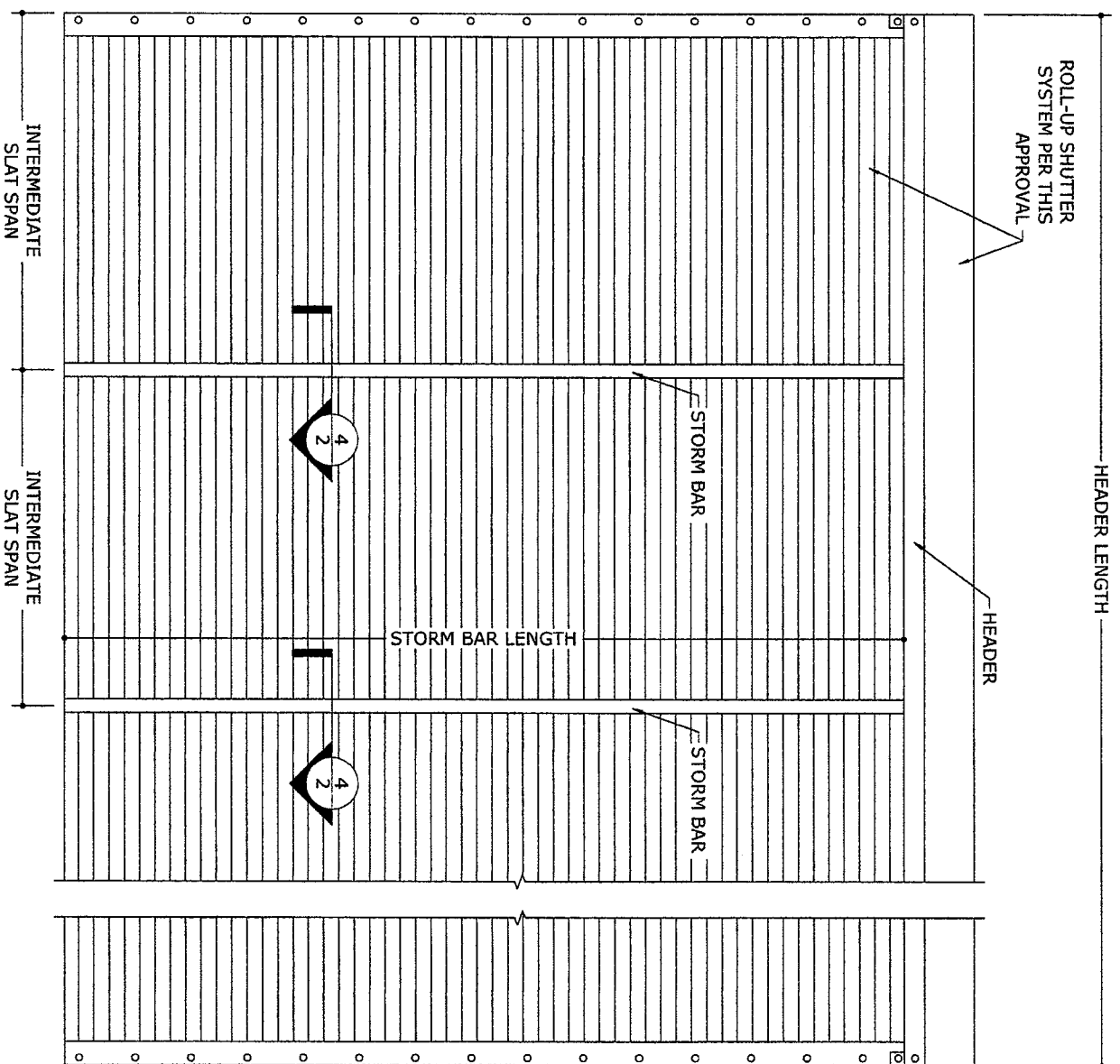


ALUMINUM STORM BARS & HEADERS

ADDENDUM INSTALLATION INSTRUCTIONS FOR ROLL-UP SHUTTER

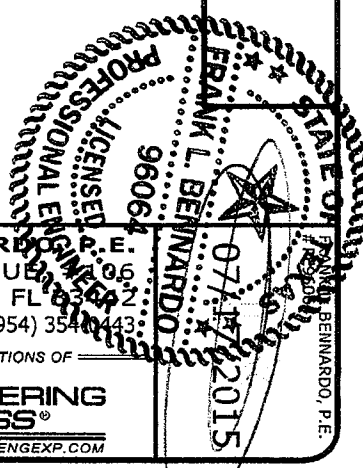


1 TYPICAL SHUTTER WITH STORM BARS
1 N.T.S.
EXTERIOR ELEV

GENERAL NOTES

1. THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE 2006 INTERNATIONAL BUILDING CODE WITH TEXAS REVISIONS EFFECTIVE JANUARY 1, 2008. CRITICAL STORM BARS AND HEADERS SHOWN HEREIN HAVE BEEN IMPACTED TO VERIFY LARGE MISSILE IMPACT RESISTANCE.
2. THE SYSTEM DESCRIBED HEREIN IS INTENDED FOR USE WITHIN TEXAS INLAND ZONE II, INLAND ZONE I AND SEAWARD ZONES.
3. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN.
4. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED PER SEPARATE ENGINEERING IN ACCORDANCE WITH THE GOVERNING CODE.
5. PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7 SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
6. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.

7. PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS.
8. ALL EXTRUSIONS SHALL BE MINIMUM 6063-T5 ALUMINUM ALLOY, UNLESS NOTED OTHERWISE.
9. END CONNECTION DETAILS SHOWN MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE.
10. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
11. UNLESS OTHERWISE NOTED, ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI.
12. ALL STEEL IN CONTACT WITH ALUMINUM SHALL BE PAINTED OR PLATED AS PRESCRIBED IN THE FLORIDA BUILDING CODE.



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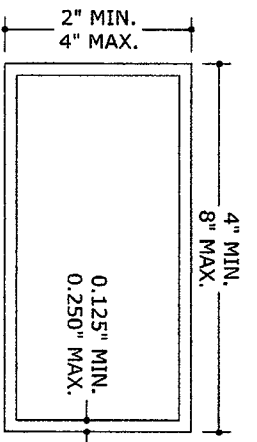
400 WEST MCNAB ROAD
 FT. LAUDERDALE, FL 33309

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	KL	FLB	04/25/14
REV (TDI)	RWN	TSB	06/04/14

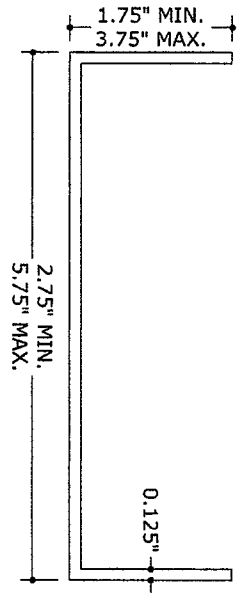
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SCALE: 14-1627b

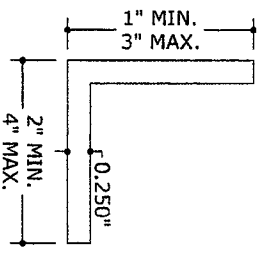
PAGE DESCRIPTION:



1-13 ALUMINUM TUBE
6" = 1'-0"
MAT'L PER BOM

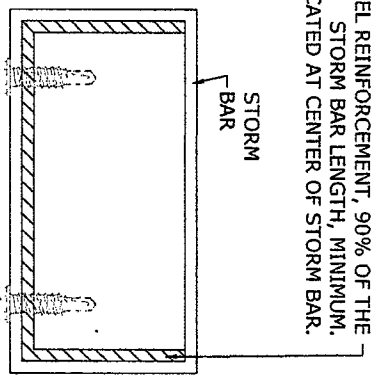


14 STEEL REINFORCEMENT
6" = 1'-0"
A36 GALV. STEEL OR STAINLESS STEEL
FY = 30 KSI MINIMUM



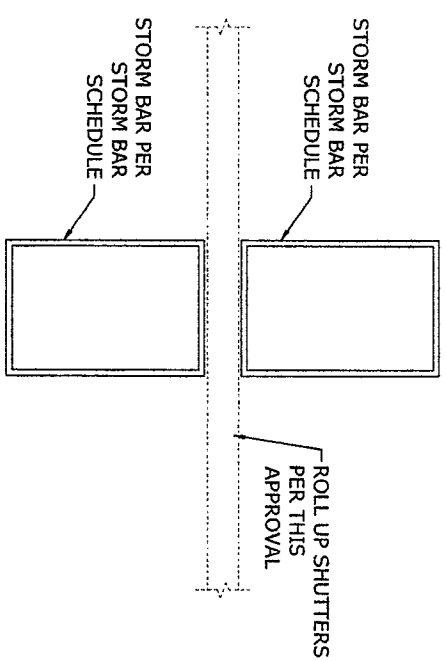
15 ALUMINUM ANGLE
6" = 1'-0"
6061-T6 OR 6005-T5 ALUM

BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
1	2"x4"x0.125" TUBE	6063-T6 ALUM
2	2"x6"x0.125" TUBE	6063-T6 ALUM
3	2"x3"x0.25" TUBE	6061-T6 OR 6005-T5 ALUM
4	2"x4"x0.25" TUBE	6061-T6 OR 6005-T5 ALUM
5	2"x5"x0.25" TUBE	6061-T6 OR 6005-T5 ALUM
6	2"x6"x0.125" TUBE	6063-T6 ALUM
7	2"x6"x0.25" TUBE	6061-T6 OR 6005-T5 ALUM
8	3"x3"x0.125" TUBE	6063-T6 ALUM
9	3"x3"x0.25" TUBE	6061-T6 OR 6005-T5 ALUM
10	4"x4"x0.125" TUBE	6063-T6 ALUM
11	4"x4"x0.25" TUBE	6061-T6 OR 6005-T5 ALUM
12	4"x6"x0.25" TUBE	6061-T6 OR 6005-T5 ALUM
13	4"x8"x0.25" TUBE	6061-T6 OR 6005-T5 ALUM
14	STEEL REINFORCEMENT (FY = 30 KSI MIN.)	A36 OR STAINLESS STEEL
15	ALUMINUM ANGLE	6061-T6 OR 6005-T5 ALUM

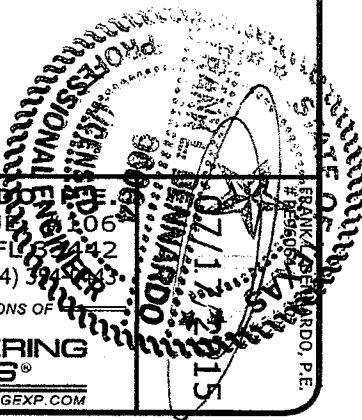


1 TYPICAL REINFORCEMENT
2 N.T.S.
SECTION

#14 18-8 SS OR COATED SAE GR. 5 SMS OR SDS AT 12" O.C. MAX STAGGERED FOR FULL LENGTH OF REINFORCEMENT



4 TYPICAL STORM BARS
2 N.T.S.
HORIZ SECTION



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REMARKS	DRWN	CHKD	DATE
INIT ISSUE	KL	FLB	04/25/14
REV (TDI)	RWN	TSB	06/04/14

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SCALE: 1/4" = 1'-0"
PAGE DESCRIPTION: 14-1627b

STORM BAR SCHEDULE: 2"X6"X1/8"

MEMBER LENGTH	INTERMEDIATE SLAT SPAN		30"		35"		40"		45"		50"		55"		60"		65"		70"		75"		80"			
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)		
120"	118.9	1238.3	99.1	1238.3	84.9	1238.3	74.3	1238.3	66.0	1238.3	59.4	1238.3	54.0	1238.3	49.5	1238.3	45.7	1238.3	42.5	1238.3	38.2	1238.3	32.2	1074.4	28.2	1193.8
108"	120.0	1125.0	120.0	1350.0	113.1	1484.0	98.9	1484.0	87.9	1484.0	79.1	1484.0	72.0	1484.0	66.0	1484.0	60.0	1484.0	55.2	1484.0	50.7	1484.0	45.7	1199.6	38.2	1074.4
96"	120.0	1000.0	120.0	1200.0	120.0	1400.0	120.0	1600.0	112.3	1684.1	101.0	1684.1	83.1	1684.1	67.3	1346.0	55.2	1196.0	45.7	1066.3	38.2	955.0	32.2	856.6	32.2	751.3
84"	120.0	875.0	120.0	1050.0	120.0	1225.0	120.0	1400.0	120.0	1575.0	104.2	1519.6	83.1	1333.1	67.3	1177.8	55.2	1046.5	45.7	933.0	38.2	835.6	32.2	751.3	32.2	644.0
72"	120.0	750.0	120.0	900.0	120.0	1050.0	120.0	1200.0	120.0	1350.0	104.2	1302.5	83.1	1142.6	67.3	1009.5	55.2	897.0	45.7	799.8	38.2	716.3	32.2	644.0	32.2	536.7
60"	120.0	625.0	120.0	750.0	120.0	875.0	120.0	1000.0	120.0	1125.0	104.2	1085.4	83.1	952.2	67.3	841.3	55.2	747.5	45.7	666.5	38.2	596.9	32.2	536.7	32.2	429.3
48"	120.0	500.0	120.0	600.0	120.0	700.0	120.0	800.0	120.0	900.0	104.2	888.3	83.1	761.8	67.3	673.0	55.2	598.0	45.7	533.2	38.2	477.5	32.2	429.3	32.2	293.3

STORM BAR SCHEDULE: 2"X6"X1/4"

MEMBER LENGTH	INTERMEDIATE SLAT SPAN		30"		35"		40"		45"		50"		55"		60"		65"		70"		75"		80"			
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)		
228"	31.8	630.1	26.5	630.1	26.7	702.1	27.8	787.1	29.6	888.6	26.7	888.6	29.4	1011.0	27.0	1011.0	30.6	1160.6	28.4	1160.6	28.5	1160.6	31.1	1346.1	32.2	1288.0
216"	37.4	702.1	31.2	702.1	31.8	787.1	34.8	888.6	33.3	989.6	32.4	1011.0	36.2	1160.6	33.2	1160.6	36.6	1346.1	35.5	1346.1	35.1	1432.5	32.2	1180.7	32.2	1288.0
204"	44.5	787.1	37.0	787.1	38.1	888.6	40.4	1011.0	35.9	1160.6	32.4	1011.0	36.2	1160.6	33.2	1160.6	36.6	1346.1	35.5	1346.1	35.1	1432.5	32.2	1180.7	32.2	1288.0
192"	53.3	888.6	44.4	888.6	46.2	1011.0	49.7	1160.6	44.2	1160.6	39.8	1160.6	36.2	1160.6	33.2	1160.6	36.6	1346.1	35.5	1346.1	35.1	1432.5	32.2	1180.7	32.2	1288.0
180"	64.7	1011.0	53.9	1011.0	56.8	1160.6	62.1	1346.1	55.2	1346.1	49.7	1346.1	45.2	1346.1	41.4	1346.1	38.2	1160.6	35.5	1346.1	33.1	1346.1	32.2	1180.7	32.2	1288.0
168"	79.6	1160.6	66.3	1160.6	71.0	1346.1	79.0	1579.7	62.1	1346.1	55.2	1346.1	57.4	1579.7	52.7	1484.5	48.6	1579.7	45.1	1579.7	38.2	1432.5	32.2	1180.7	32.2	1288.0
156"	99.4	1346.1	82.8	1346.1	90.3	1579.7	91.2	1880.0	79.0	1579.7	62.1	1346.1	60.0	1579.7	52.7	1484.5	48.6	1579.7	45.1	1579.7	38.2	1432.5	32.2	1180.7	32.2	1288.0
144"	120.0	1500.0	105.3	1579.7	117.2	1880.0	125.5	2000.0	91.2	1880.0	82.0	1880.0	74.6	1880.0	67.3	1682.5	55.2	1495.0	45.7	1332.9	38.2	1193.8	32.2	1074.4	32.2	966.0
132"	120.0	1375.0	120.0	1650.0	117.2	1880.0	125.5	2000.0	91.2	1880.0	82.0	1880.0	74.6	1880.0	67.3	1682.5	55.2	1495.0	45.7	1332.9	38.2	1193.8	32.2	1074.4	32.2	966.0
120"	120.0	1250.0	120.0	1500.0	120.0	1750.0	120.0	2000.0	120.0	2250.0	104.2	2170.8	83.1	1904.4	67.3	1682.5	55.2	1495.0	45.7	1332.9	38.2	1193.8	32.2	1074.4	32.2	966.0
108"	120.0	1125.0	120.0	1350.0	120.0	1575.0	120.0	1800.0	120.0	2025.0	104.2	1953.8	83.1	1713.9	67.3	1514.3	55.2	1345.5	45.7	1199.6	38.2	1074.4	32.2	966.0	32.2	858.7
96"	120.0	1000.0	120.0	1200.0	120.0	1400.0	120.0	1600.0	120.0	1800.0	104.2	1736.7	83.1	1523.5	67.3	1346.0	55.2	1196.0	45.7	1066.3	38.2	955.0	32.2	858.7	32.2	751.3

STORM BAR SCHEDULE: 3"X3"X1/8"

MEMBER LENGTH	INTERMEDIATE SLAT SPAN		30"		35"		40"		45"		50"		55"		60"		65"		70"		75"		80"			
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)		
120"	28.5	296.9	32.6	366.5	27.9	366.5	34.8	463.9	30.9	463.9	27.8	463.9	25.3	463.9	23.0	463.9	20.7	605.9	29.7	605.9	27.7	605.9	26.0	605.9	26.0	605.9
108"	39.1	366.5	46.4	463.9	39.8	463.9	48.9	605.9	46.2	605.9	41.5	605.9	37.8	605.9	34.6	605.9	32.0	605.9	29.7	605.9	27.7	605.9	26.0	605.9	26.0	605.9
96"	55.7	463.9	66.2	605.9	59.3	605.9	73.3	824.6	60.0	824.6	55.0	824.6	50.7	824.6	45.7	824.6	42.6	824.6	45.7	824.6	38.2	716.3	32.2	644.0	32.2	536.7
84"	83.1	605.9	110.0	824.6	94.2	824.6	120.0	1000.0	120.0	1000.0	104.2	1085.4	83.1	952.2	67.3	841.3	55.2	747.5	45.7	666.5	38.2	596.9	32.2	536.7	32.2	429.3
72"	120.0	750.0	120.0	750.0	120.0	750.0	120.0	750.0	120.0	750.0	104.2	888.3	83.1	761.8	67.3	673.0	55.2	598.0	45.7	533.2	38.2	477.5	32.2	429.3	32.2	293.3
60"	120.0	625.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	104.2	888.3	83.1	761.8	67.3	673.0	55.2	598.0	45.7	533.2	38.2	477.5	32.2	429.3	32.2	293.3
48"	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	104.2	888.3	83.1	761.8	67.3	673.0	55.2	598.0	45.7	533.2	38.2	477.5	32.2	429.3	32.2	293.3

STORM BAR SCHEDULE: 3"X3"X1/4"

MEMBER LENGTH	INTERMEDIATE SLAT SPAN		30"		35"		40"		45"		50"		55"		60"		65"		70"		75"		80"				
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)			
120"	50.2	522.9	41.8	522.9	35.9	522.9	43.0	645.6	31.4	522.9	27.9	522.9	25.1	522.9	23.0	522.9	20.7	605.9	29.7	605.9	27.7	605.9	26.0	605.9	26.0	605.9	
108"	68.9	645.6	57.4	645.6	49.2	645.6	60.0	824.6	43.0	645.6	38.3	645.6	34.4	645.6	31.3	645.6	28.7	645.6	26.5	645.6	24.5	645.6	22.8	645.6	22.8	645.6	
96"	98.0	817.1	81.7	817.1	70.0	817.1	81.5	1067.2	61.3	817.1	54.5	817.1	49.0	817.1	44.6	817.1	40.9	817.1	37.7	817.1	35.0	817.1	32.7	817.1	30.6	817.1	
84"	120.0	875.0	120.0	900.0	120.0	104.5	1067.2	120.0	1067.2	120.0	1067.2	120.0	1067.2	104.2	1085.4	83.1	952.2	67.3	841.3	55.2	747.5	45.7	666.5	38.2	596.9	32.2	429.3
72"	120.0	750.0	120.0	750.0	120.0	750.0	120.0	750.0	120.0	750.0	104.2	888.3	83.1	761.8	67.3	673.0	55.2	598.0	45.7	533.2	38.2	477.5	32.2	429.3	32.2	293.3	
60"	120.0	625.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	104.2	888.3	83.1	761.8	67.3	673.0	55.2	598.0	45.7	533.2	38.2	477.5	32.2	429.3	32.2	293.3	
48"	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	104.2	888.3	83.1	761.8	67.3	673.0	55.2	598.0	45.7	533.2	38.2	477.5	32.2	429.3	32.2	293.3	

SEE SHEET 7 FOR STORM BAR SCHEDULE NOTES.

REMARKS
INIT ISSUE
REV (TD)
SCALE: 1/4" = 1'-0"
PAGE DESCRIPTION: 1

STORM BAR SCHEDULE: 4"X4"X1/8"

MEMBER LENGTH	25"		30"		35"		40"		45"		50"		55"		60"		65"		70"		75"		80"				
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)			
120"	69.7	726.3	58.1	726.3	49.8	726.3	43.6	726.3	38.7	726.3	34.9	726.3	31.7	726.3	29.1	726.3	26.8	726.3	24.2	726.3	21.9	726.3	19.9	726.3	180.0	896.6	
108"	95.6	896.6	79.7	896.6	68.3	896.6	59.8	896.6	53.1	896.6	47.8	896.6	43.5	896.6	39.9	896.6	36.8	896.6	34.2	896.6	31.9	896.6	29.9	896.6	896.6	896.6	
96"	120.0	1000.0	113.5	1134.8	97.3	1134.8	85.1	1134.8	75.7	1134.8	68.1	1134.8	61.9	1134.8	56.7	1134.8	52.4	1134.8	45.7	1134.8	40.6	1134.8	32.2	1134.8	896.6	896.6	
84"	120.0	875.0	120.0	1050.0	120.0	1225.0	120.0	1400.0	112.9	1482.2	101.6	1482.2	93.1	1333.1	87.3	1177.8	82.5	1046.5	74.7	933.0	68.2	835.6	62.2	716.3	56.0	751.3	896.6
72"	120.0	750.0	120.0	900.0	120.0	1050.0	120.0	1200.0	120.0	1350.0	104.2	1302.5	93.1	1142.6	87.3	1009.5	82.5	897.0	74.7	799.8	68.2	635.6	62.2	544.0	444.0	536.7	
60"	120.0	625.0	120.0	750.0	120.0	875.0	120.0	1000.0	120.0	1125.0	104.2	1085.4	93.1	952.2	87.3	841.3	82.5	747.5	74.7	666.5	68.2	596.9	62.2	536.7	322.0	429.3	
48"	120.0	500.0	120.0	600.0	120.0	700.0	120.0	800.0	120.0	900.0	104.2	868.3	93.1	761.8	87.3	673.0	82.5	598.0	74.7	533.2	68.2	477.5	62.2	429.3	322.0	322.0	
36"	120.0	375.0	120.0	450.0	120.0	525.0	120.0	600.0	120.0	675.0	104.2	651.3	93.1	571.3	87.3	504.8	82.5	448.5	74.7	399.9	68.2	358.1	62.2	322.0	322.0	322.0	

STORM BAR SCHEDULE: 4"X4"X1/4"

MEMBER LENGTH	25"		30"		35"		40"		45"		50"		55"		60"		65"		70"		75"		80"			
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)		
120"	120.0	1250.0	105.7	1320.9	90.6	1320.9	79.3	1320.9	70.5	1320.9	63.4	1320.9	57.6	1320.9	52.8	1320.9	48.8	1320.9	45.3	1320.9	42.2	1193.8	32.2	1073.3	966.0	966.0
108"	120.0	1125.0	120.0	1350.0	120.0	1575.0	108.7	1630.8	96.6	1630.8	87.0	1630.8	79.1	1630.8	73.3	1514.3	68.2	1345.5	63.5	1198.8	58.2	1074.4	52.2	966.0	896.6	896.6
96"	120.0	1000.0	120.0	1200.0	120.0	1400.0	120.0	1600.0	120.0	1800.0	104.2	1736.7	93.1	1523.5	87.3	1346.0	82.5	1196.0	74.7	1066.3	68.2	955.0	62.2	858.7	896.6	896.6
84"	120.0	875.0	120.0	1050.0	120.0	1225.0	120.0	1400.0	120.0	1575.0	104.2	1519.6	93.1	1333.1	87.3	1177.8	82.5	1046.5	74.7	933.0	68.2	835.6	62.2	751.3	896.6	896.6
72"	120.0	750.0	120.0	900.0	120.0	1050.0	120.0	1200.0	120.0	1350.0	104.2	1302.5	93.1	1142.6	87.3	1009.5	82.5	897.0	74.7	799.8	68.2	716.3	62.2	644.0	896.6	896.6
60"	120.0	625.0	120.0	750.0	120.0	875.0	120.0	1000.0	120.0	1125.0	104.2	1085.4	93.1	952.2	87.3	841.3	82.5	747.5	74.7	666.5	68.2	596.9	62.2	536.7	896.6	896.6
48"	120.0	500.0	120.0	600.0	120.0	700.0	120.0	800.0	120.0	900.0	104.2	868.3	93.1	761.8	87.3	673.0	82.5	598.0	74.7	533.2	68.2	477.5	62.2	429.3	896.6	896.6

STORM BAR SCHEDULE: 4"X6"X1/4"

MEMBER LENGTH	25"		30"		35"		40"		45"		50"		55"		60"		65"		70"		75"		80"			
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)		
228"	49.2	973.0	41.0	973.0	35.1	973.0	30.7	973.0	27.3	973.0	28.9	1084.1	26.3	1084.1	28.6	1215.4	26.4	1215.4	28.4	1372.0	27.4	1372.0	25.7	1372.0	1561.1	1561.1
216"	57.8	1084.1	48.2	1084.1	41.3	1084.1	36.1	1084.1	32.1	1084.1	34.3	1215.4	31.2	1215.4	31.7	1372.0	31.7	1372.0	31.7	1372.0	29.4	1372.0	27.4	1372.0	1561.1	1561.1
204"	66.6	1215.4	57.2	1215.4	49.0	1215.4	42.9	1215.4	38.1	1215.4	41.2	1372.0	37.4	1372.0	34.3	1372.0	34.3	1372.0	34.3	1372.0	31.7	1372.0	29.4	1372.0	1561.1	1561.1
192"	82.3	1372.0	68.6	1372.0	58.8	1372.0	51.5	1372.0	45.7	1372.0	45.2	1561.1	45.4	1561.1	41.6	1561.1	41.6	1561.1	41.6	1561.1	35.7	1561.1	33.3	1561.1	1561.1	1561.1
180"	99.9	1561.1	83.3	1561.1	71.4	1561.1	62.4	1561.1	55.5	1561.1	50.0	1792.0	55.9	1792.0	51.2	1792.0	47.3	1792.0	47.3	1792.0	43.9	1792.0	38.2	1792.0	1561.1	1561.1
168"	120.0	1750.0	102.4	1792.0	87.8	1792.0	76.8	1792.0	68.3	1792.0	61.4	1792.0	69.8	1792.0	63.9	1792.0	55.2	1792.0	55.2	1792.0	45.7	1792.0	38.2	1792.0	1561.1	1561.1
156"	120.0	1625.0	120.0	1950.0	109.6	1950.0	95.9	1950.0	85.3	1950.0	76.7	2078.3	83.1	2078.3	76.7	2078.3	63.9	1943.5	63.9	1943.5	45.7	1943.5	38.2	1943.5	1395.3	1395.3
144"	120.0	1500.0	120.0	1800.0	120.0	2100.0	120.0	2400.0	108.4	2439.2	97.6	2439.2	93.1	2288.3	87.3	2019.0	82.5	1794.0	82.5	1794.0	63.9	1794.0	52.2	1794.0	1288.0	1288.0
132"	120.0	1375.0	120.0	1650.0	120.0	1925.0	120.0	2200.0	120.0	2475.0	104.2	2387.9	93.1	2288.3	87.3	1850.8	82.5	1644.5	82.5	1644.5	63.9	1644.5	52.2	1644.5	1180.7	1180.7
120"	120.0	1250.0	120.0	1500.0	120.0	1750.0	120.0	2000.0	120.0	2250.0	104.2	2170.8	93.1	2094.8	87.3	1682.8	82.5	1495.0	82.5	1495.0	63.9	1495.0	52.2	1495.0	1073.3	1073.3
108"	120.0	1125.0	120.0	1350.0	120.0	1575.0	120.0	1800.0	120.0	2025.0	104.2	1953.8	93.1	1904.4	87.3	1514.3	82.5	1345.5	82.5	1345.5	63.9	1345.5	52.2	1345.5	966.0	966.0
96"	120.0	1000.0	120.0	1200.0	120.0	1400.0	120.0	1600.0	120.0	1800.0	104.2	1736.7	93.1	1523.5	87.3	1346.0	82.5	1196.0	82.5	1196.0	63.9	1196.0	52.2	1196.0	858.7	858.7
84"	120.0	875.0	120.0	1050.0	120.0	1225.0	120.0	1400.0	120.0	1575.0	104.2	1519.6	93.1	1333.1	87.3	1177.8	82.5	1046.5	82.5	1046.5	63.9	1046.5	52.2	1046.5	751.3	751.3
72"	120.0	750.0	120.0	900.0	120.0	1050.0	120.0	1200.0	120.0	1350.0	104.2	1302.5	93.1	1142.6	87.3	1009.5	82.5	897.0	82.5	897.0	63.9	897.0	52.2	897.0	644.0	644.0
60"	120.0	625.0	120.0	750.0	120.0	875.0	120.0	1000.0	120.0	1125.0	104.2	1085.4	93.1	952.2	87.3	841.3	82.5	747.5	82.5	747.5	63.9	747.5	52.2	747.5	536.7	536.7
48"	120.0	500.0	120.0	600.0	120.0	700.0	120.0	800.0	120.0	900.0	104.2	868.3	93.1	761.8	87.3	673.0	82.5	598.0	82.5	598.0	63.9	598.0	52.2	598.0	429.3	429.3
36"	120.0	375.0	120.0	450.0	120.0	525.0	120.0	600.0	120.0	675.0	104.2	651.3	93.1	571.3	87.3	504.8	82.5	448.5	82.5	448.5	63.9	448.5	52.2	448.5	322.0	322.0

SEE SHEET 7 FOR STORM BAR SCHEDULE NOTES.

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STORM BAR SCHEDULE: 4"X8"X1/4"

MEMBER LENGTH	25"		30"		35"		40"		45"		50"		55"		60"		65"		70"		75"		80"	
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)
228"	99.7	1973.8	83.1	1973.8	71.2	1973.8	62.3	1973.8	55.4	1973.8	49.9	1973.8	45.3	1973.8	41.6	1973.8	38.4	1973.8	35.6	1973.8	33.2	1973.8	31.2	1973.8
216"	117.3	2199.2	97.7	2199.2	83.8	2199.2	73.3	2199.2	65.2	2199.2	58.6	2199.2	53.3	2199.2	48.9	2199.2	45.1	2199.2	41.9	2199.2	39.2	2199.2	37.2	2199.2
204"	120.0	2125.0	116.0	2465.5	98.4	2465.5	87.0	2465.5	77.3	2465.5	69.6	2465.5	63.3	2465.5	58.0	2465.5	53.5	2465.5	48.7	2465.5	45.7	2465.5	42.2	2465.5
192"	120.0	2000.0	120.0	2400.0	119.3	2783.3	104.4	2783.3	92.8	2783.3	83.5	2783.3	75.9	2783.3	67.3	2692.0	55.2	2242.5	45.7	1999.4	38.2	1910.0	32.2	1717.3
180"	120.0	1875.0	120.0	2250.0	120.0	2625.0	120.0	3000.0	112.6	3166.8	101.3	3166.8	83.1	3166.8	67.3	2523.0	55.2	2093.0	45.7	1866.1	38.2	1671.3	32.2	1502.7
168"	120.0	1750.0	120.0	2100.0	120.0	2450.0	120.0	2800.0	120.0	3150.0	104.2	3099.2	83.1	2666.1	67.3	2355.5	55.2	2093.0	45.7	1866.1	38.2	1671.3	32.2	1502.7
156"	120.0	1625.0	120.0	1950.0	120.0	2275.0	120.0	2600.0	120.0	2925.0	104.2	2822.1	83.1	2475.7	67.3	2187.3	55.2	1943.5	45.7	1732.8	38.2	1551.9	32.2	1385.3
144"	120.0	1500.0	120.0	1800.0	120.0	2100.0	120.0	2400.0	120.0	2700.0	104.2	2605.0	83.1	2285.3	67.3	2019.0	55.2	1794.0	45.7	1599.5	38.2	1432.5	32.2	1288.0
132"	120.0	1375.0	120.0	1650.0	120.0	1925.0	120.0	2200.0	120.0	2475.0	104.2	2387.9	83.1	2094.8	67.3	1850.8	55.2	1644.5	45.7	1466.2	38.2	1313.1	32.2	1180.7
120"	120.0	1250.0	120.0	1500.0	120.0	1750.0	120.0	2000.0	120.0	2250.0	104.2	2170.8	83.1	1904.4	67.3	1682.5	55.2	1495.0	45.7	1332.9	38.2	1193.8	32.2	1073.3
108"	120.0	1125.0	120.0	1350.0	120.0	1575.0	120.0	1800.0	120.0	2025.0	104.2	1953.8	83.1	1713.9	67.3	1514.3	55.2	1345.5	45.7	1199.6	38.2	1074.4	32.2	966.0
96"	120.0	1000.0	120.0	1200.0	120.0	1400.0	120.0	1600.0	120.0	1800.0	104.2	1736.7	83.1	1523.5	67.3	1346.0	55.2	1196.0	45.7	1066.3	38.2	955.0	32.2	858.7
84"	120.0	875.0	120.0	1050.0	120.0	1225.0	120.0	1400.0	120.0	1575.0	104.2	1519.6	83.1	1333.1	67.3	1177.8	55.2	1046.5	45.7	933.0	38.2	835.6	32.2	751.3
72"	120.0	750.0	120.0	900.0	120.0	1050.0	120.0	1200.0	120.0	1350.0	104.2	1302.5	83.1	1142.6	67.3	1009.5	55.2	897.0	45.7	799.8	38.2	716.3	32.2	644.0
60"	120.0	625.0	120.0	750.0	120.0	875.0	120.0	1000.0	120.0	1125.0	104.2	1085.4	83.1	952.2	67.3	841.3	55.2	747.5	45.7	666.5	38.2	596.9	32.2	536.7
48"	120.0	500.0	120.0	600.0	120.0	700.0	120.0	800.0	120.0	900.0	104.2	868.3	83.1	761.8	67.3	673.0	55.2	598.0	45.7	533.2	38.2	477.5	32.2	429.3
36"	120.0	375.0	120.0	450.0	120.0	525.0	120.0	600.0	120.0	675.0	104.2	651.3	83.1	571.3	67.3	504.8	55.2	448.5	45.7	399.9	38.2	358.1	32.2	322.0

STORM BAR SCHEDULE: 2"X4"X1/8" WITH 1.75"X3.75"X0.125" STEEL REINFORCEMENT*

MEMBER LENGTH	25"		30"		35"		40"		45"		50"		55"		60"		65"		70"		75"		80"	
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)
120"	93.4	973.2	77.9	973.2	66.7	973.2	58.4	973.2	51.9	973.2	46.7	973.2	42.5	973.2	38.9	973.2	35.9	973.2	33.4	973.2	31.1	973.2	29.2	973.2
108"	120.0	1125.0	105.4	1186.0	90.4	1186.0	79.1	1186.0	70.3	1186.0	63.3	1186.0	57.5	1186.0	52.7	1186.0	48.7	1186.0	45.2	1186.0	42.2	1186.0	39.2	1186.0
96"	120.0	1000.0	120.0	1200.0	120.0	1400.0	105.5	1406.8	93.8	1406.8	84.4	1406.8	76.7	1406.8	67.3	1346.0	55.2	1196.0	45.7	1066.3	38.2	955.0	32.2	858.7
84"	120.0	875.0	120.0	1050.0	120.0	1225.0	120.0	1400.0	120.0	1575.0	104.2	1302.5	83.1	1142.6	67.3	1009.5	55.2	897.0	45.7	799.8	38.2	716.3	32.2	644.0
72"	120.0	750.0	120.0	900.0	120.0	1050.0	120.0	1200.0	120.0	1350.0	104.2	1085.4	83.1	952.2	67.3	841.3	55.2	747.5	45.7	666.5	38.2	596.9	32.2	536.7
60"	120.0	625.0	120.0	750.0	120.0	875.0	120.0	1000.0	120.0	1125.0	104.2	1085.4	83.1	952.2	67.3	841.3	55.2	747.5	45.7	666.5	38.2	596.9	32.2	536.7
48"	120.0	500.0	120.0	600.0	120.0	700.0	120.0	800.0	120.0	900.0	104.2	868.3	83.1	761.8	67.3	673.0	55.2	598.0	45.7	533.2	38.2	477.5	32.2	429.3
36"	120.0	375.0	120.0	450.0	120.0	525.0	120.0	600.0	120.0	675.0	104.2	651.3	83.1	571.3	67.3	504.8	55.2	448.5	45.7	399.9	38.2	358.1	32.2	322.0

STORM BAR SCHEDULE: 2"X5"X1/8" WITH 1.75"X4.75"X0.125" STEEL REINFORCEMENT*

MEMBER LENGTH	25"		30"		35"		40"		45"		50"		55"		60"		65"		70"		75"		80"	
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)
120"	120.0	1250.0	106.2	1327.6	91.0	1327.6	79.7	1327.6	70.8	1327.6	63.7	1327.6	57.9	1327.6	53.1	1327.6	49.0	1327.6	45.5	1327.6	42.2	1327.6	39.2	1327.6
108"	120.0	1125.0	120.0	1350.0	116.9	1534.7	102.3	1534.7	90.9	1534.7	81.9	1534.7	74.4	1534.7	67.3	1514.3	55.2	1345.5	45.7	1199.6	38.2	1074.4	32.2	966.0
96"	120.0	1000.0	120.0	1200.0	120.0	1400.0	120.0	1600.0	120.0	1800.0	104.2	1736.7	83.1	1523.5	67.3	1346.0	55.2	1196.0	45.7	1066.3	38.2	955.0	32.2	858.7
84"	120.0	875.0	120.0	1050.0	120.0	1225.0	120.0	1400.0	120.0	1575.0	104.2	1519.6	83.1	1333.1	67.3	1177.8	55.2	1046.5	45.7	933.0	38.2	835.6	32.2	751.3
72"	120.0	750.0	120.0	900.0	120.0	1050.0	120.0	1200.0	120.0	1350.0	104.2	1302.5	83.1	1142.6	67.3	1009.5	55.2	897.0	45.7	799.8	38.2	716.3	32.2	644.0
60"	120.0	625.0	120.0	750.0	120.0	875.0	120.0	1000.0	120.0	1125.0	104.2	1085.4	83.1	952.2	67.3	841.3	55.2	747.5	45.7	666.5	38.2	596.9	32.2	536.7
48"	120.0	500.0	120.0	600.0	120.0	700.0	120.0	800.0	120.0	900.0	104.2	868.3	83.1	761.8	67.3	673.0	55.2	598.0	45.7	533.2	38.2	477.5	32.2	429.3
36"	120.0	375.0	120.0	450.0	120.0	525.0	120.0	600.0	120.0	675.0	104.2	651.3	83.1	571.3	67.3	504.8	55.2	448.5	45.7	399.9	38.2	358.1	32.2	322.0

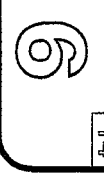
*NOTE: STEEL REINFORCEMENT LENGTH SHALL BE A MINIMUM OF 90% THE STORM BAR LENGTH, LOCATED AT THE CENTER OF THE STORM BAR AND FASTENED IN PLACE WITH #14 18-8 SS OR COATED SAE GR. 5 STEEL SMS OR SDS AT 12" O.C. MAX STAGGERED ALONG THE FULL REINFORCEMENT LENGTH. (REFERENCE STEEL REINFORCEMENT DETAIL 1/2)

SEE SHEET 7 FOR STORM BAR SCHEDULE NOTES.

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	KL	FLB	04/25/14
REV (TDI)	RWN	TSB	06/04/14
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STORM BAR SCHEDULE: 2"X6"X1/8" WITH 1.75"X5.75"X0.125" STEEL REINFORCEMENT*

MEMBER LENGTH	25"		30"		35"		40"		45"		50"		55"		60"		65"		70"		75"		80"			
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)		
120"	120.0	1260.0	120.0	1500.0	115.0	1676.7	100.6	1800.0	89.4	1676.7	80.5	1676.7	73.2	1676.7	67.1	1676.7	55.2	1495.0	45.7	1332.9	38.2	1193.8	32.2	1074.4	27.5	966.0
108"	120.0	1125.0	120.0	1350.0	120.0	1575.0	120.0	1800.0	114.6	1894.0	103.1	1934.0	83.1	1713.9	67.3	1514.3	55.2	1345.5	45.7	1199.6	38.2	1074.4	32.2	966.0	27.5	858.7
96"	120.0	1000.0	120.0	1200.0	120.0	1400.0	120.0	1600.0	120.0	1800.0	104.2	1736.7	83.1	1523.5	67.3	1346.0	55.2	1196.0	45.7	1066.3	38.2	955.0	32.2	858.7	27.5	751.3
84"	120.0	875.0	120.0	1050.0	120.0	1225.0	120.0	1400.0	120.0	1575.0	104.2	1519.6	83.1	1333.1	67.3	1177.8	55.2	1046.5	45.7	933.0	38.2	835.6	32.2	751.3	27.5	644.0
72"	120.0	750.0	120.0	900.0	120.0	1050.0	120.0	1200.0	120.0	1350.0	104.2	1302.5	83.1	1142.6	67.3	1009.5	55.2	897.0	45.7	799.8	38.2	716.3	32.2	644.0	27.5	536.7
60"	120.0	625.0	120.0	750.0	120.0	875.0	120.0	1000.0	120.0	1125.0	104.2	1085.4	83.1	952.2	67.3	841.3	55.2	747.5	45.7	666.5	38.2	586.9	32.2	536.7	27.5	429.3
48"	120.0	500.0	120.0	600.0	120.0	700.0	120.0	800.0	120.0	900.0	104.2	868.3	83.1	761.8	67.3	673.0	55.2	598.0	45.7	533.2	38.2	477.5	32.2	429.3	27.5	322.2

STORM BAR SCHEDULE: 3"X3"X1/8" WITH 2.75"X2.75"X0.125" STEEL REINFORCEMENT*


MEMBER LENGTH	25"		30"		35"		40"		45"		50"		55"		60"		65"		70"		75"		80"			
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)		
120"	64.2	668.4	53.5	668.4	45.8	668.4	40.1	668.4	35.6	668.4	32.1	668.4	29.2	668.4	26.7	668.4	24.7	668.4	22.9	668.4	21.4	668.4	20.1	668.4	18.6	668.4
108"	88.0	825.2	73.3	825.2	62.9	825.2	55.0	825.2	48.9	825.2	44.0	825.2	40.0	825.2	36.7	825.2	33.9	825.2	31.4	825.2	29.3	825.2	27.5	825.2	25.7	825.2
96"	120.0	1000.0	104.4	1044.4	89.5	1044.4	78.3	1044.4	69.6	1044.4	62.7	1044.4	57.0	1044.4	52.2	1044.4	48.2	1044.4	44.8	1044.4	38.2	955.0	32.2	858.7	27.5	751.3
84"	120.0	875.0	120.0	1050.0	120.0	1225.0	116.9	1364.1	103.9	1364.1	93.5	1364.1	83.1	1333.1	67.3	1177.8	55.2	1046.5	45.7	933.0	38.2	835.6	32.2	751.3	27.5	644.0
72"	120.0	750.0	120.0	900.0	120.0	1050.0	120.0	1200.0	120.0	1350.0	104.2	1302.5	83.1	1142.6	67.3	1009.5	55.2	897.0	45.7	799.8	38.2	716.3	32.2	644.0	27.5	536.7
60"	120.0	625.0	120.0	750.0	120.0	875.0	120.0	1000.0	120.0	1125.0	104.2	1085.4	83.1	952.2	67.3	841.3	55.2	747.5	45.7	666.5	38.2	586.9	32.2	536.7	27.5	429.3
48"	120.0	500.0	120.0	600.0	120.0	700.0	120.0	800.0	120.0	900.0	104.2	868.3	83.1	761.8	67.3	673.0	55.2	598.0	45.7	533.2	38.2	477.5	32.2	429.3	27.5	322.2

STORM BAR SCHEDULE: 4"X4"X1/8" WITH 3.75"X3.75"X0.125" STEEL REINFORCEMENT*

MEMBER LENGTH	25"		30"		35"		40"		45"		50"		55"		60"		65"		70"		75"		80"			
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)		
120"	120.0	1250.0	120.0	1500.0	115.4	1682.8	101.0	1682.8	89.7	1682.8	80.8	1682.8	73.4	1682.8	67.3	1682.5	55.2	1495.0	45.7	1332.9	38.2	1193.8	32.2	1073.3	966.0	
108"	120.0	1125.0	120.0	1350.0	120.0	1575.0	120.0	1800.0	120.0	2025.0	104.2	1933.8	83.1	1713.9	67.3	1514.3	55.2	1345.5	45.7	1199.6	38.2	1074.4	32.2	966.0	27.5	858.7
96"	120.0	1000.0	120.0	1200.0	120.0	1400.0	120.0	1600.0	120.0	1800.0	104.2	1736.7	83.1	1523.5	67.3	1346.0	55.2	1196.0	45.7	1066.3	38.2	955.0	32.2	858.7	27.5	751.3
84"	120.0	875.0	120.0	1050.0	120.0	1225.0	120.0	1400.0	120.0	1575.0	104.2	1519.6	83.1	1333.1	67.3	1177.8	55.2	1046.5	45.7	933.0	38.2	835.6	32.2	751.3	27.5	644.0
72"	120.0	750.0	120.0	900.0	120.0	1050.0	120.0	1200.0	120.0	1350.0	104.2	1302.5	83.1	1142.6	67.3	1009.5	55.2	897.0	45.7	799.8	38.2	716.3	32.2	644.0	27.5	536.7
60"	120.0	625.0	120.0	750.0	120.0	875.0	120.0	1000.0	120.0	1125.0	104.2	1085.4	83.1	952.2	67.3	841.3	55.2	747.5	45.7	666.5	38.2	586.9	32.2	536.7	27.5	429.3
48"	120.0	500.0	120.0	600.0	120.0	700.0	120.0	800.0	120.0	900.0	104.2	868.3	83.1	761.8	67.3	673.0	55.2	598.0	45.7	533.2	38.2	477.5	32.2	429.3	27.5	322.2

STORM BAR SCHEDULE

NOTES:

1. PRESSURES SHOWN IN "STORM BAR SCHEDULE" ARE MAXIMUM ALLOWABLE POSITIVE AND NEGATIVE DESIGN PRESSURES AT EACH RESPECTIVE SLAT SPAN AND STORM BAR HEIGHT. .
2. SEE SHEET 2 FOR STORM BAR AND REINFORCEMENT DETAIL AND MATERIALS.
3. ALLOWABLE DESIGN PRESSURES AND SLAT SPANS INDICATED ARE FOR DETERMINING PERMISSIBLE STORM BARS ONLY. ACTUAL SLAT SPANS AND DESIGN PRESSURES SHALL NOT EXCEED THOSE INDICATED IN SEPARATE ROLL-UP SHUTTER APPROVAL.
4. "REACTION AT ENDS" IS LISTED FOR EACH COMBINATION OF DESIGN LOAD, STORM BAR TYPE, & SLAT SPAN. CHOOSE MOUNTING CONNECTIONS (PER APPLICABLE CONNECTION DETAILS HEREIN) THAT PROVIDES "CONNECTION CAPACITY" GREATER THAN OR EQUAL TO "REACTION AT ENDS" GIVEN ABOVE.
5. THIS SCHEDULE MAY BE USED FOR ALL MOUNTING CONDITIONS LISTED HEREIN.
6.  DENOTES CONDITIONS NOT APPROVED FOR USE.

***NOTE:** STEEL REINFORCEMENT LENGTH SHALL BE A MINIMUM OF 90% THE STORM BAR LENGTH, LOCATED AT THE CENTER OF THE STORM BAR AND FASTENED IN PLACE WITH #14 18-8 SS OR COATED SAE GR. 5 STEEL SMS OR SDS AT 12" O.C. MAX STAGGERED ALONG THE FULL REINFORCEMENT LENGTH. (REFERENCE STEEL REINFORCEMENT DETAIL 1/2)

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REV (TDI)

SCALE: 1/4" = 1'-0"
PAGE DESCRIPTION:

7

HEADER SCHEDULE: 2"x4"x1/8" HEADER

HEADER LENGTH	60"		72"		84"		96"		108"		120"		132"		144"		156"		168"		180"		192"							
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)						
120"	39.2	326.7	32.7	326.7	28.0	326.7	23.3	326.7	18.8	326.7	14.3	326.7	9.8	326.7	5.3	326.7	0.8	326.7	3.8	326.7	3.8	326.7	3.8	326.7	3.8	326.7				
108"	53.8	403.4	44.8	403.4	38.4	403.4	33.6	403.4	29.9	403.4	26.9	403.4	23.3	403.4	19.8	403.4	16.3	403.4	12.8	403.4	9.3	403.4	5.8	403.4	2.3	403.4				
96"	76.6	510.5	63.8	510.5	54.7	510.5	47.9	510.5	42.5	510.5	38.3	510.5	34.8	510.5	31.9	510.5	29.5	510.5	27.3	510.5	25.5	510.5	23.7	510.5	22.0	510.5	20.3	510.5		
84"	114.3	666.8	95.3	666.8	81.7	666.8	71.4	666.8	63.5	666.8	57.2	666.8	52.0	666.8	47.6	666.8	44.0	666.8	40.8	666.8	38.1	666.8	36.7	666.8	35.7	666.8	35.7	666.8	35.7	666.8
72"	120.0	600.0	120.0	600.0	118.7	600.0	117.4	600.0	116.1	600.0	114.8	600.0	113.5	600.0	112.2	600.0	110.9	600.0	109.6	600.0	108.3	600.0	107.0	600.0	105.7	600.0	104.4	600.0	103.1	600.0
60"	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0
48"	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0
36"	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0

HEADER SCHEDULE: 2"x4"x1/4" HEADER

HEADER LENGTH	60"		72"		84"		96"		108"		120"		140"		156"		172"		188"		204"		220"		228"					
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)				
120"	69.9	582.6	55.2	582.6	45.6	582.6	38.8	582.6	33.8	582.6	30.0	582.6	26.9	582.6	23.3	582.6	20.3	582.6	17.8	582.6	15.3	582.6	12.8	582.6	10.3	582.6	7.8	582.6		
108"	95.9	719.3	75.7	719.3	62.5	719.3	53.3	719.3	46.4	719.3	41.1	719.3	36.9	719.3	33.5	719.3	30.6	719.3	28.2	719.3	26.2	719.3	24.2	719.3	22.2	719.3	20.2	719.3	18.2	719.3
96"	120.0	800.0	107.8	800.0	89.1	800.0	75.9	800.0	66.1	800.0	58.5	800.0	52.5	800.0	47.6	800.0	43.6	800.0	40.2	800.0	37.2	800.0	34.8	800.0	32.4	800.0	30.0	800.0	27.6	800.0
84"	120.0	700.0	120.0	700.0	120.0	700.0	120.0	700.0	120.0	700.0	120.0	700.0	120.0	700.0	120.0	700.0	120.0	700.0	120.0	700.0	120.0	700.0	120.0	700.0	120.0	700.0	120.0	700.0	120.0	700.0
72"	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0
60"	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0	120.0	500.0
48"	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0	120.0	400.0
36"	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0	120.0	300.0

HEADER SCHEDULE: 2"x5"x1/8" HEADER

HEADER LENGTH	60"		72"		84"		96"		108"		120"		140"		156"		172"		188"		204"		220"		228"					
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)				
84"	120.0	700.0	120.0	840.0	120.0	840.0	120.0	840.0	120.0	840.0	120.0	840.0	120.0	840.0	120.0	840.0	120.0	840.0	120.0	840.0	120.0	840.0	120.0	840.0	120.0	840.0	120.0	840.0	120.0	840.0
72"	120.0	600.0	120.0	720.0	120.0	720.0	120.0	720.0	120.0	720.0	120.0	720.0	120.0	720.0	120.0	720.0	120.0	720.0	120.0	720.0	120.0	720.0	120.0	720.0	120.0	720.0	120.0	720.0	120.0	720.0
60"	120.0	500.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0	120.0	600.0
48"	120.0	400.0	120.0	480.0	120.0	480.0	120.0	480.0	120.0	480.0	120.0	480.0	120.0	480.0	120.0	480.0	120.0	480.0	120.0	480.0	120.0	480.0	120.0	480.0	120.0	480.0	120.0	480.0	120.0	480.0
36"	120.0	300.0	120.0	360.0	120.0	360.0	120.0	360.0	120.0	360.0	120.0	360.0	120.0	360.0	120.0	360.0	120.0	360.0	120.0	360.0	120.0	360.0	120.0	360.0	120.0	360.0	120.0	360.0	120.0	360.0

HEADER SCHEDULE: 2"x5"x1/4" HEADER

HEADER LENGTH	60"		76"		92"		108"		124"		140"		156"		172"		188"		204"		220"		228"	
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)
120"	120.0	1000.0	98.2	1036.6	81.1	1036.6	69.1	1036.6	60.2	1036.6	53.3	1036.6	47.8	1036.6	43.4	1036.6	39.7	1036.6	36.6	1036.6	33.9	1036.6	32.7	1036.6
108"	120.0	900.0	120.0	1140.0	111.3	1279.8	94.8	1279.8	82.6	1279.8	73.1	1279.8	65.6	1279.8	59.5	1279.8	54.5	1279.8	50.2	1279.8	46.5	1279.8	44.9	1279.8
96"	120.0	800.0	120.0	1013.3	120.0	1226.7	120.0	1440.0	117.6	1619.8	104.1	1619.8	93.4	1619.8	84.8	1619.8	77.5	1619.8	71.5	1619.8	66.3	1619.8	63.9	1619.8
84"	120.0	700.0	120.0	886.7	120.0	1073.3	120.0	1280.0	120.0	1446.7	120.0	1633.3	120.0	1820.0	120.0	2006.7	115.7	1819.8	106.7	1819.8	98.9	1819.8	95.4	1819.8
72"	120.0	600.0	120.0	760.0	120.0	920.0	120.0	1080.0	120.0	1240.0	120.0	1400.0	120.0	1560.0	120.0	1720.0	120.0	1880.0	120.0	2040.0	120.0	2200.0	120.0	2280.0
60"	120.0	500.0	120.0	633.3	120.0	766.7	120.0	900.0	120.0	1033.3	120.0	1166.7	120.0	1300.0	120.0	1433.3	120.0	1566.7	120.0	1700.0	120.0	1833.3	120.0	1900.0
48"	120.0	400.0	120.0	506.7	120.0	613.3	120.0	720.0	120.0	826.7	120.0	933.3	120.0	1040.0	120.0	1146.7	120.0	1253.3	120.0	1360.0	120.0	1466.7	120.0	1520.0
36"	120.0	300.0	120.0	380.0	120.0	460.0	120.0	540.0	120.0	620.0	120.0	700.0	120.0	780.0	120.0	860.0	120.0	940.0	120.0	1020.0	120.0	1100.0	120.0	1140.0

SEE SHEET 12 FOR
HEADER SCHEDULE NOTES.

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HEADER SCHEDULE: 2"x6"x1/8" HEADER

HEADER LENGTH	60"		76"		92"		108"		124"		140"		156"		172"		188"		204"		220"		228"	
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)
120"	106.0	883.0	83.7	883.0	69.1	883.0	58.9	883.0	51.3	883.0	45.4	883.0	40.8	883.0	37.0	883.0	33.8	883.0	31.2	883.0	28.9	883.0	27.9	883.0
108"	120.0	900.0	104.1	989.3	86.0	989.3	73.3	989.3	63.8	989.3	56.5	989.3	50.7	989.3	46.0	989.3	42.1	989.3	38.8	989.3	36.0	989.3	34.7	989.3
96"	120.0	800.0	120.0	1013.3	109.8	1122.7	93.6	1122.7	81.5	1122.7	72.2	1122.7	64.8	1122.7	58.7	1122.7	53.7	1122.7	49.5	1122.7	45.9	1122.7	44.3	1122.7
84"	120.0	700.0	120.0	886.7	120.0	1073.3	120.0	1073.3	107.4	1295.0	95.1	1295.0	85.4	1295.0	77.4	1295.0	70.9	1295.0	65.3	1295.0	60.5	1295.0	58.4	1295.0
72"	120.0	600.0	120.0	780.0	120.0	920.0	120.0	1080.0	120.0	1240.0	120.0	1400.0	117.4	1525.7	106.4	1525.7	97.4	1525.7	89.7	1525.7	83.2	1525.7	80.3	1525.7
60"	120.0	500.0	120.0	633.3	120.0	766.7	120.0	900.0	120.0	1033.3	120.0	1166.7	120.0	1300.0	120.0	1433.3	120.0	1566.7	120.0	1700.0	120.0	1833.3	116.9	1850.0
48"	120.0	400.0	120.0	506.7	120.0	613.3	120.0	720.0	120.0	826.7	120.0	933.3	120.0	1040.0	120.0	1146.7	120.0	1253.3	120.0	1360.0	120.0	1466.7	120.0	1520.0
36"	120.0	300.0	120.0	380.0	120.0	460.0	120.0	540.0	120.0	620.0	120.0	700.0	120.0	780.0	120.0	860.0	120.0	940.0	120.0	1020.0	120.0	1100.0	120.0	1140.0

HEADER SCHEDULE: 2"x6"x1/4" HEADER

HEADER LENGTH	60"		76"		92"		108"		124"		140"		156"		172"		188"		204"		220"		228"	
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)
228"	29.2	482.3	27.1	515.1	26.6	577.5	27.2	652.0	25.4	741.8	28.1	851.6	25.5	987.6	29.1	1159.1	34.1	1379.4	44.3	1689.0	54.6	2080.5	72.3	2080.5
216"	34.3	515.1	32.2	577.5	31.9	652.0	30.0	741.8	31.3	851.6	31.3	987.6	35.1	1159.1	40.4	1379.4	48.0	1689.0	58.9	2080.5	74.9	2080.5	102.9	2607.9
204"	40.8	577.5	38.6	652.0	38.7	741.8	38.7	851.6	38.7	987.6	44.6	1159.1	52.5	1379.4	62.5	1689.0	77.0	2080.5	95.8	2080.5	117.7	2080.5	156.7	2607.9
192"	48.9	652.0	46.9	741.8	47.6	851.6	47.6	987.6	47.6	1159.1	57.9	1379.4	69.9	1689.0	87.7	2080.5	106.7	2080.5	115.1	2607.9	166.7	2080.5	2293.3	2607.9
180"	59.3	741.8	57.6	851.6	59.5	987.6	59.5	1159.1	59.5	1379.4	77.0	1689.0	95.8	2080.5	117.7	2080.5	120.0	2293.3	120.0	2607.9	196.7	2080.5	2607.9	2607.9
168"	73.0	851.6	72.0	987.6	75.6	1159.1	75.6	1379.4	75.6	1689.0	95.8	2080.5	117.7	2080.5	120.0	2293.3	120.0	2607.9	120.0	2607.9	196.7	2080.5	2607.9	2607.9
156"	91.2	987.6	91.5	1159.1	91.5	1379.4	91.5	1689.0	91.5	2080.5	117.7	2080.5	120.0	2293.3	120.0	2607.9	120.0	2607.9	120.0	2607.9	196.7	2080.5	2607.9	2607.9
144"	115.9	1159.1	118.8	1379.4	118.8	1689.0	118.8	2080.5	118.8	2607.9	120.0	2293.3	120.0	2607.9	120.0	2607.9	120.0	2607.9	120.0	2607.9	196.7	2080.5	2607.9	2607.9
132"	120.0	1100.0	120.0	1266.7	120.0	1533.3	120.0	1880.0	120.0	2293.3	120.0	2607.9	120.0	2607.9	120.0	2607.9	120.0	2607.9	120.0	2607.9	196.7	2080.5	2607.9	2607.9
120"	120.0	1000.0	120.0	1140.0	120.0	1380.0	120.0	1620.0	120.0	1860.0	120.0	2080.5	120.0	2293.3	120.0	2607.9	120.0	2607.9	120.0	2607.9	196.7	2080.5	2607.9	2607.9
108"	120.0	900.0	120.0	1013.3	120.0	1226.7	120.0	1440.0	120.0	1653.3	120.0	1886.7	120.0	2080.5	120.0	2293.3	120.0	2607.9	120.0	2607.9	196.7	2080.5	2607.9	2607.9
96"	120.0	800.0	120.0	886.7	120.0	989.3	120.0	1100.0	120.0	1226.7	120.0	1379.4	120.0	1572.7	120.0	1770.0	120.0	1966.7	120.0	2160.0	120.0	2353.3	120.0	2546.7

HEADER SCHEDULE: 3"x3"x1/8" HEADER

HEADER LENGTH	60"		72"		84"		96"		108"		120"		132"		144"		156"		168"		180"		192"	
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)
120"	26.1	217.8	29.9	268.9	25.6	268.9	31.9	340.3	28.4	340.3	25.5	340.3	34.6	444.5	31.8	444.5	29.3	444.5	27.2	444.5	25.4	444.5	37.8	605.0
108"	35.9	288.9	42.5	340.3	36.5	340.3	47.6	444.5	42.3	444.5	38.1	444.5	55.0	605.0	50.4	605.0	46.5	605.0	43.2	605.0	40.3	605.0	53.8	605.0
96"	51.1	340.3	63.5	444.5	64.4	444.5	86.4	605.0	81.2	605.0	60.5	605.0	95.0	1046.6	87.1	1046.6	80.4	1046.6	74.7	1046.6	69.7	1046.6	87.3	1046.6
84"	76.2	444.5	100.8	605.0	100.8	605.0	139.0	800.0	116.2	800.0	87.1	800.0	120.0	1200.0	104.6	1200.0	95.0	1200.0	87.1	1200.0	74.7	1200.0	87.3	1200.0
72"	120.0	500.0	120.0	600.0	120.0	700.0	120.0	800.0	120.0	900.0	120.0	1000.0	120.0	1100.0	120.0	1200.0	120.0	1300.0	120.0	1400.0	120.0	1500.0	120.0	1600.0
60"	120.0	400.0	120.0	480.0	120.0	560.0	120.0	640.0	120.0	720.0	120.0	800.0	120.0	880.0	120.0	960.0	120.0	1040.0	120.0	1120.0	120.0	1200.0	120.0	1280.0
48"	120.0	300.0	120.0	360.0	120.0	420.0	120.0	480.0	120.0	540.0	120.0	600.0	120.0	660.0	120.0	720.0	120.0	780.0	120.0	840.0	120.0	900.0	120.0	960.0

HEADER SCHEDULE: 3"x3"x1/4" HEADER

HEADER LENGTH	60"		72"		84"		96"		108"		120"		132"		144"		156"		168"		180"		192"	
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)
120"	46.0	383.7	52.6	473.7	45.1	473.7	59.5	599.5	51.3	599.5	40.9	599.5	63.5	783.0	51.6	783.0	47.9	783.0	44.7	783.0	41.9	783.0	53.8	783.0
108"	63.2	473.7	74.9	599.5	64.2	599.5	86.4	783.0	81.2	783.0	60.5	783.0	95.0	1046.6	87.1	1046.6	80.4	1046.6	74.7	1046.6	69.7	1046.6	87.3	1046.6
96"	89.9	599.5	111.9	783.0	111.9	783.0	150.0	1000.0	120.0	1000.0	120.0	1100.0	120.0	1200.0	120.0	1300.0	120.0	1400.0	120.0	1500.0	120.0	1600.0	120.0	1700.0
84"	120.0	700.0	120.0	800.0	120.0	900.0	120.0	1000.0	120.0	1100.0	120.0	1200.0	120.0	1300.0	120.0	1400.0	120.0	1500.0	120.0	1600.0	120.0	1700.0	120.0	1800.0
72"	120.0	600.0	120.0	720.0	120.0	840.0	120.0	960.0	120.0	1080.0	120.0	1200.0	120.0	1320.0	120.0	1440.0	120.0	1560.0	120.0	1680.0	120.0	1800.0	120.0	1920.0
60"	120.0	500.0	120.0	600.0	120.0	700.0	120.0	800.0	120.0	900.0	120.0	1000.0	120.0	1100.0	120.0	1200.0	120.0	1300.0	120.0	1400.0	120.0	1500.0	120.0	1600.0
48"	120.0	400.0	120.0	480.0	120.0	560.0	120.0	640.0	120.0	720.0	120.0	800.0	120.0	880.0	120.0	960.0	120.0	1040.0	120.0	1120.0	120.0	1200.0	120.0	1280.0
36"	120.0	300.0	120.0	360.0	120.0	420.0	120.0	480.0	120.0	540.0	120.0	600.0	120.0	660.0	120.0	720.0	120.0	780.0	120.0	840.0	120.0	900.0	120.0	960.0

SEE SHEET 12 FOR
HEADER SCHEDULE NOTES.

STATE OF FLORIDA
FRANK L. BENNARD, P.E.
Professional Engineer
No. 141627b
14-1627b
14-1627b

HEADER SCHEDULE: 4"X4"X1/8" HEADER

HEADER LENGTH	60" STORM BAR HEIGHT		76" STORM BAR HEIGHT		92" STORM BAR HEIGHT		108" STORM BAR HEIGHT		124" STORM BAR HEIGHT		140" STORM BAR HEIGHT		156" STORM BAR HEIGHT		172" STORM BAR HEIGHT		188" STORM BAR HEIGHT		204" STORM BAR HEIGHT		220" STORM BAR HEIGHT		228" STORM BAR HEIGHT	
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)
120"	63.9	532.9	50.5	532.9	41.7	532.9	35.5	532.9	30.9	532.9	27.4	532.9	24.4	532.9	21.4	532.9	18.4	532.9	15.4	532.9	12.4	532.9	9.4	532.9
108"	87.7	657.9	69.2	657.9	57.2	657.9	48.7	657.9	42.4	657.9	37.6	657.9	33.7	657.9	30.6	657.9	28.0	657.9	25.8	657.9	23.8	657.9	22.0	657.9
96"	120.0	800.0	98.6	832.6	81.5	832.6	69.4	832.6	60.4	832.6	53.5	832.6	48.0	832.6	43.6	832.6	39.9	832.6	38.7	832.6	34.1	832.6	32.9	832.6
84"	120.0	700.0	120.0	886.7	120.0	1073.3	103.6	1087.5	90.2	1087.5	79.9	1087.5	71.7	1087.5	65.0	1087.5	59.5	1087.5	54.8	1087.5	50.8	1087.5	49.1	1087.5
72"	120.0	600.0	120.0	760.0	120.0	920.0	120.0	1080.0	120.0	1240.0	116.7	1381.9	104.8	1381.9	95.0	1381.9	86.9	1381.9	80.1	1381.9	74.3	1381.9	71.7	1381.9
60"	120.0	500.0	120.0	633.3	120.0	766.7	120.0	900.0	120.0	1033.3	120.0	1166.7	120.0	1300.0	120.0	1433.3	120.0	1566.7	115.4	1634.3	107.0	1634.3	103.2	1634.3
48"	120.0	400.0	120.0	506.7	120.0	613.3	120.0	720.0	120.0	826.7	120.0	933.3	120.0	1040.0	120.0	1146.7	120.0	1253.3	120.0	1360.0	120.0	1466.7	120.0	1520.0
36"	120.0	300.0	120.0	380.0	120.0	480.0	120.0	480.0	120.0	620.0	120.0	700.0	120.0	780.0	120.0	860.0	120.0	940.0	120.0	1020.0	120.0	1100.0	120.0	1140.0

HEADER SCHEDULE: 4"X4"X1/4" HEADER

HEADER LENGTH	60" STORM BAR HEIGHT		76" STORM BAR HEIGHT		92" STORM BAR HEIGHT		108" STORM BAR HEIGHT		124" STORM BAR HEIGHT		140" STORM BAR HEIGHT		156" STORM BAR HEIGHT		172" STORM BAR HEIGHT		188" STORM BAR HEIGHT		204" STORM BAR HEIGHT		220" STORM BAR HEIGHT		228" STORM BAR HEIGHT	
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)
120"	116.3	969.2	91.8	969.2	75.8	969.2	64.6	969.2	56.3	969.2	49.8	969.2	44.7	969.2	40.6	969.2	37.1	969.2	34.2	969.2	31.7	969.2	30.6	969.2
108"	120.0	900.0	120.0	1140.0	104.0	1140.0	88.6	1196.5	77.2	1196.5	68.4	1196.5	61.4	1196.5	55.7	1196.5	50.9	1196.5	46.9	1196.5	43.5	1196.5	42.0	1196.5
96"	120.0	800.0	120.0	1013.3	120.0	1226.7	120.0	1440.0	108.9	1514.3	97.4	1514.3	87.4	1514.3	79.2	1514.3	72.5	1514.3	66.8	1514.3	62.0	1514.3	59.8	1514.3
84"	120.0	700.0	120.0	886.7	120.0	1073.3	120.0	1260.0	124.0	1446.7	120.0	1633.3	120.0	1820.0	118.3	1977.9	108.2	1977.9	99.7	1977.9	92.5	1977.9	89.2	1977.9
72"	120.0	600.0	120.0	760.0	120.0	920.0	120.0	1080.0	120.0	1240.0	120.0	1400.0	120.0	1560.0	120.0	1720.0	120.0	1880.0	120.0	2040.0	120.0	2200.0	120.0	2280.0
60"	120.0	500.0	120.0	633.3	120.0	766.7	120.0	900.0	120.0	1033.3	120.0	1166.7	120.0	1300.0	120.0	1433.3	120.0	1566.7	120.0	1700.0	120.0	1833.3	120.0	1900.0
48"	120.0	400.0	120.0	506.7	120.0	613.3	120.0	720.0	120.0	826.7	120.0	933.3	120.0	1040.0	120.0	1146.7	120.0	1253.3	120.0	1360.0	120.0	1466.7	120.0	1520.0
36"	120.0	300.0	120.0	380.0	120.0	460.0	120.0	460.0	120.0	620.0	120.0	700.0	120.0	780.0	120.0	860.0	120.0	940.0	120.0	1020.0	120.0	1100.0	120.0	1140.0

HEADER SCHEDULE: 4"X6"X1/4" HEADER

HEADER LENGTH	60" STORM BAR HEIGHT		76" STORM BAR HEIGHT		92" STORM BAR HEIGHT		108" STORM BAR HEIGHT		124" STORM BAR HEIGHT		140" STORM BAR HEIGHT		156" STORM BAR HEIGHT		172" STORM BAR HEIGHT		188" STORM BAR HEIGHT		204" STORM BAR HEIGHT		220" STORM BAR HEIGHT		228" STORM BAR HEIGHT	
	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)	DESIGN PRESSURE (PSF)	REACTION AT ENDS (LBS)
228"	45.1	713.9	35.6	713.9	29.4	713.9	25.0	713.9	25.7	795.4	27.0	891.7	29.0	1006.7	26.3	1006.7	29.2	1145.3	26.9	1145.3	26.9	1145.3	29.7	1314.8
216"	53.0	795.4	41.9	795.4	34.6	795.4	30.5	795.4	30.5	891.7	32.4	1006.7	35.2	1145.3	32.0	1145.3	36.0	1314.8	33.1	1314.8	30.7	1314.8	30.7	1314.8
204"	62.9	891.7	49.7	891.7	42.2	891.7	41.9	1006.7	41.9	1006.7	41.9	1006.7	44.3	1145.3	43.3	1314.8	44.9	1524.9	41.4	1524.9	38.4	1524.9	37.0	1524.9
192"	75.5	1006.7	59.6	1006.7	49.2	1006.7	49.9	1006.7	49.9	1006.7	49.9	1006.7	54.5	1314.8	54.1	1524.9	57.1	1789.6	52.6	1789.6	48.8	1789.6	47.1	1789.6
180"	91.6	1145.3	72.3	1145.3	58.8	1145.3	50.9	1145.3	44.3	1145.3	39.3	1145.3	35.2	1145.3	32.0	1145.3	36.0	1314.8	33.1	1314.8	30.7	1314.8	29.7	1314.8
168"	112.7	1314.8	89.0	1314.8	73.5	1314.8	62.6	1314.8	48.3	1314.8	48.3	1314.8	43.3	1314.8	39.3	1314.8	44.9	1524.9	41.4	1524.9	38.4	1524.9	37.0	1524.9
156"	120.0	1300.0	111.1	1524.9	91.8	1524.9	78.2	1524.9	68.1	1524.9	60.3	1524.9	54.1	1524.9	49.1	1524.9	57.1	1789.6	52.6	1789.6	48.8	1789.6	47.1	1789.6
144"	120.0	1200.0	120.0	1520.0	116.7	1520.0	99.4	1789.6	86.6	1789.6	76.7	1789.6	68.8	1789.6	62.4	1789.6	57.1	1789.6	52.6	1789.6	48.8	1789.6	47.1	1789.6
132"	120.0	1100.0	120.0	1393.3	120.0	1393.3	120.0	1686.7	112.4	2129.8	99.6	2129.8	89.4	2129.8	81.0	2129.8	74.2	2129.8	68.3	2129.8	63.4	2129.8	61.1	2129.8
120"	120.0	1000.0	120.0	1266.7	120.0	1266.7	120.0	1800.0	120.0	2066.7	120.0	2333.3	118.9	2577.0	107.9	2577.0	98.7	2577.0	91.0	2577.0	84.3	2577.0	81.4	2577.0
108"	120.0	900.0	120.0	1140.0	120.0	1140.0	120.0	1620.0	120.0	1880.0	120.0	2100.0	120.0	2340.0	120.0	2580.0	120.0	2820.0	120.0	3060.0	115.7	3181.5	111.6	3181.5
96"	120.0	800.0	120.0	1013.3	120.0	1013.3	120.0	1440.0	120.0	1653.3	120.0	1866.7	120.0	2080.0	120.0	2293.3	120.0	2506.7	120.0	2720.0	120.0	2933.3	120.0	3040.0
84"	120.0	700.0	120.0	886.7	120.0	886.7	120.0	1260.0	120.0	1446.7	120.0	1633.3	120.0	1820.0	120.0	2006.7	120.0	2193.3	120.0	2380.0	120.0	2566.7	120.0	2660.0
72"	120.0	600.0	120.0	760.0	120.0	760.0	120.0	1080.0	120.0	1240.0	120.0	1400.0	120.0	1560.0	120.0	1720.0	120.0	1880.0	120.0	2040.0	120.0	2200.0	120.0	2280.0
60"	120.0	500.0	120.0	633.3	120.0	633.3	120.0	900.0	120.0	1033.3	120.0	1166.7	120.0	1300.0	120.0	1433.3	120.0	1566.7	120.0	1700.0	120.0	1833.3	120.0	1900.0
48"	120.0	400.0	120.0	506.7	120.0	506.7	120.0	720.0	120.0	826.7	120.0	933.3	120.0	1040.0	120.0	1146.7	120.0	1253.3	120.0	1360.0	120.0	1466.7	120.0	1520.0
36"	120.0	300.0	120.0	380.0	120.0	380.0	120.0	480.0	120.0	620.0	120.0	700.0	120.0	780.0	120.0	860.0	120.0	940.0	120.0	1020.0	120.0	1100.0	120.0	1140.0

SEE SHEET 12 FOR
HEADER SCHEDULE NOTES.

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HEADER SCHEDULE: 4"X8"X1/4" HEADER

UNIFORM LOAD ALLOWABLE PRESSURE TABLE (Tabulated values in PSF)

Header Length	Storm Bar Height	60"	76"	92"	106"	124"	140"	156"	172"	188"	204"	220"	228"
228"	60"	91.5	72.2	59.6	51.8	44.3	39.2	35.2	31.9	29.2	26.9	25.0	22.8
216"	60"	107.6	84.9	70.2	60.9	52.0	46.1	41.4	37.5	34.3	31.6	29.3	28.3
204"	60"	120.0	100.8	83.3	72.3	61.8	54.7	49.1	44.5	40.8	37.6	34.8	33.6
192"	60"	120.0	120.0	99.9	86.7	74.1	65.6	58.9	53.4	48.9	45.0	41.8	40.3
180"	60"	120.0	120.0	120.0	105.2	89.9	79.7	71.5	64.8	59.3	54.7	50.7	48.9
168"	60"	120.0	120.0	120.0	120.0	110.6	98.0	87.9	79.8	73.0	67.2	62.4	60.2
156"	60"	120.0	120.0	120.0	120.0	120.0	109.8	99.6	91.1	84.0	77.9	75.1	75.1
144"	60"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	115.9	106.8	99.0	95.5	95.5
132"	60"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
120"	60"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
108"	60"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
96"	60"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
84"	60"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
72"	60"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
60"	60"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
48"	60"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
36"	60"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0

END REACTION TABLE (UNIFORM)

Header Length	Storm Bar Height	60"	76"	92"	106"	124"	140"	156"	172"	188"	204"	220"	228"
228"	60"	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2	1448.2
216"	60"	1613.5	1613.5	1613.5	1613.5	1613.5	1613.5	1613.5	1613.5	1613.5	1613.5	1613.5	1613.5
204"	60"	1700.0	1808.9	1808.9	1808.9	1808.9	1808.9	1808.9	1808.9	1808.9	1808.9	1808.9	1808.9
192"	60"	1600.0	2026.7	2042.1	2042.1	2042.1	2042.1	2042.1	2042.1	2042.1	2042.1	2042.1	2042.1
180"	60"	1500.0	1900.0	2300.0	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5	2323.5
168"	60"	1400.0	1773.3	2146.7	2473.3	2667.3	2667.3	2667.3	2667.3	2667.3	2667.3	2667.3	2667.3
156"	60"	1300.0	1646.7	1993.3	2296.7	2686.7	3093.4	3093.4	3093.4	3093.4	3093.4	3093.4	3093.4
144"	60"	1200.0	1520.0	1840.0	2120.0	2480.0	2800.0	3120.0	3440.0	3630.4	3630.4	3630.4	3630.4
132"	60"	1100.0	1393.3	1686.7	1943.3	2273.3	2586.7	2866.7	3153.3	3446.7	3740.0	4033.3	4180.0
120"	60"	1000.0	1266.7	1533.3	1766.7	2066.7	2333.3	2600.0	2866.7	3133.3	3400.0	3666.7	3800.0
108"	60"	900.0	1140.0	1380.0	1590.0	1880.0	2100.0	2340.0	2580.0	2820.0	3060.0	3293.3	3404.0
96"	60"	800.0	1013.3	1226.7	1413.3	1653.3	1886.7	2080.0	2293.3	2506.7	2720.0	2933.3	3040.0
84"	60"	700.0	886.7	1073.3	1236.7	1446.7	1633.3	1820.0	2006.7	2193.3	2380.0	2566.7	2680.0
72"	60"	600.0	760.0	920.0	1080.0	1240.0	1400.0	1560.0	1720.0	1880.0	2040.0	2200.0	2280.0
60"	60"	500.0	633.3	766.7	883.3	1033.3	1186.7	1300.0	1433.3	1566.7	1700.0	1833.3	1900.0
48"	60"	400.0	506.7	613.3	706.7	826.7	933.3	1040.0	1146.7	1253.3	1360.0	1466.7	1520.0
36"	60"	300.0	380.0	460.0	530.0	620.0	700.0	780.0	860.0	940.0	1020.0	1100.0	1140.0

HEADER SCHEDULE: 2"X4"X1/8" WITH 1.75"X3.75"X0.125" STEEL REINFORCEMENT*

HEADER LENGTH	STORM BAR HEIGHT												
	60"	76"	92"	108"	124"	140"	156"	172"	188"	204"	220"	228"	
120"	48.3	402.2	38.1	402.2	31.5	402.2	28.8	402.2	32.0	496.5	28.4	496.5	25.5
108"	66.2	496.5	52.3	496.5	43.2	496.5	36.8	496.5	45.6	628.4	40.4	628.4	36.3
96"	94.3	628.4	74.4	628.4	61.5	628.4	52.4	628.4	68.1	820.8	60.3	820.8	54.1
84"	120.0	700.0	111.1	820.8	91.8	820.8	78.2	820.8	88.1	820.8	85.9	1117.2	85.9
72"	120.0	600.0	120.0	760.0	120.0	920.0	120.0	1080.0	108.1	1080.0	116.7	1166.7	116.7
60"	120.0	500.0	120.0	633.3	120.0	766.7	120.0	900.0	120.0	1033.3	120.0	1166.7	120.0
48"	120.0	400.0	120.0	506.7	120.0	613.3	120.0	720.0	120.0	826.7	120.0	933.3	120.0
36"	120.0	300.0	120.0	380.0	120.0	460.0	120.0	540.0	120.0	620.0	120.0	700.0	120.0

HEADER SCHEDULE: 2"X5"X1/8" WITH 1.75"X4.75"X0.125" STEEL REINFORCEMENT*

HEADER LENGTH	STORM BAR HEIGHT												
	60"	76"	92"	108"	124"	140"	156"	172"	188"	204"	220"	228"	
120"	84.4	703.1	66.6	703.1	55.0	703.1	46.9	703.1	40.8	703.1	36.2	703.1	32.5
108"	115.7	868.1	91.4	868.1	75.5	868.1	64.3	868.1	56.0	868.1	49.6	868.1	44.5
96"	120.0	800.0	120.0	1013.3	107.5	1098.6	91.6	1098.6	79.7	1098.6	70.6	1098.6	63.4
84"	120.0	700.0	120.0	866.7	120.0	1073.3	120.0	1260.0	119.0	1435.0	105.4	1435.0	94.6
72"	120.0	600.0	120.0	760.0	120.0	920.0	120.0	1080.0	120.0	1240.0	120.0	1400.0	120.0
60"	120.0	500.0	120.0	633.3	120.0	766.7	120.0	900.0	120.0	1033.3	120.0	1166.7	120.0
48"	120.0	400.0	120.0	506.7	120.0	613.3	120.0	720.0	120.0	826.7	120.0	933.3	120.0
36"	120.0	300.0	120.0	380.0	120.0	460.0	120.0	540.0	120.0	620.0	120.0	700.0	120.0

*NOTE: STEEL REINFORCEMENT LENGTH SHALL BE A MINIMUM OF 90% THE STORM BAR LENGTH, LOCATED AT THE CENTER OF THE STORM BAR AND FASTENED IN PLACE WITH #14 18-8 SS OR COATED SAE GR. 5 STEEL SMS OR SDS AT 12" O.C. MAX STAGGERED ALONG THE FULL REINFORCEMENT LENGTH. (REFERENCE STEEL REINFORCEMENT DETAIL 1/2)

SEE SHEET 12 FOR HEADER SCHEDULE NOTES.

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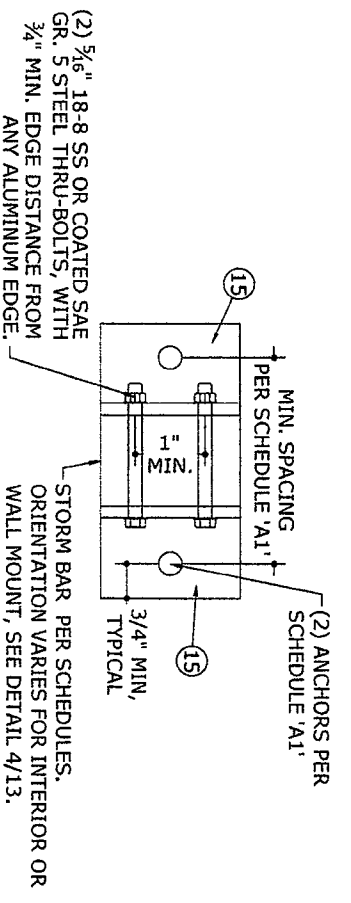
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REMARKS	DRWN	CHKD	DATE
INIT ISSUE	KL	FLB	04/25/14
REV (TDI)	RWN	TSB	06/04/14

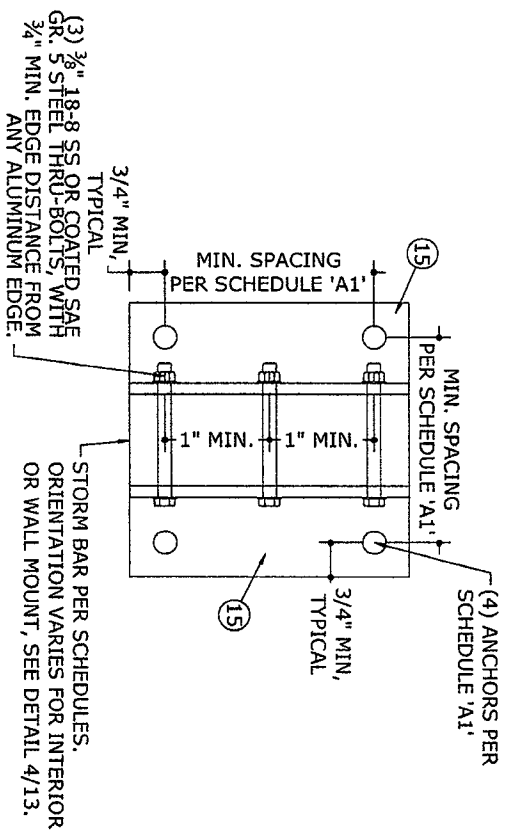
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11

STORM BAR CONNECTION DETAILS



1 END CONNECTION
INTERIOR OR WALL MOUNT
13 N.T.S.

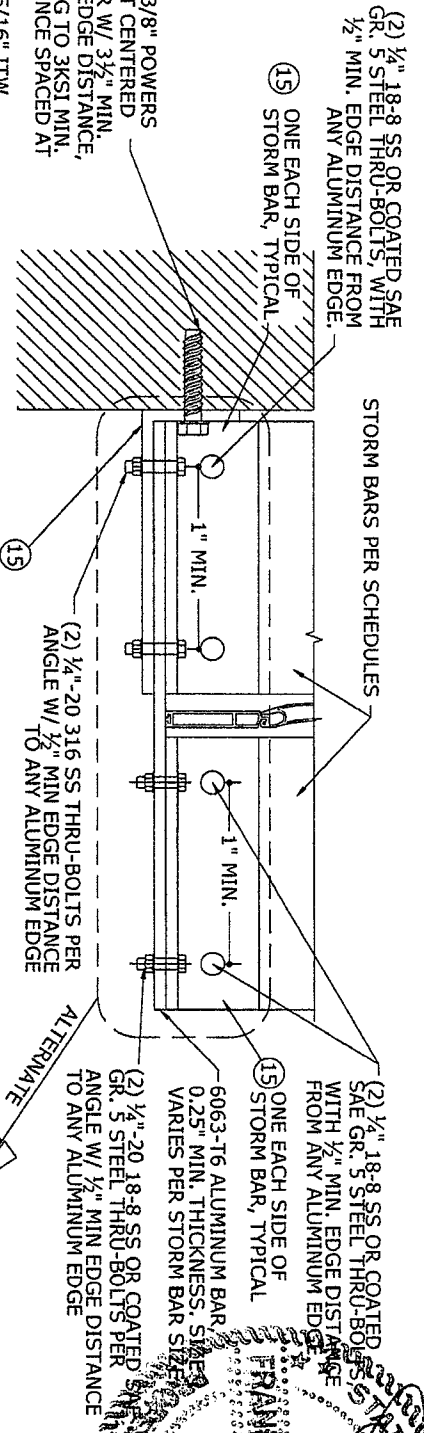


2 END CONNECTION
INTERIOR OR WALL MOUNT
13 N.T.S.

ANCHOR NOTES:

1. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
2. MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
3. ANCHOR SCHEDULE APPLIES TO ALL PRODUCTS CERTIFIED HEREIN.
4. WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD.
5. MACHINE SCREWS SHALL HAVE MINIMUM OF 5/8" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFFER HEAD ("SIDEWALK BOLT") U.N.O.
6. * ANCHOR SHALL PENETRATE THROUGH FACE SHELL INTO GROUTED CELL.

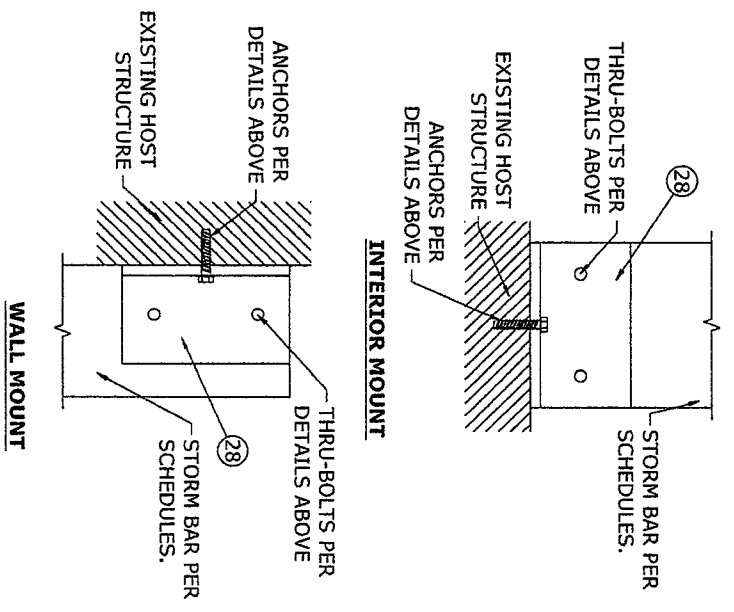
- CLUSTER OF (4) 3/8" POWERS WEDGE BOLTS AT CENTERED EACH STORM BAR W/ 3 1/2" MIN. EMBED, 3" MIN. EDGE DISTANCE, AND 4 1/2" SPACING TO 3KSI MIN. CONCRETE. BALANCE SPACED AT 18" O.C. MAX
- CLUSTER OF (4) 5/16" ITW TAPCONS AT CENTERED EACH STORM BAR W/ 2-1/4" MIN. EMBED, 4" MIN. EDGE DISTANCE, AND 4" SPACING TO GROUT-FILLED CONCRETE BLOCK. BALANCE SPACED AT 18" O.C. MAX
- SCREWS AT CENTERED EACH STORM BAR W/ 2" MIN. THREAD PENETRATION, 1-1/4" MIN. EDGE DISTANCE, AND 2" SPACING TO G=0.42 MIN. WOOD. BALANCE SPACED AT 18" O.C. MAX



3 STORM BAR BUILD-OUT MOUNT
13 N.T.S.

SCHEDULE 'A1'

ANCHOR TYPE	MINIMUM SPACING	MINIMUM EDGE DISTANCE	CONNECTION DETAIL	MOUNTING CONDITION	CONNECTION CAPACITY
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO 3KSI MIN. CONCRETE	4.5"	4.5"	1/13	WALL MOUNT	4332 LB
3/8" POWERS STEEL DROPIN W/ 1-9/16" EMBED TO 3KSI MIN. CONCRETE	4.5"	5.25"	2/13	INTERIOR MOUNT	3065 LB
			2/13	WALL MOUNT	8820 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	1/13	INTERIOR MOUNT	6130 LB
			2/13	WALL MOUNT	1590 LB
5/16" ITW TAPCON XL OR ELCO ULTRACON W/ 2-1/4" MIN. EMBED TO 3.5KSI MIN. CONCRETE	5.0"	3.125"	1/13	INTERIOR MOUNT	2290 LB
			2/13	WALL MOUNT	4580 LB
5/16" ITW TAPCON XL OR ELCO ULTRACON W/ 2-1/4" MIN. EMBED TO GROUT-FILLED CONCRETE BLOCK	5.0"	3.125"	1/13	INTERIOR MOUNT	2580 LB
			2/13	WALL MOUNT	5160 LB
5/16" ITW TAPCON XL OR ELCO ULTRACON W/ 2" MIN. THREAD PENETRATION TO G=0.42 MIN WOOD	2.0"	1.25"	1/13	INTERIOR MOUNT	1488 LB
			2/13	WALL MOUNT	2620 LB



4 END CONNECTION
MOUNTING CONDITIONS
13 N.T.S.

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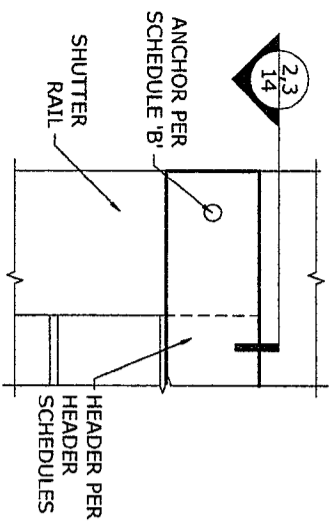
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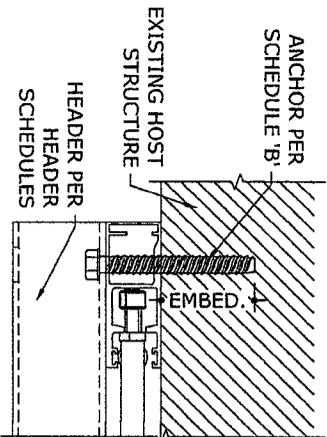
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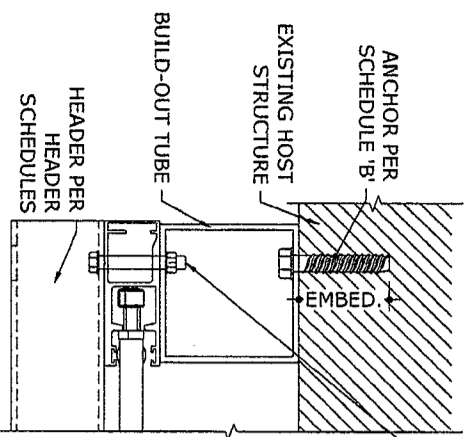
HEADER CONNECTION DETAILS



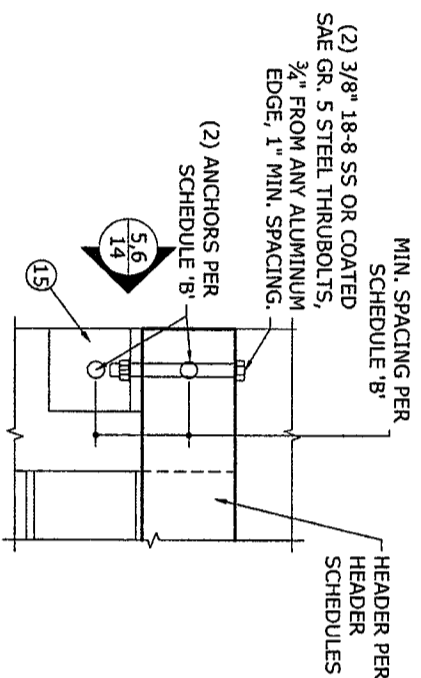
1 BUILD-OUT & WALL MOUNT
14 N.T.S. ELEV



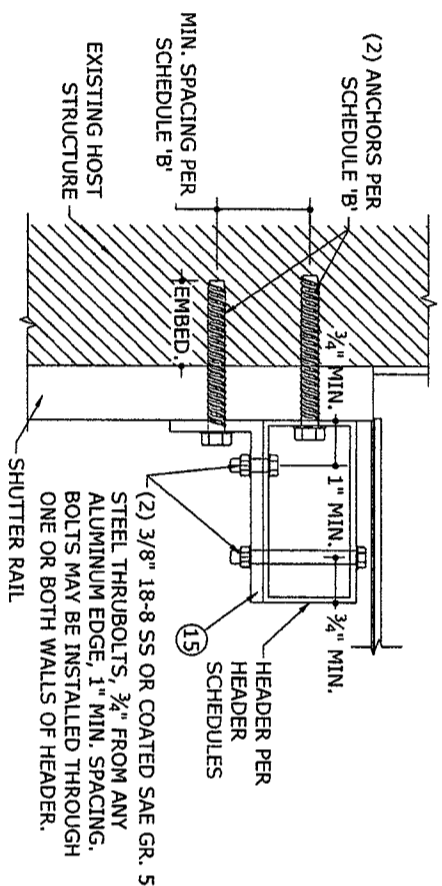
2 WALL MOUNT
14 N.T.S. HORIZ SECTION



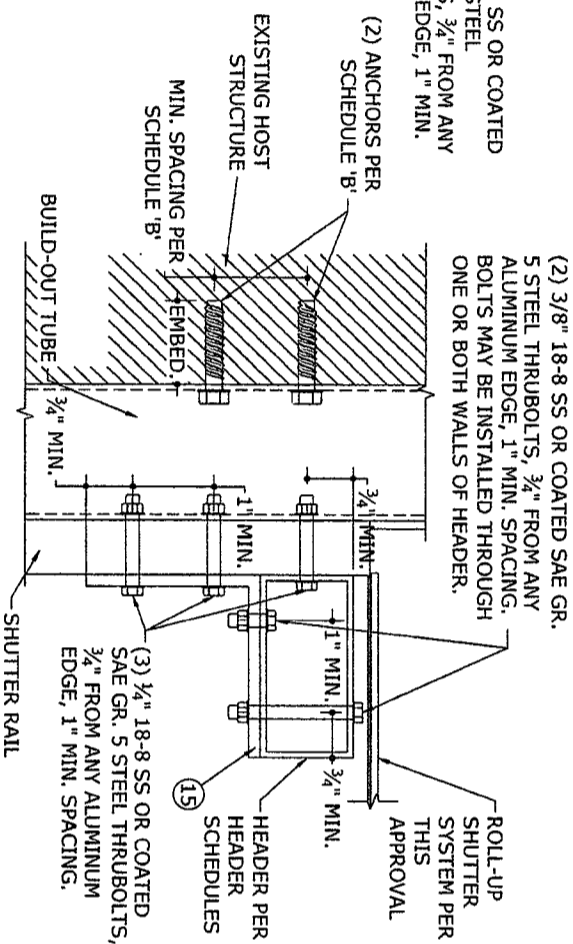
3 BUILD-OUT MOUNT
14 N.T.S. HORIZ SECTION



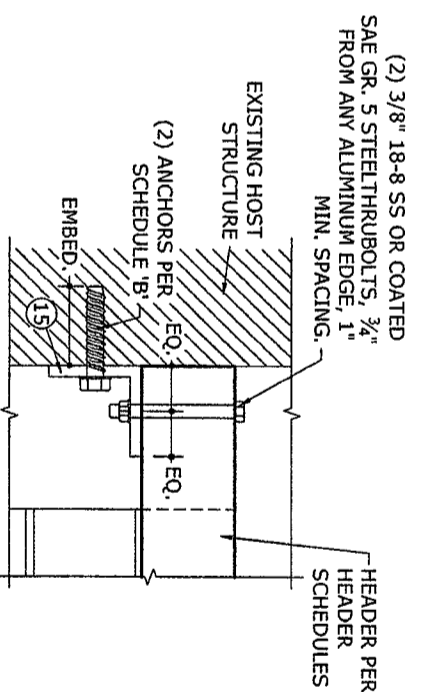
4 BUILD-OUT & WALL MOUNT
14 N.T.S. ELEV



5 WALL MOUNT
14 N.T.S. VERT SECTION



6 BUILD-OUT MOUNT
14 N.T.S. VERT SECTION



7 INTERIOR MOUNT
14 N.T.S. ELEV

SCHEDULE 'B'

ANCHOR TYPE	MINIMUM SPACING	MINIMUM EDGE DISTANCE	MOUNTING CONDITION	NUMBER OF ANCHORS	CONNECTION CAPACITY
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO 3KSI MIN. CONCRETE	4.5"	4.5"	BUILD-OUT OR WALL MOUNT	2	2205 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO 3KSI MIN. CONCRETE	4.5"	4.5"	BUILD-OUT OR WALL MOUNT	1	3093 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO 3KSI MIN. CONCRETE	2.5"	4.5"	BUILD-OUT OR WALL MOUNT	2	1533 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO 3KSI MIN. CONCRETE	2.5"	4.5"	BUILD-OUT OR WALL MOUNT	1	3065 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	1477 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	1	2955 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	1272 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	1	2544 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	1290 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	2580 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	1	1100 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	2200 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	1	795 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	1590 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	1	1145 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	2290 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	1	461 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	922 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	1	684 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	1328 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	1	788 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	1576 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	1	851 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	1702 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	1	292 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	584 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	1	372 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	744 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	1	655 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	1311 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	1	151 LB
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	12.0"	BUILD-OUT OR WALL MOUNT	2	301 LB

- NOTES:**
- ALL ANCHORS SHALL BE 3/8" MINIMUM FROM ANY ALUMINUM EDGE.
 - * ANCHOR SHALL PENETRATE THROUGH FACE SHELL INTO GROUTED CELL.
 - SEE ANCHOR NOTES ON SHEET 13.

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