HURRICANE RESISTANT PRODUCT

Features

- IR 521/IR 521T is 5" (127) deep and has a 2-1/2" (63.5) sightline
  {Expansion mullions have a 2-3/4" (69.9) sightline}
- Screw Spline fabrication
- IR 521T Single IsoLock® lanced pour and debridge thermal break
- Center glazed
- Outside or inside glazed
- Permanodic® anodized finishes option
- Painted finishes in standard and custom choices

Optional Features

- Integrated entrance framing
  Note: Entrance framing is undergoing certified testing, expected 2025.
- 350/500 IR Entrances - single or pairs
- 350/500 Heavy Wall™ IR Entrances - single or pairs
- 350T/500T Insulpour® thermal entrances - single or pairs
- Flushline® Entrances - single or pairs
- Strap anchor at head and jamb

Product Applications

- Impact resistant
- Blast mitigation
- Storefront, ribbon window or punched opening
- Low to mid-rise
- Single span
- GLASSvent® UT Windows for Storefront Framing are easily incorporated

For specific product applications,
consult your Kawneer representative.

FRAMING DETAILS - OUTSIDE GLAZED (WET) 4-8
FRAMING DETAILS - OUSIDE GLAZED (DRY) 9-13
FRAMING DETAILS - INSIDE GLAZED (WET) 14-18
FRAMING DETAILS - INIDE GLAZED (DRY) 19-23
ENTRANCE FRAMING DETAILS 24-25
WIND LOAD CHARTS 26-42
DEADLOAD CHARTS 43-48

Metric (SI) conversion figures are included throughout these details for reference. Numbers in parentheses ( ) are millimeters unless otherwise noted.

The following metric (SI) units are found in these details:

m – meter
cm – centimeter
mm – millimeter
s – second
Pa – pascal
MPa – megapascal

IR 521/521T Framing

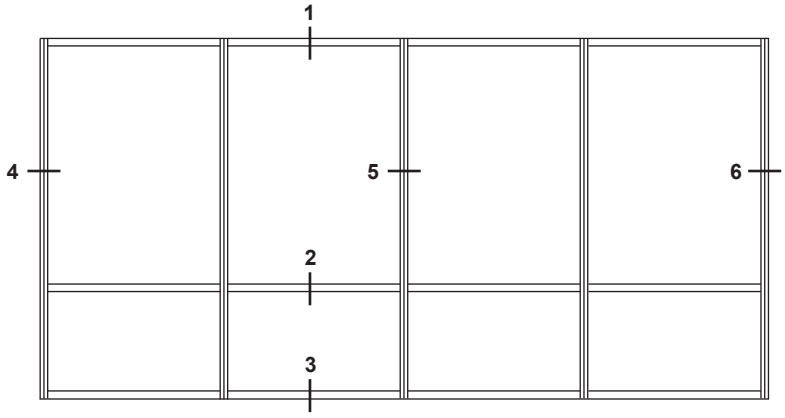
NOVEMBER, 2024

BASIC FRAMING DETAILS (Outside Glazed)

EC 97911-330

HURRICANE RESISTANT PRODUCT

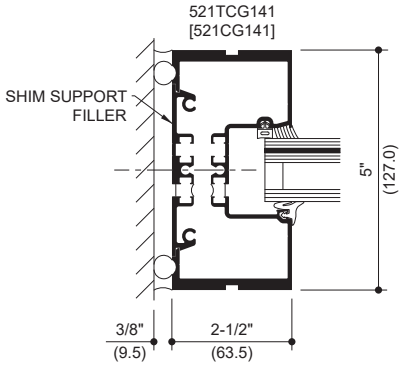
Additional information and CAD details are available at www.kawneer.com



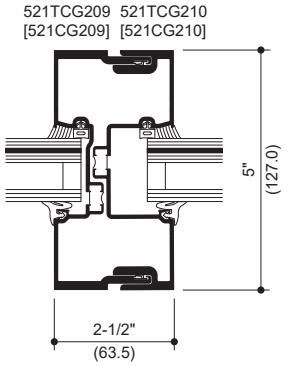
ELEVATION IS NUMBER KEYED TO DETAILS

IR 521 IsoLock®
NON-THERMAL

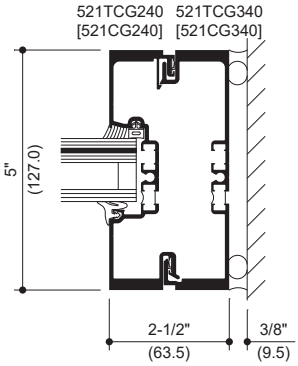
IR 521T Single IsoLock®
THERMAL BREAK (SHOWN)



4
FIRST BAY JAMB

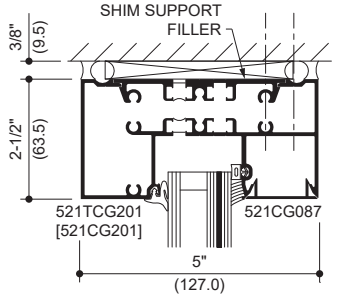


5
VERTICAL MULLION



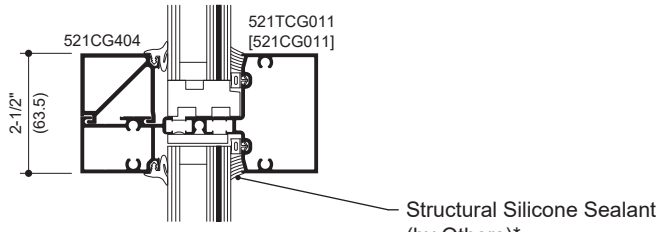
6
LAST BAY JAMB

1
HEAD

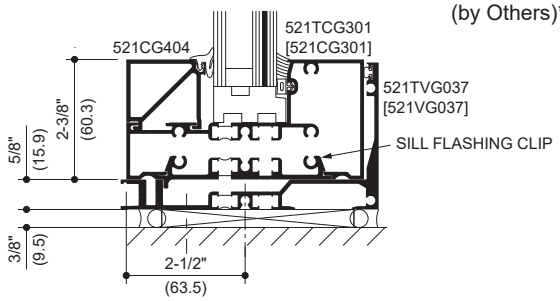


1-5/16" INFILL
(PRE GLAZED - WET GLAZED)

2
HORIZONTAL



3
SILL

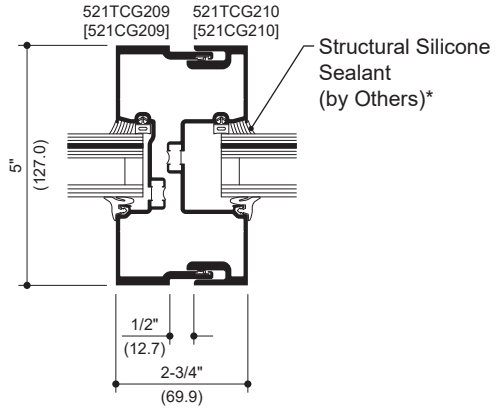


*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone Manufacturer and the Insulating Glass Unit Manufacturer.

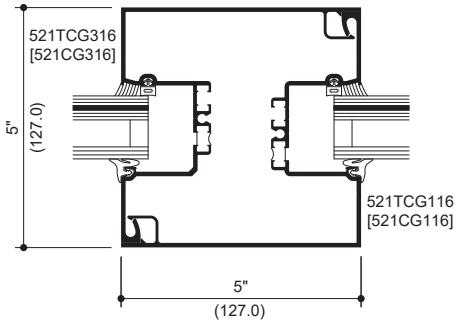
HURRICANE RESISTANT PRODUCT

Additional information and CAD details are available at www.kawneer.com

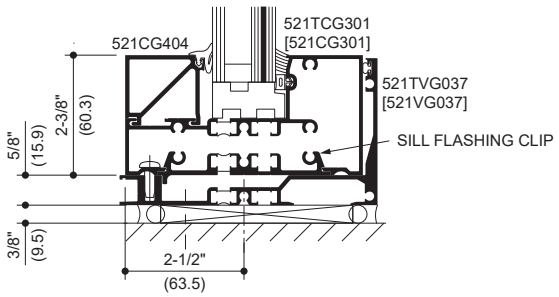
1-5/16" INFILL (PRE GLAZED - WET GLAZED)



EXPANSION MULLION



5" x 5" MULLION



PINNED HORIZONTAL TO SILL FLASHING

*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone Manufacturer and the Insulating Glass Unit Manufacturer.

IR 521/521T Framing

NOVEMBER, 2024

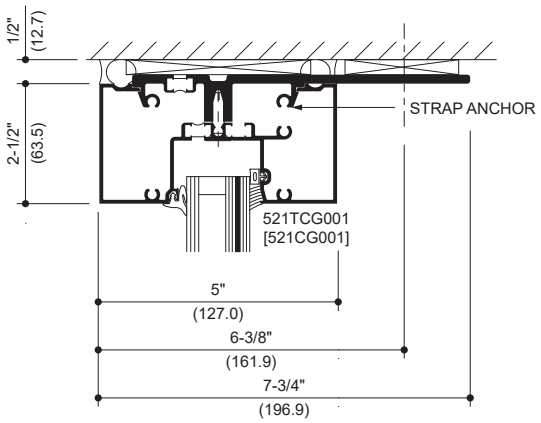
STRAP ANCHOR DETAILS (Outside Glazed)

EC 97911-330

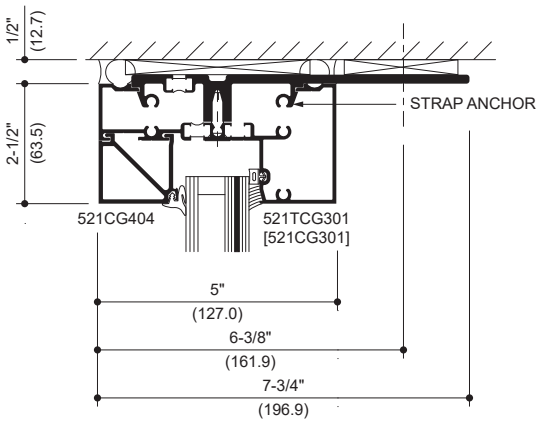
HURRICANE RESISTANT PRODUCT

Additional information and CAD details are available at www.kawneer.com

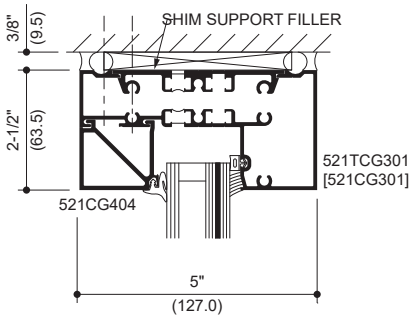
1-5/16" INFILL (PRE GLAZED - WET GLAZED)



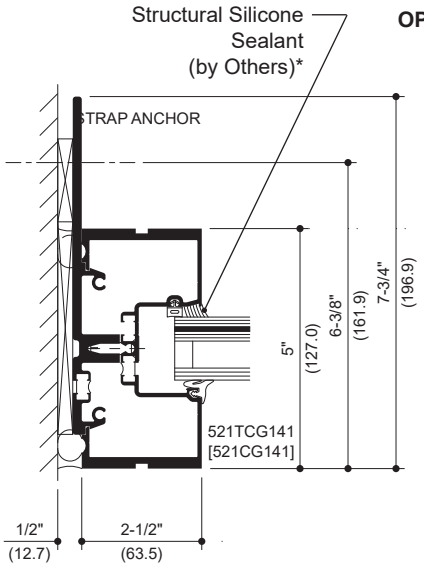
HEAD



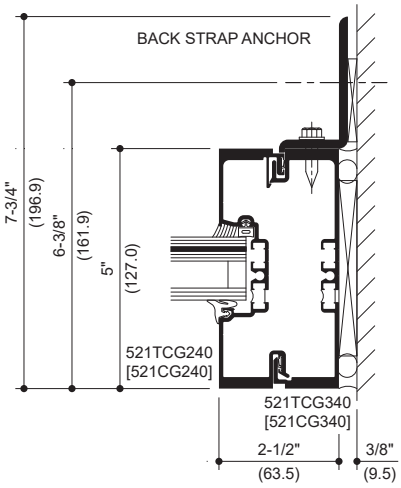
OPTIONAL HEAD WITH STOP



OPTIONAL HEAD WITH STOP



FIRST BAY JAMB



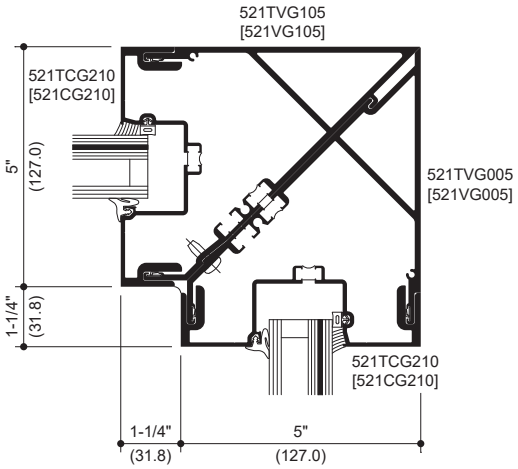
LAST BAY JAMB

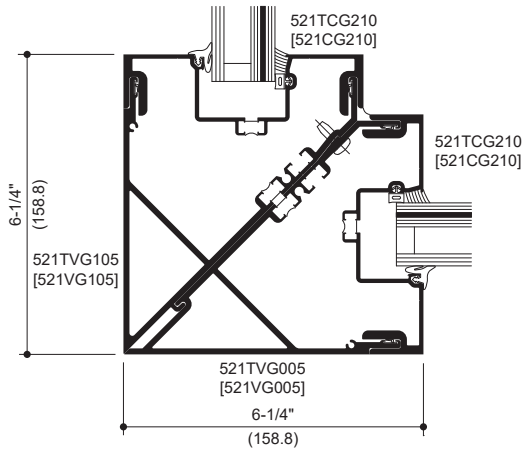
*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone Manufacturer and the Insulating Glass Unit Manufacturer.

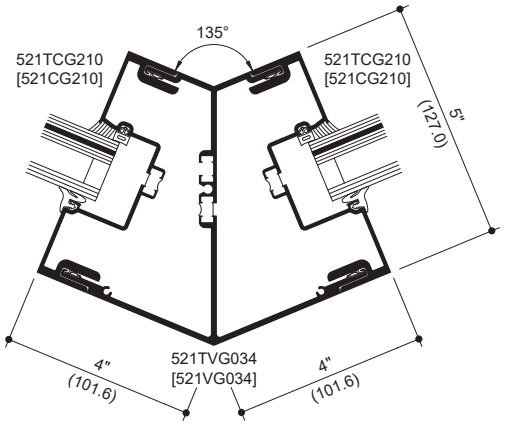
HURRICANE RESISTANT PRODUCT

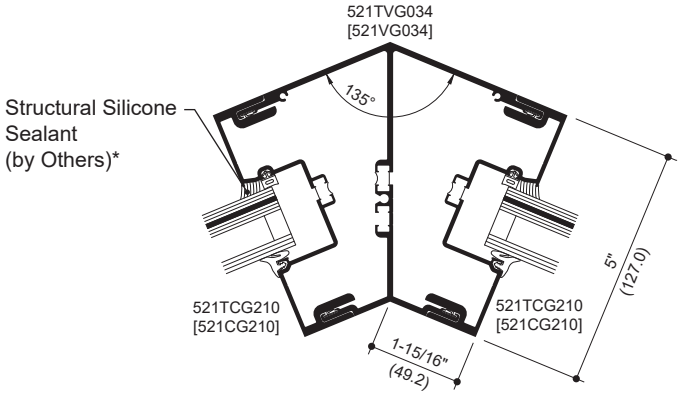
Additional information and CAD details are available at www.kawneer.com

1-5/16" INFILL (PRE GLAZED - WET GLAZED)









*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone Manufacturer and the Insulating Glass Unit Manufacturer.

IR 521/521T Framing

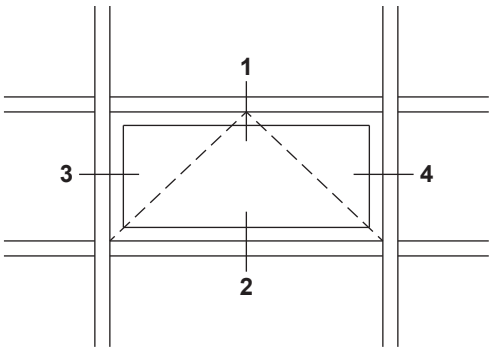
NOVEMBER, 2024

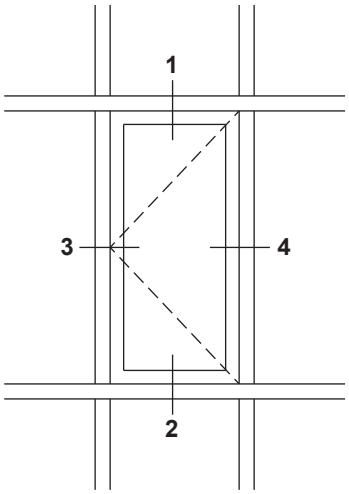
GLASSvent® UT WINDOWS (1" INFILL)

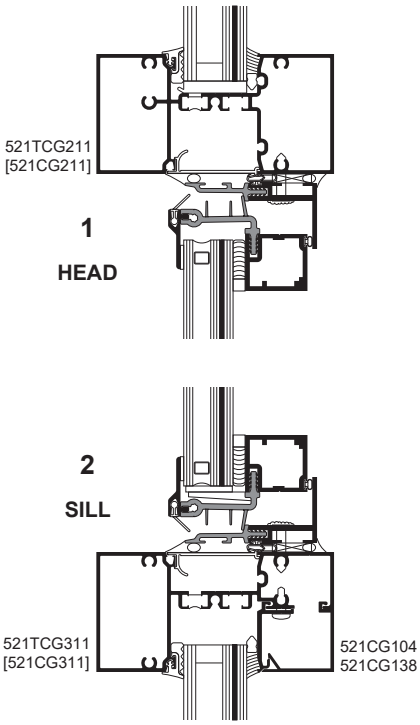
EC 97911-330

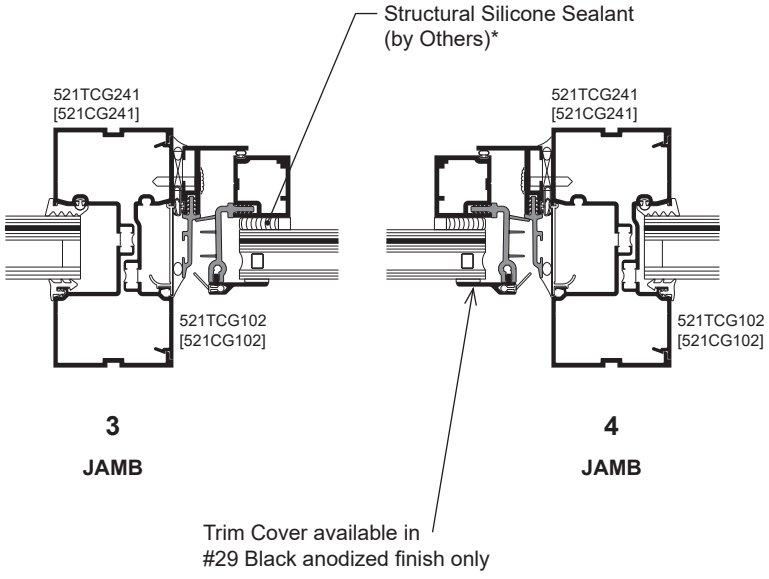
HURRICANE RESISTANT PRODUCT

1-5/16" INFILL (PRE GLAZED - WET GLAZED)





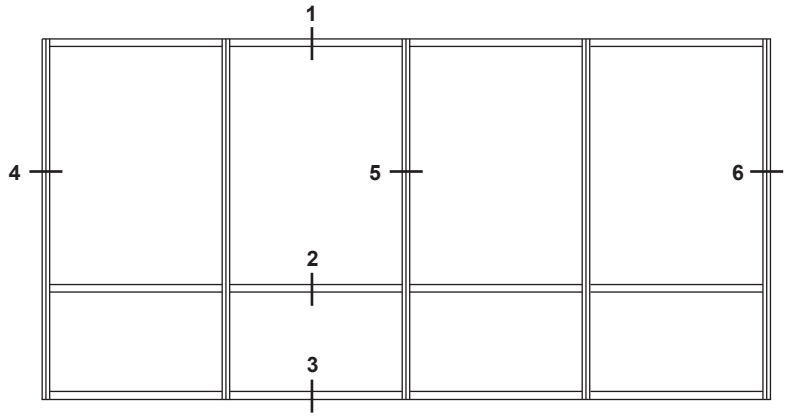




*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone, Structural Glazing Tape, and Insulating Glass Unit Manufacturers.

HURRICANE RESISTANT PRODUCT

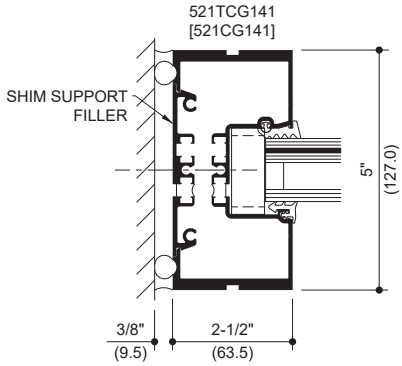
Additional information and CAD details are available at www.kawneer.com



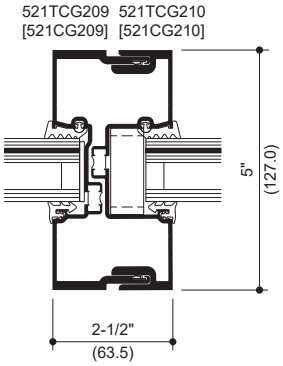
ELEVATION IS NUMBER KEYED TO DETAILS

IR 521 IsoLock®
NON-THERMAL

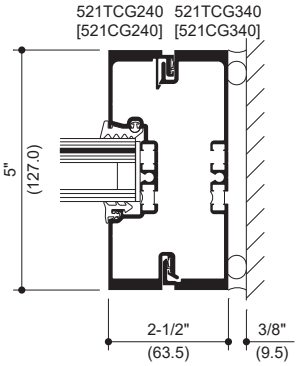
IR 521T Single IsoLock®
THERMAL BREAK (SHOWN)



4
FIRST BAY JAMB

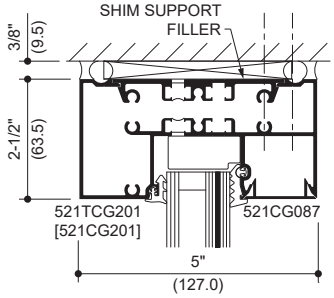


5
VERTICAL MULLION



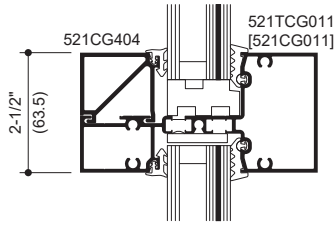
6
LAST BAY JAMB

1
HEAD

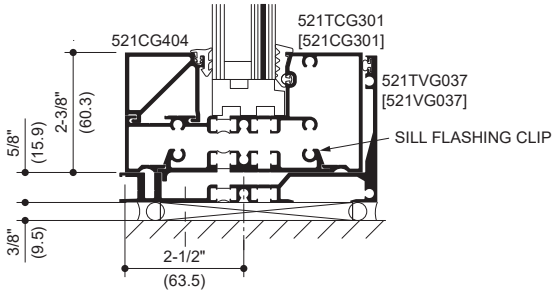


1-5/16" INFILL
(PRE GLAZED - DRY GLAZED)

2
HORIZONTAL



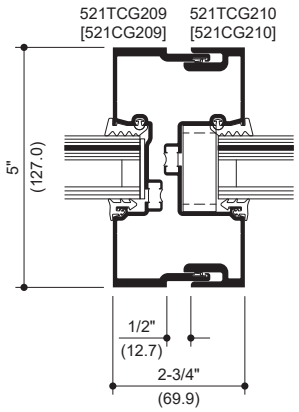
3
SILL



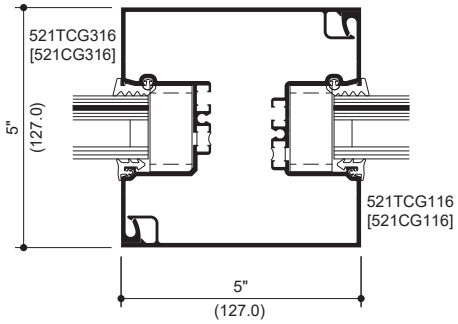
HURRICANE RESISTANT PRODUCT

Additional information and CAD details are available at www.kawneer.com

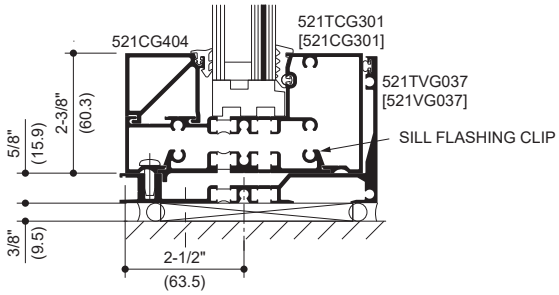
1-5/16" INFILL (PRE GLAZED - DRY GLAZED)



EXPANSION MULLION



5" x 5" MULLION

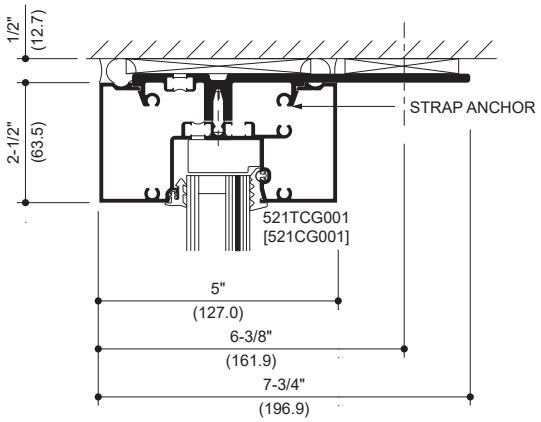


PINNED HORIZONTAL TO SILL FLASHING

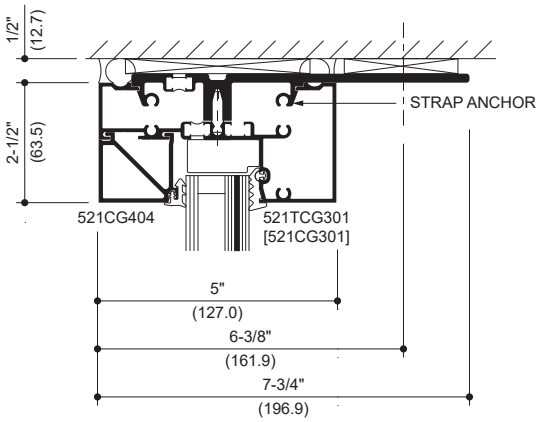
HURRICANE RESISTANT PRODUCT

Additional information and CAD details are available at www.kawneer.com

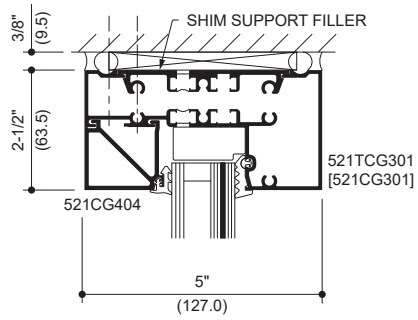
1-5/16" INFILL (PRE GLAZED - DRY GLAZED)



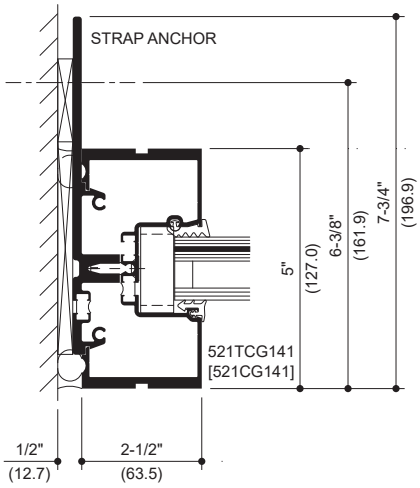
HEAD



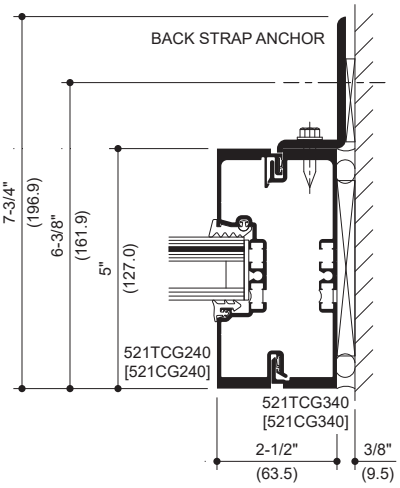
OPTIONAL HEAD WITH STOP



OPTIONAL HEAD WITH STOP



FIRST BAY JAMB



LAST BAY JAMB

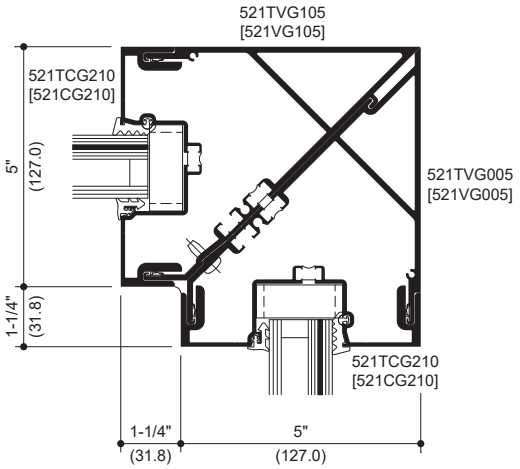
IR 521/521T Framing

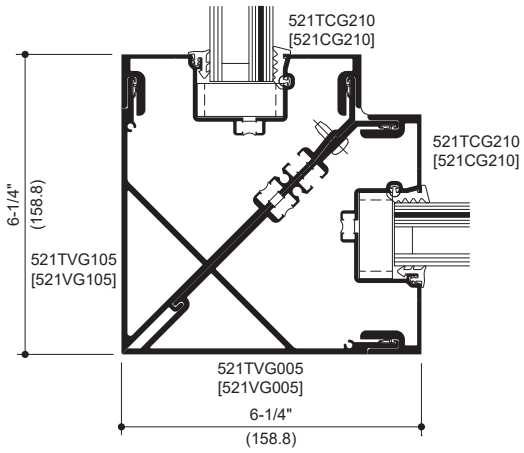
CORNER DETAILS (Outside Glazed)

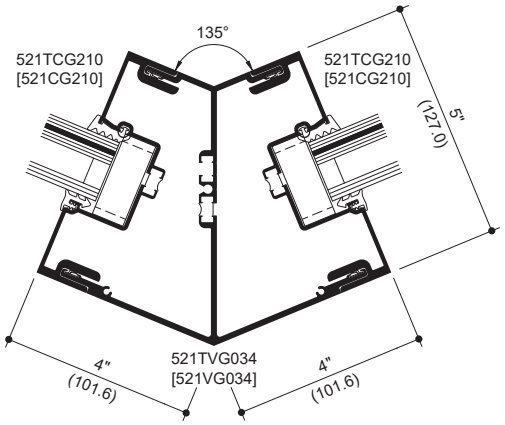
HURRICANE RESISTANT PRODUCT

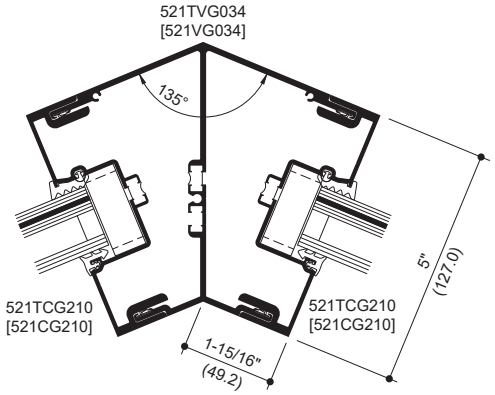
Additional information and CAD details are available at www.kawneer.com

1-5/16" INFILL (PRE GLAZED - DRY GLAZED)

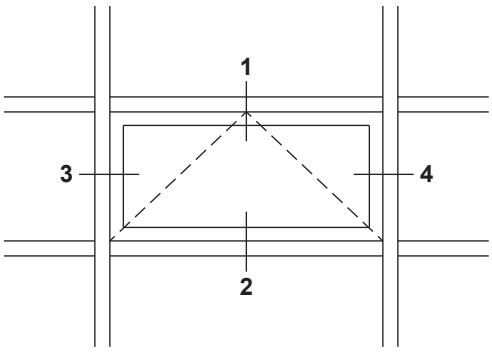


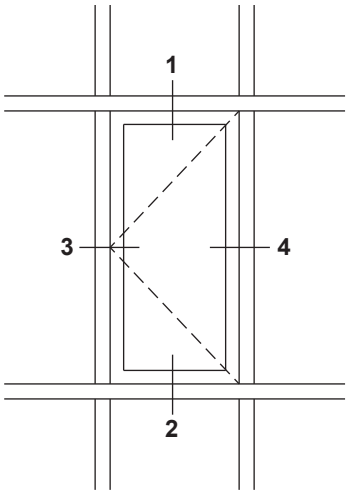


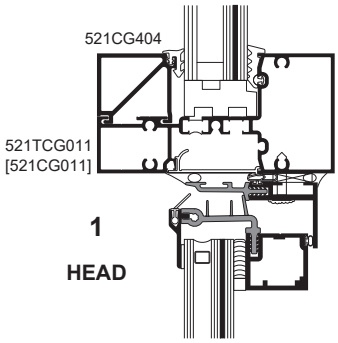


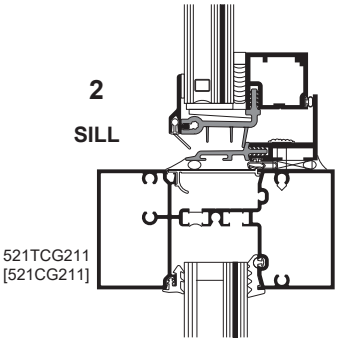


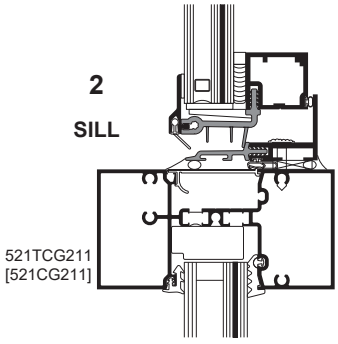
1-5/16" INFILL (PRE GLAZED - DRY GLAZED)

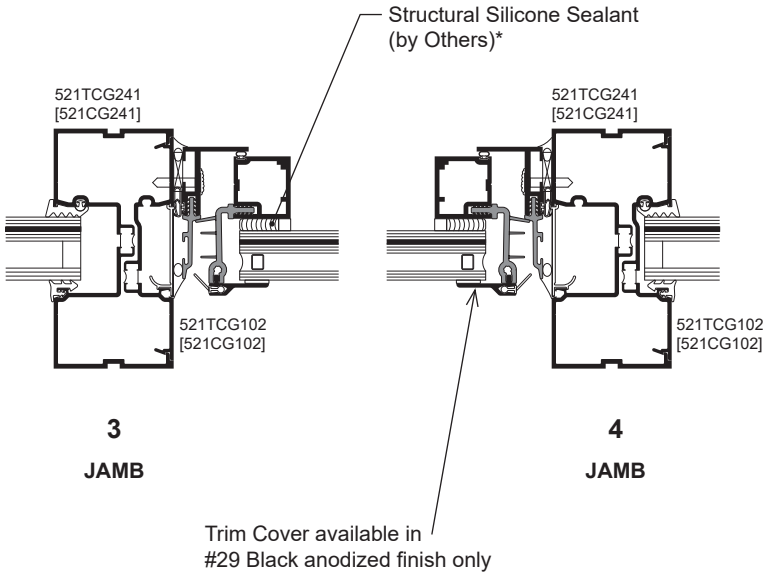












*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone, Structural Glazing Tape, and Insulating Glass Unit Manufacturers.

IR 521/521T Framing

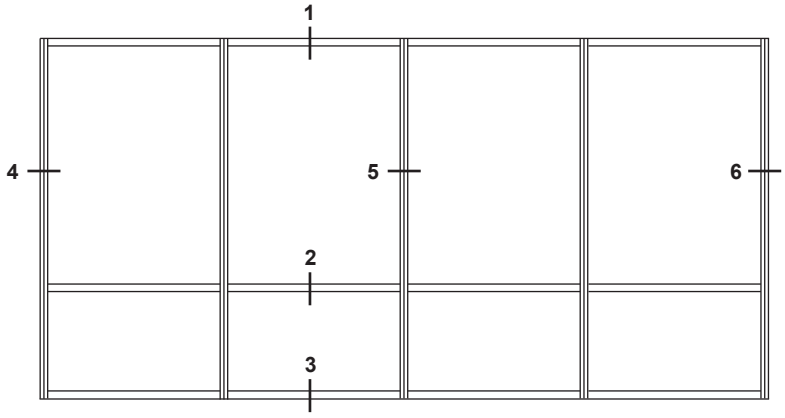
NOVEMBER, 2024

BASIC FRAMING DETAILS (Inside Glazed)

EC 97911-330

HURRICANE RESISTANT PRODUCT

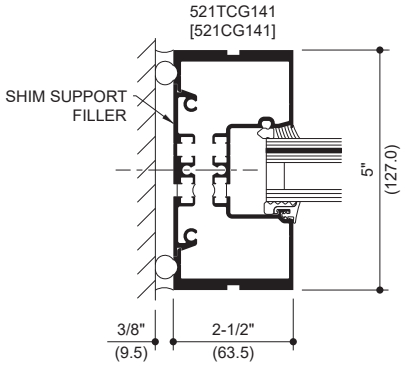
Additional information and CAD details are available at www.kawneer.com



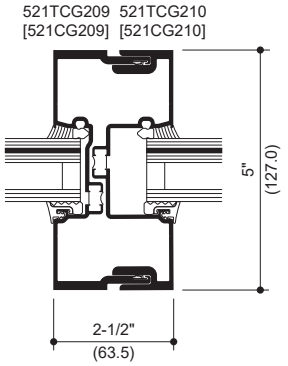
ELEVATION IS NUMBER KEYED TO DETAILS

IR 521 IsoLock®
NON-THERMAL

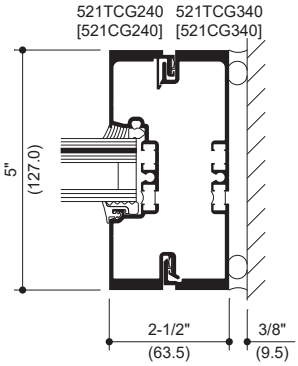
IR 521T Single IsoLock®
THERMAL BREAK (SHOWN)



4
FIRST BAY JAMB

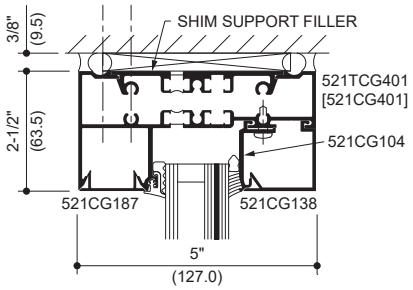


5
VERTICAL MULLION



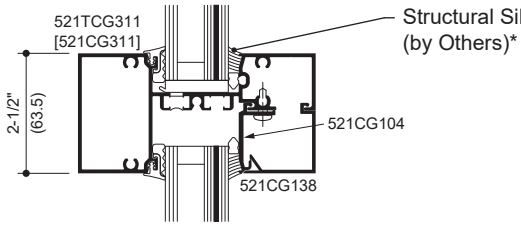
6
LAST BAY JAMB

1
HEAD

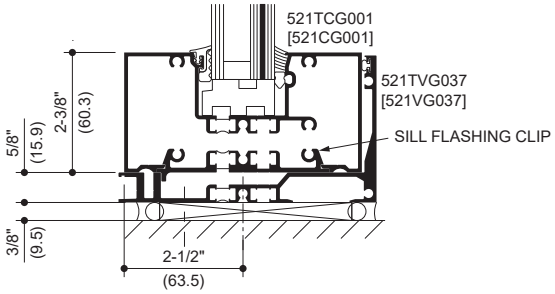


1-5/16" INFILL
(PRE GLAZED - WET GLAZED)

2
HORIZONTAL



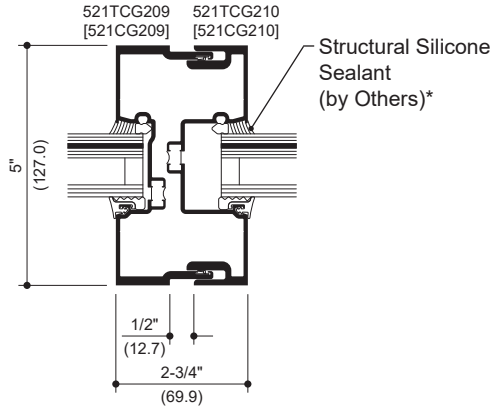
3
SILL



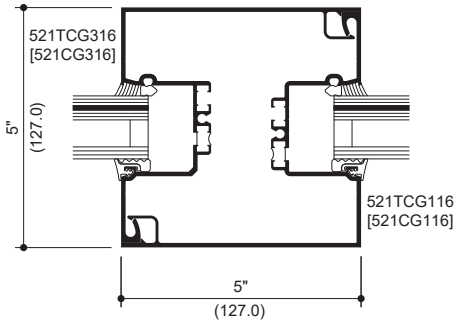
*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone Manufacturer and the Insulating Glass Unit Manufacturer.

Additional information and CAD details are available at www.kawneer.com

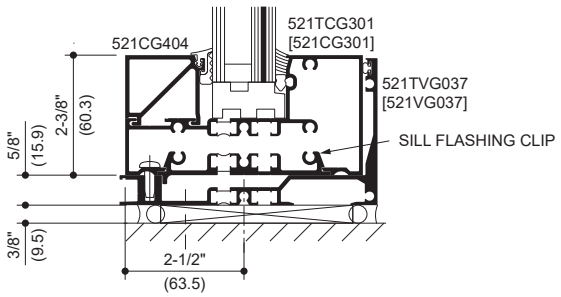
1-5/16" INFILL (PRE GLAZED - WET GLAZED)



EXPANSION MULLION



5" x 5" MULLION



PINNED HORIZONTAL TO SILL FLASHING

*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone Manufacturer and the Insulating Glass Unit Manufacturer.

IR 521/521T Framing

NOVEMBER, 2024

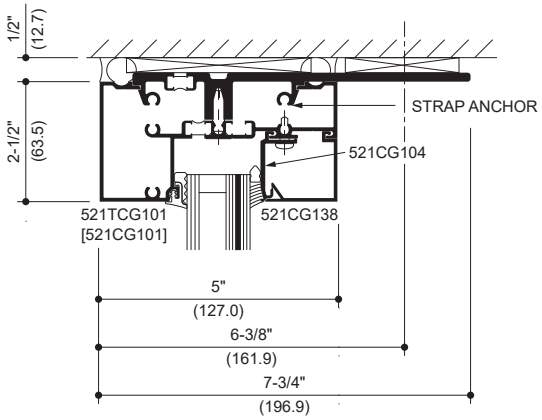
STRAP ANCHOR DETAILS (Inside Glazed)

EC 97911-330

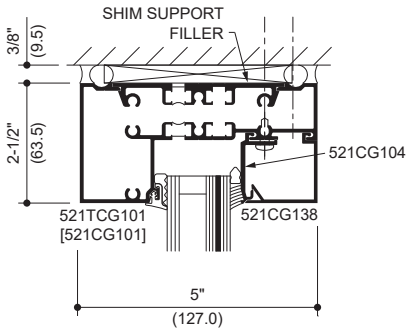
HURRICANE RESISTANT PRODUCT

Additional information and CAD details are available at www.kawneer.com

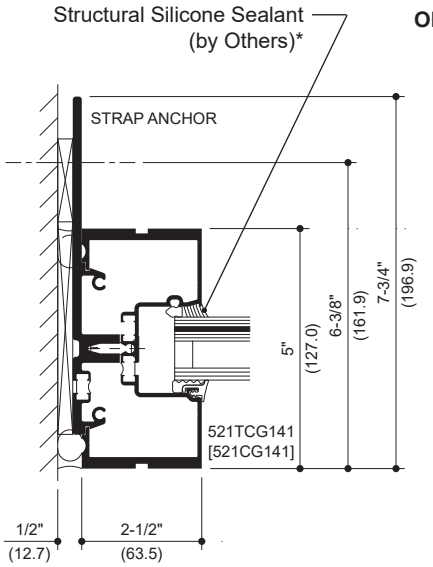
1-5/16" INFILL (PRE GLAZED - WET GLAZED)



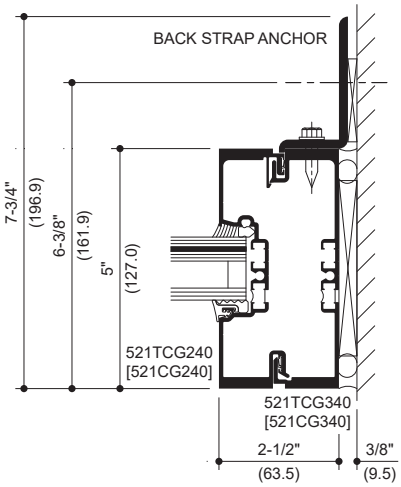
HEAD



OPTIONAL HEAD WITH STOP



FIRST BAY JAMB



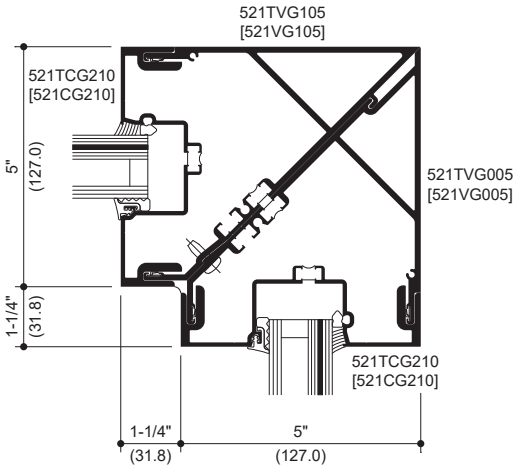
LAST BAY JAMB

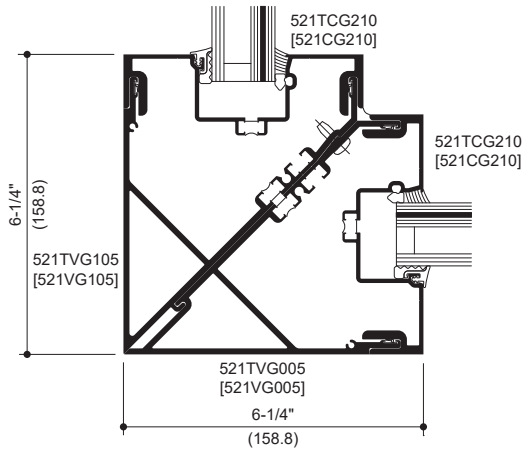
*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone Manufacturer and the Insulating Glass Unit Manufacturer.

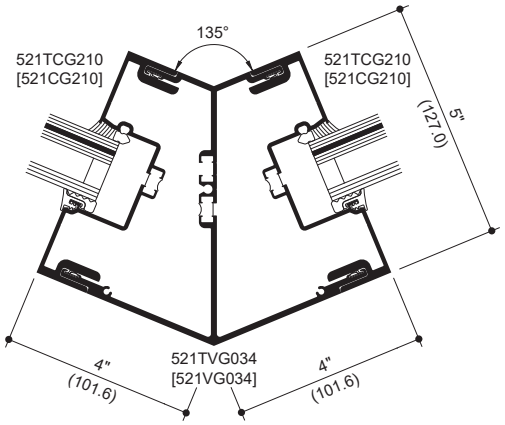
HURRICANE RESISTANT PRODUCT

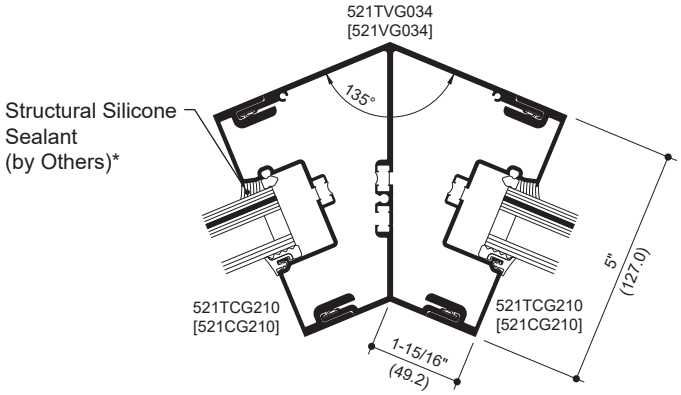
Additional information and CAD details are available at www.kawneer.com

1-5/16" INFILL (PRE GLAZED - WET GLAZED)



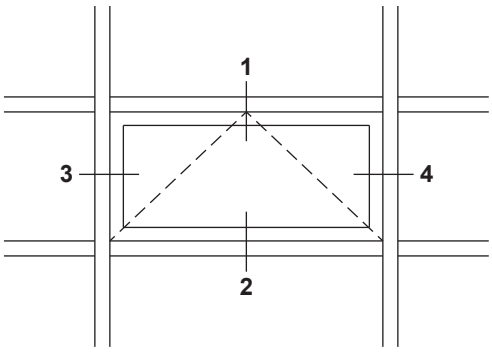


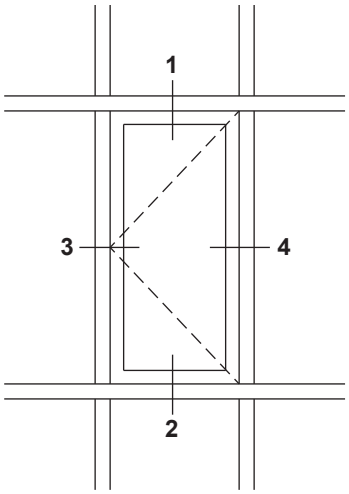


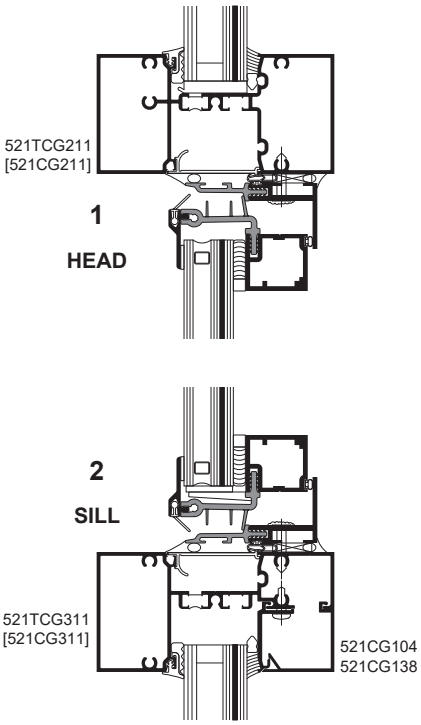


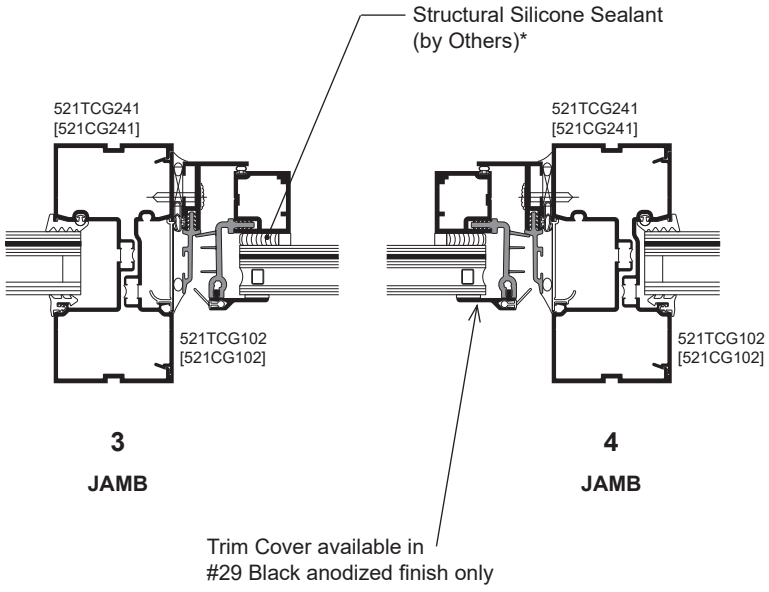
*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone Manufacturer and the Insulating Glass Unit Manufacturer.

1-5/16" INFILL (PRE GLAZED - WET GLAZED)





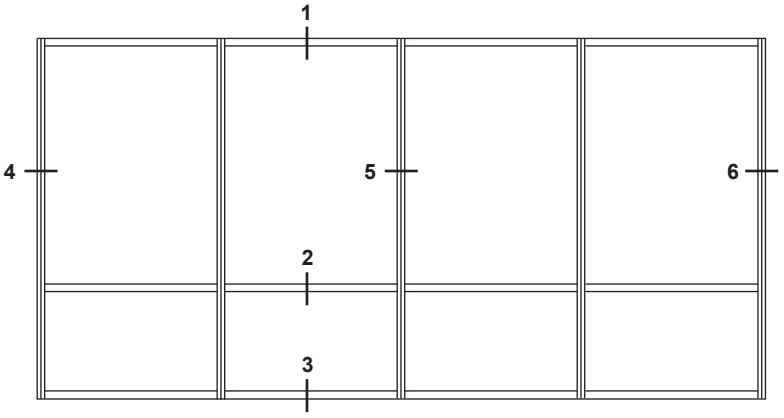




*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone, Structural Glazing Tape, and Insulating Glass Unit Manufacturers.

HURRICANE RESISTANT PRODUCT

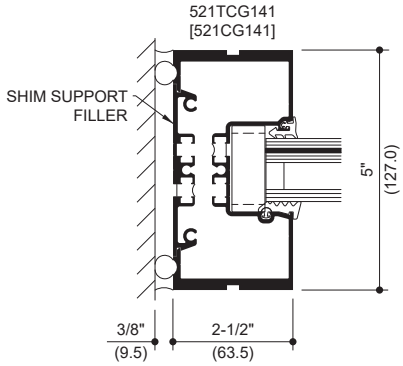
Additional information and CAD details are available at www.kawneer.com



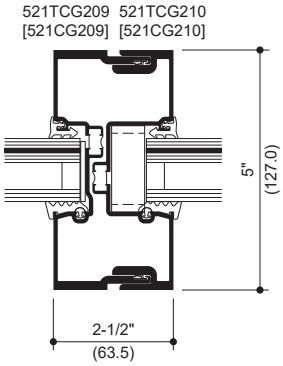
ELEVATION IS NUMBER KEYED TO DETAILS

IR 521 IsoLock®
NON-THERMAL

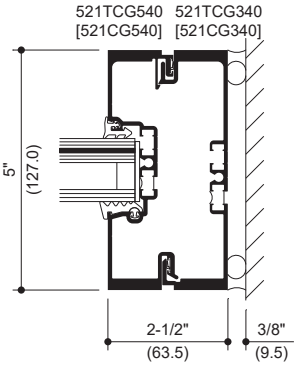
IR 521T Single IsoLock®
THERMAL BREAK (SHOWN)



4
FIRST BAY JAMB

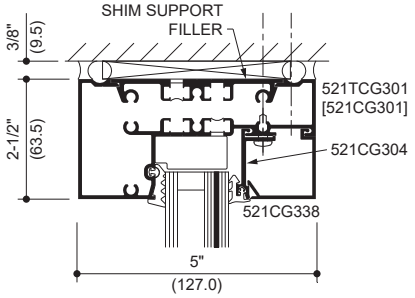


5
VERTICAL MULLION

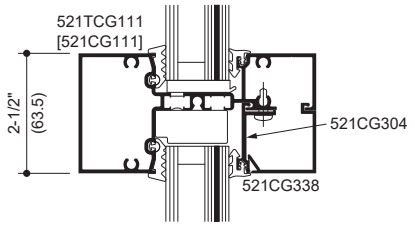


6
LAST BAY JAMB

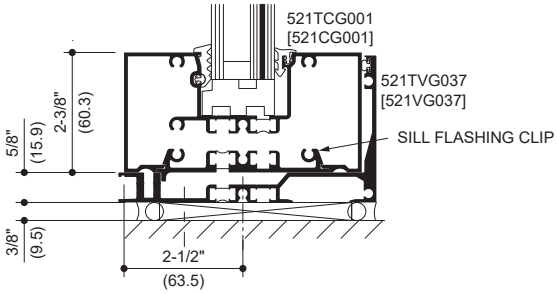
1
HEAD



2
HORIZONTAL



3
SILL

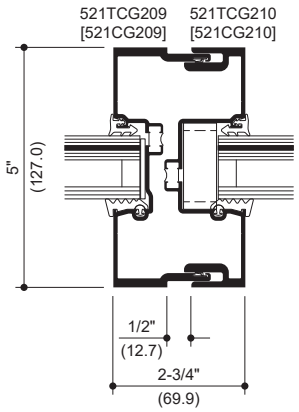


1-5/16" INFILL
(PRE GLAZED - DRY GLAZED)

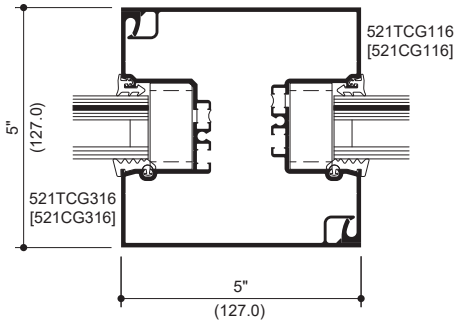
HURRICANE RESISTANT PRODUCT

Additional information and CAD details are available at www.kawneer.com

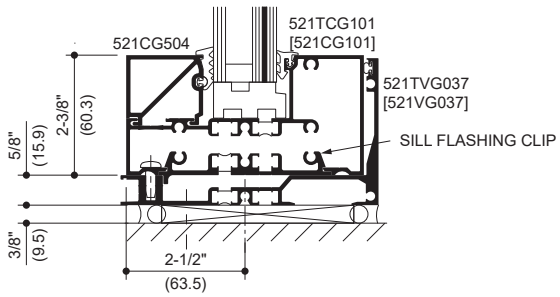
1-5/16" INFILL (PRE GLAZED - DRY GLAZED)



EXPANSION MULLION



5" x 5" MULLION

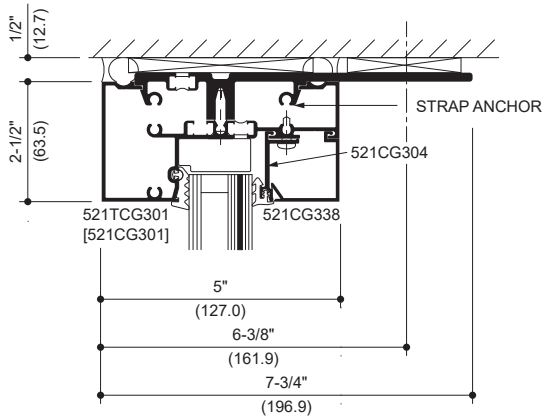


PINNED HORIZONTAL TO SILL FLASHING

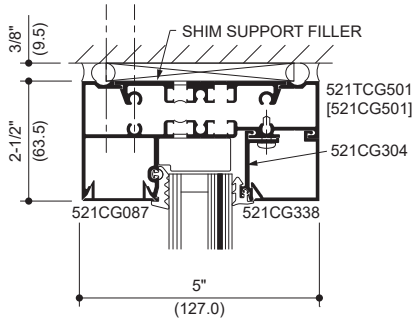
HURRICANE RESISTANT PRODUCT

Additional information and CAD details are available at www.kawneer.com

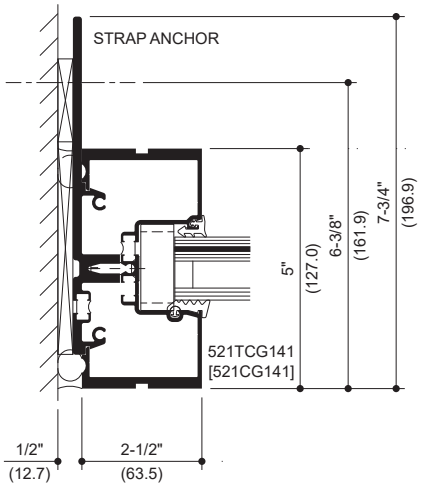
1-5/16" INFILL (PRE GLAZED - DRY GLAZED)



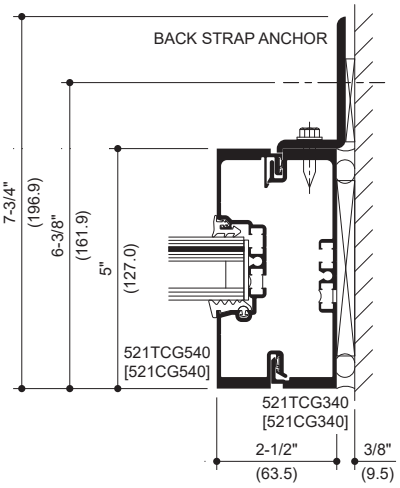
HEAD



OPTIONAL HEAD WITH STOP



FIRST BAY JAMB



LAST BAY JAMB

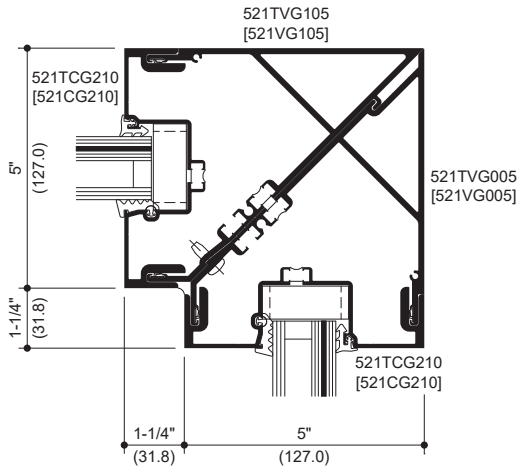
IR 521/521T Framing

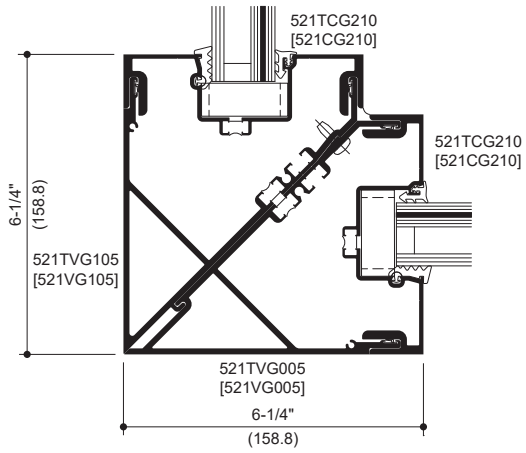
CORNER DETAILS (Inside Glazed)

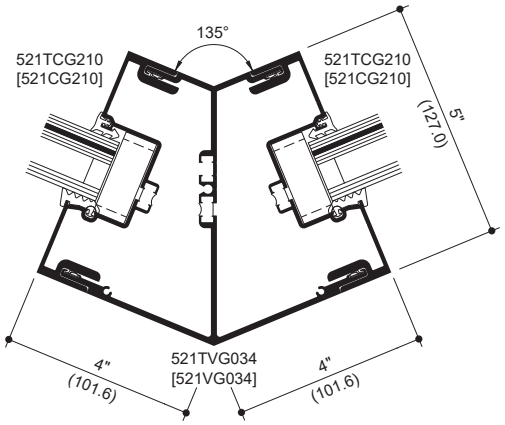
HURRICANE RESISTANT PRODUCT

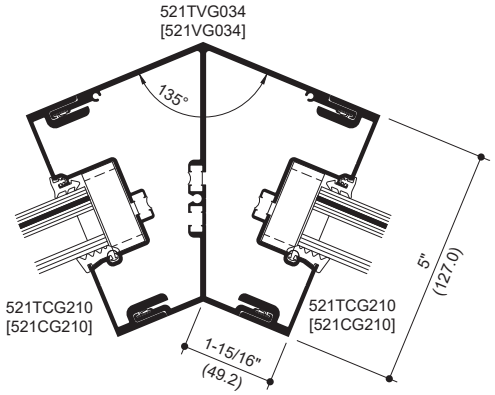
Additional information and CAD details are available at www.kawneer.com

1-5/16" INFILL (PRE GLAZED - DRY GLAZED)

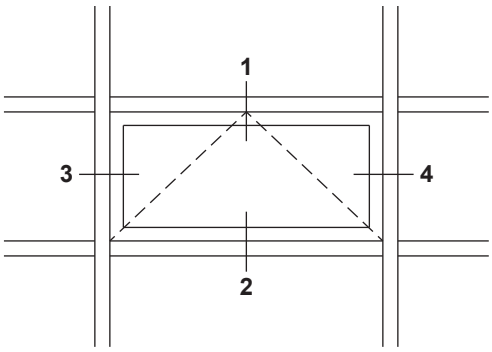


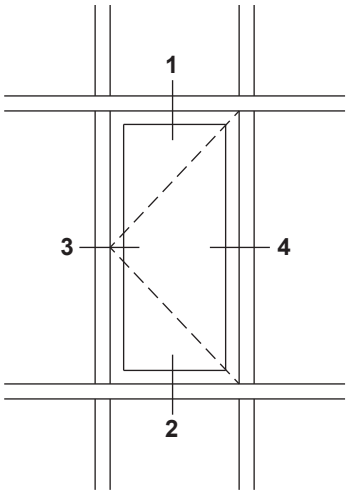


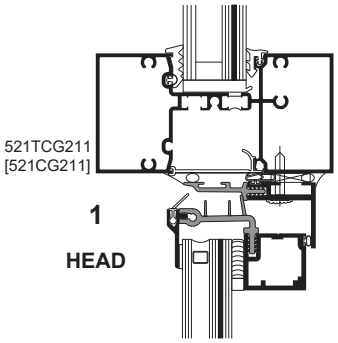


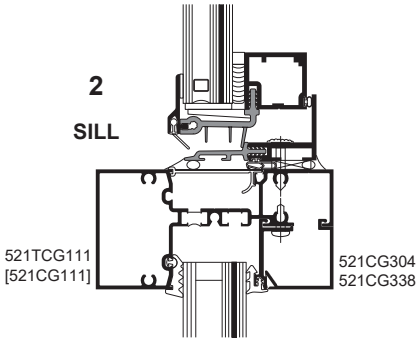


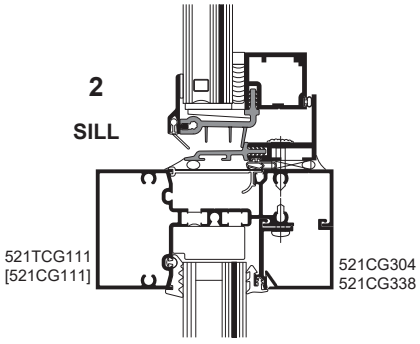
1-5/16" INFILL (PRE GLAZED - DRY GLAZED)

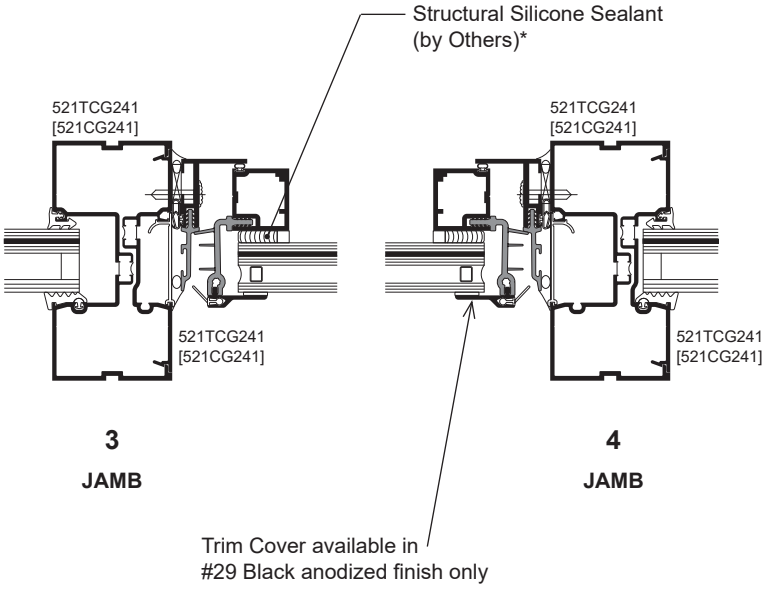










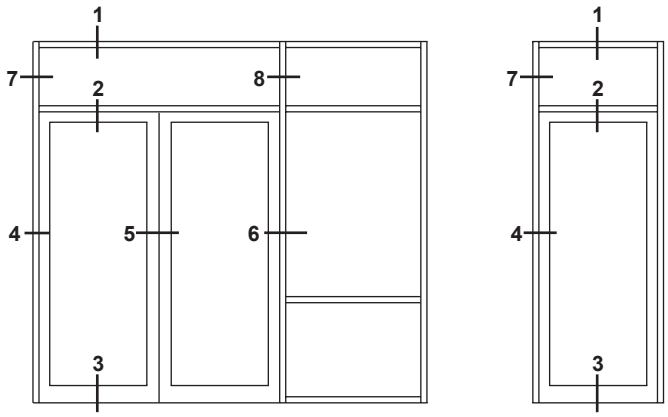


*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone, Structural Glazing Tape, and Insulating Glass Unit Manufacturers.

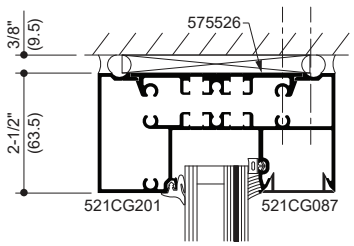
HURRICANE RESISTANT PRODUCT

Additional information and CAD details are available at www.kawneer.com

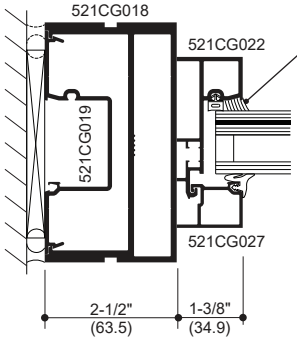
IR 521 FRAMING INCORPORATING KAWNEER 350 IR DOORS.
SEE 350/500 IR ENTRANCES FOR ADDITIONAL DOOR AND ENTRANCE FRAMING OPTIONS.



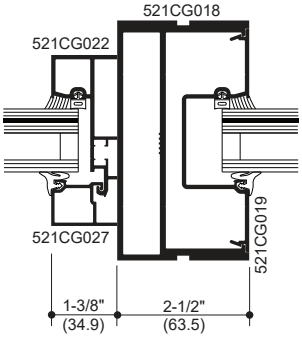
ELEVATION IS NUMBER KEYED TO DETAILS



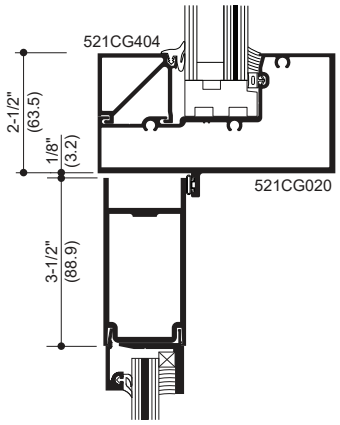
1
TRANSOM HEAD



7
DOOR JAMB
AT TRANSOM

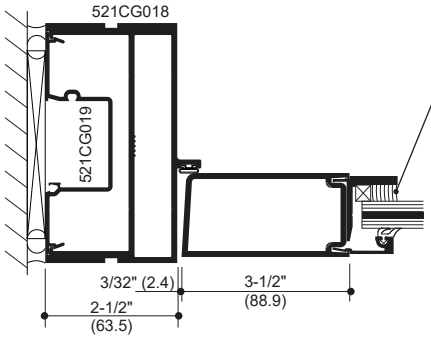


8
DOOR JAMB
AT TRANSOM

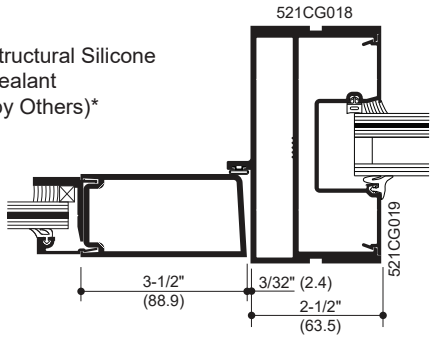


2
DOOR WITH TRANSOM

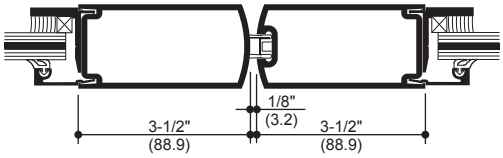
Transom for C.O.C. also available



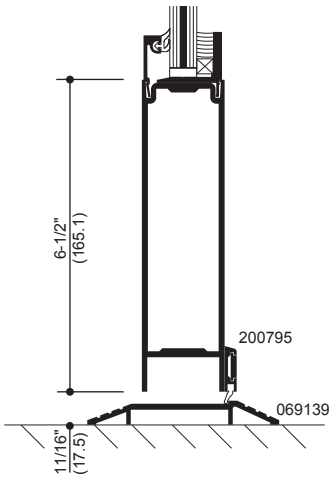
4
DOOR JAMB



6
DOOR JAMB



5
PAIR OF DOORS

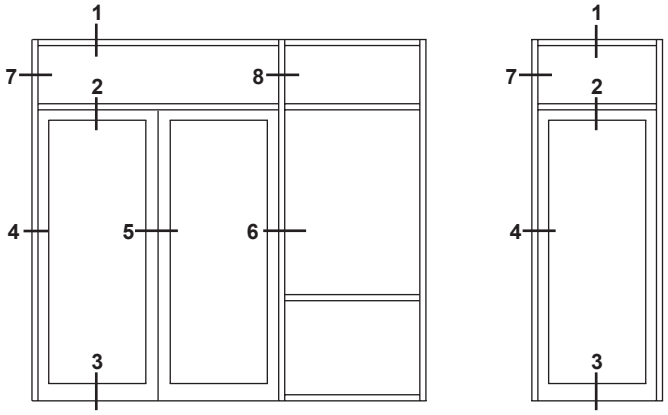


3
THRESHOLD

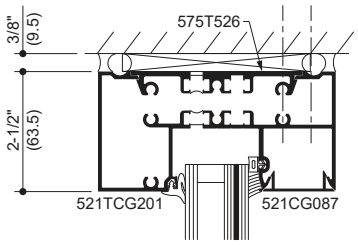
*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone Manufacturer and the Insulating Glass Unit Manufacturer.

Additional information and CAD details are available at www.kawneer.com

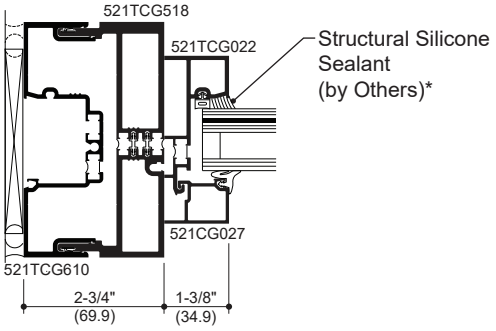
IR 521T FRAMING INCORPORATING KAWNEER 350T INSULPOUR® DOORS.
SEE 250T/350T/500T INSULPOUR® ENTRANCES FOR ADDITIONAL DOOR AND ENTRANCE FRAMING OPTIONS.



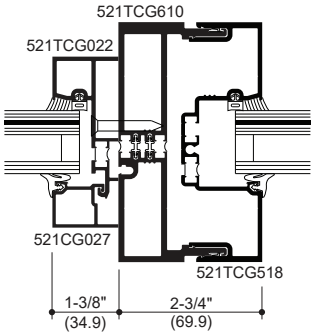
ELEVATION IS NUMBER KEYED TO DETAILS



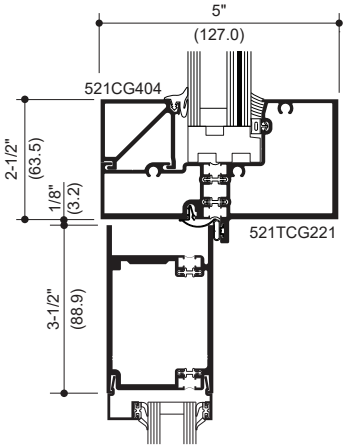
1
TRANSOM HEAD



7
DOOR JAMB
AT TRANSOM

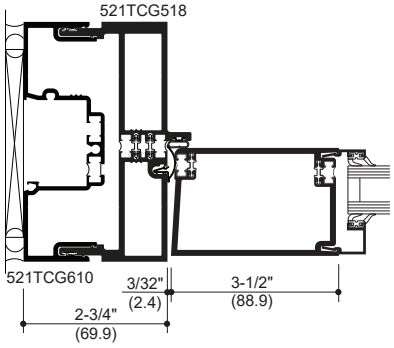


8
DOOR JAMB
AT TRANSOM

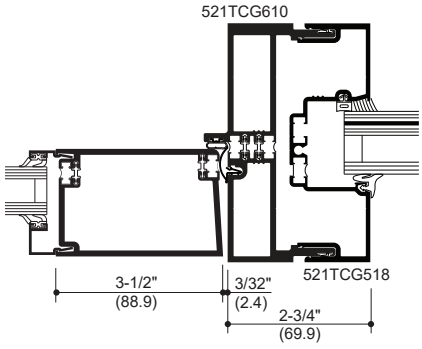


2
DOOR WITH TRANSOM

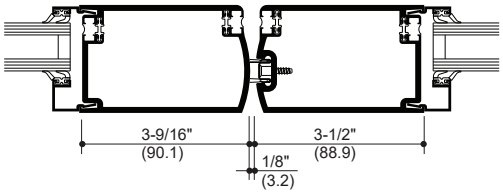
Transom for C.O.C. also available



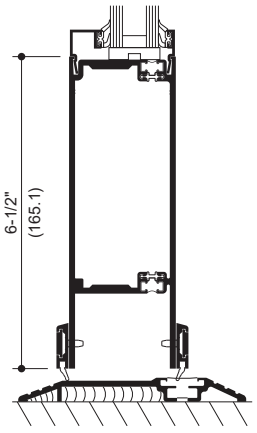
4
DOOR JAMB



6
DOOR JAMB



5
PAIR OF DOORS



3
THRESHOLD

*** INSTALLER NOTE:** Installer is responsible for all required compatibility review and approvals with the Structural Silicone Manufacturer and the Insulating Glass Unit Manufacturer.

WIND LOAD CHARTS

Mullions are designed for deflection limitations in accordance with AAMA TIR-A11 of L/175 up to 13' 6" and L/240 +1/4" above 13' 6". These curves are for mullions WITH HORIZONTALS and are based on engineering calculations for stress and deflection. Allowable wind load stress for ALUMINUM 15,152 psi (104MPa), STEEL 30,000 psi (207MPa). Charted curves, in all cases are for the limiting value. Wind load charts contained herein are based upon nominal wind load utilized in allowable stress design. A conversion from Load Resistance Factor Design (LRFD) is provided. To convert ultimate wind loads to nominal loads, multiply ultimate wind loads by a factor of 0.6 per ASCE/SEI 7. A 4/3 increase in allowable stress has not been used to develop these curves. For special situations not covered by these curves, contact your Kawneer representative for additional information.

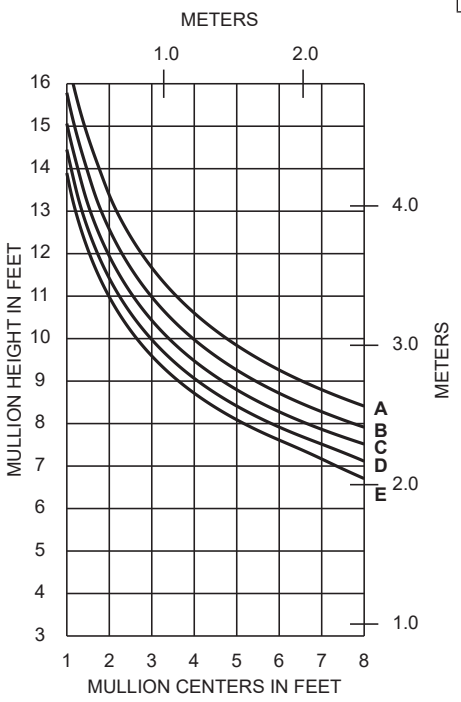
DEADLOAD CHARTS

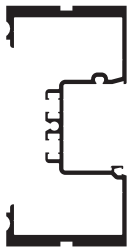
Horizontal or deadload limitations are based upon 1/8" (3.2), maximum allowable deflection at the center of an intermediate horizontal member. The accompanying charts are calculated for 1-5/16" (33.3) thick insulated impact resistant glass supported on two setting blocks placed at the loading points shown.

HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	50 PSF (2400)	83 PSF (4000)
B =	60 PSF (2880)	100 PSF (4790)
C =	70 PSF (3360)	117 PSF (5600)
D =	80 PSF (3830)	133 PSF (6380)
E =	90 PSF (4310)	150 PSF (7200)

WITH HORIZONTALS

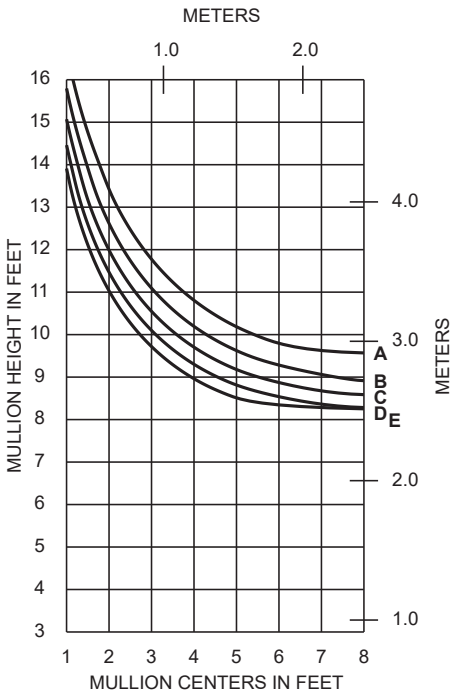




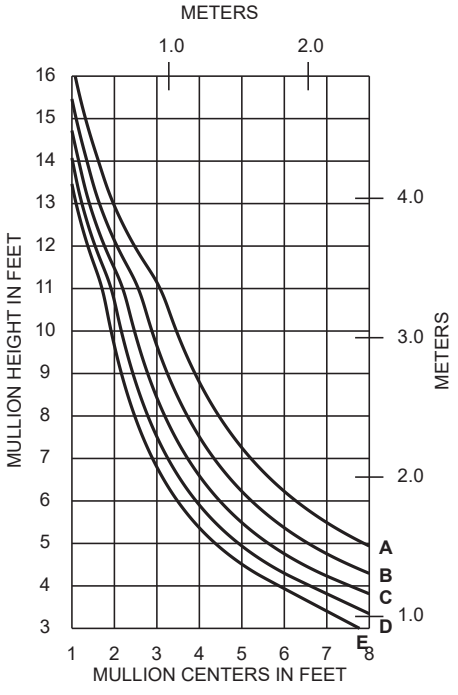
521CG141
(IR 521)

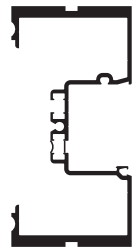
I_A = 8.019 in^4 (333.77 x 10^4 mm^4)
S_A = 3.204 in^3 (52.50 x 10^3 mm^3)

WITHOUT HORIZONTALS



WITH HORIZONTALS

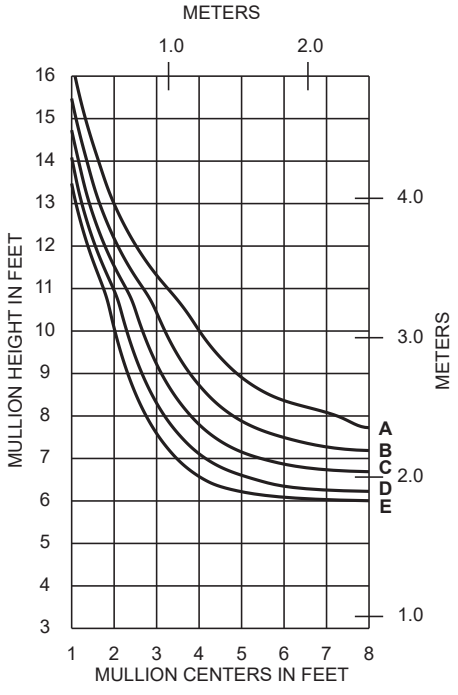




521TCG141
(IR 521T)

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

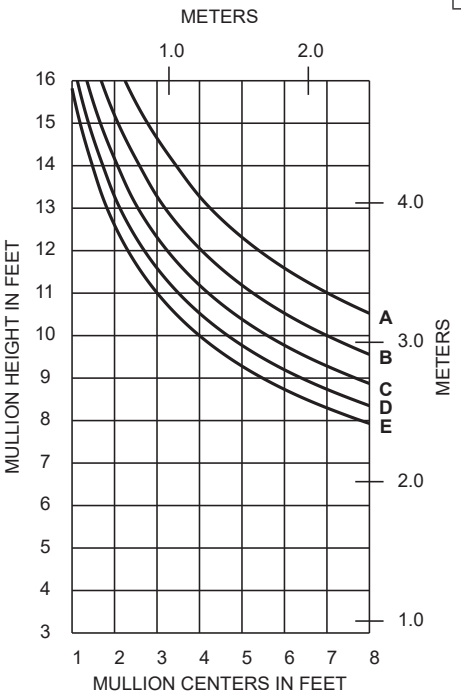
WITHOUT HORIZONTALS

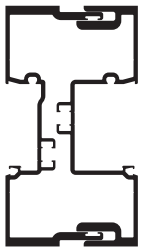


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	60 PSF (2880)	100 PSF (4790)
E =	70 PSF (3360)	117 PSF (5600)

WITH HORIZONTALS

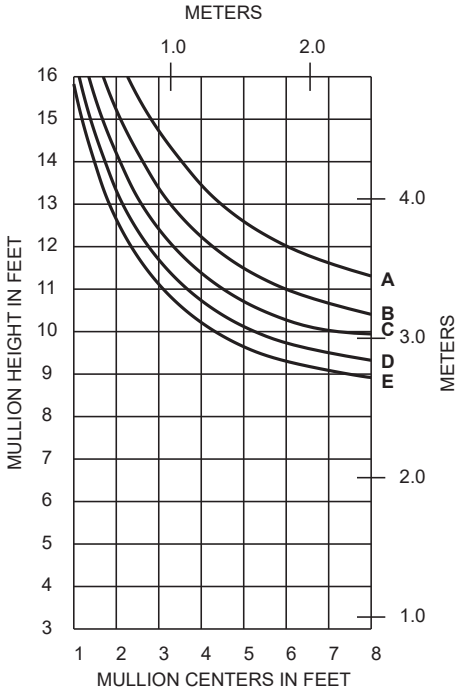




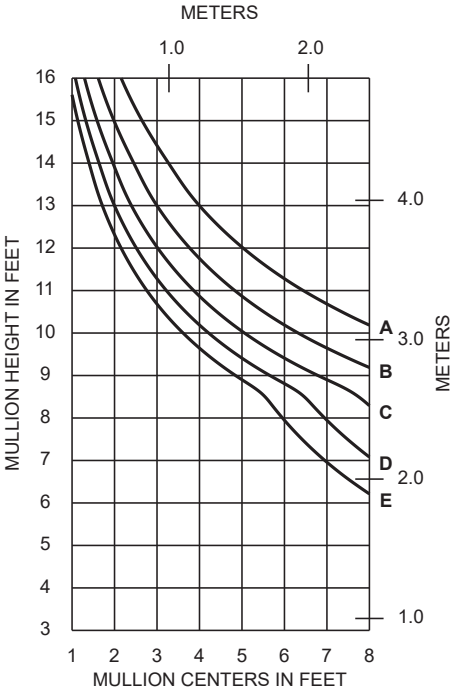
521CG209 / 521CG210
(IR 521)

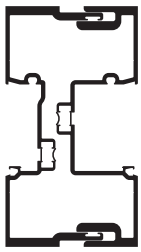
I_A = 9.421 in^4 (392.13 x 10^4 mm^4)
S_A = 3.754 in^3 (61.52 x 10^3 mm^3)

WITHOUT HORIZONTALS



WITH HORIZONTALS

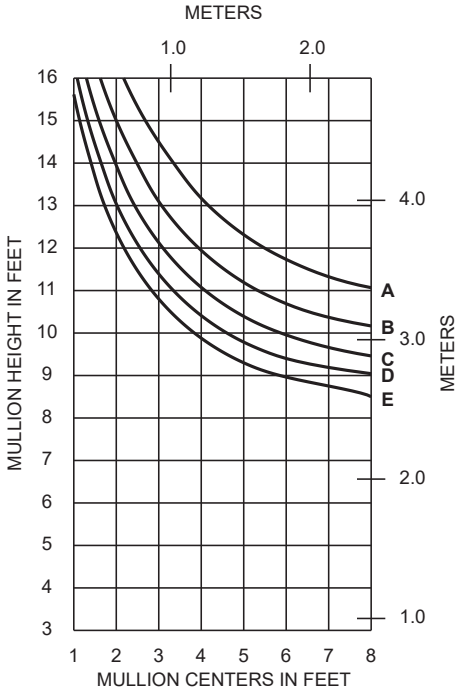




575TCG209 / 575TCG210
(IR 521T)

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

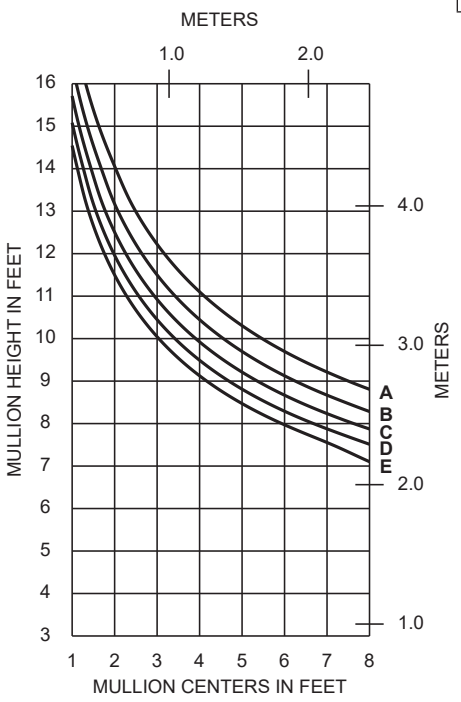
WITHOUT HORIZONTALS

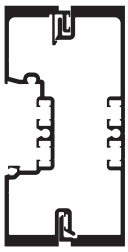


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	50 PSF (2400)	83 PSF (4000)
B =	60 PSF (2880)	100 PSF (4790)
C =	70 PSF (3360)	117 PSF (5600)
D =	80 PSF (3830)	133 PSF (6380)
E =	90 PSF (4310)	150 PSF (7200)

WITH HORIZONTALS

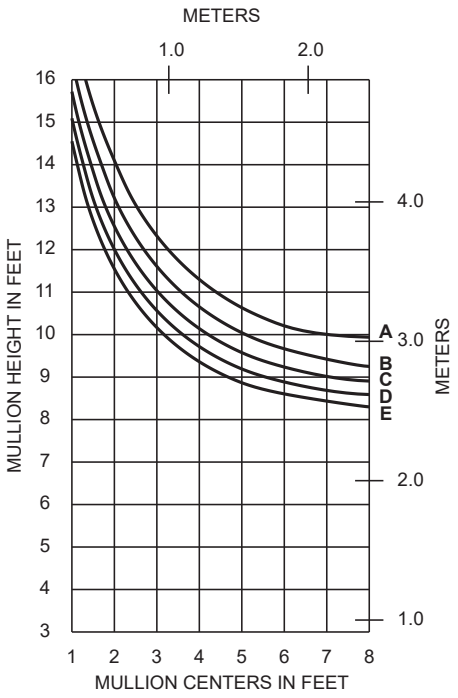




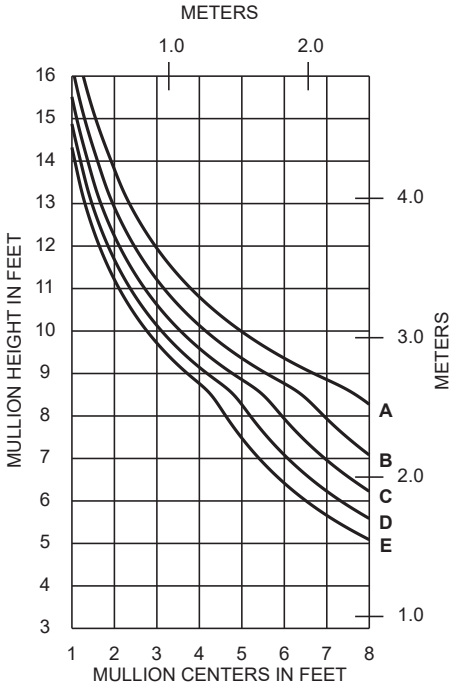
521CG240 / 521CG340
(IR 521)

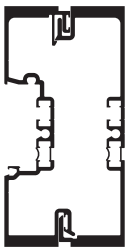
I_A = 9.206 in^4 (383.18 x 10^4 mm^4)
S_A = 3.611 in^3 (59.17 x 10^3 mm^3)

WITHOUT HORIZONTALS



WITH HORIZONTALS

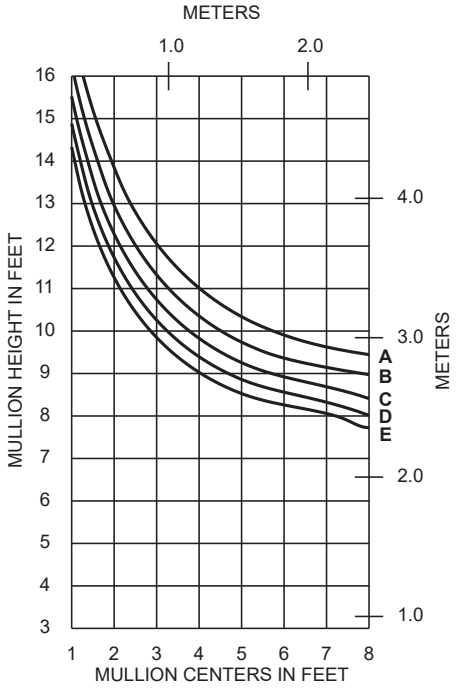




521TCG240 / 521TCG340
(IR 521T)

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

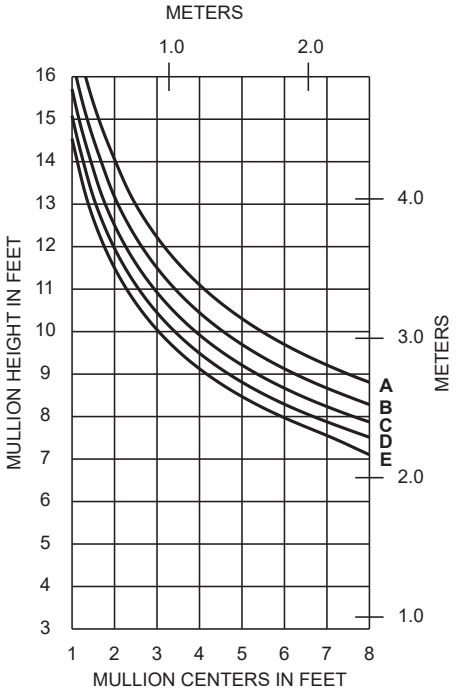
WITHOUT HORIZONTALS

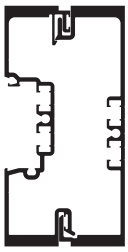


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	50 PSF (2400)	83 PSF (4000)
B =	60 PSF (2880)	100 PSF (4790)
C =	70 PSF (3360)	117 PSF (5600)
D =	80 PSF (3830)	133 PSF (6380)
E =	90 PSF (4310)	150 PSF (7200)

WITH HORIZONTALS

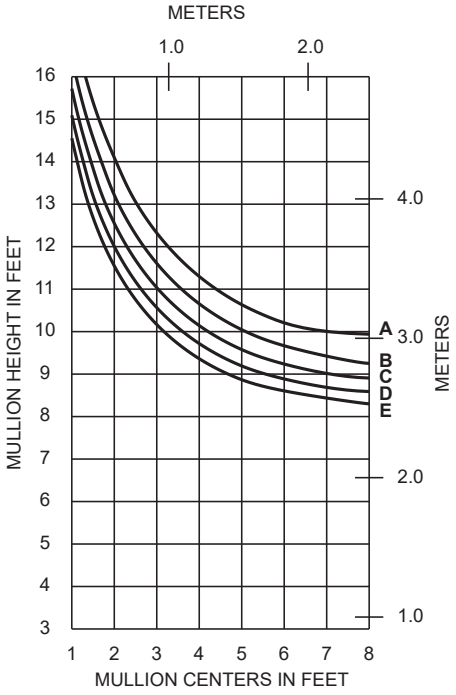




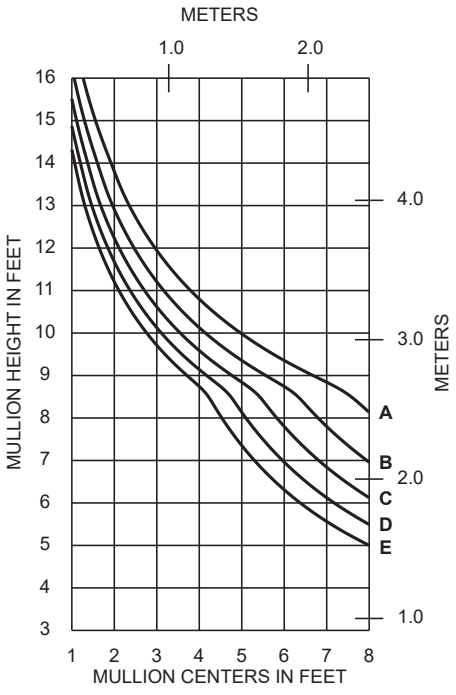
521CG540 / 521CG340
(IR 521)

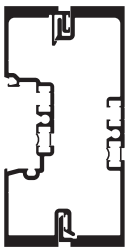
I_A = 9.206 in^4 (383.18 x 10^4 mm^4)
S_A = 3.612 in^3 (59.19 x 10^3 mm^3)

WITHOUT HORIZONTALS



WITH HORIZONTALS

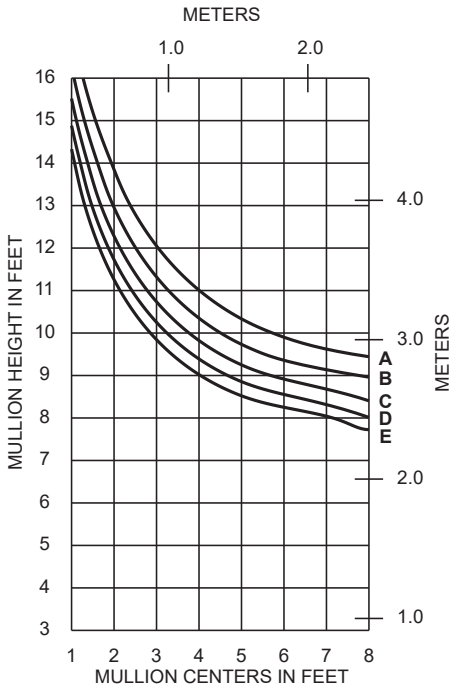




521TCG540 / 521TCG340
(IR 521T)

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

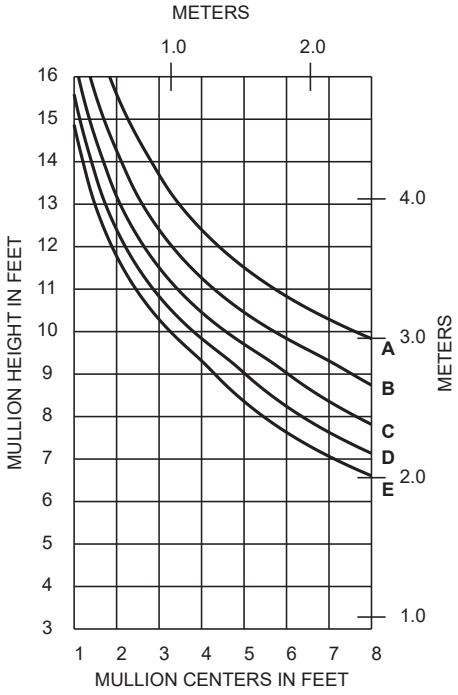
WITHOUT HORIZONTALS

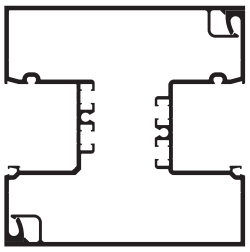


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	60 PSF (2880)	100 PSF (4790)
E =	70 PSF (3360)	117 PSF (5600)

521CG316 & 521CG116 WITH HORIZONTALS

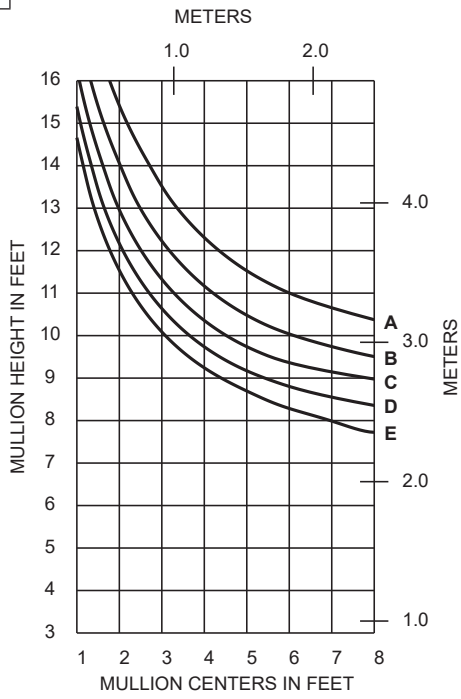




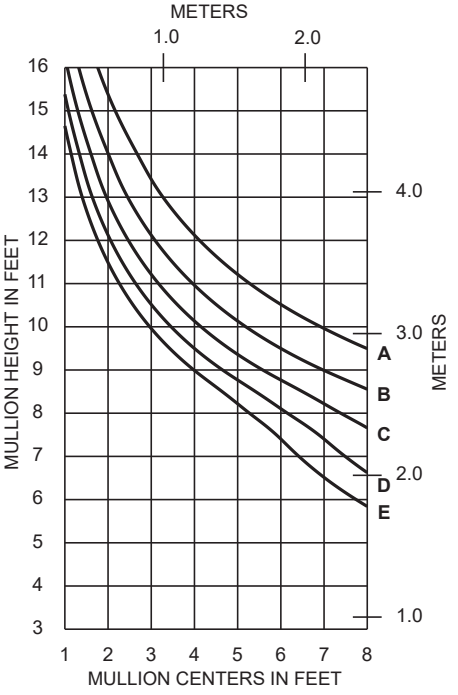
521CG316 / 521CG116 (IR 521)

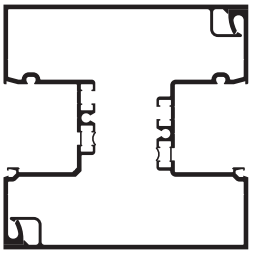
I_A = 7.693 in^4 (320.21 x 10^4 mm^4)
S_A = 2.422 in^3 (39.69 x 10^3 mm^3)

521CG316 & 521CG116 WITHOUT HORIZONTALS



521CGT316 & 521TCG116 WITH HORIZONTALS

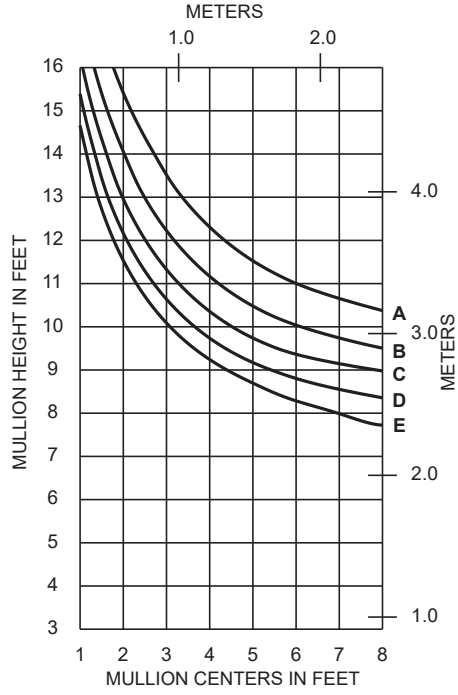




521TCG316 / 521TCG116 (IR 521T)

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

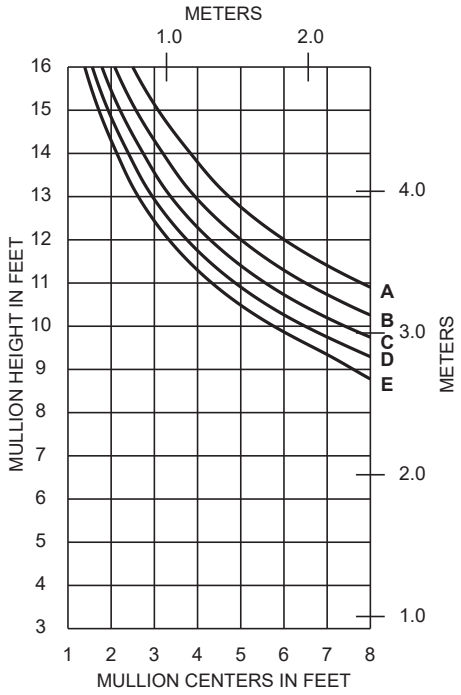
521TCG316 & 521TCG116 WITHOUT HORIZONTALS

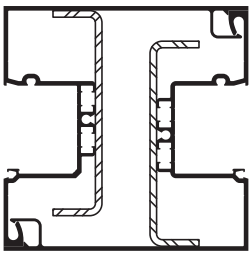


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	50 PSF (2400)	83 PSF (4000)
B =	60 PSF (2880)	100 PSF (4790)
C =	70 PSF (3360)	117 PSF (5600)
D =	80 PSF (3830)	133 PSF (6380)
E =	90 PSF (4310)	150 PSF (7200)

521TCG316 & 521TCG116 WITH HORIZONTALS



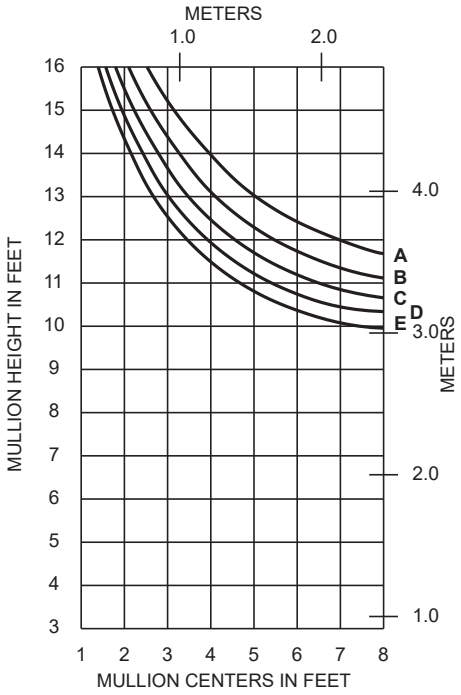


521CG316 / 521CG116 with 575300 STEEL (IR 521)

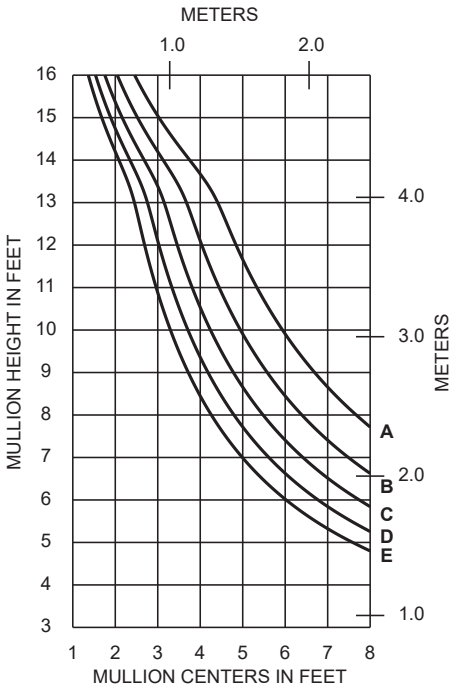
I_A = 7.693 in^4 (320.21 x 10^4 mm^4)
S_A = 2.422 in^3 (39.69 x 10^3 mm^3)

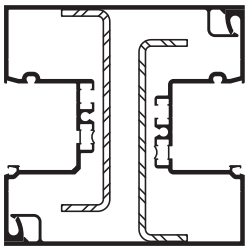
I_S = 3.368 in^4 (140.19 x 10^4 mm^4)
S_S = 1.608 in^3 (26.35 x 10^3 mm^3)

521TCG316 & 521TCG116 WITHOUT HORIZONTALS



WITH HORIZONTALS



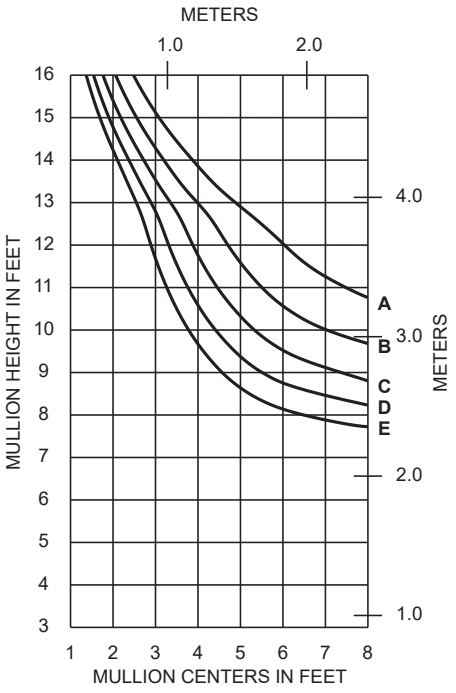


521TCG316 / 521TCG116 WITH 575300 STEEL (IR 521T)

I_S = 3.368 in^4 (140.19 x 10^4 mm^4)
S_S = 1.608 in^3 (26.35 x 10^3 mm^3)

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

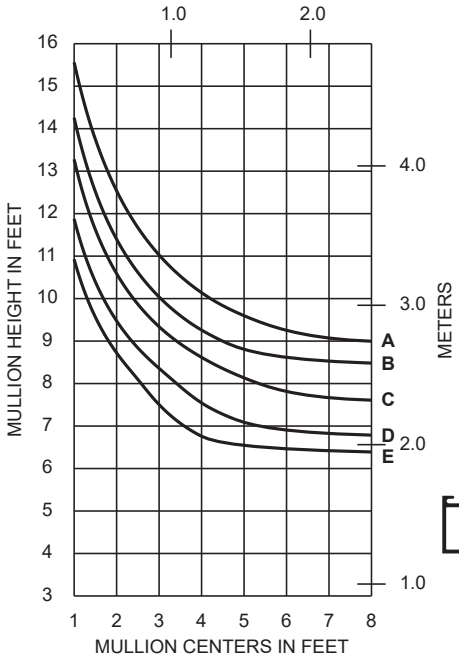
WITHOUT HORIZONTALS

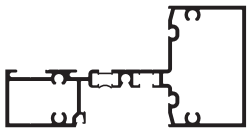


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	70 PSF (3360)	117 PSF (5600)
E =	90 PSF (4310)	150 PSF (7200)

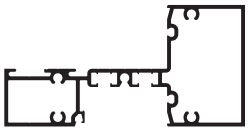
521CG011
SINGLE SPAN





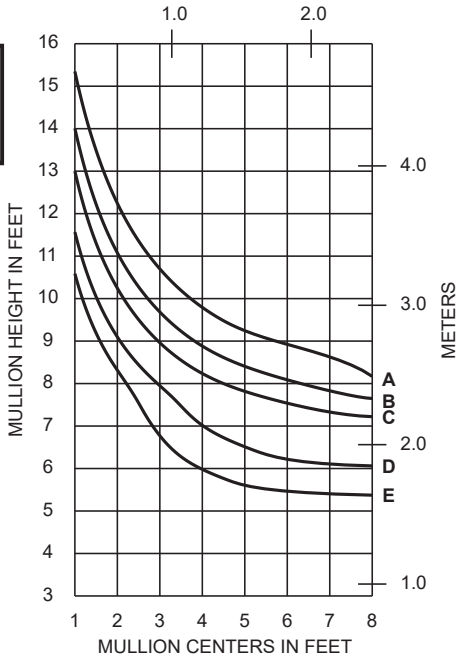
521TCG011
(IR 521T)

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

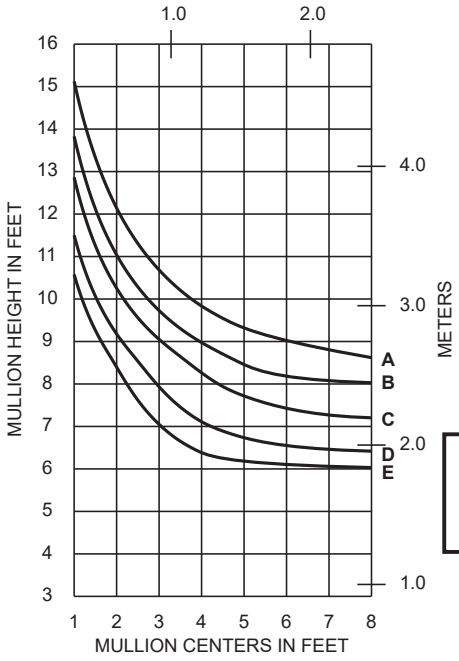


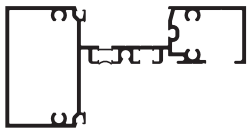
521CG011
(IR 521)

521TCG011
SINGLE SPAN



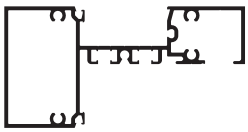
521CG311
SINGLE SPAN





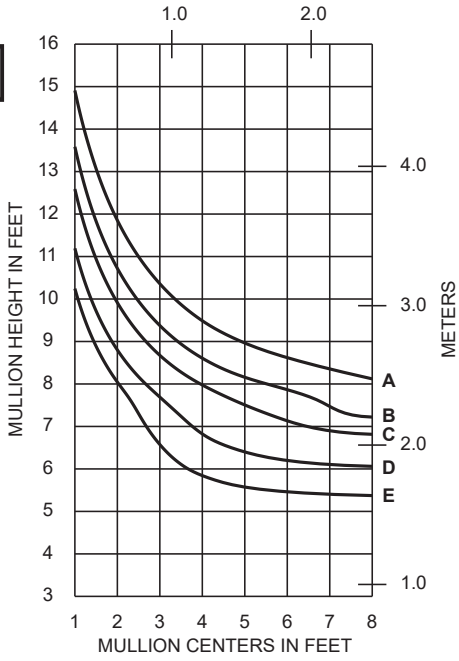
521TCG311
(IR 521T)

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505



521CG311
(IR 521)

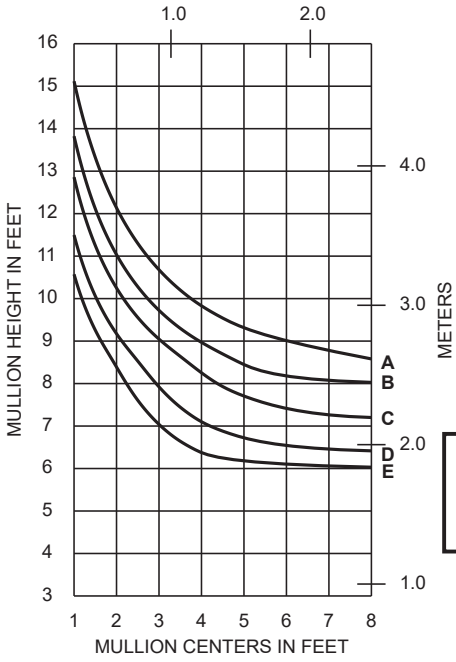
521TCG311
SINGLE SPAN

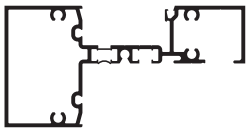


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	70 PSF (3360)	117 PSF (5600)
E =	90 PSF (4310)	150 PSF (7200)

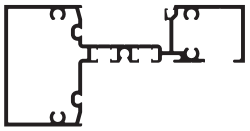
521CG111
SINGLE SPAN





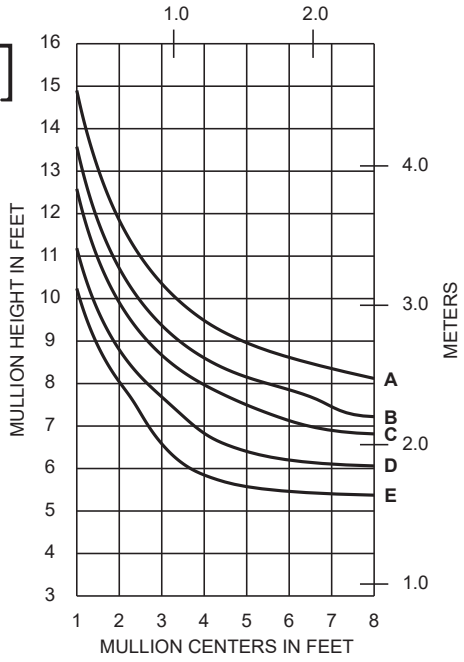
521TCG111
(IR 521T)

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

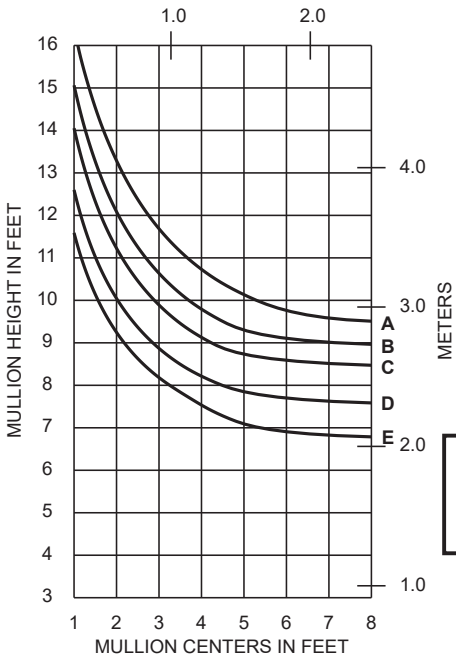


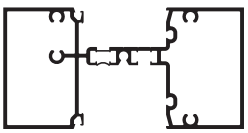
521CG111
(IR 521)

521TCG111
SINGLE SPAN



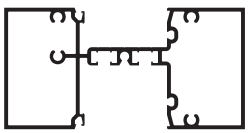
521CG211
SINGLE SPAN





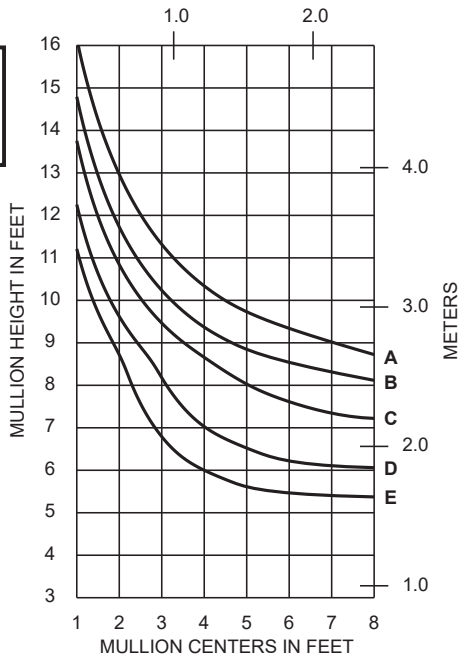
521TCG211
(IR 521T)

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505



521CG211
(IR 521)

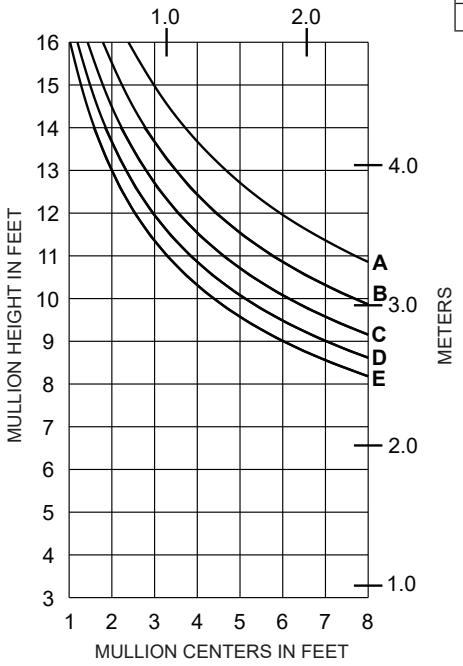
521TCG311
SINGLE SPAN

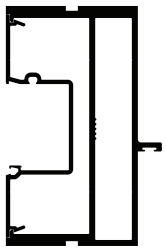


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	60 PSF (2880)	100 PSF (4790)
E =	70 PSF (3360)	117 PSF (5600)

WITH HORIZONTALS

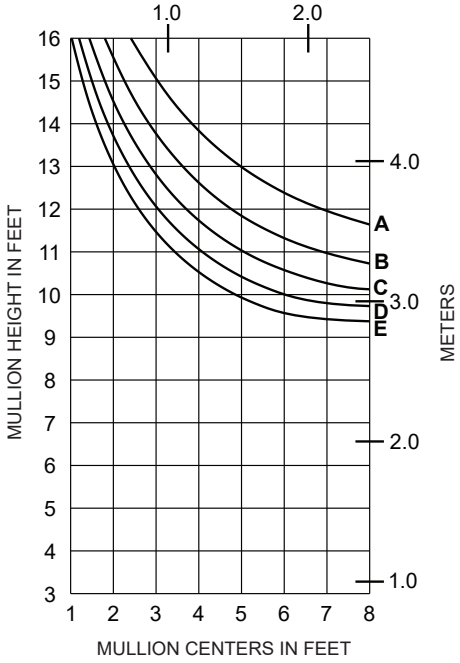




521CG019 / 521CG018
(IR 521)

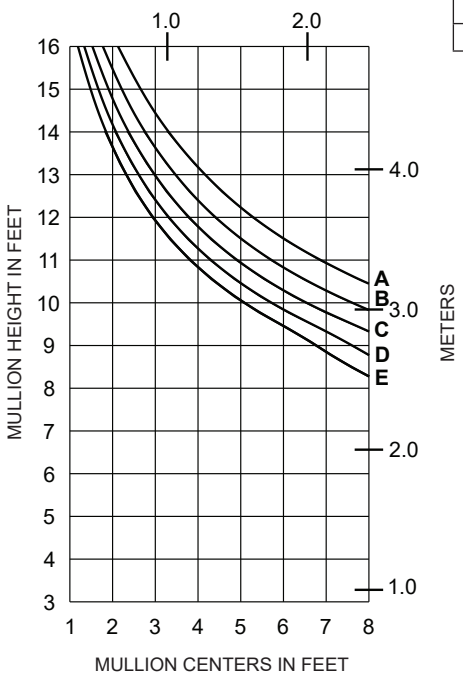
I_A = 10.060 in^4 (418.73 x 10^4 mm^4)
S_A = 3.958 in^3 (64.86 x 10^3 mm^3)

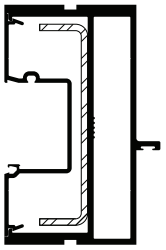
WITHOUT HORIZONTALS



	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	50 PSF (2400)	83 PSF (4000)
B =	60 PSF (2880)	100 PSF (4790)
C =	70 PSF (3360)	117 PSF (5600)
D =	80 PSF (3830)	133 PSF (6380)
E =	90 PSF (4310)	150 PSF (7200)

WITH HORIZONTALS



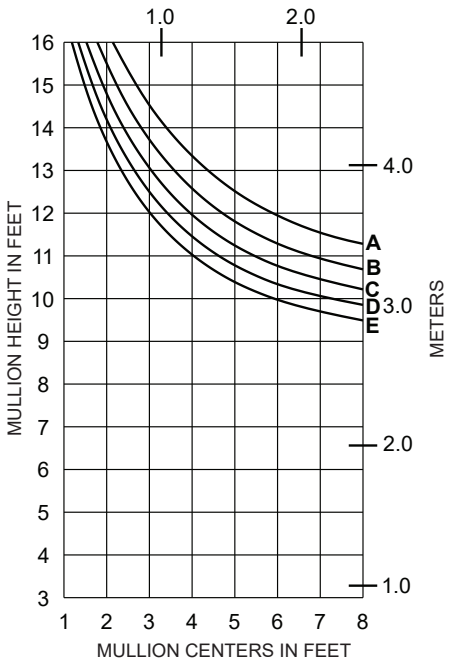


521CG019 / 521CG018
WITH 575300 STEEL
(IR 521)

I_A = 10.060 in^4 (418.73 x 10^4 mm^4)
S_A = 3.958 in^3 (64.86 x 10^3 mm^3)

I_S = 1.684 in^4 (80.54 x 10^4 mm^4)
S_S = 0.804 in^3 (15.37 x 10^3 mm^3)

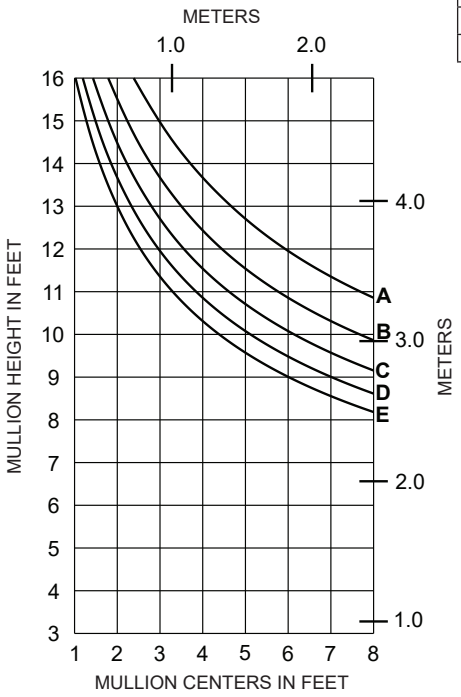
WITHOUT HORIZONTALS

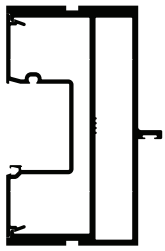


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	60 PSF (2880)	100 PSF (4790)
E =	70 PSF (3360)	117 PSF (5600)

WITH HORIZONTALS

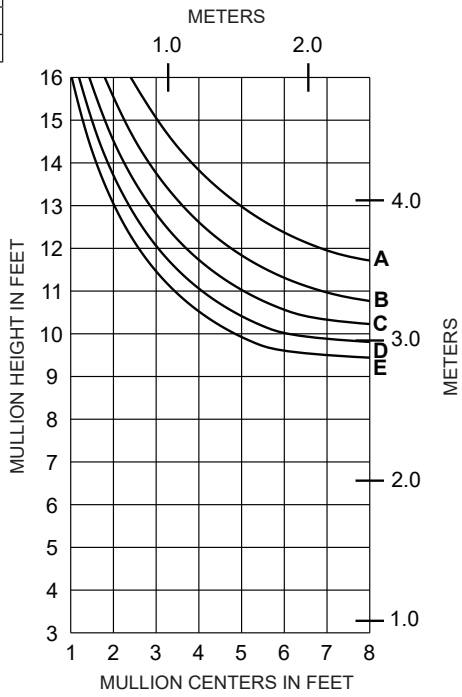




521CG019 / 521CG118
(IR 521)

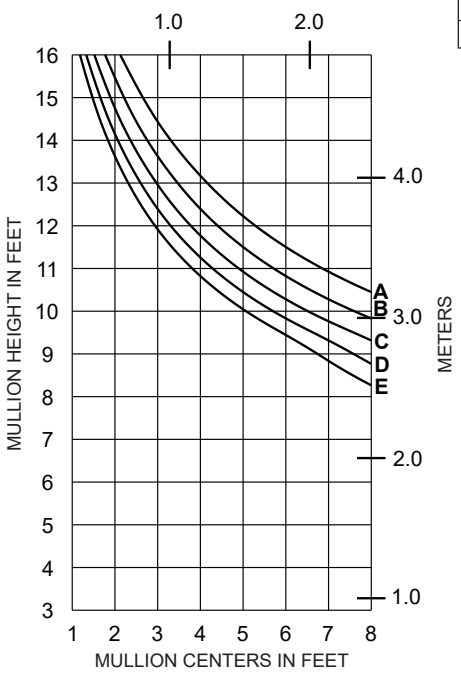
I_A = 10.060 in^4 (418.73 x 10^4 mm^4)
S_A = 3.952 in^3 (64.50 x 10^3 mm^3)

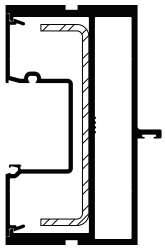
WITHOUT HORIZONTALS



	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	50 PSF (2400)	83 PSF (4000)
B =	60 PSF (2880)	100 PSF (4790)
C =	70 PSF (3360)	117 PSF (5600)
D =	80 PSF (3830)	133 PSF (6380)
E =	90 PSF (4310)	150 PSF (7200)

WITH HORIZONTALS



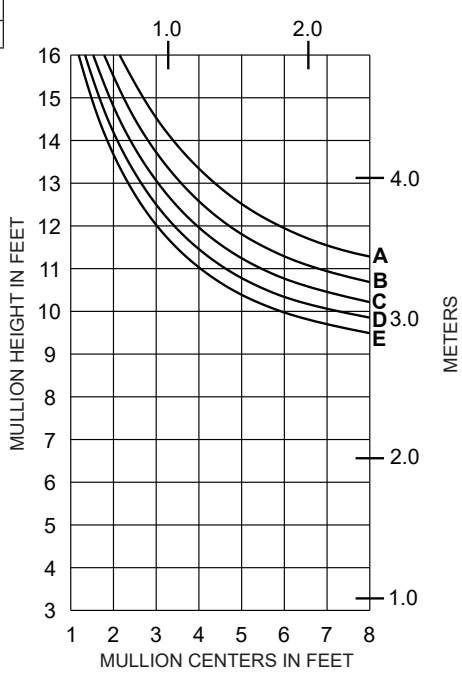


521CG019 / 521CG118
WITH 575300 STEEL
(IR 521)

I_A = 10.060 in^4 (418.73 x 10^4 mm^4)
S_A = 3.952 in^3 (64.50 x 10^3 mm^3)

I_S = 1.684 in^4 (80.54 x 10^4 mm^4)
S_S = 0.804 in^3 (15.37 x 10^3 mm^3)

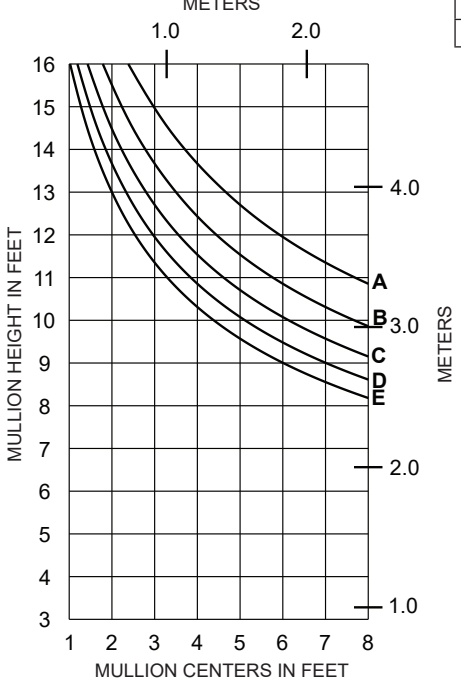
WITHOUT HORIZONTALS

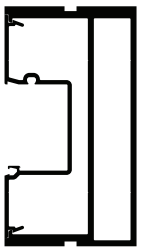


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	60 PSF (2880)	100 PSF (4790)
E =	70 PSF (3360)	117 PSF (5600)

WITH HORIZONTALS

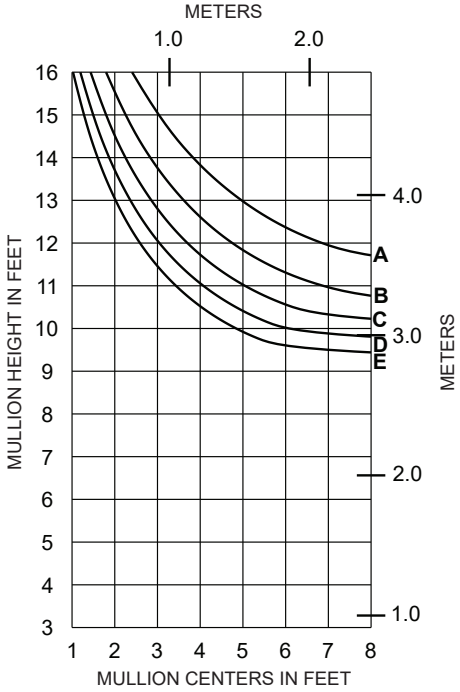




521CG019 / 521CG318
(IR 521)

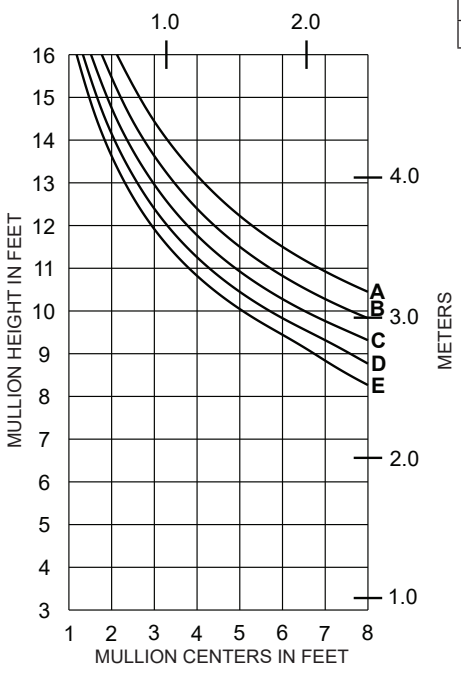
I_A = 10.040 in^4 (417.89 x 10^4 mm^4)
S_A = 3.923 in^3 (64.29 x 10^3 mm^3)

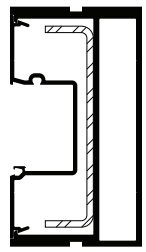
WITHOUT HORIZONTALS



	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	50 PSF (2400)	83 PSF (4000)
B =	60 PSF (2880)	100 PSF (4790)
C =	70 PSF (3360)	117 PSF (5600)
D =	80 PSF (3830)	133 PSF (6380)
E =	90 PSF (4310)	150 PSF (7200)

WITH HORIZONTALS



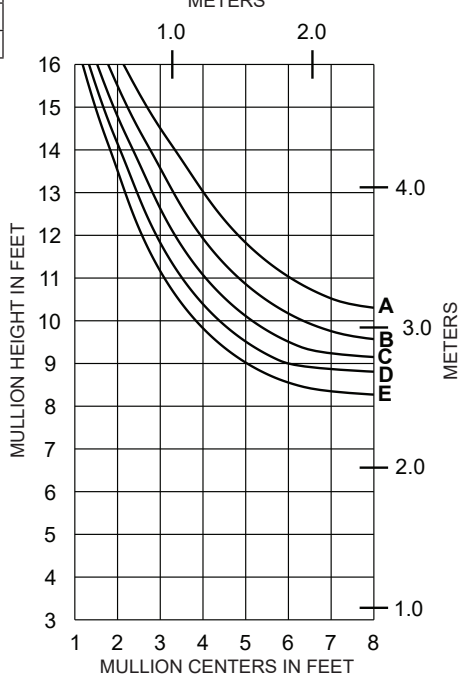


521CG019 / 521CG318
WITH 575300 STEEL
(IR 521)

I_A = 10.040 in^4 (417.89 x 10^4 mm^4)
S_A = 3.923 in^3 (64.29 x 10^3 mm^3)

I_S = 1.684 in^4 (80.54 x 10^4 mm^4)
S_S = 0.804 in^3 (15.37 x 10^3 mm^3)

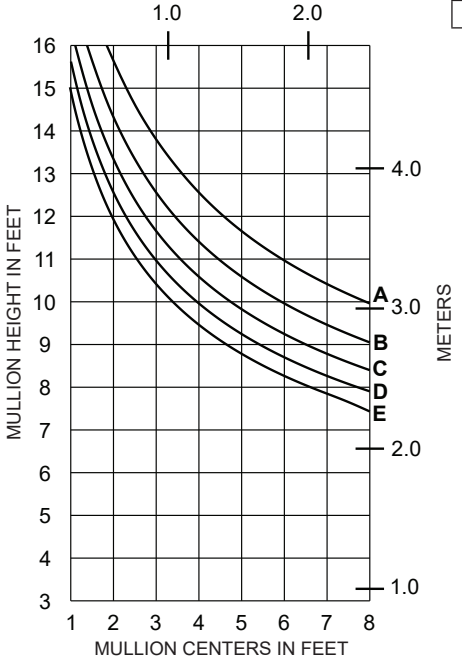
WITHOUT HORIZONTALS

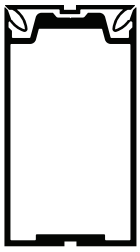


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	60 PSF (2880)	100 PSF (4790)
E =	70 PSF (3360)	117 PSF (5600)

WITH HORIZONTALS

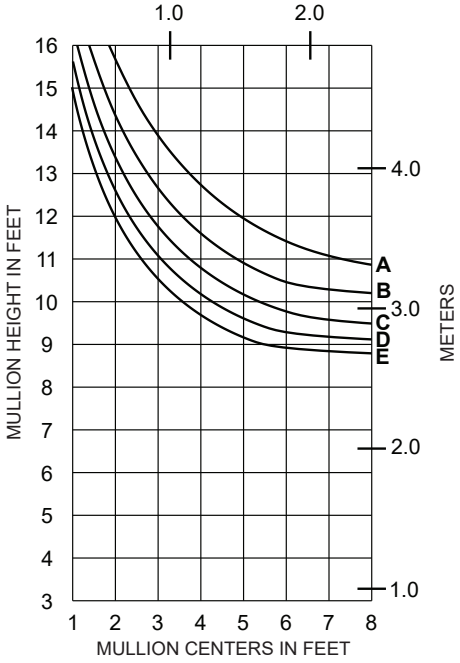




521CG264 / 521CG064
(IR 521)

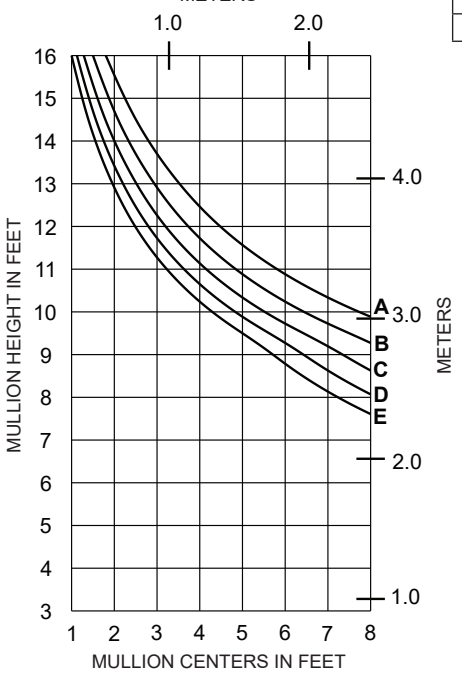
I_A = 7.761 in^4 (323.04 x 10^4 mm^4)
S_A = 3.079 in^3 (50.46 x 10^3 mm^3)

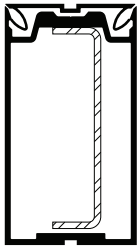
WITHOUT HORIZONTALS



	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	50 PSF (2400)	83 PSF (4000)
B =	60 PSF (2880)	100 PSF (4790)
C =	70 PSF (3360)	117 PSF (5600)
D =	80 PSF (3830)	133 PSF (6380)
E =	90 PSF (4310)	150 PSF (7200)

WITH HORIZONTALS



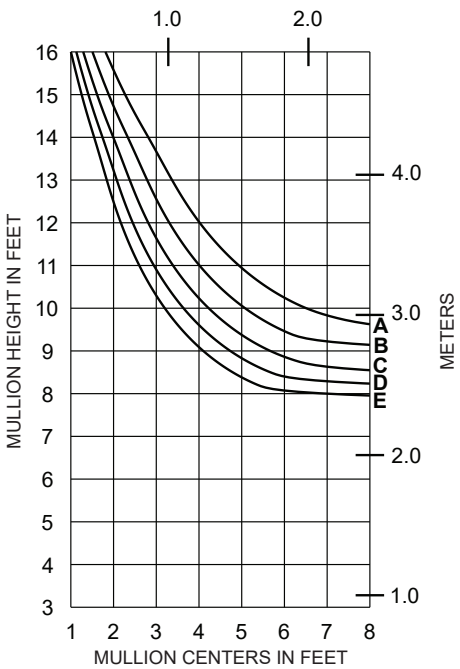


521CG264 / 521CG064
WITH 575300 STEEL
(IR 521)

I_A = 7.761 in^4 (323.04 x 10^4 mm^4)
S_A = 3.079 in^3 (50.46 x 10^3 mm^3)

I_S = 1.684 in^4 (80.54 x 10^4 mm^4)
S_S = 0.804 in^3 (15.37 x 10^3 mm^3)

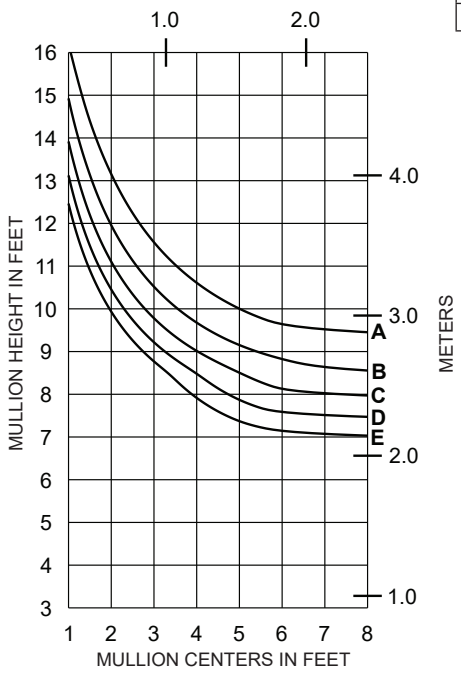
WITHOUT HORIZONTALS

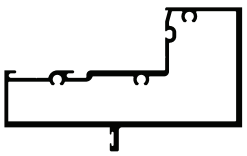


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	60 PSF (2880)	100 PSF (4790)
E =	70 PSF (3360)	117 PSF (5600)

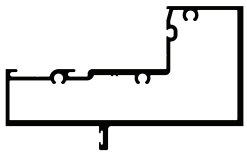
521CG020
SINGLE SPAN





521CG120
(IR 521)

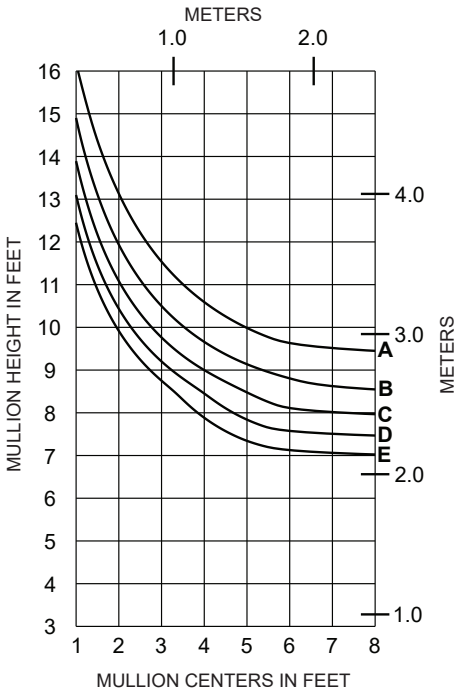
I_A = 4.302 in^4 (179.06 x 10^4 mm^4)
S_A = 1.157 in^3 (18.96 x 10^3 mm^3)



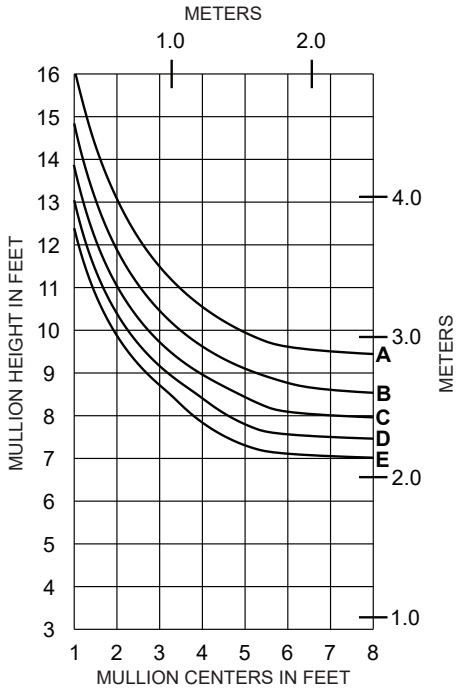
521CG020
(IR 521)

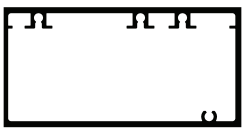
I_A = 4.146 in^4 (183.81 x 10^4 mm^4)
S_A = 1.585 in^3 (25.97 x 10^3 mm^3)

521CG120
SINGLE SPAN



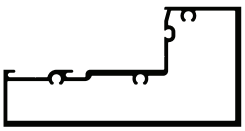
521CG320
SINGLE SPAN





521CG079
(IR 521)

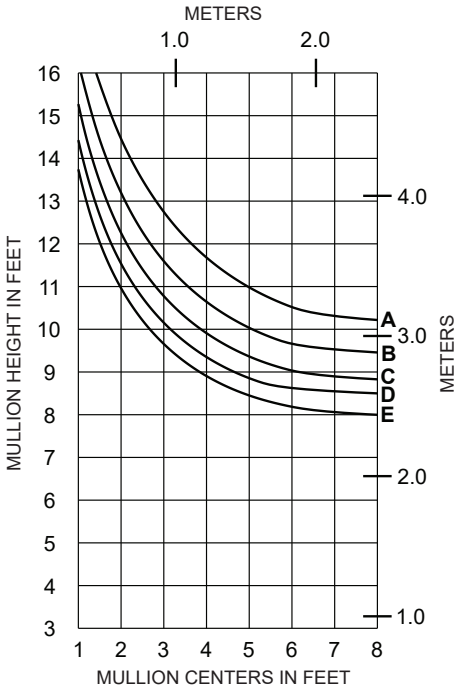
I_A = 5.946 in^4 (247.49 x 10^4 mm^4)
S_A = 2.299 in^3 (37.67 x 10^3 mm^3)



521CG320
(IR 521)

I_A = 4.373 in^4 (182.02 x 10^4 mm^4)
S_A = 1.552 in^3 (25.43 x 10^3 mm^3)

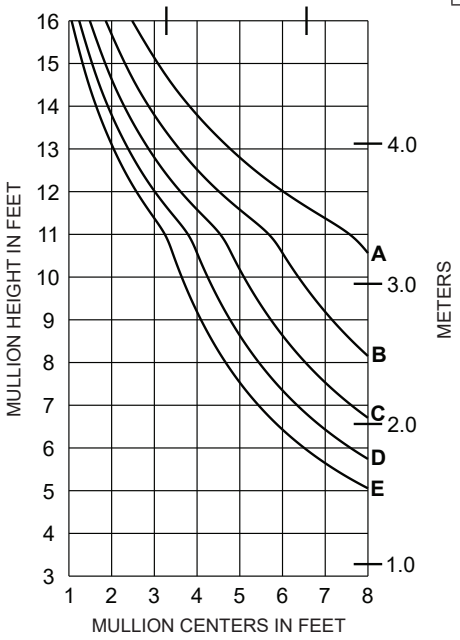
521CG079
SINGLE SPAN

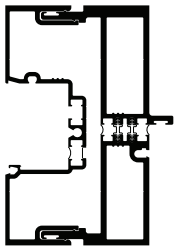


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	60 PSF (2880)	100 PSF (4790)
E =	70 PSF (3360)	117 PSF (5600)

WITH HORIZONTALS

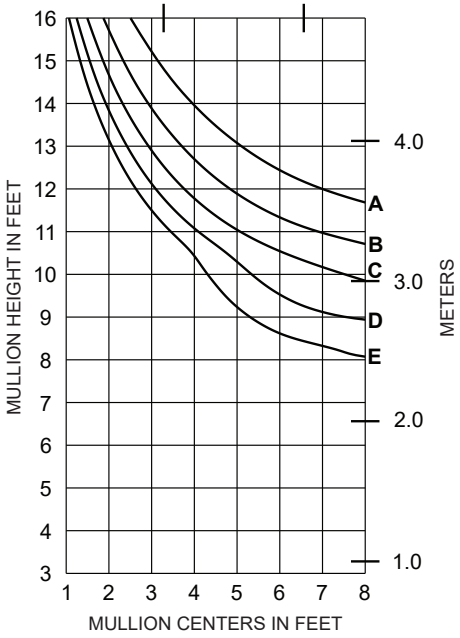




521TCG610 / 521TCG218
(IR 521T)

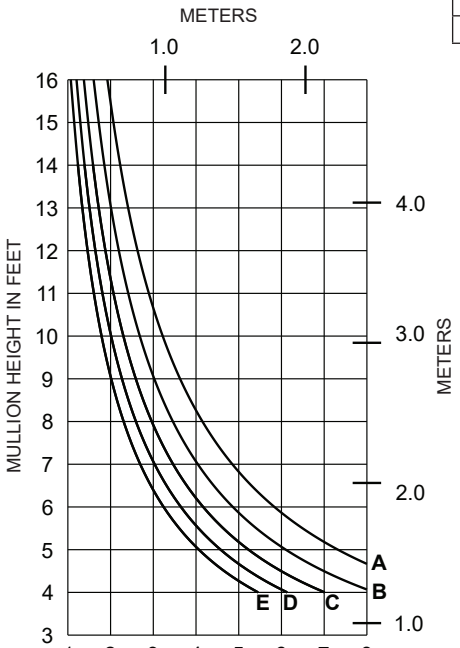
WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

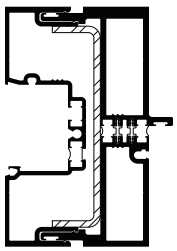
WITHOUT HORIZONTALS



	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	50 PSF (2400)	83 PSF (4000)
B =	60 PSF (2880)	100 PSF (4790)
C =	70 PSF (3360)	117 PSF (5600)
D =	80 PSF (3830)	133 PSF (6380)
E =	90 PSF (4310)	150 PSF (7200)

WITH HORIZONTALS



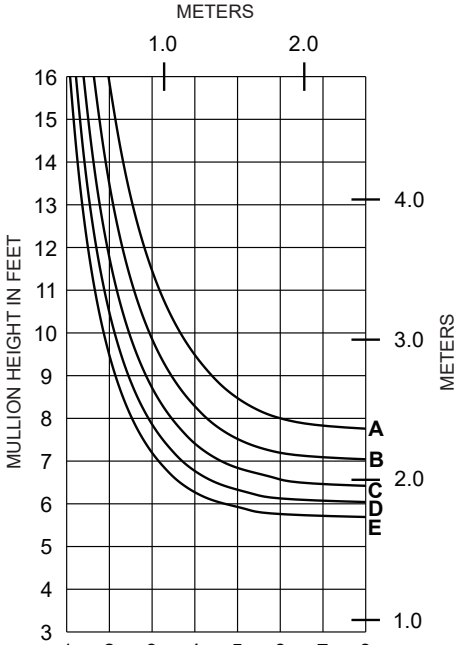


521TCG610 / 521TCG218
WITH 575300 STEEL
(IR 521T)

I_S = 1.684 in^4 (80.54 x 10^4 mm^4)
S_S = 0.804 in^3 (15.37 x 10^3 mm^3)

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

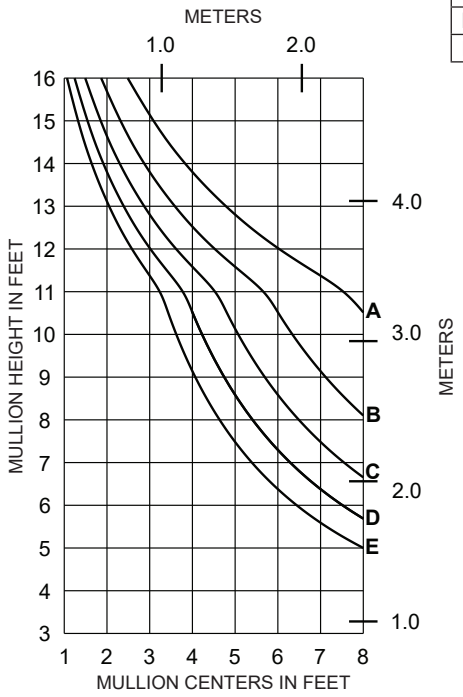
WITHOUT HORIZONTALS

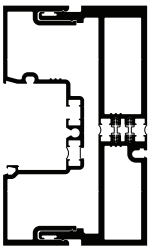


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	60 PSF (2880)	100 PSF (4790)
E =	70 PSF (3360)	117 PSF (5600)

WITH HORIZONTALS

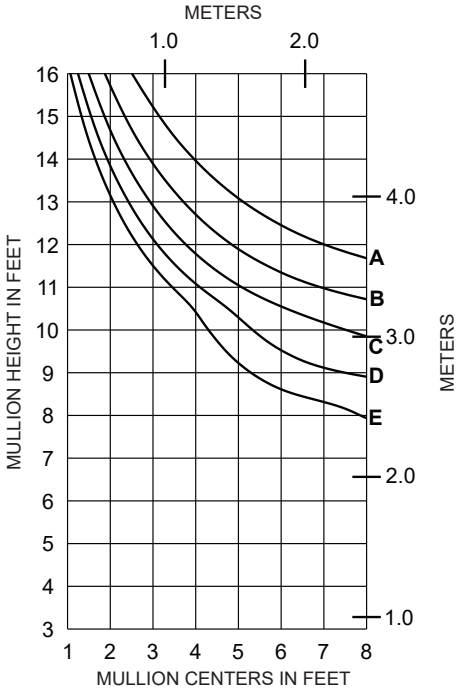




521TCG264 / 521TCG064
(IR 521T)

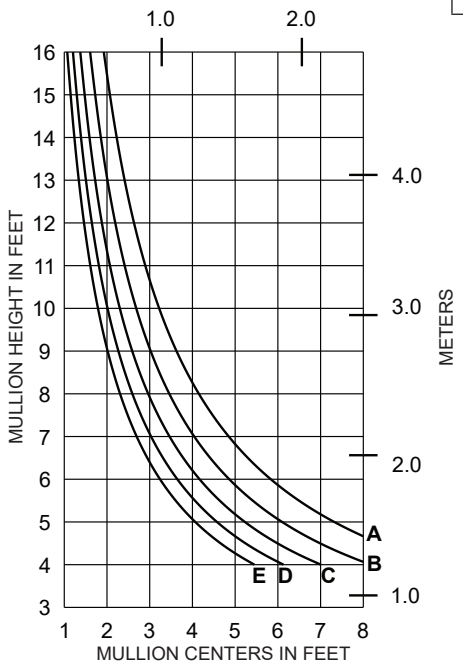
WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

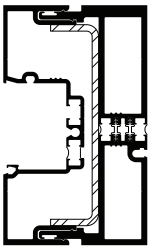
WITHOUT HORIZONTALS



	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	50 PSF (2400)	83 PSF (4000)
B =	60 PSF (2880)	100 PSF (4790)
C =	70 PSF (3360)	117 PSF (5600)
D =	80 PSF (3830)	133 PSF (6380)
E =	90 PSF (4310)	150 PSF (7200)

WITH HORIZONTALS



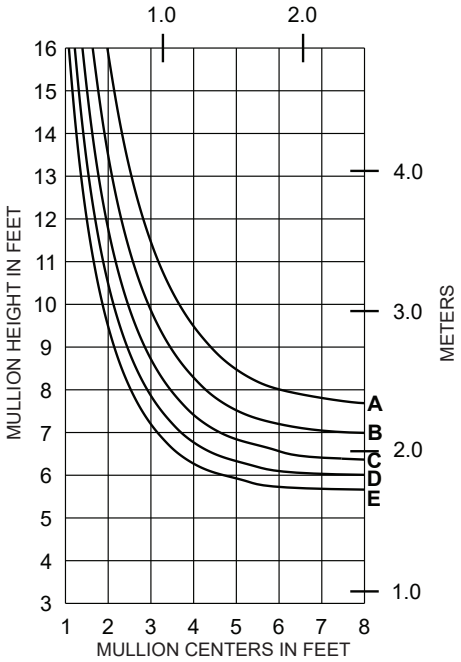


521TCG610 / 521TCG518
WITH 575300 STEEL
(IR 521T)

I_s = 1.684 in^4 (80.54 x 10^4 mm^4)
S_s = 0.804 in^3 (15.37 x 10^3 mm^3)

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

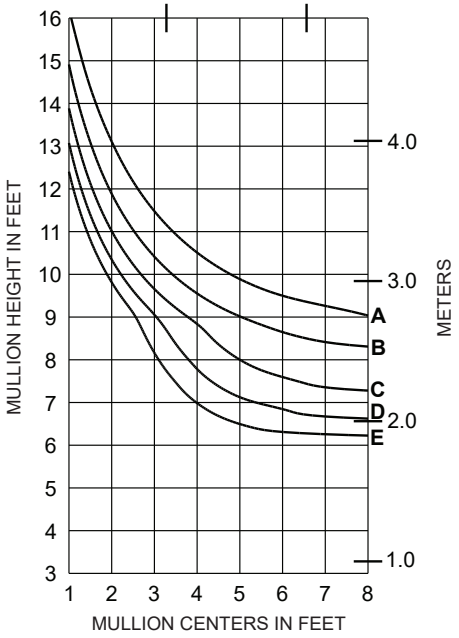
WITHOUT HORIZONTALS

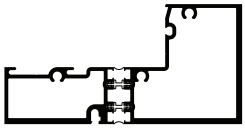


HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	60 PSF (2880)	100 PSF (4790)
E =	70 PSF (3360)	117 PSF (5600)

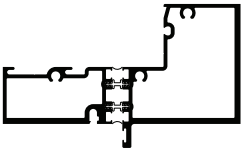
521TCG221





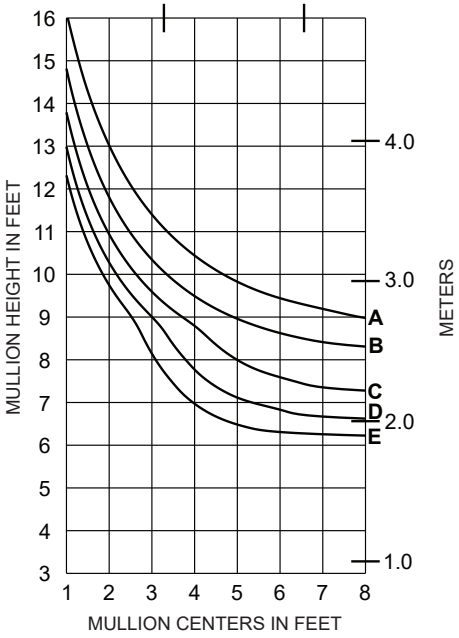
521TCG521
(IR 521T)

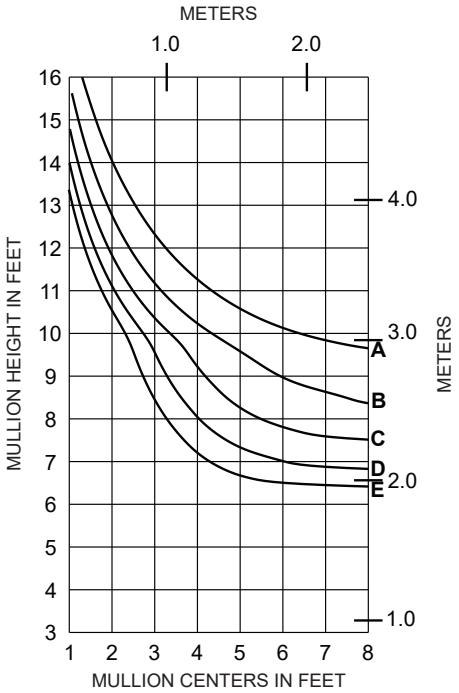
WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

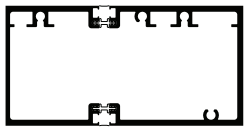


521TCG221
(IR 521T)

521TCG521







521TCG221
(IR 521T)

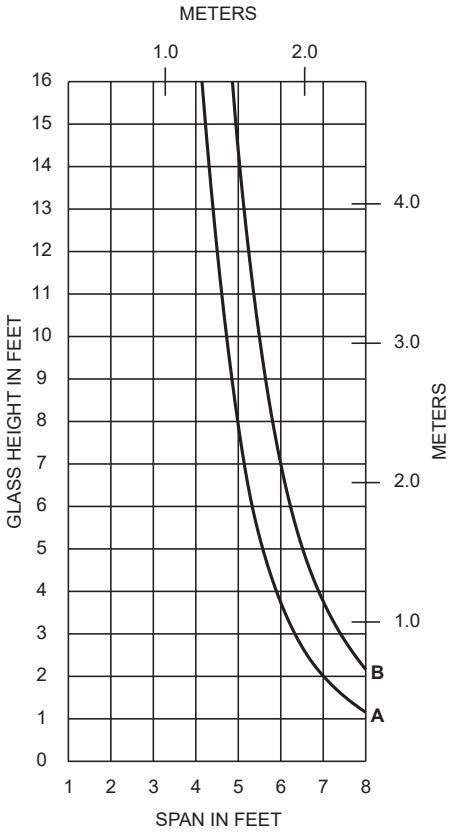
WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

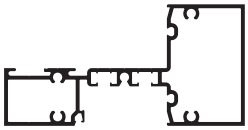
HURRICANE RESISTANT PRODUCT

Horizontal or deadload limitations are based upon 1/8" (3.2), maximum allowable deflection at the center of an intermediate horizontal member. The accompanying charts are calculated for 1-5/16" (33.3) thick insulated impact resistant glass supported on two setting blocks placed at the loading points shown.

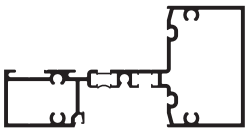
NOTE: Chart is for NON-THERMAL and THERMAL members.

A = (1/4 POINT LOADING)
B = (1/8 POINT LOADING)

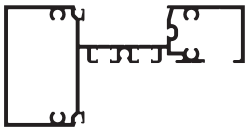




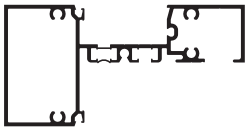
521CG011 (IR 521)



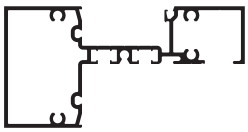
521TCG011 (IR 521T)



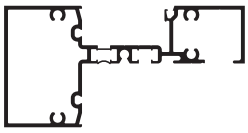
521CG311 (IR 521)



521TCG311 (IR 521T)



521CG111 (IR 521)



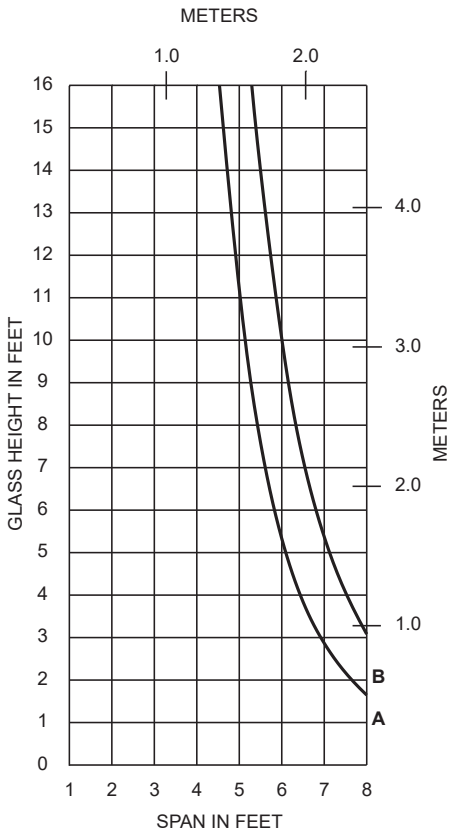
521TCG111 (IR 521T)

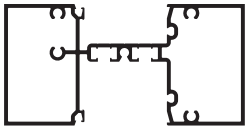
HURRICANE RESISTANT PRODUCT

Horizontal or deadload limitations are based upon 1/8" (3.2), maximum allowable deflection at the center of an intermediate horizontal member. The accompanying charts are calculated for 1-5/16" (33.3) thick insulated impact resistant glass supported on two setting blocks placed at the loading points shown.

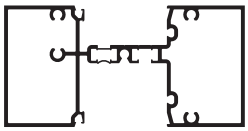
NOTE: Chart is for NON-THERMAL and THERMAL members.

A = (1/4 POINT LOADING)
B = (1/8 POINT LOADING)





521CG211 (IR 521)

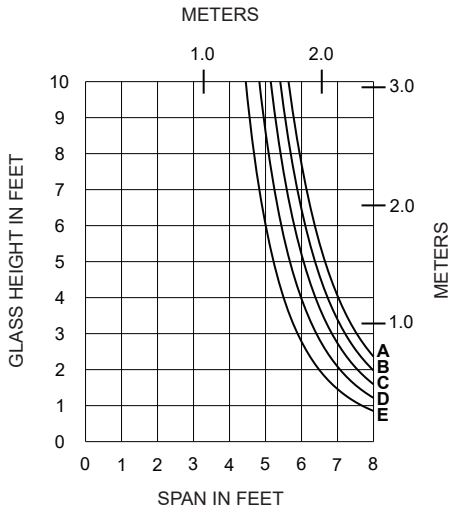


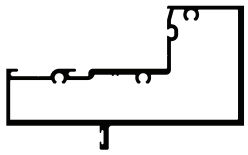
521TCG211 (IR 521T)

HURRICANE RESISTANT PRODUCT

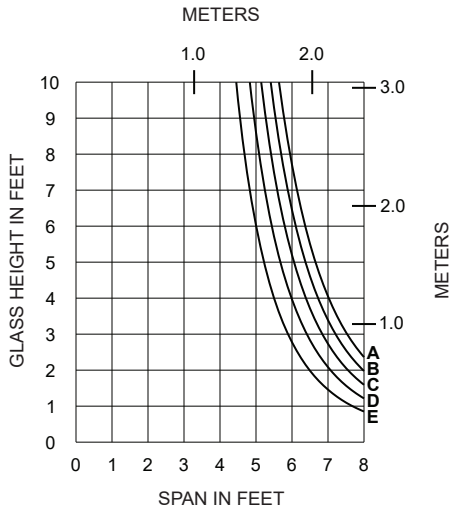
Horizontal or deadload limitations are based upon 1/16" (1.6), maximum allowable deflection at the center of an intermediate horizontal member. The accompanying charts are calculated for 1-5/16" (33.3) thick insulated impact resistant glass supported on two setting blocks placed at the loading points shown.

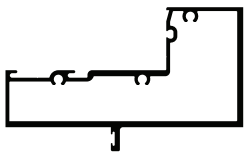
A = (1/4 POINT LOADING)
B = (1/6 POINT LOADING)
C = (1/8 POINT LOADING)
D = (1/10 POINT LOADING)
E = (1/12 POINT LOADING)





521CG020 (IR 521)





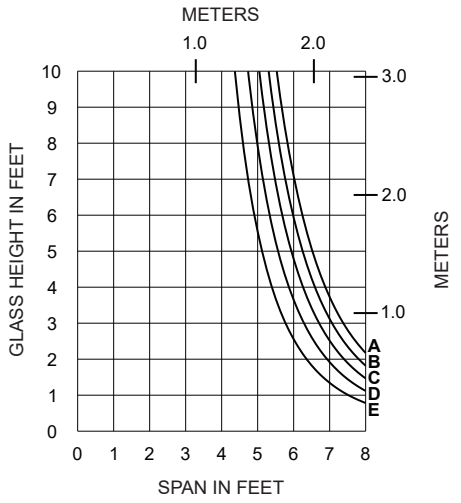
521CG120 (IR 521)

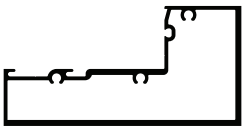
SETTING BLOCK LOCATIONS EXAMPLE (96" DLO)		
CURVE DESIGNATION	OFFSET	DISTANCE FROM JAMBS
A	1/4 POINT	24"
B	1/6 POINT	16"
C	1/8 POINT	12"
D	1/10 POINT	9"
E	1/12 POINT	8"

HURRICANE RESISTANT PRODUCT

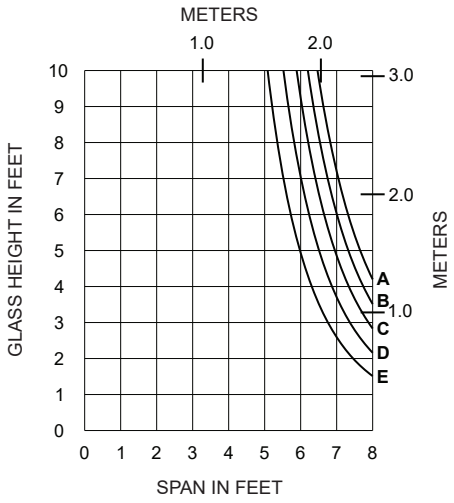
Horizontal or deadload limitations are based upon 1/16" (1.6), maximum allowable deflection at the center of an intermediate horizontal member. The accompanying charts are calculated for 1-5/16" (33.3) thick insulated impact resistant glass supported on two setting blocks placed at the loading points shown.

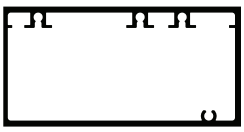
A = (1/4 POINT LOADING)
B = (1/6 POINT LOADING)
C = (1/8 POINT LOADING)
D = (1/10 POINT LOADING)
E = (1/12 POINT LOADING)





521CG320 (IR 521)





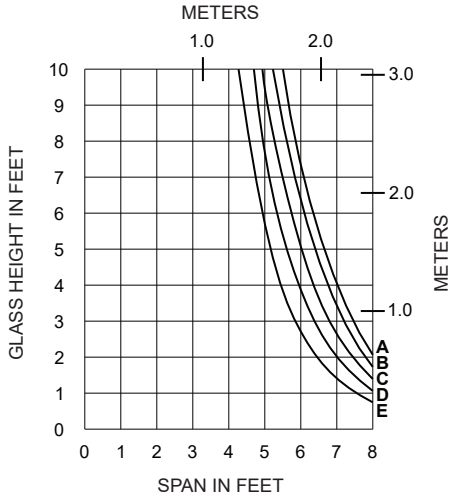
521CG079 (IR 521)

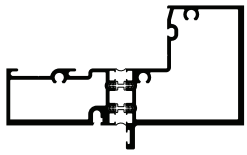
SETTING BLOCK LOCATIONS EXAMPLE (96" DLO)		
CURVE DESIGNATION	OFFSET	DISTANCE FROM JAMBS
A	1/4 POINT	24"
B	1/6 POINT	16"
C	1/8 POINT	12"
D	1/10 POINT	9"
E	1/12 POINT	8"

HURRICANE RESISTANT PRODUCT

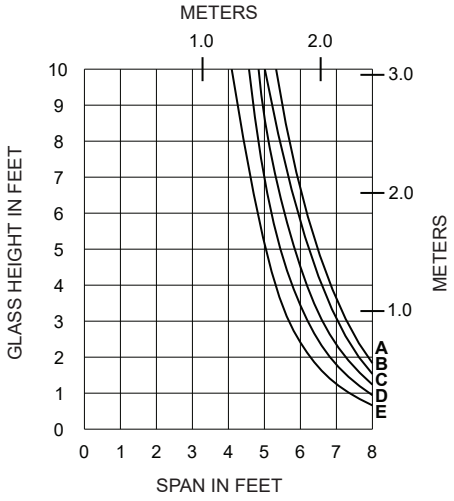
Horizontal or deadload limitations are based upon 1/16" (1.6), maximum allowable deflection at the center of an intermediate horizontal member. The accompanying charts are calculated for 1-5/16" (33.3) thick insulated impact resistant glass supported on two setting blocks placed at the loading points shown.

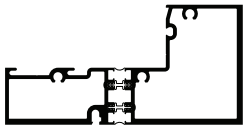
A = (1/4 POINT LOADING)
B = (1/6 POINT LOADING)
C = (1/8 POINT LOADING)
D = (1/10 POINT LOADING)
E = (1/12 POINT LOADING)





521TCG221 (IR 521T)





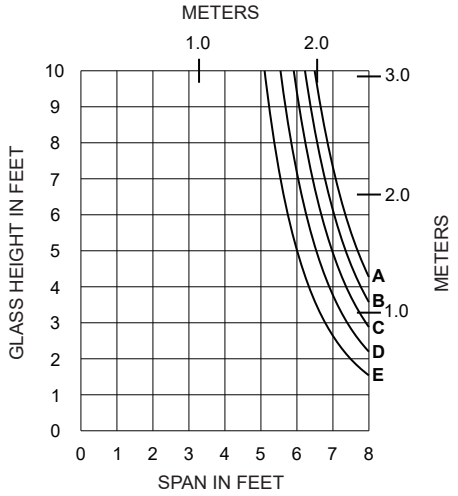
521TCG521 (IR 521T)

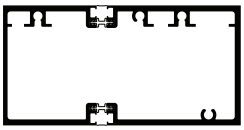
SETTING BLOCK LOCATIONS EXAMPLE (96" DLO)		
CURVE DESIGNATION	OFFSET	DISTANCE FROM JAMBS
A	1/4 POINT	24"
B	1/6 POINT	16"
C	1/8 POINT	12"
D	1/10 POINT	9"
E	1/12 POINT	8"

HURRICANE RESISTANT PRODUCT

Horizontal or deadload limitations are based upon 1/16" (1.6), maximum allowable deflection at the center of an intermediate horizontal member. The accompanying charts are calculated for 1-5/16" (33.3) thick insulated impact resistant glass supported on two setting blocks placed at the loading points shown.

A = (1/4 POINT LOADING)
B = (1/6 POINT LOADING)
C = (1/8 POINT LOADING)
D = (1/10 POINT LOADING)
E = (1/12 POINT LOADING)





521TCG079 (IR 521T)

SETTING BLOCK LOCATIONS EXAMPLE (96" DLO)		
CURVE DESIGNATION	OFFSET	DISTANCE FROM JAMBS
A	1/4 POINT	24"
B	1/6 POINT	16"
C	1/8 POINT	12"
D	1/10 POINT	9"
E	1/12 POINT	8"