TEST REPORT

REPORT NUMBER: 102589439COQ-001A
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EVALUATION CENTER
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RENDERED TO

Stella Custom Glass Hardware Inc.
#7 – 3671 Viking Way
Richmond, B.C. V6V 2J5
CANADA

Product Manufacturer:	**Stella Custom Glass Hardware Inc.**
Product Type:	**Aluminum XXXO Sliding Door**
Product Series:	**TS2**
Specification:	**AAMA/WDMA/CSA 101/I.S.2/A440-08** **AAMA/WDMA/CSA 101/I.S.2/A440-11** **A440S1-09**
Primary Designator:	**NAFS-08 and NAFS-11** **Class LC – PG35 – Size Tested 6120 x 2781 mm (241 x 109 in) – Type SD**
Secondary Designator:	**Positive Design Pressure = 1680 Pa (35.1 psf)** **Negative Design Pressure = 1680 Pa (35.1 psf)** **Water Penetration Resistance = 400 Pa (8.4 psf)** **Canadian Air Leakage Resistance: 75 Pa = A3; 300 Pa = A2**
Test Completion Date:	**September 9, 2016**

1 Table of Contents

2 Summary of Results

2.1. NAFS-08 SUMMARY

A summary of results for AAMA/WDMA/CSA 101/I.S.2/A440-08 *"Standard/Specification for windows, doors, and unit skylights"*, are as indicated in the table below:

Evaluation Property	Result
Operating Force	US – Pass; Can - Pass
Air Leakage Resistance @ 75 Pa (1.6 psf)	US – Pass; Can – A3
Air Leakage Resistance @ 300 Pa (6.4 psf)	US – Pass; Can – A2
Water Penetration Resistance	400 Pa (8.4 psf)
Uniform Load – Deflection	1680 Pa (35.1 psf)
Uniform Load – Structural	2520 Pa (52.7 psf)
Forced Entry Resistance	Gr. 20
Deglazing	Pass

Details of the tested results can be found in Section 7 of this report.

Primary and Secondary Designations are as indicated below:

TS2 Series Aluminum XXXO Sliding Door

Class LC – PG35 – Size Tested 6120 x 2781 mm (241 x 109 in) – Type SD

Secondary Designation

Positive Design Pressure = 1680 Pa (35.1 psf)
Negative Design Pressure = 1680 Pa (35.1 psf)
Water Penetration Resistance = 400 Pa (8.4 psf)
Canadian Air Leakage Resistance: 75 Pa = A3; 300 Pa = A2

2.2. NAFS-11 SUMMARY

A summary of results for AAMA/WDMA/CSA 101/I.S.2/A440-11 *"Standard/Specification for windows, doors, and unit skylights"*, are as indicated in the table below:

Evaluation Property	Result
Operating Force	US – Pass; Can - Pass
Air Leakage Resistance @ 75 Pa (1.6 psf)	US – Pass; Can – A3
Air Leakage Resistance @ 300 Pa (6.4 psf)	US – Pass; Can – A2
Water Penetration Resistance	400 Pa (8.4 psf)
Uniform Load – Deflection	1680 Pa (35.1 psf)
Uniform Load – Structural	2520 Pa (52.7 psf)
Forced Entry Resistance	Gr. 20
Deglazing	Pass

Details of the tested results can be found in Section 7 of this report.

Primary and Secondary Designations are as indicated below:

TS2 Series Aluminum XXXO Sliding Door

Class LC – PG35 – Size Tested 6120 x 2781 mm (241 x 109 in) – Type SD

Secondary Designation

Positive Design Pressure = 1680 Pa (35.1 psf)
Negative Design Pressure = 1680 Pa (35.1 psf)
Water Penetration Resistance = 400 Pa (8.4 psf)
Canadian Air Leakage Resistance = 75 Pa = A3; 300 Pa = A2

3 Introduction

Intertek Testing Services NA Ltd. (Intertek) has conducted testing for Stella Custom Glass Hardware Inc. (Stella) on a 6120 mm x 2781 mm (240.9" x 109.5") TS2 Series Aluminum XXXO Sliding Door in accordance with:

- AAMA/WDMA/CSA 101/I.S.2/ A440-08 *"Standard/Specification for windows, doors, and unit skylights"* (NAFS-08)
- AAMA/WDMA/CSA 101/I.S.2/ A440-11 *"Standard/Specification for windows, doors, and unit skylights"* (NAFS-11)
- A440S1-09 *"Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, NAFS – North American Fenestration Standard/Specification for windows, doors, and skylights"* (A440S1)

This evaluation began on June 8, 2016 and completed on September 9, 2016.

4 Test Samples

4.1. SAMPLE AND ASSEMBLY DESCRIPTION

Type (general)	• Aluminum XXXO Sliding Door
Series	• TS2

Test Fixture	• Test Buck: 2x8 LVL (sill and jambs) and 4x8 LVL (head) box w/ 2x14 LVL cladding, butt joints secured with 3x #12 x 3" deck screws. The 2x12 clad was also butt jointed together with 6x #12 x 3" deck screws and secured to the 2x8 with #12 x 3" flat head screws used in pairs, at 305 mm (12") oc.
	• The test buck was built with a rough opening approximately 1/4" larger than the sample size in width and height. Backer rod and silicone are used to seal the entire perimeter of the rough opening on the interior and exterior sides.
	• Specimen to Buck:
	  • The sill was secured with the use of a 3/4" x 3/4" x 1/8" thick aluminium angle. The aluminium angle was used along the full length of the interior side of the sill. Secured to the test buck with #8 x 1" self-tapping flat-head screws spaced 305 mm (12") o.c., and secured to the sill with #8 x 3/4" self-tapping flat-head screws spaced 305 mm (12") o.c.
	  • Each of the three head tracks were secured into the test buck by #8 x #12 x 3" pan head screws w/ washers, spaced 152 mm (6") o.c..
	  • Each jamb was secured to the test buck with the use of #10 x 2" flat-head screws. The screws were use in groups of 6, in three places along each jamb spaced approximately 1092 mm (43") o.c., and approximately 305 mm (12") from the ends of the jambs.
	  • A 5" x 8" aluminum mullion assembly is used along the length of one jamb, secured with the use of a 2" x 3" x 1/4" angle, and a 5" x 1/4" aluminum plate. The angle is secured to the mullion with #10 x 1" pan head screws used in groups of two, approximately 305 mm (12") o.c.
	  • The angle was riveted into the plate, and the plate was secured to test buck with #10 x 1" pan head screws used in groups of two (one in to the 2x8 and one in to the 2x14 buck), approximately 305 mm (12") o.c.
	• Silicone was used to seal all screw heads, and joints of the test buck.

Size	• Overall Size:
	  • Width: 6120 mm (240.9")
	  • Height: 2400 mm (109.5")

Frame	• Material: Aluminum • Reinforcement: None • The sill assembly included three black PVC tracks, full length for the middle track and one each under the two fixed slabs the length of the slab. Three 7/16" holes are present through the top of the middle track, approximately 7" from either end of track and at the astragal between the two operable doors. Each track under the fixed unit has two lengths of 1-1/8" x 3/4" x 25" black PVC solid rectangle stock, butted to either end of the tracks. Where a track is not used, a snap-in aluminium sill threshold is used to cover the sill cavity. • The head assembly includes three aluminum track profiles, with clip-on aluminum profiles on the interior and exterior face, as well as black PVC profiles between the track assemblies. Silicone was used to seal each joining profile. The interior track had a snap-in cover clip along the entire length, and the exterior track had a cover clip used where the fixed slabs were not present. • Each of the jamb profiles are the same, however the mullion side jamb has each of the three pockets covered with a snap-in cover clip, while the non-million side had a fixed slab inserted into the exterior pocket instead of the cover clip. Each cover clip has a 64 mm (2-1/2") diameter 25 mm (1") piece of foam backer rod used to fill the gap between the end of the cover clip and the jamb. • Corners: Butt Joined. Secured from the verticals in to the horizontals with the use of 6x #10 x 1-1/4" pan head self-tapping screws. Three XPS foam blocks were used at each corner of the horizontals butted up against the jambs and sealed with silicone.
Mullion	• An aluminum curtain wall mullion assembly is used on the exterior side, along the length of the left jamb. The mullion profile was not provided by Stella nor did it have any effect on the testing. The mullion was used as demonstrative purposes only. The mullion has overall dimensions of 5" x 8", consisting of a 5"x5" aluminum box, two thermal struts connecting the box to another aluminum profile with two T shaped EPDM gaskets inserted into kerfs, which also act as chases for bolts (Figure 3 in Appendix B). An aluminum plate is secured into this profile and there is an aluminum cap which snaps in over the plate. The plate is bolted to the aluminum profile with the use of 1/4" x 3/4" bolts, used in pairs, spaced 152 mm (6") o.c. • The mullion has a black PVC interlock profile with an aluminum flat stock set inside it, secured along the length of the mullion on the interior side to engage with the interlock of the adjacent fixed panel. The interlock is secured with #10 x 1-1/2" flat head self-tapping screws, spaced 102 mm (4") o.c.

Operable Sash (3x)	• Material: Aluminum
	• Corners: Mitre cut and joined with the use of a shear block. Shear block is secured to each the stile and rail from the glass opening side with the use of 4x #10 x 1-1/2" flat-head screws on each side. Each screw head is sealed with silicone. Additional 1x #10 x 1-1/2" flat-head screws are used from the outside of the slab perimeter through the rail and in to the horizontal of the shear block.
	• First Panel Size:
	  • Width: 1571 mm (61.9")
	  • Height: 2641 mm (104.0")
	• Second Panel Size:
	  • Width: 1523 mm (60.0")
	  • Height: 2641 mm (104.0")

	• Third Panel Size:
	  • Width: 1523 mm (60.0")
	  • Height: 2641 mm (104.0")
	• A black PVC interlock profile is used along the stile that meets the fixed sash, secured with #8 x 1" self-tapping pan head screws, spaced approximately 305 mm (12") o.c. The length of the interlock is also adhered to the length of the aluminum with two lengths of black foam double sided tape, 1/4" wide.
	• The top of the exposed edge of the interlock stile has a 1/2" thick plate of UHMW plastic used, 2-1/4" x 2-3/4", secured with 4x #10 x 1-1/4" self-tapping pan head screws.
	• The bottom of the exposed edge of the interlock stile has a 1/4" thick aluminum plate used with overall dimensions of 2-1/4" x 2-3/4" cut with a notch to fit over the track profile. Secured with 2x #10 x 1-1/2" self-tapping flat head screws. 4x strips of mohair weather-stripping are adhered to the plate, oriented vertically, 2x on the outside, and 2x sandwiched between the plate and the stile.
	• An aluminum astragal profile is used along the locking stile of the secondary panel. Secured to the edge of the stile with 8x #10 x 1" flat head screws. The astragal is sealed to the sash along the exterior edge with silicone
	• The operable slab with the mullion has an additional interlock profile with the use of an aluminium flat stock set inside it used along the jamb side to engage with the interlock of the mullion. Secured along the stile of the sash with #10 x 1-1/2" flat head self-tapping screws, spaced 102 mm (4") o.c. The length of the interlock is also adhered to the length of the aluminum with two lengths of black foam double sided tape, 1/4" wide.
	• The top of the exposed edge of the interlock stile has a 1/4" thick aluminium plate used, cut to be inserted and to fill the gap of the track profile. The top section that is inserted into the track has a 1/4" wide plastic secured to the aluminum, and two full perimeters of a mohair weather-stripping with centre fin is adhered to the aluminium and plastic. The aluminium plate is secured with 2x #10 x 1-1/4" self-tapping pan head screws.

Fixed Sash	• Material: Aluminum
	• Corners: Mitre cut and joined with the use of a shear block. Shear block is secured to each the stile and rail from the glass opening side with the use of 4x #10 x 1-1/2" flat-head screws on each side. Each screw head is sealed with silicone. Additional 2x #10 x 1-1/2" flat-head screws are used from the outside of the slab perimeter through the rail and in to the horizontal of the shear block.
	• Panel Size:
	  • Width: 1571 mm (61.9")
	  • Height: 2641 mm (104.0")
	• A black PVC interlock profile is used along the stile that meets the operable sash, secured with #8 x 1" self-tapping pan head screws, spaced approximately 305 mm (12") o.c. with a black PVC cap over top of the screws. The length of the interlock is also adhered to the length of the aluminum with two lengths of black foam double sided tape, 1/4" wide.
	• The sash on the non-mullion side is secured in place through the jamb side stile and in to the jamb and test buck with 2x #12 x 3" screws, centered approximately 406 mm (16") from the top and bottom of the sash.

Lock and Rollers	• Locking plate with deadbolt activator on the primary panel secured to the locking stile with 3x #8 x 1" screws. Locking point is centered 1270 mm (50") from the bottom of the slab. • A handle is used on each operable slab, secured from the interior to itself on the exterior. The bottom of the handle is positioned 940 mm (37") from the bottom of the slab

	• Each operable slab and the fixed on the mullion side have two roller assemblies attached to the top rail, each assembly consisting of 4 rollers. A 1/4" thick aluminum plate is slotted into the top rail profile, and secured with 1x #10 x 1-1/2" screw. The plate has a hole that the roller assembly bolt is secured to, and the top rail thermal break is drilled to allow the bolt to pass through.

Drainage	• The aluminum sill has 7x drains through two locations of the sill profile, through the exterior face and through the first tower closest to the exterior. The drain through the exterior face is approximately 1" wide, 1/4" tall fit with a weep hole cover which is sealed in place with silicone. The drain through the tower is three 5/16" holes adjacent to one another. From the mullion side edge of the sill, the drains are centered approximately 254 mm (10"), 965 mm (38"), 1994 mm (78-1/2"), 2934 mm (115-1/2"), 3874 mm (152-1/2"), 4814 mm (189-1/2"), 5702 mm (224-1/2").
	• The PVC track under the fixed sashes has 1" long notches through the vertical feet and part of the horizontal edge of the exterior side. The drain notches are in two locations, centered 305 mm (12") from the jamb and 102 mm (4") from the interlock. An additional notch is used at the mid-point, only through the vertical, not the horizontal.
	• The track for the operable sashes has notches through the feet, holes through the verticals on top of the horizontal and holes down through the exterior side of the horizontal.
	  • The notches through the interior side foot are 1" x 1/4", and centered approximately 584 mm (23"), 1435 mm (56-1/2"), 2184 mm (86") and 2934 mm (115-1/2") from the mullion side end of the track, and 483 mm (19"), 1200 mm (47-1/4"), 2019 mm (79-1/2") and 2864 mm (112-3/4") from the non-mullion side end of the track.
	  • The notches through the exterior side foot are 1" x 1/4", and centered approximately 178 mm (7"), 1016 mm (40"), 1835 mm (72-1/4") and 2559 mm (100-3/4") from the mullion side end of the track, and 108 mm (4-1/4"), 851 mm (33-1/2"), 1594 mm (62-3/4") and 2451 mm (96-1/2") from the non-mullion side end of the track
	  • The holes through the interior side vertical on top of the horizontal are 5/16" diameter. Centered 749 mm (29-1/2") and 2248 mm (88-1/2") from the mullion side end of the track, and 635 mm (25") and 2292 mm (90-1/4") from the non-mullion side end of the track.
	  • The holes through the exterior side vertical on top of the horizontal are 5/16" diameter. Centered 108 mm (4-1/4") and 1549 mm (61") from the mullion side end of the track, and 1568 mm (61-3/4") and 2972 mm (117") from the non-mullion side end of the track.
	  • The holes through the exterior side horizontal are 1/4" diameter. Centered 921 mm (36-1/4") and 2457 mm (96-3/4") from the mullion side end of the track, and 114 mm (4-1/2"), 851 mm (33-1/2") and 2610 mm (102-3/4") from the non-mullion side end of the track.

Weather-stripping	• Each sash pocket of the frame has 2x full perimeters of weather-stripping, one interior facing and one exterior facing so they both contact the sash.
	  • Along the jambs the weather-stripping does not have a fin (Figure 22 in Appendix B).
	  • Along the sill, pile weather-stripping with a fin (Figure 23 in Appendix B). Except a rubber fin seal (Figure 24 in Appendix B), is used on the exterior side of the middle, operable sash pocket, as well as along the length of the fixed slab on the mullion side.
	• The sill has additional pile weather-stripping along the PVC tracks (Figure 23 in Appendix B).

	• The head assembly has pile weather-stripping on the snap-on aluminum and PVC carriers. The exterior side aluminum has no fin (Figure 25 in Appendix B). The interior side aluminum has a center fin (Figure 26 in Appendix B), and the pvc carrier has two different piles, each with a fin (Figure 27 in Appendix B). Except a rubber fin seal (Figure 24 in Appendix B) is used on the exterior side of the middle, operable sash pocket, as well as along only the length of the fixed slab on the mullion side. • Each sash has kerf inserted pile weather-stripping along the full length of the bottom rail, along the exterior and also along the interior side (Figure 28 in Appendix B). • Each sash has a piece of 3/8" black closed cell foam, the width of the sash, cut on a 45° angle on top of the sash interlock stile, positioned to deflect water to the exterior (Figure 21 in Appendix B). • The operable sashes with the aluminum plate on the bottom of the interlock profile each have four lengths of adhesive backed pile weather-stripping without a fin (Figure 29 in Appendix B). • Top of sash fin seal (Figure 24 in Appendix B). • Each interlock has three lengths of weather-stripping. The exterior face has two lengths of pile with center fin (Figure 30 in Appendix B), and inside the interlock is a hollow rubber bulb seal (Figure 9 in Appendix B). • At the top of the mullion, above where the interlock ends, there is a vertical 6" length of 3/8" x 2" closed cell black foam gasket adhered to the aluminum. On the other side of the same joint, there are two horizontal 6" lengths of 3/8" x 2" closed cell black foam gasket adhered to the snap-on aluminum profile along the exterior of the head (Figure 20 in Appendix B. • The primary sash has a foam filled vinyl wrapped kerf inserted weather-stripping along the exterior side of the locking stile (Figure 31 in Appendix B). • The secondary sash has a foam kerf inserted weather-stripping along the interior side of the locking stile (Figure 32 in Appendix B). • The astragal along the secondary sash has a pile weather-stripping with center fin and hollow bulb weather-stripping (Figure 10 in Appendix B).

Glazing (4x)	• IGU specification:
	  • 6 mm / 6 mm clear tempered with a 12 mm (1/2") aluminum spacer bar with loose fill desiccant, sealed together using hot melt butyl.
	  • Overall thickness, 25 mm (1")
	  • Laid-in, interior dry glazed on top of an EPDM gasket, glazing stop on interior side with an EPDM gasket (Figure 33 in Appendix B). All gasket corners sealed with silicone.
	  • The entire perimeter of the glass unit is sealed in the setting block cavity with the use of a backer rod and silicone.
	• Glazing Blocks: 2x 5 mm (3/16") thick setting blocks, 25 mm (1") wide, 152 mm (6") long under the glass unit, centered approximately 178 mm (7") from either edge of glass.

Drawings	• Drawing package supplied by Stella can be found in Appendix A.

5 Testing and Evaluation Methods

5.1. OPERATING FORCE

The Operating Force test was performed on the sash and latch in accordance with ASTM 2068. The forces required initiate motion of the operable panel from both the fully open and fully closed positions, as well as the force required to maintain motion to the opposite limits of travel, were measured. The forces required to open and close the latches were also recorded.

5.2. AIR LEAKAGE RESISTANCE

The Air Leakage Resistance test was performed in accordance with ASTM E283-04(2012), *"Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen"*. Air infiltration and exfiltration tests were performed using test pressures of 75 Pa (1.57 psf) and 300 Pa (6.28 psf). The maximum air leakage rate was calculated and compared to the allowable air leakage.

5.3. WATER PENETRATION RESISTANCE

A four-cycle Water Penetration Resistance test was performed in accordance with ASTM E547-00(2016) *"Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Air Pressure Difference"* (ASTM E547). The test was performed using the specified pressure differential and a water spray rate of at least 204 L/m^2 per hour (5.0 U.S. gal/ft^2 per hour). Each cycle consisted of five minutes with the pressure applied and one minute with the pressure released, during which the water spray was continuously applied.

5.4. UNIFORM LOAD DEFLECTION

The Uniform Load Deflection tests were conducted in accordance with ASTM E330-02(2010) *"Standard Test Method for Structural Performance of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference"* (ASTM E330), Procedure A. The tests were performed in both the positive and negative directions. After a 10 second preload (50% of the test load), followed by 1 minute with the pressure released, the tests were conducted at the specified test pressure for a period of 10 seconds. Deflections were measured at the mid-span and at the ends. The end deflections were averaged and subtracted from the mid-span deflection (to eliminate deflections caused by movement at the ends of the structural supporting members). Polyethylene film was used during the positive wind pressure sequences.

5.5. UNIFORM LOAD STRUCTURAL

The Uniform Load Structural tests were conducted in accordance with ASTM E330-02(2010) *"Standard Test Method for Structural Performance of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference"* (ASTM E330), Procedure A. After a 10 second preload (50% of test load), followed by 1 minute with the pressure released, the sample was subjected to a Uniform Load Structural test using a specified test pressure for a time of 10 seconds. The test was performed in both the positive and negative directions. After the test loads were released, the permanent deflections were recorded and the specimen was inspected for failure or permanent deformation of any part of the system that would cause any operational malfunction. Polyethylene film was used during the positive wind pressure sequences.

5.6. FORCED ENTRY RESISTANCE

The Forced-entry Resistance Test was conducted in accordance with ASTM F842-14 *"Standard Test Methods for Measuring the Forced Entry Resistance of Sliding Door Assemblies, Excluding Glazing Impact"*. This included the Disassembly, Sash Manipulation, Lock Hardware Manipulation, and Assembly Tests.

5.7. DEGLAZING TEST

The deglazing test was conducted in accordance with Section 5.3.6.3 of NAFS-08 and Section 9.3.6.3 of NAFS-11. After the test loads were removed, the specimen was inspected for any damage that would inhibit the normal operation of the system.

5.8. INSECT SCREEN SERVICEABILITY TEST

Testing not applicable.

5.9. DEVIATION FROM STANDARD METHOD

There were no noted deviations from the test standards used in the evaluation reported herein.

6 Test Apparatus

Equipment used during testing is listed as follows:

Test	Equipment	Intertek ID#
Air Leakage Resistance, Water Penetration Resistance, and Uniform Load Deflection / Structural	Fenestration Testing Control Unit	60650
	Water spray assembly	60651
		60652
		60653
	20" Line Gauge	64919
		64920
		64921
Forced-entry Resistance	5000 lbs Load Cell	P60691
	1000 lbs Load Cell	P60688
		P60689
	200 lbs Load Cell	P60687
Deglazing	1000 lbs Load Cell	P60688
	Mitutoyo Digital Deflection Gauge	P60175

7 Testing and Evaluation Methods

7.1. OPERATING FORCE

The forces required to open and close the sash were measured as follows:

Initiate Opening:	129.6 N (29.1 lbs)	Initiate Closing:	128.2 N (28.8 lbs)
Maintain Opening:	69.0 N (15.5 lbs)	Maintain Closing:	78.0 N (17.5 lbs)
Latch Opening:	N/A	Latch Closing:	N/A

Maximum allowable force to initiate motion:	135 N (30 lbs)
Maximum allowable force to maintain motion:	90 N (20 lbs)
Maximum allowable force to open and close latch:	100 N (22 lbs)

The tested specimen **MET** the performance requirements of NAFS-08, NAFS-11 and A440S1 for Operating Force.

7.2. AIR LEAKAGE RESISTANCE

Air test data is indicated in the following table:

Overall Assembly (75 Pa)	
Area:	17.02 m^2, 183.20 ft^2
Infiltration rate:	0.34 L/s*m^2, 0.07 cfm/ft^2
Exfiltration rate:	0.35 L/s*m^2, 0.07 cfm/ft^2
Overall Assembly (300 Pa)	
Area:	17.02 m^2, 183.20 ft^2
Infiltration rate:	1.11 L/s*m^2, 0.22 cfm/ft^2
Exfiltration rate:	1.07 L/s*m^2, 0.21 cfm/ft^2
Allowable Leakage Rates	
Maximum allowable air leakage rate (US):	1.5 L/s*m^2, 0.3 cfm/ft^2
Maximum allowable air leakage rate (CAN – A3):	0.5 L/s*m^2, 0.1 cfm/ft^2
Maximum allowable air leakage rate (CAN – A2):	1.5 L/s*m^2, 0.3 cfm/ft^2

The overall system **met** the US performance requirements as well as the **A3 (75 Pa)** and **A2 (300 Pa)** Canadian performance requirements when evaluated under NAFS-08, NAFS-11 and A440S1.

7.3. WATER PENETRATION RESISTANCE

During the 24-minute test period, using a pressure differential of 400 Pa (8.4 psf), there was no water leakage observed. The system **met** the **(Can) PG55** Water Penetration Resistance performance requirements under NAFS-08, NAFS-11 and A440S1.

7.4. UNIFORM LOAD DEFLECTION

Uniform Load Deflection data:

Test Pressure, Pa (psf)	Deflection Measurements, mm (in.)				Compliance
	Positive		Negative		
	Deflection	*Residual*	*Deflection*	*Residual*	
1680 (35.1)	24.42 (0.96)	1.14 (0.04)	23.27 (0.92)	1.42 (0.06)	Pass **DP35**
Astragal span, L = 2490 mm (98.03")			Deflection limit, L/175 = N/A		

After the test loads were released, the specimen was inspected and there was found to be no failure or permanent deformation of any part of the system that would cause any operational malfunction. The system **met** the **DP35** Uniform Load Deflection performance requirements under NAFS-08 and NAFS-11.

7.5. UNIFORM LOAD STRUCTURAL

Uniform Load Structural data:

Test Pressure, Pa (psf)	Residual Deflection Measurements, mm (in.)		Compliance
	Positive	Negative	
2520 (52.6)	5.92 (0.23)	4.62 (0.18)	Pass **DP35**
Astragal span, L = 2290 mm (90.16")		Residual deflection limit, L*0.4% = 9.16 mm (0.36")	

After the test loads were released, the specimen was inspected and there was found to be no failure or permanent deformation of any part of the system that would cause any operational malfunction. The system **met** the overall **DP35** Uniform Load Structural performance requirements under NAFS-08 and NAFS-11.

7.6. FORCED ENTRY RESISTANCE

Attempts to gain entry by opening the glazing panel, in accordance with the Disassembly and Sash Manipulation tests for a Type A assembly, were unsuccessful. The system met the **Grade 20** Forced-entry Resistance performance requirements of NAFS-08 and NAFS-11.

7.7. DEGLAZING TEST

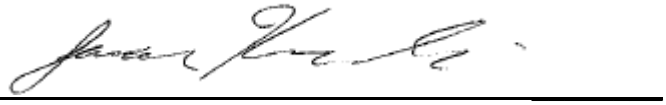
	Vertical (Interlock Stile)	Horizontal (Bottom Rail)
Load, N	320	230
Deflection, mm	1.44	0.83
Allowable, mm	9 mm	

After the test loads were removed, the specimen was inspected for any damage that would inhibit the normal operation of the system. The tested specimen **met** the performance requirements of NAFS-08 and NAFS-11.

8 Conclusion

The TS2 Series Aluminum XXXO Sliding Door tested and described herein achieved the overall performance requirements for Class LC – PG35 when tested in accordance with NAFS-08, NAFS-11 and A440S1.

INTERTEK TESTING SERVICES NA LTD.

Reported by: 

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Riccardo DeSantis
Manager – Building Products

APPENDIX A

Drawings – 16 Pages

STELLA TS2 INTERTEK

RICHMOND, BC

TOP HUNG SLIDING DOORS AND TRANSOM

GENERAL NOTES:

1. THESE DRAWINGS REPRESENT STELLA GLASS HARDWARE'S INTERPRETATION OF THE FUNCTIONAL COMPLIANCE WITH THE ARCHITECT'S DRAWINGS AND SPECIFICATIONS. IT IS IMPORTANT THAT THE INTERPRETATION BE REVIEWED DIMENSIONALLY AND FUNCTIONALLY WITH RESPECT TO THE ACTUAL ARCHITECTURAL INTENT, INTERFACING CONDITIONS, AND MATERIALS.
2. GENERAL CONTRACTOR MUST PROVIDE ROUGH OPENINGS WHICH ARE TO BE SQUARE AND WITHIN BUILDING TOLERANCES, AS WELL AS VERIFY ALL REFERENCE AND ANCHOR LOCATION DIMENSIONS. STELLA WILL ASSUME ALL DRAWINGS ARE CORRECT AS DRAWN IF THE ABOVE NOTES & SIMILAR NOTES THROUGHOUT THE DRAWING ARE NOT ADDRESSED.
3. THE BUILDING STRUCTURE AND COMPONENTS THERE OF, MUST BE CAPABLE OF SAFELY CARRYING THE LOADS IMPOSED UPON IT BY THE DOOR SYSTEM SYSTEM, WHICH IS SUSPENDED FROM ABOVE, INCLUDING DEAD LOADS, WIND LOADINGS, THERMAL LOADINGS, SEISMIC LOADINGS, LIVE LOADINGS, ETC.
4. STELLA WILL ASSUME NO RESPONSIBILITY FOR ERRORS RESULTING FROM THE USE OF THESE DRAWINGS BY OTHER TRADES.
5. NO MATERIAL CAN BE RELEASED FOR FABRICATION UNTIL STELLA RECEIVES "APPROVED" OR "APPROVED AS NOTED" DRAWINGS.
6. ANY REQUEST FOR REVISION AFTER STELLA IS AUTHORIZED TO PROCEED WITH FABRICATION WILL BE SUBJECT TO AN ENGINEERING & HANDLING CHARGE PLUS THE COST OF ANY FABRICATED MATERIALS AND LABOUR.
7. ARCHITECT/CLIENT TO PROVIDE CLARIFICATION AND/OR DETAILS AND DIMENSIONS AROUND THE AREAS AS NOTED.

MATERIALS:

GLASS PANELS:
SEALED GLASS UNITS COMPRISING 2x6mm FULLY TEMPERED GLASS
WITH SPACER BAR SUITABLE FOR 25.4mm [1"] OVERALL THICKNESS

ALUMINUM EXTRUSIONS:
Material 6063-T5

FINISH - DOOR PANELS & FRAMES
Mill finish
Clear anodize - Sill and sill threshold
Black anodize - Head track

ROLLERS, GUIDES AND HINGES:
Stella Ref. TS1-A01 Top Hung Rollers 300kg

LOCKS:
SLIDING DOOR
LOCK TYPE - Adams rite hook Lock 1 1/2" backset, thumbturn inside
HANDLE TYPE: Flush Pull - Stella STD - FINISH - Brushed

GASKETS:
Vinyl - FINISH - Black

CAULKING SILICONE:
DOW CORNING

FASTENERS:
Per drawings and suitable for concrete or wood - FINISH - Zinc plated

SHIMS AND PACKING:
ONLY USE PVC SPACERS, WOOD SPACERS NOT ACCEPTABLE
SPACERS AT HEAD NOT ACCEPTABLE

ADDITIONAL NOTES:

HARDWARE LEGEND	
	SLIDING DOORS
1	TOP HUNG ROLLERS
2	HOOK LOCK
3	FLUSH PULL HANDLE
4	RUBBER DOOR STOP
5	FLUSH DROP BOLT - BOTTOM

SYMBOLS & ABBREVIATIONS:

SECTION OR ELEVATION IN DIRECTION OF ARROW "3" DENOTES DETAIL NUMBER, "G03" DENOTES DRAWING NUMBER

DETAIL
"4" DENOTES DETAIL NUMBER. "D02" DENOTES DRAWING NUMBER

MOS = MEASURE ON SITE
MS = MILD STEEL (≥240MPa)
NTS = NOT TO SCALE
TBA = TO BE ADVISED
SS = STAINLESS STEEL
U/S = UNDERSIDE (CEILING, SLAB ETC.)
OC = ON CENTER
℄ = CENTER LINE
FFL = FINISHED FLOOR LEVEL
TOF = TOP OF FLOOR
PCS = PIECES
≈ = APPROXIMATE DIMENSION
lg = LONG
(3) = PART NUMBER
(triangle) = REVISION NUMBER
(1) = SURFACE FINISH

FOR GLASS SIZES REFER TO PAGE 200

SHEET #	DESCRIPTION	DATE OF	LATEST SUBMITTAL	
100	COVER SHEET	MAY 05-16	AUG 04-16	2
200	SLIDING DOOR D01 PXX-XXX0 PLAN VIEW (Internal & Plan View)	MAY 05-16	FEB 15-17	2
201	GENERAL BUCK ARRANGEMENTS	MAY 05-16	FEB 15-17	2
300	DETAILS SECTION VIEW - HEAD POCKET SECTION	MAY 05-16	FEB 15-17	2
301	DETAILS SECTION VIEW - HEAD MIDDLE SECTION	MAY 05-16	FEB 15-17	2
302	DETAILS SECTION VIEW - HEAD FIXED SECTION	MAY 05-16	FEB 15-17	2
303	DETAILS SECTION VIEW - SILL POCKET SECTION	MAY 05-16	FEB 15-17	2
304	DETAILS SECTION VIEW - SILL MIDDLE SECTION	MAY 05-16	FEB 15-17	2
305	DETAILS SECTION VIEW - SILL FIXED SECTION	MAY 05-16	FEB 15-17	2
306	DETAILS SECTION VIEW - JAMB POCKET SECTION	MAY 05-16	FEB 15-17	2
307	DETAILS SECTION VIEWS - JAMB OPEN DOORS	MAY 05-16	FEB 15-17	2
308	DETAILS SECTION VIEWS - STILES CLOSED DOORS	MAY 05-16	FEB 15-17	2
309	DETAILS SECTION VIEWS - STILES OPEN TO POCKET	MAY 05-16	FEB 15-17	2
310	DETAILS SECTION VIEW - JAMB	MAY 05-16	FEB 15-17	2

PURPOSE OF THIS SUBMITTAL

ABBREVIATION	DESCRIPTION
PR	PRELIMINARY - NOT FOR CONSTRUCTION
RC	REVIEW AND COMMENT - NOT FOR CONSTRUCTION
NC	NOT FOR CONSTRUCTION
RN	REVISED AS NOTED
FC	FOR CONSTRUCTION
RD	REVISED - DESTROY PREVIOUS PRINTS

PRINT RECORD

SUBMITTAL	DATE	SHEETS	PURPOSE OF THIS SUBMITTAL	e-MAIL
1	May 05-16	100, 200-201, 300-310	FC	YES, PDF
2	May 27-16	100, 200-201, 300-310	FC	YES, PDF
3	Aug 04-16	100, 200-201, 300-310	FC	YES, PDF
4	Feb 15-17	100, 200-201, 300-310	FC	YES, PDF

stella

NOTE:
- ALL DIMENSIONS TO BE VERIFIED ON SITE
- CUSTOMER RESPONSIBLE FOR PROVISION OF ROUGH OPENING OR FRAME DIMENSIONS
- INSTALLATION TO BE CARRIED OUT BY STELLA APPROVED INSTALLERS
- METRIC DIMENSIONS TAKE PRECEDENCE

No.	REVISION	Date
2	PM: fixed panel swap to outside	04-Aug-16
1	New glass sizes released	05-May-16
1	2 Panels wider for AW class	26-May-16
-	Glass sizes released	05-May-16

Unit 7- 3671 Viking Way
Richmond, BC, CANADA

TS2 ALUMINUM SLIDING DOORS PXX-XX0

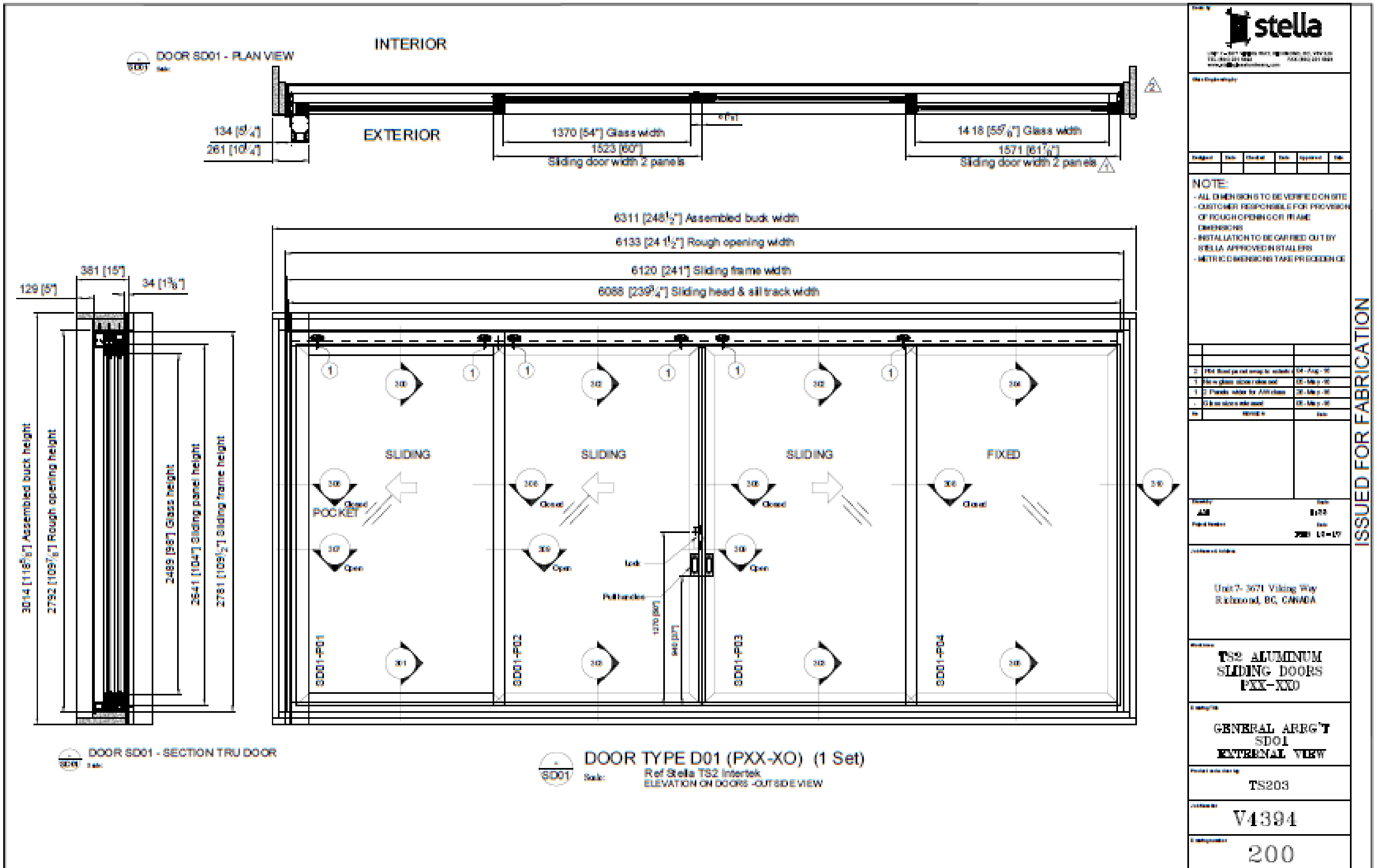
COVER PAGE

TS203

V4394

100

ISSUED FOR FABRICATION


stella
DOOR SD01 - PLAN VIEW
INTERIOR
EXTERIOR
134 [5¼"]
261 [10¼"]
1370 [54"] Glass width
1523 [60"]
Sliding door width 2 panels
1418 [55⅞"] Glass width
1571 [61⅞"]
Sliding door width 2 panels
6311 [248½"] Assembled buck width
6133 [241½"] Rough opening width
6120 [241"] Sliding frame width
6088 [239¾"] Sliding head & sill track width
381 [15"]
129 [5"]
34 [1⅜"]
3014 [118⅝"] Assembled buck height
2792 [109⅞"] Rough opening height
2489 [98"] Glass height
2641 [104"] Sliding panel height
2781 [109½"] Sliding frame height
SLIDING
SLIDING
SLIDING
FIXED
POCKET
Closed
Open
Lock
Pull handles
SD01-P01
SD01-P02
SD01-P03
SD01-P04
DOOR SD01 - SECTION TRU DOOR
DOOR TYPE D01 (PXX-XO) (1 Set)
SD01
Scale:
Ref Stella TS2 Intertek
ELEVATION ON DOORS -OUTSIDE VIEW
NOTE:
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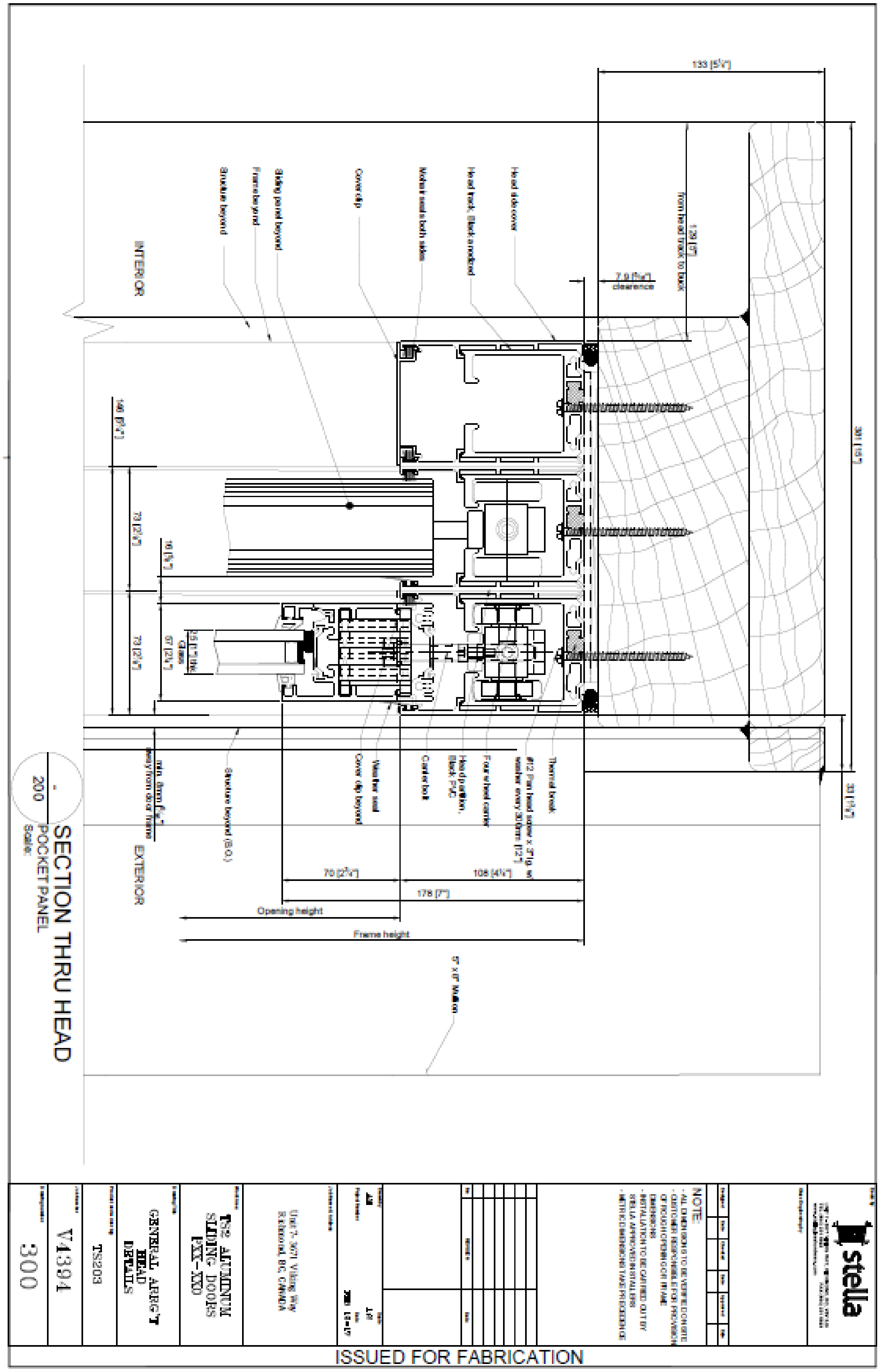
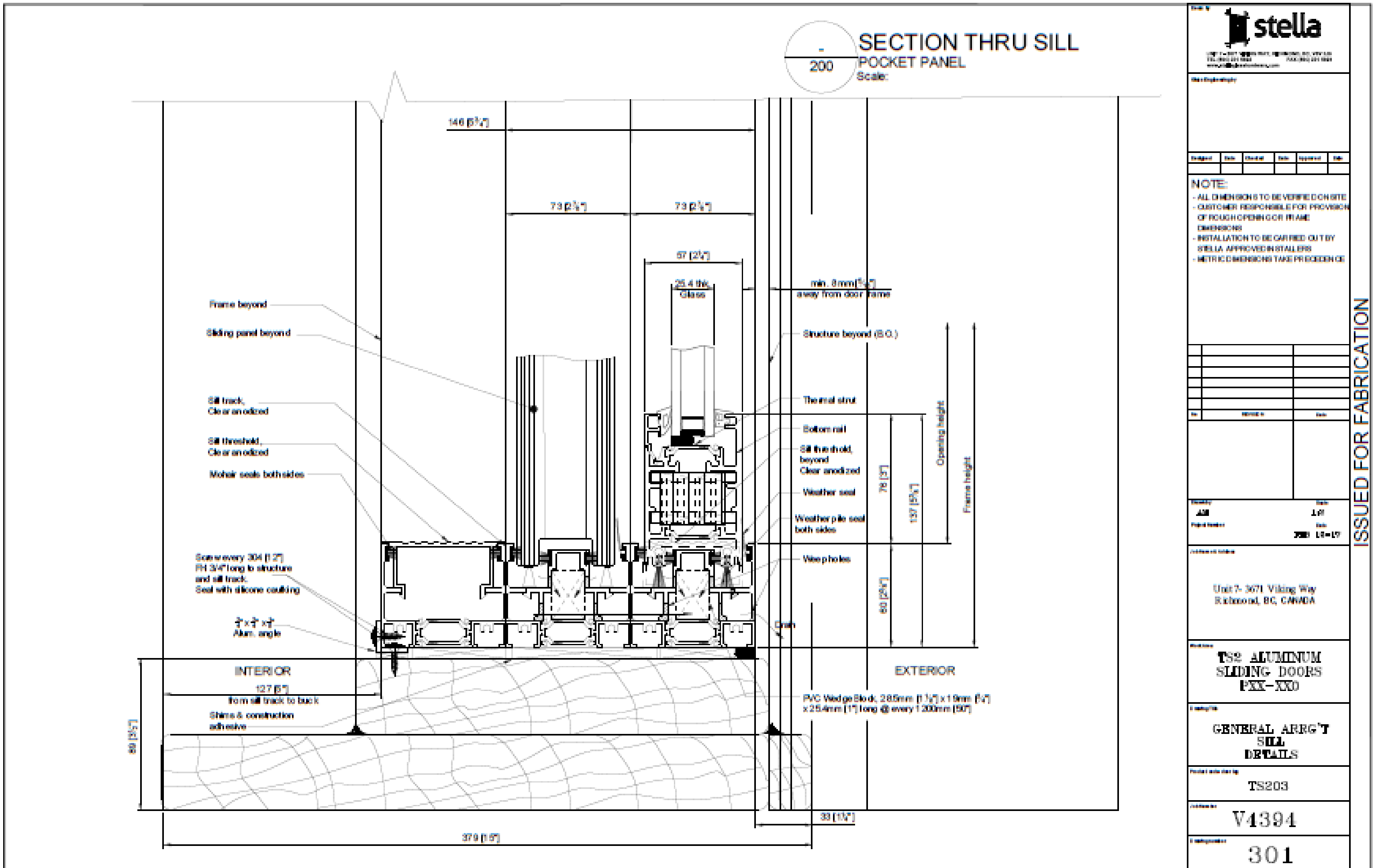
- INSTALLATION TO BE CARRIED OUT BY STELLA APPROVED INSTALLERS
- METRIC DIMENSIONS TAKE PRECEDENCE
ISSUED FOR FABRICATION
Unit 7- 3671 Viking Way
Richmond, BC, CANADA
TS2 ALUMINUM SLIDING DOORS PXX-XXO
GENERAL ARRG'T SD01 EXTERNAL VIEW
TS203
V4394
200


SECTION THRU HEAD
POCKET PANEL
Scale:
200
INTERIOR
EXTERIOR
Structure beyond
Frame beyond
Sliding panel beyond
Cover clip
Mohair seals both sides
Head track, Black anodized
Head slide cover
Thermal break
Cover clip beyond
Weather seal
Center bolt
Four wheel carrier
Structure beyond (S.O.)
Opening height
Frame height
70 [2¾"]
108 [4¼"]
178 [7"]
133 [5¼"]
381 [15"]
33 [1¼"]
ISSUED FOR FABRICATION
NOTE:
TS2 ALUMINUM SLIDING DOORS PXX-XXD
Unit 7- 3671 Viking Way Richmond, BC, CANADA
GENERAL ARRG'T HEAD DETAILS
TS203
V4394
300
stella


SECTION THRU SILL
POCKET PANEL
Scale:
200
146 [5¾"]
73 [2⅞"]
73 [2⅞"]
57 [2¼"]
25.4 thk. Glass
min. 8mm [5/16"] away from door frame
Frame beyond
Sliding panel beyond
Sill track, Clear anodized
Sill threshold, Clear anodized
Mohair seals both sides
Screw every 304 [12"] FH 3/4" long to structure and sill track. Seal with silicone caulking
Alum. angle
Structure beyond (B.O.)
Thermal strut
Bottom rail
Sill threshold, beyond Clear anodized
Weather seal
Weather pile seal both sides
Weep holes
Drain
Opening height
Frame height
76 [3"]
137 [5⅜"]
60 [2⅜"]
INTERIOR
EXTERIOR
127 [5"] from sill track to buck
Shims & construction adhesive
PVC Wedge Block, 28.5mm [1⅛"] x 19mm [¾"] x 25.4mm [1"] long @ every 1200mm [50"]
89 [3½"]
33 [1¼"]
379 [15"]
NOTE:
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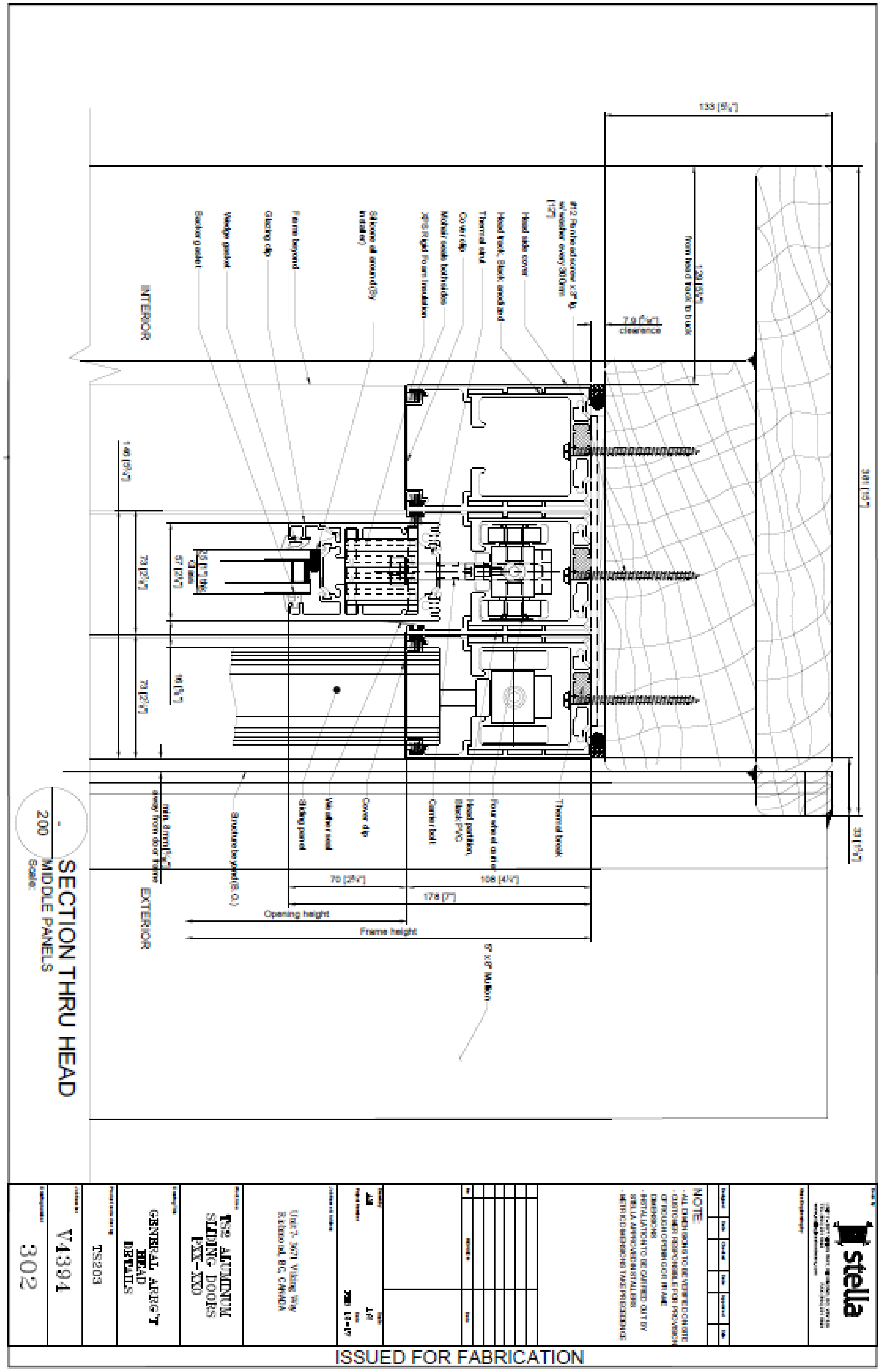
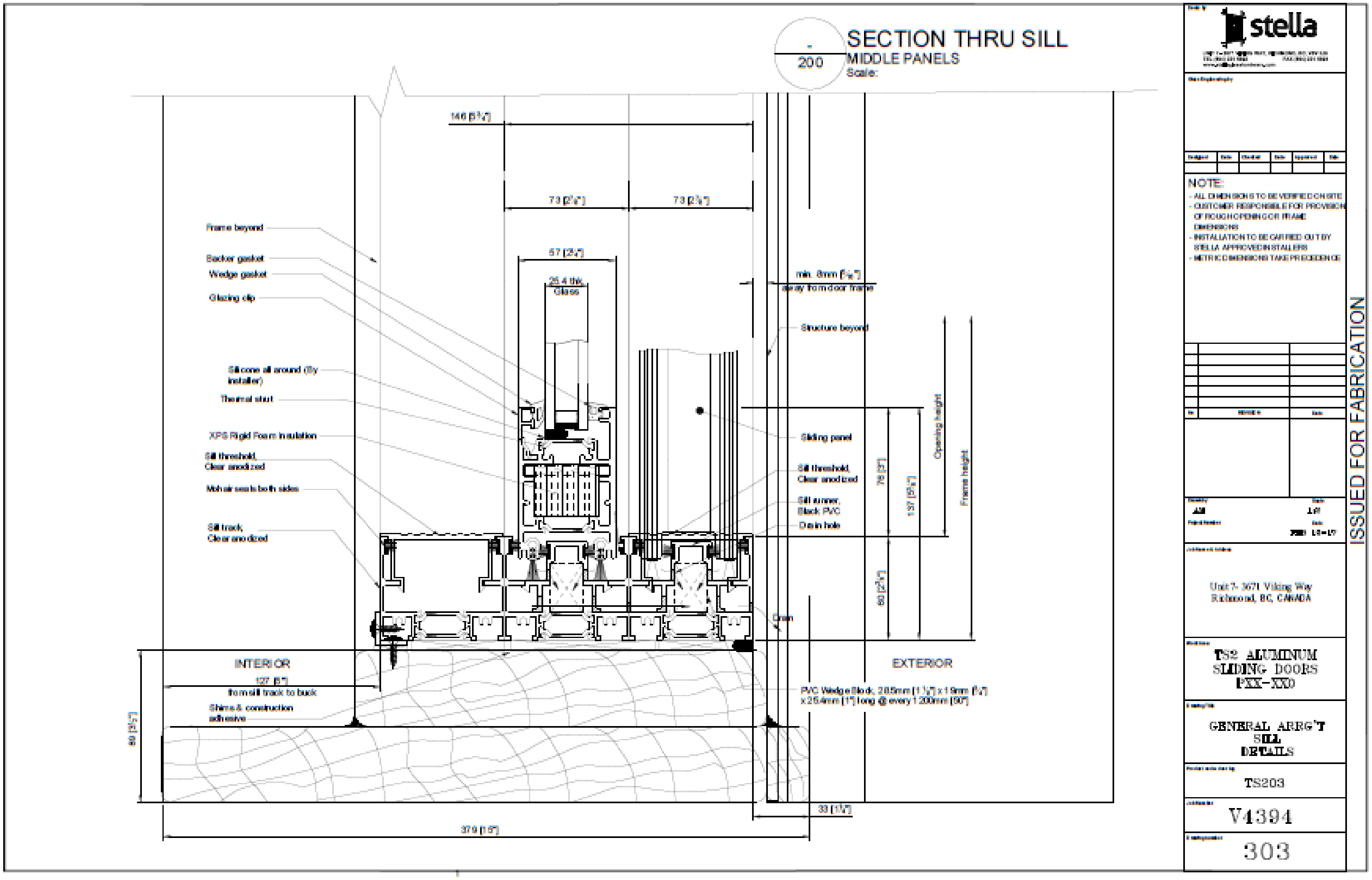
- INSTALLATION TO BE CARRIED OUT BY STELLA APPROVED INSTALLERS
- METRIC DIMENSIONS TAKE PRECEDENCE
ISSUED FOR FABRICATION
stella
Unit 7- 3671 Viking Way Richmond, BC, CANADA
TS2 ALUMINUM SLIDING DOORS PXX-XX0
GENERAL ARRG'T SILL DETAILS
TS203
V4394
301


SECTION THRU HEAD
MIDDLE PANELS
Scale:
200
INTERIOR
EXTERIOR
Backer gasket
Wedge gasket
Glazing clip
Frame beyond
XPS Rigid Foam Insulation
Mohair seals both sides
Cover clip
Thermal strut
Head track, Black anodized
Head side cover
Sliding panel
Weather seal
Carrier bolt
Head partition, Black PVC
Four wheel carrier
Thermal break
Structure beyond (B.O.)
Opening height
Frame height
70 [2¾"]
178 [7"]
108 [4¼"]
73 [2⅞"]
146 [5¾"]
133 [5¼"]
381 [15"]
7.9 [⁵⁄₁₆"] clearance
from head track to buck
ISSUED FOR FABRICATION
TS2 ALUMINUM SLIDING DOORS PXX-XXO
GENERAL ARRG'T HEAD DETAILS
TS203
V1394
302
Unit 7- 3671 Viking Way
Richmond, BC CANADA
NOTE
stella



200
SECTION THRU SILL
MIDDLE PANELS
Scale:
146 [5¾"]
73 [2⅞"]
73 [2⅞"]
57 [2¼"]
25.4 thk. Glass
Frame beyond
Backer gasket
Wedge gasket
Glazing clip
Silicone all around (By installer)
Thermal strut
XPS Rigid Foam insulation
Sill threshold, Clear anodized
Mohair seals both sides
Sill track, Clear anodized
min. 8mm [5/16"] away from door frame
Structure beyond
Sliding panel
Sill threshold, Clear anodized
Sill runner, Black PVC
Drain hole
Opening height
Frame height
76 [3"]
137 [5⅜"]
60 [2⅜"]
Drain
INTERIOR
EXTERIOR
127 [5"] from sill track to buck
Shims & construction adhesive
PVC Wedge Block, 28.5mm [1⅛"] x 19mm [¾"] x 25.4mm [1"] long @ every 1200mm [90"]
89 [3½"]
33 [1⅜"]
379 [15"]
stella
NOTE:
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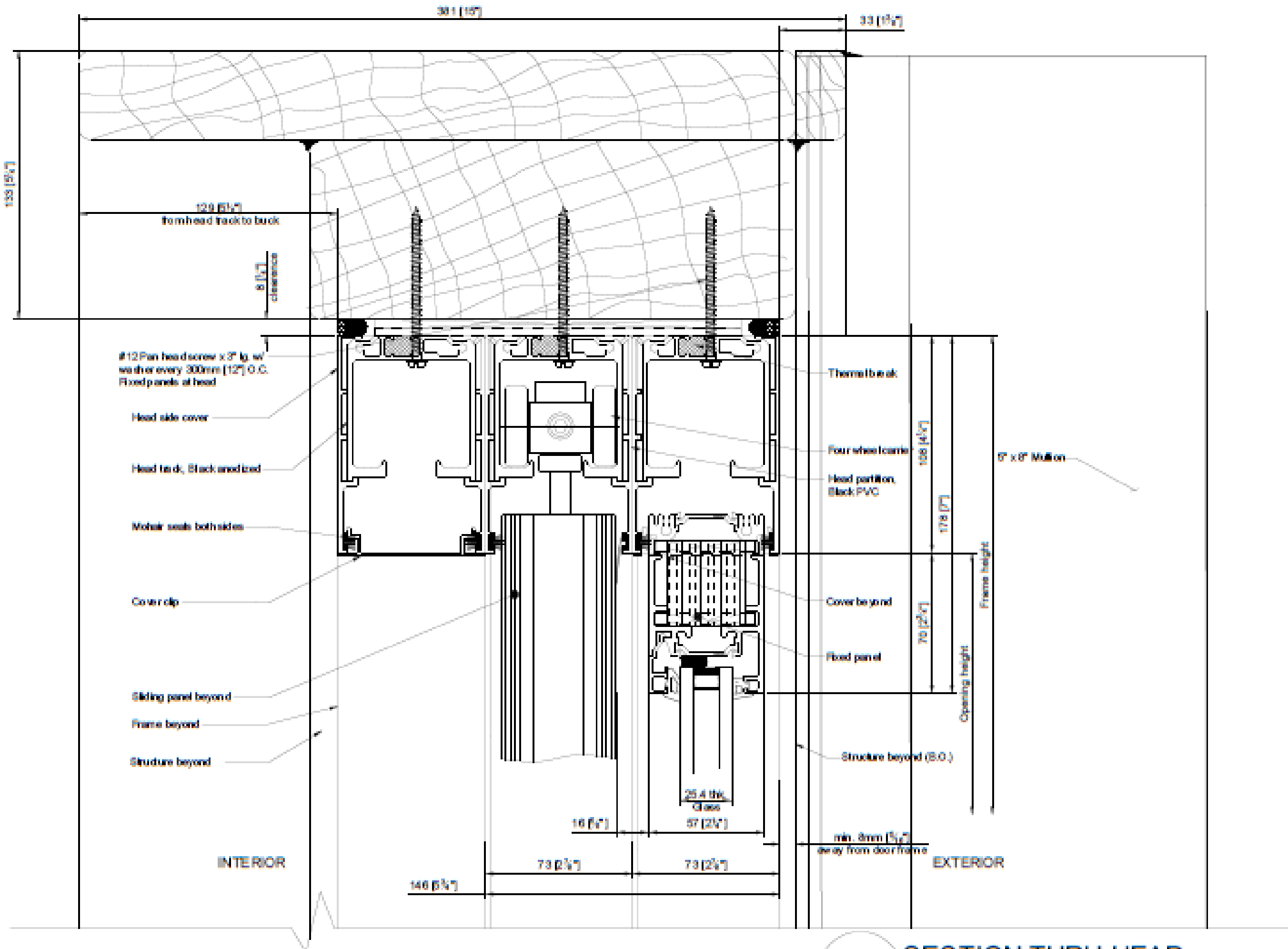
- METRIC DIMENSIONS TAKE PRECEDENCE
ISSUED FOR FABRICATION
Unit 7- 3671 Viking Way
Richmond, BC, CANADA
TS2 ALUMINUM SLIDING DOORS PXX-XX0
GENERAL ARRG'T SILL DETAILS
TS203
V4394
303



SECTION THRU HEAD

- / 200

FIXED PANEL
Scale:

stella

Unit 7- 3671 Viking Way, Richmond, BC, CANADA

NOTE:
- ALL DIMENSIONS TO BE VERIFIED ON SITE
- CUSTOMER RESPONSIBLE FOR PROVISION OF ROUGH OPENING OR FRAME DIMENSIONS
- INSTALLATION TO BE CARRIED OUT BY STELLA APPROVED INSTALLERS
- METRIC DIMENSIONS TAKE PRECEDENCE

ISSUED FOR FABRICATION

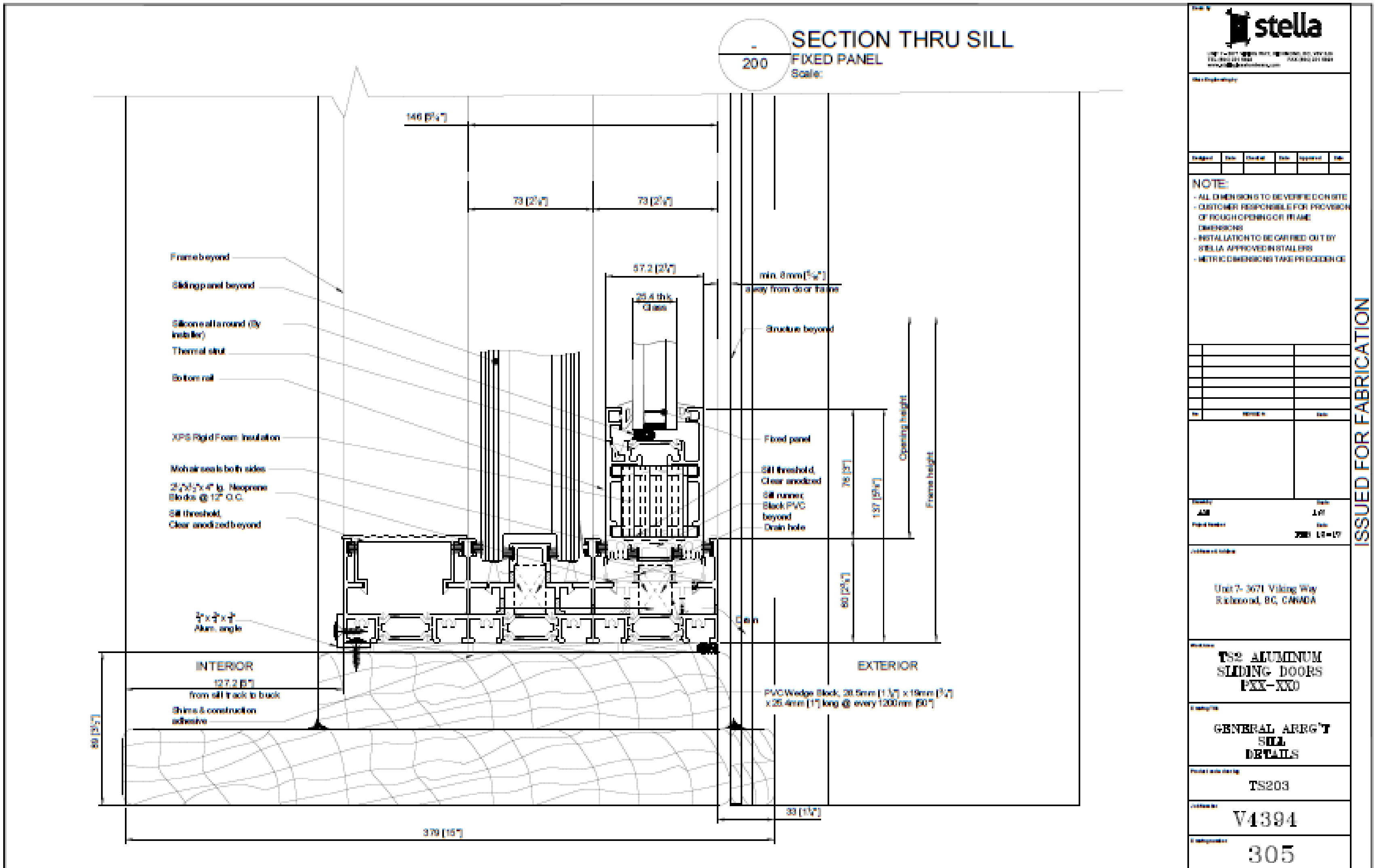
TS2 ALUMINUM SLIDING DOORS PXX-XX0

GENERAL ARRG'T HEAD DETAILS

TS203

V4394

304


SECTION THRU SILL
FIXED PANEL
Scale:
200
146 [5¾"]
73 [2⅞"]
73 [2⅞"]
57.2 [2¼"]
25.4 thk. Glass
min. 8mm [5/16"] away from door frame
Structure beyond
Frame beyond
Sliding panel beyond
Silicone all around (By installer)
Thermal strut
Bottom rail
XPS Rigid Foam Insulation
Mohair seals both sides
Sill threshold, Clear anodized beyond
Alum. angle
Fixed panel
Sill threshold, Clear anodized
Sill runner, Black PVC beyond
Drain hole
Drain
Opening height
Frame height
76 [3"]
137 [5⅜"]
60 [2⅜"]
INTERIOR
EXTERIOR
127.2 [5"]
from sill track to buck
Shims & construction adhesive
PVC Wedge Block, 28.5mm [1⅛"] x 19mm [¾"] x 25.4mm [1"] long @ every 1200mm [50"]
33 [1⅜"]
379 [15"]
stella
NOTE:
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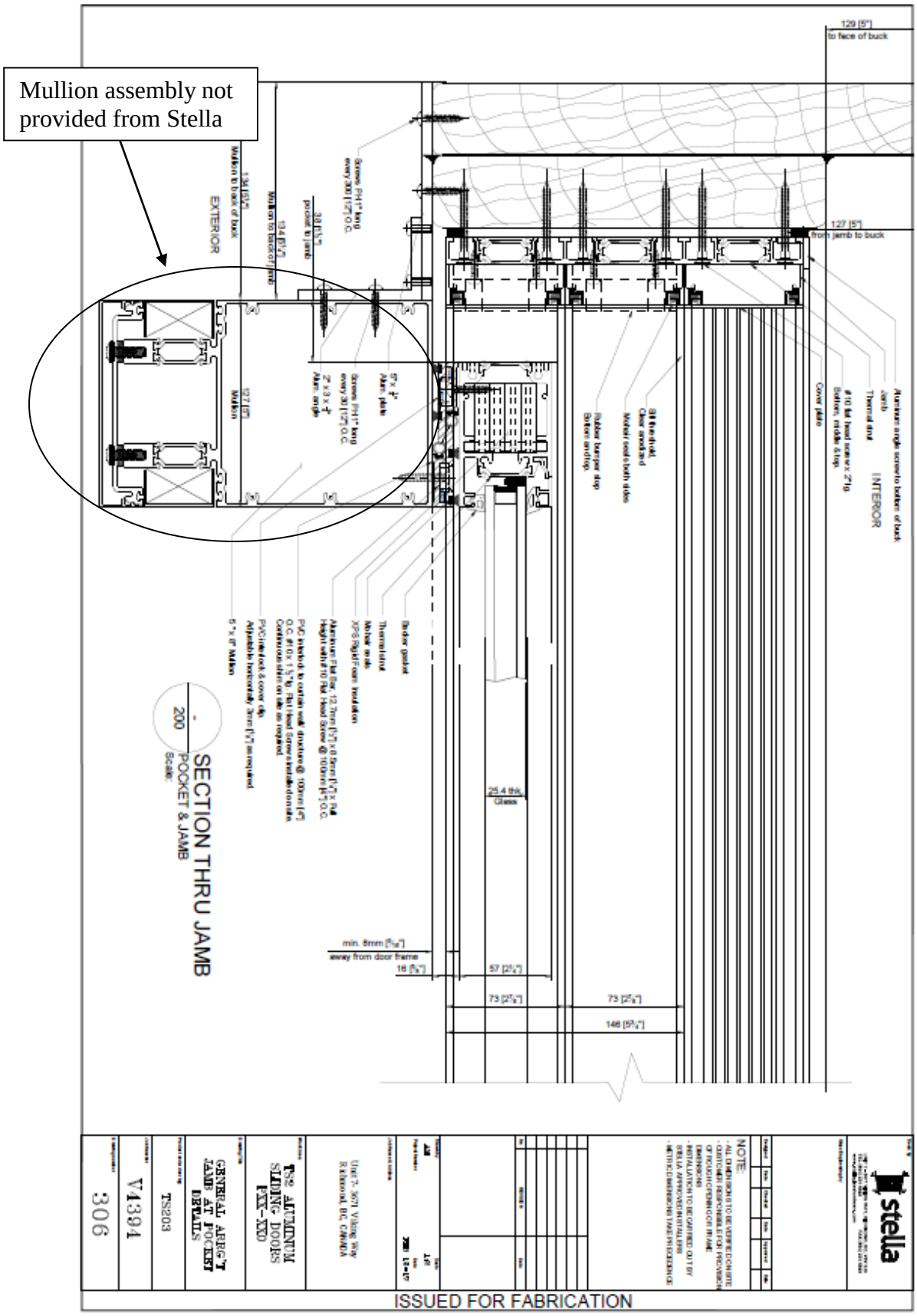
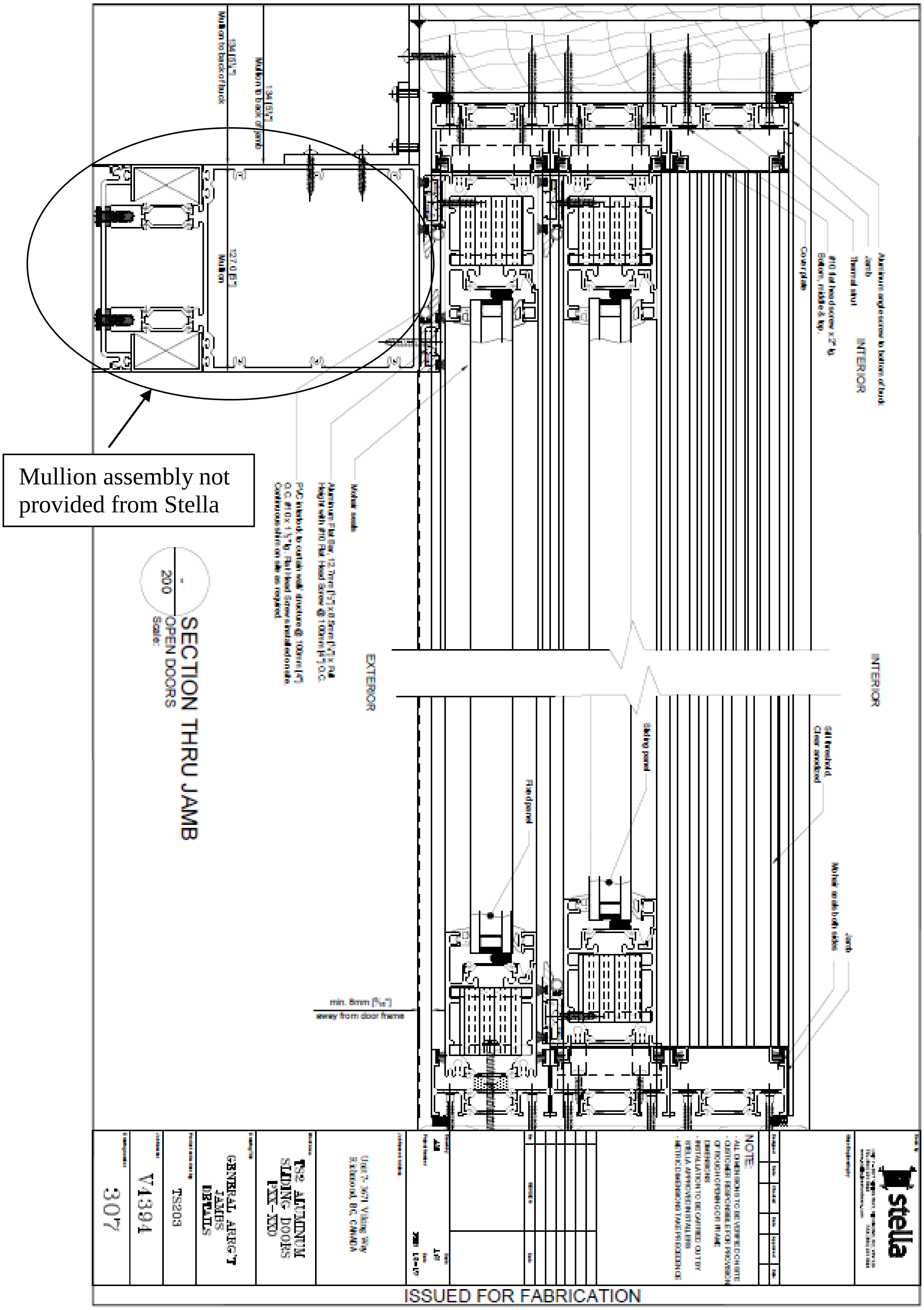
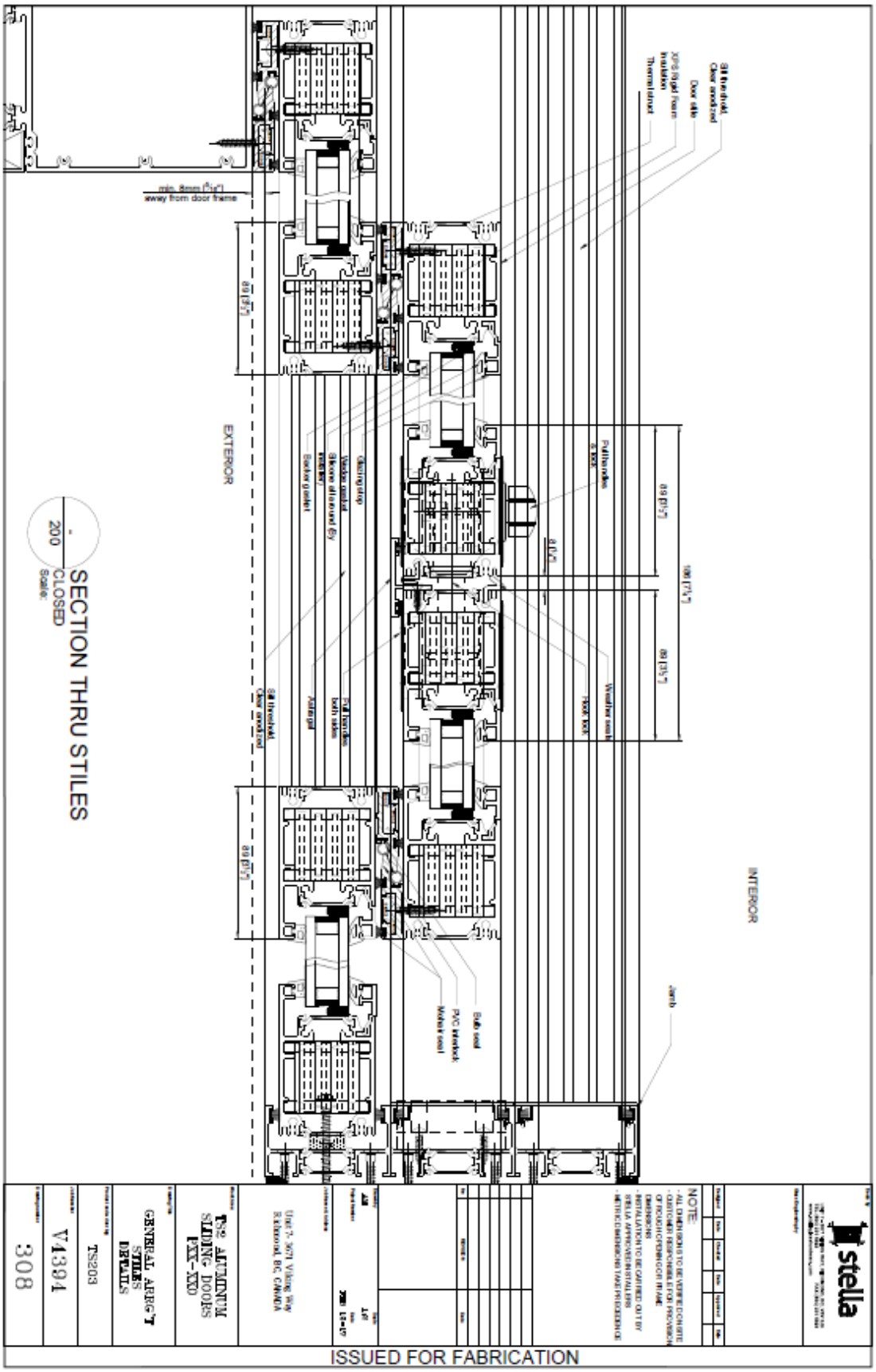
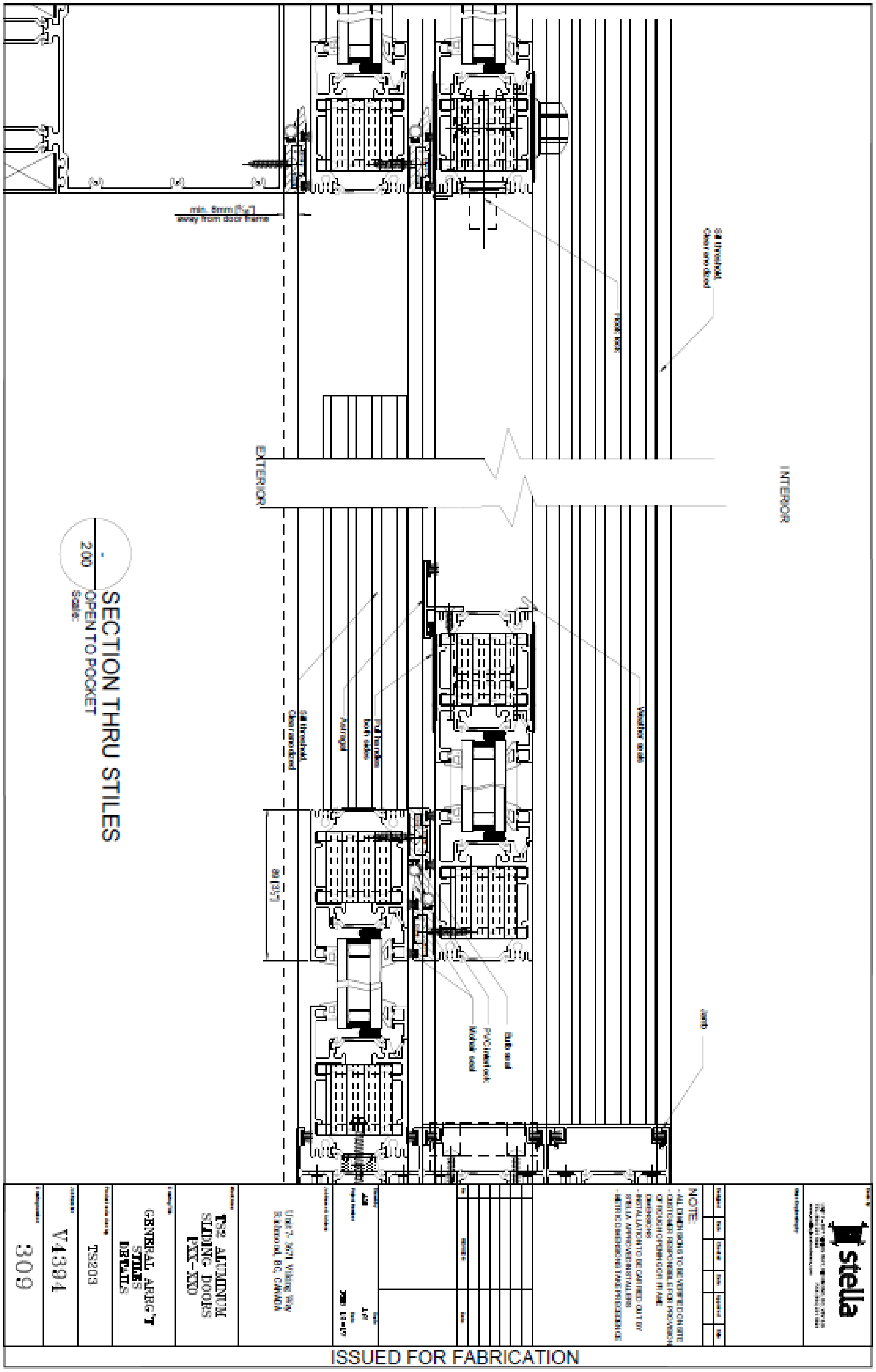
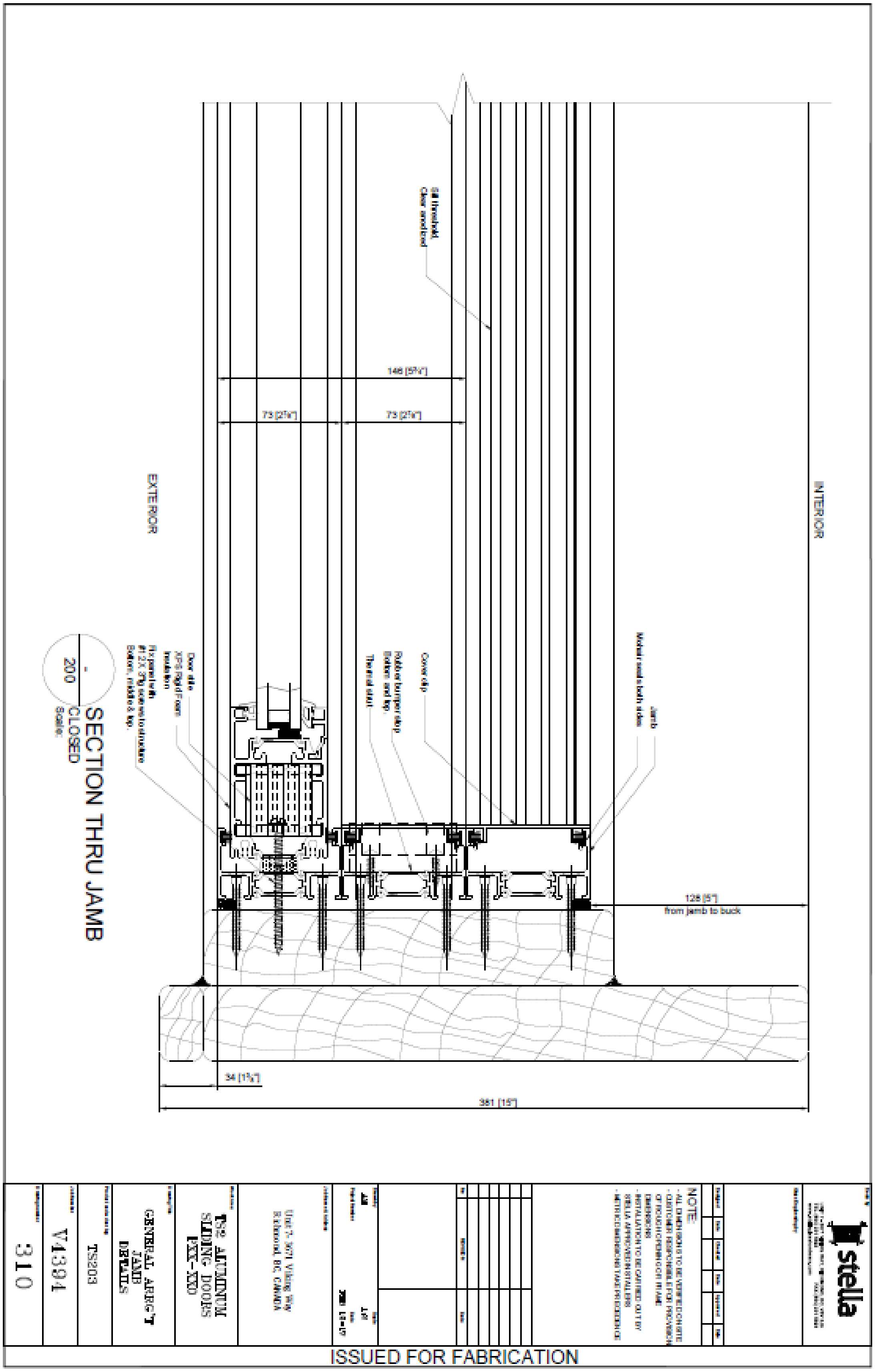
ISSUED FOR FABRICATION
Unit 7- 3671 Viking Way
Richmond, BC, CANADA
TS2 ALUMINUM SLIDING DOORS PXX-XX0
GENERAL ARRG'T SILL DETAILS
TS203
V4394
305


Mullion assembly not provided from Stella
EXTERIOR
INTERIOR
129 [5"]
to face of buck
127 [5"]
from jamb to buck
SECTION THRU JAMB
POCKET & JAMB
Scale: 3" = 1'-0"
ISSUED FOR FABRICATION

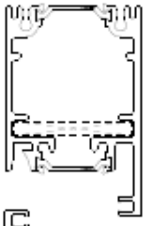

Mullion assembly not provided from Stella
EXTERIOR
INTERIOR
SECTION THRU JAMB
OPEN DOORS
200
ISSUED FOR FABRICATION
TS203
V4394
307


SECTION THRU STILES
CLOSED
Scale: 200
EXTERIOR
INTERIOR
NOTE:
ISSUED FOR FABRICATION
GENERAL ARRGT STILES DETAILS
TS203
V4394
308

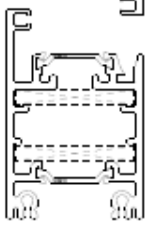

EXTERIOR
INTERIOR
SECTION THRU STILES
OPEN TO POCKET
Scale:
200
stella
NOTE:
TS2 ALUMINUM
SLIDING DOORS
PXX-XXO
GENERAL ARR'G'T
STILES
DETAILS
TS203
V4394
309
ISSUED FOR FABRICATION


EXTERIOR
INTERIOR
SECTION THRU JAMB
CLOSED
Scale:
200
128 [5"]
from jamb to buck
381 [15"]
TS2 ALUMINUM
SLIDING DOORS
PXX-XXO
GENERAL ARRG'T
JAMB
DETAILS
TS203
V4394
310
NOTE
stella
ISSUED FOR FABRICATION

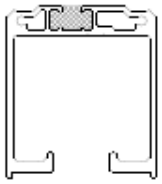
STELLA EXTRUSIONS



Common Stile/Rail Assembly

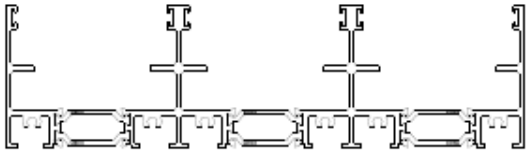


Common Rail/Lock Assembly



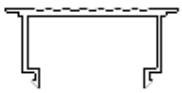
TS2 Head Track

TS2 - Triple Track Frame - Jamb

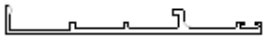


TS2 - Triple Track Frame - Sill

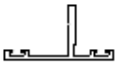
TS2 Cover clip



TS2 Sill Threshold



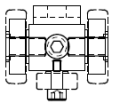
TS2 Head Side Cover

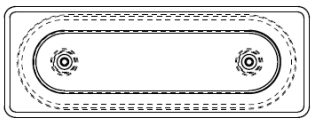


Astragal T

Common Glazing Stop

BILL OF MATERIALS

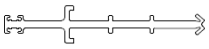


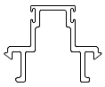


Hardware

Stella TS1-A01 Top Wheel Guide - Top Rail Black (TS1 bolt modified to 80mm)

Stella TS1-FP1- Flush Pull Handles - brushed stainless steel





PVC Extrusions

EX047- Head partition, Black PVC

EX046- Sill Runner, Black

EX034- Interlock base / EX048 Interlock cover Bulb seal and mohair

Gaskets, Mohair, Weather stipping

EX049- T-Seal, Santoprene-Polyethelane Co-extrusion- Black

EC3G-GASKET-INT-EPDM- Backer gasket

EC3G-GASKET-EXT-EPDM Wedge gasket

DS-420-BL Weatherseal - Door Panels - kerf-in - black

DS-426-BL Weatherseal - Door Panels - kerf-in - black

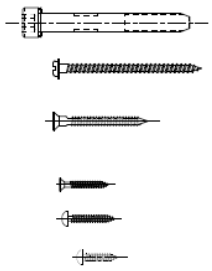
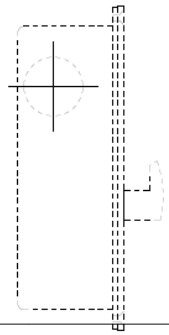
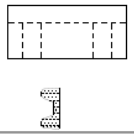
DS7535-187G- Weather-stripping - Frame - 0.27in back w/ 5/16" with fin - grey

DS7630-187G Weather-stripping - Interlock Stile - 0.187in back w/ 1/4" fin - grey

DSP-108-50-BL- Pile Seal - Bottom Rail - kerf-in - 1/2" (13mm) - black

DST-17-BL- Bulb Seal - Astragal - 6 mm - black

2625- Bulb Seal, Black, Polychlor

	**Fasteners** M10 x 1.5 x 80mm SocketHead Cap Screw M10 Washer machined-Top Roller Bolt 12x3 PH-SMS Screw / #12 washer- Mounting Header 10 x 2 FH-SMS-Screw - Mounting Jamb 12 x 1.5 FH-High Tensile Zinc Plated Steel Screw - Panel Assembly 10 x 1.25 PH-SD-TEK Screw - Frame Assembly - Jamb to Sill, Jamb to Header Interlock to panel 10 x 0.75 PH-SD-TEK Screw - Bumper screw
	**Locks and cylinders** MS-1805OS-450-628 Adams rite 1 $\frac{1}{2}$" Back set Hook lock M-100-SC-26D-ARA2 Mortise cylinder M-100T-26D-AR Thumb turn
	**Rubber stops** TS1-124 Rubber bumper stops for Jambs KTD-123B Rubber bumper spacer

APPENDIX B

Photograph – 13 Pages

Figure 1 - XXXO Sliding Door – Exterior side
*Note – Picture taken during air leakage test, with poly bag in place.

Figure 2 - 5” x 8” Mullion Section
**Section not supplied by Stella*

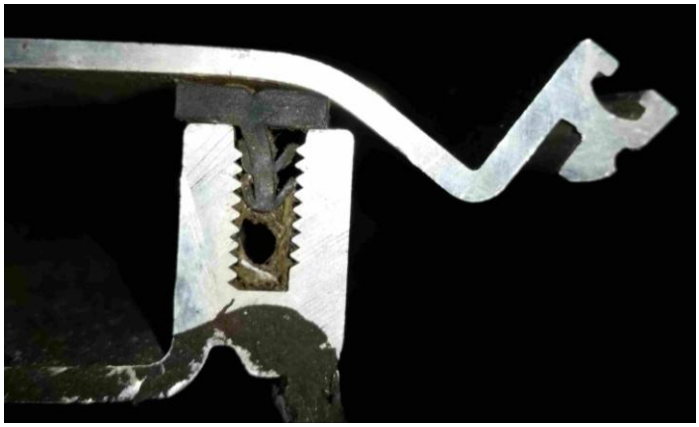


Figure 3 – 5” x 8” Mullion gasket
**Section not supplied by Stella*

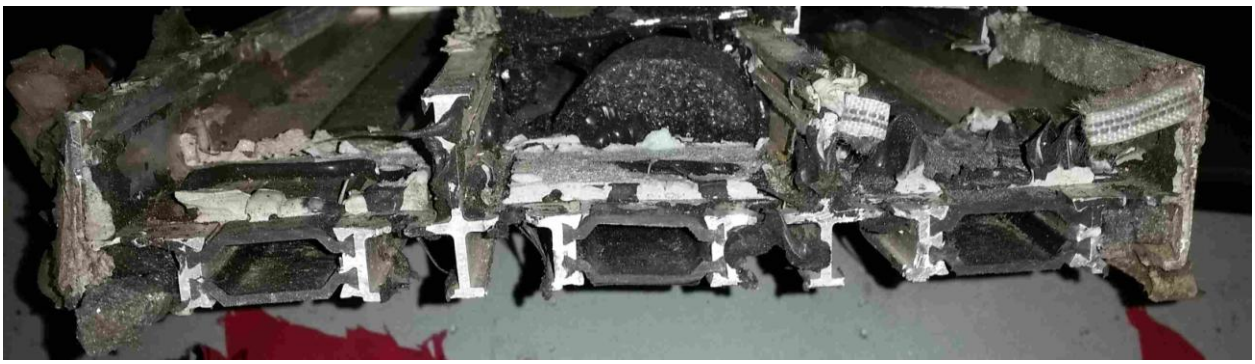


Figure 4 - Jamb assembly profile

Figure 5 – Sill assembly profiles

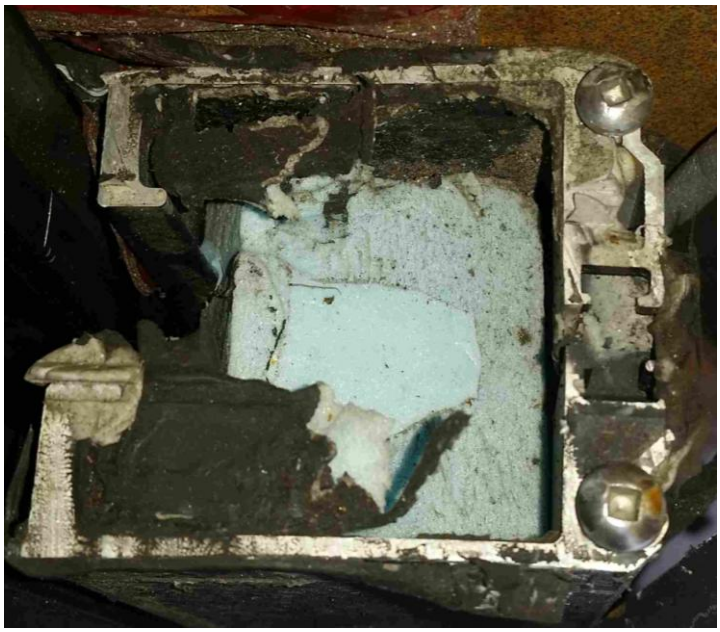


Figure 6 – One head track profile

Figure 7 – Common rail/stile sash profile

Figure 8 – Track profile

Figure 9 – Interlock profile

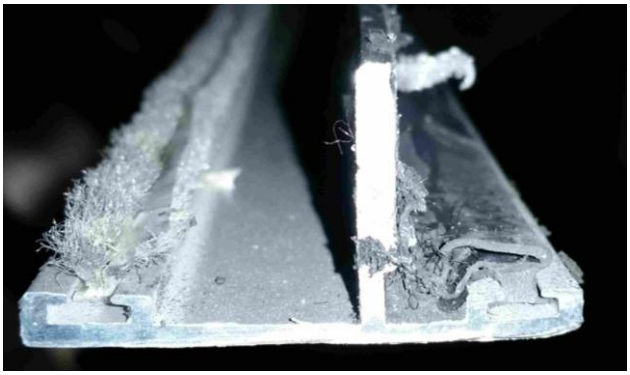


Figure 10 – Astragal profile

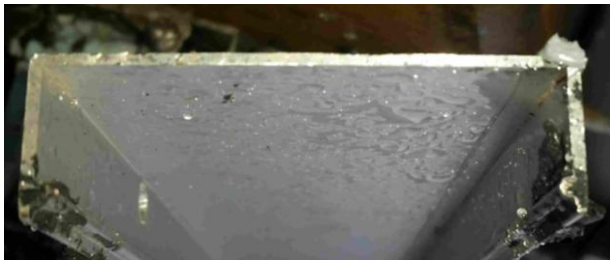


Figure 11 – Frame filler cap profile

Figure 12 – Corner key

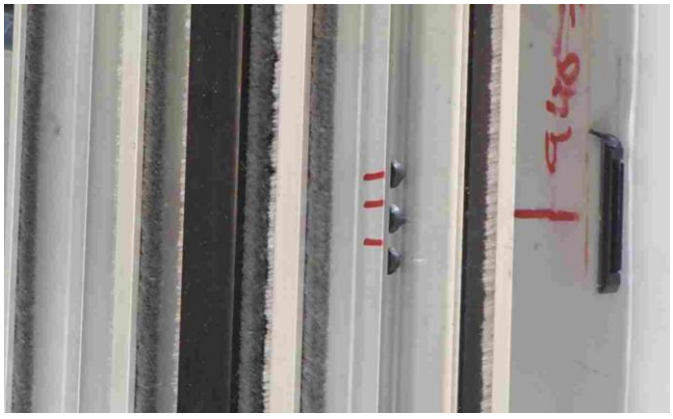


Figure 13 – Drainage path

Figure 14 – Weep hole cover with silicone

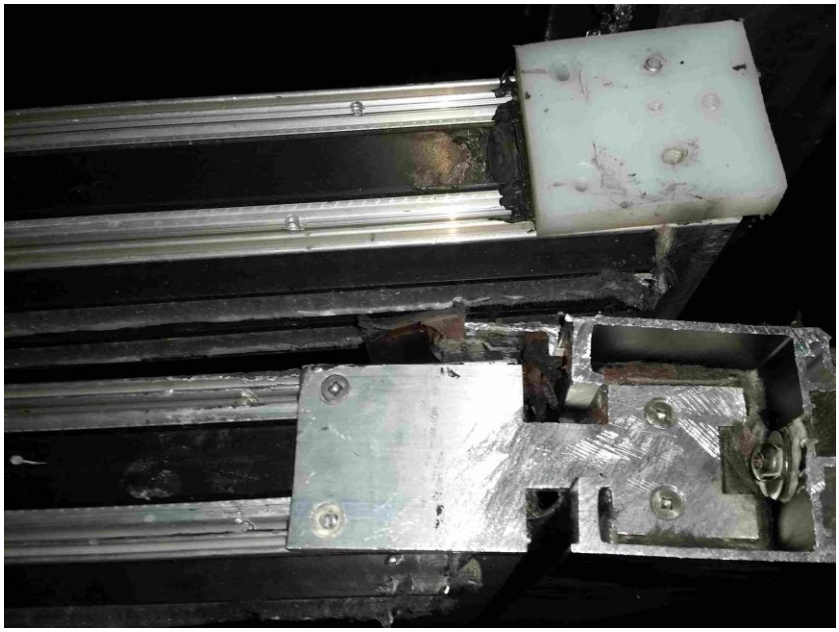


Figure 15 – Blocks attached to sash tops

Figure 16 – Weather-stripping around aluminum profile

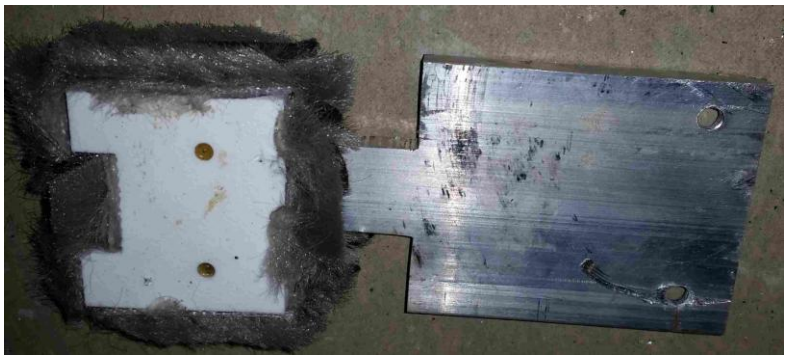


Figure 17 – Weather-stripping around aluminum profile

Figure 18 – Aluminum plate on sash bottom

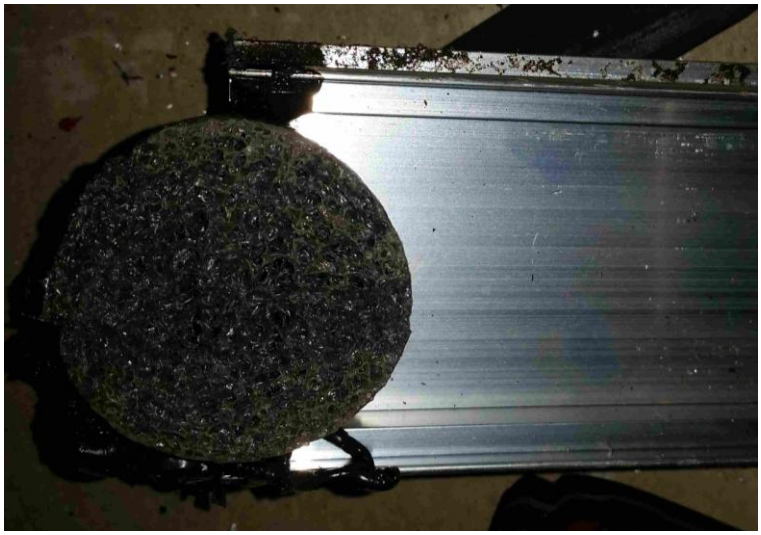


Figure 19 – Foam backer rod at the end of aluminum frame cover

Figure 20 – Rubber gasket on sill at threshold ends on the exterior

Figure 21 – Foam gaskets used above sash interlock

Figure 22 – Triangle shaped foam gasket on top rail of sash

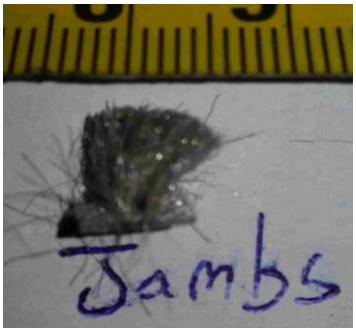


Figure 23 – Jamb pile weather-stripping

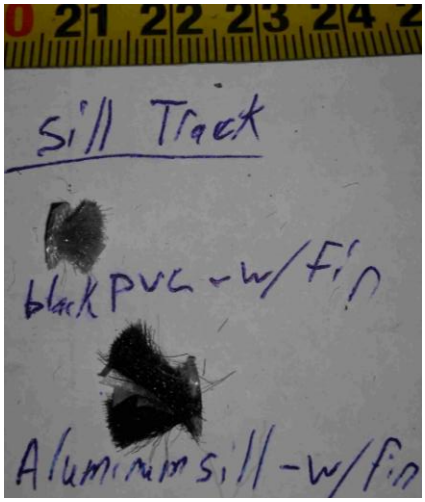


Figure 24 – Sill pile weather-stripping profiles

Figure 25 – Rubber fin seal used on the sill, head, top rail of sash and fixed slab mullion side

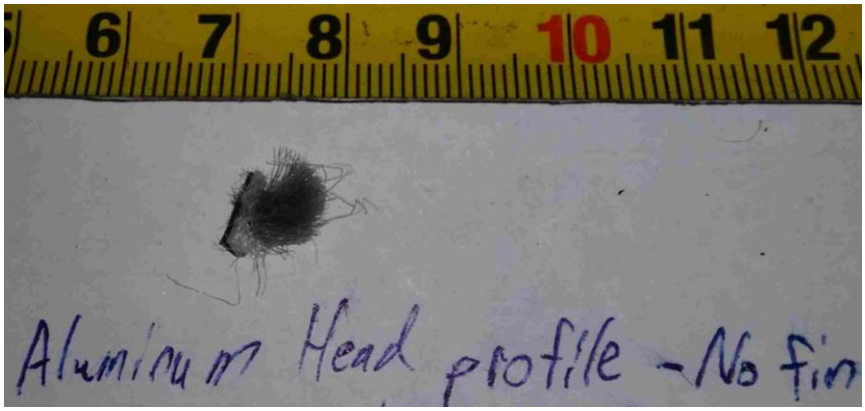


Figure 26 – Head track pile weather-stripping

Figure 27 – Head track pile weather-stripping with center fin

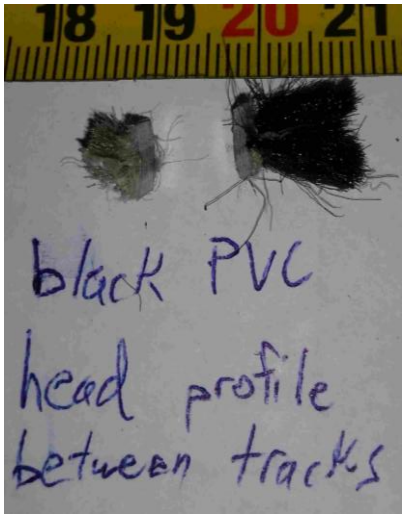


Figure 28 – Pile weather-stripping along the head, inserted into black PVC profile.

Figure 29 – Pile weather-stripping along bottom rails of sashes

Figure 30 – Adhesive pile weather-stripping on the aluminum plate at the bottom of sash

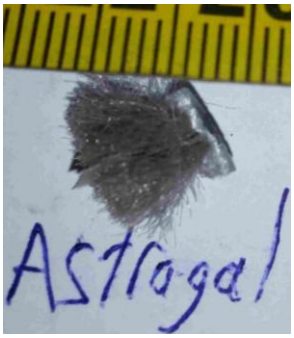


Figure 31 – Interlock pile weather-stripping with center fin.

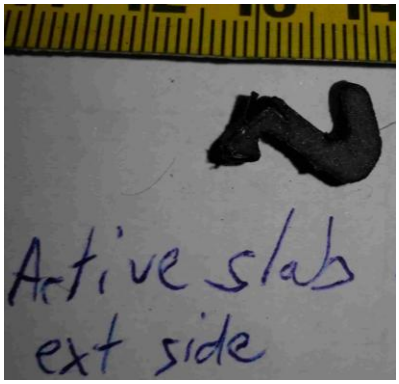


Figure 32 – Vinyl wrapped foam filled weather-stripping on active slab, exterior side.

Figure 33 – Foam weather-stripping on in-active slab locking stile

Figure 34 – Glazing Gaskets


Figure 35 – Roller assembly on the top rail of operable sash

Figure 36 – Aluminum plate inside top rail to secure roller assembly

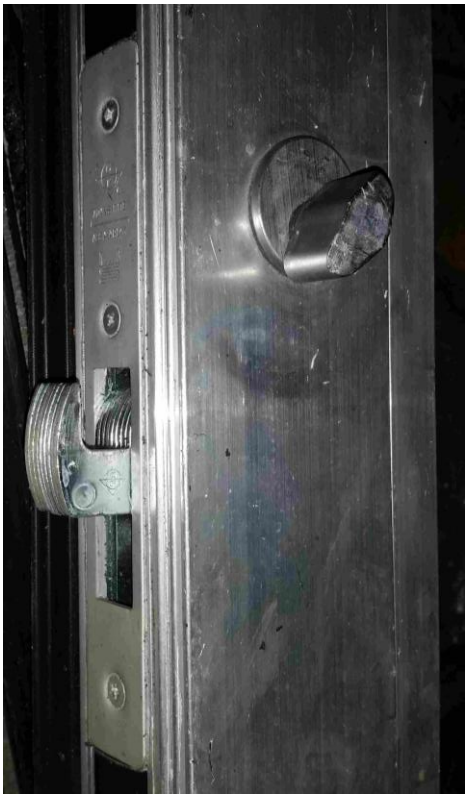


Figure 37 – Locking assembly

APPENDIX C

Revision Table – 1 Page

Revision Table				
Date	**Section**	**Description**	**Technician**	**Reviewer**
March 14/17	----	Original Issue Date	----	----