

# CECO DOOR STORMPRO EXIT DEVICE DOOR ASSEMBLY - TORNADO SHELTER

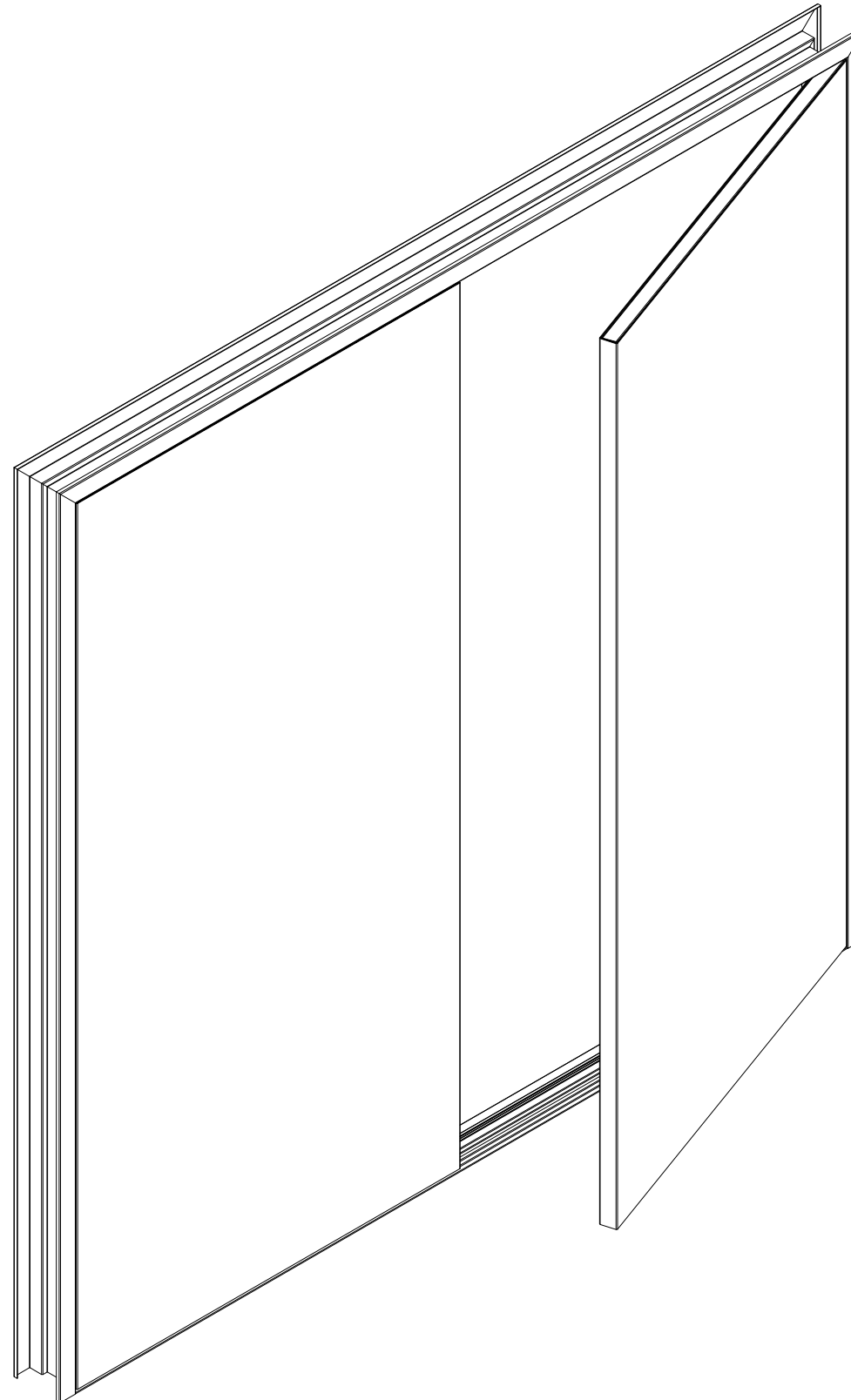
PRODUCT MEETS REQUIREMENTS OF ICC 500-2020 IMPACT PROTECTIVE SYSTEMS CERTIFIED FOR TORNADO SHELTERS



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## INSTRUCTIONS FOR USING THIS APPROVAL

- STEP 1:** USE THE DOOR ELEVATIONS PROVIDED ON SHEETS 2 (SINGLE OPENINGS) OR 3 (PAIRED OPENINGS) TO DETERMINE THE APPLICABLE ASSEMBLY NUMBER.
- STEP 2:** MOVE TO THE CHART BELOW THE DOOR ELEVATIONS, ALSO ON SHEETS 2 AND/OR 3, AND LOCATE YOUR ASSEMBLY NUMBER. BY SCANNING HORIZONTALLY THROUGH THE SAME ROW OF YOUR ASSEMBLY NUMBER, YOU WILL BE ABLE TO DETERMINE THE APPROVED MIN. DOOR/FRAME GAUGE, PERMITTED OPENING SIZE, SWINGING OPTIONS, ACTIVE AND INACTIVE LATCHING HARDWARE FOR PANELS, AND GLAZING OPTIONS. SPECIFIC ASSEMBLY CERTIFICATION LISTING CARD CAN BE FOUND BY SELECTING THE ZHLA LINK IN THE RIGHT COLUMN OF THE TABLE.
- STEP 3:** USE SHEET 4 TO DETERMINE YOUR FRAMING PROFILE AND FRAMING CONSTRUCTION OPTIONS.
- STEP 4:** USE THE TABLE(S) ON SHEET 5 AND/OR 6 TO DETERMINE THE ANCHOR TYPE AND SPACING, BASED ON YOUR OPENING SIZE AND SUBSTRATE CRITERIA.
- STEP 5:** USE THE TABLE(S) ON SHEET 7 TO SELECT APPROVED HINGE(S) AND HINGE OPTIONS.
- STEP 6:** USE THE TABLE(S) ON SHEET 8 TO SELECT APPROVED OPTIONAL ACCESSORIES.



### SHEET INDEX

SHEET #	DESCRIPTION
1	COVER SHEET
2	ASSEMBLY OPTIONS - SINGLE OPENINGS
3	ASSEMBLY OPTIONS - PAIRED OPENINGS
4	DOOR FRAME OPTIONS
5	DOOR FRAME ANCHORING INFORMATION - EXISTING OPENING & WELD TO BUILDING STRUCTURE
6	DOOR FRAME ANCHORING INFORMATION - MASONRY
7	HINGE OPTIONS
8	OPTIONAL ACCESSORIES
9	MANUFACTURERS' NOTES

## CECO DOOR PRODUCTS

DIV OF ASSA ABLOY DOOR GROUP LLC  
9159 TELECOM DRIVE  
MILAN, TN 38358

COMMERCIAL STEEL IMPACT PROTECTIVE SYSTEM  
SIDE-SWINGING DOOR ASSEMBLY WITH EXIT DEVICE HARDWARE  
FBC EIGHTH EDITION (2023)  
FLORIDA PRODUCT APPROVAL # 40296.6

REV	DESCRIPTION	DRWN	CHKD	DATE
0	ORIGINAL ISSUE	PM	DC	01/06/22
1	UPDATE GENERAL NOTE #3	PM	DC	03/07/22
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-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

SCALE: NTS UNLESS NOTED  
UL FILE #: R27575  
VOL. SEC. ILL: 2.1.B  
SHEET: 1 OF 9

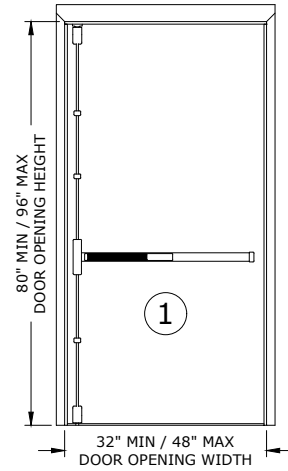
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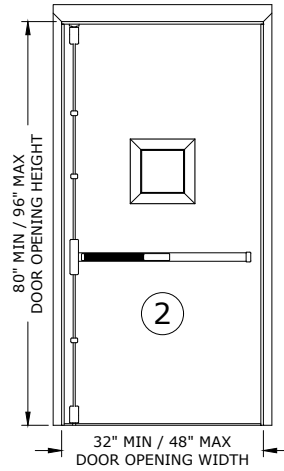
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DESIGN PRESSURE: ±284 PSF MISSILE CRITERIA: 15-LB LUMBER 2 X 4 @ 100 MPH

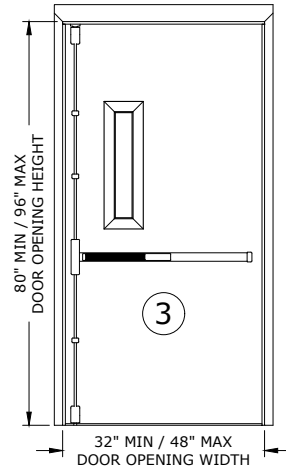
SINGLE OPENING - FLUSH AND GLAZED



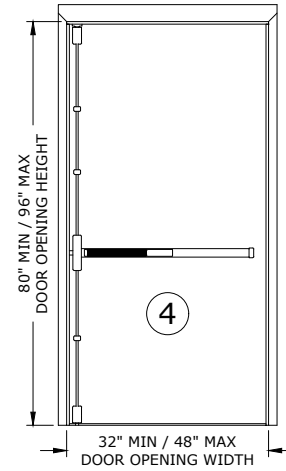
FLUSH DOOR



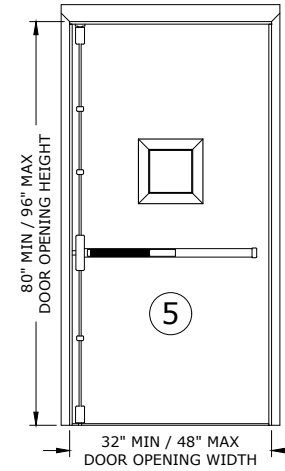
GLAZED 10" X 10" VISION LITE



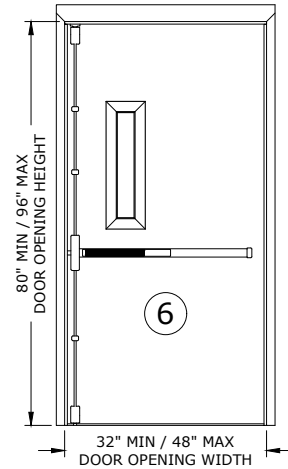
GLAZED 4" X 25" NARROW VISION LITE



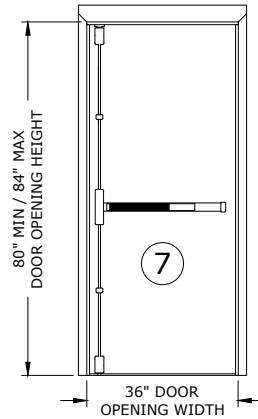
FLUSH DOOR



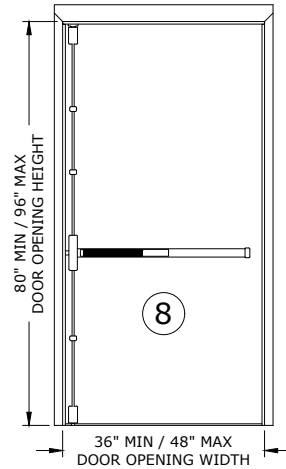
GLAZED 10" X 10" VISION LITE



GLAZED 4" X 25" NARROW VISION LITE



FLUSH DOOR



FLUSH DOOR

Assembly	Minimum Door Gauge	Minimum Frame Gauge	Permitted Opening Size (inches)				Door Swing	Latching Hardware Description			Glazing <sup>1</sup>		UL ZHLA Assembly No.
			Minimum Width	Minimum Height	Maximum Width	Maximum Height		Type	Manufacturer	Model	Manufacturer	Model	
1 <sup>2,3</sup>	14	14	32	80	48	96	Out-Swing	Surface Vertical Rod	Sargent	FM8700 or FM-PE8700 Series	N/A	N/A	64
2 <sup>2,3</sup>	14	14	32	80	48	96	Out-Swing	Surface Vertical Rod	Corbin Russwin	PED5400 FE Series	Vetrotech	Contraflam ULTIMAX 90 Storm Shelter or Keralite ULTRA 90 Storm Shelter, 10" x 10" Visible	64
									Sargent	FM8700 or FM-PE8700 Series			
3 <sup>2,3</sup>	14	14	32	80	48	96	Out-Swing	Surface Vertical Rod	Corbin Russwin	PED5400 FE Series	Vetrotech	Contraflam ULTIMAX 90 Storm Shelter or Keralite ULTRA 90 Storm Shelter, 4" x 25" Visible	64
									Sargent	FM8700 or FM-PE8700 Series			
4 <sup>2</sup>	14	14	32	80	48	96	Out-Swing	Multi Point Exit Device	Corbin Russwin	FE5400S Series	N/A	N/A	65
5 <sup>2</sup>	14	14	32	80	48	96	Out-Swing	Multi Point Exit Device	Corbin Russwin	FE5400S Series	Vetrotech	Contraflam ULTIMAX 90 Storm Shelter or Keralite ULTRA 90 Storm Shelter, 10" x 10" Visible	65
6 <sup>2</sup>	14	14	32	80	48	96	Out-Swing	Multi Point Exit Device	Corbin Russwin	FE5400S Series	Vetrotech	Contraflam ULTIMAX 90 Storm Shelter or Keralite ULTRA 90 Storm Shelter, 4" x 25" Visible	65
7 <sup>3</sup>	16 <sup>4</sup>	14	36	80	36	84	Out-Swing	Surface Vertical Rod	Sargent	FM8700 or FM-PE8700 Series	N/A	N/A	47
									Corbin Russwin	PED5400 FE Series			
8	16 <sup>4</sup>	14	36	80	48	96	Out-Swing	Multi Point Exit Device	Corbin Russwin	FE5400S Series	N/A	N/A	51

<sup>1</sup> Glazing must be factory installed.

<sup>2</sup> Assembly may not comply with various government domestic sourcing regulations, trade agreements, and acquisition policies. Please contact your ASSA ABLOY Government Solutions Representative for more information.

<sup>3</sup> Optional Sargent 655 floor strike available.

<sup>4</sup> 16 gauge steel covered composite door construction. Heavier gauges not available.



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 SHEET: 2 OF 9

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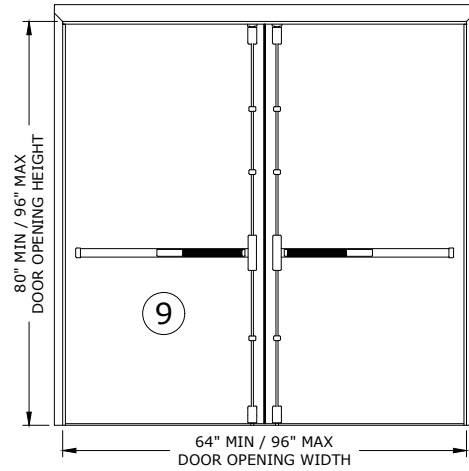
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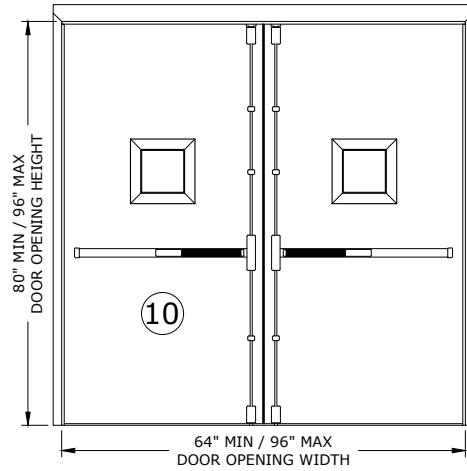
PAIRED OPENING - FLUSH AND GLAZED



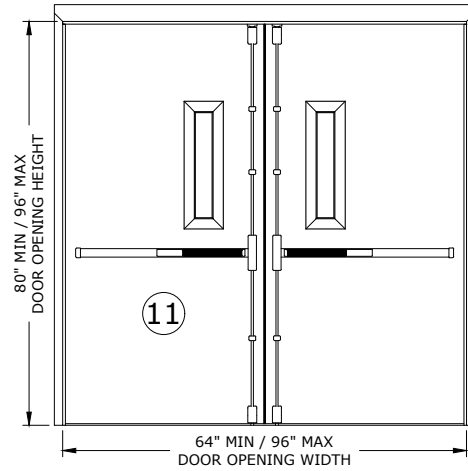
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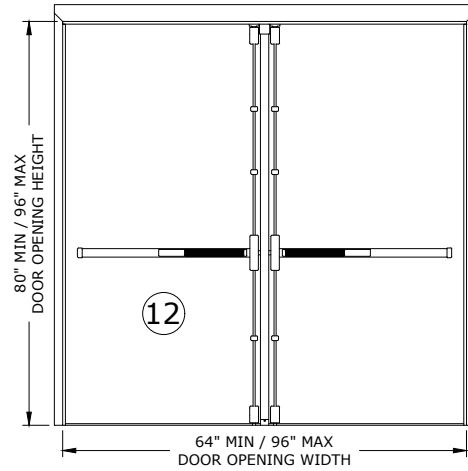
FLUSH DOOR



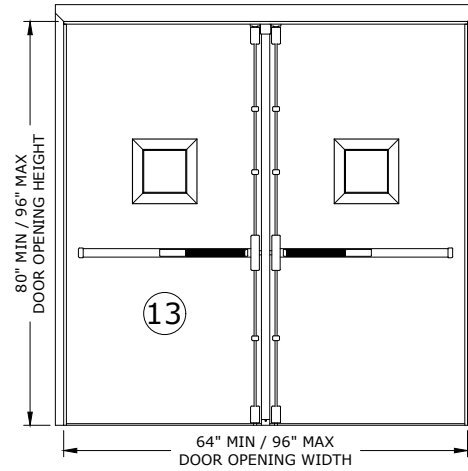
GLAZED 10" X 10" VISION LITE



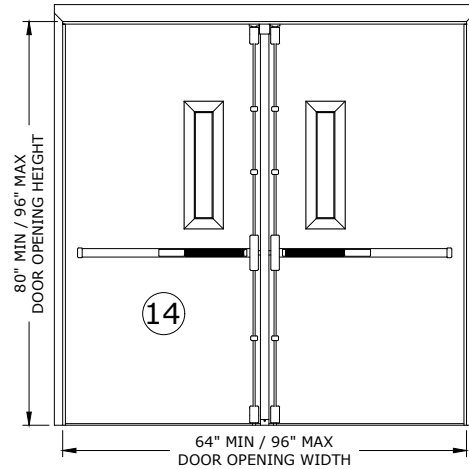
GLAZED 4" X 25" NARROW VISION LITE



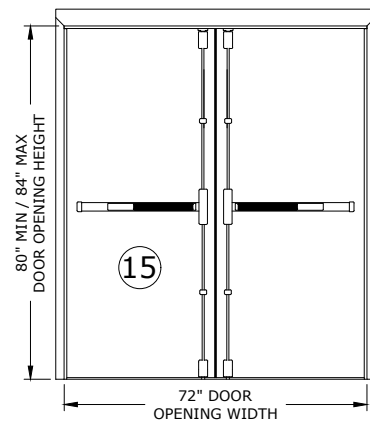
FLUSH DOOR



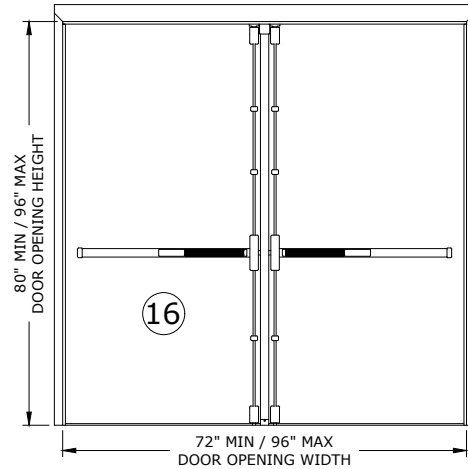
GLAZED 10" X 10" VISION LITE



GLAZED 4" X 25" NARROW VISION LITE



FLUSH DOOR



FLUSH DOOR

Assembly	Minimum Door Gauge	Minimum Frame Gauge	Permitted Opening Size (inches) <sup>1</sup>			Door Swing	Latching Hardware Description			Glazing <sup>2</sup>		UL ZHLA Assembly No.	
			Minimum Width	Minimum Height	Maximum Width		Maximum Height	Type	Manufacturer	Model	Manufacturer		Model
9 <sup>3,4</sup>	14	14	64	80	96	96	Out-Swing	Surface Vertical Rod	Sargent Corbin Russwin	FM8700 or FM-PE8700 Series PED5400 FE Series	N/A	N/A	64
10 <sup>3,4</sup>	14	14	64	80	96	96	Out-Swing	Surface Vertical Rod	Sargent Corbin Russwin	FM8700 or FM-PE8700 Series PED5400 FE Series	Vetrotech	Contraflam ULTIMAX 90 Storm Shelter or Keralite ULTRA 90 Storm Shelter, 10" x 10" Visible	64
11 <sup>3,4</sup>	14	14	64	80	96	96	Out-Swing	Surface Vertical Rod	Sargent Corbin Russwin	FM8700 or FM-PE8700 Series PED5400 FE Series	Vetrotech	Contraflam ULTIMAX 90 Storm Shelter or Keralite ULTRA 90 Storm Shelter, 4" x 25" Visible	64
12 <sup>3,5</sup>	14	14	64	80	96	96	Out-Swing	Multi Point Exit Device	Corbin Russwin	FE5400S Series	N/A	N/A	65
13 <sup>3,5</sup>	14	14	64	80	96	96	Out-Swing	Multi Point Exit Device	Corbin Russwin	FE5400S Series	Vetrotech	Contraflam ULTIMAX 90 Storm Shelter or Keralite ULTRA 90 Storm Shelter, 10" x 10" Visible	65
14 <sup>3,5</sup>	14	14	64	80	96	96	Out-Swing	Multi Point Exit Device	Corbin Russwin	FE5400S Series	Vetrotech	Contraflam ULTIMAX 90 Storm Shelter or Keralite ULTRA 90 Storm Shelter, 4" x 25" Visible	65
15 <sup>4</sup>	16 <sup>6</sup>	14	72	80	72	84	Out-Swing	Surface Vertical Rod	Sargent Corbin Russwin	FM8700 or FM-PE8700 Series PED5400 FE Series	N/A	N/A	47
16 <sup>5</sup>	16 <sup>6</sup>	14	72	80	96	96	Out-Swing	Multi Point Exit Device	Corbin Russwin	FE5400S Series	N/A	N/A	51

<sup>1</sup> Unequal width pairs are allowed provided that the overall opening size meets min/max permitted size requirements for pairs & each individual leaf size meets min/max permitted size requirements for a single opening as shown on sheet 2.

<sup>2</sup> Glazing must be factory installed.

<sup>3</sup> Assembly may not comply with various government domestic sourcing regulations, trade agreements, and acquisition policies. Please contact your ASSA ABLOY Government Solutions Representative for more information.

<sup>4</sup> Optional Sargent 655 floor strike available.

<sup>5</sup> Corbin Russwin FE707A, FE708A, or FE772A Mullion required.

<sup>6</sup> 16 gauge steel covered composite door construction. Heavier gauges not available.

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 UL FILE #: R27575  
 VOL. SEC. ILL: 2.1.B  
 SHEET: 3 OF 9

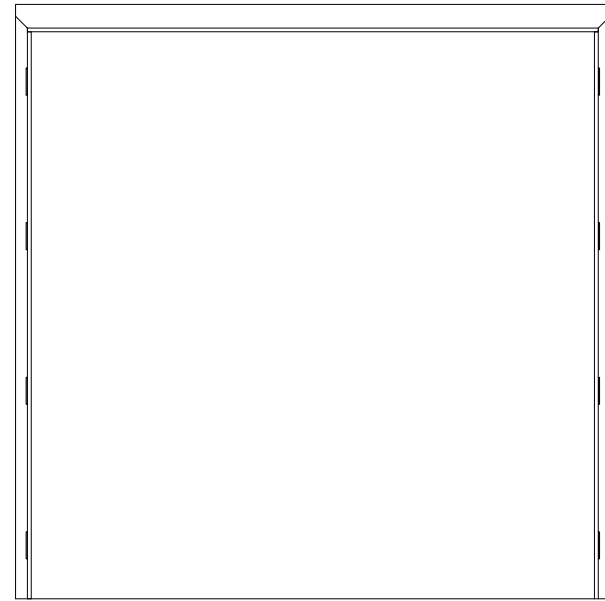
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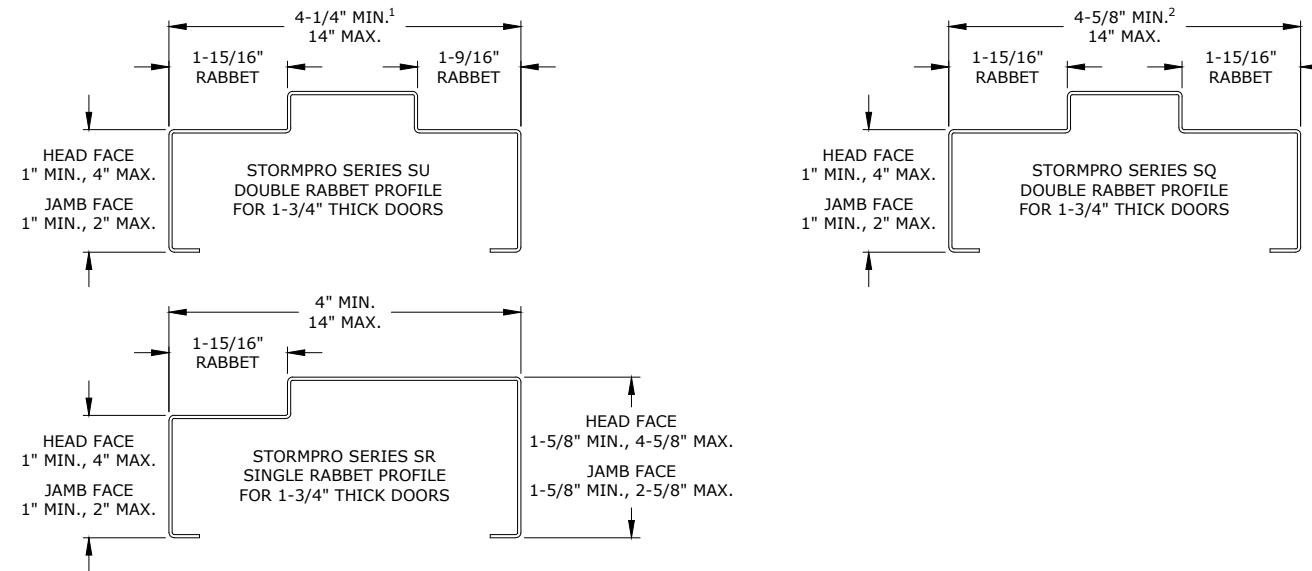
FRAME OPTIONS



- 4" MIN. / 14" MAX. DEPTH AVAILABLE IN 1/8" INCREMENTS
- KD CORNER 14 GA. ONLY
- WELDED CORNER 14 GA. MIN. / 12 GA. MAX.

\*CORNER WELDING PERMITTED ONLY AT MANUFACTURING OR AUTHORIZED STORMPRO DISTRIBUTOR STOCKING PROGRAM LOCATIONS\*

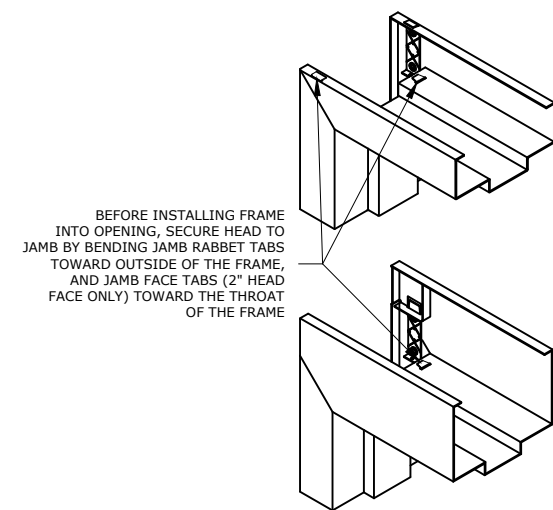
## FRAME PROFILES



### NOTES:

1. MINIMUM DEPTH APPLIES TO ALL ANCHOR CONDITIONS EXCEPT EXISTING OPENING ANCHORS. MINIMUM DEPTH FOR EXISTING OPENING ANCHORS IS 4-5/8".
2. MINIMUM DEPTH APPLIES TO ALL ANCHOR CONDITIONS EXCEPT EXISTING OPENING ANCHORS. MINIMUM DEPTH FOR EXISTING OPENING ANCHORS IS 5".

## KD CORNER INSTALLATION



BEFORE INSTALLING FRAME INTO OPENING, SECURE HEAD TO JAMB BY BENDING JAMB RABBET TABS TOWARD OUTSIDE OF THE FRAME, AND JAMB FACE TABS (2" HEAD FACE ONLY) TOWARD THE THROAT OF THE FRAME



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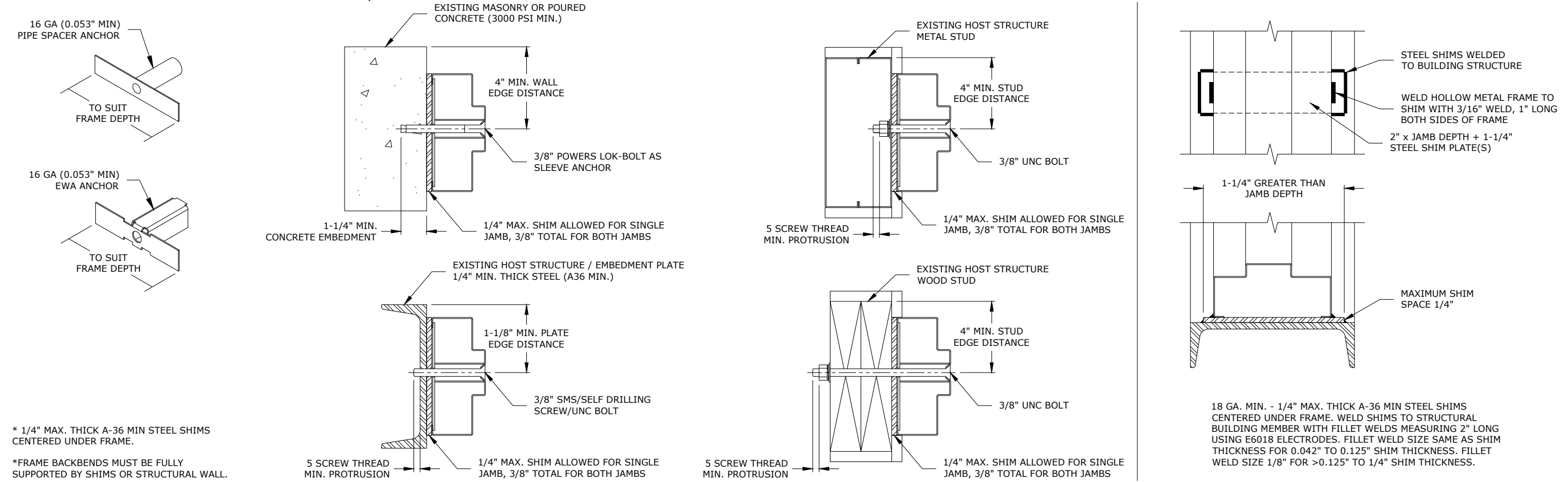
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FRAME ANCHORING OPTIONS - EXISTING OPENING / WELD TO BUILDING STRUCTURE



\* 1/4" MAX. THICK A-36 MIN STEEL SHIMS CENTERED UNDER FRAME.  
\* FRAME BACKBENDS MUST BE FULLY SUPPORTED BY SHIMS OR STRUCTURAL WALL.

Head and/or Sill Anchor Locations

Single Openings		
Opening Size	Anchor Type	Anchor Spacing
Up to and including 4'0" x 8'0"	N/A	None required.
Paired Openings		
Opening Size	Anchor Type	Anchor Spacing
Up to and including 6'0" x 7'0"	Existing Wall Anchors: Powers $\frac{3}{8}$ " Lok-Bolt AS Sleeve Anchor or $\frac{3}{8}$ " SMS/Self Drilling Screw/UNC Bolt	Minimum 4 anchors. On both sides of the door meeting edge centerline at 8" and 15" from door meeting edge centerline.
Greater than 6'0" x 7'0" and up to and including 7'0" x 7'0"	Existing Wall Anchors: Powers $\frac{3}{8}$ " Lok-Bolt AS Sleeve Anchor or $\frac{3}{8}$ " SMS/Self Drilling Screw/UNC Bolt	Minimum 6 anchors. On both sides of the door meeting edge centerline at 8", 15", and 22" from door meeting edge centerline.
Greater than 7'0" x 7'0" and up to and including 8'0" x 8'0"	Existing Wall Anchors: Powers $\frac{3}{8}$ " Lok-Bolt AS Sleeve Anchor or $\frac{3}{8}$ " SMS/Self Drilling Screw/UNC Bolt	Minimum 6 anchors. On both sides of the door meeting edge centerline at 8", 15", and 24" from door meeting edge centerline.
Up to and including 8'0" x 8'0"	Welded to Building Structure	Minimum 3 weld locations and must weld both faces of the frame at each location. One at the door meeting edge centerline and on both sides 6" from the door meeting edge centerline.

For unequal width pairs, head/sill anchor quantity/spacing for each side of the door meeting edge centerline shall be determined as though the leaf size was part of an equal width pair.

Jamb Anchor Locations

Single Openings		
Opening Size	Anchor Type	Anchor Spacing
Up to and including 3'0" x 7'0"	Existing Wall Anchors: Powers $\frac{3}{8}$ " Lok-Bolt AS Sleeve Anchor or $\frac{3}{8}$ " SMS/Self Drilling Screw/UNC Bolt	8" max. from sill, 4" max. from head rabbet, and 21" max. on center.
Greater than 3'0" x 7'0" and up to and including 4'0" x 8'0"	Existing Wall Anchors: Powers $\frac{3}{8}$ " Lok-Bolt AS Sleeve Anchor or $\frac{3}{8}$ " SMS/Self Drilling Screw/UNC Bolt	8" max. from sill, 4" max. from head rabbet, and 18" max. on center.
Up to and including 4'0" x 8'0"	Welded to Building Structure	Must weld on both faces of the frame at each location. 12" max. from sill, 10" max. from head rabbet, and 24" max. on center.
Paired Openings		
Opening Size	Anchor Type	Anchor Spacing
Up to and including 6'0" x 7'0"	Existing Wall Anchors: Powers $\frac{3}{8}$ " Lok-Bolt AS Sleeve Anchor or $\frac{3}{8}$ " SMS/Self Drilling Screw/UNC Bolt	8" max. from sill, 4" max. from head rabbet, and 24" max. on center.
Greater than 6'0" x 7'0" and up to and including 7'0" x 7'0"	Existing Wall Anchors: Powers $\frac{3}{8}$ " Lok-Bolt AS Sleeve Anchor or $\frac{3}{8}$ " SMS/Self Drilling Screw/UNC Bolt	8" max. from sill, 4" max. from head rabbet, and 21" max. on center.
Greater than 7'0" x 7'0" and up to and including 8'0" x 8'0"	Existing Wall Anchors: Powers $\frac{3}{8}$ " Lok-Bolt AS Sleeve Anchor or $\frac{3}{8}$ " SMS/Self Drilling Screw/UNC Bolt	8" max. from sill, 4" max. from head rabbet, and 18" max. on center.
Up to and including 8'0" x 8'0"	Welded to Building Structure	Must weld on both faces of the frame at each location. 12" max. from sill, 10" max. from head rabbet, and 24" max. on center.



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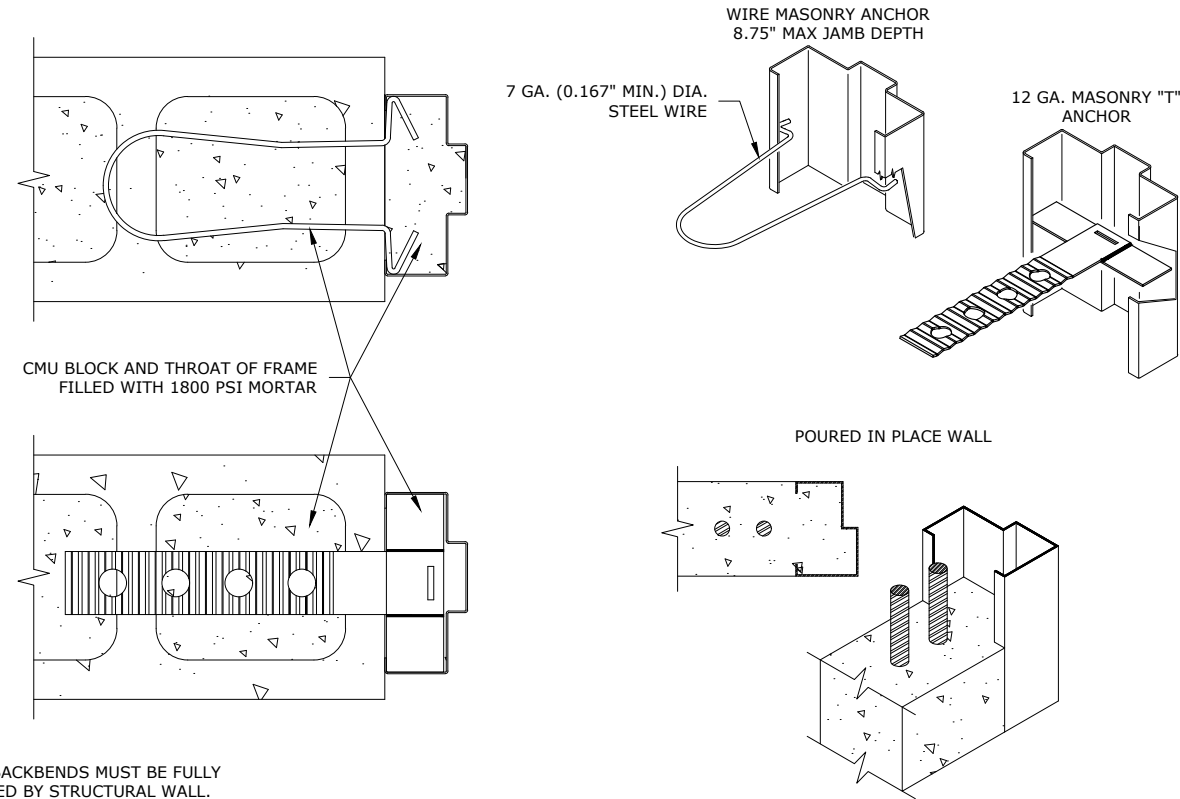
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FRAME ANCHORING OPTIONS - MASONRY ANCHORS



\*FRAME BACKBENDS MUST BE FULLY SUPPORTED BY STRUCTURAL WALL.

Jamb Anchor Locations

Single Openings		
Opening Size	Anchor Type	Anchor Spacing
Up to and including 4'0" x 8'0"	12 Ga. Masonry "T" Anchor	8" max. from sill, 6" max. from head rabbet, and 24" max. on center.
Up to and including 3'0" x 7'0"	Wire Masonry Anchor	12" max. from sill, 10" max. from head rabbet, and 16" max. on center.
Greater than 3'0" x 7'0" and up to and including 4'0" x 8'0"	Wire Masonry Anchor	12" max. from sill, 10" max. from head rabbet, and 14" max. on center.
Paired Openings		
Opening Size	Anchor Type	Anchor Spacing
Up to and including 8'0" x 8'0"	12 Ga. Masonry "T" Anchor	8" max. from sill, 6" max. from head rabbet, and 24" max. on center.
Up to and including 7'0" x 7'0"	Wire Masonry Anchor	12" max. from sill, 10" max. from head rabbet, and 16" max. on center.
Greater than 7'0" x 7'0" and up to and including 8'0" x 8'0"	Wire Masonry Anchor	12" max. from sill, 10" max. from head rabbet, and 14" max. on center.

Paired openings utilizing wire masonry or masonry "T" anchors must use existing opening or weld to building head/sill anchoring as shown on sheet 5.



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 9159 TELECOM DRIVE  
 MILAN, TN 38358

COMMERCIAL STEEL IMPACT PROTECTIVE SYSTEM  
 SIDE-SWINGING DOOR ASSEMBLY WITH EXIT DEVICE HARDWARE  
 FBC EIGHTH EDITION (2023)  
 FLORIDA PRODUCT APPROVAL # 40296.6

REV	DESCRIPTION	DRWN	CHKD	DATE
0	ORIGINAL ISSUE	PM	DC	01/06/22
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 UL FILE #: R27575  
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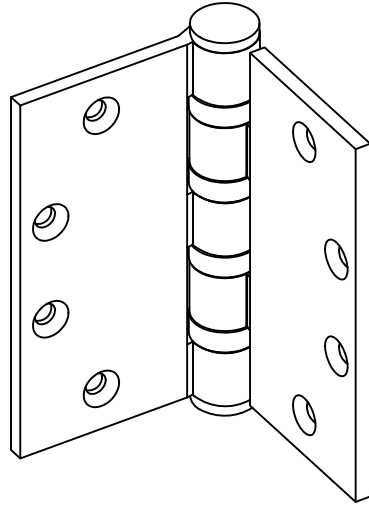
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# CECO DOOR STORMPRO EXIT DEVICE DOOR ASSEMBLY - TORNADO SHELTER

PRODUCTS ILLUSTRATED IN THIS DOCUMENT MEET REQUIREMENTS OF ICC 500-2020 IMPACT PROTECTIVE SYSTEMS CERTIFIED FOR TORNADO SHELTERS

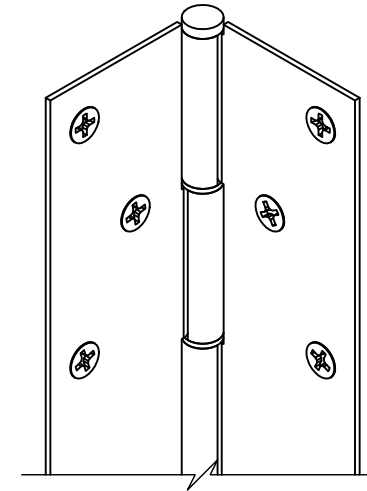
DESIGN PRESSURE: ±284 PSF MISSILE CRITERIA: 15-LB LUMBER 2 X 4 @ 100 MPH

HINGE OPTIONS



Butt Hinges

Manufacturer	Model/Series	Door Swing
McKinney	SP3386 or SP3786 Butt Hinges (4-1/2" x 4-1/2", 4-1/2" x 5", 4-1/2" x 6", 4-1/2" x 7", 4-1/2" x 8", 5" x 4-1/2", 5" x 5", 5" x 6", 5" x 7", & 5" x 8" - with or without NRP or QC options.)	Out-Swing



Continuous Hinges

Manufacturer	Model/Series	Door Swing
Markar	FM300, HG305, HG315, HG322, FM344, or FM600 Continuous Hinge (with or without CEPT, ETAP, EL, PoE, HT, Welded End Pin, Security Stud, or Tamper-proof Fastener options)	Out-Swing
	FM3500 or HG3505 Continuous Hinge (with or without CEPT, ETAP, EL, PoE, Welded End Pin, Security Stud, or Tamper-proof Fastener options)	Out-Swing
	FM300WT or HG305WT10 Wide Throw Continuous Hinge (with or without CEPT, ETAP, EL, PoE, HT, Welded End Pin, Security Stud, or Tamper-proof Fastener options)	Out-Swing
	FM/SC325, HG326, or HG329 Swing Clear Continuous Hinge (with or without HT, Welded End Pin, or Tamper-proof Fastener options)	Out-Swing
	FS301, FS302, HS303, HM304, HG306, or FS321 Continuous Hinge (with or without HT, Welded End Pin, or Tamper-proof Fastener option)	Out-Swing
	FS3501 or FS3502 Continuous Hinge (with or without Welded End Pin or Tamper-proof Fastener option)	Out-Swing
FS/SC309, HG310, or HG311 Swing Clear Continuous Hinge (with or without HT, Welded End Pin, or Tamper-proof Fastener option)	Out-Swing	



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# CECO DOOR STORMPRO EXIT DEVICE ASSEMBLY - TORNADO SHELTER

PRODUCTS ILLUSTRATED IN THIS DOCUMENT MEET REQUIREMENTS OF ICC 500-2020 IMPACT PROTECTIVE SYSTEMS CERTIFIED FOR TORNADO SHELTERS

DESIGN PRESSURE: ±284 PSF MISSILE CRITERIA: 15-LB LUMBER 2 X 4 @ 100 MPH

OPTIONAL ACCESSORIES

## Door Closers

Manufacturer	Model/Series	Notes
Corbin Russwin	DC8000 Series	Thru-bolt mounting of body to door only
Norton	7100SZ Series Closer/Holder or 7200 Series Closer/Holder	Threat side mounting only
	7500 Series or 7700PT Series Closer/Holder	Thru-bolt mounting of body to door only
Sargent	281 Series, 351 EHT Closer/Holder, or 2409 Series Closer/Holder	Thru-bolt mounting of body to door only
	2900 Series Closer/Holder	Threat side mounting only
Yale	4400 Series	Thru-bolt mounting of body to door only

## Door Operators

Manufacturer	Model/Series	Notes
Norton	5600 Series, 5700 Series, 6000 Series, or 6300 Series	Threat side mounting only
	5800 Series	Thru-bolt mounting of body to door only

## Door Holders

Manufacturer	Model/Series	Notes
Rixson	9 Series - Mechanical Stop/Holder	
	980M, 990M, 991M, 996M, 997M, 998/998M, or 999M - Electromechanical	Thru-bolt mounting only
Sargent	1560, 1561, or 1562 - Electromechanical	Thru-bolt mounting only
Rockwood	491S or 494S - Mechanical	

## Door Coordinators

Manufacturer	Model/Series	Notes
Rockwood	576	

## Electronic Power Transfer

Manufacturer	Model/Series	Notes
Securitron	CEPT	
	ICPT	

## Door Position Switches

Manufacturer	Model/Series	Notes
Securitron	DPS-M	3/4" or 1" diameter hole in edge or top of door and frame

## Mullion

Manufacturer	Model/Series	Notes
Sargent	HC980, 12-HC980	For assemblies 9, 10, 11, or 15 only
Corbin Russwin	FE707A, FE708A, or FE772A	For assemblies 9, 10, 11, or 15 only

## Seals

Manufacturer	Model/Series	Notes
Pemko	S77, S771, S771x6, S772, S773, S776, S776x6, HS2000, HS2000xS44, HS2000xS88, 5110, P240, P241, P242, P243, P244, P260, P261, P262, P263, P264, P265, P266, P380, P381, P382, P384, P385, P386, P387, P388, P390, P391, P392, P393, P394, P396, P397, P398, P484, P490, P491, P493, or P497 (with _NB, _S, _PK, _V, _R, _Q, SSE, SSR, SSS, SSN, _SPK, _P, CN, or _N Suffixes) - Adhesive Applied Perimeter Seals	
	29045, 29344, 29346, 45041, 45061, 45100, 45137, 45175, 45250, 45400, 46062, 90041, 90062, 90100, 90137, 285, 290, 294, 296, 297, 303, 305, 306, 309, 312, 315, 316, 319, 321, 322, 330, 332, 345, 350, 351, 375, 379, 2815, 2891, 2892, 2893, 2902, 2903, 3151, 3452, 18041, 18050, 18061, 18062, 18100, 18137, 18175, 18250, 18400, 28945, 29310, 29313, 29324, 29326, 293100, 335, 336, 368, 307, 308, 56, or 57 (with _NB, _S, _PK, _V, _R, _Q, SSE, SSR, SSS, SSN, _SPK, _P, CN, _N or _M Suffixes) - Screw Applied Perimeter Seals	Threat side mounting only
	346 Rain Drip	Threat side mounting only

## Thresholds

Manufacturer	Model/Series	Notes
Pemko	173, 151, 270, 271, 272, 276, 573, 2715, 2716, 2748, 2749, 2750, 273x3, 273x4, 2746x6, 274x4, 166, 154, 169, 170, 171, 172, 175, 176, 1547, 1710, 1715, 1716, 1717, 1718, 1719, 2548, 2549, 2550, 252x2, 252x3, 253x3, 253x4, 253x6, 254x4, 254x5, 255x5, or 256x6 (with or without _FG, _SS, or _SSFG Suffixes) - Saddle Thresholds	Floor Strike must be mounted directly to structural floor
	157, 158, 2727, 766x5, 182 or 566x3 (with or without _FG or _SS Suffixes) - Offset Saddle Thresholds	Floor Strike must be mounted directly to structural floor
	273, 274, 278, 279, 2746, 2755, 252, 253, 254, 255, 256, 2555, or 2565 (with or without _SS Suffix) - Half Saddle Thresholds	Floor Strike must be mounted directly to structural floor
	766 or 566 Offset Half Saddle Threshold	Floor Strike must be mounted directly to structural floor
	2001, 2005, 2006, 2007, 2008, 2009, 2010, 2705, 273x224, 273x292, 2746x292, 274x224, 274x292, 278x224, 278x292, 279x224, 279x292, 159, 177, 179, 277, 1855, 252x226, 253x226, 254x226, or 255x226 (with or without _FG, _FGT, _FGP, _FGPK, _FGV, _P, _PK, _R, _SSFG, _STC, _T, or _V Suffixes) - Latching Panic Exit Saddle Thresholds	Floor Strike must be mounted directly to structural floor
18/1 or 14/1 - Plate Thresholds	Floor Strike must be mounted directly to structural floor	

## Door Viewers

Manufacturer	Model/Series	Notes
Rockwood	620 or 622	

## Protection

Manufacturer	Model/Series	Notes
Rockwood	BFLG1050 Series Rod Guard	For fire rated assemblies must be screw applied
	K1050 Kick Plate	For fire rated assemblies must be screw applied
Von Duprin	LGO-3 or LGO-4	Must be screw applied



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**GENERAL NOTES**

1. THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH ICC 500-2020, ICC/NSSA STANDARD FOR THE DESIGN AND CONSTRUCTION OF STORM SHELTERS - CHAPTER 8 (TEST METHODS FOR IMPACT AND PRESSURE TESTING).
2. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM.
3. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED PER SEPARATE ENGINEERING IN ACCORDANCE WITH THE GOVERNING CODE. DESIGN PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH THE CURRENT EDITION OF ASCE 7 AND 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.
4. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.2 SAFETY FACTOR IN ACCORDANCE WITH ICC 500-2020 SECTIONS 805 & 806.
5. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
6. THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS IS OUTSIDE THE SCOPE OF THIS CERTIFICATION AND SHALL BE VERIFIED BY OTHERS. OPTIONAL WOOD BUCKS OR EMBEDMENT PLATES (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
7. HARDWARE SHALL BE INSTALLED PER MANUFACTURERS' INSTRUCTIONS.
8. ALL BOLTS AND WASHERS (EXCLUDING INSTALLATION ANCHORS) SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 KSI, U.O.N.
9. ALL DISSIMILAR MATERIALS SHALL BE PAINTED, PLATED, OR OTHERWISE PROTECTED FROM CORROSION. ALL WOOD SHALL BE PROTECTED FROM EXPOSURE AND FROM CONTACT WITH DISSIMILAR MATERIALS.
10. COMPONENTS AND ACCESSORIES DESCRIBED HEREIN ARE PRESCRIPTIVE AND MAY NOT BE SUBSTITUTED IN ACCORDANCE WITH ICC 500-2020.
11. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATION ARE INTENDED.
12. ALTERATIONS, ADDITIONS, HIGHLIGHTING, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.
13. DOOR AND FRAME SHALL BE PERMANENTLY LABELED PER UL GUIDELINES CATEGORY ZHLL - PRODUCT FOR USE IN WINDSTORM RATED ASSEMBLIES - [ZHLL.Guideinfo](#).

**ADDITIONAL FRAME INFORMATION**

1. BUILDING WALLS MUST BE DESIGNED TO SUPPORT AND SUSTAIN LOADS DEVELOPED BY THE DOOR AND FRAME ASSEMBLY AND TRANSFER LOADS TO THE BUILDING STRUCTURE.
2. ROUGH OPENING MATERIAL, BY OTHERS, MUST BE INSTALLED PROPERLY TO TRANSFER LOADS TO THE BUILDING STRUCTURE.
3. ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
4. ANCHORS SHALL BE AS LISTED AND SPACED AS SHOWN IN THE TABLE FOR EACH GROUP OF PRODUCTS.
5. ANCHOR TYPES MAY BE MIXED WITHIN THE ASSEMBLY, BUT EACH INDIVIDUAL FRAME MEMBER MAY ONLY USE ONE TYPE OF ANCHOR.
6. IT IS RECOMMENDED THAT THE GAUGE OF THE FRAME BE EQUAL TO OR GREATER THAN THAT OF THE DOOR.



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