

V:\Projects\15-2607 CECO Commercial Steel Doors - FSA - Update FL 16355 for 2014 FBC\WP\2017 FBC Update\Drawings\15-2607b.2 CECO FLUSH SINGLE DOORS.dwg 10/16/2017 - 11:16am luiso

CECO FLUSH SINGLE DOORS

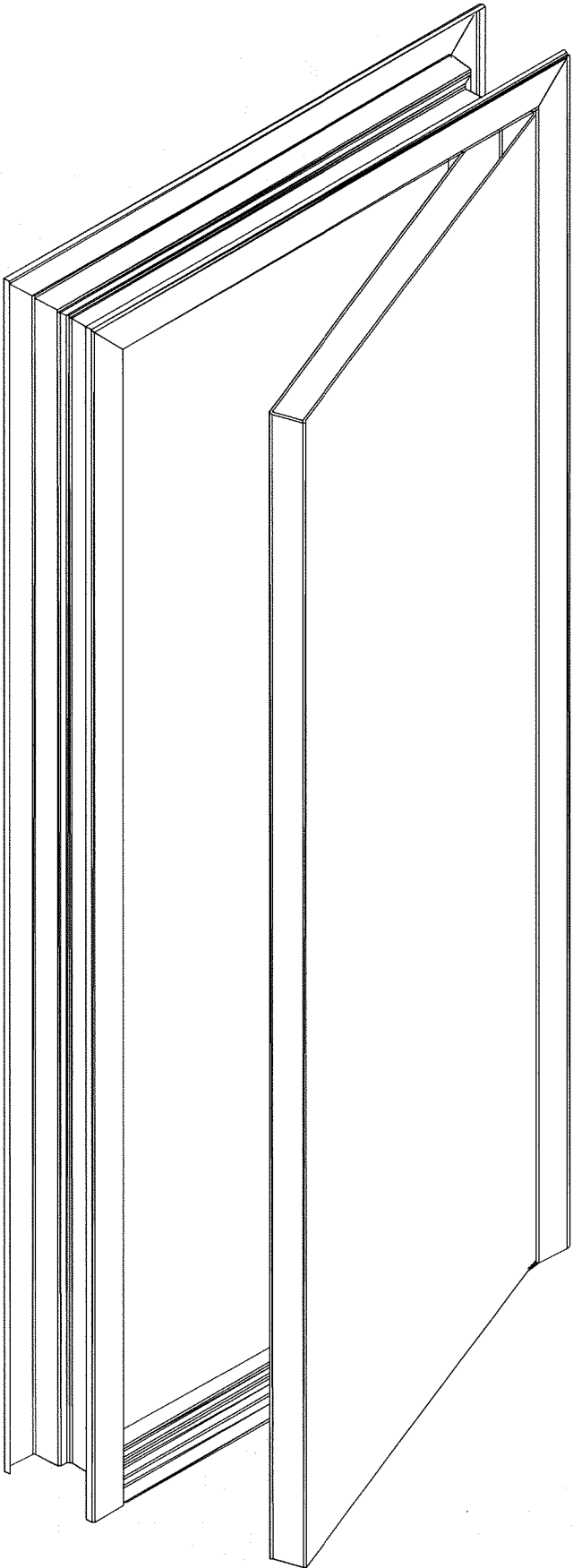
PRODUCT MEETS REQUIREMENTS OF THE HIGH VELOCITY HURRICANE ZONE.
LARGE MISSILE IMPACT (LMI) - LEVEL "D"

INSTRUCTIONS FOR USING THIS APPROVAL

- STEP 1:** USE THE DOOR ELEVATIONS PROVIDED ON PAGE 2 THROUGH 6 TO DETERMINE THE APPLICABLE ASSEMBLY NUMBER
- STEP 2:** MOVE TO THE CHART BELOW THE DOOR ELEVATIONS, ALSO ON PAGE 2 THROUGH 6, AND LOCATE YOUR ASSEMBLY NUMBER. BY SCANNING HORIZONTALLY THROUGH THE SAME ROW OF YOUR ASSEMBLY NUMBER, YOU WILL BE ABLE TO DETERMINE THE APPROVED **DOOR SERIES, MIN DOOR THICKNESS, MAX DESIGN PRESSURE, MAX DOOR OPENINGS, SWINGING OPTIONS, LATCHING HARDWARE FOR PANELS.**
- STEP 3:** USE PAGE 8 TO DETERMINE YOUR FRAMING PROFILES AND FRAMING CONSTRUCTION OPTIONS
- STEP 4:** USE THE TABLES ON PAGE 9 AND 10 TO DETERMINE THE ANCHOR TYPE AND SPACING, BASED ON THE YOUR PRESSURE AND SUBSTRATE CRITERIA
- STEP 5:** USE THE DETAILS PROVIDED ON PAGE 11 AND 12 TO DETERMINE YOUR WEATHERSTRIPPING OPTIONS

SHEET INDEX

# SHEET	DESCRIPTION
1	COVER SHEET
2-6	ASSEMBLY OPTIONS
7	OPTIONAL ASSEMBLY OPTIONS
8	DOOR FRAME DETAILS
9-10	DOOR FRAME ANCHORING INFORMATION
11-12	DOOR FRAME WEATHER STRIPPING INFORMATION
13-14	MANUFACTURERS AND ENGINEERS NOTES
14	TOTAL



ASSA ABLOY, the global leader in door opening solutions. FL# 16355.2

Ceco Door
ASSA ABLOY

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10/16/2017
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CECO DOOR PRODUCTS
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MILAN, TN 38358

COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMI)
FBC SIXTH EDITION (2017) FLORIDA PRODUCT APPROVAL #16355.2

REMARKS	DRWN	CHKD	DATE
INT ISSUE (12-CUI-08-03)	KL	FLB	06/28/13
FBC UPDATE	RWN	CSL	08/12/15
2017 FBC UPDATE	JEM	FLB	10/13/17

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1 of 14

CECO DOOR FLUSH SINGLE DOORS

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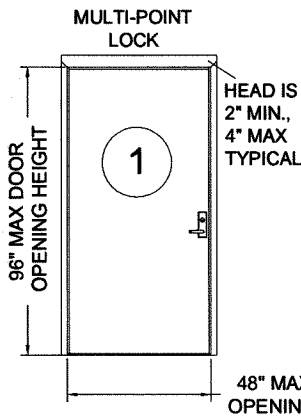
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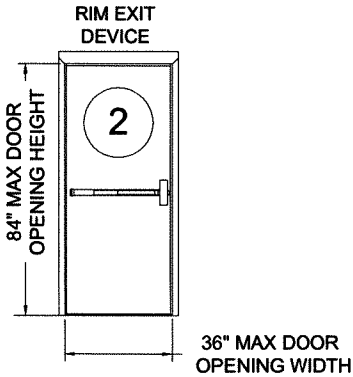
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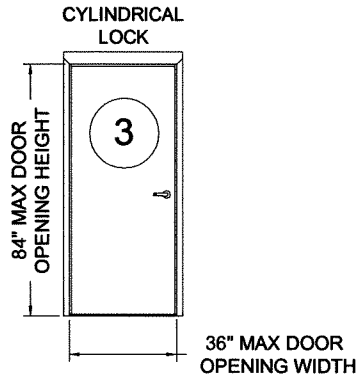
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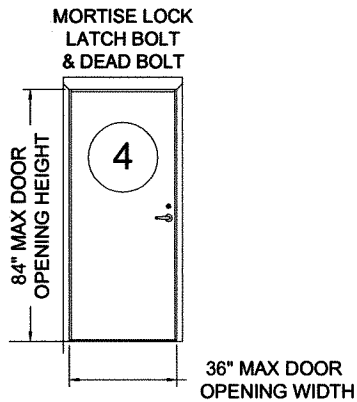
ASSEMBLY 1	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-150 PSF	+/-50 PSF



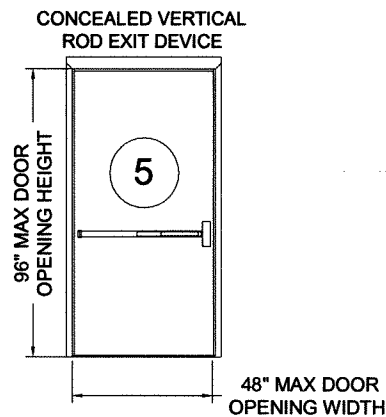
ASSEMBLY 2	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-100 PSF	+/-50 PSF



ASSEMBLY 3	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-100 PSF	+/-50 PSF



ASSEMBLY 4	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-100 PSF	+/-50 PSF



ASSEMBLY 5	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-70 PSF	+/-50 PSF

Assembly	Door Series	Minimum Door Gauge	Maximum Design Pressure (psf)		Maximum Door Opening (inches)		Door Swing	Latching Hardware Description		
			Positive	Negative	Width	Height		Type	Brand	Model
1	Regent, Imperial	14	150	150	48	96	Out Swing or In Swing*	Multi-Point Lock	Corbin Russwin	FE6800
									Sargent	FM7100
2	Trio, Trio-E	18	100	100	36	84	Out Swing	Rim Exit Device	Corbin Russwin	ED5200S(A) x M107
									Yale	7150(F)WS/7250M(F)WS
3	Trio, Trio-E	18	100	100	36	84	Out Swing or In Swing*	Cylindrical Lock	Corbin Russwin	CL3100
									Sargent	11 Line
4	Trio, Trio-E	18	100	100	36	84	Out Swing or In Swing*	Mortise Lock Latch Bolt & Dead Bolt	Corbin Russwin	ML2000, ML20600, ML20700, ML20800, ML20900
									Sargent	7800, 8200, R8200
									Yale	8800, S8800 x SYM
5	Fuego, Medallion, Legion, Omega, Regent, Ultra, Trio, Trio-E	16 Trio, Trio-E - 18	70	70	48	96	Out Swing	Concealed Vertical Rod	Sargent	HC-MD-8600, HC-12-8600, HC-MD-12-8600, WS-MD-8600, WS-12-8600, WS-MD-12-8600
Hinges	Butt	4-1/2" x 4-1/2" 0.134" thick steel hinges or any FBC approved hinges may be used. Any SDI member hinge locations may be used.								
	Continuous	McKinney HG305, MCK-12 HD, MCK-14HD, MCK-25HD; Markar FM100, FM200, FM300, FM3500, FM100, or FM1111; Pemko CFMSLF-HD continuous hinges may be used. Any FBC approved continuous hinge may be used.								
	Pivots	Rixson 195 Pivot set with M19 intermediate pivots may be used								
Auxiliary Hardware		1" diameter preparations for door position switches, Door position switches that fit in a cutout measuring 1.25" x 4.875", and Securitron EPT, EPTL, CEPT and SEPT maybe used. Maglocks may be used in addition to the hardware listed above. Viewers with 1" and smaller hole preparation may be								

*In-Swing Configurations not approved for water infiltration.
See Hardware notes for additional Hardware options.

CECO DOOR PRODUCTS

DIVISION OF ASSA ABLOY DOOR GROUP, INC

9159 TELECOM DRIVE

MILAN, TN 38358

COMMERCIAL STEEL EXTERIOR DOORS

FLUSH SINGLE DOORS (LMI)

FBC SIXTH EDITION (2017) FLORIDA PRODUCT APPROVAL #16355.2

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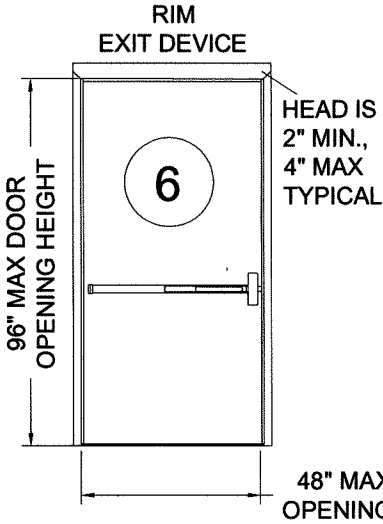
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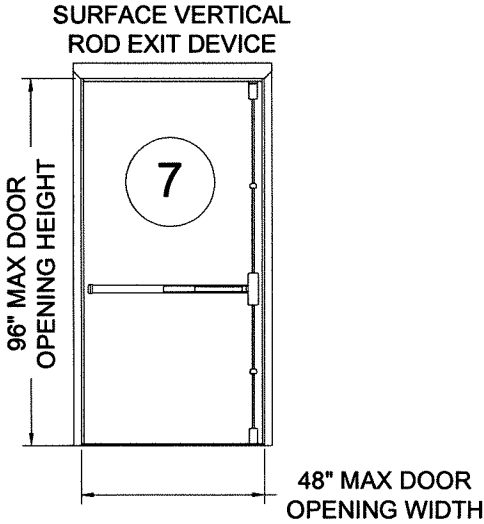
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CECO DOOR FLUSH SINGLE DOORS

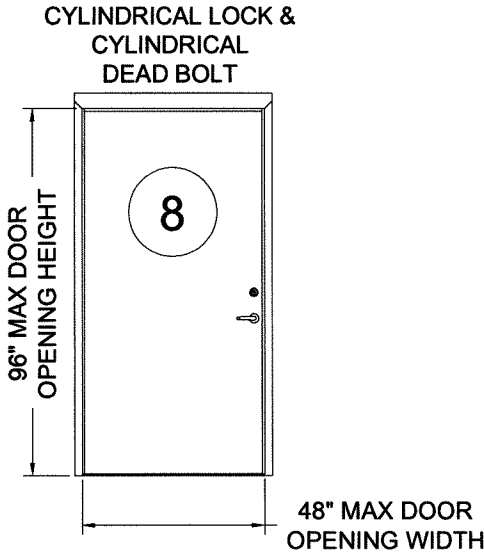
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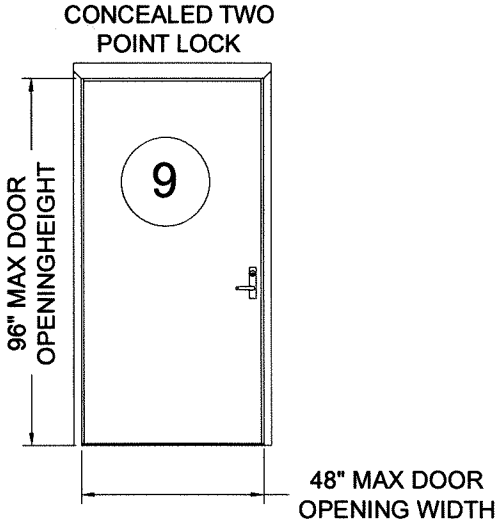
ASSEMBLY 6	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-70 PSF	+/-50 PSF



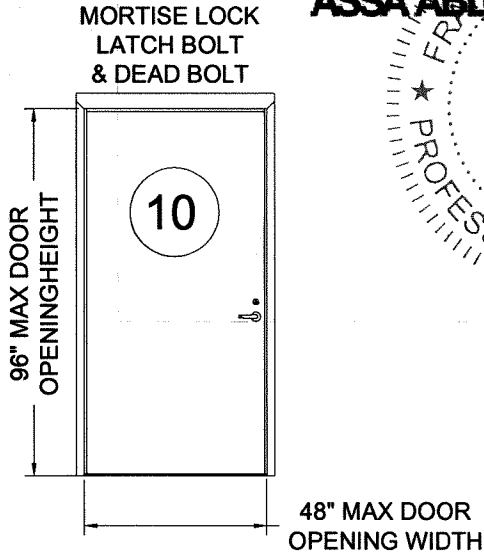
ASSEMBLY 7	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-70 PSF	+/-50 PSF



ASSEMBLY 8	
Design Pressure Where Water Infiltration Is NOT Needed	Design Pressure Where Water Infiltration IS Required
+/-70 PSF	+/-60 PSF



ASSEMBLY 9	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-70 PSF	+/-50 PSF



ASSEMBLY 10	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-70 PSF	+/-50 PSF

Assembly	Door Series	Minimum Door Gauge	Maximum Design Pressure (psf)		Maximum Door Opening (inches)		Door Swing	Latching Hardware Description		
			Positive	Negative	Width	Height		Type	Brand	Model
6	Fuego, Medallion, Legion, Omega, Regent, Ultra, Trio, Trio-E	16 Trio, Trio-E - 18	70	70	48	96	Out Swing	Rim Exit Device	Corbin Russwin	ED5200S(A) x M107
									Sargent	HC8800, 12-HC8800
									Yale	7150(F)WS/7250M(F)WS
7	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor, Trio, Trio-E	16 Trio, Trio-E - 18	70	70	48	96	Out Swing	Surface Vertical Rod	Corbin Russwin	ED5470(B) x M107
									Yale	7170(F)WS
8	Trio, Trio-E	18	70	70	48	96	Out Swing or In Swing*	Cylindrical Lock & Cylindrical Dead Bolt	Corbin Russwin	CL3100 DL3200 Dead Bolt
									Sargent	11 Line 480 Dead Bolt
9	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor, Trio, Trio-E	16 Trio, Trio-E - 18	70	70	48	96	Out Swing	Concealed Two Point Lock	Sargent	WS-12-7000, HC-12-7000
									Corbin Russwin	MP9800 (A/B) x M107
10	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor, Trio, Trio-E	16 Trio, Trio-E - 18	70	70	48	96	Out Swing or In Swing*	Mortise Lock Latch Bolt & Dead Bolt	Corbin Russwin	ML2000, ML20600, ML20700, ML20800, ML20900
									Sargent	7800, 8200, R8200
									Yale	8800, S8800 x SYM
Hinges	Butt	4-1/2" x 4-1/2" 0.134" thick steel hinges or any FBC approved hinges may be used. Any SDI member hinge locations may be used.								
	Continuous	McKinney HG305, MCK-12 HD, MGK-14HD, MCK-25HD; Markar FM100, FM200, FM300, FM3500, FM100, or FM1111; Pemko CFMSLF-HD continuous hinges may be used. Any FBC approved continuous hinge may be used.								
	Pivots	Rixson 195 Pivot set with M19 intermediate pivots may be used								
Auxiliary Hardware		1" diameter preparations for door position switches, Door position switches that fit in a cutout measuring 1.25" x 4.875", and Securitron EPT, EPTL, CEPT Maglocks may be used in addition to the hardware listed above. Viewers with 1" and smaller hole preparation may be used.								

*In-Swing Configurations not approved for water infiltration.
See Hardware notes for additional Hardware options.



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No PE0046549

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9159 TELECOM DRIVE
MILAN, TN 38358

COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMI)

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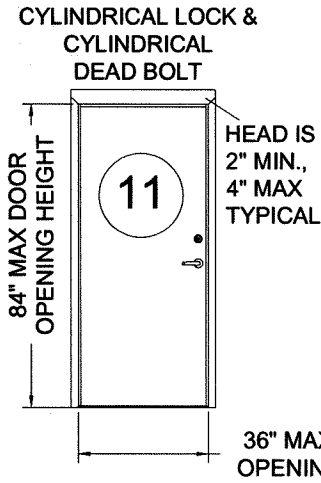
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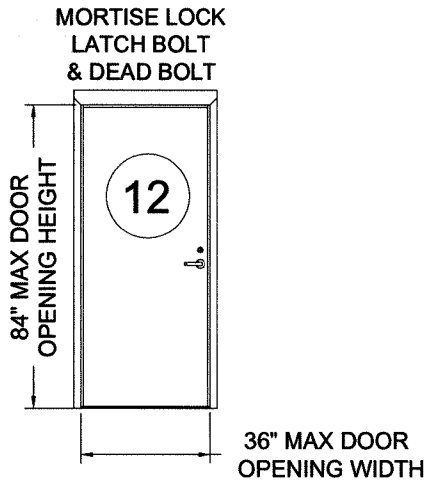
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CECO DOOR FLUSH SINGLE DOORS

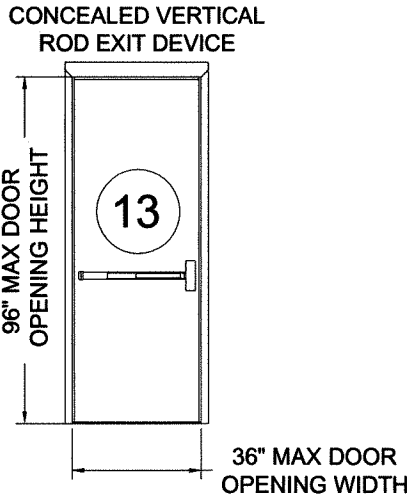
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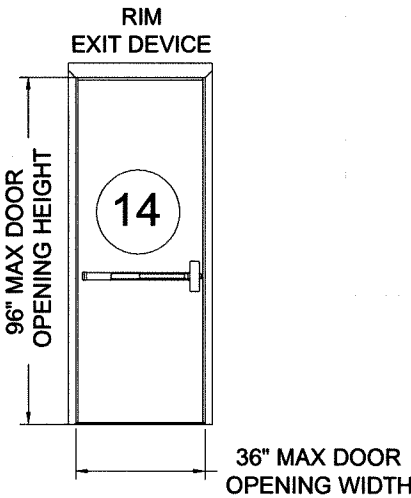
ASSEMBLY 11	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-70 PSF	+/-50 PSF



ASSEMBLY 12	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-70 PSF	+/-50 PSF



ASSEMBLY 13	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-60 PSF	+/-50 PSF



ASSEMBLY 14	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-60 PSF	+/-50 PSF

Assembly	Door Series	Minimum Door Gauge	Maximum Design Pressure (psf)		Maximum Door Opening (inches)		Door Swing	Latching Hardware Description		
			Positive	Negative	Width	Height		Type	Brand	Model
11	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor, Trio, Trio-E	18	70	70	36	84	Out Swing or In Swing*	Cylindrical Lock & Cylindrical Dead Bolt	Corbin Russwin	CL3300 DL3100 Deadbolt
									Sargent	6500, 10, 10G77 480 Deadbolt
									Yale	5400, 5400LN, D100 Deadbolt
12	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor	18	70	70	36	84	Out Swing or In Swing*	Mortise Lock Latch Bolt & Dead Bolt	Corbin Russwin	ML2000, ML20600, ML20700, ML20800, ML20900
									Sargent	7800, 8200, R8200
									Yale	8800, S8800 x SYM
13	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor	16	60	60	36	96	Out Swing	Concealed Vertical Rod	Sargent	HC-MD-8600, HC-12-8600, HC-MD-12-8600, WS-MD-8600, WS-12-8600, WS-MD-12-8600
14	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor	16	60	60	36	96	Out Swing	Rim Exit Device	Corbin Russwin	ED5200S(A) x M107
									Sargent	HC8800, 12-HC8800
									Yale	7150(F)WS/7250M(F)WS
Hinges	Butt	4-1/2" x 4-1/2" 0.134" thick steel hinges or any FBC approved hinges may be used. Any SDI member hinge locations may be used.								
	Continuous	McKinney HG305, MCK-12 HD, MCK-14HD, MCK-25HD; Markar FM100, FM200, FM300, FM3500, FM100, or FM1111; Pemko CFMSLF-HD continuous hinges may be used. Any FBC approved continuous hinge may be used.								
	Pivots	Rixson 195 Pivot set with M19 intermediate pivots may be used								
Auxiliary Hardware		1" diameter preparations for door position switches, Door position switches that fit in a cutout measuring 1.25" x 4.875", and Securitron EPT, EPTL, CEPT and SEPT maybe used. Maglocks may be used in addition to the hardware listed above. Viewers with 1" and smaller hole preparation may be								

*In-Swing Configurations not approved for water infiltration. See Hardware notes for additional Hardware options.



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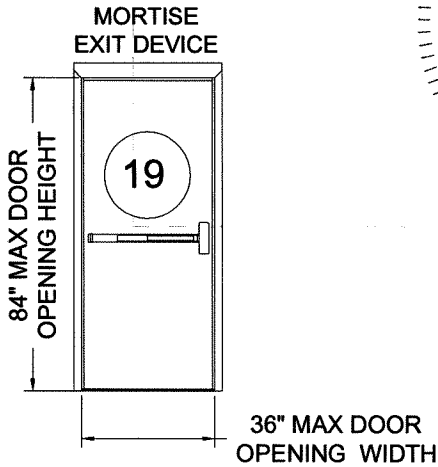
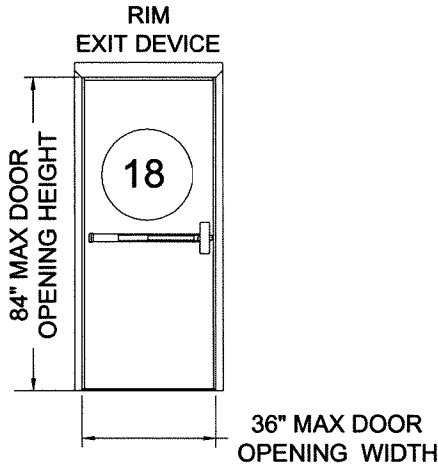
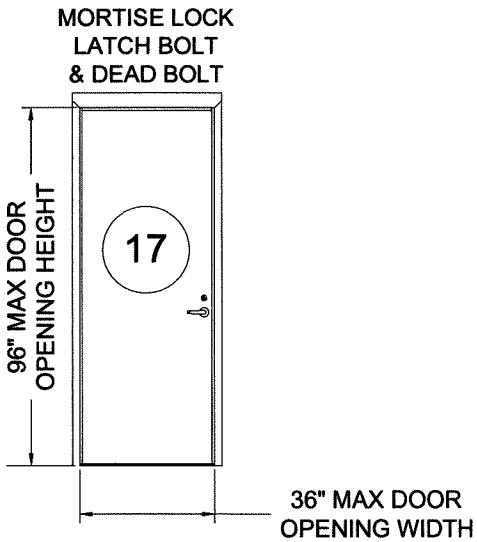
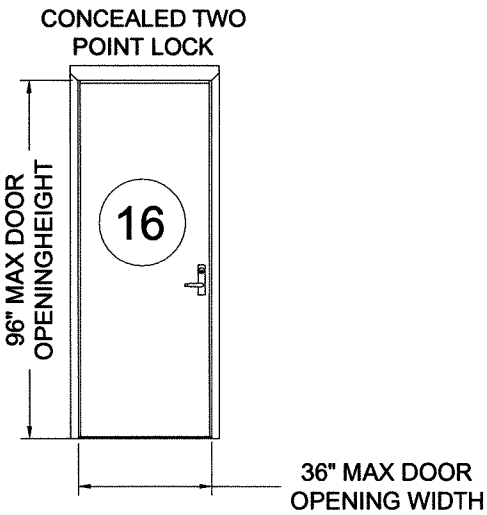
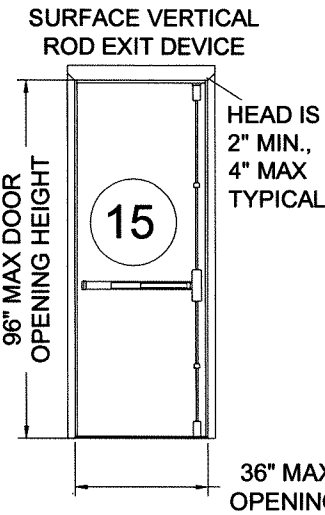
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ASSEMBLY 15	
Design Pressure Where Water Infiltration Is NOT Required	+/-60 PSF
Design Pressure Where Water Infiltration IS Required	+/-50 PSF

ASSEMBLY 16	
Design Pressure Where Water Infiltration Is NOT Required	+/-60 PSF
Design Pressure Where Water Infiltration IS Required	+/-50 PSF

ASSEMBLY 17	
Design Pressure Where Water Infiltration Is NOT Required	+/-70PSF
Design Pressure Where Water Infiltration IS Required	+/-50 PSF

ASSEMBLY 18	
Design Pressure Where Water Infiltration Is NOT Required	+/-60PSF
Design Pressure Where Water Infiltration IS Required	+/-50 PSF

ASSEMBLY 19	
Design Pressure Where Water Infiltration Is NOT Required	+/-60PSF
Design Pressure Where Water Infiltration IS Required	+/-50 PSF

Assembly	Door Series	Minimum Door Gauge	Maximum Design Pressure (psf)		Maximum Door Opening (inches)		Door Swing	Latching Hardware Description		
			Positive	Negative	Width	Height		Type	Brand	Model
15	Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor	16	60	60	36	96	Out Swing	Surface Vertical Rod	Corbin Russwin	ED5470(B) x M107
									Sargent	HC8700, 12-HC8700
									Yale	7170(F)WS
16	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor	16	60	60	36	96	Out Swing	Concealed Two Point Lock	Sargent	WS-12-7000, HC-12-7000
									Corbin Russwin	MP9800 (A/B) x M107
17	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor	16	60	60	36	96	Out Swing or In Swing*	Mortise Lock Latch Bolt & Dead Bolt	Corbin Russwin	ML2000, ML20600, ML20700, ML20800, ML20900
									Sargent	7800, 8200, R8200
									Yale	8800, S8800 x SYM
18	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor	16	60	60	36	84	Out Swing	Rim Exit Device	Corbin Russwin	ED5200S(A) x M107
									Sargent	HC8800, 12-HC8800
									Ving Card Elsafe S/S	VC3000
									Yale	7150(F)WS/7250M(F)WS
19	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor	18	60	60	36	84	Out Swing	Mortise Exit	Sargent	WS-8900 12-WS-8900
Hinges	Butt	4-1/2" x 4-1/2" 0.134" thick steel hinges or any FBC approved hinges may be used. Any SDI member hinge locations may be used.								
	Continuous	McKinney HG305, MCK-12 HD, MCK-14HD, MCK-25HD; Markar FM100, FM200, FM300, FM3500, FM100, or FM1111; Pemko CFMSLF-HD continuous hinges may be used. Any FBC approved continuous hinge may be used.								
	Pivots	Rixson 195 Pivot set with M19 intermediate pivots may be used								
Auxiliary Hardware		1" diameter preparations for door position switches, Door position switches that fit in a cutout measuring 1.25" x 4.875", and Securitron EPT, EPTL, Maglocks may be used in addition to the hardware listed above. Viewers with 1" and smaller hole preparation may be used.								

*In-Swing Configurations not approved for water infiltration. See Hardware notes for additional Hardware options.

CECO DOOR PRODUCTS

DIVISION OF ASSA ABLOY DOOR GROUP, INC

9159 TELECOM DRIVE
MILAN, TN 38358

COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMT)

FBC SIXTH EDITION (2017) FLORIDA PRODUCT APPROVAL #16355.2

REMARKS	DRWN	CHKD	DATE
INT ISSUE (12-CU-008-03)	KL	FLB	06/28/13
FBC UPDATE	RWN	CSL	06/12/15
2017 FBC UPDATE	JEM	FLB	10/13/17

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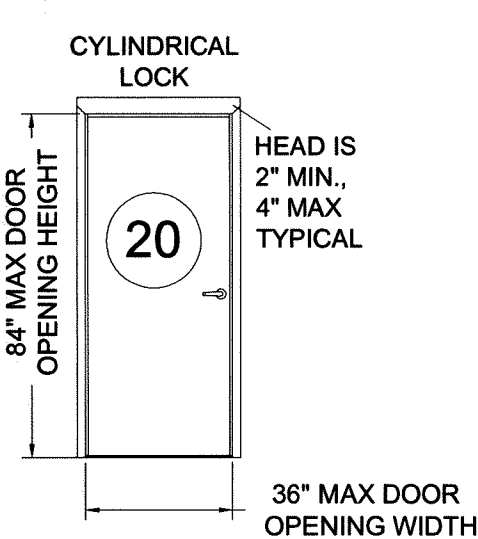
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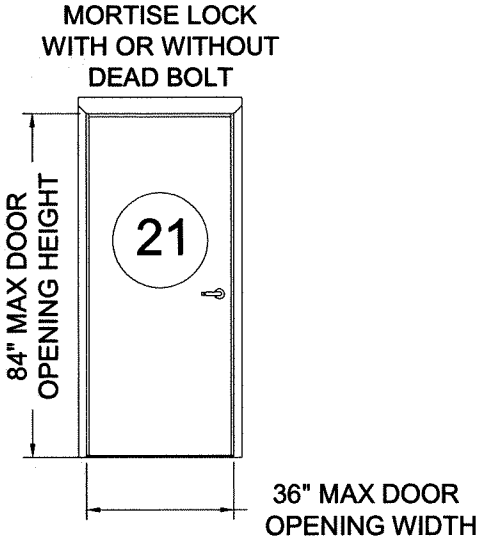
SCALE: NTS UNLESS NOTED

CECO DOOR FLUSH SINGLE DOORS

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ASSEMBLY 20	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-60 PSF	+/-50 PSF



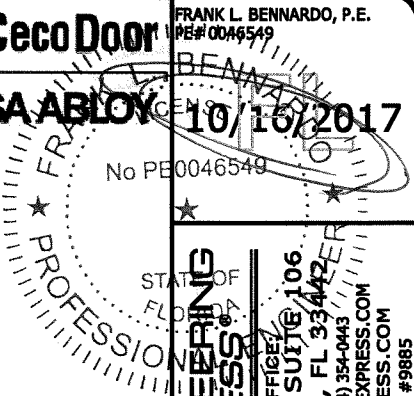
ASSEMBLY 21	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-60 PSF	+/-50 PSF

Assembly	Door Series	Minimum Door Gauge	Maximum Design Pressure (psf)		Maximum Door Opening (inches)		Door Swing	Latching Hardware Description		
			Positive	Negative	Width	Height		Type	Brand	Model
20	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor	18	60	60	36	84	Out Swing or In Swing*	Cylindrical Lock	Corbin Russwin	CL3100, CL3300, CL3500, CL3800, CL33900
									Sargent	6500, 7, 10, 10G77
									Yale	5300, 5300LN, 5400, 5400LN, S5400LN X SYM
21	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor	16	60	60	36 *	96	Out Swing or In Swing*	Mortise Lock Latch Bolt & Dead Bolt	Corbin Russwin	ML2000, ML20600, ML20700, ML20800, ML20900
									Sargent	7800, 8200, R8200
									VingCard Elsafe A/S	ANSI, Classic, Signature
									Yale	8800, S8800 x SYM
Hinges	Butt	4-1/2" x 4-1/2" 0.134" thick steel hinges or any FBC approved hinges may be used. Any SDI member hinge locations may be used.								
	Continuous	McKinney HG305, MCK-12 HD, MCK-14HD, MCK-25HD; Markar FM100, FM200, FM300, FM3500, FM100, or FM1111; Pemko CFMSLF-HD continuous hinges may be used. Any FBC approved continuous hinge may be used.								
	Pivots	Rixson 195 Pivot set with M19 intermediate pivots may be used								
Auxiliary Hardware		1" diameter preparations for door position switches, Door position switches that fit in a cutout measuring 1.25" x 4.875", and Securitron EPT, EPTL, Maglocks may be used in addition to the hardware listed above. Viewers with 1" and smaller hole preparation may be used.								

*In-Swing Configurations not approved for water infiltration.
See Hardware notes for additional Hardware options.



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CECO DOOR PRODUCTS
DIVISION OF ASSA ABLOY DOOR GROUP, INC

9159 TELECOM DRIVE
MILAN, TN 38358

COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMT)

FBC SIXTH EDITION (2017) FLORIDA PRODUCT APPROVAL #16355.2

REMARKS	DRWN	CHKD	DATE
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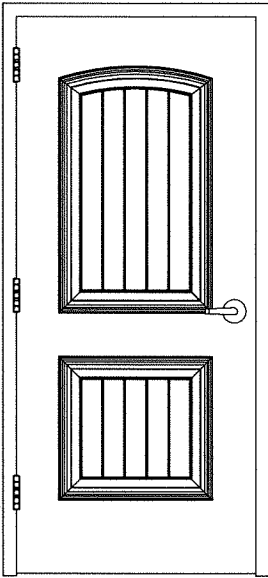
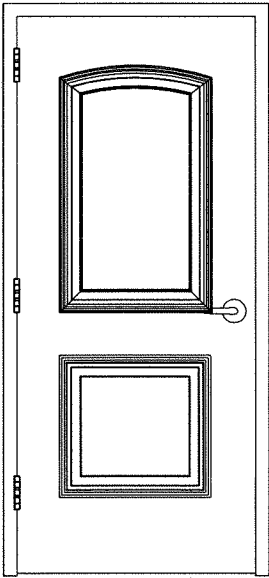
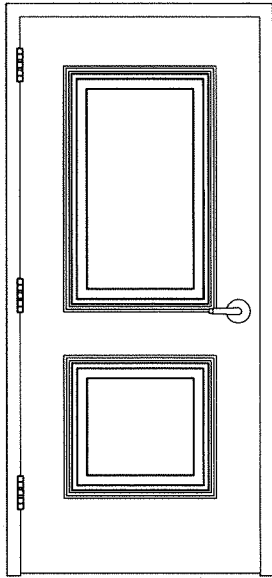
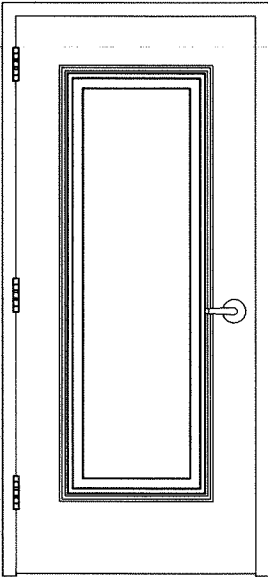
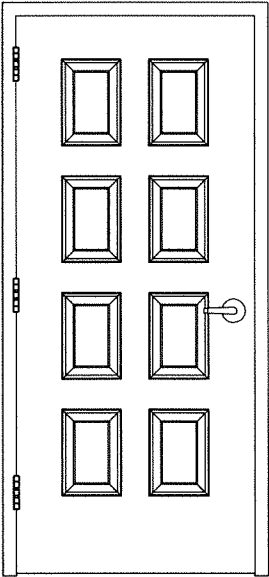
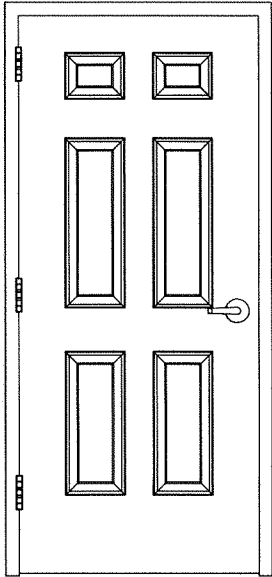
OF 14



CECO DOOR FLUSH SINGLE DOORS

PRODUCTS ILLUSTRATED IN THIS DOCUMENT ARE QUALIFIED FOR LARGE AND SMALL MISSILE IMPACT. LARGE MISSILE IMPACT IS 9 LB 2 X 4 AT 50 FEET PER SECOND OR 350 FT-LBS. (MISSILE LEVEL D)
PRODUCT MEETS REQUIREMENTS OF THE HIGH VELOCITY HURRICANE ZONE.

OPTIONAL ELEVATIONS



EMBOSSED PANEL DOORS LIMITED TO 18 GA STEEL
AND POLYURETHANE CORE

ASSA ABLOY, the global leader in door opening solutions. FL# 16355.2



ASSA ABLOY

FRANK L. BENNARDO, P.E.
PE# 9046549

10/16/2017

No PE0046549

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FRANK L. BERNARDO, P.E.
PE# 0046549

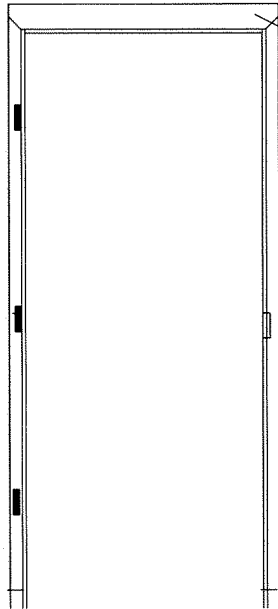
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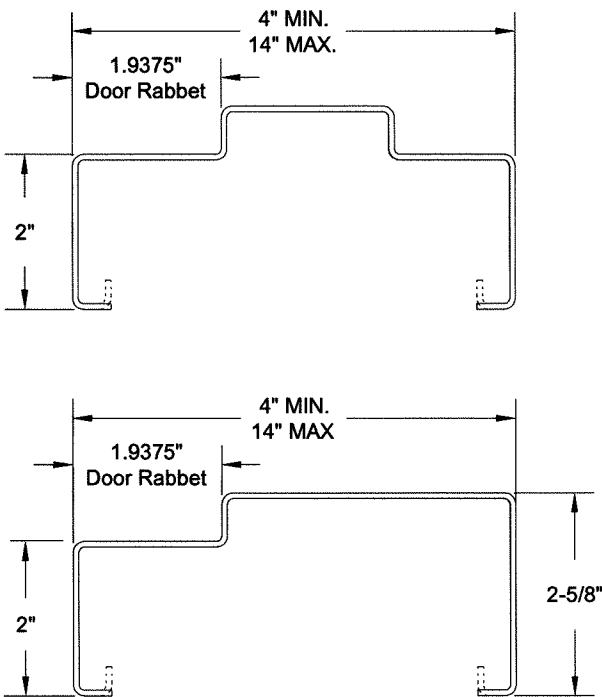


HEAD FACE
2" MIN,
4" MAX

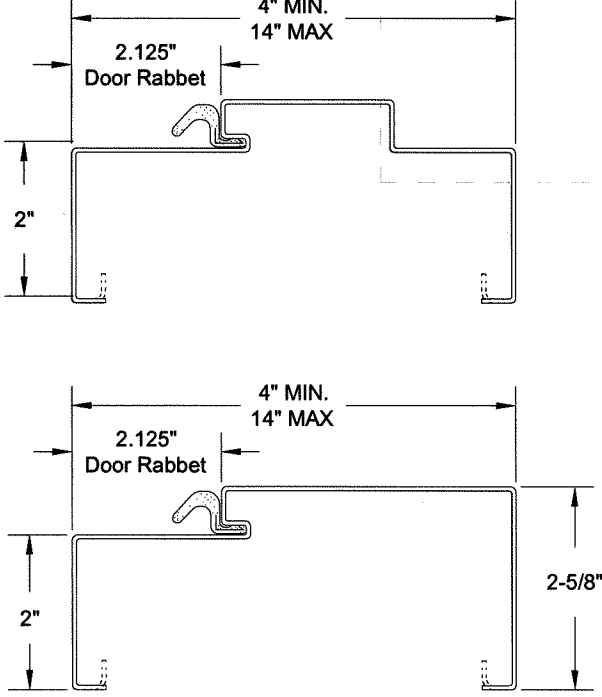
JAMB FACE
SEE PROFILES

3070 ± 100 PSF MAX. DESIGN PRESSURE
4080 ± 150 PSF MAX. DESIGN PRESSURE
4" MIN./14" MAX. DEPTH
KD 16 GA. MIN.
WELDED 16 GA MIN., 12 GA. MAX.
FOUR SIDED DOOR FRAME WITH WELDED CORNERS ALSO PERMITTED

FRAME PROFILES

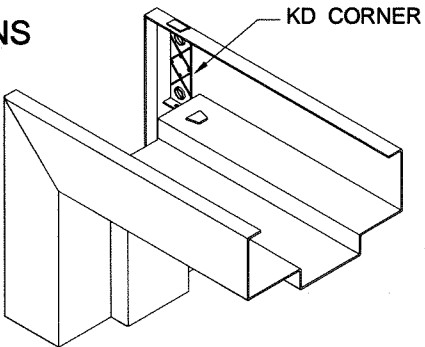


CONVENTIONAL PROFILE

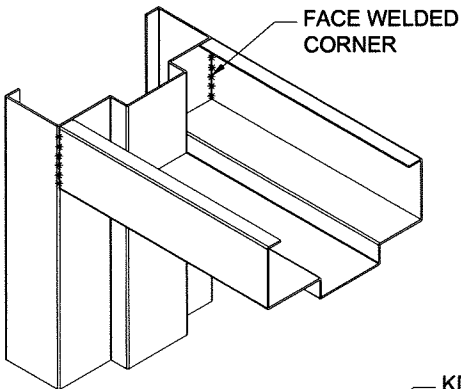


KERF PROFILE

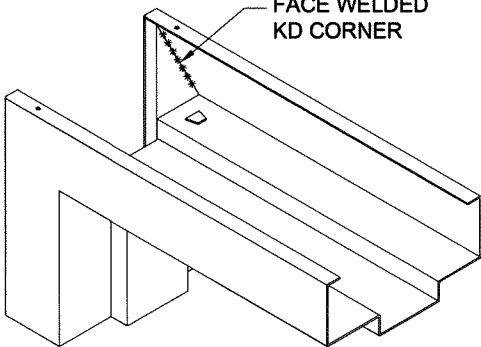
FRAME CONSTRUCTION OPTIONS



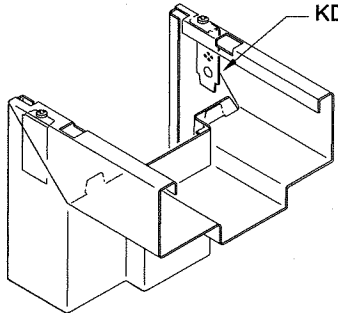
KD CORNER



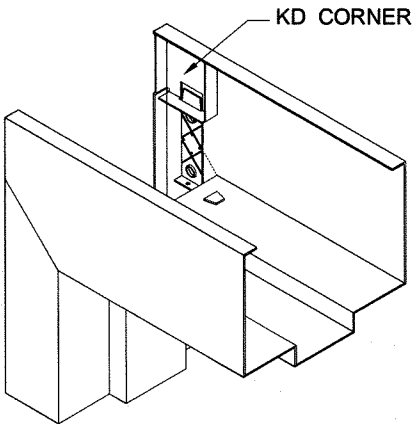
FACE WELDED
CORNER



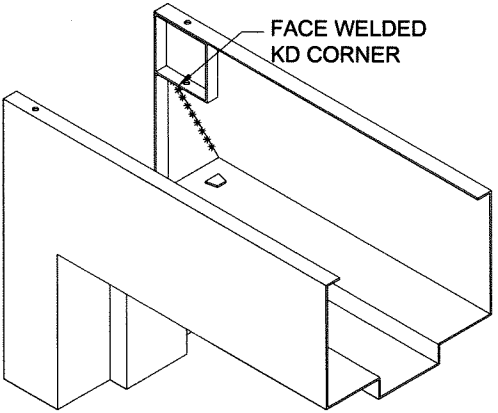
FACE WELDED
KD CORNER



KD CORNER



KD CORNER



FACE WELDED
KD CORNER

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9159 TELECOM DRIVE
MILAN, TN 38358

COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMT)

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V:\Projects\15-2607 CECO Commercial Steel Doors - FSA - Update FL 16355 for 2014 FBC\WP12017 FBC Update\Drawings\15-2607b.2 CECO FLUSH SINGLES.dwg 10/16/2017 - 11:18am luiso

CECO DOOR FLUSH SINGLE DOORS

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ASSA ABLOY 10/16/2017

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EXISTING MASONRY OR POURED CONCRETE, 3000 psi MIN.
WELDED PIPE SPACER OR EWA ANCHOR WITH 3/8" EXPANSION ANCHOR BOLTS USING 3/8" GRADE 5 BOLT
MINIMUM EDGE DISTANCE = 4.0"
MAXIMUM SHIM THICKNESS = 0.25"

HILTI KWIK BOLT 3 OR
POWERS LOK-BOLT

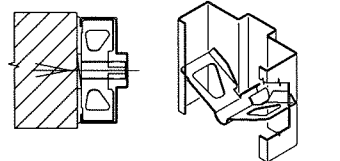
2 3/8" MIN.

16 GA (0.053" MIN)
PIPE SPACER ANCHOR

16 GA (0.053" MIN)
EWA ANCHOR

TO SUIT
JAMB DEPTH

TO SUIT
JAMB DEPTH



WELDED SLIP-IN ANCHOR
LIMITED TO 3'0" X 7'0" SINGLE

1/4" MAX. THICK A-36 STEEL SHIMS WELDED TO STRUCTURAL BUILDING MEMBER WITH FILLET WELDS MEASURING 2" LONG USING E6018 ELECTRODES. FILLET WELD SIZE SAME AS SHIM THICKNESS FOR 0.053" TO 0.125" SHIM THICKNESS. WELD SIZE 1/8" FOR > 0.125" TO 1/4" SHIM THICKNESS.

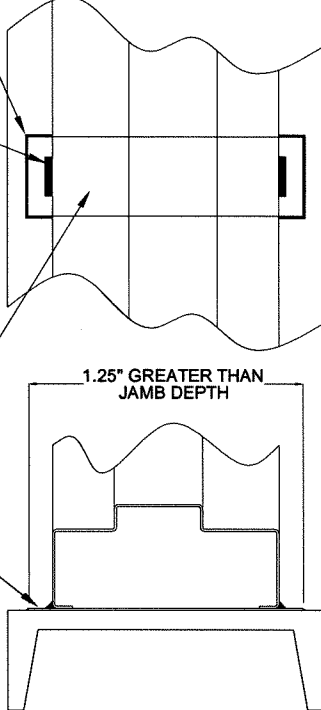
STEEL SHIMS WELDED
TO BUILDING STRUCTURE

WELD HOLLOW METAL FRAME
TO SHIM WITH 3/16" WELD,
1" LONG BOTH SIDES OF FRAME

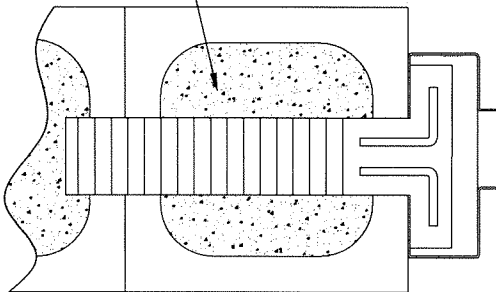
2" X 7" STEEL SHIM
PLATE(S), OR TO SUIT
FRAME JAMB DEPTH

MAXIMUM SHIM
SPACE 1/4"

1.25" GREATER THAN
JAMB DEPTH



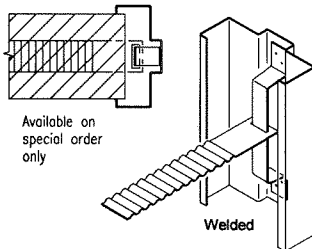
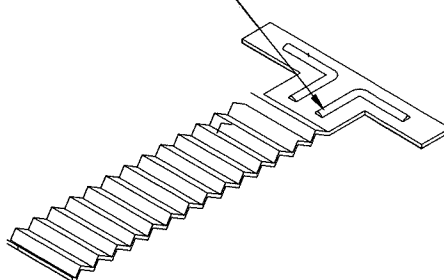
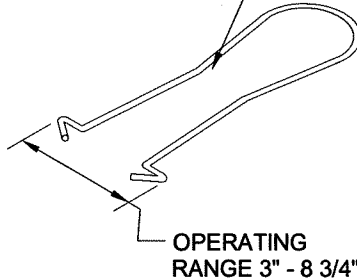
MAXIMUM SHIM THICKNESS 0.25
CMU BLOCK AND THROAT OF FRAME
FILLED WITH 3000 PSI MORTAR



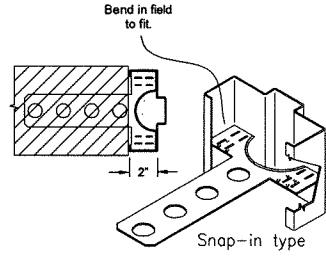
MASONRY WIRE ANCHOR
0.165" DIA. MIN.

16 GA (0.053" MIN)
MASONRY T ANCHOR

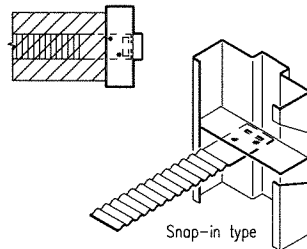
OPERATING
RANGE 3" - 8 3/4"



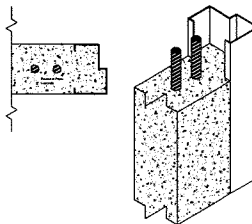
YOKE AND STRAP
MASONRY ANCHOR



MASONRY "T" ANCHOR
(ADJUSTABLE)



MASONRY "T" ANCHOR



POURED IN PLACE WALL

Expansion Shell Anchor Requirements for Jamb

Opening Height (inches)	Up to an including 100 psf			150 psf		
	Max. Distance From End of Jamb	Min. Anchor Quantity	Maximum Spacing (inches)	Max. Distance From End of Jamb	Min. Anchor Quantity	Maximum Spacing (inches)
Up to 84"	12	5	19	12	5	19
90	12	5	19	12	5	19
96	12	6	19	12	6	19

Masonry T, Masonry Wire, Masonry Strap, and Welded to the Building Structure
Anchor Requirements for Jamb

Opening Height (inches)	Up to an including 100 psf		150 psf	
	Min. Anchor Quantity	Maximum Spacing (inches)	Min. Anchor Quantity	Maximum Spacing (inches)
Up to 84"	4	24	5	24
90	4	24	5	24
96	4	24	5	24



CECO DOOR FLUSH SINGLE DOORS

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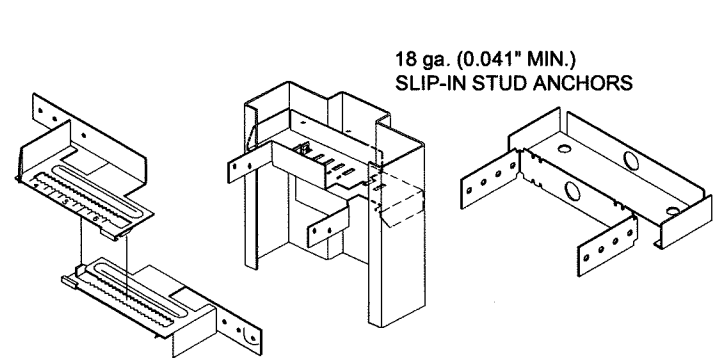
FRANK L. BENNARDO, P.E.
PE# 0046549

ASSA ABLOY 10/16/2017

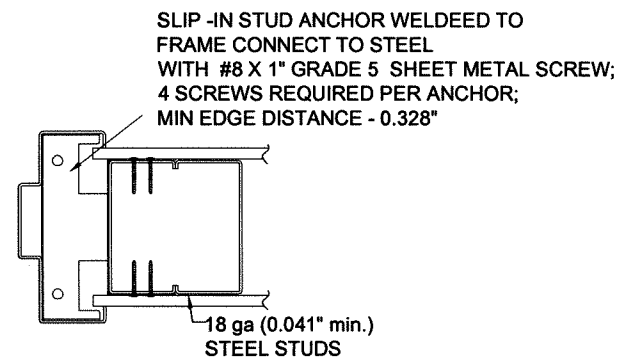
No PE0046549



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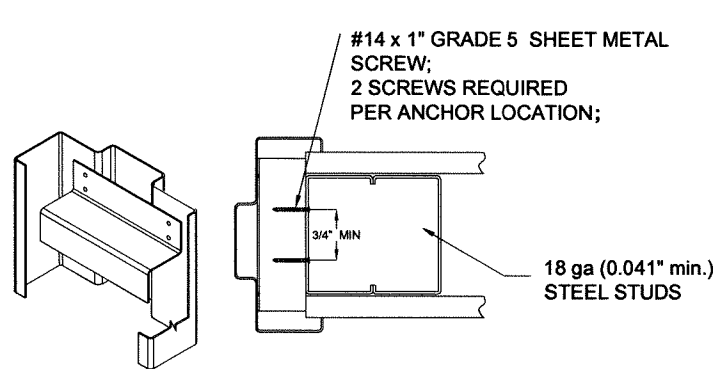


18 ga. (0.041" MIN.)
SLIP-IN STUD ANCHORS



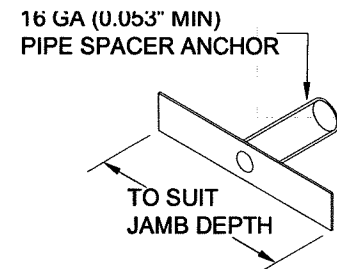
SLIP-IN STUD ANCHOR WELDEED TO
FRAME CONNECT TO STEEL
WITH #8 X 1" GRADE 5 SHEET METAL SCREW;
4 SCREWS REQUIRED PER ANCHOR;
MIN EDGE DISTANCE - 0.328"

18 ga (0.041" min.)
STEEL STUDS



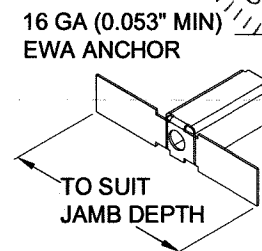
#14 x 1" GRADE 5 SHEET METAL
SCREW;
2 SCREWS REQUIRED
PER ANCHOR LOCATION;

18 ga (0.041" min.)
STEEL STUDS



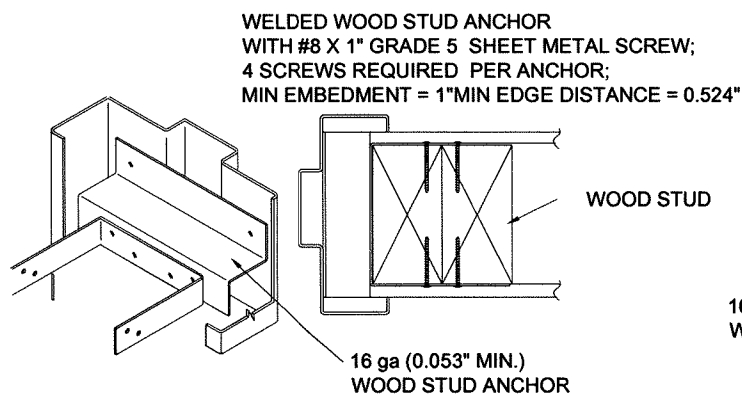
16 GA (0.053" MIN)
PIPE SPACER ANCHOR

TO SUIT
JAMB DEPTH



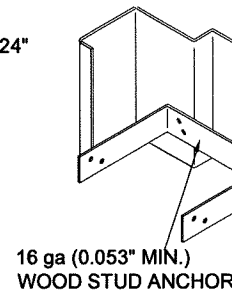
16 GA (0.053" MIN)
EWA ANCHOR

TO SUIT
JAMB DEPTH



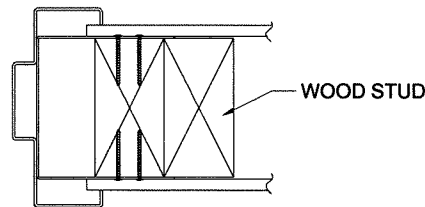
WELDED WOOD STUD ANCHOR
WITH #8 X 1" GRADE 5 SHEET METAL SCREW;
4 SCREWS REQUIRED PER ANCHOR;
MIN EMBEDMENT = 1" MIN EDGE DISTANCE = 0.524"

WOOD STUD

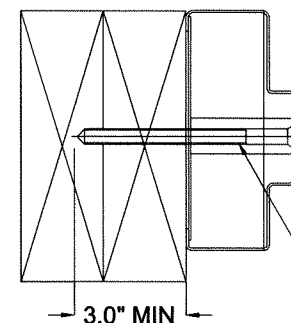


16 ga (0.053" MIN.)
WOOD STUD ANCHOR

WELED WOOD STUD ANCHOR
WITH #8 X 1" GRADE 5 SHEET METAL SCREW;
4 SCREWS REQUIRED PER ANCHOR;
MIN EMBEDMENT = 1" MIN EDGE DISTANCE = 0.524



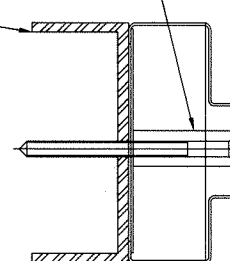
WOOD STUD



WELDED PIPE SPACER OR EWA ANCHOR
WITH 3/8" WOOD SCREW OR LAG BOLT
MINIMUM EDGE DISTANCE = 1.75"
MAXIMUM SHIM THICKNESS = 0.25"

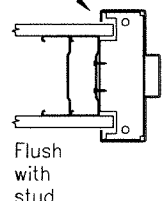
WELDED PIPE SPACER OR EWA ANCHOR
WITH 3/8" (GRADE 2 MIN.) TAP-IN BOLT
WITH 3 PINCHES PASSED THE THREAD
PLANE. MINIMUM EDGE DISTANCE = 1.75"
MAXIMUM SHIM THICKNESS = 0.25"

1/4" THK. MIN. A36 MIN.
STEEL SUBSTRATE

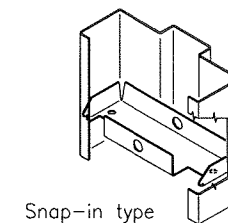


Stud Anchor Requirements for Jamb of Single Frames						
Opening Height (inches)	Up to an including 100 psf			150 psf		
	Max. Distance From End of Jamb	Min. Anchor Quantity	Maximum Spacing (inches)	Max. Distance From End of Jamb	Min. Anchor Quantity	Maximum Spacing (inches)
Up to 84"	6	4	28	6	5	19
90	6	4	28	6	5	19
96	6	4	28	6	6	19

Pocket provided
for 1/2" or 5/8"
thick wall board



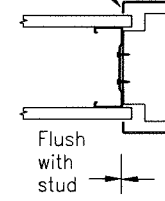
Flush
with
stud



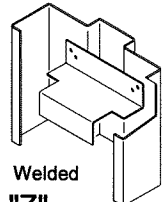
Snap-in type
Welded

METAL STUD ANCHOR

Pocket provided
for 1/2" or 5/8"
thick wall board

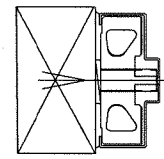


Flush
with
stud

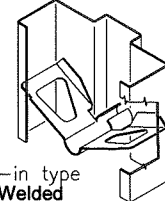


Welded

METAL STUD "Z"
ANCHOR



Slip-in type
Welded



WELDED SLIP-IN BUTTERFLY ANCHOR LIMITED TO 3'0" X 7'0" SINGLES

ASSA ABLOY, the global leader in door opening solutions. FL# 16355.2

CECO DOOR PRODUCTS

DIVISION OF ASSA ABLOY DOOR GROUP, INC

9159 TELECOM DRIVE

MILAN, TN 38358

COMMERCIAL STEEL EXTERIOR DOORS

FLUSH SINGLE DOORS (LMI)

FBC SIXTH EDITION (2017) FLORIDA PRODUCT APPROVAL #16355.2

REMARKS	DRWN	CHKD	DATE
INIT ISSUE (12-CU-03-03)	KL	FLB	06/28/13
FBC UPDATE	RWN	CSL	06/12/15
2017 FBC UPDATE	JEM	FLB	10/13/17

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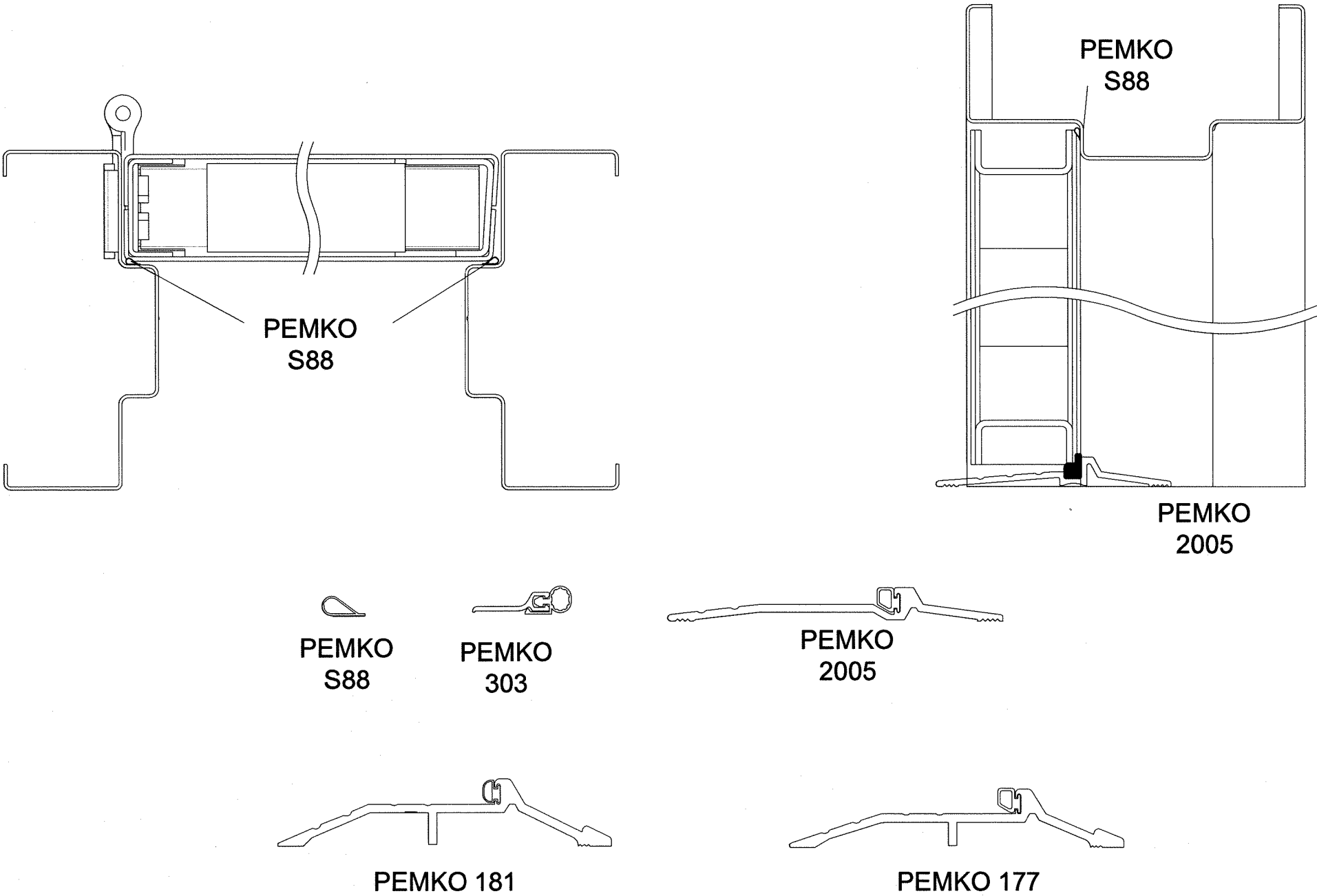
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10/16/2017 - 11:18am luiso

CECO DOOR FLUSH SINGLE DOORS

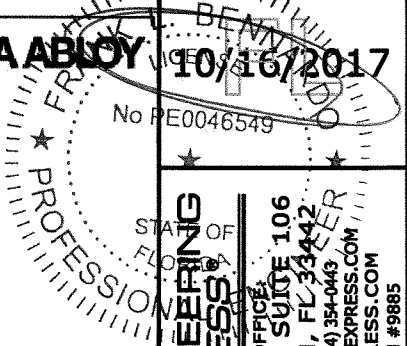
PRODUCTS ILLUSTRATED IN THIS DOCUMENT ARE QUALIFIED FOR LARGE AND SMALL MISSILE IMPACT. LARGE MISSILE IMPACT IS 9 LB 2 X 4 AT 50 FEET PER SECOND OR 350 FT-LBS. (MISSILE LEVEL D)
PRODUCT MEETS REQUIREMENTS OF THE HIGH VELOCITY HURRICANE ZONE.

PEMKO WEATHERSTRIP USED ON CECO DOORS AND FRAMES WHERE WATER INFILTRATION IS NOT REQUIRED.



FRANK L. BENNARDO, P.E.
PE# 0046549

ASSA ABLOY 10/16/2017



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COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMT)

FBC SIXTH EDITION (2017) FLORIDA PRODUCT APPROVAL #16355.2

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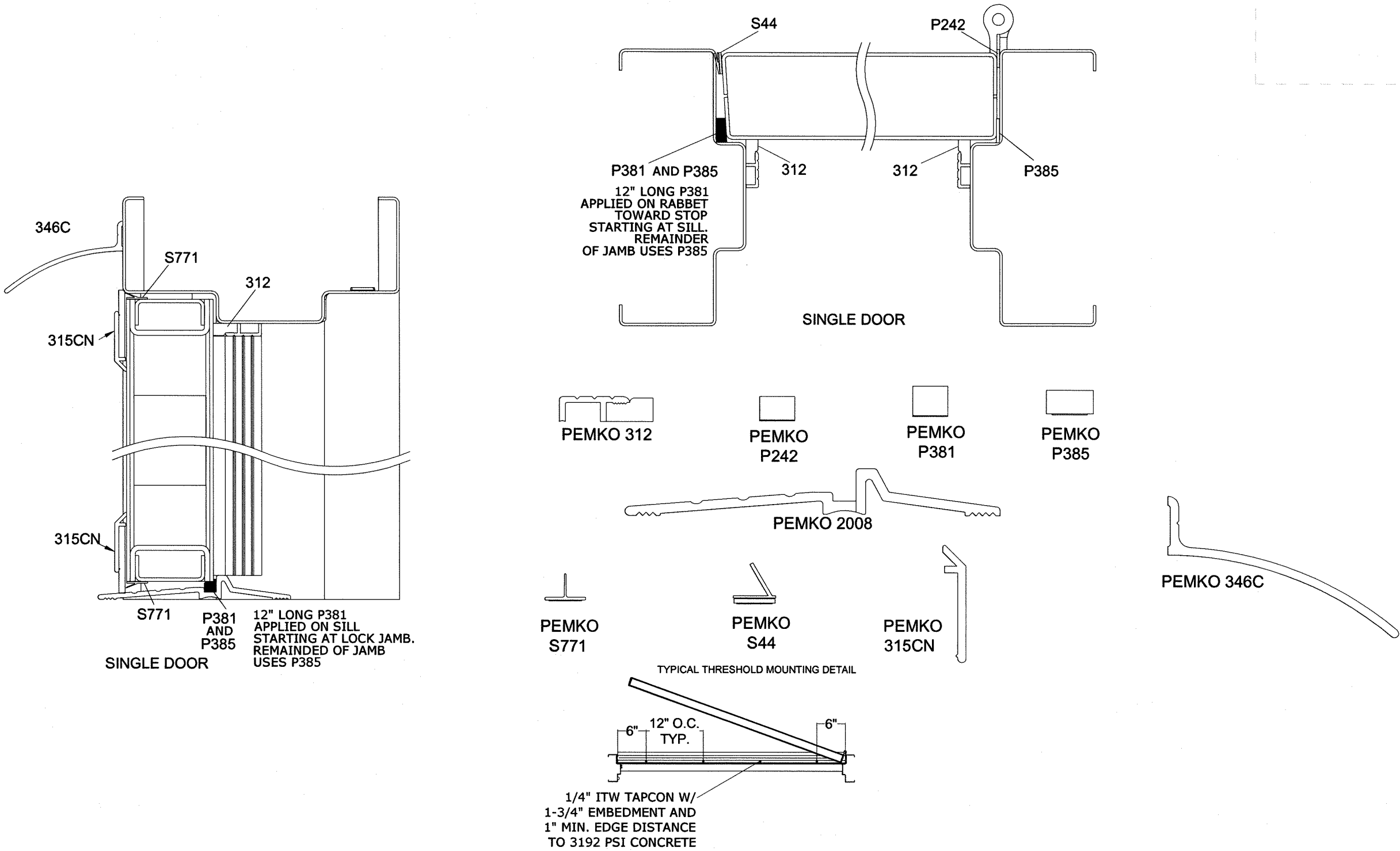
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CECO DOOR FLUSH SINGLE DOORS

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PRODUCT MEETS REQUIREMENTS OF THE HIGH VELOCITY HURRICANE ZONE.

PEMKO WEATHERSTRIP USED ON CECO DOORS AND FRAMES WHERE WATER INFILTRATION IS REQUIRED.



CecoDoor

ASSA ABLOY

FRANK L. BENNARDI, P.E.

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10/16/2017

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COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMI)

FBC SIXTH EDITION (2017) FLORIDA PRODUCT APPROVAL #16355.2

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GENERAL NOTES

1. THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE SIXTH EDITION (2017), FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, PER TAS 201 / 202 / 203 STANDARDS. LARGE MISSILE IMPACT IS QUALIFIED FOR MISSILE LEVEL D ONLY. THIS PRODUCT IS NOT INTENDED FOR USE ON ESSENTIAL FACILITIES WHEN INSTALLED WITHIN WIND ZONE 3, WIND ZONE 4 OR THE HVHZ.
2. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN.
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 ASCE 7-10 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 1.5 SAFETY FACTOR.
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 (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
7. ALL ALUMINUM SHALL BE 6063-T6 ALLOY AND TEMPER UNLESS OTHERWISE NOTED.UNLESS OTHERWISE NOTED.
8. ALL COLD ROLLED STEEL SHALL BE A568/A568M AND ALL STAINLESS STEEL SHALL BE ASTM A480/A480M, UNLESS OTHERWISE NOTED.
9. HARDWARE SHALL BE INSTALLED PER MANUFACTURERS' INSTRUCTIONS.
10. ALL BOLTS AND WASHERS (EXCLUDING INSTALLATION ANCHORS) SHALL BE ZINC COATED STEEL, GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 K.S.I., U.O.N.
11. PLASTIC COMPONENTS USED WITHIN THE HVHZ MUST MEET ALL APPLICABLE FIRE/SMOKE/UV PERFORMANCE REQUIREMENTS AS SET FORTH IN THE ABOVE-NOTED BUILDING CODE AND SHALL BE SUBMITTED TO THE AUTHORITY HAVING JURISDICTION FOR REVIEW AS REQUIRED.
12. 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.
13. ENGINEER SEAL AFFIXED HERE TO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
14. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
15. ALTERATIONS, ADDITIONS, HIGHLIGHTING, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.

16. PRODUCT SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER SYSTEM CONTAINING THE FOLLOWING:

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DIVISION OF ASSA ABLOY DOOR GROUP, INC.
9159 TELECOM DRIVE
MILAN, TN 38358
TAS 201 / TAS 202 / TAS 203 - MISSILE LEVEL D
FLORIDA PRODUCT APPROVAL NUMBER

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. ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
5. WOOD DENSITY, G = 0.55.
6. ANCHORS SHALL BE AS LISTED AND SPACED AS SHOWN IN THE TABLE FOR EACH GROUP OF PRODUCTS.
7. SUBSTITUTION OF COMPONENTS MUST BE IN COMPLIANCE WITH THE CURRENT FLORIDA BUILDING CODE.

ADDITIONAL DOOR INFORMATION

1. DOORS WITH POLYURETHANE CORES AND EXIT DEVICES ARE LIMITED TO 3'-0" MAX WIDTH. THIS DOES NOT INCLUDE TRIO AND TRIO-E.

Ceco Door

ASSA ABLOY

FRANK L. BENNARDO, P.E.
PE# 0046549

10/16/2017

No PE0046549

PROFESSIONAL SEAL

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DIVISION OF ASSA ABLOY DOOR GROUP, INC

9159 TELECOM DRIVE
MILAN, TN 38358

COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMI)

FBC SIXTH EDITION (2017) FLORIDA PRODUCT APPROVAL #16355.2

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2017 FBC UPDATE	JEM	FLB	10/13/17

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HARDWARE NOTES

Corbin Russwin

The ED5200(S)A / ED4200(S)A x M107 Rim Exit and the ED5470(B) x M107 Surface Vertical Rod maybe suffixed by MER. May use M94 with any combination of the M61, M92, M93, or M1 suffixes.

The ED5200(S)A x M107 Rim Exit and the ED5470(B) x M107 Surface Vertical Rod may include 900 series trims 9600, 9700, 9800 Series Access Control Trims or the 9900 Series Electrified Trims.

The MP9800 (A/B) x M107 Series Concealed Multi-Point Lock may include the options: M91, M92, M93, 903, 904, Access 600, IN, INB, SE.

Use FE707A, FE708A, WS707AKM, or WS708AKM Hardware Mullion with the ED5200(S)A / ED4200(S)A x M107 Rim Exit

On pairs of doors, one leaf of the pair utilizing with the ED5470(B) x M107 Surface Vertical Rod or MP9800 (A/B) x M107 Series Concealed Multi-Point Lock may be replaced with two 988CR surface bolts. The local building official must approve this configuration of hardware for use in a means of egress.

The ML2000 Series Mortise Locks, Series CL3300 Series Cylindrical Locks, ED5200(S)A x M107 Rim Exit, and ED5470(B) x M107 Surface Vertical Rod may be prefixed IN-IP, IN-IPS, IN-CP, IN-IP-MB, IN-IP-MW, IN-IPS-MB, IN-IPS-MW, IN-CP-MP, and IN-CP-MW.

The ML2000 Series Mortise Locks, Series CL3300 Series Cylindrical Locks, ED5200(S)A x M107 Rim Exit may be prefixed PIP1-IPSKM, PWI1-IPSKM, PIP1-CPKM, PWI1-CPKM, PIP1-IPSM, PWI1-IPSM, PIP1-CPM, and PWI1-CPM.

May also use the ML20100 and ML20200 mortise locks.

The SELP10 and IN 120 Access Control may be used with CL3300 Cylindrical Lock or ML2000 Mortise Lock.

HES

The 1006 Series Electric Strike maybe used on 4'0" x 8'0" and smaller single or 8'0" x 8'0" and smaller pairs out swinging doors of 70 psf or less.

The 9600 Series Electric Strike may be used with the Sargent HC8800 Series Rim Exit at design pressures of 70 psf or less.

The 9700 Series Electric Strike may be used with the Corbin Russwin ED5200(S)A and the Yale 7150(F)WS / 7250M(F)WS Rim Exits at design pressures of 70 psf or less.

Securitron 1500 / 1500E Strike may be used on 3'0" x 7'0" and smaller single out swinging assemblies with mortise locks and latch bolt only at design pressures of 60 psf or less.

Securitron 1600 / 1600E Strike may be used on 4'0" x 8'0" and smaller single out swinging assemblies with mortise locks with latch bolt and dead bolt of 70 psf and less.

Sargent

The HC8800 Series Rim Exit, WS 8800 Series Rim Exit, and WS-8900 Series Mortise Exit maybe prefixed 53, 55, 55-56, 56, 57, 58, AWE, B, BT, ET, H1, H2, KP, LK, LU, M1, N1, N2, PA, PK, PG, P1, P2, IPSKM, CPKM, IPSM, CPM, IM, IKM, PRX, S1, S2, S3, IA, IK, IN, TK, TL, TP and TU.

Use HC980, 12-HC980, HCL980, 12-HCL980 Hardware Mullion with the HC8800 Series Rim Exit.

Series HT-56- can be used same as the 53-56- on the 80 Series devices. Exceptions include the following prefixes either used alone or in combination: 53-, 55-, 57-, 58-, 59- and AL.
All 80 Series employing HiO technology and the 55 option are designated HT-55-.

The MD8600 Series Concealed Vertical Rod Exit and 7000 Series Concealed Multi-point Lock may be prefixed 53, 55, 56, 57, 58, 59, BT, ET, H1, H2 and TL.

On pairs of doors, one leaf of the pair utilizing with the MD8600 Series Concealed Vertical Rod Exit, 7000 Concealed Multi-Point Lock or HC4-8700 / HC-8700 Surface Vertical Rod may be replaced with two 988CR surface bolts. The local building official must approve this configuration of hardware for use in a means of egress.

The 10 Line / 10G77 Cylindrical Locks and 8200 / R8200 mortise Locks may be prefixed AWE, B, PG, P1, P2, IPSKM, CPKM, IPSM, CPM, IM, IKM, PRX, IA, IK, IN, KP, LK, LU, PA, PK, H1, H2, N1, N2, S1, S2, S3, TK, TL, TP and TU.

Yale

7150(F)WS / 7250M(F)WS Rim Exit and 7170(F)WS Surface Vertical Rod may be suffixed by P, with any combination of A, B, O, or S. These devices may be prefixed by Sym and can include 500F or 600F Series Trims.

Use M200FWS or KRM200FWS Mullion with the 7150(F)WS / 7250M(F)WS Rim Exit.

On pairs of doors, one leaf of the pair utilizing with the 7170(F)WS Surface Vertical Rod may be replaced with two 988CR surface bolts. The local building official must approve this configuration of hardware for use in a means of egress

nexTouch Access Control may be used on single 3'0" x 7'0" assemblies with 4700LN cylindrical lock at design pressures of 60 psf or less .

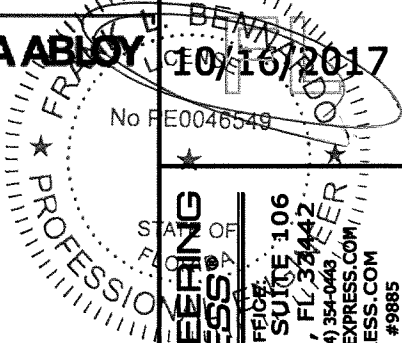
Securitron

The MUNL may be used on 60 psf rated single 3'0" x 7'0" assemblies with a mortise Corbin Russwin ML2000, Sargent 7800/8200/R8200, or Yale 8800 mortise lock. The UNL may be used on 60 psf rated single 3'0" x 7'0" assemblies with a Corbin Russwin CL3100 / CL3300 / CL3500 / CL3800, Sargent 6500 / 7 /10, or Yale 5300 / 5300LN / 5400 / 5400LN Cylindrical Locks.

The ICPT Wireless Inductive Power Transfer may be used.



ASSA ABLOY



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