

TECHNICAL DATA

DESCRIPTION:

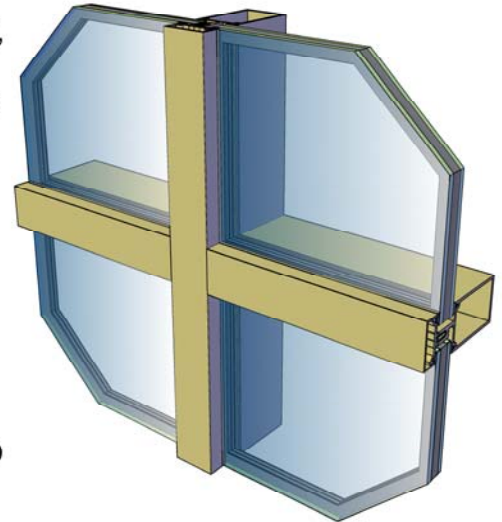
2" (50.8mm) WIDE THERMALLY
BROKEN LOW SPAN WALL SYSTEM,
WITH MULLION BACK SECTION
SIZES 3" (76.2mm) AND 4" (101.6mm)
DEEP.

COMPATIBILITY:

DESIGNED TO SUIT ALL DOORS
AND DOOR HARDWARE.

FINISH:

MOST PROFILES ARE STOCKED IN
#17 CLEAR AND #40 BRONZE
ANODIZED. OTHER ANODIZED AND
PAINT FINISHES ARE AVAILABLE
UPON REQUEST. DIFFERENT
FINISHES EXTERIOR AND INTERIOR
ARE AVAILABLE.

**STOCK LENGTH:**

24'-2" (7.37 METERS).

ASSEMBLY:

DESIGNED FOR SHEAR BLOCK ASSEMBLY.

STRENGTH:

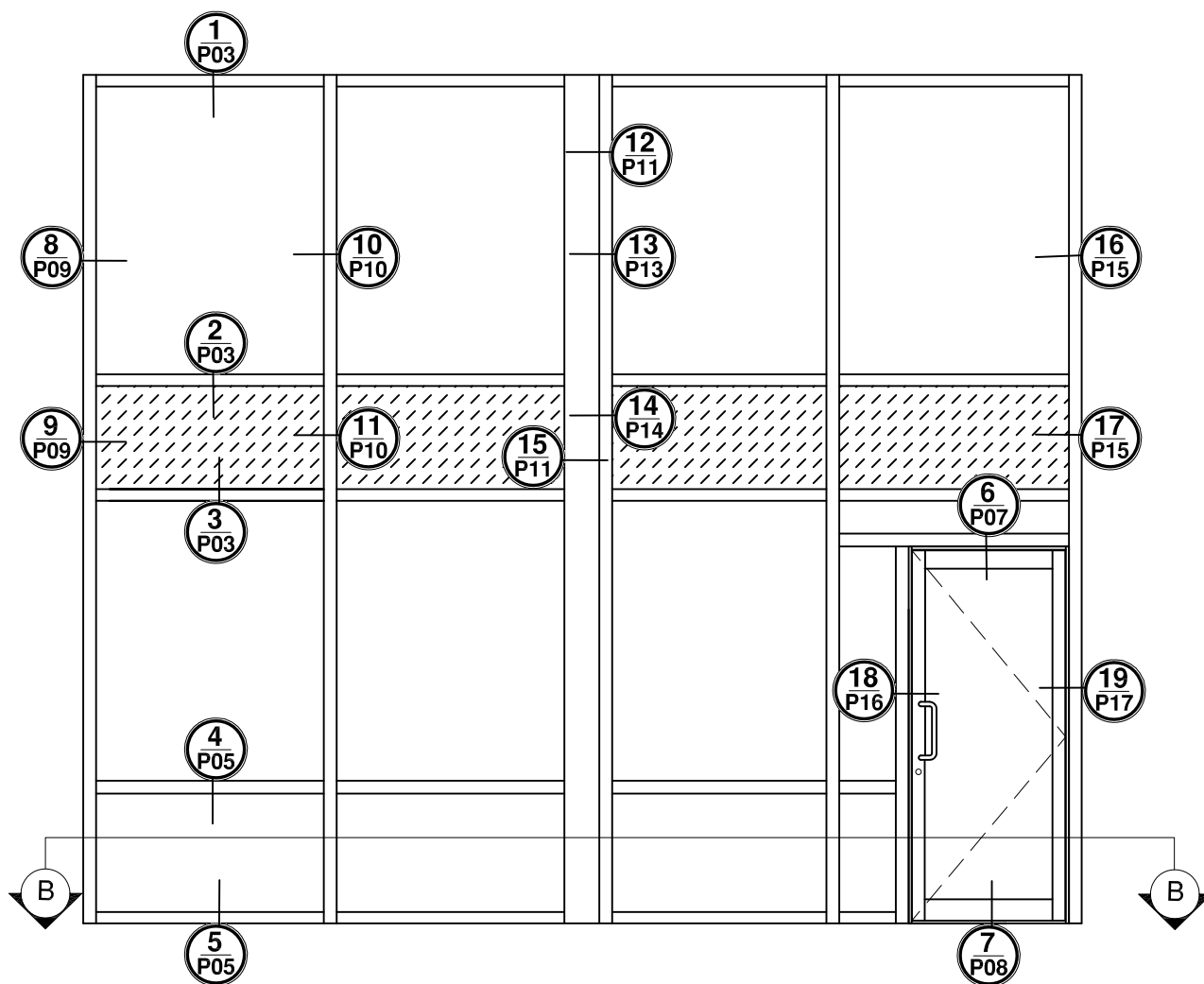
REFER TO WIND LOAD CHARTS FOR MAXIMUM ALLOWABLE SPANS.

ANCHORING:

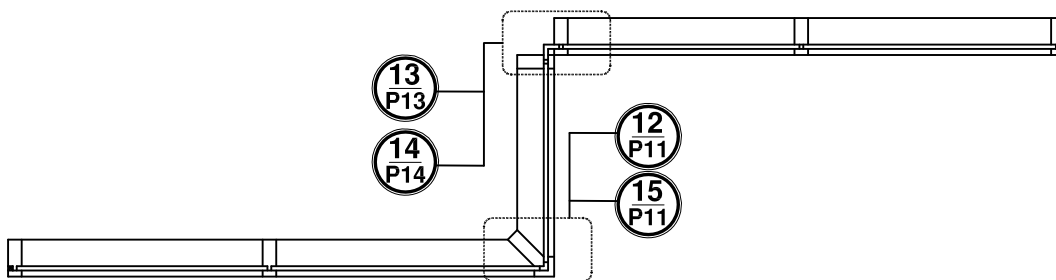
REFER TO FABRICATION AND INSTALLATION MANUAL.

GLAZING:

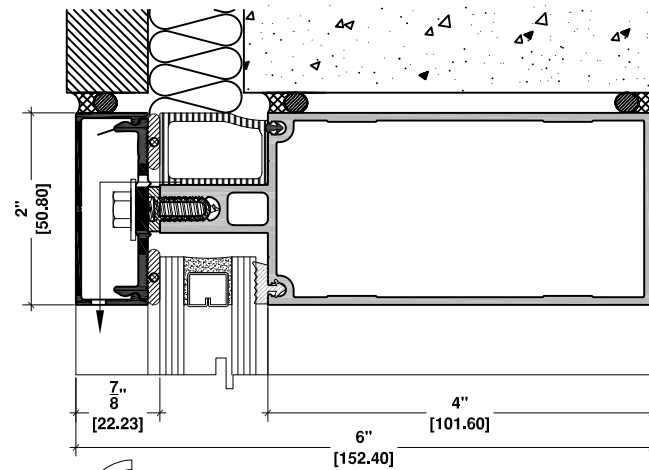
5100 SERIES IS AN EXTERIOR GLAZED SYSTEM WHICH WILL
ACCEPT 1/4" (6mm), 3/8" (10mm) OR 1/2" (12mm) SINGLE
GLASS AND 1" (25mm) OR 1-3/4" (44.5mm) SEALED UNIT
GLASS.



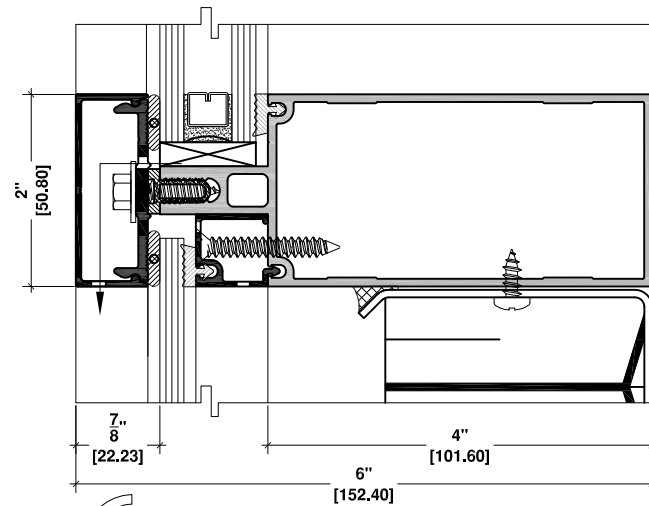
ELEVATION



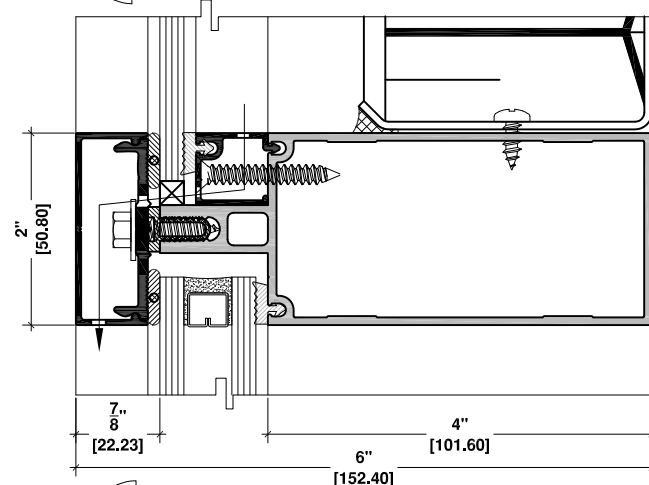
PLAN VIEW B-B



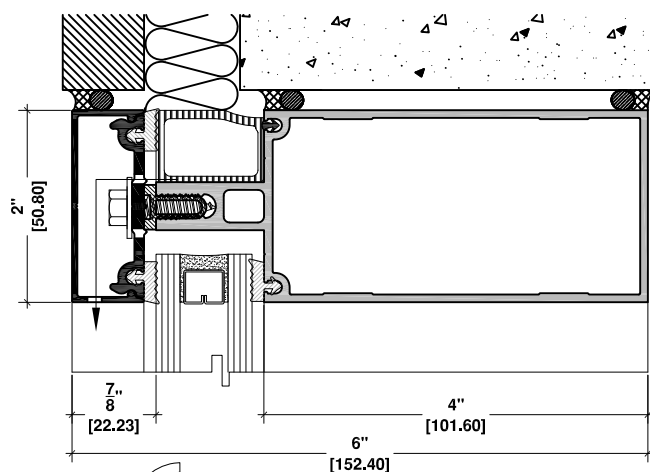
1 4" HORIZONTAL TUBE
FIXED GLASS
SLAB CONDITION



2 4" HORIZONTAL TUBE
FIXED GLASS/SPANDREL

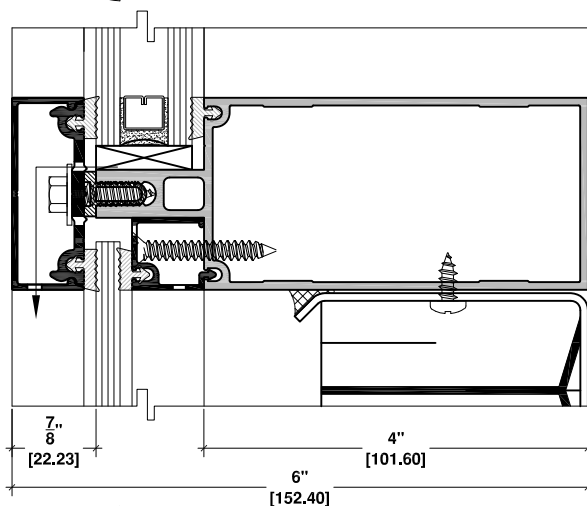


3 4" HORIZONTAL TUBE
SPANDREL/FIXED GLASS



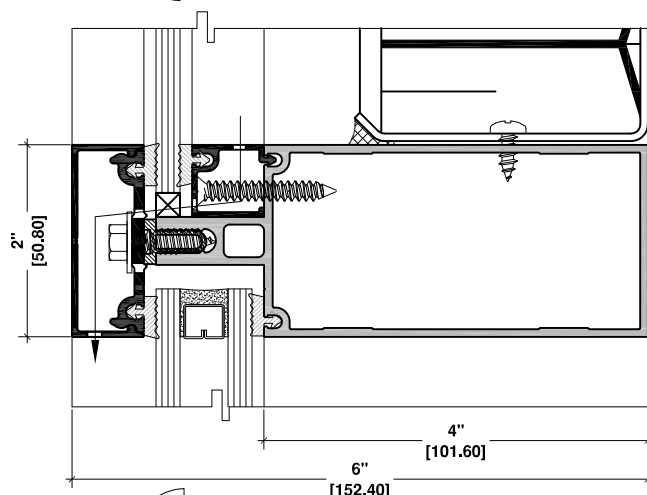
1a

**4" HORIZONTAL TUBE
FIXED GLASS
SLAB CONDITION**



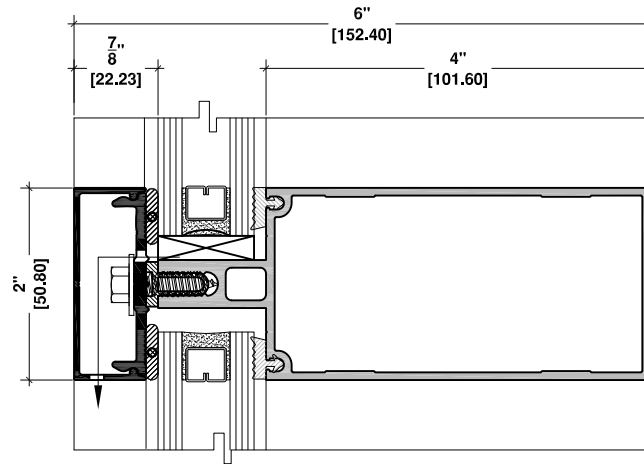
2a

**4" HORIZONTAL TUBE
FIXED GLASS/SPANDREL**

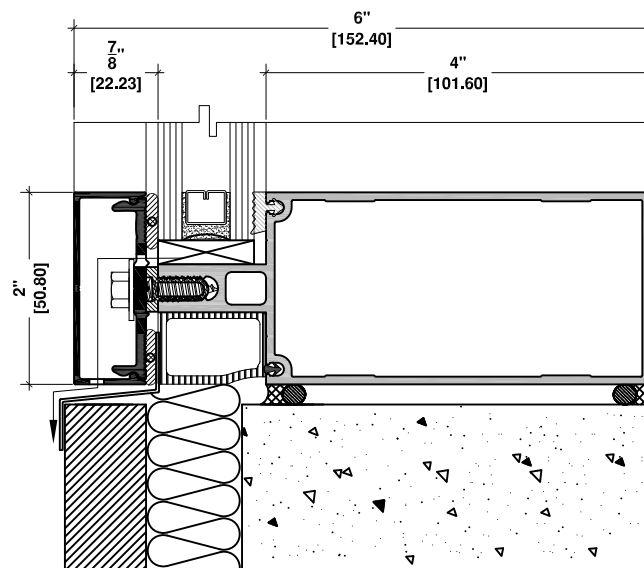


3a

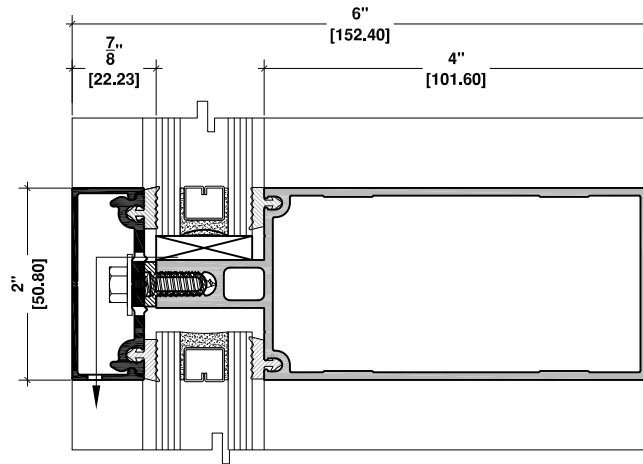
**4" HORIZONTAL TUBE
SPANDREL/FIXED GLASS**



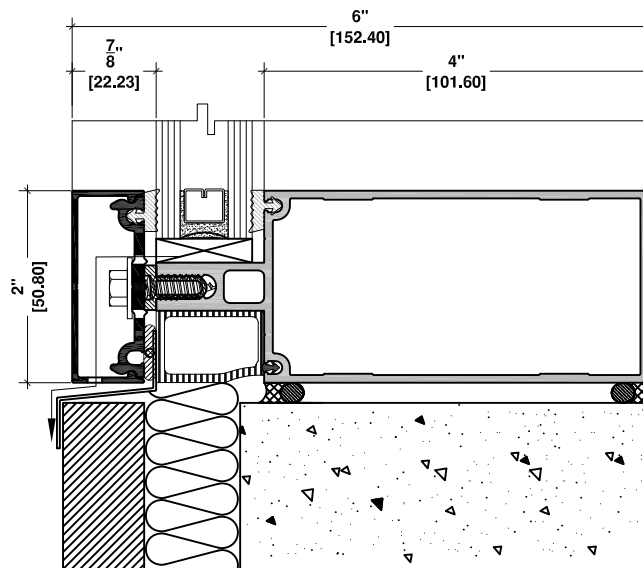
4 4" HORIZONTAL TUBE
FIXED GLASS/FIXED GLASS



5 4" HORIZONTAL TUBE
FIXED GLASS
SLAB CONDITION



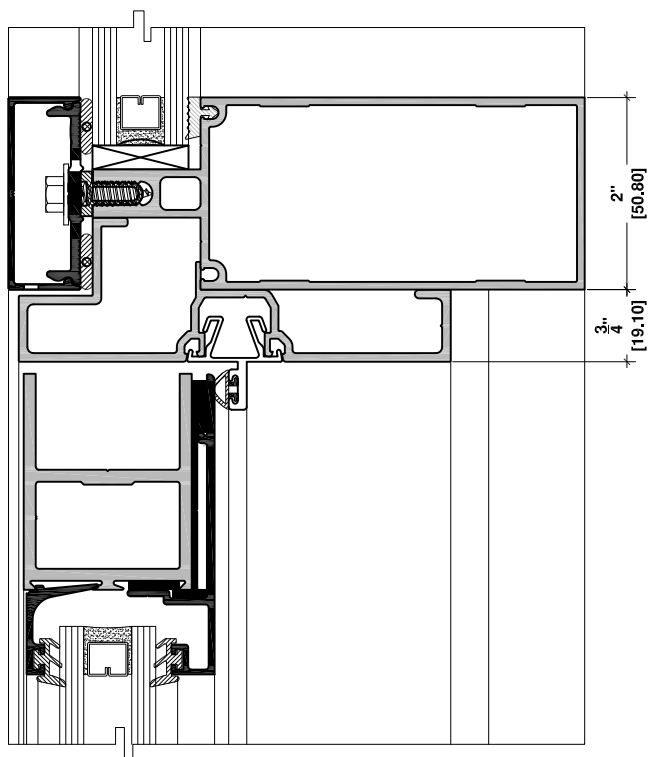
4a 4" HORIZONTAL TUBE
FIXED GLASS/FIXED GLASS



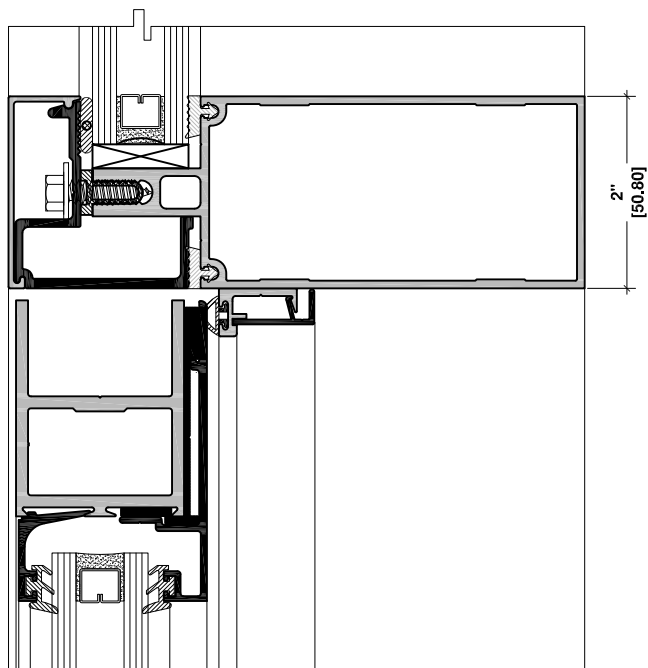
DRY GLAZED

5a 4" HORIZONTAL TUBE
FIXED GLASS
SLAB CONDITION

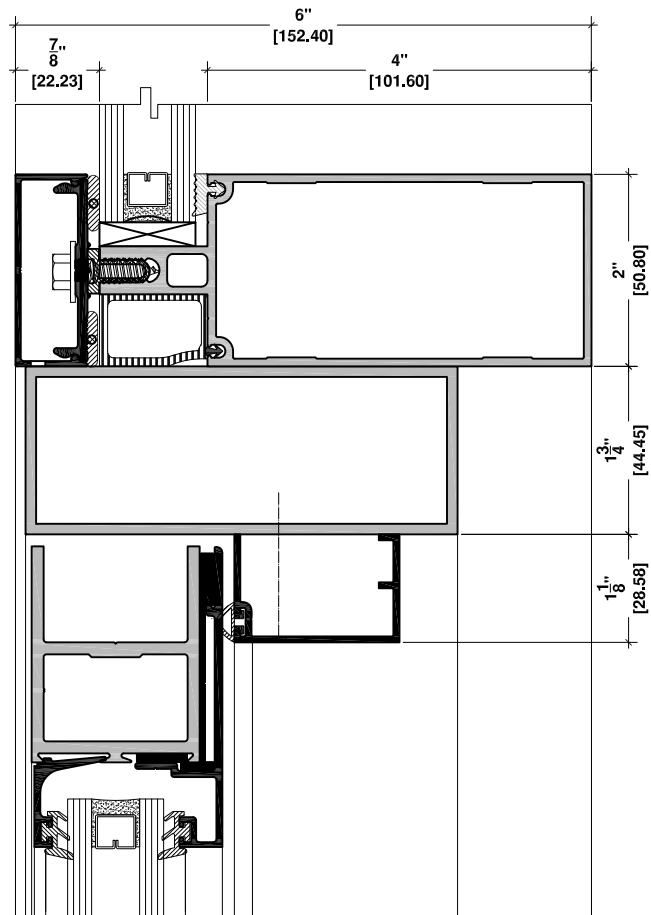
6 4" HORIZONTAL TUBE
SERIES 175 DOOR
HEADER ADAPTOR CONDITION



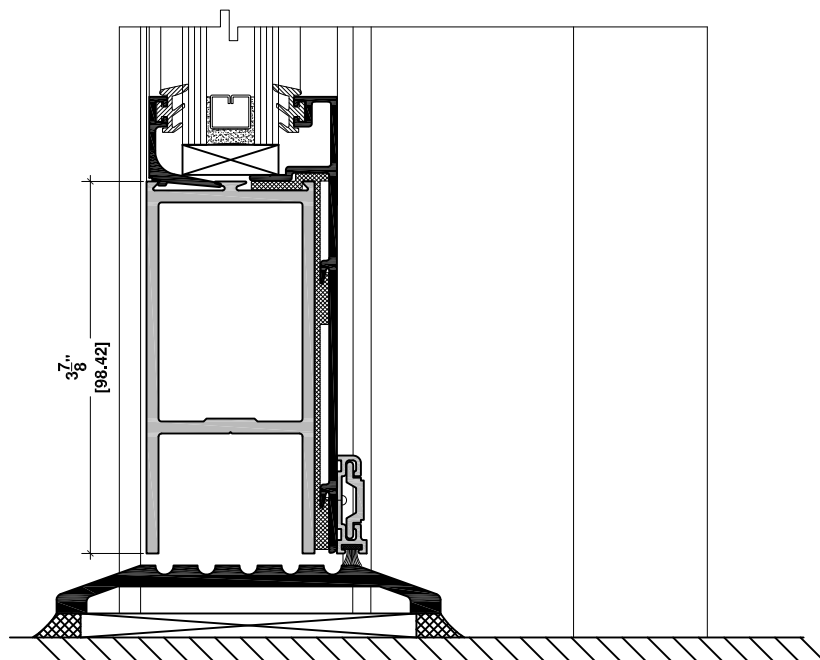
6a 4" VERTICAL TUBE
SERIES 175 DOOR
HEAD CONDITION

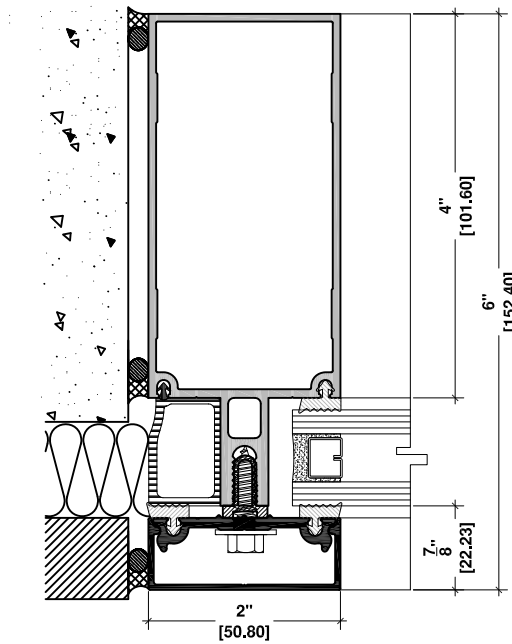


6b 4" VERTICAL TUBE
SERIES 175 DOOR
HEAD CONDITION

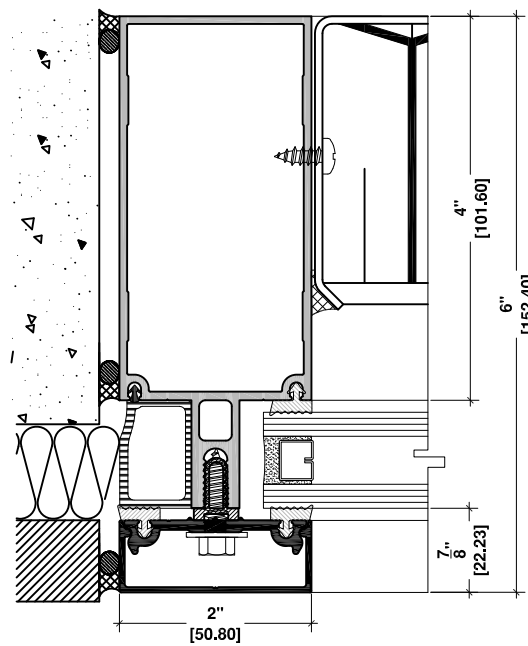


7 SERIES 175 DOOR
SILL CONDITION

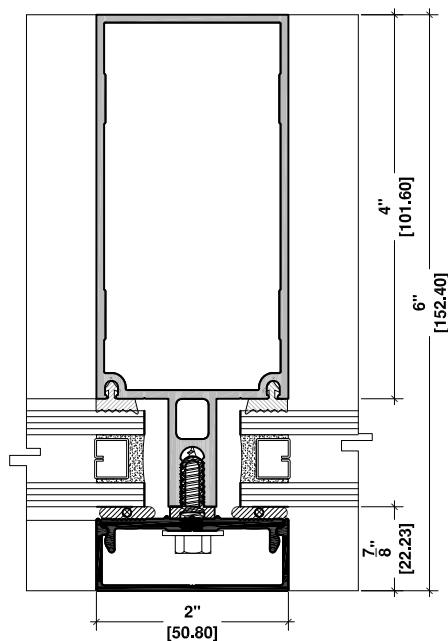




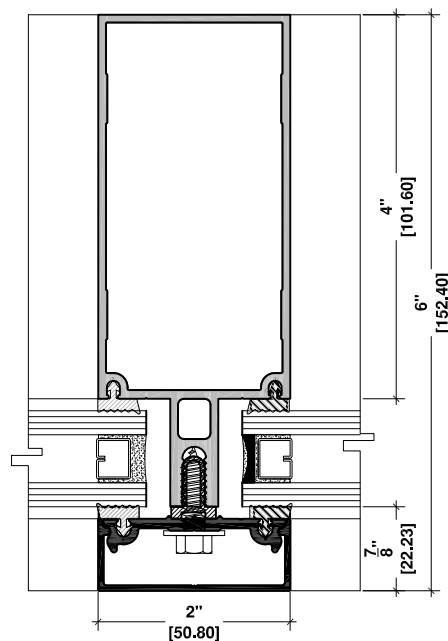
8 4" HORIZONTAL TUBE
FIXED GLASS
JAMB CONDITION



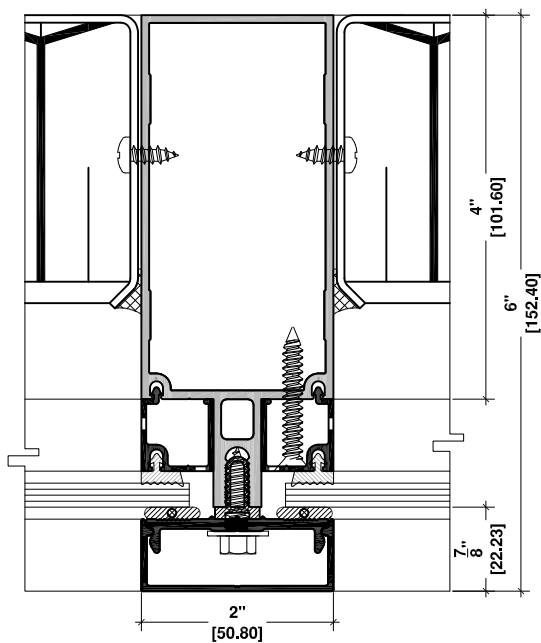
9 4" VERTICAL TUBE
SPANDREL
JAMB CONDITION



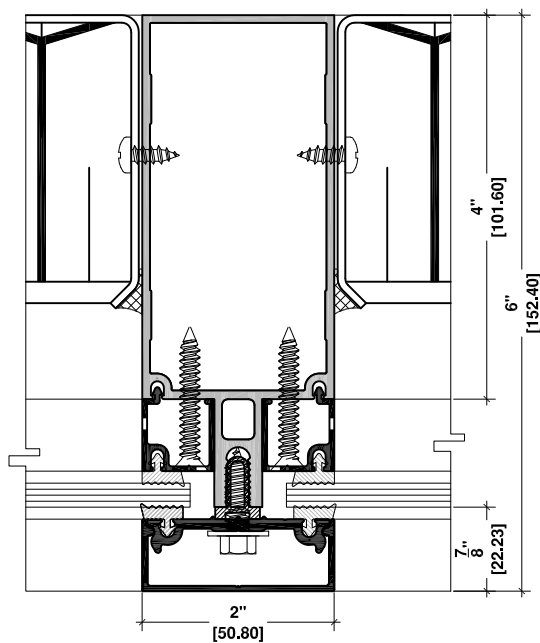
10 4" HORIZONTAL TUBE
FIXED GLASS
SLAB CONDITION



10a 4" HORIZONTAL TUBE
FIXED GLASS
SLAB CONDITION

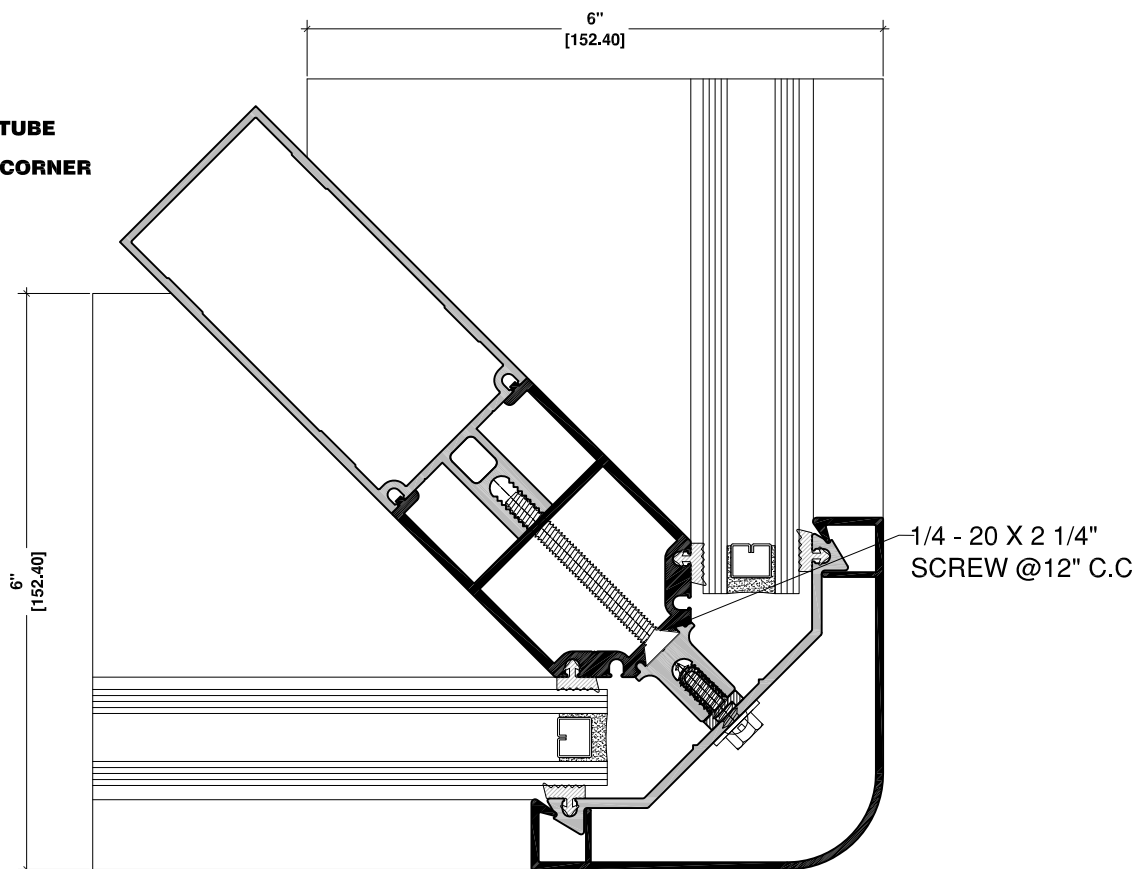


11 4" VERTICAL TUBE
SPANDREL-SPANDREL

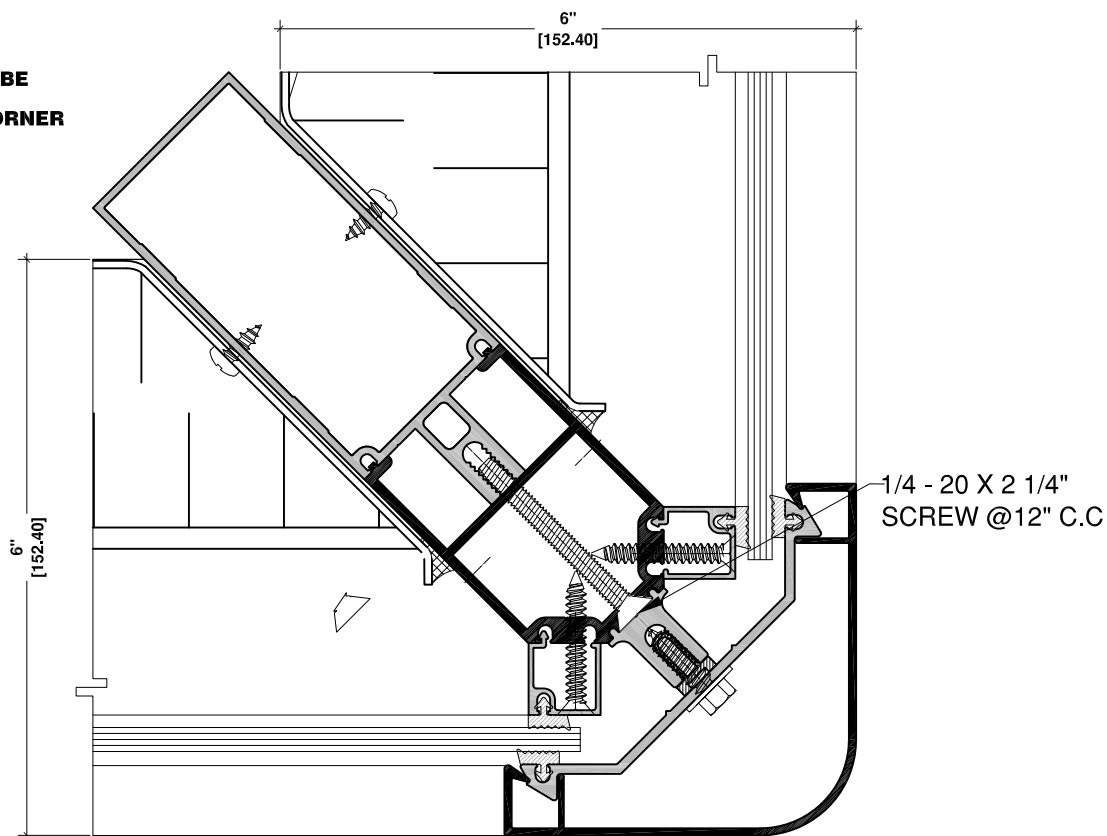


11a 4" VERTICAL TUBE
SPANDREL-SPANDREL

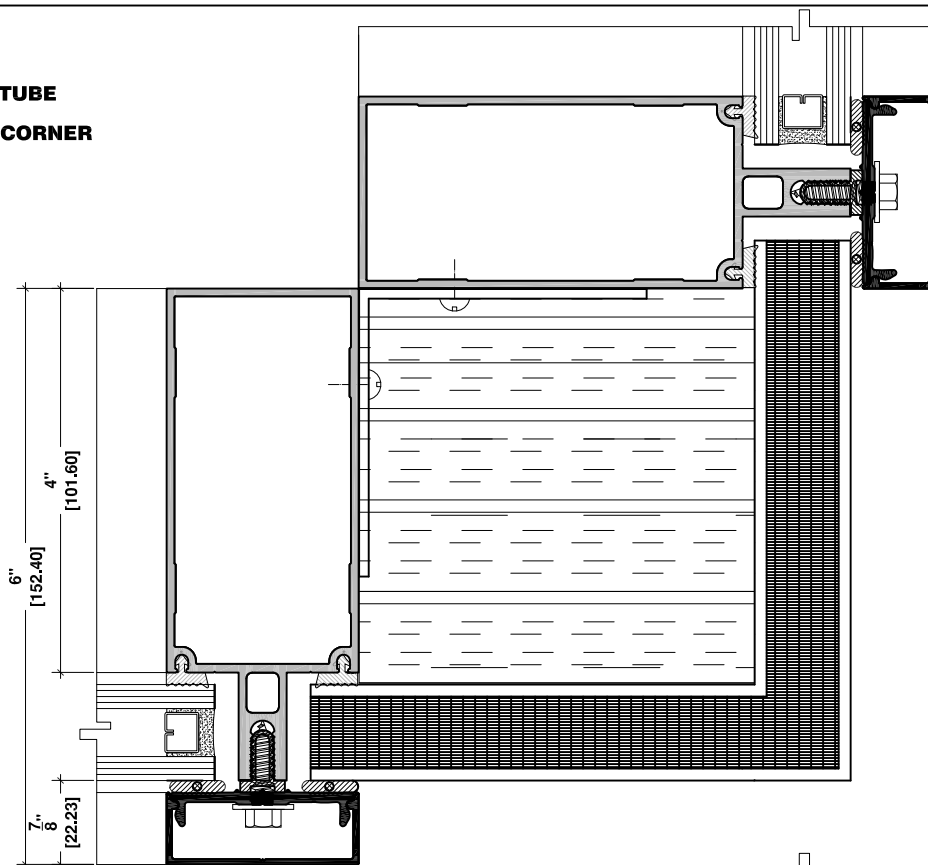
12 4" VERTICAL TUBE
FIXED GLASS
90° OUTSIDE CORNER



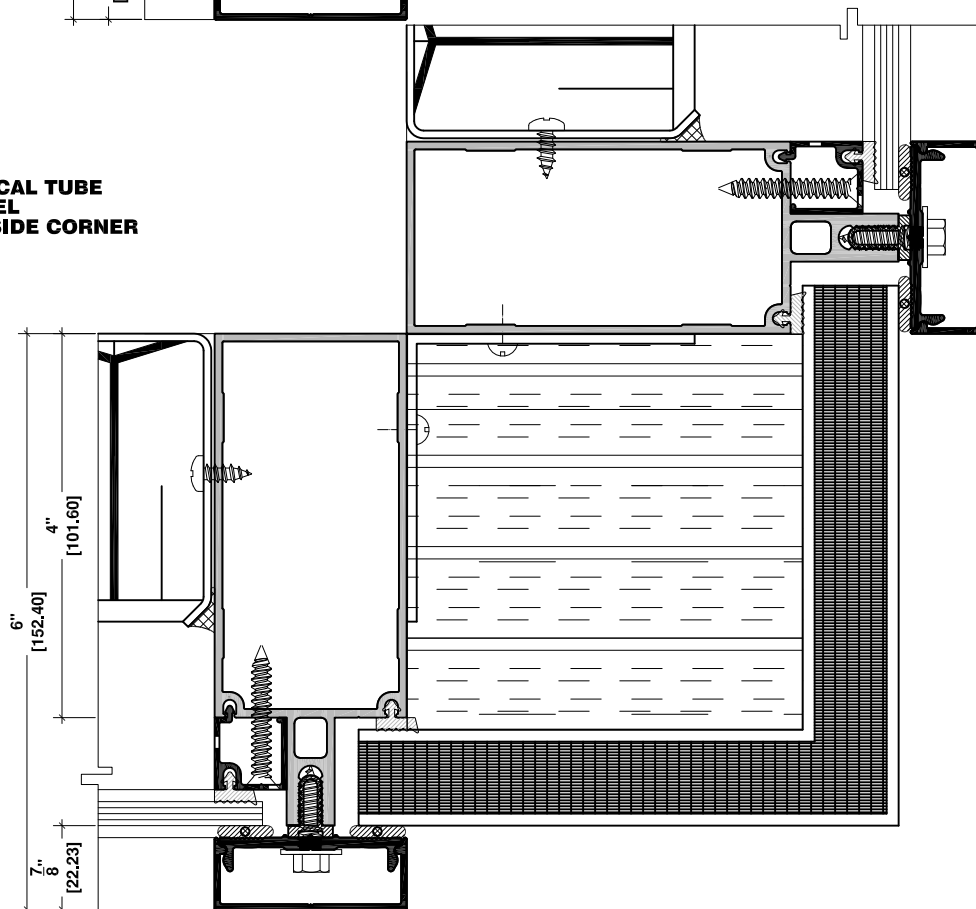
15 4" VERTICAL TUBE
SPANDREL
90° OUTSIDE CORNER

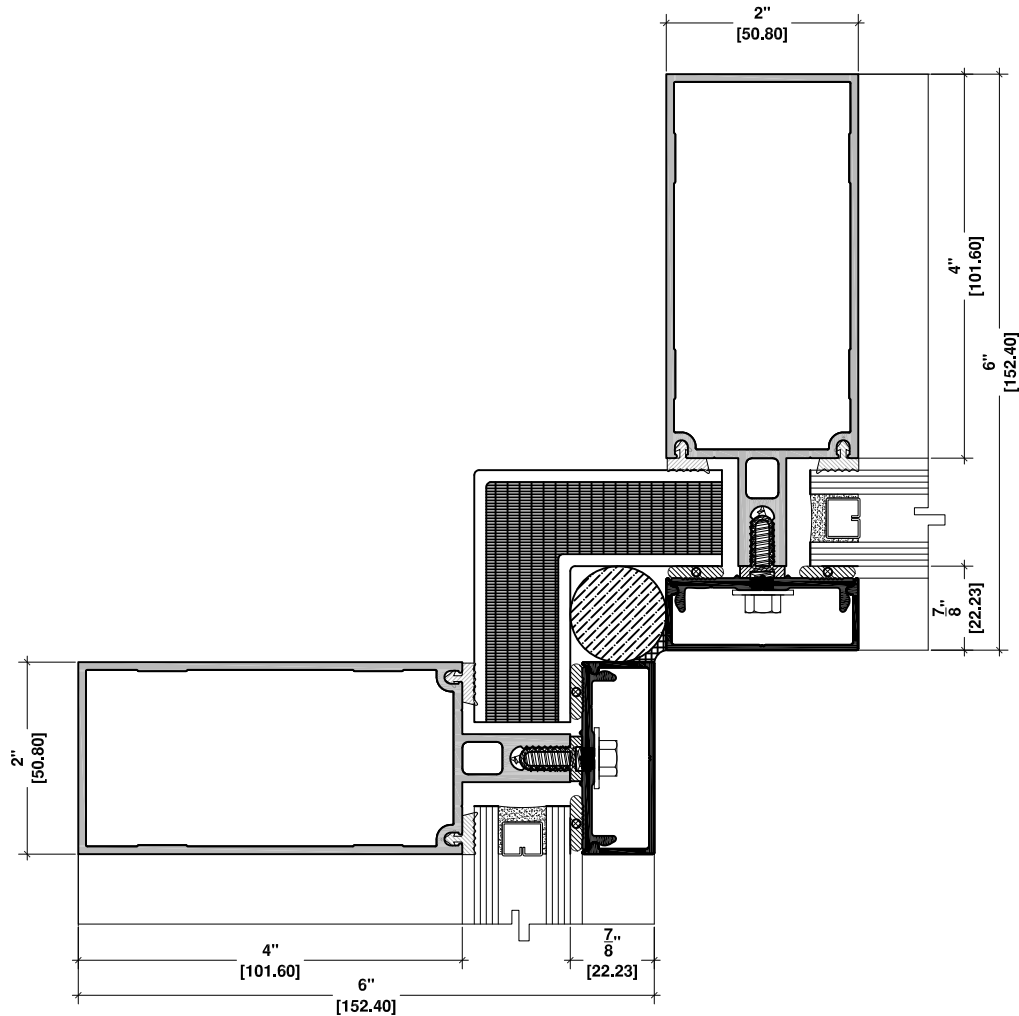


12a 4" VERTICAL TUBE
FIXED GLASS
90° OUTSIDE CORNER

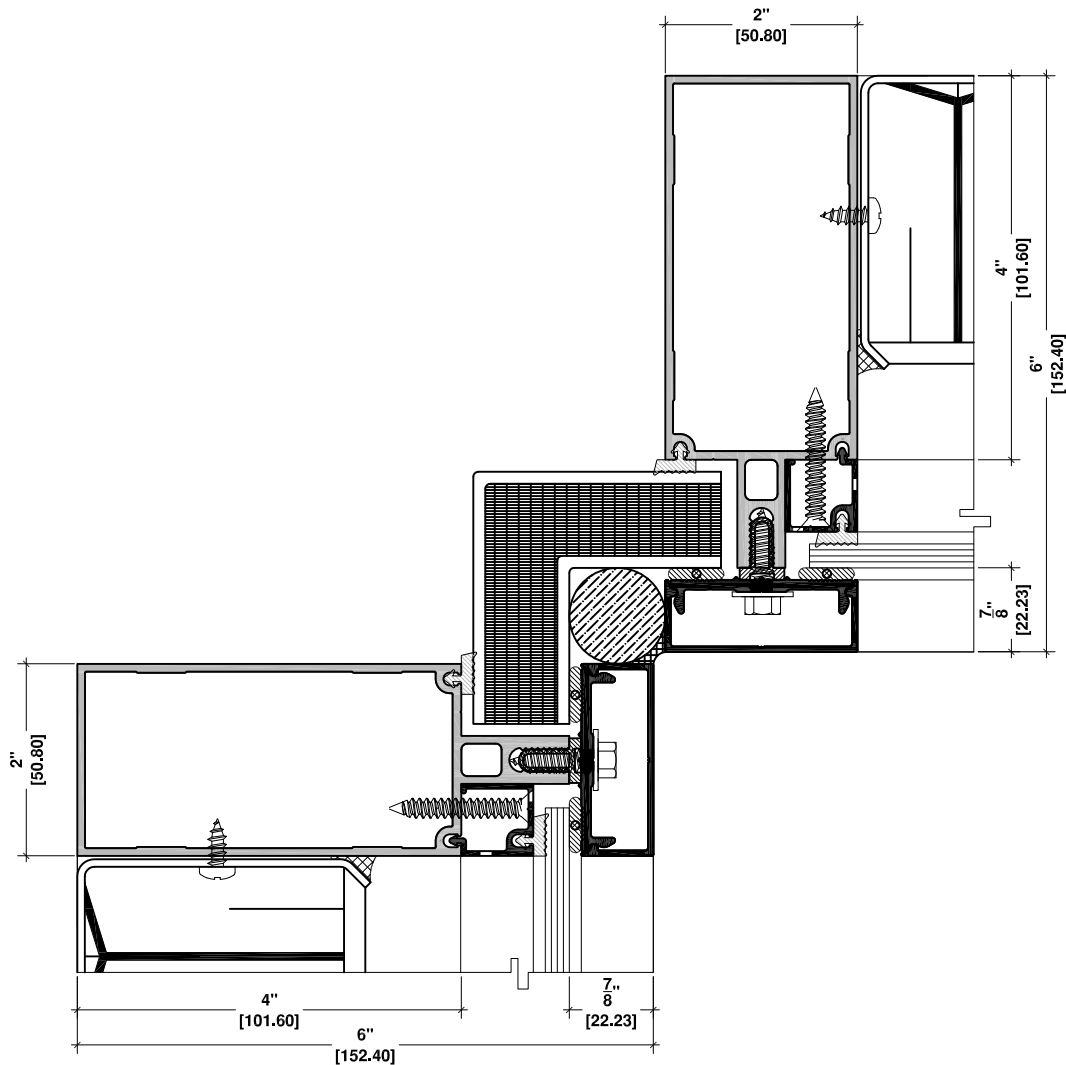


15a 4" VERTICAL TUBE
SPANDREL
90° OUTSIDE CORNER



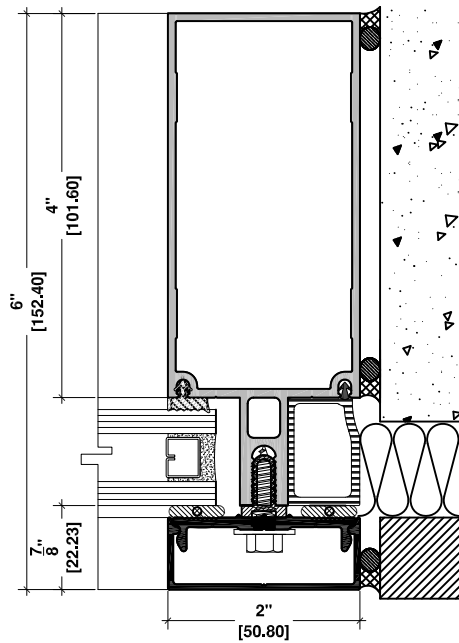


13 4' VERTICAL TUBE
FIXED GLASS
90° INSIDE CORNER

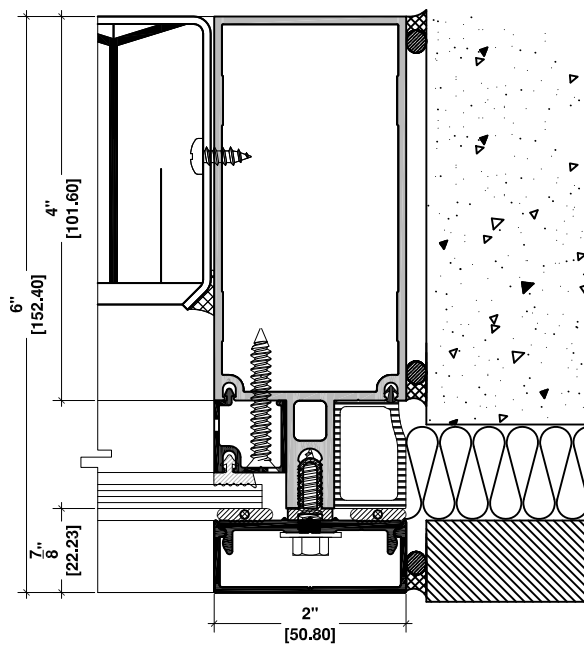


14 4" VERTICAL TUBE
SPANDREL
90° INSIDE CORNER

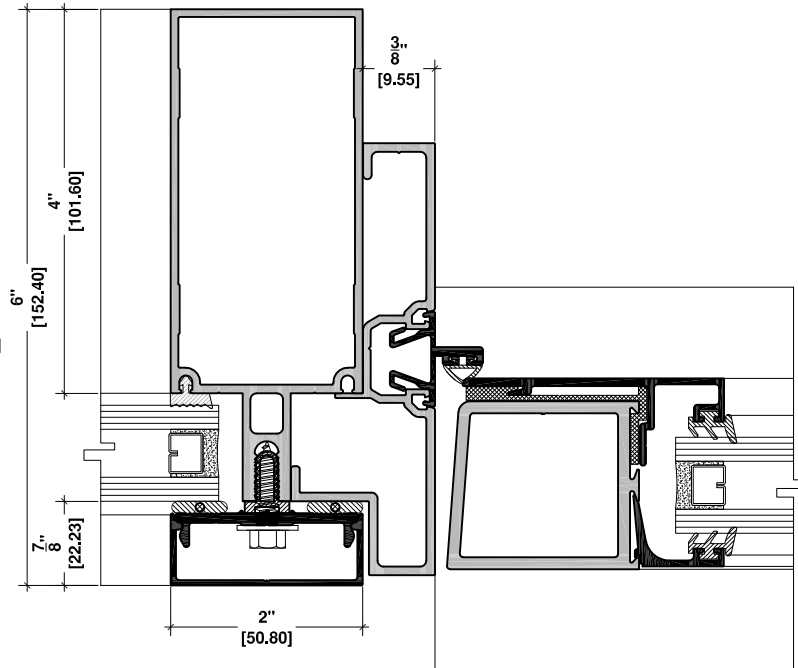
16 4" VERTICAL TUBE
FIXED GLASS
JAMB CONDITION



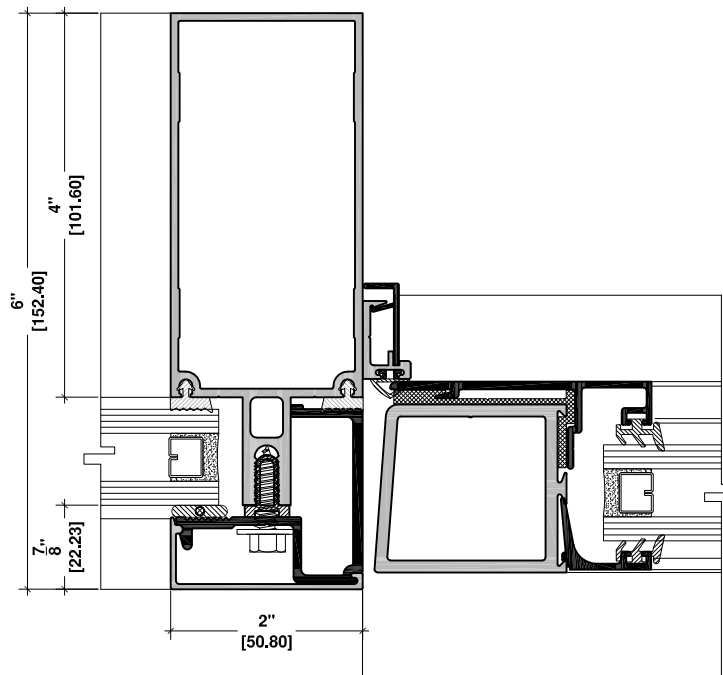
17 4" VERTICAL TUBE
SPANDREL
JAMB CONDITION

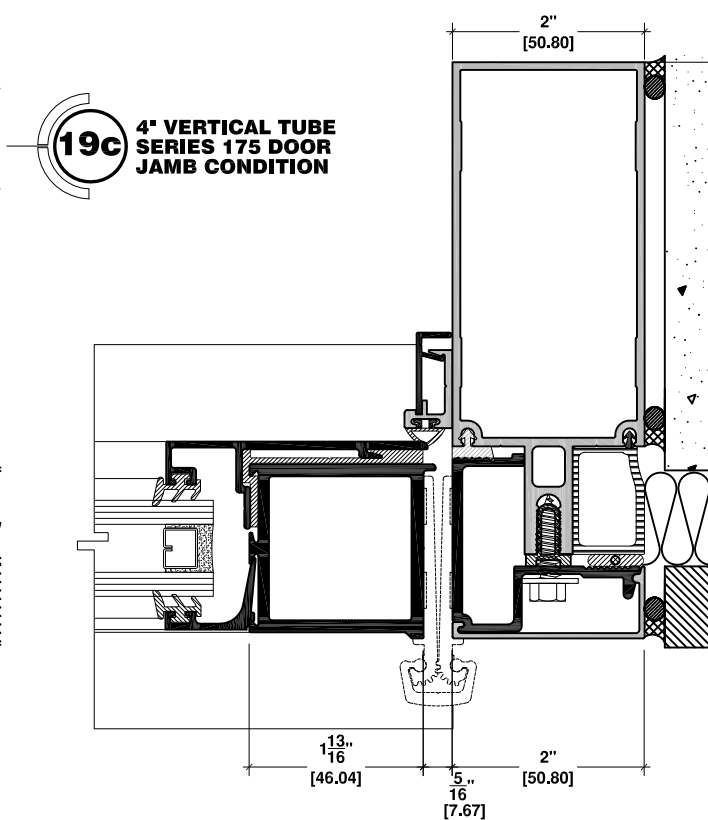
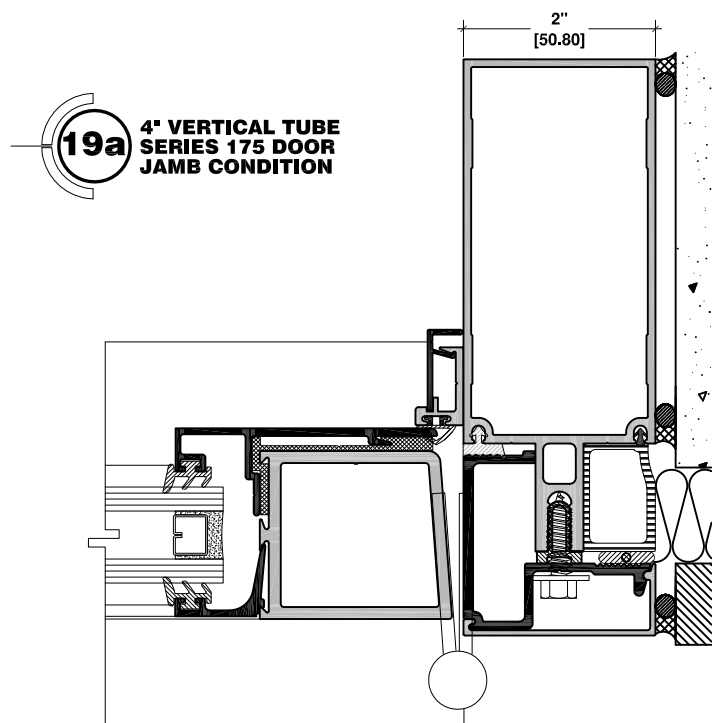
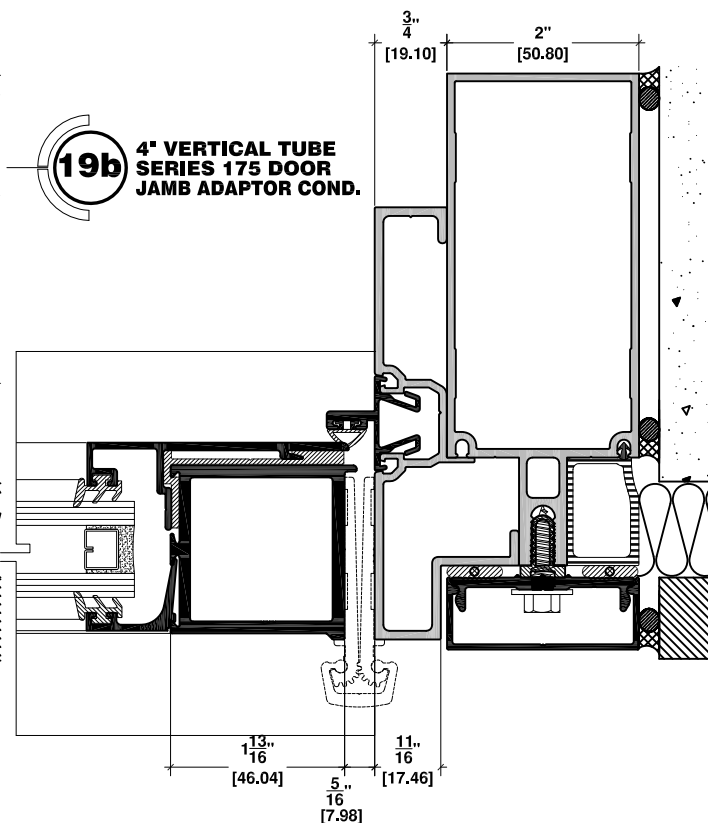
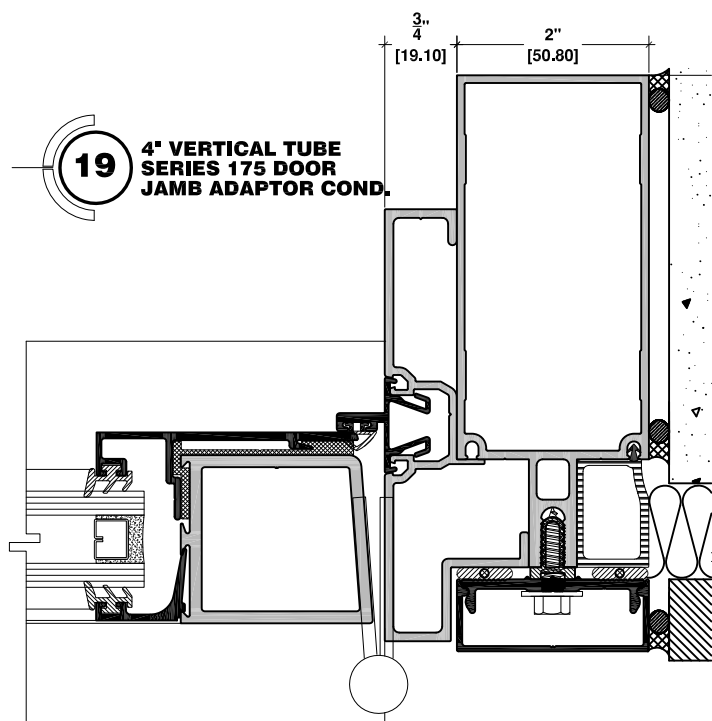


18 4" VERTICAL TUBE
SERIES 175 DOOR
JAMB ADAPTOR CONDITION

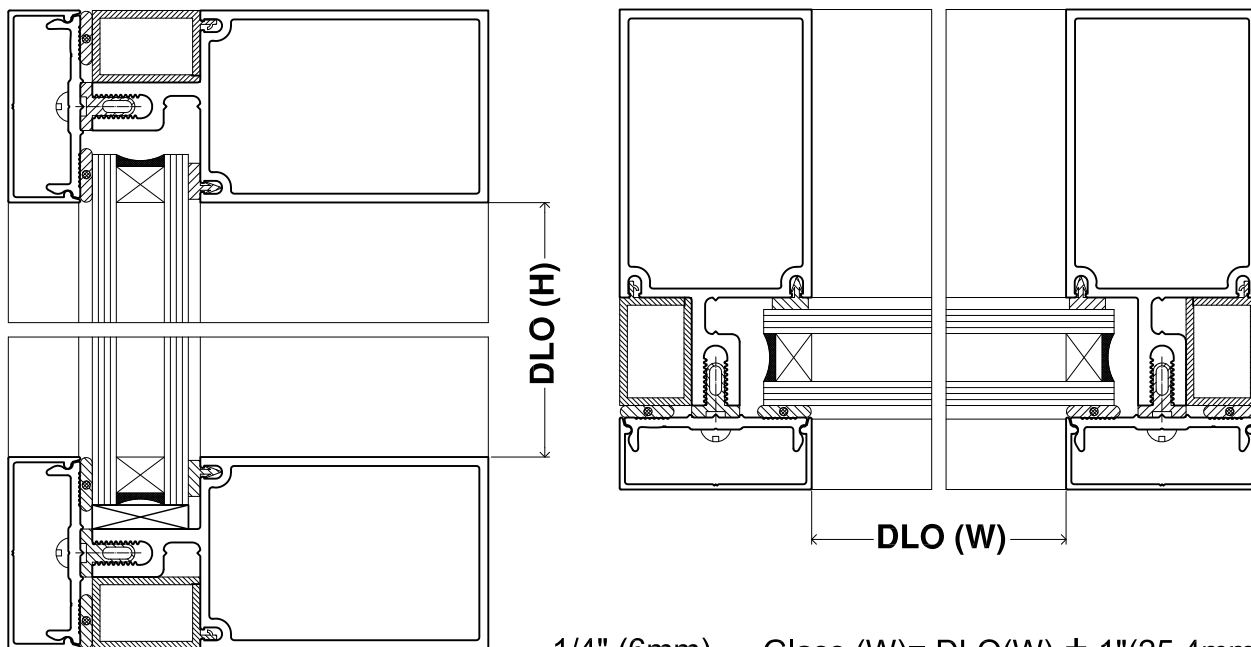


18a 4" VERTICAL TUBE
SERIES 175 DOOR
JAMB CONDITION





GLASS CALCULATION



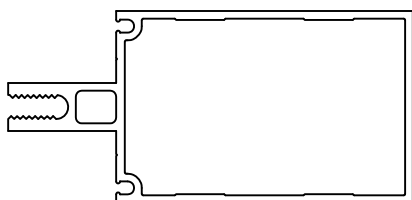
1/4" (6mm) Glass (W)= DLO(W) + 1"(25.4mm)

3/8" (10mm) Glass (H)=DLO(H) + 1"(25.4mm)

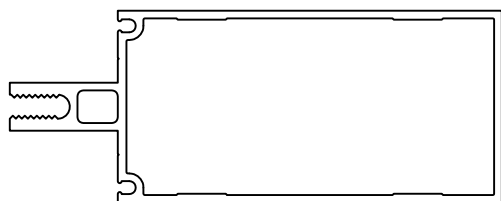
1/2" (12mm)

1" (25.4mm)

Note: use the appropriate spline



PART #: 5100-003
MULLION 3" (76.2mm)
2" X 3"
(50.8mm X 76.2mm)
[WIND LOAD CHART](#)



PART #: 5100-004
MULLION 4" (101.6mm)
2" X 4"
(50.8mm X 101.6mm)
[WIND LOAD CHART](#)



PART #: 5000-111
ADAPTOR
SINGLE GLAZED
1/4" (6MM) GLASS



PART #: 5000-114
SINGLE GLAZED ADAPTOR
3/8" (10mm) GLASS
(USE #9903-103 & #9903-104
SPLINE & 1/2" (12mm) GLASS



PART #: 5000-131
PRESSURE PLATE
FOR DRY GLAZING



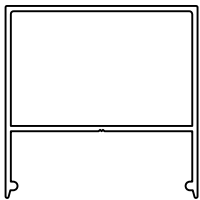
PART #: 5000-132
PRESSURE PLATE
FOR WET GLAZING



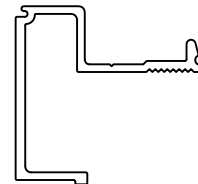
PART #: 5000-130
SNAP ON CAP
3/4" (19mm)



PART #: 5000-122
SNAP ON CAP
FOR PART #: 5000-1



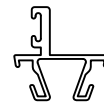
PART #: 5000-154
SNAP ON CAP
2" (50.8mm)



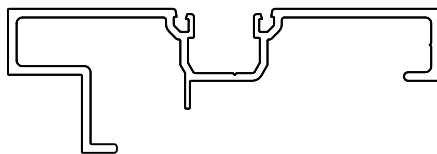
PART #: 5000-121
DOOR ADAPTOR
FLUSH



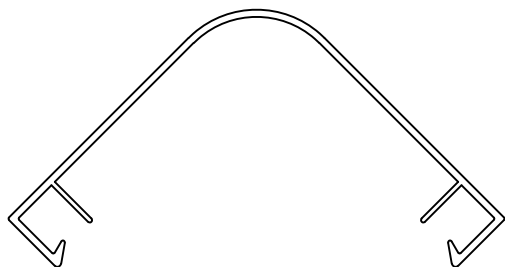
PART #: 1450-015
DOOR STOP
FOR 2" (50.8mm)
DOOR



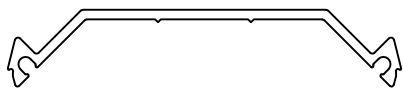
PART #: 1450-014
DOOR STOP
FOR 1³/₄" (44.5mm)
DOOR



PART #: 5000-116
DOOR ADAPTOR
3/4" X 4-1/2"
(19.0mm X 114.3mm)



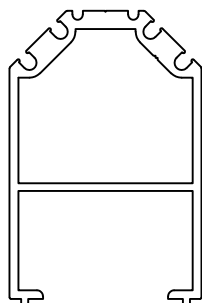
PART #: 5000-137
SNAP ON CAP
FOR 90° OUTSIDE
CORNER



PART #: 5000-136
PRESSURE PLATE
FOR 90° OUTSIDE
CORNER



PART #: 5000-124
NECK ADAPTOR
FOR 90° OUTSIDE
CORNER

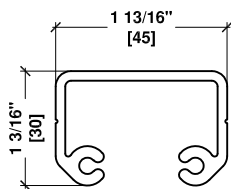


PART #: 5000-123
ADAPTOR
FOR 90°
OUTSIDE CORNER

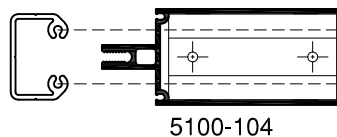
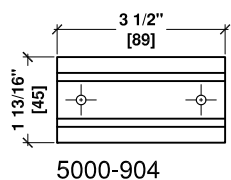
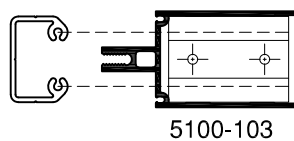
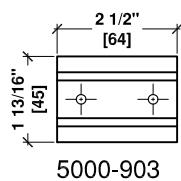
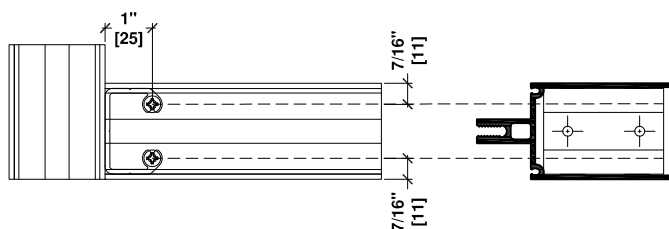
5000 SERIES
SHEAR BLOCK


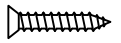

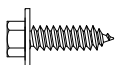
PART #: 5000-903 FOR 3" MULLION

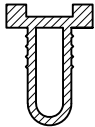


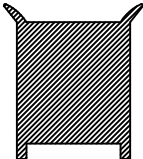



PART #: 5000-904 FOR 4" MULLION



SHEAR BLOCK LOCATION

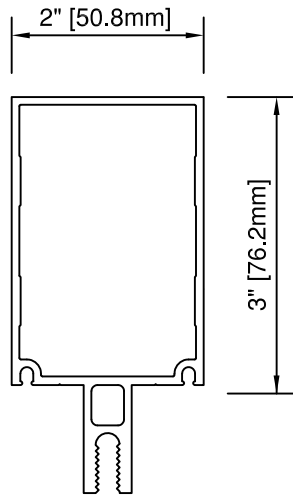


DRAWING	DESCRIPTION	APPLICATION	QTY/ JOINT
	PART #: 9902-503 # 10 X 1" PH SCREW	FASTEN SHEAR BLOCK TO VERTICAL	2-3
	PART #: 9902-102 # 6 X 1" FH SCREW	FASTEN S. G. ADAPTOR TO MULLION	2 @ 24" C/C
	PART #: 9902-514 # 10 X 1-1/2" FH SCREW	FASTEN HORIZONTAL TO SHEAR BLOCK	
	PART #: 9902-005 # 1/4-20 X 7/8" HEX CAM SCREW	FASTEN PRESSURE PLATE TO MULLION	@ 4" C/C

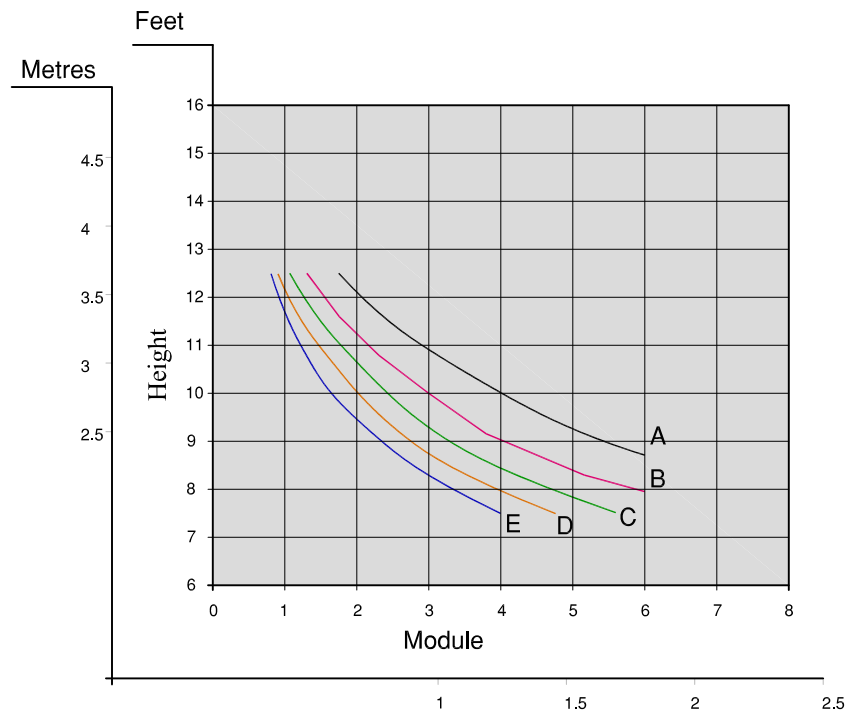
DRAWING	DESCRIPTION	APPLICATION
	PART #: 9903-001 THERMAL BREAK (BLACK)	THERMAL BARRIER
	PART #: 9903-104 1/8" GLAZING SPLINE	APPLY TO MULLION AND DRY GLAZED PRESSURE PLATE
	PART #: 9904-001 1/8" POLYSHIM TAPE BY TREMCO	APPLY TO WET GLAZED PRESSURE PLATE
	PART #: 9903-300 CORNER PLUG (BLACK)	APPLY ONE TO EACH CORNER
	PART #: 9906-100 POCKET FILLER (BLACK)	APPLY INTO THE OUTSIDE POCKET OF EACH PERIMETER
	PART #: 9903-138 DOOR BULB SEAL REMOVABLE	APPLY TO THE DOOR STOP
	PART #: 9903-143-00 BULB-SEAL FOR DOOR STOP	APPLY TO THE DOOR STOP

SYSTEM GLAZING SPLINE AND WEATHERING

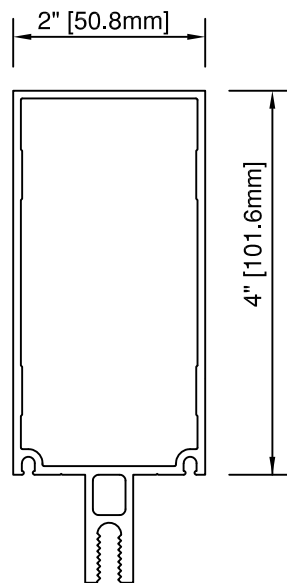
5100-003
MULLION 3" (76.2mm)
2" x 3" (50.8mm x 76.2mm)



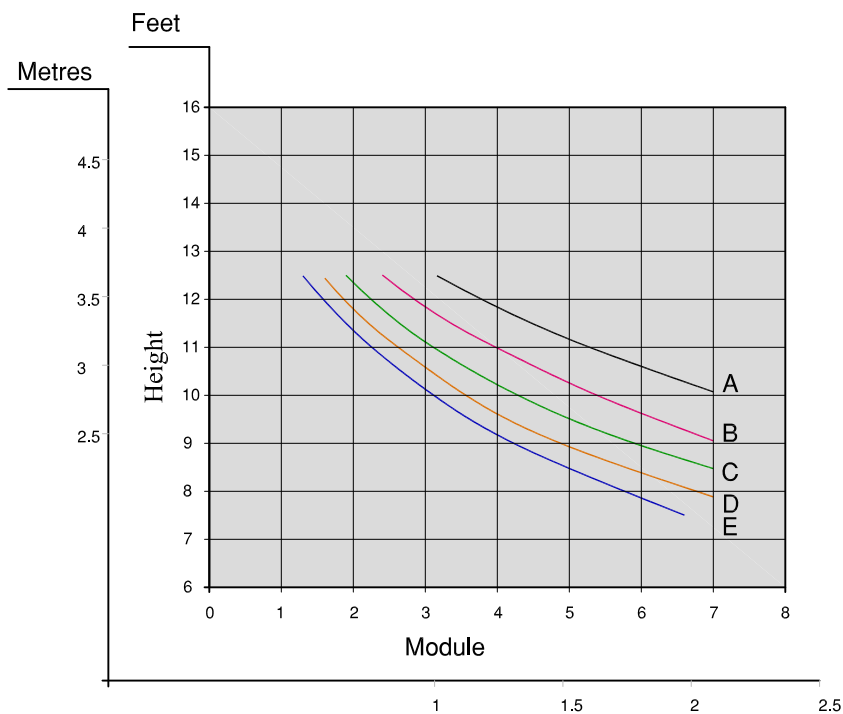
A = 15 psf (0.718 KPa)
B = 20 psf (0.958 KPa)
C = 25 psf (1.2 KPa)
D = 30 psf (1.4 KPa)
E = 35 psf (1.7 KPa)



5100-004
MULLION 4" (101.6mm)
2" x 4" (50.8mm x 101.6mm)



A = 15 psf (0.718 KPa)
B = 20 psf (0.958 KPa)
C = 25 psf (1.2 KPa)
D = 30 psf (1.4 KPa)
E = 35 psf (1.7 KPa)



5100 SERIES CURTAIN WALL SYSTEM SPECIFICATION

PART 1 - GENERAL

1.1 Work Included

Furnish labour, materials and services for the complete fabrication, assembly and installation of Series 5100 Framing system manufactured by Commdoor Aluminum. Work to include all necessary accessories, anchors and sealants as required based on the purchase agreement.

1.2 Work Excluded

Structural steel, wood blocking or framing, interior trims, concrete masonry, final cleaning, protection, related work specified elsewhere, convactor covers and trims and ceiling trims.

1.3 Design

The 5100 Series Curtain Wall System to be designed based on the "Open Rain Screen" and "Pressure Equalization" principles

1.4 Performance

Deflection of the vertical mullion to be $< 1/175$ of the span at the specified pressure level.

Permanent Deformation of vertical mullion to be $< 0.2\%$ of the Length of the mullion.

Air Leakage should not exceed $0.06 \text{ (ft}^3\text{/min)/ft}^2$.

1.5 Quality Assurance

The 5100 Series 2" CURTAIN WALL System supplied under this specification must comply to the performance requirements of the Canadian Standards Association CAN3-A440-M90, classification fixed, B7, C5, I=52.1. A copy of the test report from an independent testing laboratory certifying compliance must be furnished upon request by the owner/architect.

1.6 Shop Drawings

All work of this section shall be executed in strict accordance with approved shop drawings.

1.7 Warranty

The work of this section shall be guaranteed against defects of materials and workmanship for a period of one year from date of certificate of substantial completion.

PART 2 - PRODUCTS

2.1 Material

2.1.1 Aluminum Extrusion

A) All extruded aluminum sections to be 6063-T6 alloy or equivalent.

B) Frame members (back section) size will be based on published wind load charts to meet specified wind load.

Available back section sizes 3" (76.2mm) and 4" (101.6mm).

2.1.2 Thermal Break

If applicable, extruded virgin polyvinyl chloride (P.V.C).

2.1.3 Glazing Material

Exterior Glazing:

1) Macro-polyisobutylene tape with a continuous built in shim; highly adhesive and elastic, or

2) Extruded thermoplastic elastomers gasket.

Interior Glazing:

Extruded thermoplastic elastomers gasket.

2.1.4 Fasteners

Fasteners shall be zinc plated.

2.2 Fabrication

Fabrication will be carried out according to the approved shop drawings. All joints will be assembled tight using manufactures provided assembly brackets to maintain the product design performance.

2.3 Finish

2.3.1 Anodize

Anodic Oxide Treatments are to be processed in accordance with AAMA designations.

M12C22A31 class II designation is for #17 Clear anodized finish (0.0004).

M12C22A41 class I designation is for #14 Clear Anodized finish (0.0007) and colour finishes such as #26 light bronze, #40 bronze and #29 black.

2.3.2 Paint

Thermosetting Acrylic Enamel coating are to be applied in accordance with AAMA 603.8. Specify colour and type from PPG. Standard charts.

2.3.3 Fluoropolymer paint Coating

Based on Kynar 500 Resins are to be applied in accordance AAMA 605.2. Specify colour from Valspar current chart.

PART 3 - EXECUTION

3.1 Protection

Aluminum shall be isolated from concrete, mortar, plaster and dissimilar materials with a coating of Bituminous paint. Exposed aluminum surface shall be protected from long term contamination of mortar,

concrete, paint, mud, etc.

Doors and door frames shall be protected from impact damage by wood sheathing and plastic wraps.

3.2 Installation

Comm-door products to be installed according to manufacturers instructions and in conjunction with approved shop drawings. The work shall be performed by qualified skilled personnel using proper equipment in order to expedite the project in an efficient professional manner.

3.3 Cleaning

Interim and final cleaning shall be performed in accordance with the general conditions listing methods outlined in AAMA 609 & 610-02 (2002).