TOEWALL FOR CORRUGATED METAL PIPE

PROJECT NO.	SHEET

			90° CROSSING							75° CROSSING							60° CROSSING							45° CROSSING						
Diameter D	H	No. Of Pipes	S	L	M	Concrete Concrete (Cu.Yds.)	Toewall Steel (lbs.)	Flexible △ Revetment (Sq.Yds.)	Sack ø Toewall (Sq.Yds.)	S	L	M	Concrete Concrete (Cu.Yds.)	Toewall Steel (lbs.)	Flexible △ Revetment (Sq.Yds.)	Sack ø Toewall (Sq.Yds.)	S	L	M	Concrete Concrete (Cu.Yds.)	Toewall Steel (lbs.)	Flexible △ Revetment (Sq.Yds.)	Sack ø Toewall (Sq.Yds.)	S	L	M	Concrete Concrete (Cu.Yds.)	Toewall Steel (lbs.)	Flexible △ Revetment (Sq.Yds.)	Sack ø Toewall (Sq.Yds.)
54"	2'–3"	1	–	4'–6"	13'–6"	0.92	49	14	5		4'–8"	14'–0"	0.95	50	14	6		5'–2"	15'–6"	1.05	54	16	6		6'–4"	19'–0"	1.29	67	19	8
		2	1'–9"	4'–6"	19'–9"	1.26	64	20	8	1'–10"	4'–8"	20'–6"	1.31	66	21	8	2'–0"	5'–2"	22'–9"	1.45	71	23	9	2'–6"	6'–4"	27'–11"	1.78	87	28	11
		3	1'–9"	4'–6"	26'–0"	1.60	80	26	10	1'–10"	4'–8"	27'–0"	1.67	82	27	10	2'–0"	5'–2"	29'–11"	1.84	87	30	11	2'–6"	6'–4"	36'–9"	2.27	106	37	14
		4	1'–9"	4'–6"	32'–3"	1.95	95	32	12	1'–10"	4'–8"	33'–6"	2.03	97	34	12	2'–0"	5'–2"	37'–1"	2.24	104	37	13	2'–6"	6'–4"	45'–7"	2.75	126	46	17
		5	1'–9"	4'–6"	38'–6"	2.29	110	39	14	1'–10"	4'–8"	40'–0"	2.39	113	40	14	2'–0"	5'–2"	44'–4"	2.64	121	44	16	2'–6"	6'–4"	54'–6"	3.25	146	55	19
60"	2'–6"	1	–	5'–0"	15'–0"	1.07	60	17	6		5'–2"	15'–6"	1.10	61	17	7		5'–9"	17'–3"	1.23	72	19	7		7'–1"	21'–3"	1.51	82	24	9
		2	1'–11"	5'–0"	21'–11"	1.46	78	24	9	2'–0"	5'–2"	22'–8"	1.51	79	25	9	2'–3"	5'–9"	25'–4"	1.69	91	28	10	2'–9"	7'–1"	31'–1"	2.08	108	35	12
		3	1'–11"	5'–0"	28'–1"	1.86	95	32	11	2'–0"	5'–2"	29'–10"	1.92	98	33	12	2'–3"	5'–9"	33'–4"	2.15	111	37	13	2'–9"	7'–1"	40'–11"	2.64	134	45	16
		4	1'–11"	5'–0"	35'–[illegible]	2.25	113	40	14	2'–0"	5'–2"	37'–0"	2.33	116	41	14	2'–3"	5'–9"	41'–4"	2.61	131	46	16	2'–9"	7'–1"	50'–8"	3.19	160	56	19
		5	1'–11"	5'–0"	42'–8"	2.6[illegible]	131	47	16	2'–0"	5'–2"	44'–3"	2.75	134	49	16	2'–3"	5'–9"	49'–4"	3.06	151	55	18	2'–9"	7'–1"	60'–6"	3.76	186	67	23
72"	3'–0"	1		6'–0"	18'–0"	1.[illegible]0	[illegible]7	21	8		6'–3"	18'–9"	1.47	79	25	9		6'–11"	20'–9"	1.62	84	28	10		8'–6"	25'–6"	1.99	103	34	12
		2	2'–0"	6'–0"	26'–0"	1.8[illegible]	97	31	11	2'–1"	6'–3"	27'–0"	1.96	99	36	12	2'–4"	6'–11"	30'–0"	2.17	106	40	13	2'–10"	8'–6"	36'–10"	2.67	132	49	16
		3	2'–0"	6'–0"	34'–0"	2.36	1[illegible]	45	14	2'–1"	6'–3"	35'–4"	2.46	120	47	15	2'–4"	6'–11"	39'–3"	2.73	129	52	16	2'–10"	8'–6"	48'–1"	3.34	161	64	20
		4	2'–0"	6'–0"	42'–0"	2.84	137	56	1[illegible]	2'–1"	6'–3"	43'–7"	2.95	140	58	18	2'–4"	6'–11"	48'–7"	3.29	151	65	20	2'–10"	8'–6"	59'–5"	4.02	191	79	24
		5	2'–0"	6'–0"	50'–0"	3.32	157	67	[illegible]0	2'–1"	6'–3"	51'–11"	3.45	161	69	21	2'–4"	6'–11"	57'–10"	3.84	173	77	23	2'–10"	8'–6"	70'–9"	4.70	220	94	28
84"	3'–6"	1		7'–0"	21'–0"	1.78	88	33	11		7'–3"	21'–9"	1.85	97	34	11		8'–1"	24'–3"	2.06	104	38	12		9'–11"	29'–9"	2.53	125	46	15
		2	3'–0"	7'–0"	31'–0"	2.45	117	48	15	3'–1"	7'–3"	32'–[illegible]	2.53	126	50	15	3'–6"	8'–1"	35'–10"	2.83	136	56	17	4'–3"	9'–11"	43'–11"	3.47	166	68	21
		3	3'–0"	7'–0"	41'–0"	3.11	146	64	19	3'–1"	7'–3"	42'–[illegible]	3.21	156	66	19	3'–6"	8'–1"	47'–5"	3.60	167	74	22	4'–3"	9'–11"	58'–0"	4.40	206	90	26
		4	3'–0"	7'–0"	51'–0"	3.77	174	79	23	3'–1"	7'–3"	52'–9"	3.9[illegible]	185	82	23	3'–6"	8'–1"	59'–0"	4.36	199	92	26	4'–3"	9'–11"	72'–2"	5.34	246	112	32
		5	3'–0"	7'–0"	61'–0"	4.43	203	95	27	3'–1"	7'–3"	[illegible]	[illegible].5[illegible]	[illegible]14	98	27	3'–6"	8'–1"	70'–7"	5.13	231	110	31	4'–3"	9'–11"	86'–4"	6.27	286	134	38
96"	4'–0"	1		8'–0"	24'–0"	2.20	117	43	13		8'–3"	24'–9"	2.27	1[illegible]	44	14		9'–3"	27'–9"	2.55	136	49	15		11'–4"	34'–0"	3.12	163	60	19
		2	3'–0"	8'–0"	35'–0"	2.96	150	62	18	3'–1"	8'–3"	36'–2"	3.06	[illegible]3	64	18	3'–6"	9'–3"	40'–6"	3.43	173	72	21	4'–3"	11'–4"	49'–7"	4.19	209	88	25
		3	3'–0"	8'–0"	46'–0"	3.72	183	82	22	3'–1"	8'–3"	47'–6"	3.83	186	84	22	3'–6"	9'–3"	53'–3"	4.31	209	95	26	4'–3"	11'–4"	65'–1"	5.26	255	116	32
		4	3'–0"	8'–0"	57'–0"	4.47	215	101	27	3'–1"	8'–3"	58'–11"	4.62	220	105	28	3'–6"	9'–3"	65'–11"	5.18	246	117	31	4'–3"	11'–4"	80'–8"	6.33	301	143	38
		5	3'–0"	8'–0"	68'–0"	5.23	248	121	31	3'–1"	8'–3"	70'–3"	5.40	253	125	32	3'–6"	9'–3"	78'–8"	6.05	282	140	36	4'–3"	11'–4"	96'–3"	7.40	347	171	44
108"	4'–6"	1		9'–0"	27'–0"	2.66	139	54	16		9'–4"	28'–0"	2.76	142	56	17		10'–5"	31'–3"	3.08	160	63	18		12'–9"	38'–3"	3.77	190	77	23
		2	3'–0"	9'–0"	39'–0"	3.52	174	78	21	3'–1"	9'–4"	40'–5"	3.65	178	81	22	3'–6"	10'–5"	45'–[illegible]	4.07	199	90	24	4'–3"	12'–9"	55'–2"	4.98	239	110	30
		3	3'–0"	9'–0"	51'–0"	4.37	209	102	26	3'–1"	9'–4"	52'–9"	4.52	213	106	27	3'–6"	10'–5"	59'–[illegible]	5.[illegible]	238	118	30	4'–3"	12'–9"	72'–2"	6.19	289	144	37
		4	3'–0"	9'–0"	63'–0"	5.23	244	126	31	3'–1"	9'–4"	65'–2"	5.41	249	130	32	3'–6"	10'–5"	72'–11"	6.[illegible]6	277	146	36	4'–3"	12'–9"	89'–2"	7.40	338	178	44
		5	3'–0"	9'–0"	75'–0"	6.08	279	150	37	3'–1"	9'–4"	77'–7"	6.29	285	155	38	3'–6"	10'–5"	8[illegible]–10"	[illegible]05	31[illegible]	174	42	4'–3"	12'–9"	106'–2"	8.62	387	212	52
120"	5'–0"	1		10'–0"	30'–0"	3.16	153	67	19		10'–4"	31'–0"	3.27	165	69	20		11'–7"	34'–9"	3.67	[illegible]7	[illegible]7	22		14'–2"	42'–6"	4.48	218	94	27
		2	3'–0"	10'–0"	43'–0"	4.12	190	96	25	3'–1"	10'–4"	44'–5"	4.25	203	99	26	3'–6"	11'–7"	49'–9"	4.77	[illegible]18	[illegible]1	29	4'–3"	14'–2"	60'–10"	5.83	271	135	35
		3	3'–0"	10'–0"	56'–0"	5.08	228	124	30	3'–1"	10'–4"	57'–11"	5.25	241	129	32	3'–6"	11'–7"	64'–10"	5.89	2[illegible]	[illegible]4	[illegible]	4'–3"	14'–2"	79'–3"	7.19	323	176	43
		4	3'–0"	10'–0"	69'–0"	6.04	265	153	36	3'–1"	10'–4"	71'–4"	6.24	280	159	37	3'–6"	11'–7"	79'–10"	6.99	301	[illegible]77	[illegible]2	4'–3"	14'–2"	97'–8"	8.55	376	217	51
		5	3'–0"	10'–0"	82'–0"	7.00	302	182	42	3'–1"	10'–4"	84'–9"	7.22	318	188	43	3'–6"	11'–7"	94'–11"	8.11	342	211	[illegible]3	4'–3"	16'–2"	116'–1"	9.91	428	258	59

FOR INFORMATION PURPOSES ONLY

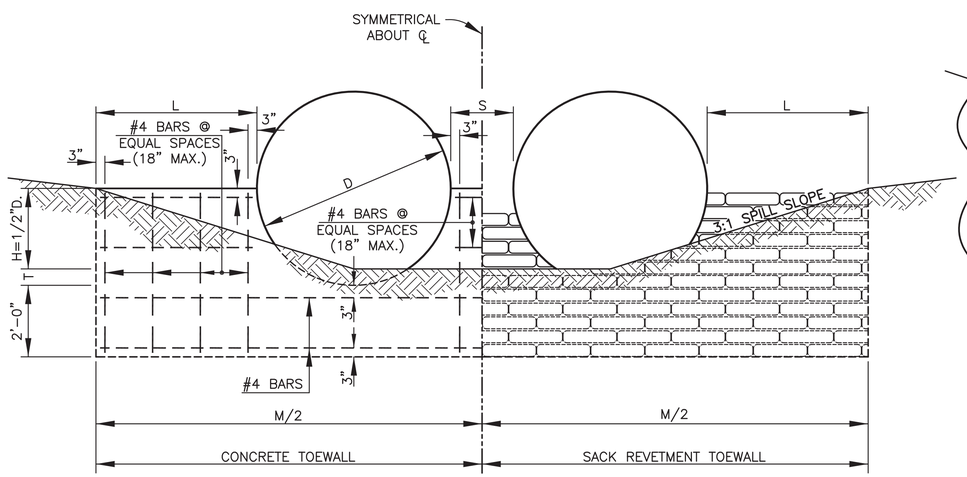
GENERAL NOTE:

1. CONSTRUCTION SPECIFICATIONS SHALL BE THE LATEST CITY PARISH SPECIFICATIONS.
2. ALL CONCRETE TO BE 4A2000.
3. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO BAR CENTERS.
4. REINFORCEMENT SHALL BE AS PER CITY PARISH SPECIFICATIONS.
5. QUANTITIES GIVEN ARE FOR ONE TOEWALL.
6. TOEWALL REQUIRED ON UPSTREAM AND DOWNSTREAM END OF PIPES UNLESS OTHERWISE NOTED ON PLANS.

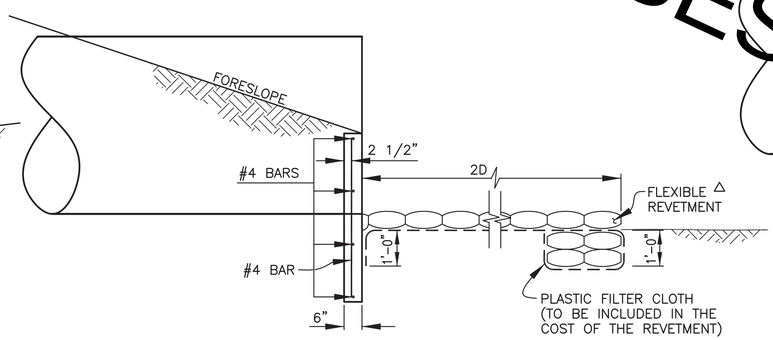
* REFERS TO CLASS III PIPE, WALL B.

△ STONE ALTERNATE TO BE 10" THICK. SEE STD. SPECIFICATIONS, SECTION 1001–11 FOR GRADATION OF STONE.

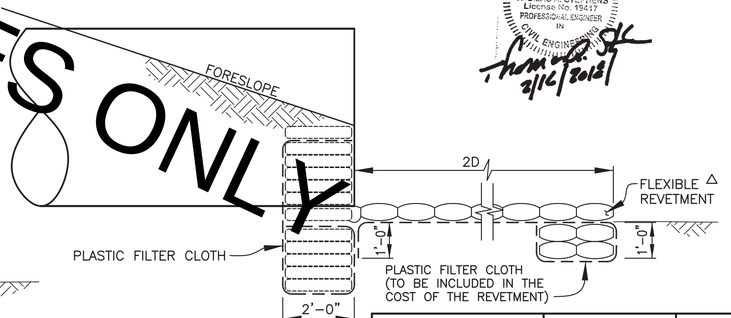
Ø QUANTITY BASED ON SURFACE AREA OF TOEWALL FACE.



ELEVATION VIEW
Scale: 1/2"=1'–0"



PROFILE VIEW
SHOWING CONCRETE TOEWALL
Scale: 1/2"=1'–0"



PROFILE VIEW
SHOWING SACK REVETMENT TOEWALL
Scale: 1/2"=1'–0"

STATE OF LOUISIANA
THOMAS A. STEPHENS
LICENSE NO. 19437
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
2/14/2018

DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO.	DATED	SHEET NO.
704–04	FEBRUARY 4, 2008	1 OF 1

SACKED CONCRETE TOEWALL
(CORRUGATED METAL PIPE)
TOE WALL FOR 54" THRU 120" CMP

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
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