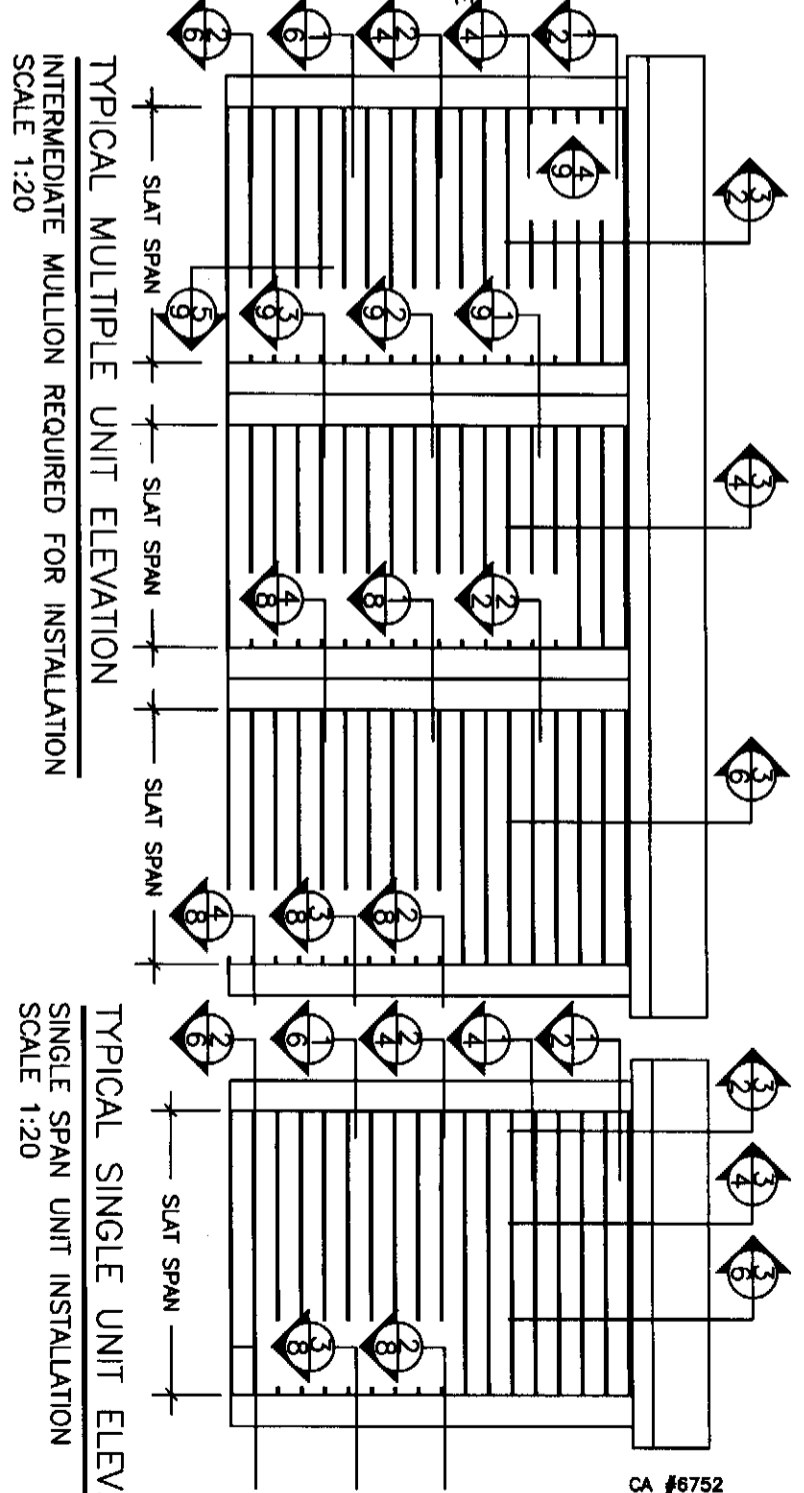


**STRUCTURAL NOTES:**

1. THIS NON POROUS SYSTEM HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2010 EDITION OF THE FLORIDA BUILDING CODE (FBC) . THIS SYSTEM SHALL NOT BE INSTALLED IN THE HIGH VELOCITY HURRICANE ZONE (MIAMI-DADE/ BROWARD COUNTIES), NOR WIND ZONE 4 (FBC SECTION 1609.1.2.4) NOR ESSENTIAL FACILITIES IN WIND ZONES 1,2,3 OR 4. THE ADEQUACY FOR IMPACT, DEFLECTION AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1626 OF THE ABOVE REFERENCED CODE, AND ASTM E330-02, ASTM E1886-05 AND ASTM E1996-06. SEE LIST OF REPORTS ON SHEET 1 OF 11.
2. DESIGN PRESSURE REQUIREMENTS OF A SPECIFIC SITE SHALL BE DETERMINED BY OTHERS IN CONFORMANCE TO SECTION 1609 OF THE FBC FOR A BASIC WIND SPEED (ALLOWABLE STRESS DESIGN) AS REQUIRED BY THE JURISDICTION WHERE THE SYSTEM WILL BE INSTALLED. ULTIMATE DESIGN LOADS (UD) DETERMINED BY ASCE 7-10 SHALL BE REDUCED TO ALLOWABLE STRESS DESIGN LOADS (ASD) BY MULTIPLYING THE UD BY 0.6. TO COMPARE THEM TO THE ASD PRESSURE RATINGS SHOWN ON SHEETS 3, 5 & 7 OF 11. USE OF DIRECTIONALITY FACTOR  $K_d=0.85$  IS ALLOWED.
3. IMPACT AND FATIGUE RESISTANCE HAS BEEN DETERMINED IN ACCORDANCE WITH THE FBC SECTION 1626 LARGE MISSILE AND 1609.1.2 MISSILE TYPE "D" AS LISTED HEREIN.
4. NO 33-1/3% INCREASE IN ALLOWABLE STRESS INCREASE HAS BEEN USED IN THE DESIGN OF THIS PRODUCT.
5. THIS PRODUCT EVALUATION DOCUMENT (PED) DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. IF SITE CONDITIONS DEVIATE FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS TO BE USED IN CONJUNCTION WITH THIS DOCUMENT.
6. THE CONTRACTOR AND / OR PERMIT HOLDER IS TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS SYSTEM, INCLUDING VERIFYING THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND THE NEW SUPERIMPOSED LOADS SHOWN BELOW AND THE SOUNDNESS OF THE STRUCTURE WHERE THE SYSTEM IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE.
7. SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA LICENSED ENGINEER OR ARCHITECT WHO WILL BECOME THE ENGINEER OF RECORD (EOR) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE PED. THE ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE PED ENGINEER SHALL SUBMIT TO THIS ENGINEER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
8. THIS PED SHALL BEAR THE DATE AND ORIGINAL SEAL OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT REGARDLESS OF ITS AVAILABILITY FROM THE FLORIDA PRODUCT APPROVAL WEBSITE.
9. AN OPTIONAL UV AND / OR SOLAR EXTERNAL LAYER MAY BE ADDED ONTO THE SYSTEM.
10. LIMITATIONS OF USE:  
THE MAXIMUM SIZE SHALL BE SHOWN ON SHEETS 3, 5 & 7 OF 11.
11. MAXIMUM HEIGHT OF ROLL-UP SHALL BE 15'-0".  
FOR DETERMINING INTERNAL PRESSURE IN THE ABOVE REFERENCED CODES, THIS PRODUCT IS CLASSIFIED AS NON-POROUS WITH A POROSITY OF LESS THAN 10% FOR THE CONDITIONS SHOWN IN THIS PRODUCT EVALUATION DOCUMENT. THIS PRODUCT MUST COMPLETELY COVER AN OPENING IN ALL DIRECTIONS.
12. ALL SCREWS TO BE STAINLESS STEEL 304 OR GALVANIZED A307 STEEL.
13. ALL BOLTS TO BE ASTM A307, GALVANIZED OR 304 SERIES STAINLESS STEEL.
14. SUPPORTBRACKETS AND ANCHORS :  
A. ANCHORS INTO THE SUPPORT SUBSTRUCTURE (WALL, CEILINGS, BEAMS AND FLOORS) SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.  
B. THE ANCHOR SPACING SHOWN ON SHEETS 3, 5, & 7 OF 11 INDICATED FOR 1/4" and 3/8" DIAMETERS REFER TO CENTER OF SUPPORTING BRACKETS.  
C. ANCHOR MINIMUM EMBEDMENT AND EDGE DISTANCES

SUBSTRUCTURE	EMBEDMENT	EDGE DISTANCE
HOLLOW BLOCK	1-1/4 INCH	12 D OR PER MANUF.
GROUT FILLED OR KSI CONCRETE	1-3/4 INCH	12 D OR PER MANUF.
4 KSI CONCRETE OR 2 KSI CONCRETE	1-3/4 INCH	12 D OR PER MANUF.
WOOD OR TIMBER	8 D	3/4 INCH

15. D. NO EMBEDMENT INTO NON-STRUCTURAL MATERIAL SUCH AS STUCCO, SIDING AND PAVERS SHALL BE INCLUDED AS PART OF THE EMBEDMENT REQUIREMENT.
16. STEEL SURFACES TO BE PLACED IN CONTACT WITH ALUMINUM SHALL BE GIVEN ONE COAT OF ZINC CHROMATE PRIMER IN ACCORDANCE WITH FEDERAL SPEC NO.: TTP-645, OR BE GALVANIZED.
17. MAXIMUM DESIGN PRESSURE VERSUS PANEL SPAN SHOWN ON SHEETS 3, 5 & 7 OF 11.
18. ALL ALUMINUM ALLOYS SHALL BE 6063-T6 OR 6005-T6 U.N.O.
19. ANCHORING OR LOADING CONDITIONS OTHER THAN THOSE SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
20. MANUFACTURER LABEL SHALL BE PLACED ON A READILY AND VISIBLE LOCATION ON THE ROLL-UP. ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABEL SHALL READ AS FOLLOWS:  
JUPITER INDUSTRIES LLC  
12311 Crystal Commerce Loop  
Fort Myers, FL 33966
21. FLORIDA PRODUCT APPROVAL NUMBER: FL-XXXX. OPENING NO.: XX  
FLORIDA PRODUCT APPROVAL NUMBER: FL-XXXX. OPENING NO.: XX  
THIS DOCUMENT IN ITS ENTIRETY WILL BE CONSIDERED INVALID IF IT IS ALTERED BY ANY MEANS OR DOES NOT BEAR THE DATE AND ORIGINAL SEAL OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



**LIST OF REPORTS**

EVALUATION BASED ON:  
ARCHITECTURAL TESTING INC.

LAB NO.: B4522.01-401-18  
DATED 12/16/2011  
TAS 201, TAS 203 - LARGE MISSILE IMPACT RESISTANCE & CYCLIC LOADING PERFORMANCE  
TAS 202 - UNIFORM STATIC LOADS

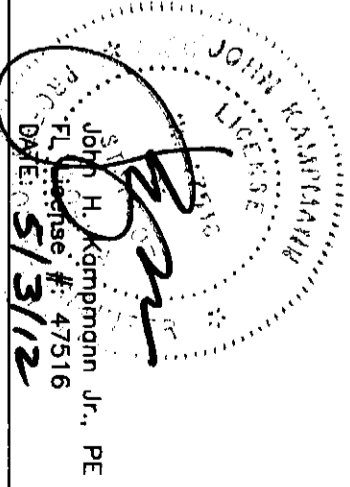
LAB NO.: B4519.01-401-18  
DATED 02/02/2012  
TAS 201, TAS 203 - LARGE MISSILE IMPACT RESISTANCE & CYCLIC LOADING PERFORMANCE  
TAS 202 - UNIFORM STATIC LOADS

LAB NO.: B4521.02-401-44  
DATED 02/22/2012  
ASTM E330-02 - UNIFORM STATIC LOADS  
ASTM E1886-05 & ASTM E1996-06 - LARGE MISSILE TYPE "D" IMPACT RESISTANCE & CYCLIC LOADING PERFORMANCE

LAB NO.: B4520.02-401-44  
DATED 02/22/2012  
ASTM E330-02 - UNIFORM STATIC LOADS  
ASTM E1886-05 & ASTM E1996-06 - LARGE MISSILE TYPE "D" IMPACT RESISTANCE & CYCLIC LOADING PERFORMANCE

**SPAN SCHEDULE**

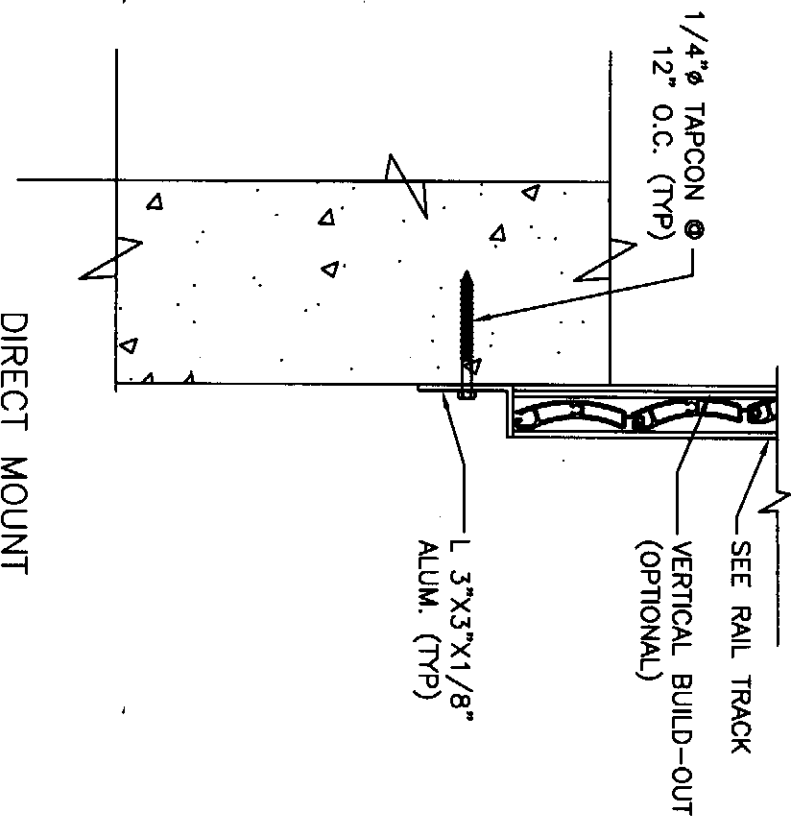
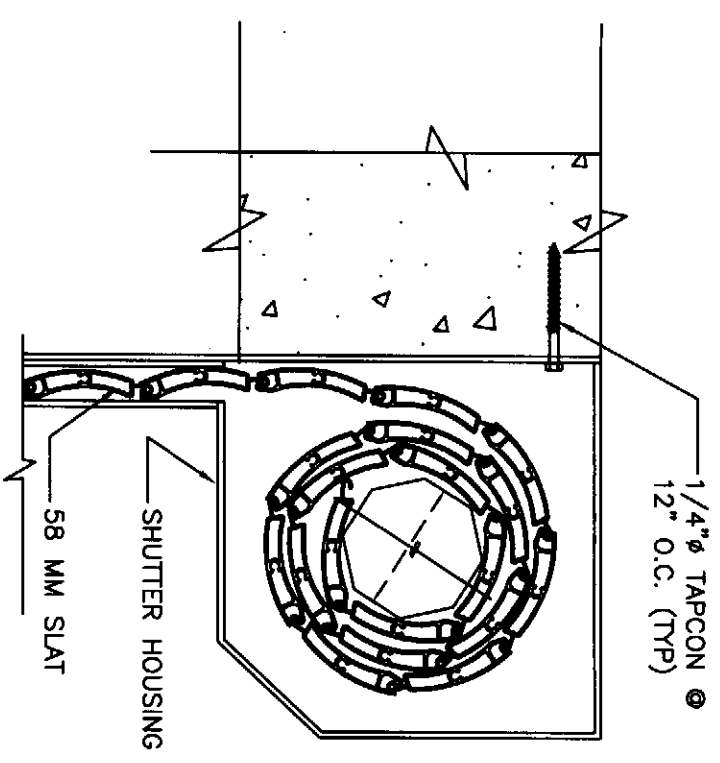
END RETENTION SHUTTER SPAN	ALLOWABLE DESIGN PRESSURE
84.0"	+/- 120.0 PSF
90.0"	+/- 107.9 PSF
100.0"	+/- 92.6 PSF
110.0"	+/- 81.4 PSF
120.0"	+/- 72.9 PSF
130.0"	+/- 66.2 PSF
140.0"	+/- 60.8 PSF
168.0"	+/- 50.0 PSF
190.0"	+/- 46.6 PSF
200.0"	+/- 45.2 PSF
210.0"	+/- 44.0 PSF
220.0"	+/- 43.0 PSF
230.0"	+/- 42.0 PSF
240.0"	+/- 41.0 PSF
250.0"	+/- 40.2 PSF
252.0"	+/- 40.0 PSF



CA #6752  
WWW.MEAENGINEERS.COM

**MEA ENGINEERS, INC.**  
5856 Lawton Drive  
Sarasota, Florida 34233  
(941) 922-3854 CA-6072

FBC (NON-HIGH VELOCITY HURRICANE ZONE)



1/4"  $\phi$  TAPCON @  
12" O.C. (TYP)

SHUTTER HOUSING

58 MM SLAT

SEE RAIL TRACK  
VERTICAL BUILD-OUT  
(OPTIONAL)

L 3"x3"x1/8"  
ALUM. (TYP)

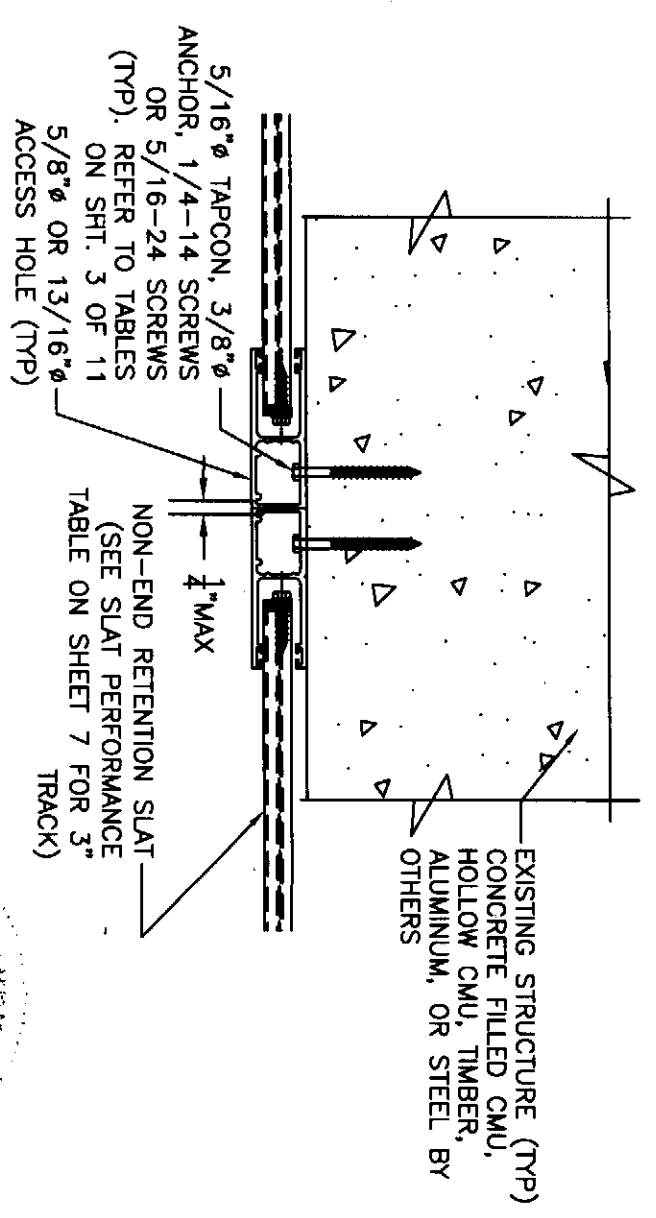
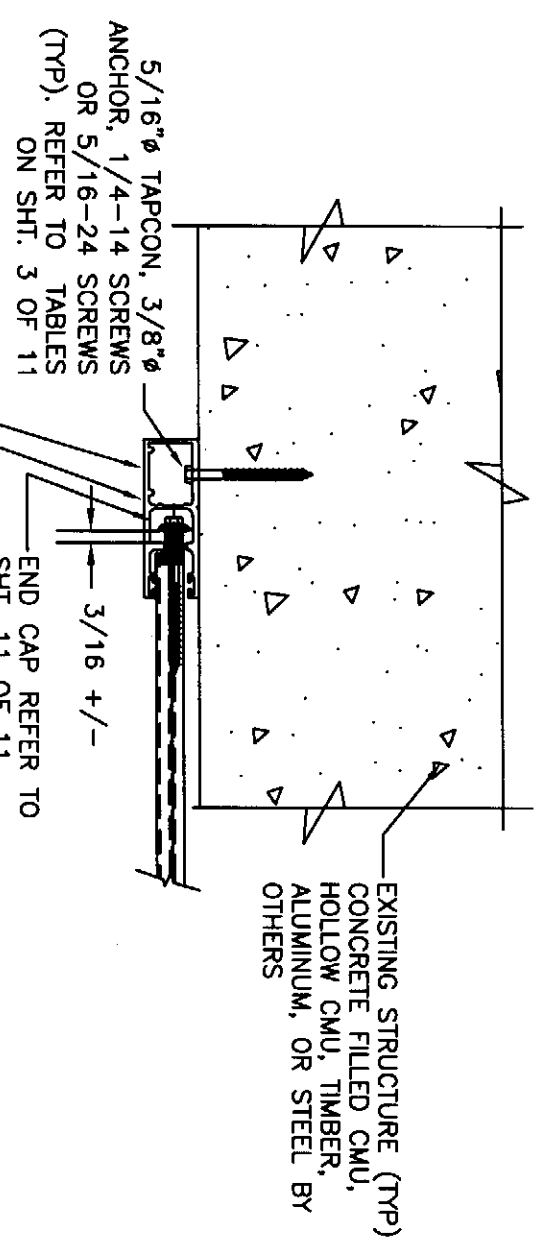
1/4"  $\phi$  TAPCON @  
12" O.C. (TYP)

DIRECT MOUNT

3-1/4" END RETENTION TRACK

WALL MOUNT INSTALLATION

2 SCALE 3"=1'-0"



EXISTING STRUCTURE (TYP)  
CONCRETE FILLED CMU,  
HOLLOW CMU, TIMBER,  
ALUMINUM, OR STEEL BY  
OTHERS

5/8"  $\phi$  OR 13/16"  $\phi$   
ACCESS HOLE (TYP)  
END-RETENTION TRACK SHOWN  
TRACK

1 END RETENTION OR-NON END  
RETENTION TRACK  
DIRECT MOUNT INSTALLATION

2 SCALE 3"=1'-0"

5/16"  $\phi$  TAPCON, 3/8"  $\phi$   
ANCHOR, 1/4-14 SCREWS  
OR 5/16-24 SCREWS  
(TYP). REFER TO TABLES  
ON SHT. 3 OF 11

END CAP REFER TO  
SHT. 11 OF 11

3/16 +/-

5/16"  $\phi$  TAPCON, 3/8"  $\phi$   
ANCHOR, 1/4-14 SCREWS  
OR 5/16-24 SCREWS  
(TYP). REFER TO TABLES  
ON SHT. 3 OF 11

5/8"  $\phi$  OR 13/16"  $\phi$   
ACCESS HOLE (TYP)

1/4" MAX

NON-END RETENTION SLAT  
(SEE SLAT PERFORMANCE  
TABLE ON SHEET 7 FOR 3"  
TRACK)

EXISTING STRUCTURE (TYP)  
CONCRETE FILLED CMU,  
HOLLOW CMU, TIMBER,  
ALUMINUM, OR STEEL BY  
OTHERS

NON-END RETENTION TRACK SHOWN

WALL MOUNT INSTALLATION

2 SCALE 3"=1'-0"

CA #6752  
WWW.MEAENGINEERS.COM



5656 Lawton Drive  
Sarasota, Florida 34233  
(941) 922-3854 CA-8072

REV.	DESCRIPTION
1	XX/XX/XX - RESERVED.

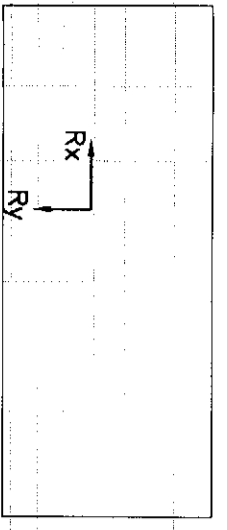
Project Name: **JUPITER INDUSTRIES LLC**  
12311 Crystal Commerce Loop  
Fort Myers, FL 33966  
Phone: (239) 225-9041  
information@jupiter-industries.com

Description: **JUPITER 58 MILLIMETER  
ROLL-UP SHUTTER SYSTEM**

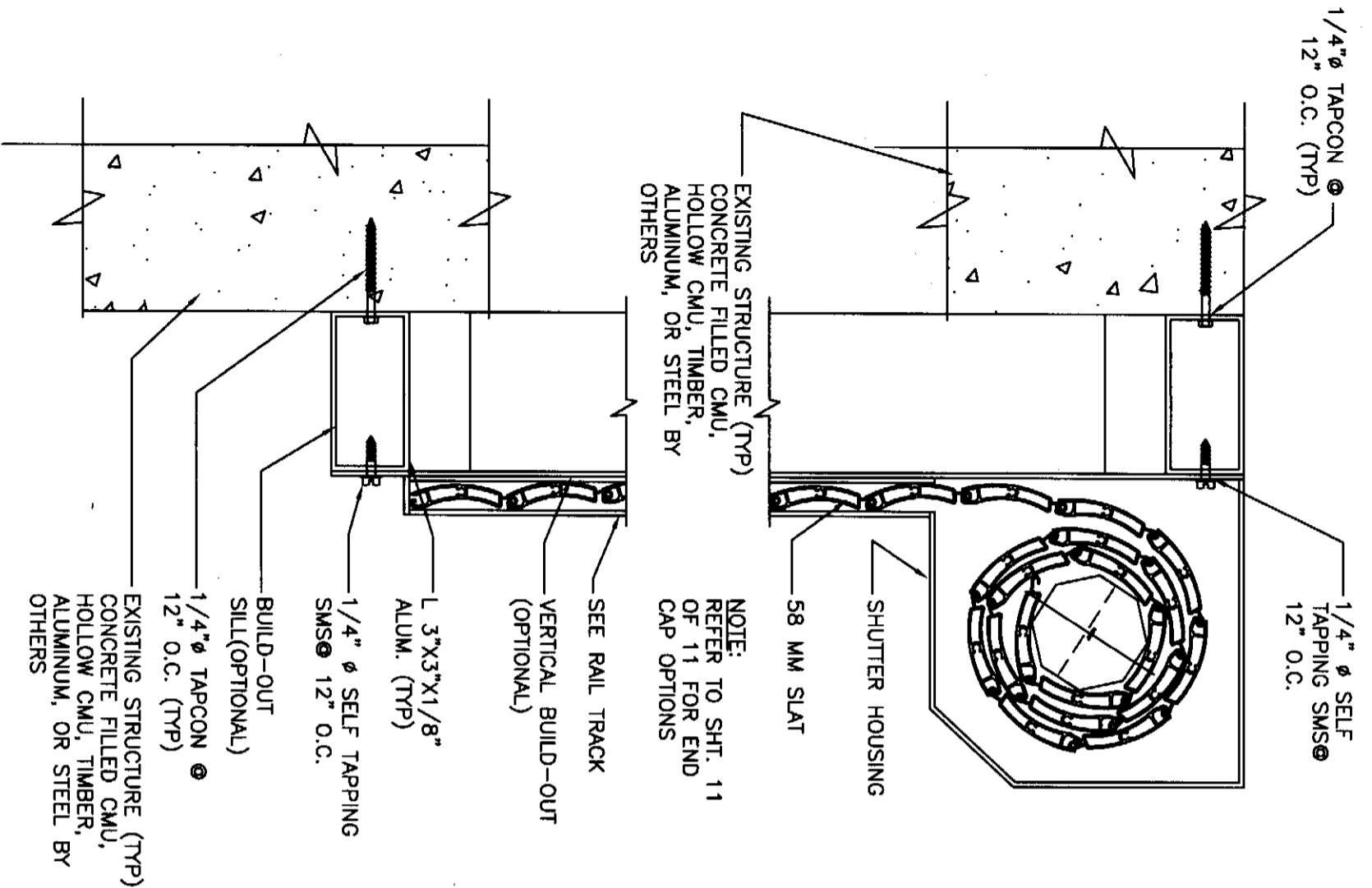
John H. Kammann Jr., PE  
FL License #: 47516  
DATE: 5/3/12

FBC (NON-HIGH VELOCITY HURRICANE ZONE)

2 of 11  
NOTED  
10/02/11



SLAT SPAN	DESIGN PRESSURE	Rx	Ry	1/4" ELOO ULTRACON TO 2700 PSI MIN. CONCRETE; 1.75" MIN. EMBEDMENT	1/4" SS TW TAPCON TO 3182 PSI MIN. CONCRETE; 1.75" MIN. EMBEDMENT	5/16" ELOO ULTRACON TO 3500 PSI MIN. CONCRETE; 2" MIN. EMBEDMENT	5/16" TW TAPCON TO 2899 PSI MIN. CONCRETE; 2.25" MIN. EMBEDMENT	TO GROUT- FILLED CONCRETE BLOCK; 2.25" MIN. EMBEDMENT	TO HOLLOW CONCRETE BLOCK; 1.75" MIN. EMBEDMENT	1/4" POWERS BOLT TO 3000 PSI MIN. CONCRETE; 2.5" MIN. EMBEDMENT	1/4" ALL-POINTS SOLD- SET TO 3000 PSI MIN. CONCRETE; 0.875" MIN. EMBEDMENT	TO HOLLOW CONCRETE BLOCK; 0.875" MIN. EMBEDMENT	1/4" LAG SCREW TO G=0.55 MIN WOOD; 1.5" MIN. EMBEDMENT	5/16" LAG SCREW TO G=0.42 MIN WOOD; 2" MIN. EMBEDMENT	#14 WOOD SCREW TO G=0.55 MIN WOOD; 1.5" MIN. EMBEDMENT	#14 410 SS S/W FULL THREAD PENETRATOR N OR 1/4-20 410 SS THRU	5/16" 410 SS S/W FULL THREAD PENETRATOR N OR 5/16-18 410 SS THRU	3/8" POWERS BOLT TO 3000 PSI CONCRETE; 3.5" MIN. EMBEDMENT	TO 1819 PSI MIN. CONCRETE; 3.5" MIN. EMBEDMENT	TO 4510 PSI MIN. CONCRETE; 3.75" MIN. EMBEDMENT																
84"	+/- 30 PSF	143.1 LB/FT	105.0 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"									
84"	+/- 35 PSF	249.4 LB/FT	122.5 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"								
84"	+/- 40 PSF	355.5 LB/FT	140.0 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"							
84"	+/- 45 PSF	461.4 LB/FT	157.5 LB/FT	8.8"	9.5"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"							
84"	+/- 50 PSF	567.1 LB/FT	175.0 LB/FT	7.3"	7.9"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"						
84"	+/- 60 PSF	778.1 LB/FT	210.0 LB/FT	5.5"	5.9"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"						
84"	+/- 70 PSF	988.2 LB/FT	245.0 LB/FT	4.4"	4.7"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"						
84"	+/- 80 PSF	1197.6 LB/FT	280.0 LB/FT	3.7"	3.9"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"						
84"	+/- 90 PSF	1406.1 LB/FT	315.0 LB/FT	3.1"	3.4"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"						
84"	+/- 100 PSF	1613.7 LB/FT	350.0 LB/FT																																	
84"	+/- 110 PSF	1820.4 LB/FT	385.0 LB/FT																																	
84"	+/- 120 PSF	2026.1 LB/FT	420.0 LB/FT																																	
96"	+/- 30 PSF	401.4 LB/FT	120.0 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"				
96"	+/- 35 PSF	531.6 LB/FT	140.0 LB/FT	8.1"	8.7"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
96"	+/- 40 PSF	661.9 LB/FT	160.0 LB/FT	6.8"	7.1"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
96"	+/- 45 PSF	792.0 LB/FT	180.0 LB/FT	5.6"	6.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
96"	+/- 50 PSF	922.2 LB/FT	200.0 LB/FT	4.8"	5.2"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
96"	+/- 60 PSF	1182.5 LB/FT	240.0 LB/FT	3.8"	4.1"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
96"	+/- 70 PSF	1442.8 LB/FT	280.0 LB/FT	3.1"	3.4"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
96"	+/- 80 PSF	1703.9 LB/FT	320.0 LB/FT	5.4"	5.8"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
120"	+/- 30 PSF	849.8 LB/FT	150.0 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
120"	+/- 35 PSF	1032.0 LB/FT	175.0 LB/FT	4.5"	4.8"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"		
120"	+/- 40 PSF	1214.2 LB/FT	200.0 LB/FT	3.8"	4.1"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"		
120"	+/- 45 PSF	1398.3 LB/FT	225.0 LB/FT	3.3"	3.6"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"		
120"	+/- 50 PSF	1578.5 LB/FT	250.0 LB/FT	3.0"	3.2"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"		
120"	+/- 60 PSF	1942.8 LB/FT	300.0 LB/FT																																	
120"	+/- 70 PSF	2307.0 LB/FT	350.0 LB/FT																																	
120"	+/- 80 PSF	2671.2 LB/FT	400.0 LB/FT																																	
120"	+/- 90 PSF	3188.1 LB/FT	420.0 LB/FT																																	
120"	+/- 100 PSF	3699.0 LB/FT	210.0 LB/FT	3.7"	4.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"		
144"	+/- 30 PSF	1508.7 LB/FT	210.0 LB/FT	3.1"	3.4"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"		
144"	+/- 40 PSF	1748.4 LB/FT	240.0 LB/FT		3.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	
144"	+/- 45 PSF	1988.0 LB/FT	270.0 LB/FT		3.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"
144"	+/- 50 PSF	2227.7 LB/FT	300.0 LB/FT		3.2"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"
144"	+/- 60 PSF	2706.9 LB/FT	360.0 LB/FT																																	
144"	+/- 70 PSF	3188.1 LB/FT	420.0 LB/FT																																	
168"	+/- 30 PSF	1889.0 LB/FT	210.0 LB/FT		3.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	
168"	+/- 35 PSF	1991.2																																		



EXISTING STRUCTURE (TYP)  
 CONCRETE FILLED CMU,  
 HOLLOW CMU, TIMBER,  
 ALUMINUM, OR STEEL BY  
 OTHERS

NOTE:  
 REFER TO SHT. 11  
 OF 11 FOR END  
 CAP OPTIONS

SEE RAIL TRACK  
 (OPTIONAL)  
 L 3"X3"X1/8"  
 ALUM. (TYP)  
 1/4"  $\phi$  SELF TAPPING  
 SMS @ 12" O.C.  
 BUILD-OUT  
 SILL (OPTIONAL)  
 1/4"  $\phi$  TAPCON @  
 12" O.C. (TYP)  
 EXISTING STRUCTURE (TYP)  
 CONCRETE FILLED CMU,  
 HOLLOW CMU, TIMBER,  
 ALUMINUM, OR STEEL BY  
 OTHERS

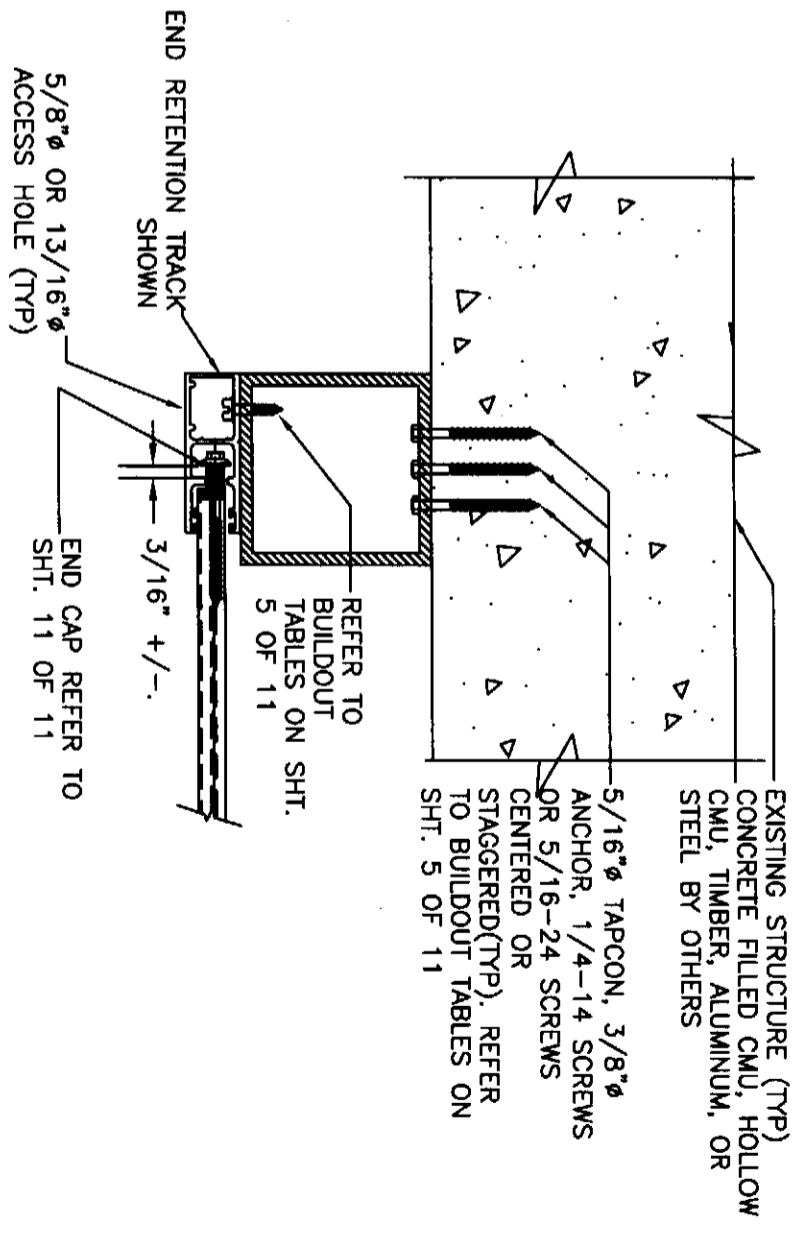
BUILT-OUT INSTALLATION

END RETENTION TRACK

WALL MOUNT INSTALLATION

3

SCALE 3"=1'-0"

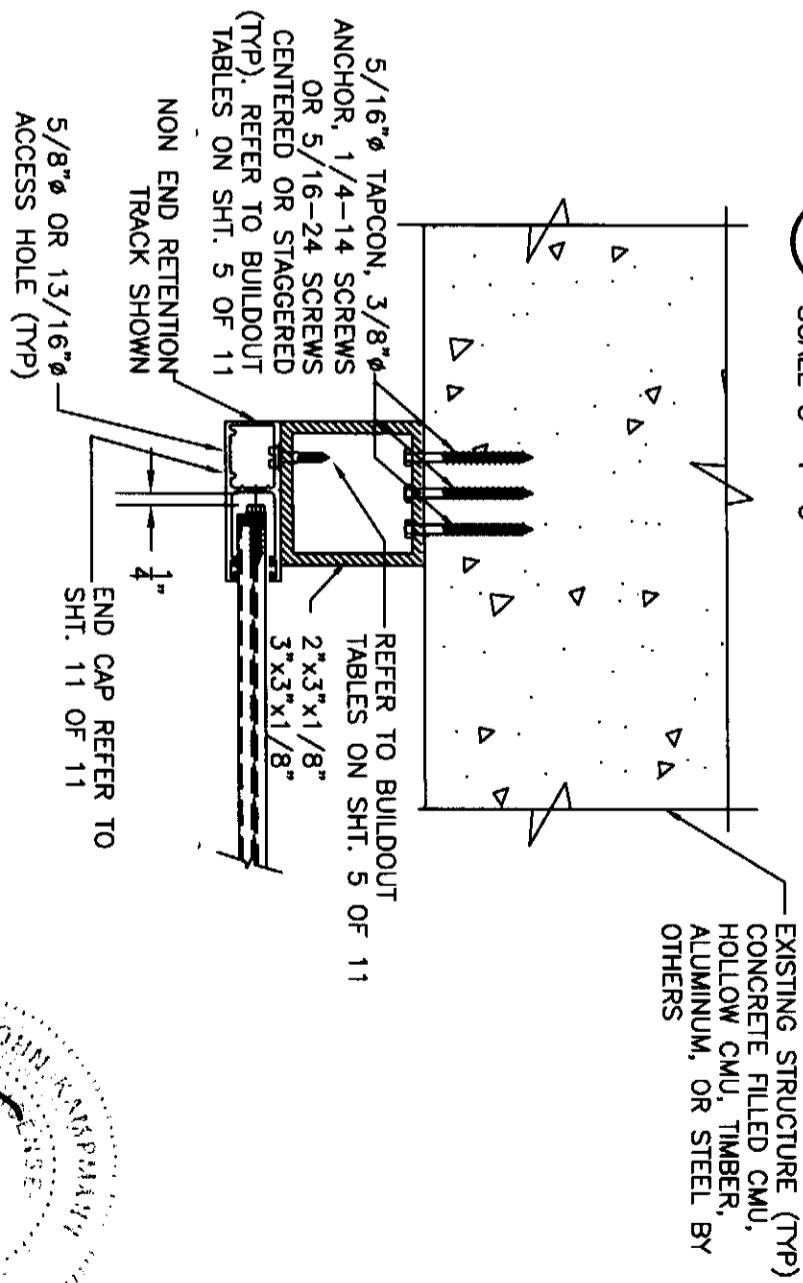


5/8"  $\phi$  OR 13/16"  $\phi$   
 ACCESS HOLE (TYP)  
 END CAP REFER TO  
 SHT. 11 OF 11

4" BUILD-OUT INSTALLATION  
 END RETENTION &  
 NON-END RETENTION

1

SCALE 3"=1'-0"



5/8"  $\phi$  OR 13/16"  $\phi$   
 ACCESS HOLE (TYP)  
 END CAP REFER TO  
 SHT. 11 OF 11

2"-3" BUILD-OUT INSTALLATION

END RETENTION &

NON-END RETENTION

2

SCALE 3"=1'-0"

JOHN KARRMANN  
 PE  
 JOHN H. KARRMANN JR., PE  
 FL. LIC. # 47516  
 DATE: 5/3/12

FBC (NON-HIGH VELOCITY HURRICANE ZONE)

CA #6752  
 WWW.MEAENGINEERS.COM

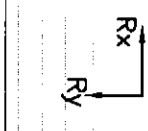
4 OF 11

JUPITER 58 MILLIMETER  
 ROLL-UP SHUTTER SYSTEM

JUPITER INDUSTRIES LLC  
 12311 Crystal Commerce Loop  
 Fort Myers, FL 33966  
 Phone: (239) 225-9041  
 information@jupiter-industries.com

REV.	DESCRIPTION
1	XX/XX/XX - RESERVED.

**MEA**  
 ENGINEERS, INC.  
 5858 Lawton Drive  
 Sarasota, Florida 34233  
 (941) 922-3854 CA-6072



SLAT SPAN	DESIGN PRESSURE	R <sub>x</sub>	R <sub>y</sub>	1/4" ELCO ULTRACON TO 2700 PSI MIN.		1/4" SS TW TAPCON TO 3192 PSI MIN.		5/16" ELCO ULTRACON TO 3500 PSI MIN.		5/16" INW TAPCON TO 2899 PSI MIN.		TO GROUT-FILLED CONCRETE BLOCK, 1.75" MIN. EMBEDMEN		TO HOLLOW CONCRETE BLOCK, 1.75" MIN. EMBEDMEN		1/4" POWERS BOLT TO 3000 PSI MIN.		1/4" ALL-POINTS SOLID SET TO 3000 PSI MIN.		TO HOLLOW CONCRETE BLOCK, 0.875" MIN. EMBEDMEN		1/4" LAG SCREW TO G=0.55 MIN WOOD, 1.5" MIN. EMBEDMEN		5/16" LAG SCREW TO G=0.42 MIN WOOD, 2" MIN. EMBEDMEN		#14 WOOD SCREW TO G=0.55 MIN WOOD, 1.5" MIN. EMBEDMEN		#14 410SS SMS W/ FULL THREAD N OR 1/4-20 410 SS THRU BOLT TO 0.125" MIN ALUM.		5/16" 410SS FULL THREAD N OR 5/16-18 410 SS THRU BOLT TO 0.25" MIN ALUM.		3/8" POWERS WEDGE BOLT TO 3000 PSI MIN.		3/8" ELCO CONFLX TO 1819 PSI MIN.		TO 4510 PSI MIN. CONCRETE, 3.5" MIN. EMBEDMEN							
				T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E				
7.0 FT	84" ±.30 PSF	143.1 LB/FT	145.0 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"				
	84" ±.40 PSF	249.4 LB/FT	194.2 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"				
	84" ±.45 PSF	461.4 LB/FT	245.2 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
	84" ±.50 PSF	567.1 LB/FT	362.4 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
	84" ±.60 PSF	778.1 LB/FT	466.5 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
	84" ±.70 PSF	998.2 LB/FT	587.4 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"		
	84" ±.80 PSF	1197.6 LB/FT	715.0 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
	84" ±.90 PSF	1406.1 LB/FT	849.3 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
	84" ±.100 PSF	1613.7 LB/FT	980.2 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
	84" ±.110 PSF	1820.4 LB/FT	1137.6 LB/FT	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"	10.0"			
8.0 FT	84" ±.30 PSF	401.4 LB/FT	222.8 LB/FT	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"			
	84" ±.35 PSF	531.6 LB/FT	277.2 LB/FT	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"		
	84" ±.40 PSF	661.9 LB/FT	332.0 LB/FT	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	
	84" ±.45 PSF	792.0 LB/FT	387.2 LB/FT	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	
	84" ±.50 PSF	922.2 LB/FT	443.0 LB/FT	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	
	84" ±.60 PSF	1182.5 LB/FT	555.9 LB/FT	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"
	84" ±.70 PSF	1442.8 LB/FT	670.6 LB/FT	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"		
	84" ±.80 PSF	1703.0 LB/FT	787.3 LB/FT	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"		
	84" ±.90 PSF	1963.5 LB/FT	924.9 LB/FT	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	
	84" ±.100 PSF	2224.0 LB/FT	1083.1 LB/FT	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	8.8"	
10.0 FT	120" ±.20 PSF	789.5 LB/FT	284.9 LB/FT	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"			
	120" ±.25 PSF	1029.3 LB/FT	366.3 LB/FT	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"		
	120" ±.30 PSF	1289.0 LB/FT	448.4 LB/FT	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	
	120" ±.35 PSF	1508.7 LB/FT	531.1 LB/FT	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	
	120" ±.40 PSF	1748.4 LB/FT	614.4 LB/FT	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"		
	120" ±.45 PSF	1998.0 LB/FT	698.4 LB/FT	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	
	120" ±.50 PSF	2267.7 LB/FT	783.0 LB/FT	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"		
	120" ±.60 PSF	2671.2 LB/FT	928.3 LB/FT	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"	5.1"		
	120" ±.80 PSF	5267.3 LB/FT	1868.3 LB/FT	5.1"	5.1"	5.																																					

