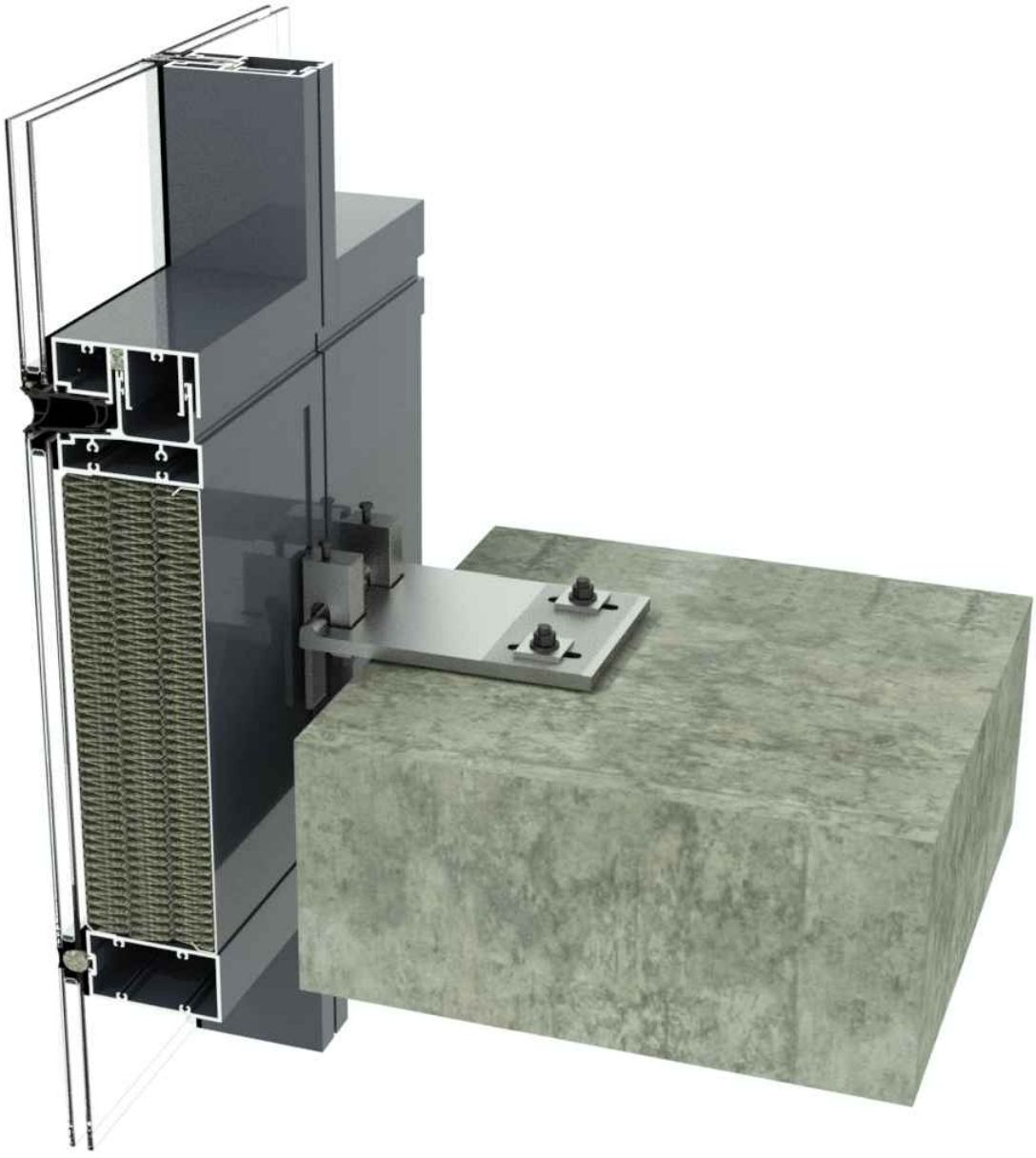
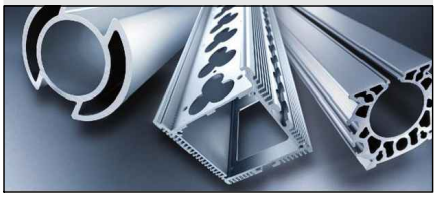
GUTMANN UCW65

			01.2021
BUILDING SYSTEMS	ALUMINIUM UNITIZED CURTAIN WALL	CATALOGUE	REV - 00



GUTMANN

Aluminum Profiles



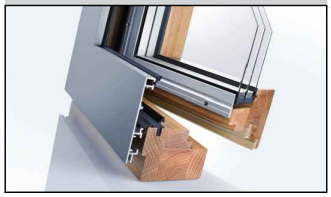
Building Systems

Specialized Wire

Aluminum Systems

Metal-Composite Systems

Wood-Aluminium Systems



PVC-Aluminium Systems

Building-Fitting Systems

GUTMANN AG is an international supplier for system-based aluminum building solutions. GUTMANN building Systems are designed for modern windows, doors and curtain-wall systems that are optimized and customized for the wide range of stylistic, design and energy-efficiency requirements demanded by architects, investors and fabricators.

With more than 70 years of presence in the field, GUTMANN AG together with its holding companies, GARTNER EXTRUSION GmbH, NORDALU Gmbh and GUTMANN ALUMINUM DRAHT GmbH, has also become a producer of high-quality Aluminum Profiles and Specialized wire.

Customer proximity, 1300 committed employees and high innovative power have made the GUTMANN Group a trusted international partner for aluminum products. These qualities also form a solid base for continued growth in the future.

General Notes

1. The UCW65 unitized curtain wall system is intended for installation by professional glazing contractors with appropriate experience. We expect that you are familiar with, and have installed products of same and similar type.
2. These instructions cover typical product application,fabrication, installation and standard conditions and are general in nature. They provide useful guidelines, but the final shop drawings may include additional details specific to the project. Any conflict or discrepancies must be clarified prior to execution. The shop drawings will take precedence over these instructions as they are project specific.
3. Engineering Calculations and shop drawing review should be performed by a professional engineer.
4. Materials stored at the job site must be kept in a safe place protected from possible damage by other trades. Stack with adequate separation so materials will not rub together and store off the ground. Cardboard or paper wrapped materials must be kept dry. Check arriving materials for quantity and keep a record of where various materials are stored.
5. Coordinate protection of installed work with general contractor and/or trades.
6. Coordinate sequence of other trades which affect framing installation with the general contractor.
7. General contractor should furnish and guarantee bench marks, offset lines and opening dimensions. These items should be checked for accuracy before proceeding with erection. Make certain that all adjacent substrate construction is in accordance with the contract documents and/or approved shop drawings. If not, notify the general contractor in writing before proceeding with installation because this could constitute acceptance of the adjacent substrate construction by others.
8. Isolate all aluminum to be placed directly in contact with masonry or other incompatible materials with a heavy coat of zinc chromate or bituminous paint. Fasteners attaching framing to building structure are typically not provided by Gutmann.
9. Sealant selection is the responsibility of the erector, installer and/or glazing contractor and must be approved by the sealant manufacturer with regard to application and compatibility for its intended use. All sealants must be used in strict accordance with the manufacturer's instructions and applied only by trained personnel to surfaces that have been properly prepared.
10. Sealant must be compatible with all materials with which they may have contact, including other sealant surfaces. Consult the sealant manufacturer for recommendations relative to shelf life, compatibility, cleaning of substrate, priming, tooling adhesion etc. Recommended sealant manufacturer perform adhesion "pull test" at "wet" glazing for quality assurance.
11. Drainage gutters and weep holes must be kept clean at all times. Gutmann will not accept responsibility for improper drainage as a result of clogged gutters and weep holes.
12. This product requires clearances at the head, sill and jambs to allow for thermal expansion and contraction as well as construction tolerances. Refer to final distribution drawings for joint sizes.
13. All framing members, entrances and other materials are to be installed plumb, level and true with regard to established bench marks, column center lines or other working points established by the general contractor and checked by the erector, installer and/or glazing contractor.
14. After sealant is set and a representative amount of the wall has been glazed (500 square feet or more), run a water hose test to check installation. On large projects, a hose test should be repeated during glazing operation. This testing should be conducted in accordance with AAMA 501.2 specifications.
15. Cleaning of exposed aluminum surfaces should be done per AAMA recommendations.
16. Care must be taken when assembling aluminum framing components. Over tightening any fastener may cause stripping or fastener failure. Gutmann recommends the use of drill motors with clutches engaged to provide satisfactory tightening of the screw while preventing over torque. The use of impact drill motors is not recommended due to the absence of a clutch device.

Table of Contents

General Construction Notes

HANDLING, STORAGE AND PROTECTION OF ALUMINUM

The following precautions are recommended to protect the material against damage.
Following these precautions will help ensure early acceptance of your products and workmanship.

1. **HANDLE CAREFULLY.**
   All aluminum materials at job site must be stored in a safe place, well removed from possible damage by other trades. Cardboard wrapped or paper interleaved materials must be kept dry.
2. **CHECK ARRIVING MATERIALS.**
   Check all shipments from Gutmann immediately upon receipt thereof. Check for damage, count and quantities and keep records of where various materials are stored. Inform your Gutmann service representative immediately of errors, omission, questionable quality or damage.
3. **KEEP MATERIALS AWAY FROM WATER, MUD, AND SPRAY.**
   Prevent cement, plaster or other materials from damaging the finish.
4. **PROTECT THE MATERIALS AFTER ERECTION.**
   Protect erected frame with polyethylene or canvas splatter screen. Cement, plaster, terrazzo, other alkaline solutions, and acid base materials used to clean masonry are harmful the the finish. If any of these materials come in contact with the aluminum, IMMEDIATELY remove with water and mild soap.

GUTMANN UCW65

System Description

Stock lengths offer glazing contractors the flexibility of providing fabrication and pre-glazing under controlled conditions in their own shop.

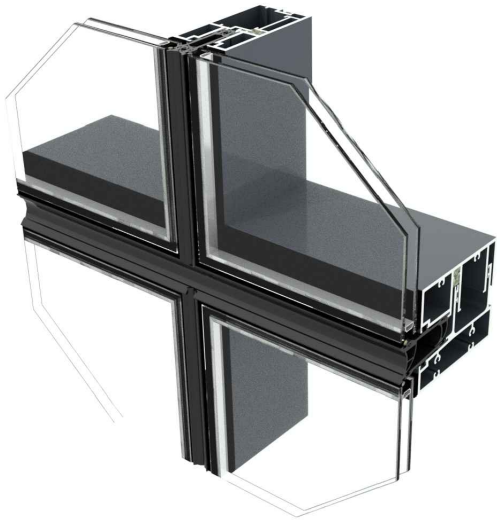
The ideal option to ease timeline pressures, pre-assembled and pre-glazed units ensure quality control and increase productivity for almost any size or configuration.

→ Unitized, preglazed and fabricated system
→ Unitized construction accelerates installation, reducing field labor costs
→ Standard infill option 1" [25.4mm], other infill's available
→ 2-1/2" x 4-7/8" [65mm x 125mm] profile, other profiles can be designed as per project requirements
→ 6063 alloy, T6 aluminum extrusions
→ Available systems include:
- Vertical SSG (Structural Silicone Glazed)
- Horizontal SSG
- Four sided SSG

→ Foam insertion inside the expansion joint for better thermal performance
→ Split mullion and expansion/stack horizontal
→ extruded EPDM or silicone air and weather seal gaskets
→ Structural extruded silicone glazing spacer is compatible with structural silicone sealants
→ It employs a continuous polyamide thermal break vertically and horizontally, providing ultra-thermal performance levels in a cost-effective unitized curtain wall system
→ options of any finish
→ Tested to as per ASTM and AAMA test standards
→ Average weighted system "U" value for the wall assembly shall not exceed 0.34 btu/hr/ft2-F°, This value may vary according to glass selection, framing configuration and spandrel to vision ratios
→ Steel reinforcing available
→ Captured system integrates with standard GUTMANN doors and windows
→ Captured system integrates with concealed S70V+ Windows

System Properties of Classes

Water tightness	**ASTM E331 720 Pa**
Air permeability	**ASTM E 283 300 Pa**
Wind load	**ASTM E 330 2-3 KPa**



Thermal Insulation

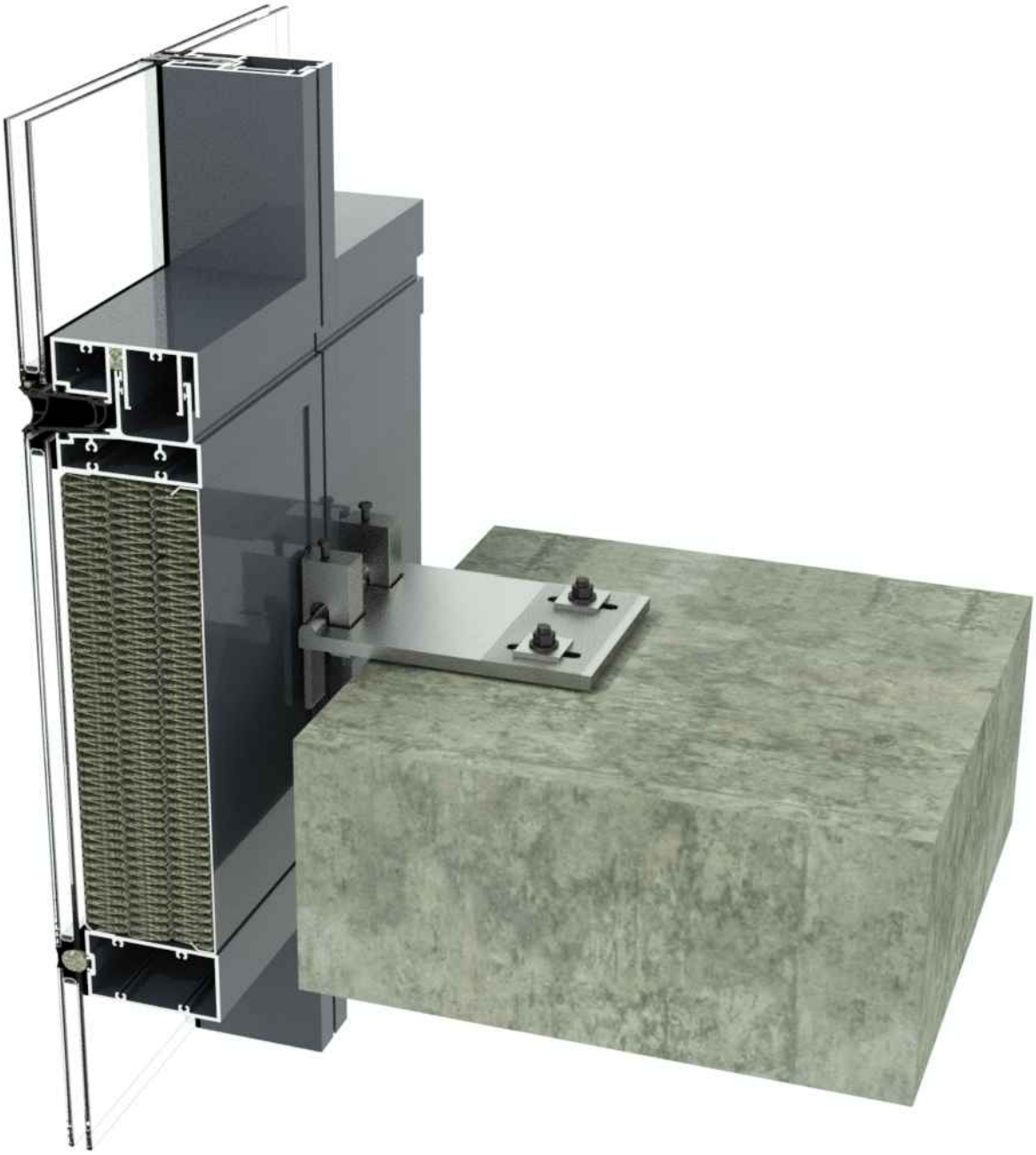
1.6

Uf

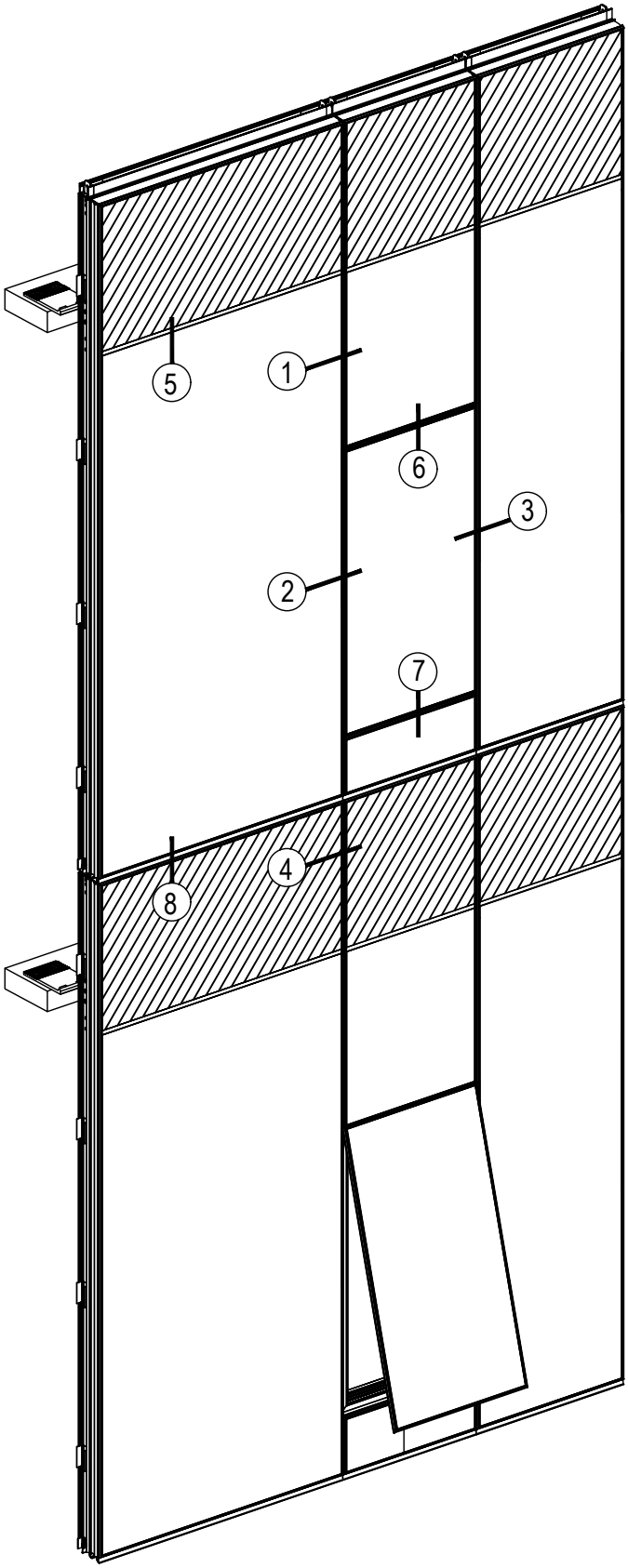
System Performance

TEST	CRITERIA	STANDARD
Test 1	Air Infiltration Test (300 Pa)	ASTM E 283-04 (2012)
Test 2	Static Water Penetration Test (720 Pa)	ASTM E 331-00 (2016)
Test 3	Dynamic Water Penetration Test (720 Pa)	AAMA 501.1-17
Test 4	Structural Performance Test (2 kPa inward & 2 kPa outward)	ASTM E 330-14
Test 5	Static Water Penetration Test (720 Pa)	ASTM E 331-00 (2016)
Test 6	Seismic Test (Horizontal drift/Displacement) 10mm, 3 cycles	AAMA 501.7:2018
Test 7	Static Water Penetration Test (720 Pa)	ASTM E 331-00 (2016)
Test 8	Jacking Test (Vertical drift/Displacement) 15mm, 3 cycles	AAMA 501.7-17
Test 9	Static Water Penetration Test (720 Pa)	ASTM E 331-00 (2016)
Test 10	Static Water Penetration Test (1 kPa)	ASTM E 331-00 (2016)
Test 11	Structural Proof Load Test @ 150% design load (3 kPa inward & 3 kPa outward)	ASTM E 330-14
Test 12	Thermal Cycle Test	AAMA 501.5
Test 13	Seismic Test (Horizontal drift/Displacement) 20mm, 3 cycles	AAMA 501.7:2018

UCW65
TYPICAL SYSTEM DETAILS

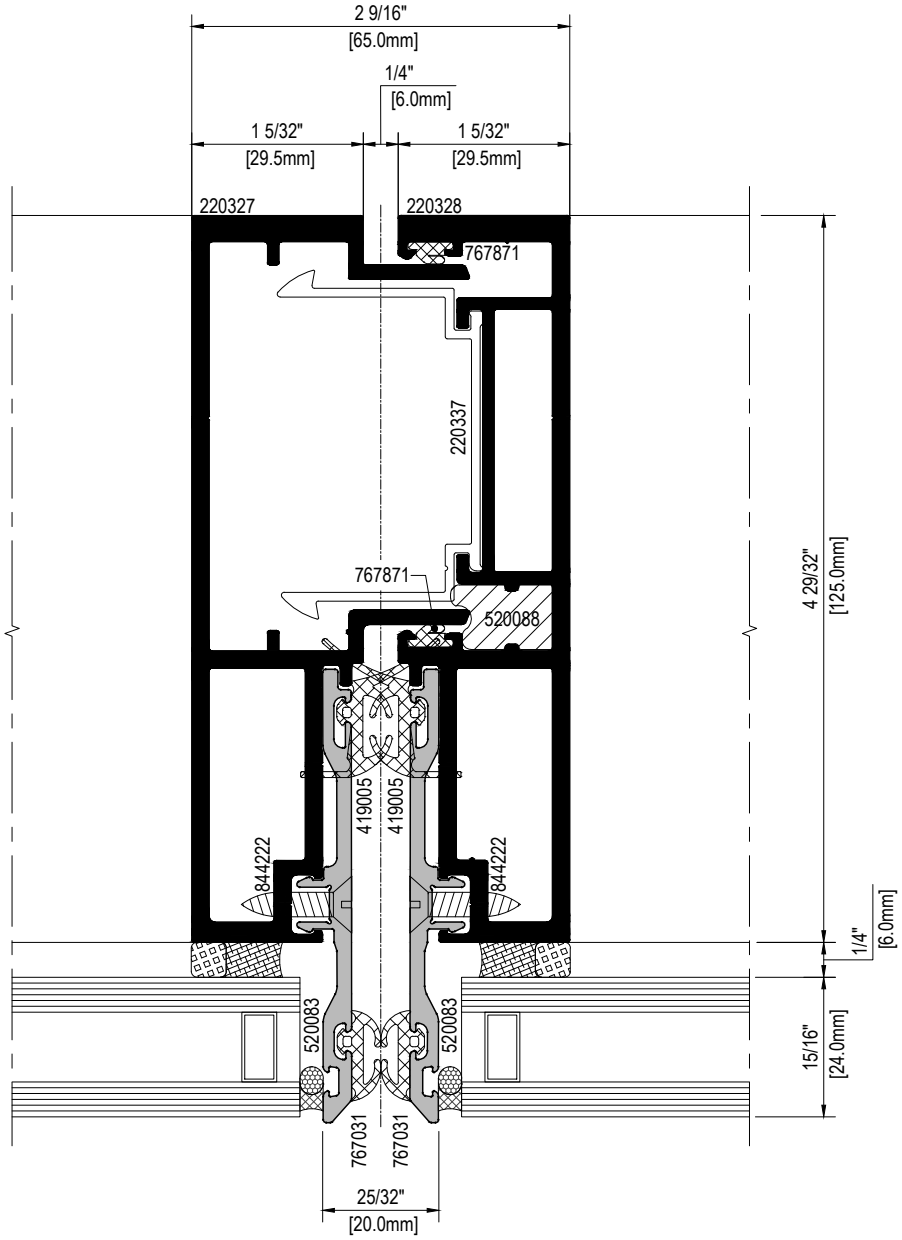


Key Elevation



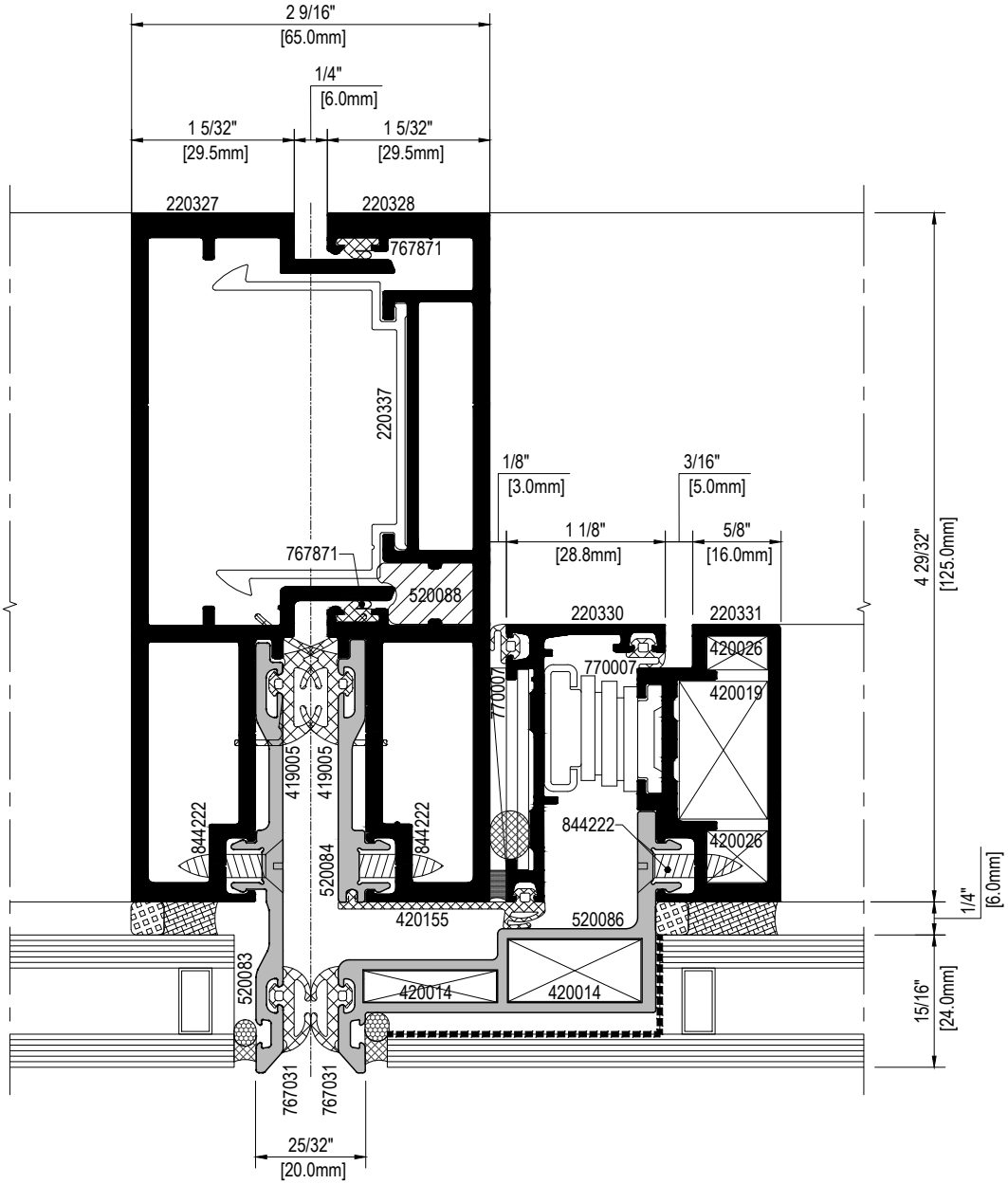
TYPICAL ELEVATION
SCALE : NTS

Typical Horizontal



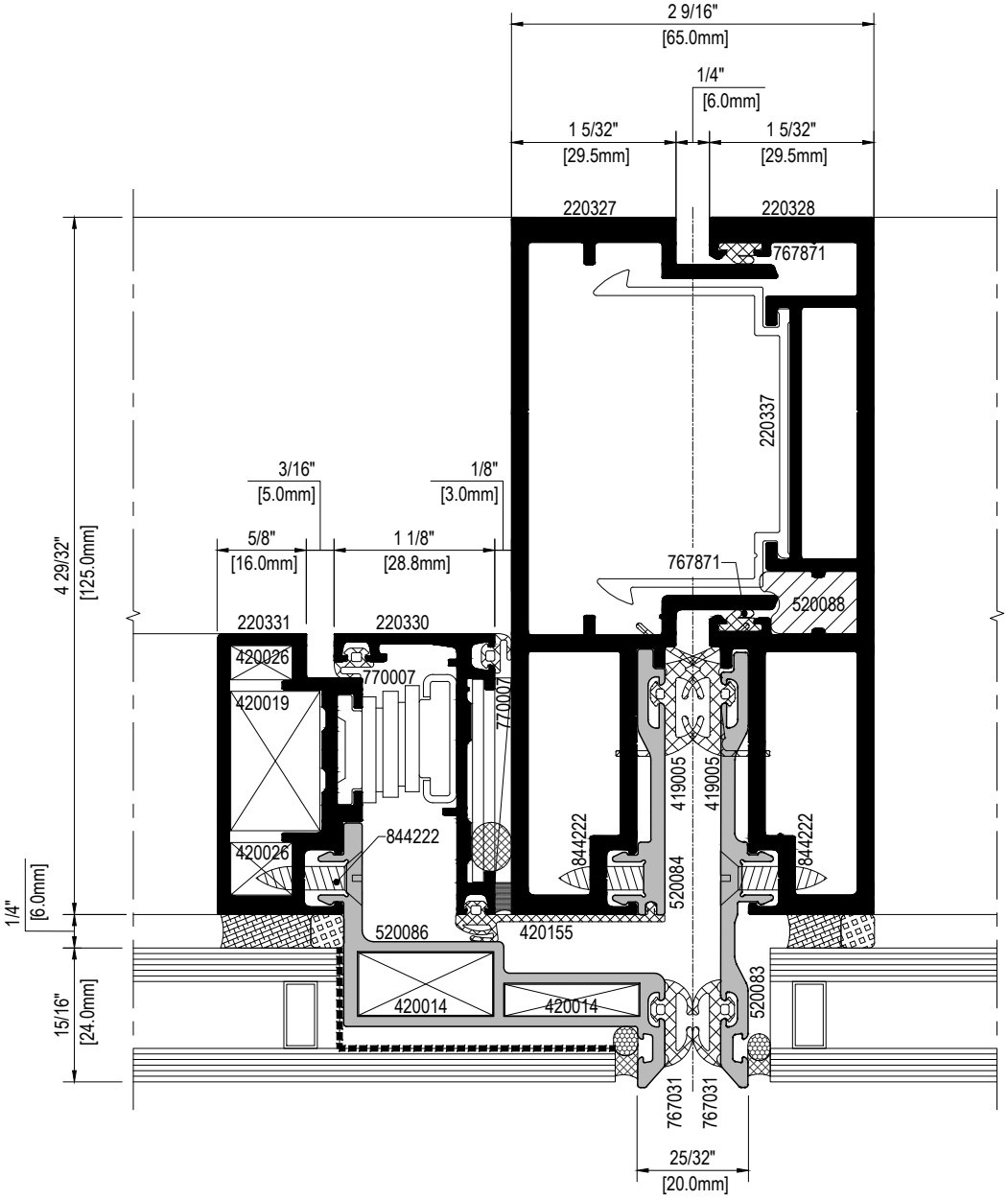
Detail-1

Typical Horizontal at Vent Window



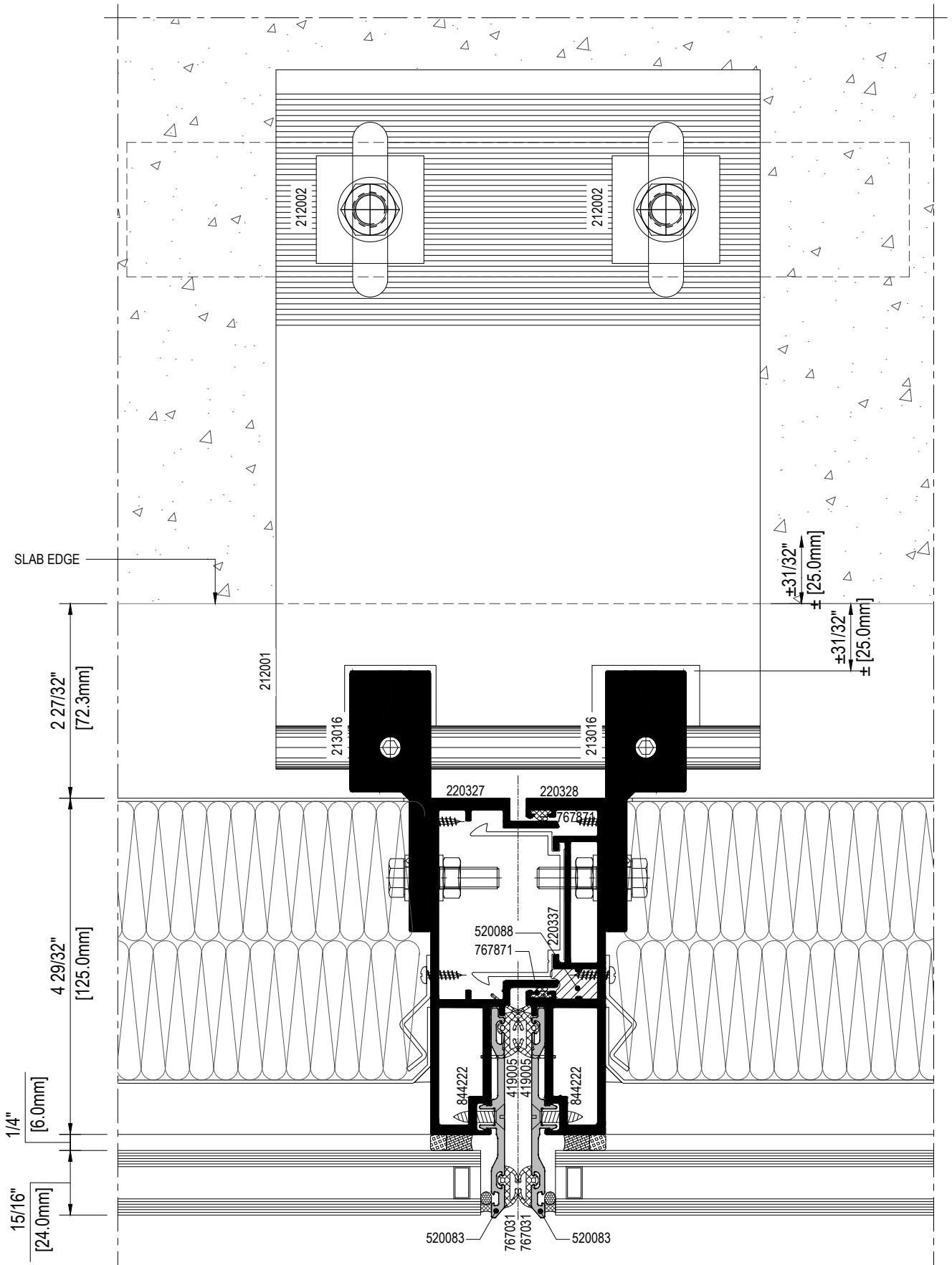
Detail-2

Typical Horizontal at Vent Window



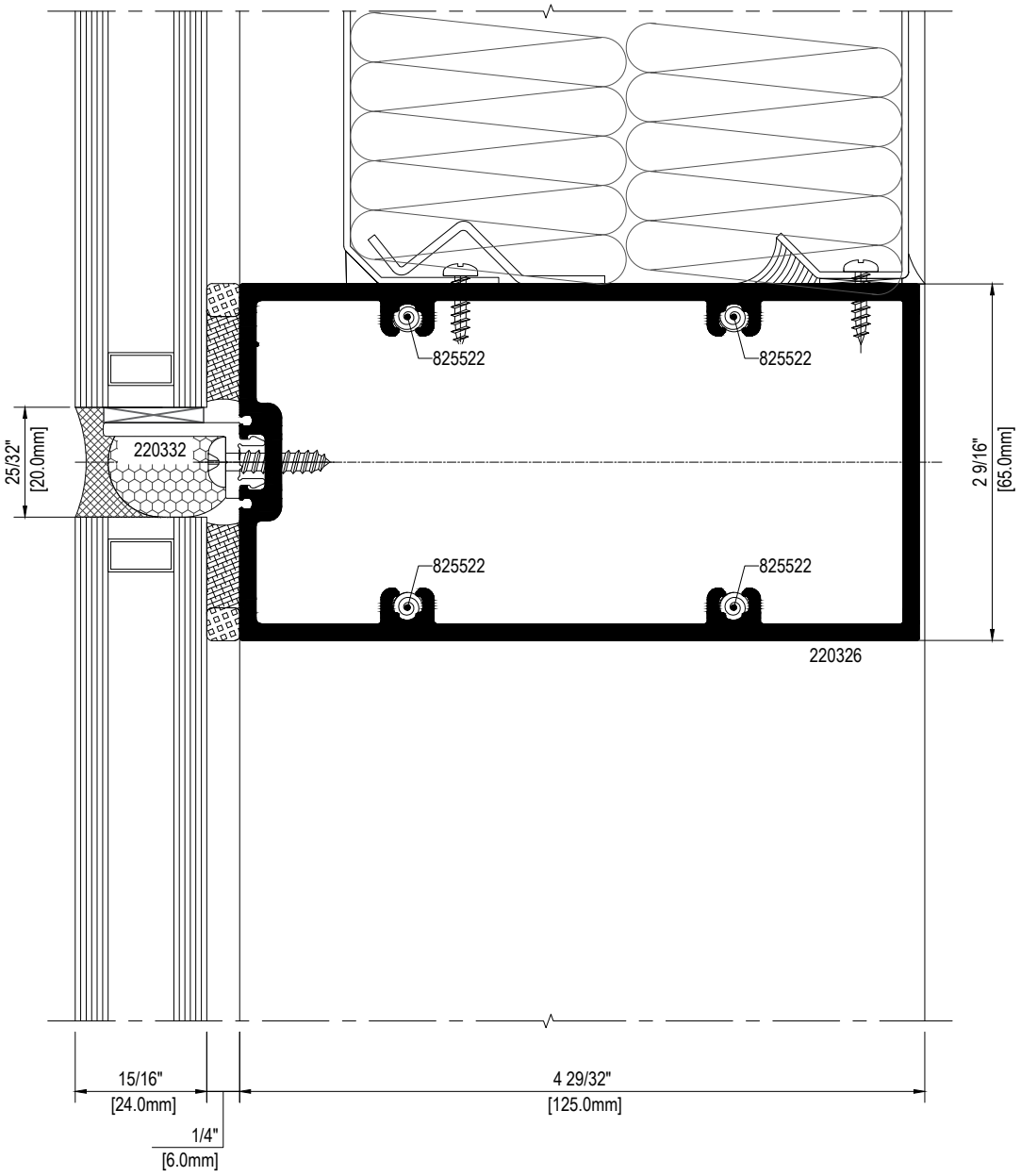
Detail-3

Typical Horizontal at Bracket Location



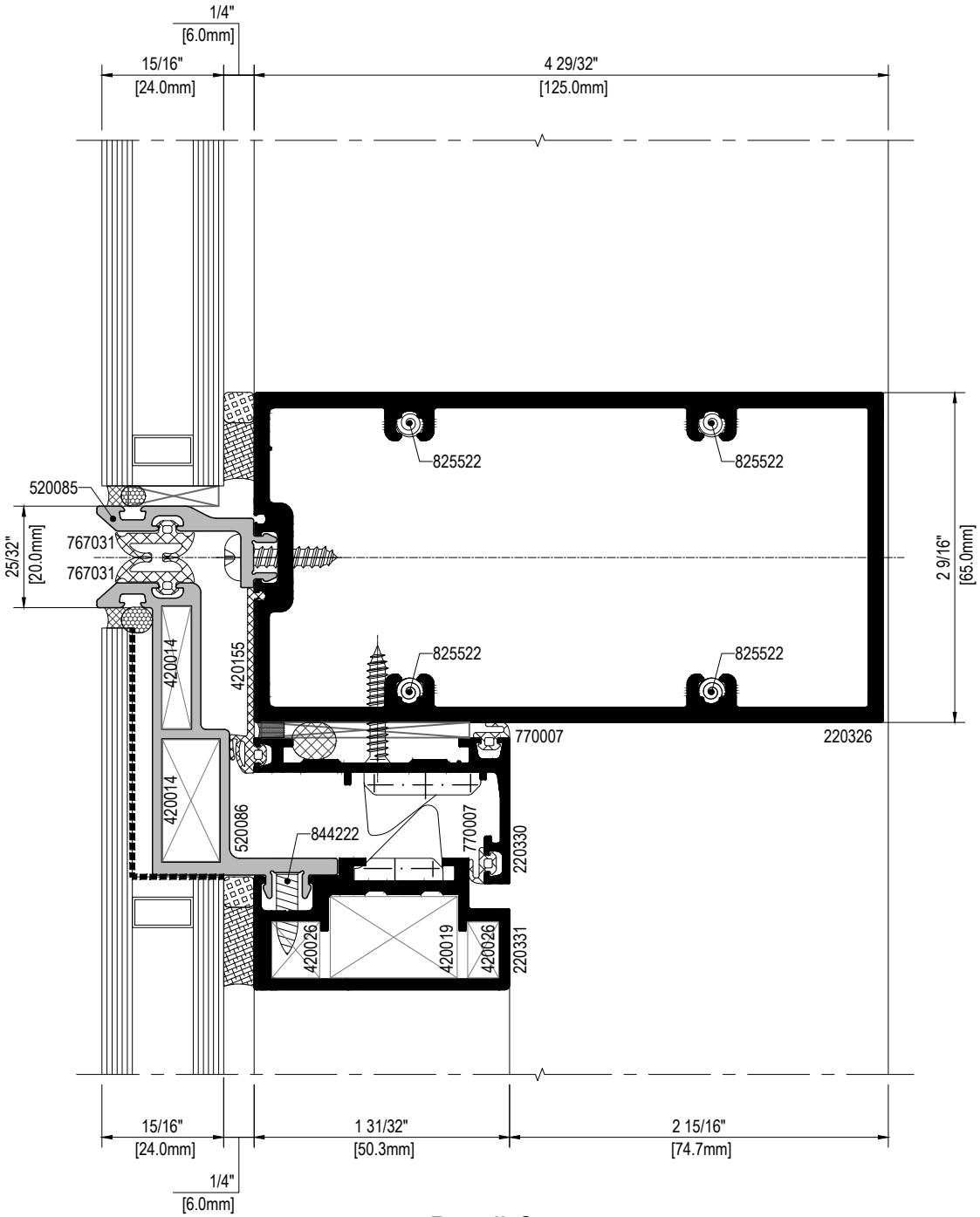
Detail-4

Typical Vertical Intermediate Transom



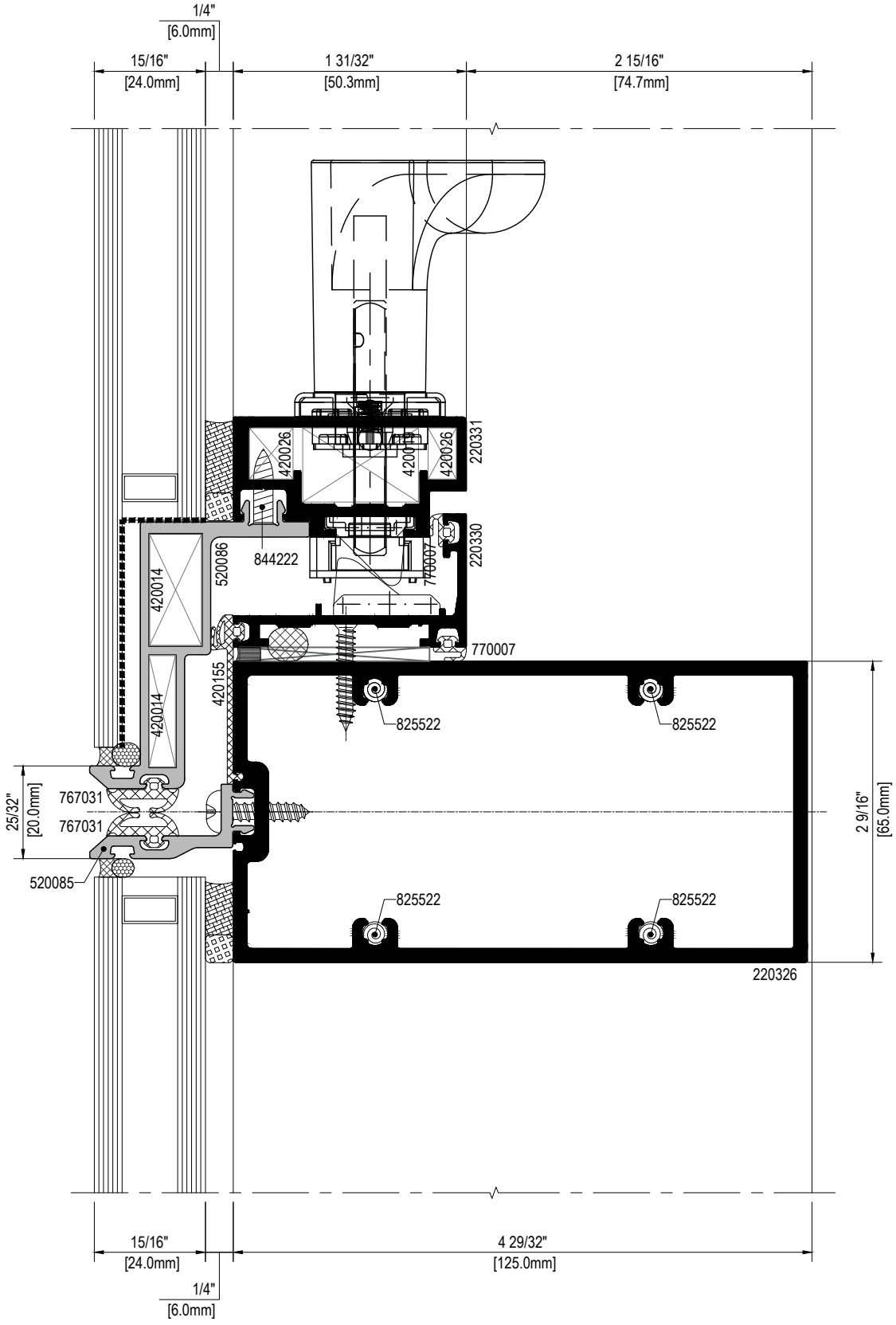
Detail-5

Typical Vertical Intermediate Transom at Vent Window



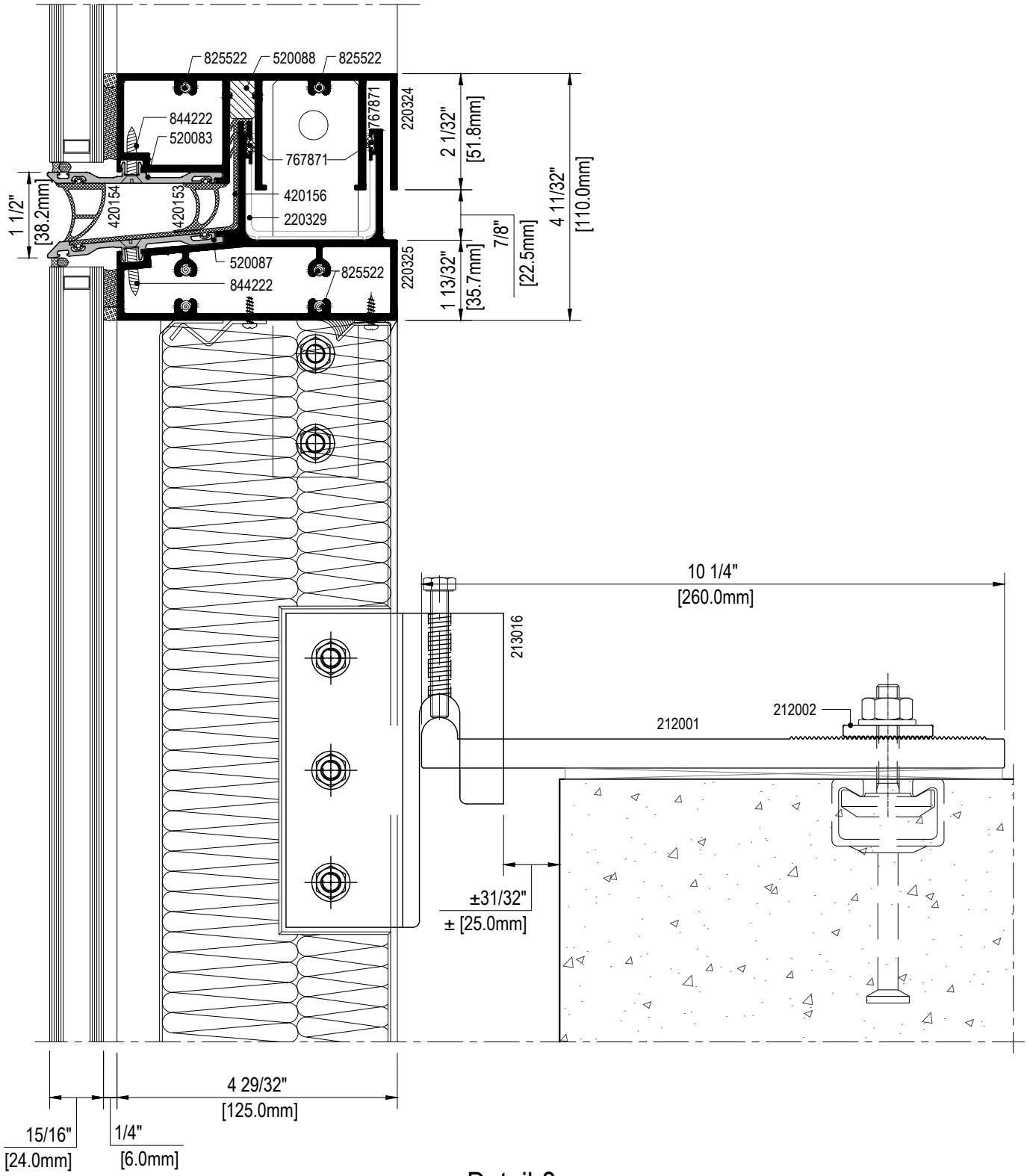
Detail-6

Typical Vertical Intermediate Transom at Vent Window



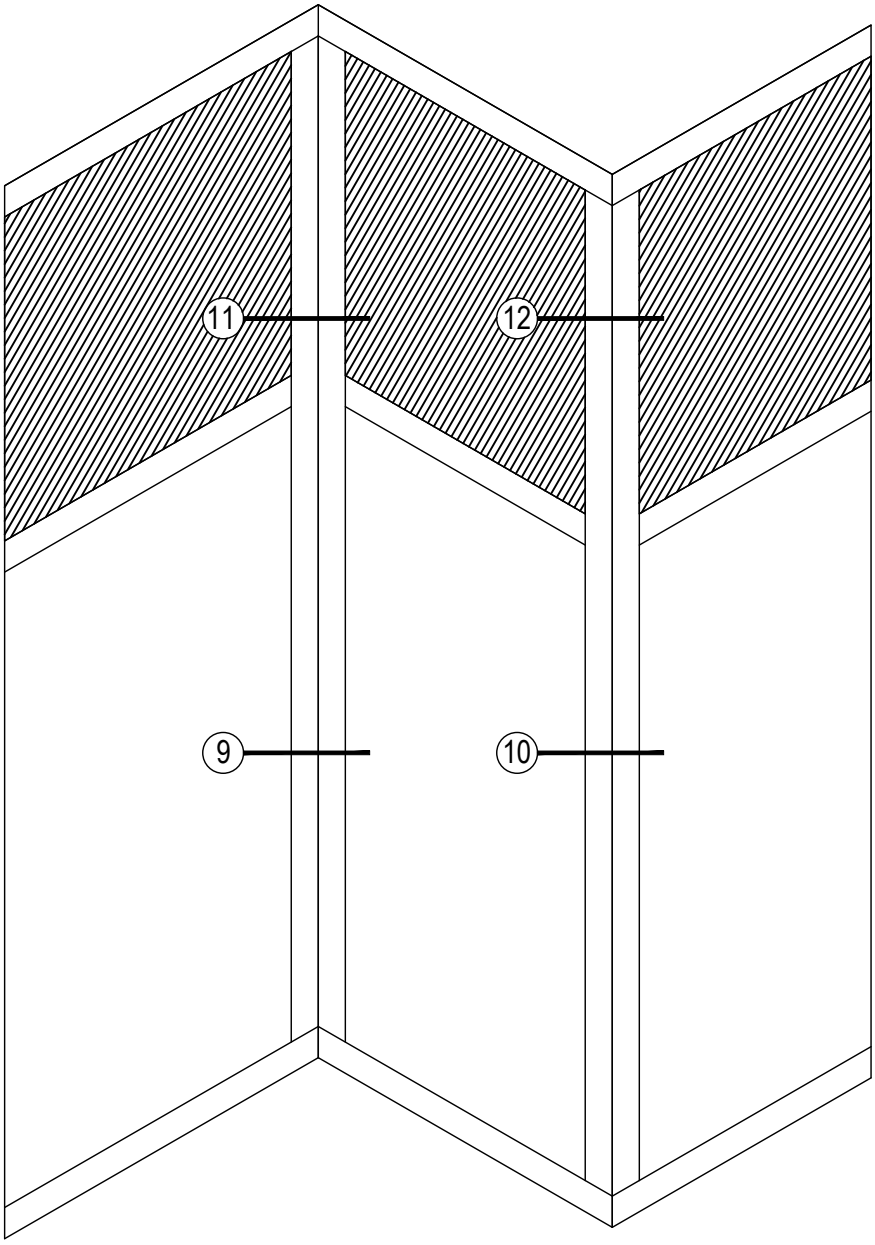
Detail-7

Typical Vertical Detail at Bracket Location



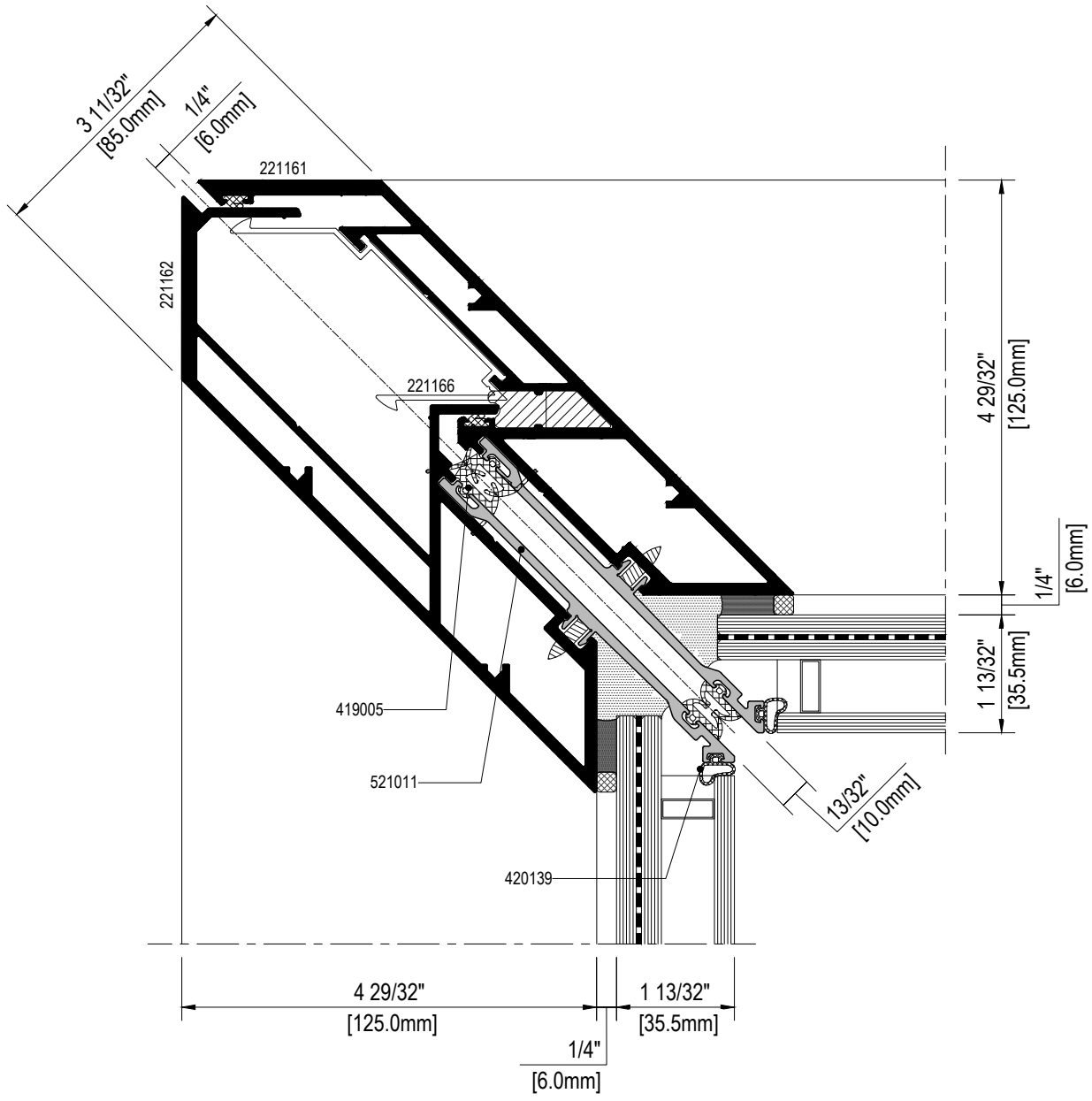
Detail-8

Key Elevation



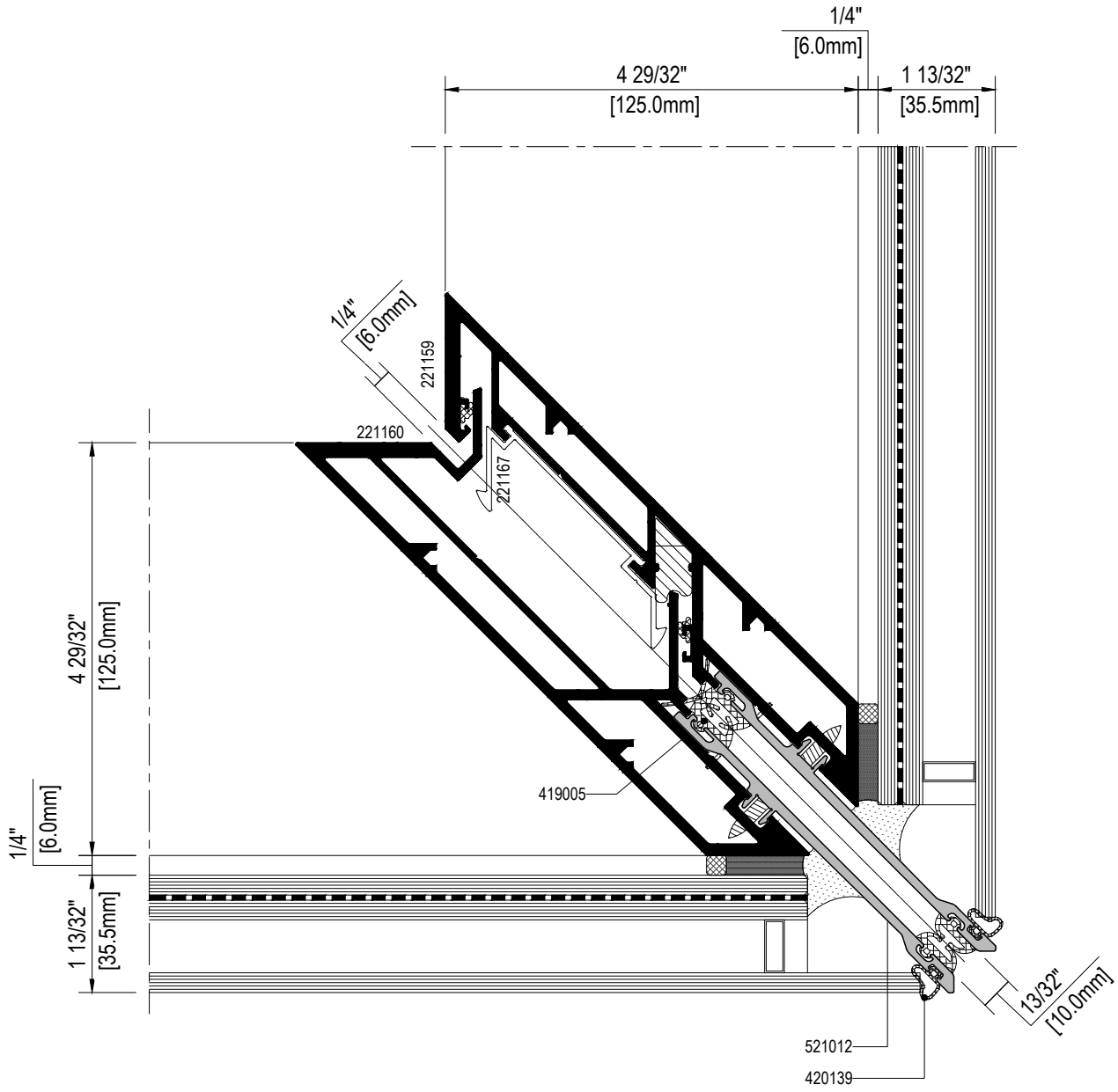
TYPICAL CORNER ELEVATION
SCALE : NTS

Typical Horizontal Inside 90° Corner Detail



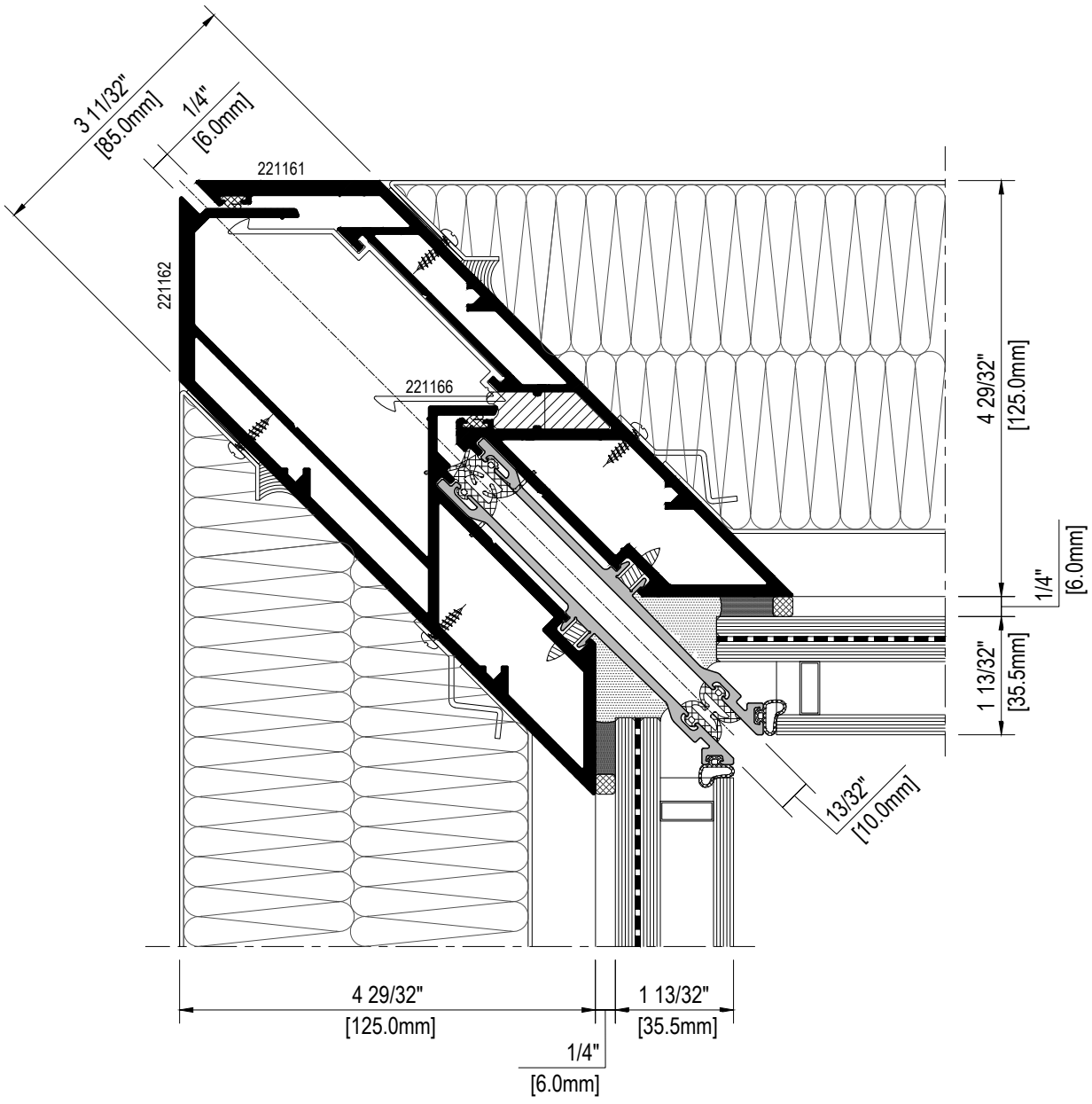
Detail-9

Typical Horizontal Outside 90° Corner Detail



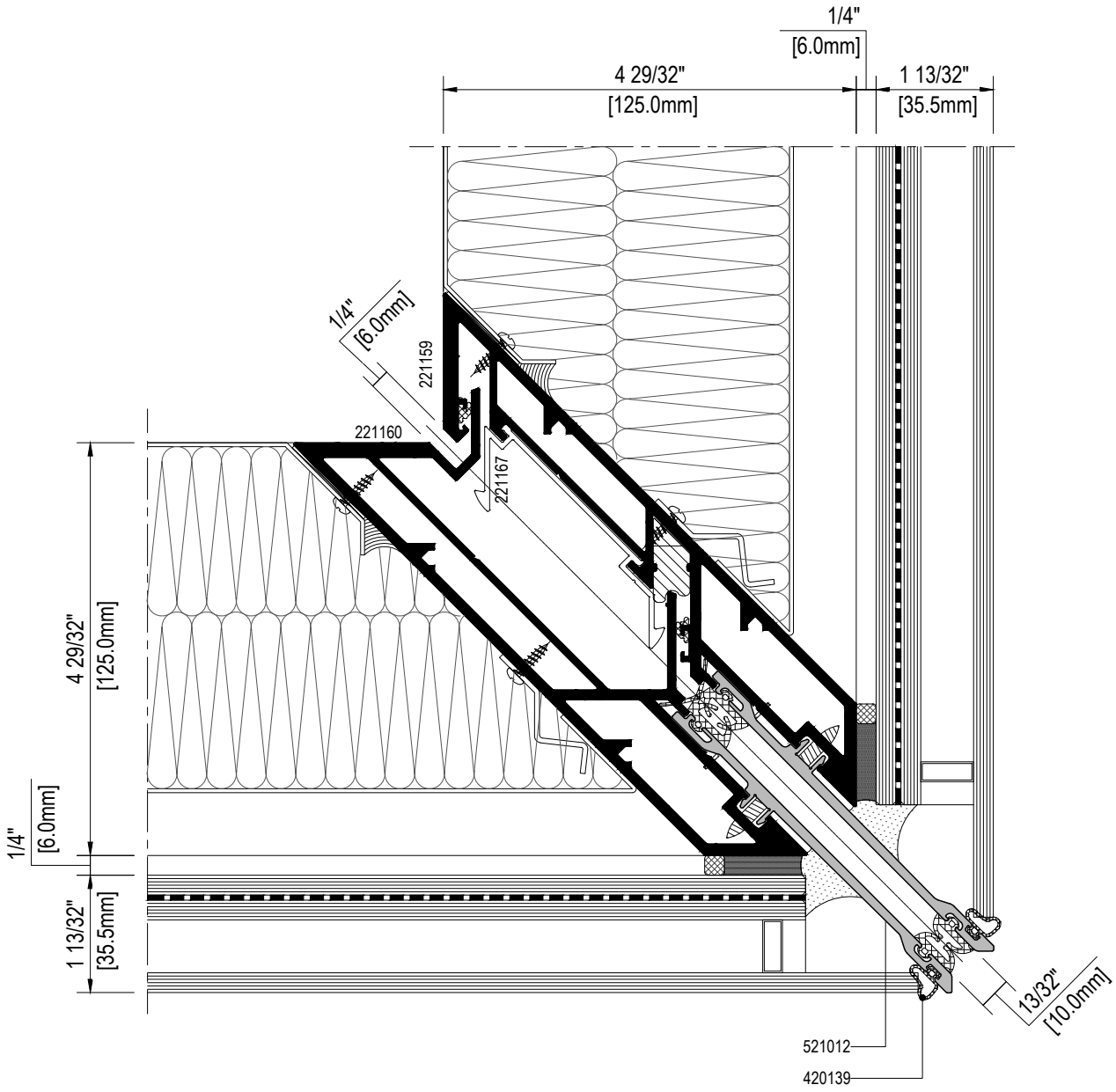
Detail-10

Typical Spandrel Horizontal Inside 90° Corner Detail



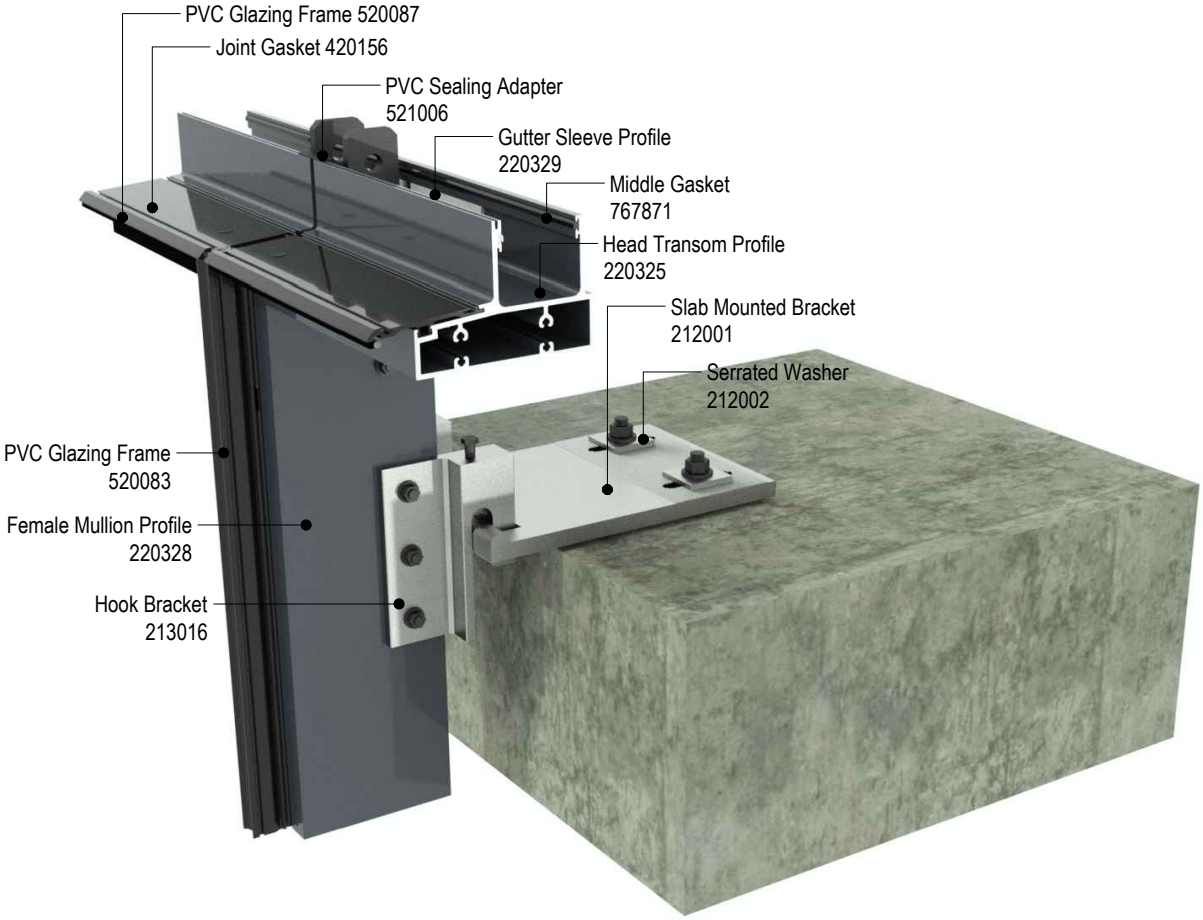
Detail-11

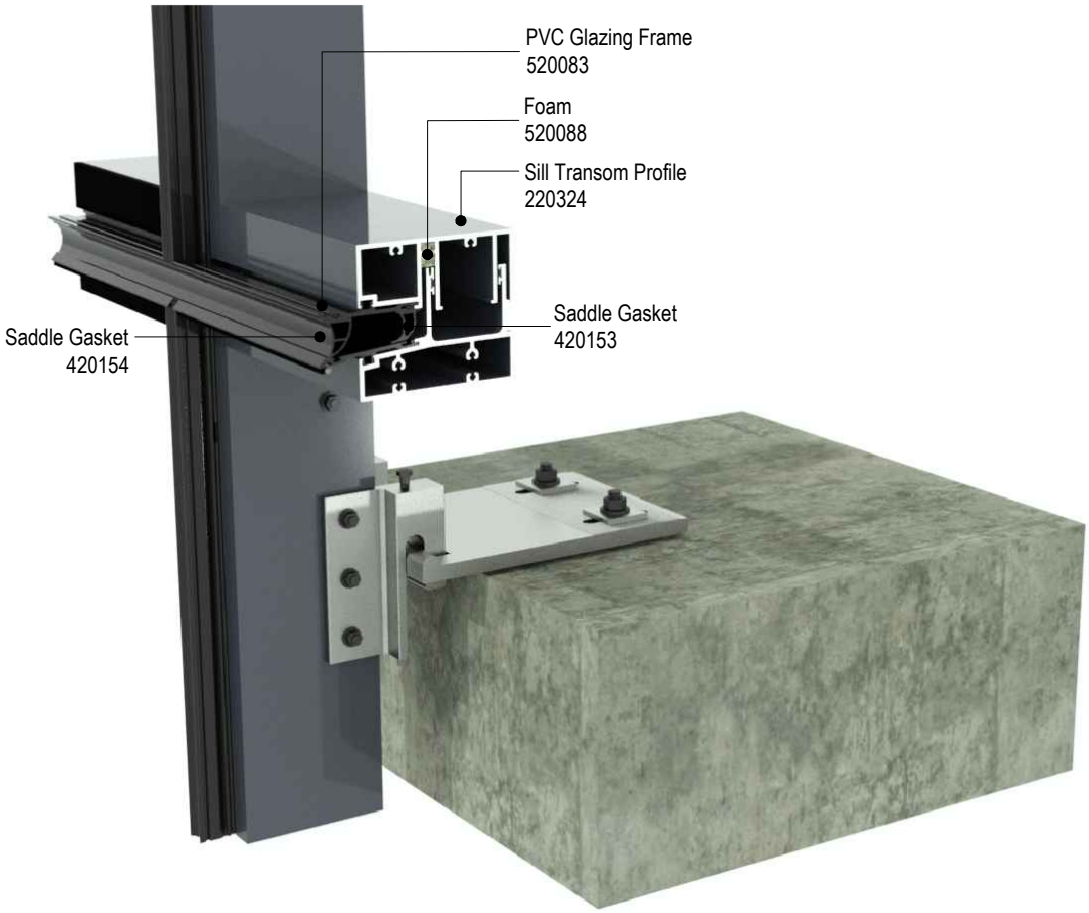
Typical Spandrel Horizontal Outside 90° Corner Detail



Detail-12

3D Perspective View

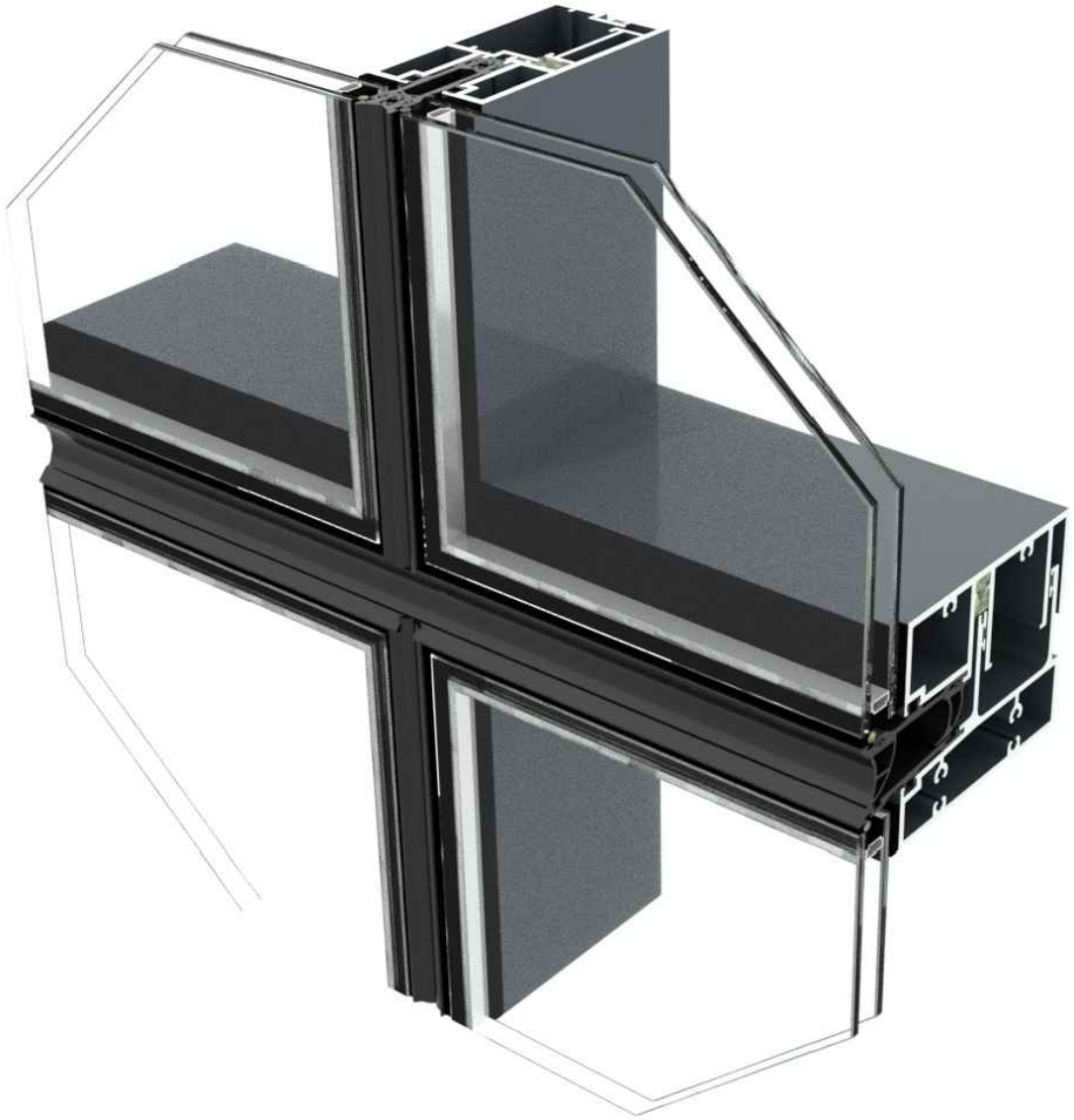




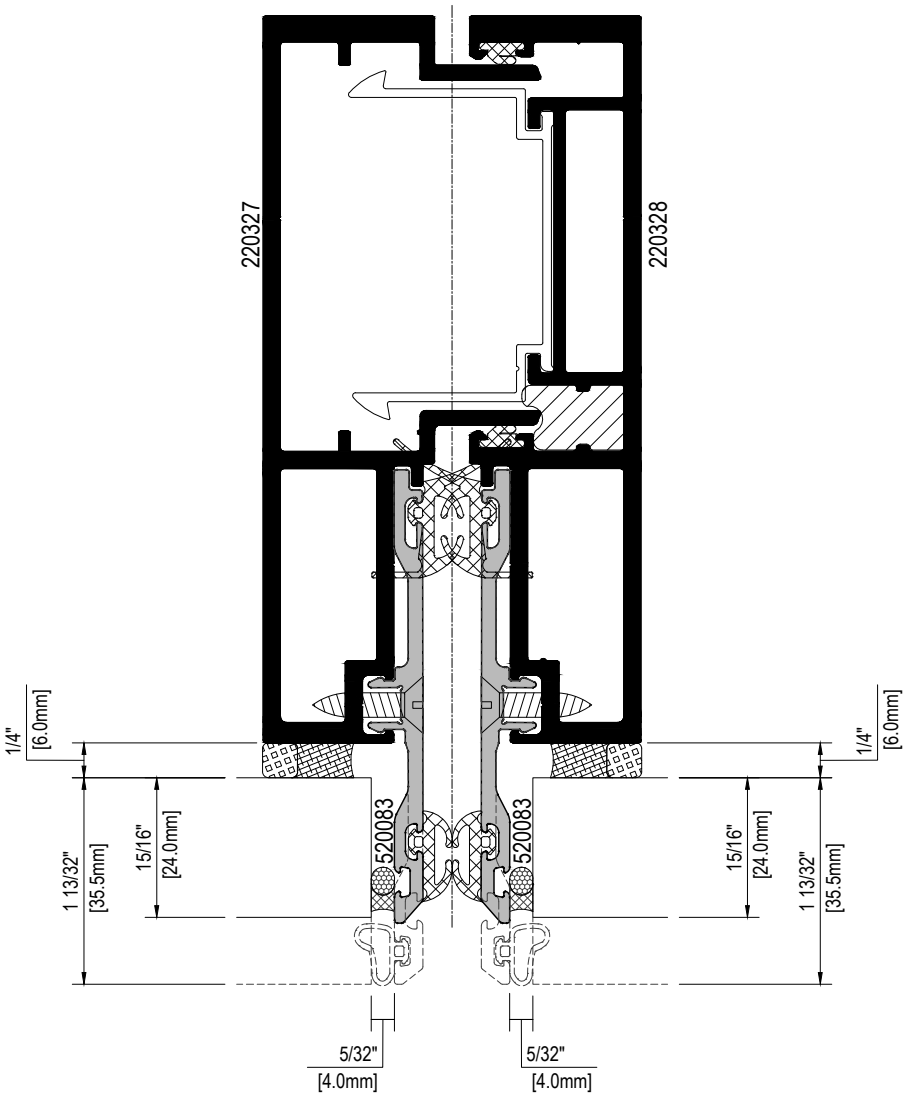
For your notes

Date

UCW65
GLAZING TABLE DETAILS



UCW65 - Glass Thickness 15/16"[24mm] & 1 13/32"[35.52mm]



Male Mullion-220327				
Filling thickness	Structural Sealant	Glazing bead no.	Outer Gasket no.	Dim.
15/16" [24mm]	**1/4" [6mm]**	**520083**	**-**	**5/32" [4mm]**
1 13/32" [35.52mm]	**1/4" [6mm]**	**521010**	**420139**	**5/32" [4mm]**

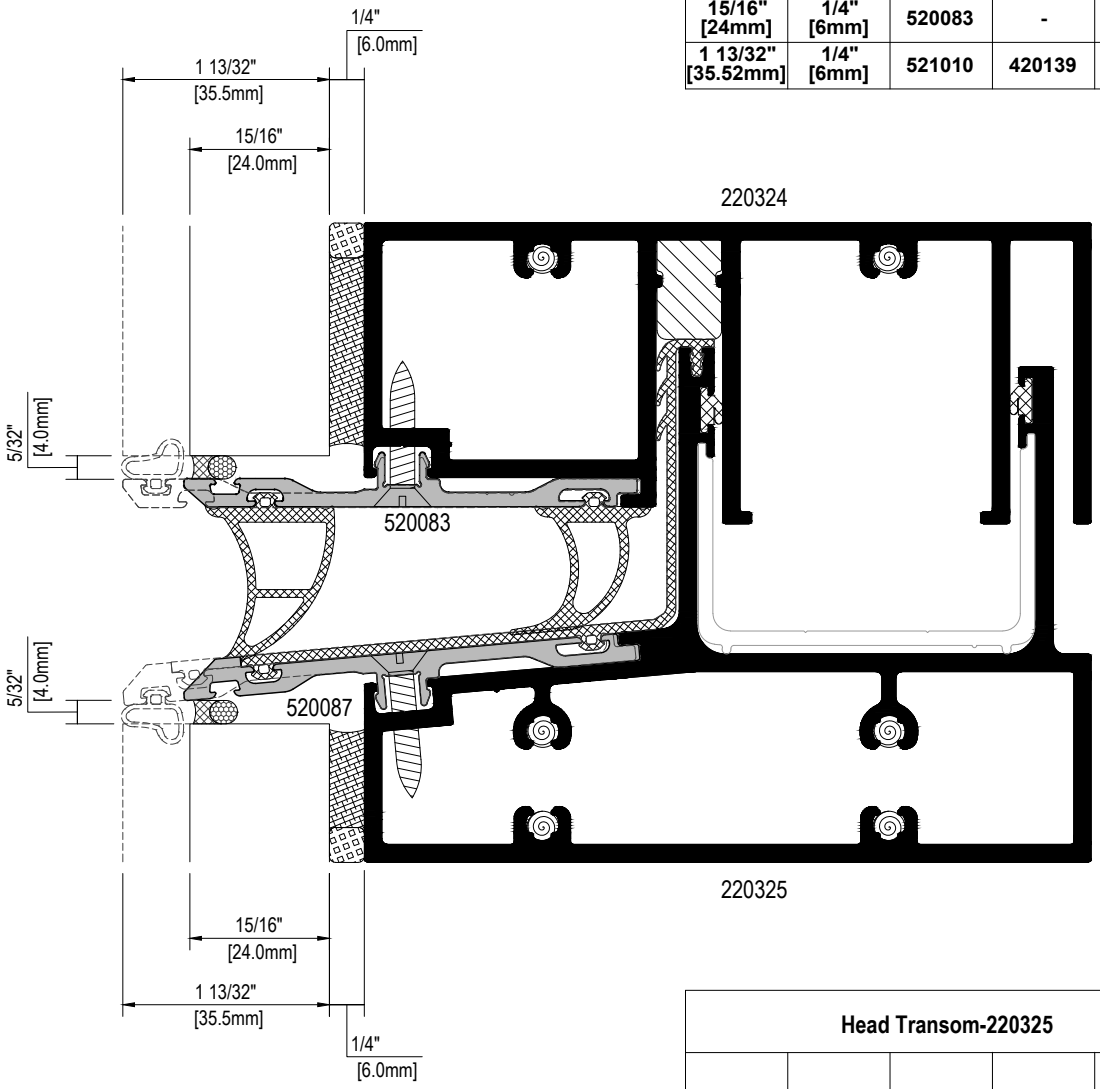
Female Mullion-220328				
Filling thickness	Structural Sealant	Glazing bead no.	Outer Gasket no.	Dim.
15/16" [24mm]	**1/4" [6mm]**	**520083**	**-**	**5/32" [4mm]**
1 13/32" [35.52mm]	**1/4" [6mm]**	**521010**	**420139**	**5/32" [4mm]**

*Note:

For Glass composition of 31/32"[25mm] to 1 11/32"[34mm] thickness,
PVC glazing bead die profile upon request.

UCW65 - Glass Thickness 15/16"[24mm] & 1 13/32"[35.52mm]

Sill Transom-220324				
Filling thickness	Structural Sealant	Glazing bead no.	Outer Gasket no.	Dim.
15/16" [24mm]	**1/4" [6mm]**	**520083**	**-**	**5/32" [4mm]**
1 13/32" [35.52mm]	**1/4" [6mm]**	**521010**	**420139**	**5/32" [4mm]**



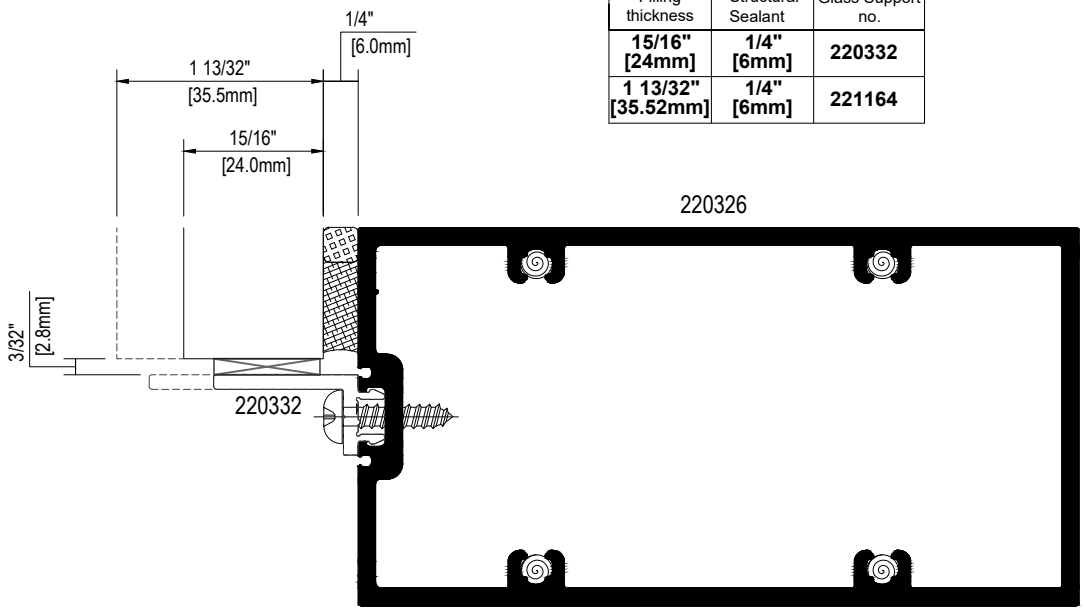
Head Transom-220325				
Filling thickness	Structural Sealant	Glazing bead no.	Outer Gasket no.	Dim.
15/16" [24mm]	**1/4" [6mm]**	**520087**	**-**	**5/32" [4mm]**
1 13/32" [35.52mm]	**1/4" [6mm]**	**521009**	**420139**	**5/32" [4mm]**

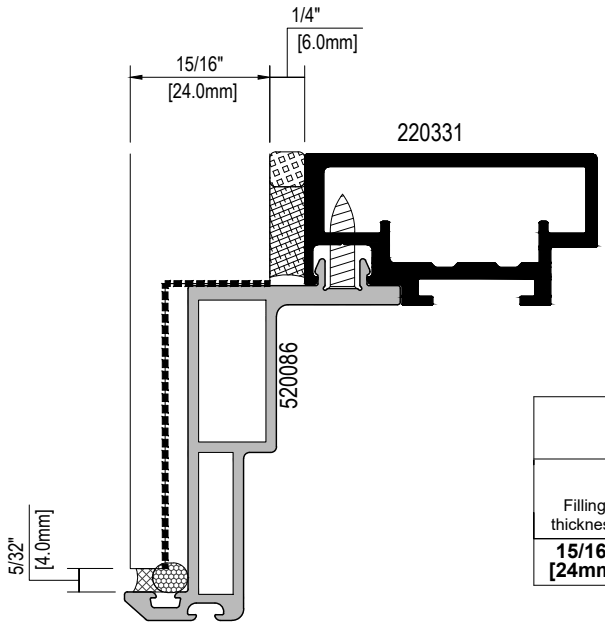
*Note:

For Glass composition of 31/32"[25mm] to 1 11/32"[34mm] thickness,
PVC glazing bead die profile upon request.

UCW65 - Glass Thickness 15/16"[24mm] & 1 13/32"[35.52mm]

Intermediate Transom 220326		
Filling thickness	Structural Sealant	Glass Support no.
15/16" [24mm]	**1/4" [6mm]**	**220332**
1 13/32" [35.52mm]	**1/4" [6mm]**	**221164**





Sash Frame 220331		
Filling thickness	Structural Sealant	Glazing bead no.
15/16" [24mm]	**1/4" [6mm]**	**520086**

*Note:

For Glass composition of 31/32"[25mm] to 1 11/32"[34mm] thickness,
PVC glazing bead die profile upon request.

For your notes

Date