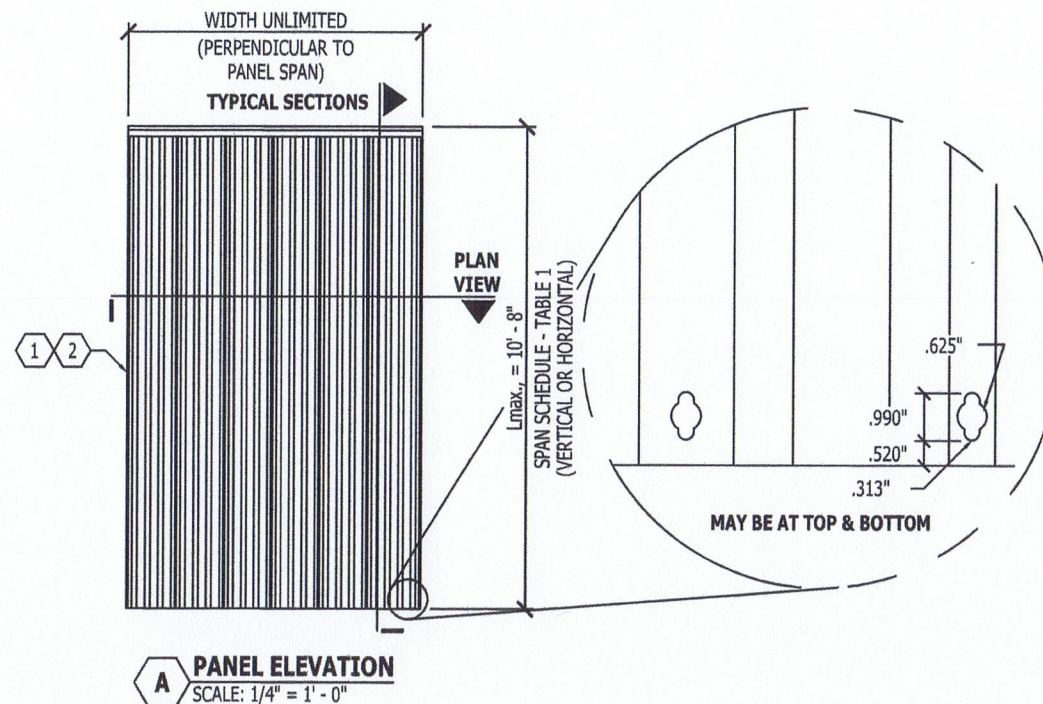
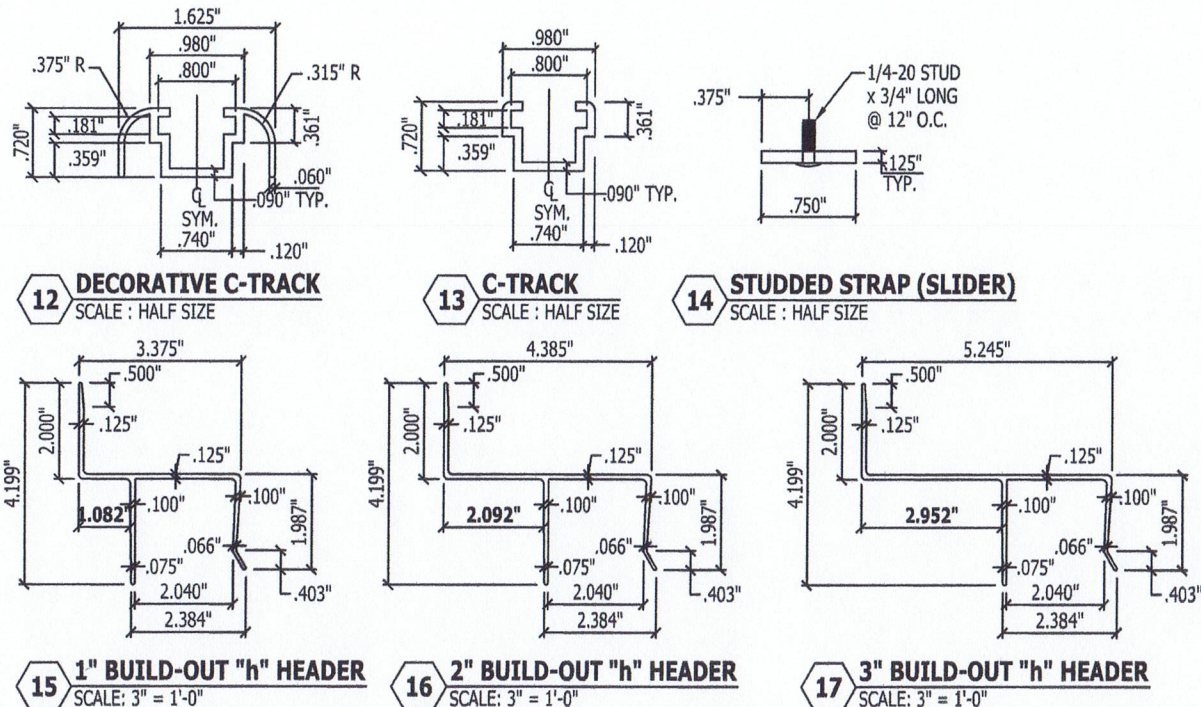
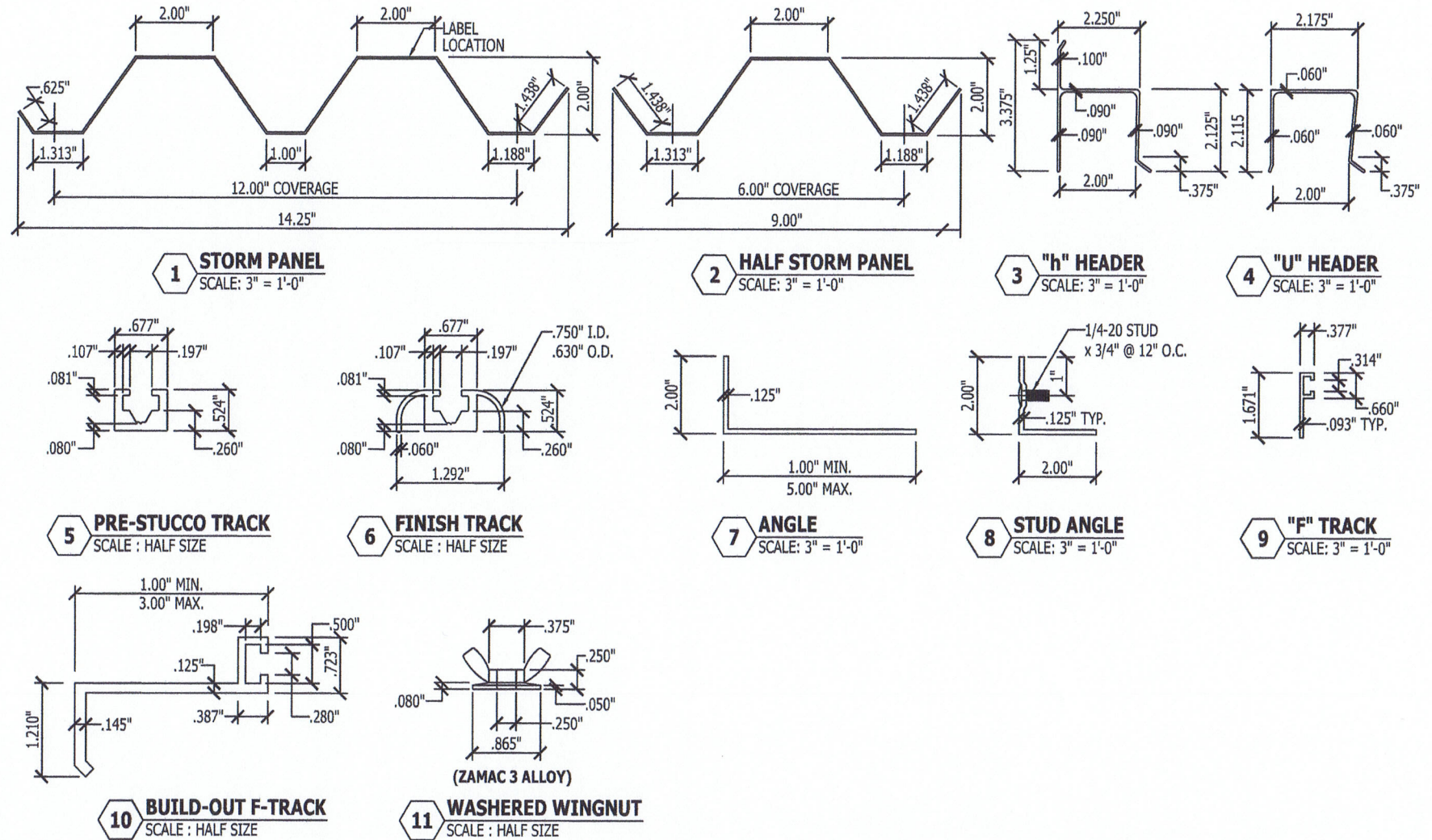


GENERAL NOTES:

1. THIS PRODUCT EVALUATION DOCUMENT (PED) REPRESENTS A SHUTTER SYSTEM ANALYZED AND TESTED IN ACCORDANCE WITH THE 7th EDITION (2020) FLORIDA BUILDING CODE FOR USE WITHIN AND OUTSIDE OF THE HIGH VELOCITY HURRICANE ZONE (HVHZ).
2. PRODUCT PERFORMANCE TESTING WAS CONDUCTED IN ACCORDANCE WITH TAS 201, TAS 202, & TAS 203 AND THE SYSTEM IS LARGE MISSILE IMPACT RESISTANT.
3. DETERMINE THE POSITIVE AND NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THIS PED IN ACCORDANCE WITH ASCE 7-16 USING ALLOWABLE STRESS DESIGN LOAD FACTORS. CALCULATED WIND LOADS SHALL BE MULTIPLIED BY THE LOAD FACTOR 0.6 BEFORE REFERENCING THIS PED.
4. FOR WIND LOAD CALCULATION IN ACCORDANCE WITH ASCE 7-16, A DIRECTIONALITY FACTOR OF $K_d = 0.85$ MAY BE USED.
5. NO ALLOWABLE STRESS INCREASE IS UTILIZED IN THE DESIGN OF THIS SYSTEM; HOWEVER, A WIND LOAD DURATION FACTOR OF $C_d = 1.33$ IS USED FOR SCREWS DESIGNED PER NDS.
6. THIS PED IS GENERIC AND DOES NOT INCLUDE INFORMATION PREPARED FOR APPLICATION OF THIS SYSTEM TO A SPECIFIC SITE.
7. THIS PED IS THE INSTALLATION INSTRUCTIONS PORTION OF A PRODUCT EVALUATION AND SHALL ONLY BE USED WITH THE CORRESPONDING PRODUCT EVALUATION REPORT. USE OF THIS PED SHALL COMPLY WITH CHAPTER 61G15-23 OF THE FLORIDA ADMINISTRATIVE CODE.
8. THIS PED IS 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.
9. ANY MODIFICATIONS OR ADDITIONS TO THIS PED WILL VOID THE PED.
10. WHEN SITE CONDITIONS DEVIATE FROM THIS PED, THE BUILDING OFFICIAL MAY REQUIRE THAT SITE SPECIFIC DOCUMENTS JUSTIFYING THE DEVIATION BE PREPARED, SIGNED, DATED AND SEALED BY A LICENSED ENGINEER OR REGISTERED ARCHITECT.
11. EACH PANEL OF THE ASSEMBLY SHALL BE PERMANENTLY LABELED AT A SPACING NO GREATER THAN 36" ON THE EXTERIOR FACE WITH THE FOLLOWING MINIMUM INFORMATION:

NATIONAL APPROVED SHUTTER ASSOCIATION
MIRAMAR, FL
TAS 201, 202, & 203
9 LB LARGE MISSILE
FBC APPROVAL NUMBER

12. ALUMINUM STORM PANELS SHALL BE 3004-H32 OR H34 ALUMINUM ALLOY WITH A MINIMUM THICKNESS OF 0.050".
13. ALL EXTRUSION SHOWN SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N.
14. ALL BOLTS, STUDS, AND WASHERS, EXCLUDING INSTALLATION FASTENERS, SHALL BE STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 KSI, U.O.N.
15. TOP AND BOTTOM DETAILS MAY BE INTERCHANGED AS FIELD CONDITIONS REQUIRE. PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE. H & U HEADERS MAY NOT BE USED FOR HORIZONTAL MOUNTING CONDITIONS.
16. TRACKS MAY BE REMOVABLE PROVIDED REMOVABLE ANCHORS ARE USED.
17. IF PANEL OVERLAPS OPENING BY 1.5 TIMES THE GAP BETWEEN THE WALL AND PANEL, NO SIDE CLOSURES ARE REQUIRED.



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0.050" ALUMINUM STORM PANEL

N.A.S.A.
NATIONAL APPROVED SHUTTER ASSOCIATION LLC
15701 SW 29 STREET, SUITE 100
MIRAMAR, FL 33027
786-621-6706

Revisions

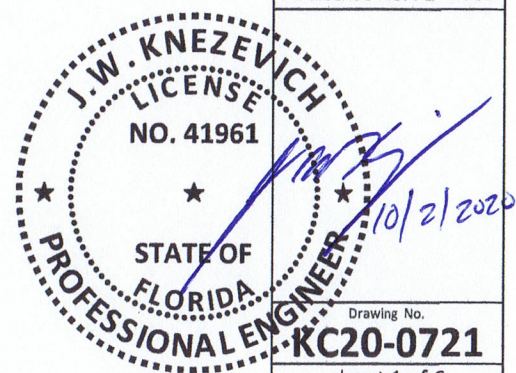
No.	Date	By	Description
0	10/02/2020	JWK	JWK FBC 2020 Update to K17-1017

Scale: AS NOTED

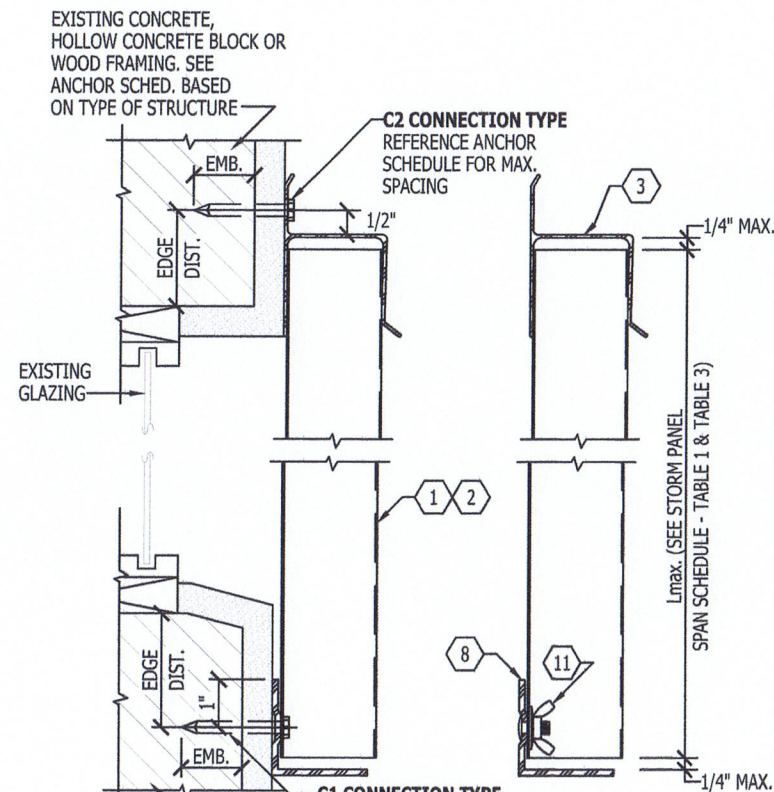
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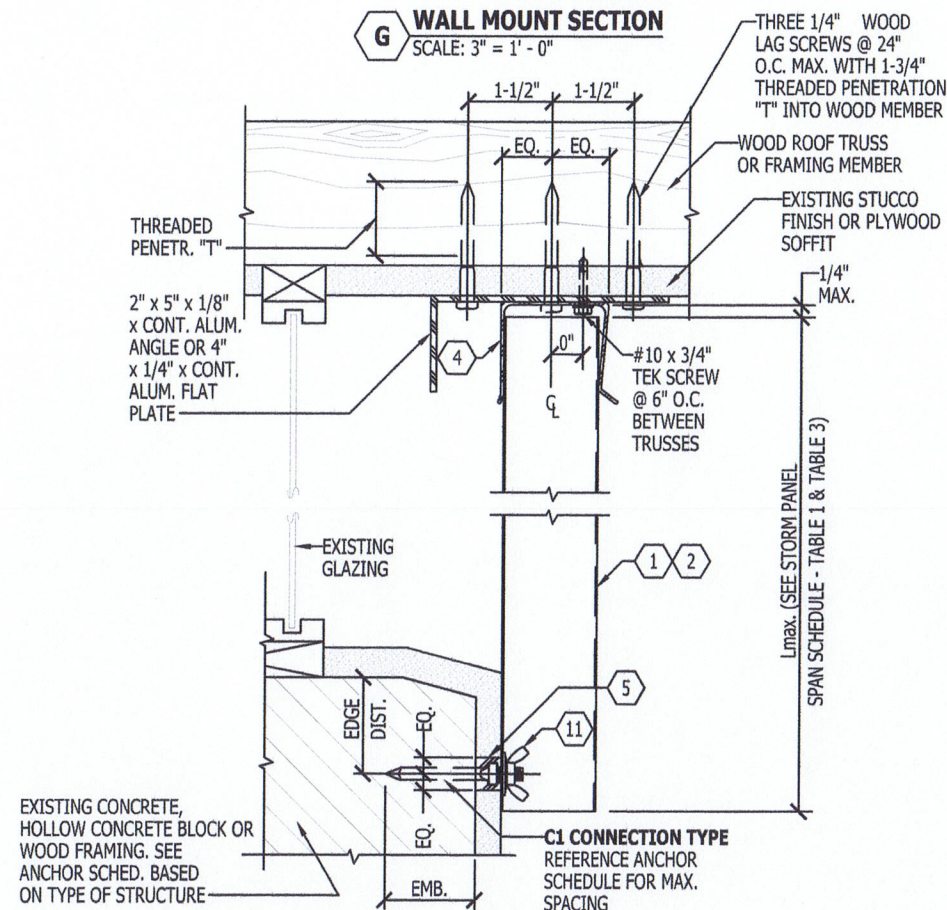
J.W. Knezevich
Professional Engineer
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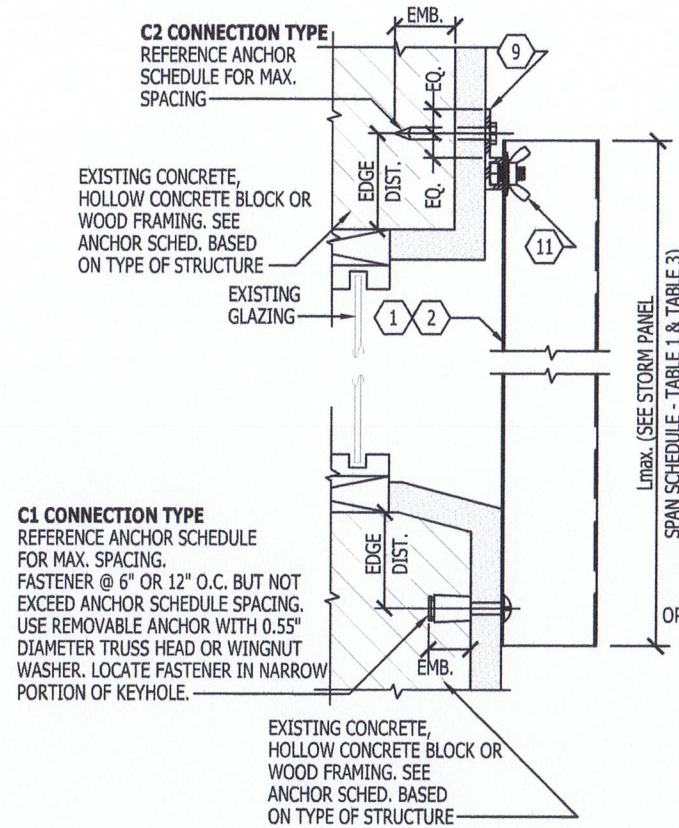
Drawing No.
KC20-0721
sheet 1 of 6



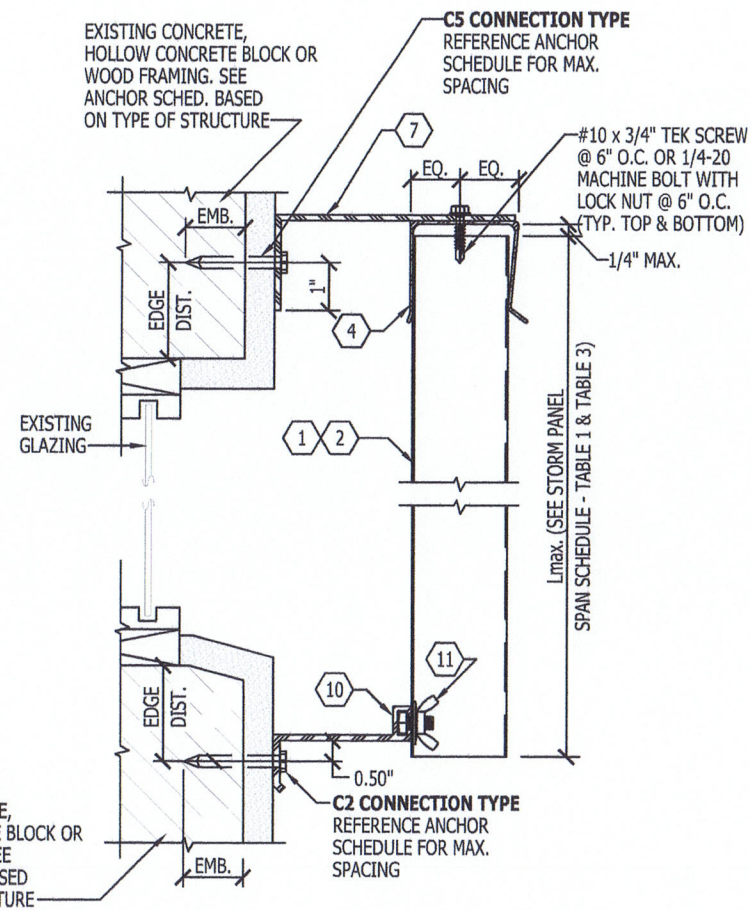
G WALL MOUNT SECTION
SCALE: 3" = 1' - 0"



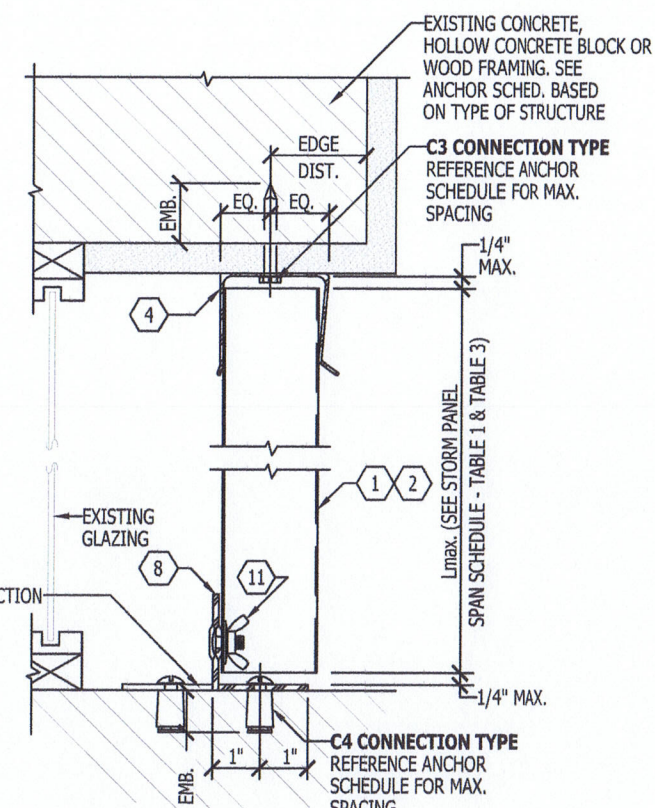
J CEILING / PRE-STUCCO TRACK
SCALE: 3" = 1' - 0"



K "F" TRACK/DIRECT MOUNT SECTION
SCALE: 3" = 1' - 0"



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



L CEILING / FLOOR MOUNT SECTION
SCALE: 3" = 1' - 0"

No.	Date	By	Description
0	10/02/2020	JWK	FBC 2020 Update to KC17-2017



HVHZ

ASD WIND LOAD W (P.S.F.)	L max
40.00	10 - 5
45.00	10 - 1
50.00	9 - 10
55.00	9 - 7
60.00	9 - 5
65.00	9 - 3
70.00	9 - 11
75.00	8 - 7
80.00	8 - 1
85.00	7 - 7
90.00	7 - 2
95.00	6 - 10
100.00	6 - 6
110.00	5 - 10
120.00	5 - 5
130.00	5 - 0
140.00	4 - 7
150.00	4 - 4
160.00	4 - 0
170.00	3 - 9
180.00	3 - 7
190.00	3 - 5
200.00	3 - 3

POSITIVE ASD LOAD 'w' (P.S.F.)	L max SHUTTER SPAN 'L' L max	MINIMUM SEPARATION FROM GLASS	
40	60"	INSTALLATIONS ≤ 30' ABOVE GRADE	INSTALLATIONS > 30' ABOVE GRADE
	104"	3"	1-1/2"
	116"	3"	2-3/8"
	125"	3"	2-7/8"
50	60"	3"	1-5/8"
	90"	3"	2-1/8"
	112"	3"	3"
	118"	3-3/8"	3-3/8"
60	60"	3"	1-5/8"
	90"	3"	2-1/4"
	112"	3"	2-7/8"
	118"	3-3/8"	3-3/8"
70	60"	3"	1-5/8"
	72"	3"	1-7/8"
	100"	3"	2-7/8"
	107"	3-1/4"	3-1/4"
80	60"	3"	1-5/8"
	90"	3"	2-1/2"
	97"	3"	2-7/8"
	104"	3"	2-7/8"
90	60"	3"	1-3/4"
	72"	3"	2"
	86"	3"	2-1/2"
	104"	3"	2-7/8"
100	60"	3"	1-3/4"
	72"	3"	2"
	78"	3"	2-1/4"
	104"	3"	2-7/8"
110	60"	3"	1-3/4"
	72"	3"	2"
	78"	3"	2-1/4"
	104"	3"	2-7/8"
120	60"	3"	1-3/4"
	72"	3"	2"
	78"	3"	2-1/4"
	104"	3"	2-7/8"

0.050" ALUMINUM STORM PANELS FOR USE WITHIN AND OUTSIDE THE HVHZ

TABLE 1 & 2 NOTES:

- HVHZ: DEFINED BY THE FBC AS MIAMI-DADE COUNTY AND BROWARD COUNTY FLORIDA.
- REFERENCE TABLE 1 AT A NEGATIVE ASD WIND LOAD GREATER THAN OR EQUAL TO THE PROJECT WIND LOAD TO DETERMINE THE MAXIMUM PANEL LENGTH. LINEAR INTERPOLATION MAY BE USED BETWEEN TABULATED VALUES.
- REFERENCE TABLE 2 AT A POSITIVE ASD WIND LOAD GREATER THAN OR EQUAL TO THE PROJECT WIND LOAD AND A PANEL LENGTH GREATER THAN OR EQUAL TO THE ACTUAL PANEL SPAN. PROVIDE SEPARATION FROM GLASS AS INDICATED BASED ON HEIGHT ABOVE GRADE.
- SEE SECTIONS FOR SHUTTER SPAN DEFINITION.
- FOR DIRECT MOUNTING CONDITIONS, SPANS MAY BE LIMITED BY ANCHOR SPACING. THE ANCHOR SCHEDULE MUST INDICATE AN ANCHOR SPACING GREATER THAN OR EQUAL TO 6" OR A MOUNTING TRACK MUST BE USED.

TABLE 3 & 4 NOTES:

- NON-HVHZ: DEFINED BY THE FBC AS ALL LOCATIONS OTHER THAN MIAMI-DADE COUNTY AND BROWARD COUNTY FLORIDA.
- REFERENCE TABLE 3 AT A NEGATIVE ASD WIND LOAD GREATER THAN OR EQUAL TO THE PROJECT WIND LOAD TO DETERMINE THE MAXIMUM PANEL LENGTH. LINEAR INTERPOLATION MAY BE USED BETWEEN TABULATED VALUES.
- REFERENCE TABLE 4 AT A POSITIVE ASD WIND LOAD GREATER THAN OR EQUAL TO THE PROJECT WIND LOAD AND A PANEL LENGTH GREATER THAN OR EQUAL TO THE ACTUAL PANEL SPAN. PROVIDE SEPARATION FROM GLASS AS INDICATED BASED ON HEIGHT ABOVE GRADE.
- SEE SECTIONS FOR SHUTTER SPAN DEFINITION.
- FOR DIRECT MOUNTING CONDITIONS, SPANS MAY BE LIMITED BY ANCHOR SPACING. THE ANCHOR SCHEDULE MUST INDICATE AN ANCHOR SPACING GREATER THAN OR EQUAL TO 6" OR A MOUNTING TRACK MUST BE USED.

NON-HVHZ

ASD WIND LOAD W (P.S.F.)	L max
35.00	12 - 0
40.00	11 - 8
45.00	11 - 1
50.00	10 - 6
55.00	10 - 0
60.00	9 - 7
65.00	9 - 3
70.00	8 - 11
75.00	8 - 7
80.00	8 - 1
85.00	7 - 7
90.00	7 - 2
95.00	6 - 10
100.00	6 - 6
110.00	5 - 10
120.00	5 - 5
130.00	5 - 0
140.00	4 - 7
150.00	4 - 4
160.00	4 - 0
170.00	3 - 9
180.00	3 - 7
190.00	3 - 5
200.00	3 - 3

POSITIVE ASD LOAD 'w' (P.S.F.)	L max SHUTTER SPAN 'L' L max	MINIMUM SEPARATION FROM GLASS	
35	60"	INSTALLATIONS ≤ 30' ABOVE GRADE	INSTALLATIONS > 30' ABOVE GRADE
	104"	3"	1-1/2"
	124"	3"	2-1/4"
	144"	3-1/8"	3-1/8"
40	60"	3"	1-1/2"
	104"	3"	2-3/8"
	124"	3-3/8"	3-3/8"
	140"	4-5/8"	4-5/8"
50	60"	3"	1-5/8"
	90"	3"	2-1/8"
	104"	3"	2-5/8"
	126"	4"	4"
60	60"	3"	1-5/8"
	72"	3"	1-3/4"
	104"	3"	2-7/8"
	115"	3-5/8"	3-5/8"
70	60"	3"	1-5/8"
	100"	3"	2-7/8"
	107"	3-1/4"	3-1/4"
	126"	3"	2-7/8"
80	60"	3"	1-5/8"
	72"	3"	1-7/8"
	97"	3"	2-7/8"
	104"	3"	2-7/8"
90	60"	3"	1-3/4"
	72"	3"	2"
	86"	3"	2-1/2"
	104"	3"	2-7/8"
100	60"	3"	1-3/4"
	78"	3"	2-1/4"
	104"	3"	2-7/8"
	126"	3"	2-7/8"
110	60"	3"	1-3/4"
	78"	3"	2-1/4"
	104"	3"	2-7/8"
	126"	3"	2-7/8"

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0.050" ALUMINUM STORM PANEL

Client / Association of Manufacturers:

N.A.S.A.

NATIONAL APPROVED SHUTTER ASSOCIATION LLC

15701 SW 29 STREET, SUITE 100
MIAMI, FL 33027
786-621-6706

Revisions

No.	Date	By	Description
0	10/02/2020	JWK	FBC 2020 Update to KC17-1017

Scale: AS NOTED

Drawn by: JWK

Date: 10/02/2020

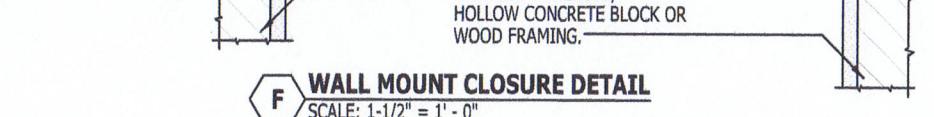
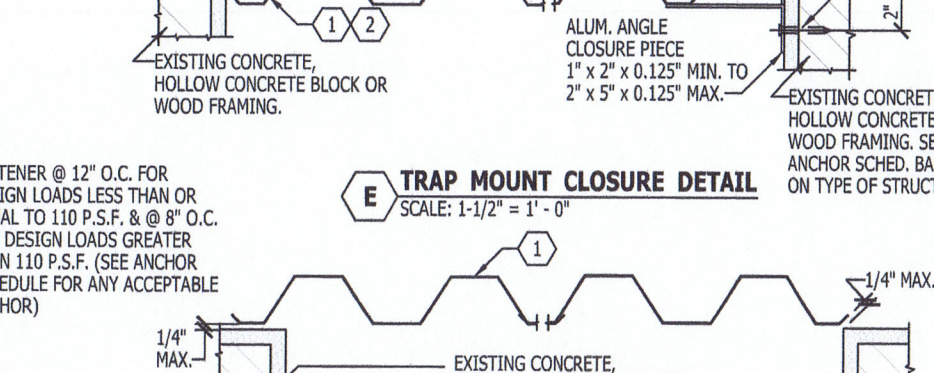
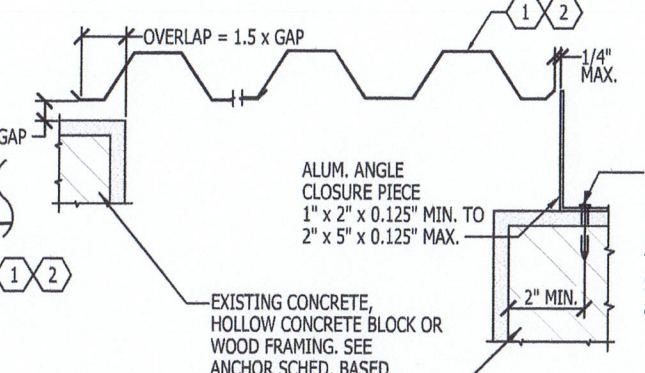
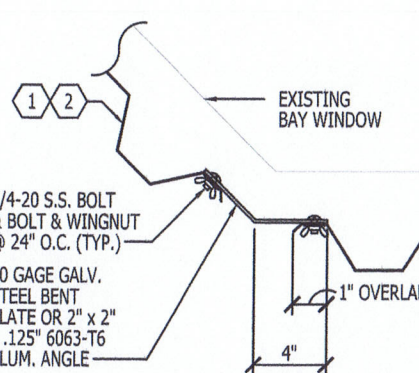
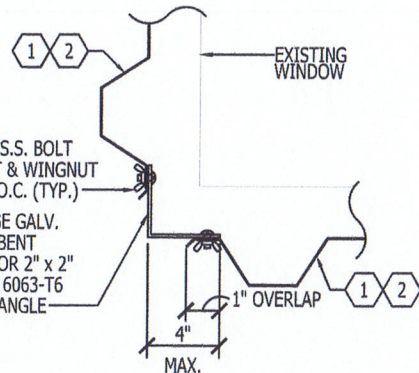
J.W. Knezevich
Professional Engineer
FL License No. PE 41961



Drawing No.

KC20-0721

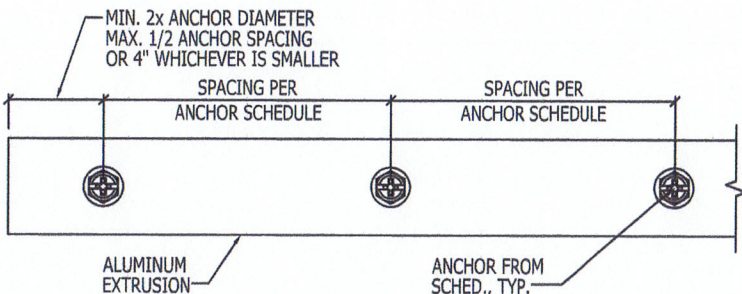
sheet 4 of 6



ANCHOR SCHEDULE																																	
FASTENER MAXIMUM SPACING (INCHES) REQUIRED FOR VARIOUS DESIGN LOADS AND SPANS																																	
EXIST. STRUCT.	ANCHOR TYPE	MAX LOAD (PSF) SEE NOTE 1	SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 8'-5" (SEE NOTE 1)					SPANS UP TO 12'-0" (SEE NOTE 1)					SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 8'-5" (SEE NOTE 1)					SPANS UP TO 12'-0" (SEE NOTE 1)					
			(SEE NOTE 1)					(SEE NOTE 1)					(SEE NOTE 1)					(SEE NOTE 1)					(SEE NOTE 1)					(SEE NOTE 1)					
			CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE					CONNECTION TYPE					
HOLLOW BLOCK		W	1.25" Edge Distance															2.5" Edge Distance															
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	
			52.0	12		9	6	7	7										12		12	8	7	7		8						6	
			64.0	10		7		6	6										10		12	7	6	6		7							
			72.0	9		6													9		10	6				6							
			92.0	7															7		8												
			200.0																														
		W	1.75" Edge Distance															2.5" Edge Distance															
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	
			52.0	12	6	12	11	12	12		9	6	7	8		6			12	7	12	11	12	12		10	6	7	9		7		
			64.0	12		12	9	9	10		8			8		6			12		12	9	10	10		8		6	8		6		
			72.0	12		12	8	8	9		7			8		6			12		12	8	9	9		7			8		6		
			92.0	12		9	6	6	8		6			8		6			12		9	6	7	8		6			8		6		
			200.0	8		6			8		6			8		6			8		6					8		6			8		6
		W	2" Edge Distance															4" Edge Distance															
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	
			52.0	8		8	5	5	5		5								10		11	6	6	6		6	4		4		4		
			64.0	7		7	4	4	4		4								8		8	5	5	5		5			4		4		
			72.0	6		6													7		7	4	4	4		4			4		4		
			92.0	4		5													6		6			4		4			4		4		
200.0																		4		4			4		4			4		4			
	W	0 Edge Distance															3.0" Edge Distance																
		C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5		
		52.0																12	6	12	9	11	11		7	5	6	8		5		4	
		64.0																12	5	10	7	9	9		6	4	5	7		5		4	
		72.0																12	4	9	6	8	8		5	4	4	7		5		4	
		92.0																10		7	5	6	7		5		4	7		5		4	
		200.0																7		5		4	7		5		4	7		5		4	
	W	2.0" Edge Distance															3" Edge Distance																
		C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5		
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		64.0	12	6	11	8	12	12	4	6	5	7	10	3	5	4	5	12	7	12	11	12	12	4	10	7	8	11	3	8	5	6	6
		72.0	12	6	10	7	10	11	3	6	4	6	10	3	5	4	5	12	6	12	10	12	12	3	8	6	7	11	3	8	5	6	6
		92.0	12	4	8	6	8	10	3	5	4	5	10	3	5	4	5	12	5	11	8	9	11	3	8	5	6	11	3	8	5	6	6
		200.0	10	3	5	4	5	10	3	5	4	5	10	3	5	4	5	11	3	8	5	6	11	3	8	5	6	11	3	8	5	6	6
	W	0 Edge Distance															3" Edge Distance																
		C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5		
		52.0																12	4	11	7	8	9		6	4	5	6		4	3	3	3
		64.0																12	3	9	6	7	7		5	3	4	6		4	3	3	3
		72.0																11	3	8	5	6	6		4	3	3	6		4	3	3	3
		92.0																8		6	4	5	6		4	3	3	6		4	3	3	3
		200.0																6		4	3	3	6		4	3	3	6		4	3	3	3

ANCHORS NOTES:

- SPANS AND LOADS SHOWN HERE ARE FOR DETERMINING ANCHOR SPACING ONLY. ALLOWABLE SHUTTER SPANS FOR SPECIFIC LOADS MUST BE LIMITED TO THOSE SHOWN IN TABLE 1 OR 3 ON SHEET 4.
- AN EFFECTIVE WIND AREA OF 10 SQ. FT. SHALL BE USED FOR DETERMINING WIND LOADS FOR ANCHORS.
- ENTER ANCHOR SCHEDULE BASED ON THE EXISTING STRUCTURE MATERIAL, ANCHOR TYPE, AND EDGE DISTANCE. SELECT DESIGN LOAD GREATER THAN OR EQUAL TO NEGATIVE DESIGN LOAD ON SHUTTER AND SELECT SPAN GREATER THAN OR EQUAL TO SHUTTER SPAN.
- SEE MOUNTING SECTION DETAILS FOR IDENTIFICATION OF CONNECTION TYPE.
- EXISTING STRUCTURE MAY BE CONCRETE, ASTM C-90 HOLLOW CONCRETE BLOCK, GROUTED MASONRY, OR WOOD FRAMING. REFERENCE ANCHOR SCHEDULE FOR PROPER ANCHOR TYPE BASED ON TYPE OF EXISTING STRUCTURE.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES WALL FINISH OR STUCCO.
- WHERE EXISTING STRUCTURE IS POST-TENSIONED CONCRETE, CONTRACTOR SHALL LOCATE CABLES PRIOR TO ANCHORING AND COORDINATE ANCHORAGE SUCH THAT CABLES ARE NOT DAMAGED.
- WHERE EXISTING STRUCTURE IS WOOD FRAMING, WOOD FRAMING CONDITIONS VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT PLYWOOD. FASTENING TO PLYWOOD IS ACCEPTABLE ONLY FOR SIDE CLOSURE PIECES.
- WHERE LAG SCREWS AND WOOD SCREWS FASTEN TO NARROW FACE OF STUD FRAMING, FASTENER SHALL BE LOCATED IN CENTER OF NOMINAL 2" X 4" (MIN.) WOOD STUD. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR WOOD FRAMING. WOOD STUD SHALL HAVE A MIN DENSITY AS NOTED IN ANCHOR SCHEDULE. SCREWS SHALL HAVE PHILLIPS PAN HEAD OR HEX HEAD.
- MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD (SIDEWALK BOLT), U.O.N.
- DESIGNATES ANCHOR CONDITIONS THAT ARE NOT ACCEPTABLE USES.
- * DESIGNATES ANCHORS THAT ARE REMOVABLE BY REMOVING MACHINE SCREW, NUT OR WASHERED WINGNUT.
- ALL CONCRETE ANCHORS SHALL BE INSTALLED IN UNCRACKED CONCRETE ONLY WITH A MINIMUM CONCRETE STRENGTH AS NOTED IN ANCHOR SCHEDULE.
- WHEN ANCHORING TO CONCRETE BLOCK, SDS AND IMPACT DRILLS SHALL NOT BE USED TO DRILL INTO BLOCK OR TO INSTALL CONCRETE SCREWS.



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0.050" ALUMINUM STORM PANEL
N.A.S.A.
 NATIONAL APPROVED SHUTTER ASSOCIATION LLC
 15701 SW 29 STREET, SUITE 100
 MIRAMAR, FL 33027
 786-621-6706

Revisions		Description
No.	By	Date
0	JWK	10/02/2020

Scale: AS NOTED
 Drawn by: JWK
 Date: 10/02/2020

J.W. Knezevich
 Professional Engineer
 FL License No. PE 41961

Drawing No. **KC20-0721**
 sheet 5 of 6

ANCHOR SCHEDULE																																							
FASTENER MAXIMUM SPACING (INCHES) REQUIRED FOR VARIOUS DESIGN LOADS AND SPANS																																							
EXIST. STRUCT.	ANCHOR TYPE	MAX LOAD (PSF) SEE NOTE 1	SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 8'-5" (SEE NOTE 1)					SPANS UP TO 12'-0" (SEE NOTE 1)					SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 8'-5" (SEE NOTE 1)					SPANS UP TO 12'-0" (SEE NOTE 1)											
			CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)											
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5		
CONCRETE		W	1.25" Edge Distance															2.5" Edge Distance																					
		52.0	12	12	12	12	12	12	8	11	10	12	12	5	8	7	10	12	12	12	12	12	12	8	12	12	12	12	12	5	12	11	10						
		64.0	12	10	12	12	12	12	6	9	8	11	12	5	7	6	9	12	11	12	12	12	12	6	12	12	12	12	12	5	12	11	9						
		72.0	12	9	12	12	12	12	5	8	7	10	12	5	7	6	9	12	10	12	12	12	12	5	12	12	10	12	5	12	11	9							
		92.0	12	7	11	10	12	12	5	7	6	9	12	5	7	6	9	12	7	12	12	12	12	5	12	11	9	12	5	12	11	9							
		200.0	12	5	7	6	9	12	5	7	6	9	12	5	7	6	9	12	5	12	11	9	12	5	12	11	9	12	5	12	11	9							
	 * *	W	0 Edge Distance															2.5 Edge Distance																					
		52.0																						12	12	12	12	12	12	9	12	12	12	12	6	11	8	12	
		64.0																					12	12	12	12	12	12	7	12	10	12	12	6	11	8	11		
		72.0																					12	11	12	12	12	12	6	12	9	12	12	6	11	8	11		
		92.0																					12	9	12	12	12	12	6	11	8	11	12	6	11	8	11		
		200.0																					12	6	11	8	11	12	6	11	8	11	12	6	11	8	11		
		W	1.75" Edge Distance															2.5" Edge Distance																					
		52.0	12	12	12	12	12	12	9	12	12	12	12	6	12	12	11	12	12	12	12	12	12	11	12	12	12	12	12	12	8	12	12	12					
		64.0	12	12	12	12	12	12	7	12	12	12	12	6	12	11	10	12	12	12	12	12	12	9	12	12	12	12	12	7	12	12	12						
		72.0	12	11	12	12	12	12	6	12	12	11	12	6	12	11	10	12	12	12	12	12	12	8	12	12	12	12	12	7	12	12	12						
		92.0	12	8	12	12	12	12	6	12	11	10	12	6	12	11	10	12	11	12	12	12	12	7	12	12	12	12	12	7	12	12	12						
		200.0	12	6	12	11	10	12	6	12	11	10	12	6	12	11	10	12	7	12	12	12	12	7	12	12	12	12	12	7	12	12	12						
		W	1.5" Edge Distance															3" Edge Distance																					
		52.0	12	12	12	12	12	12	8	12	12	12	12	5	11	9	10	12	12	12	12	12	12	8	12	12	12	12	12	6	12	12	11						
		64.0	12	10	12	12	12	12	6	12	11	11	12	5	11	9	9	12	12	12	12	12	12	7	12	12	12	12	12	5	12	11	10						
		72.0	12	9	12	12	12	12	5	12	9	10	12	5	11	9	9	12	10	12	12	12	12	6	12	12	11	12	5	12	11	10							
		92.0	12	7	12	12	12	12	5	11	9	9	12	5	11	9	9	12	8	12	12	12	12	5	12	11	10	12	5	12	11	10							
		200.0	12	5	11	9	9	12	5	11	9	9	12	5	11	9	9	12	5	12	11	10	12	5	12	11	10	12	5	12	11	10							
	W	1.5" Edge Distance															3" Edge Distance																						
	52.0	12	10	12	12	12	12	5	11	9	10	12	4	7	6	7	12	12	12	12	12	12	8	12	12	12	12	12	5	12	12	10							
	64.0	12	8	12	12	12	12	4	9	7	8	12		7	6	7	12	11	12	12	12	12	6	12	12	12	12	12	5	12	11	9							
	72.0	12	7	12	11	12	12	4	8	6	7	12		7	6	7	12	10	12	12	12	12	5	12	12	10	12	5	12	11	9								
	92.0	12	5	10	8	10	12		7	6	7	12		7	6	7	12	7	12	12	12	12	5	12	11	9	12	5	12	11	9								
	200.0	12		7	6	7	12		7	6	7	12		7	6	7	12	5	12	11	9	12	5	12	11	9	12	5	12	11	9								
	W	1.5" Edge Distance															3" Edge Distance																						
	52.0	12	4	7	6	8	9		4	3	5	6		3		3	12	6	12	9	11	11	3	8	5	6	8		5	4	4								
	64.0	12	4	6	4	7	7		3		4	6		3		3	12	5	11	7	9	9		6	4	5	7		5	3	4								
	72.0	11	3	5	4	6	6		3		3	6		3		3	12	4	10	7	8	8		5	4	4	7		5	3	4								
	92.0	8		4	3	5	6		3		3	6		3		3	11	3	7	5	6	7		5	3	4	7		5	3	4								
	200.0	6		3		3	6		3		3	6		3		3	7		5	3	4	7		5	3	4	7		5	3	4								
 *	W	2.0" Edge Distance															3" Edge Distance																						
	52.0	12	12	12	12	12	12	7	12	11	12	12	5	11	8	9	12	12	12	12	12	12	9	12	12	12	12	12	6	12	10	12							
	64.0	12	10	12	12	12	12	6	12	9	10	12	4	11	7	8	12	12	12	12	12	12	7	12	12	12	12	12	6	12	10	11							
	72.0	12	9	12	12	12	12	5	12	8	9	12	4	11	7	8	12	11	12	12	12	12	6	12	10	12	12	6	12	10	11								
	92.0	12	7	12	11	12	12	4	11	7	8	12	4	11	7	8	12	9	12	12	12	12	6	12	10	11	12	6	12	10	11								
	200.0	12	4	11	7	8	12	4	11	7	8	12	4	11	7	8	12	6	12	10	11	12	6	12	10	11	12	6	12	10	11								