

UNITED
CONCRETE PRODUCTS INC.

SUBMITTAL COVER SHEET

Project Name:	Durham Meadows Waterline	Date:	July 1, 2019
Project Number:	EP-S1-06-01	Spec. Section:	03420
		Precast Reinforced Concrete Vault	
Engineer:	AECOM		
Contractor:	Ludlow Construction Co., Inc.	UCP Project #:	26811
Submitted Item:	Pressure Reducing Valve Vault Shop Drawing and BOM		

Notes and/or Comments:

Prefabricated Pressure Reducing Valve Vault (0051)

United Concrete Products

REVIEWED

Review By: D.O.

Date: 7/5/19

Contractor



PLAN VIEW
(ROOF REMOVED FOR CLARITY)

NOTE:
HATCH SPECIFIED 3'-6" WIDE IS NOT
AVAILABLE IN STAINLESS STEEL PER ANY
MANUFACTURER. 3'-0" WIDE HATCH PROVIDED.

TOP VIEW

1 SECTION

2 SECTION

3 SECTION

Job No. 26811 PRESSURE REDUCING VAULT - Durham Meadows Waterline Durham, Connecticut						
Item	Description	QTY	Part #	Vendor	Manufacturer	
1	Pressure Reducing Vault 18'-0" x 10'-0" w/ 8" high Inlets (Two Piece Structure)	1	PRV-1	UCP	UCP	
2	Roof Hatch 3'-0" x 12'-0" 304SS Construction	1	2-SB-80	Bill Fisher Enterprises	The Bilco Company	
3	Access Cover Aluminum 6'-0" x 8'-0" Double Leaf 300# Loading	1	TRD78102	USF Fabrication	USF Fabrication	
4	Joint Sealant	AIR	CS-102	Concrete Sealants, Inc.	Concrete Sealants, Inc.	
5	Water Stop	AIR	RS-101	Kensall	Danco	
6	Stems 22" OD Std. Wt. Steel Pipe x 10' Long Galvanized (16" Piping)	2	2115509100	Beachwin Steel	Beachwin Steel	
7	Stems 3" ID 20 Std. Wt. Steel Pipe x 10' Long Galvanized (1 1/2" Piping)	1	2194090010	Beachwin Steel	Beachwin Steel	
8	FM Poles 3/8-16 316SS	12	41A316SS	Tek Mahony	Empire	
9	Stems 14" OD Std. Wt. Steel Pipe x 1'-1" Long Galvanized (10" Vent)	1	2192011010	Beachwin Steel	Beachwin Steel	
10	Conduit Sleeve Assembly (8" x 8" Sleeves Stacked Galvanized (For 2" Conduits))	1	2301	Beachwin Steel	Beachwin Steel	
11	Modular Seals (Unlinks)	50	LS-30S	Ferguson Water Works	Thunderline	
12	Modular Seals (Unlinks)	40	LS-37SS	Ferguson Water Works	Thunderline	
13	Grafting Frame / Pump Pan 24" x 24" x 1/8" Deep 304SS	1	GF-16P	Beachwin Steel	Beachwin Steel	
14	Star Treets - Aluminum	15	80731532	MtNichols	MtNichols	
15	Modular Seals (Unlinks)	10	LS-42SS	Ferguson Water Works	Thunderline	
16	Concrete Reducer 18" x 12" Long Pkg. With 1/2" NPT Top Red Prime	2	-	Ferguson Water Works	Tyler-Union	
17	Pipe 12" DI C1.53 x 2'-0" Long Pkg. x 1/2" NPT Top Red Prime	2	-	Ferguson Water Works	US Pipe	
18	Tee DI Reducing 12" x 8" Pkg. Red Prime	2	-	Ferguson Water Works	Tyler-Union	
19	Gate Valve 12" DI OS & Y Pkg. Open Left ULFM	2	45-300-FPO-P	Ferguson Water Works	AVK	
20	Pipe 12" DI C1.53 x 0'-5 3/4" Long Pkg. x Rigid Groove Red Prime	2	-	Ferguson Water Works	US Pipe	
21	Coupling 12" (Rigid Radius) Red Prime	2	31-12"	Ferguson Water Works	Vitacolic	
22	Pressure Reducing Valve 12" 20-100PSI (65 PSI Outlet Pressure)	1	6900-01	Harper Holmes	Cia-Val	
23	Pipe 12" DI C1.53 x 0'-6 1/4" Long Pkg. x Rigid Groove Red Prime	2	-	Ferguson Water Works	US Pipe	
24	Pipe 12" DI C1.53 x 0'-12 1/2" Long Pkg. x 1/2" NPT Top Red Prime	1	-	Ferguson Water Works	US Pipe	
25	Strainer 12" Pkg. H-Style	1	X-43H-1"	Harper Holmes	Cia-Val	
26	Gate Valve 8" DI OS & Y Pkg. Open Left ULFM	2	45-200-FPO-P	Ferguson Water Works	AVK	
27	Pipe 8" DI C1.53 x 2'-0 1/8" Long Pkg. x Rigid Red Prime	1	-	Ferguson Water Works	US Pipe	
28	Pipe 8" DI C1.53 x 2'-2 1/8" Long Pkg. x Rigid Pkg. With 1/2" NPT Top Center of Pipe Red Prime	1	-	Ferguson Water Works	US Pipe	
29	Strainer 8" Pkg. H-Style	1	X-43H-8"	Harper Holmes	Cia-Val	
30	Elbow 90 Degree 8" Long Radius Pkg. Red Prime	2	-	Ferguson Water Works	Tyler-Union	
31	Pipe 8" DI C1.53 x 2'-0 1/8" Long Pkg. x With 1/2" NPT Top Center of Pipe Red Prime	1	-	Ferguson Water Works	US Pipe	
32	Coupling 8" (Rigid Radius) Red Prime	2	31-8"	Ferguson Water Works	Vitacolic	
33	Pipe 8" DI C1.53 x 0'-4 1/4" Long Pkg. x Rigid Groove Red Prime	2	-	Ferguson Water Works	US Pipe	
34	Pipe 8" DI C1.53 x 1'-3" Long Pkg. x Rigid Groove Red Prime	2	-	Ferguson Water Works	US Pipe	
35	Pressure Reducing Valve 8" 20-100PSI (65 PSI Outlet Pressure)	1	6900-01	Harper Holmes	Cia-Val	
36	Grafting 26" x 26" x 1" High Modified Fiberglass - Color Dark Gray	1	MS 8-100	MtNichols	MtNichols	
37	Pump Pump 1/3 HP 115 Volts 1 1/2" NPT Discharge - Automatic	1	M57-0001	Wm Supply	Zeefer	
38	Male Adapter 1 1/2" PVC-80	3	836-015	Tek Mahony	Spars Mfg	
39	Check Valve Sizing 1 1/2" NPT Bronze	1	T-451	Tek Mahony	Legend	
40	Pipe 1 1/2" PVC-80	20	20	Tek Mahony	Charlotte	
41	Two Union Ball Valves 1 1/2" PVC	6	806-015	Tek Mahony	Spars Mfg	
42	Two Union Ball Valves 1 1/2" PVC	1	5626-015	Tek Mahony	Spars Mfg	
43	Nipple 12" NPT x 3" Long Sch. 40 316SS	5	-	Tek Mahony	Ta-Chen International	
44	Ball Valve 12" NPT (Two Piece) 316SS	2	TC-92X	Tek Mahony	Ta-Chen International	
45	Pressure Air Release Valve 12" NPT With Vacuum Check	2	M6V3	Harper Holmes	Origins Valve	
46	Nipple 3/8" NPT x 3" Long Sch. 40 316SS	4	-	Tek Mahony	Ta-Chen International	
47	Elbow 90 Degree 3/8" NPT 316SS	4	-	Tek Mahony	Ta-Chen International	
48	Pipe 3/8" Sch. 40 316SS	10	-	Tek Mahony	Ta-Chen International	
49	Split Clamp 3/8" 316SS	2	4150-316SS	Tek Mahony	Empire	
50	Split Clamp 1/2" 316SS	2	4150-316SS	Tek Mahony	Empire	
51	Threaded Rod 3/8-16 316SS	6	-	Turk & Hughes	Star Stainless	
52	Pressure Gauge Assy 0 - 150 PSI	4	121TB05A33	Colonial Instruments	Perma-Gal / Zevoda	
53	Gaskets 16" Full Face (SBR)	2	Toussend-DBL	Ferguson Water Works	American	
54	Gaskets 12" Full Face (SBR)	10	Toussend-DBL	Ferguson Water Works	American	
55	Gaskets 8" Full Face (SBR)	12	Toussend-DBL	Ferguson Water Works	American	
56	Hex Head Cap Screws 1-8 x 4 1/2" Long 316SS	25	-	Turk & Hughes	Star Stainless	
57	Hex Head Cap Screws 1-8 x 4 1/2" Long 316SS	10	-	Turk & Hughes	Star Stainless	
58	Hex Nuts 1-8 316SS	50	-	Turk & Hughes	Star Stainless	
59	Hex Head Cap Screws 7/8 x 4" Long 316SS	125	-	Turk & Hughes	Star Stainless	
60	Hex Nuts 7/8-16 316SS	125	-	Turk & Hughes	Star Stainless	
61	Hex Head Cap Screws 3/4-10 x 3 1/2" Long 316SS	100	-	Turk & Hughes	Star Stainless	
62	Hex Nuts 3/4-10 316SS	125	-	Turk & Hughes	Star Stainless	
63	Threaded Rod 1-8 316SS	6	-	Turk & Hughes	Star Stainless	
64	Thrust Support Brackets 16" 304SS	4	7110029740	Beachwin Steel	Beachwin Steel	
65	Pipe 10" Sch. 40 304SS	10	-	Tek Mahony	Ta-Chen International	
66	Elbow 90 Degree 10" Sch. 10 Long Radius 304SS	2	-	Tek Mahony	Ta-Chen International	
67	Slp On flange 10" Class 150 304SS	2	-	Tek Mahony	Ta-Chen International	
68	Vent Assy 10" 304SS	1	VA-1	Beachwin Steel	Beachwin Steel	
69	Screen 304SS	1	Mobatec-Cert	Mobatec Cert	Mobatec Cert	
70	Exhaust Fan In-Line 10"	1	TD-250	Air Equipment	S & P	
71	Damper 10" Hand Operated 304SS	1	CDR52S	Air Equipment	Ruskin	
72	Mounting Clamps 10"	3	FC-10	Grainger	Fan Tech	
73	Pipe Support Bracket 10" U-Boot Ld. 316SS	3	7110021701	Beachwin Steel	Beachwin Steel	
74	Elbow 90 Degree 10" NPT 316SS	1	-	Tek Mahony	Ta-Chen International	
75	Pipe Support Bracket 12" 316SS	2	7101023601	Beachwin Steel	Beachwin Steel	
76	Threaded Rod 3/4-10 316SS	12	-	Turk & Hughes	Star Stainless	
77	Pipe Support Bracket 12" 316SS (Actual 8" High)	5	7101023602	Beachwin Steel	Beachwin Steel	
78	Pipe Support Bracket 8" 316SS (Actual 11 1/4" High)	6	7101023903	Beachwin Steel	Beachwin Steel	
79	Dehumidifier - Wall Mount With Brackets	1	4031480-155	HVAC Equipment Sales	Quest	
80	Star Assy - Aluminum	1	ST-1	Beachwin Steel	Beachwin Steel	
81	Z Furring channel 2" 20 Gauge hot Dip Galvanized	3	-	Kamco	Cemco	
82	Insulation 2"	325 SFT	Thermo-shield-3	Kamco	Sika Company	
83	Insulation Joint Type 4"	1	R-Seal-3000-4	Kamco	Sika Company	
84	FRP Laminated Panel .030 with Class C 3/4" Plywood (White)	8	Nu-Bo	Nudo	Nudo	
85	Insitu Corner 2" x 2" White	4	V-39	Nudo	Nudo	
86	Insitu Bar 2" x 1" White	8	V-29	Nudo	Nudo	
87	Base Coat 2" White	8	V-45	Nudo	Nudo	
88	Ready White	AIR	-	Nudo	Nudo	
89	Fan Housing Mounting Bracket 304SS	1	FHB-1	Beachwin Steel	Beachwin Steel	
90	Adhesive (Hi-B)	AIR	HIT-HY200	Hensil	Hill	
91	Waterproof Membrane 36" Wide (Self Adhesive)	AIR	Bkluhene 4000	Kensall	W. R. Grace & Co.,	
92	Split Clamps 1 1/2" 316SS	6	4150-316	Tek Mahony	Empire	
93	W-Beam 12" x 106 Galvanized After Cutting To Length	25	-	Infra Metals	Infra Metals	
94	More Post Supports With 1/2" Pipe and Rebar End Plate	1	303-40	Construction Materials	Alcon Products Co.	
95	Shim Pads 6" x 6" (Thickness as Required)	AIR	XX068	ALP Supply	ALP Supply	
96	Bot Pocket Former	6	-	Beachwin Steel	Beachwin Steel	
97	Angle 2" x 2" x 1/4" 304SS	4	-	Tek Mahony	Ta-Chen International	
98	Wedge Anchors 1/2" x 4" 316SS	10	-	Turk & Hughes	Star Stainless	

GENERAL NOTES

1. SEE STRUCTURAL CALCULATIONS FOR PRODUCTION SPECIFICATIONS.
2. CONCRETE COMPRESSIVE STRENGTH: 5,000 PSI @ 28 DAYS.
3. STRUCTURE SHALL BE WET CAST USING A SELF COMPACTING CONCRETE MIX.
4. REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM SPECIFICATION A706, GRADE 60.
5. CONCRETE SEALANT TYPICAL FOR ALL CONCRETE JOINTS.
6. ALL HARDWARE AND SUPPORT BRACKETS SHALL BE 316 SERIES STAINLESS STEEL.

WEIGHT CHART

COMPONENTS (CONCRETE ONLY)	APPROX. WEIGHTS
MODULE #1 ROOF SLAB	30,100 LBS.
MODULE #1 BASE SECTION w/SLOPED FLOOR	72,300 LBS.
MODULE #2 ROOF SLAB	85,500 LBS.
MODULE #2 BASE SECTION w/SLOPED FLOOR	12,000 LBS.

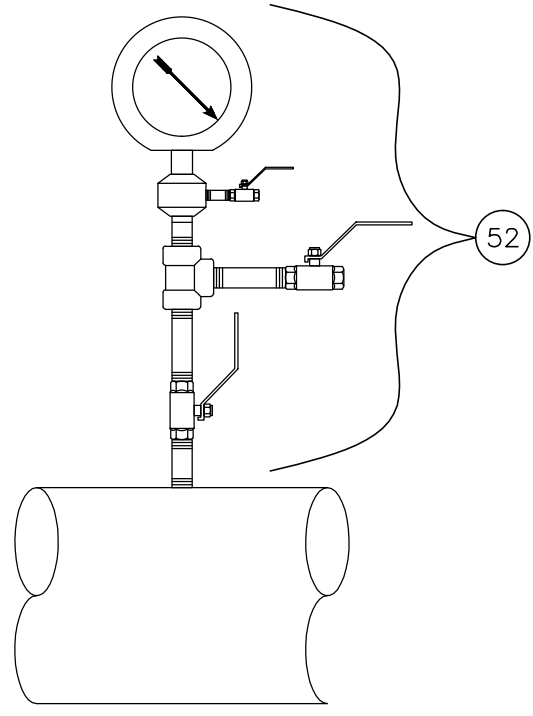
FINISH SCHEDULE		
AREA	COATING TYPE	COLOR
INTERIOR OF VAULT	NONE	N/A
EXTERIOR OF VAULT	AQUA-SAFE	-
PIPE EXTERIOR COATING (NOT BURIED)	SHERWIN WILLIAMS DURAPLATE 235	ROBOTIC BLUE
PIPE EXTERIOR COATING (BURIED)	TARGUARD	BLACK
COPPER & STAINLESS STEEL PIPE EXTERIOR COATING	NONE	N/A
VALVES & EQUIPMENT	FACTORY COATING	-

DRAWING LOG		
NUMBER	DATE	DESCRIPTION
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3		
2		
1	07/08/19	SUBMITTAL #1 ISSUED FOR APPROVAL

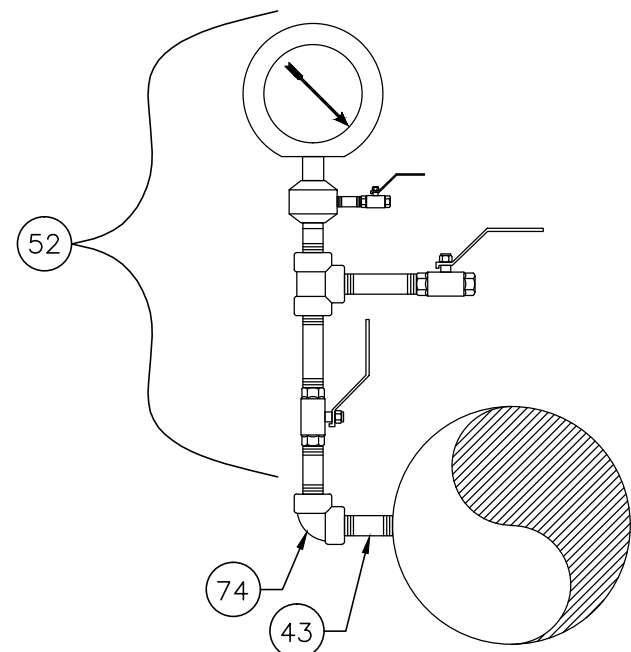


UNITED CONCRETE PRODUCTS INC.
173 Church Street Yalesville, CT 06492
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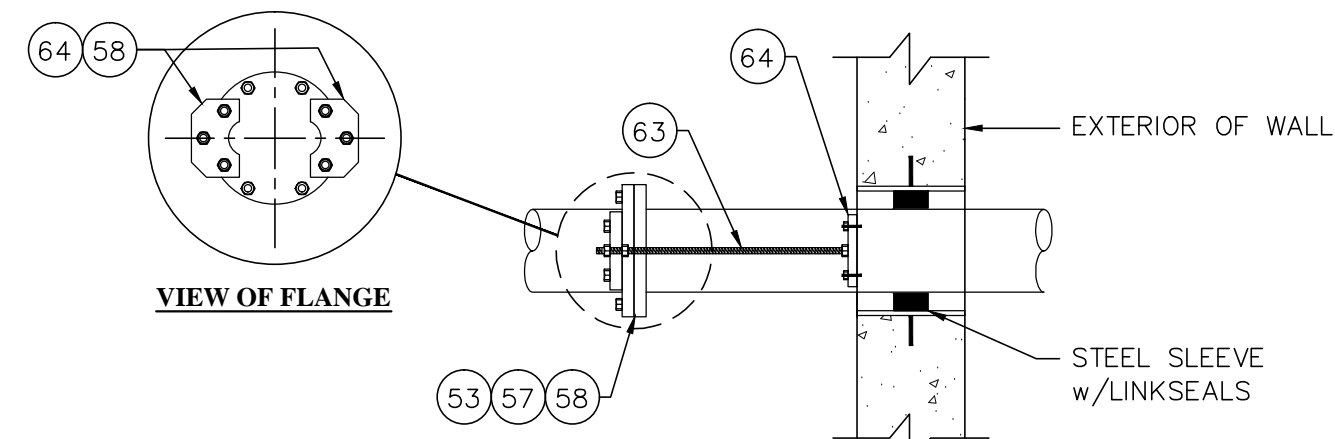
CUSTOMER:				LUDLOW CONSTRUCTION			
JOB NAME:				DURHAM MEADOWS WATERLINE			
JOB LOCATION:				DURHAM, CT			
DWG TITLE:				PRESSURE REDUCING VALVE VAULT			
DRAWN BY:		CJS		DATE:		03/29/19	
CAD CHKD:				DATE:		07/08/19	
JOB NO:		26811		SCALE:		1/4" = 1'-0"	
DRAWING NO:				PRV-1			



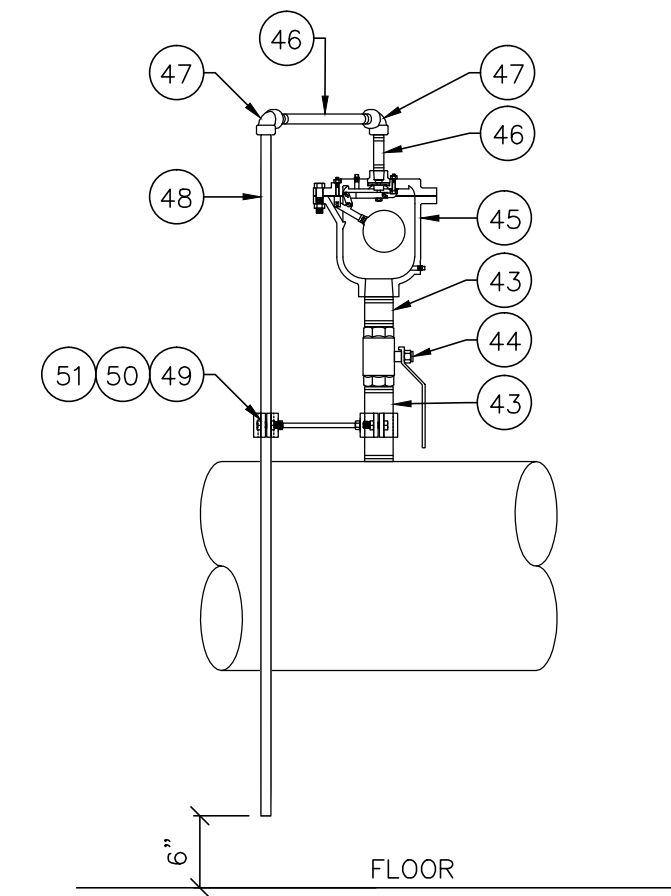
A **PRESSURE GAUGE DETAIL**
NOT TO SCALE



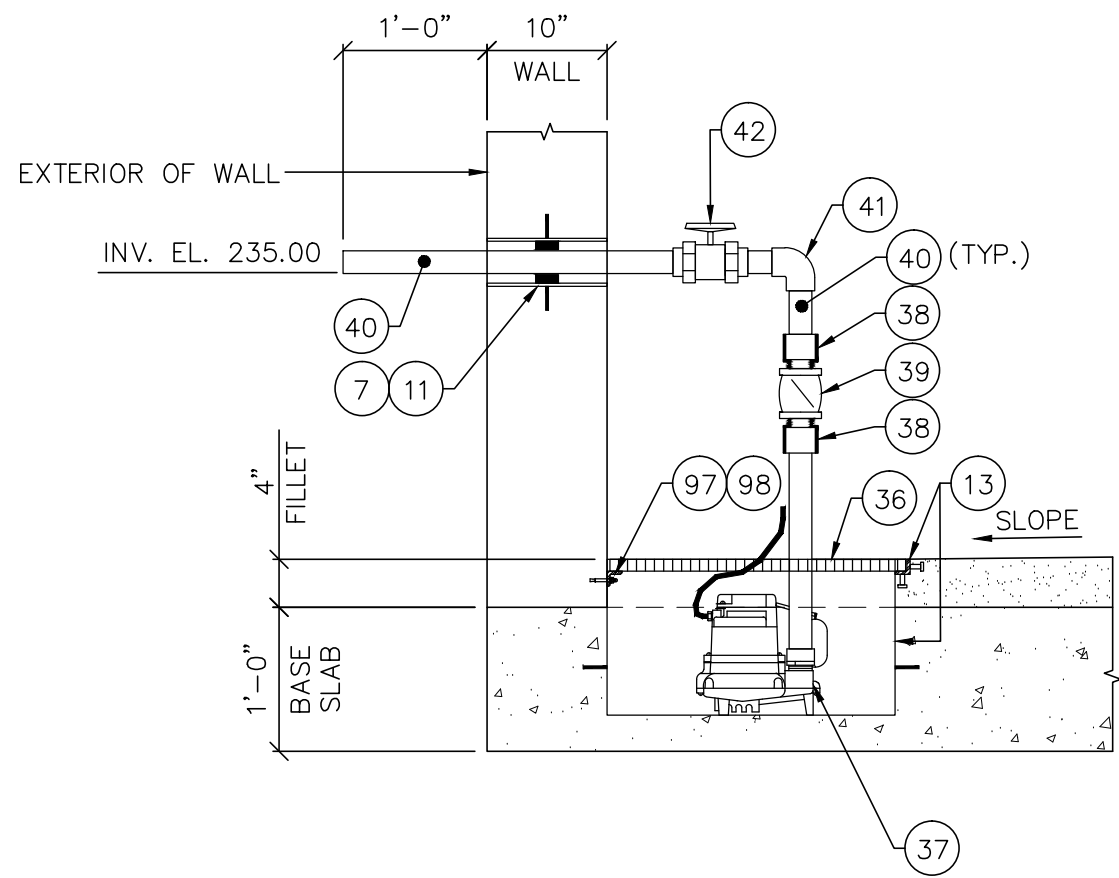
B **PRESSURE GAUGE DETAIL**
NOT TO SCALE



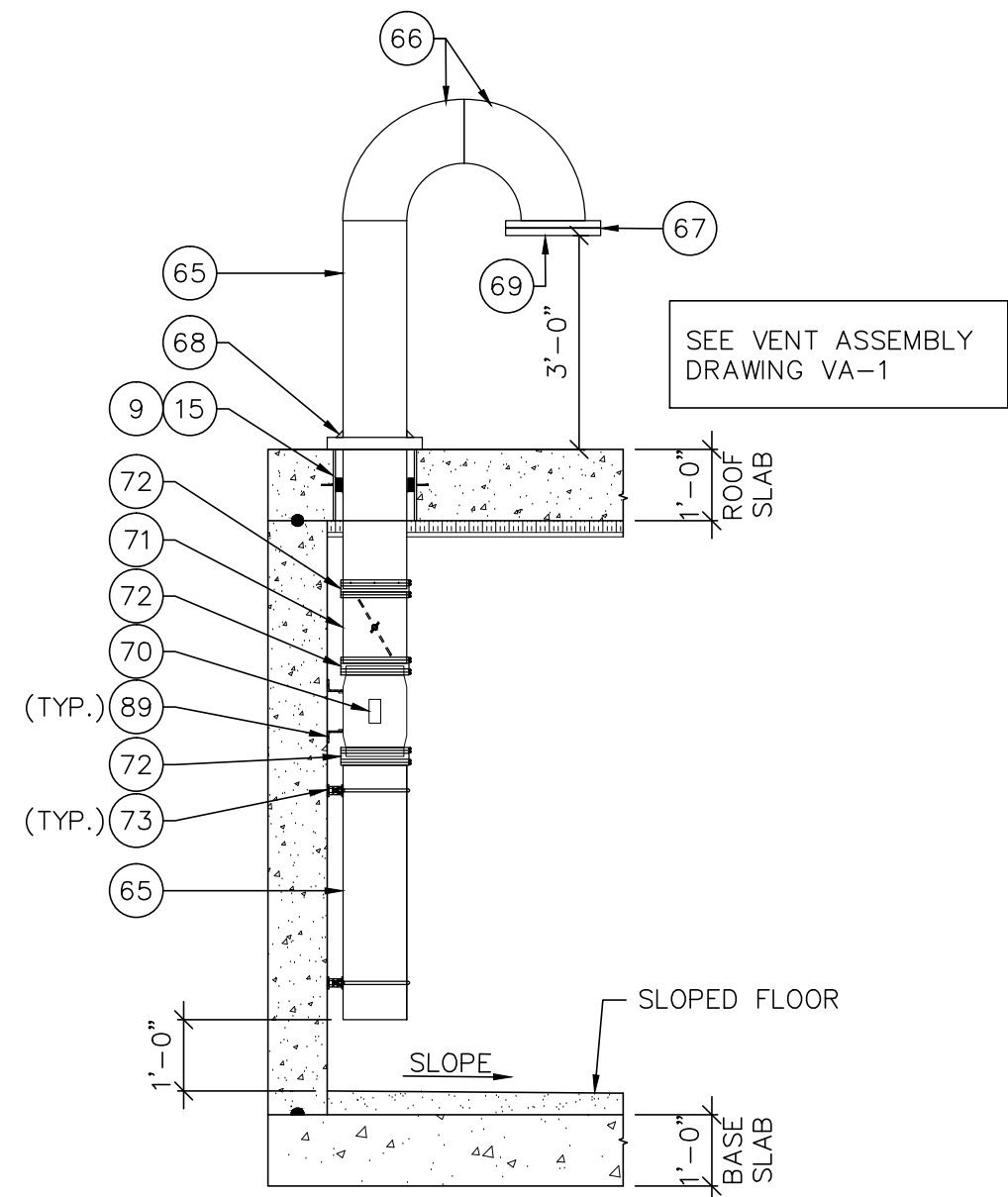
C **16" THRUST RESTRAINT DETAIL**
NOT TO SCALE



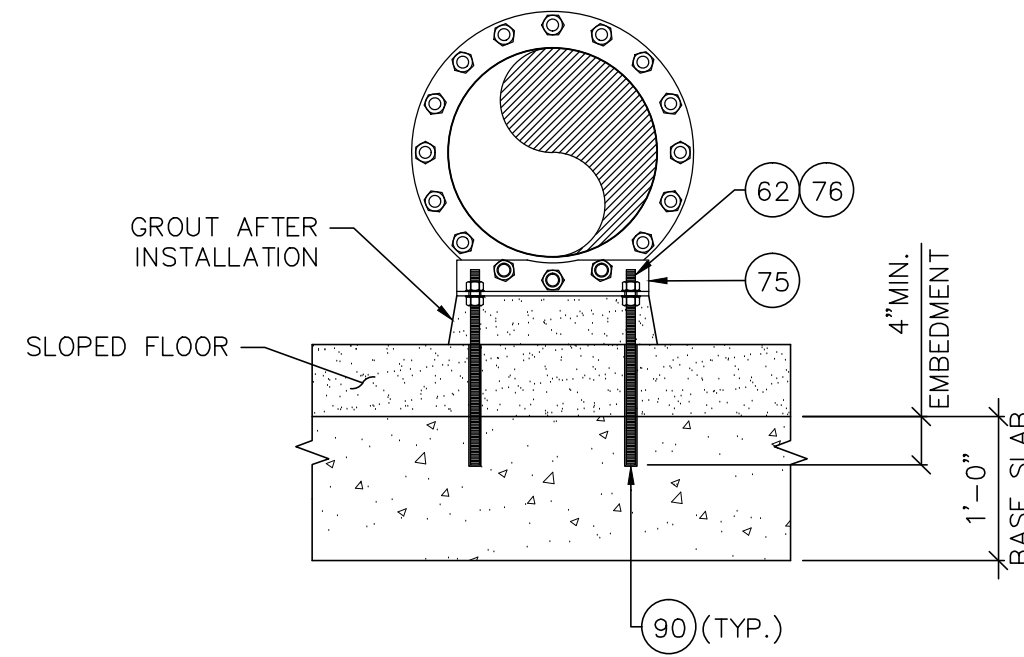
D **AIR RELEASE VALVE DETAIL**
NOT TO SCALE



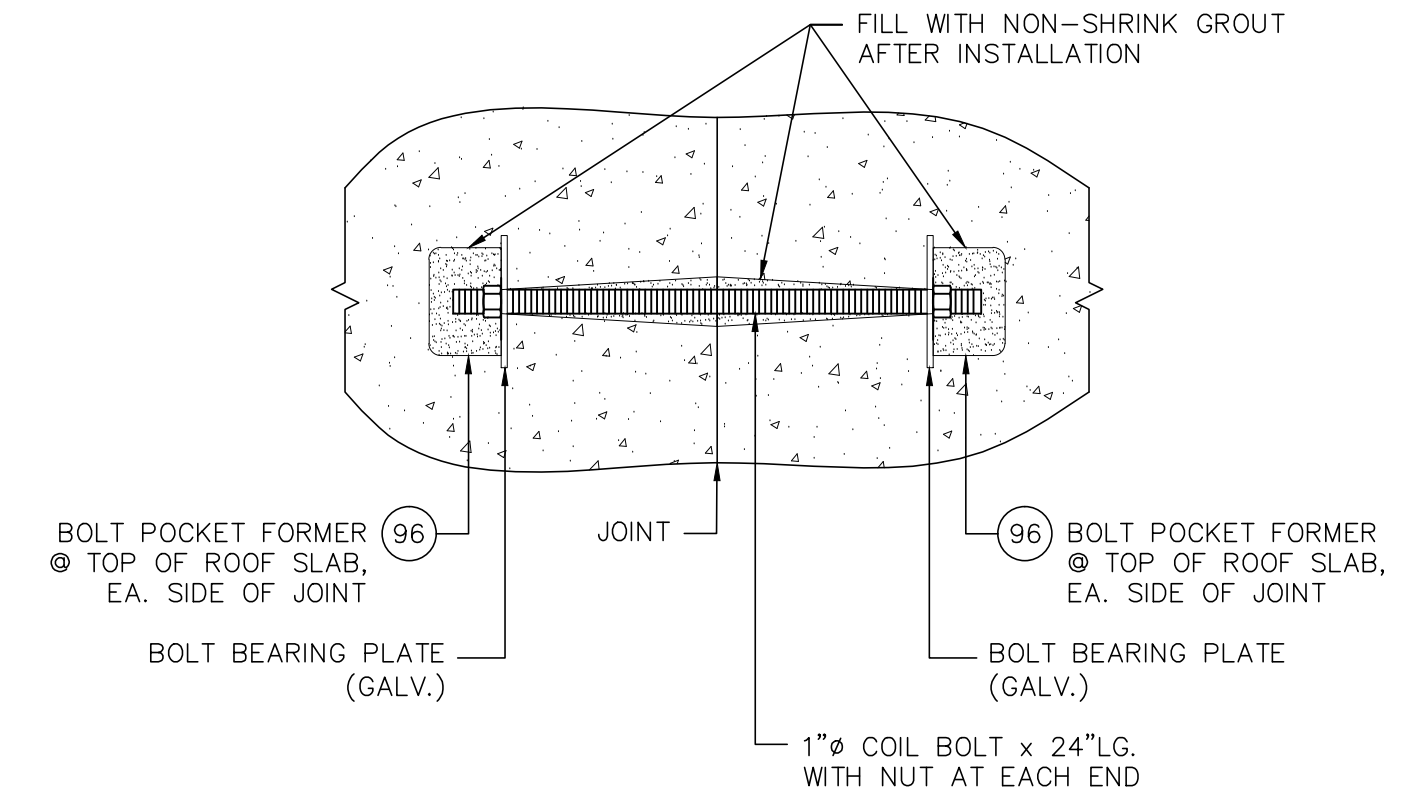
E **SUMP PUMP PIPING DETAIL**
NOT TO SCALE



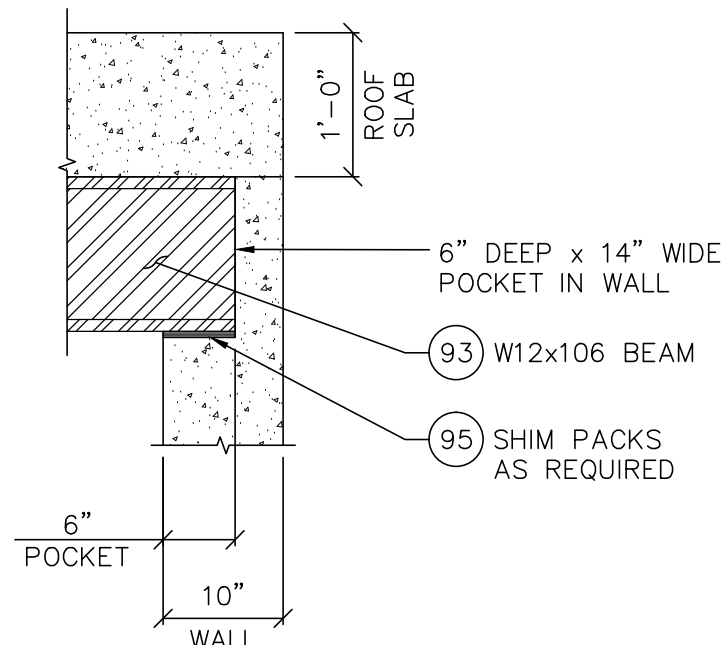
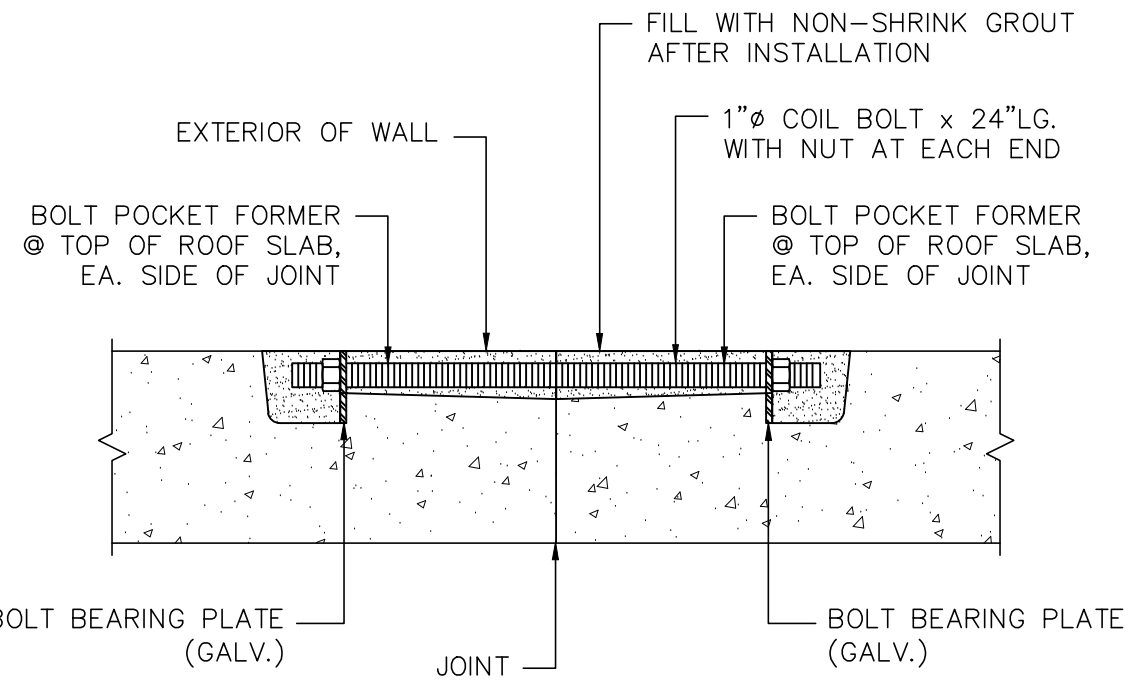
F **EXHAUST FAN ASSEMBLY DETAIL**
NOT TO SCALE



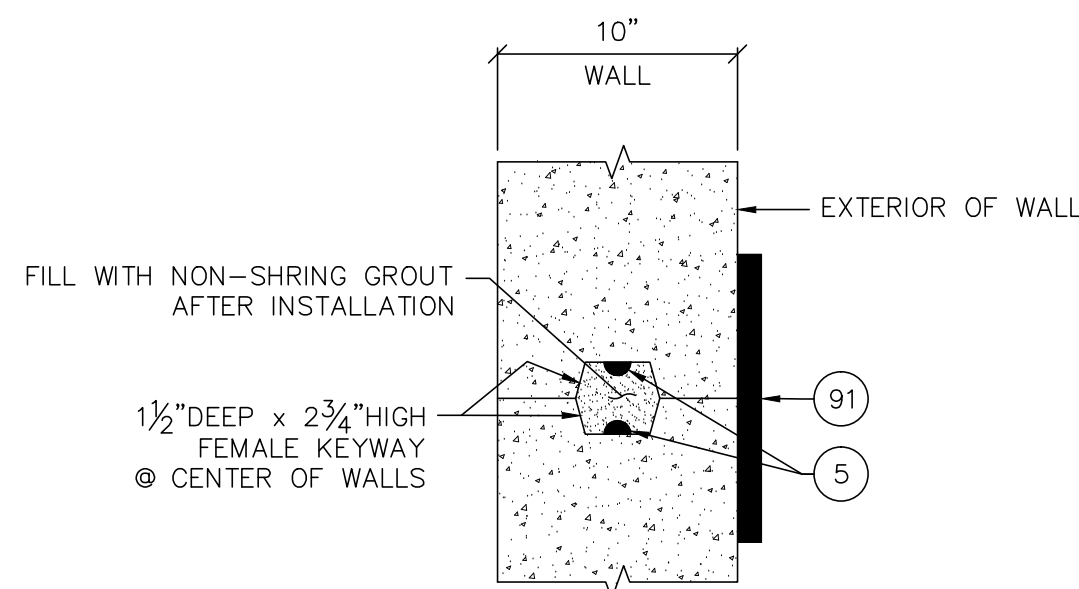
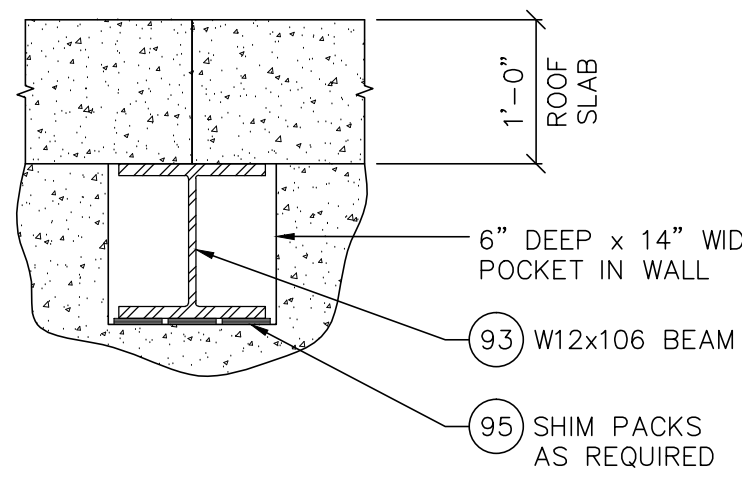
G **12" D.I. PIPE SUPPORT BRACKET DETAIL**
NOT TO SCALE



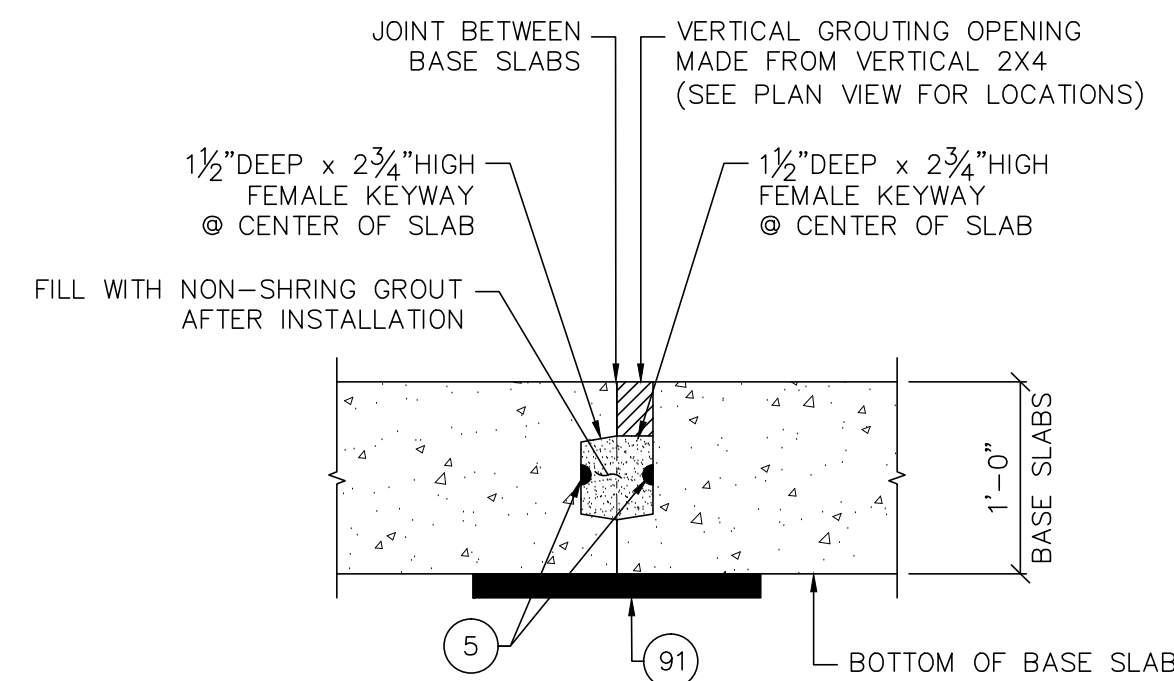
H **TYPICAL BOLTED WALL & BASE SLAB CONNECTION**
(NOT TO SCALE)



J **BEAM & POCKET DETAIL**
(NOT TO SCALE)



TYPICAL WALL KEYWAY DETAIL
NOT TO SCALE



TYPICAL BASE SLABS KEYWAY DETAIL
NOT TO SCALE

DRAWING LOG			
NUMBER	DATE	DESCRIPTION	
4			
3			
2			
1	07/08/19	SUBMITTAL #1 ISSUED FOR APPROVAL	
<div><div>UNITED CONCRETE PRODUCTS UNITED CONCRETE PRODUCTS INC. 173 Church Street Yalesville, CT 06492 (800) 234-3119 Fax: (203) 265-4941</div></div>			
CUSTOMER:		LUDLOW CONSTRUCTION	
JOB NAME:		DURHAM MEADOWS WATERLINE	
JOB LOCATION:		DURHAM, CT	
DWG TITLE: PRESSURE REDUCING VALVE VAULT DETAILS			
DRAWN BY:	DATE:	PMI CHKD:	DATE:
CJS	03/29/19	JAK	07/08/19
CAD CHKD:	DATE:	GM CHKD:	DATE:
JOB NO:	SCALE:	DRAWING NO:	
26811	NONE	PRV-2	