

6.8 ACCORDION SHUTTER

FOR USE WITHIN AND OUTSIDE THE HVHZ

TABLE 1 ALLOWABLE SPAN SCHEDULE FOR USE WITHIN THE HVHZ			
DESIGN WIND LOAD (PSF)	HVHZ POSITIVE WIND LOAD WITH UNIMATE <small>(30)</small>	HVHZ POSITIVE WIND LOAD WITH CENTERMATES <small>(29) OR (31) & (32) OR (33) & (34)</small>	HVHZ NEGATIVE WIND LOAD ALL MOUNTING CONDITIONS**
23.9	156"	156"	156"
25.0	154"	156"	156"
30.0	147"	156"	156"
35.0	142"	150"	156"
40.0	137"	145"	156"
45.0	133"	141"	156"
50.0	129"	137"	156"
55.0	126"	134"	155"
60.0	124"	131"	148"
65.0	121"	129"	143"
70.0	119"	126"	137"
75.0	117"	124"	133"
80.0	115"	122"	128"
85.0	113"	120"	125"
90.0	112"	118"	121"
95.0	110"	117"	118"
100.0	109"	115"	115"
105.0	107"	112"	112"
110.0	106"	110"	110"
115.0	105"	107"	107"
120.0	104"	105"	105"
125.0	-	-	103"
130.0	-	-	101"
135.0	-	-	99"
140.0	-	-	95"
145.0	-	-	92"
150.0	-	-	89"
155.0	-	-	86"
160.0	-	-	83"
165.0	-	-	81"
170.0	-	-	78"
175.0	-	-	76"
180.0	-	-	74"
185.0	-	-	72"
190.0	-	-	70"
195.0	-	-	68"
200.0	-	-	66"

TABLE 2 MINIMUM SEPARATION FROM GLASS FOR USE WITHIN THE HVHZ			
POSITIVE DESIGN PRESSURE (PSF)	SHUTTER SPAN	MINIMUM SEPARATION FROM GLASS	
		INSTALLATIONS ≤ 30' ABOVE GRADE (IN.)	INSTALLATIONS > 30' ABOVE GRADE (IN.)
29.3	156"	5.7"	3.5"
	60"	3.0"	1.1"
	99"	3.0"	1.5"
	120"	3.0"	1.9"
	156"	5.7"	3.5"
40	60"	3.0"	1.1"
	99"	3.0"	1.6"
	108"	3.0"	1.8"
	120"	3.0"	2.2"
	132"	5.7"	2.8"
50	145"	5.7"	3.5"
	60"	3.0"	1.1"
	99"	3.0"	1.7"
	108"	3.0"	2.0"
	120"	3.0"	2.5"
60	137"	5.7"	3.5"
	60"	3.0"	1.2"
	99"	3.0"	1.9"
	108"	3.0"	2.2"
	131"	5.7"	3.5"
70	60"	3.0"	1.2"
	84"	3.0"	1.5"
	99"	3.0"	2.0"
	126"	5.7"	3.5"
	60"	3.0"	1.2"
90	84"	3.0"	1.7"
	99"	3.0"	2.3"
	118"	3.5"	3.5"
	60"	3.0"	1.3"
	84"	3.0"	1.8"
110	99"	3.0"	2.5"
	110"	3.3"	3.3"
	60"	3.0"	1.3"
	84"	3.0"	1.9"
	105"	3.1"	3.1"

** FOR BUILDOUT MOUNT MAXIMUM SPANS AND PRESSURES, SEE TABLE C ON SHEET 6/13

TABLE 3 ALLOWABLE SPAN SCHEDULE NON-HVHZ			
DESIGN WIND LOAD (PSF)	POSITIVE AND NEGATIVE WIND LOAD ALL MOUNTING CONDITIONS**	SHUTTER SPAN	MINIMUM SEPARATION FROM GLASS
50.0	156"	30	60"
55.0	155"		99"
60.0	148"		120"
65.0	143"		156"
70.0	137"		137"
75.0	133"		108"
80.0	128"		120"
85.0	125"		132"
90.0	121"		156"
95.0	118"		60"
100.0	115"		99"
105.0	112"		108"
110.0	110"		120"
115.0	107"		132"
120.0	105"		156"
125.0	103"		60"
130.0	101"		99"
135.0	99"		108"
140.0	95"		120"
145.0	92"		137"
150.0	89"		60"
155.0	86"		84"
160.0	83"		99"
165.0	81"		120"
170.0	78"		137"
175.0	76"		60"
180.0	74"		84"
185.0	72"		99"
190.0	70"		120"
195.0	68"		121"
200.0	66"		60"

** FOR BUILDOUT MOUNT MAXIMUM SPANS AND PRESSURES, SEE TABLE C ON SHEET 6/13

TABLE 4 MINIMUM SEPARATION FROM GLASS NON-HVHZ SEE NOTE 3 BELOW			
POSITIVE DESIGN PRESSURE (PSF)	SHUTTER SPAN	MINIMUM SEPARATION FROM GLASS	INSTALLATIONS ≤ 30' ABOVE GRADE (IN.)
30		60"	3.1"
		99"	3.1"
		120"	1.9"
		156"	3.5"
		60"	1.1"
40		99"	1.5"
		108"	1.8"
		120"	2.2"
		132"	2.7"
		156"	4.3"
50		60"	1.1"
		99"	1.7"
		108"	2.0"
		120"	2.5"
		132"	3.1"
60		60"	1.1"
		99"	1.8"
		108"	2.1"
		120"	2.7"
		148"	5.0"
70		60"	1.1"
		84"	1.5"
		99"	1.9"
		120"	3.0"
		137"	4.5"
90		60"	1.2"
		84"	1.6"
		99"	2.2"
		120"	3.6"
		121"	3.7"
110		60"	1.2"
		84"	1.8"
		99"	2.5"
		110"	3.3"
		60"	1.2"
120		60"	1.2"
		84"	1.8"
		99"	2.6"
		105"	3.0"



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CLIENT REVISIONS KL FLB 2/22/12
2014 FBC RWN CSL 10/25/13
2017 FBC RWN FLB 4/01/15
2020 FBC UPDATE CB RWN 8/04/17
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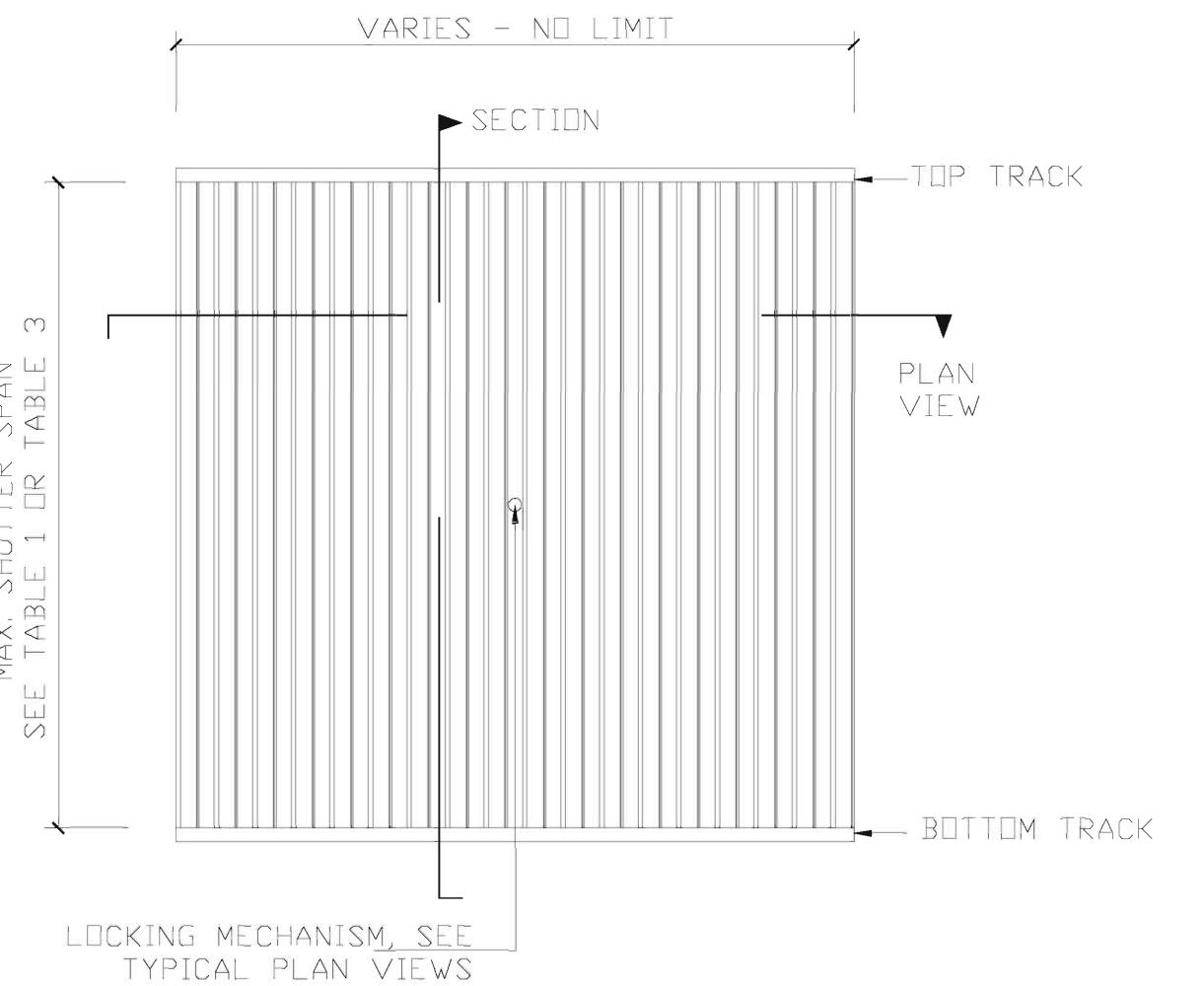


GENERAL NOTES:

1. THIS SYSTEM HAS BEEN TESTED AND EVALUATED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE SEVENTH EDITION (2020), FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, AND THE INTERNATIONAL BUILDING CODE (IBC) AND INTERNATIONAL RESIDENTIAL CODE (IRC). THIS SYSTEM MEETS MISSILE LEVEL "D". SEE PRODUCT EVALUATION REPORT FOR MORE INFORMATION.
2. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED PER SEPARATE ENGINEERING IN ACCORDANCE WITH THE GOVERNING CODE. PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7 AND CHAPTER 1609 OF THE FLORIDA BUILDING CODE SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
3. TESTING WAS CONDUCTED IN ACCORDANCE WITH TAS 201/202/203 AND ASTM E1886/E1996/E330.
4. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
5. THIS SYSTEM HAS BEEN DESIGNED WITH NO SEPARATION FROM GLAZING REQUIRED FOR ALL WIND ZONES, IN ACCORDANCE WITH ASTM E1996. IT IS ACCEPTABLE BY CODE UNLESS OPTIONAL CRITERIA IS INDEPENDENTLY ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
6. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THESE PRODUCTS. WIND LOAD DURATION FACTOR Cd = 1.6 WAS USED FOR WOOD ANCHOR DESIGN.
7. DETERMINE THE POSITIVE AND NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH ASCE 7-16, A DIRECTIONALITY FACTOR OF Kd = 0.85 SHALL BE USED.
8. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE.
9. THESE INSTALLATION INSTRUCTIONS ARE PART OF A PRODUCT APPROVAL EVALUATION AND SHALL ONLY BE USED IN CONJUNCTION WITH THE EVALUATION REPORT SUBMITTED FOR THE SAME PRODUCT APPROVAL. USE OF THESE APPROVAL DOCUMENTS SHALL COMPLY WITH CHAPTER 61G15 OF THE FLORIDA ADMINISTRATIVE CODE.
10. THESE APPROVAL DOCUMENTS ARE SUITABLE TO BE APPLIED BY THE CONTRACTOR PROVIDED THE CONTRACTOR DOES NOT DEVIATE FROM THE CONDITIONS DETAILED HEREIN AND THE CONTRACTOR VERIFIES THAT THE EXISTING STRUCTURE DOES NOT DEVIATE IN EITHER FORM OR MATERIAL FROM THE STRUCTURAL SUBSTRATES DETAILED HEREIN.
11. WHEN THE SITE CONDITIONS DEVIATE FROM THESE APPROVAL DOCUMENTS, THE BUILDING OFFICIAL MAY REQUIRE THAT SITE SPECIFIC DOCUMENTS BE PREPARED, SIGNED, DATED AND SEALED BY A LICENSED ENGINEER OR REGISTERED ARCHITECT, WHICH DETAIL AND JUSTIFY THE DEVIATION, AS A CONDITION TO THE BUILDING OFFICIAL GRANTING HIS/HER APPROVAL.
12. EACH SHUTTER ASSEMBLY SHALL BE PERMANENTLY LABELED WITH THE FOLLOWING MINIMUM INFORMATION:

TOWN & COUNTRY INDUSTRIES
FORT LAUDERDALE, FL
9LB MISSILE LEVEL D - ASTM E1886, E1996 & E330
TAS 201, 202 & 203
FLORIDA PRODUCT APPROVAL NUMBER

13. ALL EXTRUSIONS SHOWN SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N., WITH A MINIMUM Fy OF 25 K.S.I.
14. ALL BOLTS AND WASHERS (EXCLUDING INSTALLATION) SHALL BE STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 K.S.I., U.O.N. POP RIVETS SHALL BE 1/4"Ø OR 3/16"Ø 5052 ALUM. ALLOY.
15. ALL SHUTTERS SHALL HAVE A LOCKING MECHANISM CONSISTING OF THUMBSCREW, PUSH LOCK OR BOX LOCK AT CENTER OR SIDE CLOSURE.
16. TOP AND BOTTOM DETAILS MAY BE INTERCHANGED AS FIELD CONDITIONS REQUIRE.
17. FLOOR TRACKS MAY BE REMOVABLE AT NON-STACKING LOCATIONS. USE REMOVABLE ANCHORS.
18. MOUNTING EXTRUSIONS MAY BE BENT TO FORM A CURVE WITH A MIN. RADIUS OF 10".
19. ALL DIMENSIONS SHOWN INCLUDE POWDER COATING FINISH.
20. SEALANT SHALL BE USED ON ANCHORS OR TRACKS WHEREVER WATER SEEPAGE IS POSSIBLE.
21. ALL STEEL IN CONTACT WITH ALUMINUM SHALL BE PAINTED OR PLATED AS PRESCRIBED IN THE ABOVE-NOTED BUILDING CODE
22. THE 6.8 SYSTEM MAY BE MOUNTED WITH THE INSIDE AND OUTSIDE OF THE SHUTTER BEING REVERSED. FOR EXAMPLE: IT IS PERMISSIBLE TO MOUNT TO A WOOD OR CONCRETE BEAM WITH THE BACK OF THE SLAT FACING OUTWARD. FOR THIS CONDITION POSITIVE ALLOWABLE DESIGN PRESSURES AS NOTED IN TABLE 1 ARE IN THE DIRECTION TOWARDS THE HOST STRUCTURE AND NEGATIVE ALLOWABLE DESIGN PRESSURES ARE AWAY FROM THE HOST STRUCTURE.
23. SHUTTER MAY BE INSTALLED WITH UP TO (2) ADDITIONAL BLADES OF SLACK



TYPICAL ACCORDION SHUTTER ELEVATION

N.T.S.

REMARKS	DRWN	CHKD	DATE
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Journal of Oral Rehabilitation 2003; 30: 105–112

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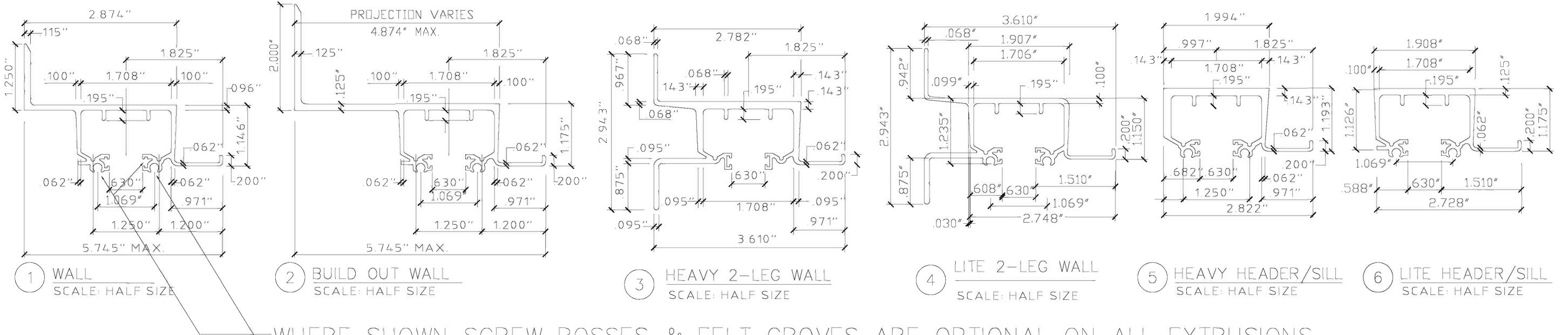
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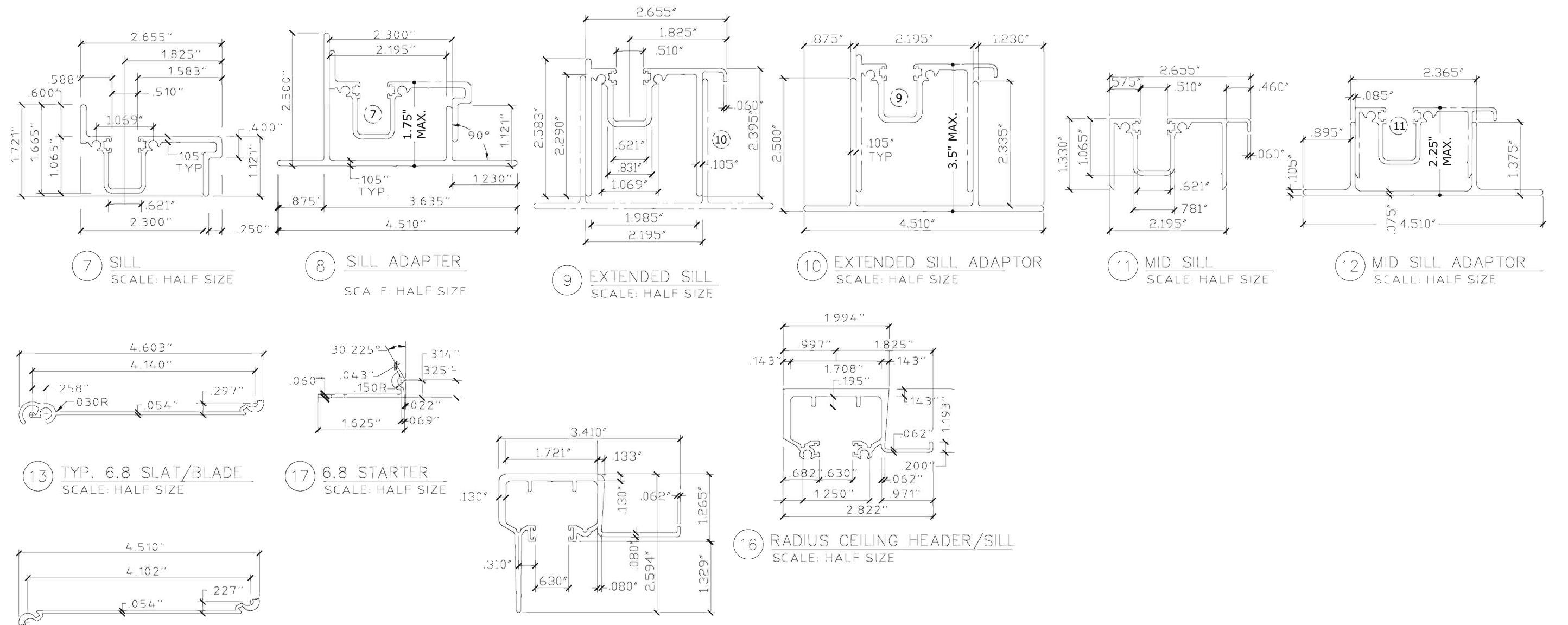
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10 of 10

3



— WHERE SHOWN SCREW BOSSES & FELT GROVES ARE OPTIONAL ON ALL EXTRUSIONS



15) 6.8 STACK/CONNECTOR SLAT/BLADE
SCALE: HOLE SIZE



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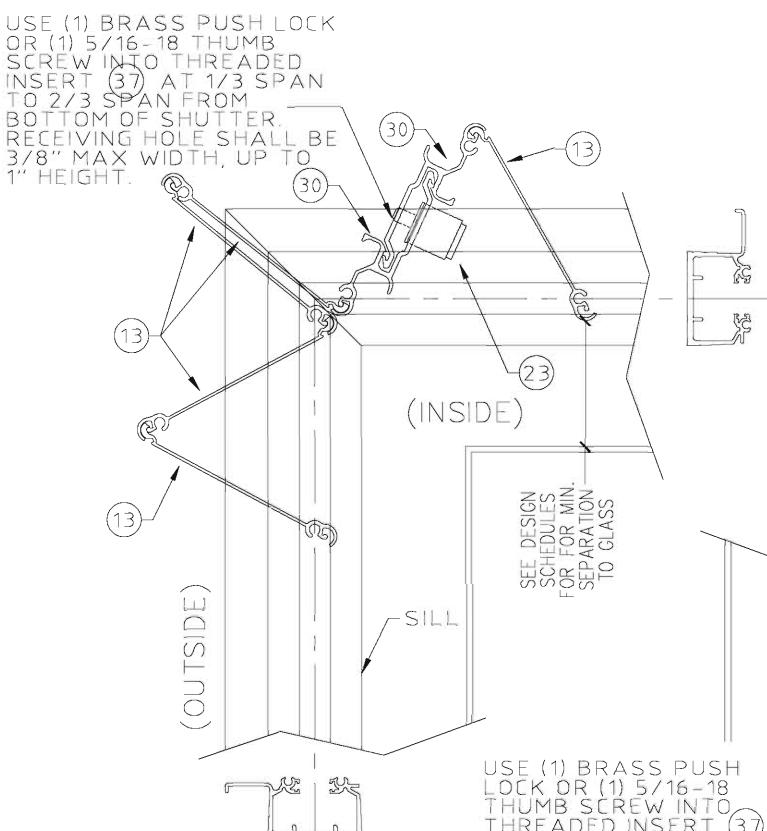
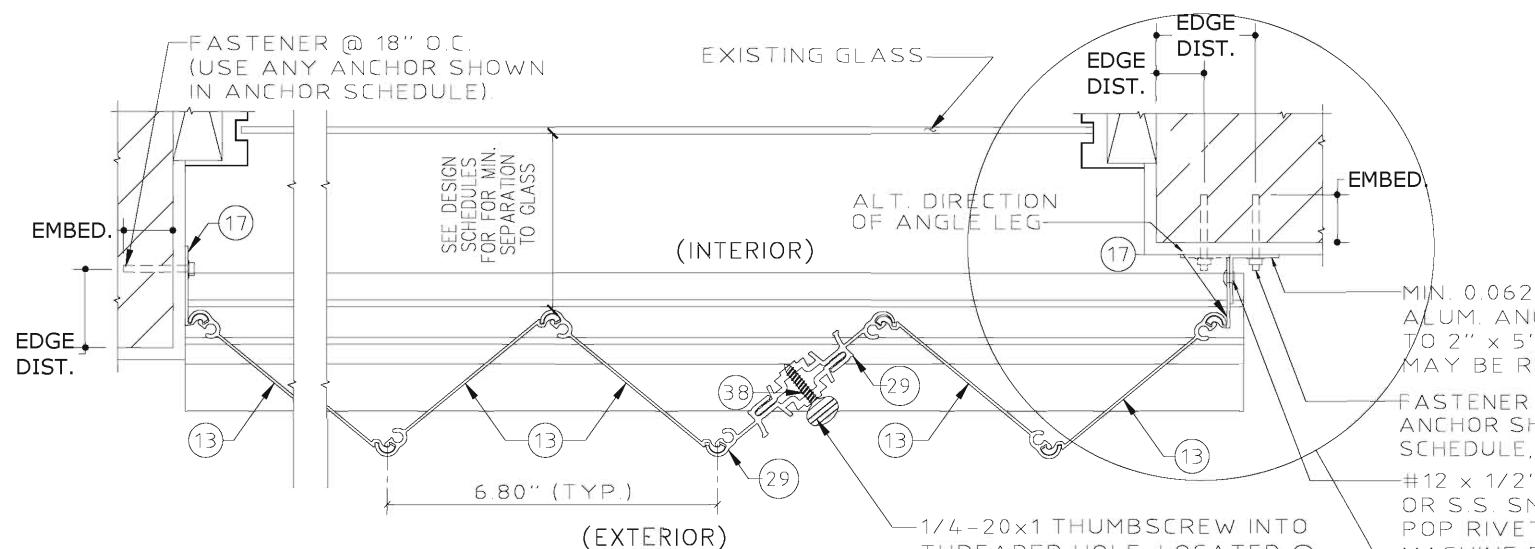
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14



CC1 TYPICAL OUTSIDE CORNER CLOSURE
DETAILS WO/CORNER POST
NTS



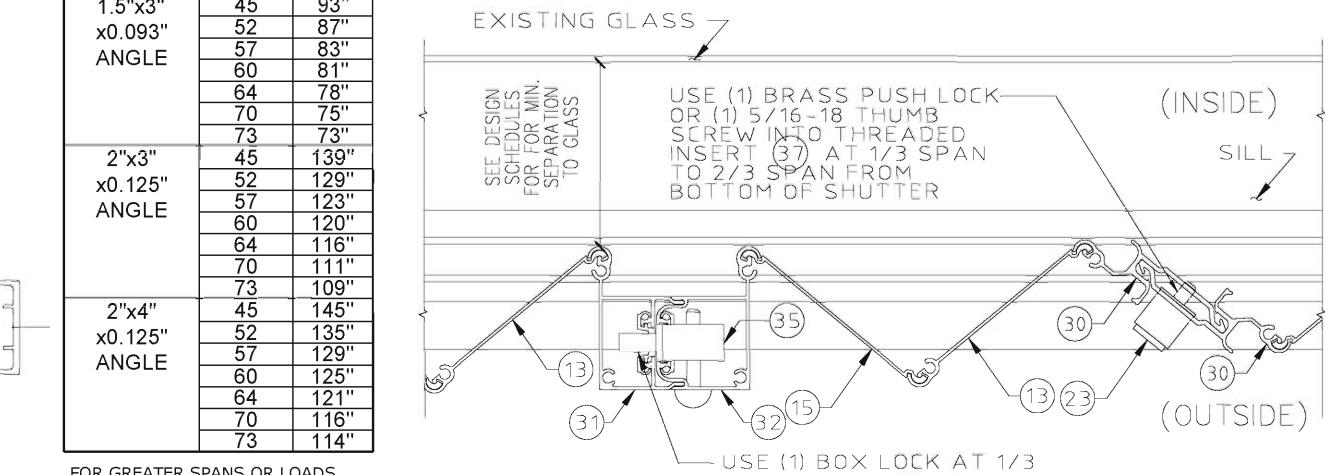
FOR GREATER SPANS OR LOADS
THAN SHOWN IN END STRIP
SCHEDULE, END STRIPS REQUIRE A
1"X1" .090" CLIP ANGLE MID SPAN
USING ANY ANCHOR ON THE
ANCHOR SCHEDULE & #14x3/4" TEK
SCREW OR 1/4-20 BOLT TO END
STRIP.

LOCKING DETAILS FOR
CENTER MATES
SHOWN ON RANDOM
DETAILS

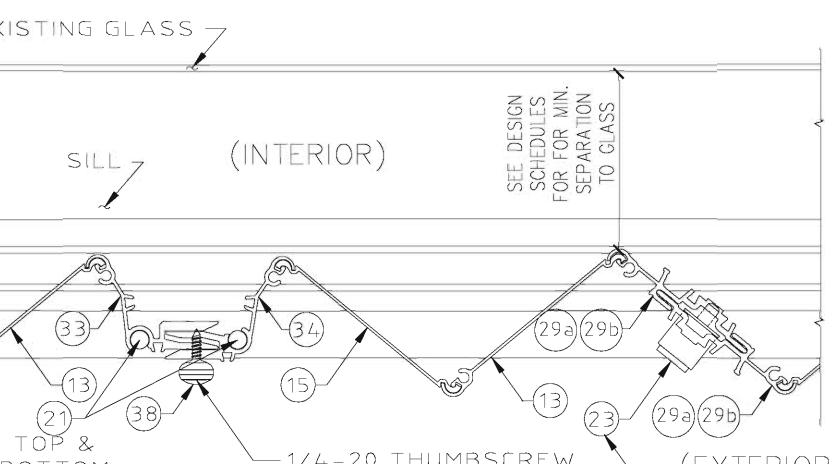
END STRIP SCHEDULE

	PSF	SPAN
1" B/O (2.7") ④0g	62	108"
	72	100"
	82	94"
	112	80"
	132	75"
2" B/O (3.7") ④0b	62	95"
	72	88"
	82	83"
3" B/O (4.7") ④0g	62	86"
	72	79"
	82	74"
ALT. B/O ④0d	62	110"
	72	102"
	82	95"
	112	81"
	132	75"
1.5"x3" x0.093" ANGLE	45	93"
	52	87"
	57	83"
	60	81"
	64	78"
	70	75"
	73	73"
2"x3" x0.125" ANGLE	45	139"
	52	129"
	57	123"
	60	120"
	64	116"
	70	111"
	73	109"
2"x4" x0.125" ANGLE	45	145"
	52	135"
	57	129"
	60	125"
	64	121"
	70	116"
	73	114"

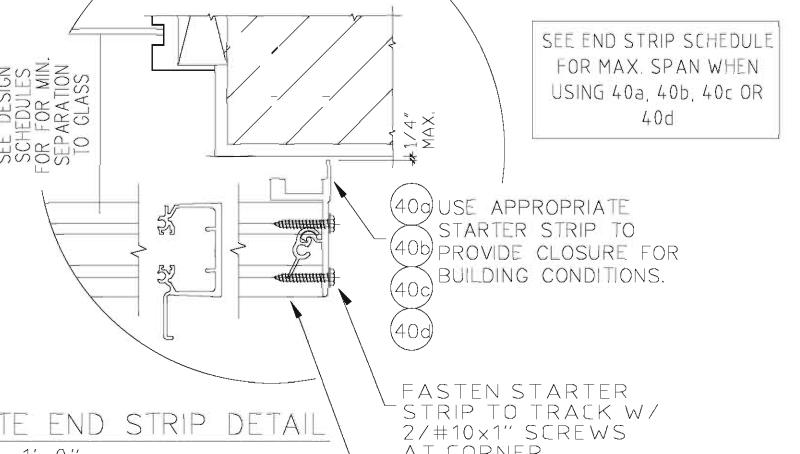
SEE DESIGN SCHEDULES
FOR MIN.
SEPARATION
TO GLASS



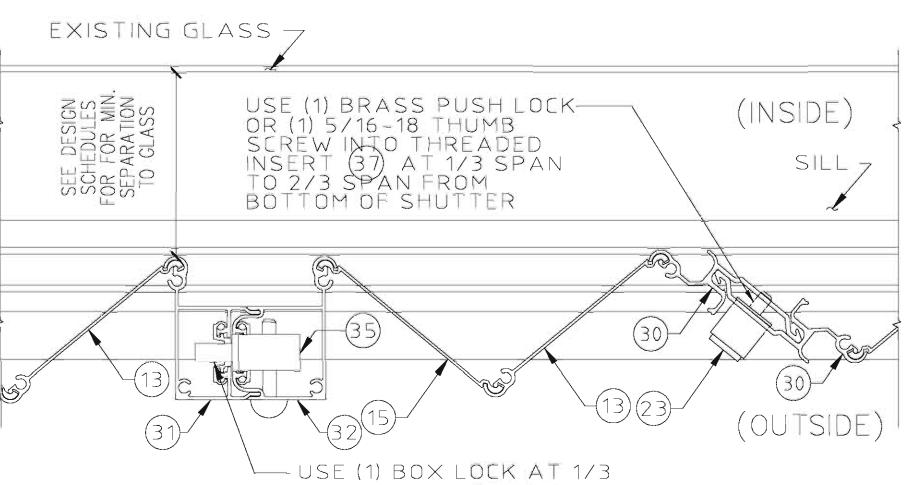
MULTIPLE SHUTTER ASSEMBLY
SCALE: 3" = 1'-0"



MULTIPLE SHUTTER ASSEMBLY
SCALE: 3" = 1'-0"



ALTERNATE END STRIP DETAIL
SCALE: 3" = 1'-0"



MULTIPLE SHUTTER ASSEMBLY
SCALE: 3" = 1'-0"



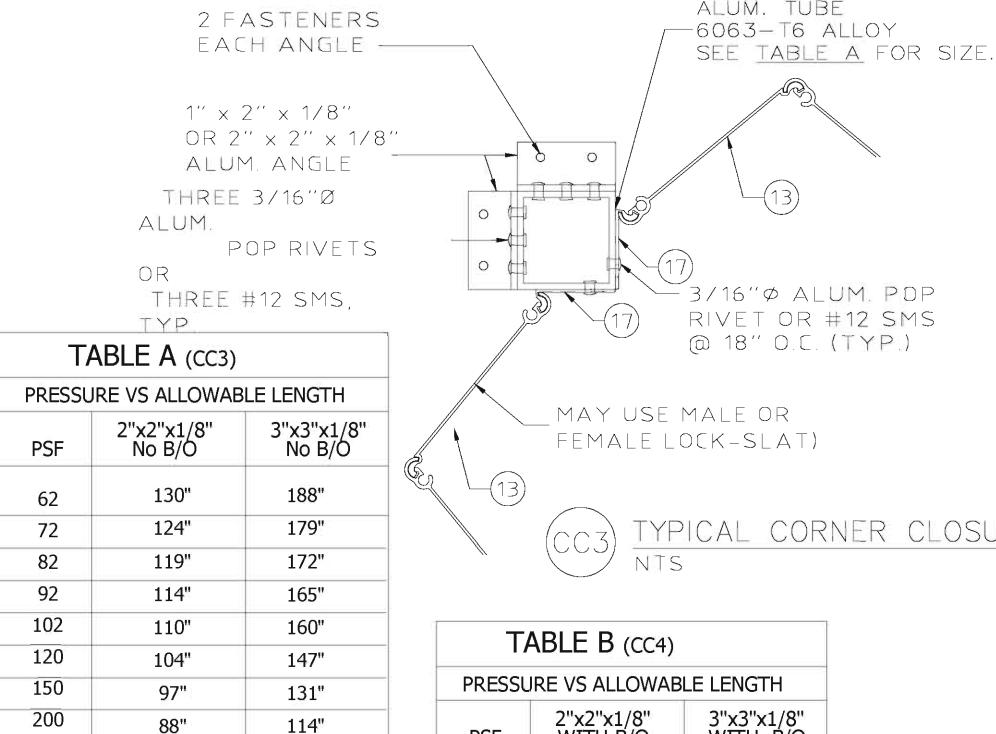
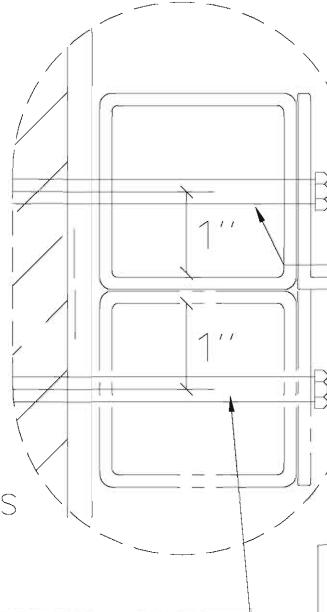
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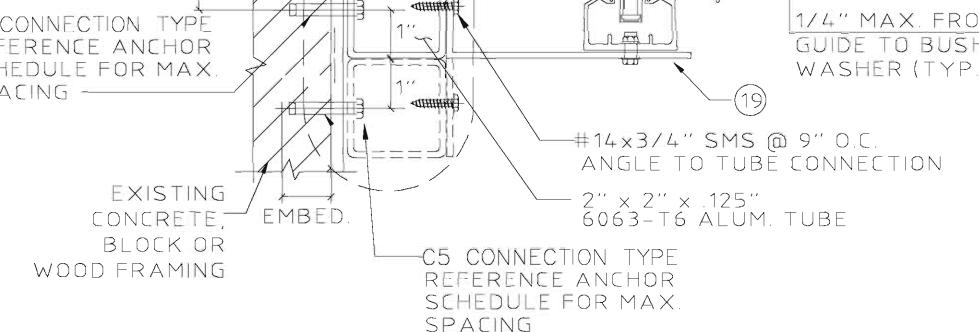
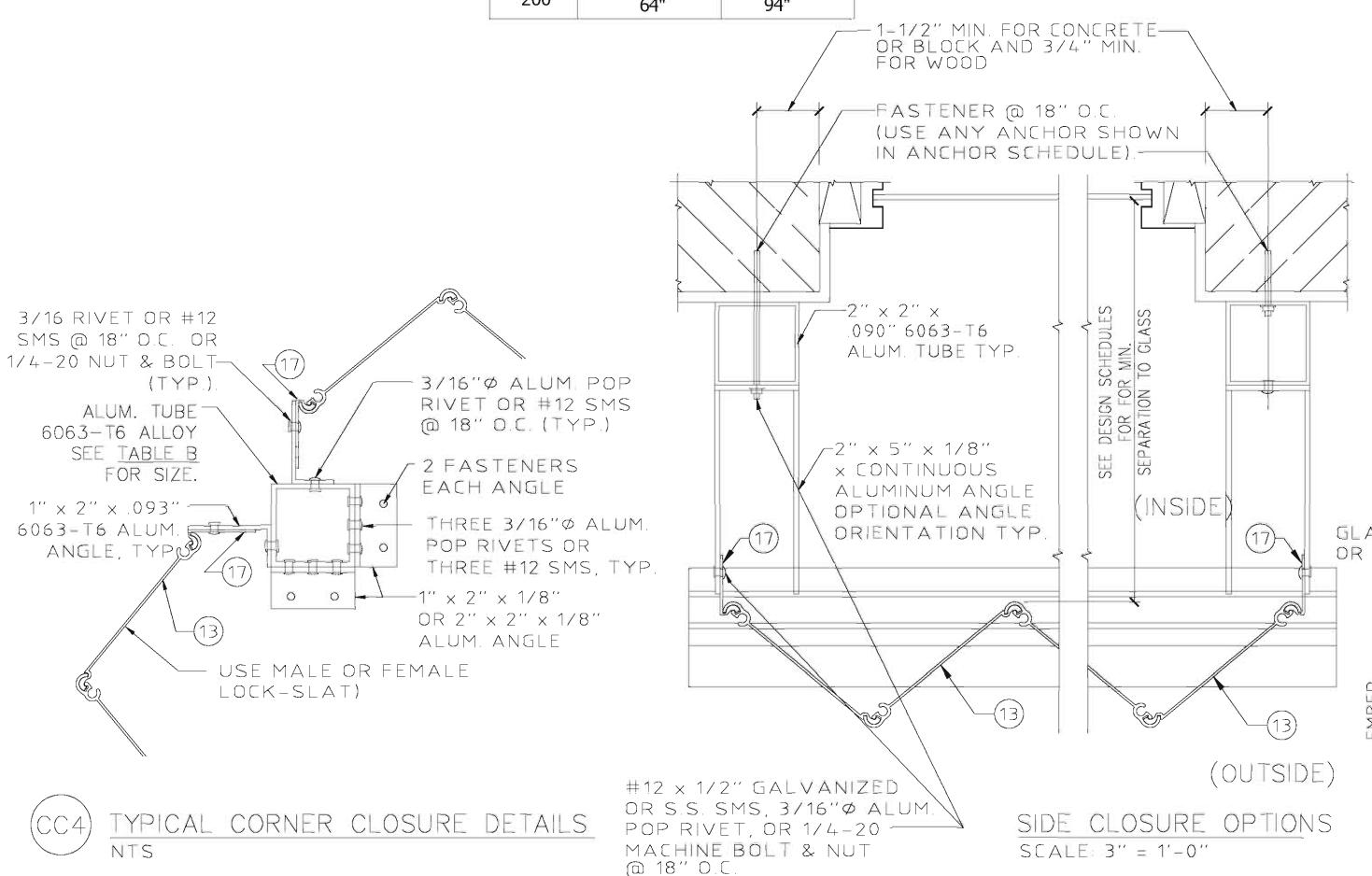
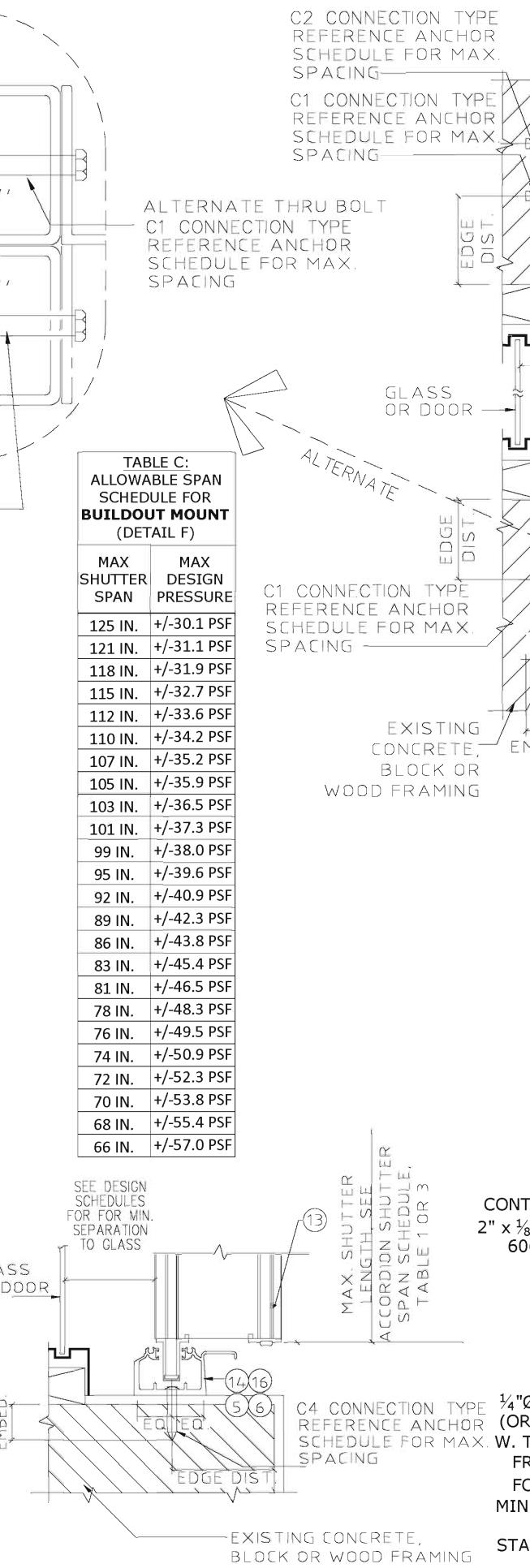
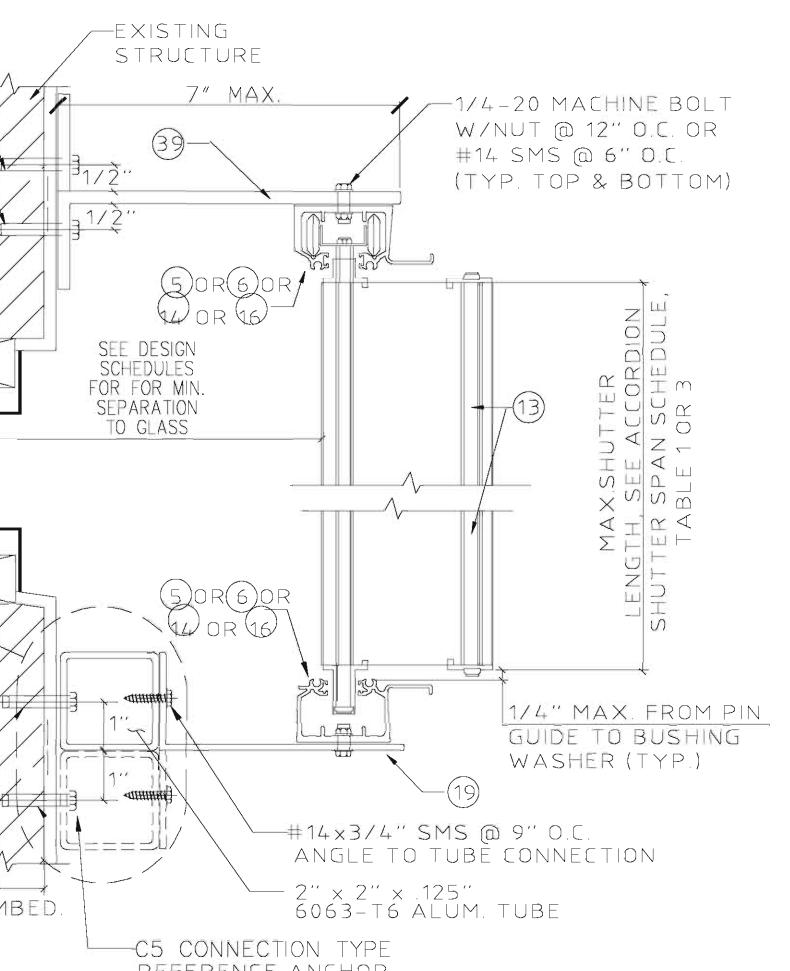
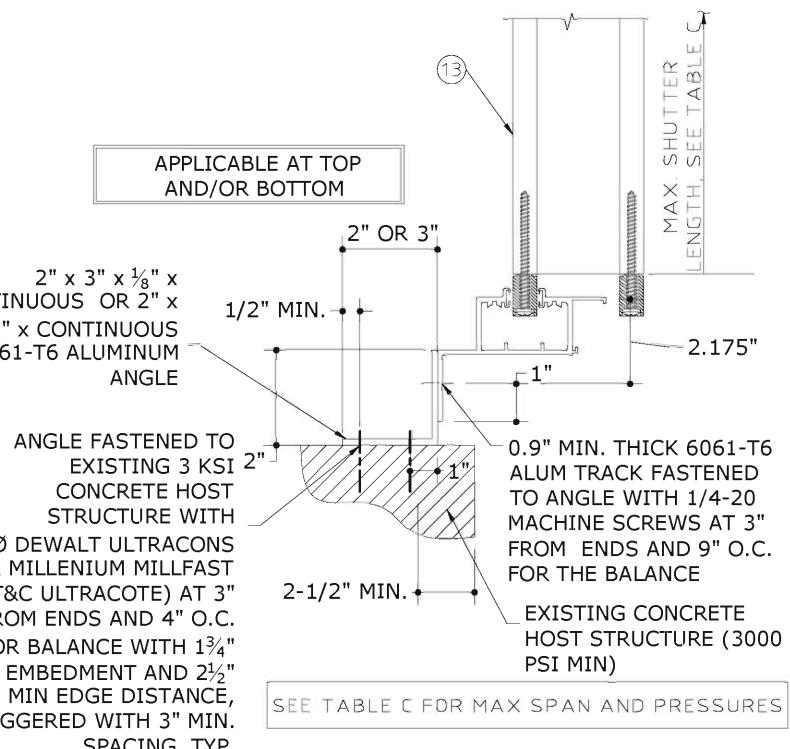
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SCALE: -
PAGE DESCRIPTION: -OF 14
6ALTERNATE THRU BOLT
C5 CONNECTION TYPE
REFERENCE ANCHOR
SCHEDULE FOR MAX.
SPACING

C2 CONNECTION TYPE
REFERENCE ANCHOR
SCHEDULE FOR MAX.
SPACING
C1 CONNECTION TYPE
REFERENCE ANCHOR
SCHEDULE FOR MAX.
SPACING
ALTERNATE THRU BOLT
C1 CONNECTION TYPE
REFERENCE ANCHOR
SCHEDULE FOR MAX.
SPACING

**TABLE C:**
ALLOWABLE SPAN
SCHEDULE FOR
BUILDOUT MOUNT
(DETAIL F)

MAX SHUTTER SPAN	MAX DESIGN PRESSURE
125 IN.	+/-30.1 PSF
121 IN.	+/-31.1 PSF
118 IN.	+/-31.9 PSF
115 IN.	+/-32.7 PSF
112 IN.	+/-33.6 PSF
110 IN.	+/-34.2 PSF
107 IN.	+/-35.2 PSF
105 IN.	+/-35.9 PSF
103 IN.	+/-36.5 PSF
101 IN.	+/-37.3 PSF
99 IN.	+/-38.0 PSF
95 IN.	+/-39.6 PSF
92 IN.	+/-40.9 PSF
89 IN.	+/-42.3 PSF
86 IN.	+/-43.8 PSF
83 IN.	+/-45.4 PSF
81 IN.	+/-46.5 PSF
78 IN.	+/-48.3 PSF
76 IN.	+/-49.5 PSF
74 IN.	+/-50.9 PSF
72 IN.	+/-52.3 PSF
70 IN.	+/-53.8 PSF
68 IN.	+/-55.4 PSF
66 IN.	+/-57.0 PSF

**(Cb) ALTERNATE BUILD OUT MOUNT SECTION**
SCALE : 3" = 1'- 0"SIDE CLOSURE OPTIONS
SCALE: 3" = 1'- 0"**(EE) INSIDE SILL MOUNT SECTION**
SCALE : 3" = 1'- 0"**(Cb) ALTERNATE BUILD OUT MOUNT SECTION**
SCALE : 3" = 1'- 0"SEE TABLE C FOR MAX SPAN AND PRESSURES
(F) BUILDOUT MOUNT
SCALE : NTS

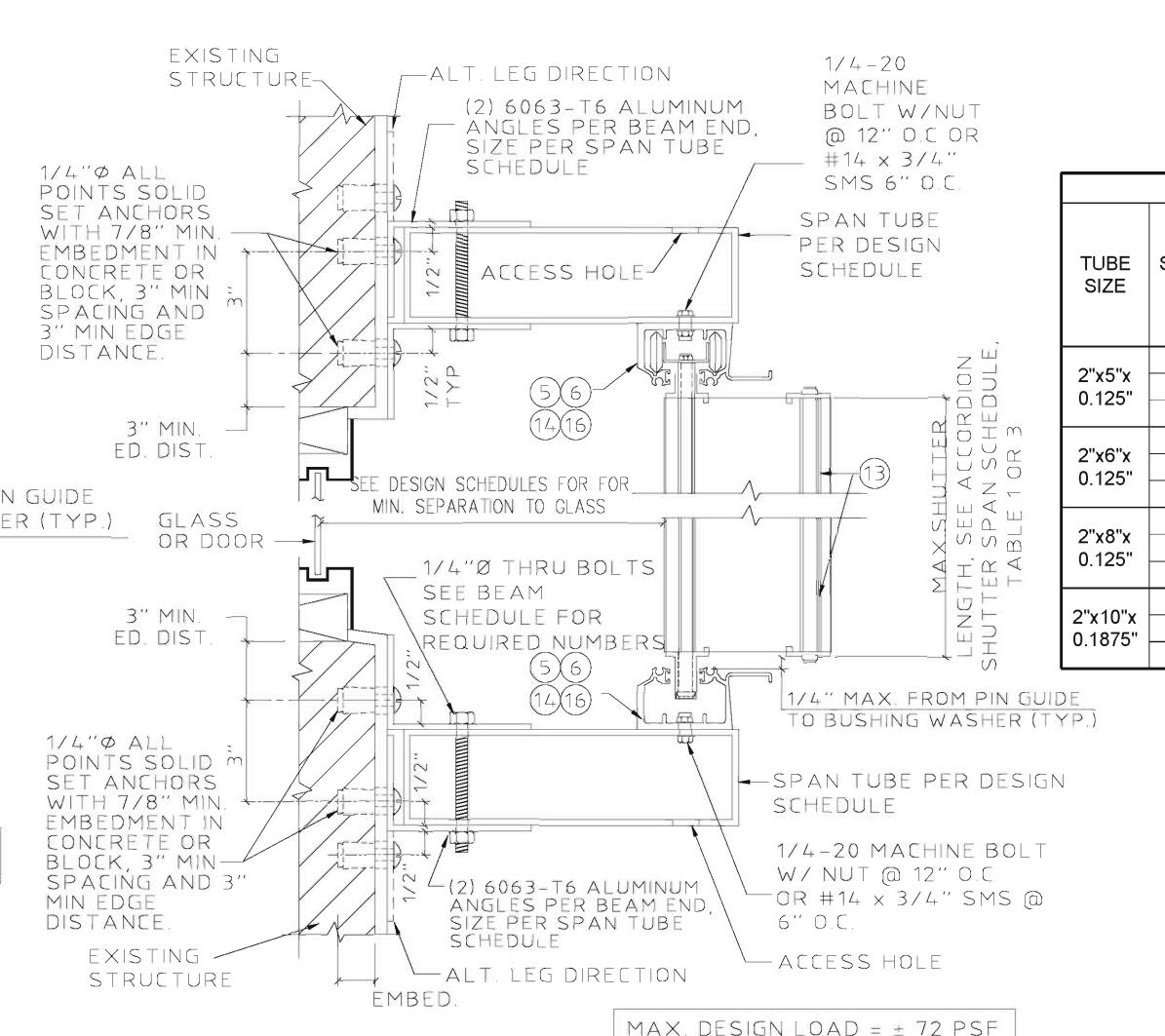
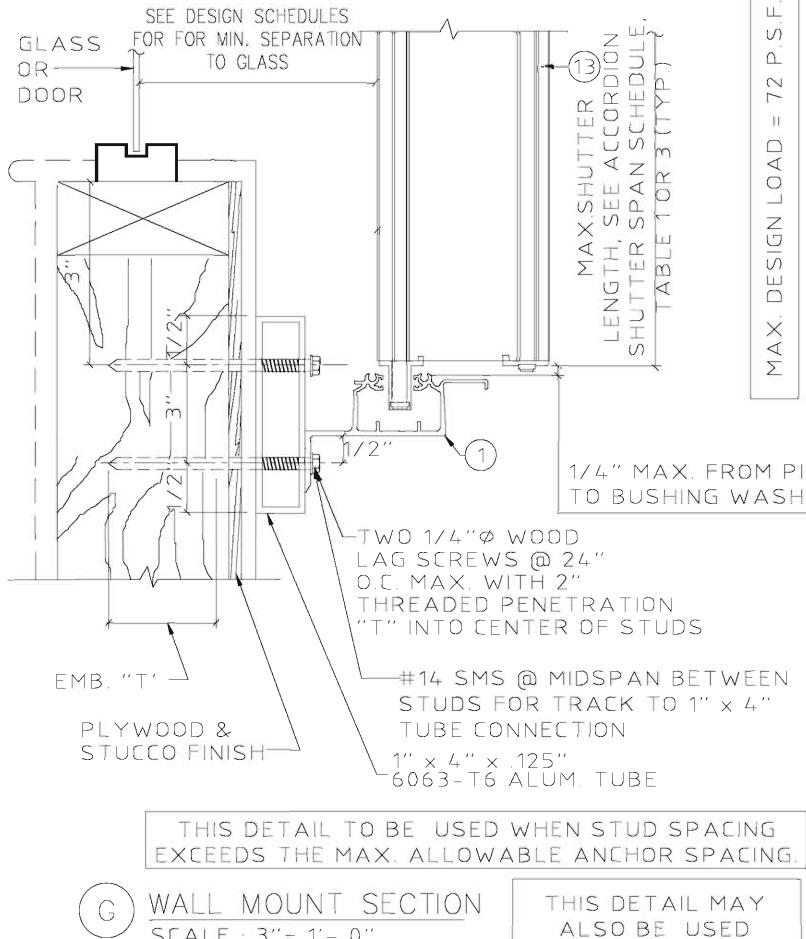
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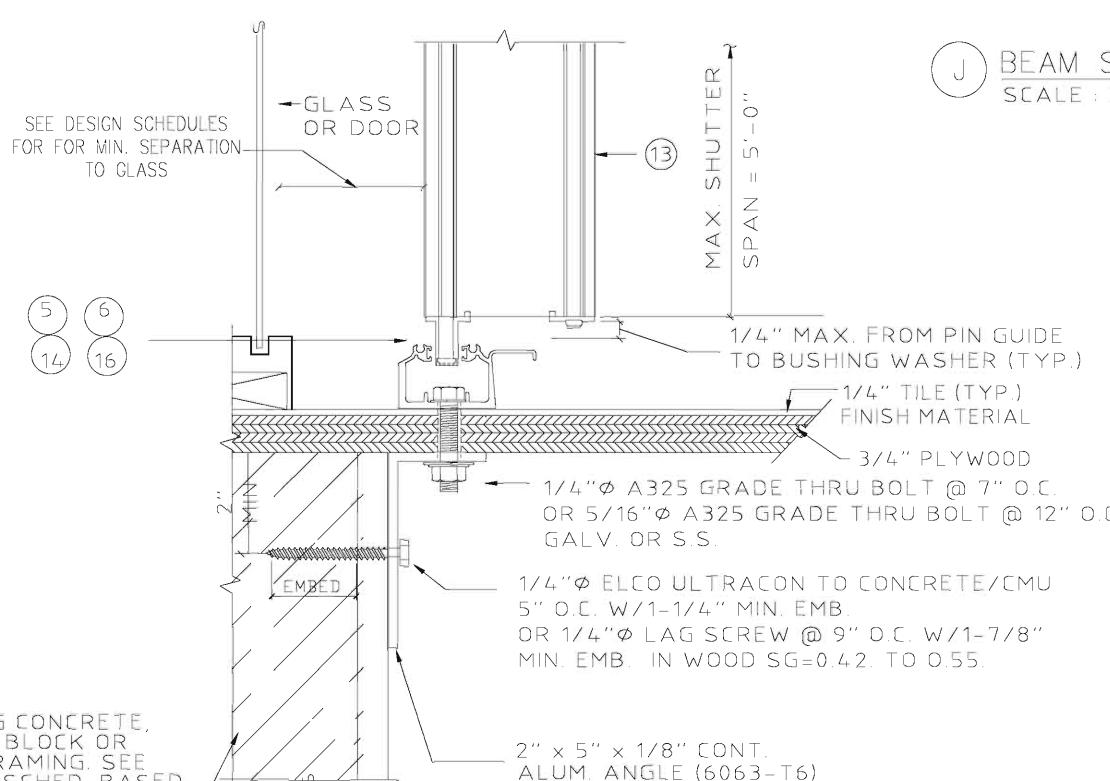
400 WEST MCNAUL ROAD
FT. LAUDERDALE, FL 33309
FL13757.1



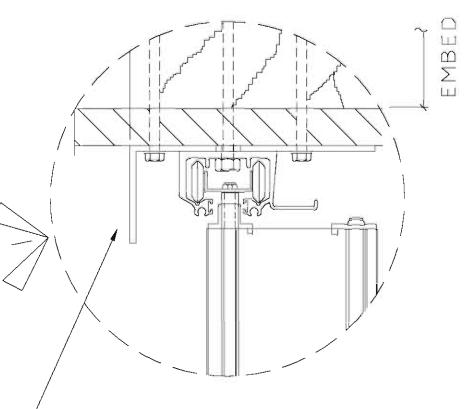
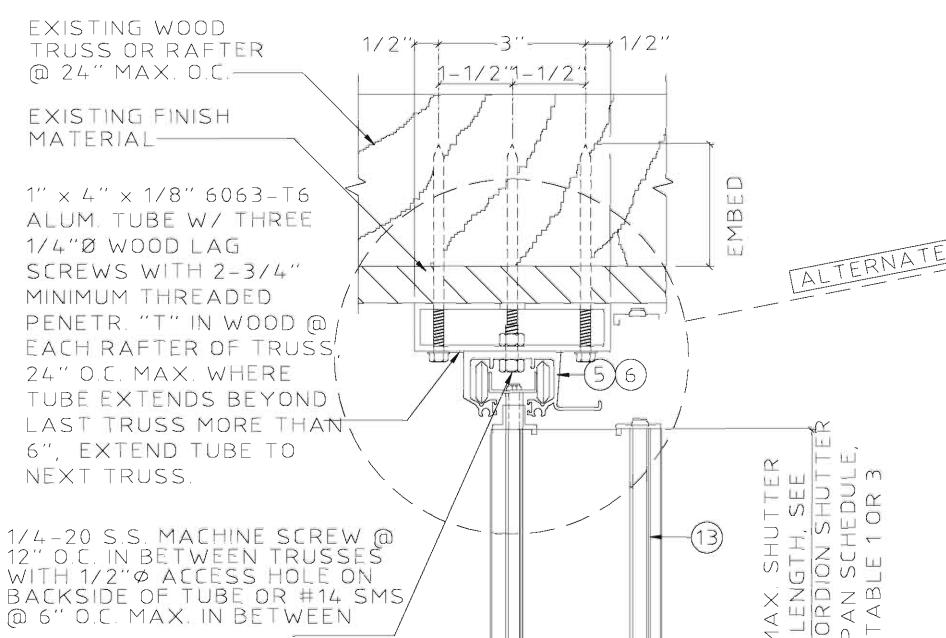
TUBE SIZE	SHUTTER SPAN	ALLOWABLE TUBE SPAN		NUMBER OF THRU-BOLTS		NUMBER OF ANCHORS PER ANGLE		MINIMUM ANGLE LENGTH	
		TOP TUBE	BOTTOM TUBE	TOP TUBE	BOTTOM TUBE	TOP TUBE	BOTTOM TUBE	TOP TUBE	BOTTOM TUBE
2"x5"x0.125"	60"	123.8"	135.2"	2	2	2	3	4"	7"
	96"	101.7"	106.9"	2	2	3	3	7"	7"
	123"	89.9"	94.4"	2	2	3	3	7"	7"
2"x6"x0.125"	60"	129.1"	157.0"	2	2	2	3	4"	7"
	96"	114.8"	124.1"	2	2	3	3	7"	7"
	123"	102.8"	109.6"	2	2	4	4	10"	10"
2"x8"x0.125"	60"	138.0"	196.9"	2	2	3	3	7"	7"
	96"	122.7"	155.7"	2	2	3	4	7"	10"
	123"	115.4"	137.5"	2	3	4	5	10"	13"
2"x10"x0.1875"	60"	158.1"	240.0"	2	2	3	4	7"	10"
	96"	140.6"	229.9"	2	3	4	6	10"	16"
	123"	132.2"	203.1"	3	4	5	7	13"	19"

SPAN TUBE SCHEDULE NOTES:

1. USE 2"x3"x1/4" OR 2"x5"x1/4" ANGLES FOR 2"x5" & 2"x6" BEAMS.
2. USE 2"x5"x1/4" ANGLES FOR 2"x8" & 2"x10" BEAMS.
3. USE BEAM SCHEDULE FOR DETAIL J.
4. TOP & BOTTOM BEAMS MAY BE USED TOGETHER OR IN COMBINATION WITH OTHER CONNECTION DETAILS. WHERE USED TOGETHER, BEAM MUST BE LIMITED TO TOP BEAM SPANS.
5. SPAN TUBES MAY BE USED IN A MID-SPAN CONDITION WITH SHUTTERS SPANNING ABOVE AND BELOW THE BEAM. MID-SPAN TUBES SHALL HAVE TOP BEAM LIMITATIONS (INCLUDING SPANS, ANCHORS, ANGLES AND BOLTS), WITH THE SHUTTER SPAN TAKEN AS THE SUM OF THE SPANS ABOVE AND BELOW THE BEAM.
6. LAP BEAMS ARE NOT ALLOWED.
7. ALL BEAMS AND ANGLES TO BE 6063-T6 ALUMINUM.



J BEAM SPAN SECTION
SCALE : 3" = 1' - 0"



2" x 5" x 1/8" 6063-T6 ALUM. ANGLE W/ THREE 1/4"Ø WOOD LAG SCREWS WITH 2-3/4" MINIMUM THREADED PENETR. "T" IN WOOD @ EACH RAFTER OF TRUSS, 24" O.C. MAX. WHERE ANGLE EXTENDS BEYOND LAST TRUSS MORE THAN 6", EXTEND TUBE TO NEXT TRUSS.

ALTERNATE

K TRUSS MOUNT SECTION
SCALE : 3" = 1' - 0"

REMARKS	DRWN CHKD	DATE
INT ISSUE	KL	12/20/11
CLIENT REVISONS	KL	2/22/12
2014 FBC	KL	10/25/13
2017 FBC	RWN	4/01/15
2020 FBC UPDATE	RWN	8/04/17
CB	RWN	6/17/20

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20-26156

SCALE: -

PAGE DESCRIPTION: -

OF 14

CO

ANCHOR SCHEDULE: CONCRETE

HOST STRUCT.	ANCHOR	LOAD (psf)	2.5" MIN EDGE DISTANCE																	
			Spans Up To 6'-0"						Spans Up To 8'-8"											
			CONN TYPE		CONN TYPE		CONN TYPE		CONN TYPE		CONN TYPE		CONN TYPE							
C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6			
1/4" ITW TAPCON OR DEWALT ULTRACON WITH 1-3/4" EMBED (3192psi MIN CONC)		48	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	13.0"	15.5"	16.0"	6.5"	6.0"	9.5"	9.0"			
		62	16.0"	16.0"	12.5"	12.0"	16.0"	14.5"	16.0"	16.0"	8.0"	7.0"	13.0"	10.0"	11.0"	10.0"	5.0"	6.0"	7.0"	
		72	16.0"	16.0"	10.0"	9.5"	16.0"	12.5"	15.5"	16.0"	6.5"	6.0"	9.5"	9.0"	8.0"	4.0"	5.0"	6.0"		
		110	14.5"	14.5"	6.0"	5.5"	8.5"	8.5"	9.0"	7.5"	4.0"	4.5"	6.0"	7.5"	6.0"			5.0"		
		200	7.5"	6.0"			5.0"	7.5"	6.0"				5.0"	7.5"	6.0"			5.0"		
1/4" MILLENIUM MILLFAST WITH 1-3/4" EMBED (3275psi MIN CONCRETE)		48	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	11.0"	10.5"	16.0"	14.0"	14.5"	14.5"	6.5"	6.0"	9.0"	9.5"		
		62	16.0"	16.0"	13.0"	12.0"	16.0"	15.5"	16.0"	16.0"	8.0"	7.0"	12.0"	11.0"	10.0"	9.0"	5.0"	4.0"	5.5"	7.5"
		72	16.0"	16.0"	10.5"	9.5"	16.0"	13.5"	14.5"	14.5"	6.5"	6.0"	9.0"	9.5"	8.5"	7.0"	4.0"	4.5"	6.5"	
		110	13.0"	13.0"	6.0"	5.5"	8.0"	9.0"	8.0"	7.0"	4.0"	4.5"	6.0"	6.5"	5.5"			5.5"		
		200	6.5"	5.5"			5.5"	6.5"	5.5"				5.5"	6.5"	5.5"			5.5"		
1/4" DEWALT CRETAFLEX SS4 W/ 2" EMBED (3350psi MIN CONC)		48	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	15.0"	16.0"	16.0"	16.0"	16.0"	10.0"	8.5"	12.5"	14.0"		
		62	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	12.0"	10.5"	16.0"	14.5"	13.5"	7.0"	6.5"	8.0"	11.0"	
		72	16.0"	16.0"	15.5"	14.5"	16.0"	16.0"	16.0"	16.0"	10.0"	8.5"	12.5"	14.0"	12.0"	10.5"	6.0"	5.0"	9.5"	
		110	16.0"	16.0"	9.0"	8.0"	11.5"	13.0"	12.0"	10.0"	6.0"	5.0"	6.0"	9.0"	10.0"	8.0"	5.0"	4.0"	5.0"	8.0"
		200	10.0"	8.0"	5.0"	4.0"	5.0"	8.0"	10.0"	8.0"	5.0"	4.0"	5.0"	8.0"	10.0"	8.0"	5.0"	4.0"	5.0"	8.0"
1" MIN EDGE DISTANCE																				
1/4" ITW TAPCON OR DEWALT ULTRACON WITH 1-3/4" EMBED (3192psi MIN CONC) BED (3192psi MIN CONC)		48	16.0"	16.0"	7.5"	7.5"	16.0"	7.5"	16.0"	16.0"	5.0"	4.5"	16.0"	5.5"	15.0"	15.5"		9.5"		
		62	16.0"	16.0"	5.5"	5.5"	16.0"	6.0"	16.0"	16.0"			12.5"	4.0"	10.5"	9.5"		6.0"		
		72	16.0"	16.0"	4.5"	4.5"	16.0"	5.0"	15.0"	15.5"			9.5"		9.0"	7.5"		4.5"		
		110	14.0"	14.0"			8.5"		8.5"	7.5"			4.5"		7.0"	6.0"				
		200	7.0"	6.0"				7.0"	6.0"					7.0"	6.0"					
1/4" MILLENIUM MILLFAST WITH 1-3/4" EMBED (3275psi MIN CONCRETE)		48	16.0"	16.0"	13.0"	13.0"	16.0"	13.5"	16.0"	16.0"	8.0"	7.5"	16.0"	9.5"	11.5"	11.5"	4.5"	4.0"	7.0"	6.5"
		62	16.0"	16.0"	9.0"	8.5"	16.0"	10.5"	14.0"	15.0"	5.5"	5.0"	9.5"	7.5"	8.0"	7.5"		4.5"	5.0"	
		72	16.0"	16.0"	7.5"	7.0"	16.0"	9.5"	11.5"	11.5"	4.5"	4.0"	7.0"	6.5"	6.5"	5.5"			4.5"	
		110	10.5"	10.5"	4.5"	4.0"	6.0"	6.0"	6.5"	5.5"			4.0"	5.5"	4.5"					
		200	5.5"	4.5"			5.5"	4.5"					5.5"	4.5"						
1-1/4" MIN EDGE DISTANCE																				
1/4" ALL-POINTS SOLID-SET ANCHOR W/ 7/8" EMBED & 1/4-20 SS MACHINE SCREW (3000psi MIN CONC)		48	16.0"	16.0"	9.5"	9.5"	16.0"	10.0"	16.0"	16.0"	6.0"	5.5"	16.0"	7.0"	10.5"	11.0"	3.5"	3.5"	6.5"	4.5"
		62	16.0"	16.0"	7.0"	6.5"	16.0"	8.0"	13.5"	14.5"	4.5"	4.0"	9.0"	5.5"	7.5"	7.0"		4.0"	3.5"	
		72	16.0"	16.0"	5.5"	5.5"	16.0"	7.0"	10.5"	11.0"	3.5"	3.5"	6.5"	4.5"	6.0"	5.5"		3.0"	3.0"	
		110	10.0"	10.0"	3.5"	3.0"	6.0"	4.5"	6.0"	5.0"			3.0"	3.0"	5.0"	4.0"				
		200	5.0"	4.0"			5.0"	4.0"					5.0"	4.0"						
3" MIN EDGE DISTANCE																				
1/4" ALL-POINTS SOLID-SET ANCHOR W/ 7/8" EMBED & 1/4-20 SS MACHINE SCREW (3000psi MIN CONC)		48	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	11.0"	12.0"		
		62	16.0"	16.0"	15.0"	16.0"	16.0"	16.0"	16.0"	16.0"	10.0"	9.0"	15.0"	13.5"	12.5"	11.5"	6.0"	5.5"	7.0"	9.0"
		72	16.0"	16.0"	13.0"	12.0"	16.0"	16.0"	16.0"	16.0"	8.5"	7.5"	11.0"	12.0"	10.5"	9.0"	5.0"	4.5"	5.5"	8.0"
		110	16.0"	16.0"	8.0"	7.0"	10.0"	11.0"	10.5"	9.0"	5.0"	4.5"	5.5"	8.0"	8.5"	7.0"	4.0"	3.5"	4.5"	6.5"
		200	8.5"	7.0"	4.0"	3.5"	4.5"	6.5"	8.5"	7.0"	4.0"	3.5"	4.5"	6.5"	8.5"	7.0"	4.0"	3.5"	4.5"	6.5"
2-5/8" MIN EDGE DISTANCE																				
1/4" DEWALT SS DROP-IN W/ 1/4-20 SS BOLT AND 1" EMBED (3000psi MIN CONC)		48	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	10.0"	9.5"	16.0"	13.0"	12.0"	12.5"	6.0"	5.5"	7.5"	9.0"	
		62	16.0"	16.0"	12.0"	11.0"	16.0"	14.5"	15.0"	16.0"	7.5"	6.5"	10.0"	10.5"	8.5"	8.0"			7.0"	
		72	16.0"	16.0"	9.5"	9.0"</td														

ANCHOR SCHEDULE: CONCRETE (CONT.)

HOST STRUCT.	ANCHOR	LOAD (psf)	2-3/16" MIN EDGE DISTANCE												3-1/8" MIN EDGE DISTANCE																				
			Spans Up To 6'-0"						Spans Up To 8'-8"						Spans Up To 13'-0"						Spans Up To 6'-0"						Spans Up To 8'-8"								
			CONN TYPE		C1	C2	C3	C4	C5	C6	CONN TYPE		C1	C2	C3	C4	C5	C6	CONN TYPE		C1	C2	C3	C4	C5	C6	CONN TYPE		C1	C2	C3	C4	C5	C6	
CONCRETE	5/16" ITW TAPCON XL WITH 1-3/4" EMBED (2899psi MIN CONC)	48	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	15.0"	13.5"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	13.0"					
		62	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	10.5"	9.5"	15.5"	14.5"	13.0"	12.0"	6.5"	5.5"	7.5"	10.0"	16.0"	16.0"	16.0"	16.0"	16.0"	11.0"	9.5"	16.0"	15.0"	13.5"	12.5"	6.5"	6.0"	7.5"	10.0"	
		72	16.0"	16.0"	14.0"	13.0"	16.0"	16.0"	16.0"	9.0"	8.0"	11.5"	12.5"	11.0"	9.5"	5.5"	4.5"	5.5"	8.5"	16.0"	16.0"	14.5"	13.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	8.5"		
		110	16.0"	16.0"	8.5"	7.5"	10.5"	12.0"	10.5"	9.0"	5.5"	4.5"	5.5"	8.5"	9.0"	7.5"	4.5"	4.5"	7.0"	16.0"	16.0"	8.5"	7.5"	10.5"	12.0"	11.0"	9.5"	5.5"	4.5"	6.0"	4.5"	7.5"	7.5"		
		200	9.0"	7.5"	4.5"	4.0"	4.5"	7.0"	9.0"	7.5"	4.5"	4.0"	4.5"	7.0"	9.0"	7.5"	4.5"	4.5"	7.0"	9.0"	7.5"	4.5"	4.5"	7.5"	9.0"	7.5"	4.5"	4.0"	4.5"	4.5"	7.5"	12.0"	13.0"		
CONCRETE	5/16" DEWALT ULTRACON WITH 1-3/4" EMBED (3500psi MIN CONC)	48	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	15.5"	16.0"	16.0"	16.0"	16.0"	16.0"	10.0"	9.0"	12.0"	15.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	13.5"	16.0"		
		62	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	12.0"	11.0"	16.0"	14.0"	13.0"	7.5"	6.5"	8.0"	11.5"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	15.5"	14.0"	8.0"	7.0"	8.5"	12.5"	
		72	16.0"	16.0"	16.0"	15.0"	16.0"	16.0"	16.0"	10.0"	9.0"	12.0"	15.0"	11.5"	10.0"	6.5"	5.5"	6.0"	10.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	13.0"	11.0"	7.0"	6.0"	7.0"	11.0"
		110	16.0"	16.0"	9.5"	8.0"	11.0"	14.0"	11.5"	10.0"	6.0"	5.0"	10.0"	9.5"	8.0"	5.0"	5.0"	8.5"	16.0"	10.5"	9.0"	12.0"	15.5"	12.5"	11.0"	6.5"	5.5"	10.5"	8.5"	5.5"	5.0"	9.0"	5.0"		
		200	9.5"	8.0"	5.0"	5.0"	5.0"	8.5"	9.5"	8.0"	5.0"	5.0"	8.5"	9.5"	8.0"	5.0"	5.0"	8.5"	10.5"	8.5"	5.5"	5.0"	9.0"	10.5"	8.5"	5.5"	5.0"	5.0"	9.0"	5.0"	9.0"	5.0"			
CONCRETE	1/4" DEWALT TAPPER+ W/ 1-3/4" EMBED (3000psi MIN CONC)	1-1/2" MIN EDGE DISTANCE												3" MIN EDGE DISTANCE																					
		CONN TYPE						C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6	C1	C2	C3	C4	C5	C6				
		48	16.0"	16.0"	10.0"	10.0"	16.0"	10.5"	16.0"	16.0"	6.0"	6.0"	16.0"	7.0"	11.0"	11.0"	6.5"	5.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	11.0"	10.0"	16.0"	13.0"	16.0"	6.5"	6.0"	10.0"	9.0"		
		62	16.0"	16.0"	7.0"	7.0"	16.0"	8.0"	13.5"	14.5"	4.5"	4.0"	9.0"	5.5"	7.5"	7.0"	6.5"	5.0"	16.0"	16.0"	12.5"	12.0"	16.0"	14.5"	16.0"	16.0"	8.0"	7.0"	13.5"	10.0"	11.5"	5.0"	4.5"	6.5"	7.0"
		72	16.0"	16.0"	6.0"	5.5"	16.0"	7.0"	11.0"	11.0"	6.5"	5.0"	6.5"	5.5"	6.5"	5.0"	5.0"	4.0"	16.0"	16.0"	10.5"	9.5"	16.0"	12.5"	16.0"	16.0"	6.5"	6.0"	10.0"	9.0"	9.5"	8.5"	4.0"	5.0"	
		110	10.0"	10.0"	6.0"	6.0"	4.5"	6.0"	5.5"	5.0"	4.0"	4.0"	5.0"	4.0"	4.0"	4.0"	4.0"	4.0"	15.0"	15.0"	6.0"	5.5"	9.0"	8.5"	9.5"	8.0"	4.0"	5.0"	6.0"	6.0"	7.5"	6.5"	4.0"	5.0"	
		200	5.0"	4.0"	4.0"	4.0"	4.0"	5.0"	5.0"	4.0"	4.0"	4.0"	5.0"	4.0"	4.0"	4.0"	4.0"	4.0"	7.5"	6.5"	4.0"	4.0"	5.0"	5.0"	4.0"	4.0"	4.0"	4.0"	4.0"	4.0"	4.0"	4.0"	4.0"	4.0"	

ANCHOR SCHEDULE: HOLLOW CONCRETE BLOCK

HOST STRUCT.	ANCHOR	LOAD (psf)	1" MIN EDGE DISTANCE												2-1/2" MIN EDGE DISTANCE											
			Spans Up To 6'-0"																							



ANCHOR SCHEDULE: HOLLOW CONCRETE BLOCK (CONT.)

HOST STRUCT.	ANCHOR	LOAD (psf)	2" MIN EDGE DISTANCE														
			Spans Up To 6'-0"					Spans Up To 8'-8"					Spans Up To 13'-0"				
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5
HOLLOW CONCRETE BLOCK	1/4" DEWALT TAPPER+ W/ 1-1/4" EMBED	48	15.5"	15.5"	6.5"	6.5"	15.5"	10.5"	10.5"	4.0"	4.0"	10.5"	6.0"	6.0"			
		62	12.0"	12.0"	4.5"	4.5"	12.0"	7.5"	8.0"				5.0"	4.5"	4.0"		
		72	10.5"	10.5"	4.0"			9.0"	6.0"								
		110	5.5"	5.5"													
		200															
#12 SMS W/ 2" EYEWALL ARMOR INSERT W/ 1-1/4" EMBED	#12 SMS W/ 2" EYEWALL ARMOR INSERT W/ 1-1/4" EMBED	48	16.0"	16.0"	8.5"	8.5"	16.0"	13.0"	13.0"	5.0"	5.0"	12.5"	7.5"	7.5"	3.0"	3.0"	4.5"
		62	14.5"	14.5"	6.0"	6.0"	14.5"	9.5"	10.0"	4.0"	3.5"	6.0"	5.0"	4.5"			
		72	12.5"	12.5"	5.0"	4.5"	11.0"	7.5"	7.5"	3.0"	3.0"	4.5"	4.5"	3.5"			
		110	7.0"	7.0"	3.0"			4.0"	4.0"	3.5"							
		200	3.5"	3.0"				3.5"	3.0"								

ANCHOR SCHEDULE: GROUT-FILLED CONCRETE BLOCK

HOST STRUCT.	ANCHOR	LOAD (psf)	4" MIN EDGE DISTANCE														
			Spans Up To 6'-0"					Spans Up To 8'-8"					Spans Up To 13'-0"				
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5
GROUT-FILLED CONCRETE BLOCK	5/16" ITW TAPCON XL W/ 2-1/4" MIN. EMBED	48	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	10.5"	9.5"	15.5"			
		62	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	12.5"	11.5"	16.0"	16.0"	8.0"	7.0"	10.0"		
		72	16.0"	16.0"	16.0"	15.5"	16.0"	16.0"	10.5"	9.5"	15.5"	14.5"	12.5"	6.5"	5.5"	8.0"	
		110	16.0"	16.0"	10.0"	9.0"	14.0"	14.5"	12.5"	6.5"	5.5"	7.5"	12.0"	10.0"	5.5"	4.5"	6.0"
		200	12.0"	10.0"	5.5"	4.5"	6.0"	12.0"	10.0"	5.5"	4.5"	6.0"	12.0"	10.0"	5.5"	4.5"	6.0"
GROUT-FILLED CONCRETE BLOCK	5/16" DEWALT ULTRACON W/ 2-1/4" MIN. EMBED	48	16.0"	16.0"	13.5"	13.5"	16.0"	16.0"	8.0"	7.5"	16.0"	9.5"	9.5"				
		62	16.0"	16.0"	9.5"	8.5"	16.0"	12.0"	12.5"	5.5"	5.0"	8.0"	6.5"	6.0"			
		72	16.0"	16.0"	7.5"	7.0"	14.0"	9.5"	9.5"			6.0"	5.5"				
		110	8.5"	8.5"			5.0"	5.5"									
		200															
#12 SMS W/ 2" EYEWALL ARMOR INSERT W/ 2" EMBED	#12 SMS W/ 2" EYEWALL ARMOR INSERT W/ 2" EMBED	2" MIN EDGE DISTANCE															
		C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	
		48	16.0"	16.0"	10.5"	10.5"	16.0"	16.0"	6.5"	6.5"	16.0"	12.5"	12.5"	4.0"	3.5"	7.5"	
		62	16.0"	16.0"	7.5"	7.5"	16.0"	15.5"	5.0"	4.5"	10.5"	9.0"	8.0"				
		72	16.0"	16.0"	6.5"	6.0"	12.5"	12.5"	4.0"	3.5"	7.5"	6.5"	6.0"				
		110	11.5"	11.5"	4.0"	3.5"	7.0"	7.0"	6.0"	5.0"		3.5"	6.0"				
		200	6.0"	5.0"			3.0"	6.0"	5.0"			3.0"	6.0"	5.0"			

ANCHOR SCHEDULE: WOOD (G=0.55)

HOST STRUCT.	ANCHOR	LOAD (psf)	3/4" MIN EDGE DISTANCE														
			Spans Up To 6'-0"					Spans Up To 8'-8"					Spans Up To 13'-0"				
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5
WOOD (G=0.55)	1/4" LAG SCREW WITH 1-3/4" MIN THREAD PENETRATION	48	16.0"	16.0"	11.5"	11.5"	16.0"	16.0"	16.0"	16.0"	7.5"	7.0"	16.0"	16.0"	4.5"	4.5"	15.0"
		62	16.0"	16.0"	8.5"	8.5"	16.0"	16.0"	16.0"	16.0"	5.5"	5.5"	16.0"	16.0"	3.5"	3.5"	9.5"
		72	16.0"	16.0"	7.0"	7.0"	16.0"	16.0"	16.0"	16.0"	4.5"	4.5"	15.0"	14.0"	2.0"	3.0"	7.5"
		110	16.0"	16.0"	4.5"	4.0"	12.5"	12.5"	13.5"	14.0"	3.0"	2.5"	7.5"	11.5"	2.5"	2.0"	6.0"



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Wholesale Aluminum and Building Products
400 WEST MCNAB ROAD
FT. LAUDERDALE, FL 33309

REMARKS	DRWN CHKD	DATE
INT ISSUE	KL	12/20/11
CLIENT REVISONS	KL	FLB 12/21/12
2014 FBC	KL	FLB 10/25/13
2017 FBC	RWN	CSL 4/01/15
2020 FBC UPDATE	RWN	FLB 8/04/17
	CB	RWN 6/17/20

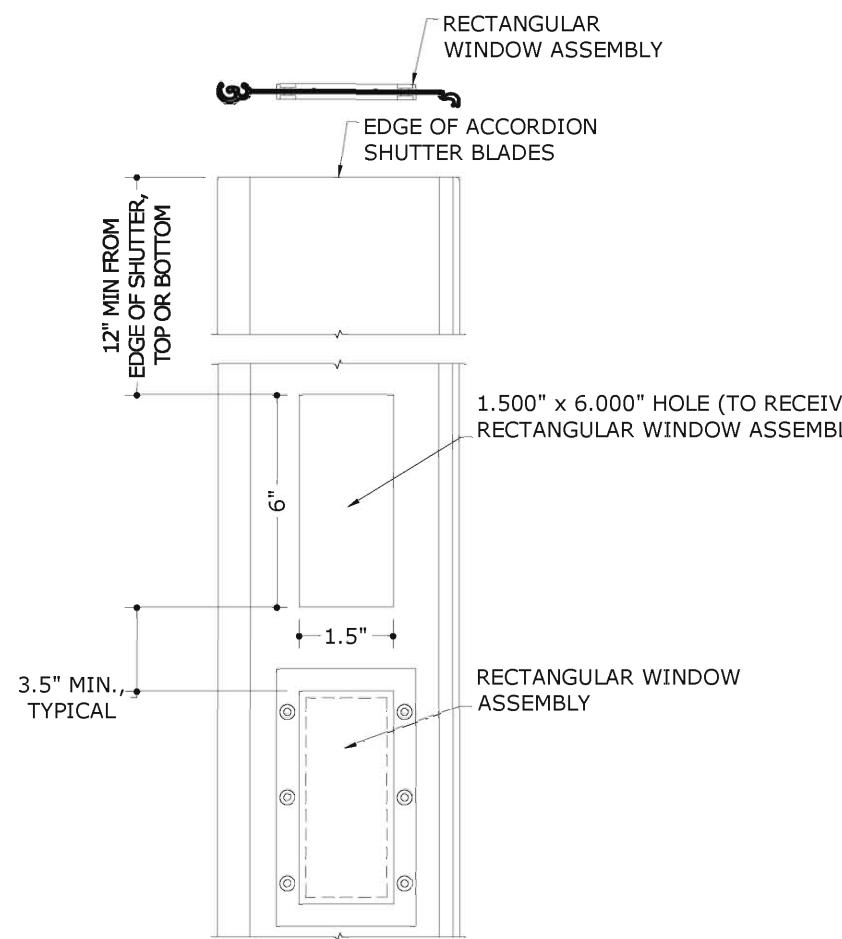
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20-26156

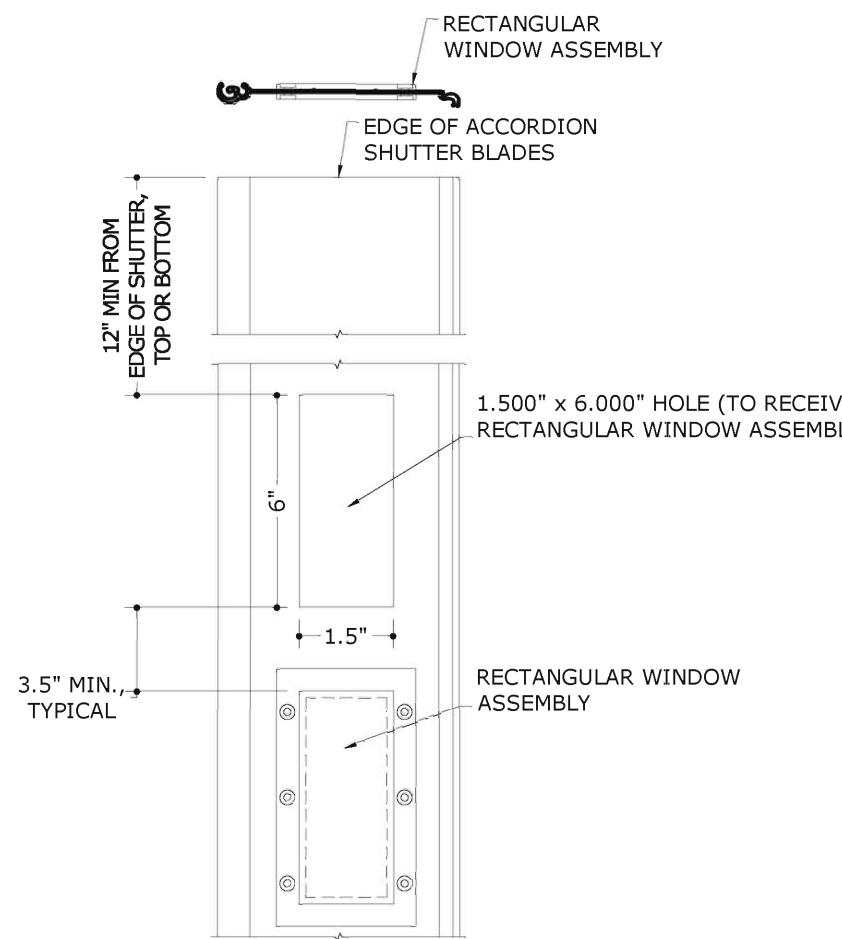
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PAGE DESCRIPTION:

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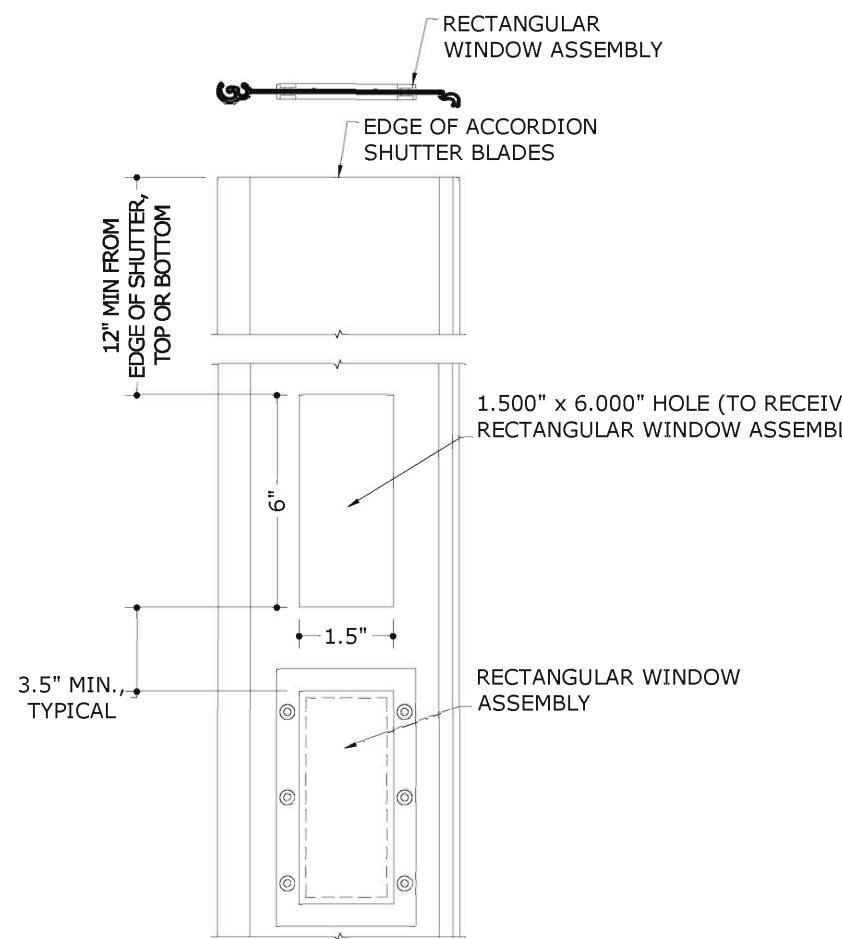
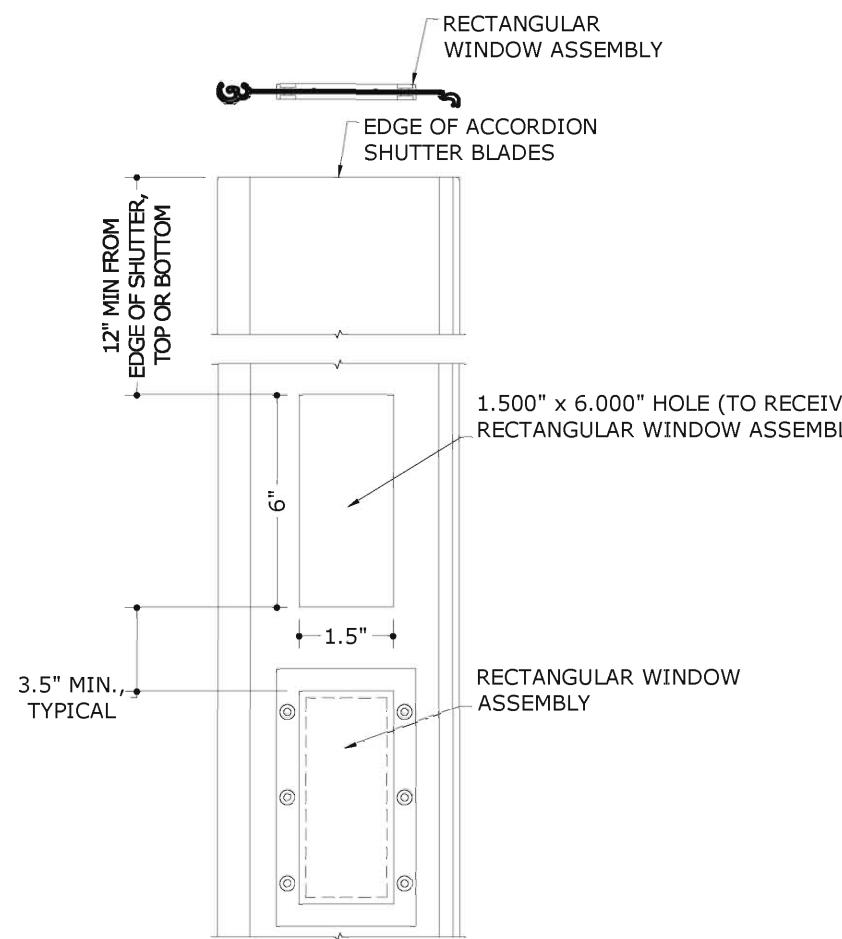
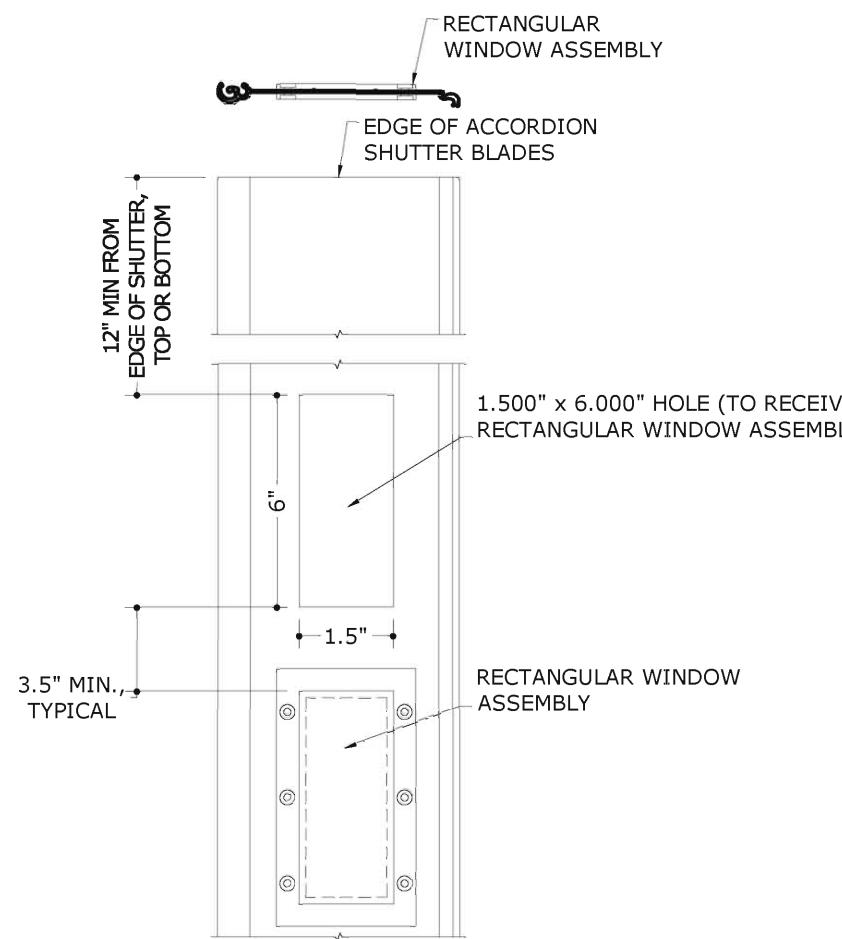
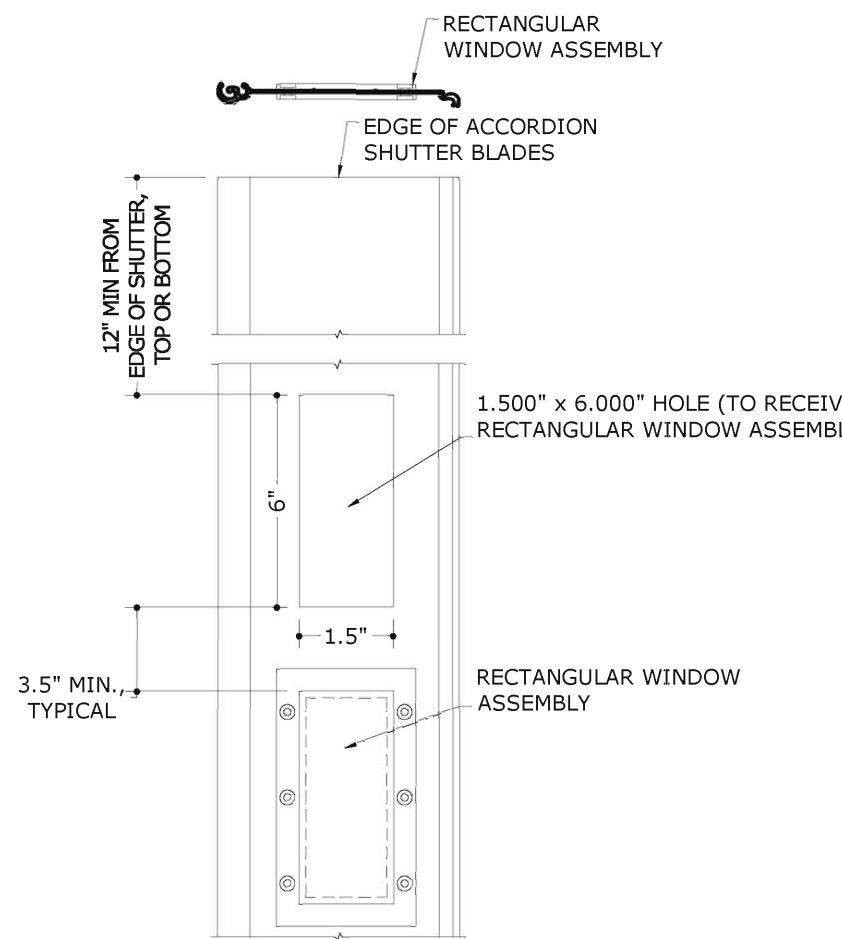
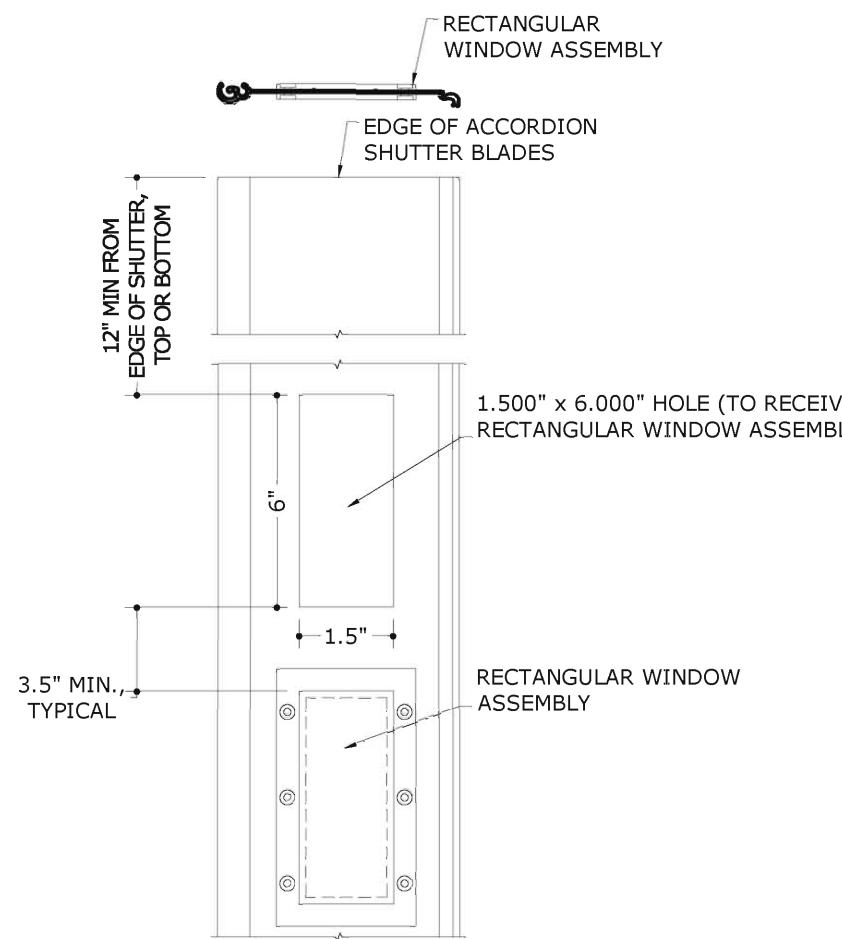
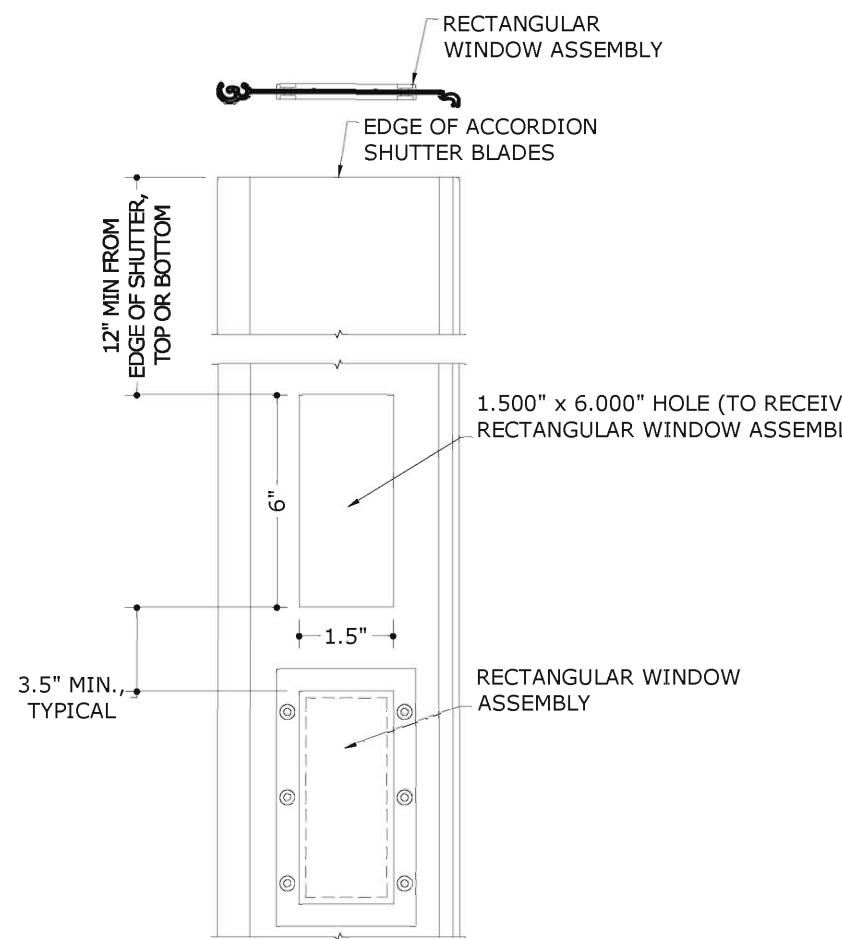
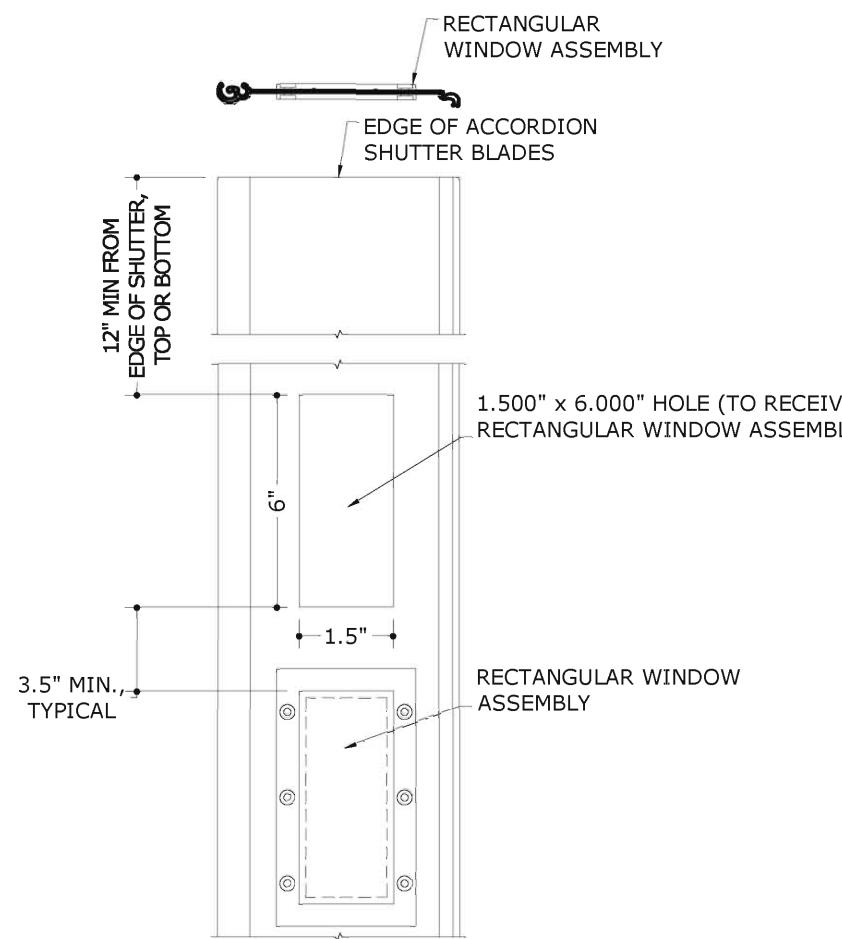
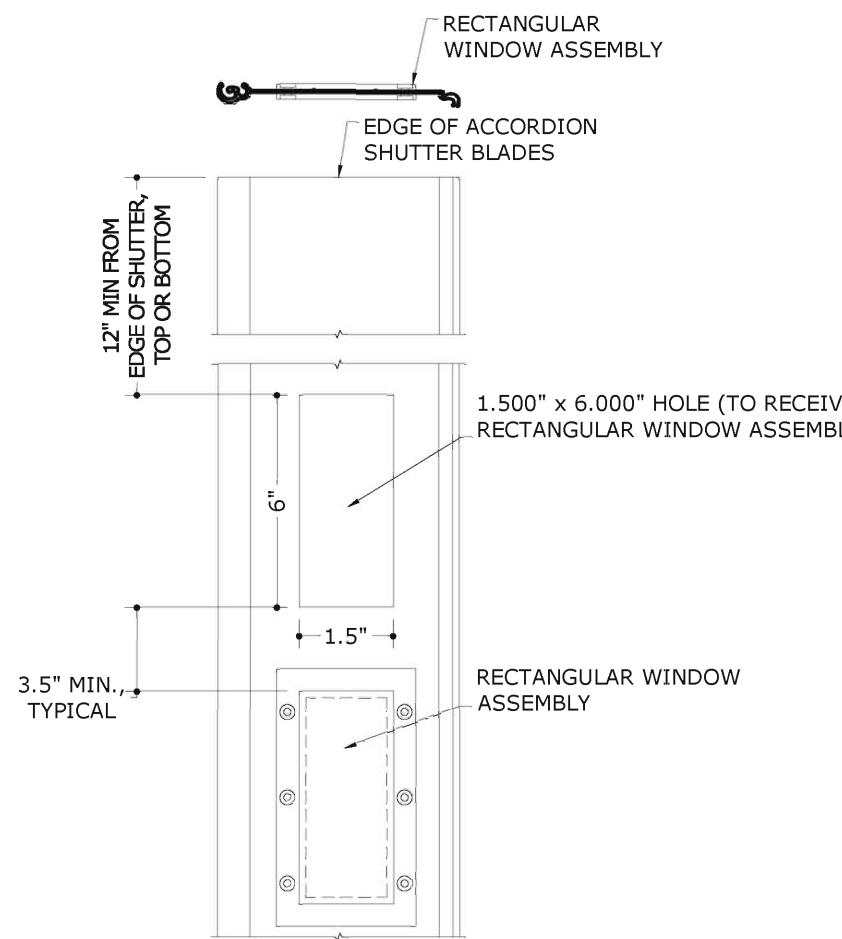
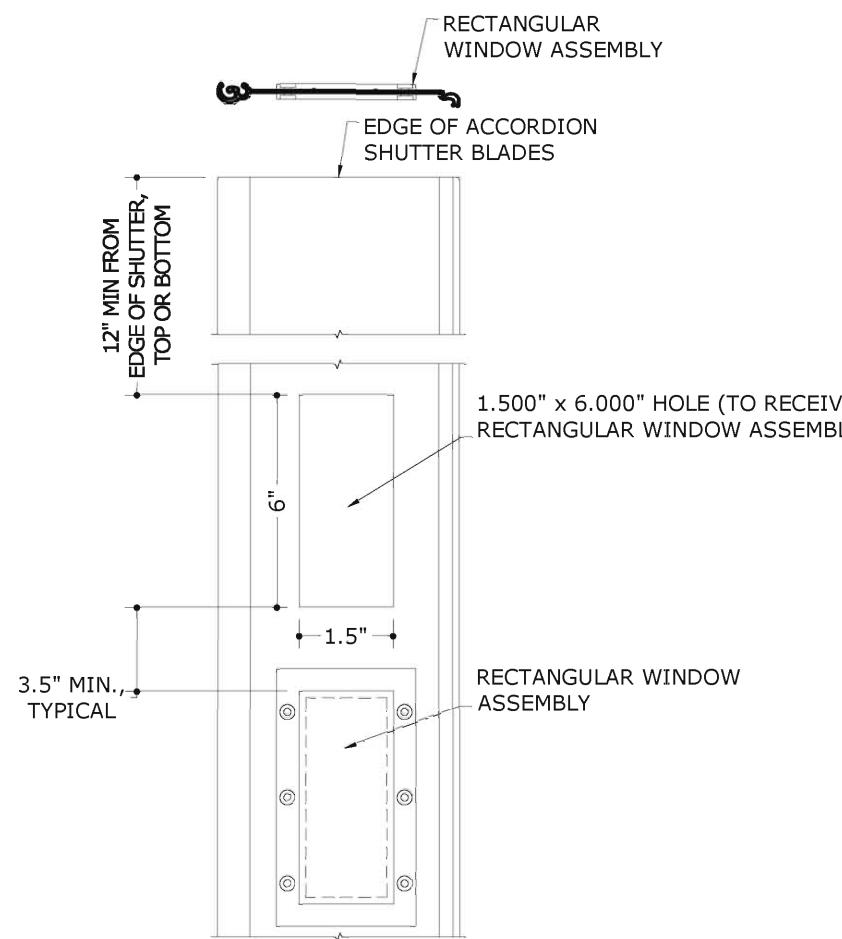
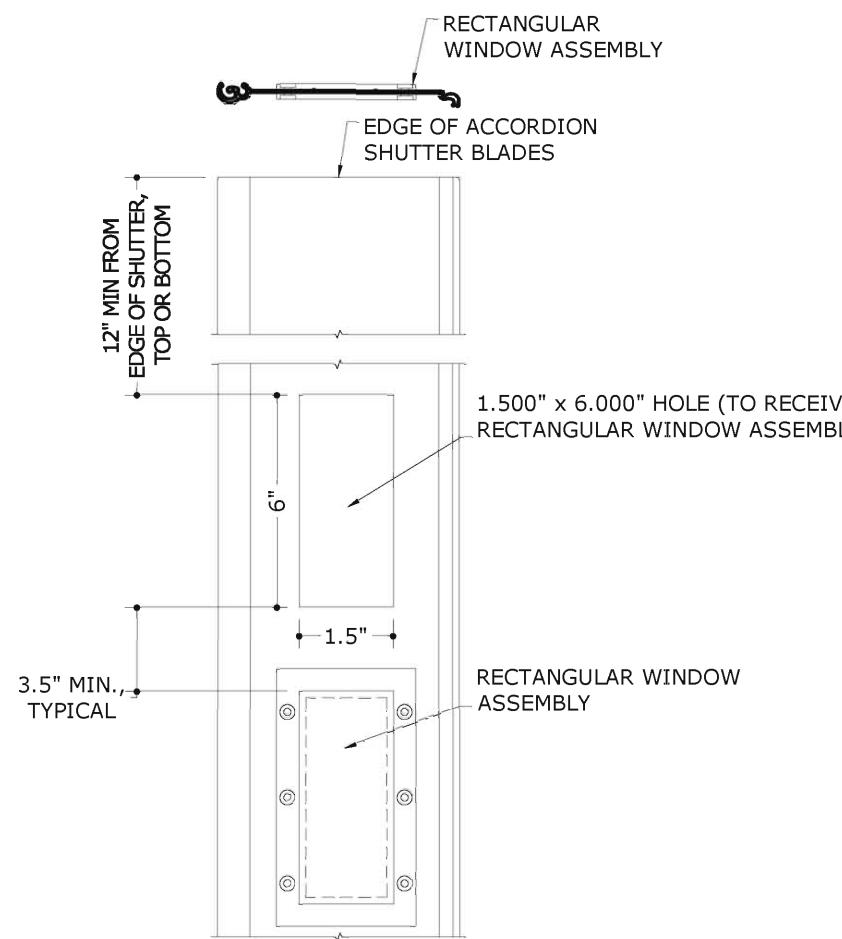
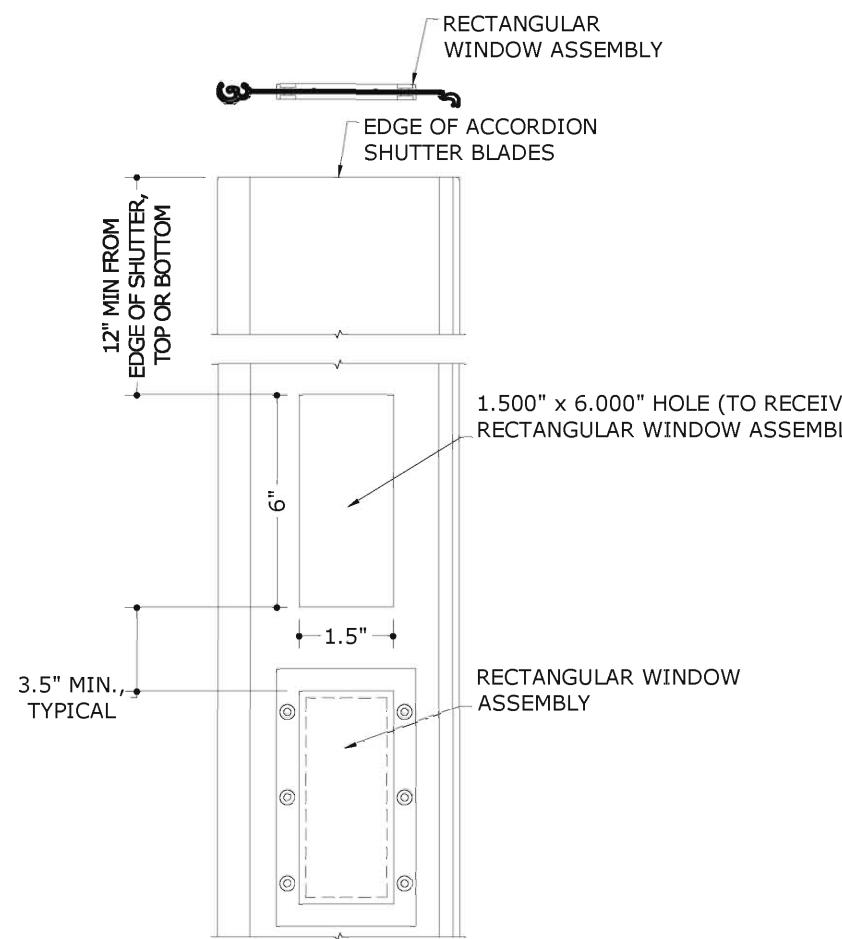
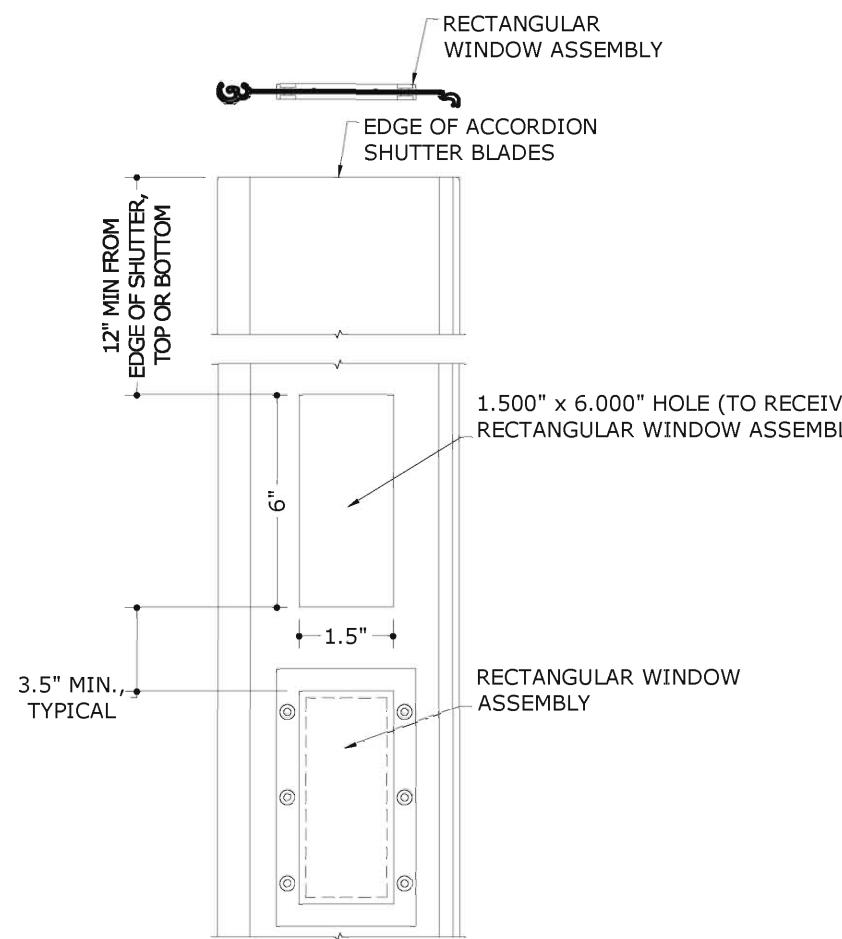
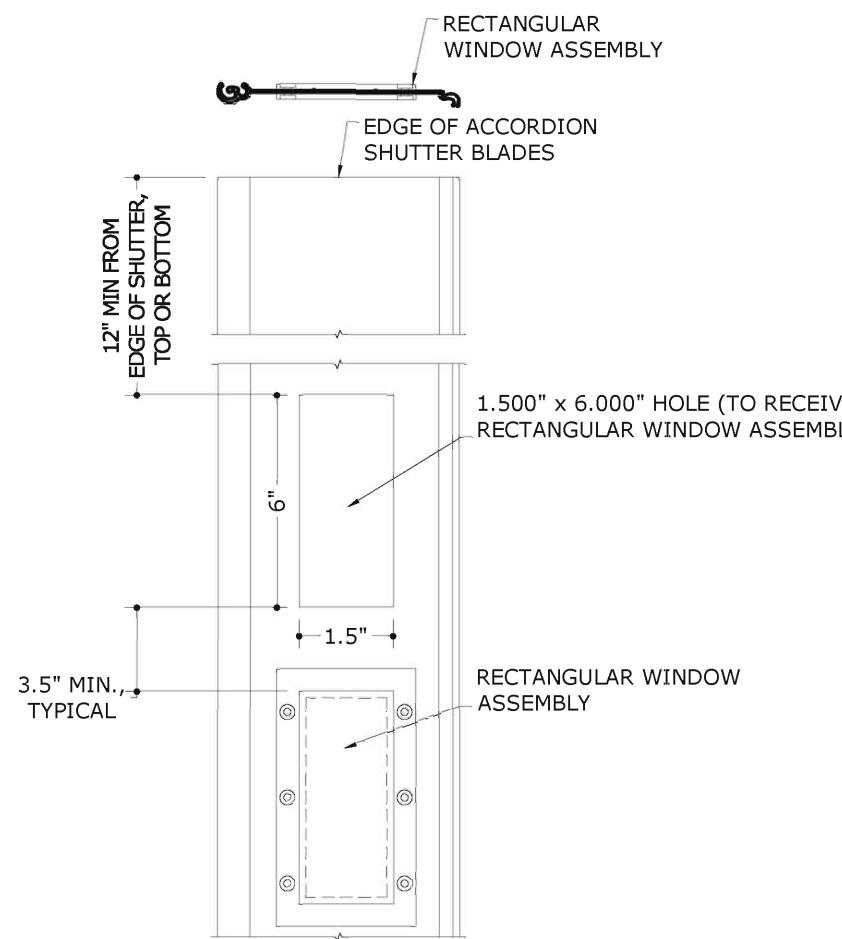
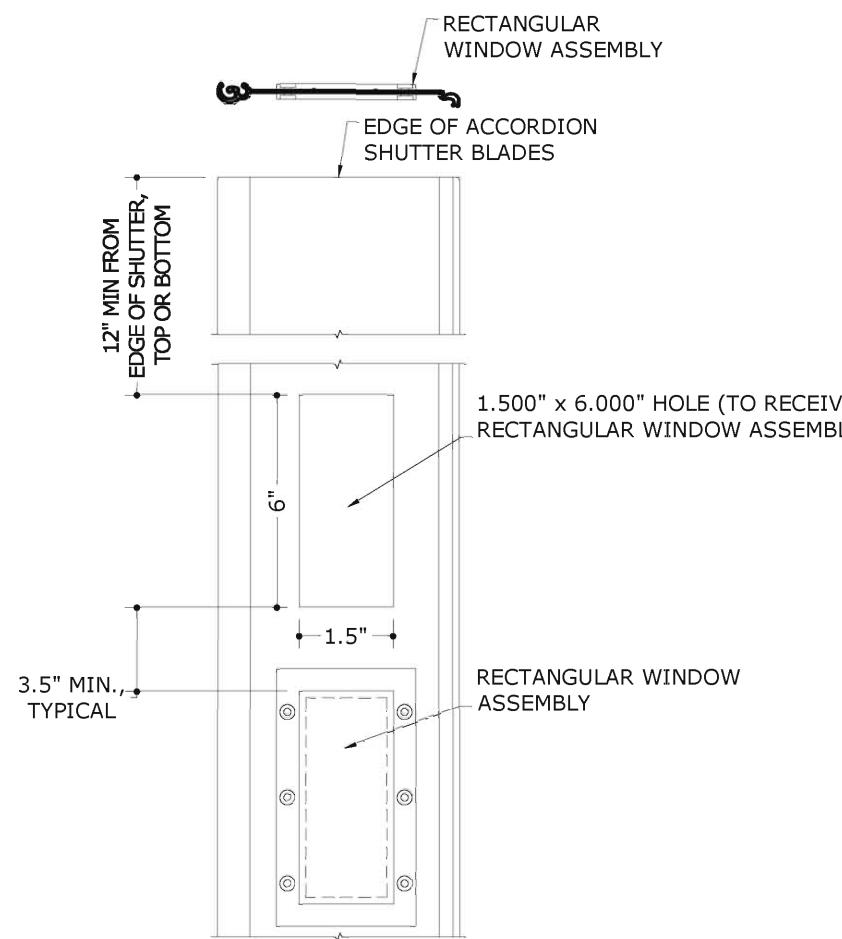
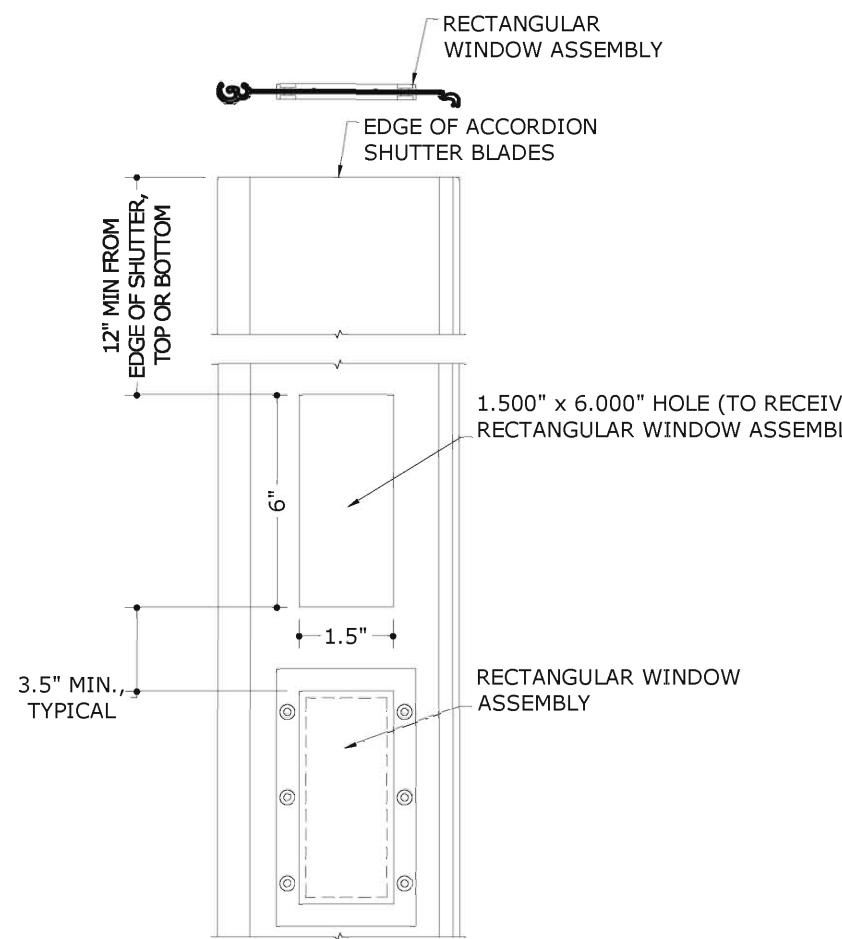
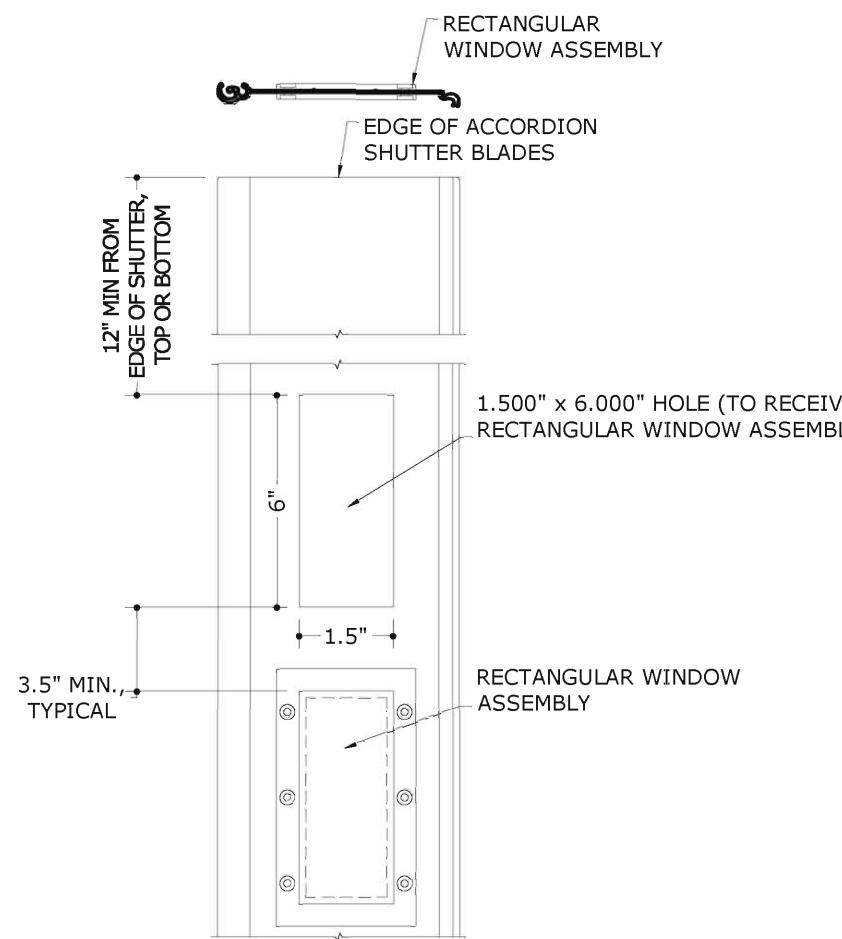
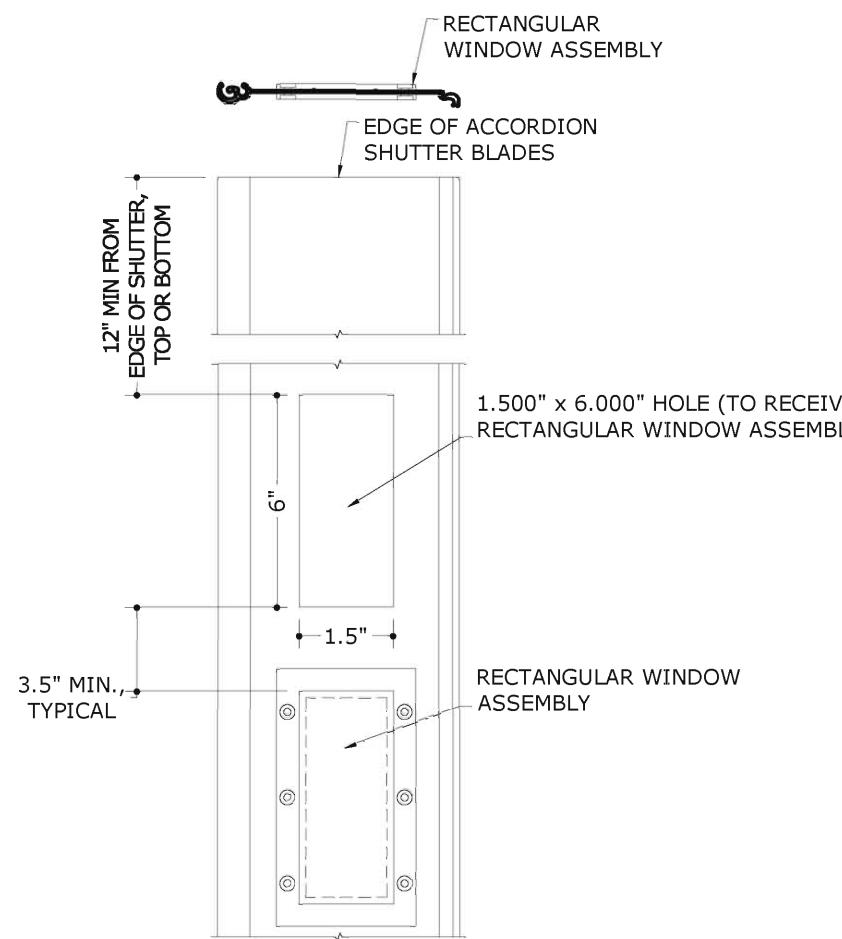
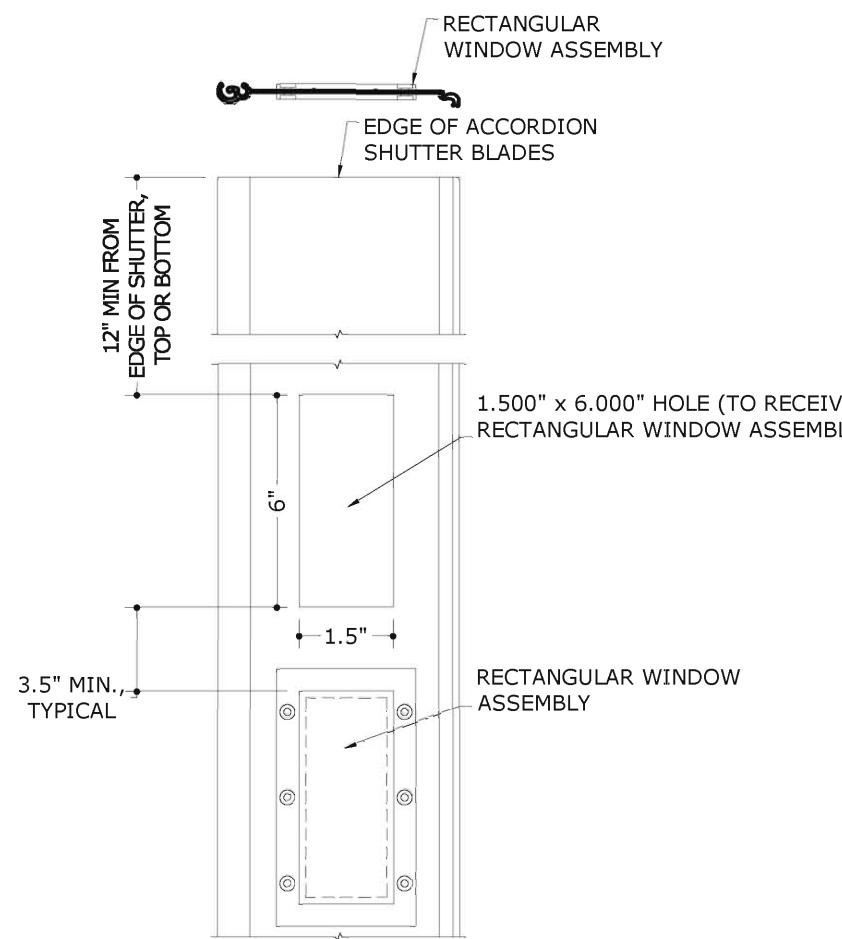
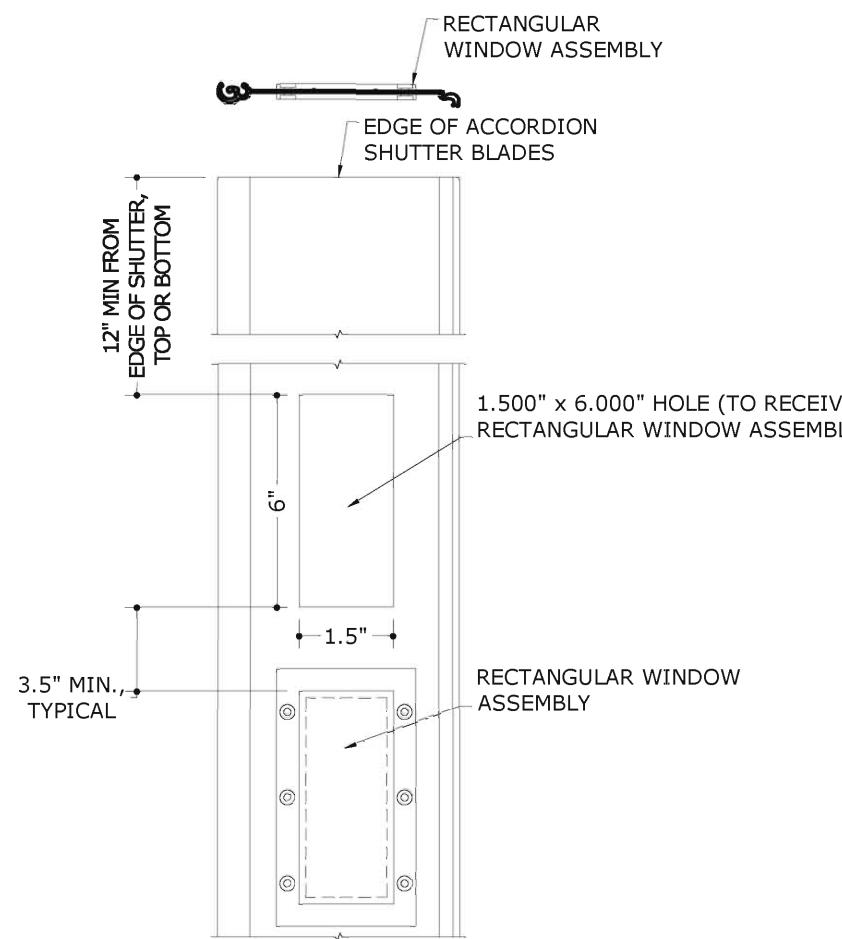
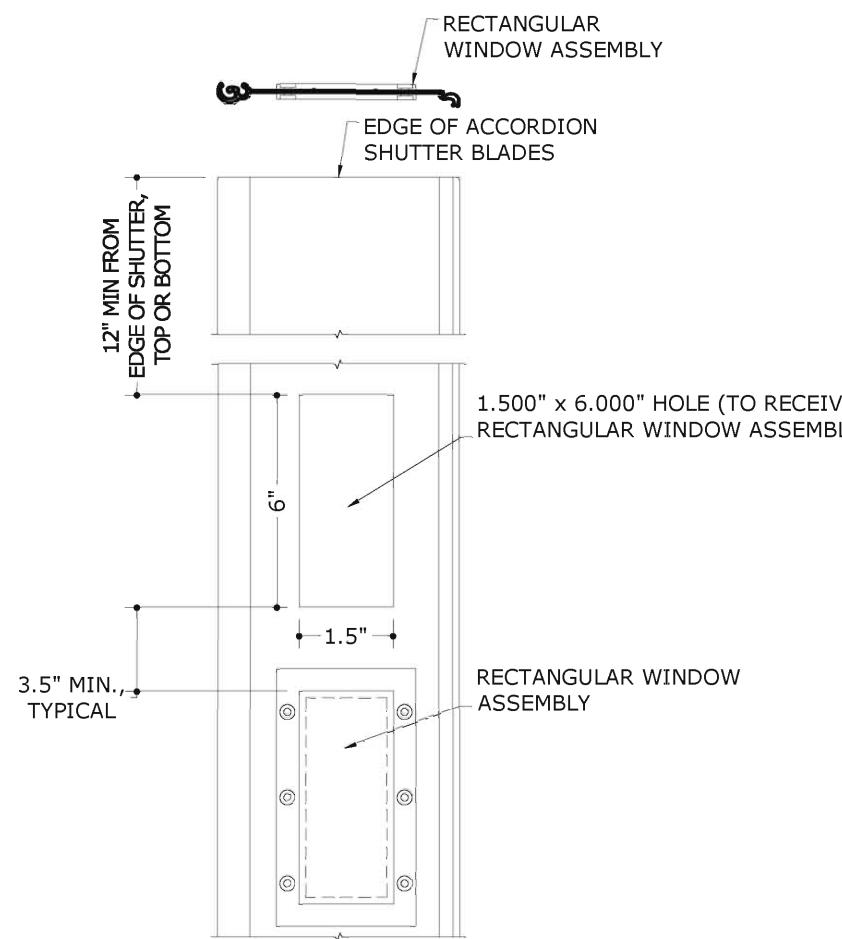
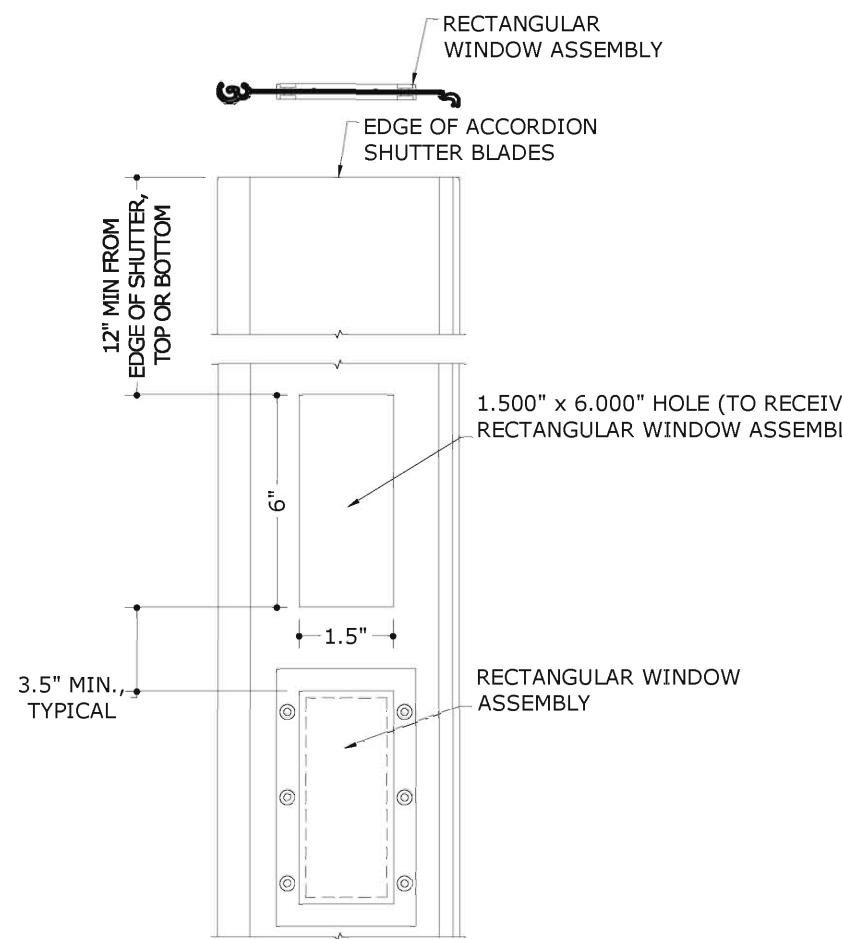
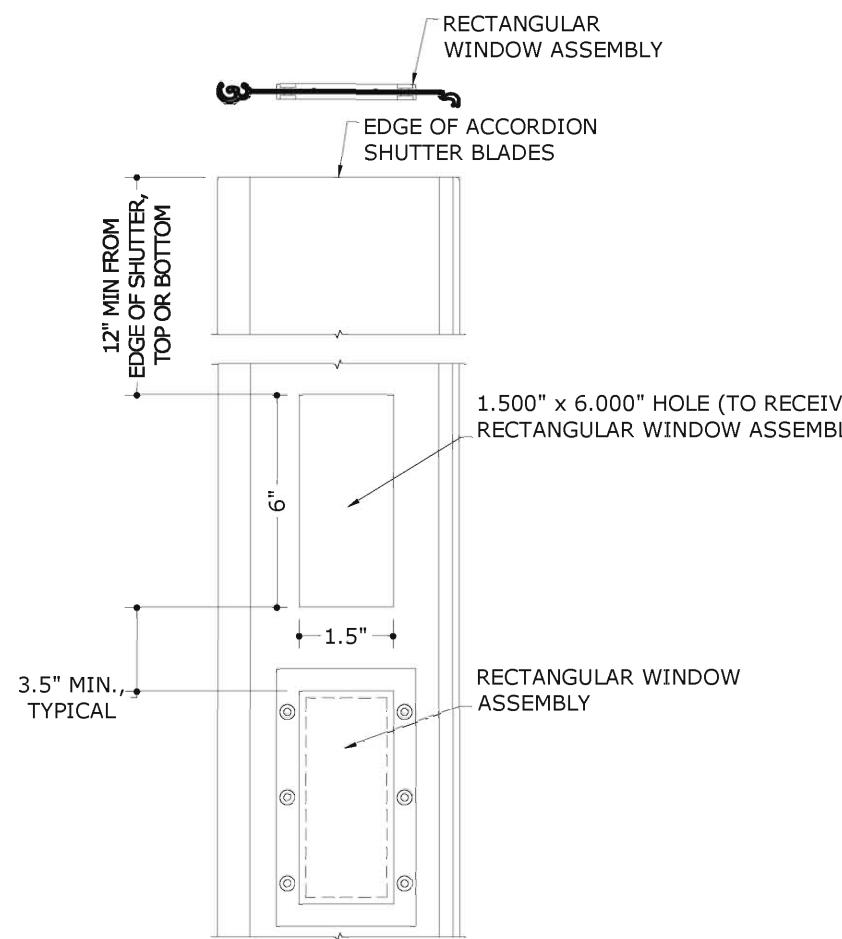
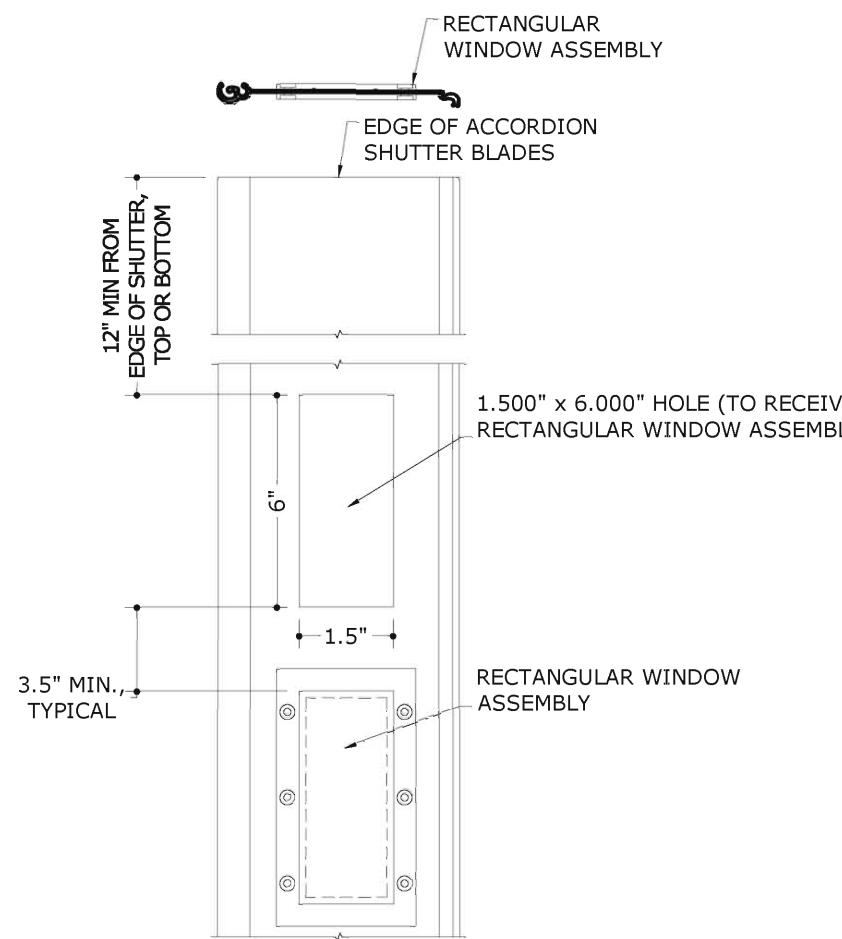
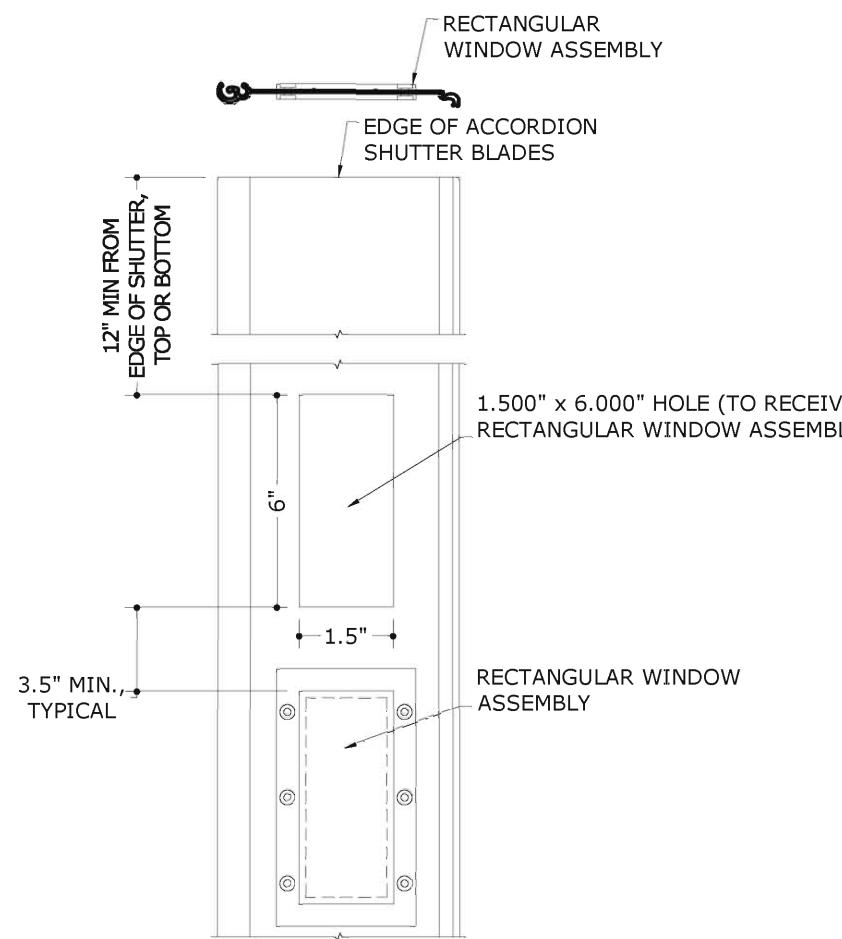
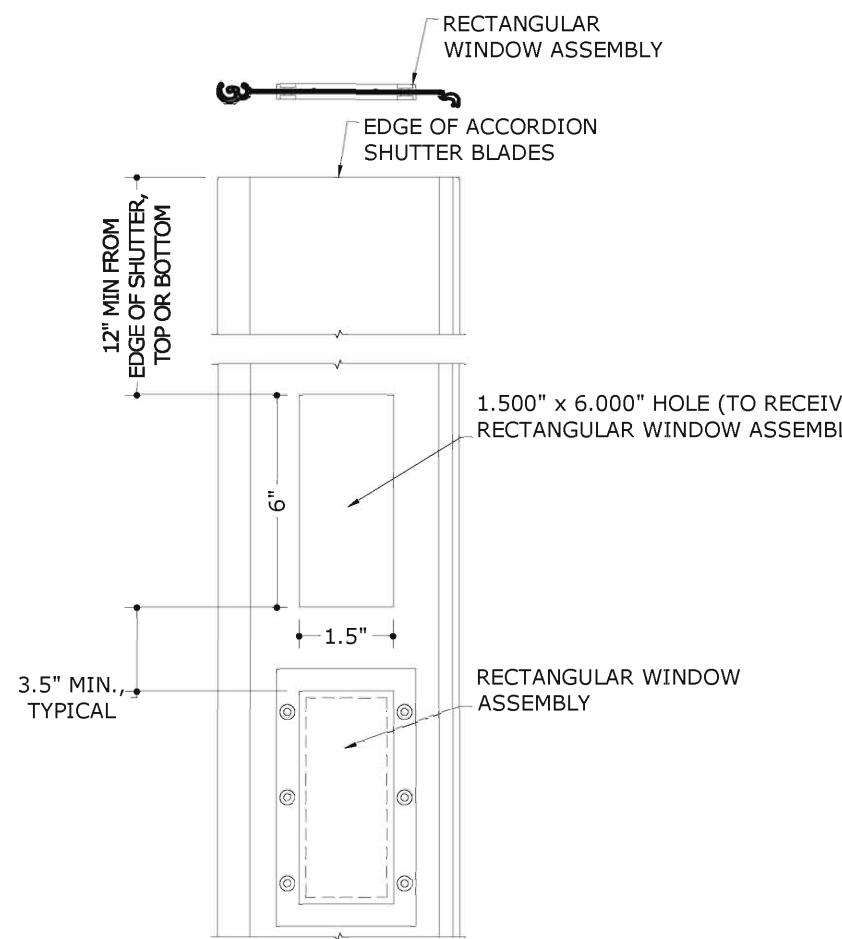
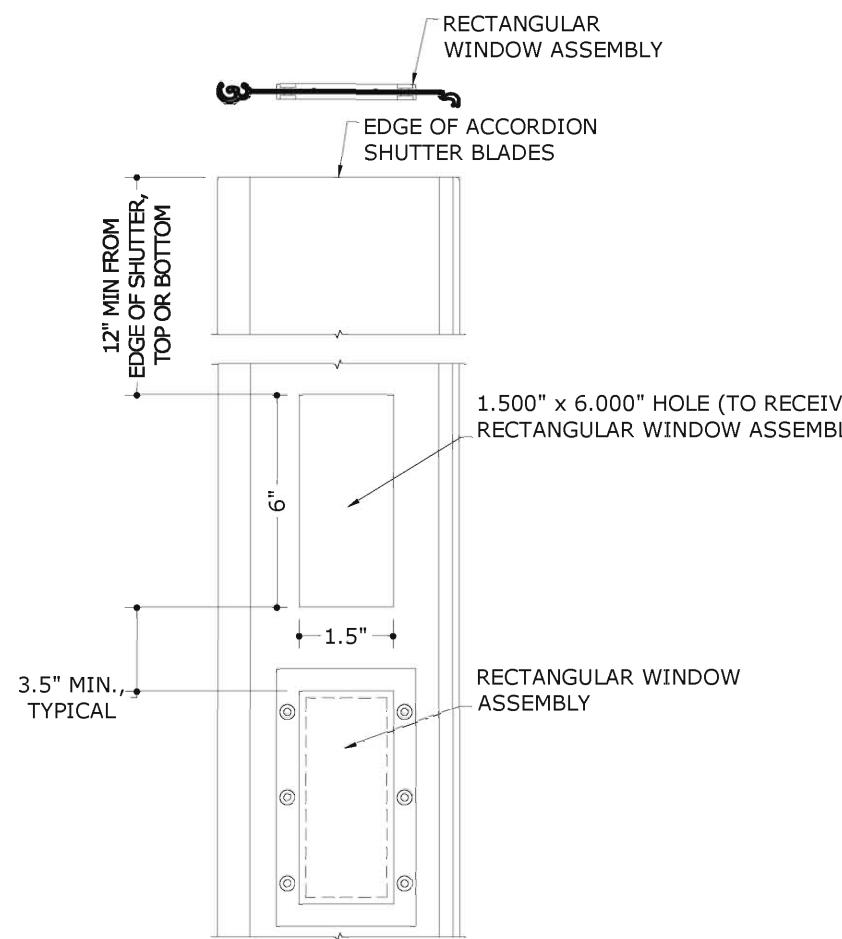
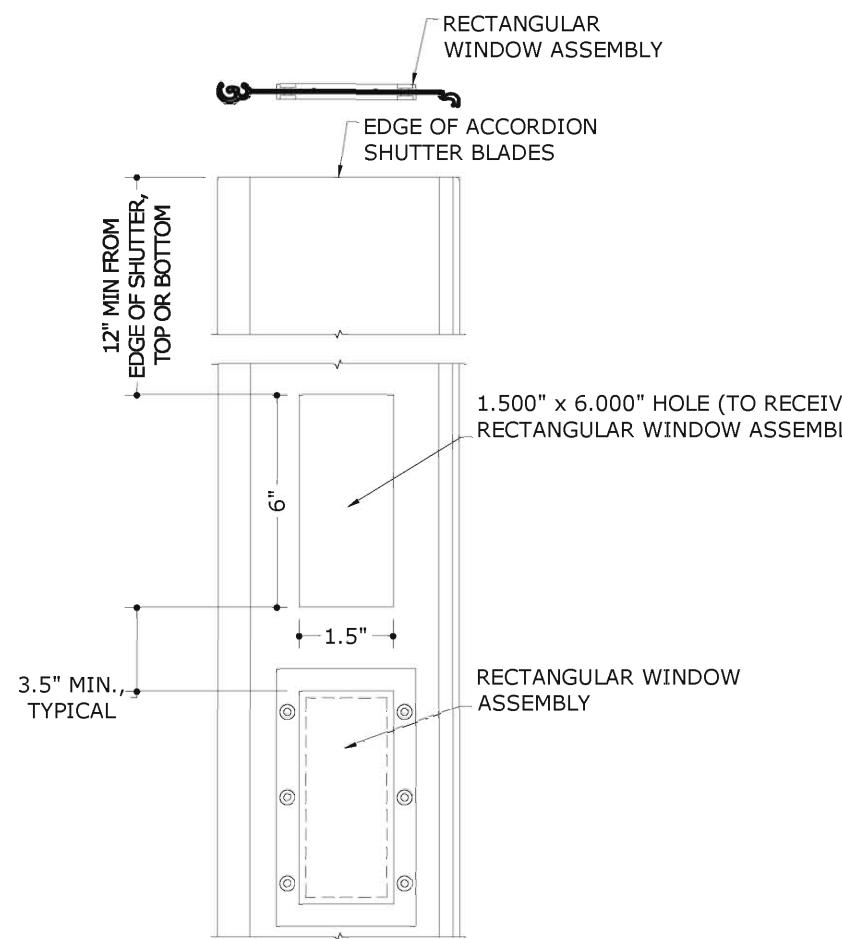
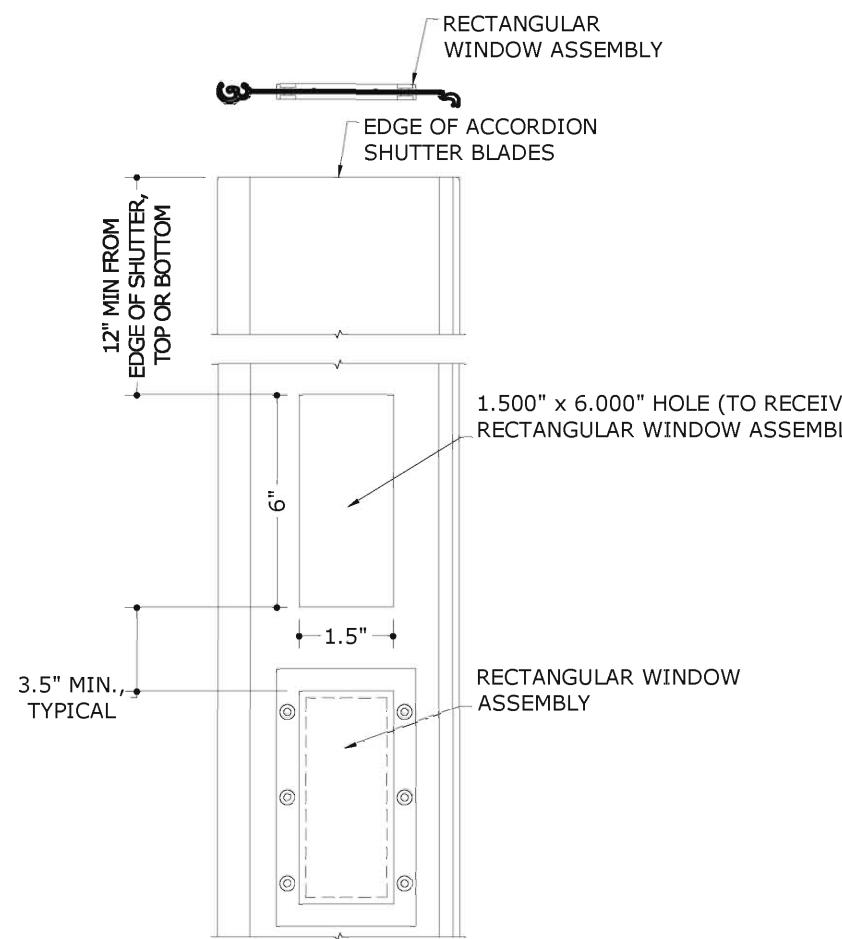
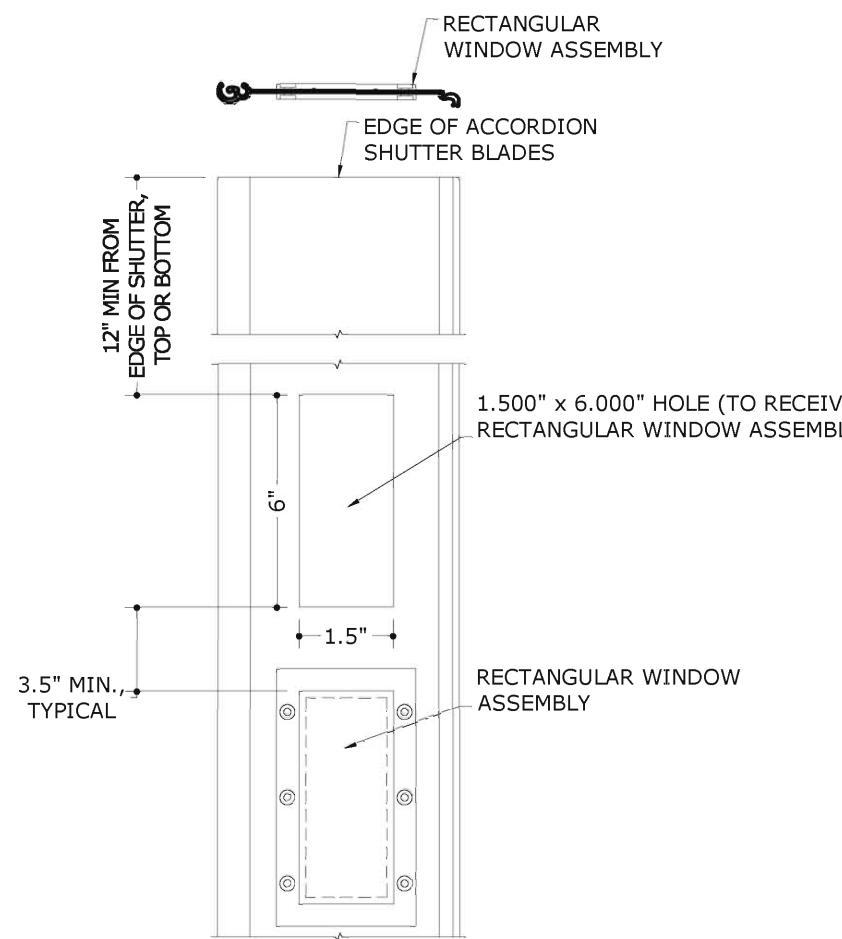
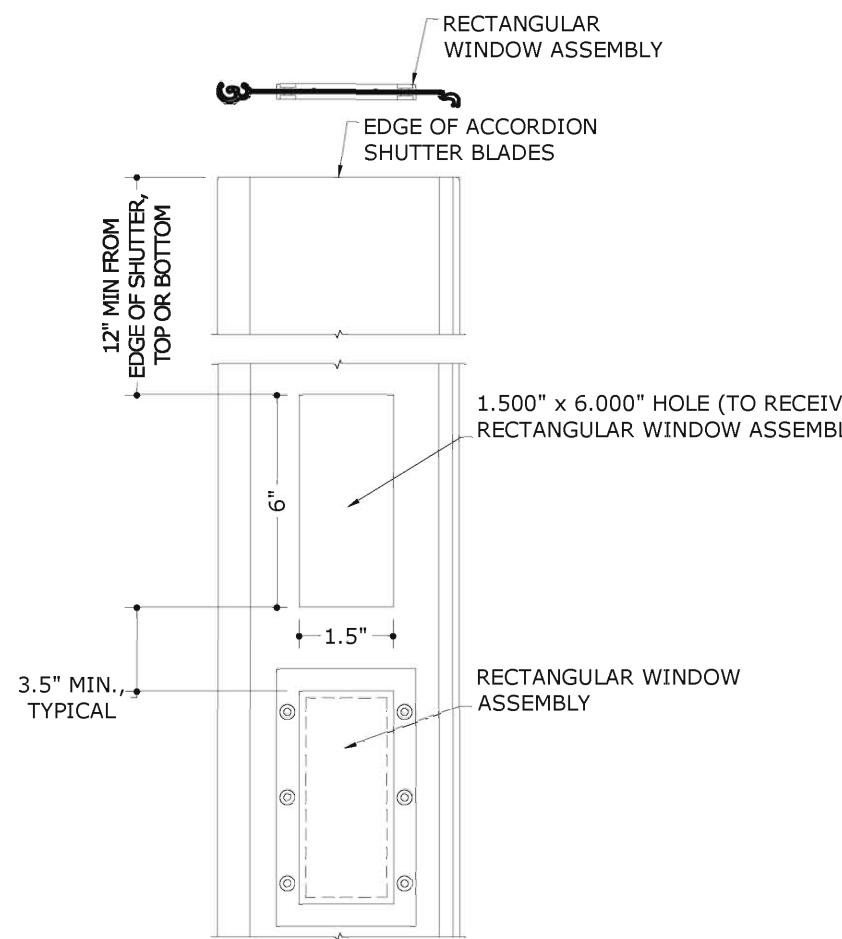
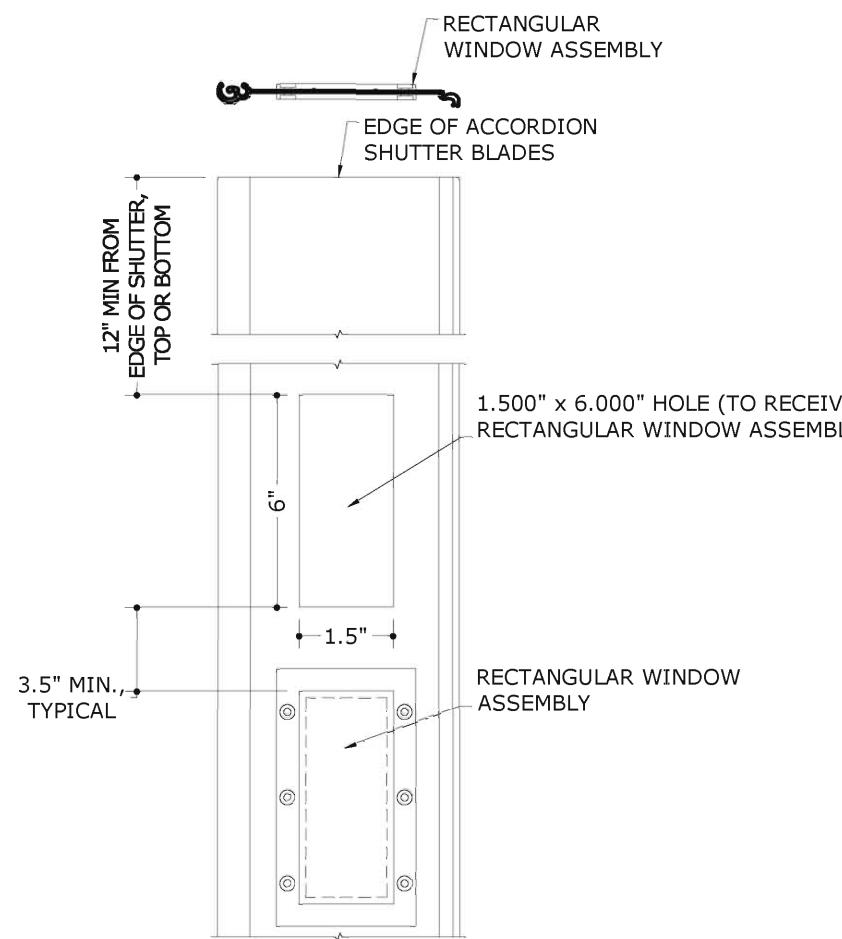
A LIGHT-N-VIEW WINDOW
N.T.S. SABIC PLASTICS SLX1431T-UL-94HB



4 BLADE W/ RECT. WINDOW
N.T.S. EXTERIOR ELEV

5 RECTANGULAR WINDOW
N.T.S. EXTERIOR ELEV

2 LIGHT-N-VIEW WINDOW
N.T.S. EXTERIOR ELEV





ALTERNATE MOUNTING OPTION

DESIGN SCHEDULES

OPTION 1

(1) 2x3x0.25 ANGLE (6063-T6)

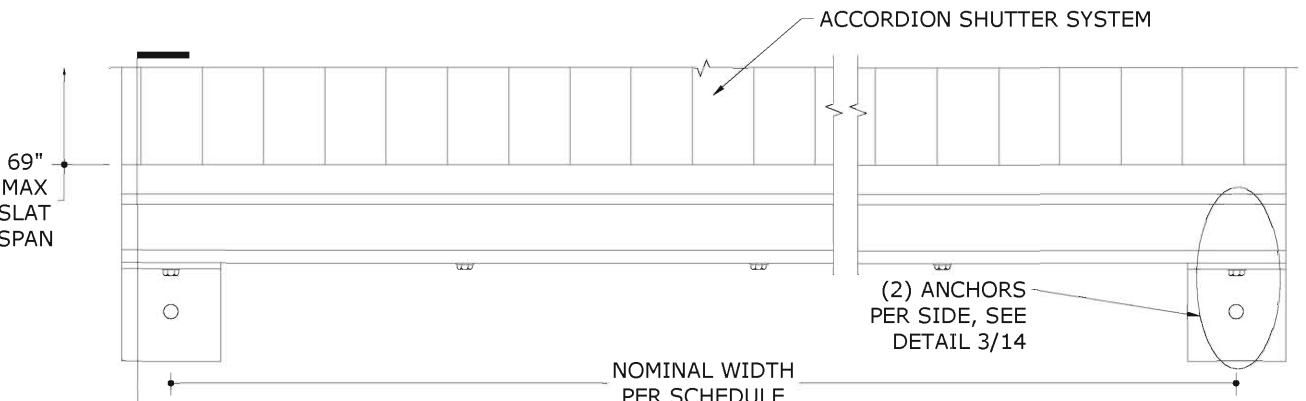
NOMINAL WIDTH	ALLOWABLE DESIGN PRESSURE	
	POSITIVE (+)	NEGATIVE (-)
42"	151 psf	200 psf
45"	131 psf	200 psf
48"	116 psf	177 psf
51"	102 psf	147 psf
54"	91 psf	124 psf
57"	82 psf	106 psf
60"	74 psf	91 psf
63"	67 psf	78 psf
66"	61 psf	68 psf
69"	56 psf	60 psf
72"	51 psf	52 psf
75"	46 psf	46 psf
78"	41 psf	41 psf
81"	37 psf	37 psf

OPTION 2

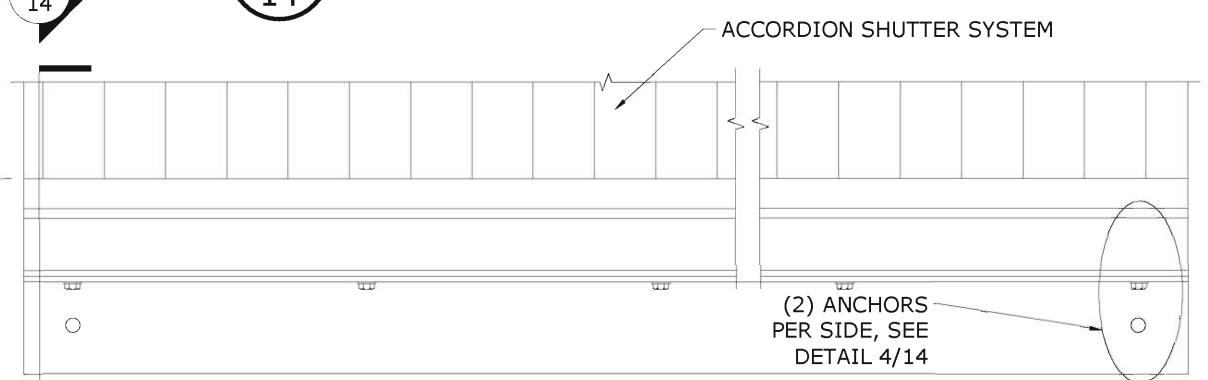
(2) 2x3x0.125 ANGLES (6063-T6)

NOMINAL WIDTH	ALLOWABLE DESIGN PRESSURE	
	POSITIVE (+)	NEGATIVE (-)
42"	80 psf	173 psf
45"	69 psf	151 psf
48"	61 psf	132 psf
51"	54 psf	117 psf
54"	48 psf	105 psf
57"	43 psf	94 psf
60"	39 psf	85 psf
63"	35 psf	77 psf
66"	32 psf	70 psf
69"	30 psf	63 psf
72"	27 psf	56 psf
75"	25 psf	49 psf
78"	23 psf	44 psf
81"	21 psf	39 psf

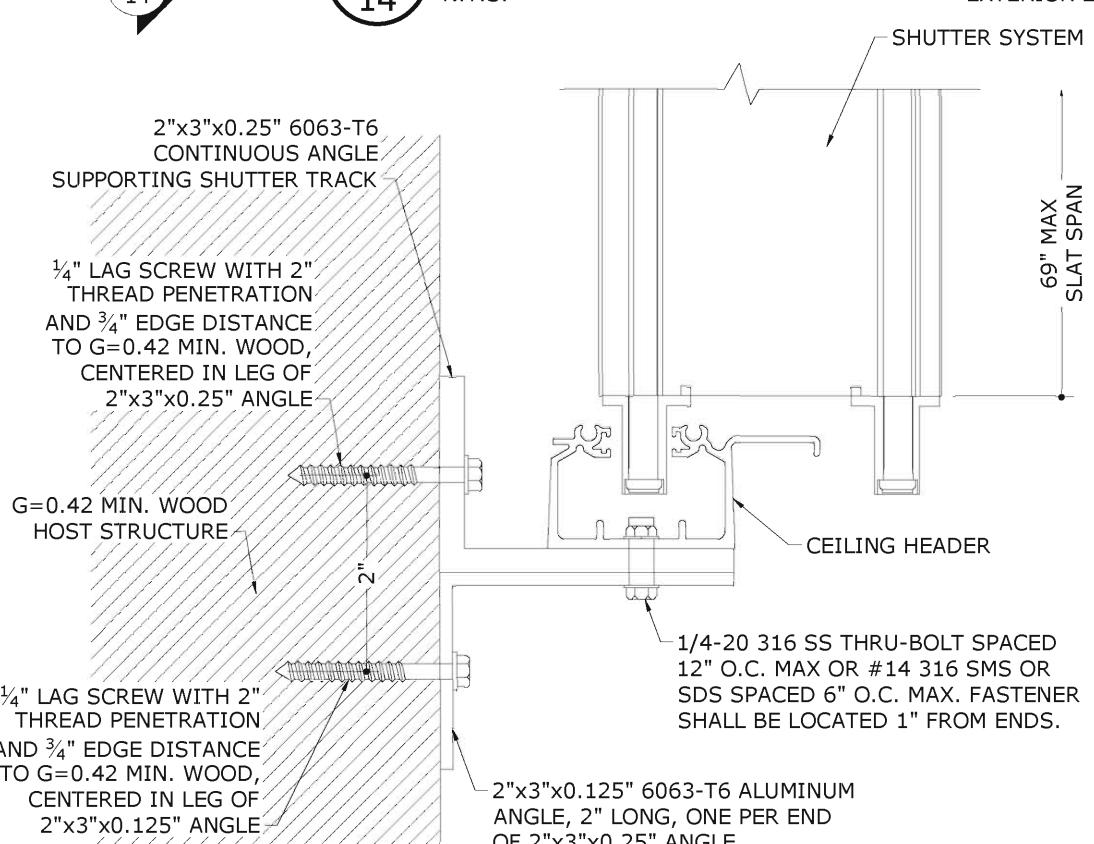
NOTE: DESIGN PRESSURES SHOWN IN DESIGN SCHEDULE ARE FOR DETERMINING MAXIMUM ALLOWABLE HORIZONTAL SUPPORT ANGLE SPAN. SHUTTER SPANS AND ALLOWABLE LOADS SHALL NOT EXCEED THOSE PERMITTED IN DESIGN SCHEDULES.



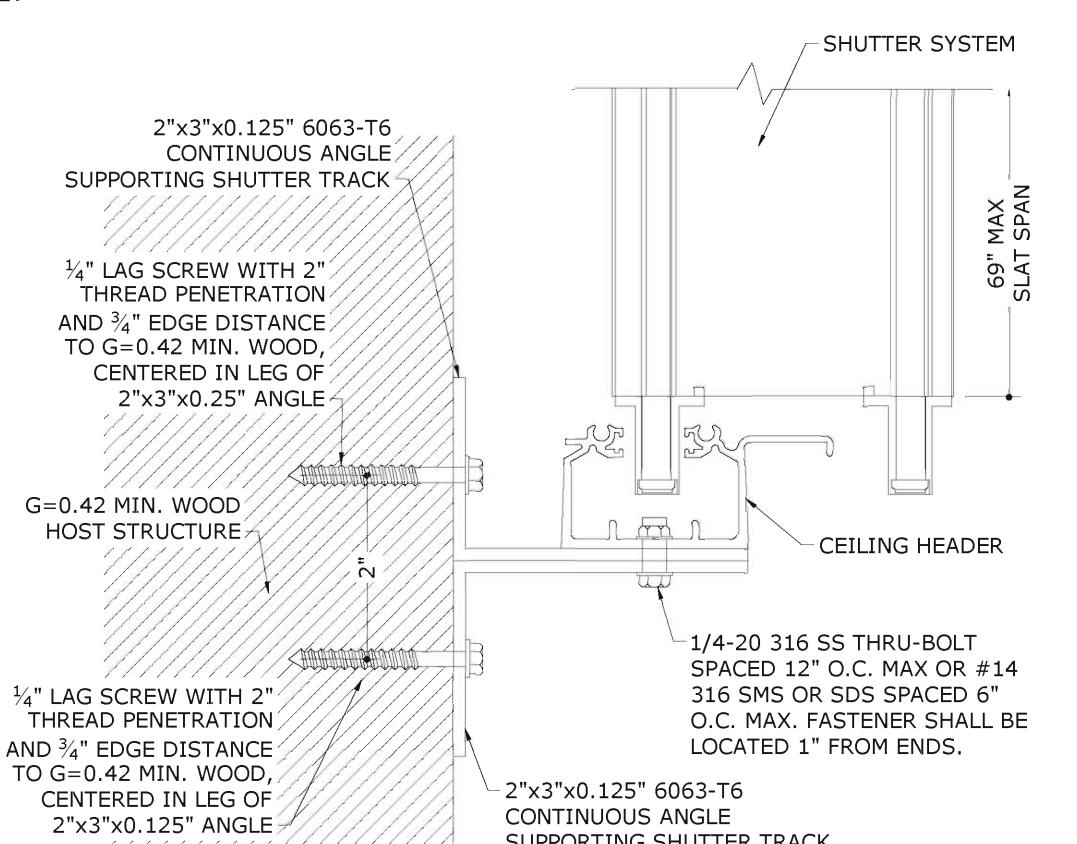
TYPICAL ELEVATION (OPTION 1)



TYPICAL ELEVATION (OPTION 2)



TYPICAL END ATTACHMENT (OPTION 1)



TYPICAL END ATTACHMENT (OPTION 2)

REMARKS	DRWNS	CHKD	DATE
INIT ISSUE	KL	FLB	12/20/11
CLIENT REVISONS	KL	FLB	2/22/12
2014 FBC	KL	FLB	10/25/13
2017 FBC	RWN	CSL	4/01/15
2020 FBC UPDATE	RWN	FLB	8/04/17
	CB	RWN	6/17/20

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14

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08/12/2012