

Glazier Quick Start Guide

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Section 1: Introduction

Preface

The information in this installation guide is designed to assist our trade partner with the preparation, installation, commissioning and quality assurance checks for View, Inc. products. Our trade partner must ensure that all requirements below are met with equivalent or superior products, consumables, recommendations and standards. View, Inc. makes no guarantee as to the accuracy of information obtained from outside sources. View does not assume responsibility for workmanship.

Conflicting Technical Requirements

Any conflicting terms, specifications or other written requirements must be brought to the attention of View's Purchasing Department before installation begins.

Assumptions

This installation guide assumes the following:

1. Glazing Trade partner understands the layout and configuration requirements of the View provided interconnect drawings.
2. Glazing Trade partner accepts and understands the requirements of the Glazier Site Installation and Verification Checklist.

Quality Assurance

Comply with recommendations in the publications below, except where more stringent requirements are indicated. Refer to GANA publications for glazing terms not otherwise defined in this guide.

1. [View, Inc. IGU Quality Standards Reference QDM-19-000009](#)
2. [Dynamic Glazing Specification: 08-88-00 QDM-11-000003](#)
3. GANA Glazing Manual
4. GANA Construction Site Protection and Maintenance of Architectural Glass Manual
5. GANA Engineering Standards Manual
6. GANA Laminated Glazing Reference Manual

Delivery, Storage and Handling

Upon receiving shipment of glass, inspect the SHOCK WAVE TILT INDICATOR on the outside of each crate, steel A frame or racks. This is to ensure that tipping of the crate or shipping rack has not occurred. If indicator is red, do not refuse the shipment. Make notation on delivery receipt and inspect for damage. If damage is discovered, leave in original container and packaging and request immediate inspection from carrier within 15 days of delivery (Int'l 3 days).

Additional Information Reference: [Standard IGU Packaging & Shipping](#) (OB-08ShpStd002.2)

Section 2: Dynamic Electrochromic Glass

Introduction to Dynamic Electrochromic Glass

Dynamic electrochromic facades change tint between clear and dark on demand, providing unprecedented control over the amount of light and heat that enter a building. This dynamic control results in reduced energy consumption, reduced peak load & HVAC equipment downsizing, and the elimination of blinds and shades providing unobstructed views, an increase in natural daylight and improved occupant comfort as well as productivity.

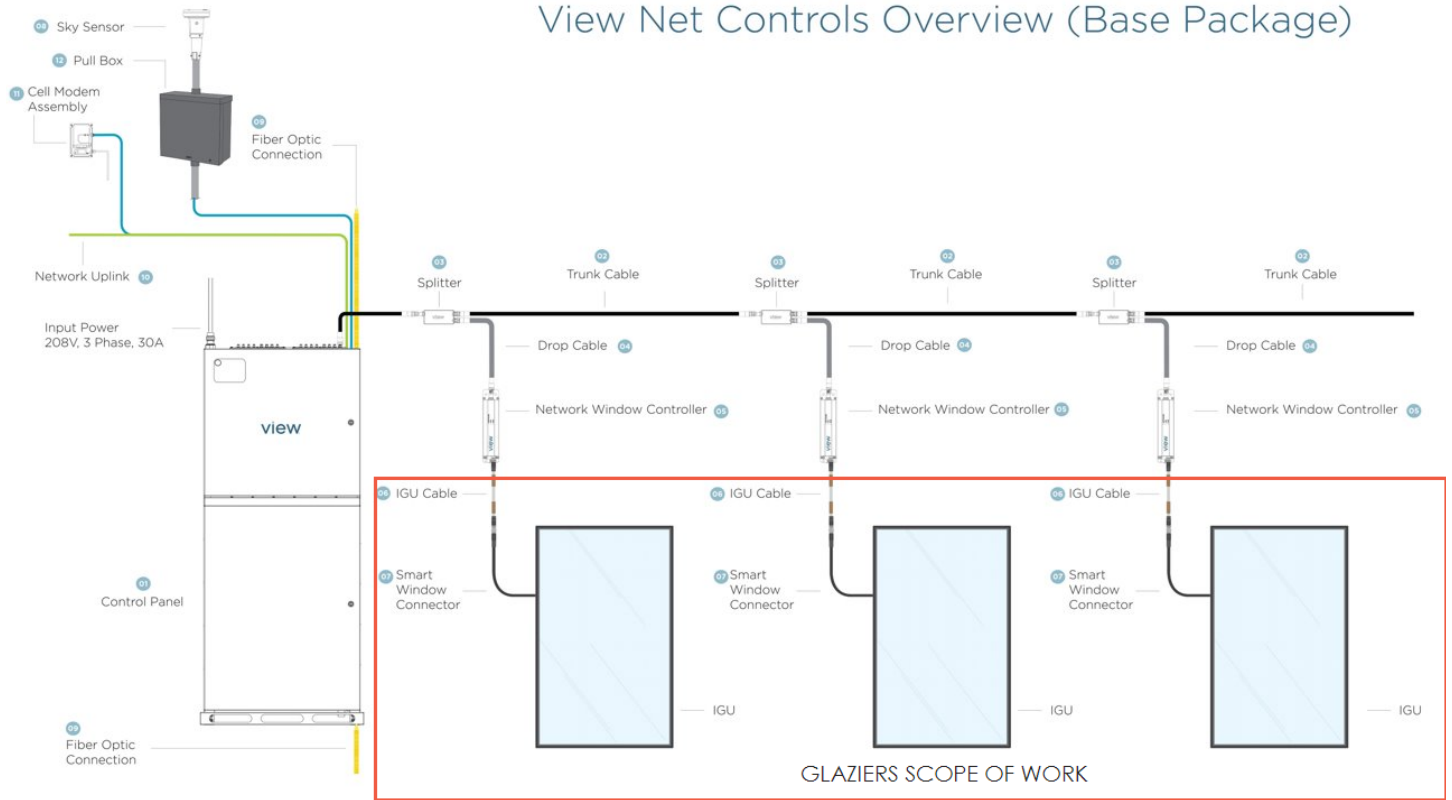
Glazing Materials, Products and Consumables

Glazing materials used must be compatible with View Smart Glass components. Comply with recommendations in the publications below. It is the glazing trade partner's responsibility to ensure sealant used will not compromise the IGU secondary sealant.

1. [Sealant Compatibility: IGU Secondary Seal](#)
2. [Sealant Compatibility: Quanex Super Spacer](#)
3. [Sealant Compatibility: 3M Tape](#)
4. [Sealant Compatibility: Smart Window Connector \(SWC\)](#)
5. [Sealant Compatibility: IGU Cable](#)
6. [GANA Proper Procedures for Cleaning Architectural Glass Products: GANA 01-0116](#)

Diagram of View Net Controls

View Net Controls Overview (Base Package)



Section 3: Before You Begin Installation

Glazing Scope

Glazing contractor's scope of work consists of but is not limited to the following:

1. Installing IGUs within the glazing system (includes drilling hole, slotting, notching deburring hole, installing grommet and sealing hole to prevent future water intrusion)
2. Testing each IGU with the provided View hand-held tester
3. Connecting IGU cable to IGU Smart Window Connector
4. Label each IGU cable per View interconnect drawings
5. Installation of all operables (i.e. Concealed Transfer, Door Loop, Spring Conduit, Flex Cable, Sliding IGU Cable, etc.)

Coordination

Glazing contractor shall coordinate with the electrical contractor to clearly understand the scope of work for each trade and the location of the IGU cable exit location through the fenestration system detailed in the View interconnect drawings. Contact your View Project Manager for the most recent revision of the View interconnect drawing.

The View interconnect drawings are to be reviewed, approved, and utilized by:

- Glazing contractor
- Low voltage contractor
- Electrical contractor
- General contractor
- Architect
- Owner

Installation Preparation

Comply with recommendations in the publications below, except where more stringent requirements are indicated.

- [Dynamic Glazing Specification 08-88-00 QDM-11-000003](#)

Section 5: Glazier Training

View offers a variety of training material for the glazing industry. Training is required to install View Smart Glass.

- EC Glazing Online course taken at your own pace, includes testing and certification (Available upon request, contact your View PM)
- Glazier Integration Training: Online webinar taught live by View instructor (Available upon request, contact your View PM)
- Glazier training at your shop
- Glazier training at the job site

Section 6: Installation

Installation

Comply with recommendations in the publications below, except where more stringent requirements are indicated. It is our glazing trade partner's responsibility to ensure a proper seal is created at the Smart Window Connector/IGU cable exit location through the frame that will prevent water and air intrusion into the glazing system. It is recommended to deburr the hole edges, insert a silicone grommet and seal the penetration with silicone. It is also the glazing trade partner's responsibility to ensure all IGU cables, Smart Window Connectors, and components are safe from being submerged in water inside the glazing system.

1. [View Dynamic Glazing Specification 08-88-00 QDM-11-000003](#)
2. [Sealant Compatibility: Smart Window Connector \(SWC\)](#)
3. [Sealant Compatibility: Quanex Super Spacer](#)
4. [Sealant Compatibility: 3M Tape](#)
5. [Sealant Compatibility: IGU Secondary Seal](#)
6. [Sealant Compatibility: IGU Cable](#)
7. [Capillary Tube Guidelines](#) (if applicable)
8. [IGU Testing with hand-held tester](#)

Holes and other penetrations

Refer to the appropriate sealant compatibility listing in the 'Glazing Materials, Products and Consumables' section above.

NOTE: See fabrication steps below for hole preparation and sealant location requirements

Grommet Applications and Requirements

Audience:

Glazing Contractors

Requirement:

Per NEC code and View glass best known methods, glaziers are required to install silicone grommets into all hole penetrations in the glazing system to protect the SWC (smart window connector) and IGU cable.

National Electrical Code

Article 300.4 Protection Against Physical Damage.

Where subject to physical damage, conductors, raceways, and cables shall be protected.

300.4 (B) (1)

(B) Nonmetallic-Sheathed Cables and Electrical Nonmetallic Tubing Through Metal Framing Members.

(1) Nonmetallic-Sheathed Cable. In both exposed and concealed locations where nonmetallic-sheathed cables pass through either factory or field-punched, cut, or drilled slots or holes in metal members, the cable shall be protected by listed bushings or listed grommets covering all metal edges that are securely fastened in the opening prior to installation of the cable.

Solution:

Ensure all sharp aluminum edges have been filed down and free of any shavings before the grommet is applied to the cable pass through. In addition, silicone is required to be applied to the outer diameter of the grommet and follow standard specification for structural silicone sealant. The grommet must be 100% silicone.

References:

ASTM C1184

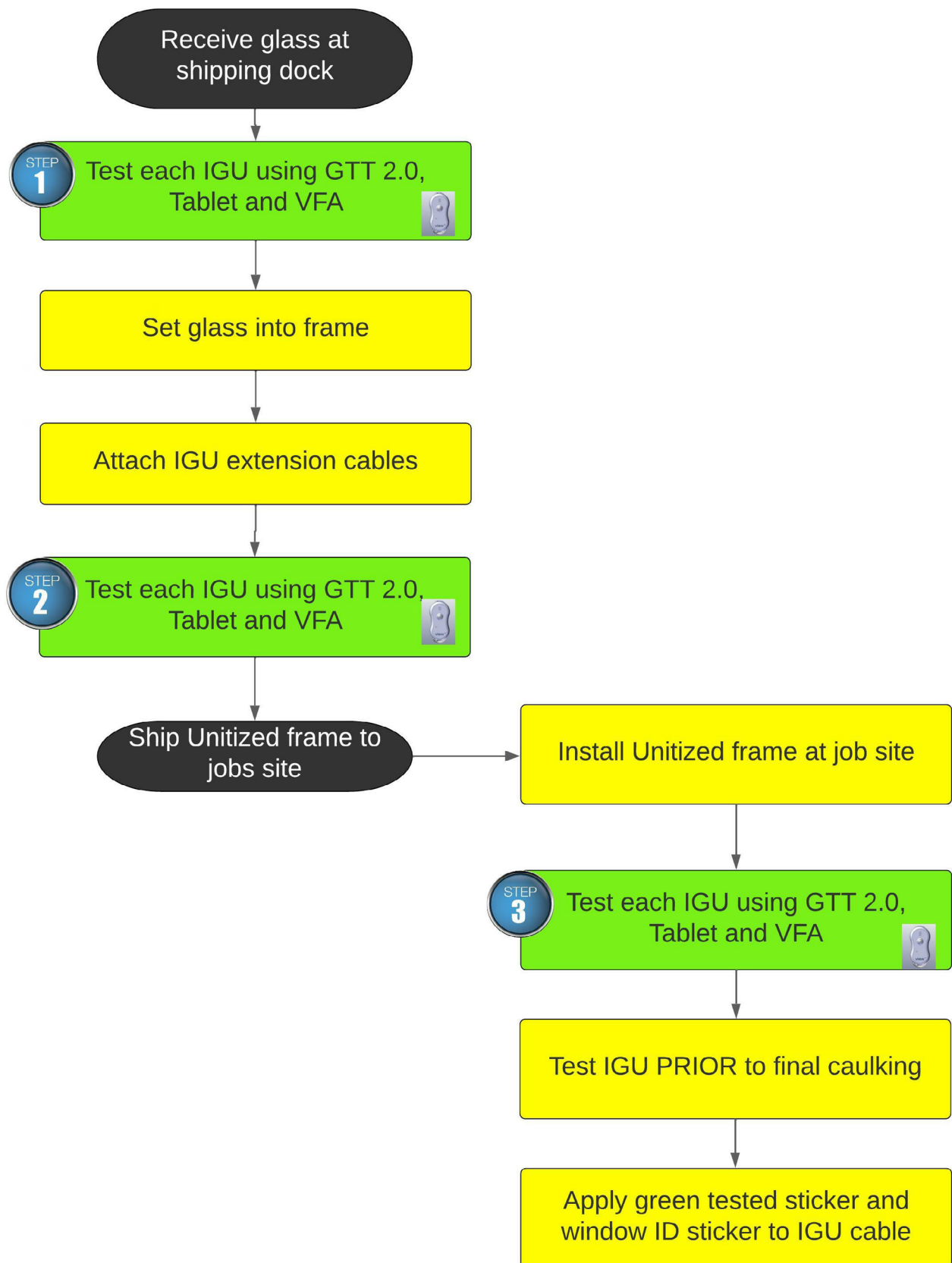
Section 7: Required IGU Testing Protocols

[Click here for IGU Testing Guide](#)

Work Breakdown Structure for Testing IGUs

- Glazier shall test every IGU upon delivery using the Glazier Test Tool (GTT) GTT provided by View
- Test shall occur after delivery, before window unitizing
- Glazier shall test every IGU after unitized using the GTT (if stick built system, this step is done at job site “after” pressure plates have been installed)
- Test shall occur after unitizing, before shipment to site
- Installer shall test every IGU after installation on job site using the GTT
- Test shall occur after install of mullion caps/pressure plates and before final caulking
- Provide testing log using SmartSheet testing log or app provided by View. Records are maintained by View and reports are available to glazier
- Glazier shall use proper installation techniques while integrating View Glass into framing system to ensure no damage can occur during the installation process
- Glazier shall be available to provide access to IGU cable and Smart Window Connector for troubleshooting in the event an IGU is not working. This may include access to the intermediate IGU cabling inside frame system
- Glazier shall apply green TESTED sticker to each IGU cable at job site to validate completed all 3 tests (TESTED labels provided by View)
- Glazier shall have access to 120v power for charging testing tools
- Glazier shall have access to earth ground for proper testing
- Glazier shall have computer available to track and record tests (hard copy not recommended)

Flowchart for Glazier Testing



Cable Pathways

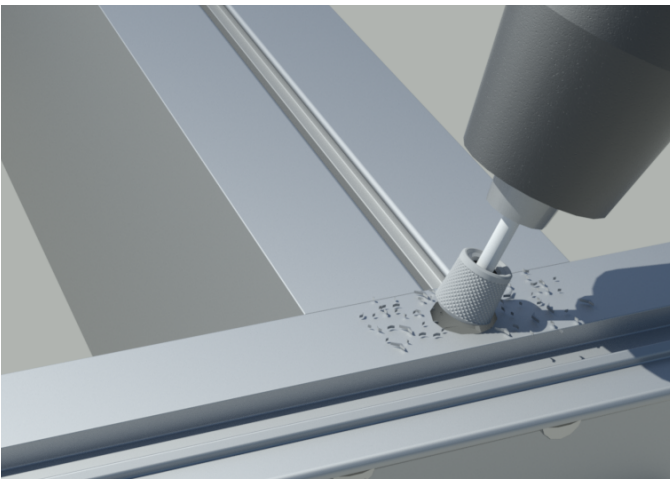
- View shall provide Glazier integration drawings showing all cable pathways for Smart Window Connector and IGU extension cable
- Glazing contractor shall provide appropriate cable management to protect all View cables from damage
- Glazing contractor shall provide courtesy loops for View cabling within the glazing system for future serviceability

FEP Grommet Installation

STEP 1: Drill Hole (7/16" Diameter)



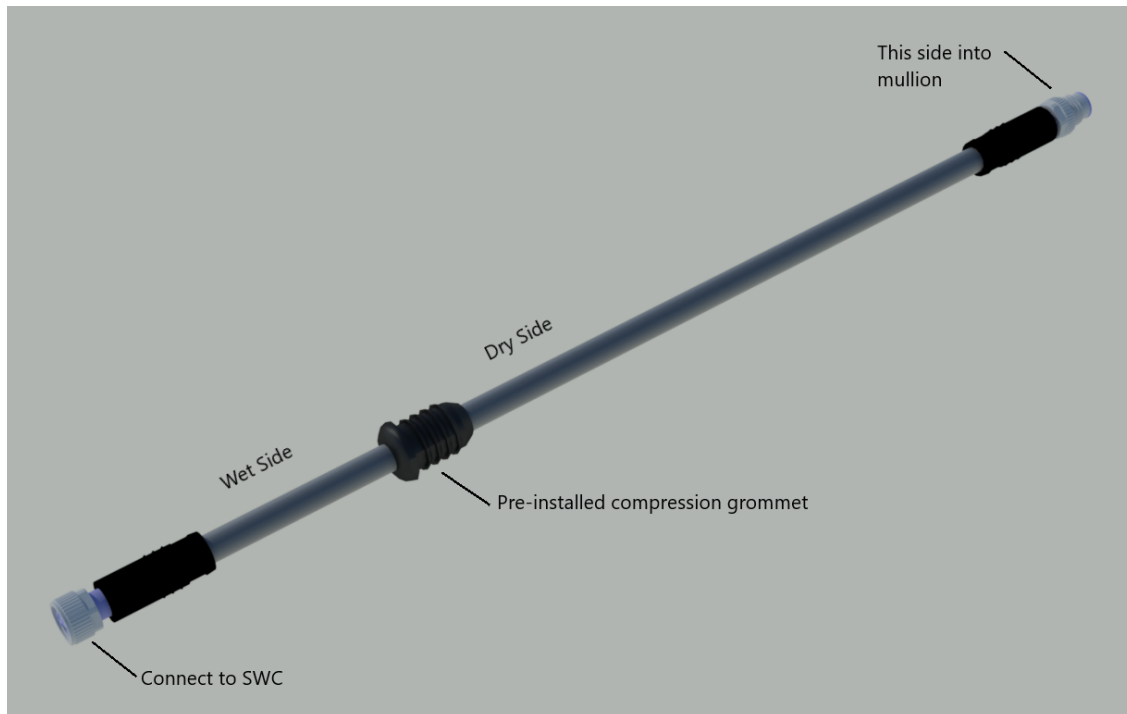
STEP 2: Deburr Drilled Hole



Drill and De-burr 7/16" Diameter hole in the face of the mullion where cable is to be installed. See approved integration and shop drawings for locations. Note: If holes are CNC cut and clean, deburring may not be necessary.

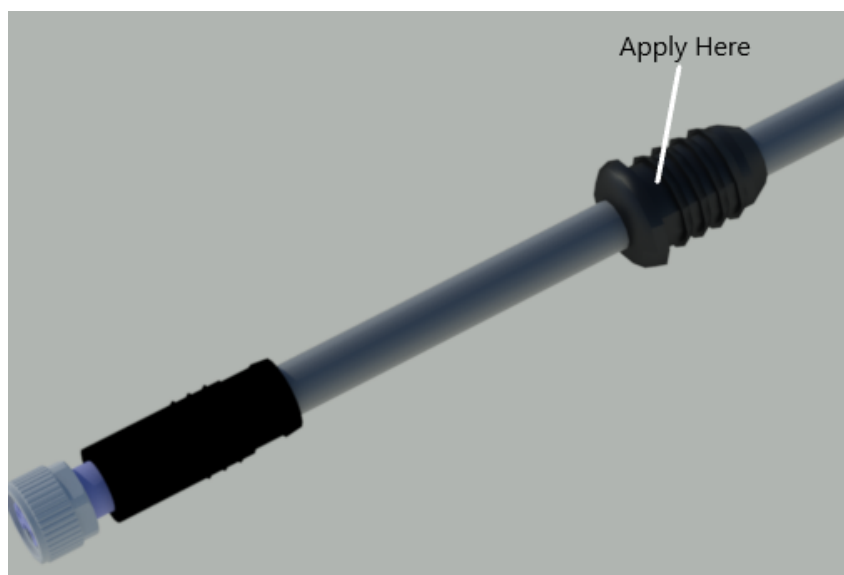
STEP 3: Determine FEP cable routing

Determine FEP cable routing. Flat side of grommet and female connector to be on the wet side of the system.

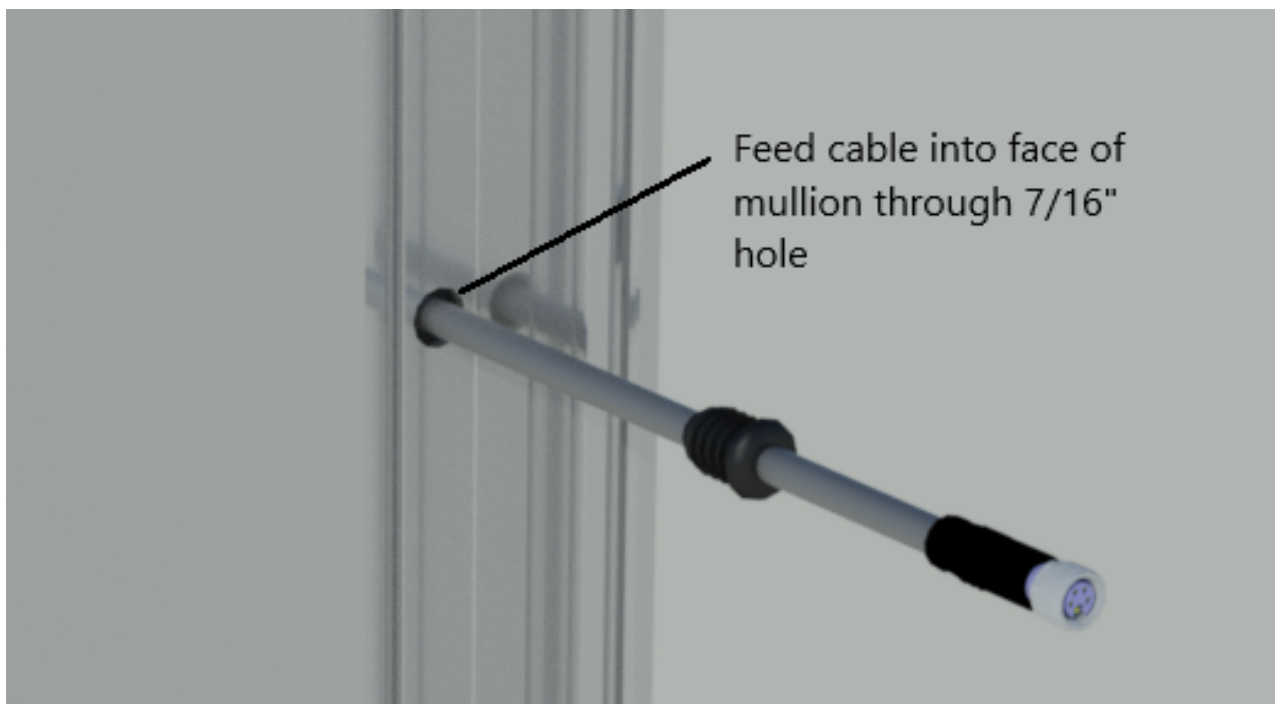


STEP 4: Apply small amount of 100% silicone sealant

Apply small amount of 100% silicone sealant(see sealant compatibility document) to ribbed surface of grommet.



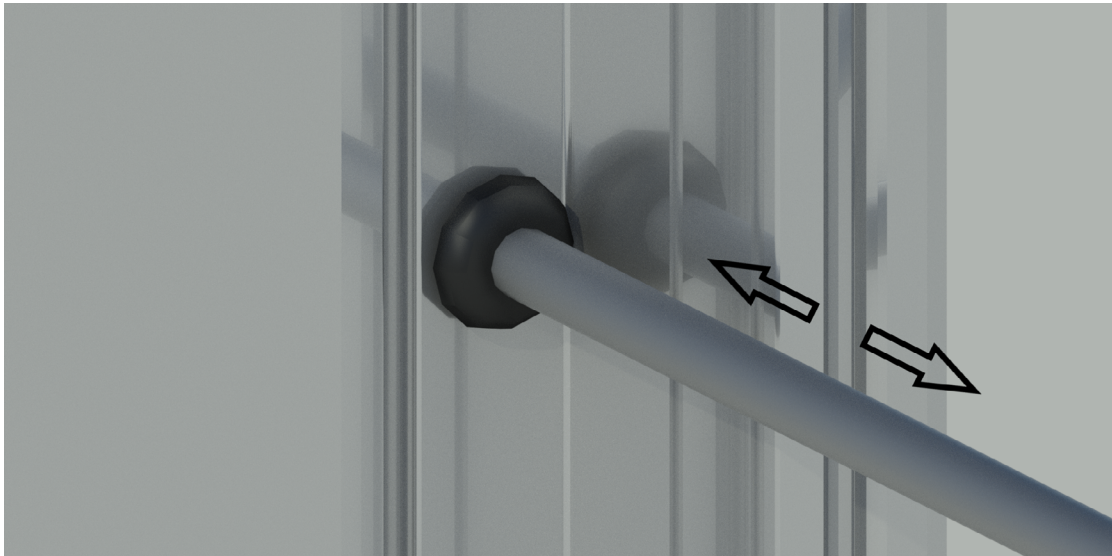
STEP 5: Insert cable into hole up to grommet



STEP 6: Push grommet into hole until grommet shoulder is firmly against face of mullion



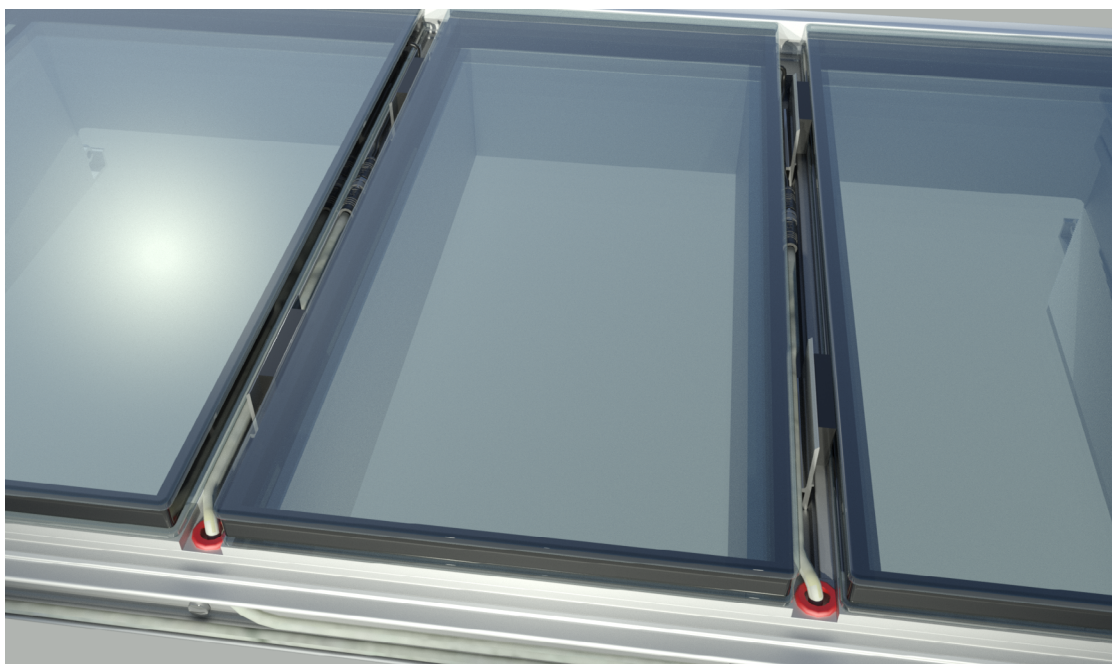
STEP 7: FEP cable will slide through the compression grommet once installed in order to make final adjustments to the amount of cable in the wet side glazing pocket



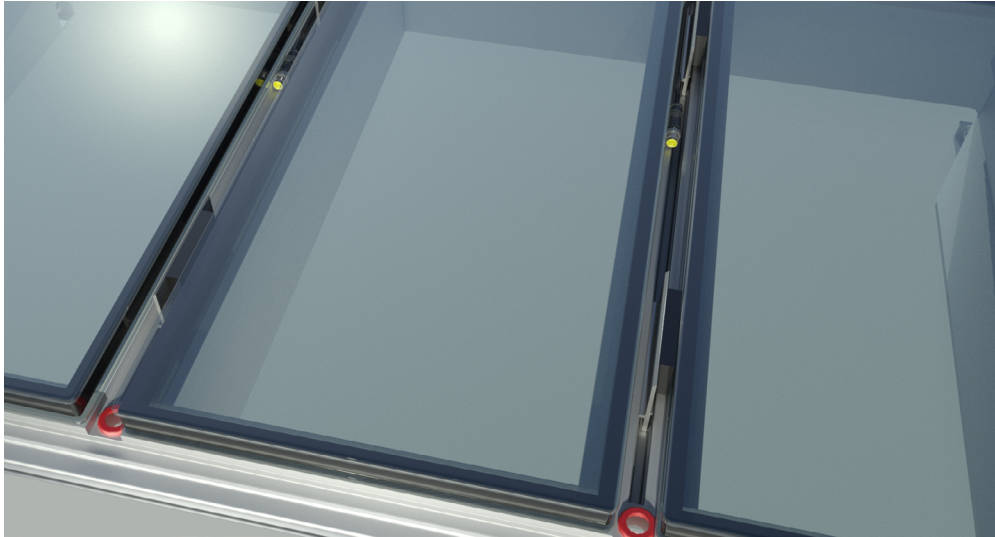
STEP 8: Clean away excess caulking that has squeezed out of the hole

STEP 9: Allow caulking applied to grommet to cure per manufacturer's recommendations

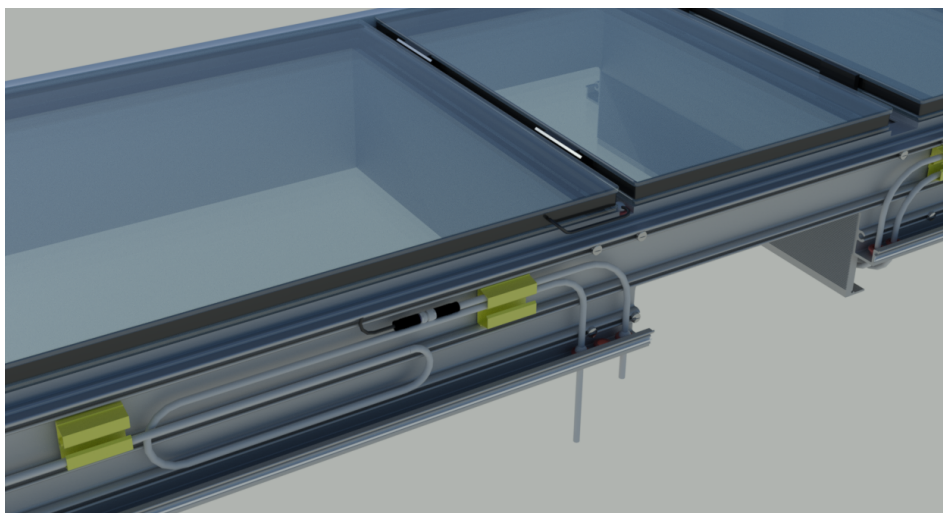
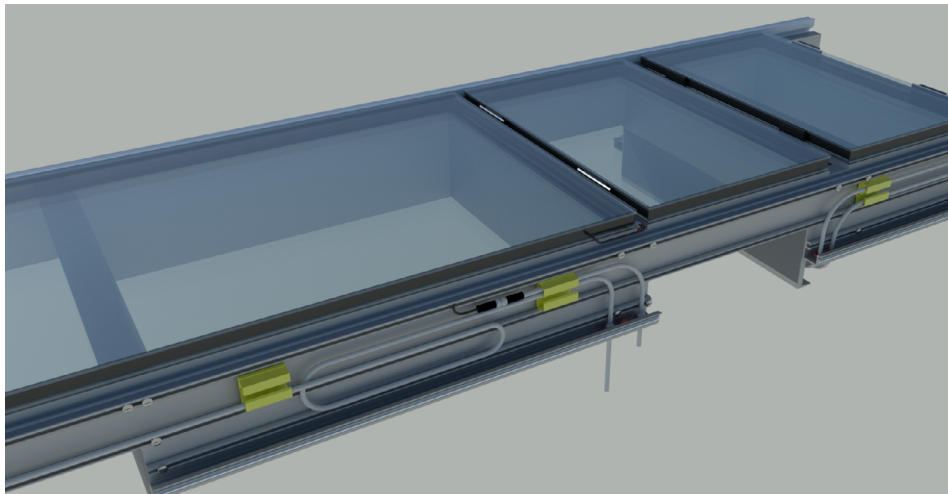
STEP 10: SWC in Glazing Pocket



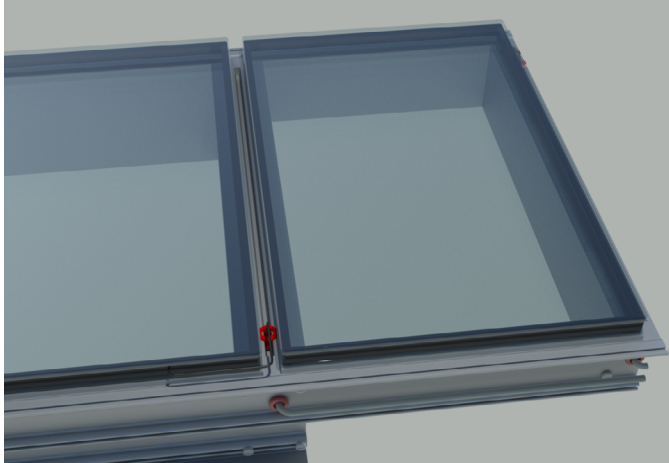
STEP 11: IGU Cable Installed



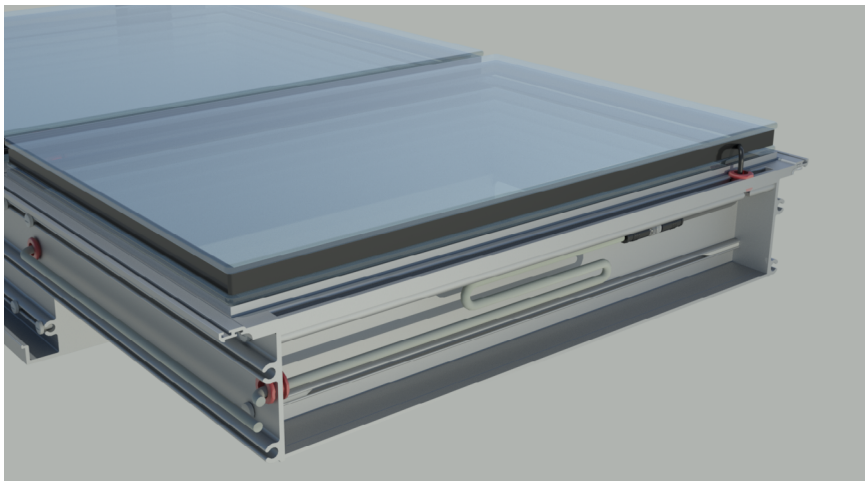
STEP 12: Cable Management & Courtesy Loop



STEP 13: Cable Routing in Horizontal



STEP 14: Courtesy Loop in Horizontal

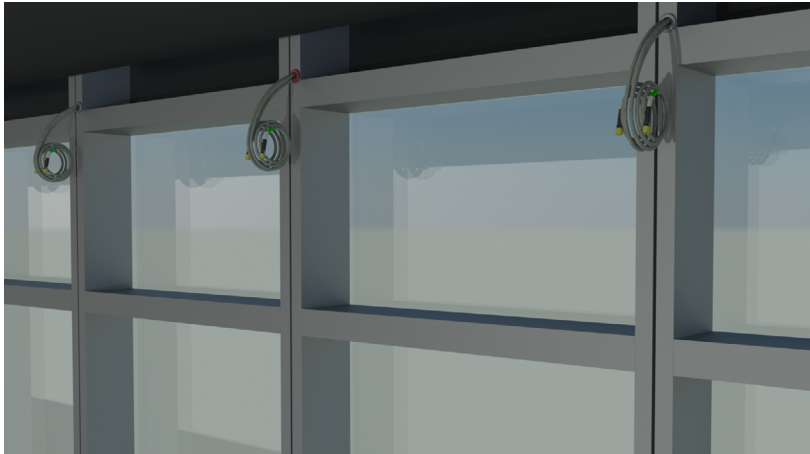


STEP 15: Facade Interior

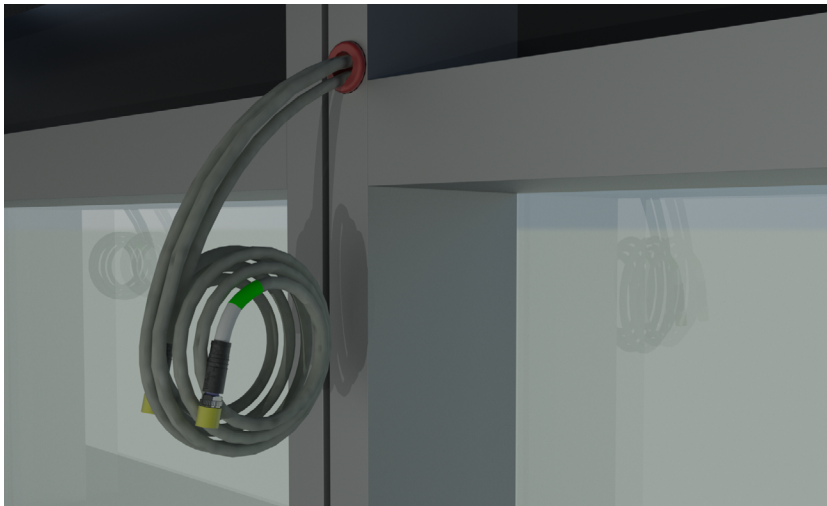


NOTE: Prior to installing frames on building (either in-shop or on-site) move stickers from side 1 to side 4 in the order they are in the frame from top to bottom

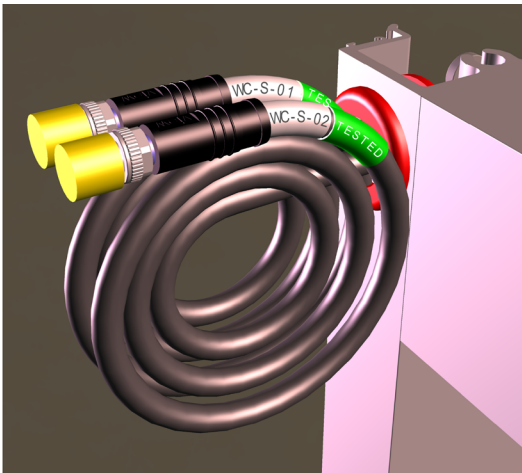
STEP 16: Facade Interior Close-up



STEP 17: IGU Cable Bundle at Head



STEP 18: Shorting Caps



Wrap each cable for identification

The end of the IGU cable is left for the electrical trade partner to connect to the window controller. The Low-Voltage Electrician will identify the proper IGU by matching the wrap numbering on the IGU cable labeled by the glazier during installation. Each cable should be labeled with the recommendations below.

1. Match printed label - wrap style - should be located within 4" of the IGU cable end
2. Each label should be machine printed - black print on white material
3. Use proportional font 14 pt bold
4. Cable identifier should appear two times on the label for visibility.
5. Labels should be permanent type material
6. Hand written labels should not be used
7. Do not make labels from masking tape, electrical tape, duct tape, paper covered scotch tape or any non label material
8. Wire marker tape can be used for IGU cables. Use number to match IGU marking on interconnect
9. Labels and marker tape not provided by View
10. Tested label, provided by View, to be placed on each end of cable after installation and testing

