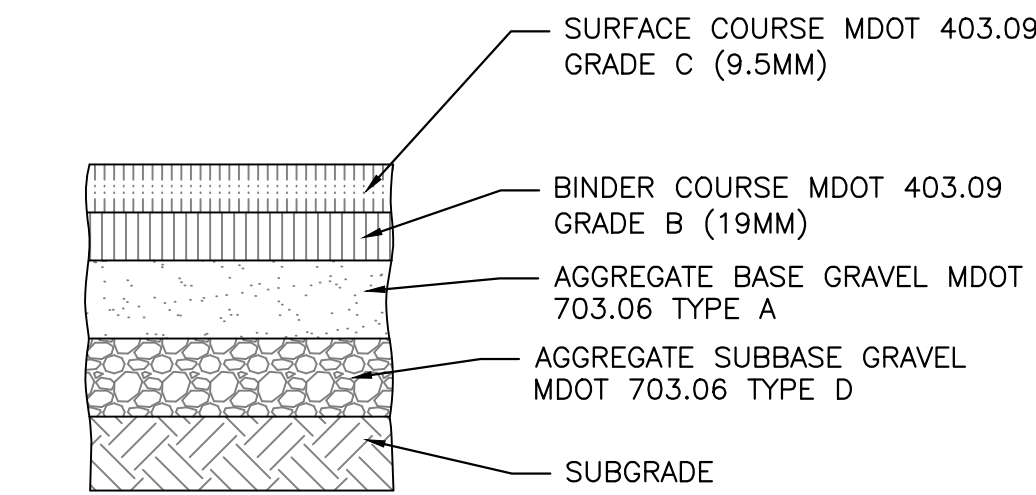
NOTES:

- 1. SAWCUT EXISTING PAVEMENT AND REMOVE 2' STRIP OF EXISTING PAVEMENT. APPLY BITUMINOUS TACK COAT PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
- 2. THE NEW PAVEMENT SECTION SHALL MEET THE CITY OF PORTLAND ARTERIAL BITUMINOUS PAVEMENT SECTION DETAIL AT A MINIMUM OR THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



PAVEMENT SAWCUT DETAIL

NOT TO SCALE

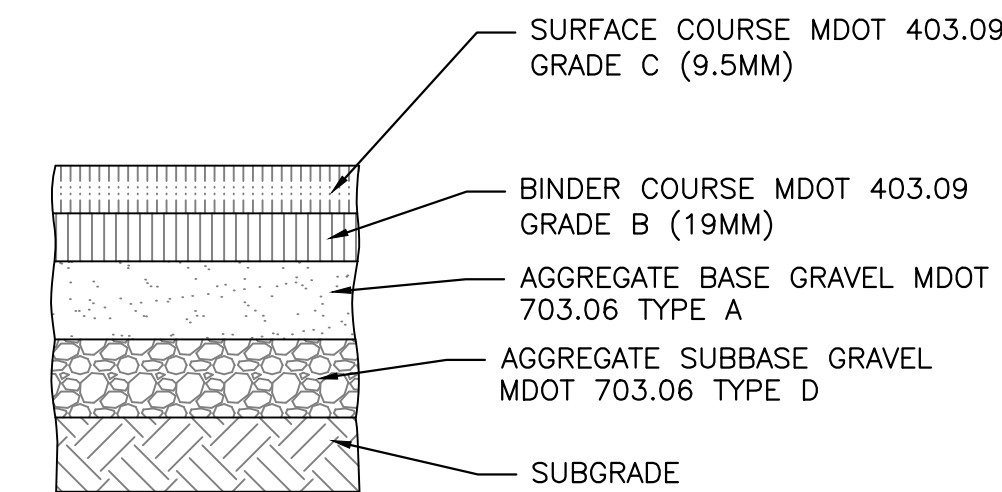


NOTE: COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557

STANDARD	LAYERS
2"	SURFACE COURSE MDOT 403.09 GRADE C (12.5mm)
3"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
6"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
18"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

CITY OF PORTLAND ARTERIAL BITUMINOUS PAVEMENT PROFILE

NOT TO SCALE



NOTE: COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557

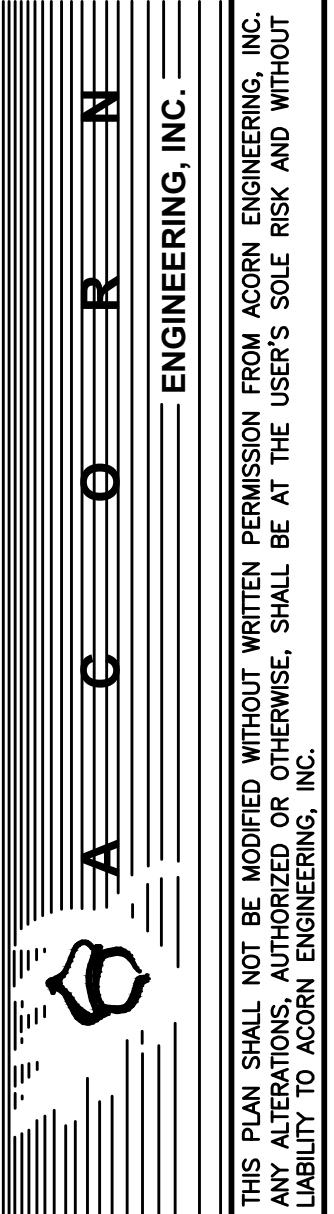
STANDARD	LAYERS
1.25"	SURFACE COURSE MDOT 403.09 GRADE C (9.5mm)
2"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE A
9"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

BITUMINOUS PAVEMENT PROFILE

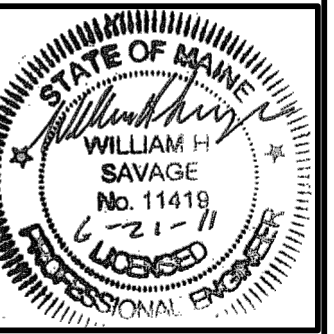
NOT TO SCALE

ISSUED FOR	BY
FINAL SITE/SUB.	DATE
COMMENT RESPONSE	
REVISION	REV. DATE
UTILITIES	

PROJECT NAME: HARBORVIEW DEVELOPMENT, LLC
 CLIENT: HARBORVIEW DEVELOPMENT, LLC
 PO BOX 8816, PORTLAND, MAINE 04104

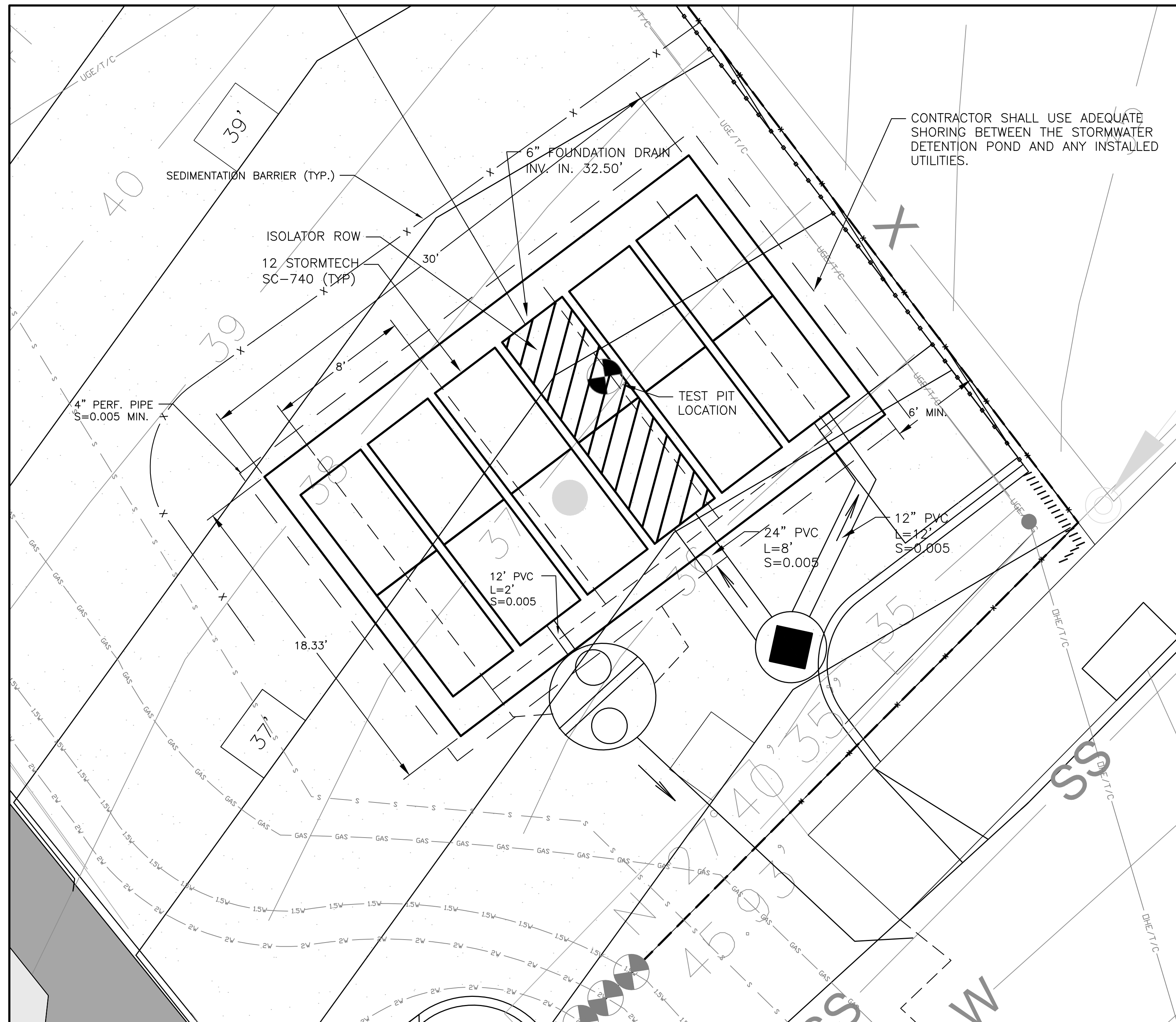


FILE: ACORNPLAN
 DATE: 12/6/10
 JN: 1035
 SCALE: N/A
 DESIGNED BY: WHS
 DRAWN BY: WHS
 CHECKED BY: HPS

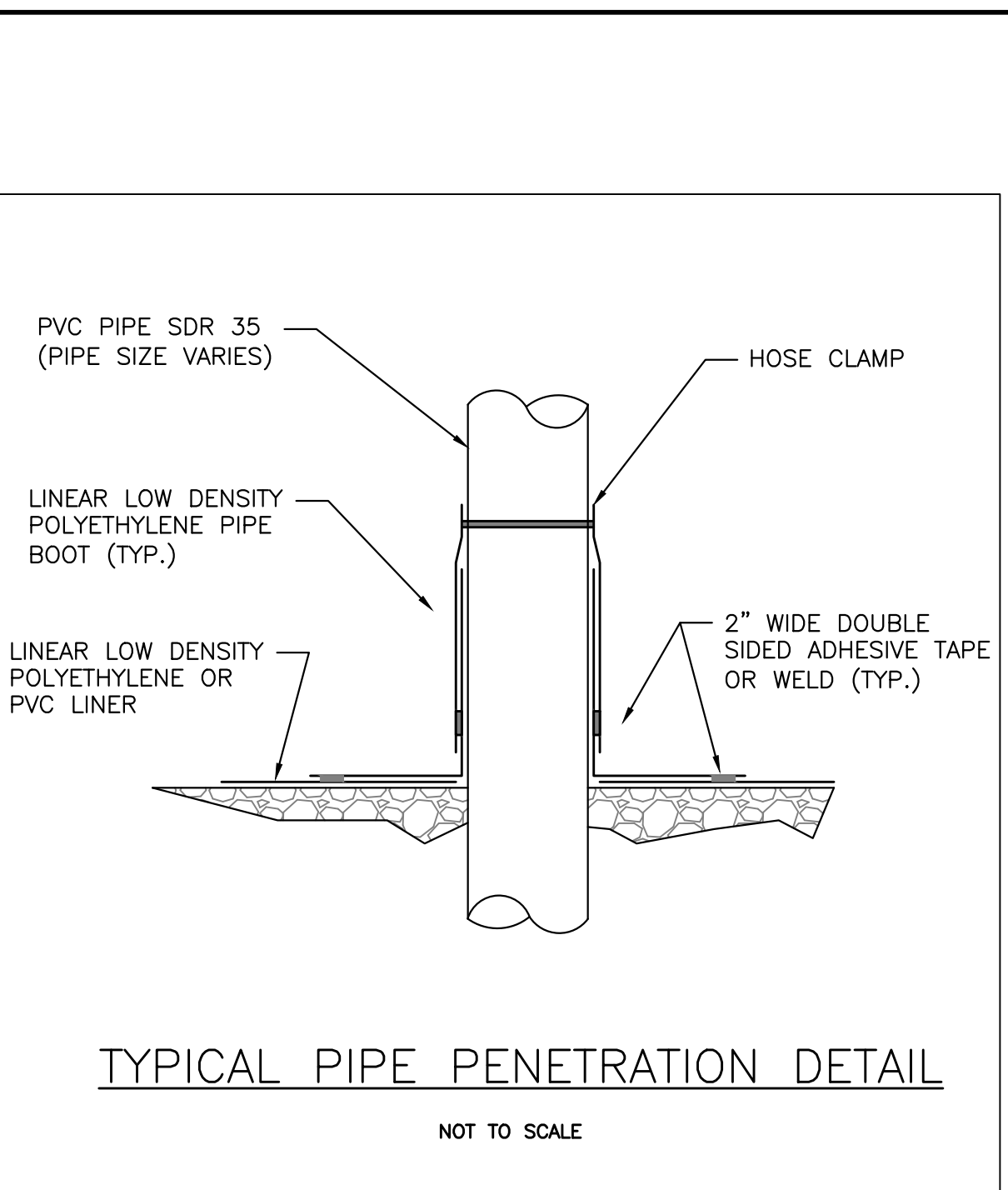
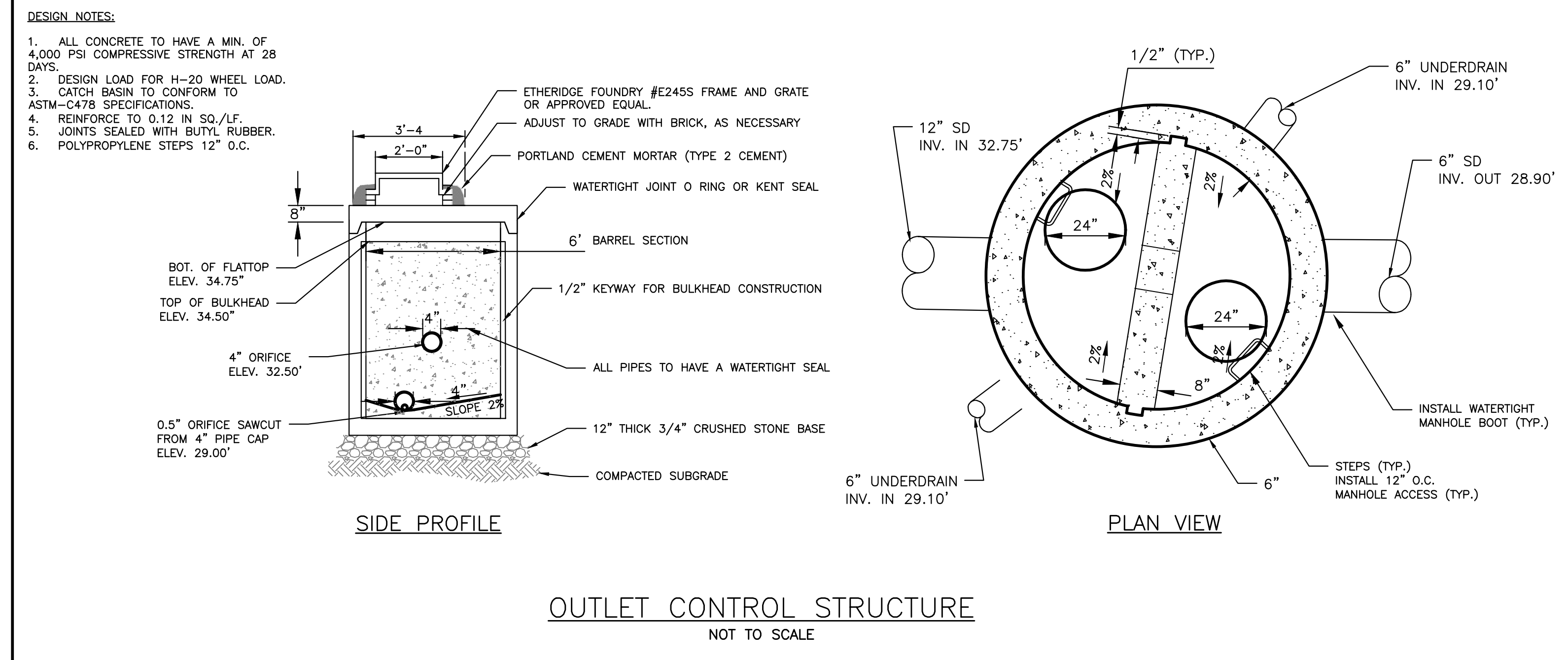


DRAWING NO.
C-4

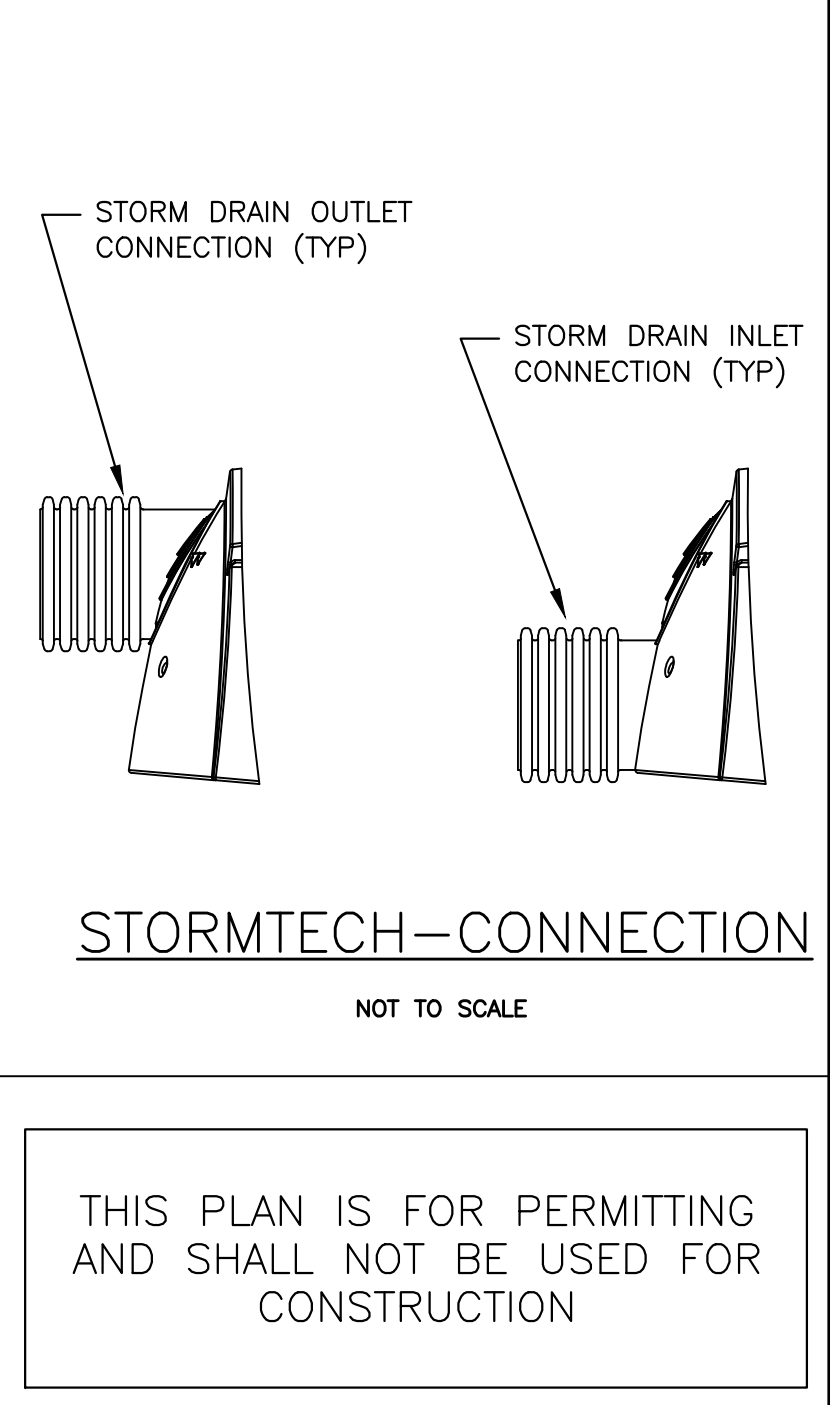
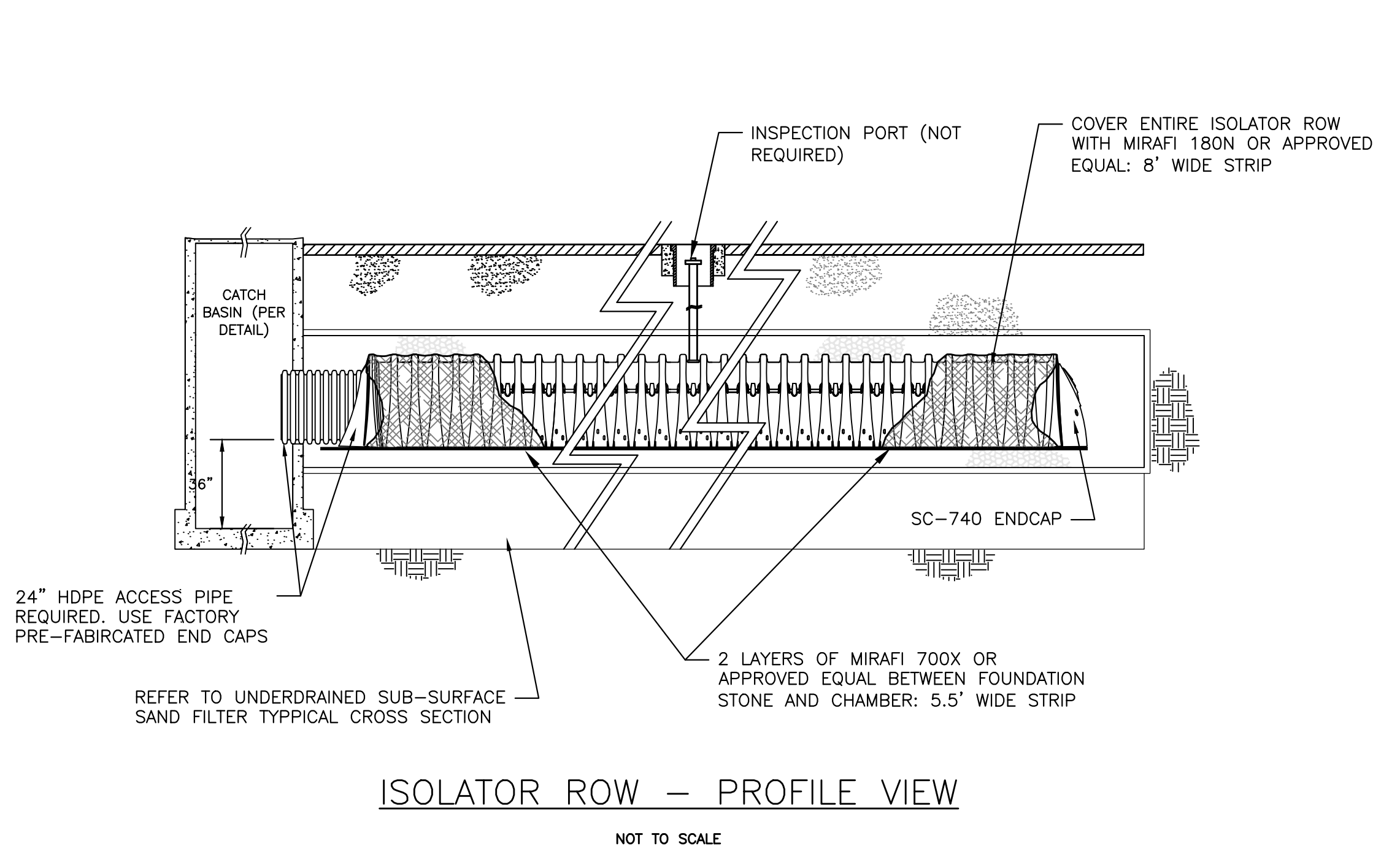
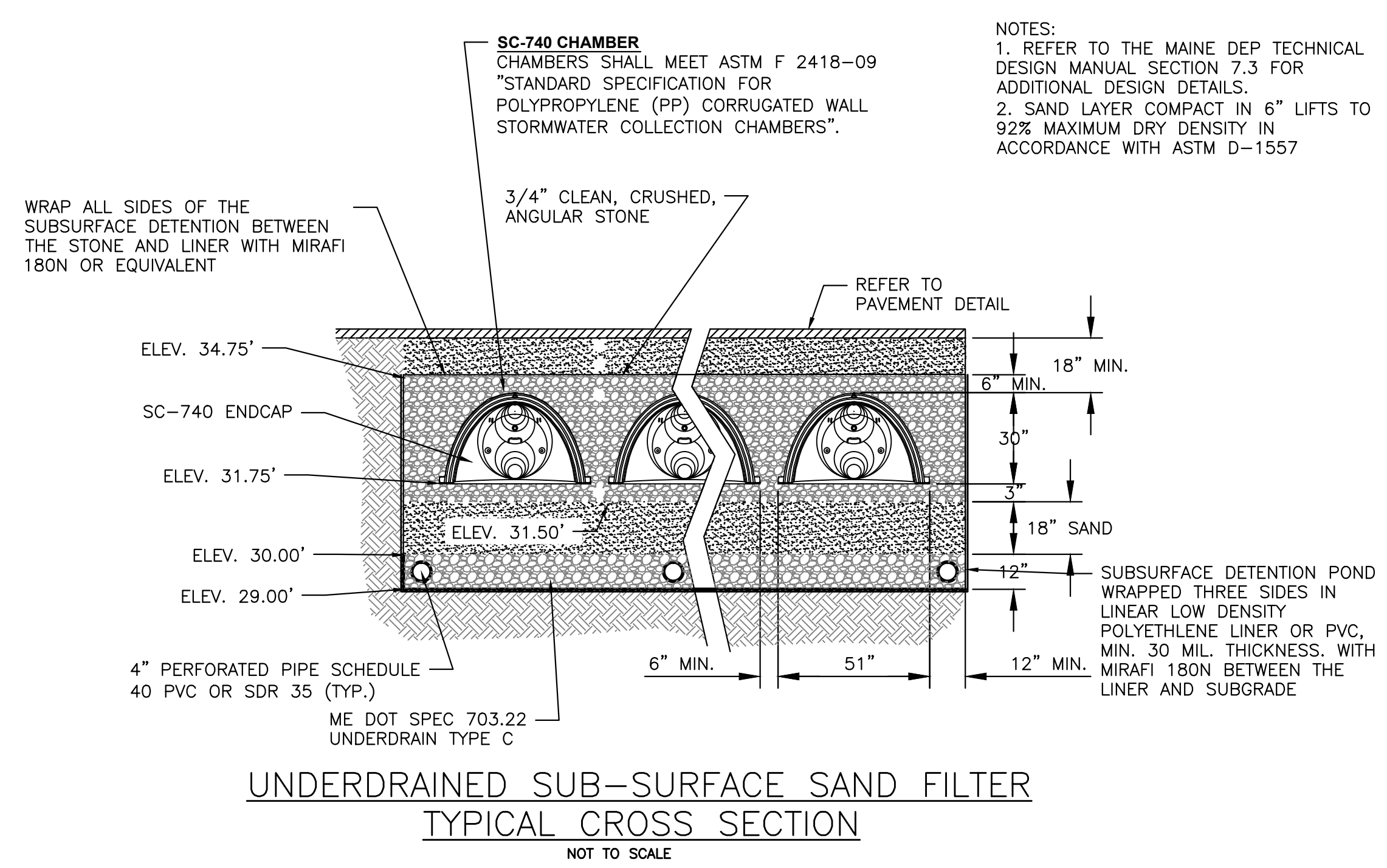
THIS PLAN IS FOR PERMITTING AND SHALL NOT BE USED FOR CONSTRUCTION



PLAN VIEW LAYOUT
1"=4'



- MANUFACTURERS NOTES:
- ALL DESIGN SPECIFICATIONS FOR STORMTECH SC-740 CHAMBERS SHALL BE IN ACCORDANCE WITH THE STORMTECH DESIGN MANUAL.
 - THE INSTALLATION OF STORMTECH SC-740 CHAMBERS SHALL BE IN ACCORDANCE WITH THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
 - THE CONTRACTOR IS ADVISED TO REVIEW AND UNDERSTAND THE INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION. CALL 1-888-892-2694 OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
 - CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND LOAD FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
- ENGINEERS NOTES:
- THE LAYOUT AND DIMENSION OF THE SUBSURFACE DETENTION MAY BE MODIFIED WITH AN ENGINEER APPROVED EQUAL WHICH PROVIDES EQUAL DETENTION STORAGE AND WATER QUALITY TREATMENT.
 - THE SUBSURFACE DETENTION SHALL BE INSPECTED BY THE DESIGN ENGINEER AT THE FOLLOWING INTERVALS:
 - AFTER PRELIMINARY CONSTRUCTION OF THE SUBSURFACE DETENTION GRADES
 - DURING THE CONSTRUCTION OF THE SAND FILTER LAYER
 - DURING THE INSTALLATION OF THE STORMTECH ISOLATOR ROW.
 - BEFORE BACKFILLING THE STORMTECH UNITS.



ISSUED FOR	BY
FINAL SITE/SUB.	DATE
COMMENT RESPONSE	
REVISION	REV. DATE
DRAWING NAME:	DETAIL SHEET 4
PROJECT NAME:	HARBORVIEW DEVELOPMENT, LLC
CLIENT:	HARBORVIEW DEVELOPMENT, LLC PO BOX 8816, PORTLAND, MAINE 04104
<small>THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.</small>	
FILE:	ACORNPLAN
DATE:	6-6-11
JN:	1035
SCALE:	NTS
DESIGNED BY:	WHS
DRAWN BY:	WHS
CHECKED BY:	HPS
DRAWING NO.	C-6