

# NORTH EAST WINDOWS USA THERMAL PERFORMANCE TEST REPORT

**SCOPE OF WORK**

900 DOUBLE HUNG

**REPORT NUMBER**

J8171.01-116-46 R0

**TEST DATE**

08/28/19

**ISSUE DATE**

09/09/19

**RECORD RETENTION END DATE**

08/28/24

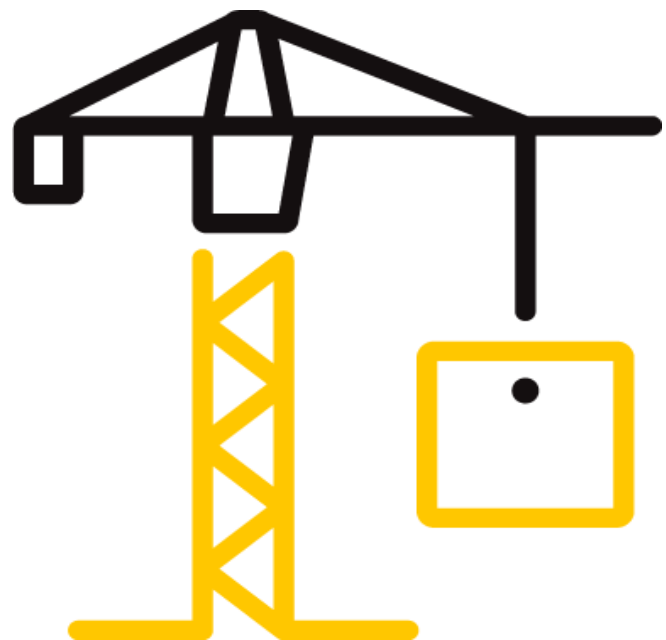
**PAGES**

25

**DOCUMENT CONTROL NUMBER**

RTTDS-R-AMER-Test-2822(a) (07/07/18)

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**TEST REPORT FOR NORTH EAST WINDOWS USA, INC.**

Report No.: J8171.01-116-46 R0  
Date: 09/09/19

**REPORT ISSUED TO**  
**NORTH EAST WINDOWS USA, INC.**  
One Kees Place  
Merrick, New York 11566

**SECTION 1**  
**SCOPE**

**SERIES/MODEL: 900 Double Hung**  
**TYPE: Vertical Slider (Double Hung)**

Intertek Building & Construction (Intertek B&C) was contracted by North East Windows USA, Inc. to evaluate the thermal performance per NFRC 102-2017. The purpose of this testing was to evaluate the U-Factor performance. 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. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

**SECTION 2**  
**SUMMARY OF TEST RESULTS**

Standardized U-factor (Ust): 0.27 Btu/hr-ft<sup>2</sup>·F (CTS Method)

For INTERTEK B&C:

<b>COMPLETED BY</b>	Ryan P. Moser
<b>TITLE</b>	Senior Technician
<b>SIGNATURE</b>	
<b>DATE</b>	09/09/19

RPM:pan

<b>REVIEWED BY</b>	Shon W. Einsig
<b>TITLE</b>	Technician Team Leader, IIRC
<b>SIGNATURE</b>	
<b>DATE</b>	09/09/19

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**TEST REPORT FOR NORTH EAST WINDOWS USA, INC.**

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**SECTION 3**

**TEST SPECIMEN SUMMARY**

<b>SERIES/MODEL</b>	900 Double Hung
<b>TYPE</b>	Vertical Slider (Double Hung)
<b>OVERALL SIZE</b>	47-1/4" x 59" (1200 mm x 1499 mm) (Model Size)
<b>NFRC STANDARD SIZE</b>	47.2" x 59.1" (1200 mm wide x 1500 mm high)
<b>TEST SAMPLE SUBMITTED BY</b>	Client
<b>TEST SAMPLE SUBMITTED FOR</b>	Validation for Recertification (Production Line Unit) & Plant Qualification

**SECTION 4**

**TEST METHOD**

The specimens were evaluated in accordance with the following:

**NFRC 102-2017**, Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems

**SECTION 5**

**MATERIAL SOURCE/INSTALLATION**

The test specimen was provided by the client. Representative samples of the test specimen will be retained by Intertek B&C for a minimum of two and half years from the submittal date to the Inspection Agency and no more than 5 years from the test date.

**Test Chamber Installation**

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**

<b>NAME</b>	<b>COMPANY</b>
Ryan P. Moser	Intertek B&C
Shon W. Einsig	Intertek B&C

**TEST REPORT FOR NORTH EAST WINDOWS USA, INC.**

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**SECTION 7**

**TEST SAMPLE DESCRIPTION**

**Frame**

<b>MATERIAL</b>	VY: Vinyl*		
<b>SIZE</b>	47-1/4" x 59" (Model Size)		
<b>DAYLIGHT OPENING</b>	N/A	<b>GLAZING METHOD</b>	N/A
<b>EXTERIOR COLOR</b>	White	<b>EXTERIOR FINISH</b>	Vinyl
<b>INTERIOR COLOR</b>	White	<b>INTERIOR FINISH</b>	Vinyl
<b>CORNER JOINERY</b>	Mitered / Welds / Unsealed		

\*Jambs contained EPS insulation in exterior cavity

**Exterior Sash**

<b>MATERIAL</b>	VY: Vinyl		
<b>SIZE</b>	43-3/4" x 28-1/8"		
<b>DAYLIGHT OPENING</b>	40-1/2" x 24-7/8"	<b>GLAZING METHOD</b>	Exterior
<b>EXTERIOR COLOR</b>	White	<b>EXTERIOR FINISH</b>	Vinyl
<b>INTERIOR COLOR</b>	White	<b>INTERIOR FINISH</b>	Vinyl
<b>CORNER JOINERY</b>	Mitered / Welds / Unsealed		

**Interior Sash**

<b>MATERIAL</b>	VI: Vinyl with Interlock Reinforced with Aluminum		
<b>SIZE</b>	44-3/4" x 29-1/8"		
<b>DAYLIGHT OPENING</b>	41-1/2" x 25-7/8"	<b>GLAZING METHOD</b>	Exterior
<b>EXTERIOR COLOR</b>	White	<b>EXTERIOR FINISH</b>	Vinyl
<b>INTERIOR COLOR</b>	White	<b>INTERIOR FINISH</b>	Vinyl
<b>CORNER JOINERY</b>	Mitered / Welds / Unsealed		

**Glazing Information**

<b>LAYER 1</b>	DS	AGC Comfort Select 28 (e=0.023*, #2)	
<b>GAP 1</b>	0.63"	P1-S: Duralite Spacer	90% Argon*
<b>LAYER 2</b>	DS	AGC Comfort Select 73 (e=0.148*, #4)	
<b>GAS FILL METHOD</b>	Single-Probe Method*		

\*Stated per Client/Manufacturer

N/A Non-Applicable

**TEST REPORT FOR NORTH EAST WINDOWS USA, INC.**

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**SECTION 7 (CONTINUED)**

**TEST SAMPLE DESCRIPTION (CONTINUED)**

**Weatherstripping**

DESCRIPTION	QUANTITY	LOCATION
Polypile with center fin	2 Rows	All stiles and exterior meeting rail
Polypile with center fin	1 Row	Interior meeting rail, top rail and sill
Wrapped foam gasket	1 Row	Bottom rail

**Hardware**

DESCRIPTION	QUANTITY	LOCATION
Plastic cam sweep lock	2	Interior meetign rail
Plastic keeper	2	Exterior meetign rail
Metal pivot bar	4	Bottom corners of each sash
Plastic tilt-latch	4	Top rail of each sash
Safety latch	2	Exterior sash stiles
Constant force balance	4	Two per jambs
Vinyl insert	1	Head

**Drainage**

DRAINAGE METHOD	SIZE	QUANTITY	LOCATION
Weepslot	0.38" x 0.13"	6	Bottom corners of eash sash, screen track
Diameter weephole	0.25"	2	Screen track
Weepslot	1.19" x 0.13"	2	Sill face
Sloped sill		1	Sill

**TEST REPORT FOR NORTH EAST WINDOWS USA, INC.**

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**SECTION 8**

**THERMAL TRANSMITTANCE (U-FACTOR): MEASURED TEST DATA**

**Heat Flows**

1. Total Measured Input into Metering Box (Qtotal)	448.22 Btu/hr
2. Surround Panel Heat Flow (Qsp)	51.64 Btu/hr
3. Surround Panel Thickness	4.00 inches
4. Surround Panel Conductance	0.0472 Btu/hr-ft <sup>2</sup> -F
5. Metering Box Wall Heat Flow (Qmb)	8.59 Btu/hr
6. EMF vs Heat Flow Equation (equivalent information)	0.0124*EMF + -0.206
7. Flanking Loss Heat Flow (Qfl)	13.59 Btu/hr
8. Net Specimen Heat Loss (Qs)	374.40 Btu/hr

**Areas**

1. Test Specimen Projected Area (As)	19.36 ft <sup>2</sup>
2. Test Specimen Interior Total (3-D) Surface Area (Ah)	23.46 ft <sup>2</sup>
3. Test Specimen Exterior Total (3-D) Surface Area (Ac)	23.55 ft <sup>2</sup>
4. Metering Box Opening Area (Amb)	36.11 ft <sup>2</sup>
5. Metering Box Baffle Area (Ab1)	33.94 ft <sup>2</sup>
6. Surround Panel Interior Exposed Area (Asp)	16.75 ft <sup>2</sup>

**Test Conditions**

1. Average Metering Room Air Temperature (th)	69.81 F
2. Average Cold Side Air Temperature (tc)	-0.40 F
3. Average Guard/Environmental Air Temperature	71.25 F
4. Metering Room Average Relative Humidity	13.95 %
5. Metering Room Maximum Relative Humidity	14.83 %
6. Metering Room Minimum Relative Humidity	12.46 %
7. Measured Cold Side Wind Velocity (Perpendicular Flow)	12.66 mph
8. Measured Warm Side Wind Velocity (Parallel Flow)	N/A mph
9. Measured Static Pressure Difference Across Test Specimen	0.00" ± 0.04" H <sub>2</sub> O

**Average Surface Temperatures**

1. Metering Room Surround Panel	65.58 F
2. Cold Side Surround Panel	0.26 F

**Results**

1. Thermal Transmittance of Test Specimen (Us)	0.28 Btu/hr-ft <sup>2</sup> -F
2. Standardized Thermal Transmittance of Test Specimen (Ust)	0.27 Btu/hr-ft <sup>2</sup> -F

**TEST REPORT FOR NORTH EAST WINDOWS USA, INC.**

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**SECTION 9**

**THERMAL TRANSMITTANCE (U-FACTOR): CALCULATED TEST DATA**

**CTS Method Results**

1. Warm Side Emittance of Glass (e1)	0.84
2. Cold Side Emittance of Glass	0.84
3. Warm Side Frame Emittance*	0.90
4. Cold Side Frame Emittance*	0.90
5. Warm Side Sash/Panel/Vent Emittance*	0.90
6. Cold Side Sash/Panel/Vent Emittance*	0.90
7. Warm Side Baffle Emittance (eb1)	0.92
8. Cold Side Baffle Emittance (eb2)	N/A
9. Equivalent Warm Side Surface Temperature (t1)	55.83 F
10. Equivalent Cold Side Surface Temperature (t2)	3.37 F
11. Warm Side Baffle Surface Temperature	68.81 F
12. Cold Side Baffle Surface Temperature	N/A F
13. Measured Warm Side Surface Conductance (hh)	1.38 Btu/hr·ft <sup>2</sup> ·F
14. Measured Cold Side Surface Conductance (hc)	5.12 Btu/hr·ft <sup>2</sup> ·F
15. Test Specimen Thermal Conductance (Cs)	0.37 Btu/hr·ft <sup>2</sup> ·F
16. Convection Coefficient (Kc)	0.35 Btu/(hr·ft <sup>2</sup> ·F <sup>1.25</sup> )
17. Radiative Test Specimen Heat Flow (Qr1)	191.61 Btu/hr
18. Conductive Test Specimen Heat Flow (Qc1)	182.79 Btu/hr
19. Radiative Heat Flux of Test Specimen (qr1)	9.90 Btu/hr·ft <sup>2</sup> ·F
20. Convective Heat Flux of Test Specimen (qc1)	9.44 Btu/hr·ft <sup>2</sup> ·F
21. Standardized Warm Side Surface Conductance (hsth)	1.21 Btu/hr·ft <sup>2</sup> ·F
22. Standardized Cold Side Surface Conductance (hstc)	5.28 Btu/hr·ft <sup>2</sup> ·F
23. Standardized Thermal Transmittance (Ust)	0.27 Btu/hr·ft <sup>2</sup> ·F

*\*Stated per NFRC 101*

**SECTION 10**

**TEST DURATION**

1. The environmental systems were started at 06:58 hours, 08/27/19.
2. The test parameters were considered stable for two consecutive four hour test periods from 08:28 hours, 08/28/19 to 16:28 hours, 08/28/19.
3. The thermal performance test results were derived from 12:28 hours, 08/28/19 to 16:28 hours, 08/28/19.

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**SECTION 11**

**GLAZING DEFLECTION**

	<b>EXTERIOR SASH</b>	<b>INTERIOR SASH</b>
<b>EDGE GAP WIDTH</b>	0.63"	0.63"
<b>ESTIMATED CENTER GAP WIDTH</b> upon receipt of specimen in laboratory (after stabilization)	0.66"	0.78"
<b>CENTER GAP WIDTH</b> at laboratory ambient conditions on day of testing	0.66"	0.78"
<b>CENTER GAP WIDTH</b> at test conditions	0.56"	0.66"

*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 2019 in accordance with Intertek B&C calibration procedure. A CTS Calibration verification was performed August 2018. A Metering Box Wall Transducer and Surround Panel Flanking Loss Characterization was performed August 2018.

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	05/05/17
2. CTS Size	21.53 ft <sup>2</sup>
3. CTS Glass/Core Conductance	0.42 Btu/hr·ft <sup>2</sup> ·F
4. Warm Side Air Temperature	69.80 F
5. Cold Side Air Temperature	-0.40 F
6. Warm Side Average Surface Temperature	54.32 F
7. Cold Side Average Surface Temperature	3.79 F
8. Convection Coefficient (Kc)	0.35 Btu/(hr·ft <sup>2</sup> ·F <sup>1.25</sup> )
9. Measured Cold Side Surface Conductance (hc)	5.12 Btu/hr·ft <sup>2</sup> ·F
10. Measured Thermal Transmittance	0.31 Btu/hr·ft <sup>2</sup> ·F

ANSI/NCSL Z540-2-1997 type B uncertainty for this test was 2.15%.

"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 values identified on a valid Certification Authorization Report (CAR) 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.

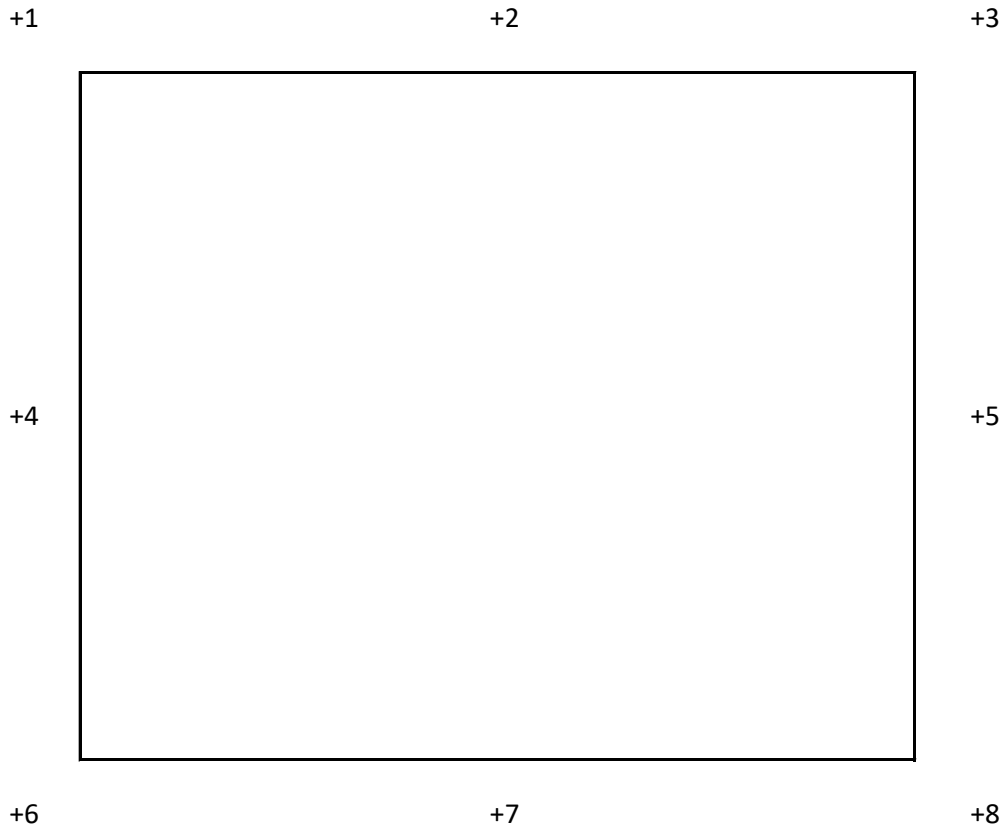
**TEST REPORT FOR NORTH EAST WINDOWS USA, INC.**

Report No.: J8171.01-116-46 R0

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**SECTION 13**

**SURROUND PANEL WIRING DIAGRAM**



**TEST REPORT FOR NORTH EAST WINDOWS USA, INC.**

Report No.: J8171.01-116-46 R0

Date: 09/09/19

**SECTION 14**

**BAFFLE WIRING DIAGRAM**



**TEST REPORT FOR NORTH EAST WINDOWS USA, INC.**

Report No.: J8171.01-116-46 R0

Date: 09/09/19

**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



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: 5/17/19  
 Plant Address where manufactured: 1 KEES PLACE  
 City: MERRICK State: NY Zip Code: 11566  
 Name of IA: ASSOCIATED LABS Phone: 214-565-0593 Fax: \_\_\_\_\_

2. Product Information (complete APPLICABLE fields):

Existing Product Line ID (CPD) No.: NEW-A-2 Product/Operator Type (Table 4-3 of NFRC 100): VERTICAL SLIDER  
 Series/Model: DH 900

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

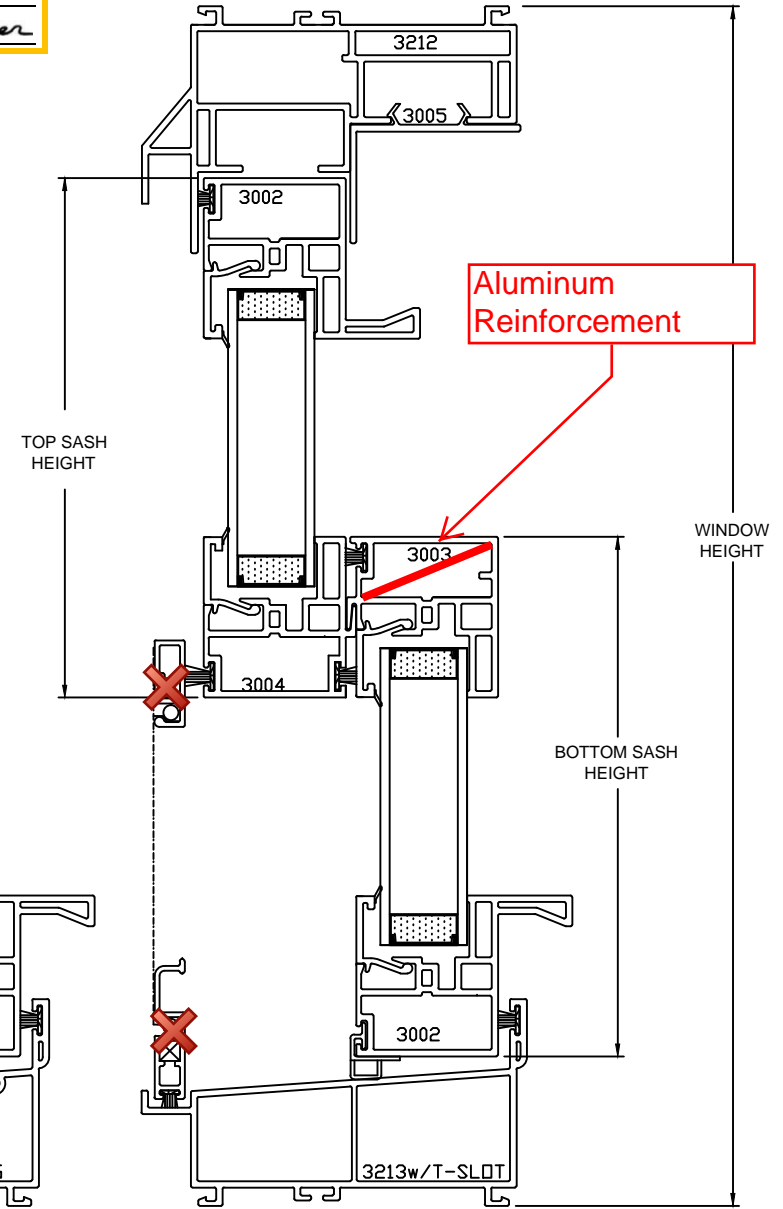
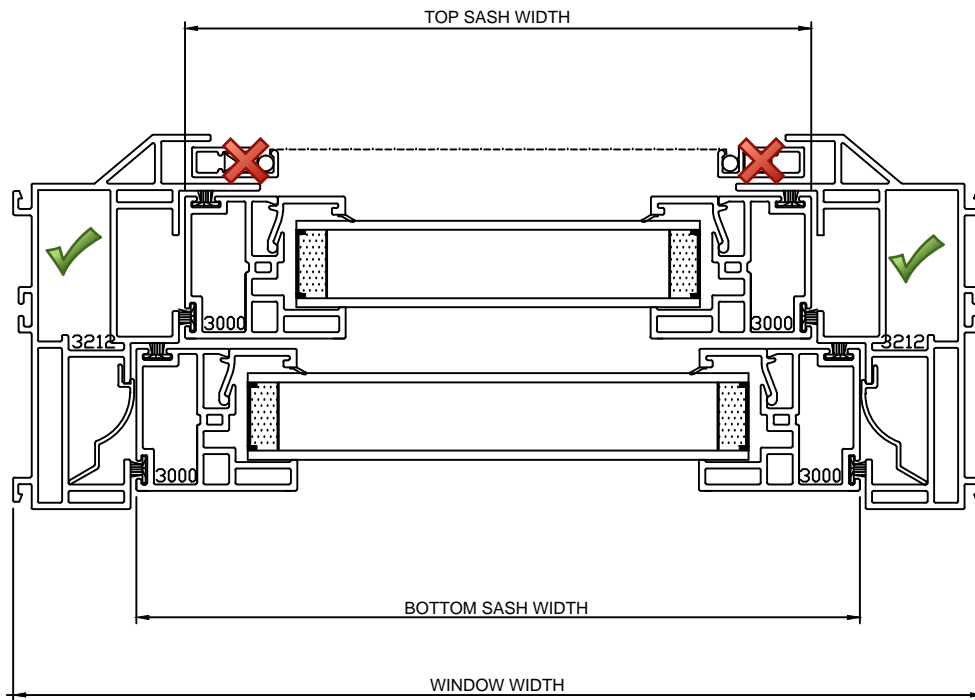
- a.  Validation for Initial Certification (prototype only) no plant qualification
- b.  Validation for Initial Certification or Recertification (production line unit) & plant qualification
- c.  Plant Qualification Only (production line unit)
- d.  Test Only Alternative (production line unit) & plant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

I, PHILIP REID, as the designated agent for NORTH EAST 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.

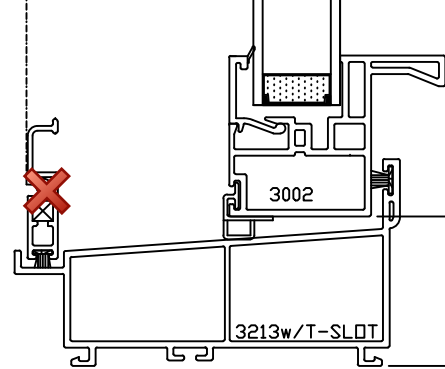
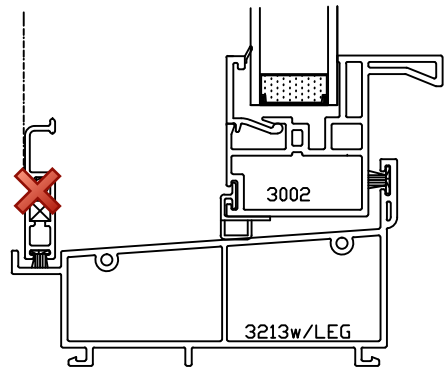
Signature: [Signature] Date: 8/29/19

### For Laboratory Use Only

1. Laboratory: Indurtek  
 2. Date Sample Received: 6/11/19 Test Report #: 58171  
 3. Date Sample Tested: 8/28/19 By: RPM  
 4. Modifications made: \_\_\_\_\_



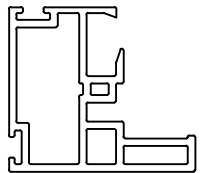
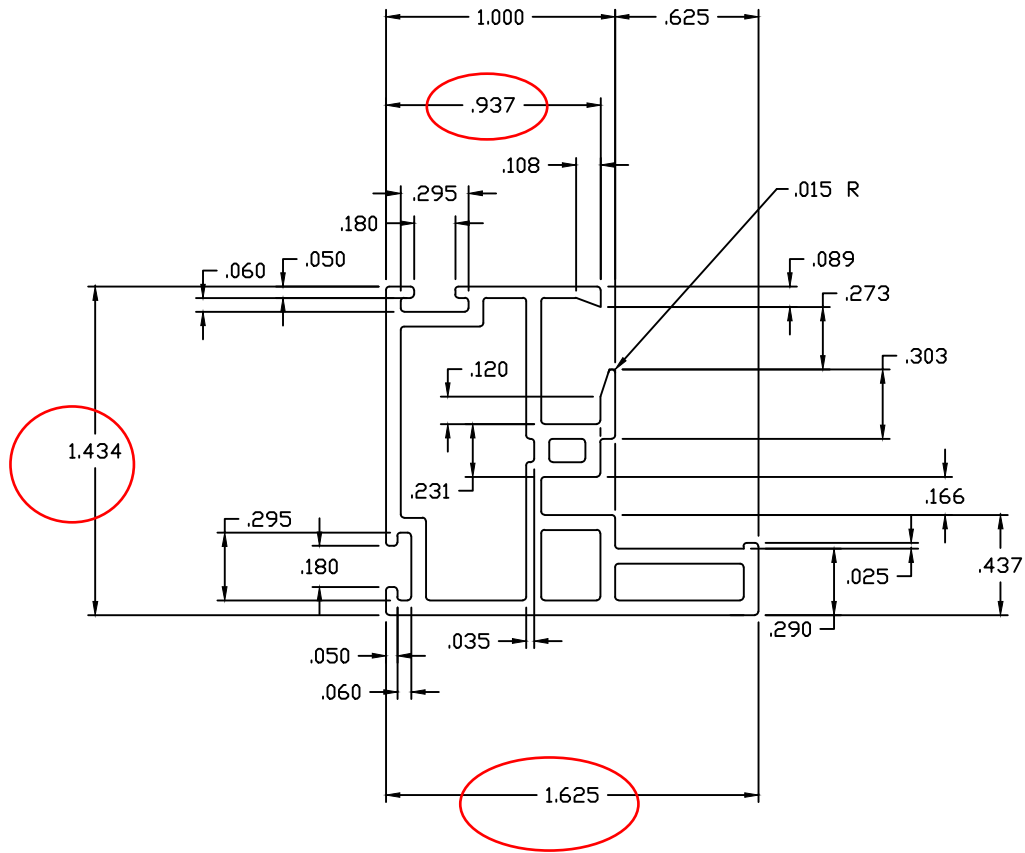
✓ EPS FOAM



DO NOT SCALE DRAWING

NO.	REVISION	BY	DATE

<p>BY DDS DESIGNS</p> <p>"OUR NAME SAYS IT ALL"</p>	<p>1) MATERIAL RIGID PVC</p> <p>2) CAPSTOCK </p> <p>3) UNSPECIFIED WALLS</p> <p>4) BREAK ALL CORNERS .015R</p> <p>5) AREA SQ. IN.</p> <p>6) WT/FT LBS/FT</p>	<p>TITLE SERIES 900-DOUBLE HUNG w/DPT MF WELDED MAIN FRAME / WELDED SASH</p> <table border="1"> <tr> <td>DWN BY</td> <td>SCALE</td> <td>DATE</td> <td>CHKD BY</td> <td>APPD BY</td> </tr> <tr> <td>DDS</td> <td> </td> <td>11/28/11</td> <td> </td> <td> </td> </tr> </table> <p>COMPUTER NO</p> <p>DWG NO C-900 DH CROSS SECTIONw/DPT .MF</p>	DWN BY	SCALE	DATE	CHKD BY	APPD BY	DDS		11/28/11		
	DWN BY	SCALE	DATE	CHKD BY	APPD BY							
DDS		11/28/11										
<p>☒ LOCATION FOR IMPACT TEST SPECIFICATION-LENGTHS TO 3/8"</p> <p>ALLOWABLE BOW MAX. 1" PER 14' ANGULARITY TO BE ± 1/2°</p>												



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☑ LOCATION FOR IMPACT TEST  
SPECIFICATION—LENGTHS TO 3/8"

ALLOWABLE BOW MAX. 1" PER 14'  
ANGULARITY TO BE ± 1/2

DRAWN FOR

BY **DDS DESIGNS**

"OUR NAME SAYS IT ALL"

- 1) MATERIAL RIGID PVC
- 2) CAPSTOCK .....
- 3) UNSPECIFIED WALLS .065
- 4) BREAK ALL CORNERS .015 R
- 5) AREA .509 SQ.IN.
- 6) WT/FT .320 LBS/FT

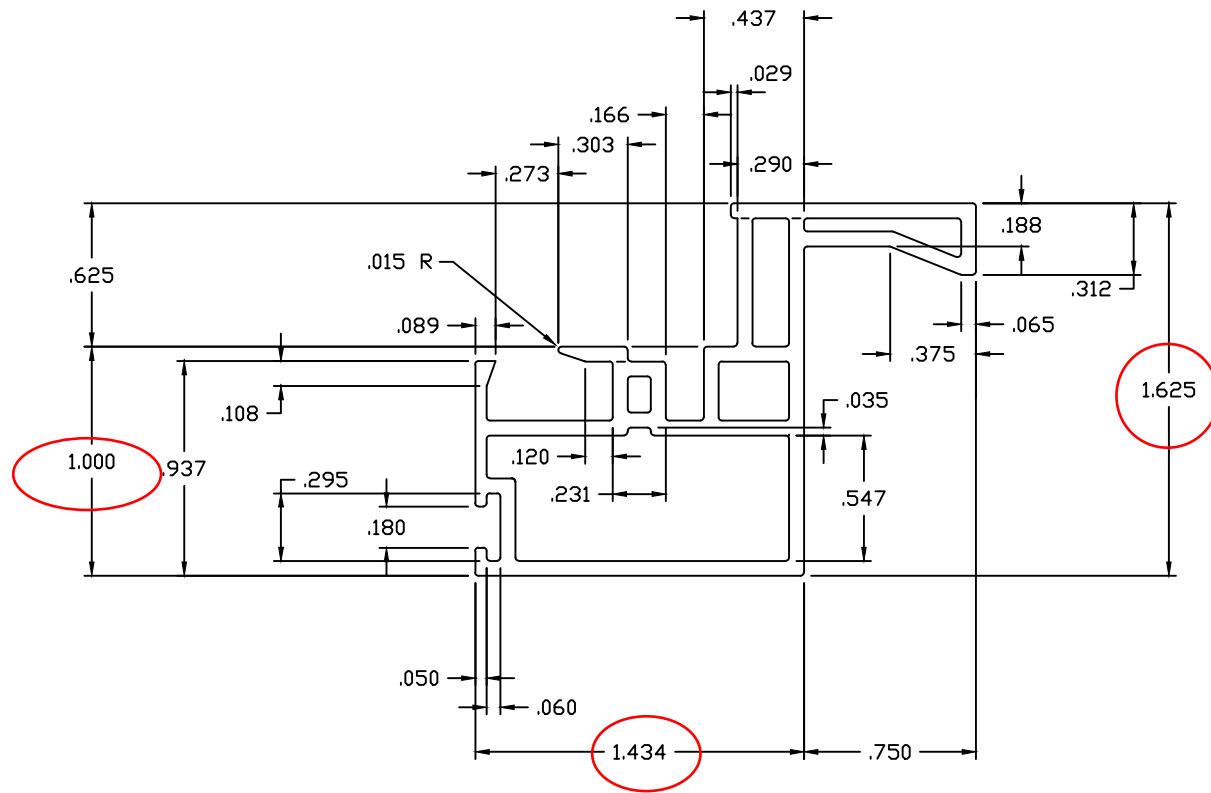
TITLE WELDED DOUBLE HUNG  
REGULAR SASH

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COMPUTER NO

DWG NO **3000**

NO.	REVISION	BY	DATE



DO NOT SCALE DRAWING

LOCATION FOR IMPACT TEST  
SPECIFICATION—LENGTHS TO 3/8"

ALLOWABLE BOW MAX. 1" PER 14'  
ANGULARITY TO BE ± 1/2

DRAWN FOR

BY **DDS** DESIGNS

"OUR NAME SAYS IT ALL"

- 1) MATERIAL RIGID PVC
- 2) CAPSTOCK ~~XXXXXXXXXX~~
- 3) UNSPECIFIED WALLS .065
- 4) BREAK ALL CORNERS .015 R
- 5) AREA .607 SQ.IN.
- 6) WT/FT .378 LBS/FT

TITLE WELDED DOUBLE HUNG  
HANDLE SASH

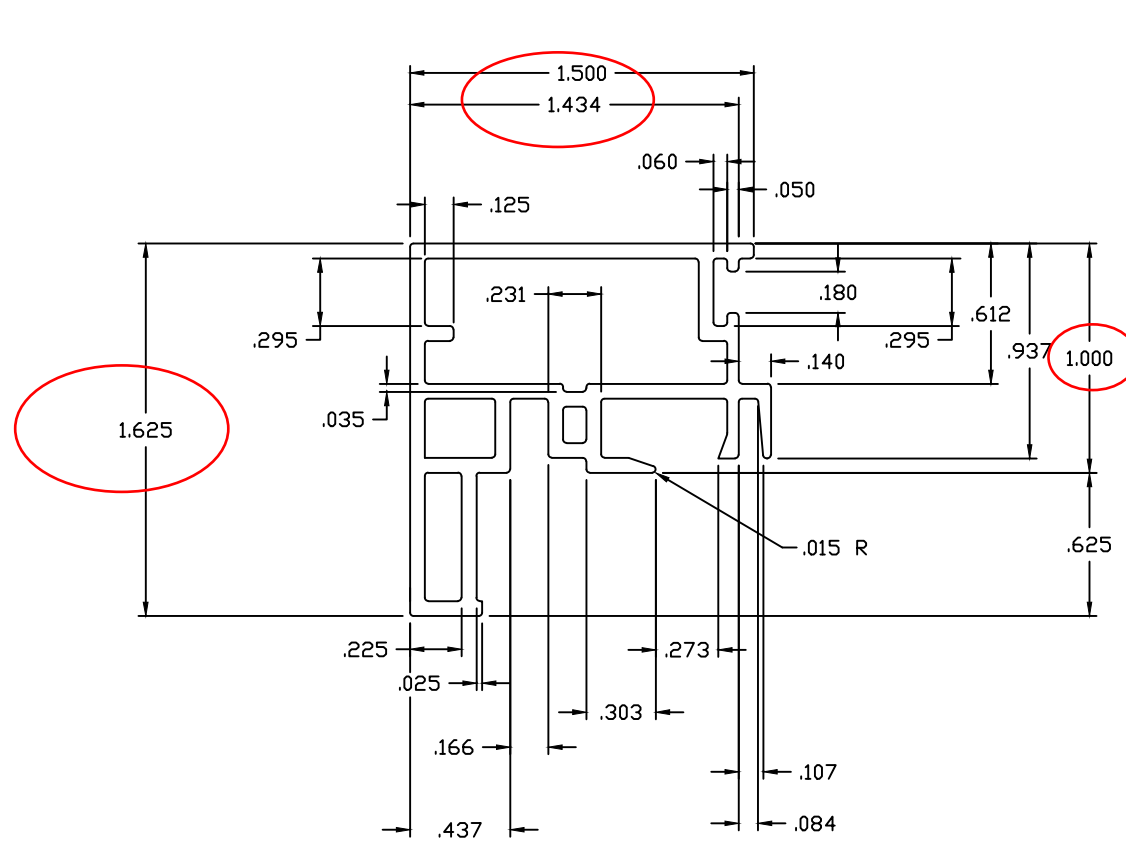
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COMPUTER NO

DWG NO 3002

NO.	REVISION	BY	DATE





DO NOT SCALE DRAWING

☑ LOCATION FOR IMPACT TEST  
SPECIFICATION—LENGTHS TO 3/8"

ALLOWABLE BOW MAX. 1" PER 14'  
ANGULARITY TO BE ± 1/2

DRAWN FOR

BY **DDS** DESIGNS

"OUR NAME SAYS IT ALL"

- 1) MATERIAL RIGID PVC
- 2) CAPSTOCK
- 3) UNSPECIFIED WALLS .065
- 4) BREAK ALL CORNERS .015 R
- 5) AREA .529 SQ.IN.
- 6) WT/FT .333 LBS/FT

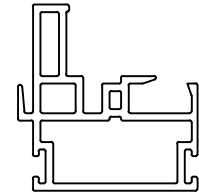
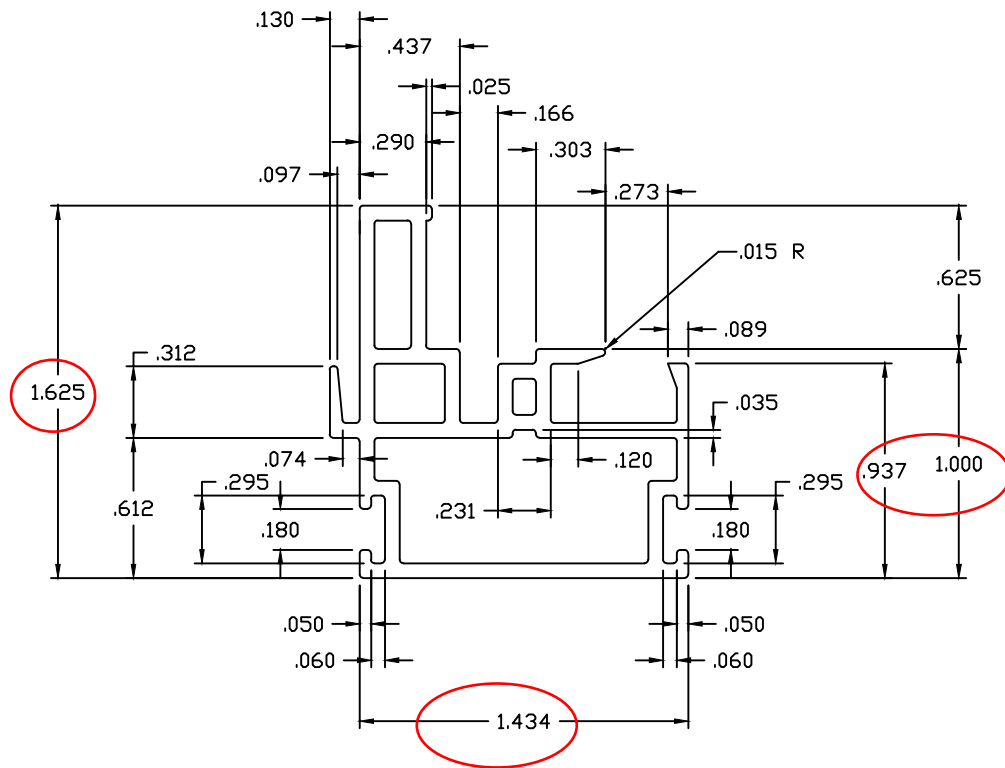
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FEMALE

DWN BY DDS	SCALE 2:1	DATE 11/13/02	CHKD BY	APPD BY
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COMPUTER NO

DWG NO 3003

A	ADDED .125 LEG	DDS	11/28/11
NO.	REVISION	BY	DATE



DO NOT SCALE DRAWING

☑ LOCATION FOR IMPACT TEST  
SPECIFICATION—LENGTHS TO 3/8"

ALLOWABLE BOW MAX. 1" PER 14'  
ANGULARITY TO BE ± 1/2

DRAWN FOR



BY  DDS  
DESIGNS

"OUR NAME SAYS IT ALL"

- 1) MATERIAL RIGID PVC
- 2) CAPSTOCK ~~.....~~
- 3) UNSPECIFIED WALLS .065
- 4) BREAK ALL CORNERS .015 R
- 5) AREA 528 SQ.IN.
- 6) WT/FT .332 LBS/FT

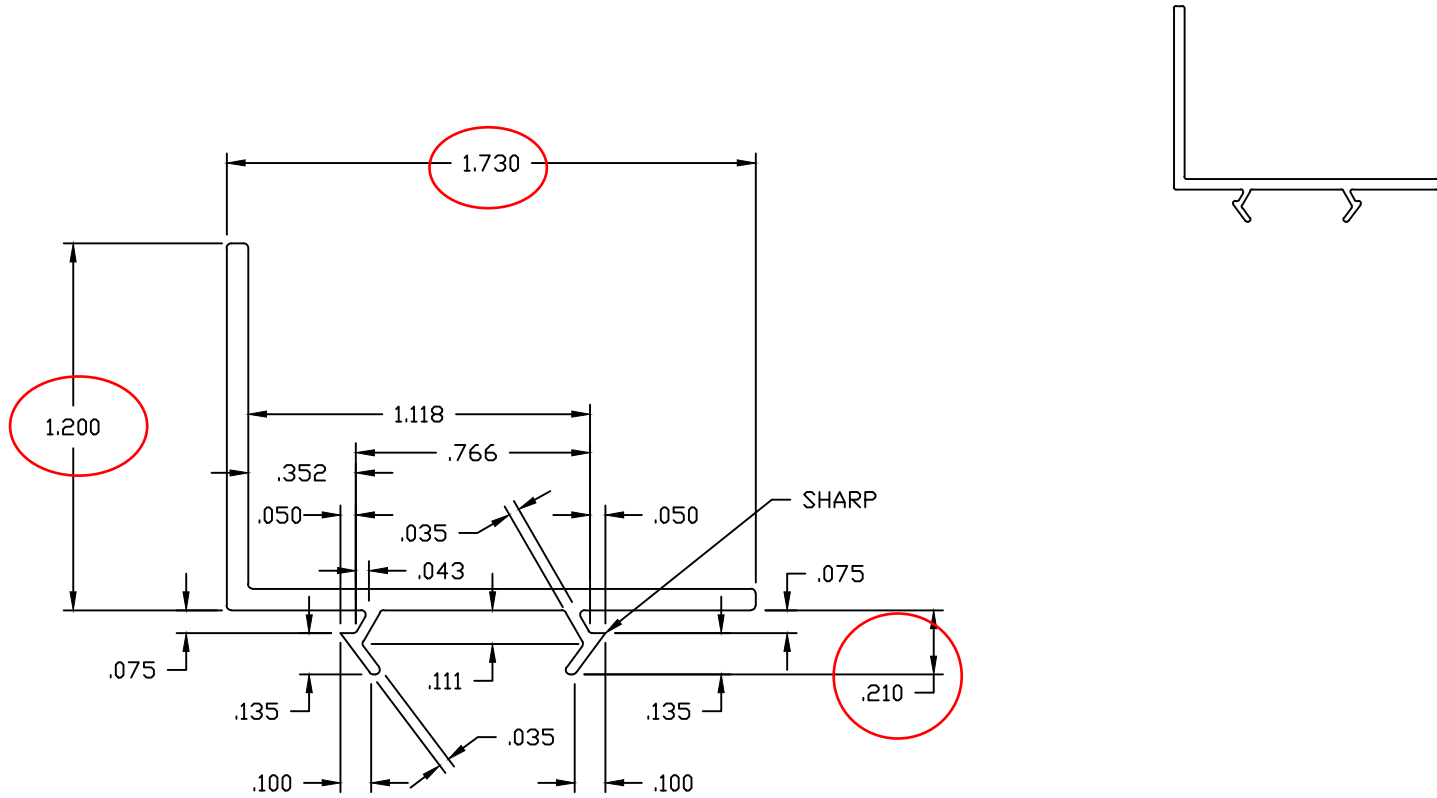
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MALE

DWN BY DDS	SCALE 2:1	DATE 11/14/02	CHKD BY	APPD BY
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COMPUTER NO

DWG NO 3004

NO.	REVISION	BY	DATE



DO NOT SCALE DRAWING

LOCATION FOR IMPACT TEST  
SPECIFICATION—LENGTHS TO 3/8"

ALLOWABLE BOW MAX. 1" PER 14'  
ANGULARITY TO BE ± 1/2

DRAWN FOR

BY **DDS DESIGNS**  
"OUR NAME SAYS IT ALL"

- 1) MATERIAL RIGID PVC
- 2) CAPSTOCK ~~0.065~~
- 3) UNSPECIFIED WALLS .065
- 4) BREAK ALL CORNERS .015 R
- 5) AREA .219 SQ.IN.
- 6) WT/FT .138 LBS/FT

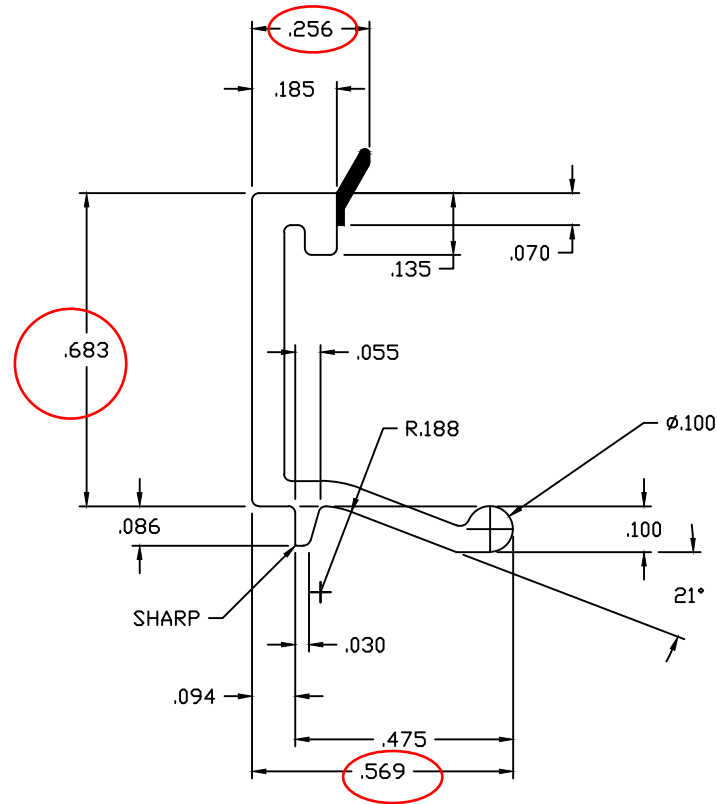
TITLE WELDED DOUBLE HUNG  
HEAD ADAPTER

DWN BY DDS	SCALE FULL	DATE 11/16/02	CHKD BY	APPD BY
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COMPUTER NO


DWG NO 3005

NO.	REVISION	BY	DATE

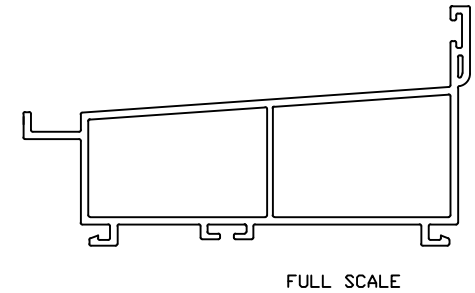
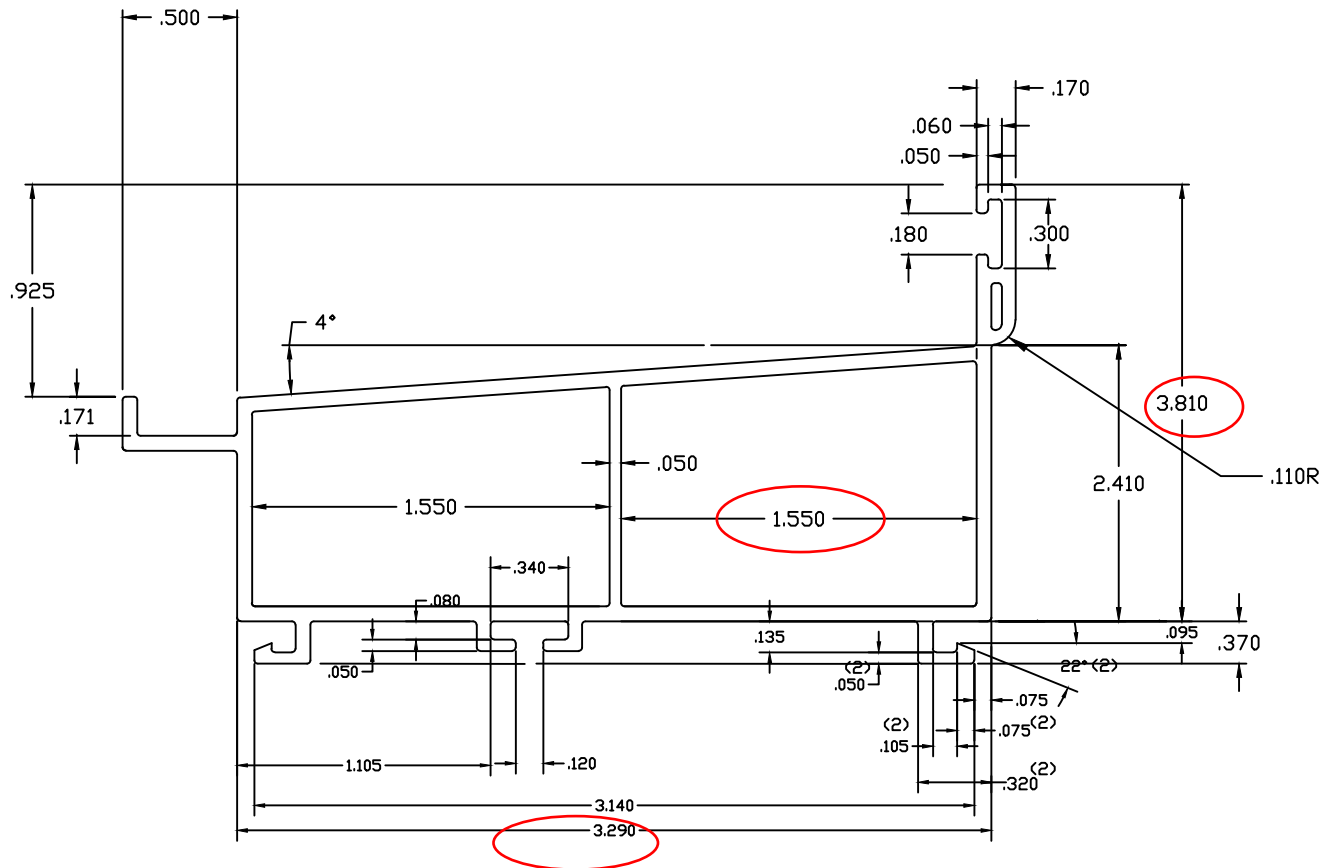


AREA OF RIGID PVC = .096  
 AREA OF SOFT PVC = .004  
 WT/FT OF RIGID PVC = .060  
 WT/FT OF SOFT PVC = .003


DO NOT SCALE DRAWING

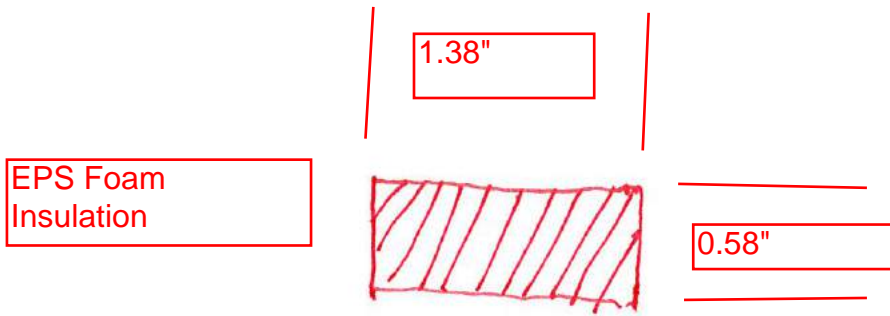
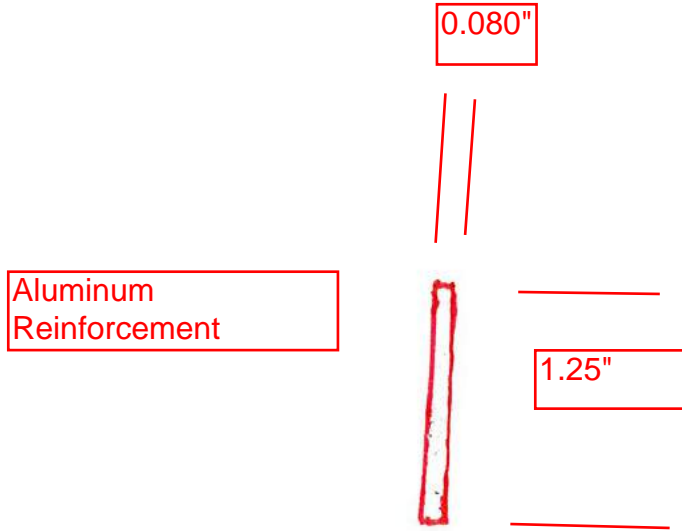
☒ LOCATION FOR IMPACT TEST SPECIFICATION—LENGTHS TO 3/8"		ALLOWABLE BOW MAX. 1" PER 14' ANGULARITY TO BE ± 1/2				
DRAWN FOR  BY DDS DESIGNS "OUR NAME SAYS IT ALL"	1) MATERIAL RIGID PVC 2) CAPSTOCK 3) UNSPECIFIED WALLS .070 4) BREAK ALL CORNERS .015 R 5) AREA .100 SQ.IN. 6) WT/FT .063 LBS/FT		TITLE WELDED DOUBLE HUNG GLAZING BEAD			
	NO.	REVISION	BY	DATE		
		DWN BY DDS	SCALE 4:1	DATE 11/20/02	CHKD BY	APPD BY
		COMPUTER NO		DWG NO 3008		

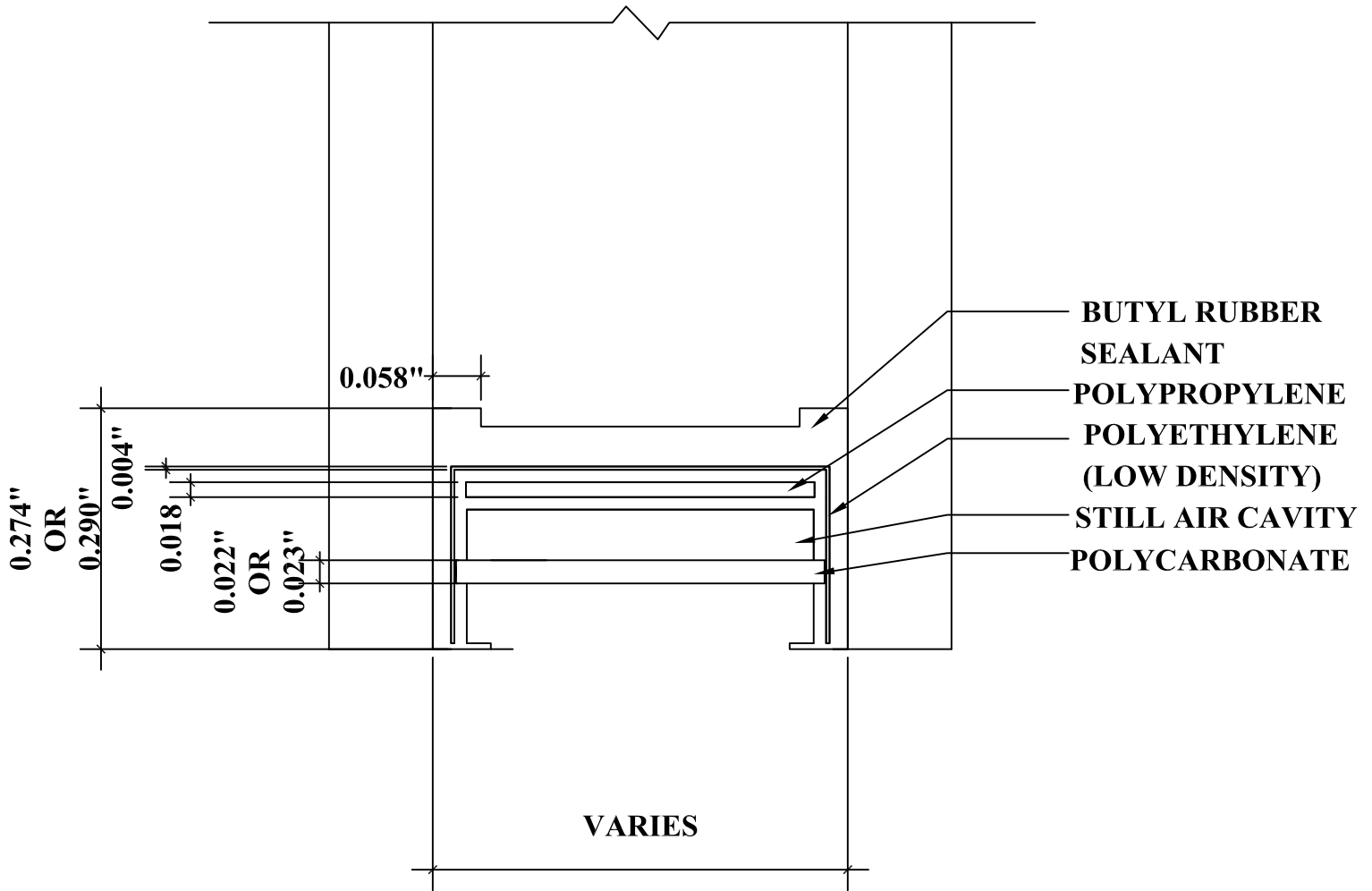




DO NOT SCALE DRAWING

<input checked="" type="checkbox"/> LOCATION FOR IMPACT TEST SPECIFICATION—LENGTHS TO 3/8"		ALLOWABLE BOW MAX. 1" PER 14' ANGULARITY TO BE ± 1/2		TITLE WELDED DOUBLE HUNG SILL					
DRAWN FOR  BY DDS DESIGNS "OUR NAME SAYS IT ALL"		1) MATERIAL RIGID PVC 2) CAPSTOCK <del>.....</del> 3) UNSPECIFIED WALLS .065 4) BREAK ALL CORNERS .015R 5) AREA .815 SQ.IN. 6) WT/FT .512 LBS/FT		DWN BY DDS		SCALE 2:1	DATE 11-05-10	CHKD BY	APPD BY
A REMOVED SCREW BOSSES; ADDED "T" SLOT		DDS 11/28/11		COMPUTER NO		DWG NO 3213			
NO.	REVISION	BY	DATE						





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



**TEST REPORT FOR NORTH EAST WINDOWS USA, INC.**

Report No.: J8171.01-116-46 R0

Date: 09/09/19

**SECTION 16**

**REVISION LOG**

<b>REVISION #</b>	<b>DATE</b>	<b>PAGES</b>	<b>REVISION</b>
.01 R0	09/09/19	N/A	Original Report Issue