Quest

ECOWALL Product Literature

ECOCORE

ECOCORE consists of two struts that are mechanically engaged to the inner and outer aluminum frames. The struts are comprised of extruded polyamide 6.6 compound with glass fibres oriented in 3 axis. The geometry of the struts and the engagement are optimized to produce a frame that behaves as a COMPOSITE.

The STRUCTURALLY SUPERIOR frame is deeper than previous designs at 141mm (5 ½"). The mechanical engagement of the outer parts to the ECOCORE results in maximum resistance to shearing forces, resulting in the ability to stand up to higher wind loads and to extend over larger spans.

The 38mm strut depth is 50% deeper than the competition. Improved THERMAL PERFORMANCE is measurable and ECOWALL, ECOCORE and high-performance glass are capable of achieving a U-Value of 0.34 BTU/hr-sq ft F

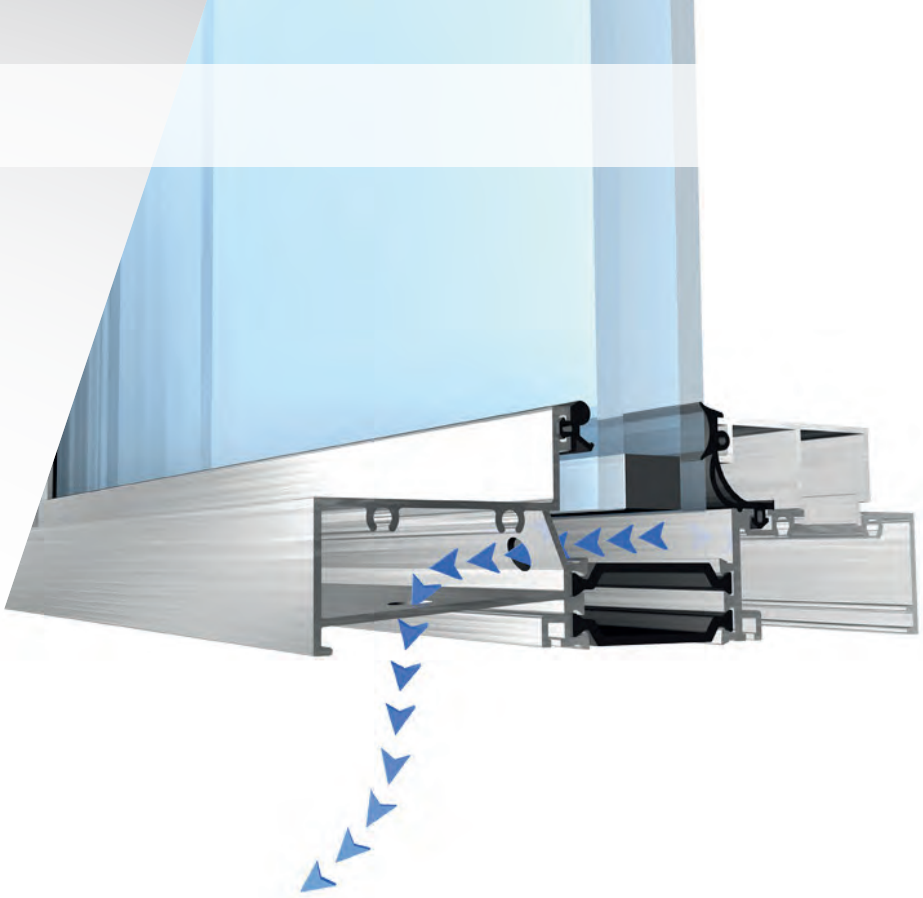
THE RIGHT SEAL, EVERYTIME.

ECOWALL utilizes an exterior dry gasket that is comprised of co-extruded EPDM and Foam. This combination of materials achieves a double seal between the outer frame and the insulated glass unit.

The interior seal features a Patent-Pending EPDM Dry Gasket that is engaged in two locations and mimics the geometry of a wet-sealant heal-bead. The interior gasket is held in place by an all-new aluminum stop that together can withstand a tested* wind load of over 400 km/hr

EPDM is a rubber compound (in place of plastic-based gaskets) and offers superior resistance to UV, and very low shrinkage rate.

*Testing Exceeded CSA 'C5' and reached up to 156PSF



DRAIN-SCREEN

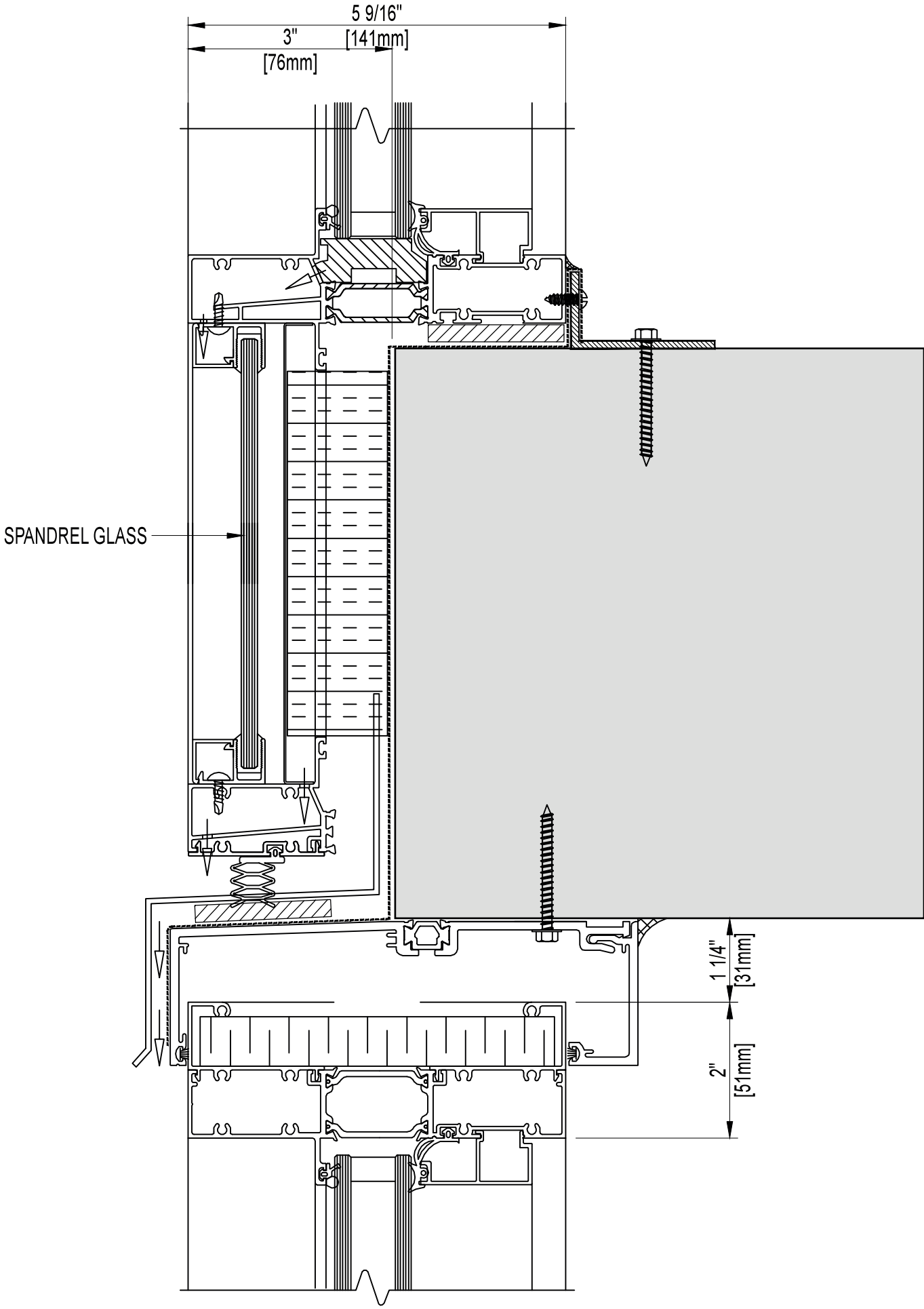
The design flexibility of ECOCORE enabled Quest to design ECOWALL based on a drain-screen principal. The Horizontal frame members feature an altered configuration of ECOCORE that creates a drainage cavity. This cavity along with a configuration of weep holes allow condensation to drain out the exterior of the system.

The interior dry Heal-Bead gasket in conjunction with the aluminum glass stop ensures that the primary interior seal is mechanically sound. This configuration has been tested to beyond CSA's highest B7 Rating. (14.6 PSF)*

*4 Cycles of 5 minutes on, 1 minute of relief.

Typical Details

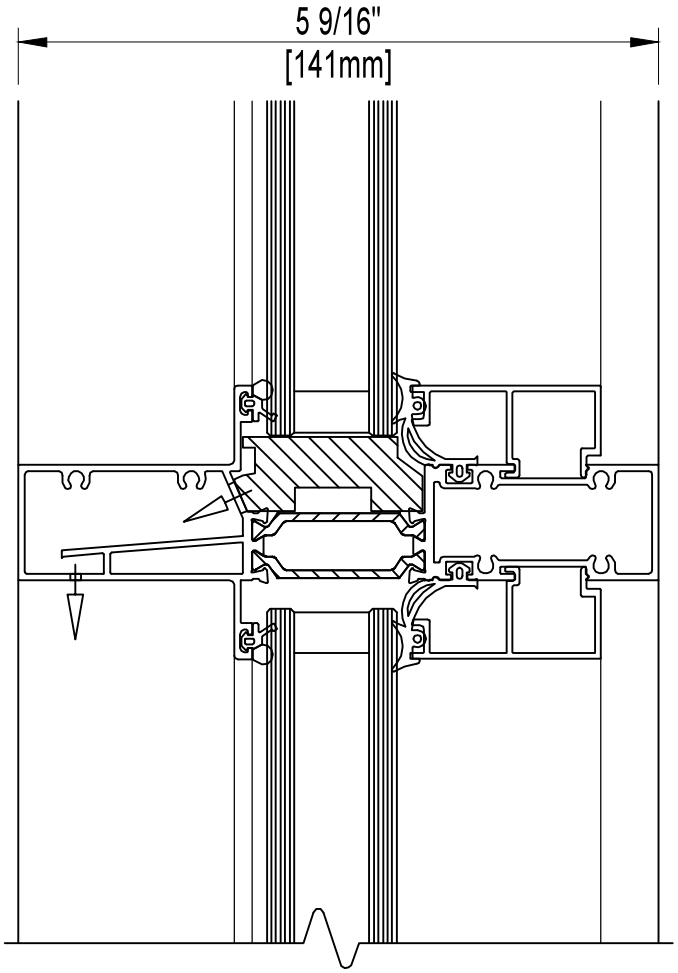
ECOWALL 141 RS



Spandrel Bypass Section at Slab Edge

Typical Details

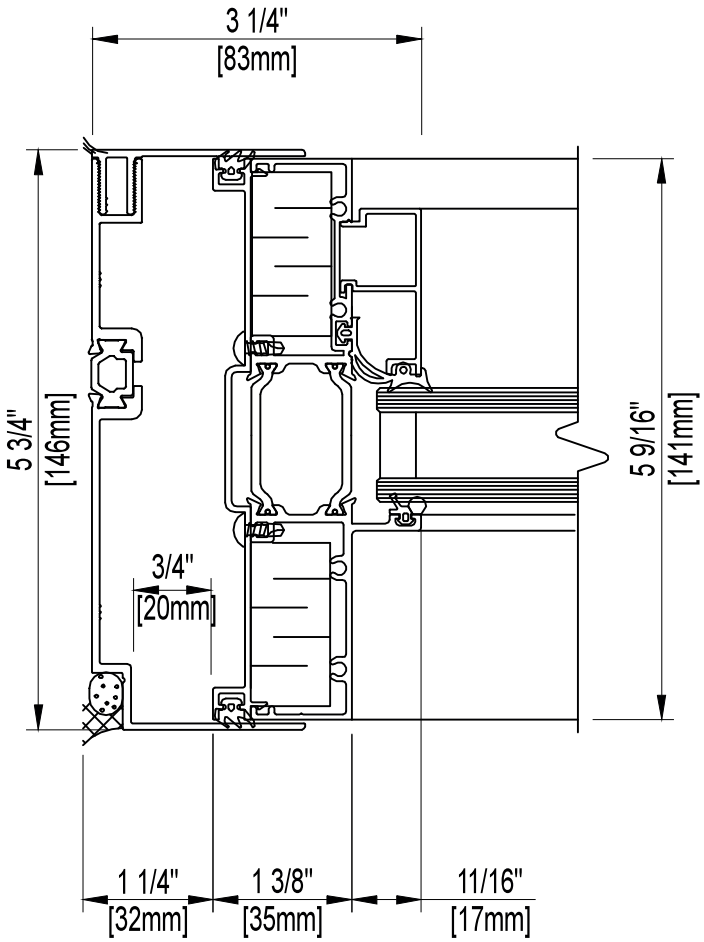
ECOWALL 141 RS



Horizontal Mullion

Typical Details

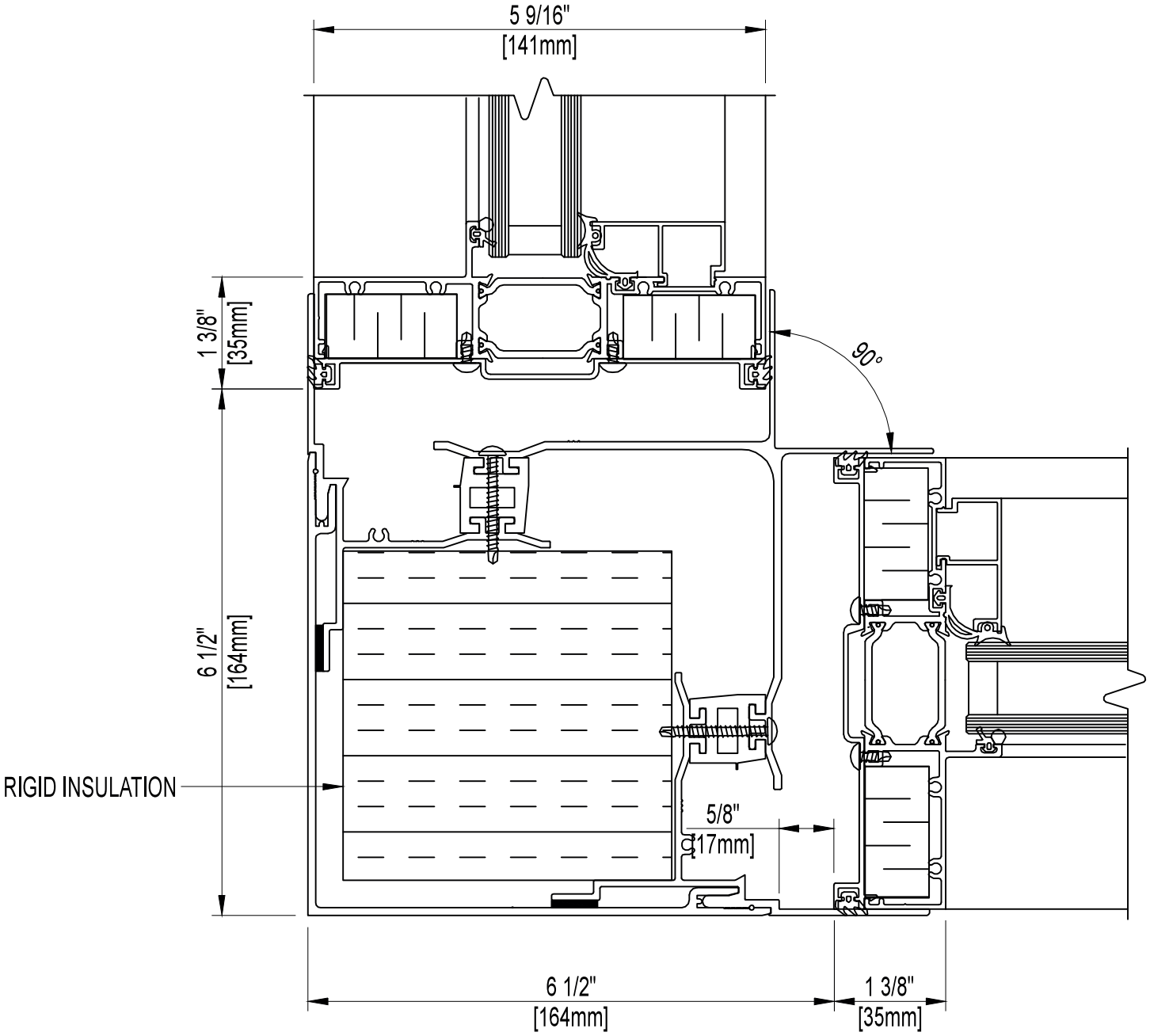
ECOWALL 141 RS



Fixed Window at Seismic Jamb Receptor

Typical Details

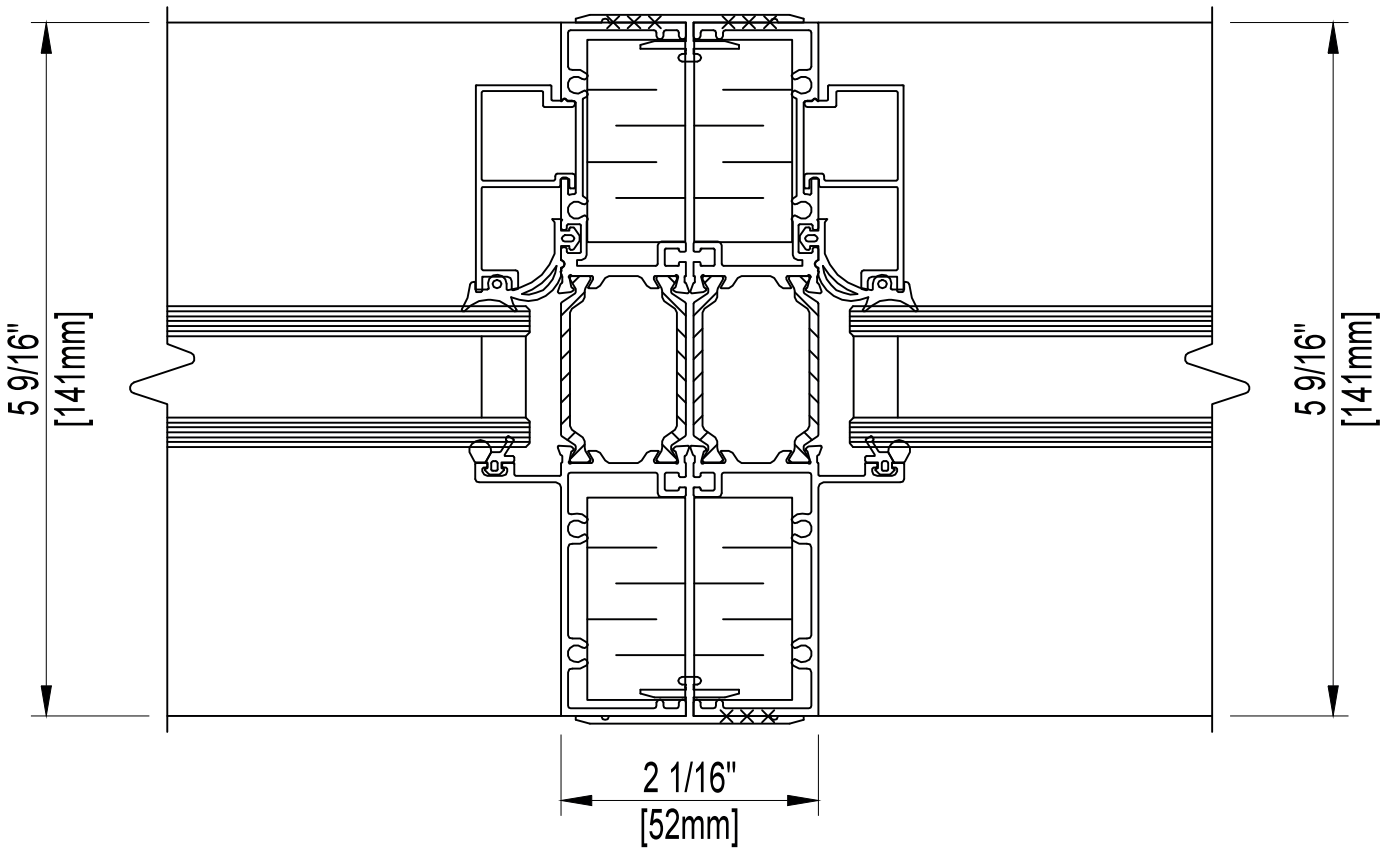
ECOWALL 141 RS



Fixed Window 90 Degree Corner

Typical Details

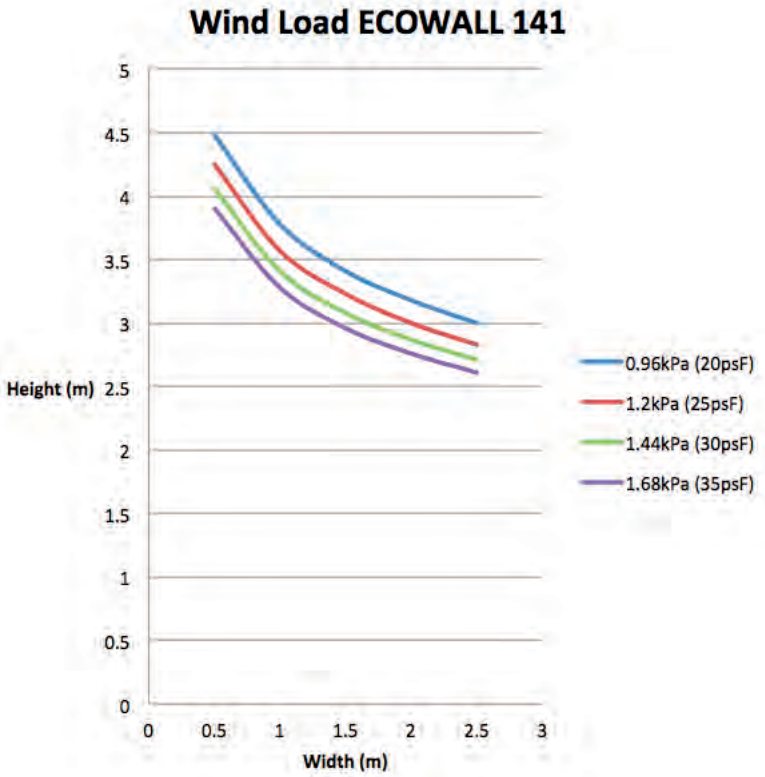
ECOWALL 141 RS



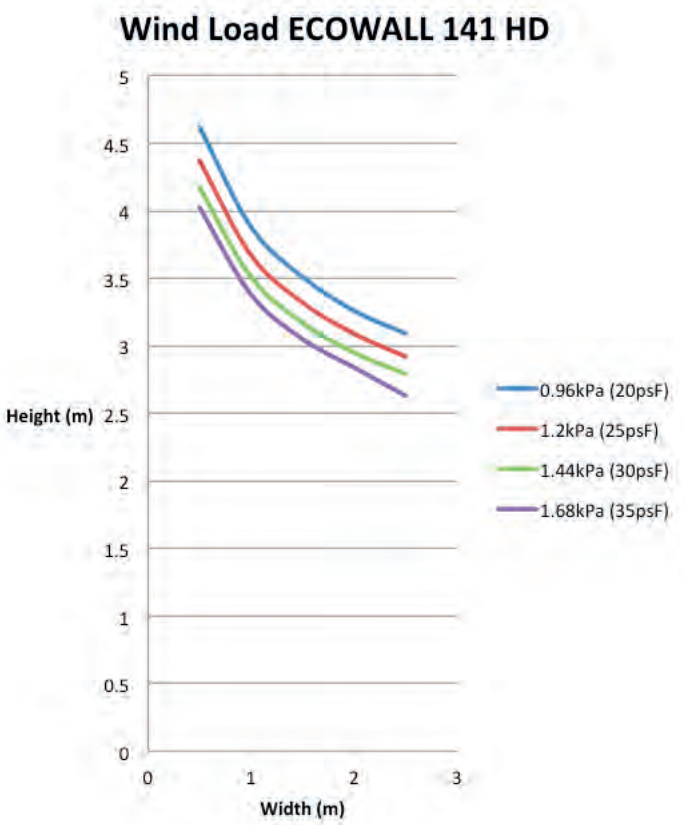
Window Coupling

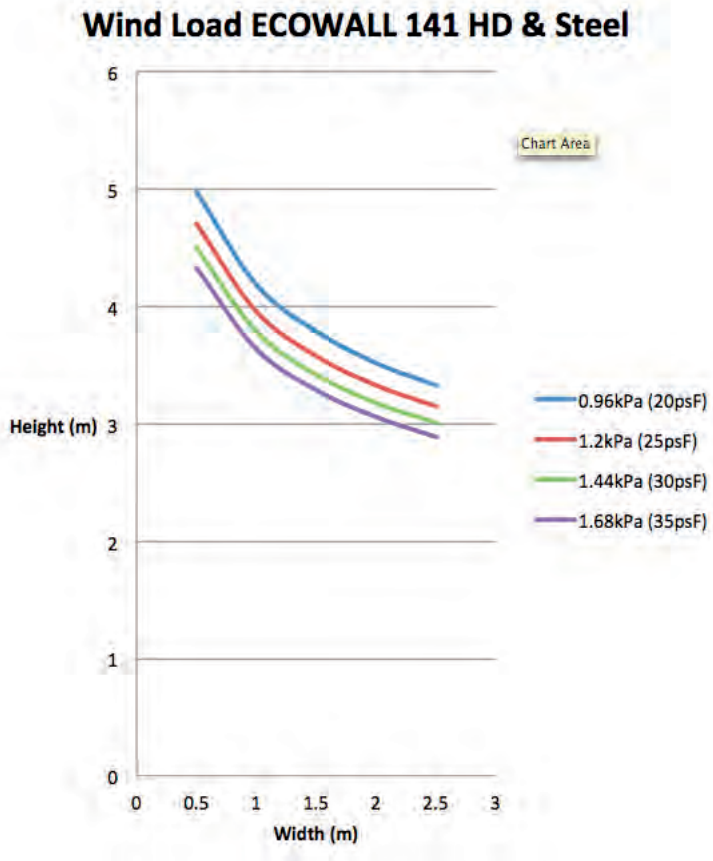
Technical Data

ECOWALL 141 RS



ABOVE RESULTS BASED ON CAN-BEST TEST L08-390-2342B & L10-390-2733





Thermal Performance
Ecowall 141 Fixed Window

NFRC / CSA 1200mm x 1500mm Fixed

Sample Glass Makeup

6mm Cardinal 272 LoE² (2nd Surface)
16mm TGI Warm-Edge Spacer
95% Argon Gas 5% Air
6mm Clear Glass
28mm Overall

1.77 W/m²·K
0.31 BTU/ft²/hr/F
0.35 SHGC

Exterior Glass \ Interior Glass	6mm Clear	6mm Grey	6mm Green	6mm Blue Green	6mm Cardinal 272 LoE² (3)	6mm PPG Solarban 60 (3)	6mm AGC TIAC 40 (3)	6mm Cardinal 366 LoE³ (3)	6mm AGC Comfort E (3)	6mm AGC TIAC (3)	6mm AGC TIAC 36 (3)	6mm LOF Energy Advantage LowE (3)
6mm Clear					1.76 / 0.41	1.75 / 0.39	1.76 / 0.41	1.72 / 0.33	2.03 / 0.58	1.75 / 0.38	1.75 / 0.39	1.96 / 0.58
6mm Grey					1.76 / 0.25	1.75 / 0.24	1.76 / 0.25	1.72 / 0.20	2.03 / 0.36	1.75 / 0.24	1.75 / 0.24	1.96 / 0.36
6mm Green					1.76 / 0.32	1.75 / 0.31	1.76 / 0.32	1.72 / 0.28	2.03 / 0.39	1.75 / 0.28	1.75 / 0.30	1.96 / 0.38
6mm Blue Green					1.76 / 0.32	1.75 / 0.31	1.76 / 0.32	1.72 / 0.28	2.03 / 0.39	1.75 / 0.28	1.75 / 0.30	1.96 / 0.39
6mm Cardinal 272 LoE² (2)	1.77 / 0.35											
6mm PPG Solarban 60 (2)	1.75 / 0.33											
6mm AGC Comfort E (2)	2.03 / 0.54											
6mm AGC TIAC (2)	1.75 / 0.33											
6mm Cardinal 366 LoE³ (2)	1.72 / 0.24											
6mm AGC TIAC 36 (2)	1.75 / 0.30											
6mm AGC TIAC 40 (2)	1.76 / 0.33											
6mm LOF Energy Advantage LowE (2)	1.96 / 0.54											

W/m²·K
U FACTOR
SHGC

Conversion: $\frac{W/m^2 \cdot K}{5.6786} = BTU/ft^2/hr/F$

NFRC / CSA 1200mm x 1500mm Fixed Window, 16mm TGI Warm-Edge Spacer, 95% Argon Gas 5% Air, 28mm Overall
THERM+ 6.0

Quest

lift+glide

HIGH PERFORMANCE MULTI-LOCK SLIDING DOOR SYSTEM

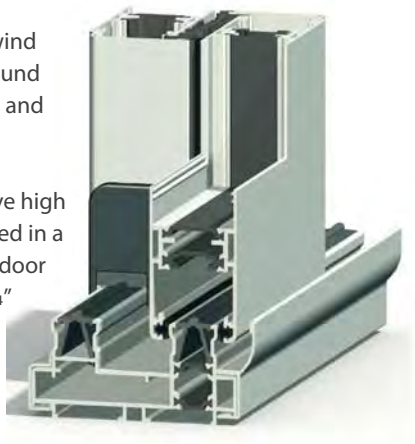
Quest is proud to bring to market a sliding-door system that eliminates all of the traditional shortcomings of previous door designs.

The Quest Lift+Glide door represents significant improvements in design, structure, air and water performance, and paramount thermal performance. The improvements are not achieved part and parcel, but part of a harmonious design that considers all of the improvements simultaneously. Never before has a sliding door demonstrated this type of thermal performance at the weak-spot: the interlock of the two panels.

THE SOLUTION

Quest has developed a system that will raise sliding doors up to a product capable of meeting even the most demanding standards for quality of life, style, and comfort. Quest has developed a system of accessories and mechanisms that is both air, water and wind resistant, has low heat conductivity, is sound insulated, and is secure against breaking and entry attempts.

The unique ability of this frame to achieve high air and water performance is also achieved in a frame height much lower then previous door designs, allowing a sill height of only 1 ¾" (45mm)



LIFT+GLIDE

The unique hardware design allows the door to be opened using a European style handle, available in a wide variety of styles. The handle is turned 180 degrees to achieve two results:

1. The multi-point lock is disengaged from locking points all along the frame.

2. The door panel is lifted 6mm up from a position where the gaskets are fully engaged overlapping the frame to a position where the panel is free to glide on two sets of double-wheels.

PERFORMANCE

THERMAL INSULATION: UW < 1,8 W/MQK
AIR TIGHTNESS: CLASS A4
WATER TIGHTNESS: UP TO 1.050 PA

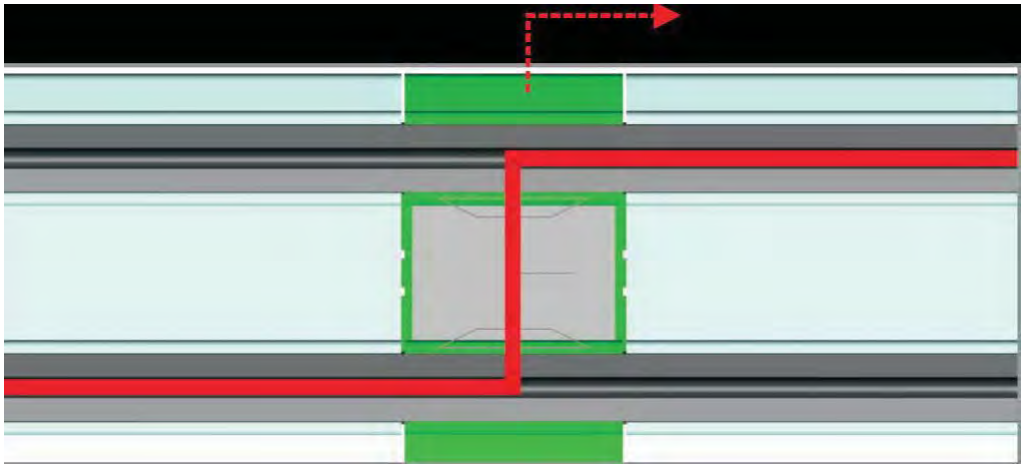
SOUNDPROOFING: 40 DB
WIND RESISTANCE: UP TO 3.000 PA
BREAKING AND ENTERING SECURITY: CLASS 2

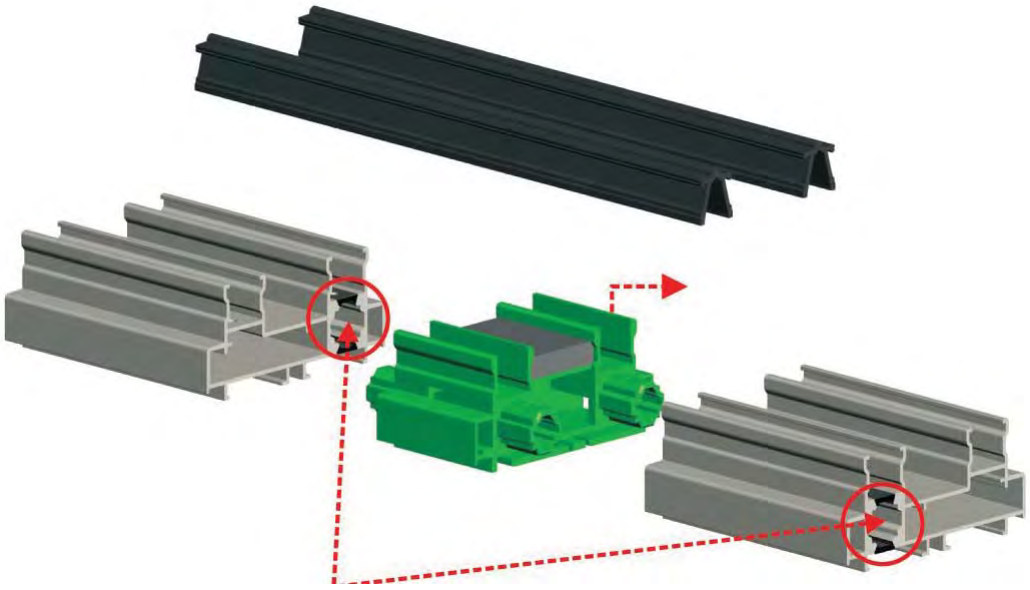
VISION

The frame's face is smaller afforded by a superior weeping system, and thickened aluminum wall thicknesses. The sash face is smaller due to increase wall thicknesses and a tight geometry that accommodates the ECOCORE struts as well as the multipoint locks and wheel assemblies. The result is MORE GLASS surface area, and a slimmer profile when viewed from inside or out.

UNIQUE THERMAL-JOG

The thermal separation created in the sash panels is mimiced using an assmetrical sash where the thermal break is aligned to each panel, and switches location at the head and sill.





ECOCORE

The frame and sash utilize polyamide 6-6 glass reinforced nylon (GRP) struts to create a superior thermal barrier. The assembly process is tested to shear value of over 200 lbs force per linear inch. In addition, all of the accessory components: the track, multipoint locking rod, interlock, and moulded parts originate from the same material.

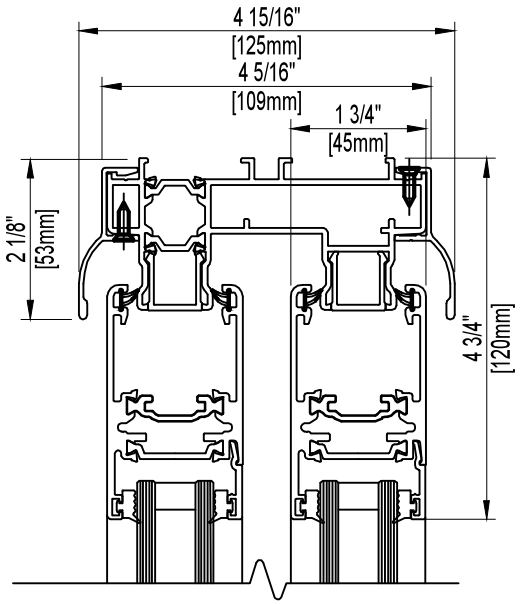
T-REX CORE

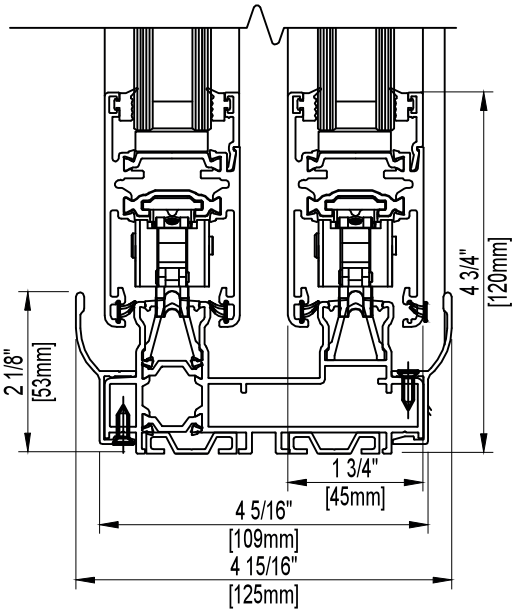
The thermal jog and asymmetrical frame are made possible by two different moulded polyamide T-REX pieces. The sill T-REX is responsible not only for helping to achieve the thermal-jog but is a complex system of weeping from the inner track designed to help water out, but at the same time minimize air leakage.

Typical Details

LIFT+GLIDE DOOR

HEAD



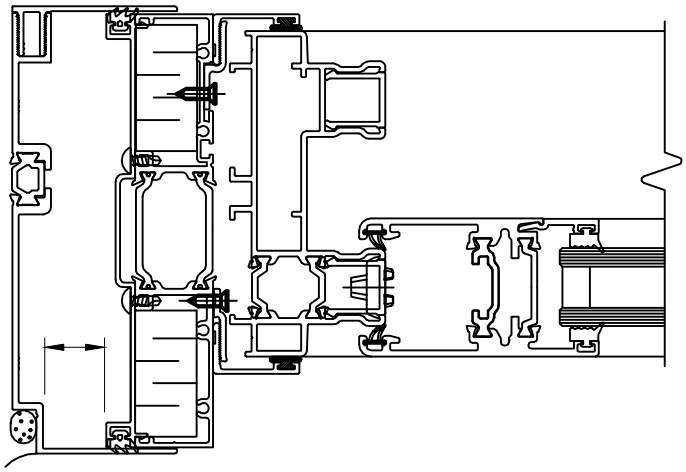


SILL

B7 Water

A3 Air

ABOVE RESULTS BASED ON CAN-BEST TEST L10-390-2762



JAMB INSIDE ECOWALL 141RS

Typical Details

SWING DOOR

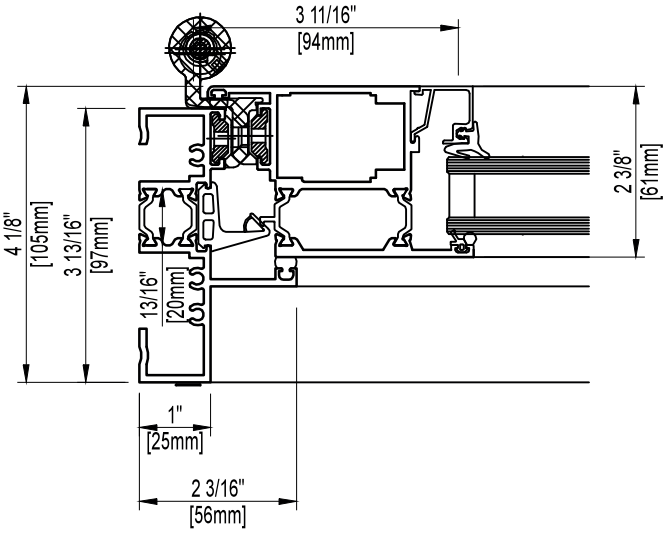
Quest

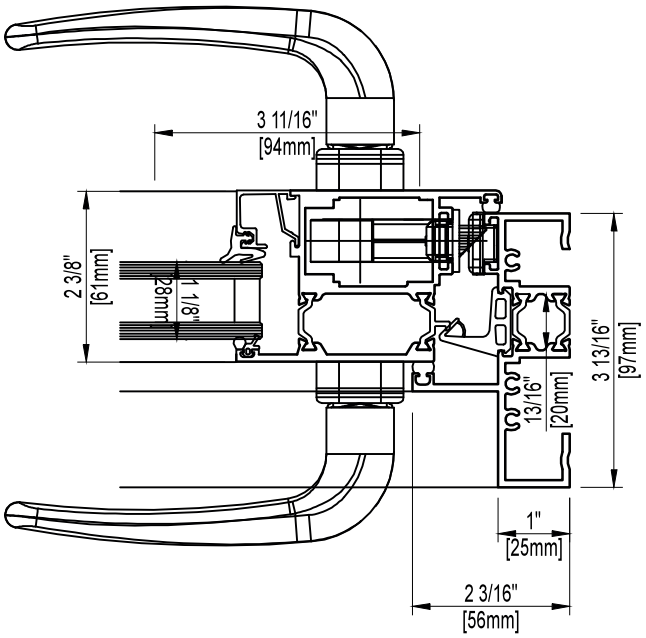
B7 Water

A3 Air

C5 Structure

ABOVE RESULTS BASED ON CAN-BEST
TEST 03.25.11 & 04.05.11

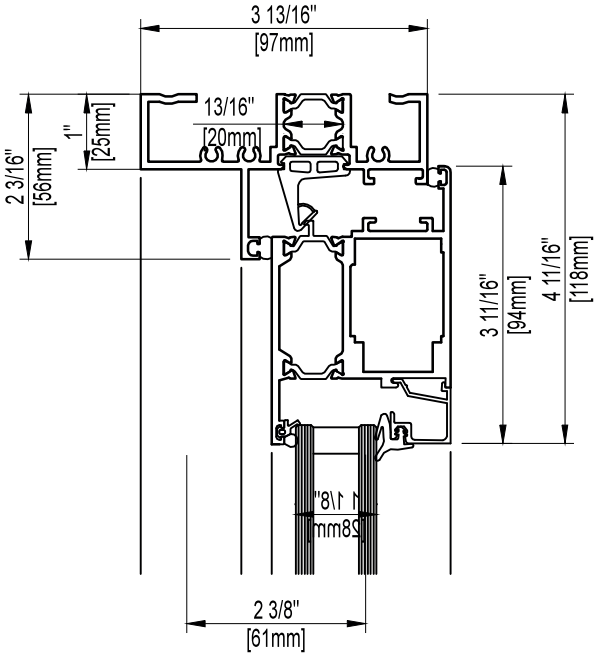




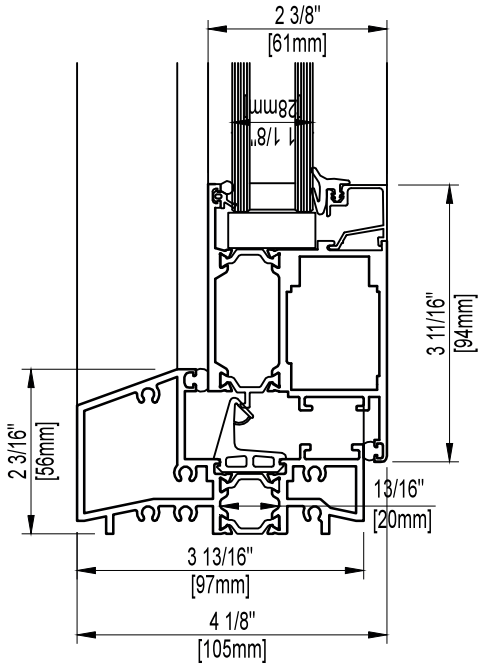
Jamb Details

Typical Details

SWING DOOR



HEAD



SILL

Jamb Details