

# 6.8 STREAMLINE SHUTTER

## FOR USE WITHIN AND OUTSIDE THE HVHZ

### 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" AND INCLUDES ESSENTIAL FACILITIES AS DEFINED IN ASTM E1996-09, 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 WIND ZONES 1-3, IN ACCORDANCE WITH ASTM 1996. 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, 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 61G15-23 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. ANY MODIFICATIONS OR ADDITIONS TO THESE APPROVAL DOCUMENTS WILL VOID THE APPROVAL DOCUMENTS.
12. 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.
13. 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

14. ALL EXTRUSIONS SHOWN SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N., WITH A MINIMUM Fy OF 25 K.S.I.
15. 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.
16. ALL SHUTTERS SHALL HAVE A LOCKING MECHANISM CONSISTING OF THUMBSCREW, PUSH LOCK OR BOX LOCK AT CENTER OR SIDE CLOSURE.
17. TOP AND BOTTOM DETAILS MAY BE INTERCHANGED AS FIELD CONDITIONS REQUIRE.
18. FLOOR TRACKS MAY BE REMOVABLE AT NON-STACKING LOCATIONS. USE REMOVABLE ANCHORS.
19. MOUNTING EXTRUSIONS MAY BE BENT TO FORM A CURVE WITH A MIN. RADIUS OF 10".
20. ALL DIMENSIONS SHOWN INCLUDE POWDER COATING FINISH.
21. ALL STEEL IN CONTACT WITH ALUMINUM SHALL BE PAINTED OR PLATED.
22. SHUTTER MAY BE INSTALLED WITH UP TO (2) ADDITIONAL BLADES OF SLACK.
23. SEALANT SHALL BE USED ON ANCHORS OR TRACKS WHEREVER WATER SEEPAGE IS POSSIBLE.

**TABLE 1:**

ACCORDION SHUTTER SPAN SCHEDULE		
SHUTTER SPAN	POSITIVE DESIGN PRESSURE (PSF)	NEGATIVE DESIGN PRESSURE (PSF)
72"	100	100
99"	70	70
120"	53	53
144"	43	40

TABLE 1 NOTES:

1. DESIGN PRESSURES SHOWN IN "ACCORDION SHUTTER SPAN SCHEDULE" ABOVE ARE MAXIMUM ALLOWABLE DESIGN PRESSURES AT EACH RESPECTIVE SHUTTER SPAN.
2. LINEAR INTERPOLATION BETWEEN SHUTTER SPANS IS NOT PERMITTED. FOR SPANS BETWEEN THOSE INDICATED ABOVE, THE DESIGN PRESSURES FOR THE NEXT HIGHER SPAN SHALL BE USED.



**TABLE 2:**

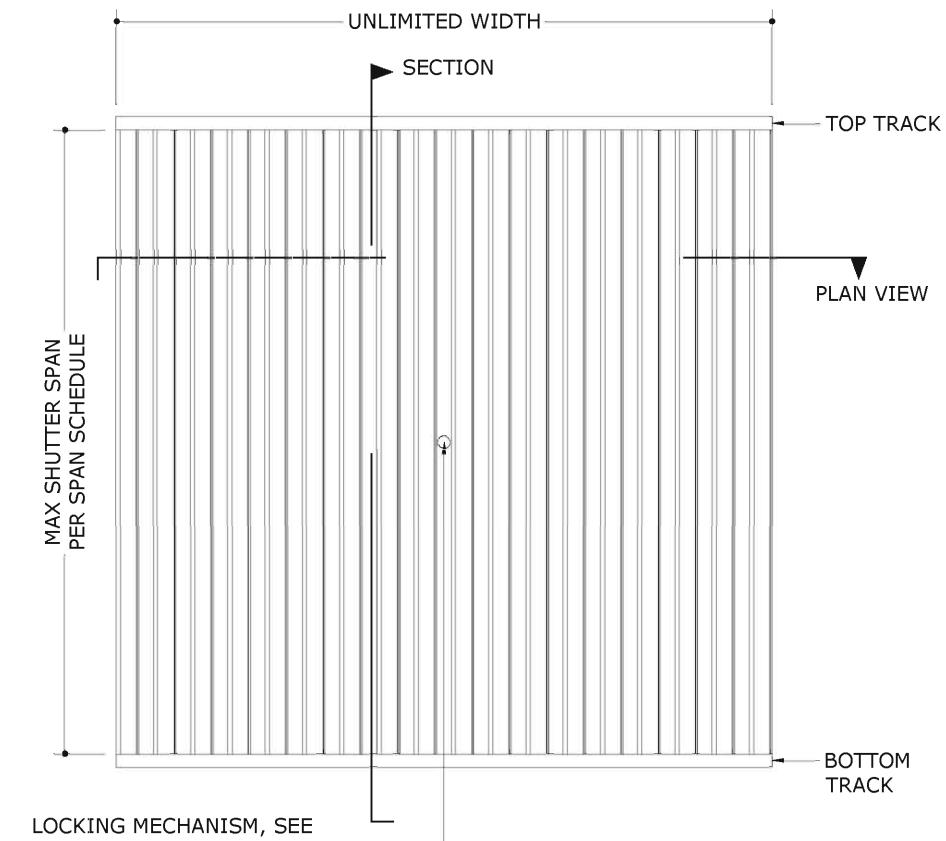
SHUTTER SPAN	HVHZ		NON-HVHZ SEE NOTE 3	
	INSTALLATIONS ≤ 30' ABOVE GRADE	INSTALLATIONS > 30' ABOVE GRADE	INSTALLATIONS ≤ 30' ABOVE GRADE	INSTALLATIONS > 30' ABOVE GRADE
72"	2-1/4"	1-5/8"	2-3/8"	1-5/8"
99"	3-1/2"	1-7/8"	3-5/8"	1-7/8"
120"	4-1/8"	2"	4-1/4"	2"
144"	4-7/8"	2"	5"	2"

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FOR SITE SPECIFIC DEVIATIONS  
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**TYPICAL ACCORDION SHUTTER ELEVATION**

1  
1  
N.T.S.

EXTERIOR ELEV

TABLE 2 NOTES:

1. HVHZ: DEFINED AS MIAMI-DADE COUNTY AND BROWARD COUNTY FLORIDA.
2. NON-HVHZ: DEFINED AS ALL LOCATIONS OTHER THAN MIAMI-DADE COUNTY AND BROWARD COUNTY FLORIDA.
3. **SEPARATION FROM GLASS IS NOT REQUIRED FOR INSTALLATIONS IN WIND ZONES 1-3 UNLESS LOCAL MUNICIPALITY HAS ADOPTED ADDITIONAL CRITERIA.**
4. INSTALLATIONS IN WIND ZONES 1 THROUGH 4 OUTSIDE OF THE HVHZ WITH SPANS LESS THAN 30" SHALL HAVE 2-7/8" MINIMUM SEPARATION FROM GLASS WHEN ≤ 30' ABOVE GRADE, AND 1-5/8" WHEN > 30' ABOVE GRADE.
5. LINEAR INTERPOLATION BETWEEN SHUTTER SPANS IS NOT PERMITTED. FOR SPANS BETWEEN THOSE INDICATED ABOVE, THE SEPARATION FROM GLASS FOR THE NEXT HIGHER SPAN SHALL BE USED.
6. SEPARATION FOR GLASS OUTSIDE OF THE HVHZ HAS BEEN DETERMINED IN ACCORDANCE WITH ASTM E1996.



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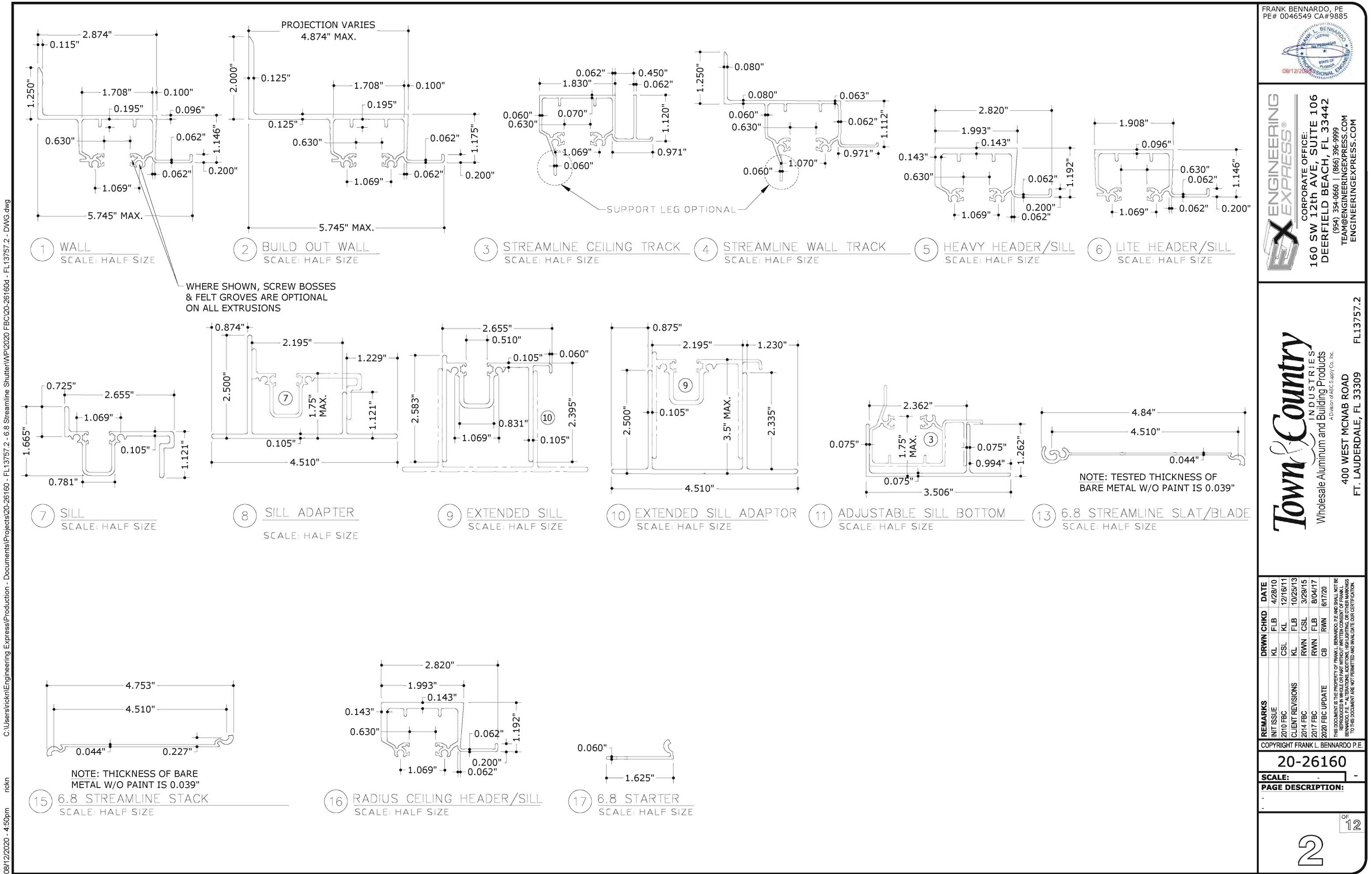
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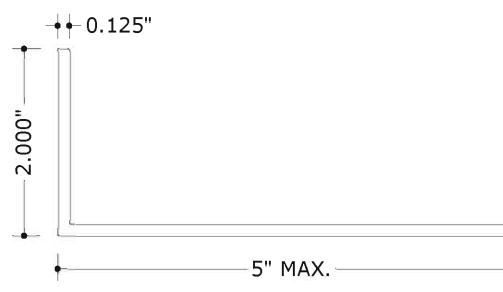
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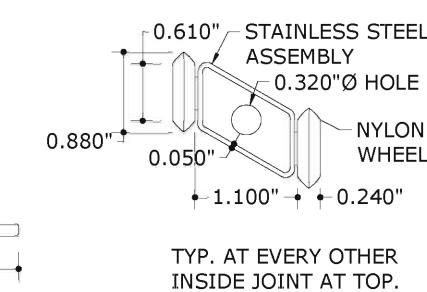
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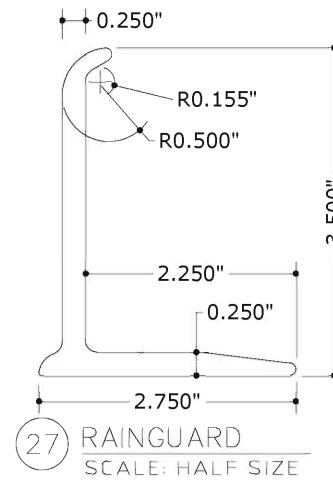




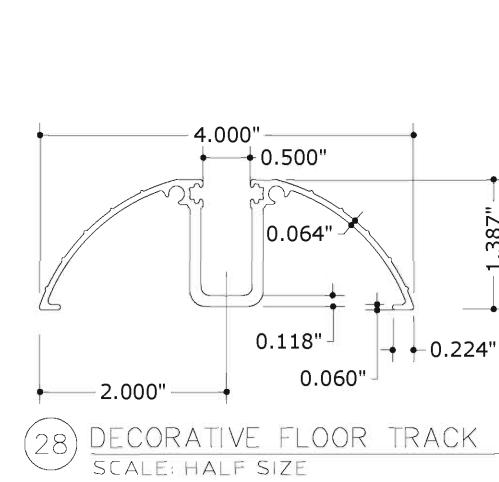
19 ANGLE  
SCALE: HALF SIZE



22 ROLLER ASSEMBLY  
SCALE: HALF SIZE

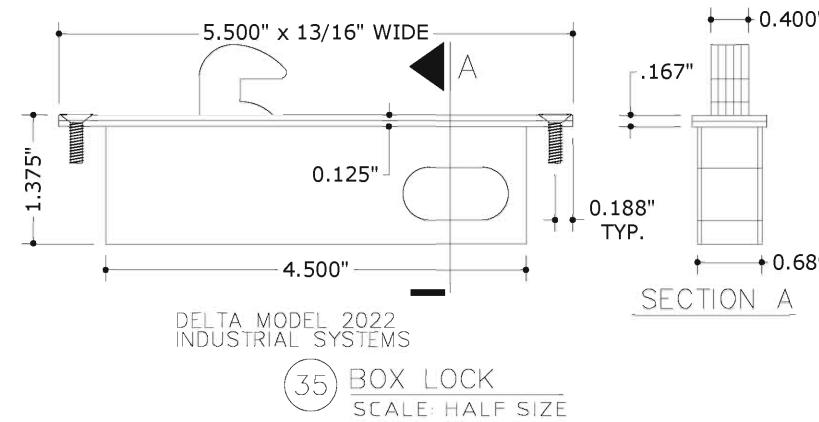


27 RAINGUARD  
SCALE: HALF SIZE

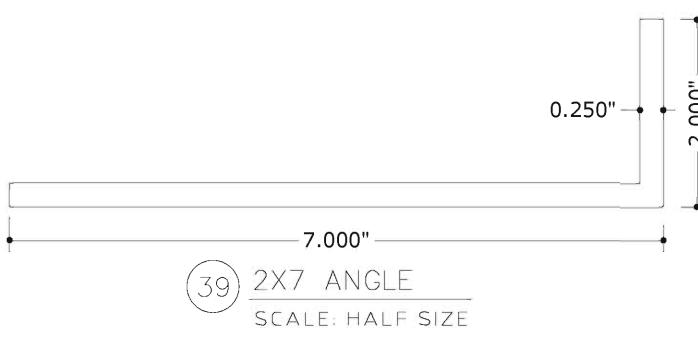


28 DECORATIVE FLOOR TRACK  
SCALE: HALF SIZE

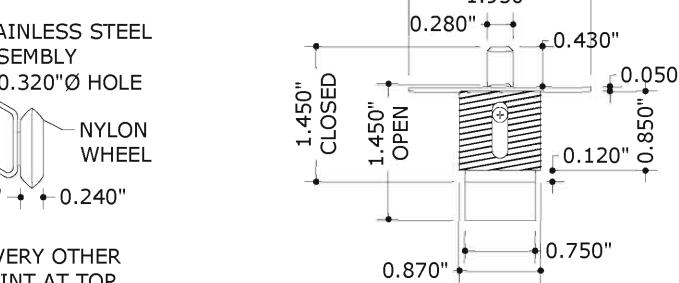
NOTE: DECORATIVE FLOOR TRACK  
MAY BE ATTACHED TO ANGLE PER  
DETAILS CB/5 OR CA/6.



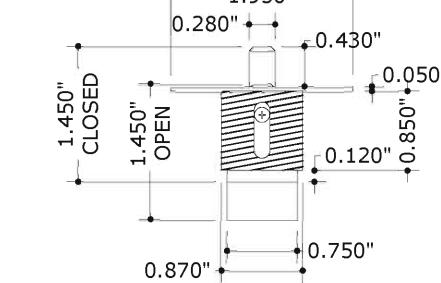
35 BOX LOCK  
SCALE: HALF SIZE



39 2X7 ANGLE  
SCALE: HALF SIZE



20 ALT. 1 END STRIP  
SCALE: HALF SIZE

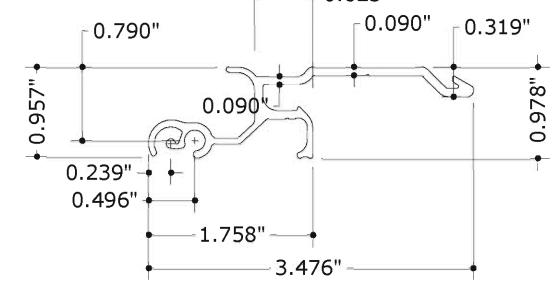


21 1.5"x3"x0.093" ANGLE  
SCALE: HALF SIZE

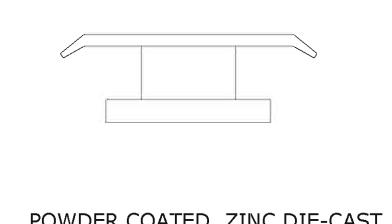
CYLINDER-SOLID BRASS, NICKEL PLATED HOUSING-ZINC DICAST, POWDER COATED  
NOTE: MAY BE KEY OPERATED OUTSIDE OR KEY/THUMB TURN OPERATED INSIDE.



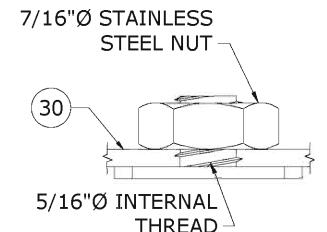
23 BRASS PUSH LOCK  
SCALE: HALF SIZE



30 UNIMATE LOCK  
SCALE: HALF SIZE



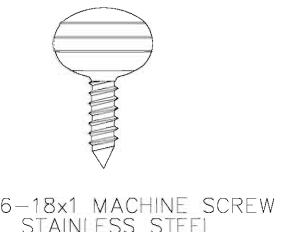
36 T-LOCK ADAPTER  
(OPTIONAL)  
SCALE: HALF SIZE



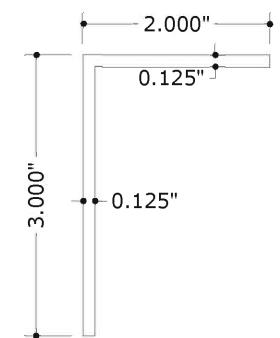
37 T-SCREW INSERT  
SCALE: FULL SIZE



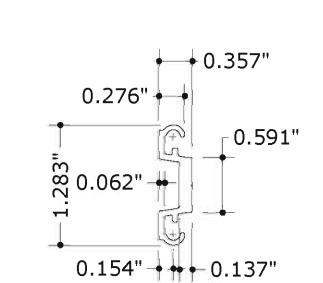
24 BUSHING ASSEMBLY DETAIL  
SCALE: HALF SIZE



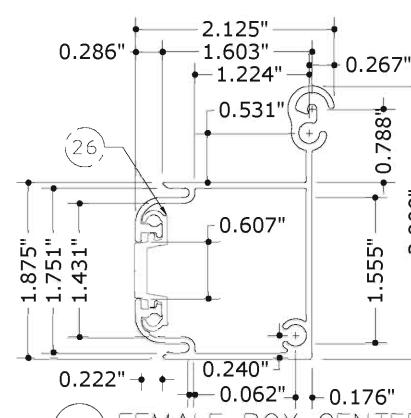
38 HEAD STYLE VARIES  
THUMB SCREW  
SCALE: FULL SIZE



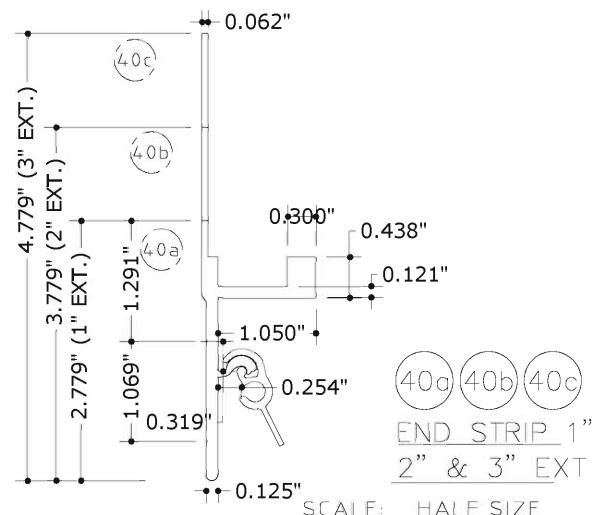
25 2"x3"x0.125" ANGLE  
SCALE: HALF SIZE



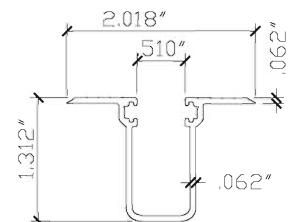
26 BOX CENTER INSERT  
SCALE: HALF SIZE



32 FEMALE BOX CENTER  
SCALE: HALF SIZE



END STRIP 1"  
2" & 3" EXT



20g RECESS SILL  
SCALE: HALF SIZE

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REMARKS	DRWN	CHKD	DATE
INIT ISSUE	KL	FLB	4/28/10
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2014 FBC	RWM	CSL	3/29/15
2017 FBC	RWM	FLB	8/4/17
2020 FBC UPDATE	CB	RWM	6/7/20

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**TYPICAL PLAN VIEW**  
SCALE: 3" = 1'-0"

ANY ANCHOR PER ANCHOR SCHEDULE @ 18" O.C.

MIN. GLASS SEPARATION PER TABLE 2

(INTERIOR)

EXISTING GLAZING

EDGE DIST.

ALT. ANGLE LEG DIRECTION

EMBED.

EDGE DIST.

MIN. 0.062" THICK 6063-T6 ALUM. ANGLE 1" x 1" MIN. TO 2" x 5" MAX. (ANGLE LEG MAY BE REVERSED)

ANY ANCHOR PER ANCHOR SCHEDULE @ 18" O.C.

#12 x 1 1/2" GALVANIZED OR S.S. SMS, 3/16"Ø ALUM. POP RIVET, OR 1/4-20 MACHINE BOLT & NUT @ 18" O.C.

USE (1) BRASS PUSH LOCK OR (1) 5/16-18 THUMB SCREW INTO THREADED INSERT (37) AT 1/3 SPAN TO 2/3 SPAN FROM BOTTOM OF SHUTTER. RECEIVING HOLE SHALL BE 3/8" MAX WIDTH, UP TO 1" HEIGHT.

**LOCKING DETAILS FOR CENTER MATES SHOWN ON RANDOM DETAILS**

**END STRIP SCHEDULE**

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

40g  
40b  
40c  
20  
21  
25

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.

**ALTERNATE END STRIP DETAIL WITH 6.8 STARTER AND ANGLE**  
SCALE: 3" = 1'-0"

MIN. GLASS SEPARATION PER TABLE 2

1/4" MAX.

SEE END STRIP SCHEDULE FOR MAX. SPAN WHEN USING 20, 40a, 40b OR 40c, OR 6.8 STARTER WITH 21 OR 25.

FASTEN ANGLE TO TRACK W/ (2) #10x1" SCREWS AT CORNER, TOP & BOTTOM; AND ATTACH TO 6.8 STARTER W/ #12 x 1 1/2" GALVANIZED OR S.S. SMS, 3/16"Ø ALUM. POP RIVET, OR 1/4-20 MACHINE BOLT & NUT @ 18" O.C.

ANY TRACK W/ SCREW BOSSSES.

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

MIN. GLASS SEPARATION PER TABLE 2

1/4" MAX.

SEE END STRIP SCHEDULE FOR MAX. SPAN WHEN USING 20, 40a, 40b OR 40c, OR 6.8 STARTER WITH 21 OR 25.

USE APPROPRIATE STARTER STRIP TO PROVIDE CLOSURE FOR BUILDING CONDITIONS.

FASTEN STARTER STRIP TO TRACK W/ (2) #10x1" SCREWS AT CORNER, TOP & BOTTOM.

ANY TRACK W/ SCREW BOSSSES.

**EXISTING GLASS**

**DETAILS WO/CORNER POST NTS**

**CC1 TYPICAL OUTSIDE CORNER CLOSURE**

**CC2 TYPICAL INSIDE CORNER CLOSURE**

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

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**TABLE A (CC3)**  
PRESSURE VS ALLOWABLE LENGTH

PSF	2"x2"x1/8" No B/O	3"x3"x1/8" No B/O
62	130"	188"
72	124"	179"
82	119"	172"
92	114"	165"
102	110"	160"
120	104"	147"
150	97"	131"
200	88"	114"

**TABLE B (CC4)**  
PRESSURE VS ALLOWABLE LENGTH

PSF	2"x2"x1/8" WITH B/O	3"x3"x1/8" WITH B/O
62	113"	166"
72	107"	157"
82	101"	147"
92	95"	139"
102	90"	132"
120	83"	122"
150	74"	109"
200	64"	94"

**CC3 TYPICAL CORNER CLOSURE DETAILS NTS**

ALUM. TUBE 6063-T6 ALLOY SEE TABLE A FOR SIZE.

2 FASTENERS EACH ANGLE

1" x 2" x 1/8" OR 2" x 2" x 1/8" ALUM. ANGLE

THREE 3/16"Ø ALUM. POP RIVETS OR THREE #12 SMS, TYP.

3/16"Ø ALUM. POP RIVET OR #12 SMS @ 18" O.C. (TYP.)

MAY USE MALE OR FEMALE LOCK-SLAT

**CC4 TYPICAL CORNER CLOSURE DETAILS NTS**

3/16 RIVET OR #12 SMS @ 18" O.C. OR 1/4-20 NUT & BOLT (TYP.).

ALUM. TUBE 6063-T6 ALLOY SEE TABLE B FOR SIZE.

1" x 2" x .093" 6063-T6 ALUM. ANGLE, TYP.

2 FASTENERS EACH ANGLE

THREE 3/16"Ø ALUM. POP RIVETS OR THREE #12 SMS, TYP.

1" x 2" x 1/8" OR 2" x 2" x 1/8" ALUM. ANGLE

USE MALE OR FEMALE LOCK-SLAT

**SIDE CLOSURE OPTIONS**  
SCALE: 3" = 1'-0"

**EE INSIDE SILL MOUNT SECTION**  
SCALE: 3" = 1'-0"

**ALTERNATE BUILD OUT MOUNT SECTION**  
SCALE : 3" = 1'- 0"

**EXISTING HOST STRUCTURE**

**MIN GLASS SEPARATION PER TABLE 2**

**MAX SHUTTER LENGTH SEE ACCORDION SPAN SCHEDULE, TABLE 1 OR 3**

**EXISTING CONCRETE, BLOCK OR WOOD FRAMING**

**C1 CONNECTION TYPE**  
**REFERENCE ANCHOR SCHEDULE FOR MAX. SPACING**

**EXISTING HOST STRUCTURE**

**7" MAX.**

**1/2" (39)**

**1/2"**

**1/4-20 MACHINE BOLT W/NUT @ 12" O.C. OR #14 SMS @ 6" O.C. (TYP. TOP & BOTTOM)**

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

**MIN GLASS SEPARATION PER TABLE 2**

**MAX SHUTTER LENGTH SEE ACCORDION SPAN SCHEDULE, TABLE 1**

**GLASS OR DOOR**

**ALTERNATE**

**EDGE DIST.**

**1/4" MAX. FROM PIN GUIDE TO BUSHING WASHER (TYP.)**

**#14 x 3/4" SMS @ 9" O.C.**

**ANGLE TO TUBE CONNECTION**

**2" x 2" x .125" 6063-T6 ALUM. TUBE**

**C5 CONNECTION TYPE**  
**REFERENCE ANCHOR SCHEDULE FOR MAX. SPACING**

**EXISTING HOST STRUCTURE**

**EMBED.**

**EDGE DIST.**

**MIN GLASS SEPARATION PER TABLE 2**

**MAX. SHUTTER LENGTH SEE ACCORDION SPAN SCHEDULE, TABLE 1 OR 3**

**GLASS OR DOOR**

**MIN GLASS SEPARATION PER TABLE 2**

**MAX. SHUTTER LENGTH SEE ACCORDION SPAN SCHEDULE, TABLE 1 OR 3**

**EMBED**

**EDGE DIST.**

**C4 CONNECTION TYPE**  
**REFERENCE ANCHOR SCHEDULE FOR MAX. SPACING**

**EXISTING CONCRETE, BLOCK OR WOOD FRAMING**

**REMARKS**

INIT ISSUE	KL	FLB	4/28/10
2010 FBC	CSL	KL	12/16/11
CLIENT REVISIONS	KL	FLB	10/25/13
2014 FBC	RWN	CSL	3/29/15
2017 FBC	RWN	FLB	8/04/17
2020 FBC UPDATE	CB	RWN	6/07/20

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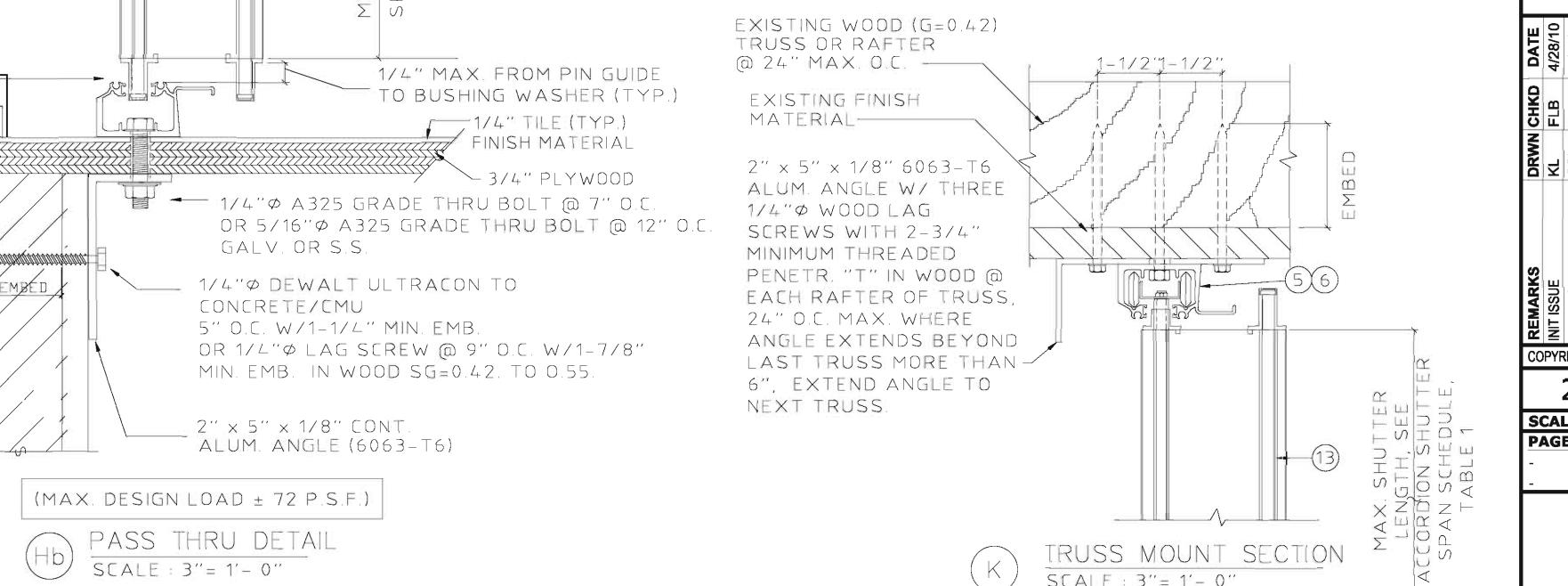
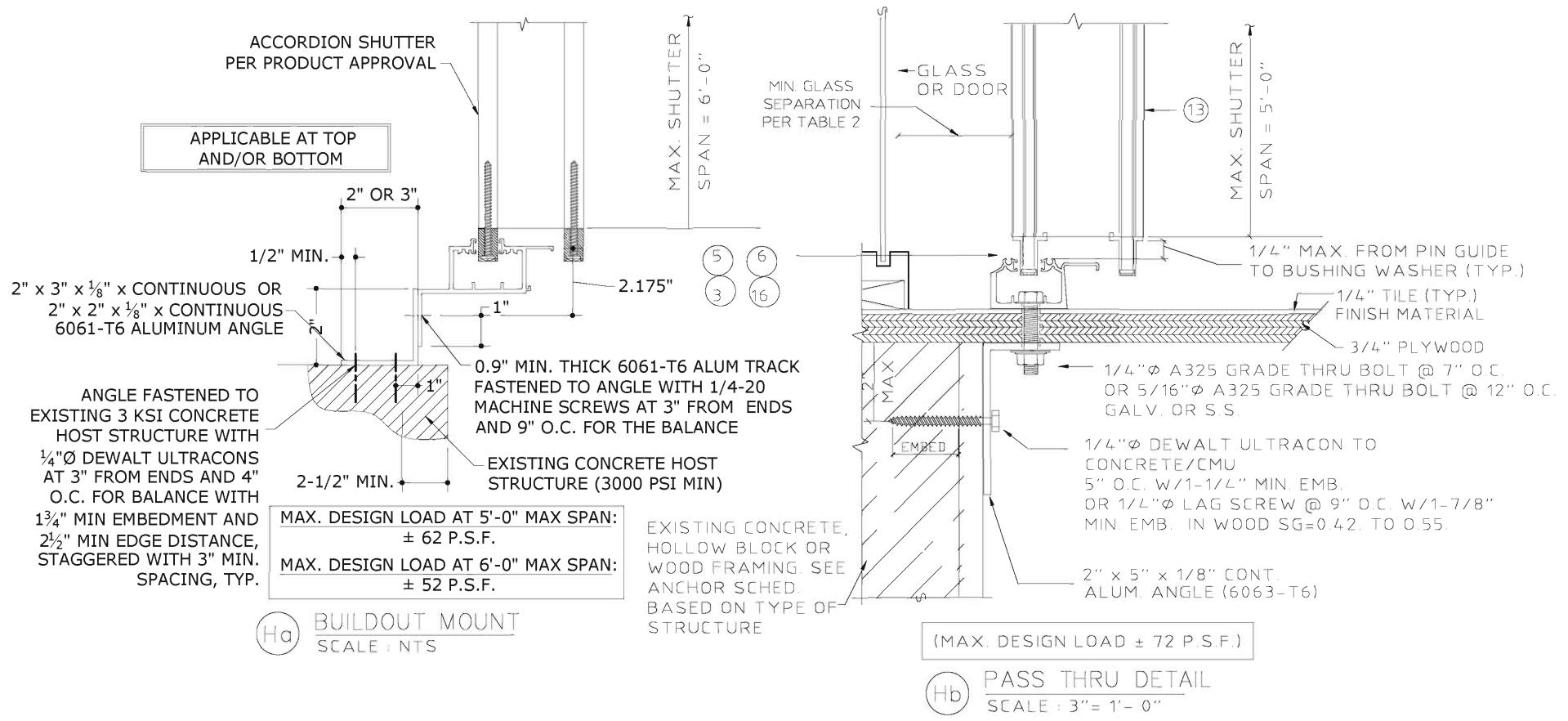
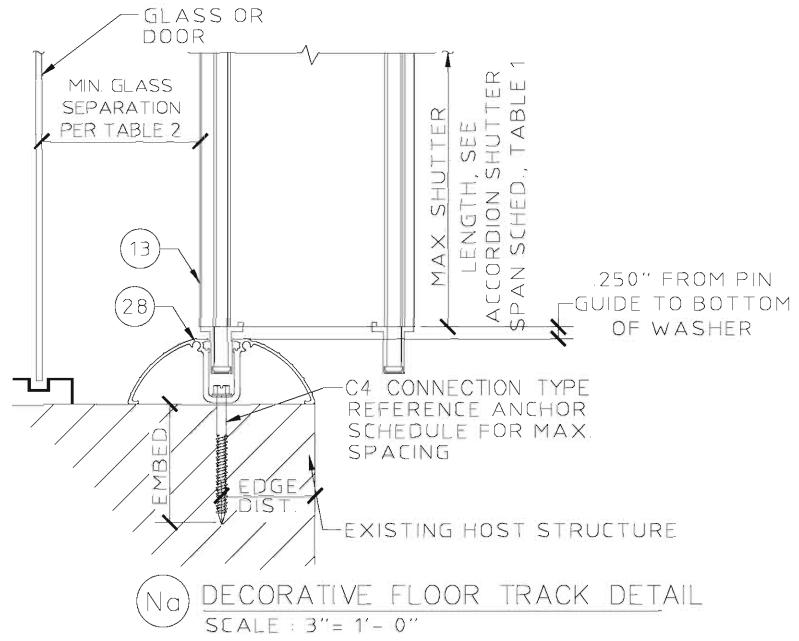
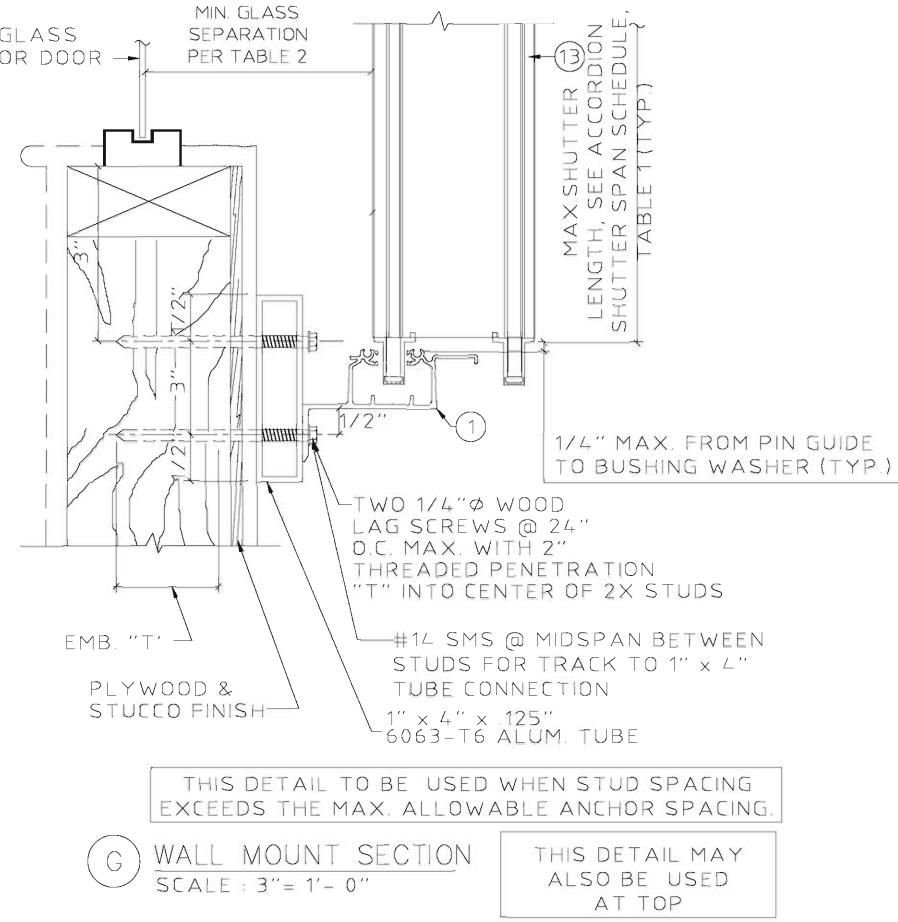
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**A INSIDE MOUNT SECTION**  
SCALE : 3" = 1'- 0"  
  
**B INSIDE MOUNT SECTION**  
SCALE : 3" = 1'- 0"  
  
**Ca BUILD OUT MOUNT SECTION**  
SCALE : 3" = 1'- 0"  
  
**D WALL MOUNT SECTION**  
SCALE : 3" = 1'- 0"  
  
**E CEILING / INSIDE MOUNT SECTION**  
SCALE : 3" = 1'- 0"  
  
**F WALL/BUILD OUT SECTION**  
SCALE : 3" = 1'- 0"



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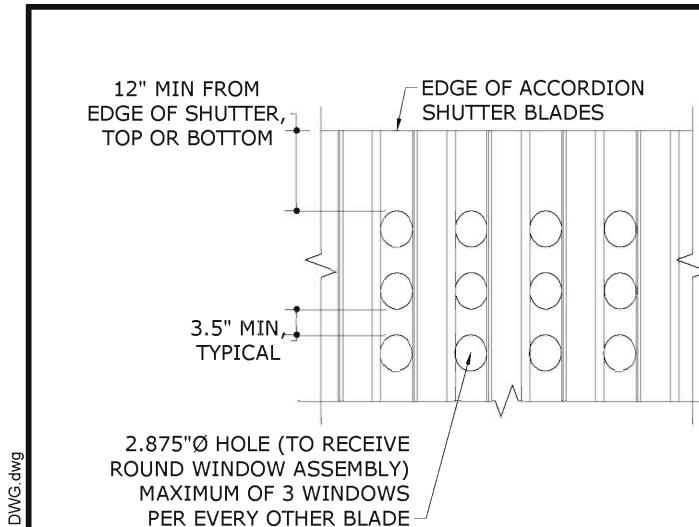
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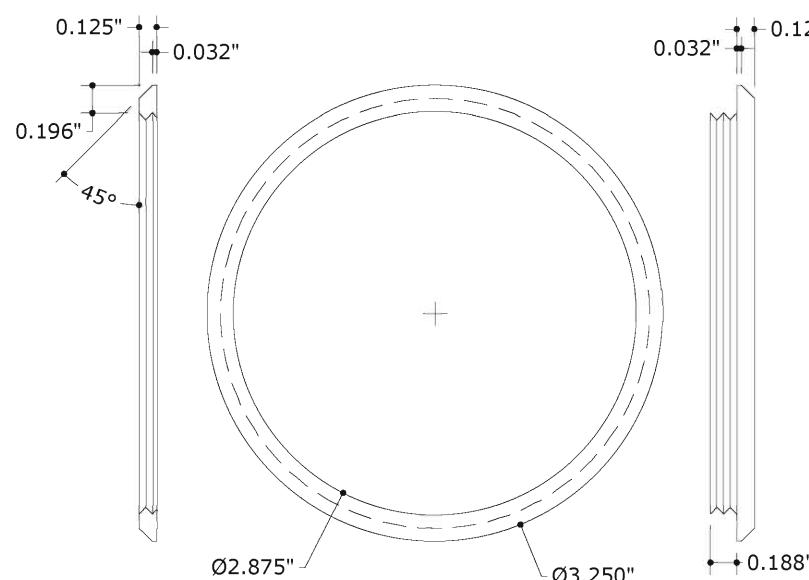
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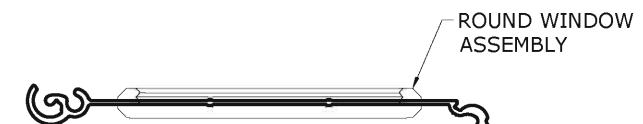
7 OF 12



**1** **8** LIGHT-N-VIEW WINDOW  
N.T.S. EXTERIOR ELEV



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

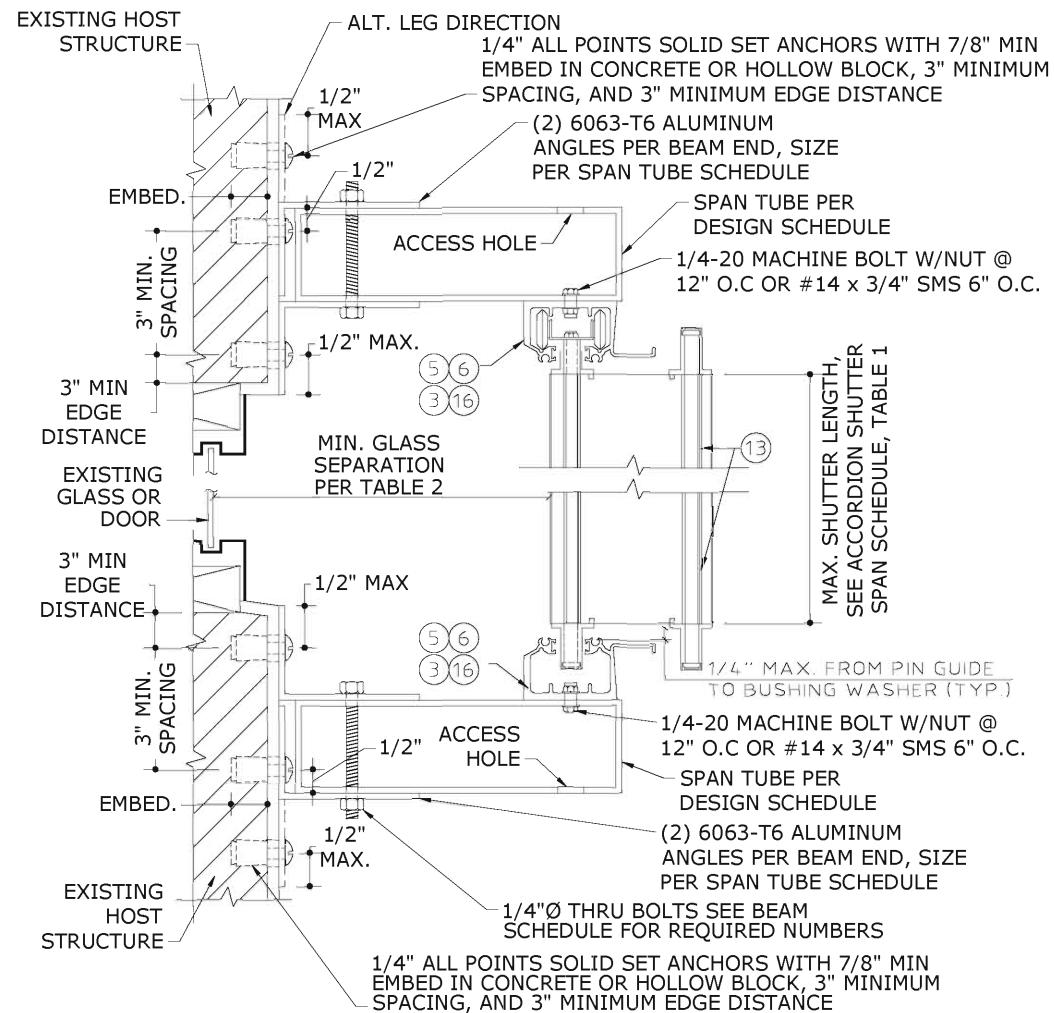


EDGE OF ACCORDION SHUTTER BLADES

ROUND WINDOW ASSEMBLY

EDGE OF ACCORDION SHUTTER BLADES

**2** **8** BLADE W/ ROUND WINDOW  
N.T.S. EXTERIOR ELEV



**3** **8** SPAN TUBE SECTION  
N.T.S. VERT SECTION

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"x 0.125"	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"x 0.125"	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"x 0.125"	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"x 0.1875"	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 3/8.
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.

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# ALTERNATE MOUNTING OPTION

## DESIGN SCHEDULES

### OPTION 1

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

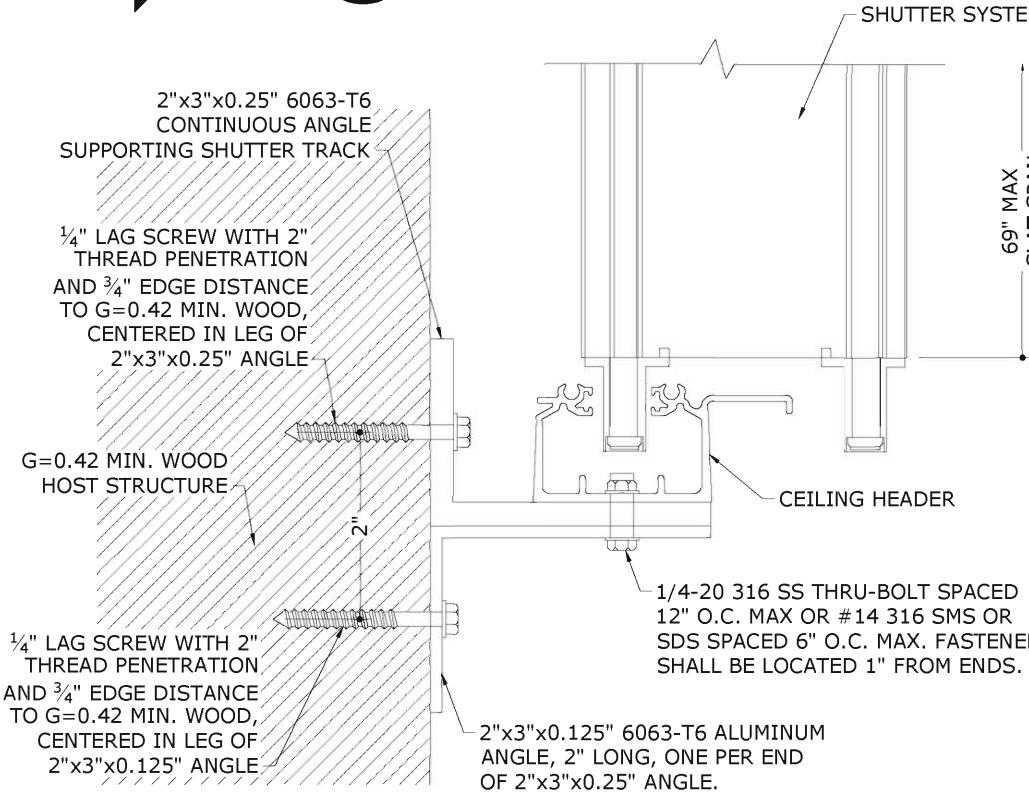
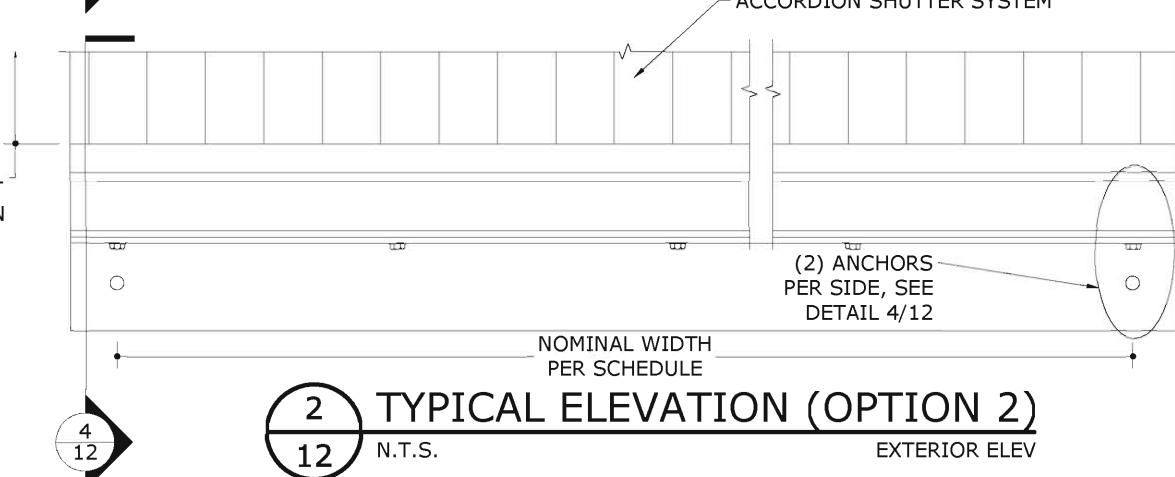
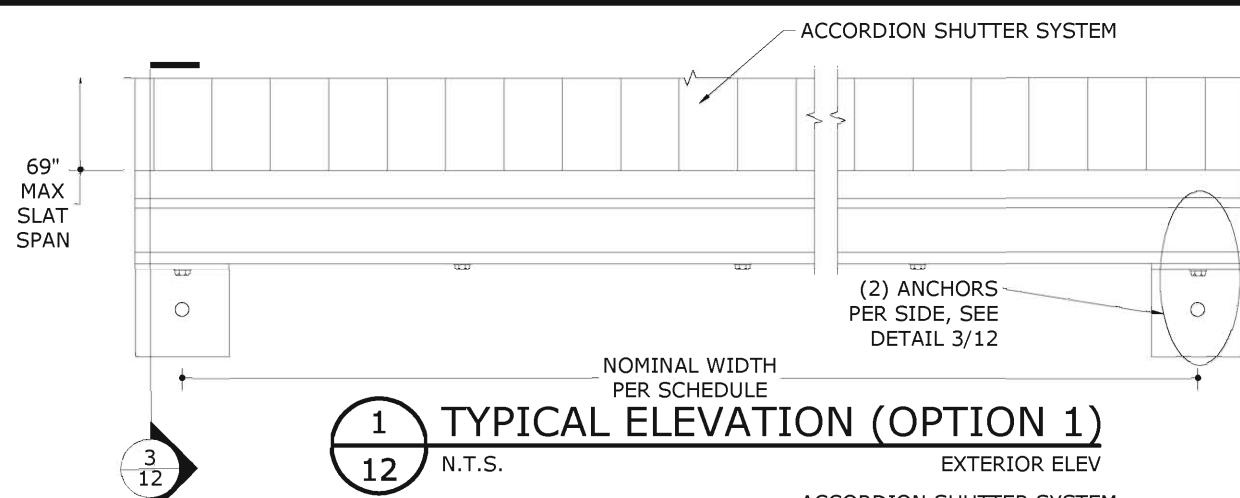
NOMINAL WIDTH	ALLOWABLE DESIGN PRESSURE	
	POSITIVE (+)	NEGATIVE (-)
42"	151 psf	200 psf
45"	131 psf	200 psf
48"	116 psf	177 psf
51"	102 psf	147 psf
54"	91 psf	124 psf
57"	82 psf	106 psf
60"	74 psf	91 psf
63"	67 psf	78 psf
66"	61 psf	68 psf
69"	56 psf	60 psf
72"	51 psf	52 psf
75"	46 psf	46 psf
78"	41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

### OPTION 2

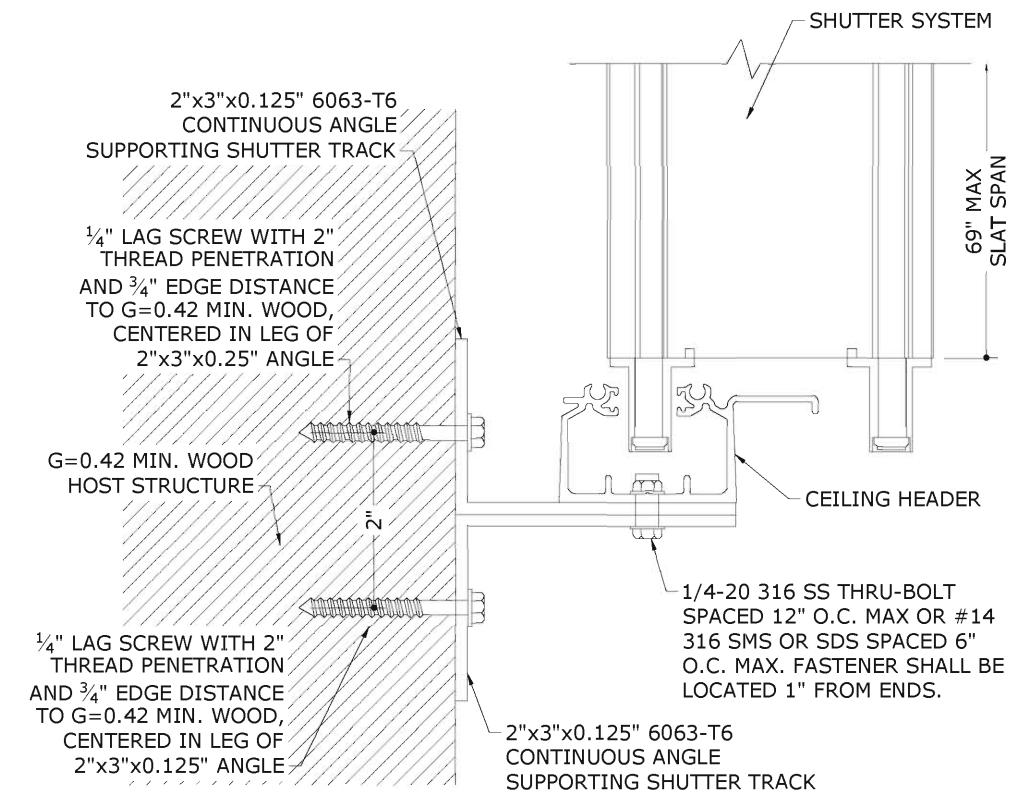
(2) 2x3x0.125 ANGLES (6063-T6)

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.



3 12 N.T.S. VERT SECTION TYPICAL END ATTACHMENT (OPTION 1)



4 12 N.T.S. VERT SECTION TYPICAL END ATTACHMENT (OPTION 2)

**ANCHOR NOTE:** 1" MILLENIUM MILLFAST SCREWS W/ T&C ULTRACOTE MAY BE USED IN LIEU OF THE LAG SCREWS CALLED OUT ON THIS SHEET UTILIZING THE SAME CRITERIA.

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