

c:\users\eam\engineering\express\production - documents (1)\projects\23-68038 multiple products 2023 fbc update fl16355\work\drawings & cad\5-2-24 submittal\23-68038b - fl16355.2 - dwg 2.dwg

FRANK BENNARDO, PE
PE# 0046549 CA# 9885

CECO DOOR PRODUCTS

DIVISION OF ASSA ABLOY DOOR GROUP, INC.

CECO FLUSH SINGLE DOORS LARGE MISSILE IMPACT (LMI) - LEVEL "D" HVHZ

NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. A DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR CERTIFYING THE APPLICATION OF THIS INFORMATION TO ANY SITE-SPECIFIC LOCATION.

NOTE REGARDING USE OF THIS DOCUMENT & USE OUTSIDE FLORIDA:

NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. THIS PRODUCT EVALUATION IS VALID FOR USE IN **FLORIDA ONLY**. USE OF THIS EVALUATION REQUIRES A REVIEW & CERTIFICATION BY A LOCAL DESIGN PROFESSIONAL WHO SHALL BE RESPONSIBLE FOR THE PROPER ADAPTATION OF THIS GENERAL PERFORMANCE EVALUATION TO ANY SITE-SPECIFIC PROJECT. CONTACT THIS OFFICE AT ENGINEERINGEXPRESS.COM/QUOTE FOR ASSISTANCE WITH YOUR PROJECT-SPECIFIC NEEDS & FOR ADAPTATION & CERTIFICATION OF THIS DOCUMENT OUTSIDE OF FLORIDA.

INSTRUCTIONS FOR USING THIS APPROVAL

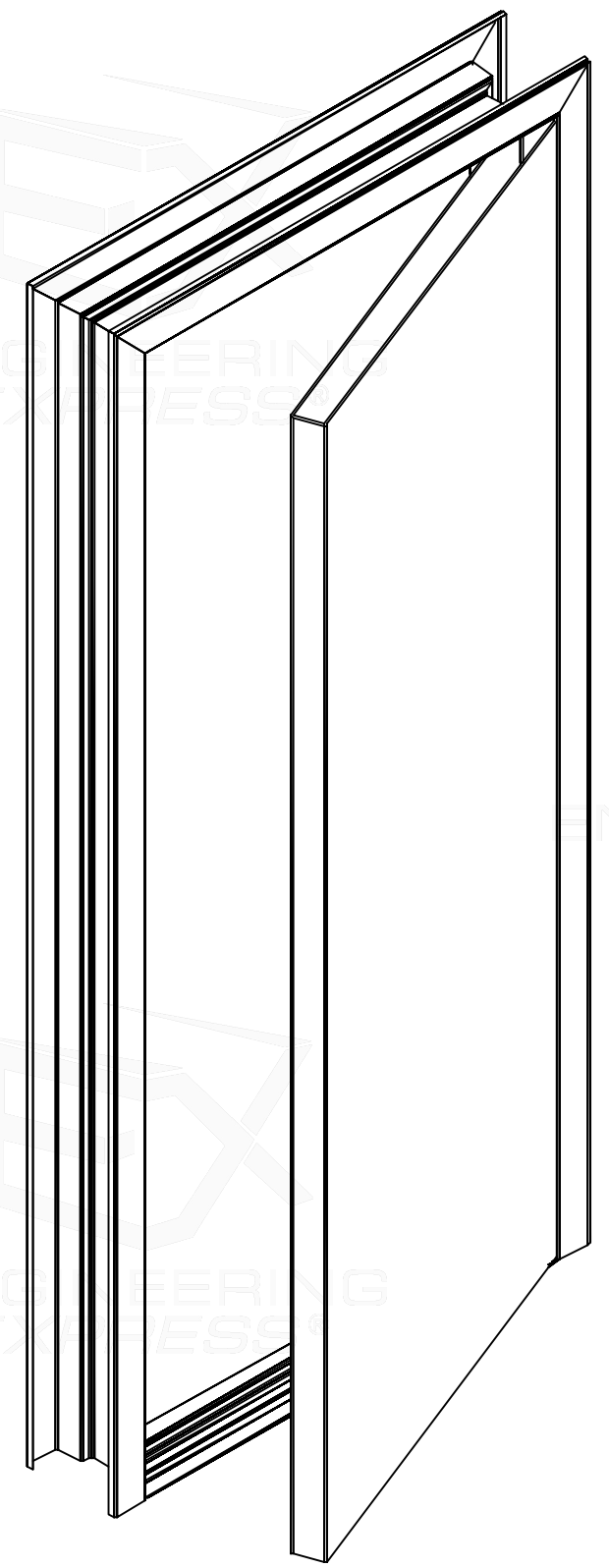
STEP 1: USE THE DOOR ELEVATIONS PROVIDED ON PAGE 2 THROUGH 6 TO DETERMINE THE APPLICABLE ASSEMBLY NUMBER

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	MANUFACTURERS AND ENGINEERS NOTES
13	TOTAL

FL# 16355.2

ENGINEERING EXPRESS

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

CECO DOOR PRODUCTS
DIVISION OF ASSA ABLOY DOOR GROUP, INC.

9159 TELECOM DRIVE
MILAN, TN 38358

ASSA ABLOY

COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMI) - FBC (2023)
FLORIDA STATEWIDE APPROVAL (FSA FL#16355.2)

REMARKS	DRWN	CHKD	DATE
INIT ISSUE (12-CUI-03g-01)	KL	FLB	06/28/13
FBC UPDATE	RWN	CSL	06/12/15
2017 FBC UPDATE	JEM	FLB	10/03/17
2020 FBC UPDATE	TAE	FLB	12/17/20
2023 FBC (PREV:20-34870)	AMZ	RS	10/18/23

VISIT ECALC.IO/68038b

FOR SITE-SPECIFIC DEVIATIONS & MORE INFORMATION ABOUT THIS DOCUMENT OR SCAN THIS QR CODE

VISIT ENGINEERINGEXPRESS.COM/STORE FOR ADDITIONAL PLANS, REPORTS & RESOURCES

VISIT ECALC.IO/assaabloy

FOR HELPFUL RESOURCES, SITE SPECIFIC JOB ORDERING & MORE INFORMATION ABOUT THIS PRODUCT & RELATED SERVICES

SCAN HERE:

ASSA ABLOY, the global leader in door opening solutions.

23-68038b

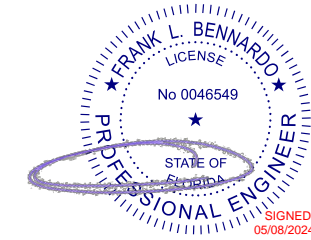
SCALE: NTS UNLESS NOTED

01 OF 13

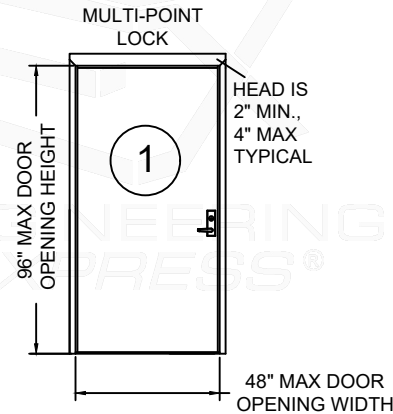
CECO DOOR FLUSH SINGLE DOORS

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.

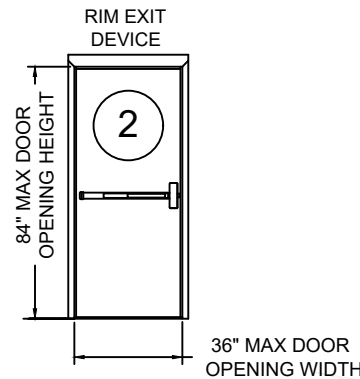
FRANK BENNARDO, PE
 PE# 0046549 CA# 9885



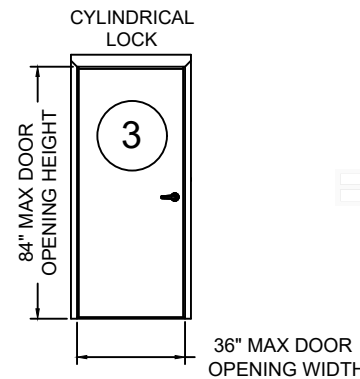
MAY 8, 2024



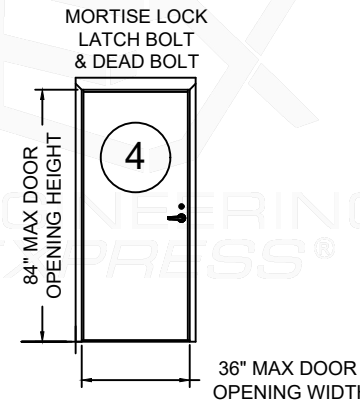
ASSEMBLY 1	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-150 PSF	+/-50 PSF



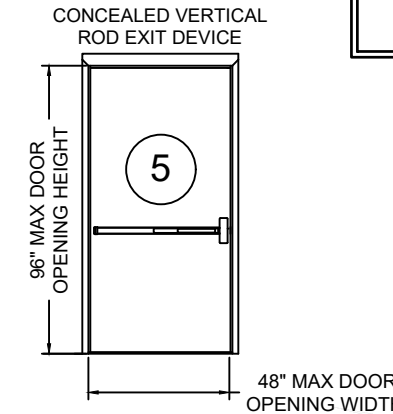
ASSEMBLY 2	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-100 PSF	+/-50 PSF



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	6600	
									Sargent	7300	
2	Trio, Trio-E	18	100	100	36	84	Out Swing	Rim Exit Device	Corbin Russwin	ED5200S(A) x M107	
									ASSA ABLOY ACCENTRA	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	
									Sargent	7800, 8200, R8200	
									ASSA ABLOY ACCENTRA	8800	
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	McKinney 4-1/2" x 4-1/2" 0.134" thick minimum steel hinges or any FBC approved butt hinges may be used. Any SDI member hinge locations may be used.									
	Continuous	Markar FM100, FM200, FM300, FM3500, FM100, FM111, or HG305; Pemko CFMSLF-HD continuous hinges or any FBC approved continuous hinge may be used									
	Pivots	Rixson 195 Pivot set with M19 intermediate pivots may be used. Any FBC approved pivot may be used.									
Auxiliary Hardware**		1" diameter and smaller preparations for door position switches, Door position switches that fit in a cutout measuring 1.25" x 4.875"; Securitron EPT, SEPT, and CEPT may be used. 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.

** SUBSTITUTIONS, WITH FBC COMPONENT APPROVALS, MAY BE USED AS LONG AS THE SUBSTITUTIONS ARE WITHIN THE LIMITING DESIGN PARAMETERS OF THIS APPROVAL AND THE COMPONENT APPROVAL.

FL# 16355.2

ENGINEERING EXPRESS
 POSTAL ADDRESS:
 2234 NORTH FEDERAL HWY #7664
 BOCA RATON, FL 33431
 ENGINEERINGEXPRESS.COM

CECO DOOR PRODUCTS
 DIVISION OF ASSA ABLOY DOOR GROUP, INC.
 9159 TELECOM DRIVE
 MILAN, TN 38358
CecoDoor
ASSA ABLOY
 COMMERCIAL STEEL EXTERIOR DOORS
 FLUSH SINGLE DOORS (LMI) - FBC (2023)
 FLORIDA STATEWIDE APPROVAL (FSA FL#16355.2)

REMARKS	DATE	DRWN	CHKD
INIT ISSUE (12-CUI-03g-01)	06/28/13	KL	FLB
FBC UPDATE	06/12/15	RWN	CSL
2017 FBC UPDATE	10/03/17	JEM	FLB
2020 FBC UPDATE	12/17/20	TAE	FLB
2023 FBC (PREV:20-34870)	10/18/23	AMZ	RS

COPYRIGHT ENGINEERING EXPRESS®

23-68038b

SCALE: NTS UNLESS NOTED

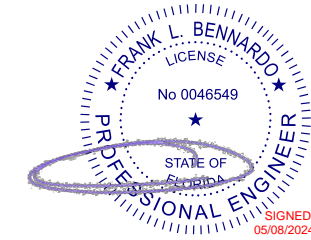
02 OF 13

c:\users\eam\engineering\express\production - documents (1)\projects\23-68038 multiple products 2023 fbc update fl16355\work\drawings & cad\5-2-24 submittal\23-68038b - fl16355.2 - dwg 2.dwg
 5/8/2024 3:52 PM SAM

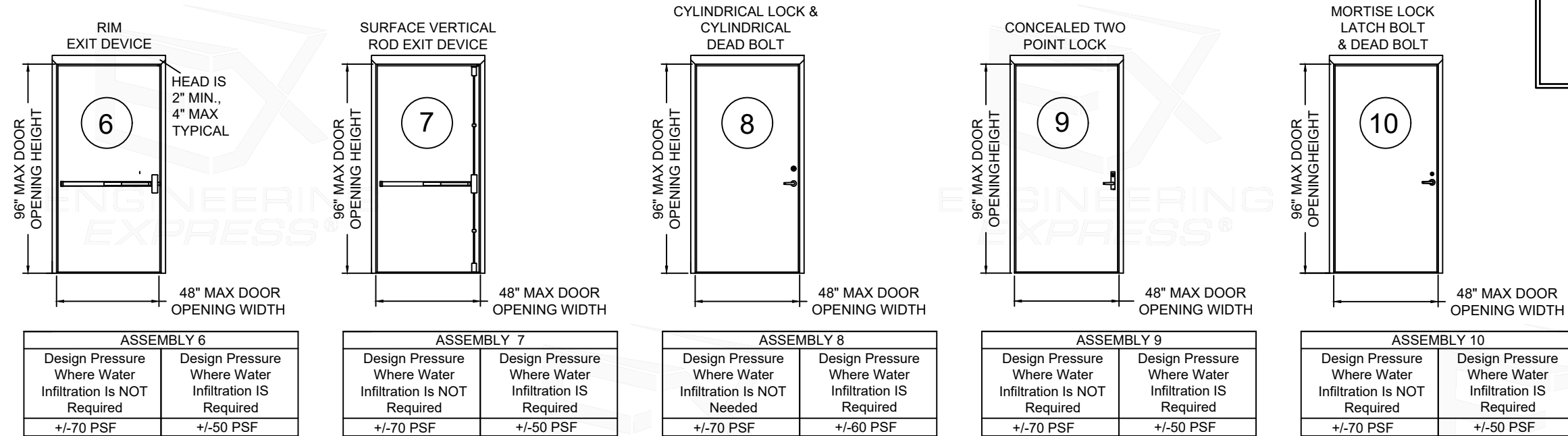
CECO DOOR FLUSH SINGLE DOORS

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.

FRANK BENNARDO, PE
PE# 0046549 CA# 9885



MAY 8, 2024



FL# 16355.2

ENGINEERING EXPRESS
POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

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
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
									ASSA ABLOY ACCENTRA	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
									Sargent	7800, 8200, R8200
Hinges**	Butt	McKinney 4-1/2" x 4-1/2" 0.134" thick minimum steel hinges or any FBC approved butt hinges may be used. Any SDI member hinge locations may be used.								
	Continuous	Markar FM100, FM200, FM300, FM3500, FM100, FM1111, or HG305; Pemko CFMSLF-HD continuous hinges or any FBC approved continuous hinge may be used								
	Pivots	Rixson 195 Pivot set with M19 intermediate pivots may be used. Any FBC approved pivot may be used.								
Auxiliary Hardware		1" diameter and smaller preparations for door position switches, Door position switches that fit in a cutout measuring 1.25" x 4.875"; Securitron EPT, SEPT, and CEPT may be used. Maglocks may be used in addition to the hardware listed above. Viewers with 1" and smaller hole preparation may be used.								

CECO DOOR PRODUCTS
DIVISION OF ASSA ABLOY DOOR GROUP, INC.
9159 TELECOM DRIVE
MILAN, TN 38358
ASSA ABLOY
COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMI) - FBC (2023)
FLORIDA STATEWIDE APPROVAL (FSA FL#16355.2)

REMARKS	DRWN	CHKD	DATE
INIT ISSUE (12-CUI-03g-01)	KL	FLB	06/28/13
FBC UPDATE	RWN	CSL	06/12/15
2017 FBC UPDATE	JEM	FLB	10/03/17
2020 FBC UPDATE	TAE	FLB	12/17/20
2023 FBC (PREV:20-34870)	AMZ	RS	10/18/23

COPYRIGHT ENGINEERING EXPRESS®
23-68038b

SCALE: NTS UNLESS NOTED

03 OF 13

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

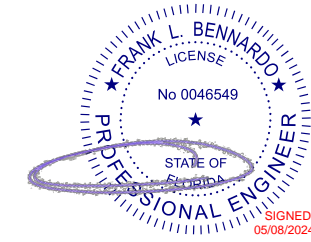
** SUBSTITUTIONS, WITH FBC COMPONENT APPROVALS, MAY BE USED AS LONG AS THE SUBSTITUTIONS ARE WITHIN THE LIMITING DESIGN PARAMETERS OF THIS APPROVAL AND THE COMPONENT APPROVAL.

c:\users\eam\engineering\express\production - documents (1)\projects\23-68038 multiple products 2023 fbc update fl16355\work\drawings & cad\5-2-24 submittal\23-68038b - fl16355.2 - dwg 2.dwg

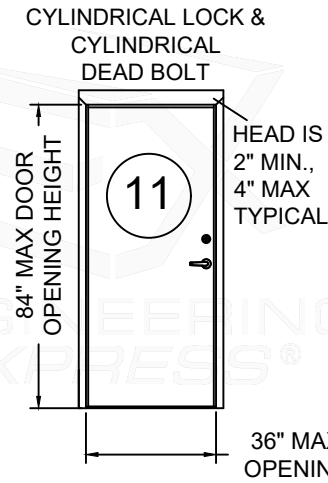
CECO DOOR FLUSH SINGLE DOORS

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.

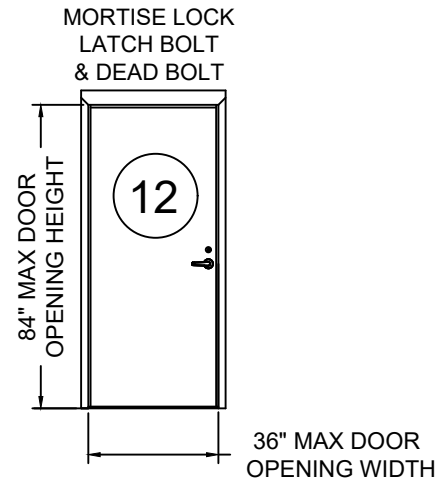
FRANK BENNARDO, PE
PE# 0046549 CA# 9885



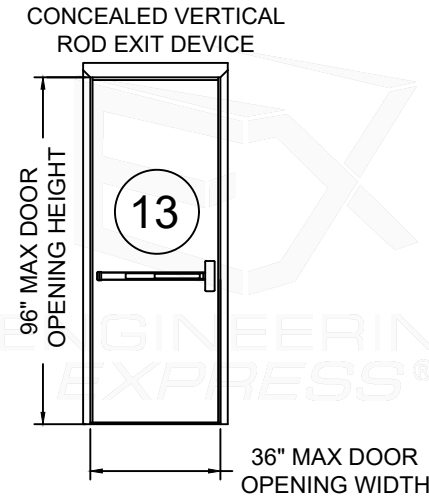
MAY 8, 2024



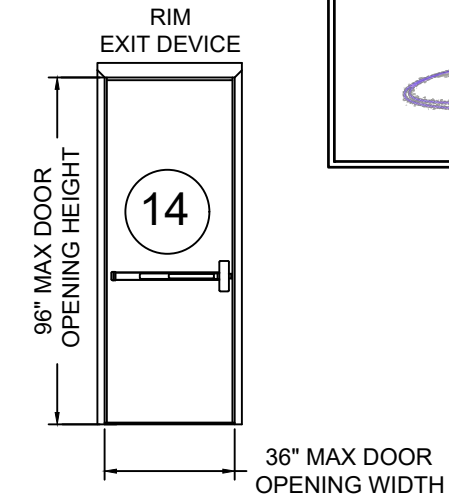
ASSEMBLY 11	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-70 PSF	+/-50 PSF



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

FL# 16355.2

ENGINEERING EXPRESS
POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

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	CLX3300 DL3200 Deadbolt	
									Sargent	6500, 10X, 10XG77 480 Deadbolt	
									ASSA ABLOY ACCENTRA	5400CK, 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	
									Sargent	7800, 8200, R8200	
									ASSA ABLOY ACCENTRA	8800	
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	
									ASSA ABLOY ACCENTRA	7150(F)WS/7250M(F)WS	
Hinges**	Butt	McKinney 4-1/2" x 4-1/2" 0.134" thick minimum steel hinges or any FBC approved butt hinges may be used. Any SDI member hinge locations may be used.									
	Continuous	Markar FM100, FM200, FM300, FM3500, FM100, FM111, or HG305; Pemko CFMSLF-HD continuous hinges or any FBC approved continuous hinge may be used									
	Pivots	Rixson 195 Pivot set with M19 intermediate pivots may be used. Any FBC approved pivot may be used.									
Auxiliary Hardware		1" diameter and smaller preparations for door position switches, Door position switches that fit in a cutout measuring 1.25" x 4.875"; Securitron EPT, SEPT, and CEPT may be used. Maglocks may be used in addition to the hardware listed above. Viewers with 1" and smaller hole preparation may be used.									

CECO DOOR PRODUCTS
DIVISION OF ASSA ABLOY DOOR GROUP, INC.
9159 TELECOM DRIVE
MILAN, TN 38358
ASSA ABLOY
COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMI) - FBC (2023)
FLORIDA STATEWIDE APPROVAL (FSA FL#16355.2)

REMARKS	DATE	DRWN	CHKD
INIT ISSUE (12-CUI-03g-01)	06/28/13	KL	FLB
FBC UPDATE	06/12/15	RWN	CSL
2017 FBC UPDATE	10/03/17	JEM	FLB
2020 FBC UPDATE	12/17/20	TAE	FLB
2023 FBC (PREV:20-34870)	10/18/23	AMZ	RS

COPYRIGHT ENGINEERING EXPRESS®
23-68038b

SCALE: NTS UNLESS NOTED

04 OF 13

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

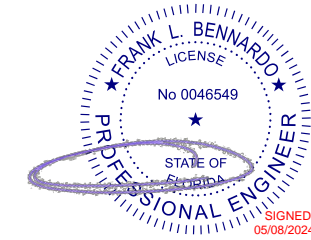
** SUBSTITUTIONS, WITH FBC COMPONENT APPROVALS, MAY BE USED AS LONG AS THE SUBSTITUTIONS ARE WITHIN THE LIMITING DESIGN PARAMETERS OF THIS APPROVAL AND THE COMPONENT APPROVAL.

c:\users\eam\engineering\express\production - documents (1)\projects\23-68038 multiple products 2023 fbc update fl16355\work\drawings & cad\5-2-24 submittal\23-68038b - fl16355.2 - dwg 2.dwg
5/8/2024 3:52 PM SAM

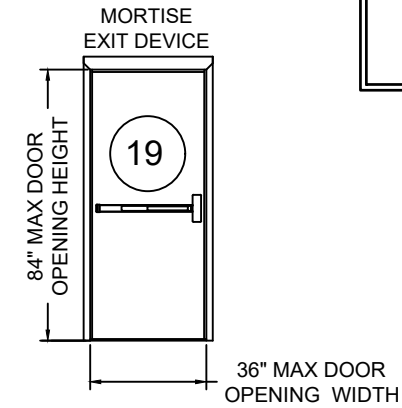
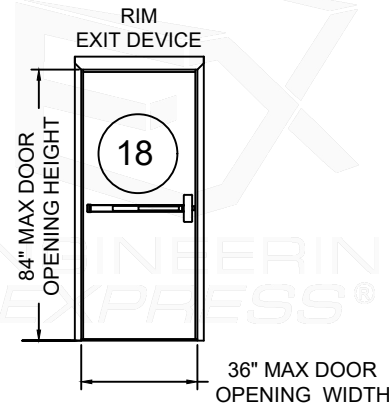
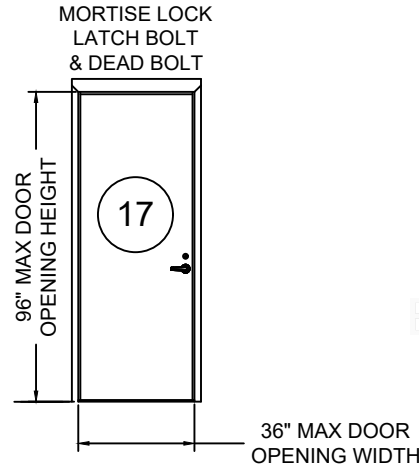
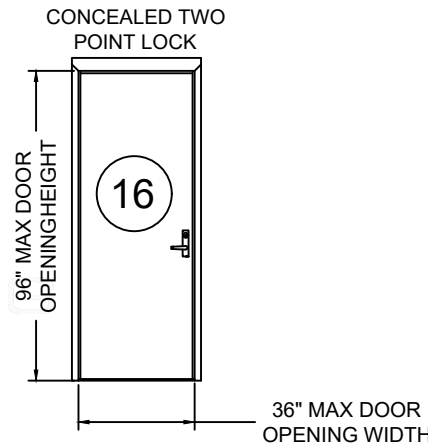
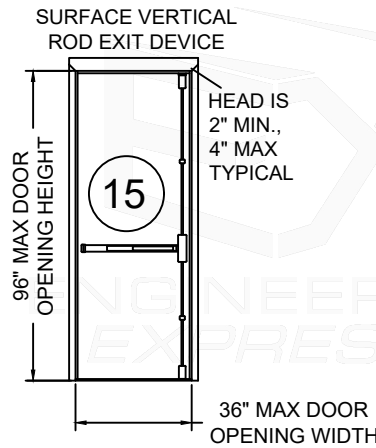
CECO DOOR FLUSH SINGLE DOORS

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.

FRANK BENNARDO, PE
PE# 0046549 CA# 9885



MAY 8, 2024



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

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

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

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

ASSEMBLY 19	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-60PSF	+/-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
									ASSA ABLOY ACCENTRA	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
									Sargent	7800, 8200, R8200
									ASSA ABLOY ACCENTRA	8800
18	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versadoor	18	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
								ASSA ABLOY ACCENTRA	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	McKinney 4-1/2" x 4-1/2" 0.134" thick minimum steel hinges or any FBC approved butt hinges may be used. Any SDI member hinge locations may be used.
	Continuous	Markar FM100, FM200, FM300, FM3500, FM100, FM1111, or HG305; Pemko CFMSLF-HD continuous hinges or any FBC approved continuous hinge may be used
	Pivots	Rixson 195 Pivot set with M19 intermediate pivots may be used. Any FBC approved pivot may be used.
Auxiliary Hardware		1" diameter and smaller preparations for door position switches, Door position switches that fit in a cutout measuring 1.25" x 4.875"; Securitron EPT, SEPT, and CEPT may be used. 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.

** SUBSTITUTIONS, WITH FBC COMPONENT APPROVALS, MAY BE USED AS LONG AS THE SUBSTITUTIONS ARE WITHIN THE LIMITING DESIGN PARAMETERS OF THIS APPROVAL AND THE COMPONENT APPROVAL.

FL# 16355.2



POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

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 (2023)
FLORIDA STATEWIDE APPROVAL (FSA FL#16355.2)

REMARKS	DRWN	CHKD	DATE
INIT ISSUE (12-CUI-03g-01)	KL	FLB	06/28/13
FBC UPDATE	RWN	CSL	06/12/15
2017 FBC UPDATE	JEM	FLB	10/03/17
2020 FBC UPDATE	TAE	FLB	12/17/20
2023 FBC (PREV:20-34870)	AMZ	RS	10/18/23

COPYRIGHT ENGINEERING EXPRESS®

23-68038b

SCALE: NTS UNLESS NOTED

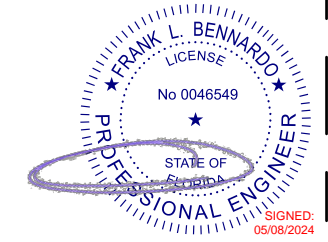
05 OF 13

c:\users\eam\engineering\express\production - documents (1)\projects\23-68038 multiple products 2023 fbc update fl16355\work\drawings & cad\5-2-24 submittal\23-68038b - fl16355.2 - dwg 2.dwg

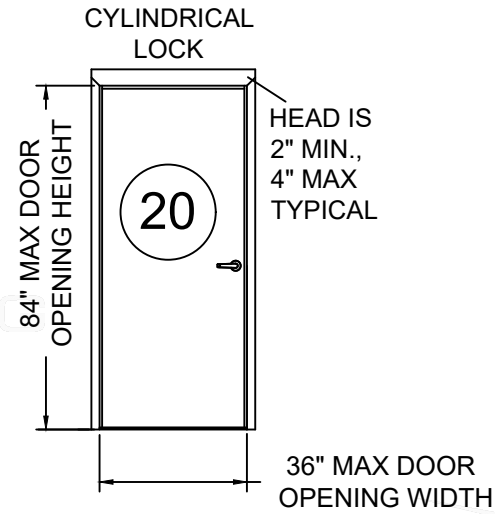
CECO DOOR FLUSH SINGLE DOORS

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.

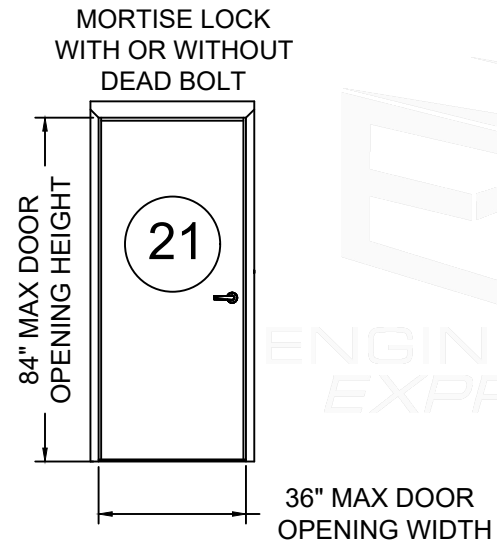
FRANK BENNARDO, PE
PE# 0046549 CA# 9885



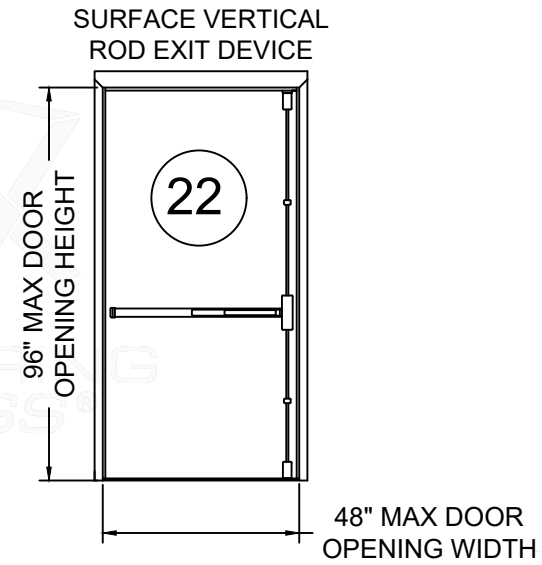
MAY 8, 2024



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 7	
Design Pressure Where Water Infiltration Is NOT Required	Design Pressure Where Water Infiltration IS Required
+/-150 PSF	+/-50 PSF

FL# 16355.2

ENGINEERING EXPRESS
POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

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 (2023)
FLORIDA STATEWIDE APPROVAL (FSA FL#16355.2)

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, Versador, Trio, Trio-E	18	60	60	36	84	Out Swing or In Swing*	Cylindrical Lock	Corbin Russwin	CL3100, CLX3300 CL3800
21	Fuego, Imperial, Medallion, Legion, Omega, Regent, Ultra, Versador, Trio, Trio-E	18	60	60	36	84	Out Swing or In Swing*	Mortise Lock Latch Bolt with or without Dead Bolt	Sargent	6500, 7, 10X, 10XG77
									ASSA ABLOY ACCENTRA	5300LN, 5400CK, 5400LN,
									Corbin Russwin	ML2000
22	Regent, Imperial, Medallion, Legion	14	150	150	48	96	Out Swing	Surface Vertical Rod	Sargent	7800, 8200, R8200
									VingCard Elsafe A/S	ANSI, Classic, Signature
Hinges**	Continuous	McKinney 4-1/2" x 4-1/2" 0.134" thick minimum steel hinges or any FBC approved butt hinges may be used. Any SDI member hinge locations may be used.								
		Markar FM100, FM200, FM300, FM3500, FM100, FM1111, or HG305; Pemko CFMSLF-HD continuous hinges or any FBC approved continuous hinge may be used								
Auxiliary Hardware	Pivots	Rixson 195 Pivot set with M19 intermediate pivots may be used. Any FBC approved pivot may be used.								
	1" diameter and smaller preparations for door position switches, Door position switches that fit in a cutout measuring 1.25" x 4.875"; Securitron EPT, SEPT, and CEPT may be used.									
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.

** SUBSTITUTIONS, WITH FBC COMPONENT APPROVALS, MAY BE USED AS LONG AS THE SUBSTITUTIONS ARE WITHIN THE LIMITING DESIGN PARAMETERS OF THIS APPROVAL AND THE COMPONENT APPROVAL.

REMARKS	DATE	DRWN	CHKD
INIT ISSUE (12-CUI-03g-01)	06/28/13	KL	FLB
FBC UPDATE	06/12/15	RWN	CSL
2017 FBC UPDATE	10/03/17	JEM	FLB
2020 FBC UPDATE	12/17/20	TAE	FLB
2023 FBC (PREV:20-34870)	10/18/23	AMZ	RS

COPYRIGHT ENGINEERING EXPRESS®

23-68038b

SCALE: NTS UNLESS NOTED

06 OF 13

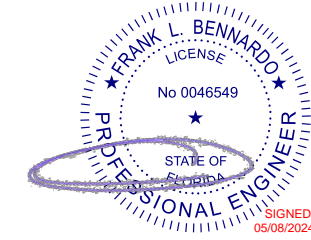
c:\users\eam\engineering\express\production - documents (1)\projects\23-68038 multiple products 2023 fbc update fl16355\work\drawings & cad\5-2-24 submittal\23-68038b - fl16355.2 - dwg 2.dwg

c:\users\eam\engineering express\production - documents (1)\projects\23-68038 multiple products 2023 fbc update fl16355\work\drawings & cad\5-2-24 submittal\23-68038b - fl16355.2 - dwg 2.dwg

CECO DOOR FLUSH SINGLE DOORS

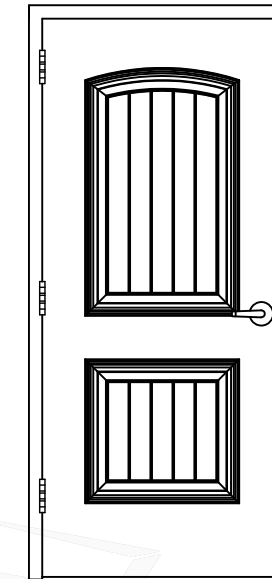
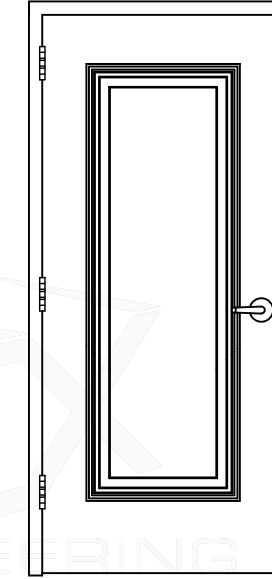
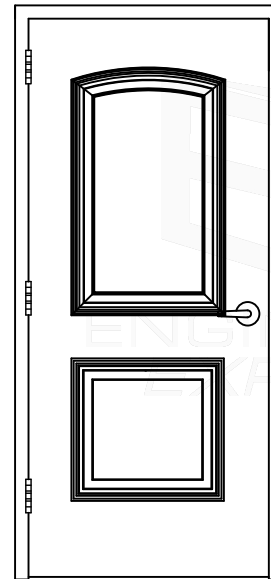
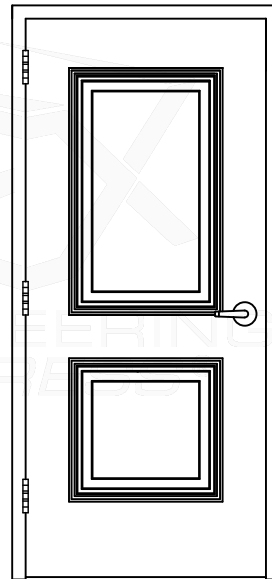
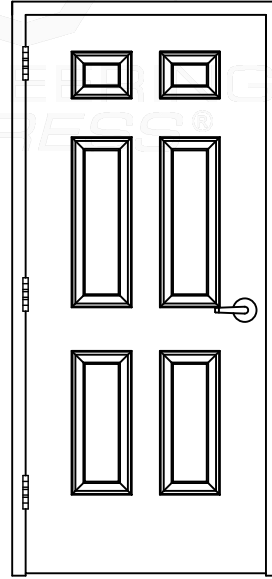
PRODUCTS ILLUSTRATED IN THIS DOCUMENT ARE QUALIFIED FOR LARGE AND SMALL MISSILE IMPACT. LARGE MISSILE IMPACT IS 9 LB 2 X 4 AT 50 FEET PER SECOND OR 350 FT-LBS. (MISSILE LEVEL D) PRODUCT MEETS REQUIREMENTS OF THE HIGH VELOCITY HURRICANE ZONE.

FRANK BENNARDO, PE
PE# 0046549 CA# 9885



MAY 8, 2024

OPTIONAL ELEVATIONS



EMBOSSED PANEL DOORS LIMITED TO 18 GA STEEL AND POLYURETHANE CORE

FL# 16355.2

ENGINEERING EXPRESS
 POSTAL ADDRESS:
 2234 NORTH FEDERAL HWY #7664
 BOCA RATON, FL 33431
 ENGINEERINGEXPRESS.COM

Ceco Door
 DIVISION OF ASSA ABLOY DOOR GROUP, INC.
 9159 TELECOM DRIVE
 MILAN, TN 38358
 ASSA ABLOY
 COMMERCIAL STEEL EXTERIOR DOORS
 FLUSH SINGLE DOORS (LMI) - FBC (2023)
 FLORIDA STATEWIDE APPROVAL (FSA FL#16355.2)

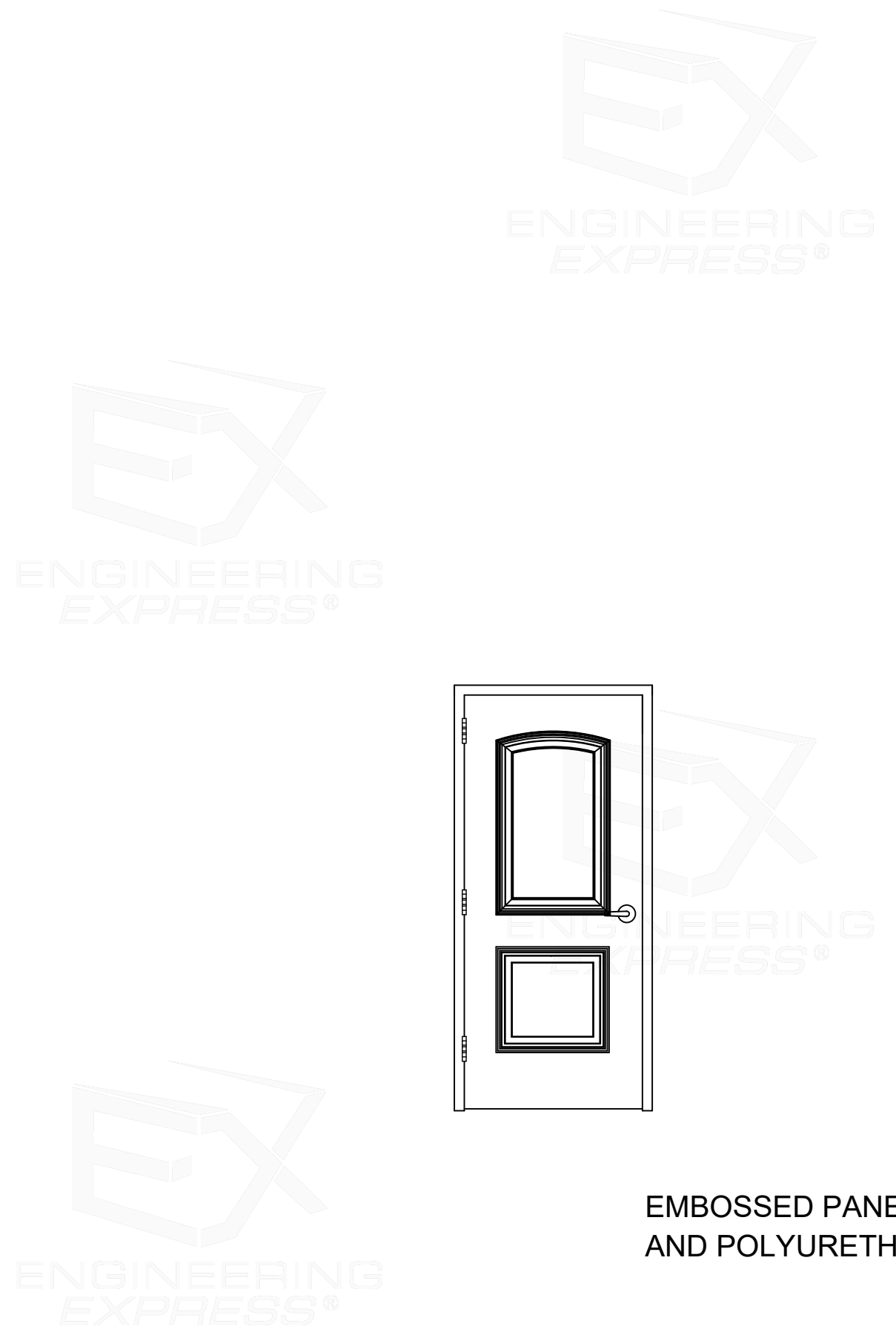
REMARKS	DRWN	CHKD	DATE
INIT ISSUE (12-CUI-03g-01)	KL	FLB	06/28/13
FBC UPDATE	RWN	CSL	06/12/15
2017 FBC UPDATE	JEM	FLB	10/03/17
2020 FBC UPDATE	TAE	FLB	12/17/20
2023 FBC (PREV 20-34870)	AMZ	RS	10/18/23

COPYRIGHT ENGINEERING EXPRESS®

23-68038b

SCALE: NTS UNLESS NOTED

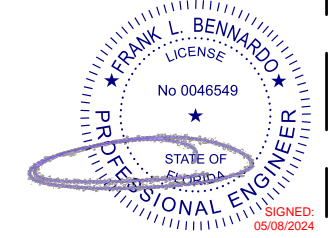
07 OF 13



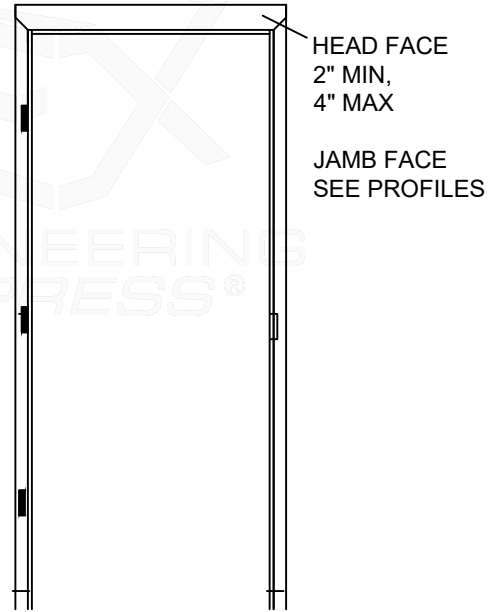
CECO DOOR FLUSH SINGLE DOORS

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.

FRANK BENNARDO, PE
PE# 0046549 CA# 9885

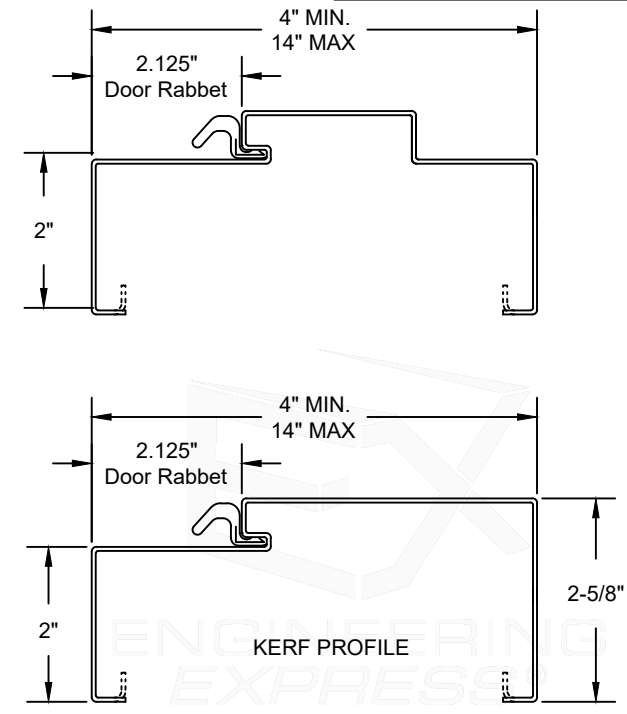
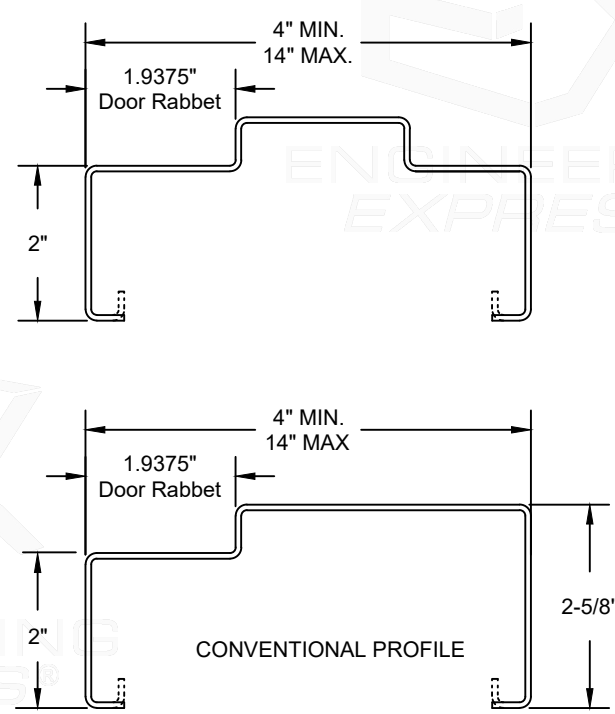


MAY 8, 2024

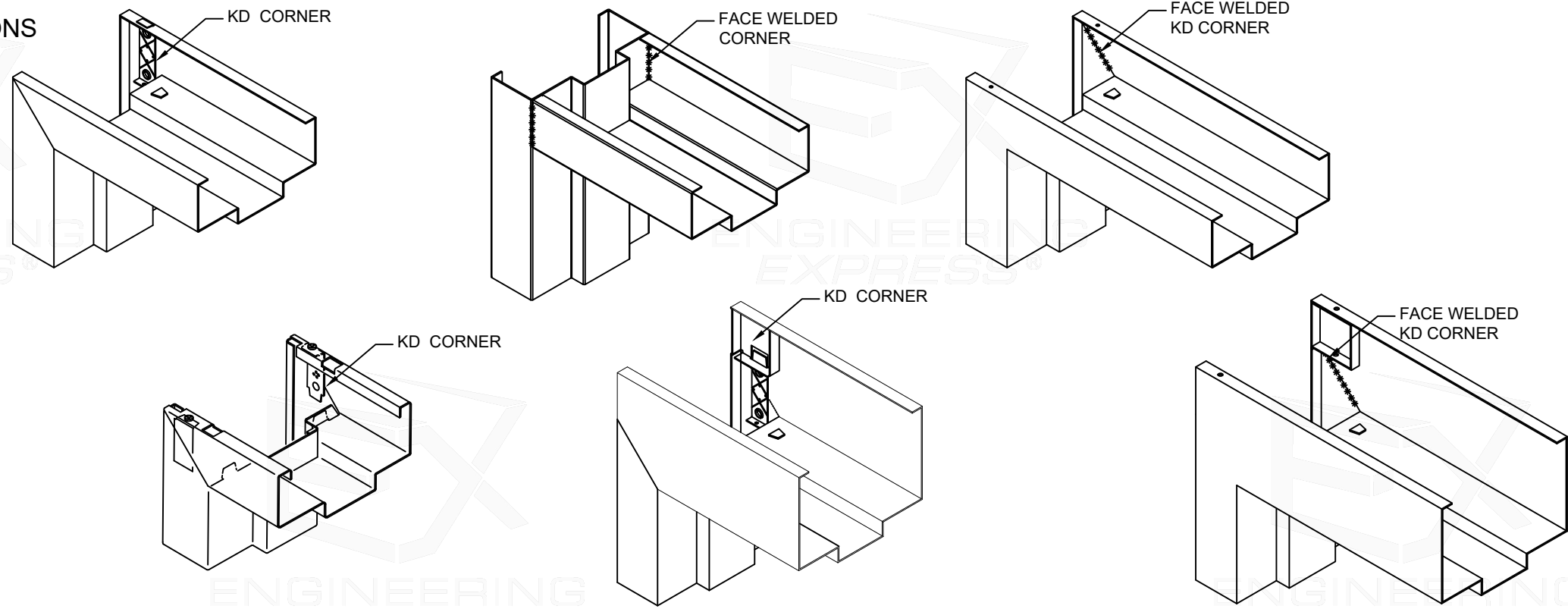


3070 ± 100 PSF MAX. DESIGN PRESSURE
4080 ± 150 PSF MAX. DESIGN PRESSURE
4" MIN./14" MAX. DEPTH
KD 16 GA. MIN.
WELDED 16 GA MIN., 12 GA. MAX.
FOUR SIDED DOOR FRAME WITH WELDED CORNERS ALSO PERMITTED

FRAME PROFILES



FRAME CONSTRUCTION OPTIONS



FL# 16355.2

ENGINEERING EXPRESS
POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

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 (2023)
FLORIDA STATEWIDE APPROVAL (FSA FL#16355.2)

REMARKS	DRWN	CHKD	DATE
INIT. ISSUE (12-CUI-03g-01)	KL	FLB	06/28/13
FBC UPDATE	RWN	CSL	06/12/15
2017 FBC UPDATE	JEM	FLB	10/03/17
2020 FBC UPDATE	TAE	FLB	12/17/20
2023 FBC (PREV 20-34870)	AMZ	RS	10/18/23

COPYRIGHT ENGINEERING EXPRESS®

23-68038b

SCALE: NTS UNLESS NOTED

08 OF 13

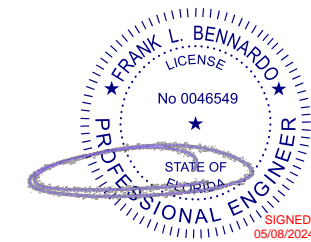
5/8/2024 3:52 PM SAM c:\users\eam\engineering\express\production - documents (1)\projects\23-68038 multiple products 2023 fbc update fl16355\work\drawings & cad\5-2-24 submittal\23-68038b - fl16355.2 - dwg 2.dwg

c:\users\eam\engineering\express\production - documents\1\projects\23-68038\multiple products 2023 fbc update fl16355\work\drawings & cad\5-2-24 submittal\23-68038b - fl16355.2 - dwg 2.dwg
 5/8/2024 3:52 PM SAM

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.

FRANK BENNARDO, PE
 PE# 0046549 CA# 9885

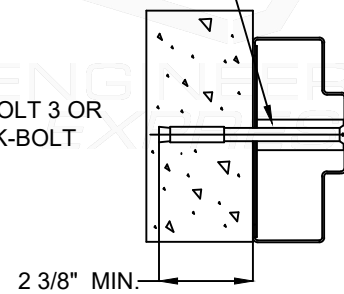


MAY 8, 2024

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"

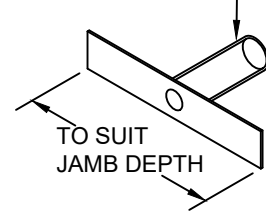
1/4" MAX. THICK A-36 STEEL SHIMS WELDED TO STRUCTURAL BUILDING MEMBER WITH FILLET WELDS MEASURING 2" LONG USING E6018 ELECTRODES. FILLET WELD SIZE SAME AS SHIM THICKNESS FOR 0.053" TO 0.125" SHIM THICKNESS. WELD SIZE 1/8" FOR > 0.125" TO 1/4" SHIM THICKNESS.

HILTI KWIK BOLT 3 OR POWERS LOK-BOLT

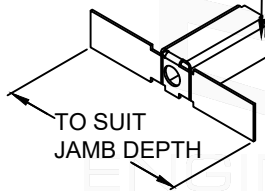


2 3/8" MIN.

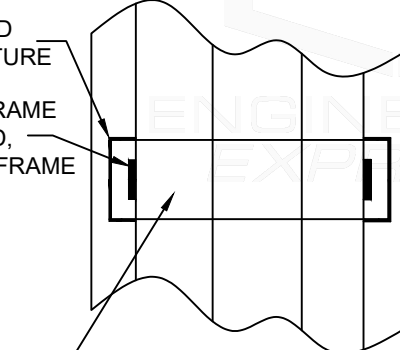
16 GA (0.053" MIN) PIPE SPACER ANCHOR



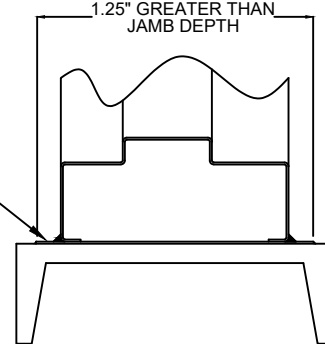
16 GA (0.053" MIN) EWA ANCHOR



STEEL SHIMS WELDED TO BUILDING STRUCTURE
 WELD HOLLOW METAL FRAME TO SHIM WITH 3/16" WELD, 1" LONG BOTH SIDES OF FRAME

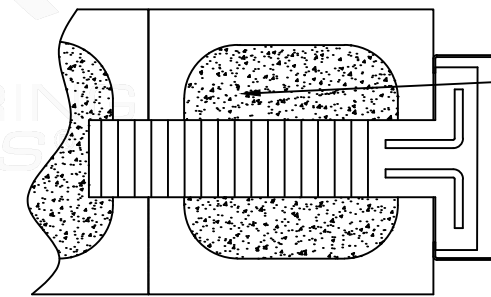


2" X 7" STEEL SHIM PLATE(S), OR TO SUIT FRAME JAMB DEPTH



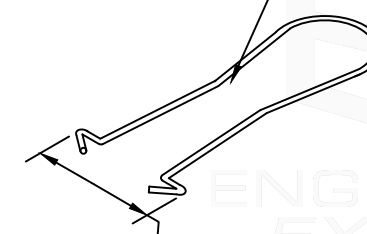
1.25" GREATER THAN JAMB DEPTH

MAXIMUM SHIM SPACE 1/4"



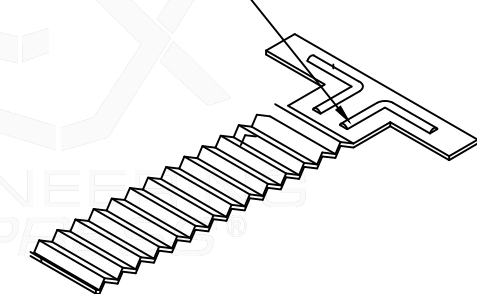
MAXIMUM SHIM THICKNESS 0.25 CMU BLOCK AND THROAT OF FRAME FILLED WITH 3000 PSI MORTAR

MASONRY WIRE ANCHOR 0.165" DIA. MIN.



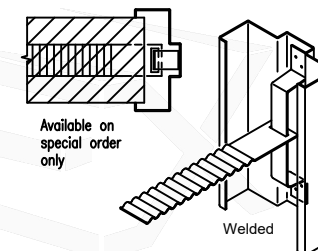
OPERATING RANGE 3" - 8 3/4"

16 GA (0.053" MIN) MASONRY T ANCHOR

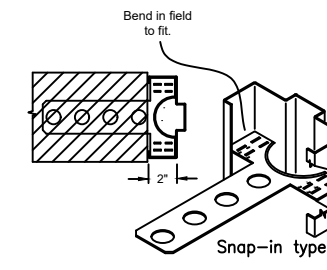


Expansion Shell Anchor Requirements for Jamb

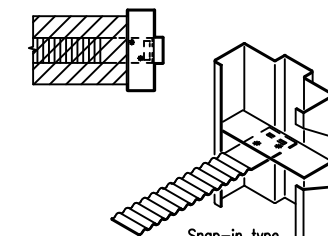
Opening Height (inches)	Up to an including 100 psf			150 psf		
	Max. Distance From End of Jamb	Min. Anchor Quantity	Maximum Spacing (inches)	Max. Distance From End of Jamb	Min. Anchor Quantity	Maximum Spacing (inches)
Up to 84"	12	5	19	12	5	19
90	12	5	19	12	5	19
96	12	6	19	12	6	19



YOKE AND STRAP MASONRY ANCHOR



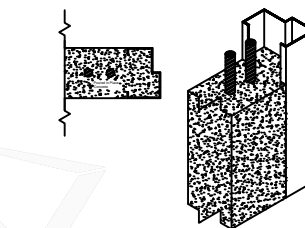
MASONRY "T" ANCHOR (ADJUSTABLE)



MASONRY "T" ANCHOR

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		
	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	4	24	12	5	24
90	12	4	24	12	5	24
96	12	4	24	12	5	24



POURED IN PLACE WALL

FL# 16355.2

ENGINEERING EXPRESS
 POSTAL ADDRESS:
 2234 NORTH FEDERAL HWY #7664
 BOCA RATON, FL 33431
 ENGINEERINGEXPRESS.COM

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 (2023)
 FLORIDA STATEWIDE APPROVAL (FSA FL#16355.2)

REMARKS	DRWN	CHKD	DATE
INIT ISSUE (12-CUI-03g-01)	KL	FLB	06/28/13
FBC UPDATE	RWN	CSL	06/12/15
2017 FBC UPDATE	JEM	FLB	10/03/17
2020 FBC UPDATE	TAE	FLB	12/17/20
2023 FBC (PREV 20-34870)	AMZ	RS	10/18/23

COPYRIGHT ENGINEERING EXPRESS®

23-68038b

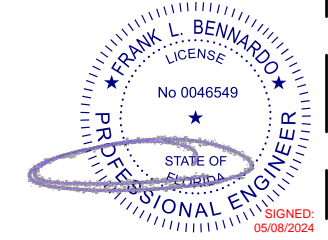
SCALE: NTS UNLESS NOTED

09 OF 13

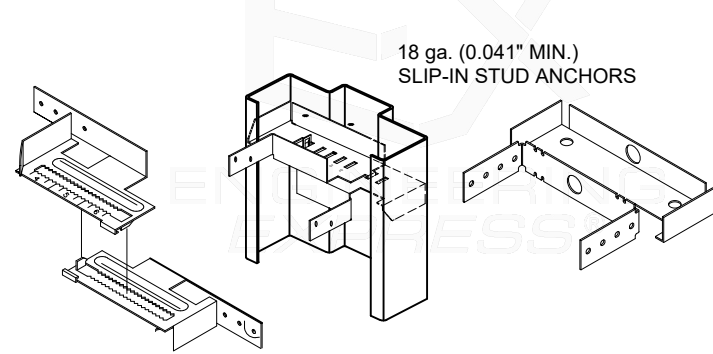
CECO DOOR FLUSH SINGLE DOORS

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.

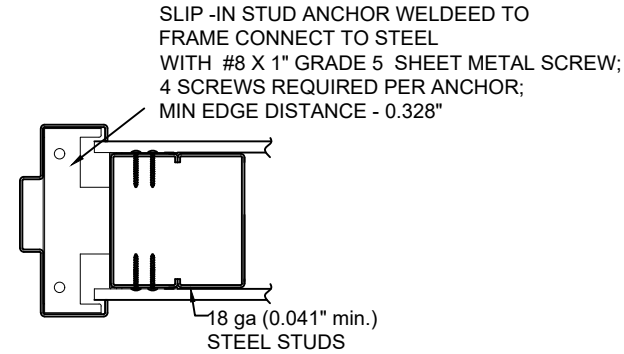
FRANK BENNARDO, PE
PE# 0046549 CA# 9885



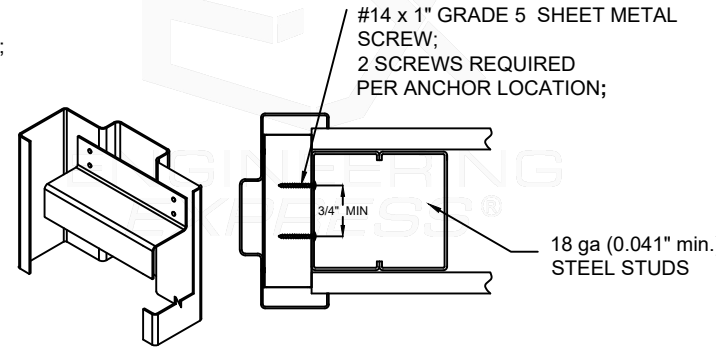
MAY 8, 2024



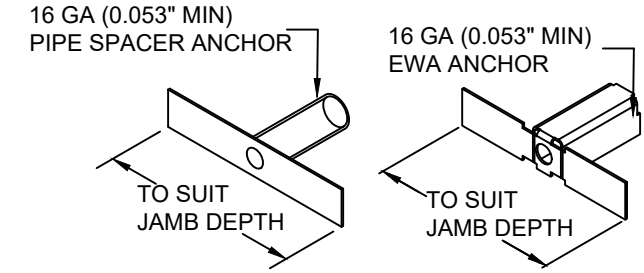
18 ga. (0.041" MIN.)
SLIP-IN STUD ANCHORS



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



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

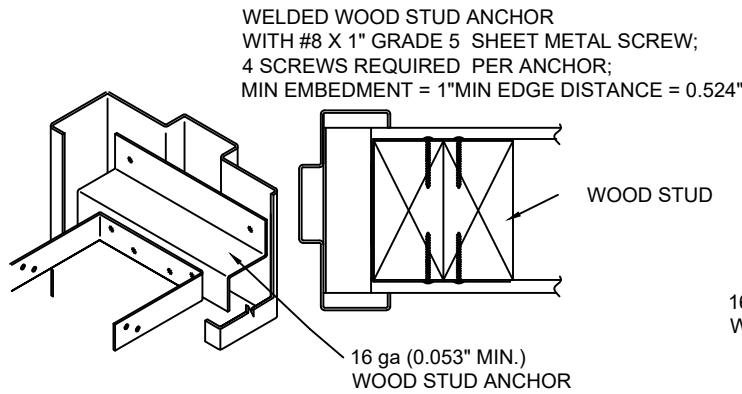


16 GA (0.053" MIN)
PIPE SPACER ANCHOR

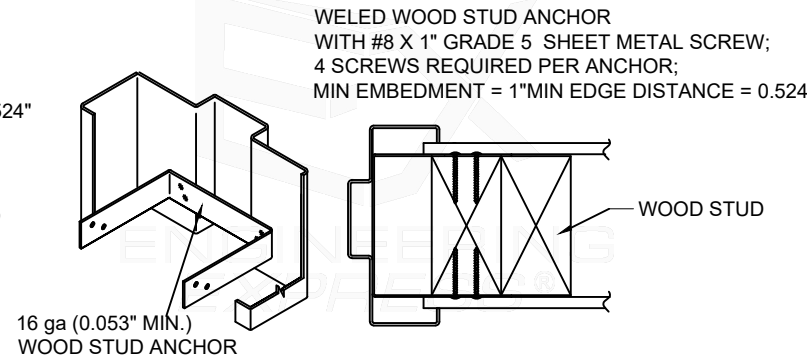
16 GA (0.053" MIN)
EWA ANCHOR

TO SUIT
JAMB DEPTH

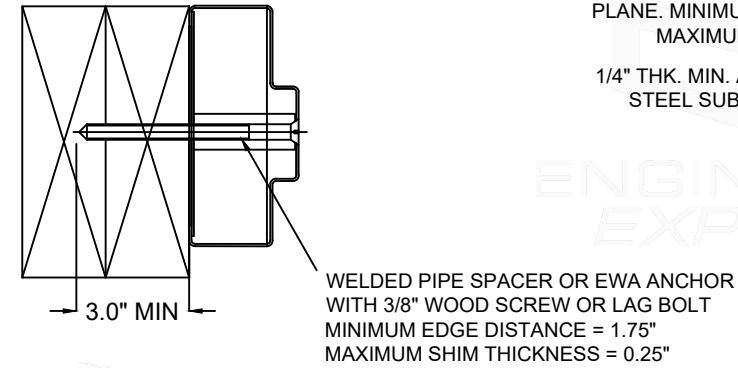
TO SUIT
JAMB DEPTH



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"



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



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 Jambes 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

FL# 16355.2

ENGINEERING EXPRESS
POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

CECO DOOR PRODUCTS
DIVISION OF ASSA ABLOY DOOR GROUP, INC.
9159 TELECOM DRIVE
MILAN, TN 38358
ASSA ABLOY
COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMI) - FBC (2023)
FLORIDA STATEWIDE APPROVAL (FSA FL#16355.2)

REMARKS	DRWN	CHKD	DATE
INIT ISSUE (12-CUI-03g-01)	KL	FLB	06/28/13
FBC UPDATE	RWN	CSL	06/12/15
2017 FBC UPDATE	JEM	FLB	10/03/17
2020 FBC UPDATE	TAE	FLB	12/17/20
2023 FBC (PREV 20-34870)	AMZ	RS	10/18/23

COPYRIGHT ENGINEERING EXPRESS®

23-68038b

SCALE: NTS UNLESS NOTED

10 OF 13

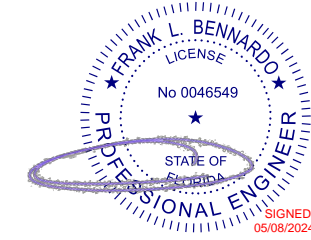
c:\users\eam\engineering express\production - documents (1)\projects\23-68038 multiple products 2023 fbc update fl16355\work\drawings & cad\5-2-24 submittal\23-68038b - fl16355.2 - dwg 2.dwg



CECO DOOR FLUSH SINGLE DOORS

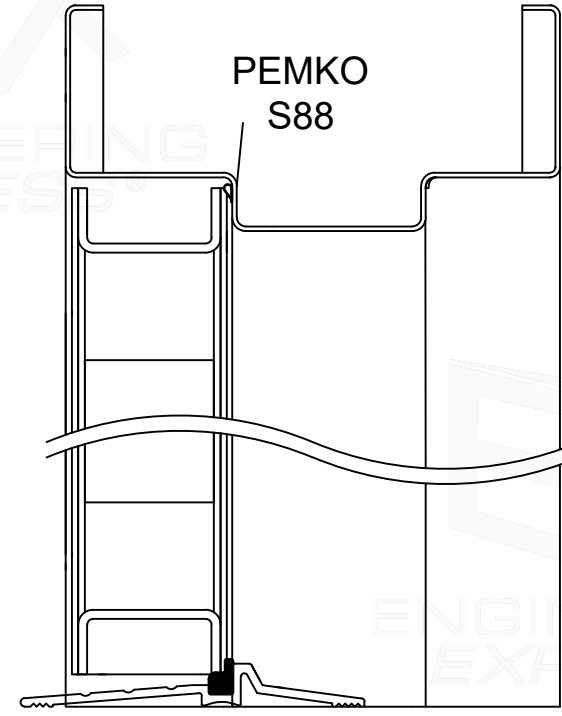
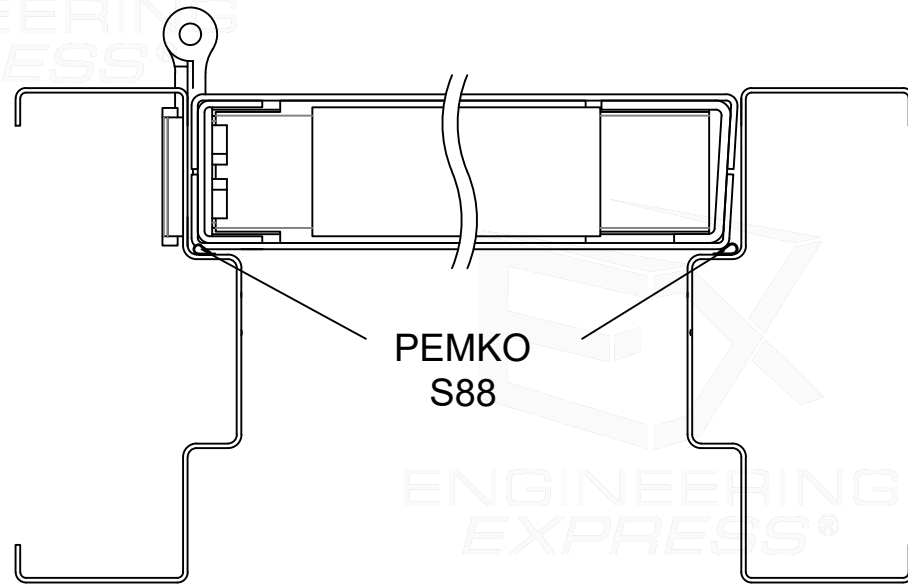
PRODUCTS ILLUSTRATED IN THIS DOCUMENT ARE QUALIFIED FOR LARGE AND SMALL MISSILE IMPACT. LARGE MISSILE IMPACT IS 9 LB 2 X 4 AT 50 FEET PER SECOND OR 350 FT-LBS. (MISSILE LEVEL D) PRODUCT MEETS REQUIREMENTS OF THE HIGH VELOCITY HURRICANE ZONE.

FRANK BENNARDO, PE
PE# 0046549 CA# 9885



MAY 8, 2024

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



PEMKO S88

PEMKO S88

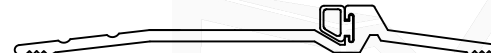
PEMKO 2005



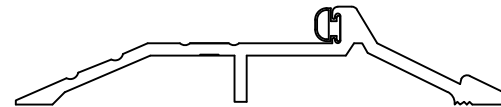
PEMKO S88



PEMKO 303



PEMKO 2005



PEMKO 181



PEMKO 177

FL# 16355.2

ENGINEERING EXPRESS
 POSTAL ADDRESS:
 2234 NORTH FEDERAL HWY #7664
 BOCA RATON, FL 33431
 ENGINEERINGEXPRESS.COM

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 (2023)
 FLORIDA STATEWIDE APPROVAL (FSA FL#16355.2)

REMARKS	DRWN	CHKD	DATE
INIT ISSUE (12-CUI-03g-01)	KL	FLB	06/28/13
FBC UPDATE	RWN	CSL	06/12/15
2017 FBC UPDATE	JEM	FLB	10/03/17
2020 FBC UPDATE	TAE	FLB	12/17/20
2023 FBC (PREV 20-34870)	AMZ	RS	10/18/23

23-68038b

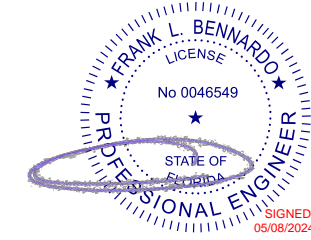
SCALE: NTS UNLESS NOTED

5/8/2024 3:52 PM SAM c:\users\seam\engineering\express\production - documents (1)\projects\23-68038 multiple products 2023 fbc update fl16355\work\drawings & cad\5-2-24 submittal\23-68038b - fl16355.2 - dwg 2.dwg

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.

FRANK BENNARDO, PE
PE# 0046549 CA# 9885



MAY 8, 2024

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

FL# 16355.2

ENGINEERING EXPRESS
POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

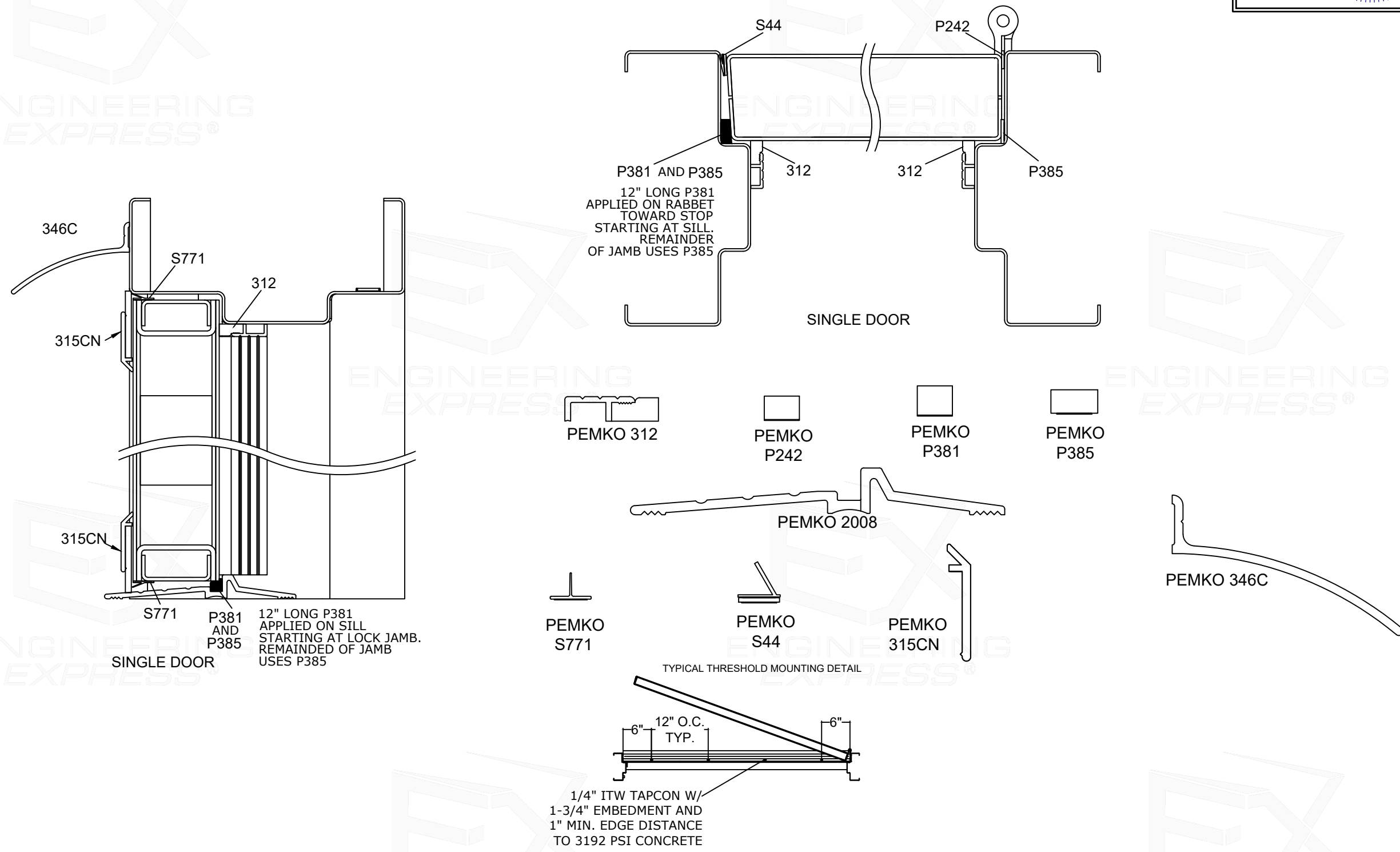
CECO DOOR PRODUCTS
DIVISION OF ASSA ABLOY DOOR GROUP, INC.
9159 TELECOM DRIVE
MILAN, TN 38358
COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMI) - FBC (2023)
FLORIDA STATEWIDE APPROVAL (FSA FL#16355.2)

REMARKS	DRWN	CHKD	DATE
INIT ISSUE (12-CUI-03g-01)	KL	FLB	06/28/13
FBC UPDATE	RWN	CSL	06/12/15
2017 FBC UPDATE	JEM	FLB	10/03/17
2020 FBC UPDATE	TAE	FLB	12/17/20
2023 FBC (PREV 20-34870)	AMZ	RS	10/18/23

23-68038b

SCALE: NTS UNLESS NOTED

12 OF 13



c:\users\seam\engineering\express\production - documents (1)\projects\23-68038 multiple products 2023 fbc update fl16355\work\drawings & cad\5-2-24 submittal\23-68038b - fl16355.2 - dwg 2.dwg

ENGINEERING EXPRESS®

ENGINEERING EXPRESS®

ENGINEERING EXPRESS®

ENGINEERING EXPRESS®

ENGINEERING EXPRESS®

ENGINEERING EXPRESS®

HARDWARE NOTES

CORBIN RUSSWIN

THE ED5200(S)A 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, IN, INB, SE.

USE CRFE772A, CRFE708A OR CRWS700AKM 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 CLX3300 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 CLX3300 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 IN 120 ACCESS CONTROL MAY BE USED WITH CLX3300 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, KP, LK, LU, M1, N1, N2, PA, PK, 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, 58, 59, BT & ET.

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 IN 10 ACCESS CONTROL MAY BE USED WITH THE 10X CYLINDRICAL LOCK AND THE 8200 AND THE R8200 MORTISE LOCKS.

BUTT HINGES

- 2 HINGES ARE REQUIRED FOR DOORS UP TO AND INCLUDING 60 INCHES IN HEIGHT
- 3 HINGES ARE REQUIRED FOR DOORS OVER 60 INCHES IN HEIGHT AND UP TO AND INCLUDING 90" IN HEIGHT
- 4 HINGES ARE REQUIRED FOR DOORS OVER 90 INCHES IN HEIGHT AND UP TO AND INCLUDING 96" IN HEIGHT

ADDITIONAL HINGES BEYOND THOSE REQUIRED MAY BE REQUIRED.

ASSA ABLOY ACCENTRA

7150(F)WS / 7250M(F)WS RIM EXIT AND 7170(F)WS SURFACE VERTICAL ROD MAY BE SUFFIXED 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 .

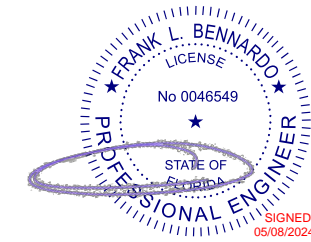
SECURITRON

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 ASSA ABLOY ACCENTRA 8800 MORTISE LOCK. THE UNL MAY BE USED ON 60 PSF RATED SINGLE 3'0" X 7'0" ASSEMBLIES WITH A CORBIN RUSSWIN CL3100 / CLX3300 / CL3500 / CL3800, SARGENT 6500 / 7 /10X, OR ASSA ABLOY ACENTRA / 5300LN / 5400CK / 5400LN CYLINDRICAL LOCKS.

THE HARDWARE MODELS BELOW MAY ALSO BE USED FOR THE SIZES AND DESIGN PRESSURES INDICATED. CONCEALED VERTICAL RODS AND SURFACE VERTICAL RODS MAY BE USED IN A PAIRED CONFIGURATION. RIM EXITS MAY BE USED IN PAIRED CONFIGURATION WITH A HURRICANE RATED MULLION					
DESIGN PRESSURE	SIZE	HARDWARE TYPE	MIN, GAUGE	CORBIN RUSSWIN	SARGENT
60	3'-0" x 7'-0"	MORTISE EXIT	18	PED5600 M107 PED5600 A M107*	WS-PE8900 WS-12-PE8900*
60	3'-0" x 7'-0"	RIM EXIT	18	PED5200 HC PED5200 A HC* PED5200 M107 PED5200 A M107*	HC-PE8800 12-HC-PE8800* WS-PE8800 WS-12-PE8800*
60	3'-0" x 8'-0" SINGLE 6'-0" x 8'-0" PAIR	CONCEALED VERTICAL ROD	16	PED5800 MD 107 PED5800 MD HC	HC-MD-PE8600 WS-MD-PE8600
60	3'-0" x 8'-0" SINGLE 6'-0" x 8'-0" PAIR	RIM EXIT	16	PED5200 HC PED5200 A HC*	HC-PE8800 12-HC-PE8800*
60	3'-0" x 8'-0" SINGLE 6'-0" x 8'-0" PAIR	SURFACE VERTICAL ROD	16	PED5400 HC	HC-PE8700
70	4'-0" x 8'-0" SINGLE 8'-0" x 8'-0" PAIR	CONCEALED VERTICAL ROD	16	PED5800 MD 107 PED5800 MD HC	HC-MD-PE8600 WS-ME-PE860
70	4'-0" x 8'-0" SINGLE 8'-0" x 8'-0" PAIR	RIM EXIT	16	PED5200 HC PED5200A HC*	HC-PE8800
70	4'-0" x 8'-0" SINGLE 8'-0" x 8'-0" PAIR	SURFACE VERTICAL ROD	16	PED5400 HC	HC-PE8700
150	4'-0" x 8'-0" SINGLE 8'-0" x 8'-0" PAIR	SURFACE VERTICAL ROD	14	PED5400 HC4 PED5400 A HC4*	HC4-8700 12-HC4-PE8700*

*INDICATED A FIRE RATED EXIT HARDWARE MAY BE USED ON A SINGLE DOOR

FRANK BENNARDO, PE
PE# 0046549 CA# 9885



MAY 8, 2024

FL# 16355.2

ENGINEERING EXPRESS

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

CECO DOOR PRODUCTS
DIVISION OF ASSA ABLOY DOOR GROUP, INC.
9159 TELECOM DRIVE
MILAN, TN 38358

CecoDoor
ASSA ABLOY

COMMERCIAL STEEL EXTERIOR DOORS
FLUSH SINGLE DOORS (LMI) - FBC (2023)
FLORIDA STATEWIDE APPROVAL (FSA FL#16355.2)

REMARKS	DRWN	CHKD	DATE
INIT ISSUE (12-CUI-03g-01)	KL	FLB	06/28/13
FBC UPDATE	RWN	CSL	06/12/15
2017 FBC UPDATE	JEM	FLB	10/03/17
2020 FBC UPDATE	TAE	FLB	12/17/20
2023 FBC (PREV:20-34870)	AMZ	RS	10/18/23

COPYRIGHT ENGINEERING EXPRESS®

23-68038b

SCALE: NTS UNLESS NOTED

13 OF 13

c:\users\eam\engineering\express\production - documents (1)\projects\23-68038 multiple products 2023 fbc update fl16355\work\drawings & cad\5-2-24 submittal\23-68038b - fl16355.2 - dwg 2.dwg 5/8/2024 3:52 PM SAM