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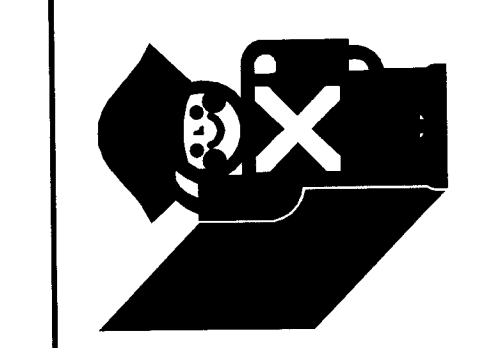
LOCHMUELLER GROUP
 6200 Vogel Road
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 [Loch. Group Proj. No. 107-0141]

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Issues & Revisions

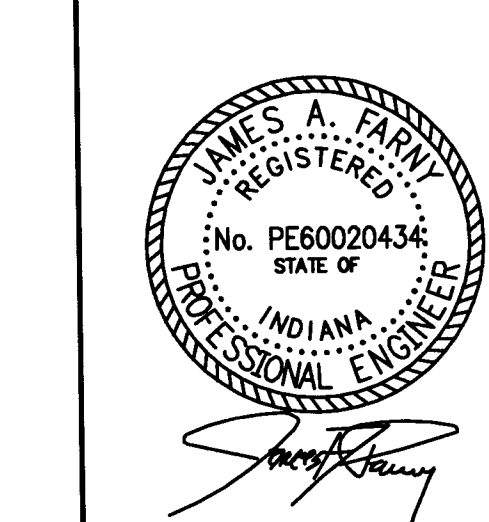
NO.	DATE	DESCRIPTION

Project Name:



Schnucks
 US 41 and Boonville - New Harmony Road
 Evansville, IN

Project Manager:
 Checked By:
 J.A.F.
 Drawn by:
 R.A.P.
 Submission date:
 12/22/14

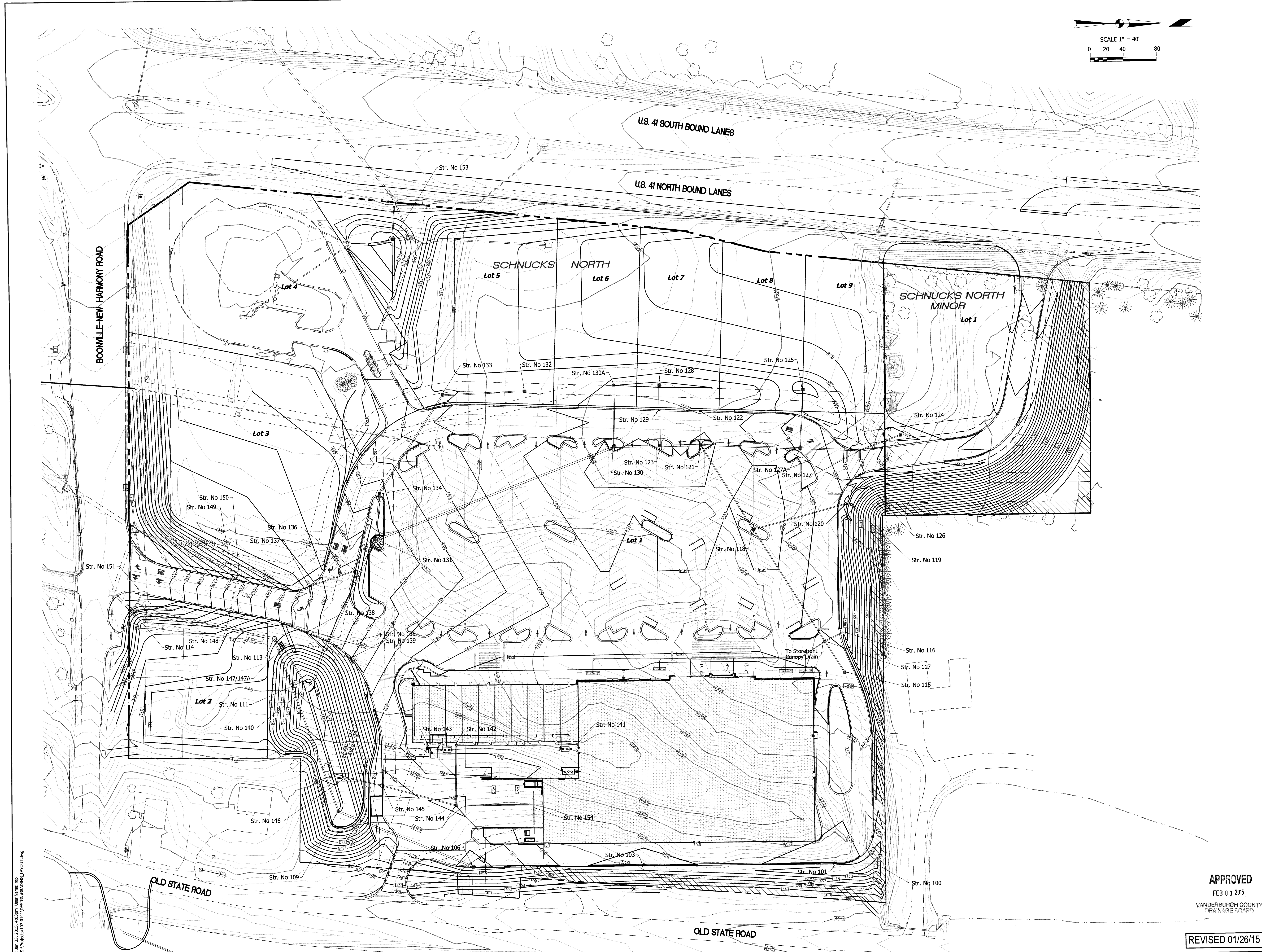


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 VANDERBURGH COUNTY
 DRAINAGE BOARD

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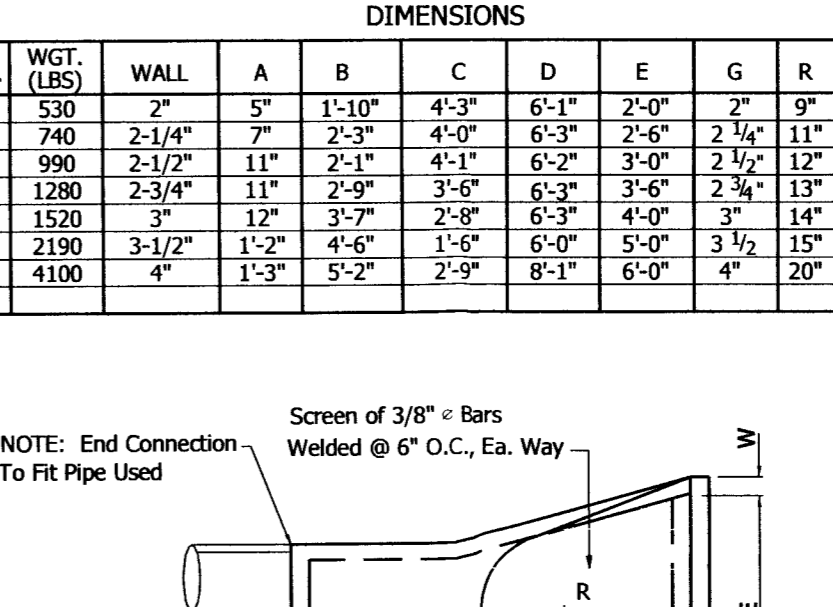
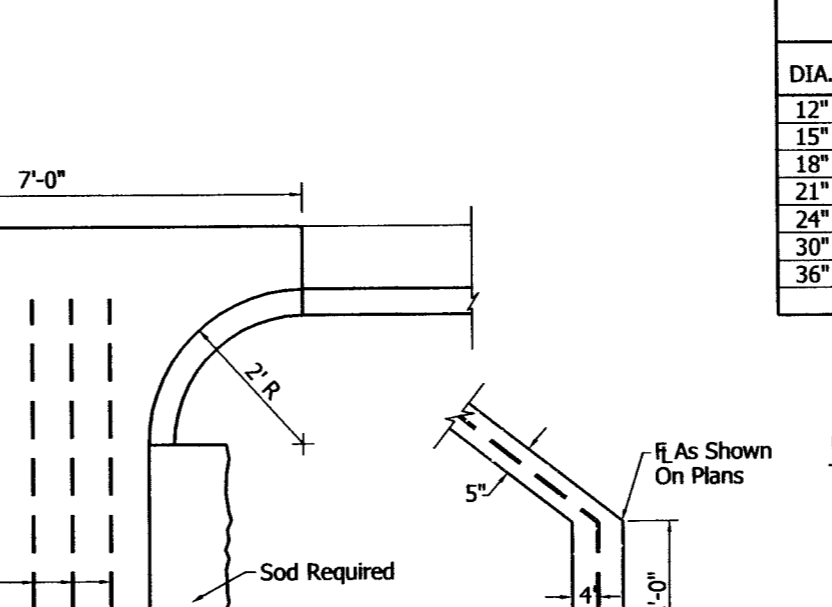
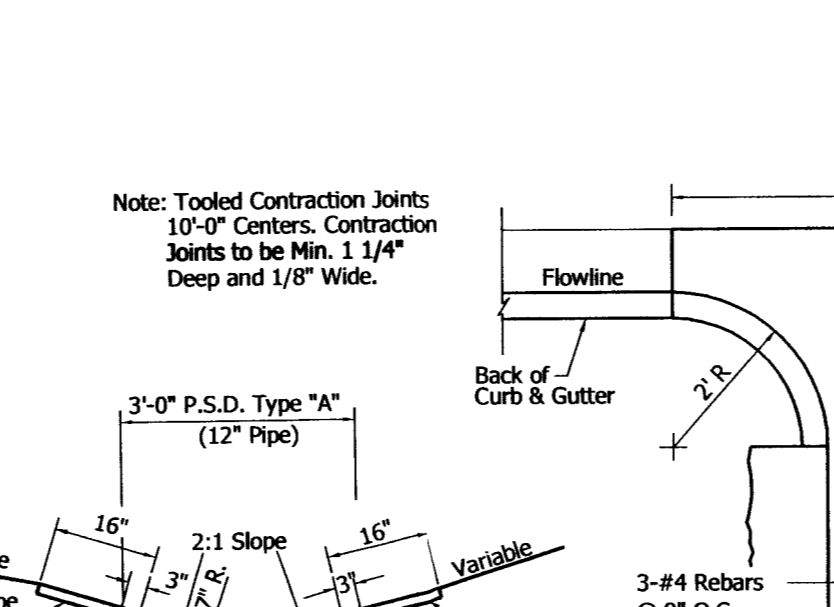
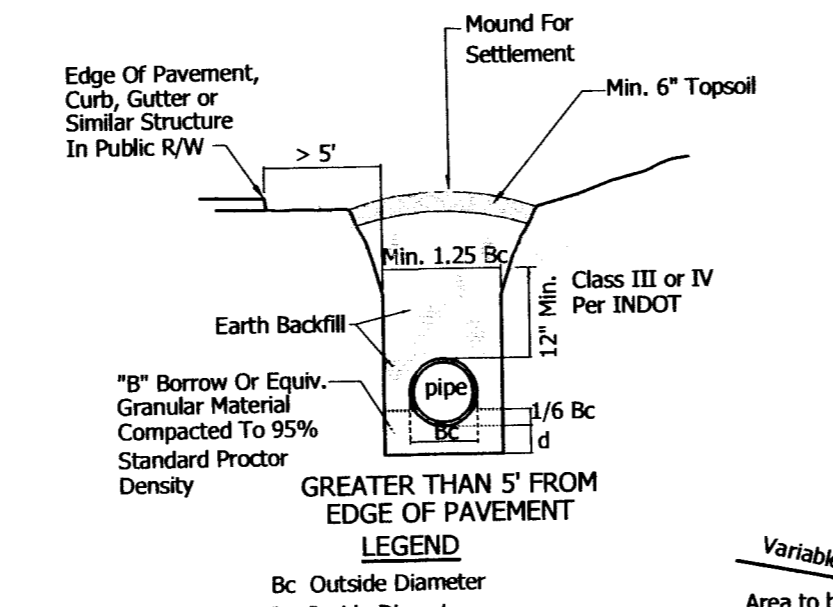
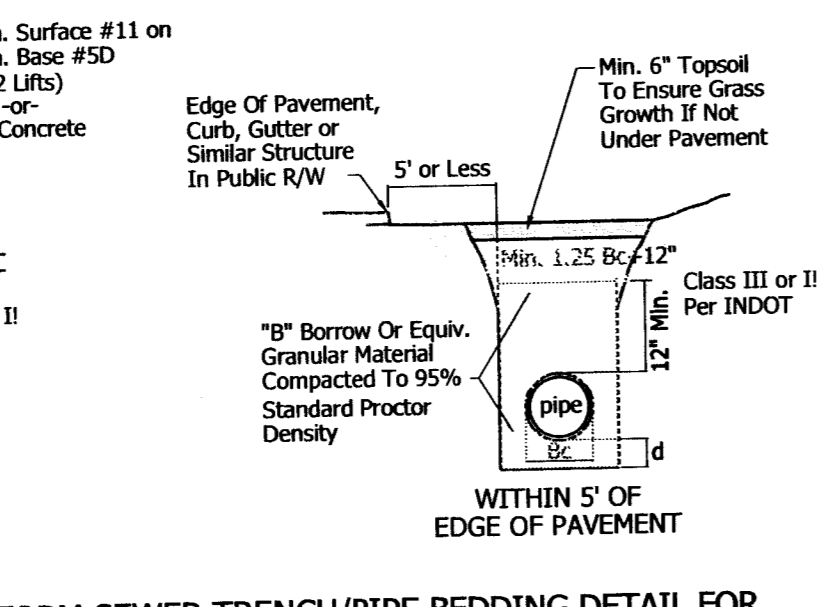
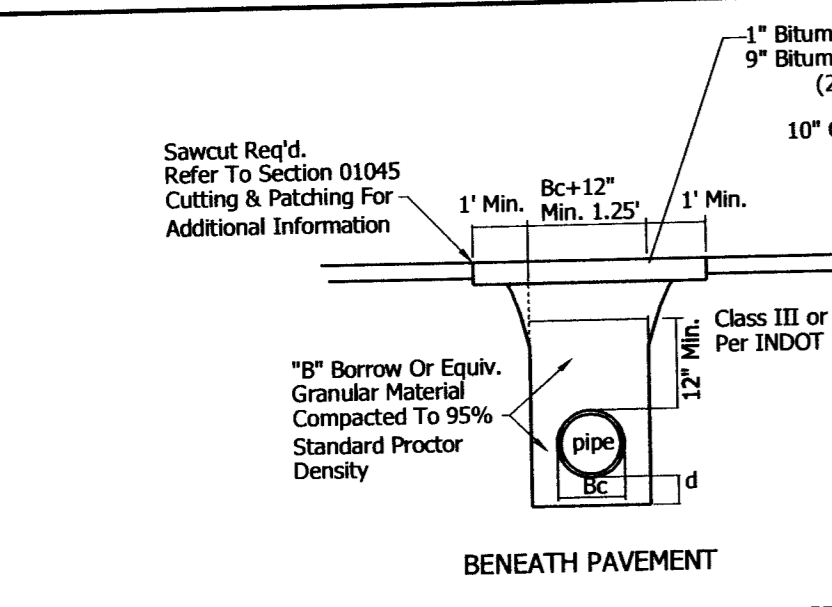
Sheet Title:
 GRADING PLAN

Sheet No.
 APPENDIX A-1



Date: Jan 23, 2015, 4:03pm User Name: rhp
 File: S:\Projects\107-0141\DESIGN\GRADING_LAYOUT.dwg

REVISED 01/26/15



NOTE:
Contractor Shall Install Pipe Using More Stringent of Two Procedures
1.) That Depicted Hereon
2.) Manufacturer Recommendations

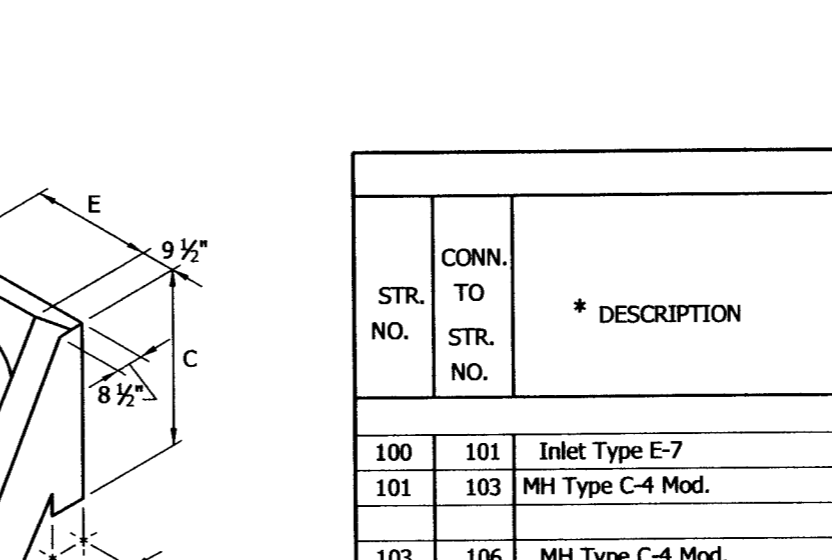
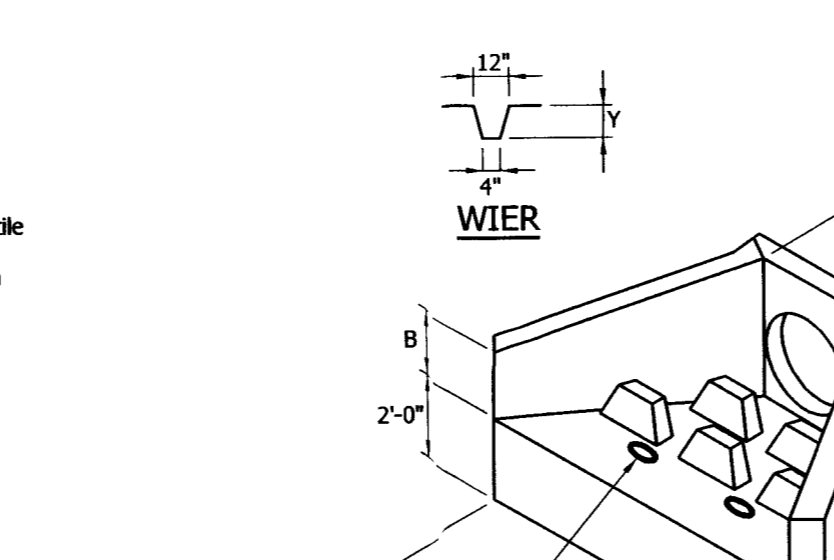
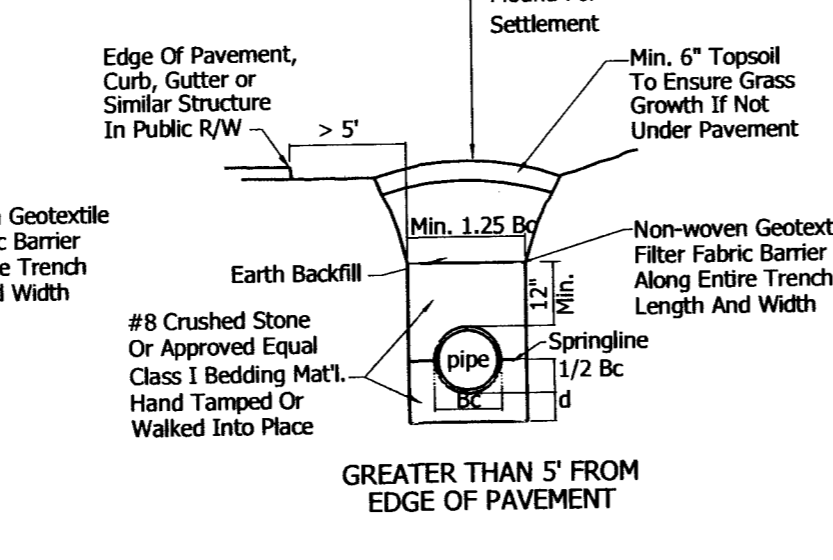
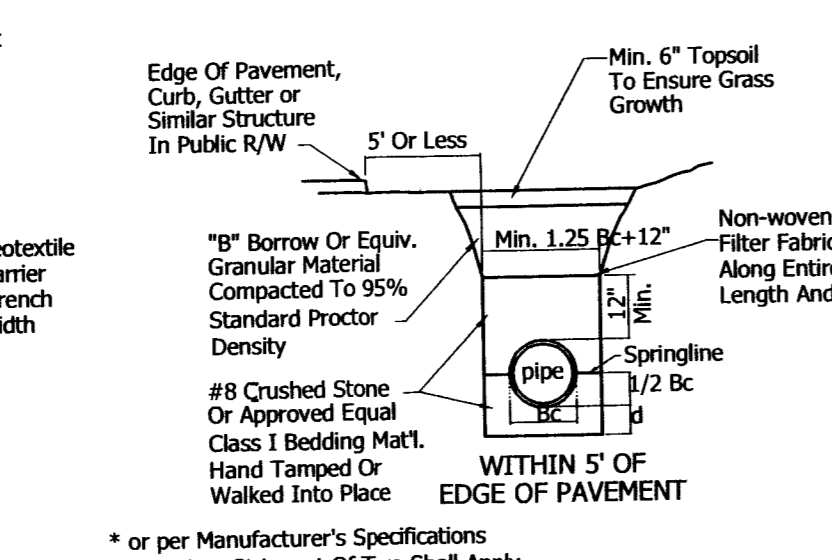
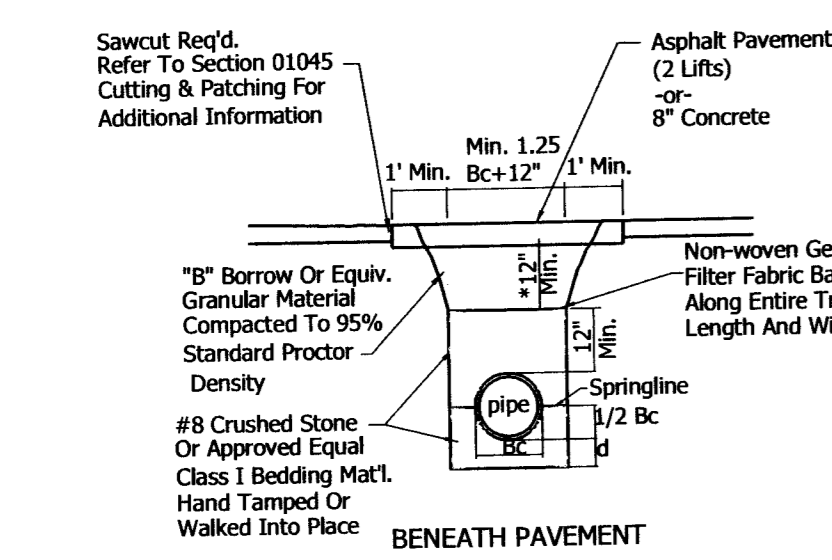
STORM SEWER TRENCH/PIPE BEDDING DETAIL FOR REINFORCED CONCRETE PIPE (RCP)
NTS
All Bedding & Initial Shall Be Installed In 6" To 12" Balanced Lifts
A Minimum 9" of Clearance Shall Be Provided On Each Side Of Installed Pipe
(Note: All bedding shown shall be incidental to pipe)

LEGEND
Bc Outside Diameter
D Inside Diameter
d Depth of Bedding Material Below Pipe

D	d
27" & Smaller	3"
30" to 60"	4"
66" & Larger	6"

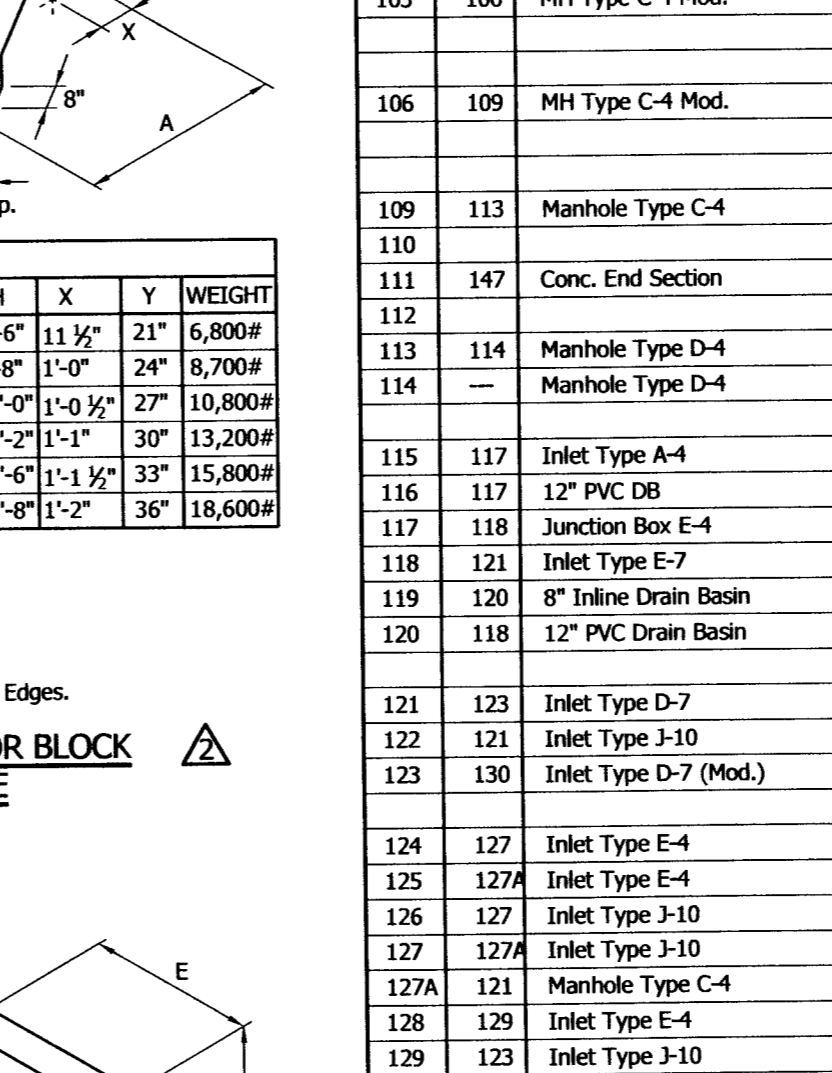
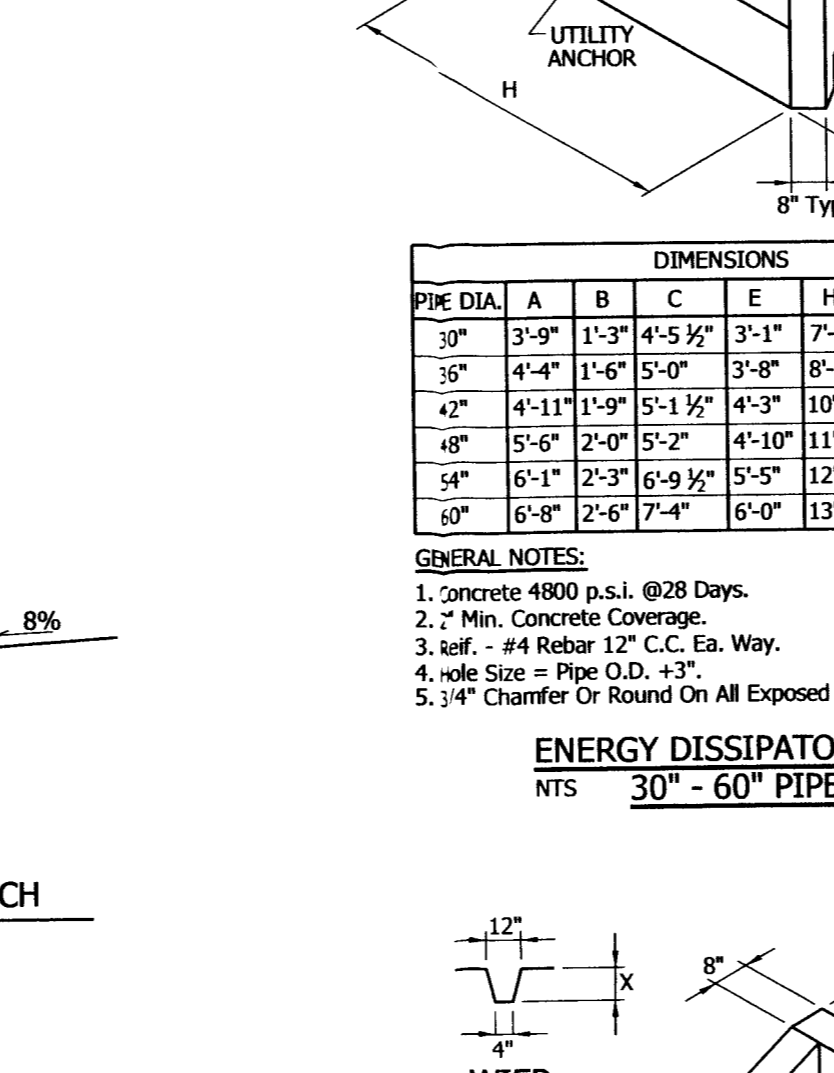
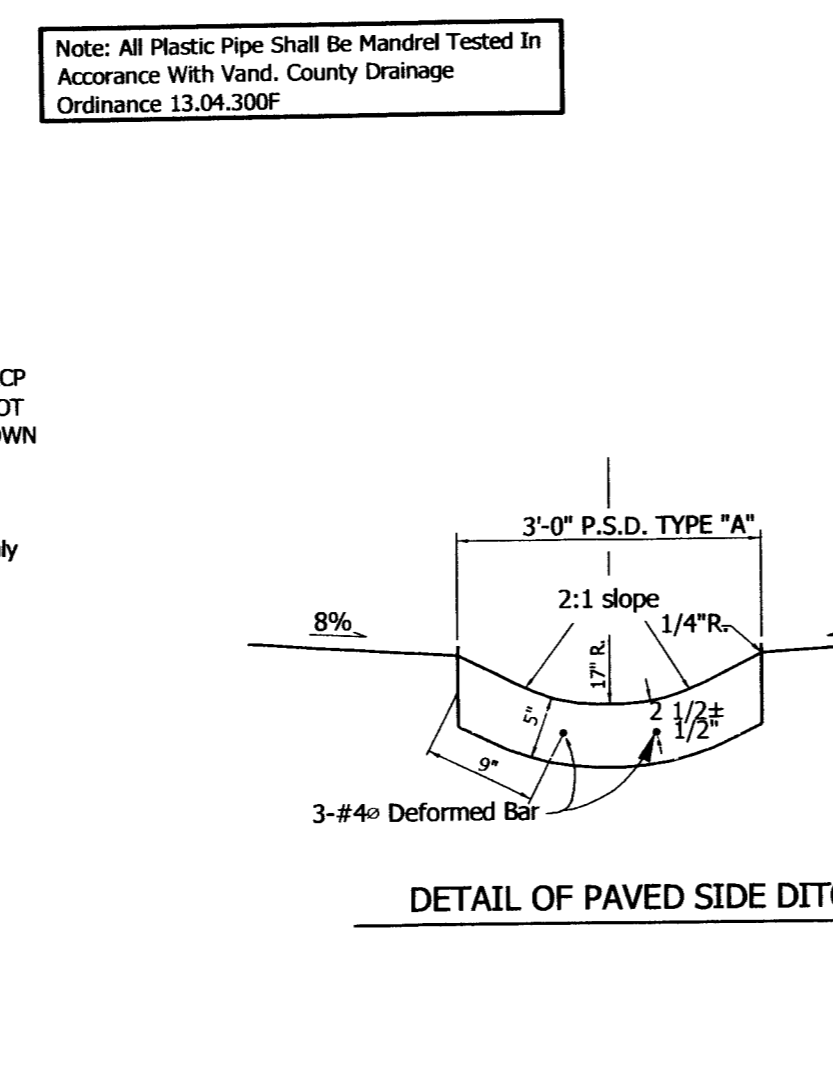
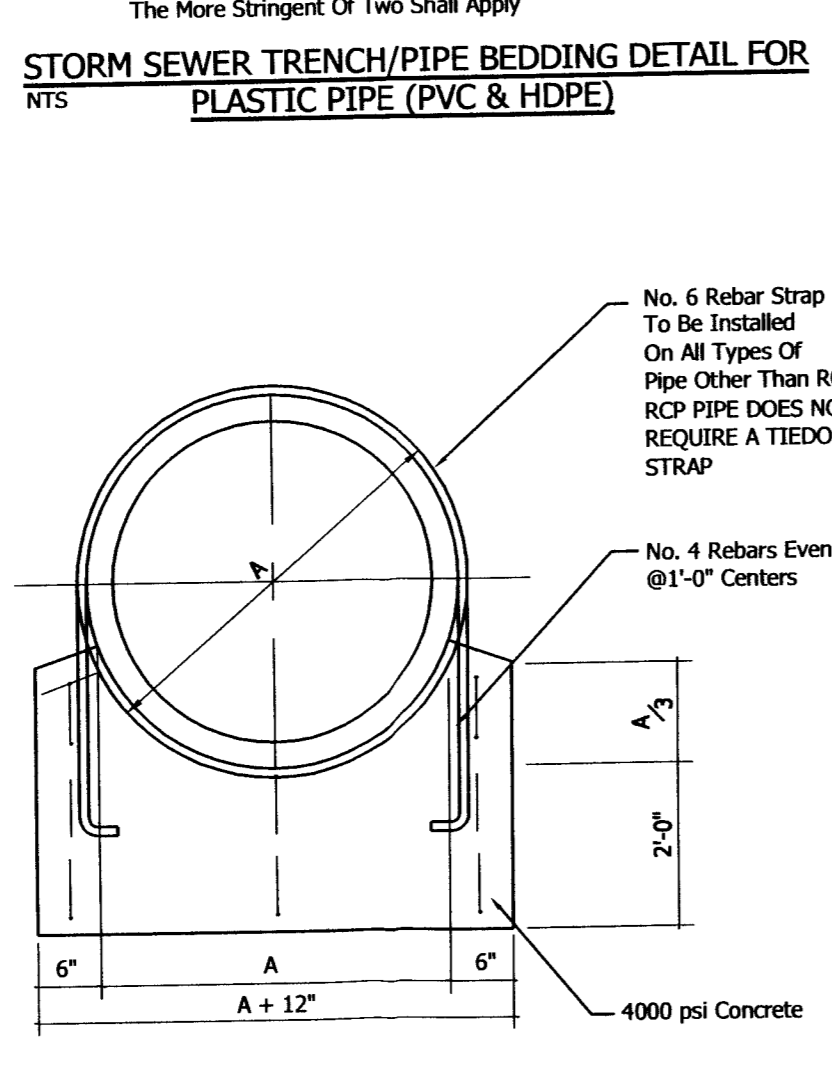
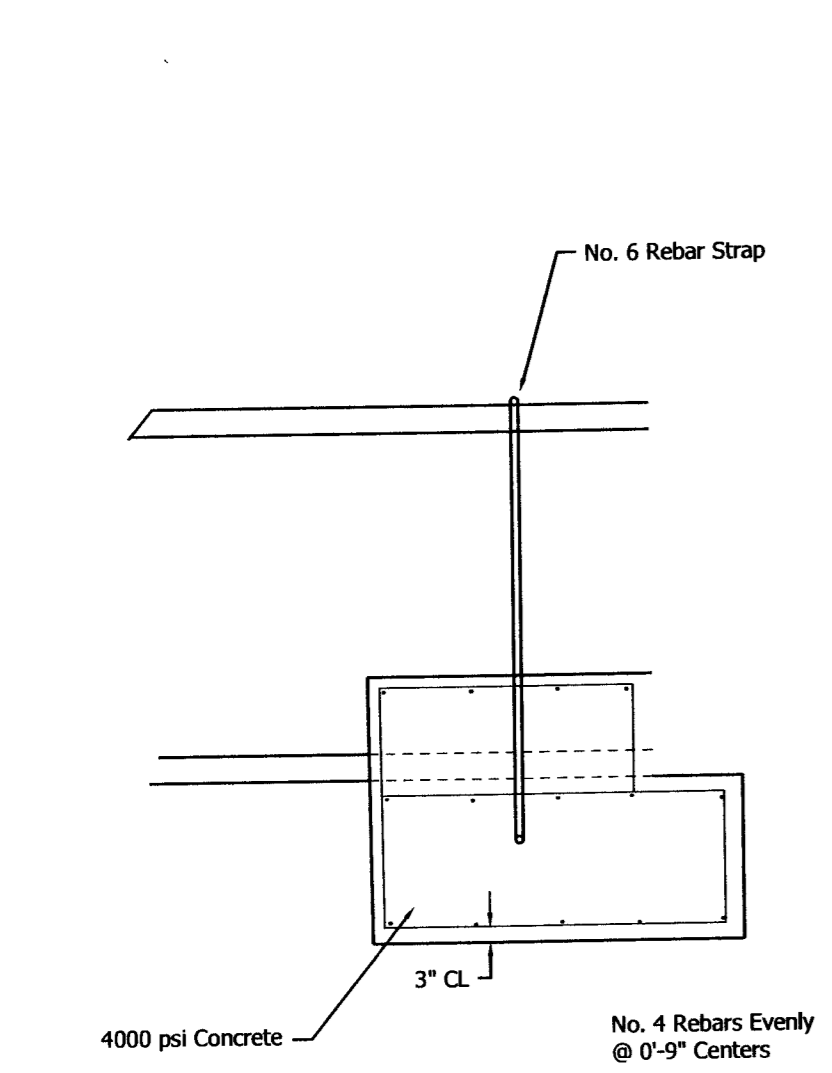
STRAIGHT CURB TURNOUT & PAVED INVERT DETAIL
NTS
Note: Tooled Contraction Joints 10'-0" Centers. Contraction Joints to be Min. 1/4" Deep and 1/8" Wide.

CONCRETE END SECTION DETAIL
NTS
NOTE: End Connection To Fit Pipe Used
Screen of 3/8" x Bars Welded @ 6" O.C., Ea. Way



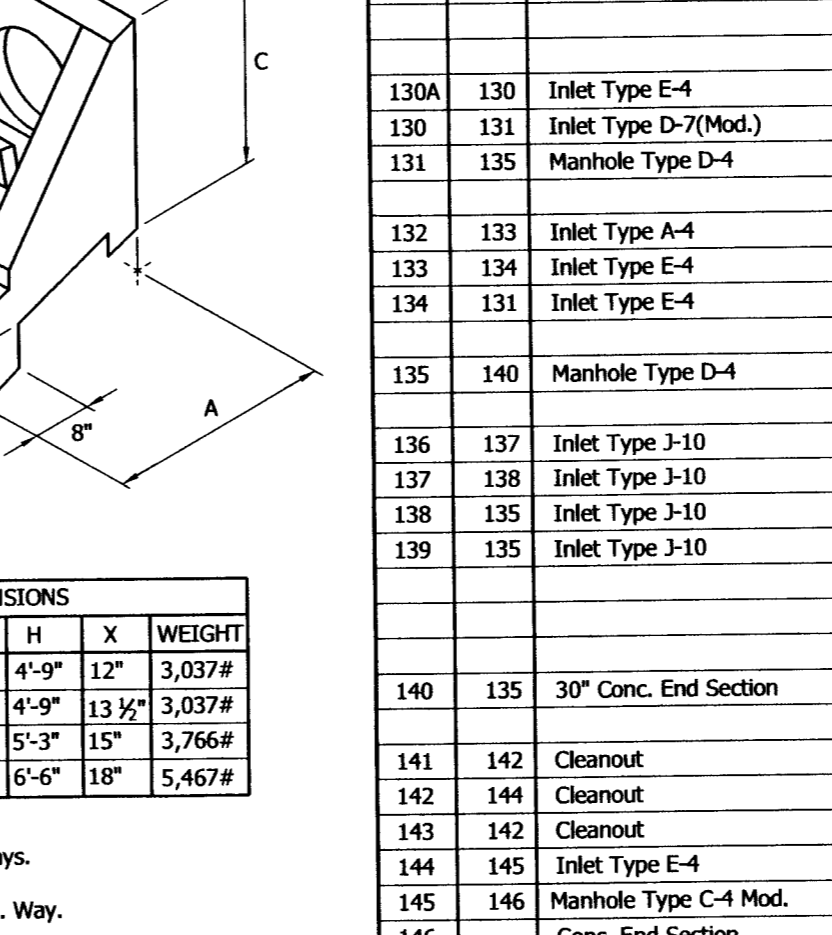
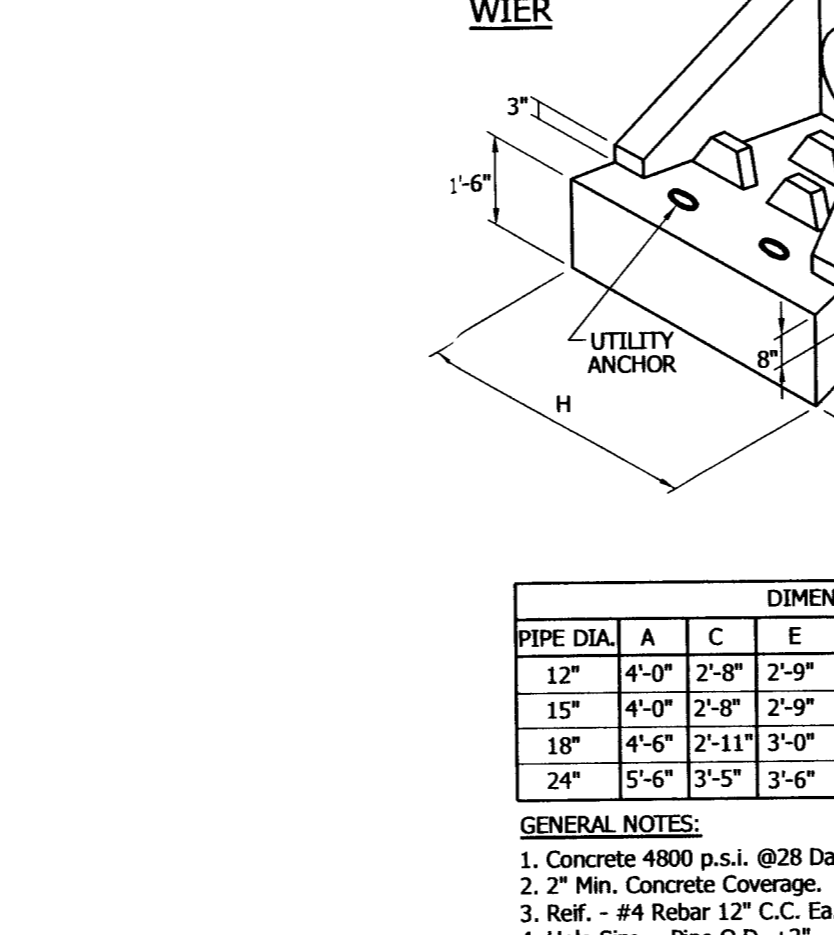
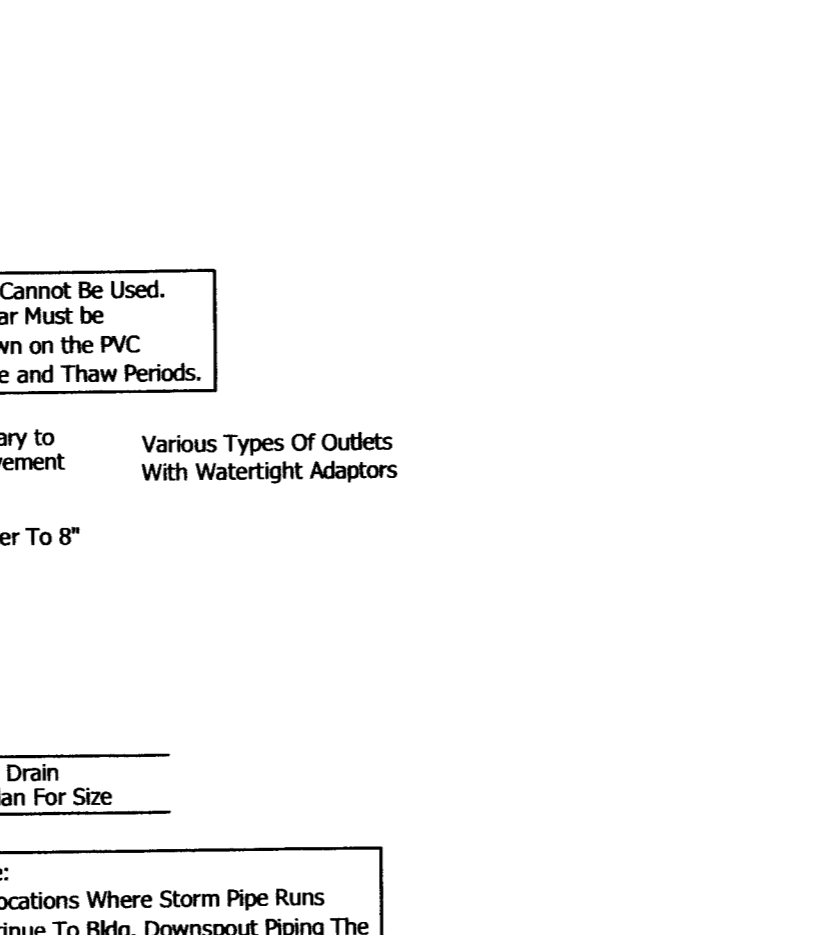
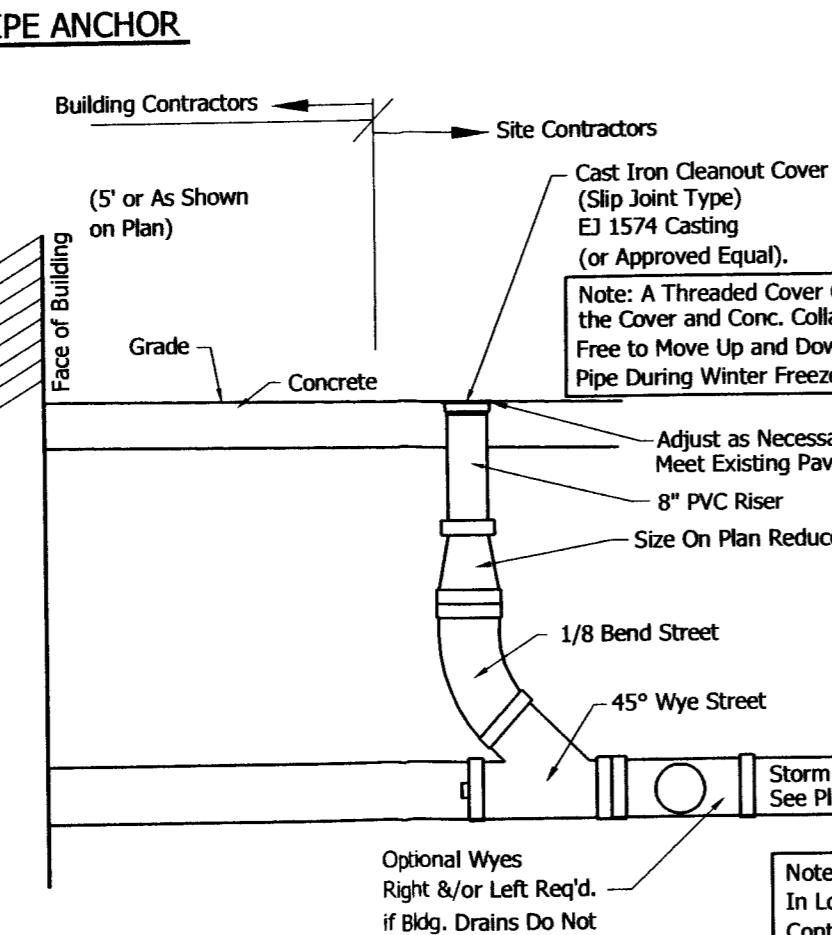
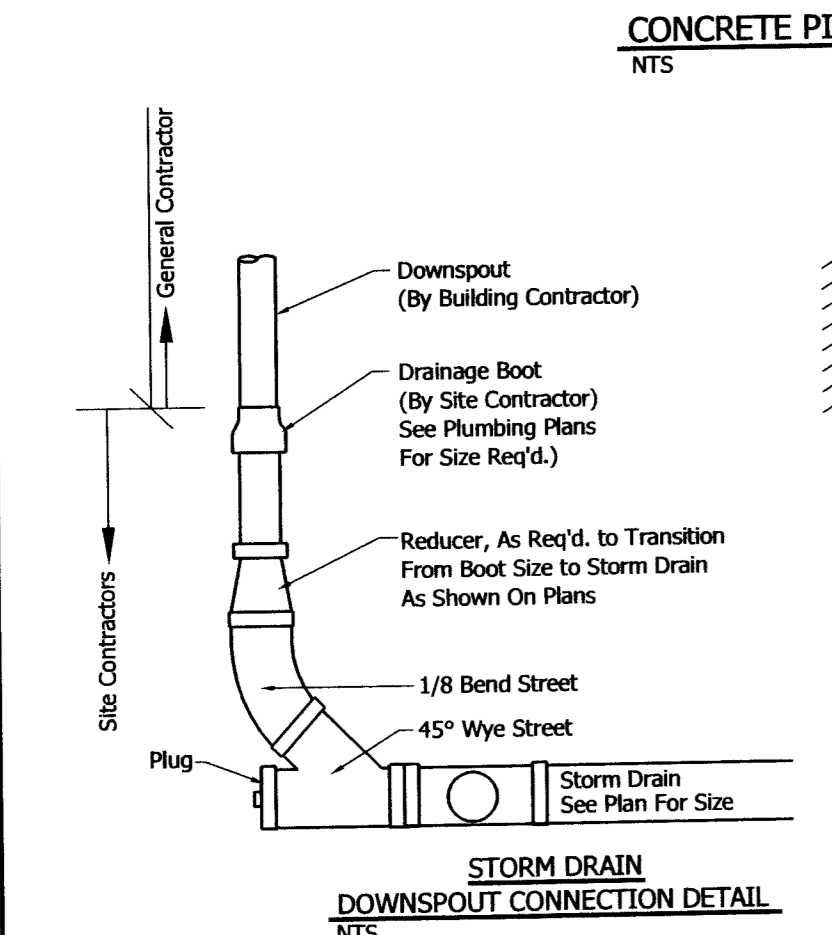
STRUCTURE DATA

STR. NO.	CONN. TO STR. NO.	DESCRIPTION	SIZE	MATERIAL	FLOW LINE		RIM/GUTTER ELEV.	REMARKS	
					UP STREAM ELEV.	DOWN STREAM ELEV.			
100	101	Inlet Type E-7	18	RCP	48	451.25	451.00	Reconnect Existing Tile Drain	
101	103	MH Type C-4 Mod.	24	RCP	226	451.00	449.00	Gutter	
103	106	MH Type C-4 Mod.	24	RCP	202	449.00	446.00	Gutter	
106	109	MH Type C-4 Mod.	24	RCP	174	446.00	436.00	Gutter	
109	113	Manhole Type C-4	15	RCP	220	432.50	431.75	Open Grate	
110									
111	147	Conc. End Section	18	RCP	43	436.35	436.00		
112									
113	114	Manhole Type D-4	30	RCP	170	431.75	431.33	445.80	
114		Manhole Type D-4	30	RCP	147	431.33	431.00	Connect To Exist 36" Pipe, 4' of 12" RCP Stub To NE	
115	117	Inlet Type A-4	12	RCP	44	451.50	450.80	454.25	
116	117	12" PVC DB	12	PVC	24	451.50	450.80	455.50	
117	118	Junction Box E-4	15	RCP	160	450.80	449.00	454.80	
118	121	Inlet Type E-7	18	RCP	120	449.00	447.75	453.00	
119	120	8" Inlet Drain Basin	8	PVC	6	452.15	451.95	460.50	
120	118	12" PVC Drain Basin	12	RCP	115	451.95	449.00	455.25	
121	123	Inlet Type D-7	24	RCP	50	447.75	447.25	452.40	
122	121	Inlet Type J-10	12	RCP	40	450.00	449.50	452.62	
123	130	Inlet Type D-7 (Mod.)	24	RCP	55	447.25	446.50	452.25	
124	127	Inlet Type E-4	15	RCP	52	455.50	455.20	458.50	
125	127	Inlet Type E-4	15	RCP	70	451.70	451.00	454.80	
126	127	Inlet Type J-10	12	RCP	28	455.50	455.20	457.80	
127	127	Inlet Type J-10	15	RCP	70	455.20	451.00	457.80	
127A	121	Manhole Type C-4	18	RCP	117	451.00	447.75	455.22	
128	129	Inlet Type E-4	12	RCP	30	450.50	450.00	452.50	
129	123	Inlet Type J-10	15	RCP	42	450.00	447.25	452.62	
130A	130	Inlet Type E-4	12	RCP	74	450.50	448.50	453.00	
130	131	Inlet Type D-7 (Mod.)	27	RCP	305	446.50	441.50	452.25	
131	135	Manhole Type D-4	27	RCP	145	441.50	437.00	449.00	
132	133	Inlet Type A-4	12	RCP	100	451.75	451.00	454.00	
133	134	Inlet Type E-4	12	RCP	140	451.00	447.00	453.50	
134	131	Inlet Type E-4	15	RCP	55	447.00	444.71	450.50	
135	140	Manhole Type D-4	30	RCP	40	437.00	436.85	446.80	
136	137	Inlet Type J-10	12	RCP	54	443.00	442.00	447.46	
137	138	Inlet Type J-10	15	RCP	55	442.00	441.40	445.82	
138	135	Inlet Type J-10	15	RCP	30	441.40	441.00	445.82	
139	135	Inlet Type J-10	12	RCP	30	447.00	444.00	449.82	
140	135	30" Conc. End Section	30	RCP	--	436.85	--	w/ Energy Dissipator Block	
141	142	Cleanout	12	PVC	150	453.50	452.00	455.40	
142	144	Cleanout	12	PVC	70	452.00	449.80	445.40	
143	142	Cleanout	12	PVC	43	453.00	452.00	455.40	
144	145	Inlet Type E-4	15	RCP	87	449.80	448.50	452.80	
145	146	Manhole Type C-4 Mod.	15	RCP	48	441.63	438.00	452.60	
146	--	Conc. End Section	15	RCP	--	438.00	--	w/ Energy Dissipator Block	
147	113	Water Quality Structure	30	RCP	8	--	--	See Detail Sheet For Additional Information	
147A	147	Water Quality Structure	24	RCP	14	--	--	w/ 24" Conc. End Section, See Detail Sheet For Additional Information	
148	149	Exist. Inlet Type J-10	12	PVC	(--)	(--)	440.18	Add Spacer Ring To Raise Casting, Existing Gutter Elev.=437.40	
149	150	Exist. Inlet Type J-10	12	RCP	(--)	(--)	440.18	Add Spacer Ring To Raise Casting, Existing Gutter Elev.=437.40	
150	--	Manhole Type C-4	12	RCP	(--)	(--)	442.00	Connect To Exist 15" Pipe I.E. =433.68	
151	--	Existing Curb Inlet	12	RCP	--	--	--	Tap Existing Pipe Outlet To Str. 114	
152	153	Inlet Type A-5	12	RCP	40	442.75	442.64	444.27	Add 8" Orifice Plate Beneath Milk Stool Casting (See Detail)
153	--	Conc. Pipe Anchor	12	RCP	--	442.64	--	--	
154	144	40" Trench Drain	8	PVC	98	450.00	449.80	451.40	



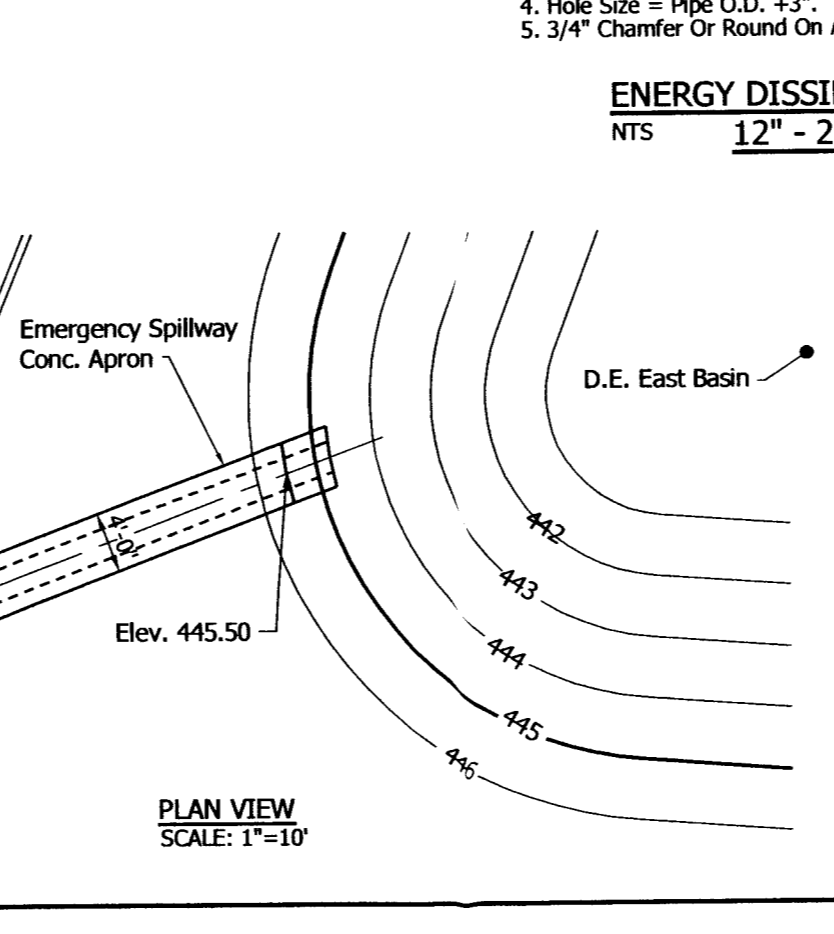
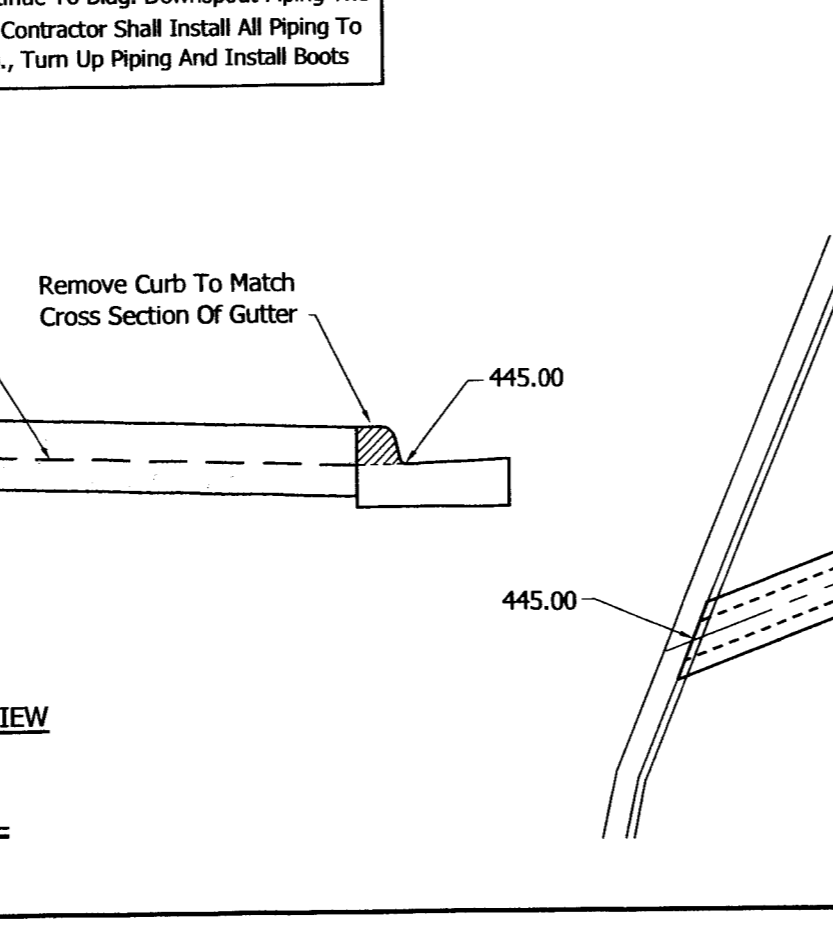
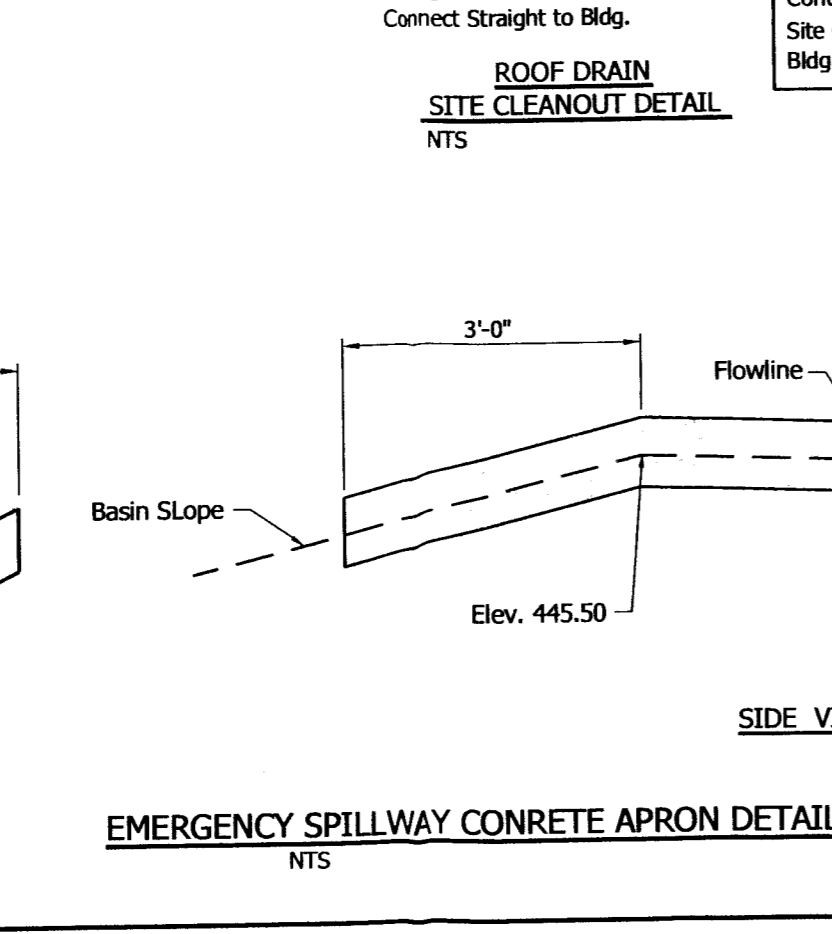
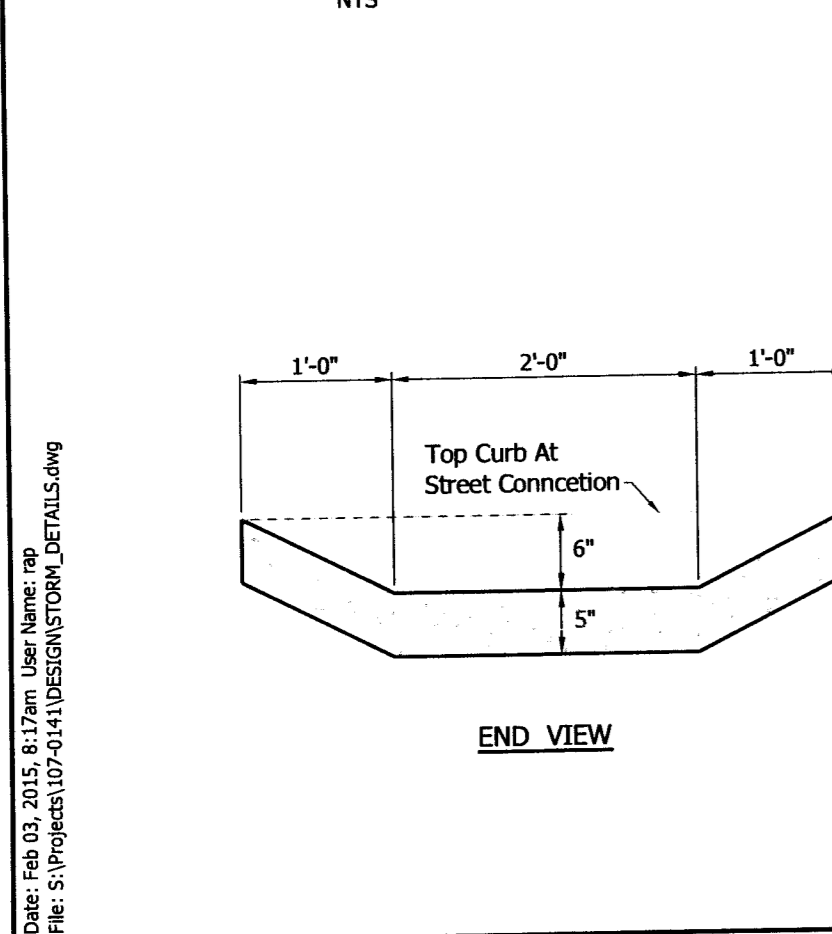
ENERGY DISSIPATOR BLOCK
NTS
30" - 60" PIPE

PIPE DIA.	A	B	C	E	H	X	Y	WEIGHT
30"	3'-0"	1'-3"	4'-5 1/2"	3'-1"	7'-6"	11 1/2"	21"	6,800#
36"	4'-4"	1'-6"	5'-0"	3'-8"	8'-8"	1'-0"	24"	8,700#
42"	4'-11"	1'-9"	5'-1 1/2"	4'-3"	10'-0"	1'-0 1/2"	27"	10,800#
48"	5'-6"	2'-0"	5'-2"	4'-10"	11'-2"	1'-1"	30"	13,200#
54"	6'-1"	2'-3"	6'-9 1/2"	5'-5"	12'-6"	1'-1 1/2"	33"	15,800#
60"	6'-8"	2'-6"	7'-4"	6'-0"	13'-8"	1'-2"	36"	18,600#



ENERGY DISSIPATOR BLOCK
NTS
12" - 27" PIPE

PIPE DIA.	A	C	E	H	X	WEIGHT
12"	4'-0"	2'-8"	2'-9"	4'-9"	12"	3,037#
15"	4'-0"	2'-8"	2'-9"	4'-9"	13 1/2"	3,037#
18"	4'-6"	2'-11"	3'-0"	5'-3"	15"	3,766#
24"	5'-6"	3'-5"	3'-6"	6'-6"	18"	5,467#



Drawn by: J.A.S. Checked by: R.A.P. Date: 12/22/14
Project No.: 1222914
Professional Seal: [Seal]

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FEB 03 2015
VANDERBURGH COUNTY
DRAINAGE BOARD

REVISD 02/02/15

APPENDIX A-4

REVISD 02/02/15

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(Loch. Group Proj. No. 107-0141)

Schnucks
US 41 and Boonville - New Harmony Road
Evansville, IN

VANDERBURGH COUNTY
DRAINAGE BOARD

APPENDIX A-4

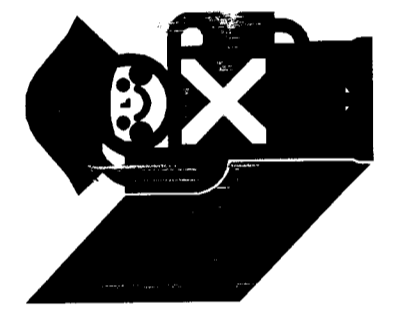
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Issues & Revisions

NO.	DATE	DESCRIPTION

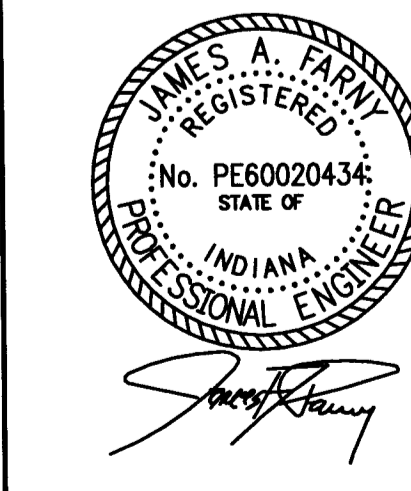
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Schnucks
 US 41 and Boonville - New Harmony Road
 Evansville, IN

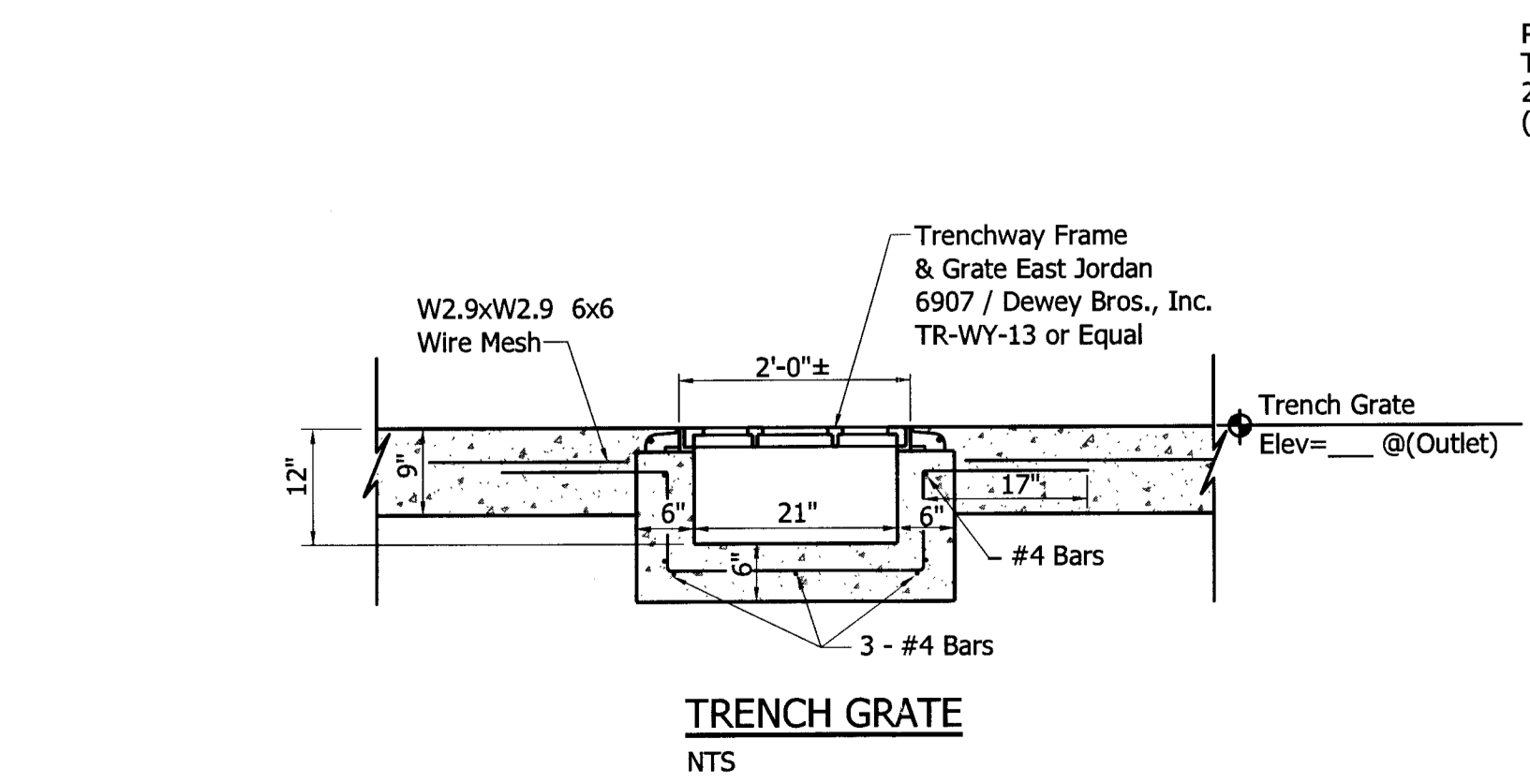
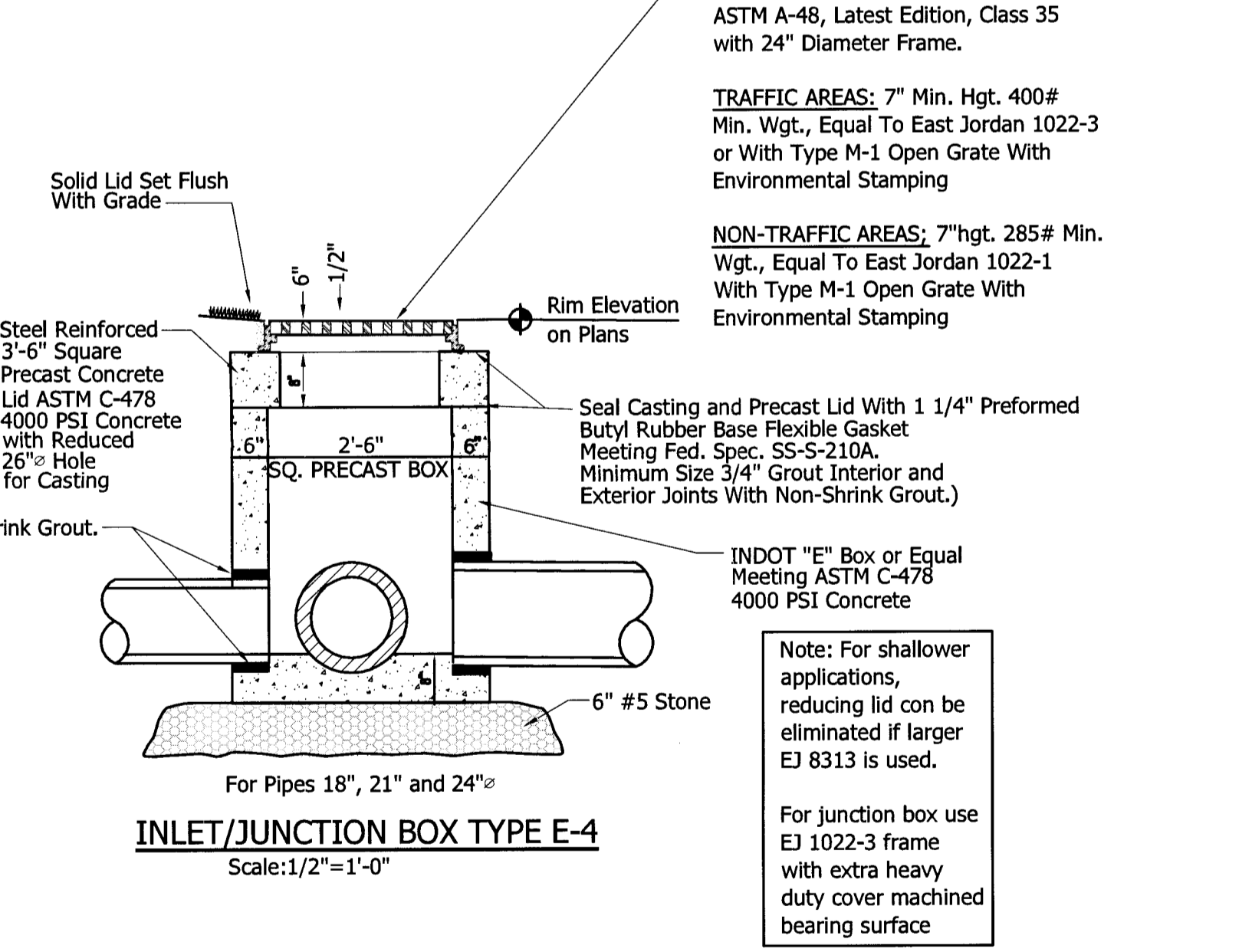
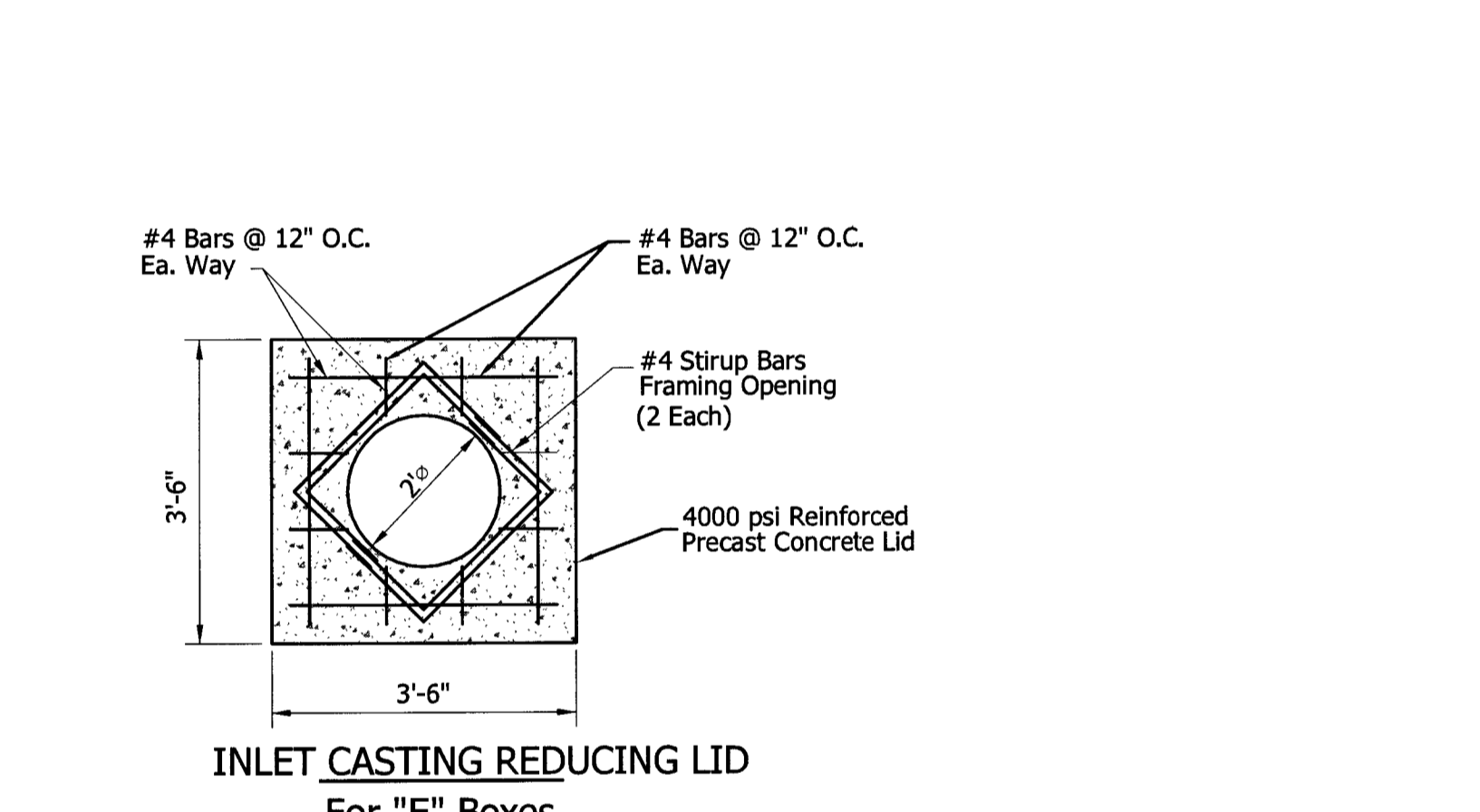
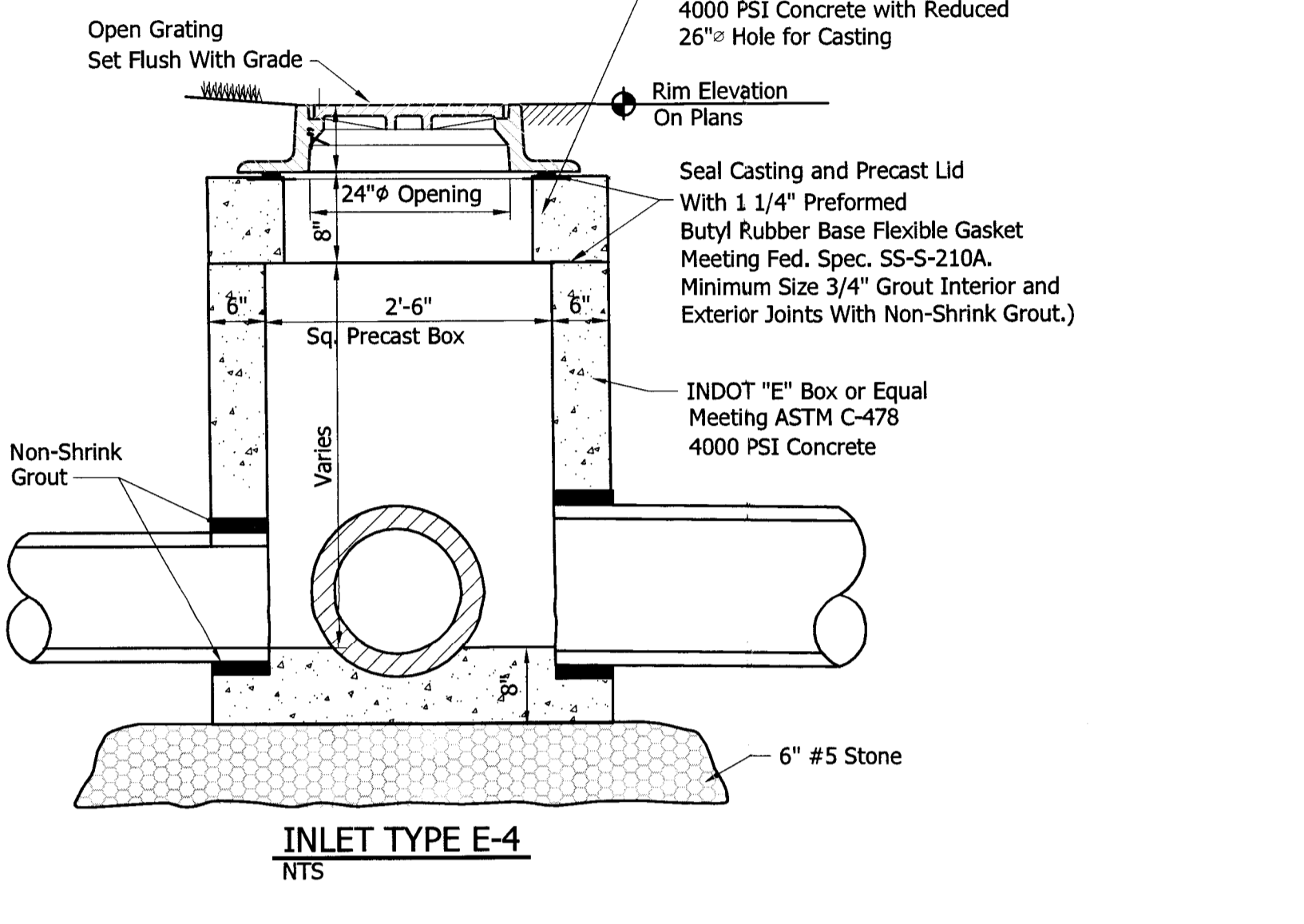
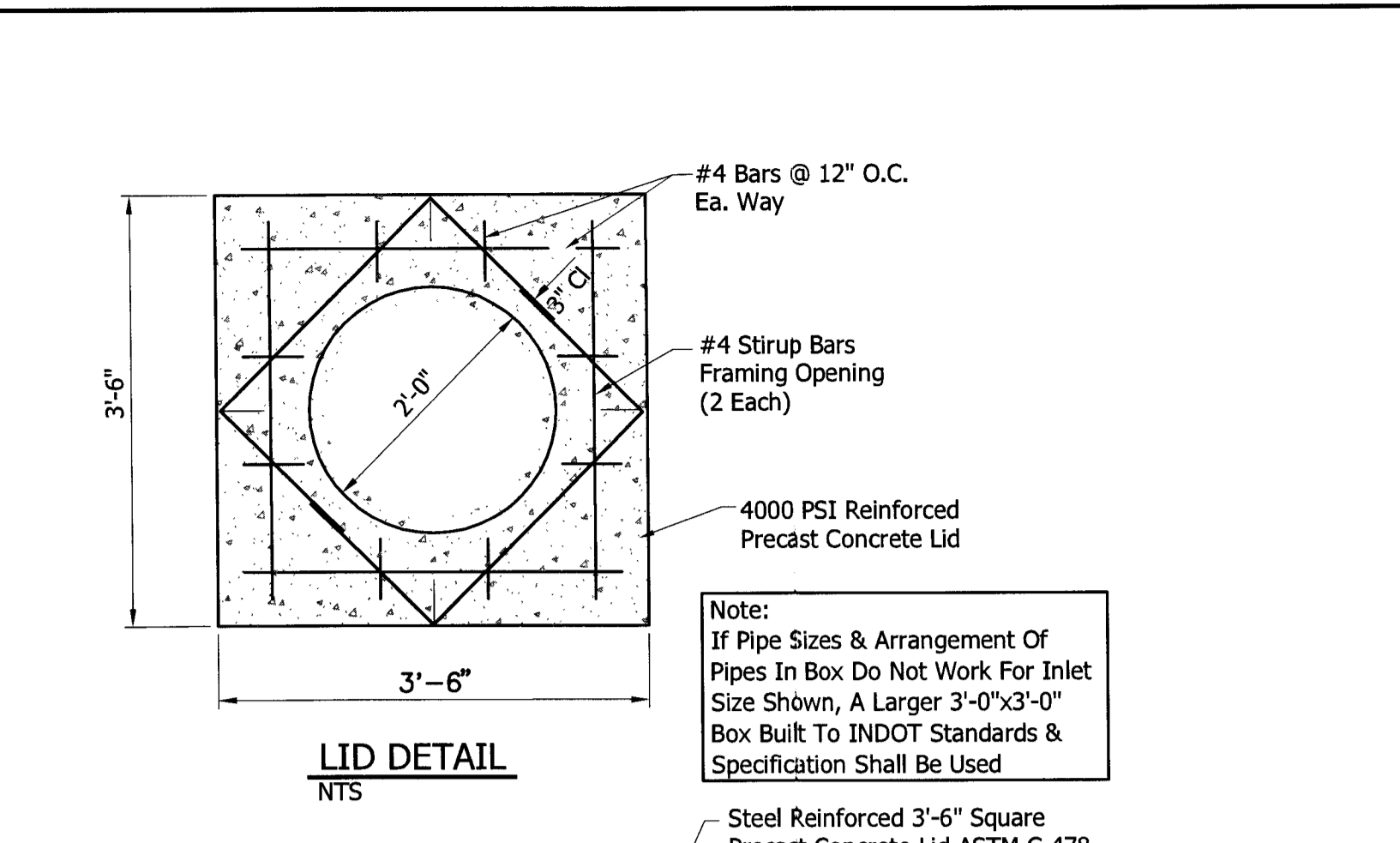
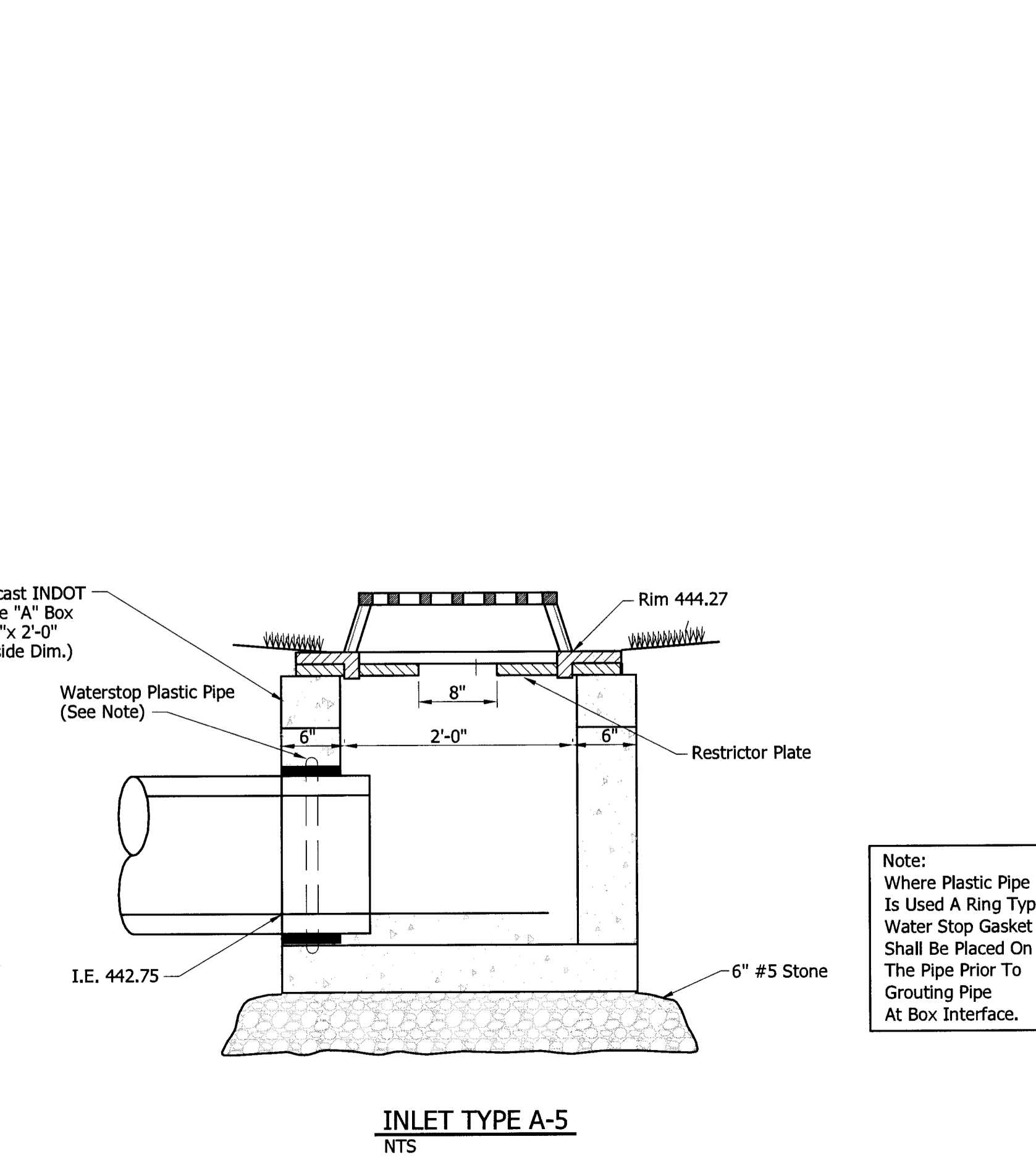
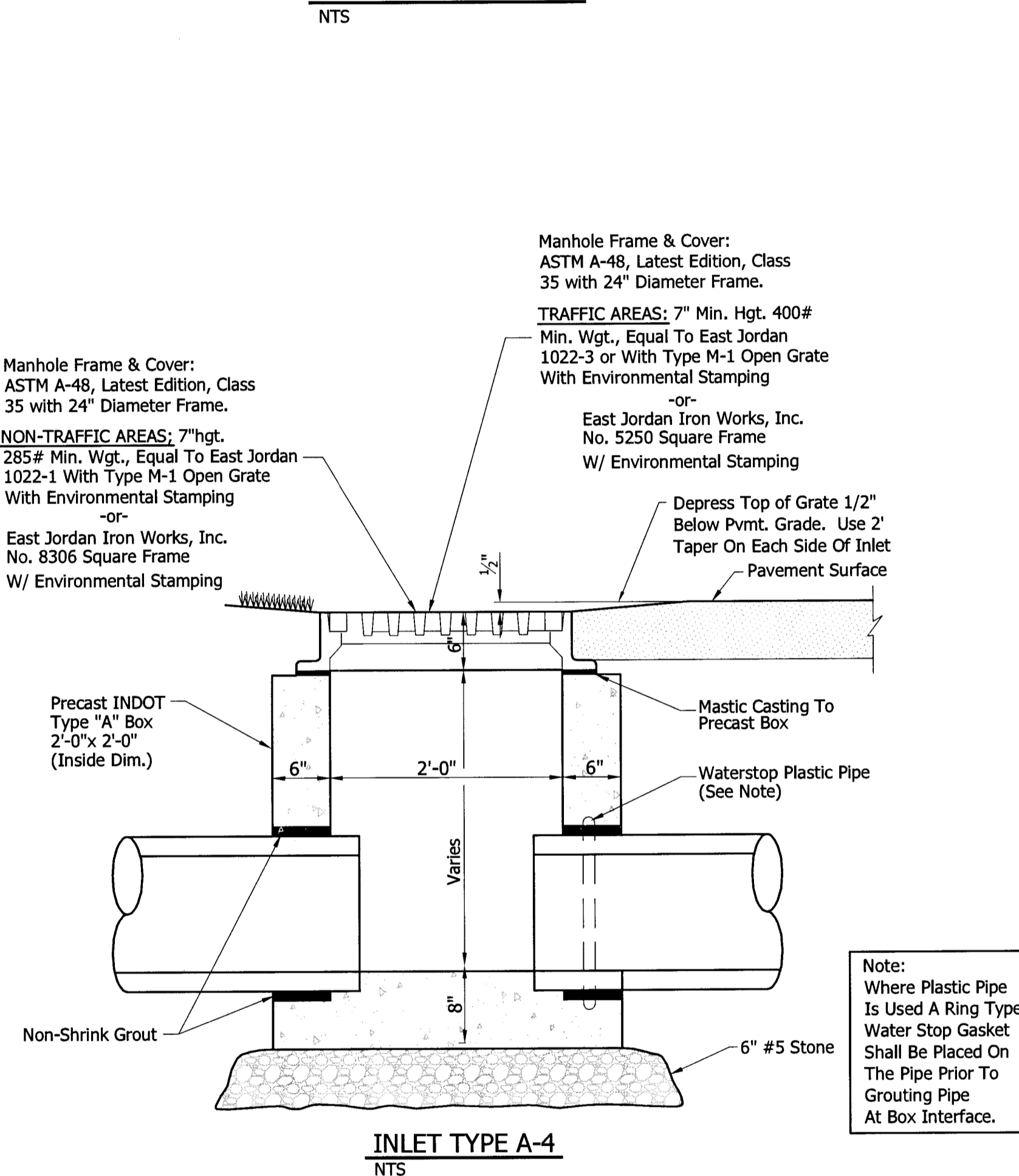
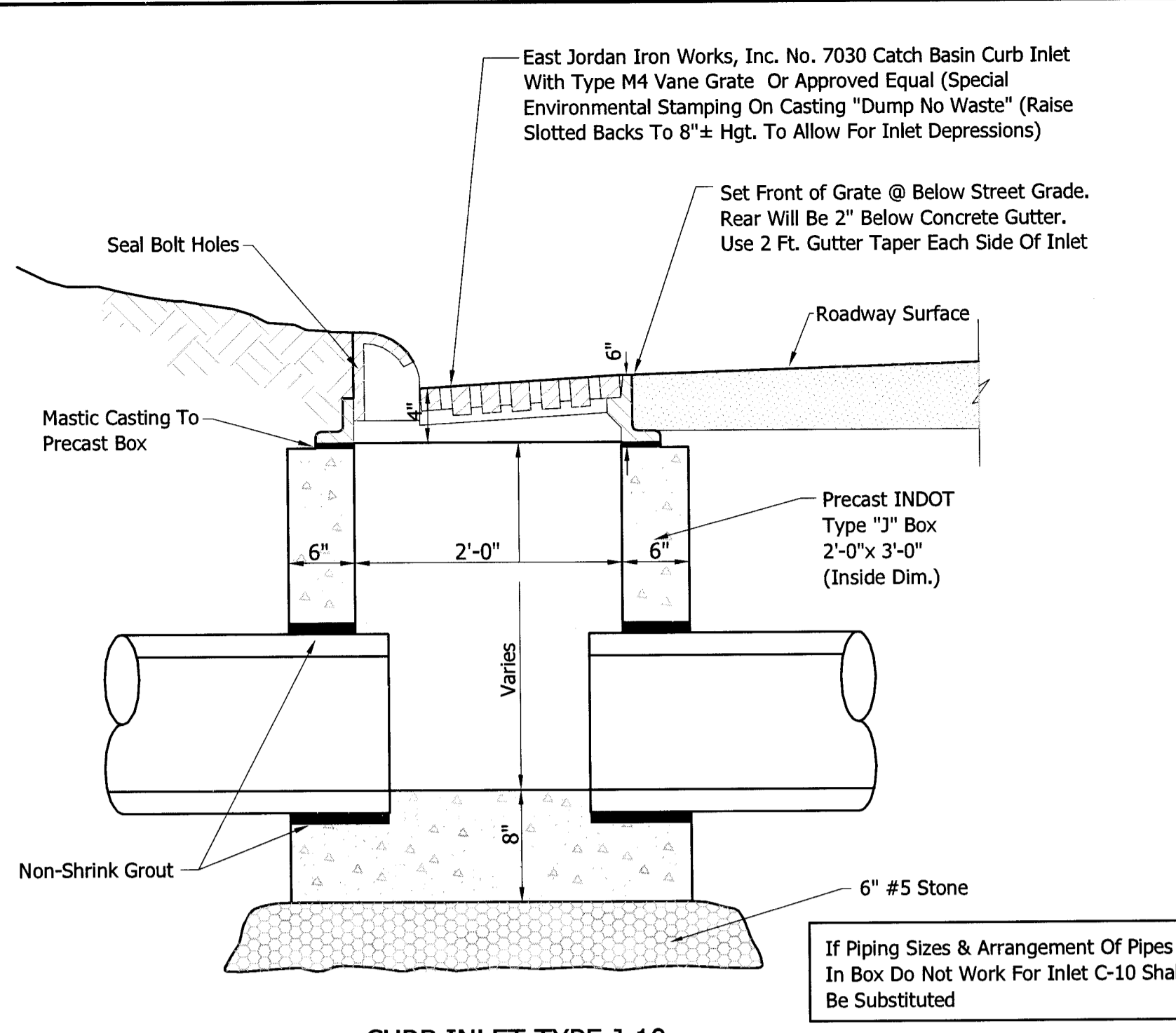
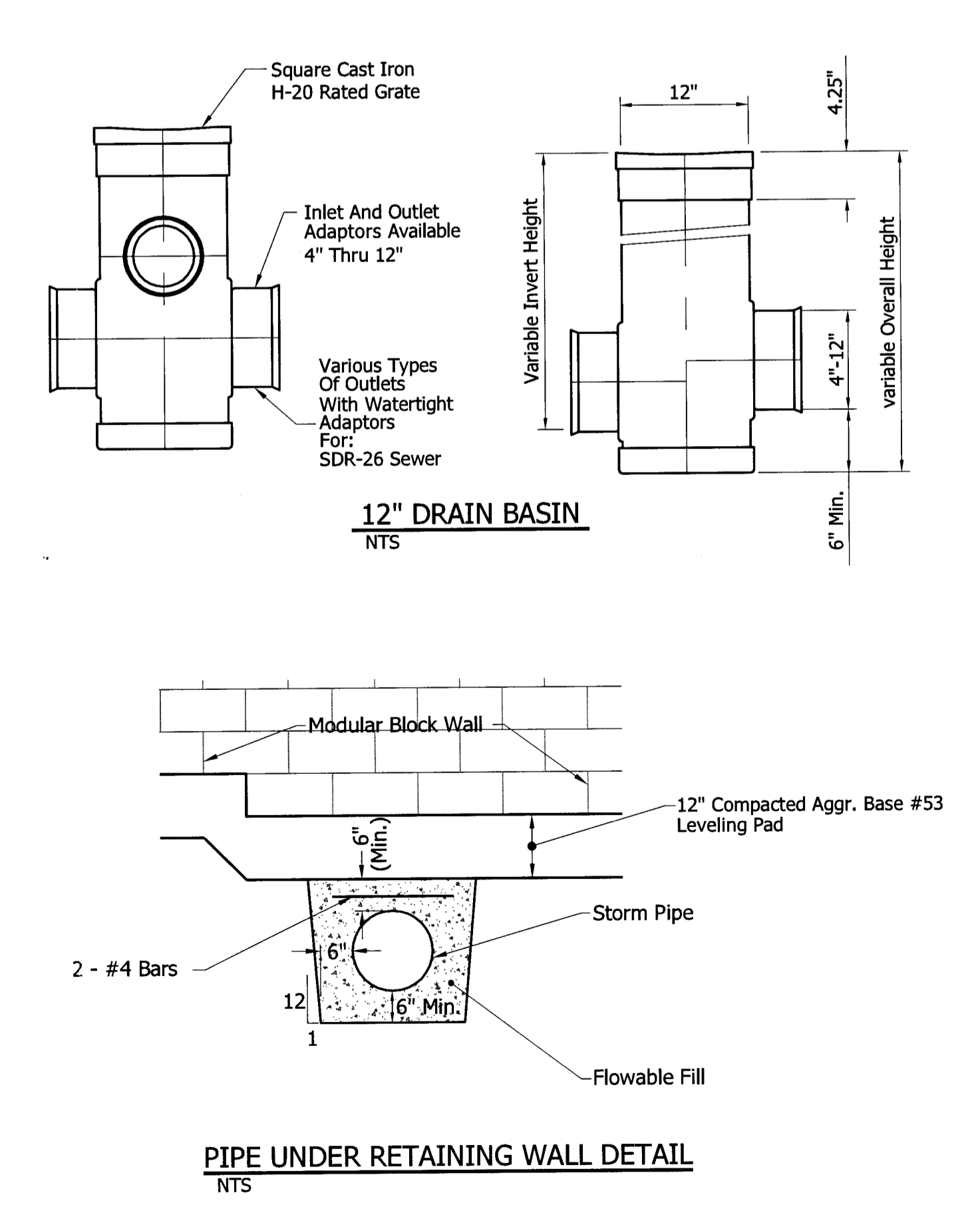
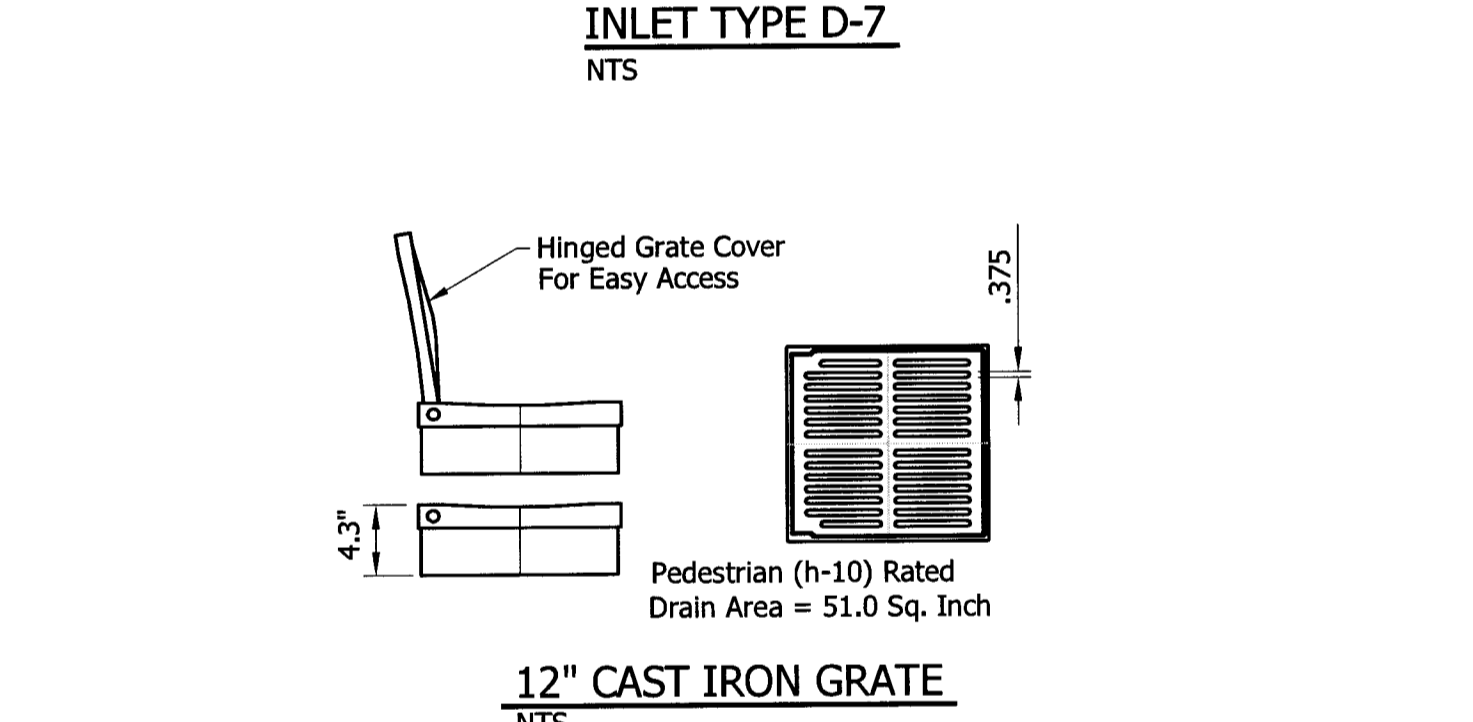
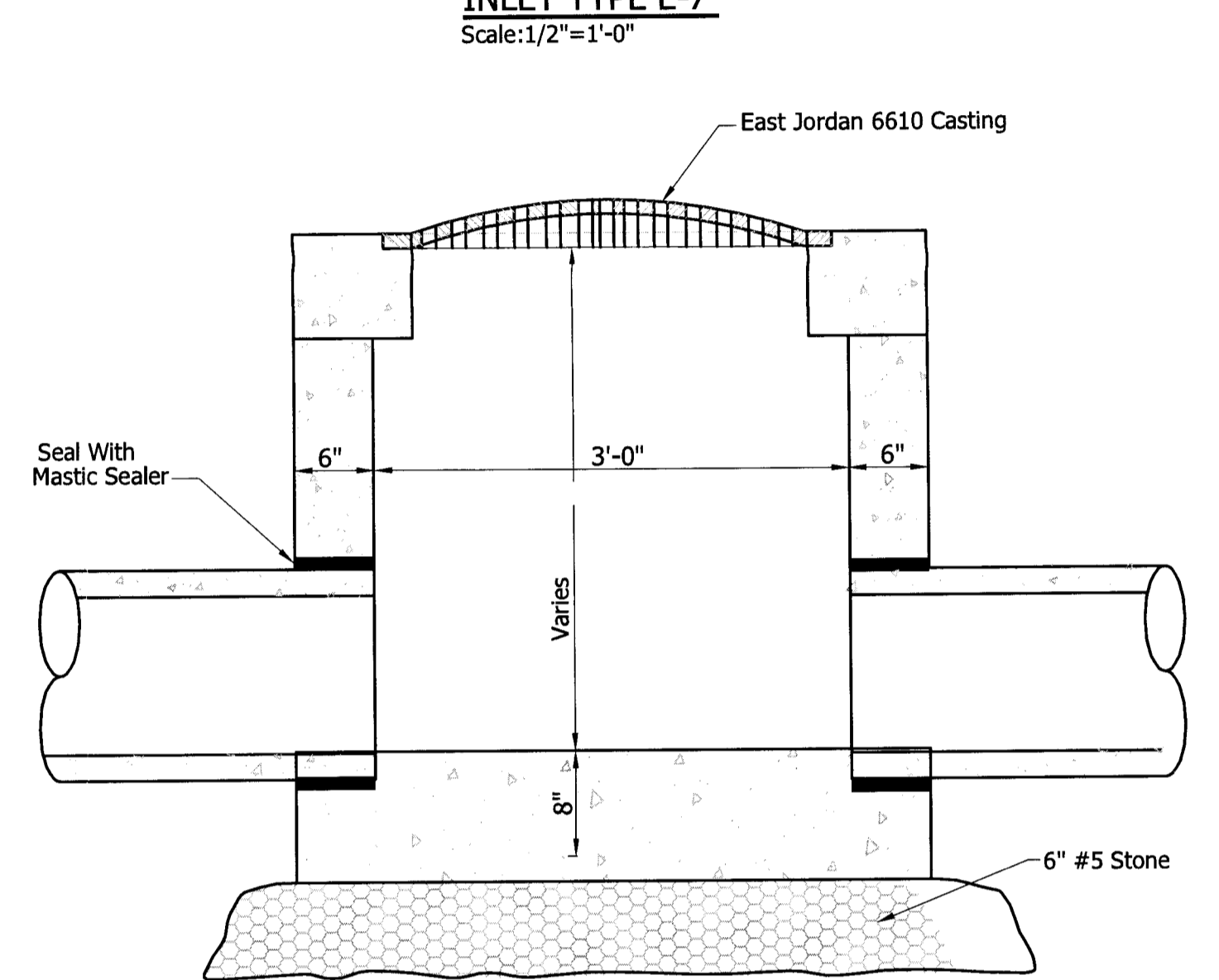
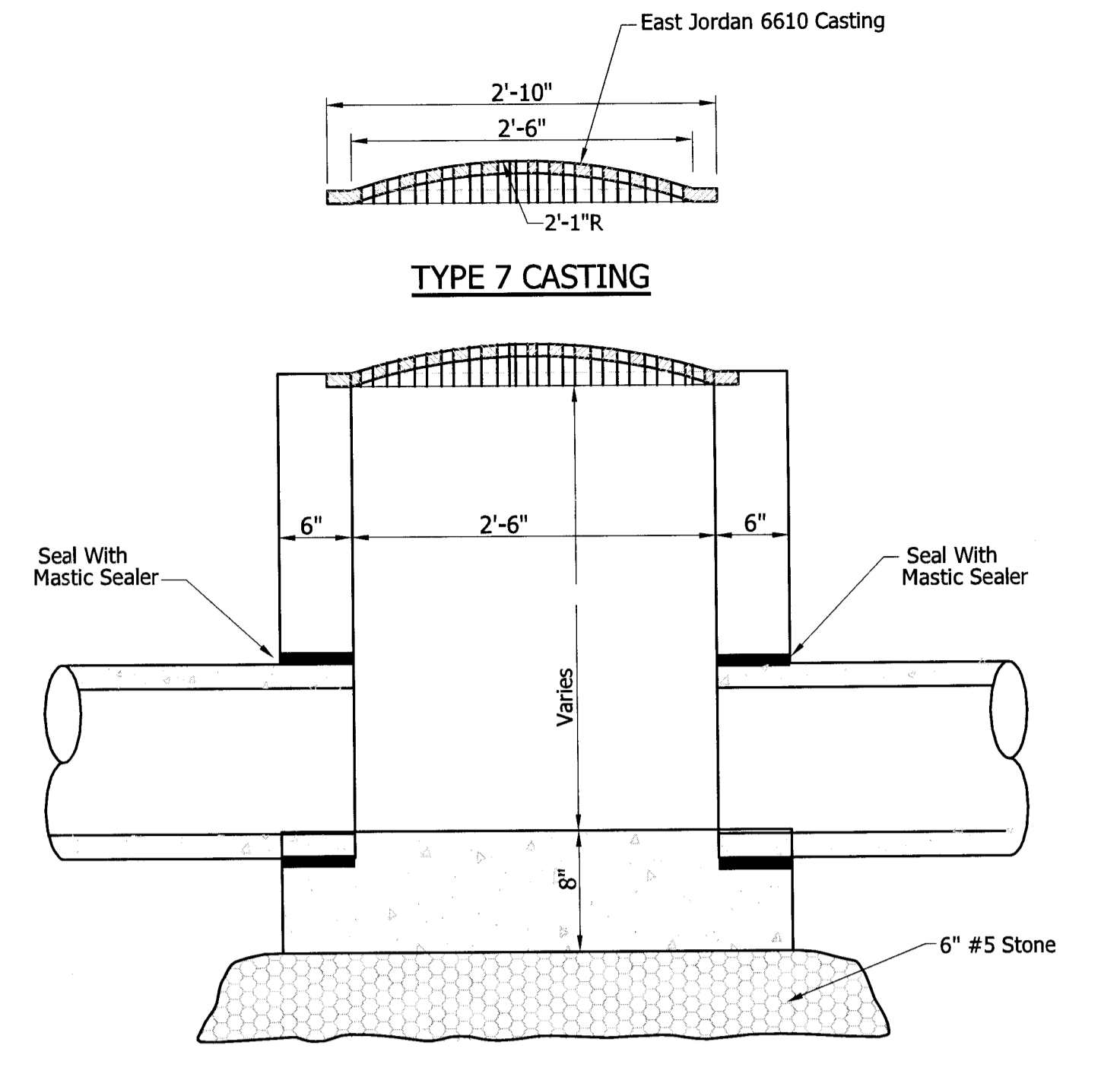
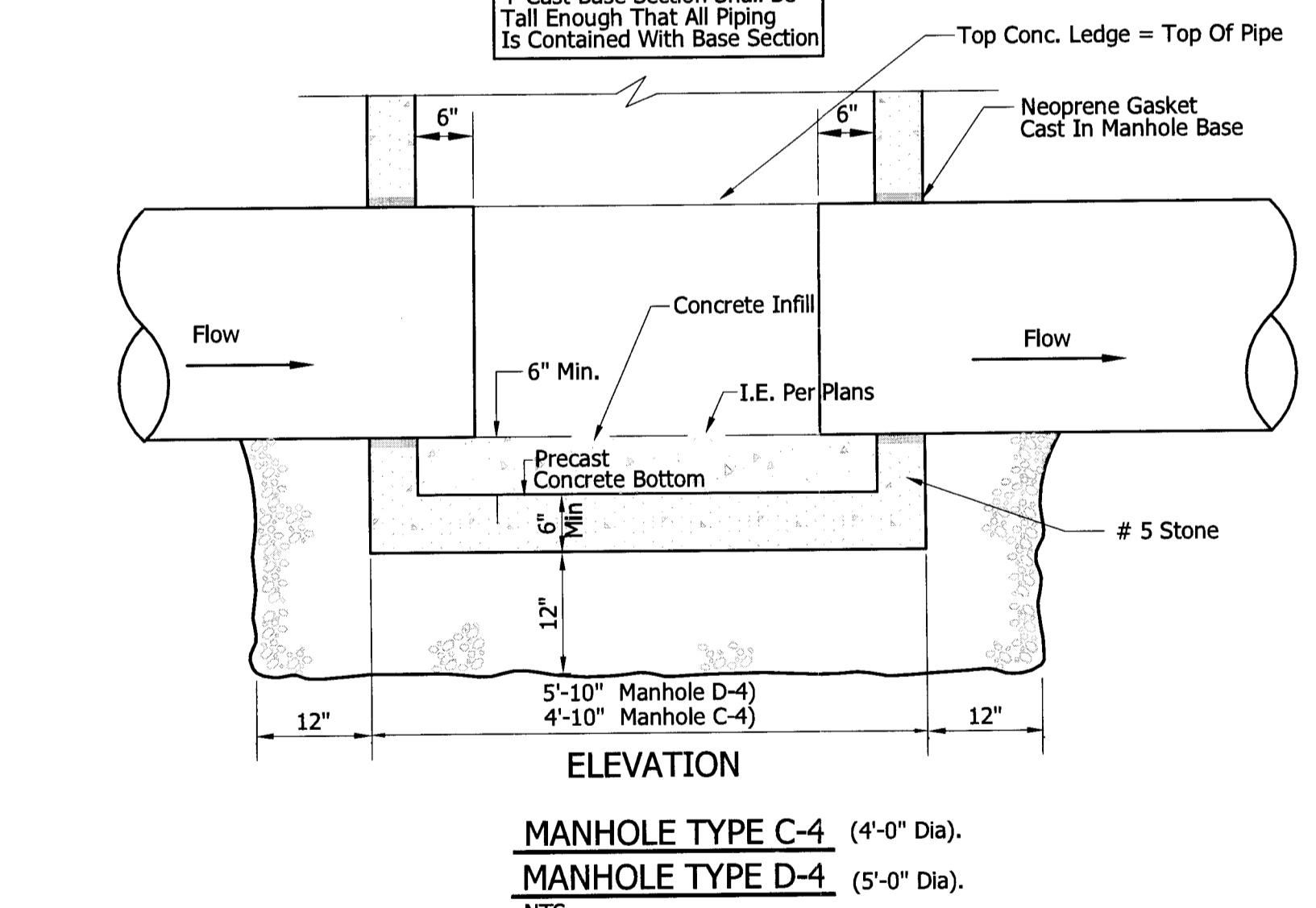
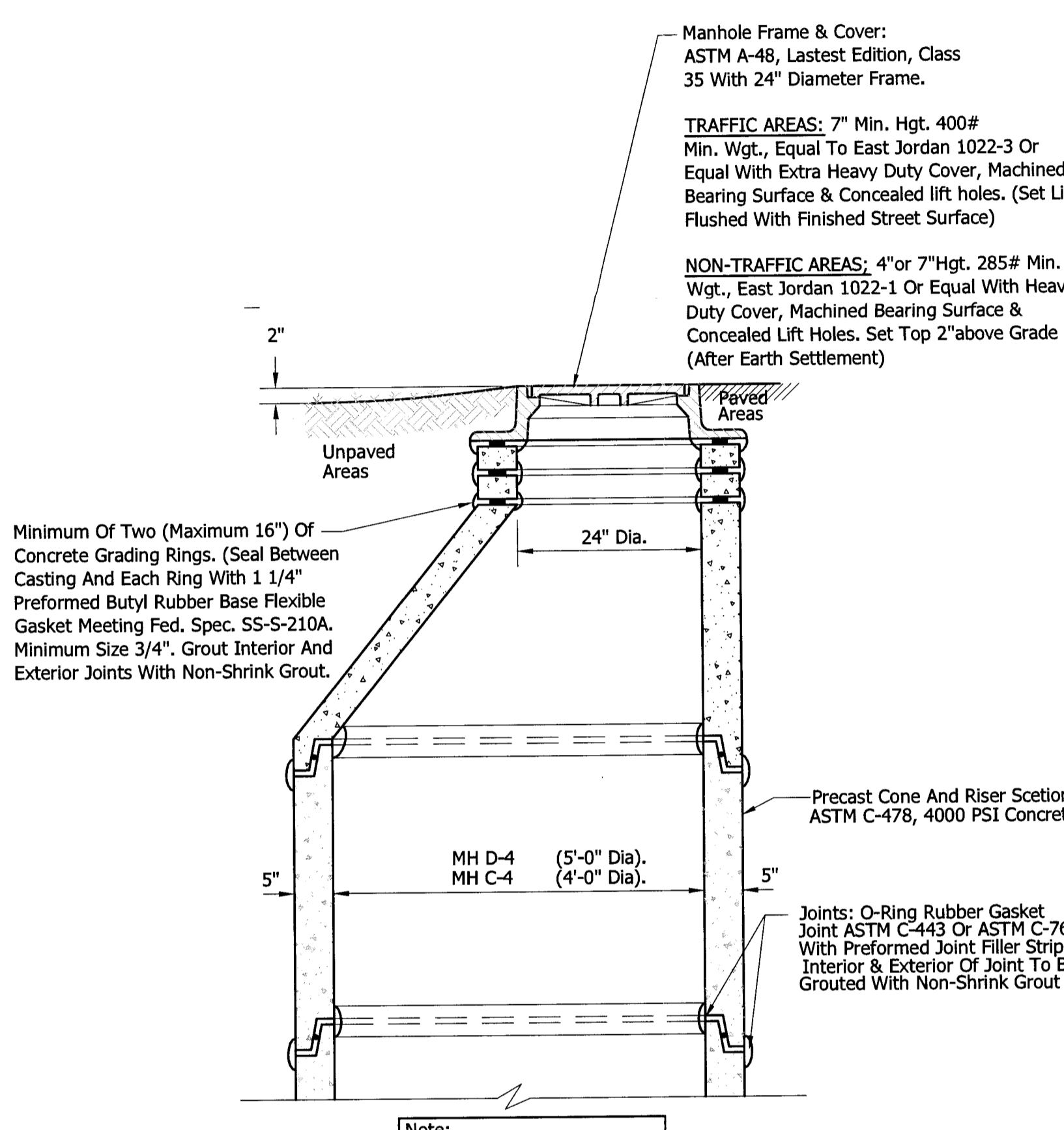
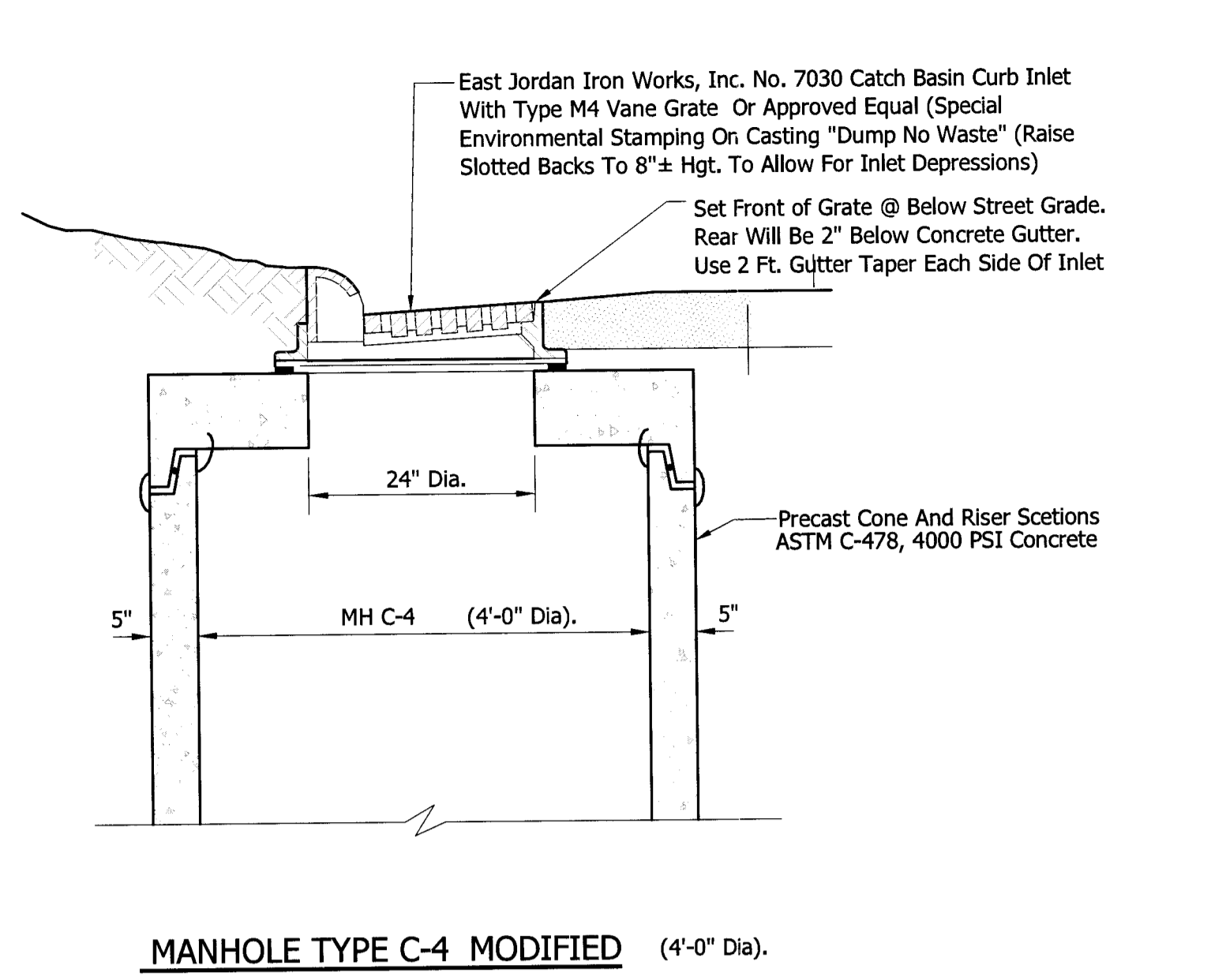
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 Checked By:
 J.A.F.
 Drawn by:
 R.A.P.
 Document date:
 12/22/14

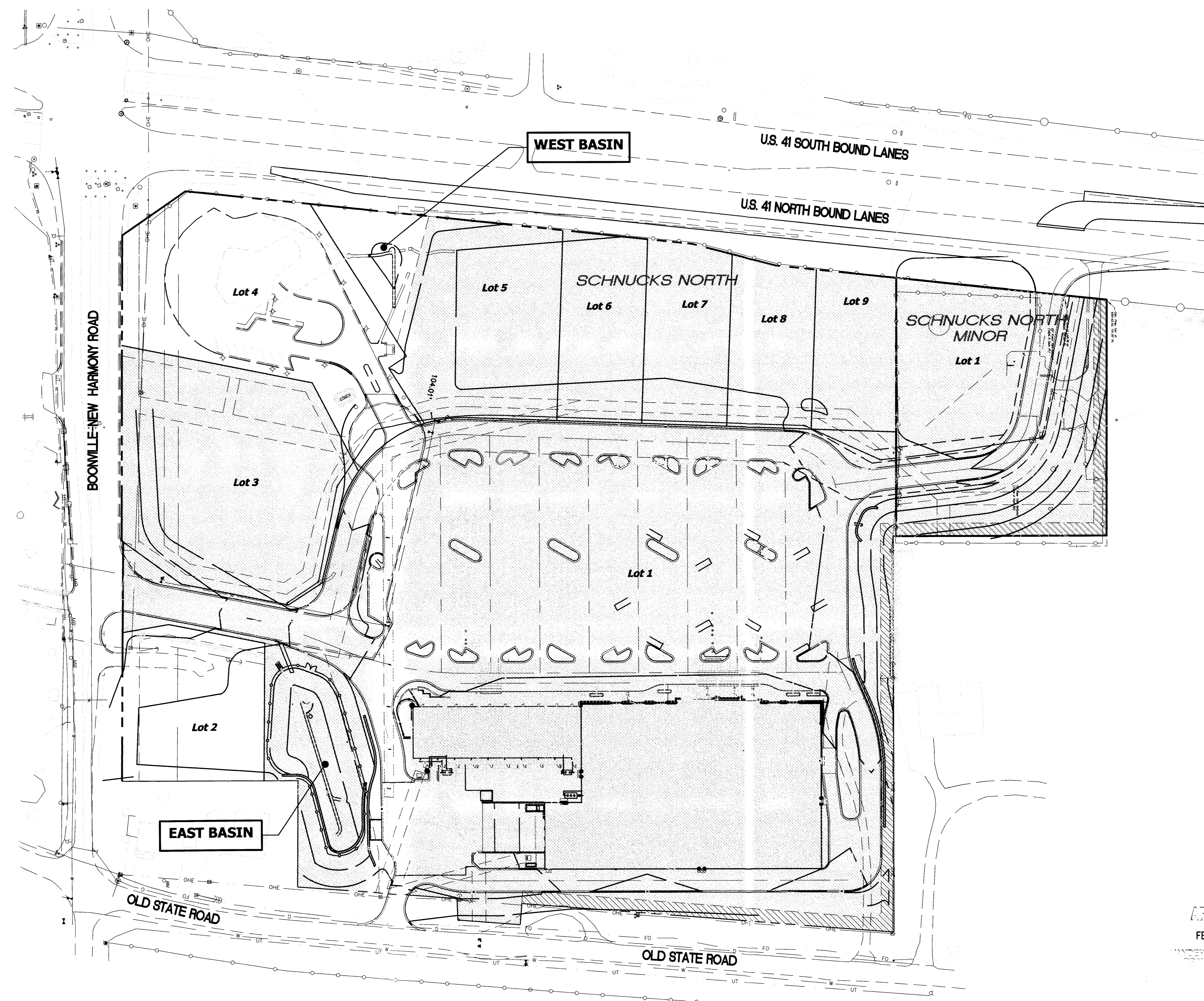
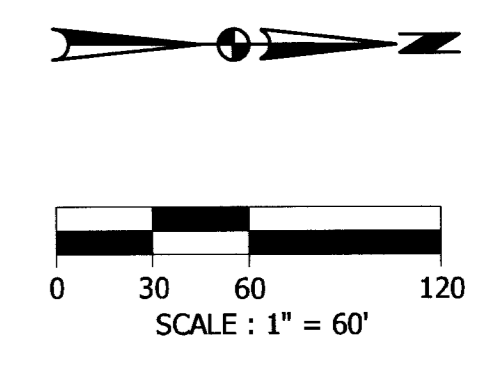
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 FEB 03 2015
 HANCOCK COUNTY
 ENGINEERING BOARD

Sheet Title:
STORM DETAILS
 Sheet No.:
APPENDIX A-5



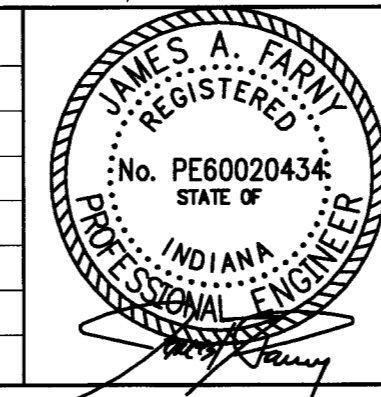


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REVISED 01/23/15

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Item	Description	Date



LOCHMUELLER GROUP
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 Toll Free: 800.423.7411

SCHNUCKS NORTH SUBDIVISION
 US 41 NORTH / BOONVILLE NEW HARMONY ROAD
 EVANSVILLE, INDIANA • VANDERBURGH COUNTY

OVERALL DRAINAGE ROUTING PLAN

HORIZ. SCALE	PROJECT
1"=60'	---
VERT. SCALE	DATE
---	12/22/14
DRAWN BY	ISSUED:
B.E.W.	---
DESIGNED BY	SHEET
J.A.F.	APPENDIX A-7
BLA PROJ. NO.	---
107-0141-BPD	---

Date: Jan 26, 2015, 12:19pm; User Name: rdp
 File: S:\Projects\107-0141\DESIGN\DRAWINGS\ROUTING_PLAN.dwg

