

GENERAL NOTES:
(FLORIDA BUILDING CODE 2026 - 9th EDITION HVHZ & non HVHZ)

- 1- DEFINITION: THIS PRODUCT IS A ROLL-UP WIND ABATEMENT SYSTEM; DESIGNED, CONSTRUCTED AND ERECTED TO EASILY ENCLOSE AN AREA, PROVIDING PROTECTION FROM HURRICANE FORCE WINDS AND WIND BORNE DEBRIS WITHIN THE ALLOWABLE DESIGNED PRESSURES AND LIMITATIONS STATED IN THIS APPROVAL.
- 2- POSTING: A PERMANENT LABEL SHALL BE PROVIDED AS PER FBC. IT SHALL BE LOCATED ON THE BOTTOM OF THE HOOD FACING THE EXTERIOR OR OUTSIDE OR THE BOTTOM SLAT FACING THE EXTERIOR OR OUTSIDE AND A MINIMUM OF ONE LABEL PER OPENING. INFORMATION TO STATE THE FOLLOWING:
- "N.A.S.A. NATIONAL APPROVED SHUTTER ASSOCIATION L.L.C.
SUPERNOVA 43mm ROLL-UP HURRICANE PROTECTION DEVICE
DEERFIELD BEACH - FLORIDA
LARGE & SMALL MISSILE IMPACT RESISTANT"
- 3- LIMITATION: GLAZING SEPARATION (GS) AS PER TABLE 2 AND GLASS SEPARATION NOTES.
- 4- LOADS: DESIGNED LOAD CALCULATED BASED ON THE ASCE 7-22 AND PROVIDED BY A PROFESSIONAL ARCHITECT OR ENGINEER FOR EACH SPECIFIC PROJECT. THE CALCULATED DESIGNED PRESSURE MUST NOT EXCEED THE ALLOWABLE PRESSURES FOR EACH COMPONENT TO BE USED. THE DESIGN PRESSURES ARE PERMITTED TO BE MULTIPLIED BY 0.6
- 5- MATERIAL: ALL EXTRUDED ALUMINUM SHAPES SHALL BE MADE OF 6063-T6 OR AS NOTED.
- 6- FASTENERS: ASSEMBLY SCREWS AND ANCHORS SHALL BE AS SPECIFIED IN THE CURRENT SET OF DRAWINGS. INSTALLATION AND LOADS AS PER THIS APPROVAL.
- 7- USE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, ARCHITECT OR ENGINEER OF RECORD TO VERIFY THE FOLLOWING:
- 7.1- THE STABILITY OF THE STRUCTURE WHERE THE PRODUCT IS TO BE ATTACHED INSURING PROPER ANCHORAGE.
- 7.2- THE SITE SPECIFIC PROJECT CRITERIA, SUCH AS BUT NOT LIMITED TO, WIND LOADS, LOCAL CODE REQUIREMENTS, DESIGNED PRESSURES ETC.
- 7.3- THAT THIS APPROVAL IS ADEQUATE TO THE SPECIFIC PROJECT.
- 8- PRODUCT INSTALLATIONS WITHIN 3000 FEET OF SALTWATER COASTAL LINE TO COMPLY WITH FBC SECTION 1711. (SEE SHEET 15)

DESIGN SCHEDULE	
COMPONENT	SHEET
SLAT ALLOWABLE PRESSURE - TABLE 1	1
GLASS SEPARATION - TABLE 2	1
TRACK REACTIONS - TABLE 3	1
TRACK ANCHORAGE	6 THROUGH 10
MULLION DESIGN	11, 12 & 13

- NOTES:
- 1- ALLOWABLE DESIGNED PRESSURE ARE FUNCTION OF THE LOWEST ALLOWABLE DESIGNED LOAD FOR EACH COMPONENT (SLATS, ANCHORAGE, STORM BARS & MULLIONS)
- 2- DESIGNED PRESSURES MUST NOT EXCEED 120 PSF.
- 3- FINISHED WIDTH (FW) MUST NOT EXCEED 144".

CODE AND STANDARD COMPLIANCE:
FLORIDA BUILDING CODE 2026 - 9th EDITION
(HVHZ & non HVHZ)
TAS 201, 202, 203 (LARGE & SMALL MISSILE)

TABLE 1 - ALLOWABLE DESIGNED PRESSURES	
43mm SLATS	
FW (IN)	Pd (PSF) POS / NEG
144	80
138	84
132	88
126	92
120	96
114	100
108	104
102	108
96	112
90	116
84	120

LINEAR INTERPOLATION BETWEEN
VALUES ARE ACCEPTABLE

TABLE 2 - GS: GLASS SEPARATION (IN)

Pd	84	90	96	102	108	114	120	126	132	138	144
30	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
35	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.2
40	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.2	3.5
45	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.2	3.4	3.8
50	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.3	3.5	3.7	4.0
60	3.0	3.0	3.0	3.0	3.0	3.2	3.5	3.7	4.0	4.3	4.5
70	3.0	3.0	3.0	3.0	3.2	3.5	3.8	4.1	4.4	4.7	5.0
80	3.0	3.0	3.0	3.2	3.5	3.8	4.1	4.4	4.7	5.1	5.4
90	3.0	3.0	3.1	3.4	3.7	4.1	4.4	4.7	5.0	5.4	
100	3.0	3.0	3.3	3.7	4.0	4.3	4.7	5.0			
110	3.0	3.2	3.6	3.9	4.3						
120	3.1	3.5	3.8								

NOTES:

PRODUCT IS QUALIFIED AS "NON POROUS", THEREFORE GLAZING SEPARATION IS NOT REQUIRED WITH EXCEPTION FOR THE FOLLOWING LOCATIONS:

- 1- HVHZ: HIGH VELOCITY HURRICANE ZONES, MIAMI AND BROWARD COUNTIES
- 2- WIND ZONE 4 AS DEFINED IN ASTM E1996
- 3- ESSENTIAL FACILITIES AS DEFINED IN ASCE 7

TABLE 3 - TRACK REACTIONS (LB/FT)

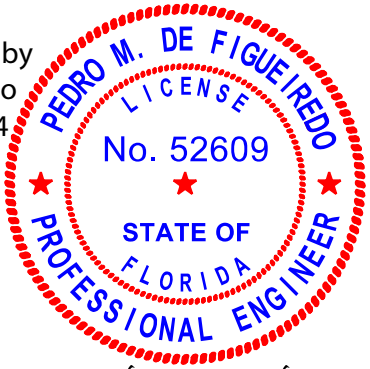
PD (PSF)	43mm SLAT - FW -FRAME WIDTH IN INCHES																					
	84		90		96		102		108		114		120		126		132		138		144	
	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy	Vx	Vy
30		98		100		113		121		128		130		143		151		158		160		173
35		114		123		132		141		149		158		167		176		184		193		202
40		131		141		151		161		171		181		191		201		211		221		231
45		147		158		170		181		192		203		215		226		237		248	253	260
50		163		176		188		201		213		226		238		251	142	263	225	276	560	288
60		196		211		226		241		256		271	137	286	376	301	452	316	749	331	1049	346
70		229		246		264		281		299	326	316	611	334	824	351	1165	369	1166	386	1434	404
80		261		281		301	26	321	406	341	727	361	903	381	1179	401	1492	421	1500	441	1757	461
90		294		317		339	423	362	766	384	1063	407	1306	429	1496	452	1797	474	1816	497		
100		327		352	17	377	745	402	1064	427	1345	452	1580	477	1768	502						
110		360	321	387	345	415	1013	442	1314	470	1586	497										
120	231	392	590	422	616	452	1238	482														

Pedro
Figueiredo

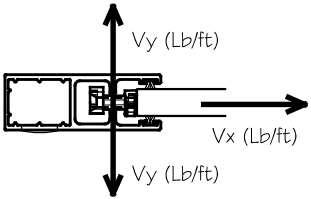
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Pedro Figueiredo
Date: 2026.09.14
09:12:52 -04'00'

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09/10/2025



CONTRACTOR TO VERIFY ADEQUACY
OF STRUCTURE FOR MAXIMUM
IMPOSED LOADS VY AND Vx

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631 SEAFORT BLVD.
CAPE CANAVERAL, FL 33324
PPMF@AOL.COM



PRODUCT:
SUPERNOVA 43mm
EXTRUDED ALUMINUM
ROLL-UP HURRICANE PROTECTION DEVICE
LARGE MISSILE IMPACT RESISTANT

ASSOCIATION OF MANUFACTURERS:
N.A.S.A
NATIONAL APPROVED SHUTTER ASSOCIATION L.L.C.
604 HILLSBORO TECHNOLOGY DR.
DEERFIELD, FL 33441

SCALE:
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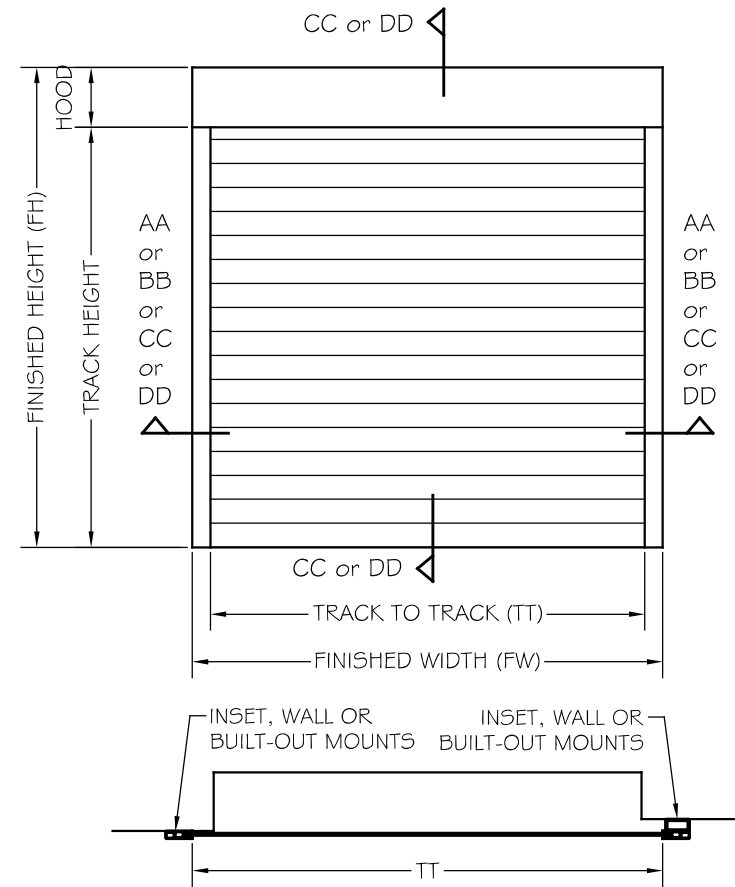
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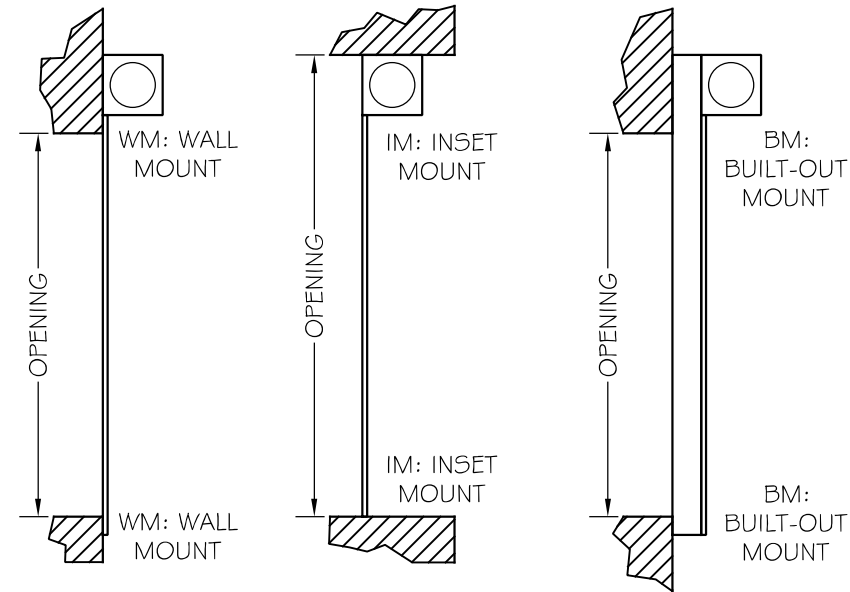
SHEET
1 OF 15

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TYPICAL SINGLE UNIT ELEVATION

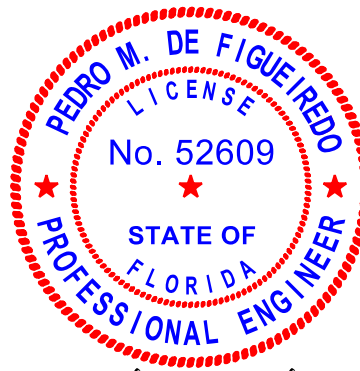
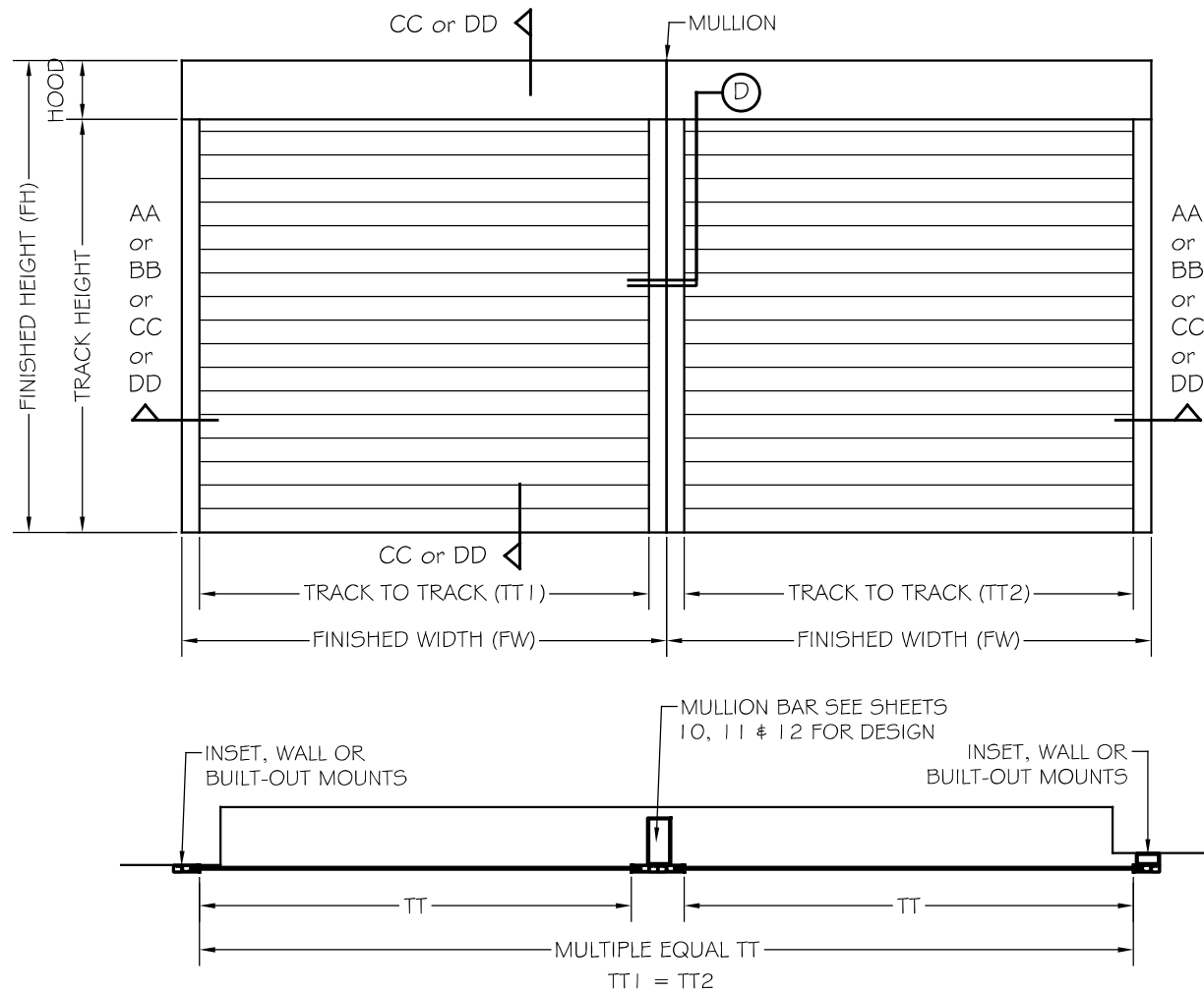


TYPICAL VERTICAL SECTIONS



MOUNTING TYPES CAN BE INTERCHANGED:
WM - IM; BM - IM; IM - WM; ETC...

TYPICAL MULTIPLE UNITS ELEVATION



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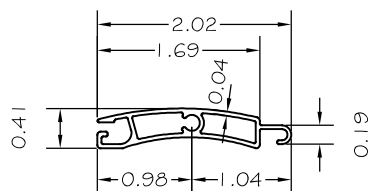
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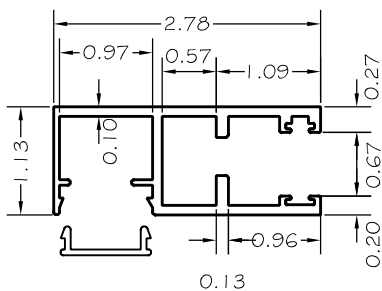
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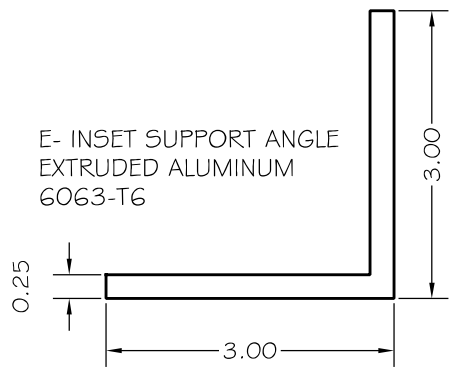
PRODUCT COMPONENTS



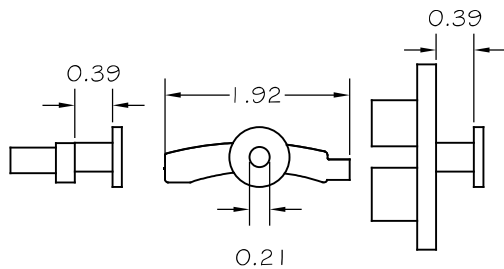
A- SUPERNOVA 43mm SLAT
EXTRUDED ALUMINUM 6063-T6



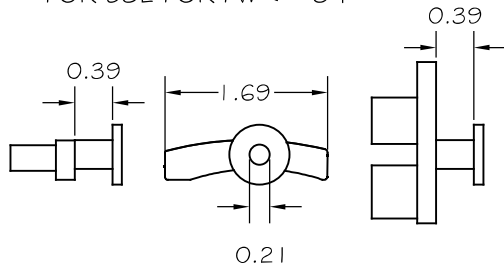
C- 43mm GUIDE RAIL
WITH SNAP COVER
6063-T6 EXTRUDED ALUMINUM



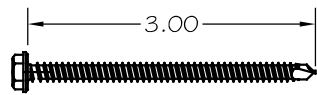
E- INSET SUPPORT ANGLE
EXTRUDED ALUMINUM
6063-T6



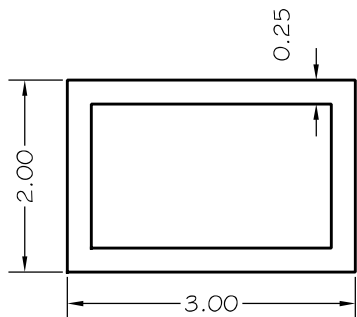
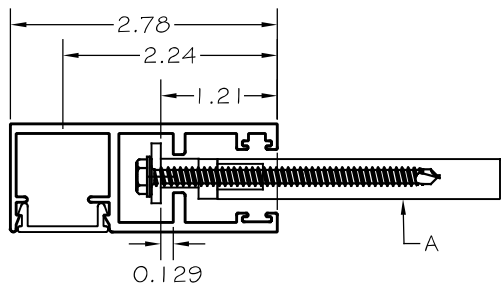
B- 43mm SLAT LOCK
FOR USE FOR FW <= 84"



B1- 43mm SLAT LOCK
FOR USE FOR FW > 84"



#10 X 3" 410 SS
SLAT LOCK SCREW



F- TUBE
EXTRUDED ALUMINUM
6063-T6



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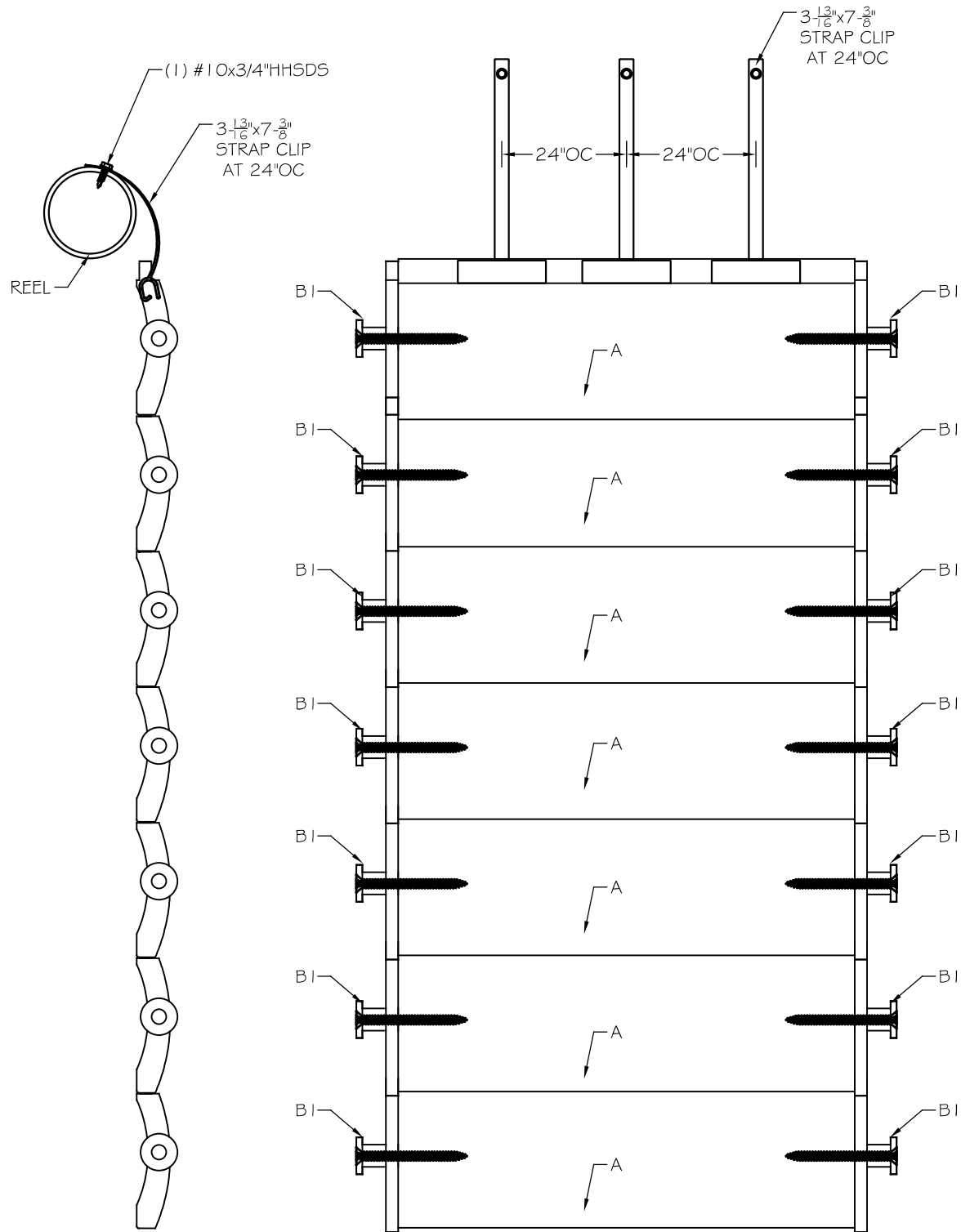
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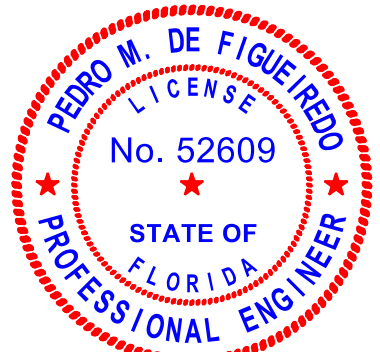
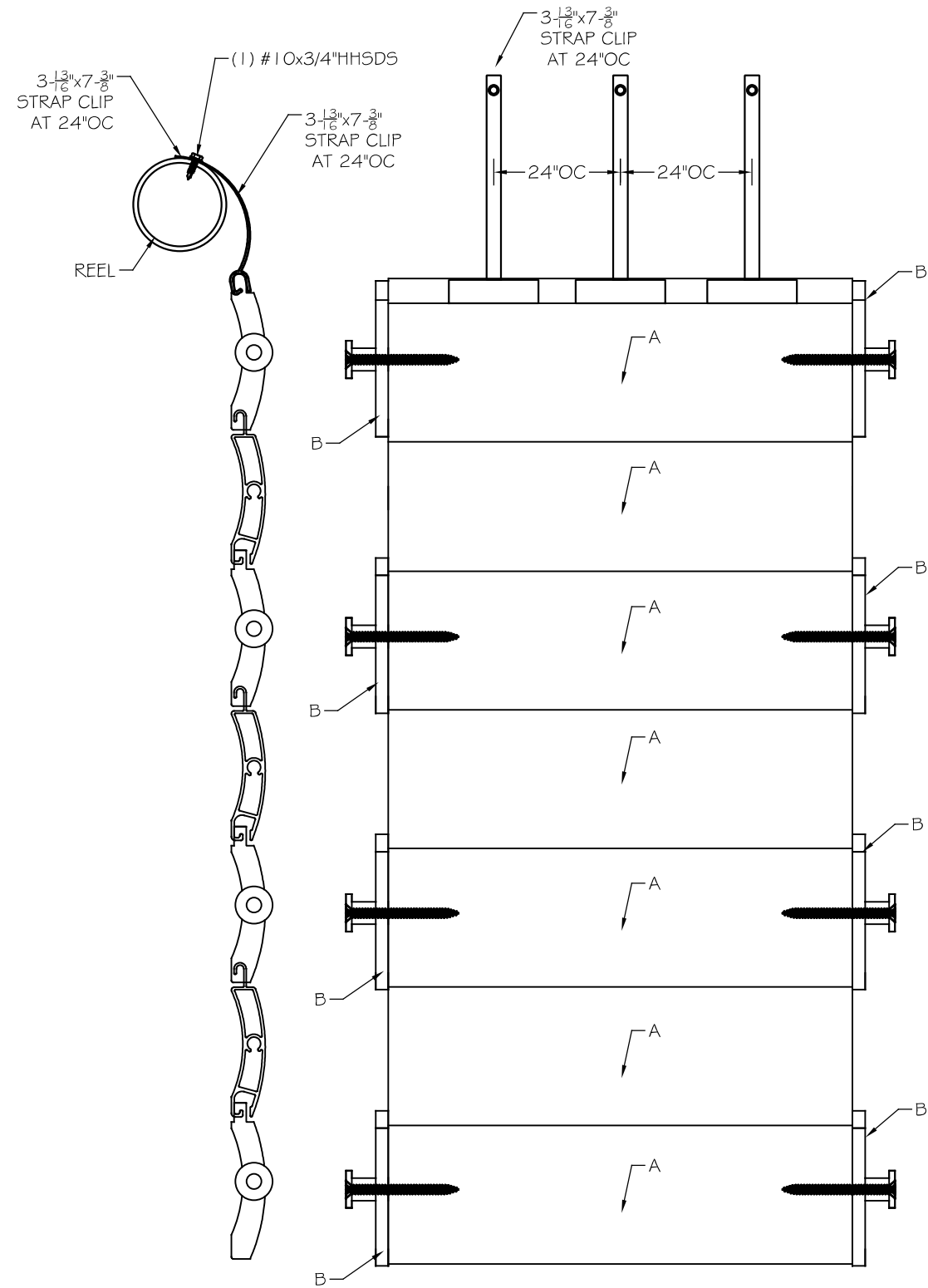
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26-173

SHEET
3 OF 15

SUPERNOVA 43mm SLAT END RETENTION LAY-OUT
FOR FINISHED WIDTH GREATER THAN 84"



SUPERNOVA 43mm SLAT END RETENTION LAY-OUT
FOR FINISHED WIDTH LESS OR EQUAL THAN 84"



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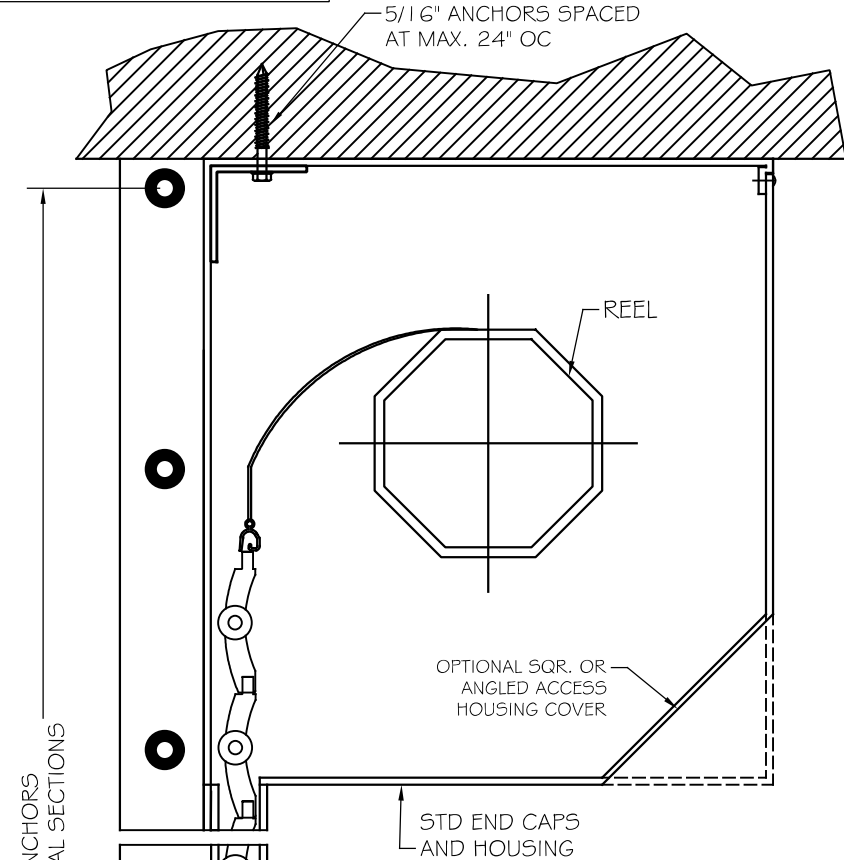
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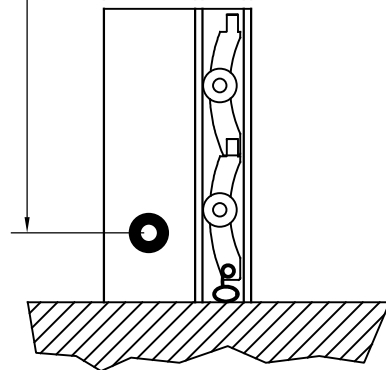
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SECTION CC
HEADER CEILING SECTION



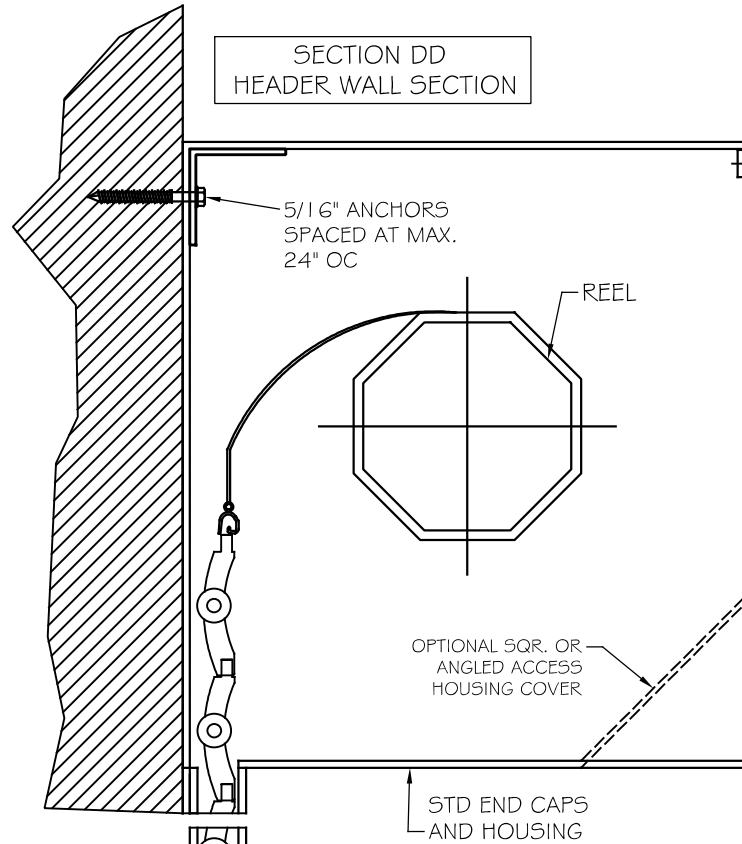
TYPICAL ANCHORS
SEE HORIZONTAL SECTIONS

SECTION CC
SILL FLOOR SECTION
INSET MOUNT



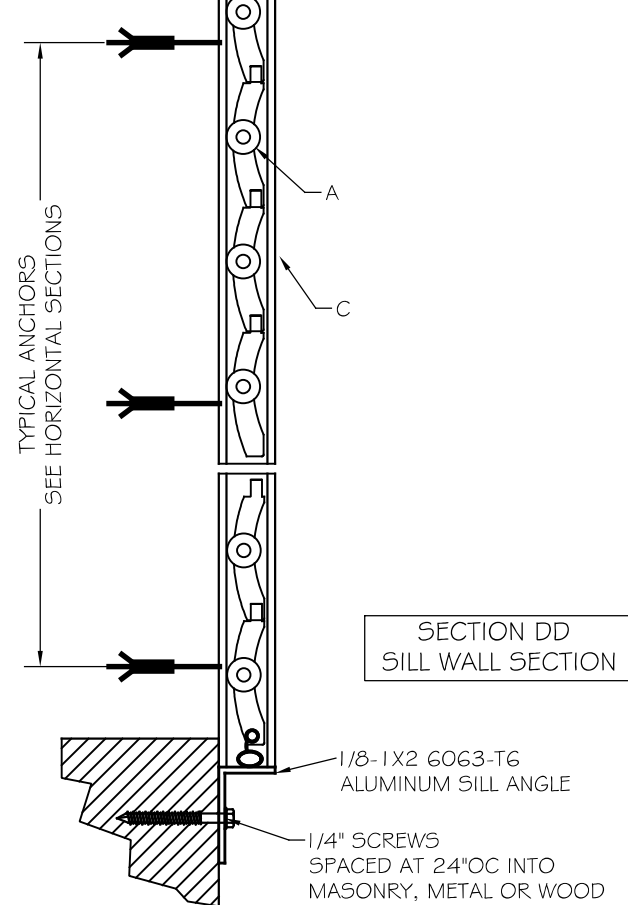
TYPICAL VERTICAL SECTIONS

SECTION DD
HEADER WALL SECTION

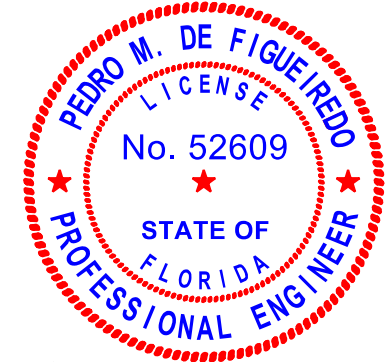
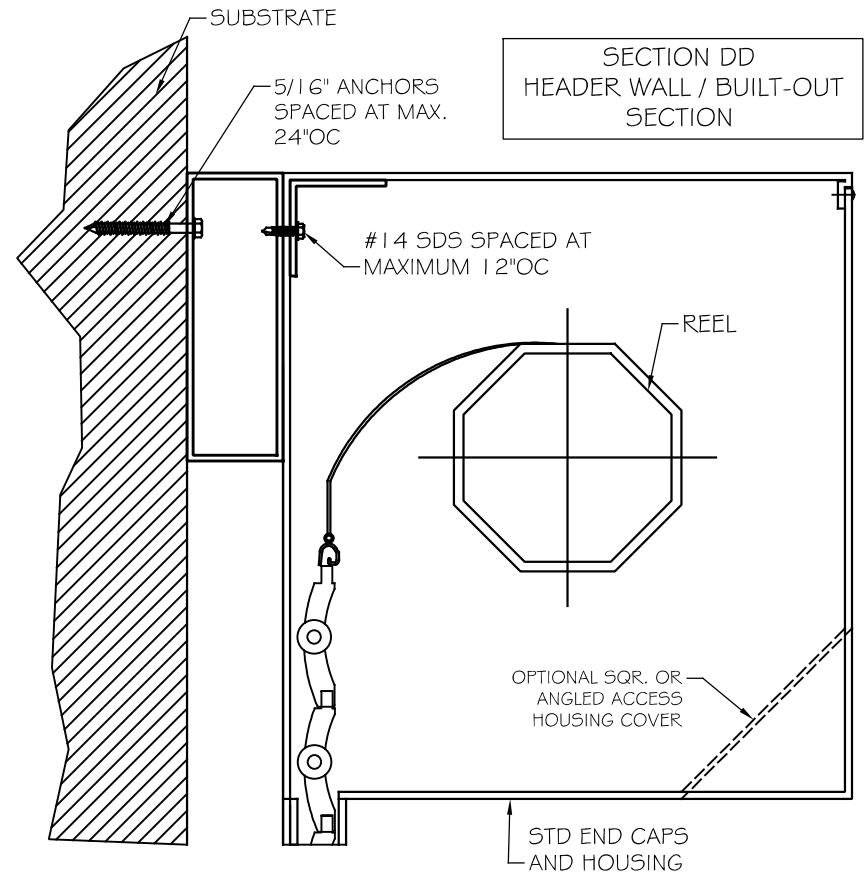


TYPICAL ANCHORS
SEE HORIZONTAL SECTIONS

SECTION DD
SILL WALL SECTION



SECTION DD
HEADER WALL / BUILT-OUT
SECTION



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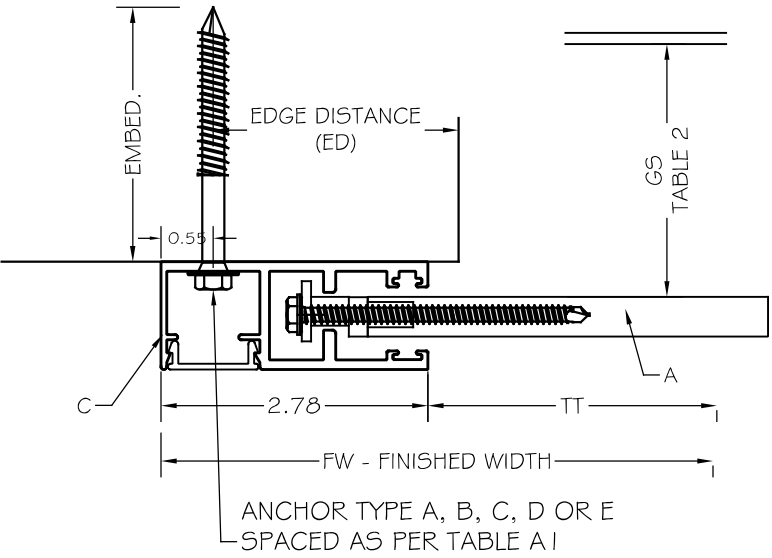
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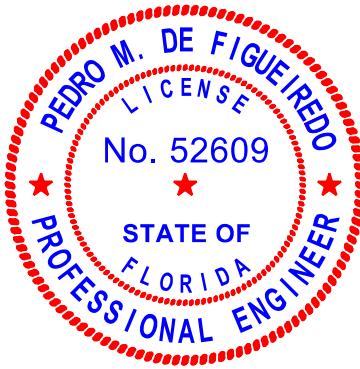


WALL MOUNT



ANCHOR SCHEDULE

ANCHOR MARK	ANCHORS DESCRIPTION	SUBSTRATE	SUBSTRATE PENETRATION	EDGE DISTANCE
A	5/16" ITW TAPCONS XL	MIN. 3KSI CONCRETE	2 1/4"	2 3/16"
B	5/16" ITW TAPCONS XL	GROUT FILLED C-90 CMU	2 1/4"	4"
C	1/4-20X1 GR5 SDS	MIN. 1/4" THICK 6063-T6 ALUM.	3 TREADS	1/2"
	1/4-20X1 GR5 SDS	MIN. 3/16" ASTM A36 STEEL	3 TREADS	1/2"
D	5/16" ITW TAPCONS XL	WOOD WITH SG>= 0.55	2 1/4"	3/4"
E	3/8" DEWALT SCREW-BOLT+	MIN. 3KSI CONCRETE	3 1/4"	4 1/2"



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TABLE A1 - SPACING ON CENTER FOR WALL MOUNT INSTALLATION

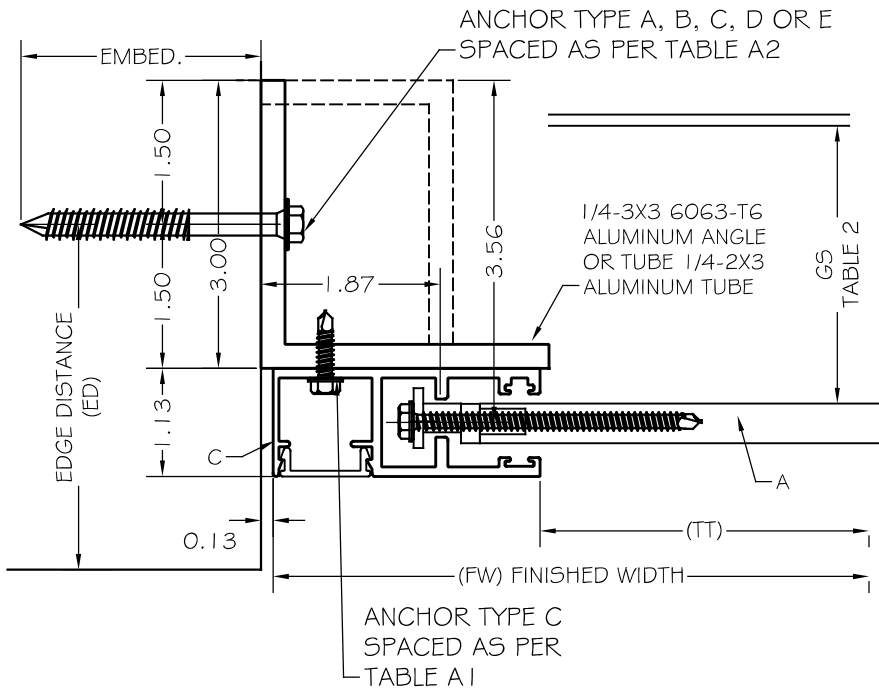
	FW: FRAME WITH (IN)																																																						
LOAD (PSF)	84					90					96					102					108					114					120					126					132					138					144				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E										
30	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6						
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120	6	6	6	6	6	5	4	5	4	6	5	4	4	4	6			3		4																																			

PRODUCT:
SUPERNOVA 43mm
EXTRUDED ALUMINUM
ROLL-UP HURRICANE PROTECTION DEVICE
LARGE MISSILE IMPACT RESISTANT

ASSOCIATION OF MANUFACTURERS:
N.A.S.A
NATIONAL APPROVED SHUTTER ASSOCIATION L.L.C.
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DEERFIELD, FL 33441

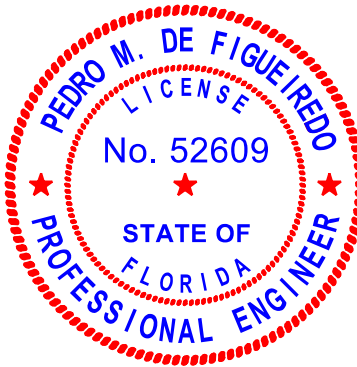
SCALE:
NA
DATE:
09/10/2025
DRAWING #
26-173
SHEET
6 OF 15

INSET MOUNTED
W/ SINGLE ANGLE / TUBE



ANCHOR SCHEDULE

ANCHOR MARK	ANCHORS DESCRIPTION	SUBSTRATE	SUBSTRATE PENETRATION	EDGE DISTANCE
A	5/16" ITW TAPCONS XL	MIN. 3KSI CONCRETE	2 1/4"	2 3/16"
B	5/16" ITW TAPCONS XL	GROUT FILLED C-90 CMU	2 1/4"	4"
C	1/4-20X1 GR5 SDS	MIN. 1/4" THICK 6063-T6 ALUM.	3 TREADS	1/2"
	1/4-20X1 GR5 SDS	MIN. 3/16" ASTM A36 STEEL	3 TREADS	1/2"
D	5/16" ITW TAPCONS XL	WOOD WITH SG>= 0.55	2 1/4"	3/4"
E	3/8" DEWALT SCREW-BOLT+	MIN. 3KSI CONCRETE	3 1/4"	4 1/2"



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PE 52609
09/10/2025

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TABLE A2 - SPACING ON CENTER FOR INSET MOUNT INSTALLATION W/ SINGLE ANGLE / TUBE

	FW: FRAME WITH (IN)																																																						
LOAD (PSF)	84					90					96					102					108					114					120					126					132					138					144				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E															
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120	5	4	5	4	6			4	3	6			3		6					5																																			

PRODUCT:
SUPERNOVA 43mm
EXTRUDED ALUMINUM
ROLL-UP HURRICANE PROTECTION DEVICE
LARGE MISSILE IMPACT RESISTANT

ASSOCIATION OF MANUFACTURERS:
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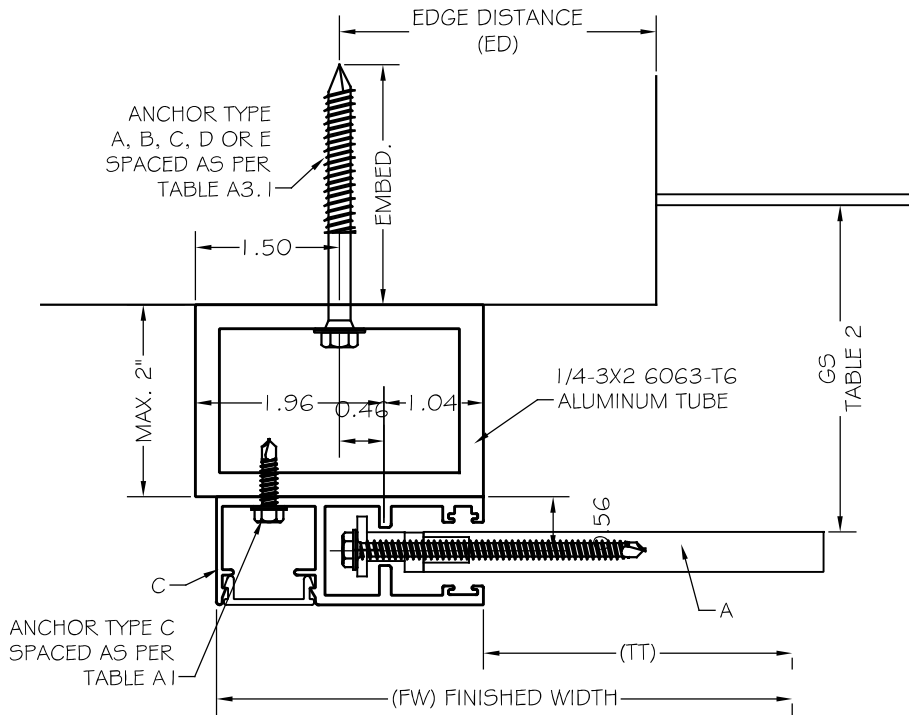
SCALE:
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DATE:
09/10/2025

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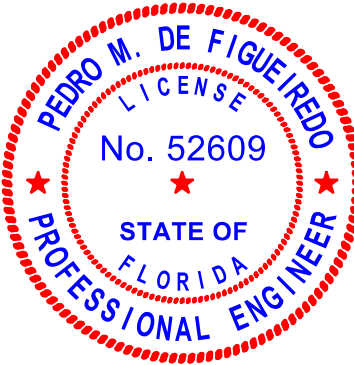
SHEET
7 OF 15

2" BUILT-OUT ON
1/4" ALUMINUM TUBE



ANCHOR SCHEDULE

ANCHOR MARK	ANCHORS DESCRIPTION	SUBSTRATE	SUBSTRATE PENETRATION	EDGE DISTANCE
A	5/16" ITW TAPCONS XL	MIN. 3KSI CONCRETE	2 1/4"	2 3/16"
B	5/16" ITW TAPCONS XL	GROUT FILLED C-90 CMU	2 1/4"	4"
C	1/4-20X1 GR5 SDS	MIN. 1/4" THICK 6063-T6 ALUM.	3 TREADS	1/2"
	1/4-20X1 GR5 SDS	MIN. 3/16" ASTM A36 STEEL	3 TREADS	1/2"
D	5/16" ITW TAPCONS XL	WOOD WITH SG >= 0.55	2 1/4"	3/4"
E	3/8" DEWALT SCREW-BOLT+	MIN. 3KSI CONCRETE	3 1/4"	4 1/2"



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TABLE A3.1 - SPACING ON CENTER FOR 2" BUILT-OUT MOUNT INSTALLATION W/ ALUMINUM TUBE

	FW: FRAME WITH (IN)																																																						
LOAD (PSF)	84					90					96					102					108					114					120					126					132					138					144				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E										
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110	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6					5																																			
120	6	6	6	6	6	5	5	5	4	6	5	5	5	4	6																																								

PRODUCT:
SUPERNOVA 43mm
EXTRUDED ALUMINUM
ROLL-UP HURRICANE PROTECTION DEVICE
LARGE MISSILE IMPACT RESISTANT

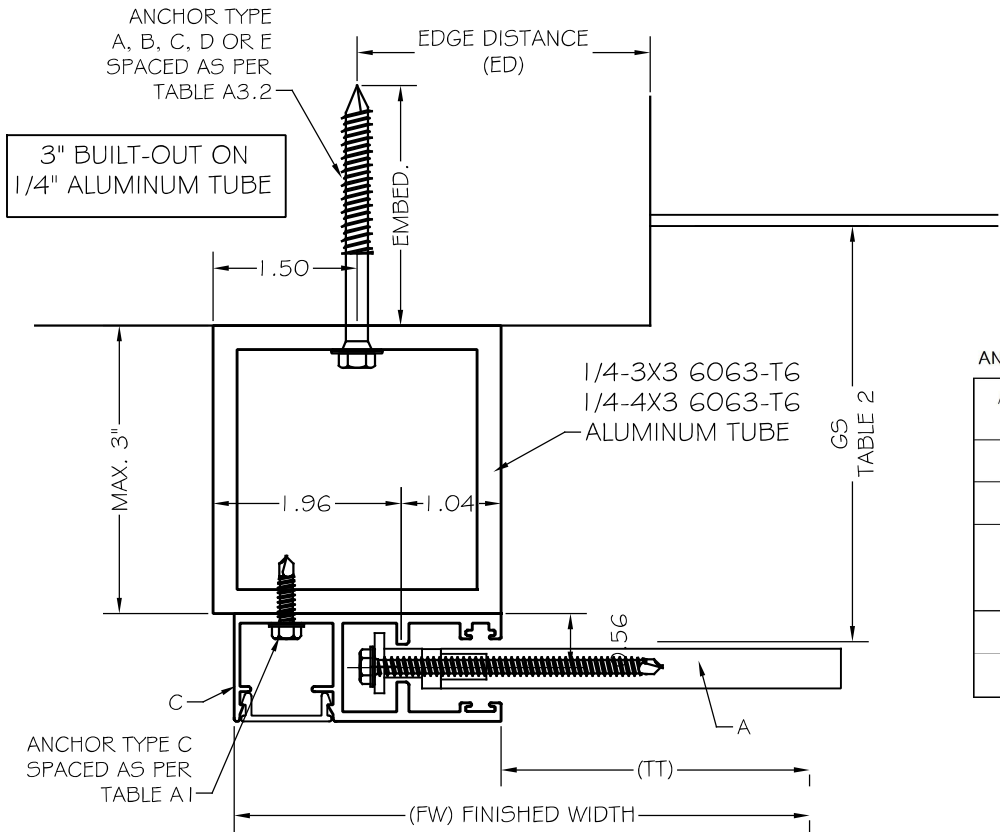
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DEERFIELD, FL 33441

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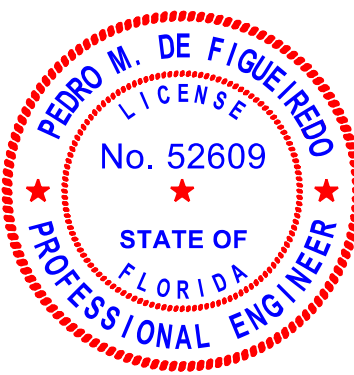
DRAWING #
26-173

SHEET
8 OF 15



ANCHOR SCHEDULE

ANCHOR MARK	ANCHORS DESCRIPTION	SUBSTRATE	SUBSTRATE PENETRATION	EDGE DISTANCE
A	5/16" ITW TAPCONS XL	MIN. 3KSI CONCRETE	2 1/4"	2 3/16"
B	5/16" ITW TAPCONS XL	GROUT FILLED C-90 CMU	2 1/4"	4"
C	1/4-20X1 GR5 SDS	MIN. 1/4" THICK 6063-T6 ALUM.	3 TREADS	1/2"
	1/4-20X1 GR5 SDS	MIN. 3/16" ASTM A36 STEEL	3 TREADS	1/2"
D	5/16" ITW TAPCONS XL	WOOD WITH SG >= 0.55	2 1/4"	3/4"
E	3/8" DEWALT SCREW-BOLT+	MIN. 3KSI CONCRETE	3 1/4"	4 1/2"



Pedro De Figueiredo
PE 52609
09/10/2025

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PPMF@AOL.COM
ENGINEER SEAL
PEDRO DE FIGUEIREDO
PE 52609

TABLE A3.2 - SPACING ON CENTER FOR 3" BUILT-OUT MOUNT INSTALLATION W/ ALUMINUM TUBE

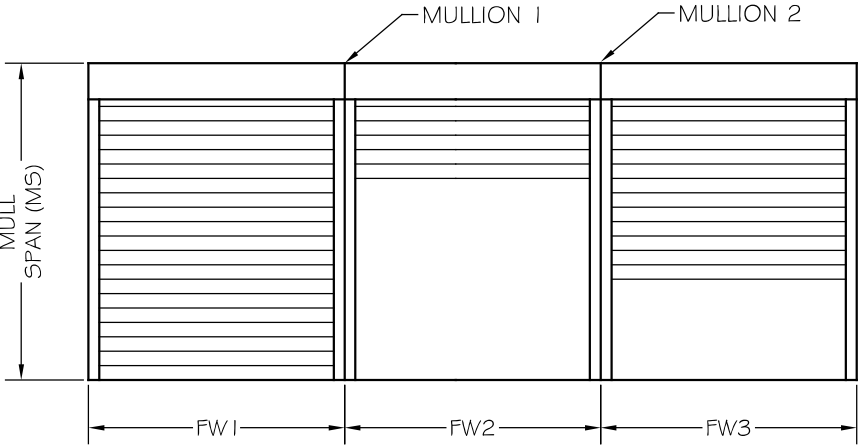
	FW: FRAME WITH (IN)																																																						
LOAD (PSF)	84					90					96					102					108					114					120					126					132					138					144				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E										
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50	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6						
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90	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	6			3		5																													
100	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			3		5																																			
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120	6	6	6	6	6	4	4	4	4	6	4		4	4	6																																								

PRODUCT:
SUPERNOVA 43mm
EXTRUDED ALUMINUM
ROLL-UP HURRICANE PROTECTION DEVICE
LARGE MISSILE IMPACT RESISTANT

ASSOCIATION OF MANUFACTURERS:
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NATIONAL APPROVED SHUTTER ASSOCIATION L.L.C.
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DEERFIELD, FL 33441

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EQUALLY SPACED MULLIONS SELECTION



MULLION 1: $TM1 = (FW1 + FW2) / 2$
MULLION 2: $TM2 = (FW2 + FW3) / 2$
TM: TRIBUTARY MODULE

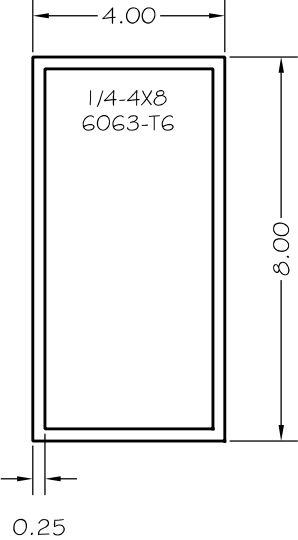
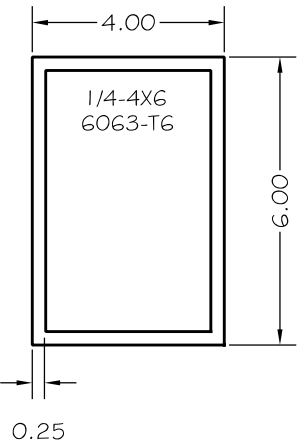
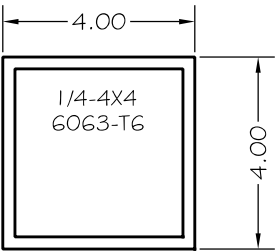
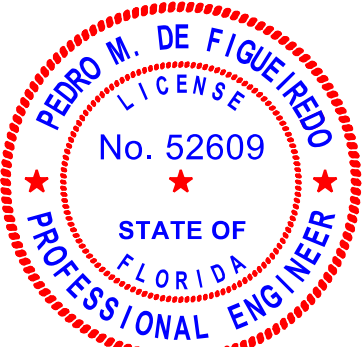
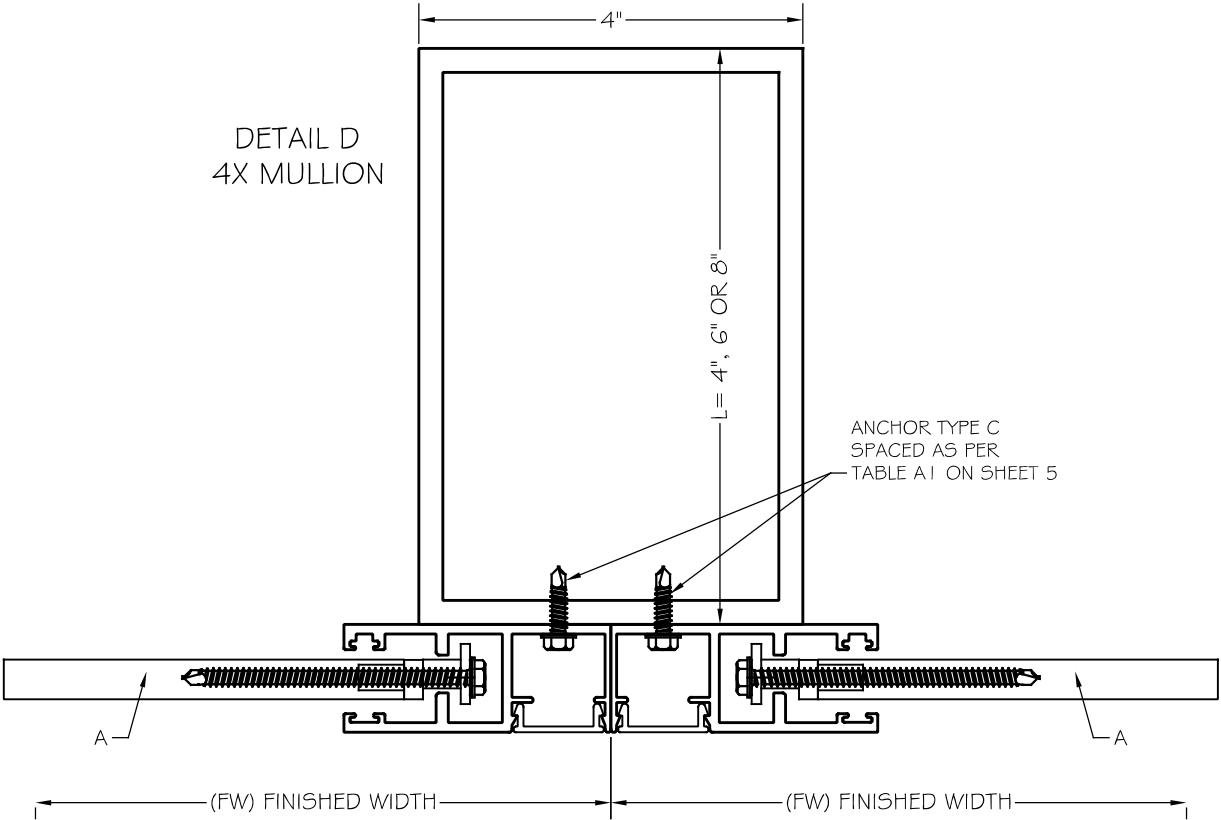


TABLE 4 - MULLIONS MAXIMUM DESIGNED PRESSURES (PSF)

DOOR TRIBUTARY MODULE (TM)	1/4-4x8 mullion span			1/4-4x6 mullion span			1/4-4x4 mullion span		
	144	132	120	120	108	96	96	84	72
144	55	72	80	47	65	80	34	52	80
138	57	75	84	49	68	84	35	54	84
132	60	79	88	51	71	88	37	57	88
126	63	82	92	54	74	92	39	59	92
120	66	86	96	56	78	96	41	62	96
114	69	91	100	59	82	100	43	66	100
108	73	96	104	63	87	104	45	69	104
102	78	102	108	66	92	108	48	73	108
96	83	108	112	71	98	112	51	78	112
90	88	115	116	75	104	116	54	83	116
84	94	120	120	81	111	120	58	89	120

NOTES:
1- MULLIONS WERE DESIGNED BY RATIONAL ANALYSIS BASED ON THE ALUMINUM DESIGN MANUAL 2020 ED. AND THE FLORIDA BUILDING CODE.
2- DEFLECTION CRITERIA: MAXIMUM MULL SPAN DIVIDED BY 180: (MS/180)
3- VALUES ABOVE IS APPLICABLE ONLY FOR EQUAL MODULES FW1=FW2=FW3.
4- UNEQUAL MODULES ARE TO BE DESIGNED BY RATIONAL ANALYSIS IN A CASE BY CASE BASIS.

MULLIONS SECTIONS



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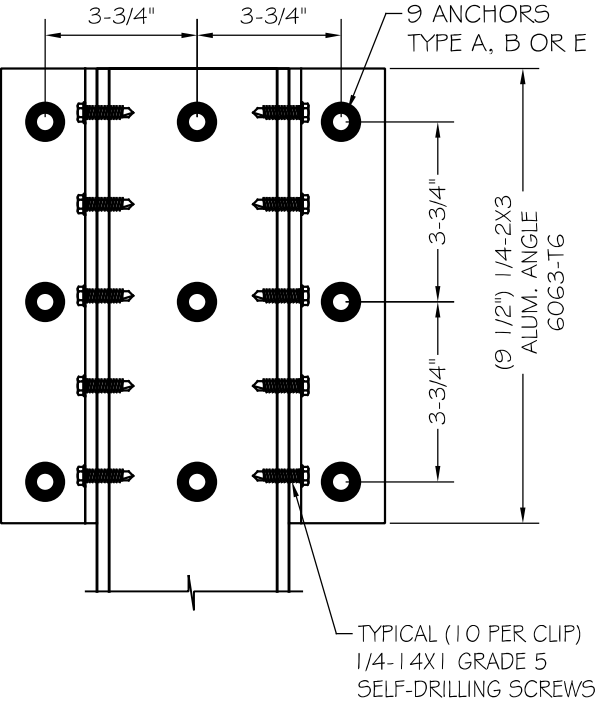
PRODUCT:
SUPERNOVA 43mm
EXTRUDED ALUMINUM
ROLL-UP HURRICANE PROTECTION DEVICE
LARGE MISSILE IMPACT RESISTANT

ASSOCIATION OF MANUFACTURERS:
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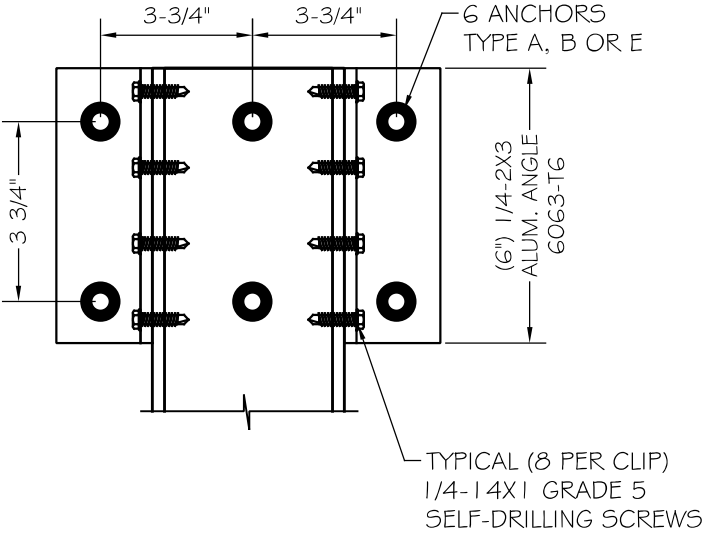
SCALE:
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DATE:
09/10/2025
DRAWING #
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SHEET
11 OF 15

EQUALLY SPACED MULLIONS WALL CONNECTIONS

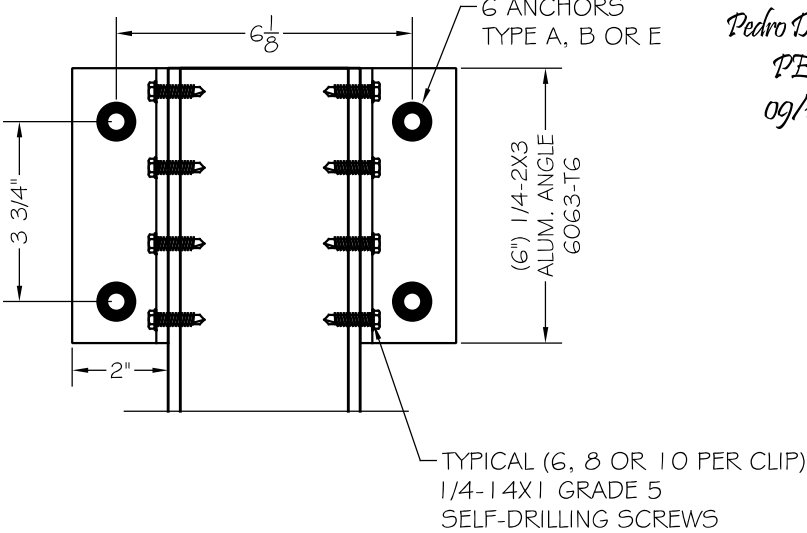
W9 - WALL MOUNT MOUNT
WITH (9) ANCHORS TYPE A OR B



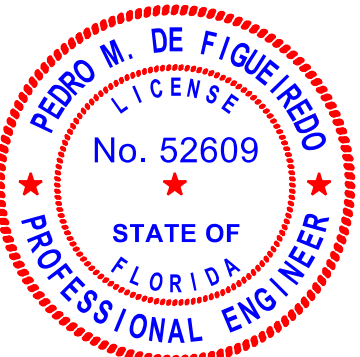
W6 - WALL MOUNT MOUNT
WITH (6) ANCHORS TYPE A OR B



W4 - WALL MOUNT MOUNT
WITH (4) ANCHORS TYPE A, B OR E



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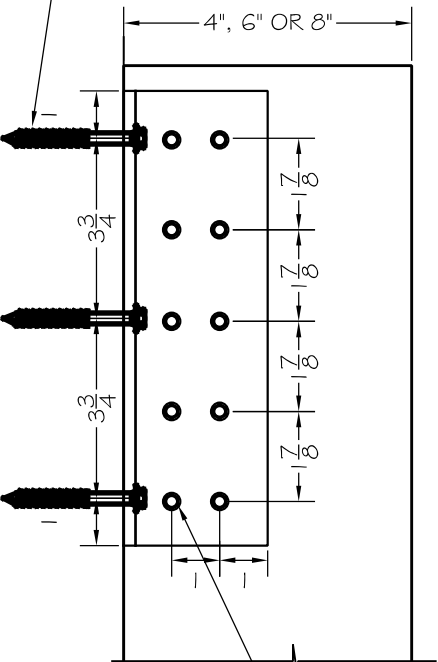
PRODUCT:
SUPERNOVA 43mm
EXTRUDED ALUMINUM
ROLL-UP HURRICANE PROTECTION DEVICE
LARGE MISSILE IMPACT RESISTANT

ASSOCIATION OF MANUFACTURERS:
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DEERFIELD, FL 33441

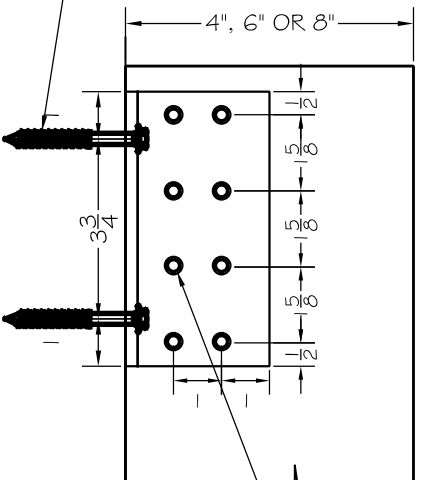
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W9 (6) ANCHORS TYPE A, B OR E



W4 (4) ANCHORS TYPE A, B OR E
W6 (6) ANCHORS TYPE A, B OR E



TYPICAL (10 PER CLIP)
1/4-14X1 GRADE 5
SELF-DRILLING SCREWS

TYPICAL (8 PER CLIP)
1/4-14X1 GRADE 5
SELF-DRILLING SCREWS

MULL WALL ANCHORAGE CAPACITY (Ra)

ANCHOR TYPE	W4 (LB)	W6 (LB)	W9 (LB)
A	3120	4680	7020
B	3016	4524	6786
E	3750	5625	11250

ANCHOR MARK	ANCHORS DESCRIPTION	SUBSTRATE	SUBSTRATE PENETRATION	EDGE DISTANCE
A	5/16" ITW TAPCONS XL	MIN. 3KSI CONCRETE	2 1/4"	2 3/16"
B	5/16" ITW TAPCONS XL	GROUT FILLED C-90 CMU	2 1/4"	4"
E	3/8" DEWALT SCREW-BOLT+	MIN. 3KSI CONCRETE	3 1/4"	4 1/2"

CALCULATING SERVICE REACTION (Rs):

- 1- (PD) - PROJECT DESIGNED PRESSURE CALCULATED AS PER GENERAL NOTE 4.
- 2- (TM) - TRIBUTARY MODULE TM AS PER SHEET 11
- 3- (MS) - MULL SPAN

$$\text{SERVICE REACTION: } R_s = PD \times TM \times MS / 144 / 2$$

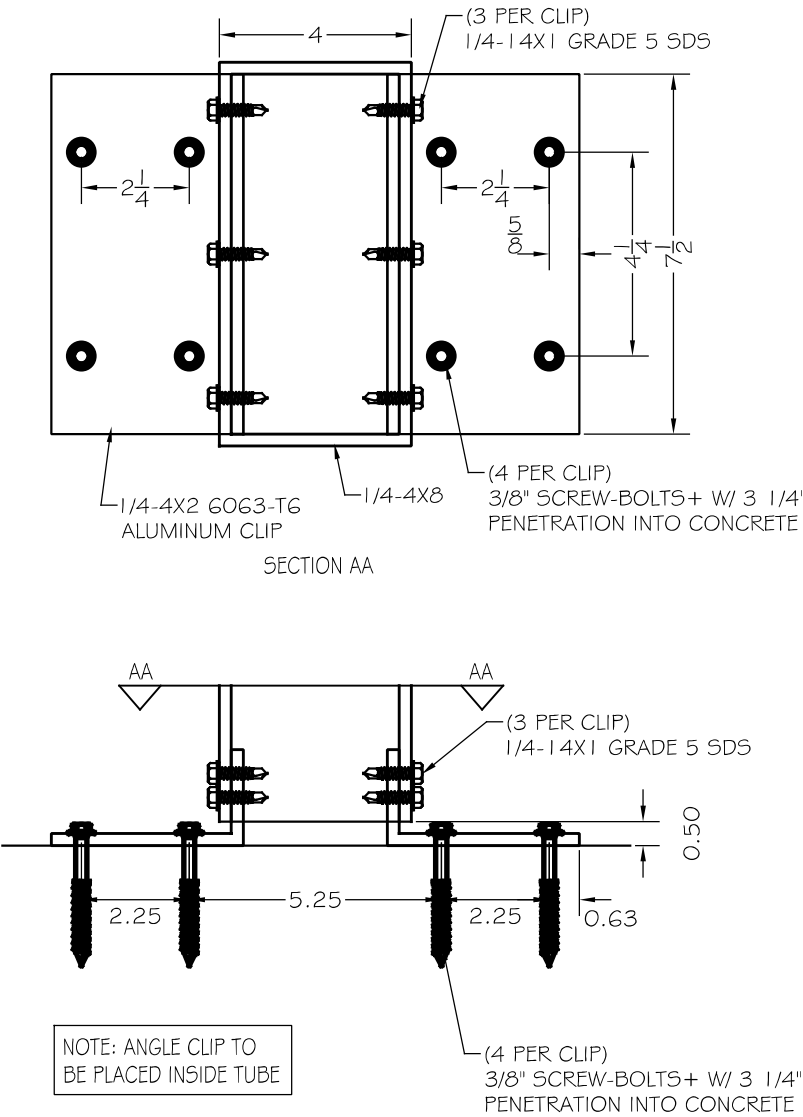
Service Reaction must be lower or equal to anchorage capacity: $R_s \leq R_a$

Example:

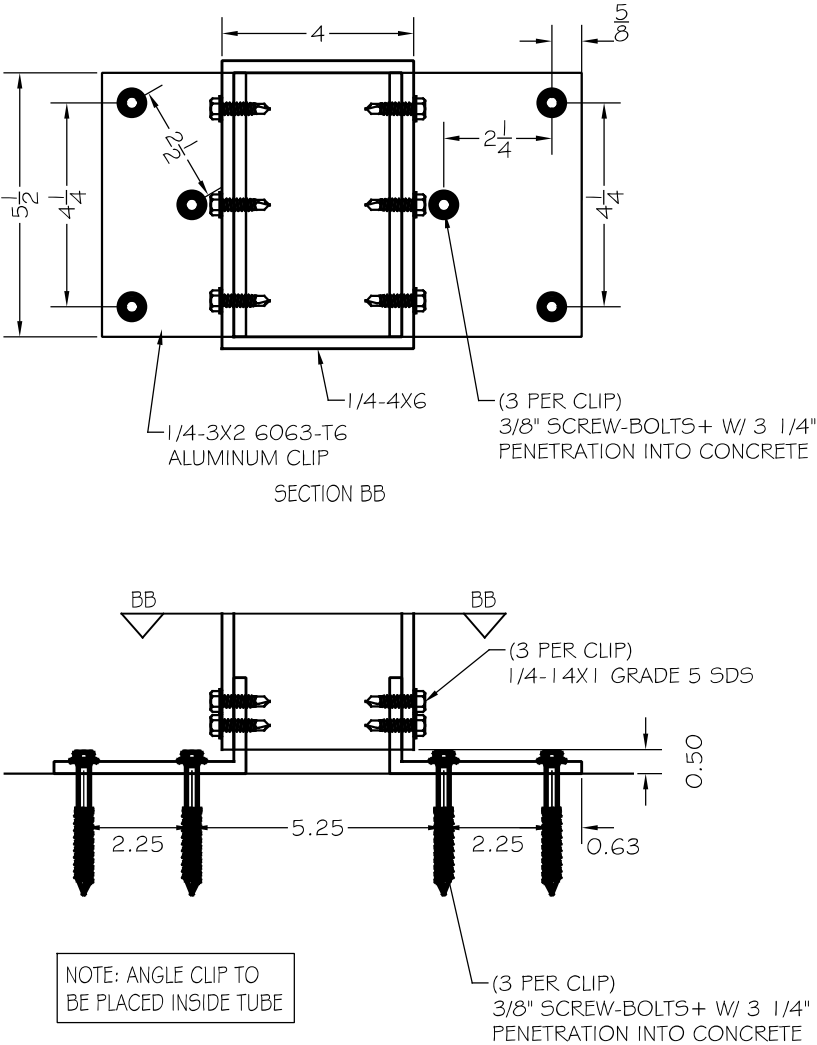
- 1- Project pressure: $PD = \pm 80 \text{ psf}$
- 2- Two doors 144" wide with one 96" mull at middle
- 3- Tributary Module: $TM = (144 + 144) / 2 = 144"$
- 4- Mullion Span: $MS = 96"$
- 5- Table 4 select 1/4-4x6 mull rated at 80 psf => 80 psf -- Ok
- 6- Wall Mounted with W6 condition anchor type A - $R_a = 4680 \text{ lb}$
- 7- Calculate R_s as above:
 $R_s = 80 \text{ psf} \times 144" \times 96" / 144 / 2 = 3840 \text{ LB}$
 $R_s = 3840 < R_a = 4680 \text{ (WG Type A anchor type ACCEPTABLE)}$

EQUALLY SPACED MULLIONS FLOOR AND CEILING CONNECTIONS

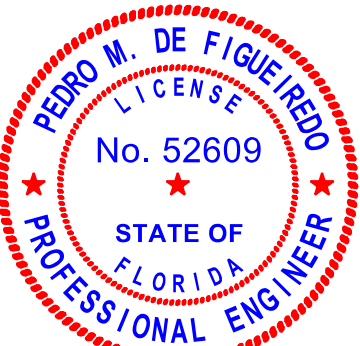
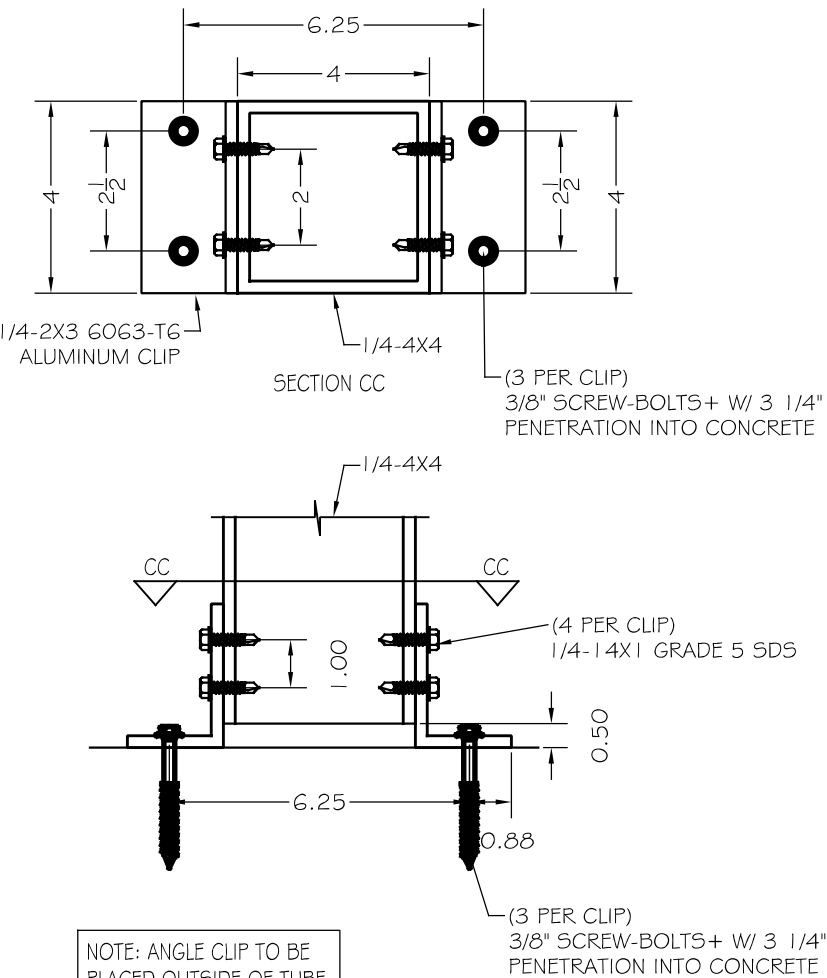
1/4-4X8 MULLION
FLOOR/CEILING MOUNT



1/4-4X6 MULLION
FLOOR/CEILING MOUNT



1/4-4X4 MULLION
FLOOR/CEILING MOUNT



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PRODUCT:
SUPERNOVA 43mm
EXTRUDED ALUMINUM
ROLL-UP HURRICANE PROTECTION DEVICE
LARGE MISSILE IMPACT RESISTANT

ASSOCIATION OF MANUFACTURERS:
N.A.S.A
NATIONAL APPROVED SHUTTER ASSOCIATION L.L.C.
604 HILLSBORO TECHNOLOGY DR.
DEERFIELD, FL 33441

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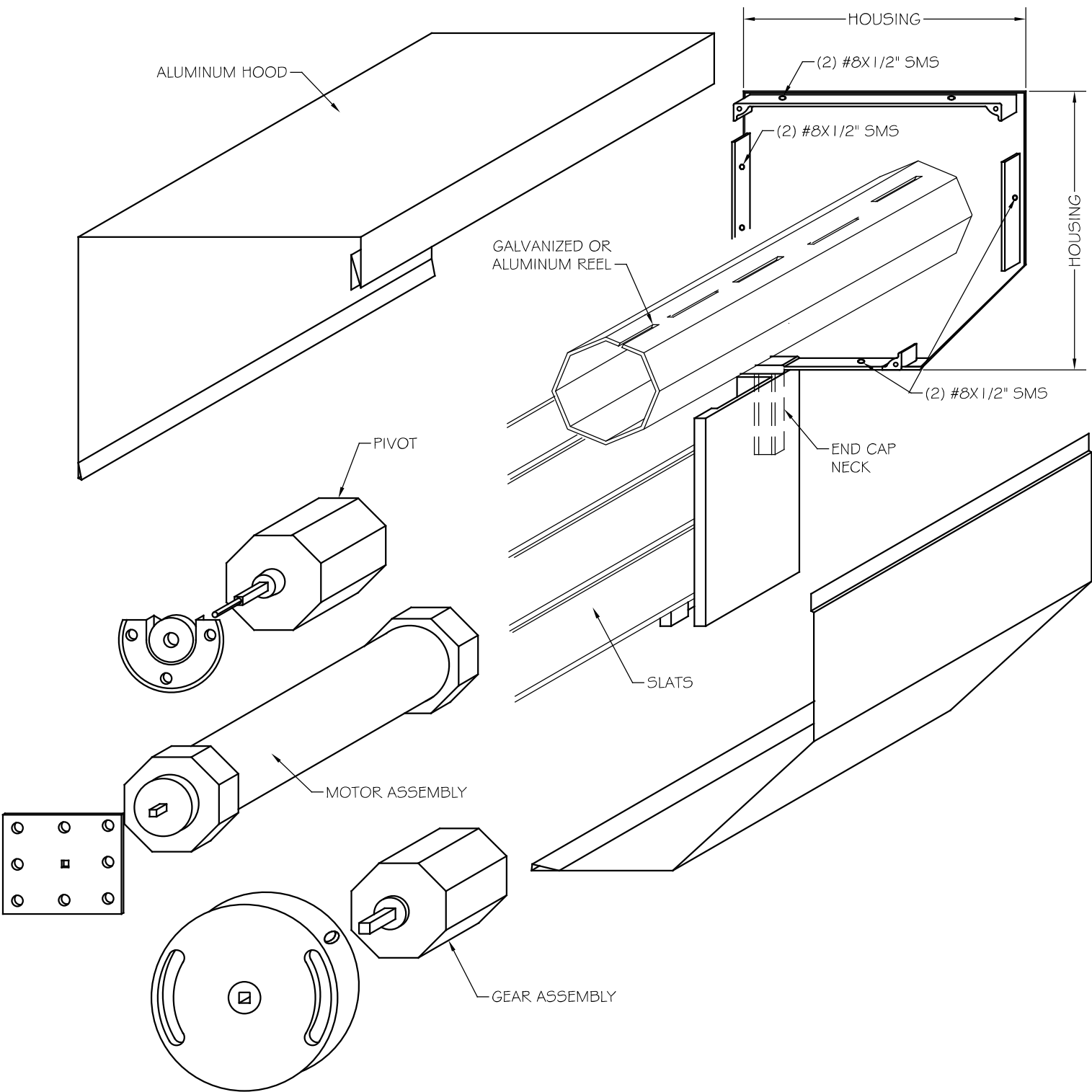
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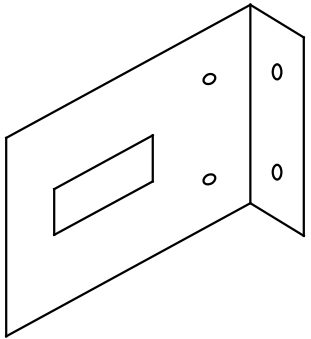
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FLOOR / CEILING CONNECTION CAPACITY FUNCTION OF DESIGNED PRESSURES ON TABLE 4

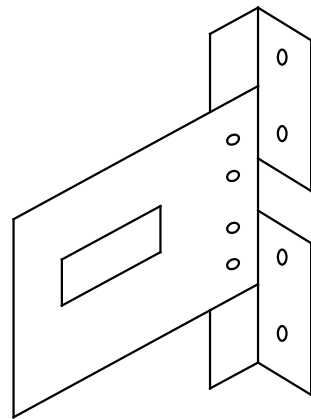
HOOD ASSEMBLY



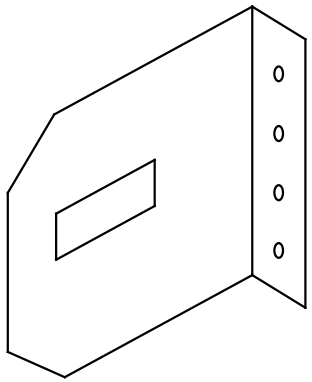
OPTIONAL STEEL BRACKET



UP TO 100 LBS SHUTTER WEIGHT
(2) 5/16" TAPCON OR
(3) 1/4"Øx1" SMS

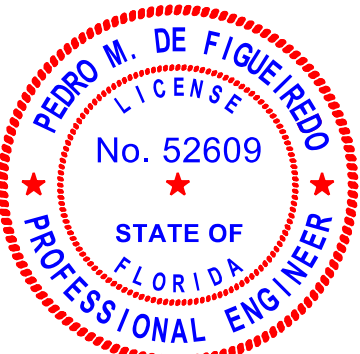
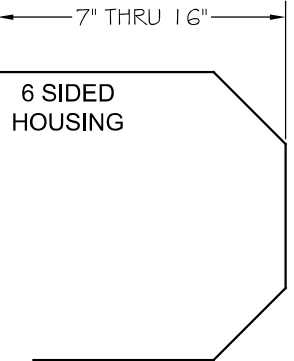
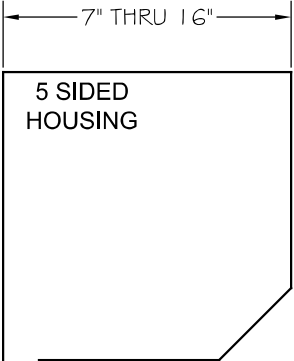
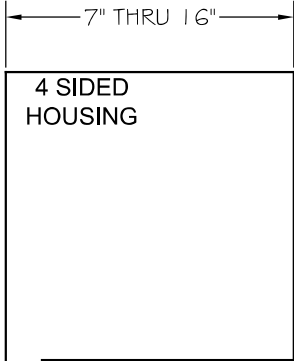


UP TO 200 LBS SHUTTER WEIGHT
(3) 5/16"Ø TAPCONS OR
(4) 1/4"Øx1" SMS



UP TO 350 LBS SHUTTER WEIGHT
(4) 5/16" TAPCON OR
(6) 1/4"Øx1" SMS

NOTE: THE ROLL-UP MECHANISM (GEARS, MOTORS, SUPPORTING END PLATES) ARE NOT PART OF THIS APPROVAL.MANUFACTURER IS RESPONSIBLE TO SPECIFY THESE COMPONENTS FOR PROPER SHUTTER OPERATION.



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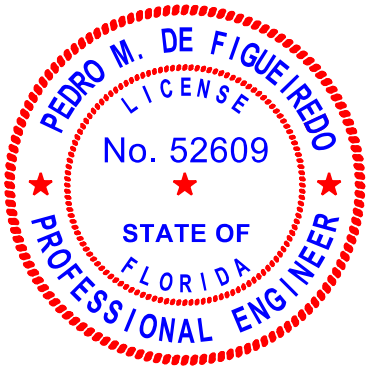


PRODUCT:
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EXTRUDED ALUMINUM
ROLL-UP HURRICANE PROTECTION DEVICE
LARGE MISSILE IMPACT RESISTANT

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TABLE 1711.1 - CORROSION RESISTANCE OF FASTENERS			
EXPOSURE		BUILDING LOCATION FROM COASTAL SHORELINE	
		≤ 300 FEET	>300 AND ≤3000 FEET
EXTERIOR	PARTIALLY SHELTERED	STAINLESS STEEL SECTION 1711.1.1.1	GALVANIZED SECTION 1711.1.1.2
	OPEN EXPOSED		
INTERIOR UNCONDITIONED ENCLOSED	VENTED UNVENTED	GALVANIZED SECTION 1711.1.1.2	GALVANIZED SECTION 1711.1.1.2



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ANCHOR DATA						FBC 2026 SECTION 1711 COMPLIANCE
MARK	MANUFACTURER	DESCRIPTION	SUBSTRATE	EMB.	ED	
A	ITW BUILDEX	5/16" ITW TAPCONS XL	3 Ksi CONCRETE	2.25	2.1875	1711.1.1.2
B	ITW BUILDEX	5/16" ITW TAPCONS XL	GROUT FILLED C-90 CMU	2.25	4	1711.1.1.2
C	DEWALT	1/4-20 DRIL-FLEX	1/4" ALUMINUM / 3/16" STEEL	3 TREADS	0.5	1711.1.1.2
	DEWALT	1/4-20 BI-FLEX 300 SS		3 TREADS	0.5	1711.1.1.1
D	ITW BUILDEX	5/16" ITW TAPCONS XL	WOOD W/ SG>=0.55	2.25	0.75	1711.1.1.2
	DEWALT	3/8" 316 SS WEDGE-BOLT - MIN 4"OC	6 Ksi CONCRETE	3.5	4.5	1711.1.1.1
E	DEWALT	3/8" SCREW-BOLT+	3 Ksi CONCRETE	3.25	4.5	1711.1.1.2
NOTES: 1- EMD.: MINIMUM EMBEDMENT INTO SUBSTRATE, E.D.: MINIMUM EDGE DISTANCE 2- ALL DIMENSIONS IN INCHES 3- METAL STRUCTURES ARE MADE OF MINIMUM 6063-T6 ALUMINUM OR ASTM A-36 4- THE CONTRACTOR TO VERIFY THE JOB LOCATION FROM COASTAL SHORELINE AND SELECT THE PRODUCT EXPOSURE INSTALLATION IN ORDER TO COMPLY WITH SECTION 1711. 5- A SITE SPECIFIC FOR AN ALTERNATE ANCHOR MEETING SECTION 1711 CAN BE USED WITH PROPER CALCULATIONS BY A PROFESSIONAL ENGINEER AND APPROVED BY PPMF INC.						

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