

PORTELLA STEEL DOORS & WINDOWS

ARTISAN SERIES MULLION/STIFFENER (WZ3)(IMPACT)

INSTALLATION NOTES:

- ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN, UNLESS OTHERWISE STATED.
- THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.
- INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/2 INCH OF THE DEPICTED LOCATION IN THE ANCHOR LAYOUT DETAIL (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE 1X BUCKING, SHEATHING, & WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.
- INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
- INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER.
- INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
 - WOOD - MINIMUM SPECIFIC GRAVITY OF 0.55.
 - STEEL - MINIMUM WALL THICKNESS OF 50 MILS (18 GA.), A36 STEEL MIN.
 - ALUMINUM - 1/8" MINIMUM THICKNESS (6063-T5 MIN.)
 - CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.
 - GROUT-FILLED CMU - UNIT STRENGTH CONFORMS TO ASTM C-90 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AND GROUT CONFORMS TO ASTM C 476, MINIMUM GROUT COMPRESSIVE STRENGTH OF 2000 PSI.

GENERAL NOTES:

- THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT EDITION FLORIDA BUILDING CODE (FBC) **EXCLUDING** HVHZ. ALL PRODUCTS UNDER THE SCOPE OF THIS DOCUMENT HAVE BEEN EVALUATED ACCORDING TO THE FOLLOWING:.
 - TAS 201-94
 - TAS 202-94
 - TAS 203-94
 - ASTM E1886-19
 - ASTM E1996-20
 - AAMA/WDMA/CSA 101/I.S.2/A440-17
- ADEQUACY OF THE EXISTING STRUCTURAL 2X AND METAL STUD FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
- 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
- THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT IN NON-HVHZ AREAS.
- APPROVED IMPACT PROTECTIVE SYSTEM **IS NOT REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE IN WIND ZONE 3 OR LESS.
- APPROVED IMPACT PROTECTIVE SYSTEM **IS REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE IN WIND ZONE 4.
- MULLION MATERIAL: STEEL
- IN ACCORDANCE WITH THE CURRENT EDITION FBC, DISSIMILAR METALS INCLUDING FASTENERS SHALL BE PROTECTED FROM GALVANIC CORROSION.
- MULL ASSEMBLIES ARE QUALIFIED FOR TWO OR MORE UNITS PER OPENING IN THE FOLLOWING CONFIGURATION:
 - "ONE-WAY" - RIBBON OR STACKED MULLIONS
 - "TWO-WAY" - 'X' OR 'T' MULLIONS

TABLE OF CONTENTS	
SHEET	SHEET DESCRIPTION
1	GENERAL NOTES & INSTALLATION NOTES
2	MULLION ASSEMBLY SECTIONS
3	'ONE-WAY' DESIGN PRESSURE TABLES
4	'TWO-WAY' DESIGN PRESSURE TABLES
5	MULLION ANCHOR SCHEDULE & INSTALLATION DETAILS
6	ANCHOR CAPACITY TABLES
7	BILL OF MATERIALS & COMPONENTS

MISSILE IMPACT RATING

LARGE AND SMALL MISSILE
IMPACT RATED

MULLING INSTRUCTIONS:

- STEP 1: ESTABLISH MULL ASSEMBLY TYPE AND MULL CONFIGURATION.
- STEP 2: VERIFY MULL ASSEMBLY CONSTRUCTION FROM SHEET 2.
- STEP 3: DETERMINE ALLOWABLE LOAD OF MULL ASSEMBLY FROM APPLICABLE LOAD TABLE, REFER TO SHEETS 3 & 4.
- STEP 4: DETERMINE ALLOWABLE LOAD OF ANCHORS FROM APPLICABLE LOAD TABLE, REFER TO SHEETS 6.
- STEP 5: INSTALL MULLION BASED ON APPLICABLE SPECIFICATIONS & DETAILS SHOWN ON SHEET 5.



PORTELLA STEEL DOORS & WINDOWS
4111 TODD LN, SUITE 1000
AUSTIN, TX 78744
PH: (214)484-3134 FAX: (214)484-3357

TITLE:
ARTISAN SERIES MULLION/STIFFENER
(WZ3)(IMPACT)
GENERAL NOTES &
INSTALLATION NOTES

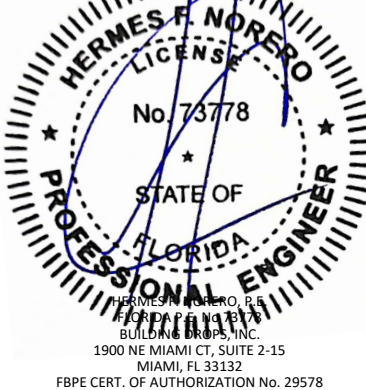
PREPARED BY:
BUILDING DROPS, INC.
1900 NE MIAMI CT, SUITE 2-15
MIAMI, FL 33132
PH: (954)399-8478
FAX: (954)744-4738
WEB: www.buildingdrops.com



REMARKS	BY	DATE

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.

Digitally signed by Hermes F. Norero, P.E.
Reason: I am approving this document
Date: 2026.02.16 09:36:06 -05'00'



FL #:
FL48065

DATE: **02.10.26**

DWG. BY: **DB** CHK. BY: **HFN**

SCALE: **NTS**

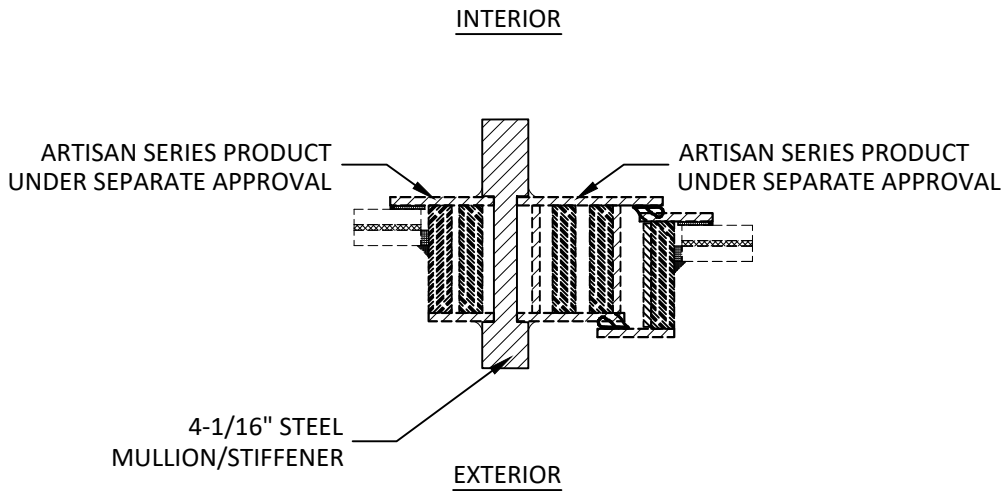
DWG. #: **POR018**

SHEET:

1

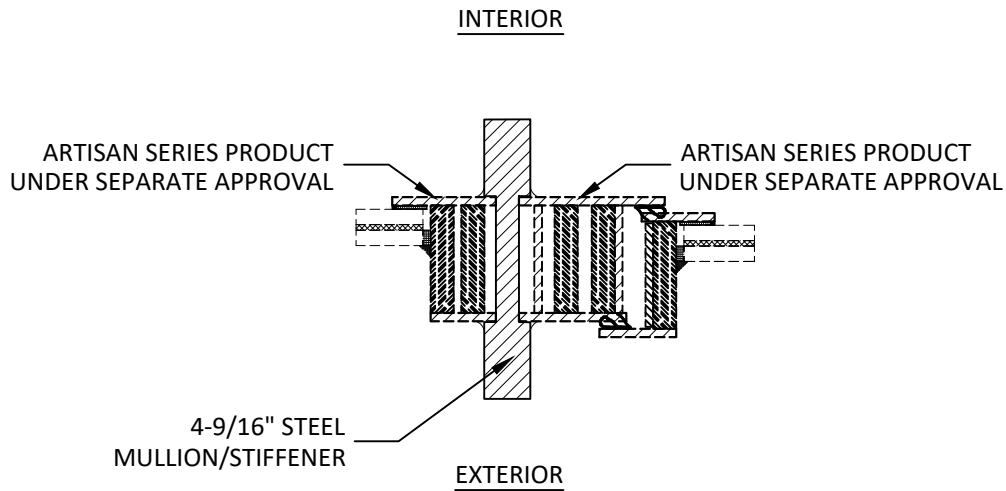
OF 7

c:\users\dwaniwata\building drops, inc\building drops landing - common\projects\portella steel doors & windows\fbcs submittal - fx, cs, esd, mullions\stiffener\mullion\por018.dwg 2/16/2026 8:48 AM



A
2

4-1/16" MULLION
VERTICAL OR HORIZONTAL MULL
ARTISAN SERIES



B
2

4-9/16" MULLION
VERTICAL OR HORIZONTAL MULL
ARTISAN SERIES



PORTELLA STEEL DOORS & WINDOWS
4111 TODD LN, SUITE 1000
AUSTIN, TX 78744
PH: (214)484-3134 FAX: (214)484-3357

TITLE:
ARTISAN SERIES MULLION/STIFFENER
(WZ3)/(IMPACT)

MULLION ASSEMBLY SECTIONS

PREPARED BY:

BUILDING DROPS, INC.

1900 NE MIAMI CT, SUITE 2-15

MIAMI, FL 33132

PH: (954)399-8478

FAX: (954)744-4738

WEB: www.buildingdrops.com



REMARKS	BY	DATE

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL #:
FL48065

DATE: **02.10.26**

DWG. BY:
DB

CHK. BY:
HFN

SCALE: **NTS**

DWG. #: **POR018**

SHEET:

2

OF 7

c:\users\dlanwata\building drops - common\projects\portella steel doors & windows\lbc-22-0441.1 - lbc submittal - fx, cs, esd, mullions\stiffener.dwg\mullion\por018.dwg 2/16/2026 8:48 AM

'ONE-WAY' DESIGN LOAD CAPACITY - PSF					
NOMINAL DIMS.		4-1/16" MULLION		4-9/16" MULLION	
TRIB. WIDTH - W (IN.)	SPAN - L (IN.)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
36	72	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		60.0	65.0	60.0	65.0
90		60.0	65.0	60.0	65.0
96		60.0	65.0	60.0	65.0
102		60.0	65.0	60.0	65.0
108		60.0	65.0	60.0	65.0
114		60.0	65.0	60.0	65.0
120		60.0	65.0	60.0	65.0
36	78	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		60.0	65.0	60.0	65.0
90		60.0	65.0	60.0	65.0
96		60.0	65.0	60.0	65.0
102		60.0	65.0	60.0	65.0
108		60.0	65.0	60.0	65.0
114		60.0	65.0	60.0	65.0
120		60.0	65.0	60.0	65.0
36	84	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		60.0	65.0	60.0	65.0
90		60.0	65.0	60.0	65.0
96		60.0	65.0	60.0	65.0
102		60.0	65.0	60.0	65.0
108		60.0	65.0	60.0	65.0
114		60.0	65.0	60.0	65.0
120		60.0	65.0	60.0	65.0
36	90	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		60.0	65.0	60.0	65.0
90		60.0	65.0	60.0	65.0
96		60.0	65.0	60.0	65.0
102		60.0	65.0	60.0	65.0
108		60.0	65.0	60.0	65.0
114		60.0	65.0	60.0	65.0
120		60.0	65.0	60.0	65.0

'ONE-WAY' DESIGN LOAD CAPACITY - PSF					
NOMINAL DIMS.		4-1/16" MULLION		4-9/16" MULLION	
TRIB. WIDTH - W (IN.)	SPAN - L (IN.)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
36	96	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		60.0	65.0	60.0	65.0
90		60.0	65.0	60.0	65.0
96		60.0	65.0	60.0	65.0
102		60.0	65.0	60.0	65.0
108		60.0	65.0	60.0	65.0
114		60.0	65.0	60.0	65.0
120		60.0	65.0	60.0	65.0
36	102	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		60.0	65.0	60.0	65.0
90		60.0	65.0	60.0	65.0
96		60.0	65.0	60.0	65.0
102		60.0	65.0	60.0	65.0
108		60.0	65.0	60.0	65.0
114		60.0	65.0	60.0	65.0
120		60.0	65.0	60.0	65.0
36	108	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		60.0	65.0	60.0	65.0
90		60.0	65.0	60.0	65.0
96		60.0	65.0	60.0	65.0
102		60.0	65.0	60.0	65.0
108		60.0	65.0	60.0	65.0
114		60.0	65.0	60.0	65.0
120		60.0	65.0	60.0	65.0
36	114	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		60.0	65.0	60.0	65.0
90		60.0	65.0	60.0	65.0
96		60.0	65.0	60.0	65.0
102		59.9	64.9	60.0	65.0
108		59.4	64.4	60.0	65.0
114		59.3	64.2	60.0	65.0
120		59.3	64.2	60.0	65.0

'ONE-WAY' DESIGN LOAD CAPACITY - PSF					
NOMINAL DIMS.		4-1/16" MULLION		4-9/16" MULLION	
TRIB. WIDTH - W (IN.)	SPAN - L (IN.)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
36	120	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		58.8	63.7	60.0	65.0
90		57.0	61.8	60.0	65.0
96		55.2	59.8	59.4	64.3
102		53.9	58.3	58.3	63.2
108		52.9	57.3	57.6	62.4
114		52.3	56.7	57.1	61.9
120		52.1	56.5	57.0	61.8
36	124.5	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		57.1	61.9	60.0	65.0
84		54.4	58.9	59.2	64.2
90		52.1	56.5	57.4	62.1
96		50.3	54.5	55.9	60.5
102		48.9	53.0	54.7	59.3
108		47.9	51.9	53.9	58.4
114		47.2	51.1	53.3	57.8
120		46.8	50.7	53.0	57.4
36	126	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		58.2	63.1	60.0	65.0
78		55.1	59.6	60.0	65.0
84		52.5	56.9	58.2	63.0
90		50.4	54.7	56.3	61.0
96		48.8	52.9	54.8	59.4
102		47.4	51.4	53.6	58.1
108		46.4	50.2	52.8	57.2
114		45.6	49.4	52.2	56.5
120		45.2	48.9	51.8	56.1
36	132	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		57.7	62.6	60.0	65.0
66		53.5	57.9	60.0	65.0
72		50.0	54.2	59.4	64.3
78		47.2	51.1	56.6	61.3
84		44.9	48.6	54.3	58.8
90		43.0	46.6	52.4	56.8
96		41.5	44.9	50.9	55.1
102		40.3	43.6	49.4	53.5
108		39.3	42.6	48.1	52.1
114		38.6	41.8	47.1	51.0
120		38.1	41.3	46.4	50.3

'ONE-WAY' DESIGN LOAD CAPACITY - PSF					
NOMINAL DIMS.		4-1/16" MULLION		4-9/16" MULLION	
TRIB. WIDTH - W (IN.)	SPAN - L (IN.)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
36	138	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		54.9	59.5	60.0	65.0
60		50.2	54.3	60.0	65.0
66		46.4	50.2	59.2	64.2
72		43.3	46.9	55.9	60.5
78		40.8	44.2	53.0	57.4
84		38.7	41.9	50.2	54.3
90		37.0	40.1	47.8	51.8
96		35.6	38.5	45.9	49.7
102		34.4	37.3	44.3	48.0
108		33.5	36.3	43.0	46.5
114		32.8	35.5	41.9	45.4
120		32.2	34.9	41.1	44.6
36	144.0	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		53.4	57.9	60.0	65.0
54		48.1	52.1	60.0	65.0
60		43.9	47.5	60.0	65.0
66		40.5	43.9	55.3	59.9
72		37.7	40.9	51.4	55.7
78		35.5	38.4	48.2	52.2
84		33.6	36.4	45.5	49.3
90		32.1	34.7	43.3	46.9
96		30.8	33.3	41.5	44.9
102		29.7	32.2	39.9	43.3
108		28.8	31.2	38.7	41.9
114		28.1	30.5	37.6	40.7
120		27.6	29.9	36.8	39.8
36	150	60.0	65.0	60.0	65.0
42		53.3	57.8	60.0	65.0
48		47.1	51.0	60.0	65.0
54		42.4	45.9	57.9	62.7
60		38.6	41.8	52.8	57.2
66		35.6	38.5	48.7	52.7
72		33.1	35.9	45.3	49.1
78		31.1	33.7	42.5	46.1
84		29.4	31.9	40.2	43.6
90		28.0	30.3	38.3	41.5
96		26.8	29.1	36.7	39.7
102		25.8	28.0	35.3	38.3
108		25.0	27.1	34.2	37.1
114		24.3	26.4	33.3	36.0
120		23.8	25.8	32.5	35.2
36	156.0	54.7	59.3	60.0	65.0
42		47.3	51.2	60.0	65.0
48		41.8	45.2	57.1	61.9
54		37.5	40.6	51.3	55.6
60		34.1	37.0	46.7	50.6
66		31.4	34.1	43.0	46.6
72		29.2	31.7	40.0	43.3
78		27.4	29.7	37.5	40.6
84		25.9	28.0	35.4	38.3
90		24.6	26.6	33.6	36.4
96		23.5	25.5	32.2	34.9
102		22.6	24.5	30.9	33.5
108		21.8	23.7	29.9	32.4
114		21.2	23.0	29.0	31.4
120		20.7	22.4	28.3	30.6

c:\users\dlanwata\building drops, inc\building drops landing - common\projects\portella steel doors & windows\lbc-22-0441.1 - lbc submittal - fx, cs, esd, mullions\stiffener.dwg\mullion\por018.dwg 2/16/2026 8:48 AM

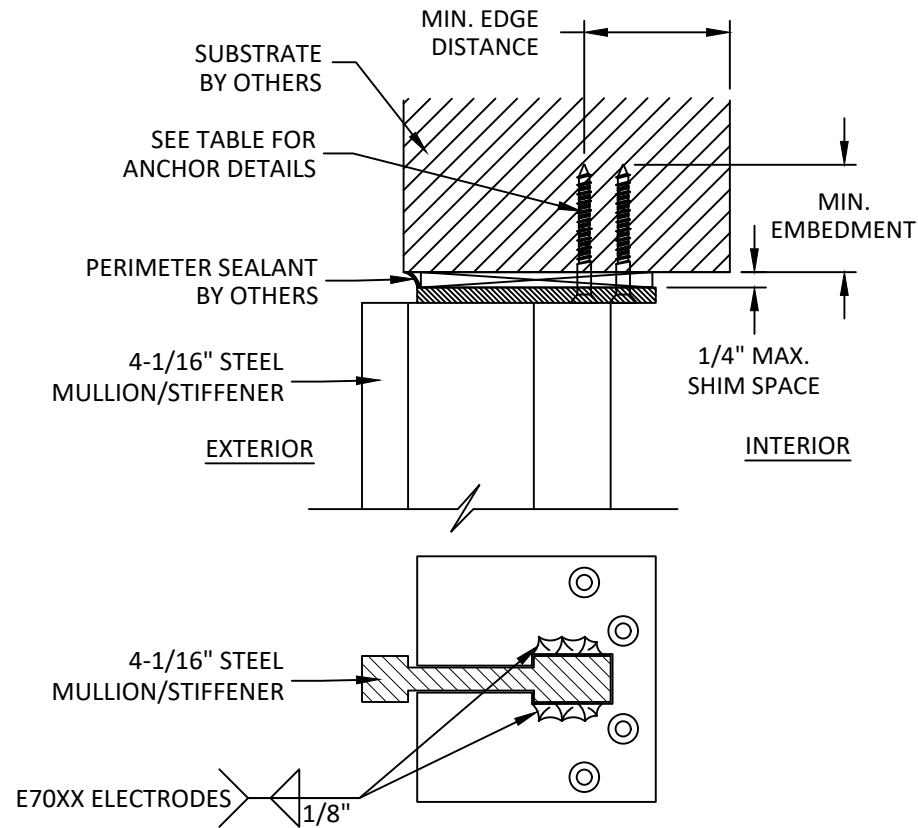
'TWO-WAY' DESIGN LOAD CAPACITY - PSF					
NOMINAL DIMS.		4-1/16" MULLION		4-9/16" MULLION	
TRIB. WIDTH - W (IN.)	SPAN - L (IN.)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
36	72	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		60.0	65.0	60.0	65.0
90		60.0	65.0	60.0	65.0
96		60.0	65.0	60.0	65.0
102		60.0	65.0	60.0	65.0
108	78	60.0	65.0	60.0	65.0
114		60.0	65.0	60.0	65.0
120		60.0	65.0	60.0	65.0
36		60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84	84	60.0	65.0	60.0	65.0
90		60.0	65.0	60.0	65.0
96		60.0	65.0	60.0	65.0
102		60.0	65.0	60.0	65.0
108		60.0	65.0	60.0	65.0
114		60.0	65.0	60.0	65.0
120		58.2	63.0	60.0	65.0
36	84	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		60.0	65.0	60.0	65.0
90		60.0	65.0	60.0	65.0
96		60.0	65.0	60.0	65.0
102		60.0	65.0	60.0	65.0
108	90	60.0	65.0	60.0	65.0
114		56.9	61.6	60.0	65.0
120		54.0	58.5	60.0	65.0
36		60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		60.0	65.0	60.0	65.0
90	90	60.0	65.0	60.0	65.0
96		60.0	65.0	60.0	65.0
102		59.3	64.3	60.0	65.0
108		56.0	60.7	60.0	65.0
114		53.1	57.5	60.0	65.0
120		50.4	54.6	60.0	65.0

'TWO-WAY' DESIGN LOAD CAPACITY - PSF					
NOMINAL DIMS.		4-1/16" MULLION		4-9/16" MULLION	
TRIB. WIDTH - W (IN.)	SPAN - L (IN.)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
36	96	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		60.0	65.0	60.0	65.0
90		59.1	64.0	60.0	65.0
96		55.6	60.3	60.0	65.0
102		52.5	56.9	60.0	65.0
108	102	49.8	53.9	60.0	62.3
114		47.3	51.2	59.1	59.1
120		60.0	65.0	60.0	65.0
36		60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84	108	60.0	65.0	60.0	65.0
90		59.3	64.3	60.0	65.0
96		55.6	60.3	60.0	65.0
102		52.3	56.7	60.0	61.6
108		49.4	53.6	58.2	58.2
114		46.8	50.7	55.1	55.1
120		44.5	48.2	52.4	52.4
36	108	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		60.0	65.0	60.0	65.0
90		56.0	60.7	60.0	62.3
96		52.5	56.9	58.4	58.4
102		49.4	53.6	55.0	55.0
108	114	46.7	50.6	51.9	51.9
114		44.2	47.9	49.2	49.2
120		42.0	45.5	46.7	46.7
36		60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		56.9	61.6	59.9	61.6
90	114	53.1	57.5	55.9	57.5
96		49.8	53.9	52.4	53.9
102		46.8	50.7	49.3	50.7
108		44.2	47.9	46.6	47.9
114		41.9	45.4	44.1	45.4
120		39.8	43.1	41.9	43.1

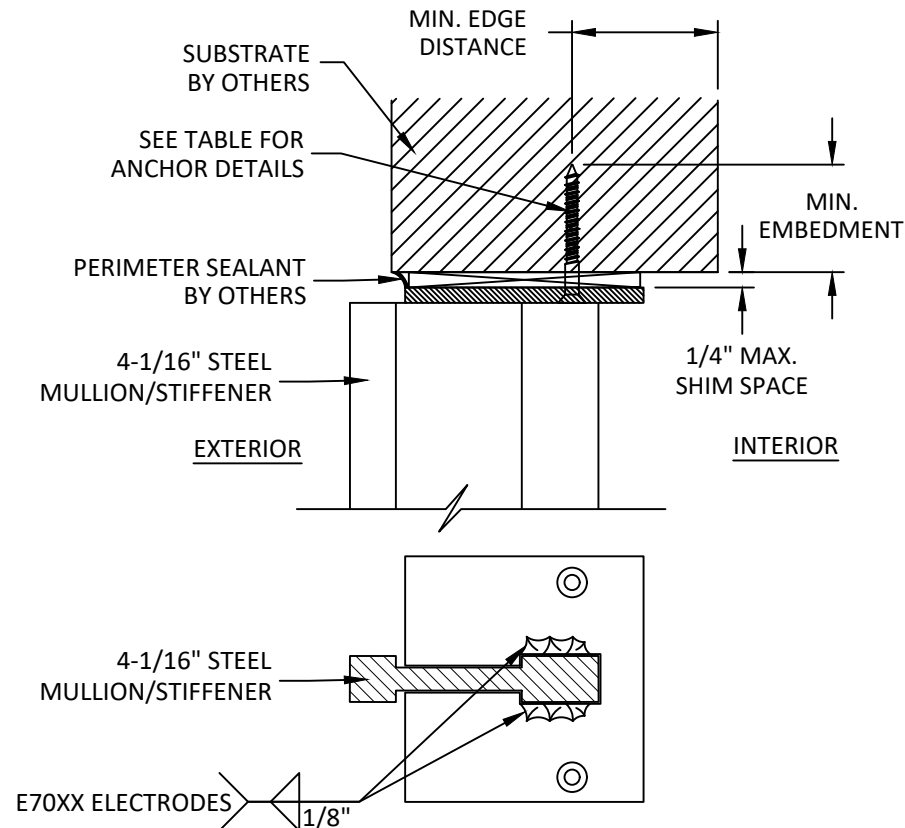
'TWO-WAY' DESIGN LOAD CAPACITY - PSF					
NOMINAL DIMS.		4-1/16" MULLION		4-9/16" MULLION	
TRIB. WIDTH - W (IN.)	SPAN - L (IN.)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
36	120	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		58.2	63.0	58.2	63.0
84		54.0	58.5	54.1	58.5
90		50.4	54.6	50.5	54.6
96		47.3	51.2	47.3	51.2
102		44.5	48.2	44.5	48.2
108	124.5	42.0	45.5	42.1	45.5
114		39.8	43.1	39.8	43.1
120		37.8	41.0	37.9	41.0
36		60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		56.1	60.8	56.1	60.8
84	126	52.1	56.4	52.1	56.4
90		48.6	52.7	48.6	52.7
96		45.6	49.4	45.6	49.4
102		42.9	46.5	42.9	46.5
108		40.5	43.9	40.5	43.9
114		38.4	41.6	38.4	41.6
120		36.5	39.5	36.5	39.5
36	126	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		60.0	65.0	60.0	65.0
78		60.0	65.0	60.0	65.0
84		59.7	64.7	59.7	64.7
90		57.2	61.9	57.2	61.9
96		55.2	59.8	55.2	59.8
102		53.6	58.0	53.6	58.0
108	132.0	52.4	56.7	52.4	56.7
114		51.5	55.8	51.5	55.8
120		51.0	55.3	51.0	55.3
36		60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		60.0	65.0	60.0	65.0
66		60.0	65.0	60.0	65.0
72		57.6	62.4	57.6	62.4
78		54.4	58.9	54.4	58.9
84		51.7	56.0	51.7	56.0
90	132.0	49.6	53.7	49.6	53.7
96		47.8	51.8	47.8	51.8
102		46.4	50.3	46.4	50.3
108		45.3	49.1	45.3	49.1
114		44.5	48.2	44.5	48.2
120		43.9	47.6	43.9	47.6

'TWO-WAY' DESIGN LOAD CAPACITY - PSF					
NOMINAL DIMS.		4-1/16" MULLION		4-9/16" MULLION	
TRIB. WIDTH - W (IN.)	SPAN - L (IN.)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)
36	138	60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		60.0	65.0	60.0	65.0
60		57.8	62.6	57.8	62.6
66		53.4	57.9	53.4	57.9
72		49.9	54.1	49.9	54.1
78		47.0	50.9	47.0	50.9
84		44.6	48.3	44.6	48.3
90		42.6	46.2	42.6	46.2
96		41.0	44.4	41.0	44.4
102		39.7	43.0	39.7	43.0
108	144.0	38.6	41.8	38.6	41.8
114		37.8	40.9	37.8	40.9
120		37.2	40.3	37.2	40.3
36		60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		60.0	65.0	60.0	65.0
54		55.4	60.0	58.4	60.0
60		50.6	54.8	52.6	54.8
66		46.7	50.6	47.8	50.6
72		43.5	47.1	43.8	47.1
78		40.9	44.3	40.9	44.3
84		38.8	42.0	38.8	42.0
90	150	37.0	40.0	37.0	40.0
96		35.5	38.4	35.5	38.4
102		34.2	37.1	34.2	37.1
108		33.2	36.0	33.2	36.0
114		32.4	35.1	32.4	35.1
120		31.8	34.4	31.8	34.4
36		60.0	65.0	60.0	65.0
42		60.0	65.0	60.0	65.0
48		54.3	58.8	60.0	60.6
54		48.8	52.9	53.8	53.8
60		44.5	48.2	48.5	48.5
66		41.0	44.4	44.0	44.4
72	38.2	41.4	40.4	41.4	
78	35.8	38.8	37.3	38.8	
84	33.9	36.7	34.6	36.7	
90	32.3	35.0	32.3	35.0	
96	30.9	33.5	30.9	33.5	
102	29.8	32.3	29.8	32.3	
108	28.8	31.2	28.8	31.2	
114	28.0	30.4	28.0	30.4	
120	27.4	29.7	27.4	29.7	
36	156.0	60.0	65.0	60.0	65.0
42		54.5	59.1	60.0	64.0
48		48.1	52.1	56.0	56.0
54		43.2	46.8	49.8	49.8
60		39.4	42.6	44.8	44.8
66		36.2	39.3	40.7	40.7
72		33.7	36.5	37.3	37.3
78		31.6	34.2	34.5	34.5
84		29.8	32.3	32.0	32.3
90		28.4	30.7	29.9	30.7
96		27.1	29.4	28.0	29.4
102		26.1	28.2	26.4	28.2
108	25.2	27.3	25.2	27.3	
114	24.4	26.5	24.4	26.5	
120	23.8	25.8	23.8	25.8	

c:\users\dwaniwata\building drops, inc\building drops landing - common\projects\portella steel doors & windows\lbc-22-0441.1 - fbc submittal - fx, cs, esd, mullions\stiffener\dwgs\mullion\por018.dwg
2/16/2026 8:48 AM



A
5 **INSTALLATION DETAIL**
CLIP INSTALLATION - WOOD/STEEL
4-1/16" MULLION SHOWN, 4-9/16" SIMILAR



B
5 **INSTALLATION DETAIL**
CLIP INSTALLATION - CONCRETE/CMU
4-1/16" MULLION SHOWN, 4-9/16" SIMILAR

ANCHOR SCHEDULE					
METHOD	SUBSTRATE	ANCHOR TYPE	MIN. EMBEDMENT	MIN. EDGE DISTANCE	ANCHOR GROUP
CLIP INSTALLATION	WOOD: MIN. SG = 0.55	#14 WOOD SCREW	1.50"	0.75"	B
		5/16" DEWALT ULTRACON	1.50"	1.5625"	C
	METAL: 16 GAUGE STEEL, MIN. Fy = 33KSI ALUMINUM: 1/8" MIN., 6063-T5	5/16" GR. 5 SELF-DRILLING SCREW	3 THREADS MIN PENETRATION BEYOND STRUCTURE	0.75"	D
	METAL: 18 GAUGE STEEL, MIN. Fy = 33KSI ALUMINUM: 1/8" MIN., 6063-T5	1/4" GR. 5 SELF-DRILLING SCREW	3 THREADS MIN PENETRATION BEYOND STRUCTURE	0.75"	C
	CONCRETE: f'c=3000PSI	3/8" DEWALT SCREWBOLT+	2.50"	3.00"	B
	MASONRY: GROUT FILLED CMU per ASTM C90 MIN. 2000 PSI		3.25"	3.50"	
	CONCRETE: f'c=3000PSI	1/4" DEWALT SCREWBOLT+	2.50"	2.75"	A
	CONCRETE: f'c=3000PSI	1/2" DEWALT SCREWBOLT+	3.00"	3.00"	C
	MASONRY: GROUT FILLED CMU per ASTM C90 MIN. 2000 PSI		4.25"	3.75"	A
	CONCRETE: f'c=3000PSI	1/2" DEWALT SCREWBOLT+	3.00"	4.50"	D



PORTELLA STEEL DOORS & WINDOWS
4111 TODD LN, SUITE 1000
AUSTIN, TX 78744
PH: (214)484-3134 FAX: (214)484-3357

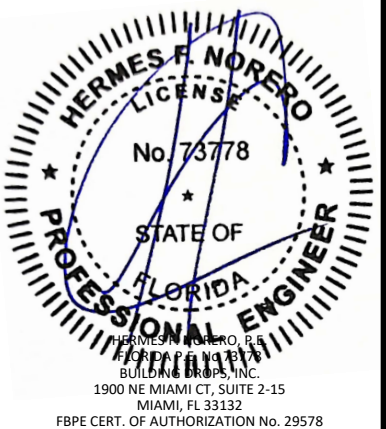
TITLE:
ARTISAN SERIES MULLION/STIFFENER
(WZ3)/(IMPACT)
MULLION ANCHOR SCHEDULE &
INSTALLATION DETAILS

PREPARED BY:
BUILDING DROPS, INC.
1900 NE MIAMI CT, SUITE 2-15
MIAMI, FL 33132
PH: (954)399-8478
FAX: (954)744-4738
WEB: www.buildingdrops.com



REMARKS	BY	DATE

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL #:
FL48065

DATE: **02.10.26**

DWG. BY: **DB** CHK. BY: **HFN**

SCALE: **NTS**

DWG. #: **POR018**

SHEET:

5

OF 7

c:\users\dlanwata\building drops, inc\building drops landing - common\projects\portella steel doors & windows\lbc-22-0441.1 - fbc submittal - fx, cs, esd, mullions\stiffener.dwg\mullion\por018.dwg 2/16/2026 8:48 AM

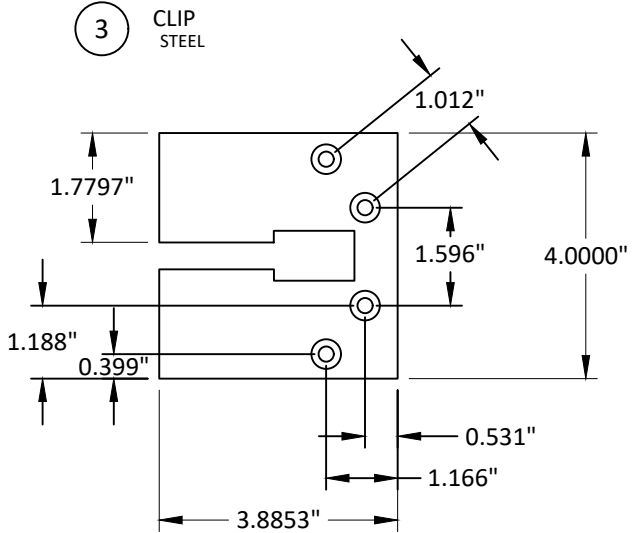
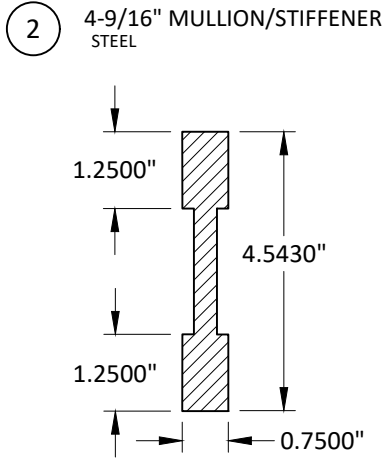
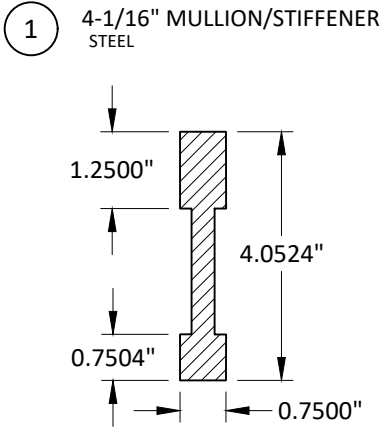
ANCHOR LOAD CAPACITY - PSF					
NOMINAL DIMS.		ANCHOR GROUPS			
TRIB. WIDTH - W (IN.)	SPAN - L (IN.)	A	B	C	D
36	72	65.0	65.0	65.0	65.0
42		61.4	65.0	65.0	65.0
48		53.8	65.0	65.0	65.0
54		47.8	65.0	65.0	65.0
60		43.0	65.0	65.0	65.0
66		39.1	62.4	65.0	65.0
72		35.8	57.2	65.0	65.0
78		33.1	52.8	65.0	65.0
84		30.7	49.0	65.0	65.0
90		28.7	45.7	65.0	65.0
96		26.9	42.9	63.9	65.0
102		25.3	40.4	60.1	65.0
108	78	23.9	38.1	56.8	65.0
114		22.6	36.1	53.8	65.0
120		21.5	34.3	51.1	65.0
36		65.0	65.0	65.0	65.0
42		56.7	65.0	65.0	65.0
48		49.6	65.0	65.0	65.0
54		44.1	65.0	65.0	65.0
60		39.7	63.3	65.0	65.0
66		36.1	57.6	65.0	65.0
72		33.1	52.8	65.0	65.0
78		30.5	48.7	65.0	65.0
84		28.4	45.2	65.0	65.0
90	84	26.5	42.2	62.9	65.0
96		24.8	39.6	59.0	65.0
102		23.3	37.2	55.5	65.0
108		22.1	35.2	52.4	65.0
114		20.9	33.3	49.7	65.0
120		19.8	31.7	47.2	65.0
36		61.4	65.0	65.0	65.0
42		52.7	65.0	65.0	65.0
48		46.1	65.0	65.0	65.0
54		41.0	65.0	65.0	65.0
60		36.9	58.8	65.0	65.0
66		33.5	53.5	65.0	65.0
72	90	30.7	49.0	65.0	65.0
78		28.4	45.2	65.0	65.0
84		26.3	42.0	62.6	65.0
90		24.6	39.2	58.4	65.0
96		23.0	36.7	54.8	65.0
102		21.7	34.6	51.5	65.0
108		20.5	32.7	48.7	65.0
114		19.4	30.9	46.1	65.0
120		18.4	29.4	43.8	64.3
36		57.3	65.0	65.0	65.0
42		49.1	65.0	65.0	65.0
48		43.0	65.0	65.0	65.0
54		38.2	61.0	65.0	65.0
60		34.4	54.9	65.0	65.0
66		31.3	49.9	65.0	65.0
72		28.7	45.7	65.0	65.0
78		26.5	42.2	62.9	65.0
84		24.6	39.2	58.4	65.0
90		22.9	36.6	54.5	65.0
96		21.5	34.3	51.1	65.0
102		20.2	32.3	48.1	65.0
108		19.1	30.5	45.4	65.0
114		18.1	28.9	43.0	63.2
120		17.2	27.4	40.9	60.0

ANCHOR LOAD CAPACITY - PSF					
NOMINAL DIMS.		ANCHOR GROUPS			
TRIB. WIDTH - W (IN.)	SPAN - L (IN.)	A	B	C	D
36	96	53.8	65.0	65.0	65.0
42		46.1	65.0	65.0	65.0
48		40.3	64.3	65.0	65.0
54		35.8	57.2	65.0	65.0
60		32.3	51.4	65.0	65.0
66		29.3	46.8	65.0	65.0
72		26.9	42.9	63.9	65.0
78		24.8	39.6	59.0	65.0
84		23.0	36.7	54.8	65.0
90		21.5	34.3	51.1	65.0
96		20.2	32.2	47.9	65.0
102		19.0	30.3	45.1	65.0
108	102	17.9	28.6	42.6	62.5
114		17.0	27.1	40.4	59.2
120		16.1	25.7	38.3	56.3
36		50.6	65.0	65.0	65.0
42		43.4	65.0	65.0	65.0
48		37.9	60.5	65.0	65.0
54		33.7	53.8	65.0	65.0
60		30.4	48.4	65.0	65.0
66		27.6	44.0	65.0	65.0
72		25.3	40.4	60.1	65.0
78		23.3	37.2	55.5	65.0
84		21.7	34.6	51.5	65.0
90	108	20.2	32.3	48.1	65.0
96		19.0	30.3	45.1	65.0
102		17.9	28.5	42.4	62.3
108		16.9	26.9	40.1	58.8
114		16.0	25.5	38.0	55.7
120		15.2	24.2	36.1	52.9
36		47.8	65.0	65.0	65.0
42		41.0	65.0	65.0	65.0
48		35.8	57.2	65.0	65.0
54		31.9	50.8	65.0	65.0
60		28.7	45.7	65.0	65.0
66		26.1	41.6	62.0	65.0
72	114	23.9	38.1	56.8	65.0
78		22.1	35.2	52.4	65.0
84		20.5	32.7	48.7	65.0
90		19.1	30.5	45.4	65.0
96		17.9	28.6	42.6	62.5
102		16.9	26.9	40.1	58.8
108		15.9	25.4	37.9	55.6
114		15.1	24.1	35.9	52.6
120		14.3	22.9	34.1	50.0
36		45.3	65.0	65.0	65.0
42		38.8	61.9	65.0	65.0
48		33.9	54.2	65.0	65.0
54		30.2	48.1	65.0	65.0
60		27.2	43.3	64.6	65.0
66		24.7	39.4	58.7	65.0
72		22.6	36.1	53.8	65.0
78		20.9	33.3	49.7	65.0
84		19.4	30.9	46.1	65.0
90		18.1	28.9	43.0	63.2
96		17.0	27.1	40.4	59.2
102		16.0	25.5	38.0	55.7
108		15.1	24.1	35.9	52.6
114		14.3	22.8	34.0	49.9
120		13.6	21.7	32.3	47.4

ANCHOR LOAD CAPACITY - PSF					
NOMINAL DIMS.		ANCHOR GROUPS			
TRIB. WIDTH - W (IN.)	SPAN - L (IN.)	A	B	C	D
36	120	43.0	65.0	65.0	65.0
42		36.9	58.8	65.0	65.0
48		32.3	51.4	65.0	65.0
54		28.7	45.7	65.0	65.0
60		25.8	41.2	61.3	65.0
66		23.5	37.4	55.8	65.0
72		21.5	34.3	51.1	65.0
78		19.8	31.7	47.2	65.0
84		18.4	29.4	43.8	64.3
90		17.2	27.4	40.9	60.0
96		16.1	25.7	38.3	56.3
102		15.2	24.2	36.1	52.9
108	124.5	14.3	22.9	34.1	50.0
114		13.6	21.7	32.3	47.4
120		12.9	20.6	30.7	45.0
36		41.4	65.0	65.0	65.0
42		35.5	56.7	65.0	65.0
48		31.1	49.6	65.0	65.0
54		27.6	44.1	65.0	65.0
60		24.9	39.7	59.1	65.0
66		22.6	36.1	53.7	65.0
72		20.7	33.1	49.3	65.0
78		19.1	30.5	45.5	65.0
84		17.8	28.3	42.2	62.0
90	126	16.6	26.4	39.4	57.8
96		15.5	24.8	36.9	54.2
102		14.6	23.3	34.8	51.0
108		13.8	22.0	32.8	48.2
114		13.1	20.9	31.1	45.7
120		12.4	19.8	29.6	43.4
36		41.0	65.0	65.0	65.0
42		35.1	56.0	65.0	65.0
48		30.7	49.0	65.0	65.0
54		27.3	43.6	64.9	65.0
60		24.6	39.2	58.4	65.0
66		22.3	35.6	53.1	65.0
72	132	20.5	32.7	48.7	65.0
78		18.9	30.2	44.9	65.0
84		17.6	28.0	41.7	61.2
90		16.4	26.1	38.9	57.1
96		15.4	24.5	36.5	53.6
102		14.5	23.1	34.4	50.4
108		13.7	21.8	32.5	47.6
114		12.9	20.6	30.7	45.1
120		12.3	19.6	29.2	42.9
36		39.1	62.4	65.0	65.0
42		33.5	53.5	65.0	65.0
48		29.3	46.8	65.0	65.0
54		26.1	41.6	62.0	65.0
60		23.5	37.4	55.8	65.0
66		21.3	34.0	50.7	65.0
72		19.5	31.2	46.5	65.0
78		18.0	28.8	42.9	62.9
84		16.8	26.7	39.8	58.4
90		15.6	24.9	37.2	54.5
96		14.7	23.4	34.8	51.1
102		13.8	22.0	32.8	48.1
108		13.0	20.8	31.0	45.5
114		12.3	19.7	29.3	43.1
120		11.7	18.7	27.9	40.9

ANCHOR LOAD CAPACITY - PSF					
NOMINAL DIMS.		ANCHOR GROUPS			
TRIB. WIDTH - W (IN.)	SPAN - L (IN.)	A	B	C	D
36	138	37.4	59.7	65.0	65.0
42		32.0	51.1	65.0	65.0
48		28.0	44.7	65.0	65.0
54		24.9	39.8	59.3	65.0
60		22.4	35.8	53.3	65.0
66		20.4	32.5	48.5	65.0
72		18.7	29.8	44.4	65.0
78		17.3	27.5	41.0	60.2
84		16.0	25.6	38.1	55.9
90		15.0	23.9	35.6	52.2
96		14.0	22.4	33.3	48.9
102		13.2	21.1	31.4	46.0
108	144.0	12.5	19.9	29.6	43.5
114		11.8	18.8	28.1	41.2
120		11.2	17.9	26.7	39.1
36		35.8	57.2	65.0	65.0
42		30.7	49.0	65.0	65.0
48		26.9	42.9	63.9	65.0
54		23.9	38.1	56.8	65.0
60		21.5	34.3	51.1	65.0
66		19.5	31.2	46.5	65.0
72		17.9	28.6	42.6	62.5
78		16.5	26.4	39.3	57.7

BILL OF MATERIALS			
ITEM	PART NO.	DESCRIPTION	MATERIAL
1	-	4-1/16" MULLION STIFFENER	STEEL
2	-	4-9/16" MULLION/STIFFENER	STEEL
3	-	CLIP	STEEL



PORTELLA STEEL DOORS & WINDOWS
4111 TODD LN, SUITE 1000
AUSTIN, TX 78744
PH: (214)484-3134 FAX: (214)484-3357

TITLE:
ARTISAN SERIES MULLION/STIFFENER
(WZ3)/(IMPACT)

BILL OF MATERIALS
& COMPONENTS

PREPARED BY:

BUILDING DROPS, INC.

1900 NE MIAMI CT, SUITE 2-15

MIAMI, FL 33132

PH: (954)399-8478

FAX: (954)744-4738

WEB: www.buildingdrops.com



REMARKS	BY	DATE

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.



FL #:

FL48065

DATE: 02.10.26

DWG. BY:
DB

CHK. BY:
HFN

SCALE: NTS

DWG. #: POR018

SHEET:

7

OF 7