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SUBMITTAL TRANSMITAL

August 23, 2012

		<u>Submittal No: 15060-003</u>					
PROJECT:	Harold Thompson Regional WRF Birdsall Rd. Fountain, CO 80817 Job No. 2908						
ENGINEER:	GMS, Inc. 611 No. Weber St., #300 Colorado Springs, CO 80903 719-475-2935 Roger Sams						
OWNER:	Lower Fountain Metropolitan Sewage Disposal District 901 S. Santa Fe Ave. Fountain, CO 80817 719-382-5303 James Heckman						
CONTRACTOR:	Mesa Plumbing Gary Cunningham gcunninghammph@qwestoffice.net						
SUBJECT: SCH 4	0 PVC DMV for Vent Pipe at	Operations Building					
SPEC SECTION:	SPEC SECTION: 15060: Pipe and Pipe Fittings						
PREVIOUS SUBM	IISSION DATES:						
DEVIATIONS FRO	OM SPEC:YES _X_ N	10					
		ewed by Weaver Construction Management and, unless e with the intent of the contract documents.					
Contractor's Star	np:	Engineer's Stamp:					
Date: 8/23/12 Reviewed by: Jo	hn Jacob						
() Reviewed Wi (X) Reviewed W	ithout Comments ith Comments						
ENGINEER'S COMMENTS:							



Project: HDTWRF Project

Location: Fountain, CO

Supplier: Mesa Pluming

Date: 8/20/12

Submittal 15060-003 Plumbing Pipe SCH 40 PVC DWV Operation Building

Additional Submittal Review Comments:

1. Mesa Plumbing proposes to use SCH 40 PVC DWV pipe for vent piping at the Operations Building. .

End of Review by WCM.



Suggested Specification

System:

PVC Cellular Core (Foam Core) Pipe and PVC DWV Fitting System

Scope:

This specification covers PVC cellular core (foam core) pipe and PVC DWV fittings used in sanitary drain, waste, and vent (DWV), sewer, and storm drainage applications. This system is intended for use in non-pressure applications where the operating temperature will not exceed 140°F.

Specification:

Pipe shall be manufactured from virgin rigid PVC (polyvinyl chloride) vinyl compounds with a Cell Class of 11432 as identified in ASTM D 4396. Fittings shall be manufactured from virgin rigid PVC (polyvinyl chloride) vinyl compounds with a Cell Class of 12454 as identified in ASTM D 1784.

PVC cellular core pipe shall be Iron Pipe Size (IPS) conforming to ASTM F 891. Injection molded PVC DWV fittings shall conform to ASTM D 2665. Fabricated PVC DWV fittings shall conform to ASTM F 1866. Pipe and fittings shall be manufactured as a system and be the product of one manufacturer. All pipe and fittings shall be manufactured in the United States. All systems shall utilize a separate waste and vent system. Pipe and fittings shall conform to NSF International Standard 14.

Installation shall comply with the latest installation instructions published by Charlotte Pipe and Foundry and shall conform to all applicable plumbing, fire, and building code requirements. Buried pipe shall be installed in accordance with ASTM D 2321 and ASTM F 1668. Solvent cement joints shall be made in a two step process with primer conforming to ASTM F 656 and solvent cement conforming to ASTM D 2564. The system shall be protected from chemical agents, fire stopping materials, thread sealant, plasticized vinyl products or other aggressive chemical agents not compatible with PVC compounds. Systems shall be hydrostatically tested after installation. WARNING! Never test with or transport/store compressed air or gas in PVC pipe or fittings.

Referenced Standards:

ASTM D 4396	Compounds for Cellular Core
ASTM F 891	Co-extruded PVC Pipe with Cellular Core
ASTM D 2665	PVC Drain, Waste, and Vent Fittings
ASTM D 2564	Solvent Cements for PVC Pipe and Fittings
ASTM D 2321	Underground Installation of Thermoplastic Pipe (non-pressure applications)
ASTM F 1668	Procedures for Buried Plastic Pipe
ASTM F 1866	Fabricated PVC DWV Fittings
NSF Standard 14	Plastic Piping Components and Related Materials

SPEC-LF-PVC-FC-DWV (2-10-12)

PO Box 35430 Charlotte, NC 28235 USA

704/372-5030 800/438-6091 www.charlottepipe.com

Note: Latest revision of each standard applies.

FAX 800/553-1605

RECOMMENDED PRODUCT SPECIFICATION

Plastics Technical Manual

Suggested Specification

System:

PVC Cellular Core (Foam Core) Pipe and PVC DWV Fitting System

Scope:

This specification covers PVC cellular core (foam core) pipe and PVC DWV fittings used in sanitary drain, waste, and vent (DWV), sewer, and storm drainage applications. This system is intended for use in non-pressure applications where the operating temperature will not exceed 140°F.

Specification:

Pipe shall be manufactured from virgin rigid PVC (polyvinyl chloride) vinyl compounds with a Cell Class of 11432 as identified in ASTM D 4396. Fittings shall be manufactured from virgin rigid PVC (polyvinyl chloride) vinyl compounds with a Cell Class of 12454-B as identified in ASTM D 1784.

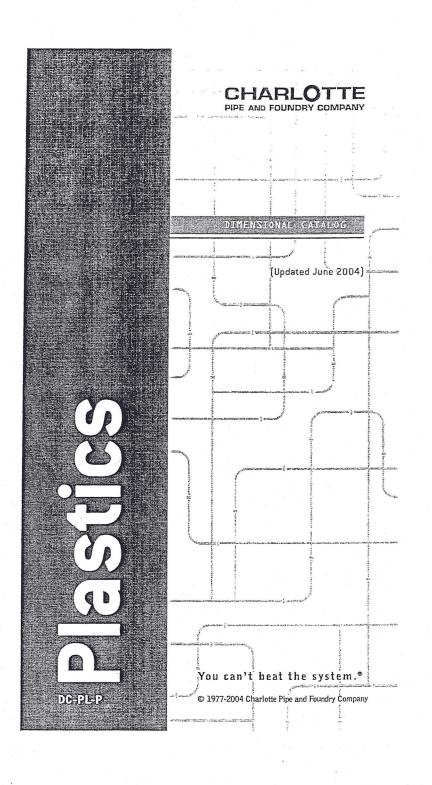
PVC cellular core pipe shall be Iron Pipe Size (IPS) conforming to ASTM F 891. PVC DWV fittings shall conform to ASTM D 2665. Pipe and fittings shall be manufactured as a system and be the product of one manufacturer. All pipe and fittings shall be manufactured in the United States. All systems shall utilize a separate waste and vent system. Pipe and fittings shall conform to National Sanitation Foundation Standard 14.

Installation shall comply with the latest installation instructions published by Charlotte Pipe and Foundry and shall conform to all local plumbing, fire, and building code requirements. Solvent cement joints shall be made in a two step process with primer manufactured for thermoplastic piping systems and solvent cement conforming to ASTM D 2564. The system shall be protected from chemical agents, fire stopping materials, thread sealant, plasticized vinyl products, or other aggressive chemical agents not compatible with PVC compounds. Systems shall be hydrostatically tested after installation. Testing with compressed air or gas is not recommended.

Referenced Standards:

AS IM D 1/84	Rigid Vinyl Compounds
ASTM D 4396	Compounds for Cellular Core Pipe
ASTM F 891	Co-extruded PVC Pipe with Cellular Core
ASTM D 2665	PVC Drain, Waste, and Vent Pipe & Fittings
ASTM D 2564	Solvent Cements for PVC Pipe and Fittings
NSF Standard 14	Plastic Piping Components and Related Materials

Note: Latest revision of each standard applies.



Plastic Pipe and Fitting Dimensions

PVC Pipe: Drainage, Pressure and Well Casing

Possession of this price list shall not be construed as an offer to sell the products listed.

PVC Schedule 40 DWV and Schedule 40 Pressure Pipe - Plain End

NSF.

PVC SCHEDULE 40 (WHITE)			PLAIN END			PVI	1120	ASTM D 1785	
PART NO.	NOM. SIZE	UPC # 611942-	TRUCKLOAD Percent Per skid	OTY, PER Skid	AVE, OD (IN.)	MIN. WALL (IN.)	MAX WORK PRESSURE	WT. PER 100 FT. (LBS.)	LIST PRICE PER 100 Ft.
PVC 4005	1/2°x20'	03922	4.166	9000'	.840	.109	600 PSI	15.9	\$ 41.60
PVC 4007	3/4"x20"	03925	4.166	7000'	1.050	.113	480 PSI	21.1	\$ 54.00
PVC 4010	1"x20'	03928	4.166	6000'	1.315	.133	450 PSI	31.3	\$ 79.6
PVC 7100*	11/4"x10"	03945	1.780	2120'	1.660	.140	370 PSI	42.4	\$106.0
PVC 7100*	11/41x20'	03946	4.166	4240'	1.660	.140	370 PSI	42.4	\$106.0
PVC 7112*	1 ¹ / ₂ "x10'	03947	2.083	1720'	1.900	.145	330 PSI	50.7	\$124.0
PVC 7112*	1 ¹ / ₂ ⁸ x20 ¹	03948	4.165	3440	1.900	.145	330 PS1	50.7	\$124.0
PVC 7200*	2"x10"	03949	1.780	990'	2.375	.154	280 PS1	68.1	\$162.0
PVC 7200*	2"x20"	03950	3.570	1980'	2.375	.154	280 PSI	68.1	\$162.0
PVC 4025*	21/2"x20"	04205	3.570	1360'	2.875	.203	300 PSI	108.0	\$257.0
PVC 7300*	3"x10'	03951	4.160	1040'	3.500	.216	260 PSI	141.2	\$326.0
PVC 7300*	3"x20"	03952	3.570	920'	3.500	.216	260 PSI	141.2	\$326.0
PVC 7400*	4"x10"	03953	4.160	600'	4.500	.237	220 PSI	201.2	\$460.0
PVC 7400*	4"x20"	03954	7.144	1200'	4.500	.237	220 PSI	201.2	\$460.0
PVC 7500*	5"x20'	04837	7.144	760'	5.563	.258	190 PS1	272.5	\$630.0
PVC 7600*	6"x10"	03955	4.160	280'	6.625	.280	180 PSI	353.7	\$816.0
PVC 7600*	6"x20"	03956	8.330	560'	6.625	.280	180 PSI	353.7	\$816.0
PVC 7800*	8"x20"	03958	8.330	360'	8.625	.322	160 PSI	532.3	\$1240.0
PVC 7910*	10"x20'	03959	8.330	220'	10.750	.365	140 PSI	754.7	\$1900.0
PVC 7912*	12"x20'	03961	7.144	120'	12.750	.406	130 PSI	997.9	\$2778.0
PVC 7914	14"x20"	04862	4.160	60'	14.000	.437	130 PSI	1180.1	\$3281.0
PVC 7916	16'x20'	04918	5.000	60'	16.000	.500	130 PSI	1543.1	\$4290.0

^{*} Dual marked ASTM D 1785 and ASTM D 2665.

NOTE: When ordering, please specify plain end or bell end.
For truckloads of mixed sizes, multiply skids desired by truckload percent per skid.

All Charlotte Pipe and Foundry Company Products are made in U.S.A.

NSF Listed. Meets All Requirements of ASTM D 1784 and ASTM D 1785.

PVC Pipe is not recommended for use with compressed air or gases.



CHARLOTTE PIPE AND FOUNDRY COMPANY®

PVC Schedule 40 DWV and Schedule 40 Pressure Pipe - Bell End

PVC SCHEDULE 40 (WHITE) BELL END ,PVC 1120 ASTM D 1785										
PÁRT NO.	NOM. SIZE	UPC # 611942-	TRUCKLDAD PERCENT PER SKID	QTY PER Skid	AVG. OD [N.)	MIN. WALL (IN.)	MAX WORK Pressure At 23° C	BELL DEPTH (IN.)	WT. PER 100 FT. (LBS.)	LIST PRICE PER 160 FT.
PVC 4005B**	1/2 " x10"	04986	2.083	6000'	.840	.109	600 PSI	2.00	15.9	\$ 41.60
PVC 4005B**	1/2"x20'	03923	4.166	9000'	.840	.109	600 PSI	2.00	15.9	\$ 41.60
PVC 4007B**	3/4"x10"	04987	2.083	4000'	1.050	.113	480 PSI	2.25	21.1	\$ 54.00
PVC 4007B**	3/4"x20"	03926	4.166	7000'	1.050	.113	480 PSI	2.25	21.1	\$ 54.00
PVC 4010B**	1°x10'	04988	1.780	3000'	1.315	.133	450 PS1	2.50	31.3	\$ 79.60
PVC 4010B**	1°x20'	03929	3.570	6000'	1.315	.133	450 PSI	2.50	31.1	\$ 79.60
PVC 4012B§	1 ¹ /4"x10'	04989	2.083	2000'	1.660	.140	370 PS1	2.75	42.4	\$108.40
PVC 4012B§	1 ¹ /4 ¹ x20'	03930	3.570	4000'	1.660	.140	370 PS1	2.75	42.4	\$108.40
PVC 4015B§	1º/2ºx10'	04990	2.083	1720'	1.900	.145	330 PS1	3.00	50.7	\$127.60
PVC 4015B§	1 ¹ /2*x20'	03931	4.165	3440'	1.900	.145	330 PS1	3.00	50.7	\$127.60
PVC 4C2OB†	2°x10'	04991	1.786	9901	2.375	.154	280 PSJ	4.00	69.2	\$165.60
PVC 4020B†	2"x20"	03932	3.570	1980	2.375	.154	280 PSI	4.00	69.2	\$165.60
PVC 4025B‡	2 ¹ /2"x10"	04992	1.786	680'	2.875	.203	300 PSI	4.00	110.0	\$262.00
PVC 4025B‡	2 ¹ / ₂ "x20'	04206	3.570	1360'	2.875	.203	300 PSI	4.00	110.0	\$262.00
PVC 7300B§	3°x10'	04853	4.160	1040°	3.500	.216	260 PS1	4.00	145.1	\$340.00
PVC 4030B†	3°x20'	03933	3.570	920°	3.500	.216	260 PSI	4.00	144.5	\$340.00
PVC 7400B§	4°x10'	04835	4.160	540°	4.500	.237	220 PSI	4.00	207.9	\$489.00
PVC 9400B†	4°x20°	03964	7.144	1080'	4.500	.237	220 PSI	5.00	206.2	\$489.00
PVC 7600B§	6°x10'	04850	4.160	240	6.625	.280	180 PS1	6.50	371.4	\$852.00
PVC 9600B†	6°x20'	03965	7.144	480	6.625	.280	180 PSJ	6.50	365.5	\$852.00
PVC 9800B†	8°x20'	03967	5.000	200'	8.625	.322	160 PS1	7.00	552.3	\$1296.00
PVC 7910B†	10"x20"	03960	6.250	160'	10.750	.365	140 PSI	9.00	785.4	\$1940.00
PVC 7912B†	12"x20"	03962	7.144	120'	12.750	.406	130 PS1	10.00	1046.7	\$2608.00
PVC 7914B†	14"x20"	04863	4.160	60'	14.000	.437	130 PSI	10.00	1180.1	\$2968.00
PVC 7916B†	16"x20'	04929	5.000	60'	16.000	.500	130 PS1	10.00	1543.1	\$4505.00

** ASTM D 1785

† Triple Marked ASTM D 1785 & ASTM D 2665 & ASTM F 480 † Dual Marked ASTM D 1785 & ASTM F 480 § Dual Marked ASTM D 1785 & ASTM D 2665

NOTE: For truckloads of mixed sizes, multiply skids desired by truckload percent per skid.

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