

Submittal For Approval Sanitary Utility Sewerage Piping Force Main

Prepared by: Sandrema dba Eden Site
Development

Project: Lake Hills

Date: 7/23/2025

Source Data: Off site Utility Plans Rev 3/2/25
8" DR18 for open cuts and 10" HDPE DR11 for directional drill runs

01-333100 Sanitary Utility Sewerage Piping Forcemain .pdf
Reviewed for General Acceptance only. We hereby certify that the material shown and marked in this submittal is that proposed to be incorporated in the work, is in compliance with the contract documents, can be installed in the allocated spaces and is submitted for review by the Designer.

Eden Site Development Inc.
By: Sean Bader
Date: 07/23/2025

☒ Reviewed	☐ Revise and resubmit
☐ Rejected	☐ Furnish as corrected

Corrections or comments made on the shop drawings during this review do not relieve contractor from compliance with requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for continuing and correlating all quantities and dimension; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner. The contractor is responsible for providing copies of shop drawings to governing municipality and obtaining approval if necessary.

Date: 7/25/25 By: JAMES DOMBROWSKI
MADDEN, MOORHEAD & STOKES, LLC



AWWA C900 MANUFACTURER'S CERTIFICATION

This is to certify the pipe manufactured by Sanderson Pipe meets or exceeds the applicable engineering standards listed below for 4" through 12" C900 pipe.

Materials

Comply with ASTM D1784 for PVC 1120 cell classification 12454. Materials used in the manufacture of our certified C900 pipe are NSF/ANSI 14 and 61 listed.

Dimensions/Testing

All pipe meets or exceeds the performance requirements listed in the current version of ANSI/AWWA C900, UL1285 and FM 1612. Each C900 pipe is hydrostatic tested to at least two times the pressure class per AWWA C900-16 standards. Testing records are maintained and available upon request.

Markings on the Pipe

Identification of nominal pipe size (CI diameter), PVC, dimension ratio, ANSI/AWWA pressure class, test pressure for hydrostatic tested pipe, AWWA designation number (ANSI/AWWA C900), manufacture's name and code. Additional certified seals printed on the pipe are: NSF-pw, NSF-61, UL1285, and Factory Mutual (FM 1612 Approved for DR18 at 185 PSI and DR14 at 250 PSI only).

Joints

Integral bell joint system complies with the requirements of ASTM D3139.

Gasket

All gaskets are NSF approved and comply with ASTM F477 standards.

Color

Standard C900 pressure pipe is blue. Purple (marked "Caution – Do Not Drink Reclaimed Water") and green (marked "Sewer Force Main") is available upon request. The purple and green C900 pipe will not carry the NSF-pw, NSF-61, UL1285, or Factory Mutual seals.

Length

Manufactured in 20 foot lay lengths with a 15 degree chamfer.

Tapping

It is extremely important to use the proper procedures and tools while tapping pipe. Sanderson Pipe Corporation recommends strict compliance with the requirements as specified in AWWA C605.

Installation

Sanderson Pipe Corporation recommends using installation procedures outlined in AWWA C605, Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water. The AWWA Manual M23, and Handbook of PVC Pipe Design and Construction (from Uni-Bell/ PVC Pipe Association) are additional resource guides for design and installation.

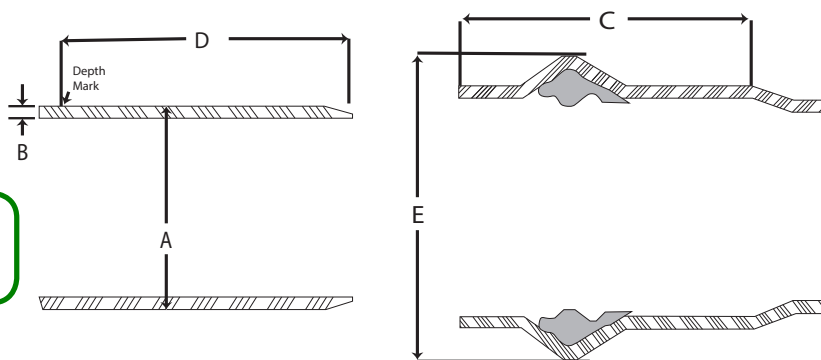


C900

SANDERSON PIPE CORPORATION

Pipe Size	Outside Diameter (A)	Minimum Wall (B)		
		DR-25 (165 PSI)	DR-18 (235 PSI)	DR-14 (305 PSI)
4"	4.800"	0.192"	0.267"	0.343"
6"	6.900"	0.276"	0.383"	0.493"
8"	9.050"	0.362"	0.503"	0.646"
10"	11.100"	0.444"	0.617"	0.793"
12"	13.200"	0.528"	0.733"	0.943"

GREEN



Pipe Size	Dimensions		
	*(C) Bell Length	*(D) Insertion / Reference Mark	(E) Approximate Bell OD Clearance
4"	5.50"	4.50"	6.50"
6"	6.25"	5.25"	9.25"
8"	7.50"	6.50"	11.875"
10"	8.75"	7.75"	14.500"
12"	9.25"	8.25"	16.875"

*May vary up to $\pm \frac{1}{2}$ "



Made with Pride in the USA

sandersonpipe.com

December, 2019

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Houston, TX
Pittsburg, KS
Clarksville, TN
Sanderson, FL

HDPE Water/Sewer | DIPS

PRESSURE-RATED HDPE PIPE



DELIVERING GOOD WATER TO YOU



ANSI/AWWA C906, ASTM F714, ASTM D3035
ASTM D3350 Cell Class 445574C/E, PPI (TR-4) PE 4710
ANSI/NSF 61/14

MARKETS



Potable



Reclaim



Sewer



Drainage



Rehabilitation

DESCRIPTION



Standard HDPE



Coiled HDPE

DIPS	PIPE SIZES:	ADDITIONAL OPTIONS:
Nominal Laying Length: 40/50 feet <i>(Laying length tolerances are in accordance with AWWA and ASTM standards)</i>	4", 6", 8", 10", 12", 14", 16", 18", 20", 24", 30", 36", 42", 48"	Perforated*: 4", 6", 8" Coil*: 4", 6"
PIPE COLORS:	BLACK W/COLOR STRIPES:	ADDITIONAL COLOR OPTIONS:
Black	Blue Green Purple	Grey*

AWWA C906

DR 7	335 psi
DR 9	250 psi
DR 11	200 psi
DR 13.5	160 psi
DR 17	125 psi
DR 19	112 psi
DR 21	100 psi
DR 26	80 psi
DR 32.5	63 psi



BENEFITS

INSTALLATION



Lightweight, with long laying length, great for easy transportation and installation.

Pipe applicable for open-trench and slip-lining installation.

FEATURES



Extremely durable, corrosive, gouging and abrasion resistant.

Features 100 years design life per Florida DOT.

Great flexibility, and highly suitable for earthquake-prone areas.

Highest PE pressure rating, resistance to slow crack growth and rapid crack propagation.



*Please call regarding availability.

HDPE Water/Sewer DIPS

PRESSURE-RATED HDPE PIPE



DELIVERING GOOD WATER TO YOU

SUBMITTAL AND DATA SHEET

HDPE DUCTILE IRON OUTSIDE DIAMETER PRESSURE PIPE

PIPE SIZE (IN)	AVG O.D. (IN)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)
DR 7 (335 psi)					DR 9 (250 psi)			DR 11 (200 psi)		
4	4.800	0.686	3.346	3.87	0.533	3.670	3.13	0.436	3.876	2.62
6	6.900	0.986	4.868	7.99	0.767	5.274	6.46	0.627	5.571	5.41
8	9.050	1.293	6.309	13.75	1.006	6.917	11.12	0.823	7.305	9.32
10	11.100	1.586	7.738	20.68	1.233	8.486	16.72	1.009	8.961	14.01
12	13.200	1.886	9.202	29.25	1.467	10.090	23.65	1.200	10.656	19.82
14	15.300	2.186	10.666	39.29	1.700	11.696	31.77	1.391	12.351	26.63
16	17.400	2.486	12.130	50.82	1.933	13.302	41.08	1.582	14.046	34.44
18	19.500	2.786	13.594	63.82	2.167	14.906	51.61	1.773	15.741	43.25
20	21.600	3.086	15.058	78.31	2.400	16.512	63.32	1.964	17.436	53.07
24	25.800	N/A	N/A	N/A	2.867	19.722	90.35	2.345	20.829	75.69
30	32.000	N/A	N/A	N/A	N/A	N/A	N/A	2.909	25.833	116.46
36	38.300	N/A	N/A	N/A	N/A	N/A	N/A	3.482	30.918	166.84

Product Standard: ANSI/AWWA C906

ASTM F714, ASTM D3035

Pipe Compound: PPI TR-4 PE 4710, ASTM D3350 Cell Class 445574 C/E

Certification: ANSI/NSF 61, ANSI/NSF 14*

Additional Option: Perforated (4" - 8")*

Nominal Laying Length: 40/50 feet

(Laying length tolerances are in accordance with AWWA and ASTM standards)

Coil option available upon request for size 6" and below.

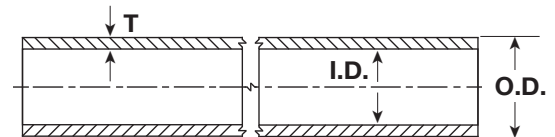
Installation: JM Eagle™ HDPE Water/Sewer Installation Guide

Manning Coefficient (n) = 0.009

Hazen-Williams Coefficient (c) = 150

*Supply may vary based on plant location. Please call regarding availability.

PIPE SIZE (IN)	AVG O.D. (IN)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)
DR 13.5 (160 psi)					DR 17 (125 psi)			DR 19 (111 psi)		
4	4.800	0.356	4.045	2.18	0.282	4.202	1.76	0.253	4.264	1.59
6	6.900	0.511	5.817	4.50	0.406	6.039	3.64	0.363	6.130	3.27
8	9.050	0.670	7.630	7.74	0.532	7.922	6.25	0.476	8.041	5.63
10	11.100	0.822	9.375	11.64	0.653	9.761	9.41	0.584	9.862	8.47
12	13.200	0.978	11.127	16.47	0.776	11.555	13.30	0.695	11.727	11.99
14	15.300	1.133	12.898	22.12	0.900	13.392	17.88	0.805	13.593	16.10
16	17.400	1.289	14.667	28.61	1.024	15.229	23.13	0.916	15.458	20.84
18	19.500	1.444	16.439	35.92	1.147	17.068	29.04	1.026	17.325	26.15
20	21.600	1.600	18.208	44.09	1.271	18.905	35.64	1.137	19.190	32.10
24	25.800	1.911	21.749	62.90	1.518	22.582	50.84	1.358	22.921	45.80
30	32.000	2.370	26.976	96.76	1.882	28.123	78.18	1.684	28.430	70.45
36	38.300	2.837	32.286	138.62	2.253	33.524	112.02	2.016	34.026	100.94
42	44.500	N/A	N/A	N/A	2.618	38.950	151.24	2.342	39.535	136.24
48	50.800	N/A	N/A	N/A	2.988	44.465	197.05	2.674	45.131	177.57



T: (Wall Thickness)

I.D.: (Inside Diameter)

O.D.: (Outside Diameter)



PIPE SIZE (IN)	AVG O.D. (IN)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)
DR 21 (100 psi)					DR 26 (80 psi)			DR 32.5 (63 psi)		
4	4.800	0.229	4.315	1.44	0.185	4.408	1.18	0.148	4.486	0.95
6	6.900	0.329	6.203	2.98	0.265	6.338	2.43	0.212	6.451	1.96
8	9.050	0.431	8.136	5.13	0.348	8.312	4.18	0.278	8.461	3.37
10	11.100	0.529	9.979	7.72	0.427	10.195	6.29	0.342	10.375	5.08
12	13.200	0.629	11.867	10.91	0.508	12.123	8.91	0.406	12.339	7.18
14	15.300	0.729	13.755	14.66	0.588	14.053	11.95	0.471	14.301	9.65
16	17.400	0.829	15.643	18.96	0.669	15.982	15.46	0.535	16.429	12.49
18	19.500	0.929	17.531	23.81	0.750	17.910	19.95	0.600	18.228	15.67
20	21.600	1.029	19.419	29.22	0.831	19.838	23.84	0.665	20.190	19.24
24	25.800	1.229	23.195	41.68	0.992	23.697	33.99	0.794	24.117	27.44
30	32.000	1.524	28.769	64.11	1.231	23.390	52.31	0.985	29.912	42.22
36	38.300	1.824	34.433	91.84	1.473	35.177	74.92	1.178	35.873	60.43
42	44.500	2.119	40.008	123.96	1.712	40.871	101.17	1.369	41.480	81.59
48	50.800	2.419	45.672	161.55	1.954	46.658	131.83	1.563	47.486	106.34

This information may have been updated. Please visit www.jmeagle.com for all updated information and warranty details.

CUSTOMER SERVICE: 1.800.621.4404

THIS PRODUCT IS MADE IN AMERICA

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