

GENERAL NOTES:

1. These Product Evaluation Documents (PEDs) represent a Walk-in Cooler/Freezer system designed and tested in accordance with the Florida Building Code, Building, 7th Edition (2020) and 8th Edition (2023), including the High Velocity Hurricane Zone (HVHZ) provisions.
2. These PEDs address the structural and material requirements for compliance with the structural portions of the noted codes. Architectural, mechanical, electrical and waterproofing requirements are not part of the evaluation. Specific use of the evaluation requires the Architect or Engineer of Record to address the architectural, mechanical, electrical, and waterproofing requirements for the installation.
3. Design Loads

A. Roof:

1) Live Load

30.0 psf

2) Roof Panel Dead Load

3.4 psf

3) Ceiling Mechanical Dead Load

300 lbs max Maximum of 1 condenser unit per 4' panel.

B. Walls:

1) Dead Load

Wall Panel

2.0 psf

C. Floor:

1) Live Load

Insulated Floor

250 psf (limit to rating of concrete slab)

2) Dead Load

Floor Panel

3.0 psf

D. Wind loads shall be determined in accordance with the Authority Having Jurisdiction and the governing code provisions at the time of permit based on the site specific conditions. See Tables 2 & 3 on Sheet 4 for allowable stress design (ASD) wind loads and forces used in the design outlined within these documents. These ASD loads and forces are based on wind load resistance testing. Wind loads determined in accordance with FBC Section 1609 or Section 1620 shall be multiplied by the ASD load factor of 0.6 for comparison with allowable loads and forces on these documents.

E. Reference ASCE 7, Figure 30.3-3 and Commentary Figure C30-1 for guidance related to wind loads on stepped roofs.
4. These PEDs are generic and do not include information for site specific application of this Walk-in Cooler/Freezer system.
5. These PEDs shall bear the original or digitally authenticated signature, date and seal of John W. Knezevich, PE.
6. Any modification or additions to these PEDs will void the documents.

7. These PEDs shall not be applied by the Contractor on a specific site without the involvement of an Architect or Engineer of Record (A/E of Record). The A/E of Record shall be responsible for compliance with the code requirements of a specific installation including but not limited to the following:

A. Verify the site specific wind load requirements are within the criteria used to develop these PEDs and the unit is configured in compliance with the structural limitations identified in Tables 2 and 3.

B. Verify the foundation design is adequate to resist the superimposed loads identified in Table 1.

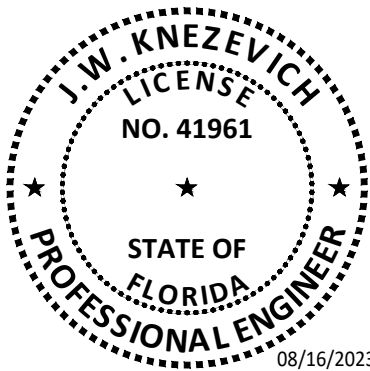
C. Verify the existing building is adequate to resist the superimposed loads identified in Table 1.

D. Weather protection, architectural, mechanical, and electrical requirements are outside the scope of these PEDs. Determine and/or provide for compliance with the requirements of the Authority Having Jurisdiction.
8. When the site conditions deviate from these PEDs, the Building Official shall require that site specific engineering be provided to address the deviation.
9. All aluminum materials shall comply with the alloys as noted on the drawings.
10. All bolts shall be 304 stainless steel complying with ASTM F593A Condition A with a min tensile strength of 75 ksi u.o.n.
11. All screws shall be electro-galvanized steel or 300 series stainless steel with a min. tensile strength of 75 ksi u.o.n. Stainless steel screws shall be used when exposed to the weather.
12. All concrete anchors shall be as specified on the drawings. Embedment lengths noted on the drawings shall not include finish material. Anchors are approved for use in uncracked concrete only with a min. f'c = 3,000 psi.
13. An allowable stress increase is not used in the design of the cooler/freezer unit nor its attachments.
14. Dissimilar metals in contact with aluminum shall be protected in accordance with the Aluminum Design Manual, Section M.7.

POLYSTYRENE FOAM SANDWICH PANEL SPECIFICATIONS:

1. Wall & roof composite sandwich panels are comprised of steel facings with extruded polystyrene foam cores. Thickness and material of facings shall be as shown on the drawings.
2. Composite panels are approved for use in walk-in coolers where the aggregate floor area does not exceed 400 square feet. For specific requirements of foam plastics in walk-in coolers, see FBC Section 2603.4.1.3.
3. Acrylume steel skins used on wall, floor and roof panels shall have a min. thickness of 0.018" and a min. Fy = 50.0 ksi based on base metal thickness and comply with ASTM A792, CS Type B with an AZ55 coating.
4. Stainless steel skins used on interior of floor panels shall be Type 304 stainless steel with a min. thickness of 0.028".
5. Foam core shall be Styrofoam Panel Core 20 Extruded Polystyrene Foam manufactured by Dow with an average density of 1.9 pcf measured in accordance with ASTM D1622.
6. Polystyrene foam core shall have a flame spread index not more than 75 and a smoke-developed index not more than 450.
12. PVC door trim shall have a flame spread index not more than 200 and a smoke developed index not more than 450.
13. Metal skins shall be adhered to foam with Mor-Ad M-647 Laminating Adhesive as manufactured by Dow Chemical Company applied at a rate of 12 grams per square foot and pressed for six minutes.
14. Inserts shall be adhered to foam with Mor-Ad M-664 adhesive as manufactured by Dow Chemical Company applied by brush to to the contact surfaces.
15. Aluminum beam inserts shall be as designated on the drawings.
16. Plywood inserts shall be APA rated A-C Group 1 Exterior.
17. Wood inserts shall be Southern Pine No. 2 Grade.

THIS DRAWING SHALL ONLY BE USED TO OBTAIN PERMITS IN THE STATE OF FLORIDA



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WALK-IN COOLER/FREEZER

Amerikooler

Amerikooler

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Revisions	
No.	Description
0	06/22/2023 JWK FBC 2020 w/ Door - Formerly KC23-0724
1	08/16/2023 JWK FBC 2023 Update

Scale: AS NOTED

Drawn by: JWK

Date: 06/22/2023

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

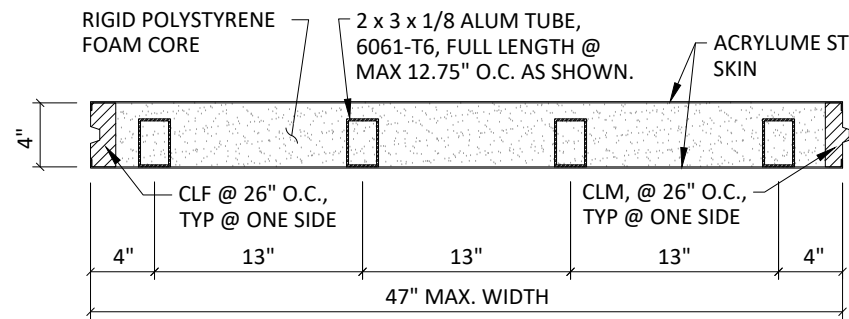
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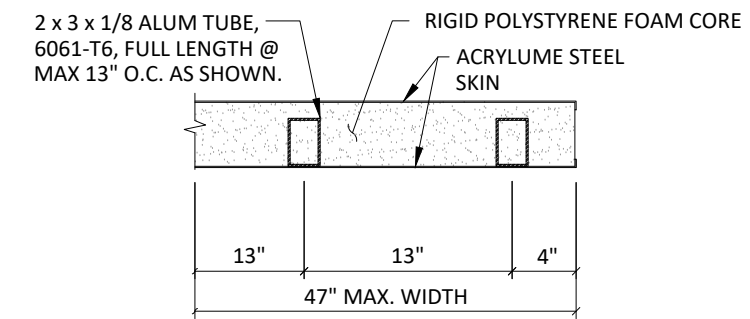
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Drawing No. **KC23-0224**

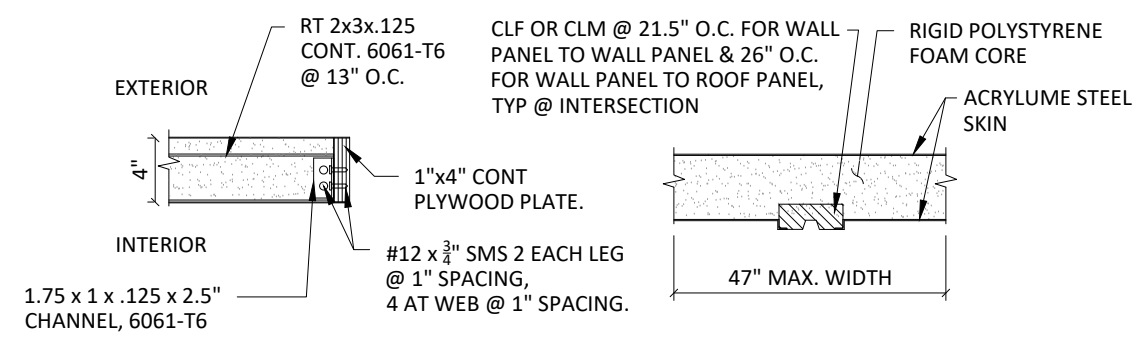
sheet 1 of 7



RP ROOF PANEL
SCALE: 1" = 1'-0"

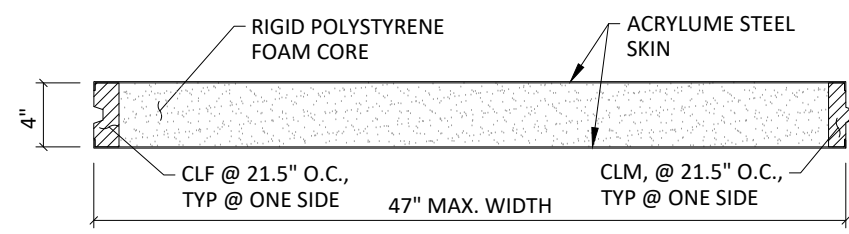


RPC ROOF PANEL - SIDE
SCALE: 1" = 1'-0"



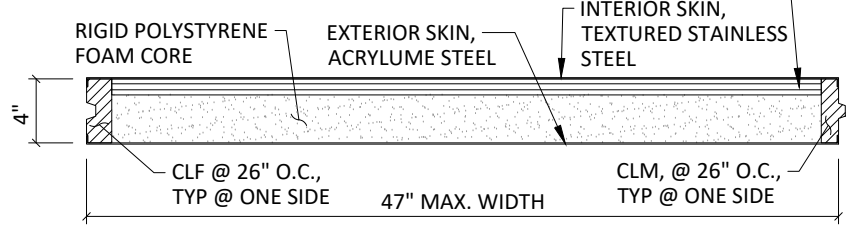
RPE ROOF PANEL - END
SCALE: 1" = 1'-0"

PT PANEL TEE
SCALE: 1" = 1'-0"



WP WALL PANEL
SCALE: 1" = 1'-0"

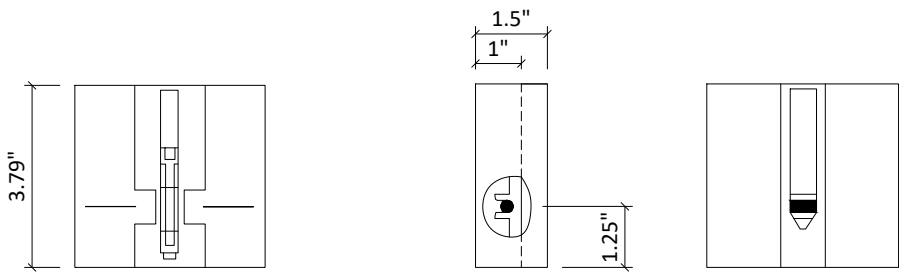
OPTIONAL: AT FLOOR PANEL, $\frac{1}{2}$ " or $\frac{3}{4}$ " PLYWOOD MAY REPLACE THE TOP PORTION OF FOAM MAINTAINING 4" THICKNESS. ADDITIONAL SUPPORTING ELEMENT MAY BE ADDED IN FLOOR PANEL AT MANUFACTURER'S OPTION.



FP FLOOR PANEL
SCALE: 1" = 1'-0"



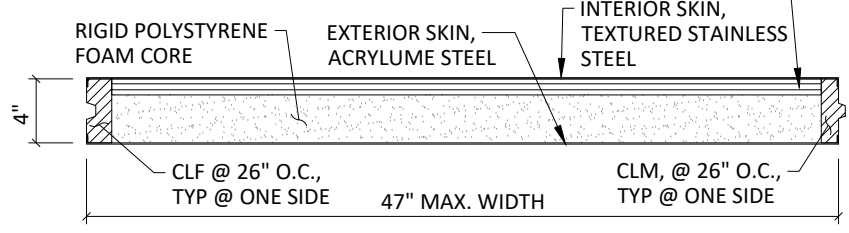
CLM CAMLOCK - MALE
SCALE: 3" = 1'-0"



CLF CAMLOCK - FEMALE
SCALE: 3" = 1'-0"



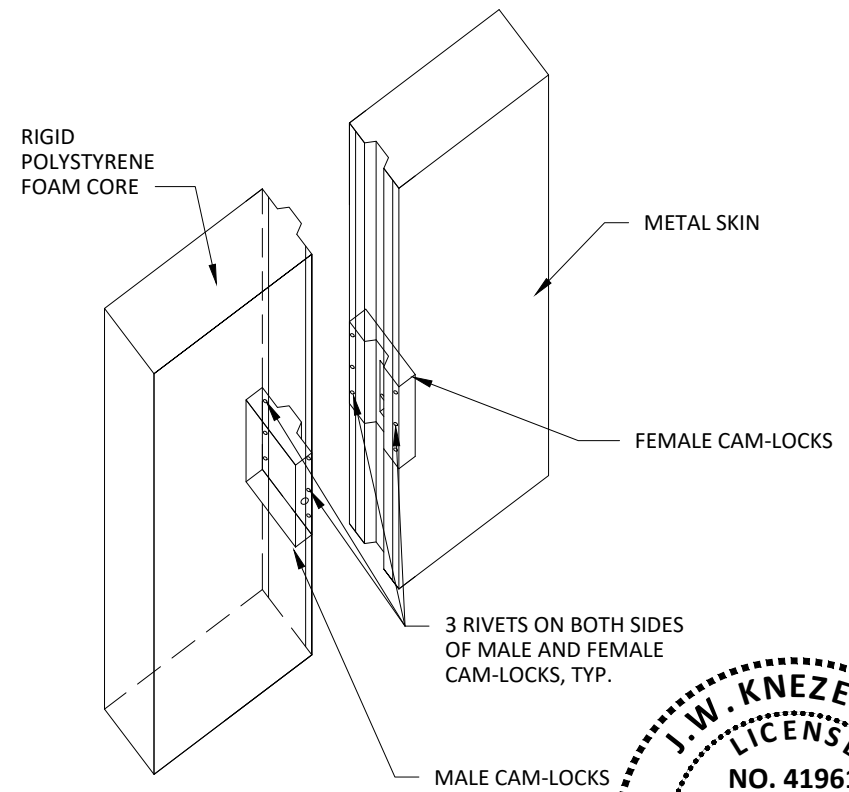
WPC WALL PANEL - CORNER
SCALE: 1" = 1'-0"



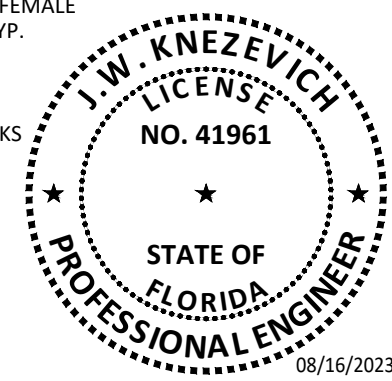
WPE WALL PANEL END - TOP & BOTTOM
SCALE: 1" = 1'-0"

FS FLOOR SCREED
SCALE: 1" = 1'-0"

PG PANEL GASKET
SCALE: FULL SCALE



CLI ISOMETRIC - PANELS LOCKING CONNECTORS
NTS



CAMLOCKS SHALL BE AS MANUFACTURED BY AMERIKOOLER, PART NUMBERS FEMLOCK AND MALE-LOCK WITH AN ABS CASING AND AISI 1018 STEEL PIN AND HOOK UTILIZING AN AISI 1095 RC41047 STEEL

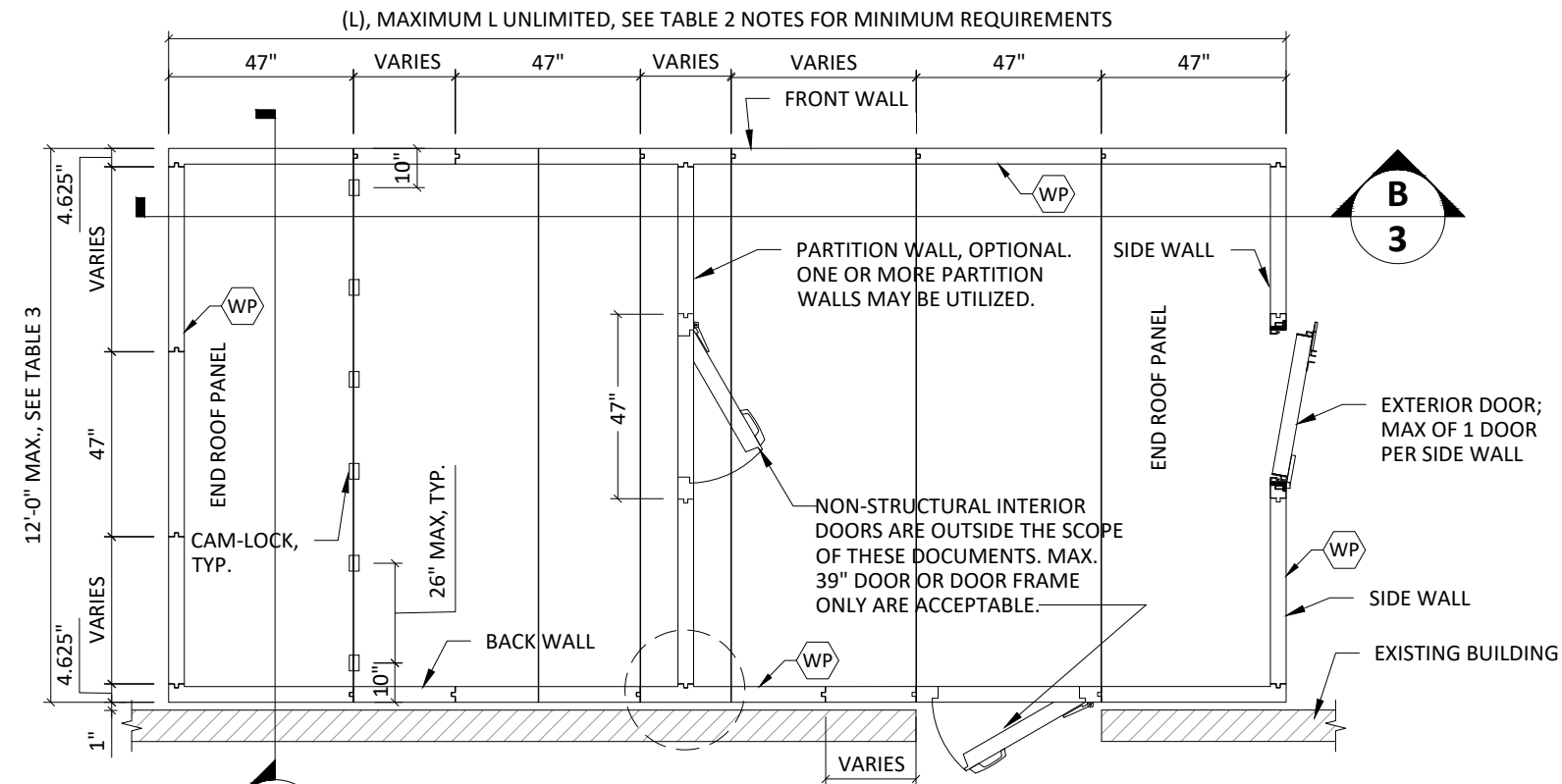
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No.	Date	By	Description
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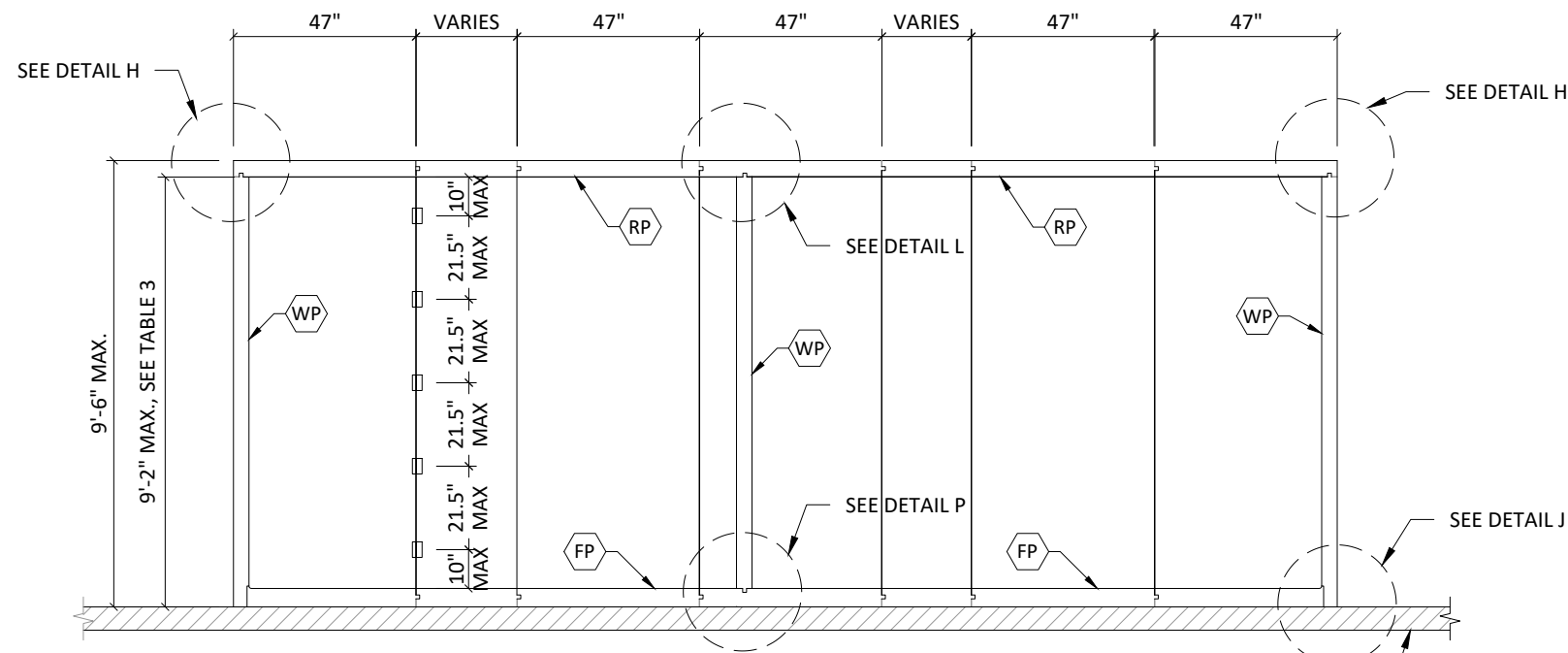
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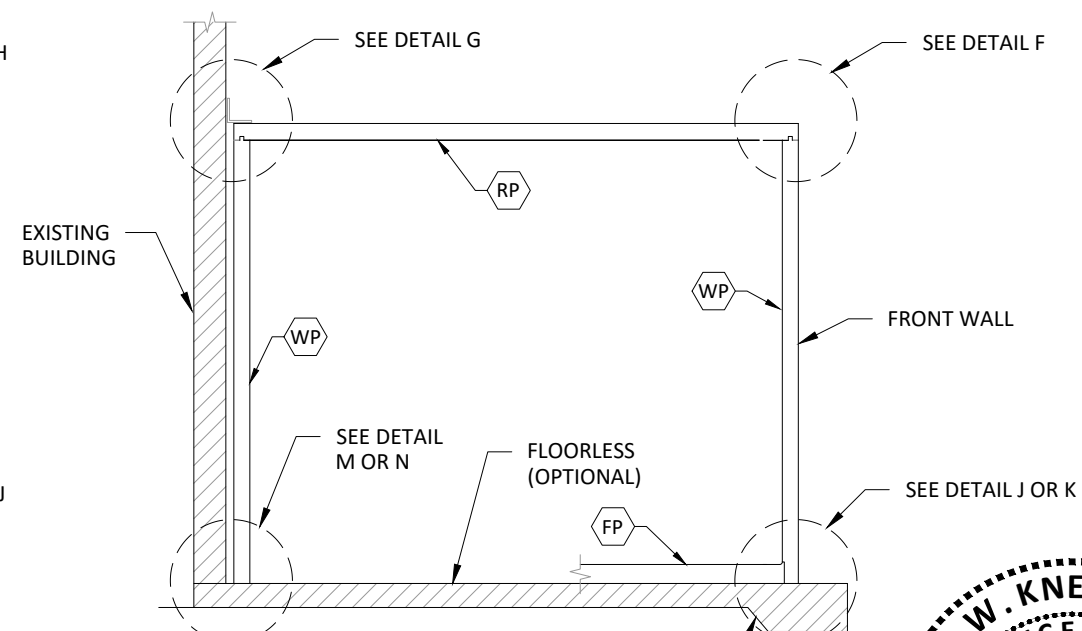
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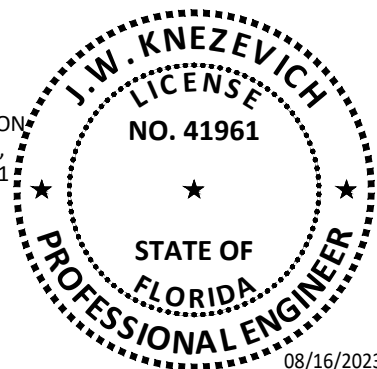
A TYPICAL PLAN VIEW
NTS



B TYPICAL SECTION THROUGH LENGTH
NTS



C TYPICAL SECTION THROUGH WIDTH
NTS



WALK-IN COOLER/FREEZER

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Drawing No. **KC23-0224**

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TABLE 1

LOADS FOR FOUNDATION DESIGN	
LOAD	NET WIND FORCES (ASD)
P _V	± 415 LB/FT
P _H	± 330 LB/FT
M _W	± 3,800 FT-LB/PANEL W/ THE NUMBER OF PANELS REQ.

TABLE 1 NOTES:

1. NET WIND FORCES REPRESENT THE REACTIONS FROM ALLOWABLE STRESS WIND LOAD COMBINATIONS ASSUMING MAXIMUM ROOF PANEL SPANS AND MAXIMUM WALL PANEL HEIGHTS.
2. P_V REPRESENTS THE VERTICAL WIND REACTION
3. P_H REPRESENTS THE HORIZONTAL WIND REACTION.
4. M_W REPRESENTS THE SHEARWALL BASE MOMENT FOR EACH REQUIRED PANEL.

TABLE 2

MAX. ALLOWABLE (ASD) ROOF PANEL DIAPHRAGM FORCES		
PANEL TYPE	MOMENT (FT-LBS/PANEL)	SHEAR (LBS/PANEL)
RP1	4,665	800
MAX. ALLOWABLE (ASD) WALL PANEL SHEARWALL FORCES		
PANEL TYPE	MOMENT (FT-LBS/PANEL)	SHEAR (LBS/PANEL)
WP	3,800	600

TABLE 2 NOTES:

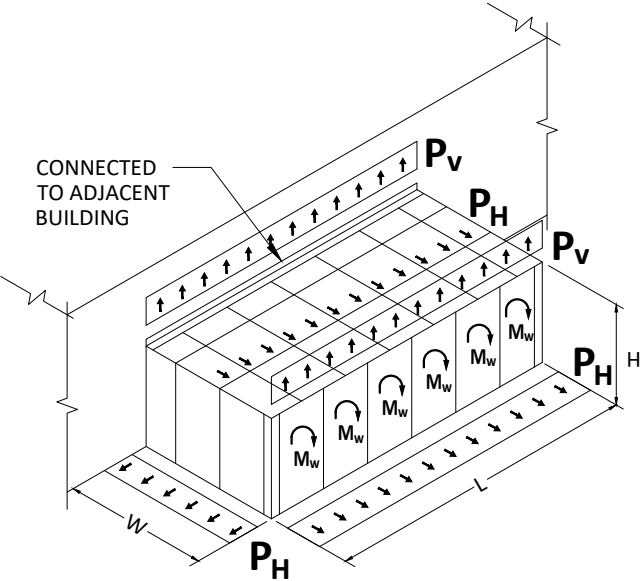
1. A SUFFICIENT NUMBER OF 47" ROOF PANELS SHALL BE PROVIDED TO MAINTAIN THE ROOF DIAPHRAGM MOMENT AND SHEAR IN EACH PANEL BELOW THE MAXIMUM ASD VALUES SHOWN HERE.
2. A SUFFICIENT NUMBER OF 47" WALL PANELS SHALL BE PROVIDED ON THE FRONT WALL TO MAINTAIN THE SHEARWALL MOMENT AND SHEAR IN EACH PANEL BELOW THE MAXIMUM ASD VALUES SHOWN HERE.

TABLE 3

PANEL TYPE		MAX. PANEL LENGTH	MAX. ALLOWABLE (ASD) WIND LOAD	
			POS (PSF)	NEG (PSF)
ROOF PANELS	RP 4" ROOF PANEL	12'-0"	+ 34.0	- 73.1
WALL PANELS	WP 4" WALL PANEL	9'-2"	+ 56.0	- 71.1

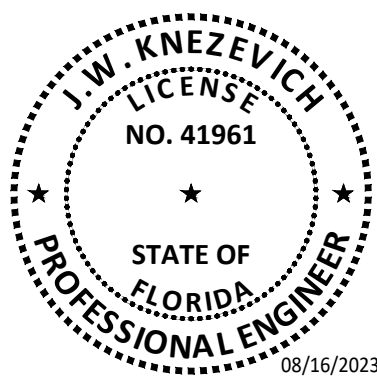
TABLE 3 NOTES:

1. ALLOWABLE WIND LOADS SHOWN REPRESENT THE MAXIMUM ASD COMPONENT UNIFORM WIND LOADS FOR EACH PANEL SPAN.
2. TO DETERMINE COMPLIANCE, USD SITE SPECIFIC WIND LOADS DETERMINED IN ACCORDANCE WITH GENERAL NOTE 3D SHALL BE MULTIPLIED BY THE LOAD FACTOR 0.6 WHEN COMPARING TO THESE VALUES.
3. FOR NON-UNIFORM LOADS, MOMENTS AND SHEARS FROM SITE SPECIFIC WIND LOADS SHALL BE LESS THAN THOSE RESULTING FROM THE LOADS AND SPANS SHOWN HERE.
4. ALLOWABLE WIND LOADS AND ARE BASED ON A FACTOR OF SAFETY OF 1.5 FOR WALL PANELS AND 2.0 FOR ROOF PANELS WITH A MINIMUM RECOVERY OF 80% IN ACCORDANCE WITH TAS 202 AND THE HVHZ PROVISIONS OF THE FBC. ALLOWABLE LOADS ARE ALSO IN COMPLIANCE WITH SECTION 1709.3 OF FBC 2020 & FBC 2023 PROVIDING FOR A FACTOR OF SAFETY OF 2.0 WITH A MINIMUM RECOVERY OF 75% AND A FACTOR OF SAFETY OF 2.5 ON ULTIMATE TEST LOADS FOR BOTH WALL AND ROOF PANELS.



SEE TABLE 2 FOR SHEARWALL & DIAPHRAGM LIMITATIONS

**ISOMETRIC WITH
SUPERIMPOSED WIND LOADS**
N.T.S.



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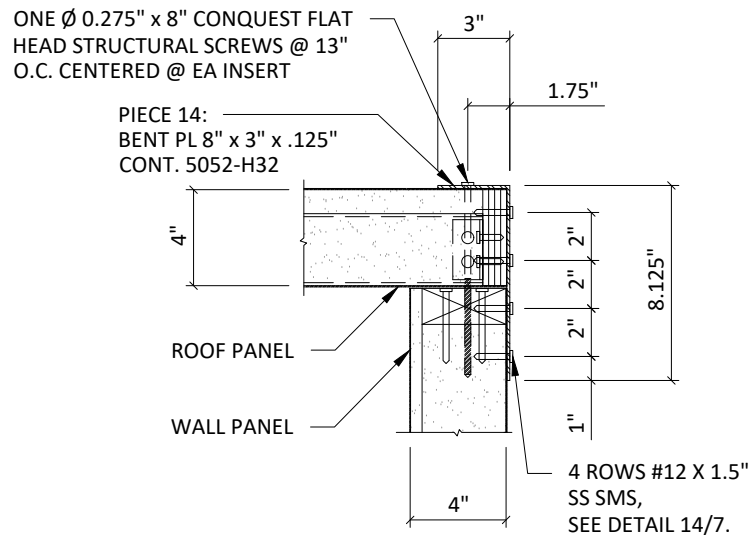
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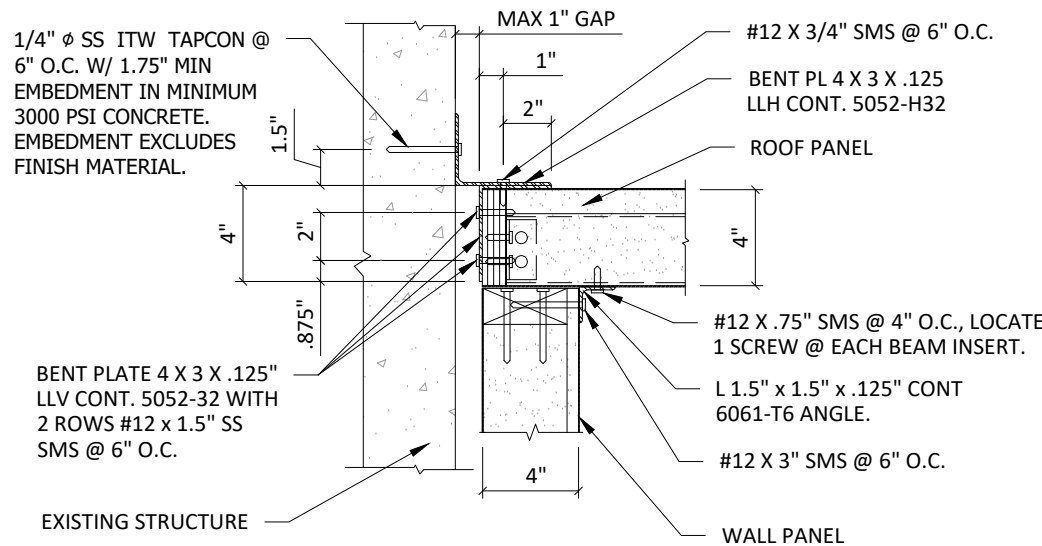
Drawing No. **KC23-0224**

08/16/2023

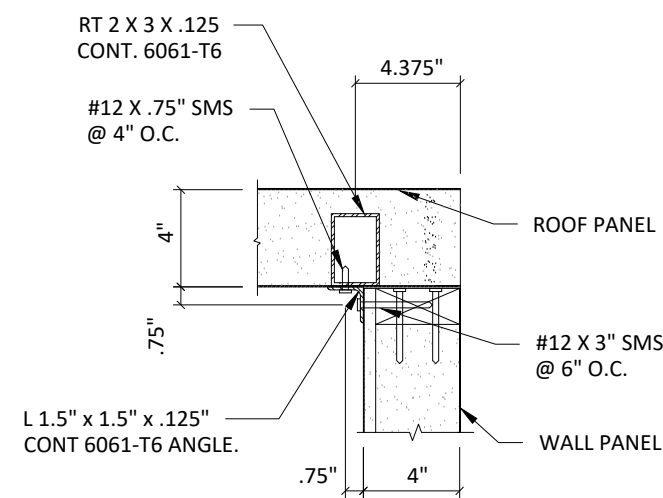
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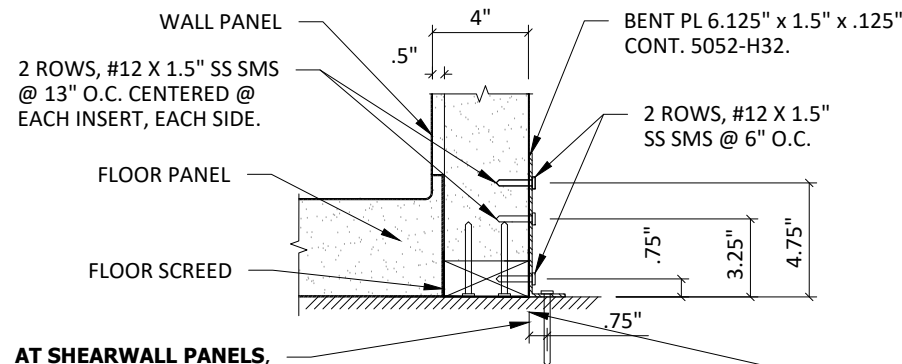
F FRONT WALL TO ROOF
SCALE: 1.5" = 1'-0"



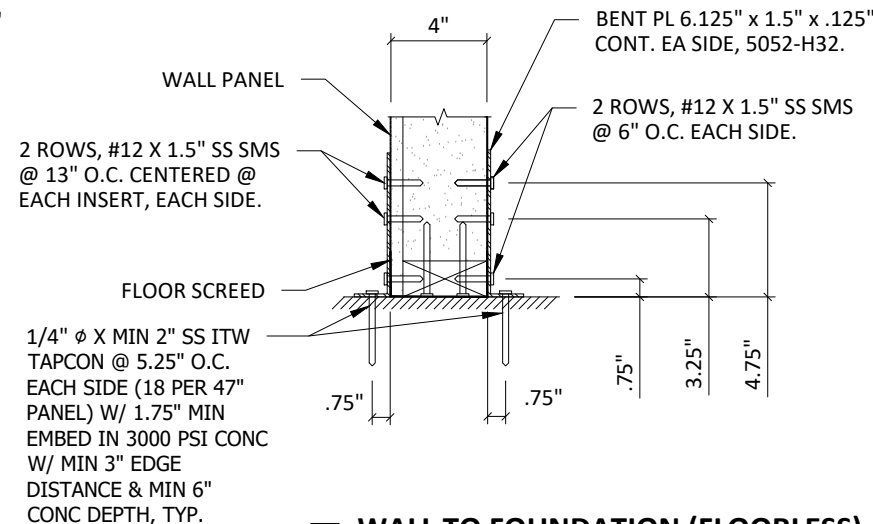
G BACK WALL TO EXISTING BUILDING
SCALE: 1.5" = 1'-0"



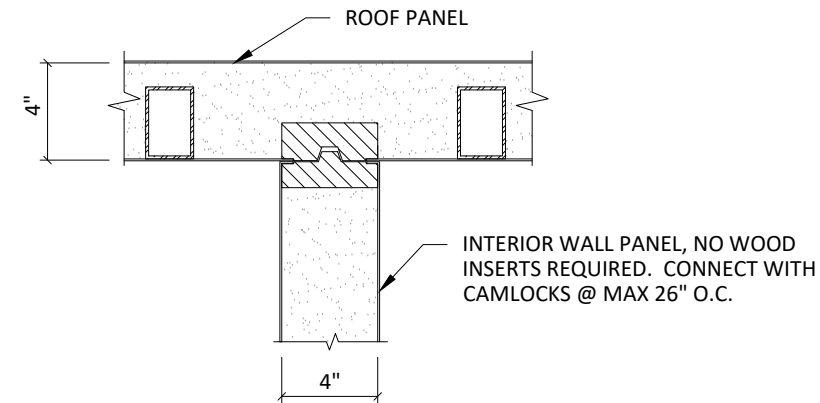
H SIDE WALL TO ROOF
SCALE: 1.5" = 1'-0"



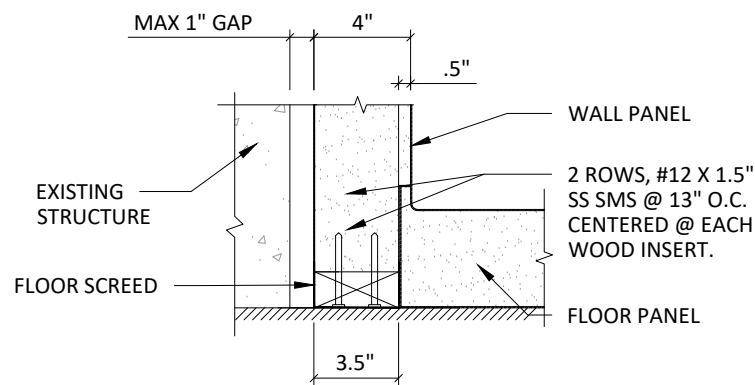
J WALL TO FOUNDATION (WITH FLOOR)
SCALE: 1.5" = 1'-0"



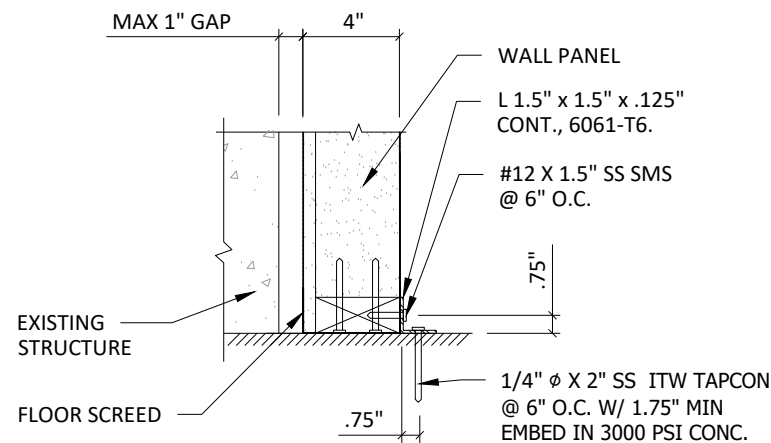
K WALL TO FOUNDATION (FLOORLESS)
SCALE: 1.5" = 1'-0"



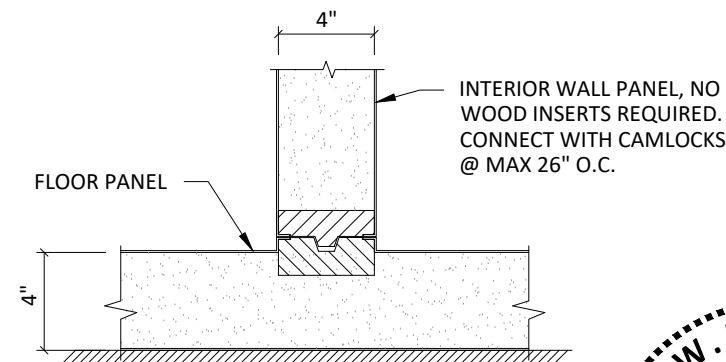
L INTERIOR WALL TO ROOF
SCALE: 1.5" = 1'-0"



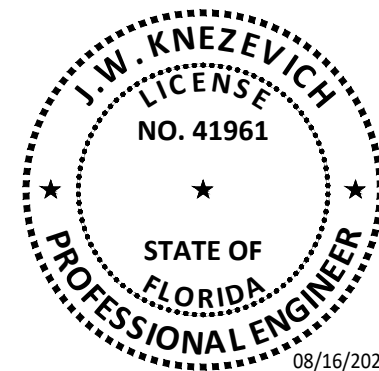
M BACK WALL TO FOUNDATION (WITH FLOOR)
SCALE: 1.5" = 1'-0"



N BACK WALL TO FOUNDATION (FLOORLESS)
SCALE: 1.5" = 1'-0"



**P INTERIOR WALL TO FLOOR
WALL TO WALL TEE SIMILAR**
SCALE: 1.5" = 1'-0"



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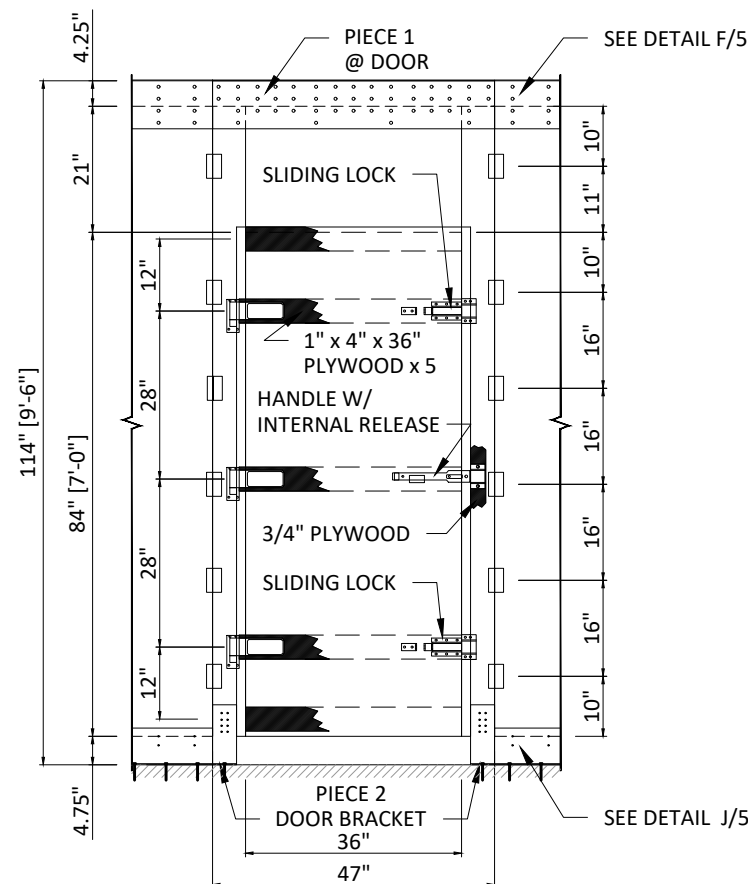
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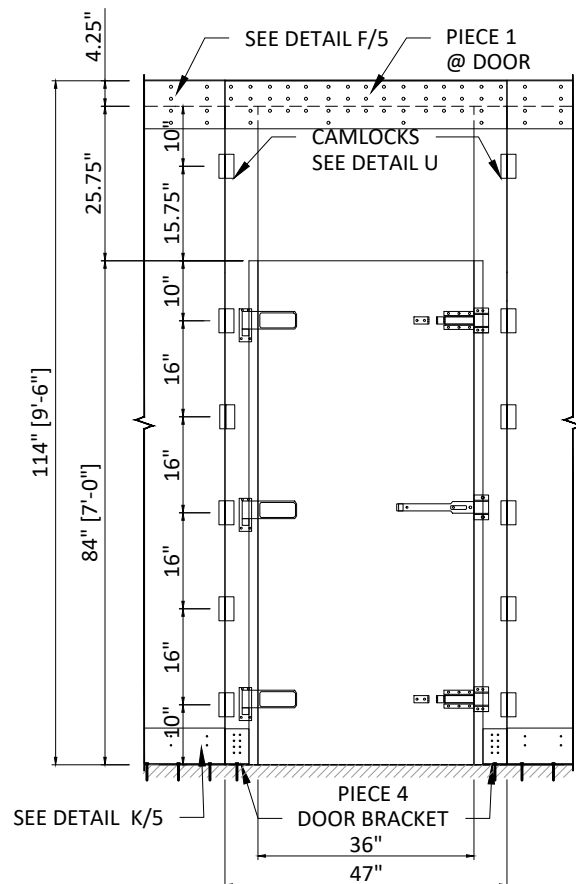
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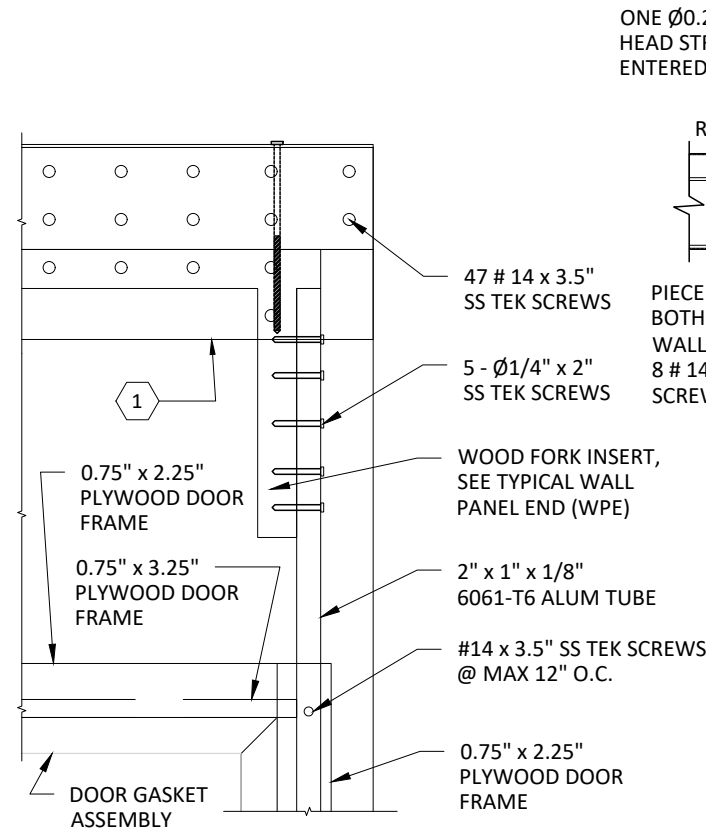
Drawing No. **KC23-0224**
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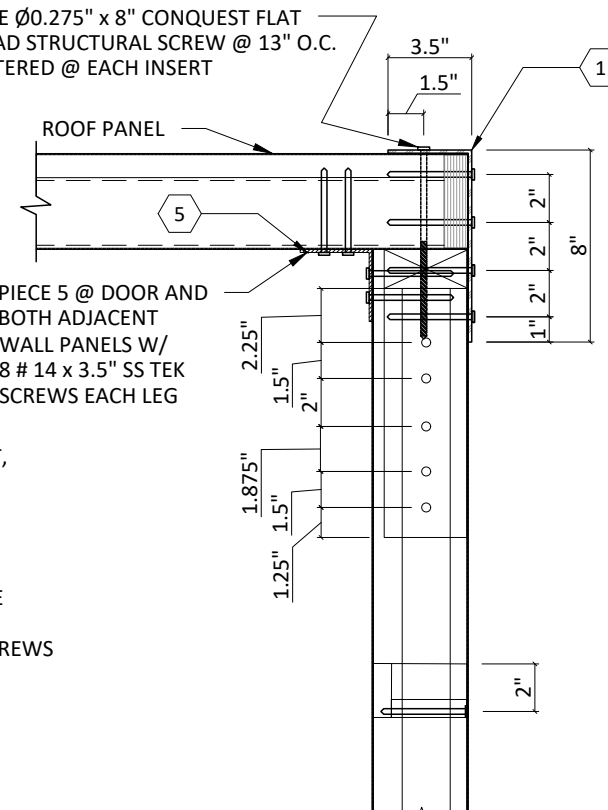
Q DOOR ELEVATION (WITH FLOOR)
SCALE: 3/8" = 1'-0"



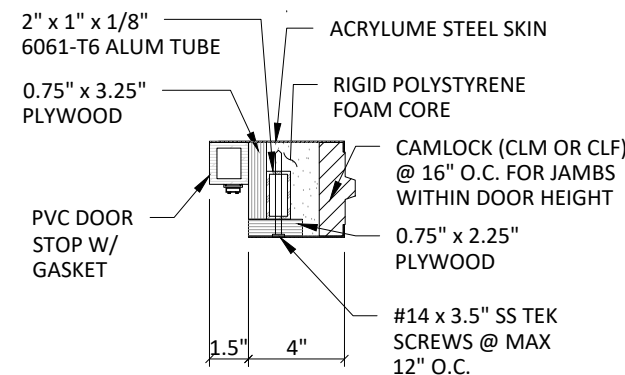
R DOOR ELEVATION (FLOORLESS)
SCALE: 3/8" = 1'-0"



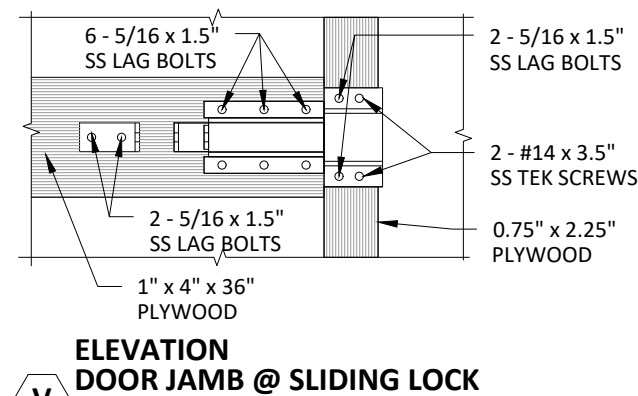
S ELEVATION TOP OF DOOR JAMB
SCALE: 1.5" = 1'-0"



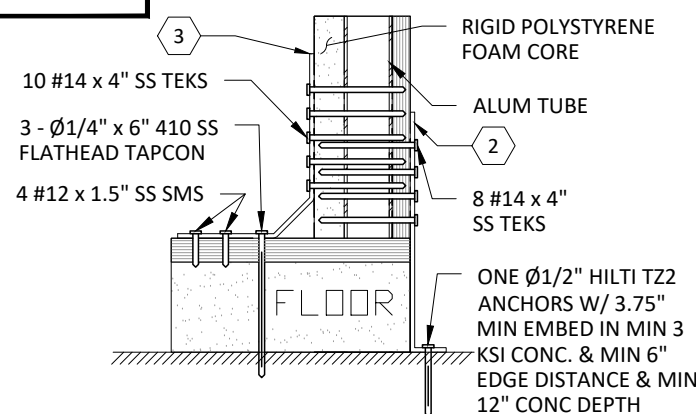
T SECTION TOP OF DOOR JAMB
SCALE: 1.5" = 1'-0"



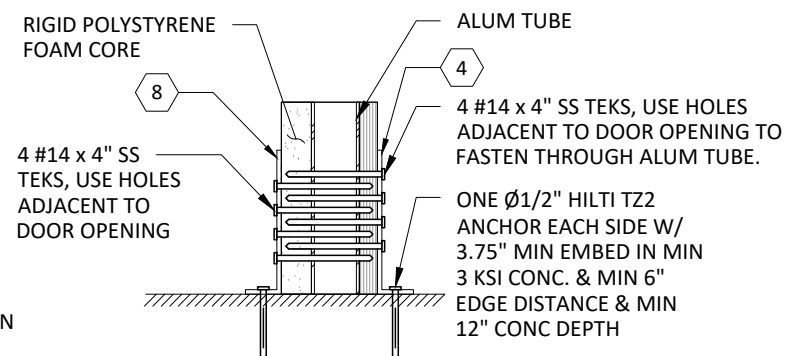
U TYP DOOR JAMB
SCALE: 1.5" = 1'-0"



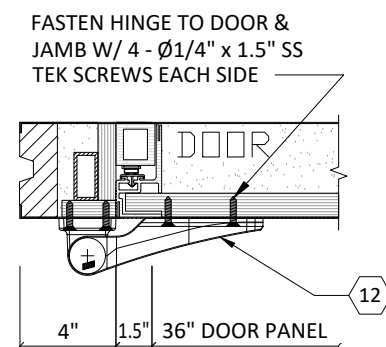
V ELEVATION DOOR JAMB @ SLIDING LOCK
SCALE: 1.5" = 1'-0"



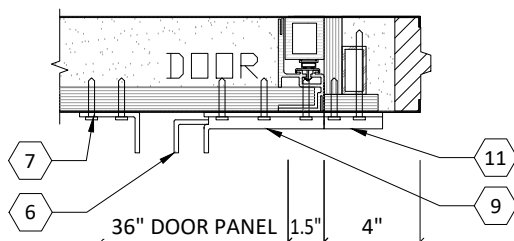
W DOOR JAMB TO FOUNDATION (WITH FLOOR)
SCALE: 1.5" = 1'-0"



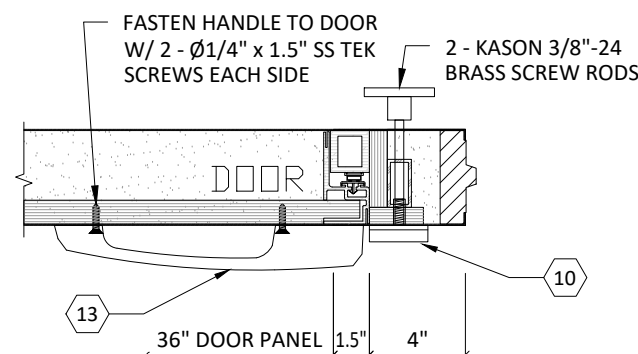
X DOOR JAMB TO FOUNDATION (FLOORLESS)
SCALE: 1.5" = 1'-0"



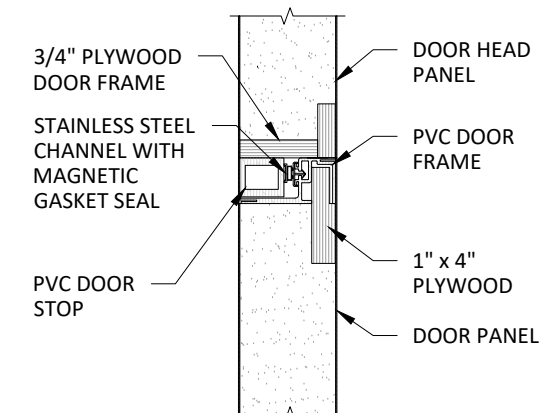
Y PLAN VIEW SECTION DOOR JAMB @ HINGE
SCALE: 1.5" = 1'-0"



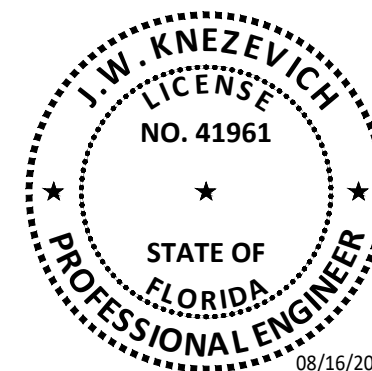
Z PLAN VIEW SECTION DOOR JAMB @ SLIDING LOCK
SCALE: 1.5" = 1'-0"



AA PLAN VIEW SECTION DOOR JAMB @ LATCH HANDLE
SCALE: 1.5" = 1'-0"



BB DOOR HEADER
SCALE: 1.5" = 1'-0"



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Drawn by: JWK
Date: 06/22/2023

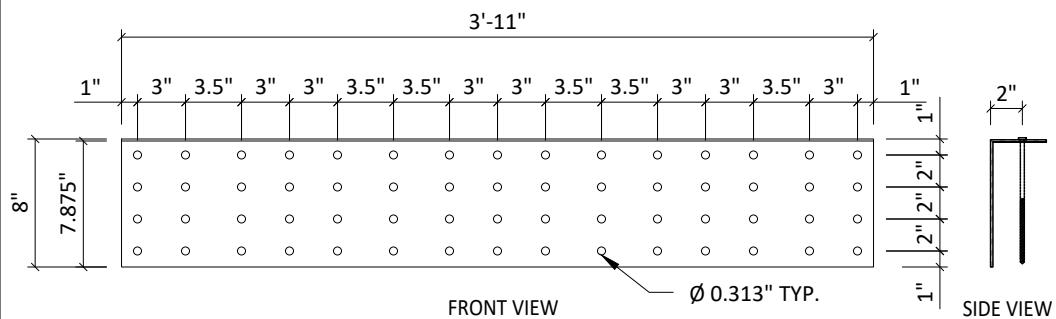
J.W. Knezevich
Professional Engineer
FL License No. PE 41961

This item has been digitally signed and sealed by John W. Knezevich, PE on the date adjacent to the seal.

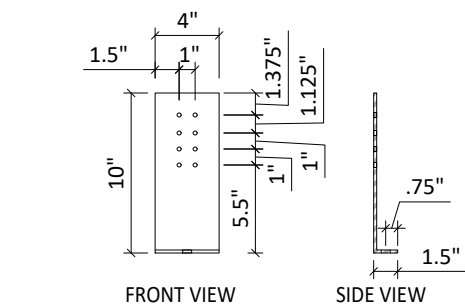
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Drawing No. **KC23-0224**
sheet 6 of 7

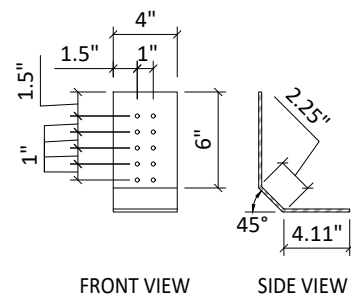
08/16/2023



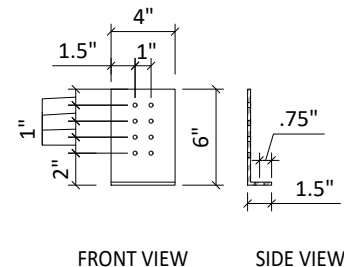
**AKDC47 HURRICANE DOOR
CEILING BRACKET**
BENT PLATE 8" x 3" x 1/8" x 3'-11"
SCALE: 1" = 1'-0" 5052 H32 ALUM



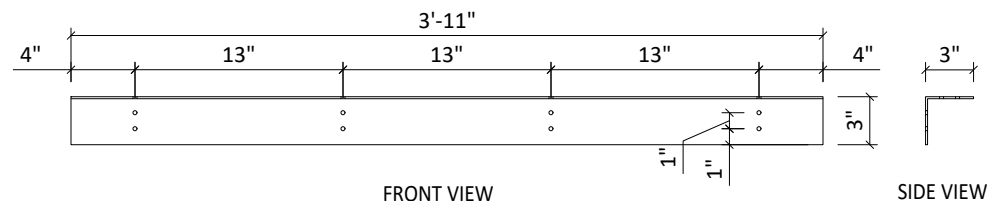
**FD4E HURRICANE DOOR
EXTERIOR FLOOR BRACKET**
BENT PLATE 10" x 1.5" x 3/16" x 0'-4"
SCALE: 1" = 1'-0" 5052 H32 ALUM



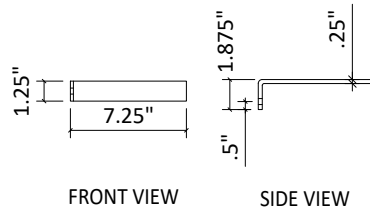
**FD4I HURRICANE DOOR
INTERIOR FLOOR BRACKET**
BENT PLATE 4" x 2.25" x 6" x 3/16" x 0'-4"
SCALE: 1" = 1'-0" 5052-H32 ALUM



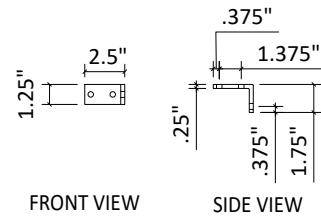
**FFD4E HURRICANE DOOR
EXTERIOR NO FLOOR BRACKET**
BENT PLATE 6" x 1.5" x 3/16" x 0'-4"
SCALE: 1" = 1'-0" 5052 H32 ALUM



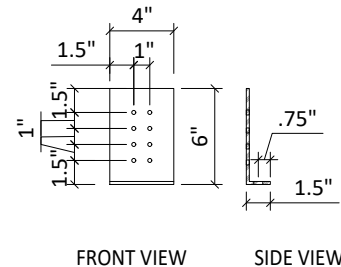
**CA47 HURRICANE DOOR
INTERIOR CEILING BRACKET**
L 3" x 3" x 1/8" x 3'-11"
SCALE: 1" = 1'-0" 6063-T52 ALUM



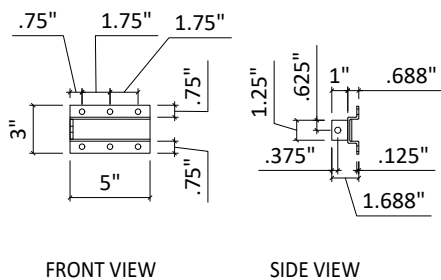
**AK-LSLIDE2 HURRICANE DOOR
SLIDING LATCH**
L 7.25" x 1.75" x .25" x 0'-1.25"
SCALE: 1" = 1'-0" 304 STAINLESS STEEL



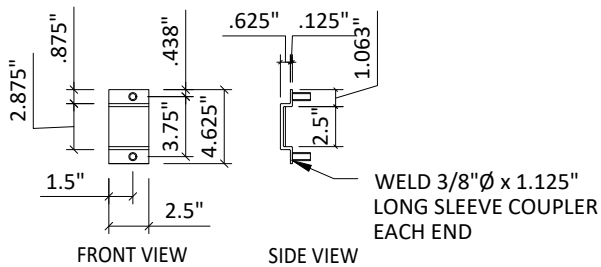
**AK-LSTOP1 HURRICANE DOOR
BACK STOP**
L 2.5" x 1.75" x 1/4" x 0'-1.25"
SCALE: 1" = 1'-0" 304 STAINLESS STEEL



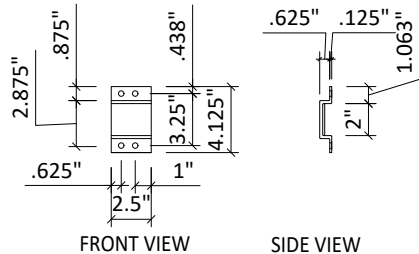
**FFD4I HURRICANE DOOR
INTERIOR NO FLOOR BRACKET**
BENT PLATE 6" x 1.5" x 3/16" x 0'-4"
SCALE: 1" = 1'-0" 5052 H32 ALUM



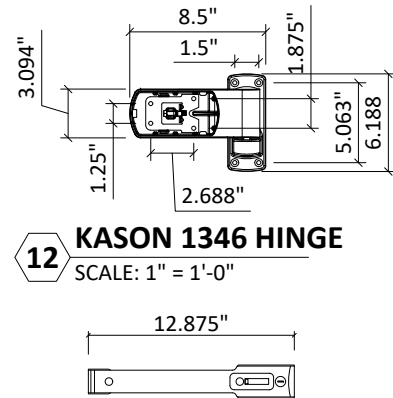
**AK-LHOUSING3 HURRICANE DOOR
LOCK HOUSING**
SCALE: 1" = 1'-0" 304 STAINLESS STEEL



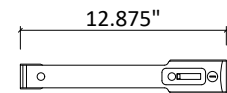
**AK-DINREL HURRICANE DOOR
HANDLE BRACKET**
SCALE: 1" = 1'-0" 304 STAINLESS STEEL



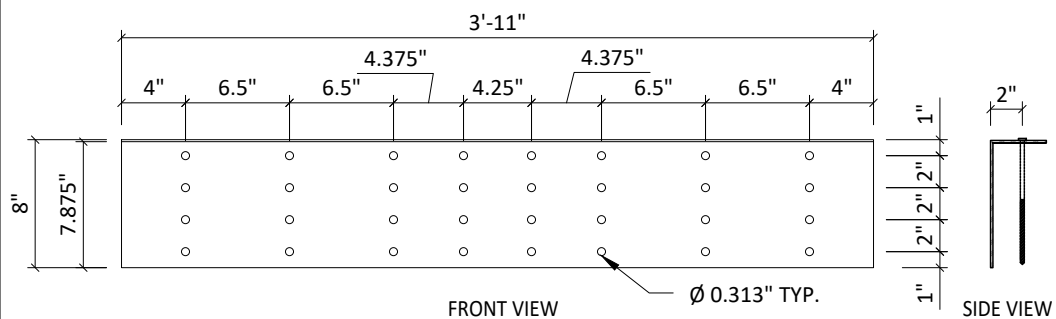
**AK-LGATE4 HURRICANE DOOR
LOCK GATE BRACKET**
SCALE: 1" = 1'-0" 304 STAINLESS STEEL



KASON 1346 HINGE
SCALE: 1" = 1'-0"



KASON 0027C LATCH HANDLE
SCALE: 1" = 1'-0"



TYPICAL CEILING BRACKET
BENT PLATE 8" x 3" x 1/8" x 3'-11"
SCALE: 1" = 1'-0" 5052 H32 ALUM

Revisions

No.	Date	By	Description
0	06/22/2023	JWK	FBC 2020 w/ Door - Formerly KC20-0724
1	08/16/2023	JWK	FBC 2023 Update

Scale: AS NOTED

Drawn by: JWK

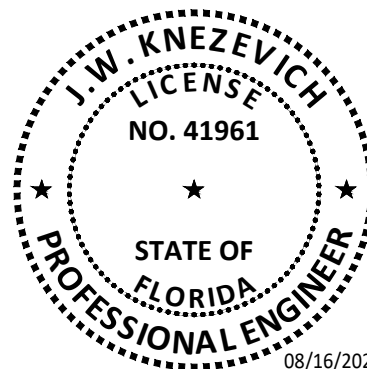
Date: 06/22/2023

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

This item has been digitally
signed and sealed by
John W. Knezevich, PE
on the date adjacent to
the seal.

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Drawing No.
KC23-0224
sheet 7 of 7



08/16/2023