



LETTER OF TRANSMITTAL

PIPELINE CONTRACTORS

8600 Verbena St.
Commerce City, CO 80022
Office 303-289-4355
Fax 303-289-4353

ISSUED TO:

Owner ATTN: Owner Representative

DATE:

REGARDING:

TRANSMITTAL NO.:

Project JBS Job No 0210

We are issuing you under separate cover the following (via):

- Blue Prints
- Submittals
- Change Order
- Request for Information
- Copy of a letter
- Shop Drawings

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#	Copies	Item Dated	Item #	Description
	1-Electronic		A-008	Storm Pipe (RCP)

- For your bid
- For Approval
- As Requested
- Returned for Correction
- For Review and Comment
- For Pricing

-
-
-

Prints are loaned to you and are to be returned to us by: Date: _____

Bids are due on or before: Date: _____

COMMENTS

CC:

Amie Parent

Amie Parent
JBS Pipeline Contractors



CONCRETE PRODUCT CERTIFICATION

We hereby certify that the following precast concrete products are manufactured in accordance with the below referenced standard specifications and meet or exceed the minimum physical requirements established by these standards and the project specifications.

Certification Date:	8/8/19
Project Name: Location:	Trails at Crowfoot Filing 2 Parker, CO
Contractor Name: Location:	JBS Pipeline Contractors Commerce City, CO

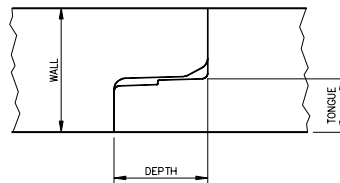
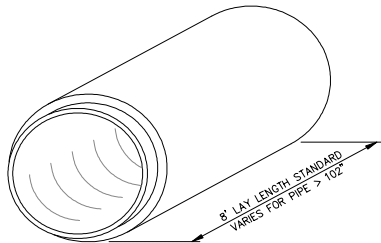
Quantity	Product Description	ASTM	ASTM Joint
992 ft	18" RCP Class III	C76	C443
344 ft	30" RCP Class III	C76	C443
1 ea	30" FES	N/A	C443

- Concrete: ASTM C150 Type I/II LA w/20% > 25% Class F Fly Ash - Meets CDOT Class of Sulfate Protection SP3.
- The RCP and RCB products on this COC comply with load conditions in the project drawings as well as the physical requirements established by the standards and project specification.
- RCP rubber gaskets are TSS Model 135. RCB rubber gaskets are TSS Model 225.
- Special fabrications shall comply with the standard specification for the product from which they are manufactured.
- See attached product sheets and details for additional information.

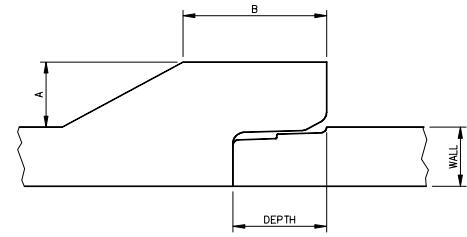
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REINFORCED CONCRETE PIPE



JOINT DETAIL



JOINT DETAIL

Pipe I.D. (in)	Wall Thickness (in)	Wall (A, B, C)	Barrel O.D. (in)	Joint Depth (in)	A (in)	B (in)	Bell O.D. (in)	Lift Anchor (ea)	Pipe Unit Wt (lb)	Pipe Unit Wt (ton)
12	2	B	16	3 5/8	2	5	20		810	0.4
15	2 1/4	B	19 1/2	3 5/8	2 1/4	5	24		1,120	0.6
18	2 1/2	B	23	3 5/8	2 1/2	5	28		1,480	0.7
21	2 3/4	B	26 1/2	3 7/8	2 5/8	6	31 3/4		1,900	1.0
24	3	B	30	3 7/8	2 3/4	6 1/2	35 1/2		2,370	1.2
27	3 1/4	B	33 1/2	4	2 7/8	6 1/2	39 1/4		2,860	1.4
30	3 1/2	B	37	4	3 1/8	7	43 1/4		3,440	1.7
36	4	B	44	4	3 5/8	7 1/2	51 1/4		4,760	2.4
42	4 1/2	B	51	4 1/4	3 1/4	8	57 1/2		6,060	3.0
48	5	B	58	4 1/4	2 3/4	8	63 1/2	2	7,460	3.7
54	5 1/2	B	65	4 3/4				2	8,570	4.3
60	6	B	72	4 3/4				2	10,370	5.2
66	7 1/4	C	80 1/2	5				2	13,900	7.0
72	7	B	86	5				2	14,480	7.2
78	8 1/4	C	94 1/2	5				2	18,630	9.3
84	8	B	100	5				2	19,270	9.6
90	9 1/4	C	108 1/2	5				4	24,030	12.0
96	9	B	114	5				4	24,740	12.4
102	10 1/4	C	122 1/2	5				4	30,120	15.1
108	10 3/4	C	129 1/2	5				4	33,420	16.7
114	11 1/4	C	136 1/2	6				4	36,890	18.4
120	11 3/4	C	143 1/2	6				4	40,530	20.3

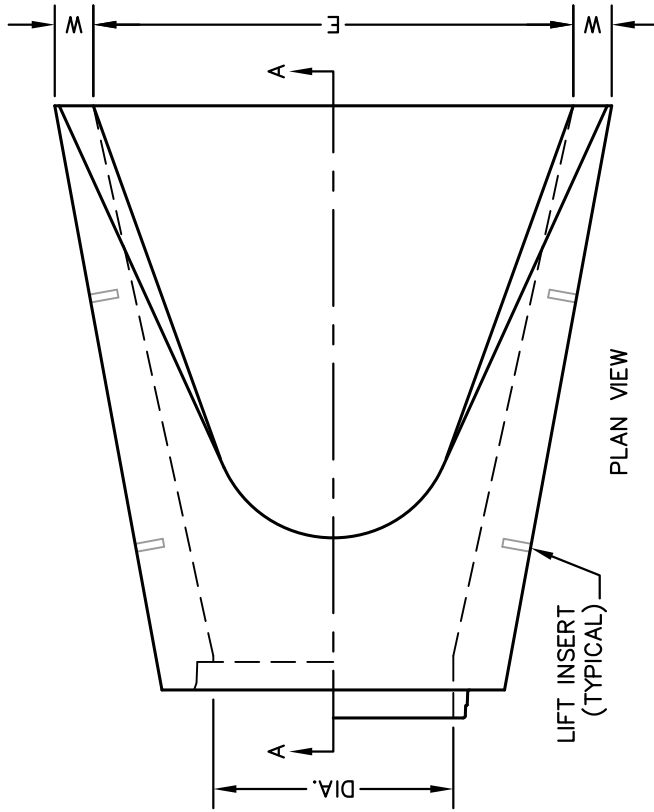
Standard Specifications

- ASTM C 76, AASHTO M 170 – Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- ASTM C 443 – Joints for Concrete Pipe and Manholes, Using Rubber Gaskets

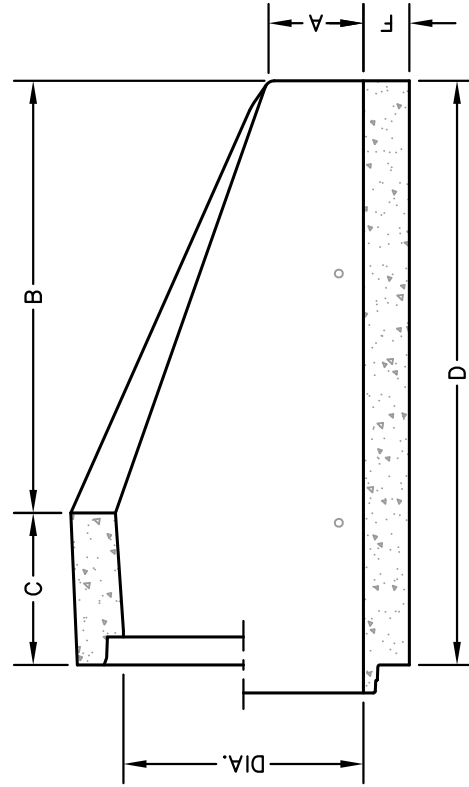
Notes

- Minimum strength Class III.
- Standard pipe unit lay length = 8.0'
- Joint employs Tylox® SuperSeal™ pre-lubricated rubber gasket.





PLAN VIEW



SECTION A-A

DIA. (IN)	A (IN)	B (IN)	C (IN)	D (FT)	E (IN)	F (IN)	W (IN)	WEIGHT (LBS)
12	4	24	48	6	24	4	2	1,350
15	6	27	45	6	30	4-1/2	2-1/4	1,930
18	9	27	45	6	36	5	2-1/2	2,550
21	9	35	37	6	42	5-3/8	2-3/4	3,050
24	9-1/2	44	28	6	48	5-3/4	3	3,550
27	10-1/2	48	24	6	54	6-1/8	3-1/4	4,200
30	12	54	18	6	60	6-5/8	3-1/2	4,850
36	15	63	33	8	72	7-5/8	4	9,100
42	21	63	33	8	78	7-3/4	4-1/2	11,000
48	24	72	24	8	84	7-3/4	5	12,100
54	27	65	31	8	90	5-1/2	5-1/2	10,600
60	30	60	36	8	96	6	6	12,770
66	24	78	18	8	102	6-1/2	7-1/4	16,120
72	34	78	18	8	108	7	7	16,875

NOTES:

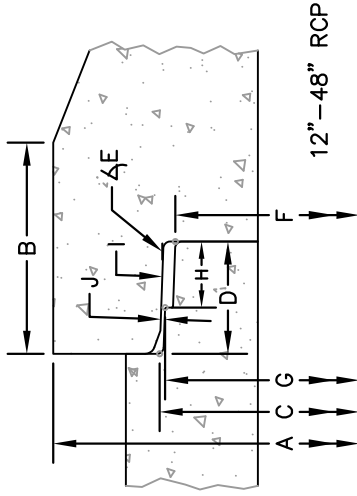
1. FES SECTIONS MEET CDOT 706.02
2. JOINTS PER ASTM C 443 WITH TYLOX SUPERSEAL PRE-LUBRICATED RUBBER GASKETS.
3. FOUR LIFT INSERTS ARE MA INDUSTRIES AND REQUIRE LIFTING EYES.



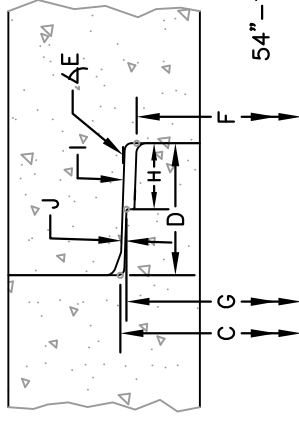
FORTERRA
 9455 BOSTON COURT
 HENDERSON, CO 80640
 303-853-8053

FORTERRA - DENVER
 STANDARD DRAWING
 FLARED END SECTION
 CIRCULAR

THIS BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWN BY	DWG NO	REV
0	JKC	-	-
IF THIS BAR IS NOT ONE INCH ADJUST SCALE	SCALE	DATE	SHEET
	NONE	10-9-17	1 OF 1



12" - 48" RCP



54" - 120" RCP

Pipe ID	Wall Thickness	Pipe OD	Bell OD	Bell Length	Bell ID	Joint Depth	Joint Slope	Spigot Diameter	Shoulder Diameter	Step Length	Annular Space 1	Annular Space 2	HK Tylor Superseal	Joint Pull Max
		A	B	C	D	E	F	G	H	I	J			
12	2	16	20	5	15.535	3 5/8	2°	14.630	15.164	1.922	0.326	0.126	135	0.70
15	2 1/4	19 1/2	24	5	19.035	3 5/8	2°	18.130	18.664	1.922	0.326	0.126	135	0.70
18	2 1/2	23	28	5	22.410	3 5/8	2°	21.505	22.039	1.922	0.326	0.126	135	0.70
21	2 3/4	26 1/2	31 3/4	6	25.909	3 7/8	2°	24.986	25.520	1.922	0.326	0.126	135	0.95
24	3	30	35 1/2	6 1/2	29.409	3 7/8	2°	28.486	29.020	1.922	0.326	0.126	135	0.95
27	3 1/4	33 1/2	39 1/4	6 1/2	32.784	4	2°	31.853	32.387	1.922	0.326	0.126	135	1.07
30	3 1/2	37	43 1/4	7	36.284	4	2°	35.353	35.887	1.922	0.326	0.126	135	1.07
36	4	44	51 1/4	7 1/2	43.159	4	2°	42.228	42.762	1.922	0.326	0.126	135	1.07
42	4 1/2	51	57 1/2	8	49.438	4 1/4	2°	48.249	49.024	2.500	0.446	0.146	185	0.75
48	5	58	63 1/2	8	55.438	4 1/4	2°	54.249	55.024	2.500	0.446	0.146	185	0.75
54	5 1/2	65	---	---	59.054	4 3/4	1°50'	57.858	58.618	2.500	0.446	0.146	185	0.93
60	6	72	---	---	65.520	4 3/4	1°50'	64.324	65.084	2.500	0.446	0.146	185	0.93
66	7 1/4	80 1/2	---	---	72.024	5	2°	70.783	71.558	2.500	0.446	0.146	185	1.43
72	7	86	---	---	78.302	5	2°	77.061	77.836	2.500	0.446	0.146	185	1.43
78	8 1/4	94 1/2	---	---	84.819	5	2°	83.470	84.370	2.750	0.500	0.146	200L	0.75
84	8	100	---	---	91.319	5	2°	89.970	90.870	2.750	0.500	0.146	200L	0.75
90	9 1/4	108 1/2	---	---	97.819	5	2°	96.470	97.370	2.750	0.500	0.146	200L	0.75
96	9	114	---	---	104.319	5	2°	102.970	103.870	2.750	0.500	0.146	200L	0.75
102	10 1/4	122 1/2	---	---	110.819	5	2°	109.470	110.370	2.750	0.500	0.146	200L	0.75
108	10 3/4	129 1/2	---	---	117.319	5	2°	115.969	116.870	2.750	0.500	0.146	200L	0.75
114	11 1/4	136 1/2	---	---	122.721	6	2°	121.720	122.931	2.750	0.500	0.146	200L	1.75
120	11 3/4	143 1/2	---	---	129.140	6	2°	127.721	128.621	2.750	0.500	0.146	200L	1.75

NOTES:
 1. ALL DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE
 2. JOINT DESIGN PER ASTM C-443

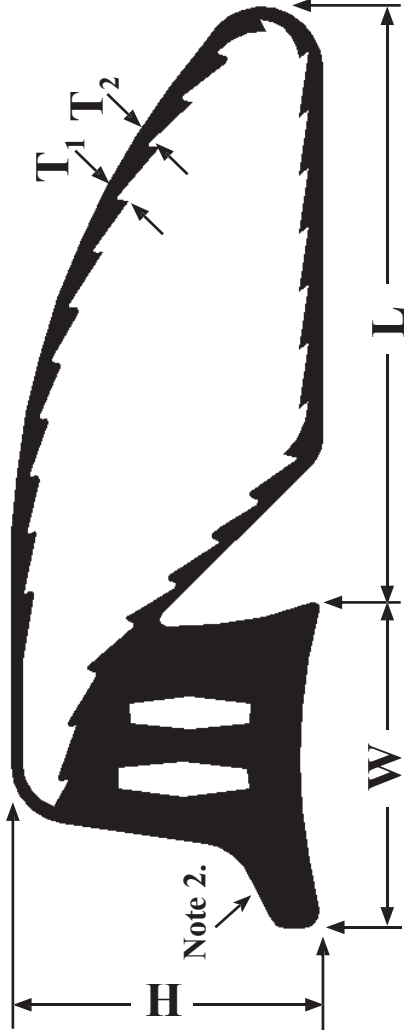


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FORTERRA - DENVER
 STANDARD DRAWINGS
 REINFORCED CONCRETE PIPE
 JOINT DETAIL

THIS BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWN BY	DWG NO	REV
0	JKC	-	-
IF THIS BAR IS NOT ONE INCH ADJUST SCALE	SCALE	DATE	SHEET
1"	NONE	6-2-17	1 OF 1

Material I.D. Stripe	
Material	Color
IR	None
EPDM	Blue
Neoprene	Yellow
Nitrile	Orange
IR/EPDM	Red



Tylox® SuperSeal™ Model

Dim.	Units	135	165	166	170	175	176	185	186	190	200	200L	201	210	225	245
W	in	0.720	0.860	0.860	0.820	0.833	0.825	0.940	0.850	0.900	0.940	0.990	0.925	0.965	1.015	1.120
	mm	18.30	21.84	21.84	20.83	21.15	20.95	23.88	21.59	22.86	23.88	25.15	23.50	24.50	25.78	28.45
H	in	0.610	0.675	0.750	0.685	0.680	0.690	0.735	0.740	0.735	0.790	0.880	0.790	0.835	0.900	0.965
	mm	15.50	17.15	19.05	17.40	17.27	17.53	18.67	18.80	18.67	20.07	22.35	20.06	21.20	22.86	24.51
L	in	0.870	0.980	1.140	1.430	0.565	0.588	1.140	0.781	0.585	0.835	1.500	1.015	0.840	1.500	0.855
	mm	22.10	24.89	28.95	36.32	14.35	14.94	28.96	19.84	14.86	21.20	38.10	25.78	21.34	38.10	21.72
T ₁ + T ₂ (Note 1)	in	0.096	0.100	0.096	0.120	0.092	0.068	0.130	0.066	0.100	0.080	0.126	0.080	0.094	0.130	0.110
	mm	2.44	2.54	2.44	3.05	2.34	1.73	3.30	1.68	2.54	2.03	3.20	2.03	2.39	3.30	2.79

Markings: All Tylox® SuperSeal™ Gaskets are marked with the Model Number, the Size - in millimetres and inches, the Specification Compliances, the Patent Number, the Month and Year of Manufacture, HK's Job Number, and the Country of Manufacture. e.g.

TYLOX SUPERSEAL 135 300MM (12") ASTM C361, C443, CSA A257.3 US PAT. 4934716 11/03 JOB NO 7-2249 CAN

Note 1. T₁ + T₂ represents 2x the mean wall thickness, and is the minimum size allowance for the Annular Space between Bell and Spigot, prior to the offset step.

Note 2. Material I.D. Stripe runs, circumferentially, along the top of the gasket nose.



**Tylox®
SuperSeal™
Dimensions**

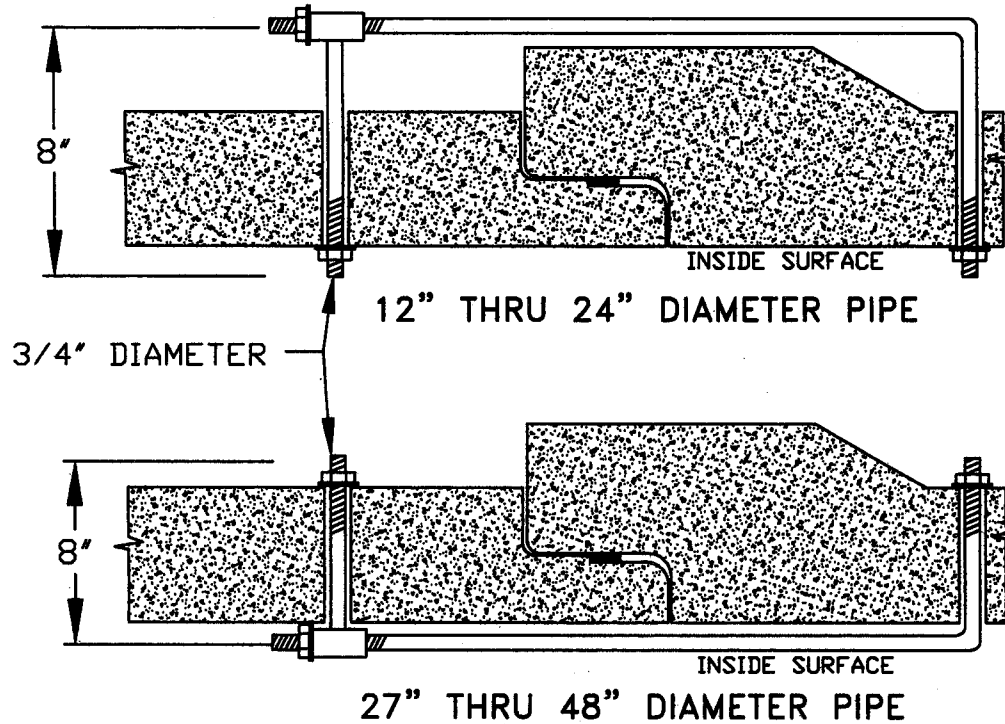
Drawing: HKS-A-10001

Rev. 0

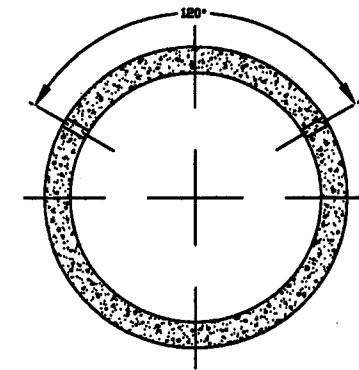
Tylox® SuperSeal™ Gaskets are patented under US Patent 4934716

Date: Jan 22 2004 **Drawn:** MP **Check:** PS **Scale:** NTS

CONCRETE PIPE JOINT FASTENER



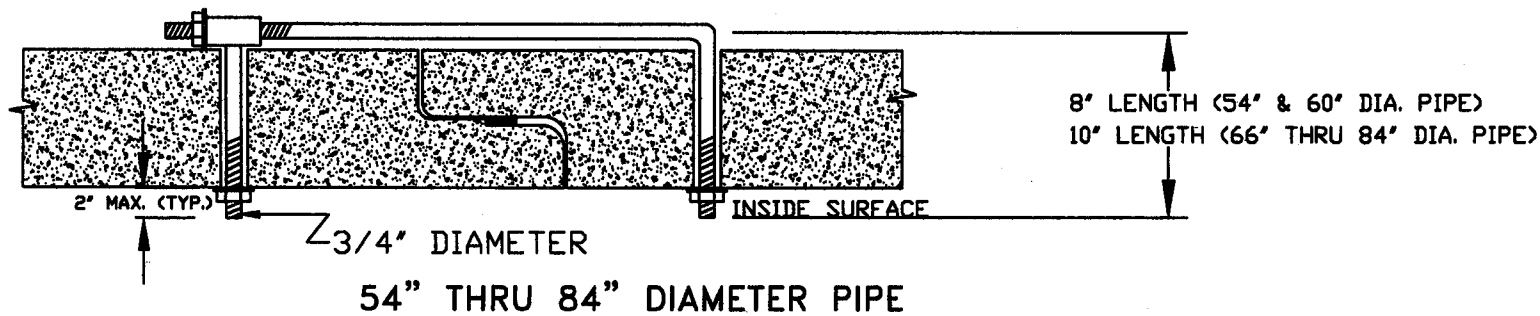
TYPICAL APPLICATION



DRILL 7/8" DIAMETER HOLE

NOTE

- HIGH STRENGTH BOLT SHALL CONFORM TO AASHTO M183/ASTM A-36
- GALVANIZING SHALL COMFORT TO AASHTO M111 (ASTM A123).



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PRECAST CONCEPTS	
9455 BOSTON CT. HENDERSON, CO 80640	
CONCRETE PIPE JOINT FASTENER	
NTS	
10-4-04	
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