

NORTH EAST WINDOWS USA THERMAL PERFORMANCE TEST REPORT

SCOPE OF WORK

SH660 SINGLE HUNG

REPORT NUMBER

M2623.01-116-46 R0

TEST DATE

11/09/21

ISSUE DATE

11/16/21

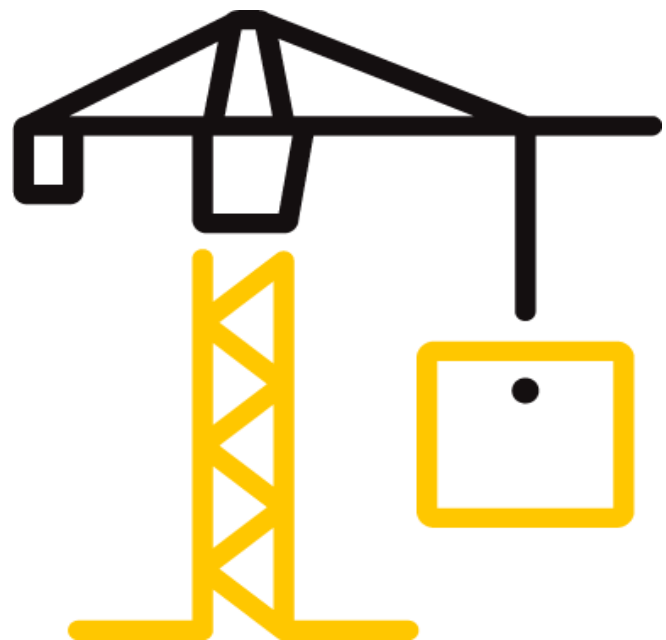
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DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-2822(a) (08/16/21)

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TEST REPORT FOR NORTH EAST WINDOWS USA, INC.

Report No.: M2623.01-116-46 R0
Date: 11/16/21

REPORT ISSUED TO

NORTH EAST WINDOWS USA, INC.
One Kees Place P.O. Box 159
Merrick, New York 11566

SECTION 1

SCOPE

SERIES/MODEL: SH660 Single Hung
TYPE: Vertical Slider (Single Hung)

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by North East Windows USA, INC. to evaluate the thermal performance per NFRC 102-2020. Results obtained are tested values and were secured by using the designated test method. Testing was conducted at Intertek B&C test facility in York, Pennsylvania.

Intertek B&C will service this report for the entire test record retention period. The test record retention period ends five years after the test date. Test records, such as detailed drawings, datasheets, or other pertinent project documentation, will be retained for the entire test record retention period. Representative samples of the test specimen will be retained by Intertek B&C for a minimum of two and a half years from the submittal date to the Inspection Agency and no more than five years from the test date.

For INTERTEK B&C:

COMPLETED BY	Ryan P. Moser
TITLE	Senior Technician
SIGNATURE	
DATE	11/16/21

REVIEWED BY	Shon W. Einsig
TITLE	Technician Team Leader, IIRC
SIGNATURE	
DATE	11/16/21

RPM:pan

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TEST REPORT FOR NORTH EAST WINDOWS USA, INC.

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SECTION 2

SUMMARY OF TEST RESULTS

Standardized U-factor (Ust): 0.26 Btu/hr·ft²·F (CTS Method)

SECTION 3

TEST SPECIMEN SUMMARY

SERIES/MODEL	SH660 Single Hung
TYPE	Vertical Slider (Single Hung)
OVERALL SIZE	47-5/8" x 59-3/8" (1210 mm x 1508 mm) (Model Size)
NFRC STANDARD SIZE	47.2" x 59.1" (1200 mm wide x 1500 mm high)
TEST SAMPLE SUBMITTED BY	Client
TEST SAMPLE SUBMITTED FOR	Validation for Recertification (Production Line Unit) & Plant Qualification

SECTION 4

TEST METHOD

The specimens were evaluated in accordance with the following:

NFRC 102-2020, Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems

SECTION 5

MATERIAL SOURCE/INSTALLATION

The test specimen was provided by the client.

The test sample was installed in a vertical orientation, the exterior of the specimen was exposed to the cold side.

SECTION 6

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Shon W. Einsig	Intertek B&C
Ryan P. Moser	Intertek B&C

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SECTION 7

TEST SAMPLE DESCRIPTION

Frame

MATERIAL	VI: Vinyl with Interlock Reinforced with Aluminum*		
SIZE	47-5/8" x 59-3/8" (Model Size)		
DAYLIGHT OPENING	43" x 26-1/2"	GLAZING METHOD	Interior
EXTERIOR COLOR	White	EXTERIOR FINISH	Vinyl
INTERIOR COLOR	White	INTERIOR FINISH	Vinyl
CORNER JOINERY	Mitered / Welds / Unsealed		

*Head and jambs contained EPS insulation

Active Sash

MATERIAL	VI: Vinyl with Interlock Reinforced with Aluminum*		
SIZE	45-3/8" x 29-1/8"		
DAYLIGHT OPENING	42-7/8" x 26-1/2"	GLAZING METHOD	Exterior
EXTERIOR COLOR	White	EXTERIOR FINISH	Vinyl
INTERIOR COLOR	White	INTERIOR FINISH	Vinyl
CORNER JOINERY	Mitered / Welds / Unsealed		

*Active sash stiles and bottom rail contained EPS insulation

Glazing Information

LAYER 1	DS	AGC Comfort Select 28 (e=0.023*, #2)	
GAP 1	0.56"	P1-S: Duralite Spacer	90% Argon*
LAYER 2	DS	AGC Comfort Select 73 (e=0.148*, #4)	
GAS FILL METHOD	Single-Probe Method*		

*Active sash had LowE on surface #1 & #3

**Stated per the client/manufacturer and can affect the validity of results*

N/A Non-Applicable

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SECTION 7 (CONTINUED)

TEST SAMPLE DESCRIPTION (CONTINUED)

Weatherstripping

DESCRIPTION	QUANTITY	LOCATION
Polypile with center fin	2 Rows	Active sash stiles and bottom rail
Polypile with center fin	1 Row	Fixed and active meeting rail and sill

Hardware

DESCRIPTION	QUANTITY	LOCATION
Plastic cam sweep lock	2	Active meeting rail
Plastic keeper	2	Fixed meeting rail
Constant force balance	2	Jambs
Plastic tilt-latch	2	Top corners of active sash
Metal pivot bar	2	Bottom corners of active sash

Drainage

DRAINAGE METHOD	SIZE	QUANTITY	LOCATION
Weepslot	0.25" x 0.13"	4	Two per active sash bottom rail and sill
Weepslot with cover	0.88" x 0.25"	2	Sill face

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SECTION 8

THERMAL TRANSMITTANCE (U-FACTOR): MEASURED TEST DATA

Heat Flows

1. Total Measured Input into Metering Box (Qtotal)	441.88 Btu/hr
2. Surround Panel Heat Flow (Qsp)	51.59 Btu/hr
3. Surround Panel Thickness	4.00 inches
4. Surround Panel Conductance	0.0475 Btu/hr-ft ² -F
5. Metering Box Wall Heat Flow (Qmb)	8.93 Btu/hr
6. EMF vs Heat Flow Equation (equivalent information)	0.0117*EMF + 0.015
7. Flanking Loss Heat Flow (Qfl)	9.37 Btu/hr
8. Net Specimen Heat Loss (Qs)	371.98 Btu/hr

Areas

1. Test Specimen Projected Area (As)	19.64 ft ²
2. Test Specimen Projected Frame Area (Af)	3.83 ft ²
3. Test Specimen Projected Glazing Area (Ag)	15.80 ft ²
4. Metering Box Opening Area (Amb)	36.11 ft ²
5. Metering Box Baffle Area (Ab1)	33.94 ft ²
6. Surround Panel Interior Exposed Area (Asp)	16.47 ft ²

Test Conditions

1. Average Metering Room Air Temperature (th)	69.83 F
2. Average Cold Side Air Temperature (tc)	-0.39 F
3. Average Guard/Environmental Air Temperature	71.27 F
4. Metering Room Average Relative Humidity	3.53 %
5. Metering Room Maximum Relative Humidity	4.41 %
6. Metering Room Minimum Relative Humidity	2.79 %
7. Measured Cold Side Wind Velocity (Perpendicular Flow)	12.66 mph
8. Measured Warm Side Wind Velocity (Parallel Flow)	NA mph
9. Measured Static Pressure Difference Across Test Specimen	0.00" ± 0.04" H ₂ O

Average Surface Temperatures

1. Metering Room Surround Panel	66.42 F
2. Cold Side Surround Panel	0.46 F

Results

1. Thermal Transmittance of Test Specimen (Us)	0.27 Btu/hr-ft ² -F
2. Standardized Thermal Transmittance of Test Specimen (Ust)	0.26 Btu/hr-ft ² -F

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SECTION 9

THERMAL TRANSMITTANCE (U-FACTOR): CALCULATED TEST DATA

CTS Method Results

1. Warm Side Surface Emittance of CTS (e1)	0.84
2. Warm Side Area-Weighted Surface Emittance of Specimen Frame (ef1)	0.90
3. Warm Side Area-Weighted Surface Emittance of Specimen Glazing (eg1)	0.49
4. Warm Side Surface Emittance of Surround Panel (esp1)	0.90
5. Warm Side Area-Weighted Surface Emittance in View of the Baffle (es1)	0.72
6. Warm Side Baffle Emittance (eb1)	0.92
7. Cold Side Baffle Emittance (eb2)	N/A
8. Equivalent Warm Side Surface Temperature (t1)	55.14 F
9. Equivalent Cold Side Surface Temperature (t2)	3.34 F
10. Warm Side Baffle Surface Temperature	69.34 F
11. Cold Side Baffle Surface Temperature	N/A F
12. Measured Warm Side Surface Conductance (hh)	1.29 Btu/hr·ft ² ·F
13. Measured Cold Side Surface Conductance (hc)	5.08 Btu/hr·ft ² ·F
14. Test Specimen Thermal Conductance (Cs)	0.37 Btu/hr·ft ² ·F
15. Convection Coefficient (Kc)	0.33 Btu/(hr·ft ² ·F ^{1.25})
16. Radiative Test Specimen Heat Flow (Qr1)	184.44 Btu/hr
17. Conductive Test Specimen Heat Flow (Qc1)	187.55 Btu/hr
18. Radiative Heat Flux of Test Specimen (qr1)	9.39 Btu/hr·ft ² ·F
19. Convective Heat Flux of Test Specimen (qc1)	9.55 Btu/hr·ft ² ·F
20. Standardized Warm Side Surface Conductance (hsth)	1.10 Btu/hr·ft ² ·F
21. Standardized Cold Side Surface Conductance (hstc)	5.28 Btu/hr·ft ² ·F
22. Standardized Thermal Transmittance (Ust)	0.26 Btu/hr·ft ² ·F

SECTION 10

TEST DURATION

1. The environmental systems were started at 06:49 hours, 11/08/21.
2. The test parameters were considered stable for two consecutive four hour test periods from 07:09 hours, 11/09/21 to 15:09 hours, 11/09/21.
3. The thermal performance test results were derived from 11:09 hours, 11/09/21 to 15:09 hours, 11/09/21.

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SECTION 11

GLAZING DEFLECTION

	FRAME	ACTIVE SASH
EDGE GAP WIDTH	0.56"	0.56"
ESTIMATED CENTER GAP WIDTH upon receipt of specimen in laboratory (after stabilization)	0.72"	0.53"
CENTER GAP WIDTH at laboratory ambient conditions on day of testing	0.72"	0.53"
CENTER GAP WIDTH at test conditions	0.59"	0.47"

Glass collapse determined using a digital glass and air space meter

The sample was inspected for the formation of frost or condensation, which may influence the surface temperature measurements. The sample showed no evidence of condensation/frost at the conclusion of the test.

“This test method does not include procedures to determine the heat flow due to either air movement through the specimen or solar radiation effects. As a consequence, the thermal transmittance results obtained do not reflect performances which are expected from field installations due to not accounting for solar radiation, air leakage effects, and the thermal bridge effects that have the potential to occur due to the specific design and construction of the fenestration system opening. The latter can only be determined by in-situ measurements. Therefore, it is important to recognize that the thermal transmittance results obtained from this test method are for ideal laboratory conditions and should only be used for fenestration product comparisons and as input to thermal performance analyses which also include solar, air leakage and thermal bridge effects.”

Required annual calibrations for the Intertek B&C, 'thermal test chamber' (ICN 000001) in York, Pennsylvania were last conducted in May 2021 in accordance with Intertek B&C calibration procedure. A CTS Calibration verification was performed October 2021. A Metering Box Wall Transducer and Surround Panel Flanking Loss Characterization was performed August 2021.

The reported Standardized Thermal Transmittance (Ust) was determined using CTS Method, per Section 9.2(A) of NFRC 102.

TEST REPORT FOR NORTH EAST WINDOWS USA, INC.

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SECTION 12

CTS CALIBRATION DATA

1. CTS Test Date	07/10/21
2. CTS Size	21.53 ft ²
3. CTS Glass/Core Conductance	0.42 Btu/hr·ft ² ·F
4. Warm Side Air Temperature	69.81 F
5. Cold Side Air Temperature	-0.36 F
6. Warm Side Average Surface Temperature	54.40 F
7. Cold Side Average Surface Temperature	3.80 F
8. Convection Coefficient (Kc)	0.33 Btu/(hr·ft ² ·F ^{1.25})
9. Measured Cold Side Surface Conductance (hc)	5.08 Btu/hr·ft ² ·F
10. Measured Thermal Transmittance	0.30 Btu/hr·ft ² ·F

ANSI/NCSL Z540-2-1997 type B uncertainty for this test was 2.13%.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule also called "Shared Risk Approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

"Ratings included in this report are for submittal to an NFRC licensed IA for certification purposes and are not meant to be used for labeling purposes. Only those options identified on a valid Certificate of Authorization (CA) are to be used for labeling purposes."

The direction of heat transfer was from the interior (warm side) to the exterior (cold side) of the specimen. The ratings were rounded in accordance to NFRC 601, NFRC Unit and Measurement Policy. The data acquisition frequency is 5 minutes.

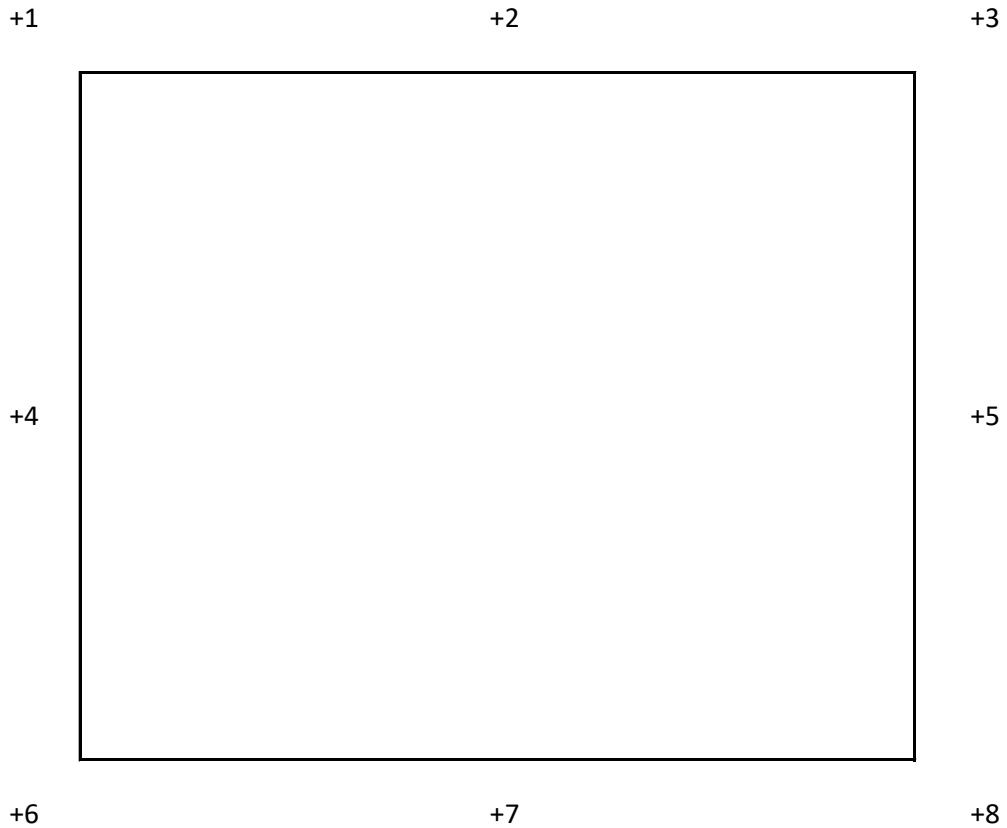
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SECTION 13

SURROUND PANEL WIRING DIAGRAM



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Date: 11/16/21

SECTION 14

BAFFLE WIRING DIAGRAM



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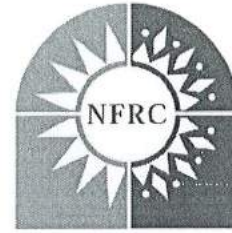
SECTION 15

SUBMITTAL FORM AND DRAWINGS

The test specimen drawings which follow have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

NFRC PRODUCT CERTIFICATION PROGRAM

Submittal Form for Test Samples



National Fenestration
Rating Council®

For use by Manufacturers, Lineal Suppliers and Fabricators

1. Information on Production of the Test Sample (complete **ALL** fields):

Manufacturer: Northeast Windows USA, INC. Date of sample manufacture: 9/30/2021

Plant Address where manufactured: 1 KEES PLACE

City: MERRICK State: NEW YORK Zip Code: 11566

Name of IA: ALI - FGIA Phone: 516-458-7465 Fax: 516-868-3577

2. Product Information (complete **APPLICABLE** fields):

Existing Product Line ID (CPD) No.: NEW-A-13 Product/Operator Type (Table 4-3 of NFRC 100): VSSH

Series/Model: SINGLE HUNG - SH660

3. Test sample is being submitted for (select **ONE**):

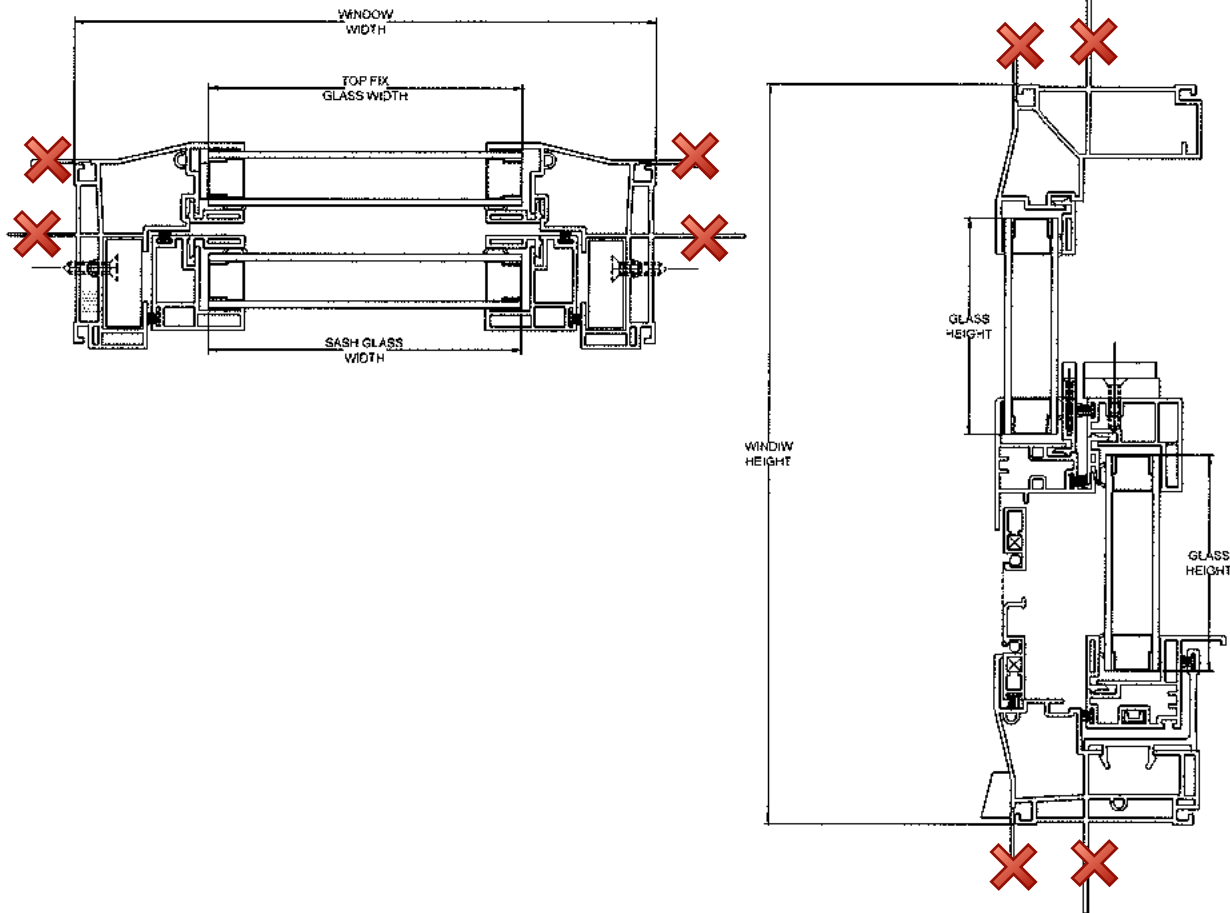
- a. Validation for Initial Certification (prototype only) no plant qualification
- b. Validation for Initial Certification or Recertification (production line unit) & plant qualification
- c. Plant Qualification Only (production line unit)
- d. Test Only Alternative (production line unit) & plant qualification

I, ALEX KAISERMAN, as the designated agent for NORTHEAST WINDOWS USA do hereby attest that the foregoing information is true to the best of my information, knowledge, and belief. Further, if the unit is identified in Section 3 as a production line unit, I hereby authorize the NFRC-accredited testing laboratory to send a copy of the test report to the IA identified above for plant qualification purposes pursuant to the NFRC Product Certification Program.

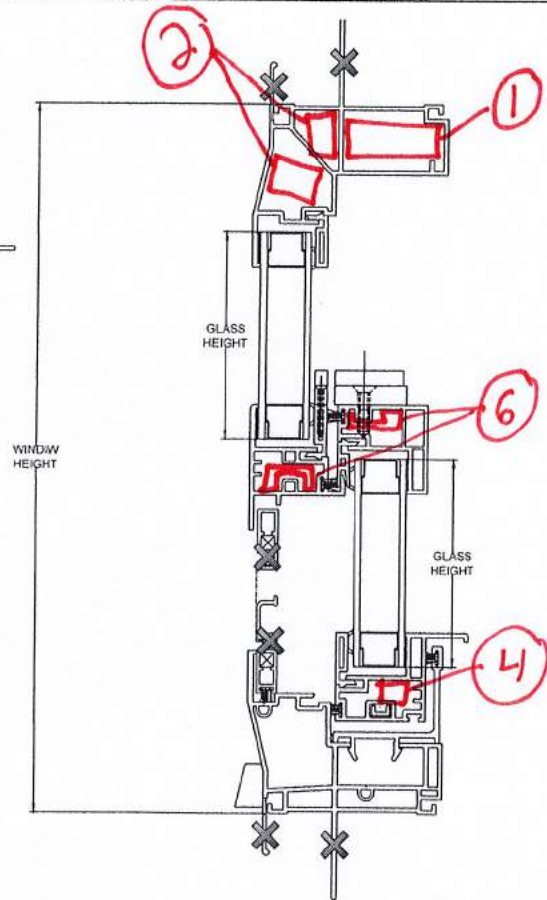
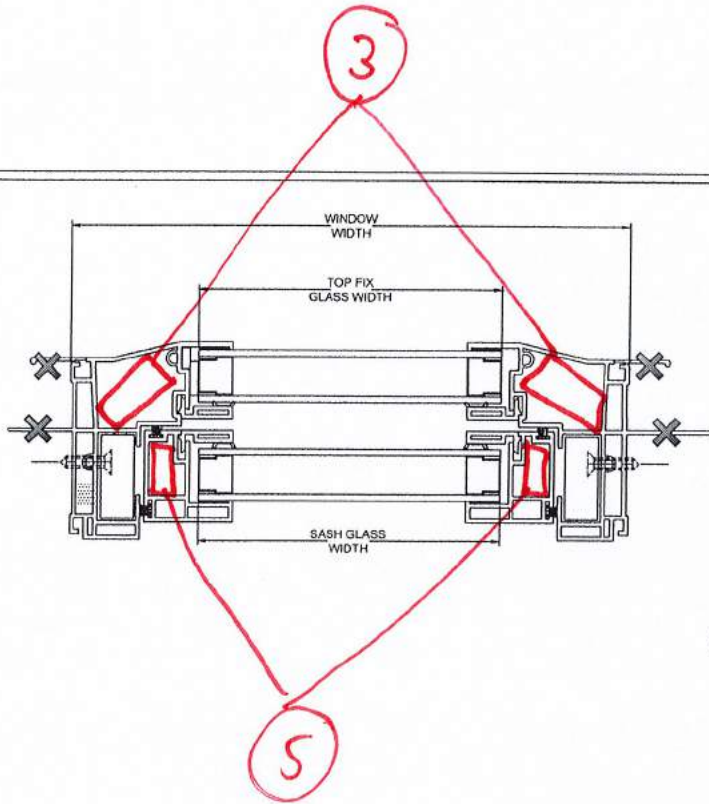
Signature: ALEX KAISERMAN Digitally signed by ALEX KAISERMAN Date: 2021.10.15 12:35:08 -04'00' Date: 10/15/2021

For Laboratory Use Only


- 1. Laboratory: Intertek
- 2. Date Sample Received: 10/13/21 Test Report #: M2623.01
- 3. Date Sample Tested: 11/9/21 By: PPM
- 4. Modifications made: _____



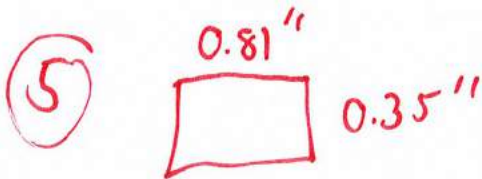
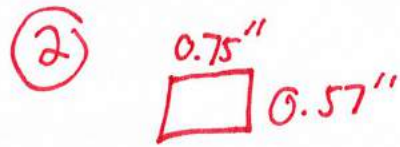
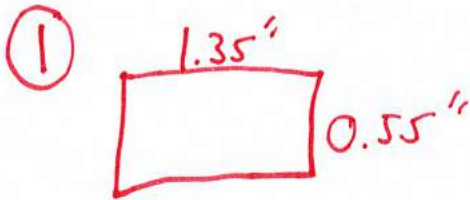
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NO.	REVISION	BY	DATE	DWS BY DDS	SCALE	DATE 09/14/14	CRD BY APPD BY
				*OUR NAME SAYS IT ALL		DWS NO C-SH CROSS CUT	



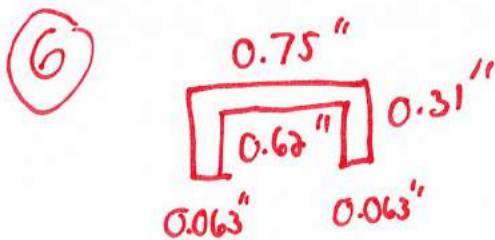
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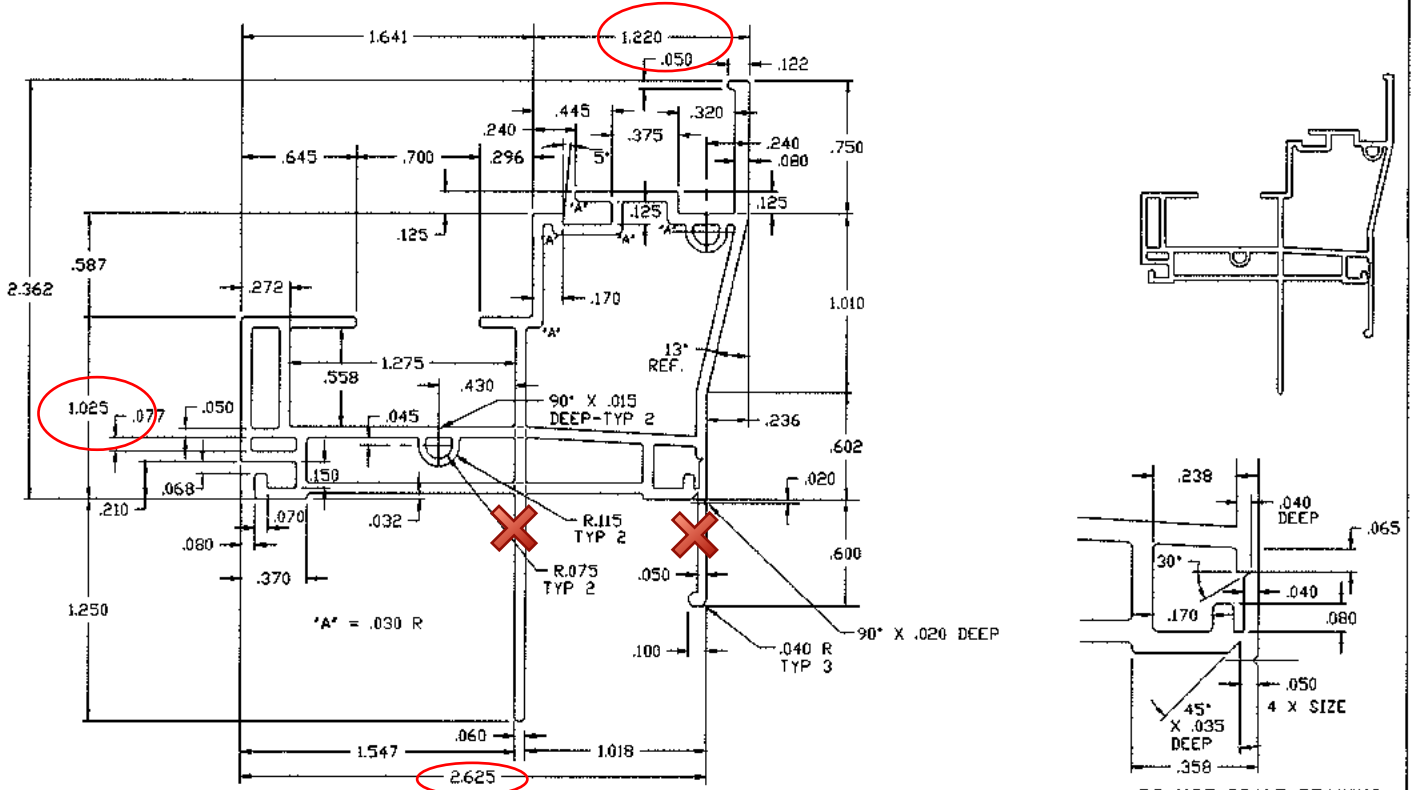
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Foam Inserts - EPS Insulation



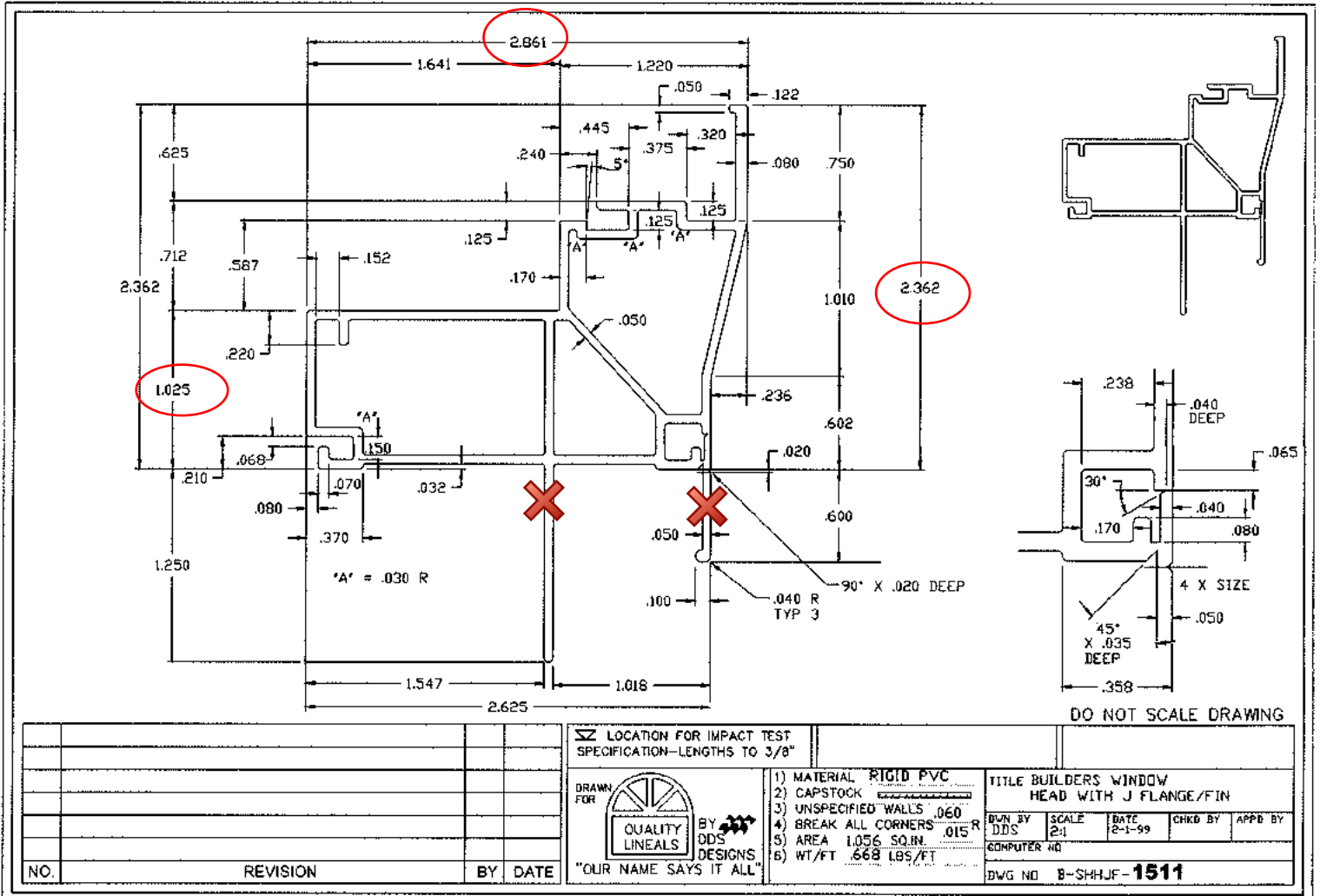
Aluminum Reinforcement

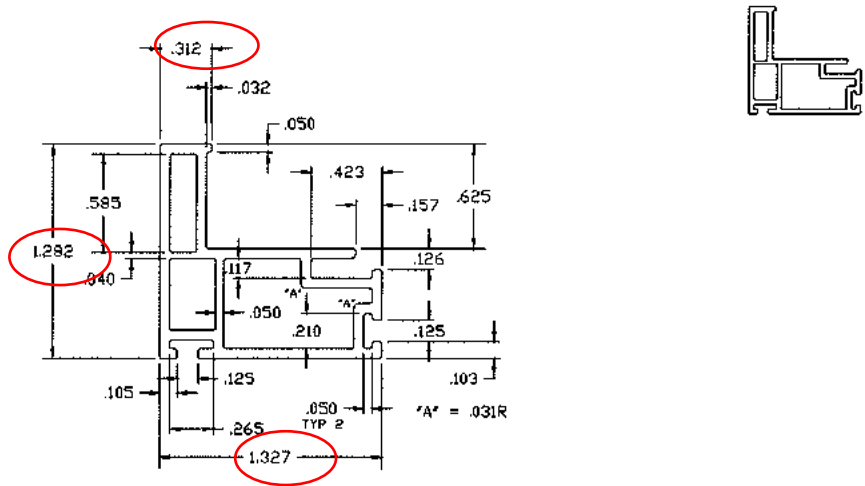






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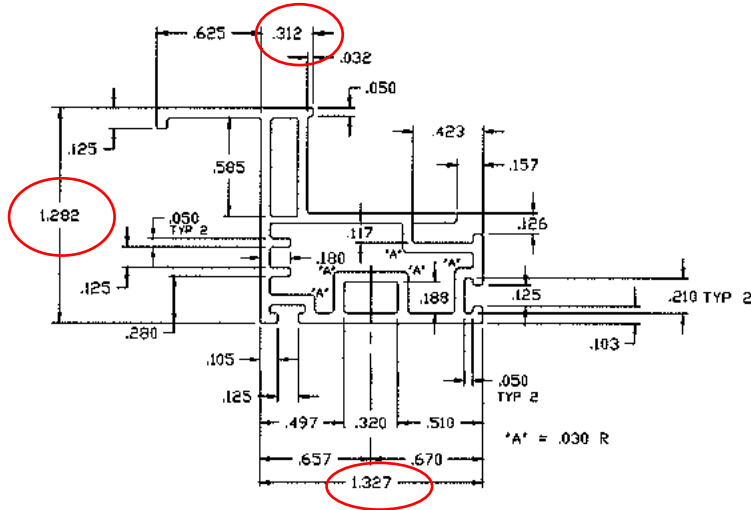
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<p>COMPUTER NO</p>				<p>APPD BY</p>
<p>DWG NO B-SHJUF-1512</p>				<p>CHKD BY</p>





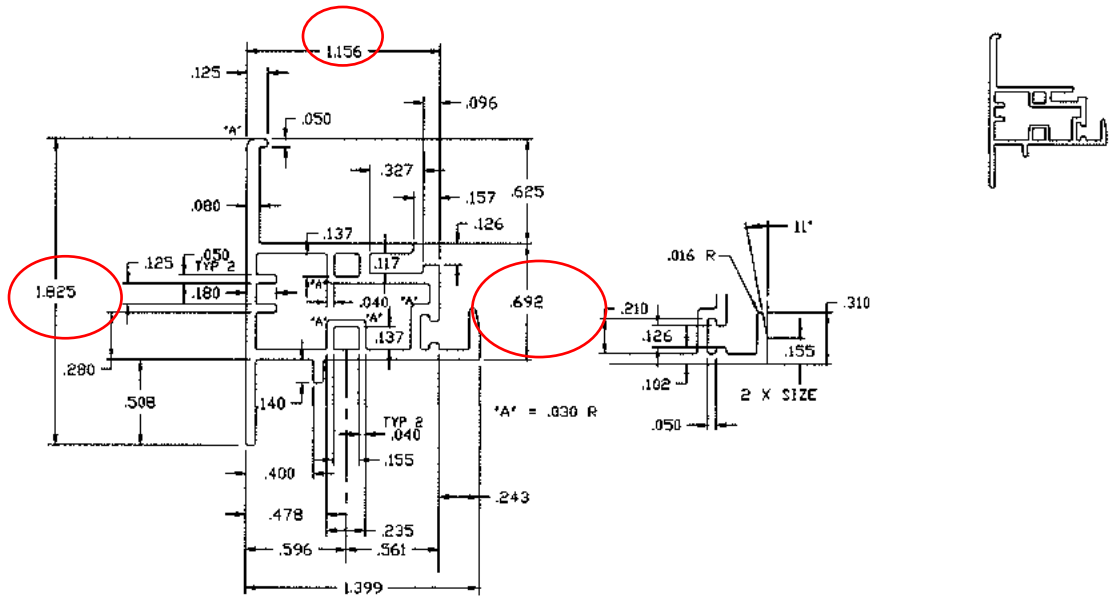
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						DWG NO B-SHSS-1000					




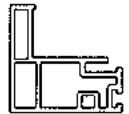
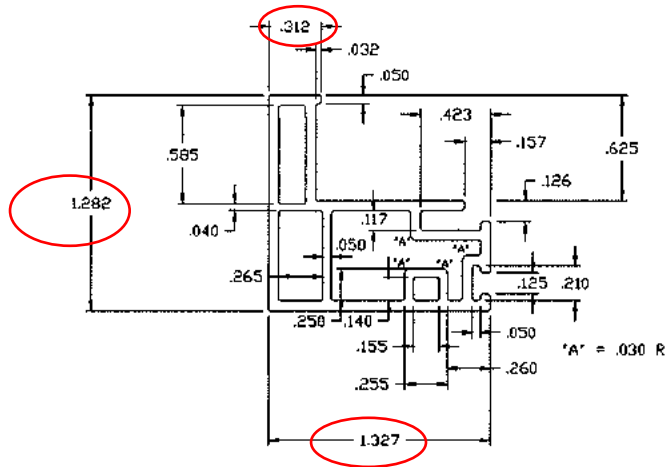
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					COMPUTER NO		DWG NO B-SHSH-1002	



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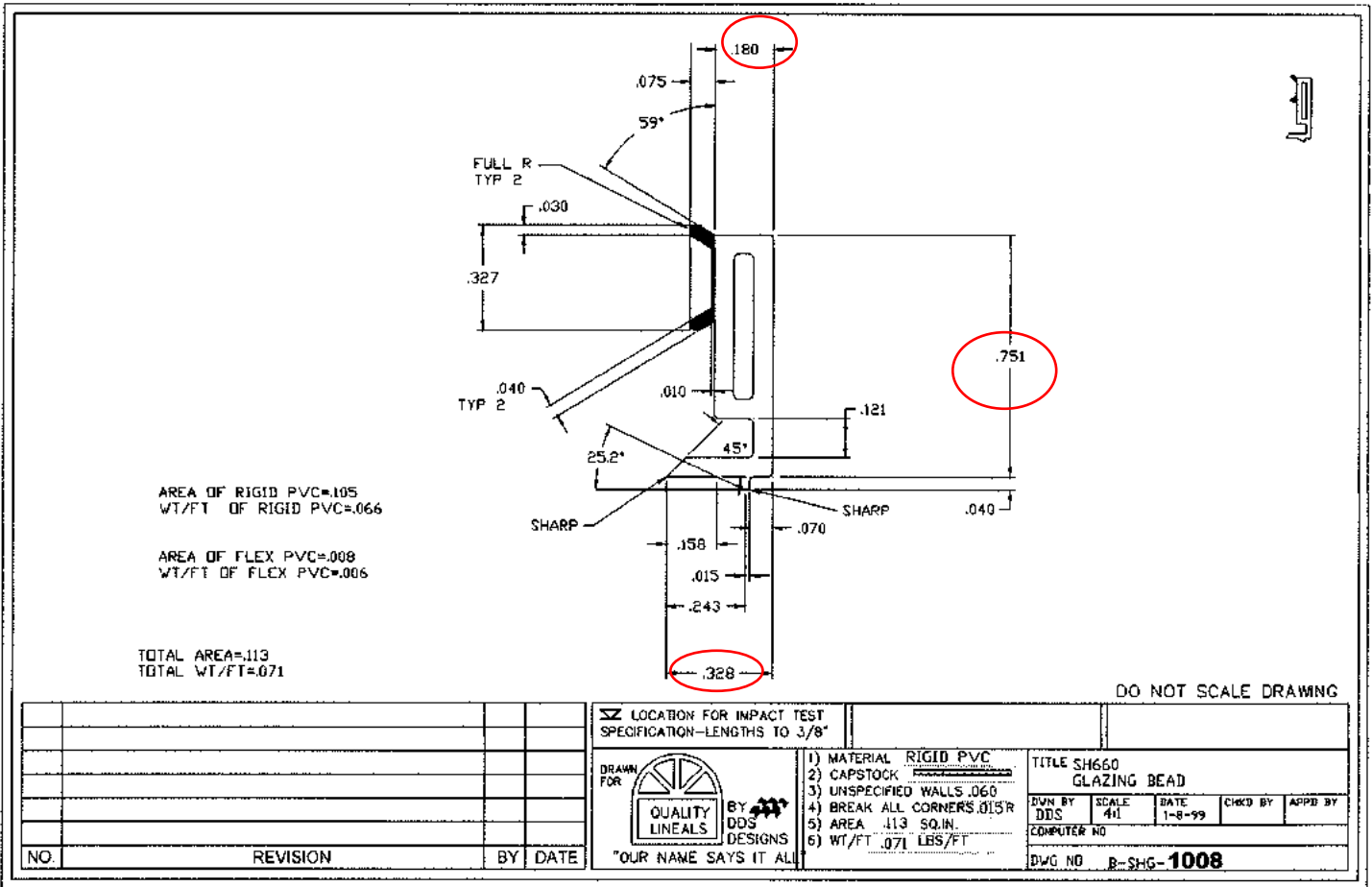
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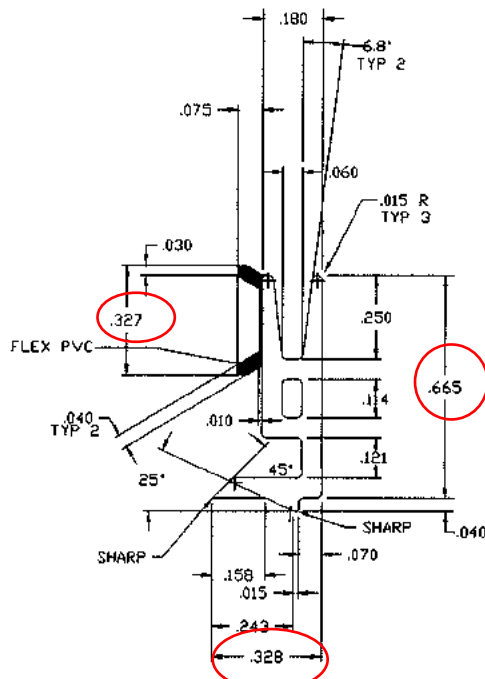


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			DRAWN FOR QUALITY LINEALS "OUR NAME SAYS IT ALL"	1) MATERIAL RIGID PVC 2) CAPSTOCK 3) UNSPECIFIED WALLS .065 4) BREAK ALL CORNERS .015R 5) AREA .407 SQ. IN. 6) WT/FT .256 LBS/FT			TITLE SH660 FEMALE DWN BY DDS SCALE 2:1 DATE 1-6-99 CHKB BY APPD BY COMPUTER NO.		
NO.	REVISION	BY DATE		DWG NO B-SHLR-1004					

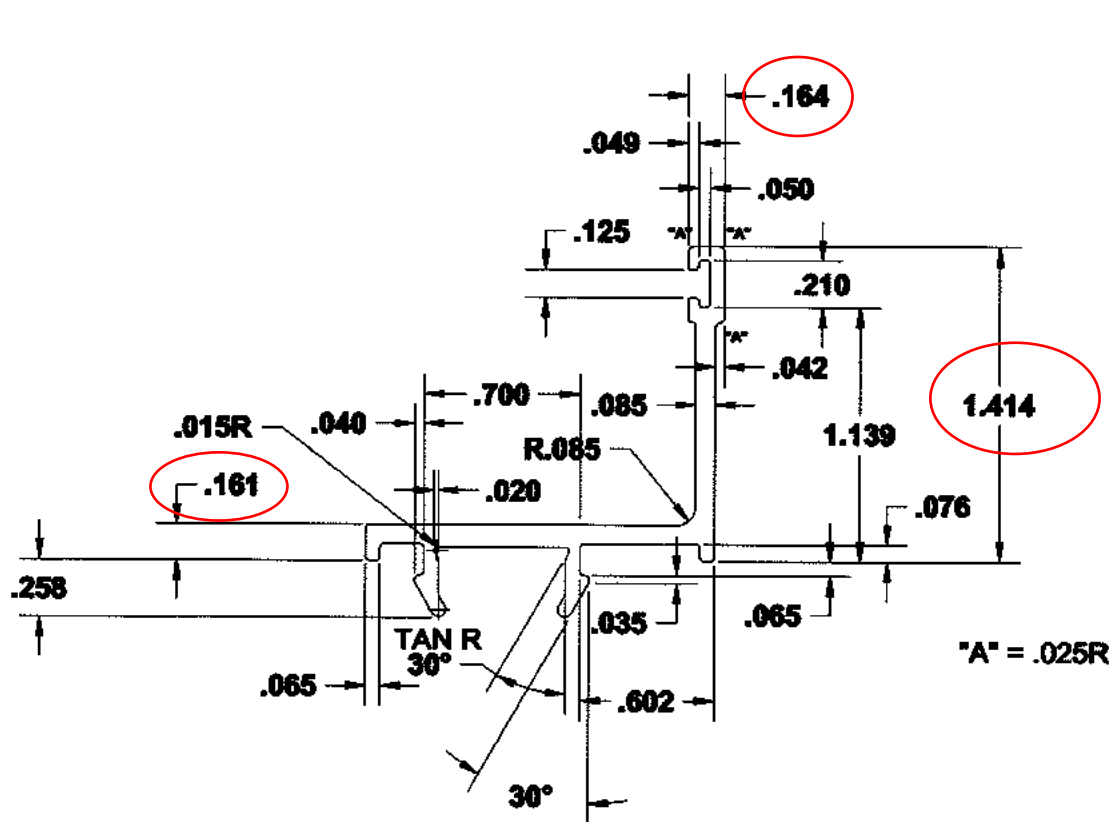




AREA OF RIGID PVC=.095
WT/FT OF RIGID PVC=.054
AREA OF FLEX PVC=.008
WT/FT OF FLEX PVC=.006


DO NOT SCALE DRAWING

				<input checked="" type="checkbox"/> LOCATION FOR IMPACT TEST SPECIFICATION—LENGTHS TO 3/8"			
		DRAWN FOR  BY DDS DESIGNS "OUR NAME SAYS IT ALL"		1) MATERIAL RIGID PVC 2) CAPSTOCK 3) UNSPECIFIED WALLS .060 4) BREAK ALL CORNERS .015 R 5) AREA .093 SQ. IN. 6) WT/FT .060 LBS/FT		TITLE SH660 SH-INTERLOCK GLAZING BEAD DWN BY BDS SCALE 4:1 DATE 1-8-99 CHKD BY APPD BY COMPUTER NO DWG NO B-SHG1-1009	
NO.	REVISION	BY	DATE				



DO NOT SCALE DRAWING

NO.	REVISION	BY	DATE

 QUALITY LINEALS BY DDS DESIGNS "OUR NAME SAYS IT ALL"	LOCATION FOR IMPACT TEST SPECIFICATION-LENGTHS TO 38"	ALLOWABLE BOW MAX. 1" PER 14' ANGULARITY TO BE ± 1/2°	TOLERANCES- XX ± .010 XXX ± .005
	1) MATERIAL RIGID PVC 2) CAPSTOCK 3) UNSPECIFIED WALLS .065 4) BREAK ALL CORNERS .015 R 5) AREA 348 SQ. IN. 6) WT/FT .163 LBS/FT	TITLE SH SILL INSERT TALL DRAWN BY DDS SCALE 2 X SIZE DATE 09/10/14 CHECK BY APPD BY COMPUTER NO. DWG NO XXXX	

SH660

N.E. P/N	Qty	Description	Vendor P/N	Vendor	U.O.M.
		FRAME PARTS			
1511-00		FRAME, HEAD, W / FIN & J WHITE	1511-00	QUALITY	FT
1511-10		FRAME, HEAD, W / FIN & J ALMOND	1511-10	QUALITY	FT
1511-40		FRAME, HEAD, W / FIN & J CREAM	1511-40	QUALITY	FT
1011-00		FRAME, HEAD, NO / FIN & J WHITE	1011-00	QUALITY	FT
1011-10		FRAME, HEAD, NO / FIN & J ALMOND	1011-10	QUALITY	FT
1011-40		FRAME, HEAD, NO / FIN & J CREAM	1011-40	QUALITY	FT
1512-00		FRAME, SILL, W / FIN & J, WHITE	1512-00	QUALITY	FT
1512-10		FRAME, SILL, W / FIN & J, ALMOND	1512-10	QUALITY	FT
1512-40		FRAME, SILL, W / FIN & J, CREAM	1512-40	QUALITY	FT
1012-00		FRAME, SILL, NO / FIN & J, WHITE	1012-00	QUALITY	FT
1012-10		FRAME, SILL, NO / FIN & J, ALMOND	1012-10	QUALITY	FT
1012-40		FRAME, SILL, NO / FIN & J, CREAM	1012-40	QUALITY	FT
1512-00		FRAME, JAMB, W / FIN & J, WHITE	1512-00	QUALITY	FT
1512-10		FRAME, JAMB, W / FIN & J, ALMOND	1512-10	QUALITY	FT
1512-40		FRAME, JAMB, W / FIN & J, CREAM	1512-40	QUALITY	FT
1012-00		FRAME, JAMB, NO / FIN & J, WHITE	1012-00	QUALITY	FT
1012-10		FRAME, JAMB, NO / FIN & J, ALMOND	1012-10	QUALITY	FT
1012-40		FRAME, JAMB, NO / FIN & J, CREAM	1012-40	QUALITY	FT
1014-00		SILL INSERT, WHITE	1014-00	QUALITY	FT
1014-10		SILL INSERT, ALMOND	1014-10	QUALITY	FT
1014-40		SILL INSERT, CREAM	1014-40	QUALITY	FT
1008-00	1	GLAZING BEAD, PLAIN, WIDTH, WHITE	1008-00	QUALITY	FT
1008-10	1	GLAZING BEAD, PLAIN WIDTH, ALMOND	1008-10	QUALITY	FT
1008-40	1	GLAZING BEAD, PLAIN WIDTH, CREAM	1008-40	QUALITY	FT
1009-00	1	GLAZING BEAD, INTERLOCK, WIDTH, WHITE	1009-00	QUALITY	FT
1009-10	1	GLAZING BEAD, INTERLOCK, WIDTH, ALMOND	1009-10	QUALITY	FT
1009-40	1	GLAZING BEAD, INTERLOCK, WIDTH, CREAM	1009-40	QUALITY	FT
1008-00	2	GLAZING BEAD, PLAIN, HEIGHT, WHITE	1008-00	QUALITY	FT
1008-10	2	GLAZING BEAD, PLAIN, HEIGHT, ALMOND	1008-10	QUALITY	FT
1008-40	2	GLAZING BEAD, PLAIN, HEIGHT, CREAM	1008-40	QUALITY	FT
10059		WOOLPILE WHITE, 290 X .187	29018745WHGF	AMESBURY	FT
1003-00	1	CENTER MULLION, WHITE	1003-00	QUALITY	FT
1003-10	1	CENTER MULLION, ALMOND	1003-10	QUALITY	FT
1003-40	1	CENTER MULLION, CREAM	1003-40	QUALITY	FT
10000	2	TRANSOM CONNECTOR	10000	ACTIVE PRODUCTS SYSTEM	EA
10294	8	6A X 3/4 PH FLAT HD STL ZNC PL TAP SCREW	06A06PFSZ	MERCHANTS FASTENER CO	EA
10041		KEEPER, SINGLE HUNG, WHITE	BW SLK 04	ACTIVE PRODUCTS SYSTEM	EA
10297		KEEPER, SINGLE HUNG, ALMOND	AM SLK 04	ACTIVE PRODUCTS SYSTEM	EA
10298		KEEPER, SINGLE HUNG, CREAM	YW SLK 04	ACTIVE PRODUCTS SYSTEM	EA
10295		#6 X 1/2 PHIL FLAT HD SMS A #4HD #2 PHIL 410 SS	08A05PFSZWHT	MERCHANTS FASTENER CO	EA
10239		BALANCE 3.5LB	803003	AMESBURY-BSI	PCS
10240		BALANCE 4.5LB	803004	AMESBURY-BSI	PCS
10066		BALANCE 5.5LB	803005	AMESBURY-BSI	PCS
10067		BALANCE 6.5LB	803006	AMESBURY-BSI	PCS
10068		BALANCE 7.5LB	803007	AMESBURY-BSI	PCS
10069		BALANCE 9LB	803009	AMESBURY-BSI	PCS
10070		BALANCE 10LB	803010	AMESBURY-BSI	PCS
10241		BALANCE 11LB	803011	AMESBURY-BSI	PCS
10242		BALANCE 12LB	803012	AMESBURY-BSI	PCS
10243		BALANCE 13LB	803013	AMESBURY-BSI	PCS
10244		BALANCE 14LB	803014	AMESBURY-BSI	PCS
10245		BALANCE 15LB	803015	AMESBURY-BSI	PCS
10246		BALANCE 16.5LB	803016	AMESBURY-BSI	PCS
10142		8 X 2 PHIL PAN (4 PER BAG) INSTALL	8N200AXPSZ/4BAG	UNEEEDA BOLT	PCS
10271		FOAM WRAP, 3/4 X 1 1/2 X 75 FT, PSA ONE SIDE	WWW-0750X1500X75	SECON RUBBER & PLASTICS	FT
10132		12" x 6500' MACHINE WINDOW FILM (80 PER SKID)	WIN 12-6500	ULTRA-PAK INCORPORATED	FT
		1/16"x3/4"x3/4" REINFORCEMENT	8245	ASTRO SHAPES	FT
		1/4"x3/4" PART 1003 REINFORCEMENT	8AR	ASTRO SHAPES	FT
		SASH PARTS			
1004-00	1	SASH LOCK RAIL, WHITE	1004-00	QUALITY	FT
1004-10	1	SASH LOCK RAIL, ALMOND	1004-10	QUALITY	FT
1004-40	1	SASH LOCK RAIL, CREAM	1004-40	QUALITY	FT
1002-00	1	SASH HANDLE, WHITE	1002-00	QUALITY	FT
1002-10	1	SASH HANDLE, ALMOND	1002-10	QUALITY	FT
1002-40	1	SASH HANDLE, CREAM	1002-40	QUALITY	FT
1000-00	2	SASH HEIGHT, WHITE	1000-00	QUALITY	FT
1000-10	2	SASH HEIGHT, ALMOND	1000-10	QUALITY	FT
1000-40	2	SASH HEIGHT, CREAM	1000-40	QUALITY	FT
10285	2	PIVOT BAR	23111	AMESBURY	PCS
10199	4	8A X 5/8 PH TRUSS HD 410SS TAP SCREW	06A05PT4H	MERCHANTS FASTENERS CO	PCS
10296		SASH LOCK, SINGLE HUNG, WHITE	600/601-234	LAWRENCE	PCS
10297		SASH LOCK, SINGLE HUNG, ALMOND	AM024N-22	ACTIVE	PCS
10298		SASH LOCK, SINGLE HUNG, CREAM	YW024N-23	ACTIVE	PCS
10293		8A X 5/8 PH FLAT HD WHT, STL ZNC PL TAP SCREW	08A05PFSZWHT	MERCHANTS FASTENERS CO	PCS
10253	1	TILT LATCH, WHITE, LEFT, WELDED, SHARK FIN	BW 015B1X313-L	ACTIVE	PCS
10252	1	TILT LATCH, WHITE, RIGHT, WELDED, SHARK FIN	BW 015B1X313-R	ACTIVE	PCS
10259	1	TILT LATCH, ALMOND, LEFT, WELDED, SHARK FIN	AM 015B1X313-L	ACTIVE	PCS
10258	1	TILT LATCH, ALMOND, RIGHT, WELDED, SHARK FIN	AM 015B1X313-R	ACTIVE	PCS

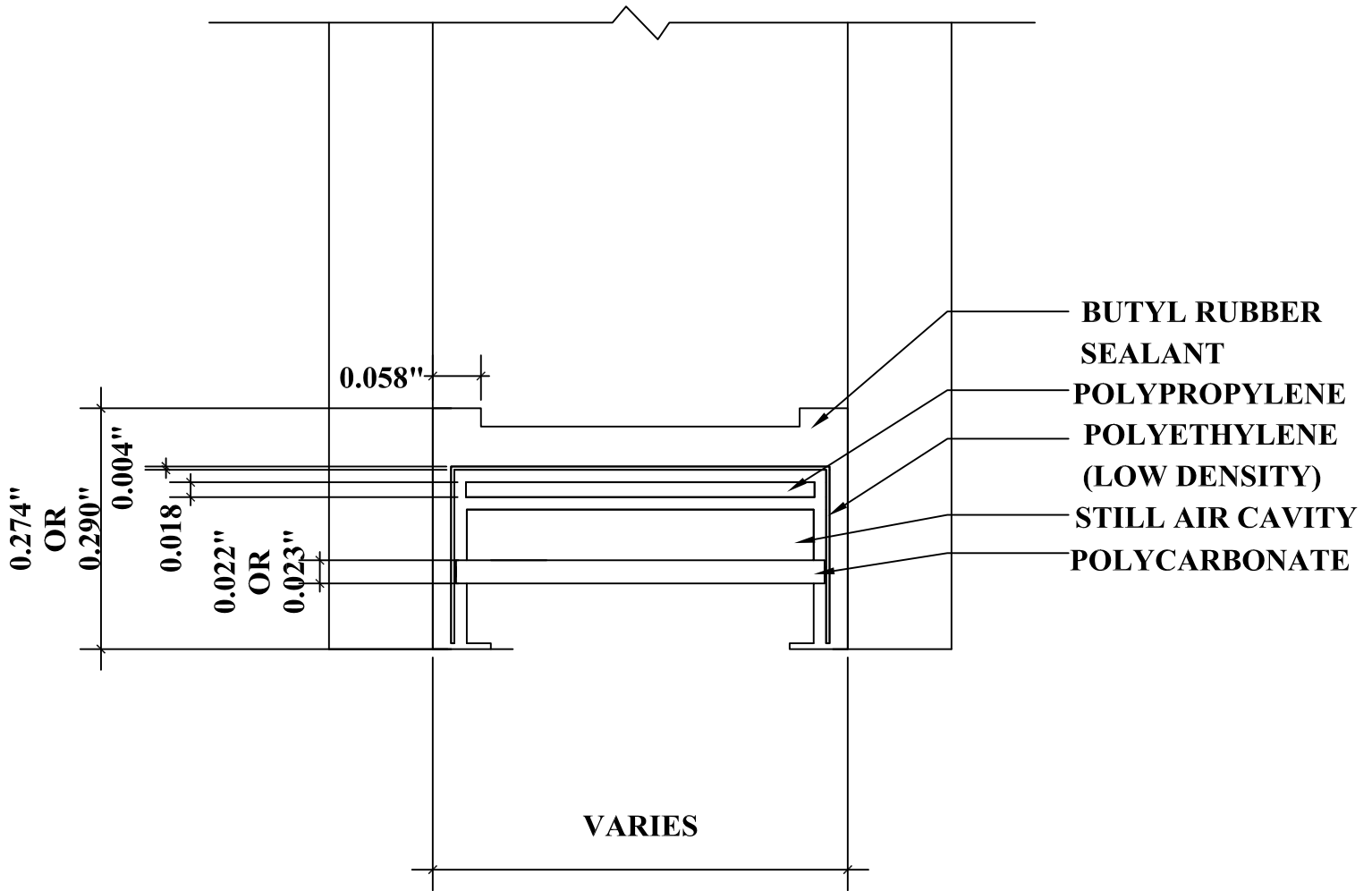
N.E. P/N	Qty	Description	Vendor P/N	Vendor	U.O.M.
10255	1	TILT LATCH, CREAM, LEFT, WELDED, SHARK FIN	YW 015B1X313-L	ACTIVE	PCS
10254	1	TILT LATCH, CREAM, RIGHT, WELDED, SHARK FIN	YW 015B1X313-R	ACTIVE	PCS
10059		WOOLPILE WHITE, .290 X .187	29018745WHGF	AMESBURY	FT
10179		QET 300-1 BULB VINYL WHITE, 300 X 190	U1233-00000	SCHLEGAL SYSTEMS, INC	FT
		"L" BRACKET 2"x2"		SUMMIT	PCS
		1/16"x3/4"x5/16" REINFORCEMENT	AEROLITE	N5700	FT

 Total Quality. Assured.	Report #:	M2623-116-46
	Date:	11/09/2021
	Verified by:	<i>Ryan P. Moser</i>

N.E. P/N	Qty	Description	Vendor P/N	Vendor	U.O.M.
		GLASS PARTS			
10100		GLASS, 72 X 84 SSB, CLEAR	1140	AGC	SQ FT
10283		GLASS, 72 X 84 DSB, CLEAR	1456	AGC	SQ FT
10101		GLASS, 72 X 84 SSB, LOW CS36	5343	AGC	SQ FT
10284		GLASS, 48 X 60 OBSCURE	451997	AGC	SQ FT
10190		GLASS, TEMPERED, CLEAR	18CT	GLASS AMERICA	SQ FT
10191		GLASS, TEMPERED, OBSCURE	62DT	GLASS AMERICA	SQ FT
10192		GLASS, TEMPERED, CLEAR LOW E	18LE	GLASS AMERICA	SQ FT
10249		GLASS, 72 X 84 SSB, LOW CS28	003-00	AGC	SQ FT
10329		GLASS, 72 X 84 SSB, LOW CS73	003-01	AGC	SQ FT
10250		GLASS, 72 X 84 SSB, LOW E, 70/36	70/36	GLASS AMERICA	SQ FT
10301		9/16" GRAY DURALITE	824-56H-357	QUANEX	FT
10102		3/16 X .610 WHITE MUNTIN	0415USVBI	RAMAPO	FT
10211		3/16 X .610 TAN MUNTIN	0415USVTAN	RAMAPO	FT
10110		3/16 X 5/8 A CLIPS INTERNAL MUNTIN CROSSES	CRO416IJ	RAMAPO	PCS
10127		GRIDLOC CLIPS 3/16 X 5/8 X 9/16 5000 PCS, 7/8 GLA	318-58GL-580	QUANEX	PCS
10105		8 X 18 WHITE ELISABETH MUNTIN	0818EVBI	RAMAPO	FT
10214		8 X 18 TAN ELISABETH MUNTIN	0818EVB TAN	RAMAPO	FT
10109		8 X 18 WHITE EXTERNAL CROSSES	CRO818E-BI	RAMAPO	PCS
10216		8 X 18 TAN EXTERNAL CROSSES	CRO818E-TAN	RAMAPO	PCS
10107		BAVIERA BRIGHT GOLD PENCIL BAR	BAV-PB-BG	RAMAPO	FT
10108		BAVIERA WHITE PENCIL BAR	BAV-PB-WH	RAMAPO	FT
10106		BAVIERA BRIGHT GOLD NYLON CENTER KEYS	BAV-CK-NY-BG	RAMAPO	PCS
10217		BAVIERA WHITE NYLON CENTER KEYS	BAV-CK-NY-WH	RAMAPO	PCS
10218		BAVIERA BRIGHT GOLD NYLON 90Y	BAV-90Y-NY-BG	RAMAPO	PCS
10219		BAVIERA WHITE NYLON 90Y	BAV-90Y-NY-BI	RAMAPO	PCS



Report #: M2623-116-46
Date: 11/09/2021
Verified by: *Ryan P. Moser*



DETAIL FOR THERMAL MODELING OF
QUANEX DURALITE SPACER (P1-S)

TEST REPORT FOR NORTH EAST WINDOWS USA, INC.

Report No.: M2623.01-116-46 R0

Date: 11/16/21

SECTION 16

REVISION LOG

REVISION #	DATE	PAGES	REVISION
.01 R0	11/16/21	N/A	Original Report Issue