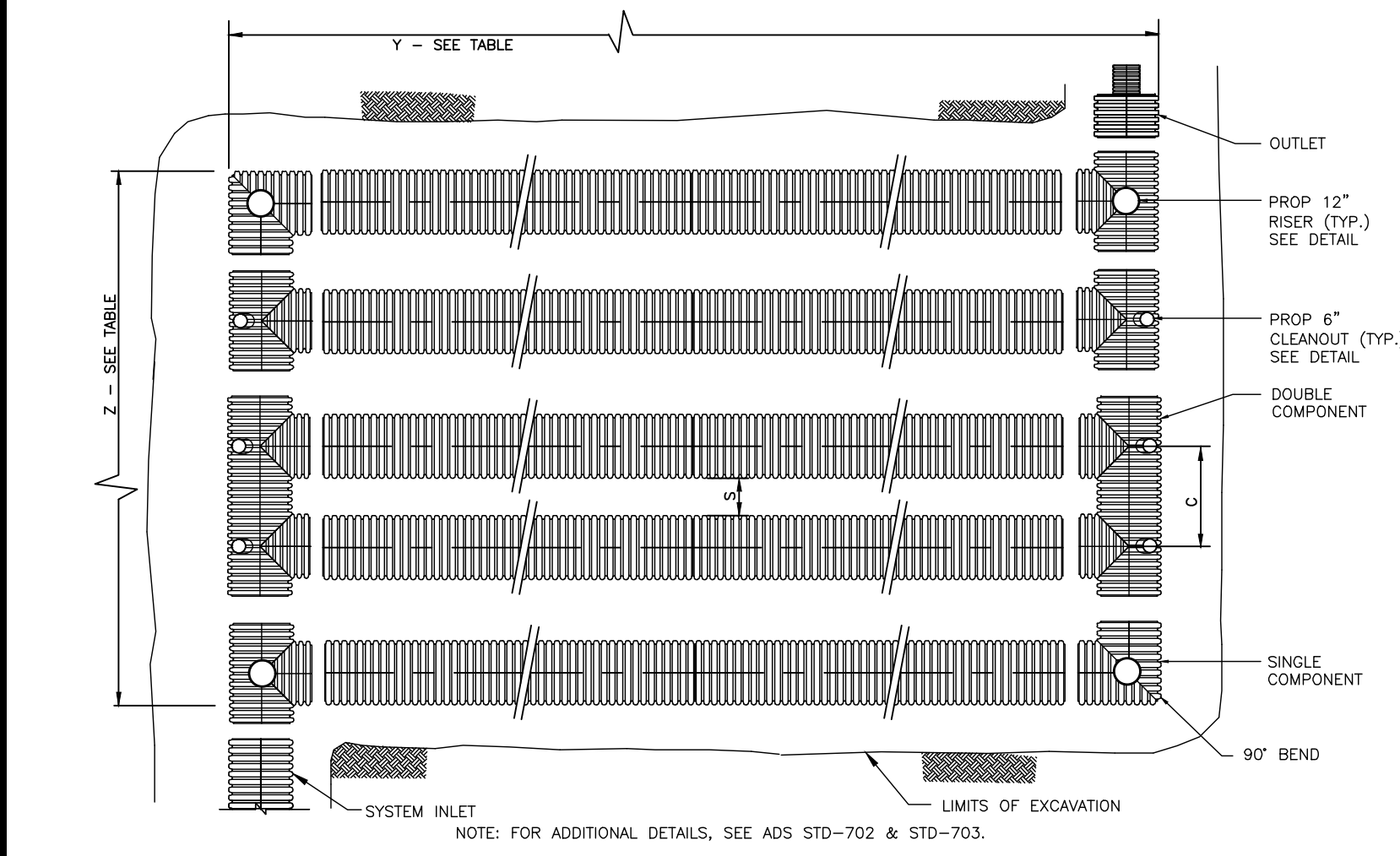




INFILTRATION SYSTEM NOTES:

1) ALL SITE DRAINAGE PIPE SHALL BE CORRUGATED HIGH-DENSITY POLYETHYLENE PIPE, DUAL WALL, SMOOTH INTERIOR AS MANUFACTURED BY ADS, INC., OR APPROVED EQUAL, UNLESS OTHERWISE NOTED ON PLAN.

2) CONTRACTOR SHOULD CONFIRM SYSTEM PARTS AND OBTAIN SHOP DRAWINGS FROM MANUFACTURER. SUBSTITUTIONS AND SHOP DRAWINGS SHOULD BE APPROVED BY THE ENGINEER.

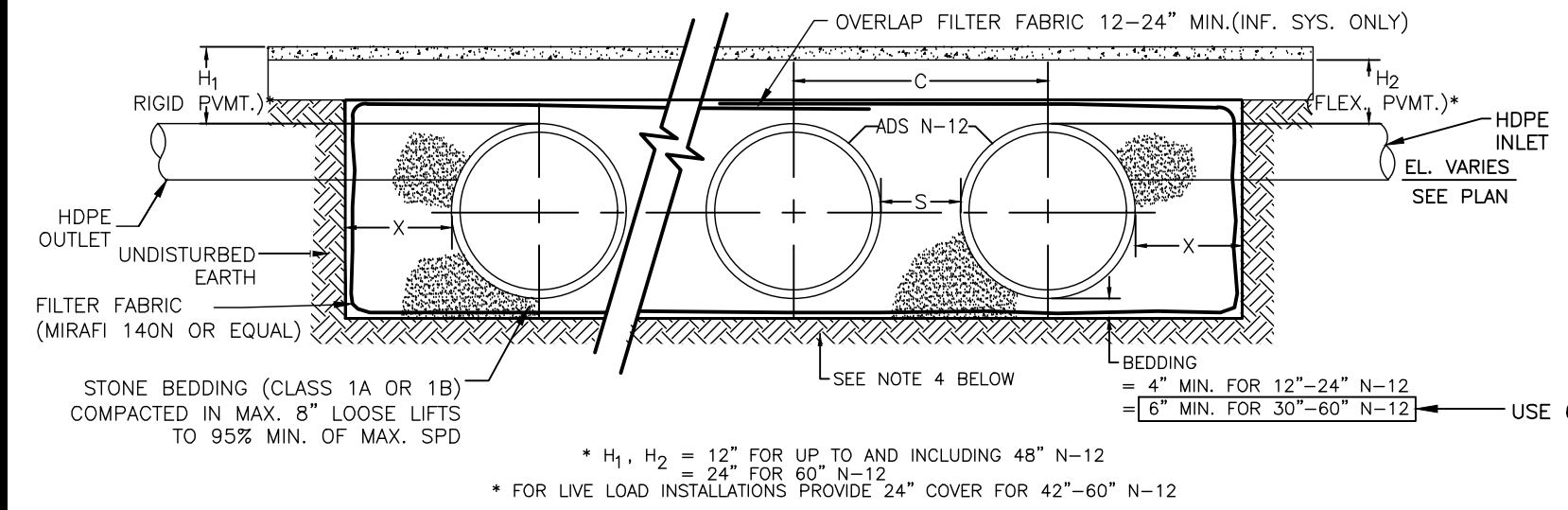
3) PARTS SPECIFICATIONS SHOWN ARE AS PROVIDED BY ADS, INC., OR APPROVED EQUAL. ANY CHANGES TO THESE SPECIFICATIONS SHOULD BE APPROVED BY DESIGN ENGINEER FOR PERFORMANCE.

UNDERGROUND STORMWATER INFILTRATION SYSTEM TABLE							
UG DETENTION/INFILTRATION SYSTEM	LENGTH (Y)	WIDTH (Z)	SPACING (C) (O.C. TYP.)	PIPE SIZE (INCHES)	INV. PIPE ELEV. (A)	# PIPE ROWS	STONE BED
U/G INF-1	81'	31.2'	35.3"	18" PERF.	36.00	11	83' x 33.17'

* SEE TYPICAL CROSS SECTIONS BELOW

UNDERGROUND INFILTRATION SYSTEM LAYOUT

NOT TO SCALE



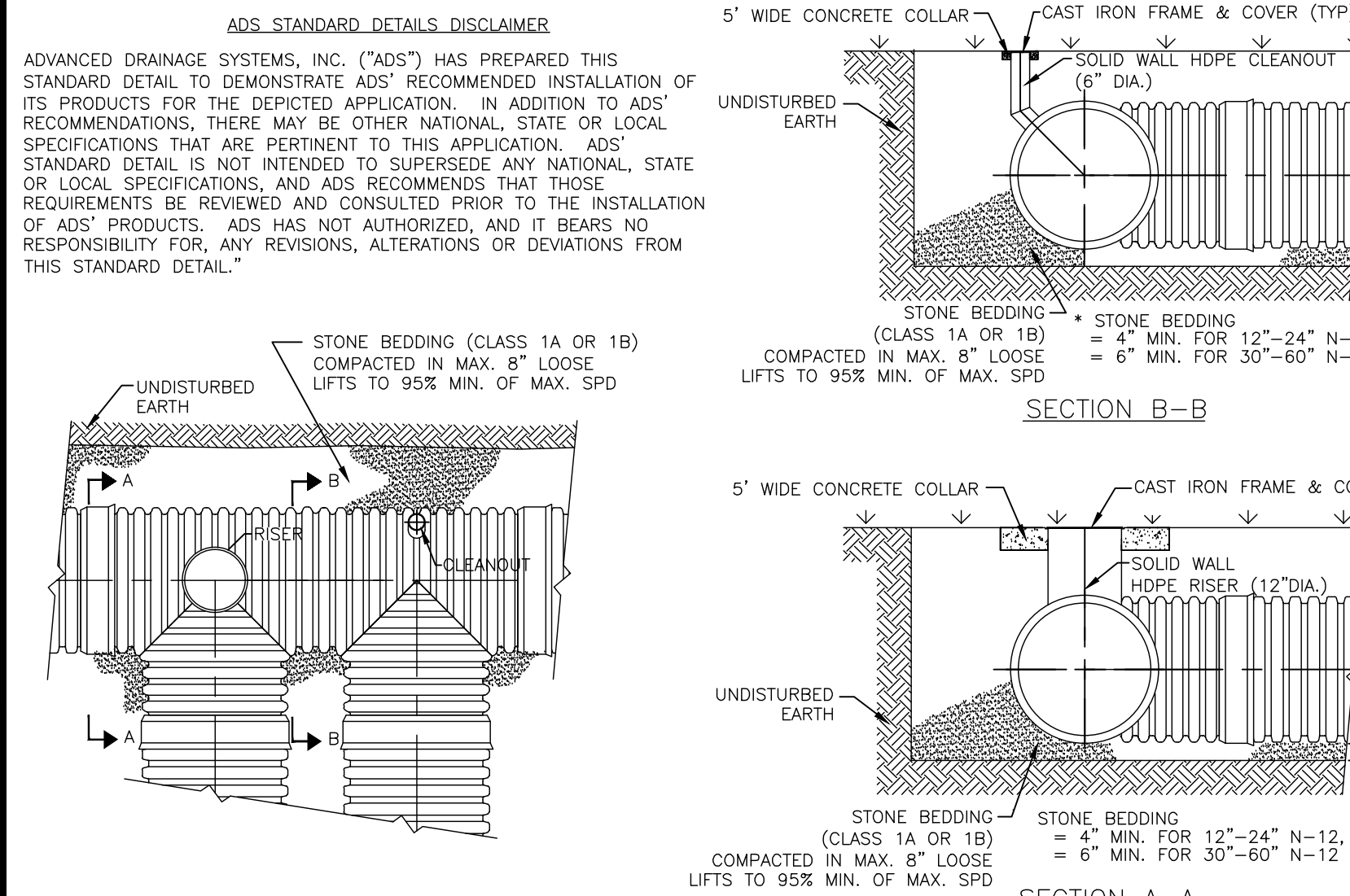
NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "S"	TYPICAL SPACING "C"	TYPICAL SIDE WALL "X"
12"	14.5"	11"	25.4"	8"
15"	18"	11"	28.9"	8"
18"	21"	14"	35.3"	8"
24"	28"	13"	41.4"	10"
30"	36"	17"	53.1"	18"
36"	42"	21"	63"	18"
42"	48"	24"	72"	18"

* H₁, H₂ = 12" FOR UP TO AND INCLUDING 48" N-12
24" FOR 60" N-12
* FOR LIVE LOAD INSTALLATIONS PROVIDE 24" COVER FOR 42"-60" N-12

- NOTES:
- ALL UNDERGROUND STORMWATER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
 - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
 - SEE GRADING & DRAINAGE PLAN FOR INVERT DATA.
 - EXISTING TOPSOIL, BRUSH, TREES, BOULDERS, FILL AND DEBRIS TO BE REMOVED FOR 5' ALL AROUND UNDERGROUND INFILTRATION SYSTEM DOWN TO NATIVE MATERIAL. BACKFILL WITH STONE BEDDING MATERIAL (CLASS 1A OR 1B).

UNDERGROUND INFILTRATION SYSTEM CROSS SECTION

NOT TO SCALE



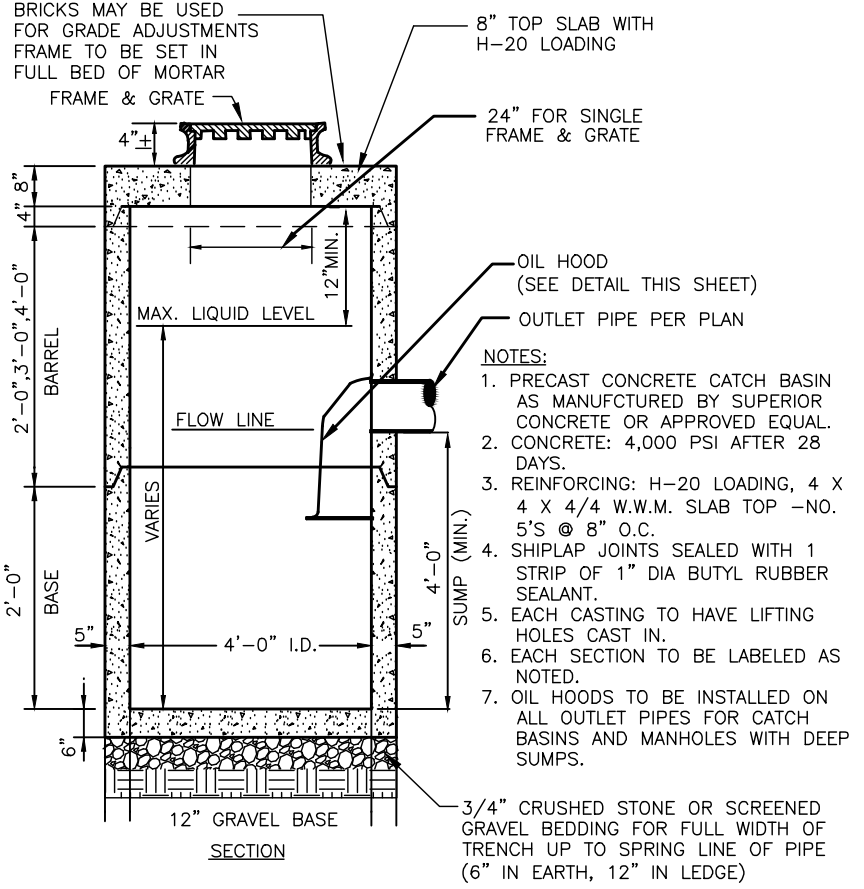
TYPICAL RISER AND CLEANOUT DETAILS

NOT TO SCALE

Table 5-2
Classes of Embedment and Backfill Materials

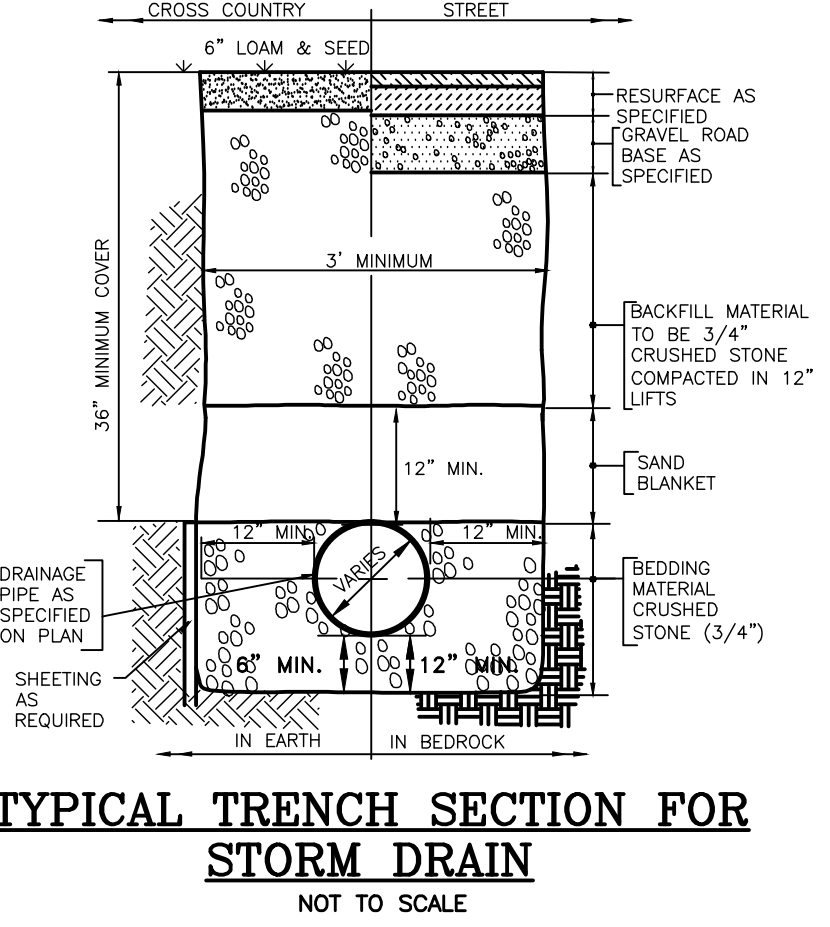
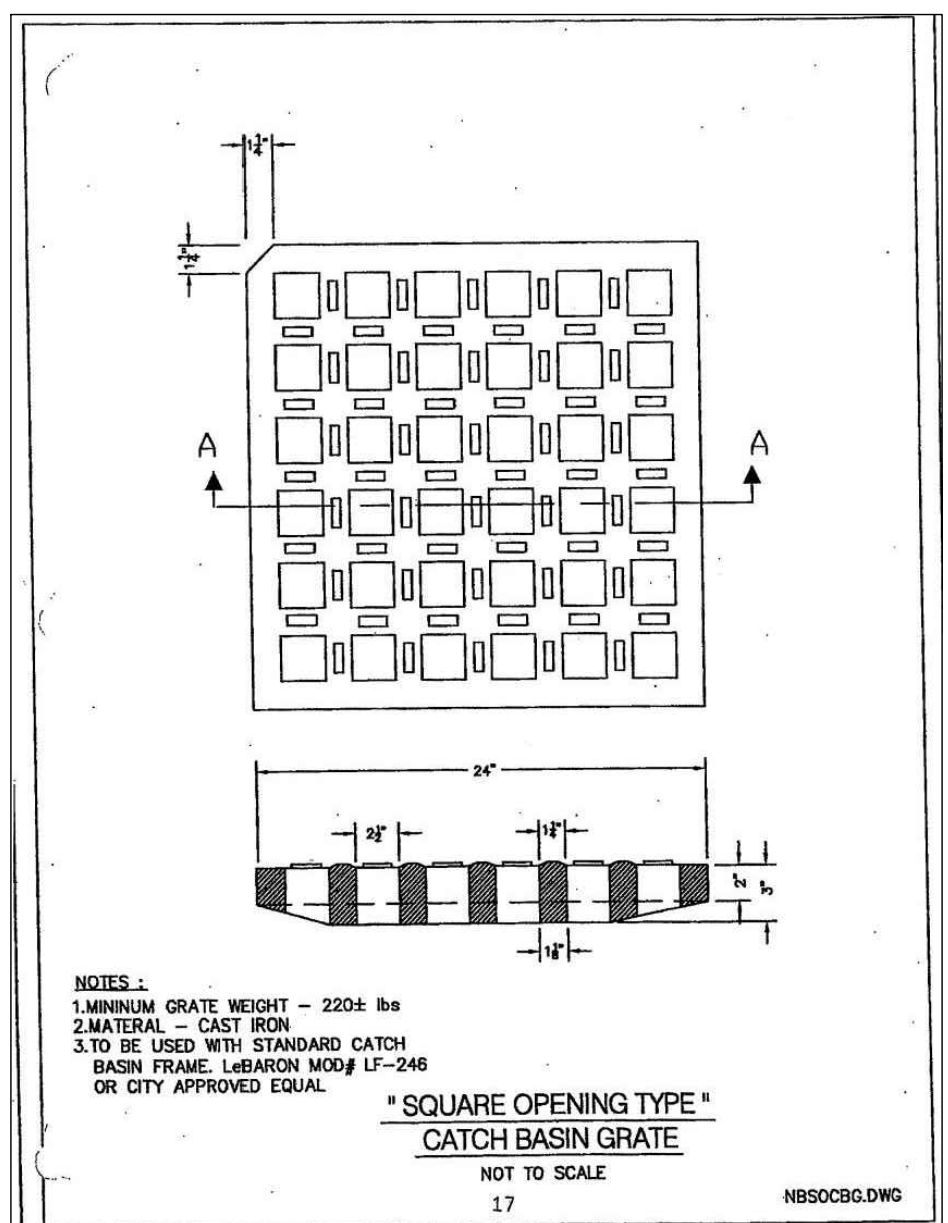
ASTM D2321 ^{III} Class	Description	ASTM D2321 ^{III} Notation	Min. Compaction Required (Per Proctor Density N-1)	Percentage Passing Sieve Size		ASTM D2321 ^{III} Restricting Limits LL, PI	Coefficients Uniformity C _u , C _c
				1 1/2 in. (40mm)	No. 4 (#4.75mm)		
IA ^a	Open-graded, clean, manufactured aggregate	N/A	5	100%	≤10%	<5%	Non Plastic
IB	Open-graded, clean, manufactured aggregate	N/A	5	100%	≤50%	<5%	Non Plastic
II	Clean, coarse grained soils	GW	6	100%	<50%	<5%	Non Plastic
		GP	6	100%	<50%	<5%	Non Plastic
		SW	6	100%	<50%	<5%	Non Plastic
		SP	6	100%	<50%	<5%	Non Plastic
III	Coarse-grained soils, bordering clean to silty	GM	6	100%	<50%	<5%	Non Plastic
		GC	6	100%	<50%	<5%	Non Plastic
		SM	6	100%	<50%	<5%	Non Plastic
		SC	6	100%	<50%	<5%	Non Plastic
IV ^a	Inorganic fine grained soils	ML	N/A	100%	100%	<50%	Non Plastic
		CL	N/A	100%	100%	<50%	Non Plastic
		MH	N/A	100%	100%	<50%	Non Plastic
		CH	N/A	100%	100%	<50%	Non Plastic
V	Organic soils	OL	N/A	100%	100%	<50%	Non Plastic
	Highly organic soils	OH	N/A	100%	100%	<50%	Non Plastic

- Notes:
- Refer to ASTM D2321 for more complete soil descriptions.
 - Class IVA material has limited applications and can be difficult to place and compact; use ONLY with the approval of a soil expert. Contact ADS for additional information regarding suitability of this backfill material.
 - NIR indicates that use of this material and/or compaction level is not recommended by ASTM D2321 for the backfill envelope.
 - When using open-graded material, additional precaution must be taken to reduce or eliminate the risk of migration of fines from adjacent material. Refer to ASTM D2321 for more complete information.



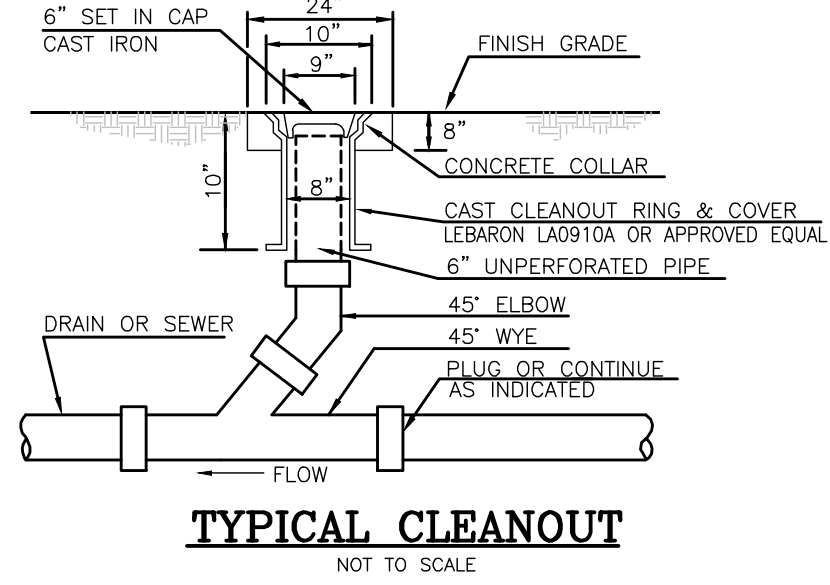
PRECAST CONCRETE CATCH BASIN WITH HOOD

NOT TO SCALE



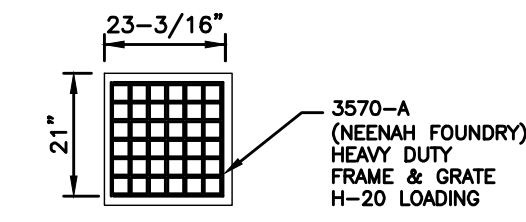
TYPICAL TRENCH SECTION FOR STORM DRAIN

NOT TO SCALE



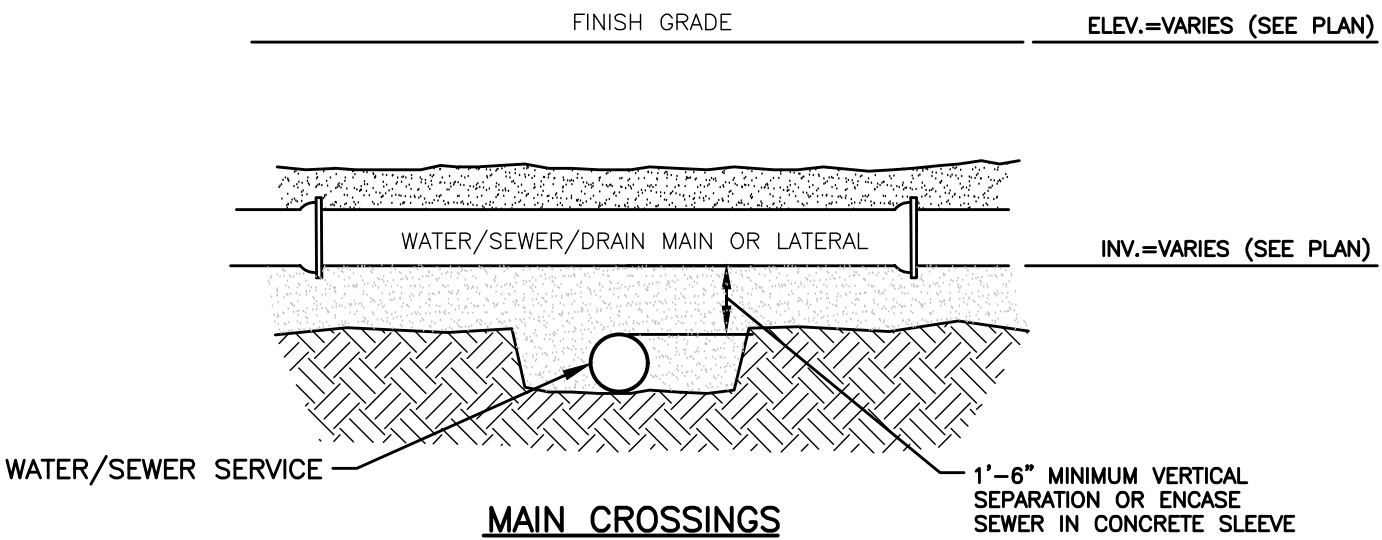
TYPICAL CLEANOUT

NOT TO SCALE



LOW PROFILE GRATE PLAN VIEW

NOT TO SCALE

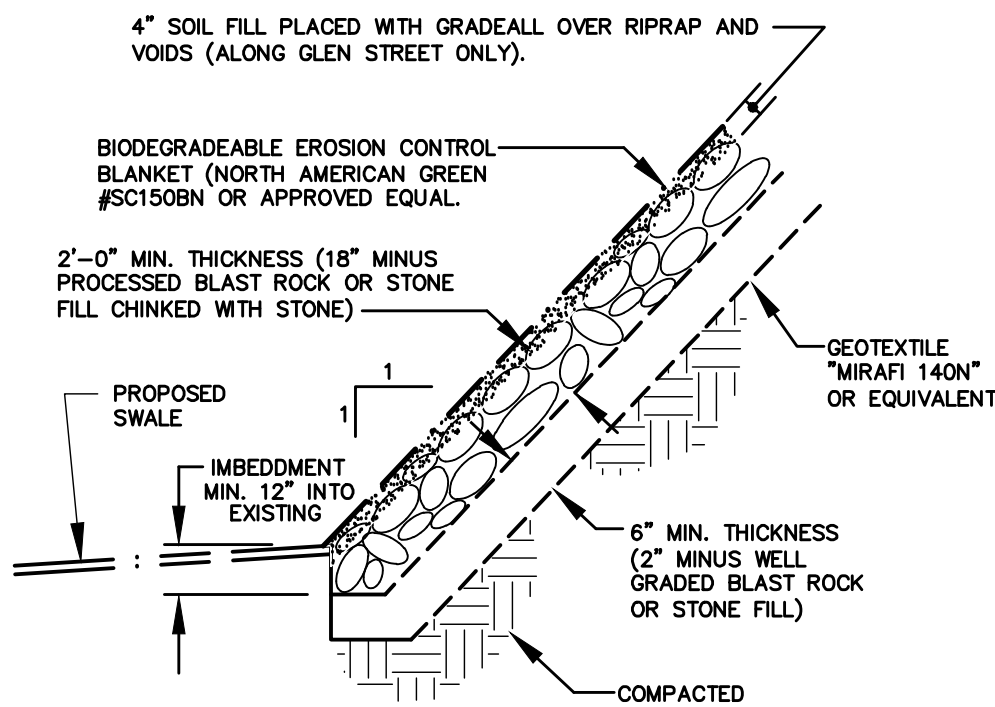


MAIN CROSSINGS

- NOTES:
- UNLESS OTHERWISE DEPICTED AND APPROVED, WATER SHALL BE ABOVE SEWER AT CROSSING.
 - SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATER CROSSING.

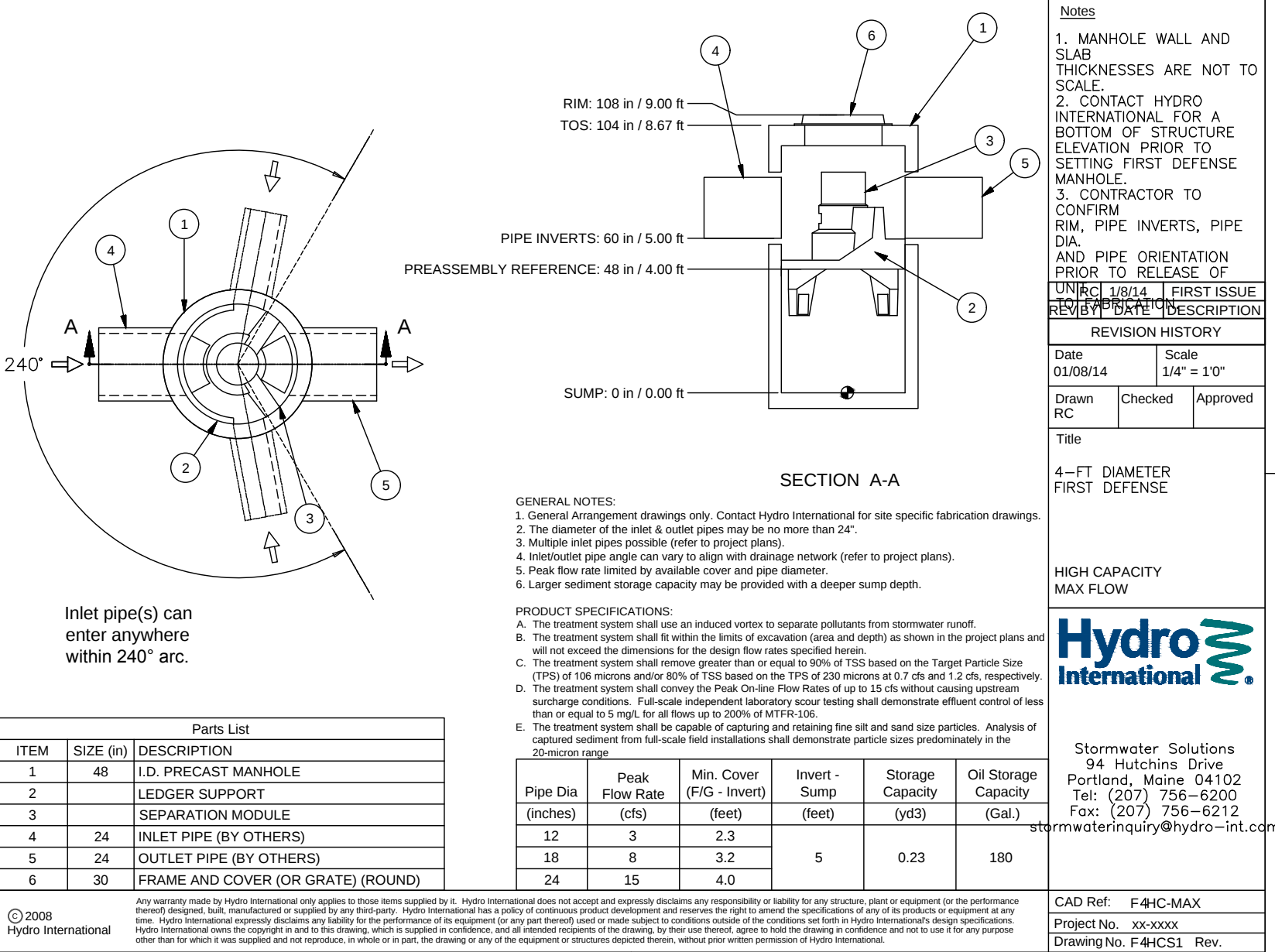
WATER SERVICE/SEWER SERVICE SEPARATION

NOT TO SCALE



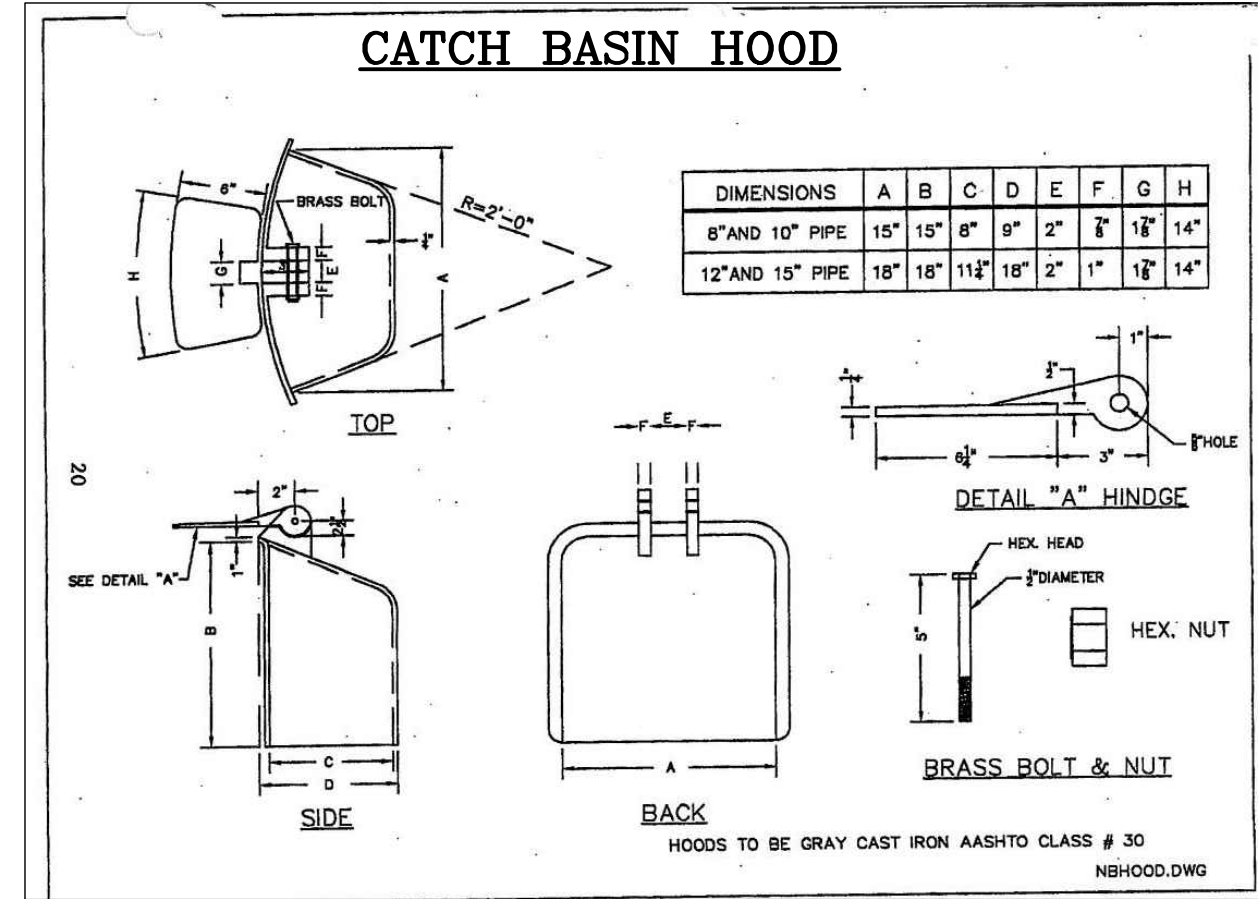
RIPRAP SLOPE DETAIL

NOT TO SCALE



"FIRST DEFENSE" UNIT

NOT TO SCALE



CATCH BASIN HOOD

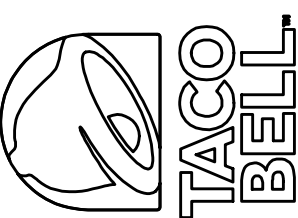
DIMENSIONS	A	B	C	D	E	F	G	H
8" AND 10" PIPE	18"	15"	8"	2"	2"	1"	14"	14"
12" AND 15" PIPE	18"	15"	11 1/2"	18"	2"	1"	14"	14"

TEST PIT DATA

Client: LockwoodMcKinnon Group		Town: State: New Bedford, MA		Job Number: MAX-04529115		Date: January 2, 2020		Performed by: Diane Pantermoller	
Test Pit No. 1	66"	SCS Soil: Standing Water: None	Urban Land	Refusal: None	78"	None	None	Quantity/Contrast	4" pavement
Depth 0-60"	Horizon Fill	Soil Texture Mixed	Color	Consistence Variable	FR	Platy	Mottles: @66"	Distinct Compacted	
60-70"	C1	Soils/Bricks	2.5y 6/3						
70-115"	C2	Fine Sand Loamy Sand	2.5y 6/4						
Test Pit No. 2	78"	SCS Soil: Standing Water: None	Urban Land	Refusal: None	78"	None	None	Quantity/Contrast	3" pavement
Depth 0-114"	Horizon Fill	Soil Texture Mixed	Color	Consistence Variable	FR	Platy	Mottles: @66"	Distinct Compacted	
60-70"	C1	Soils/Bricks	2.5y 6/3						
70-115"	C2	Fine Sand Loamy Sand	2.5y 6/4						

TEST PIT LOGS

NOT TO SCALE



PREPARED FOR:
LOCKWOOD/MCKINNON GROUP
79 NORTH MAIN STREET
MANSFIELD, MA 02048

Greenman-Pedersen, Inc.
44 Siles Road
Suite One
Salem, NH 03079

Engineering
Design
Planning
Construction Management
GPI
603.893.0720
GPI@GPI.COM

DETAIL SHEET

ASSESSORS MAP 18 LOT 113
123 ROCKDALE AVENUE
NEW BEDFORD, MASSACHUSETTS

DRAWN BY: CPS
CHECKED BY: HS
DATE: 1/8/20

BUILDING TYPE: MEDIUM-40+

VARIATION: --

SITE NUMBER: --

DRAWING NUMBER: 4529DET.DWG

SHEET NUMBER: C8