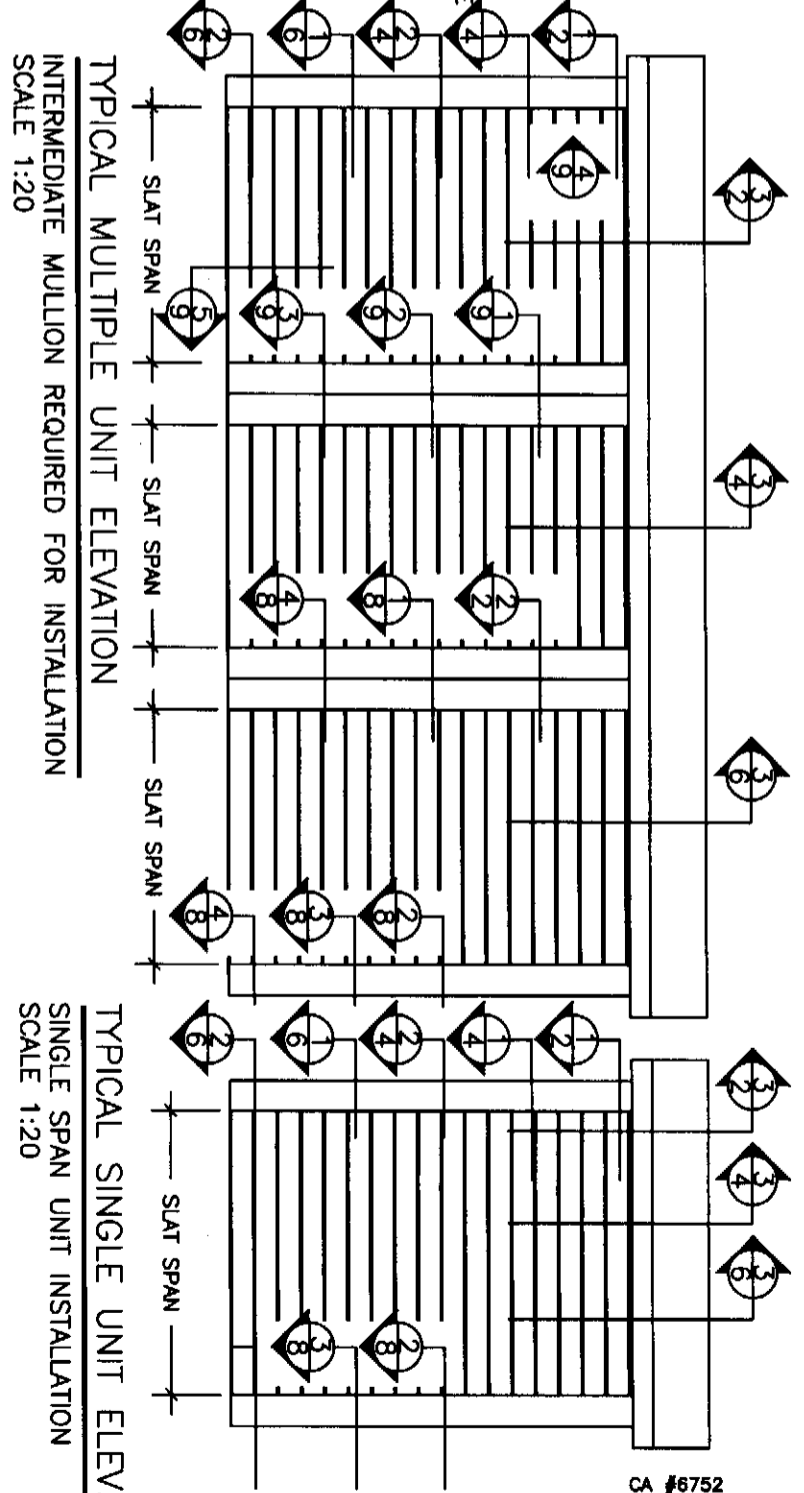


STRUCTURAL NOTES:

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.
MAXIMUM HEIGHT OF ROLL-UP SHALL BE 15'-0".
11. 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.
15. 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.
16. MAXIMUM DESIGN PRESSURE VERSUS PANEL SPAN SHOWN ON SHEETS 3, 5 & 7 OF 11.
17. ALL ALUMINUM ALLOYS SHALL BE 6063-T6 OR 6005-T6 U.N.O.
18. ANCHORING OR LOADING CONDITIONS OTHER THAN THOSE SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
19. 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
20. 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

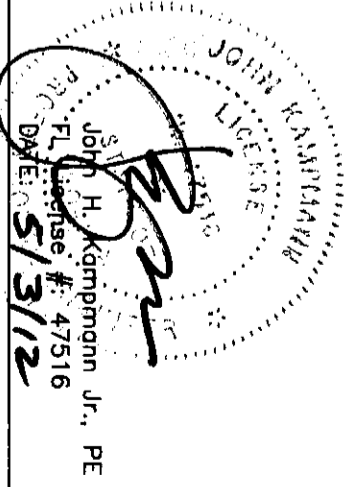
LAB NO.: B4519.01-401-18
DATED 02/02/2012
TAS 201, TAS 203 - LARGE MISSILE IMPACT RESISTANCE & CYCLIC LOADING PERFORMANCE
TAS 202 - UNIFORM STATIC LOADS

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

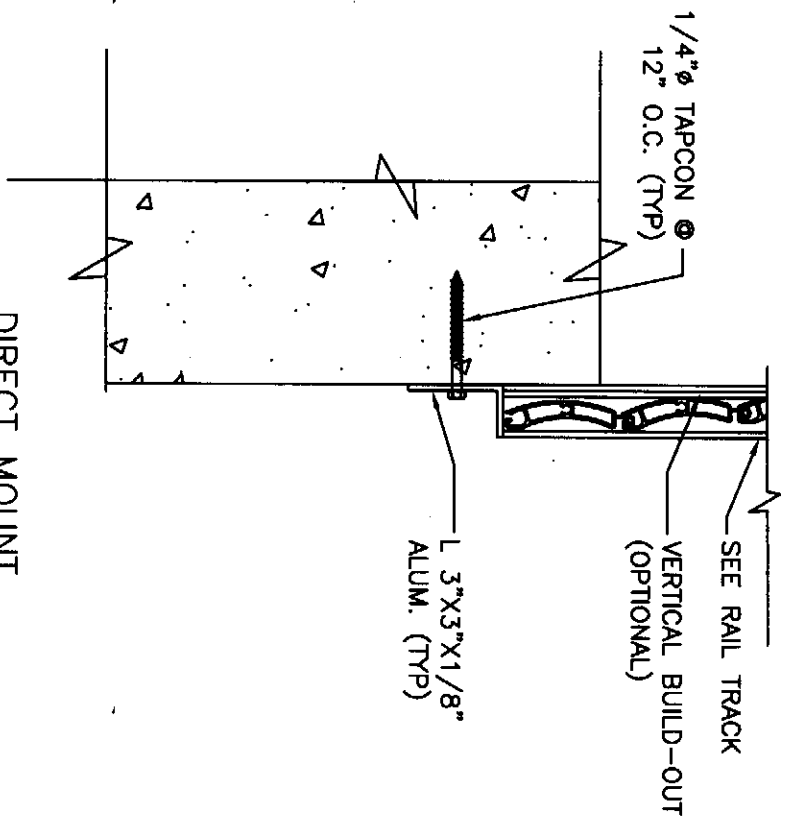
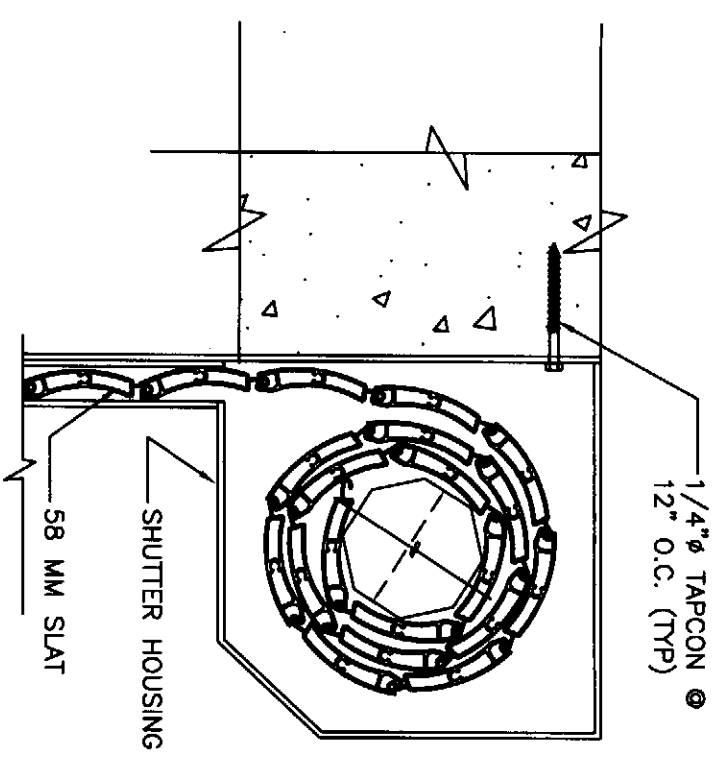
FBC (NON-HIGH VELOCITY HURRICANE ZONE)

JUPITER 58 MILLIMETER ROLL-UP SHUTTER SYSTEM

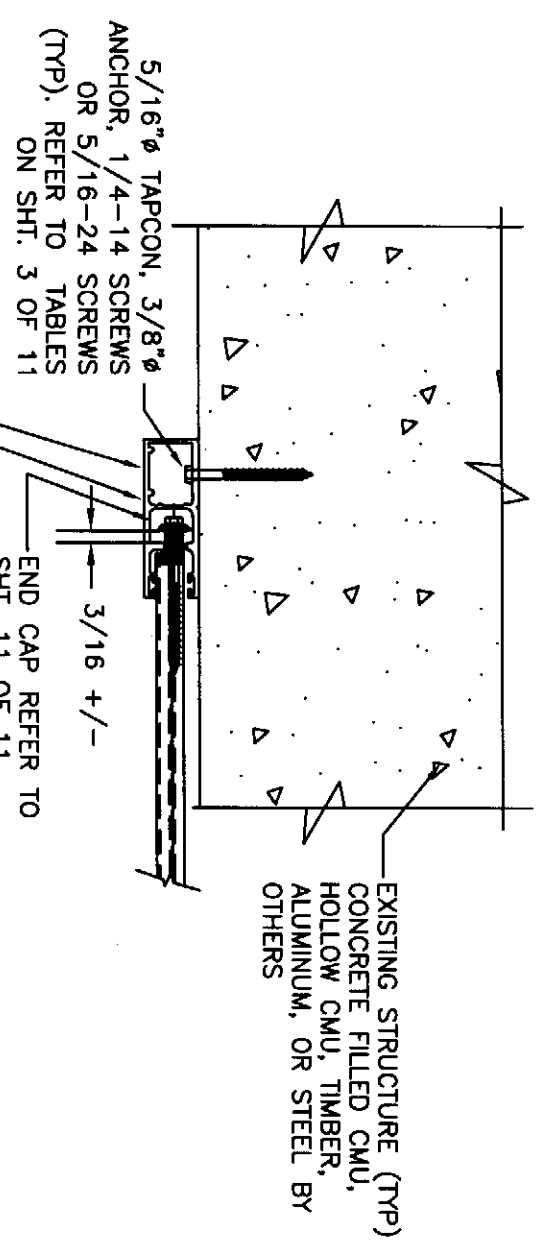
Project Name: JUPITER INDUSTRIES LLC
12311 Crystal Commerce Loop
Fort Myers, FL 33966
Phone: (239) 225-9041
information@jupiter-industries.com

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

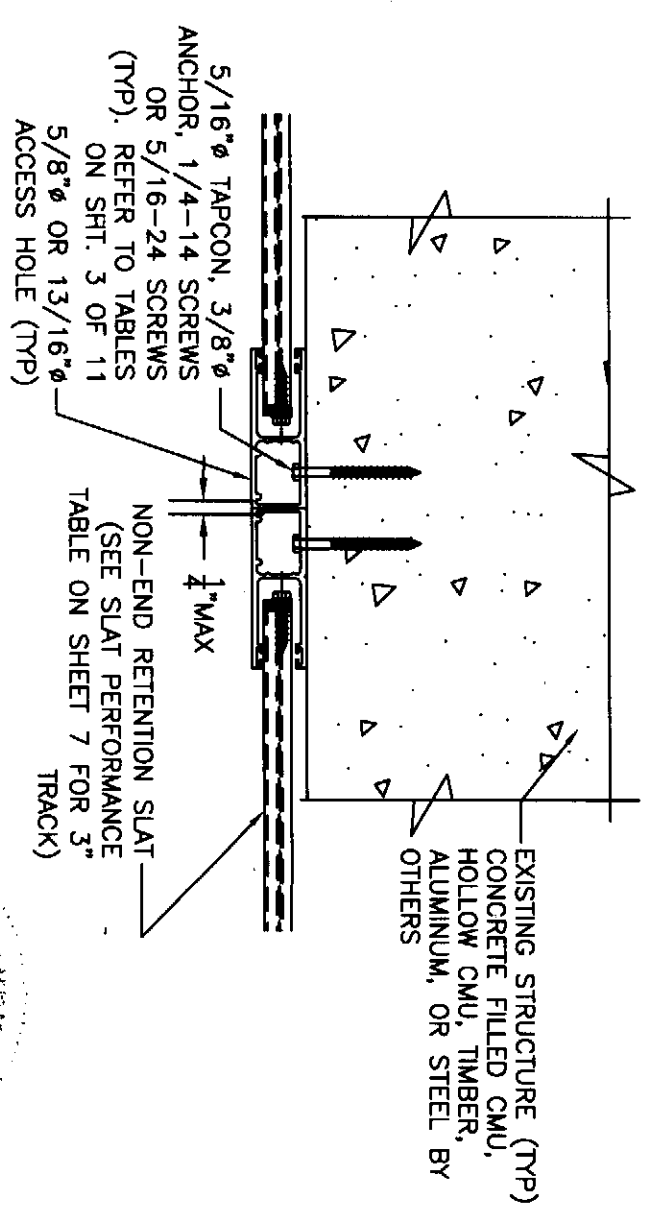
1 OF 11



DIRECT MOUNT
 3-1/4" END RETENTION TRACK
 WALL MOUNT INSTALLATION
 SCALE 3"=1'-0"



1
 END RETENTION OR-NON END
 RETENTION TRACK
 DIRECT MOUNT INSTALLATION
 SCALE 3"=1'-0"



2
 NON-END RETENTION TRACK SHOWN
 WALL MOUNT INSTALLATION
 SCALE 3"=1'-0"

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

FBC (NON-HIGH VELOCITY HURRICANE ZONE)

CA #6752
 WWW.MEAENGINEERS.COM

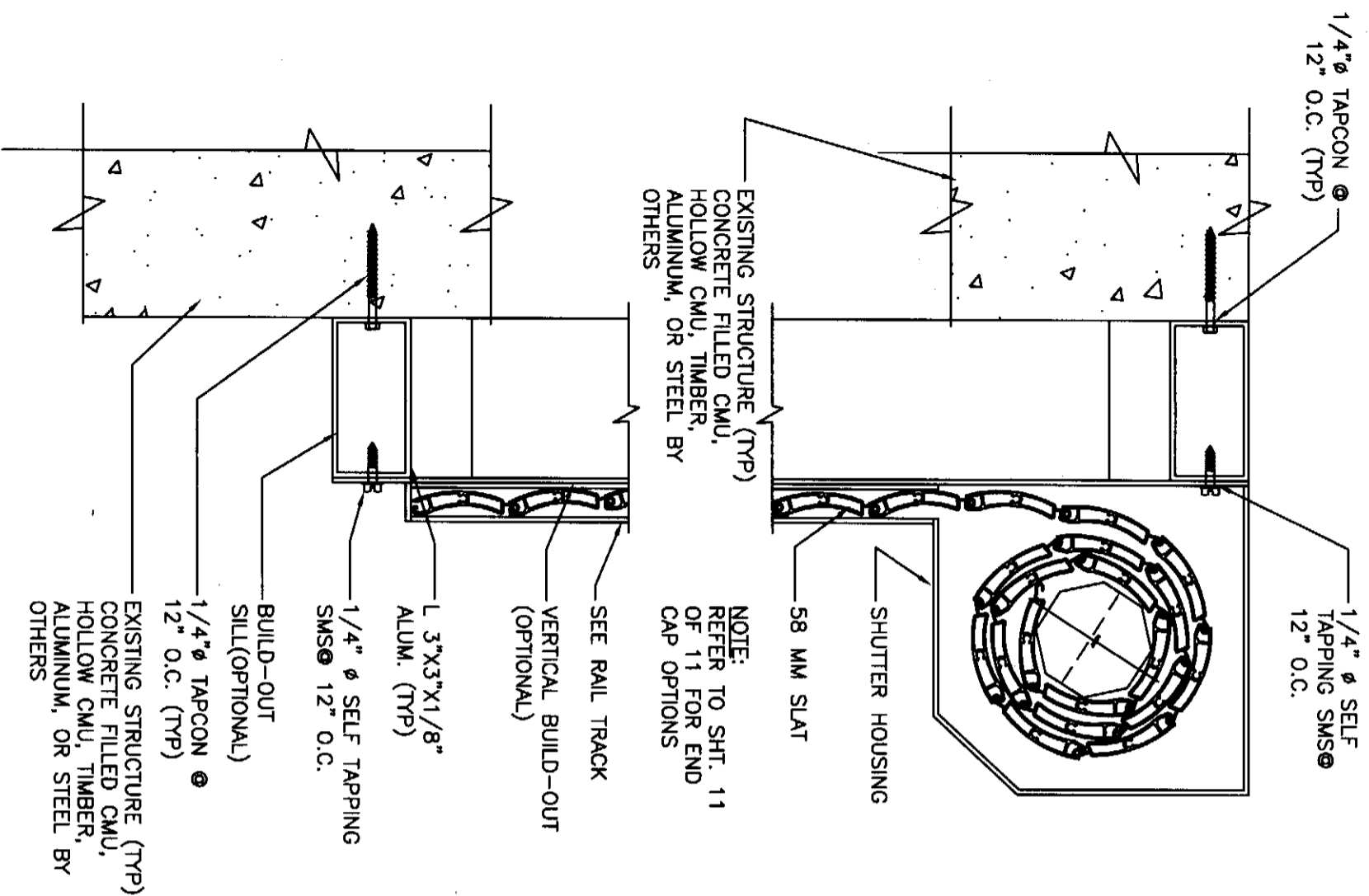
2 of 11

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

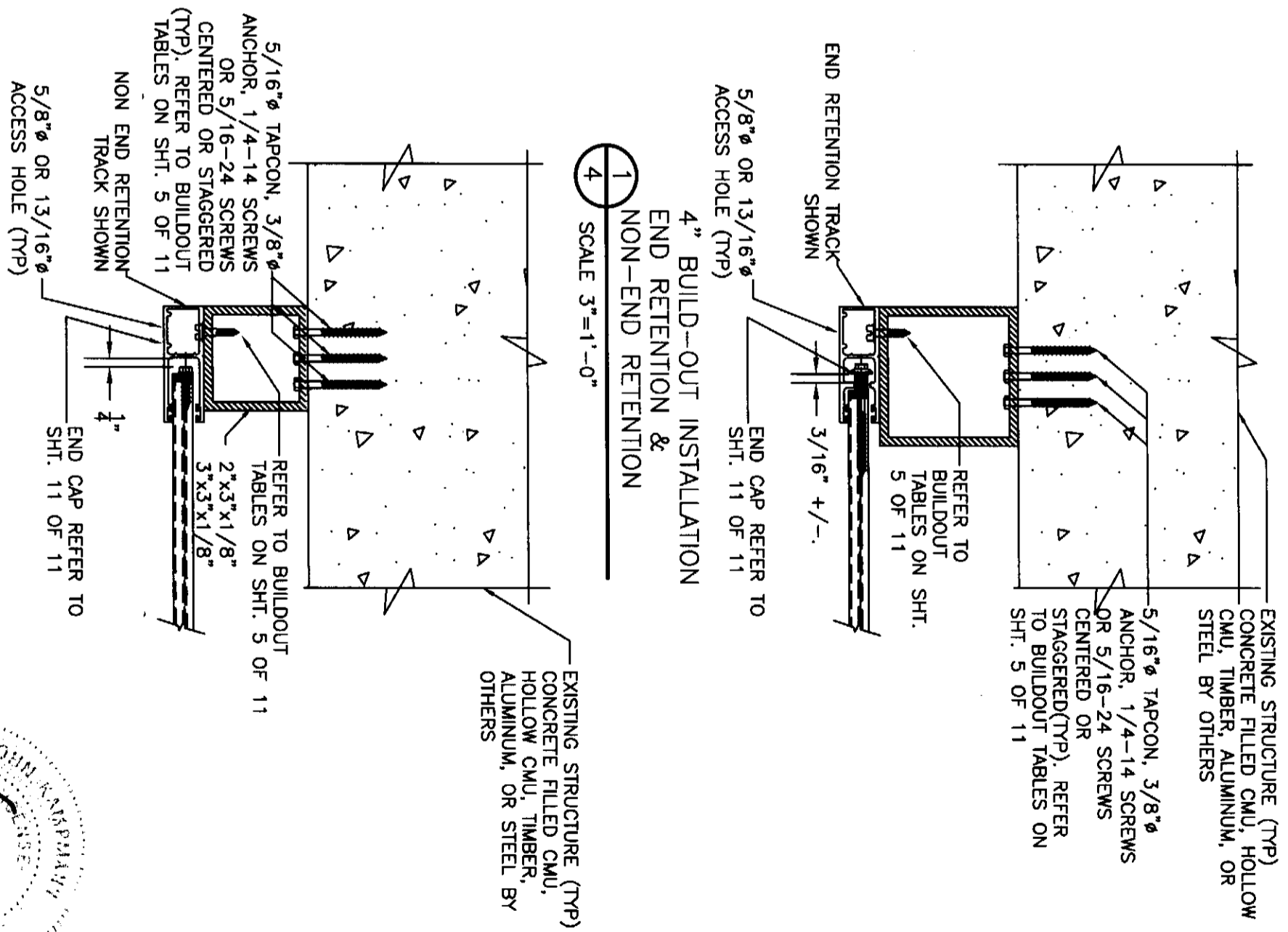


EXISTING STRUCTURE (TYP)
 CONCRETE FILLED CMU,
 HOLLOW CMU, TIMBER,
 ALUMINUM, OR STEEL BY
 OTHERS

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

SEE RAIL TRACK
 (OPTIONAL)
 VERTICAL BUILD-OUT
 (OPTIONAL)
 L 3"x3"x1/8"
 ALUM. (TYP)
 1/4" ϕ SELF TAPPING
 SMS \odot 12" O.C.
 BUILD-OUT
 SILL (OPTIONAL)
 1/4" ϕ TAPCON \odot
 12" O.C. (TYP)
 EXISTING STRUCTURE (TYP)
 CONCRETE FILLED CMU,
 HOLLOW CMU, TIMBER,
 ALUMINUM, OR STEEL BY
 OTHERS

3 WALL MOUNT INSTALLATION
 4 SCALE 3"=1'-0"



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

1 4" BUILD-OUT INSTALLATION
 END RETENTION &
 NON-END RETENTION
 4 SCALE 3"=1'-0"

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

REFER TO BUILDOUT
 TABLES ON SHT. 5 OF 11

REFER TO BUILDOUT
 TABLES ON SHT. 5 OF 11

5/16" ϕ TAPCON, 3/8" ϕ
 ANCHOR, 1/4"-14 SCREWS
 OR 5/16"-24 SCREWS
 CENTERED OR STAGGERED
 (TYP). REFER TO BUILDOUT
 TABLES ON SHT. 5 OF 11

NON END RETENTION
 TRACK SHOWN

5/8" ϕ OR 13/16" ϕ
 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"

2 2"-3" BUILD-OUT INSTALLATION
 END RETENTION &
 NON-END RETENTION
 2 SCALE 3"=1'-0"

JOHN KARRMANN
 1916
 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

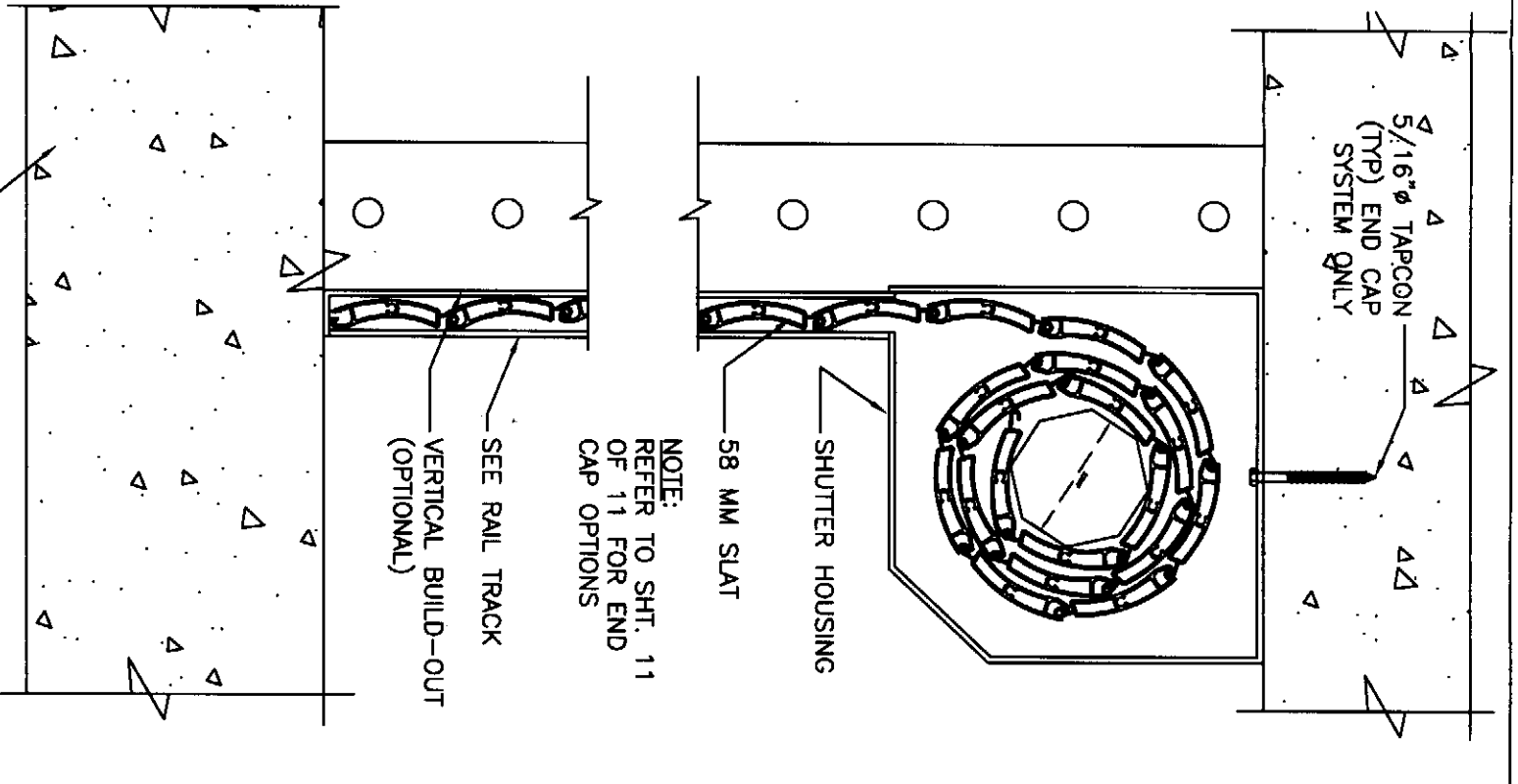
JUPITER 58 MILLIMETER
 ROLL-UP SHUTTER SYSTEM

Project Name: 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



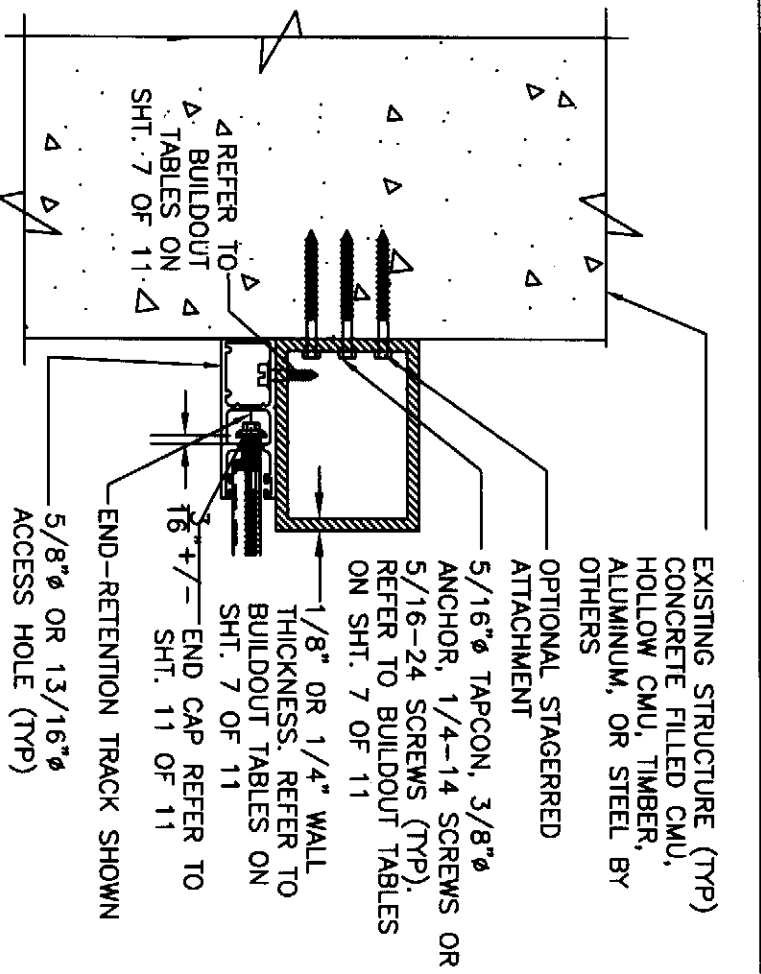
NOTE:
REFER TO SHT. 11
OF 11 FOR END
CAP OPTIONS

SEE RAIL TRACK
VERTICAL BUILD-OUT
(OPTIONAL)

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

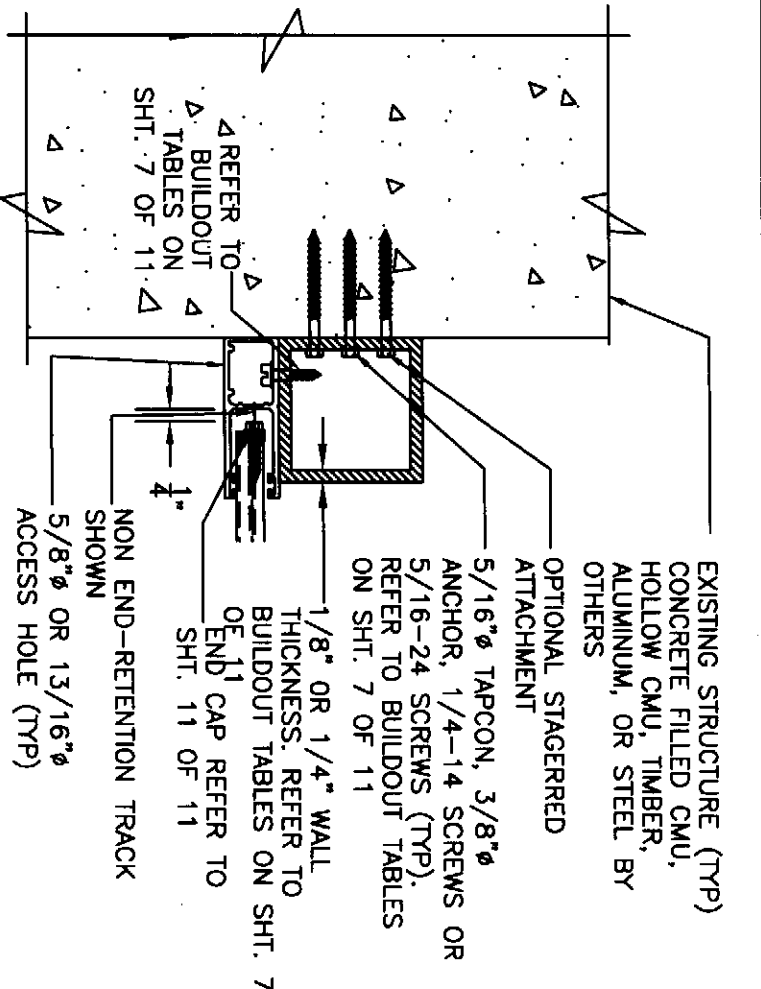
3/8" ANGLE TRAPPED INSTALLATION
END RETENTION &
NON-END RETENTION

3
6 SCALE 3"=1'-0"



1
6 SCALE 3"=1'-0"

2" OR 4" BUILD-OUT TRAPPED
INSTALLATION END RETENTION &
NON-END RETENTION



2
6 SCALE 3"=1'-0"

3" OR 2" BUILD-OUT TRAPPED
INSTALLATION END RETENTION &
NON-END RETENTION

NOTE: SEE BUILD-OUT TABLE
CORRESPONDING TO THE
BUILD-OUT WIDTH AGAINST THE
EXISTING STRUCTURE

CA #6752
WWW.MEAENGINEERS.COM

MEA ENGINEERS, INC.
5656 Lawton Drive
Sarasota, Florida 34233
(941) 922-3854 CA-6072

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

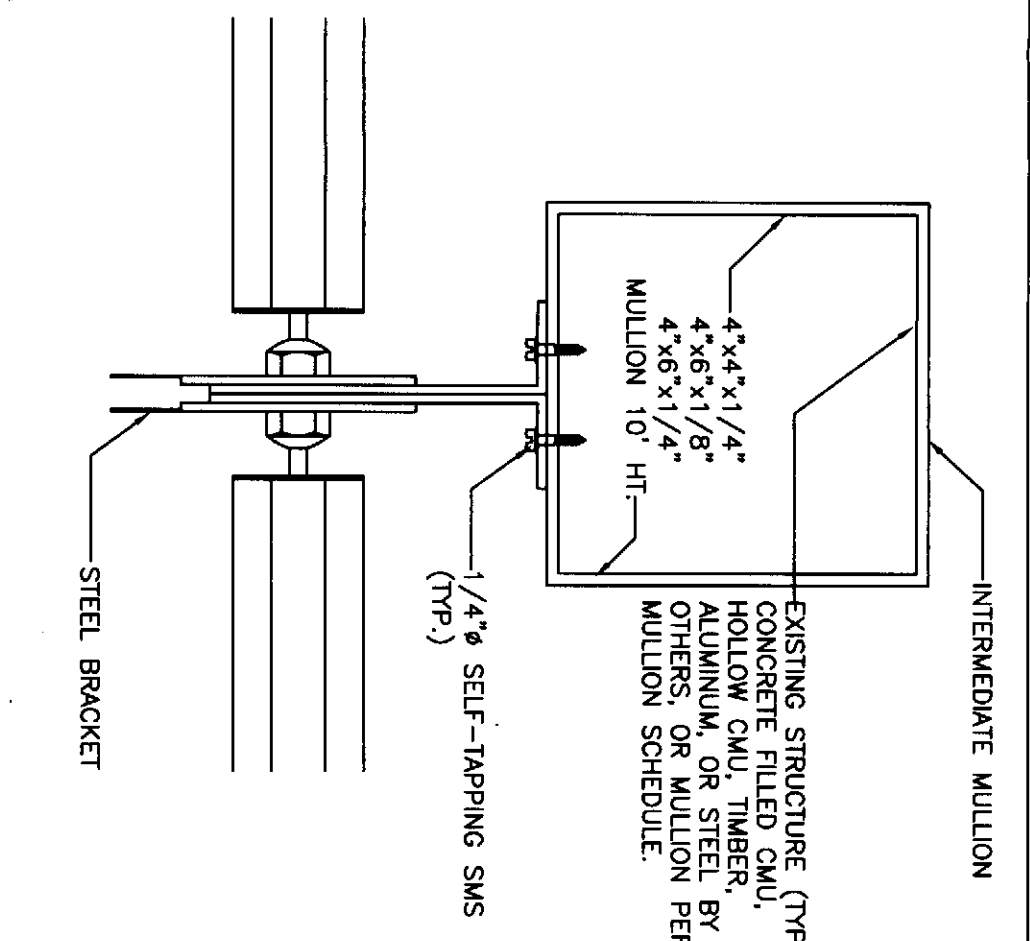
Project Name: **JUPITER INDUSTRIES LLC**
12311 Crystal Commerce Loop
Fort Myers, FL 33966
Phone: (239) 225-9041
information@jupiter-industries.com

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

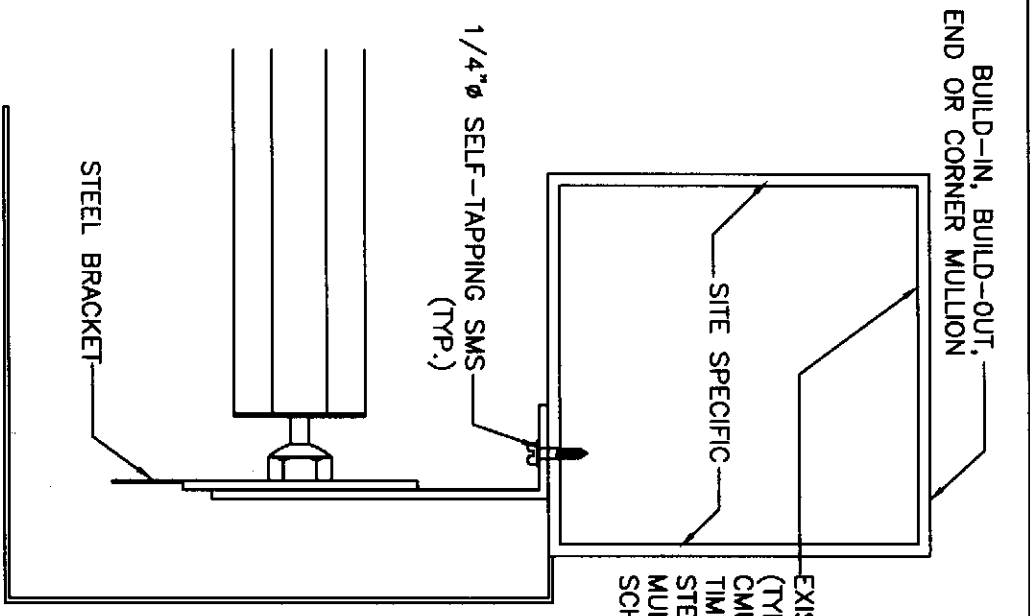
Project # 11-1002
Date NOTED
10/02/11
6 of 11

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

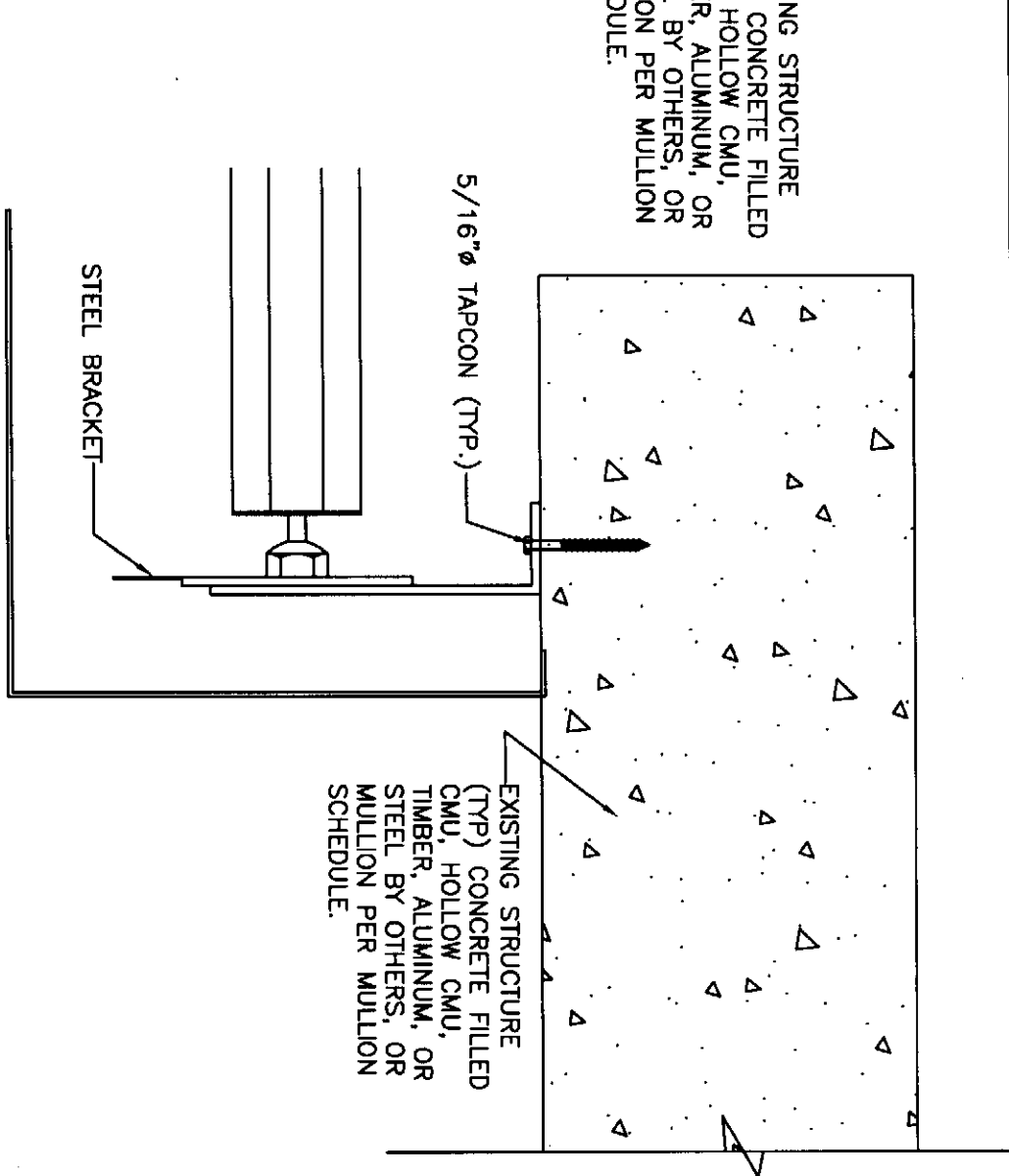
FBC (NON-HIGH VELOCITY HURRICANE ZONE)



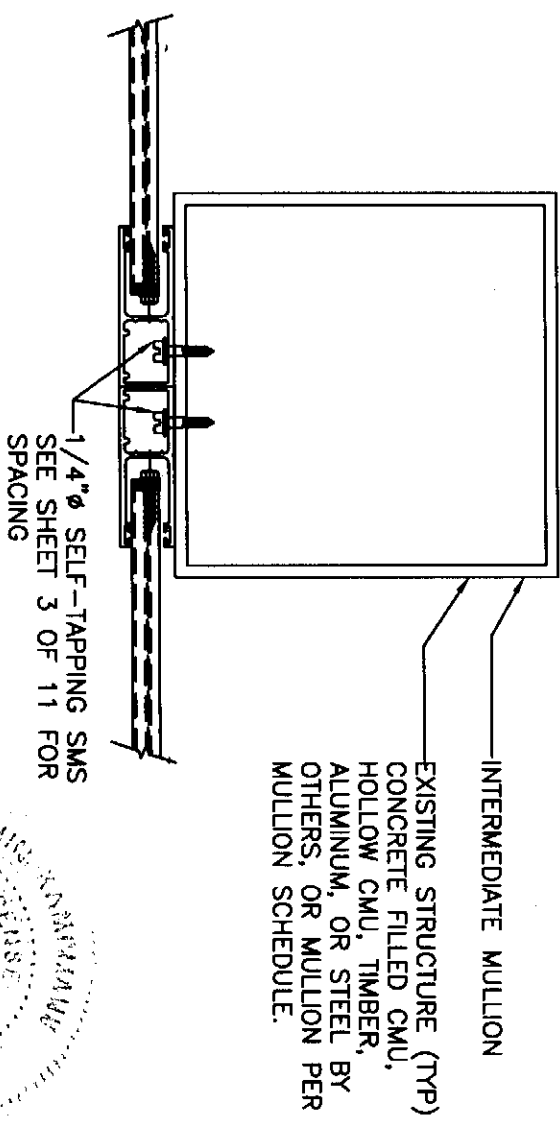
1 MOUNTING BRACKET INSTALLATION
 8 END RETENTION & NON-END RETENTION INSTALLATION
 SCALE 3"=1'-0"



2 MOUNTING BRACKET INSTALLATION
 8 END RETENTION & NON-END RETENTION INSTALLATION
 SCALE 3"=1'-0"



3 MOUNTING BRACKET INSTALLATION
 8 END RETENTION & NON-END RETENTION INSTALLATION
 SCALE 3"=1'-0"



4 MOUNTING BRACKET INSTALLATION
 8 END RETENTION & NON-END RETENTION INSTALLATION
 SCALE 3"=1'-0"

JOHN K. KAPPMANN
 PE
 47516
 5/3/12

CA #6752
 WWW.MEAENGINEERS.COM

MEA ENGINEERS, INC.
 5656 Lawton Drive
 Sarasota, Florida 34233
 (941) 922-3854 CA-8072

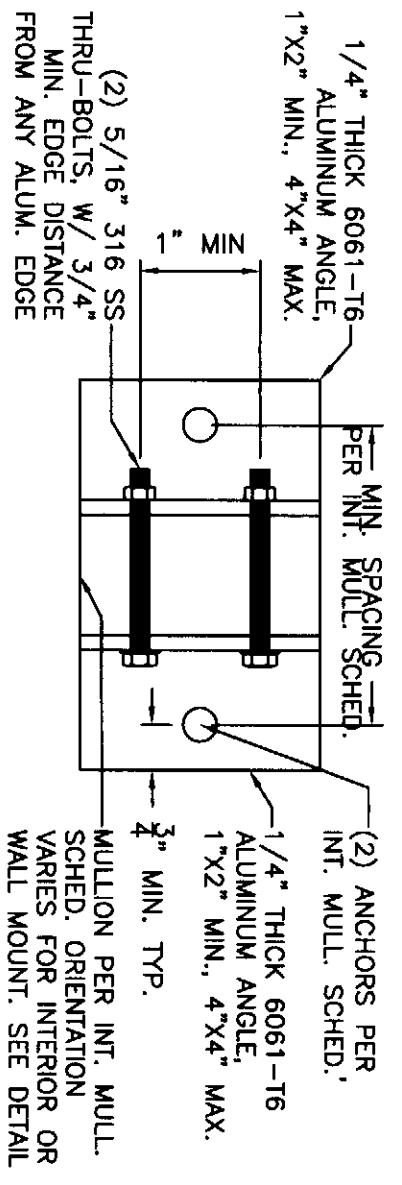
REV.	DESCRIPTION
1	xx/xx/xx - RESERVED.

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

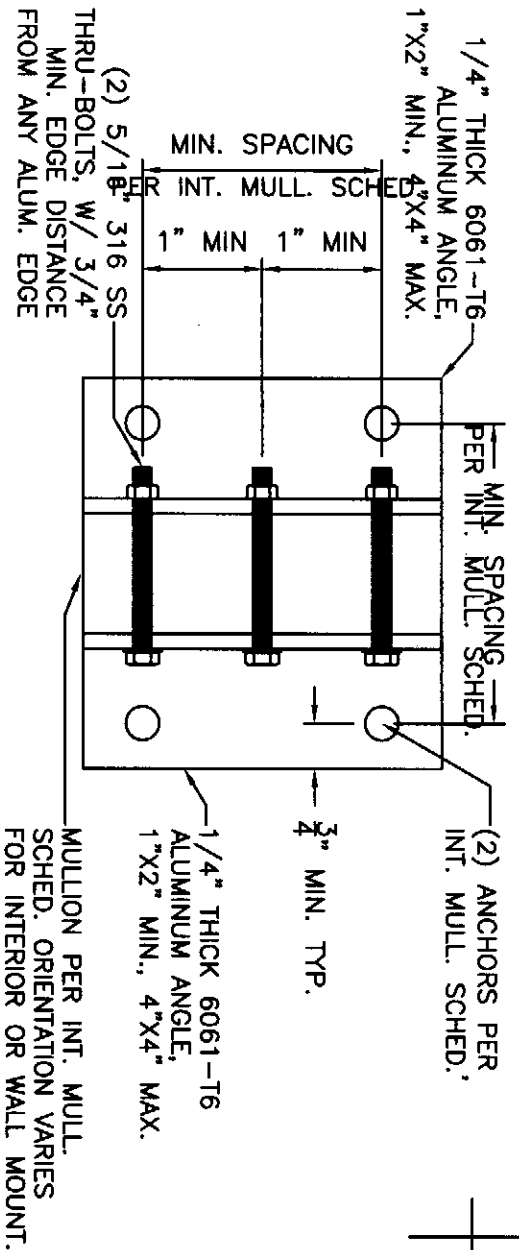
JUPITER 58 MILLIMETER ROLL-UP SHUTTER SYSTEM

Project # 11-1002
 Date: 10/02/11
 8 of 11

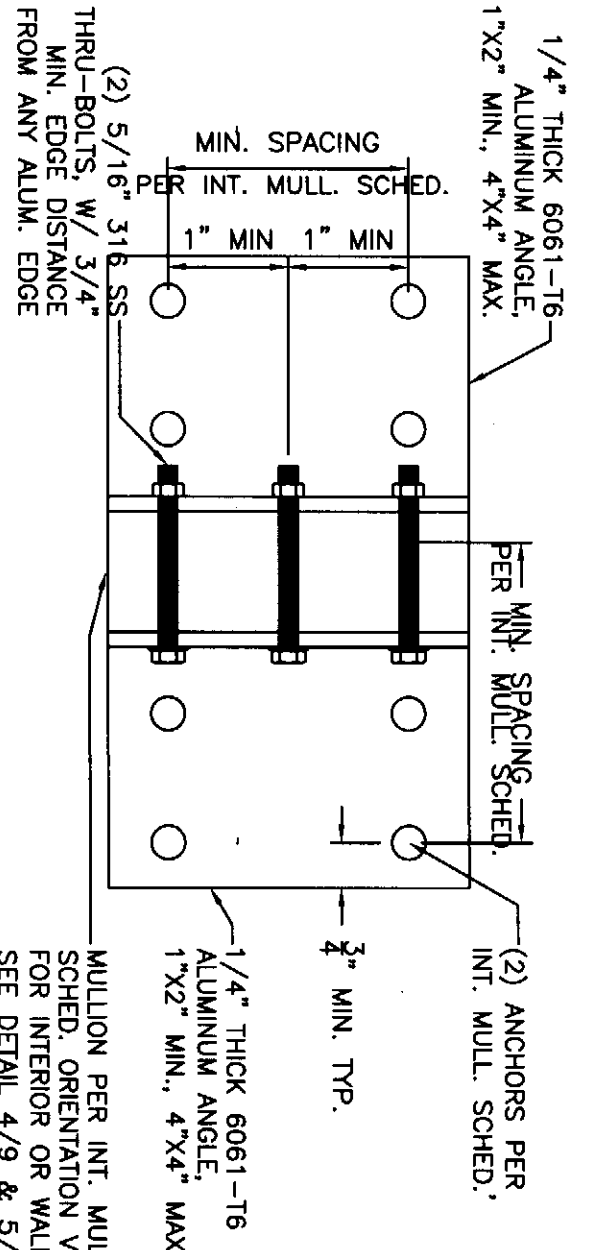
FBC (NON-HIGH VELOCITY HURRICANE ZONE)



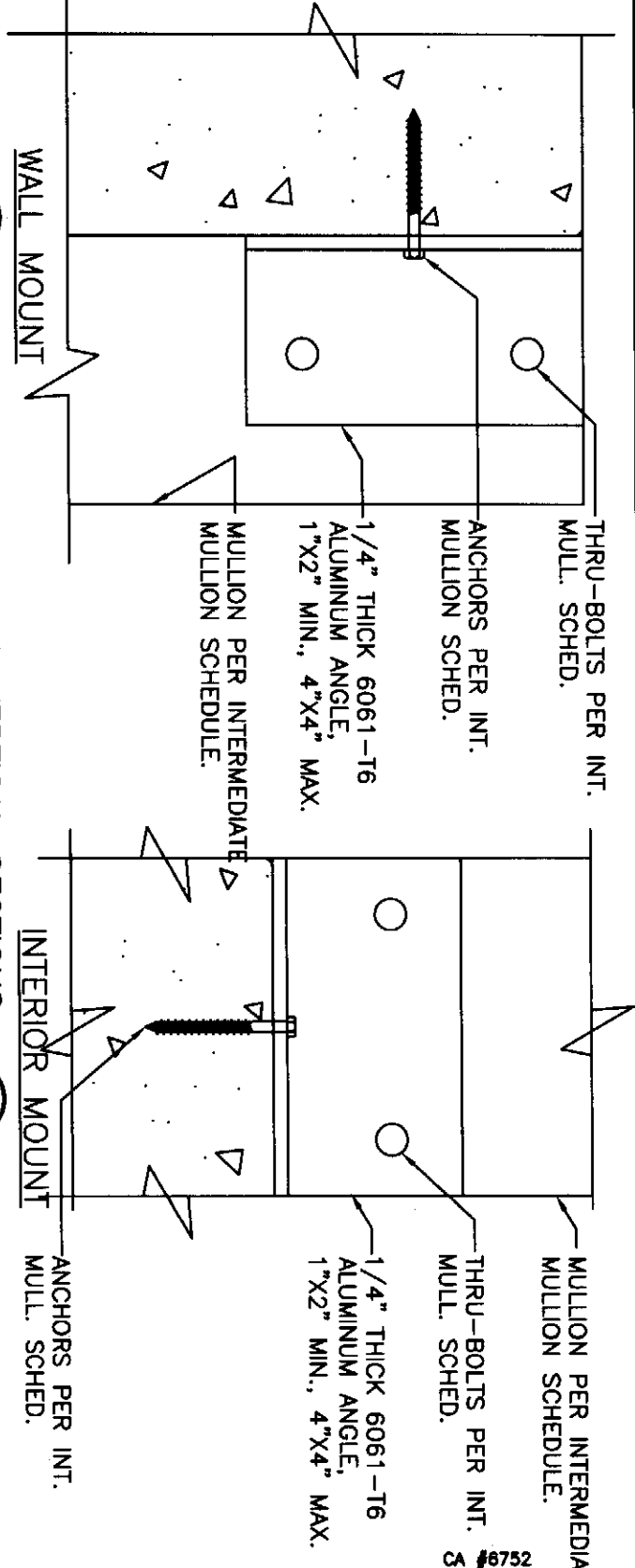
1 INTERIOR OR WALL MOUNT
9 END RETENTION & NON-END RETENTION INSTALLATION
N.T.S.



2 INTERIOR OR WALL MOUNT
9 END RETENTION & NON-END RETENTION INSTALLATION
N.T.S.



3 INTERIOR OR WALL MOUNT
9 END RETENTION & NON-END RETENTION INSTALLATION
N.T.S.



4 MOUNTING CONDITIONS VERTICAL SECTIONS
9 END RETENTION & NON-END RETENTION INSTALLATION
N.T.S.

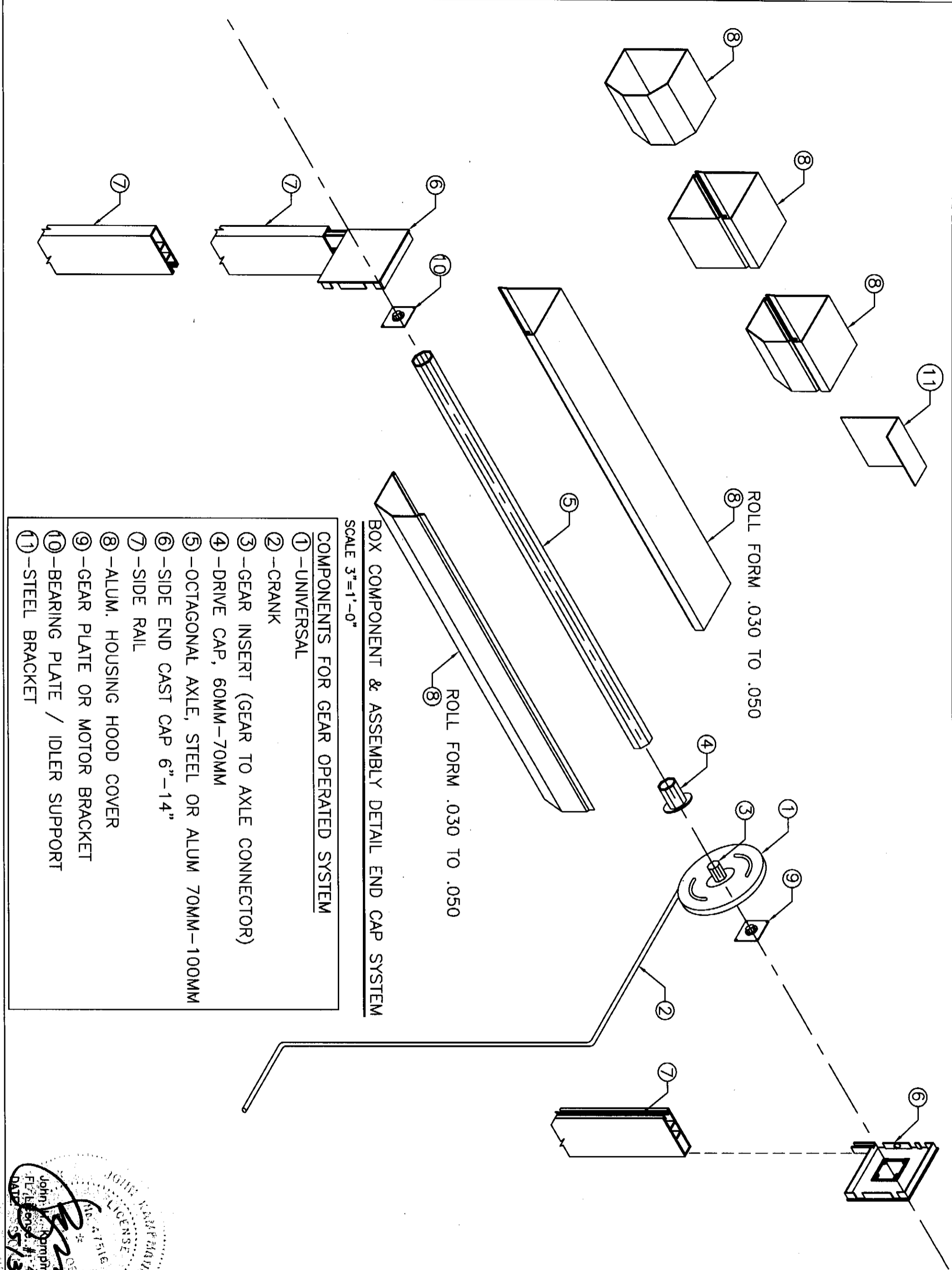
INTERMEDIATE MULLION SCHED. W/ EQUAL SPANS BOTH SIDES									
ANCHOR TYPE	MINIMUM SPACING	MINIMUM EDGE DISTANCE	CONNECTION DETAIL	MIN. MULLION SIZE	MAX. SLAT SPAN	MAX. MULLION HT.	MAX. DP	E.R. OR NON E.R.	
3/8" POWERS WEDGE BOLTS W/ 3-1/2" EMBED TO 3000P SI MIN CONCRETE	4.5"	4.5"	1/9	3X3.25	96"	60"	60	E.R.	
			2/9	4X6X.25	180"	90"	60	E.R.	
3/8" POWERS STEEL DROPIN W/ 1-9/16" EMBED TO 3000 PSI MIN CONCRETE	4.5"	5.25"	3/9	4X8X.25	240"	90"	40	E.R.	
			1/9	3X3.25	84"	90"	120	NON E.R.	
			2/9	4X6X.25	144"	90"	120	E.R.	
5/16" ITW TAPCON XL OR ELCO ULTRACON W/ 2-1/4" MIN. EMBED TO 3500 PSI MIN. CONCRETE	5.0"	3.125"	3/9	4X6X.25	168"	90"	60	E.R.	
			1/9	3X3.25	84"	90"	120	NON E.R.	
			2/9	3X3.25	96"	60"	60	E.R.	

John H. Koppmann Jr., PE
FL License #: 47516
DATE: 5-13-12

CA #6752
WWW.MEAENGINEERS.COM

FBC (NON-HIGH VELOCITY HURRICANE ZONE)

Description: JUPITER 58 MILLIMETER ROLL-UP SHUTTER SYSTEM	Project Name: JUPITER INDUSTRIES LLC 12311 Crystal Commerce Loop Fort Myers, FL 33966 Phone: (239) 225-9041 information@jupiter-industries.com	REV.	DESCRIPTION	 5656 Lawton Drive Sarasota, Florida 34233 (941) 922-3854 CA-6072
		1	XX/XX/XX - RESERVED.	



- BOX COMPONENT & ASSEMBLY DETAIL END CAP SYSTEM**
SCALE 3"=1'-0"
- COMPONENTS FOR GEAR OPERATED SYSTEM**
- ① - UNIVERSAL
 - ② - CRANK
 - ③ - GEAR INSERT (GEAR TO AXLE CONNECTOR)
 - ④ - DRIVE CAP, 60MM-70MM
 - ⑤ - OCTAGONAL AXLE, STEEL OR ALUM 70MM-100MM
 - ⑥ - SIDE END CAST CAP 6"-14"
 - ⑦ - SIDE RAIL
 - ⑧ - ALUM. HOUSING HOOD COVER
 - ⑨ - GEAR PLATE OR MOTOR BRACKET
 - ⑩ - BEARING PLATE / IDLER SUPPORT
 - ⑪ - STEEL BRACKET

JOHN KENNETH MANN
FLORIDA PROFESSIONAL ENGINEER
LICENSE # 17516
DATE 5/3/12
John Kenneth Mann, Jr., PE
FL License # 17516
DATE 5/3/12

FBC (NON-HIGH VELOCITY HURRICANE ZONE)

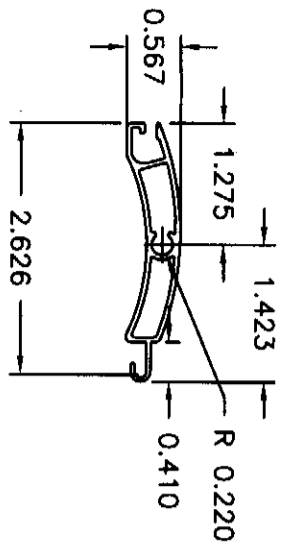
CA #6752
WWW.MEAENGINEERS.COM

Project Name:	JUPITER INDUSTRIES LLC
Description:	JUPITER 58 MILLIMETER ROLL-UP SHUTTER SYSTEM
Project No.:	JK 11-1002
Notes:	NOTED
Date:	10/02/11
Page:	10 of 11

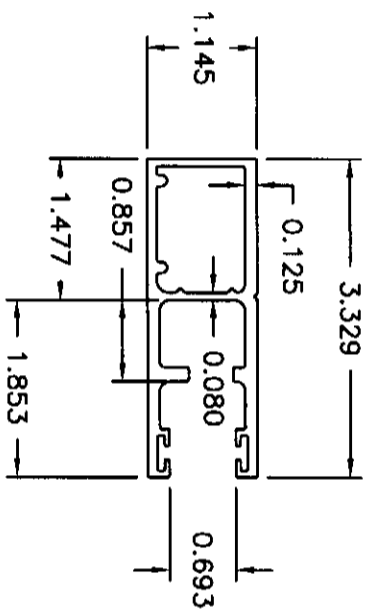
JUPITER INDUSTRIES LLC
12311 Crystal Commerce Loop
Fort Myers, FL 33966
Phone: (239) 225-9041
information@jupiter-industries.com

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

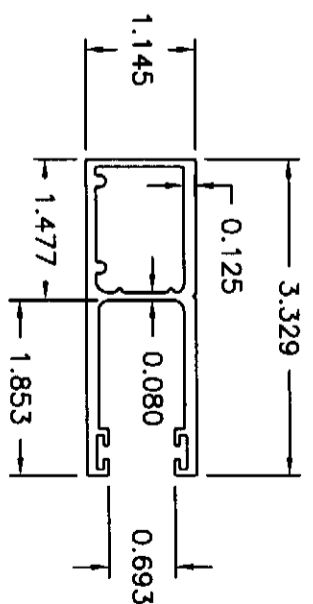
MEA ENGINEERS, INC.
5656 Lawton Drive
Sarasota, Florida 34233
(941) 922-3854 CA-6072



58MM SLAT
SCALE 1:2



58MM SIDE RAIL W/ RETENTION LEGS
SCALE 1:2



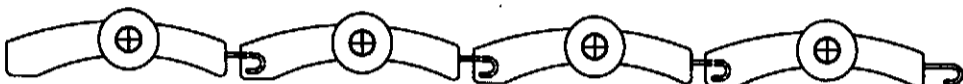
58MM SIDE RAIL W/O RETENTION LEGS
SCALE 1:2



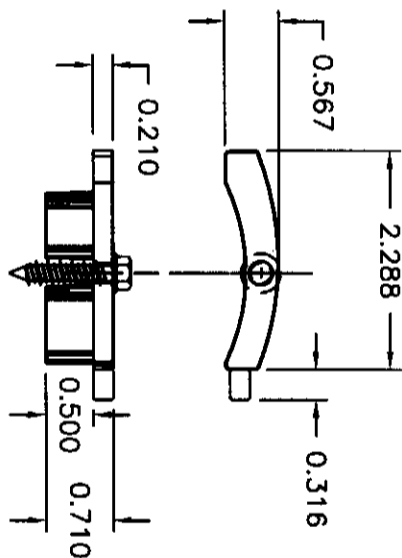
DETAIL-1
SCALE 1:2
2' TO 7'
NON-END RETENTION



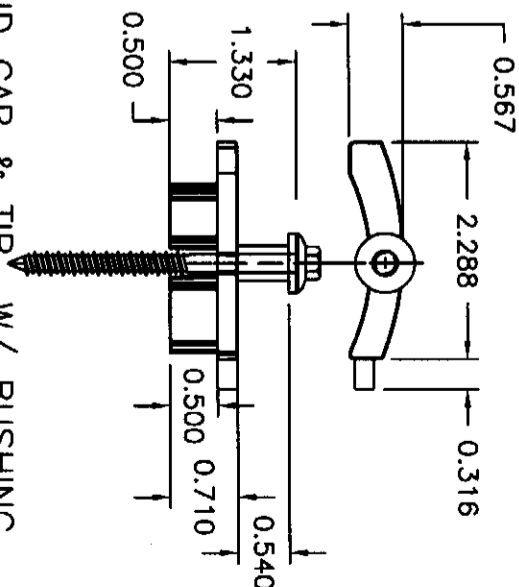
DETAIL-2
SCALE 1:2
2' TO 14'
END RETENTION



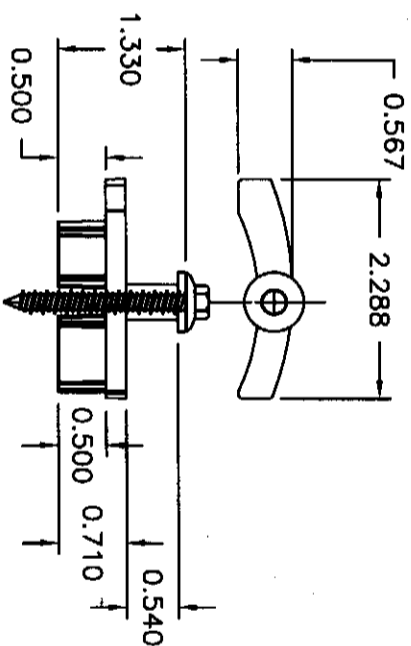
DETAIL-3
SCALE 1:2
14' TO 21'
END RETENTION



1 END CAP & TIP W/OUT BUSHING
SCALE 1:2
SEE DETAIL-1 ON THIS SHIT.



2 END CAP & TIP W/ BUSHING
SCALE 1:2
SEE DETAIL-2 ON THIS SHEET



3 END CAP W/ BUSHING
SCALE 1:2
SEE DETAIL-3 ON THIS SHEET

JOHN KAMPBORN JR.
Professional Engineer
FL License #: 47516
DATE: 5/3/12

FBC (NON-HIGH VELOCITY HURRICANE ZONE)

CA #6752
WWW.MEAENGINEERS.COM

11 of 11

JUPITER 58 MILLIMETER
ROLL-UP SHUTTER SYSTEM

Project Name: 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.
5856 Lawton Drive
Sarasota, Florida 34233
(941) 922-3854 CA-8072