



TEST REPORT

Report No.: F0621.01-901-44

Rendered to:

COEUR D'ALENE WINDOW
Spokane, Washington

PRODUCT TYPE: PVC Sliding Glass Door (XO)
SERIES/MODEL: 5821 French Rail

SPECIFICATIONS:

AAMA/WDMA/CSA 101/I.S.2/A440-11, *NAFS 2011 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

and

AAMA/WDMA/CSA 101/I.S.2/A440-08, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

and

CSA A440S1-09, Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

| Title | Summary of Results |
|--|---|
| AAMA/WDMA/CSA 101/I.S.2/A440-08 and -11 | Class LC PG25 2202 x 2202 (87 x 87) SD |
| Design Pressure | ±1200 Pa (25.06 psf) |
| Air Infiltration | 0.33 L/s/m ² (0.06 cfm/ft ²) |
| Air Exfiltration | 0.34 L/s/m ² (0.07 cfm/ft ²) |
| Canadian Air Infiltration/Exfiltration Level | A3 |
| Water Penetration Resistance Test Pressure | 330 Pa (6.90 psf) |

Test Completion Date: 11/16/15

Reference must be made to Report No. F0621.01-901-44, dated 12/08/15 for complete test specimen description and detailed test results.

1.0 Report Issued To: Coeur d'Alene Window
3808 N. Sullivan Road
Spokane, WA 99216

2.0 Test Laboratory: Architectural Testing, Inc.
an Intertek Company (Intertek-ATI)
22155 68th Ave. South
Kent, WA 98032
253-395-5656

3.0 Project Summary:

3.1 Product Type: PVC Sliding Glass Door (XO)

3.2 Series/Model: 5821 French Rail

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test methods. The specimen tested successfully met the performance requirements for a **Class LC PG25 2202 x 2202 (87 x 87) SD** rating.

3.4 Test Date: 11/16/15

3.5 Test Record Retention End Date: All test records for this report will be retained until 11/16/19.

3.6 Test Location: Intertek-ATI test facility in Kent, Washington.

3.7 Test Specimen Source: The test specimen was provided by the client. Representative samples of the test specimen will be retained by Intertek-ATI for a minimum of four years from the test completion date.

3.8 Drawing Reference: The test specimen drawings have been reviewed by Intertek-ATI and are representative of the test specimen reported herein. Test specimen construction was verified by Intertek-ATI per the drawings located in the appropriate Appendix. Any deviations are documented herein or on the drawings.

3.9 List of Official Observers:

| <u>Name</u> | <u>Company</u> |
|-----------------|----------------|
| Guillermo Silva | Intertek-ATI |

4.0 Test Specification(s):

AAMA/WDMA/CSA 101/I.S.2/A440-11, *NAFS 2011 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

AAMA/WDMA/CSA 101/I.S.2/A440-08, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

CSA A440S1-09, Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

5.0 Test Specimen Description:

5.1 Product Sizes:

| Overall Area: 4.8 m ² (52.2 ft ²) | Width | | Height | |
|---|-------------|---------|-------------|--------|
| | millimeters | inches | millimeters | inches |
| Overall size | 2202 | 86-5/8 | 2202 | 86-5/8 |
| Operable panel | 1082 | 42-5/8 | 2134 | 84 |
| Fixed panel | 1074 | 42-5/16 | 2144 | 84-5/8 |
| Screen | 1038 | 40-7/8 | 2150 | 84-5/8 |

5.2 Frame Construction:

| Frame Member | Material | Description |
|--------------|------------------------------|-----------------------------------|
| Main frame | PVC | White, foam filled head and jambs |
| Panel track | PVC with stainless steel cap | White, snap-in |
| Screen track | PVC | White |

| | Joinery Type | Detail |
|--------------|--------------|--|
| All corners | Mitered | Thermally welded |
| Panel track | Drop-in | Cut short off each end to allow for drainage |
| Screen track | Drop-in | Full width |

5.0 Test Specimen Description: (Continued)

5.3 Panel Construction:

| Member | Material | Description |
|-------------------------------|----------|---|
| Panel | PVC | White, foam filled, top rail and stiles |
| French rail/site line adaptor | PVC | White, foam filled, top rail and stiles |
| Fixed interlock | PVC | White |

| | Joinery Type | Detail |
|-------------------------------|--------------|---|
| All corners | Mitered | Thermally welded |
| French rail/site line adaptor | Mitered | Thermally welded and snapped into panels |
| Fixed interlock | Mechanical | Each end was coped, butt joined and secured with three #8 by 2-1/2" screws. |
| Unit assembly | Snap-in | Fixed panel was snapped into frame and fixed interlock. |

5.4 Weatherstripping:

| Description | Quantity | Location |
|--|----------|--------------------------------|
| 6.9 mm (0.270") high pile with single center fin | 1 row | Operable panel, full perimeter |
| 6.1 mm (0.240") high pile with single center fin | 1 row | Fixed interlock |

5.5 Glazing: *No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.*

| Glass Type (Nominal) | Spacer Type | Interior Lite (Nominal) | Exterior Lite (Nominal) | Glazing Method |
|----------------------|-------------|-------------------------|-------------------------|--|
| 19 mm (3/4") IG | Steel | 4 mm (5/32") tempered | 4 mm (5/32") tempered | Exterior glazed against 3/8" foam tape and PVC glazing beads |

| Location | Qty. | Daylight Opening | | Glass Bite |
|--------------|------|------------------|-----------------|----------------|
| | | millimeters | inches | |
| Active panel | 1 | 875 x 1927 | 34-1/2 x 75-7/8 | 12.5 mm (1/2") |
| Fixed panel | 1 | 857 x 1927 | 33-3/4 x 75-7/8 | 12.5 mm (1/2") |

5.0 Test Specimen Description: (Continued)

5.6 Drainage:

| Method | Size | Qty. | Location |
|--------|------------------------------------|------|---|
| Weep | 4.8 mm (3/16") | 2 | Sill track insert cut short off each end |
| Weep | 19.3 mm x 4.6 mm (3/4" x 3/16") | 2 | Sill track, approx. 60 mm (2-1/4") from the corner, through one wall (draining pocket into hollow) |
| Weep | 19.3 mm x 4.6 mm (3/4" x 3/16") | 2 | Sill, interior panel pocket, approx. 25 mm (1") from the corner, through one wall (draining pocket into hollow) |
| Weep | 25.6 mm x 52 mm (1" by 1/4") | 2 | Sill, internal walls, at the corner, through two walls (draining between hollows) |
| Weep | 26.3 mm x 5.5 mm (1" x 1/4") | 2 | Sill, exterior face, approx. 75 mm (3") from the corner, through one wall (draining hollows) |
| Weep | 12.5 mm x 3.8 mm (1/2" x 3/16") | 1 | Operable panel, bottom rail, approx. 25 mm (1") from the corner, through one wall (draining hollows) |
| Weep | 12.5 mm x 3.8 mm (1/2" x 3/16") | 2 | Operable panel, French rail / site line adaptor, bottom rail, approx. 75 mm (3") from the corner, through two walls (draining glazing pocket) |
| Weep | 12.5 mm x 3.8 mm (1/2" x 3/16") | 2 | Fixed panel, bottom rail, approx. 75 mm (3") from the corner, through two walls (draining hollows) |
| Weep | 12.5 mm x 3.8 mm (1/2" x 3/16") | 2 | Fixed panel, French rail / site line adaptor, bottom rail, approx. 75 mm (3") from the corner, through two walls (draining glazing pocket) |

5.7 Hardware:

| Description | Qty. | Location |
|---|------|---|
| Multi-point lock (2) assembly | 1 | Panel, lock stile, located approx. at 965 mm (38") and 1015 mm (40) from the bottom |
| Metal keeper | 1 | Jamb, aligned with lock points and secured with four #10 x 1-3/8" screws |
| Anti-lift block | 2 | Head, above the operable panel in the closed position |
| Dual wheel adjustable roller in a metal housing | 2 | Panel, bottom rail |

5.0 Test Specimen Description: (Continued)

5.8 Reinforcement:

| Drawing Number | Location | Material |
|----------------|-------------------------------|----------|
| N5788 | Operable panel, lock stile | Steel |
| N51011-2 | Operable panel, meeting stile | Steel |
| N51042 | Fixed panel, fixed interlock | Steel |

5.9 Screen Construction:

| Frame Material | Corner Construction | Mesh Type | Mesh Attachment Method |
|----------------|---------------------|-----------|------------------------|
| Aluminum | Corner key | Mesh | Spline |

6.0 Installation:

The specimen was installed into a Doug-Fir wood buck. The rough opening allowed for shim space. The exterior perimeter of the window was sealed with sealant.

| Location | Anchor Description | Anchor Location |
|----------------|--------------------|---|
| Full perimeter | #8 by 1" screws | Less than 100 mm (4") from the corner and then approx. 100 mm (4") apart through pre-punched nail fin |

7.0 Test Results: The temperature during testing was 23°C (74°F). The results are tabulated as follows:

| Title of Test | Results | Allowed | Note |
|---|--|---|------|
| Operating Force, per ASTM E 2068 | Initiate motion: 37.8 N (8.5 lbf) Maintain motion: 35.6 N (8.0 lbf) Latches: 11.1 N (2.5 lbf) | 135 N (30.35 lbf) max. 90 N (20.23 lbf) max. 100 N (22.48 lbf) max. | |
| Canadian Operating Force, per ASTM E 2068 | Initiate motion: 37.8 N (8.5 lbf) Maintain motion: 35.6 N (8.0 lbf) | 135 N (30.35 lbf) max. 90 N (20.23 lbf) max. | |
| Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf) | 0.33 L/s/m ² (0.06 cfm/ft ²) | 1.5 L/s/m ² (0.3 cfm/ft ²) max. | 1 |
| Air Leakage, Exfiltration per ASTM E 283 at 75 Pa (1.57 psf) | 0.34 L/s/m ² (0.07 cfm/ft ²) | 0.5 L/s/m ² (0.1 cfm/ft ²) max. | 1 |
| Canadian Air Infiltration/Exfiltration Level | A3 | 0.5 L/s/m ² (0.1 cfm/ft ²) max. | |
| Water Penetration | N/A | N/A | 2 |
| Uniform Load Deflection | N/A | N/A | 2 |
| Uniform Load Structural | N/A | N/A | 2 |
| Forced Entry Resistance, per ASTM F 842, Grade: 25 | Pass | No entry | |
| Forced Entry Resistance, per CAWM-300 | Pass | No entry | |
| Thermoplastic Corner Weld | Pass | Meets as stated | |
| Deglazing, per ASTM E 987 Operating direction, 320 N (70 lbf) | Pass | Meets as stated | |
| Remaining direction, 230 N (50 lbf) | Pass | Meets as stated | |

7.0 Test Results: (Continued)

| Title of Test | Results | Allowed | Note |
|---|------------------------------------|--|---------|
| Optional Performance | | | |
| Water Penetration, per ASTM E 547 at 330 Pa (6.90 psf) | Pass | No leakage | 3 |
| Uniform Load Deflection, per ASTM E 330 taken at meeting stile/interlock +1200 Pa (25.06 psf) -1200 Pa (25.06 psf) | 25.5 mm (1.00") 29.0 mm (1.14") | Report Only Report Only | 4, 5, 6 |
| Uniform Load Structural, per ASTM E 330 taken at meeting stile/interlock +1440 Pa (30.08 psf) -1440 Pa (30.08 psf) | 1.5 mm (0.06") 1.3 mm (0.05") | 8.6 mm (0.34") max. 8.6 mm (0.34") max. | 5, 6 |

Note 1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/I.S.2/A440 for air leakage resistance.

Note 2: The client opted to start at a pressure higher than the minimum required. Test results are reported under Optional Performance.

Note 3: With and without insect screen.

Note 4: The deflections reported are not limited by AAMA/WDMA/CSA 101/I.S.2/A440 for this product designation. The deflection data is recorded in this report for special code compliance and information only.

Note 5: Loads were held for 10 seconds.

Note 6: Tape and film were not used to seal against air leakage during structural testing.

Intertek-ATI will service this report for the entire test record retention period. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained by Intertek-ATI for the entire test record retention period.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen tested. This report may not be reproduced, except in full, without the written approval of Intertek-ATI.

For INTERTEK-ATI

Guillermo E. Silva
Technician

Jeffrey L. Dideon
Director - Regional Operations

GES:pac

Attachments (pages): This report is complete only when all attachments listed are included.

Appendix-A: Alteration Addendum (1)

Appendix-B: Location of Air Seal (1)

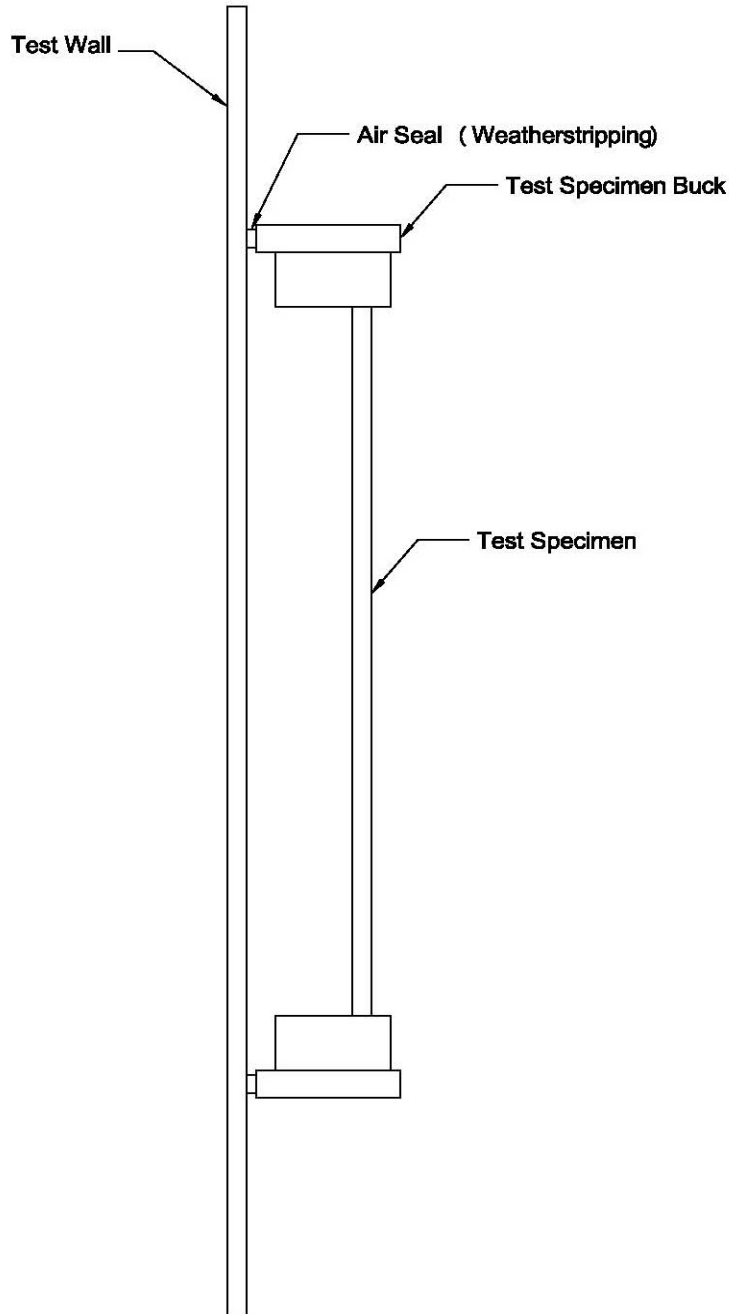
Appendix-C: Drawings (14)

Appendix A
Alteration Addendum

Note: No alterations were required.

Appendix B

Location of Air Seal: The air seal between the test specimen and the test wall is detailed below. The seal is made of foam weatherstripping and is attached to the edge of the test specimen buck. The test specimen buck is placed against the test wall and clamped in place, compressing the weatherstripping and creating a seal.



Appendix C

Drawings

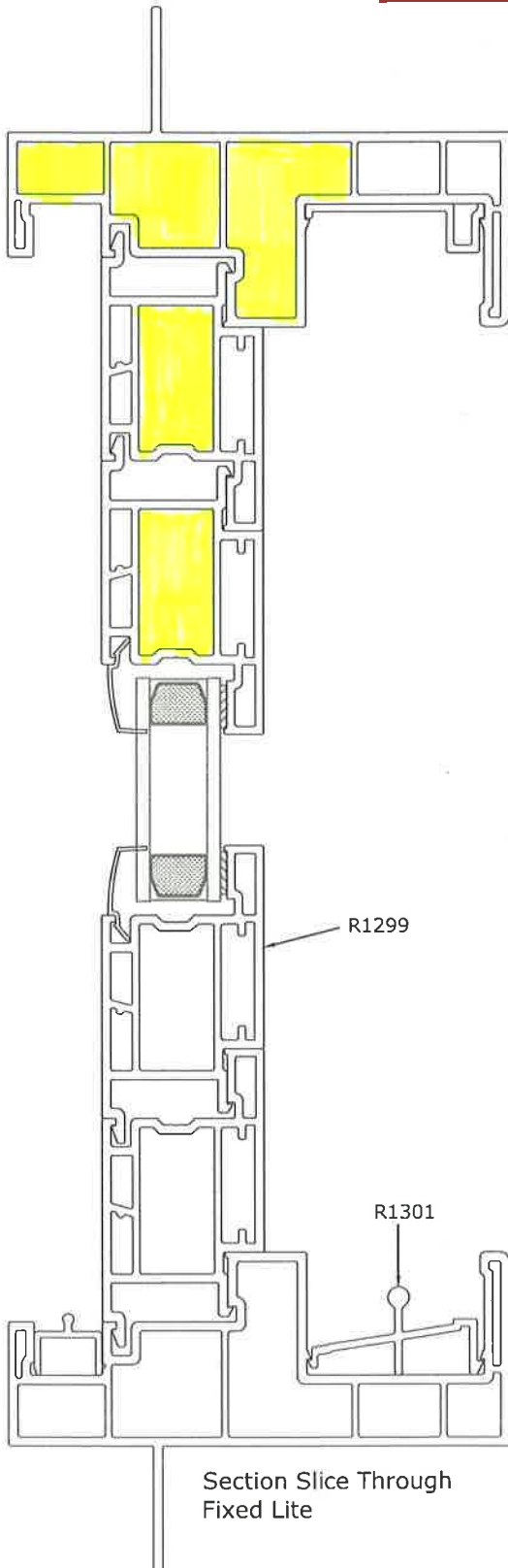
Intertek



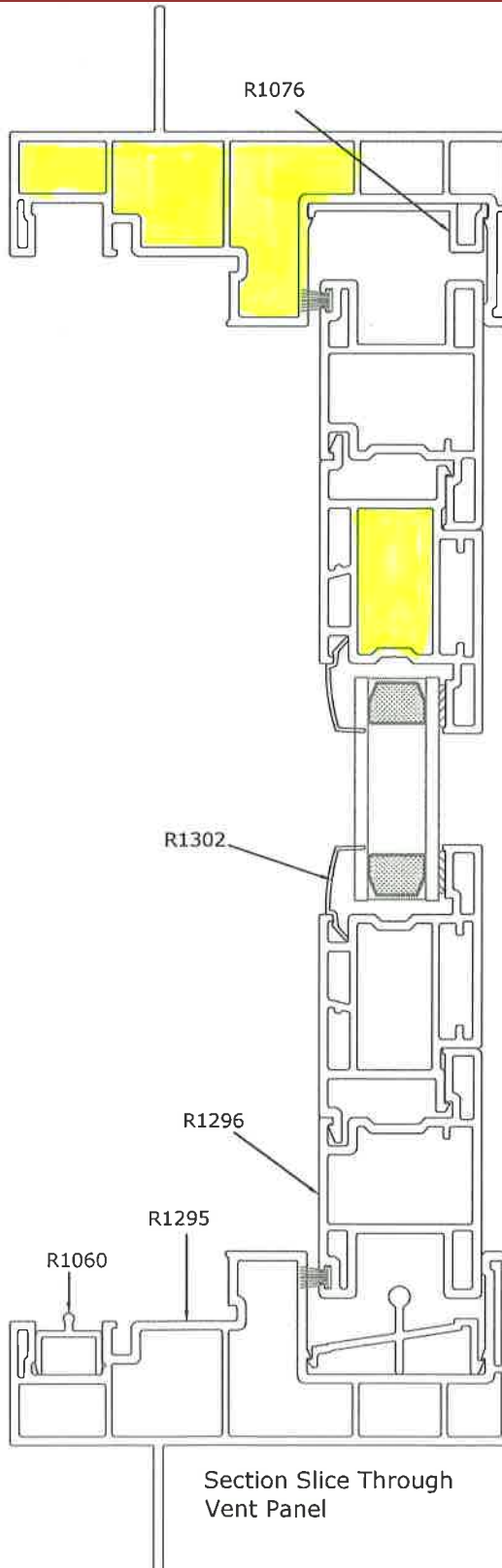
Report #: F0621-901-44

Date: 12/07/15

Verified by: *[Signature]*

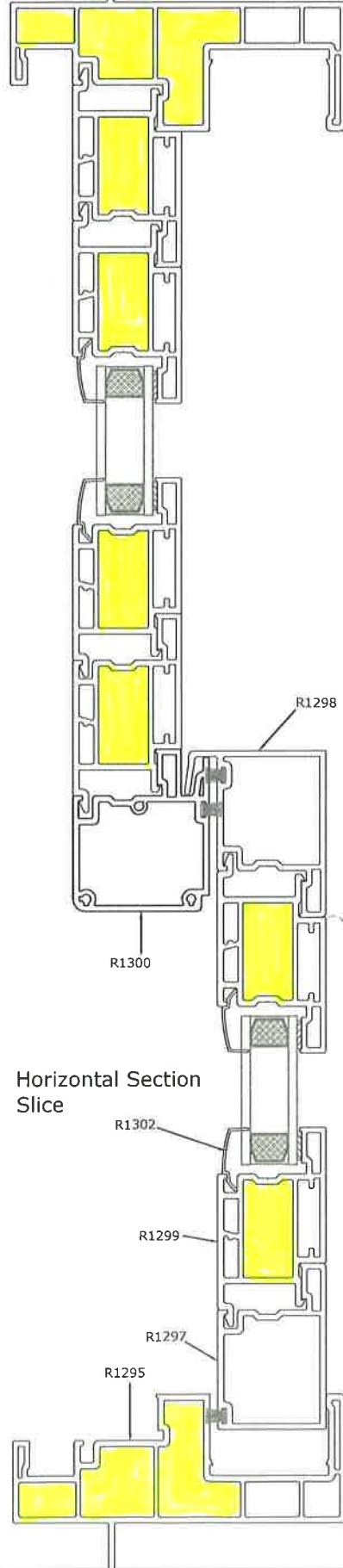


Section Slice Through Fixed Lite



Section Slice Through Vent Panel

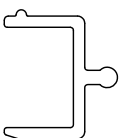
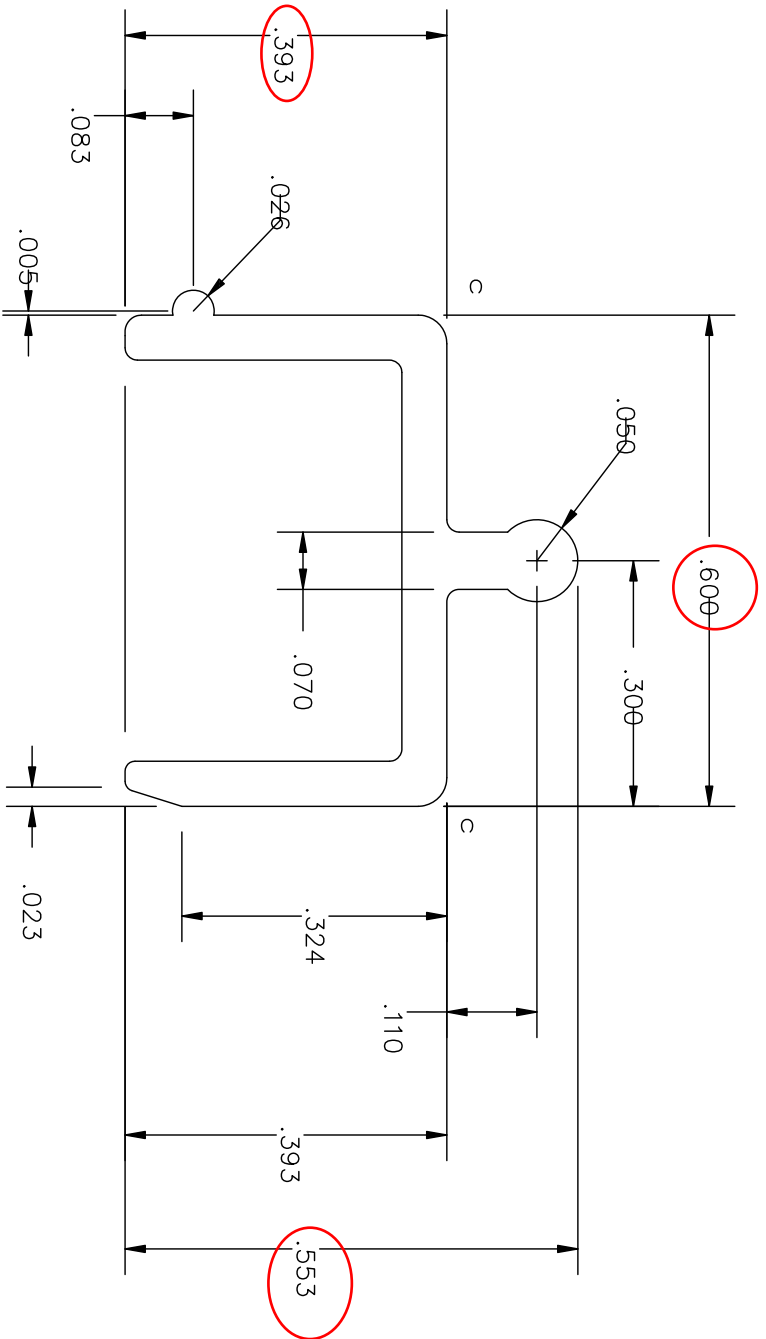
| | | | | | | |
|--|------------------------------------|--|---|--|----------------------------------|-----------------------|
| ROYAL Building Products <small>111 Royal Group Crescent Suite 200 Concord, NH 03301</small> | Die# | Copyright © 2015 Royal Group, Inc. All Rights Reserved | | ACAD#: 308-L300-R1299 Stacked PAC#: | Ref | |
| | Sys No. 308-L300_V CUSTOMER CdA | PROJECT: 308 DATE: April 28, 2014 | Vertical Sections SCALE 0.625:1 | WALL TOLERANCES: ±0.006 ANGLUAR TOLERANCES: ±1/2° WALL THICKNESS: | UNMARKED 0.015 UNMARKED 0.015 | g b c f s |
| THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION AND SHALL NOT BE COPIED, REPRODUCED OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS PERMITTED BY ROYAL GROUP INC. | | AREA .000 WT/FT .000 | LINEAR TOLERANCES: ±0.010 1.000-1.999 ±0.015 2.000-3.999 ±0.020 | EXTERIOR .000 SHARP INTERIOR .000 FLEX .xxx CRITICAL .xxx EXPOSED | SYMBOL: | FULL SHARP |
| TITLE 308 SPD Vertical Sections - Stacked | | | | | | |



Horizontal Section Slice

| | | | | | | |
|---|---------|-------------|---|--|--|--|
| ROYAL Building Products <small>111 Royal Group Crescent Woodbridge, Ontario Canada L4L 1P5</small> | Die# | 308- L301_V | THIS DOCUMENT CONTAINS PROPRIETARY AND/OR CONFIDENTIAL INFORMATION AND IS NOT TO BE REPRODUCED, COPIED, EITHER WHOLLY OR IN PART, OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS ISSUED WITHOUT THE WRITTEN PERMISSION OF ROYAL GROUP INC. | Copyright © 2015 Royal Group, Inc. All Rights Reserved | Layout Name: Horizontal Sections | ACAD#: 308-L300_R1299 Stacked WALL TOLERANCES: ±0.006 WALL THICKNESS: .000 ANGULAR TOLERANCES: ±1/2° RADIUS: UNMARKED REF: UNMARKED 0.015 |
| | Sys No. | 308 | PROJECT: | 308 | Drawn by: gmc SCALE: 0.47:1 LINEAR TOLERANCES: 0.000-0.999 ±0.010 1.000-1.999 ±0.015 2.000-3.999 ±0.020 | AREA: .000 Wt/FT: .000 |
| CUSTOMER | CdA | DATE: | April 29, 2014 | | | TOLERANCES: Exterior: .000 Interior: .000 CRITICAL: .xxx EXPOSED: .xxx |
| TITLE 308 SPD Horizontal Section - Stacked | | | | | | SYMBOL: SHARP: ∅ FLEX: ▨ CRITICAL: ▩ EXPOSED: ▭ |

d = SHARP
c = 0.035R

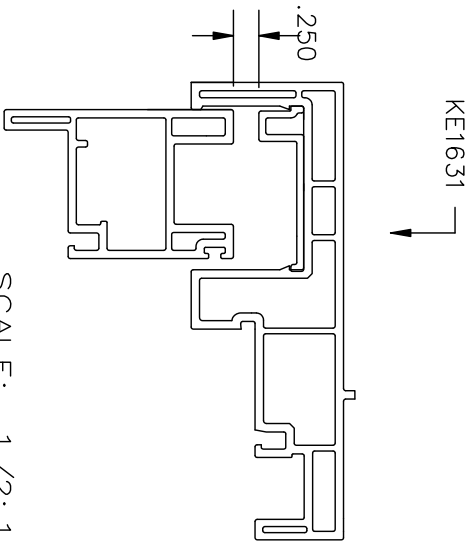
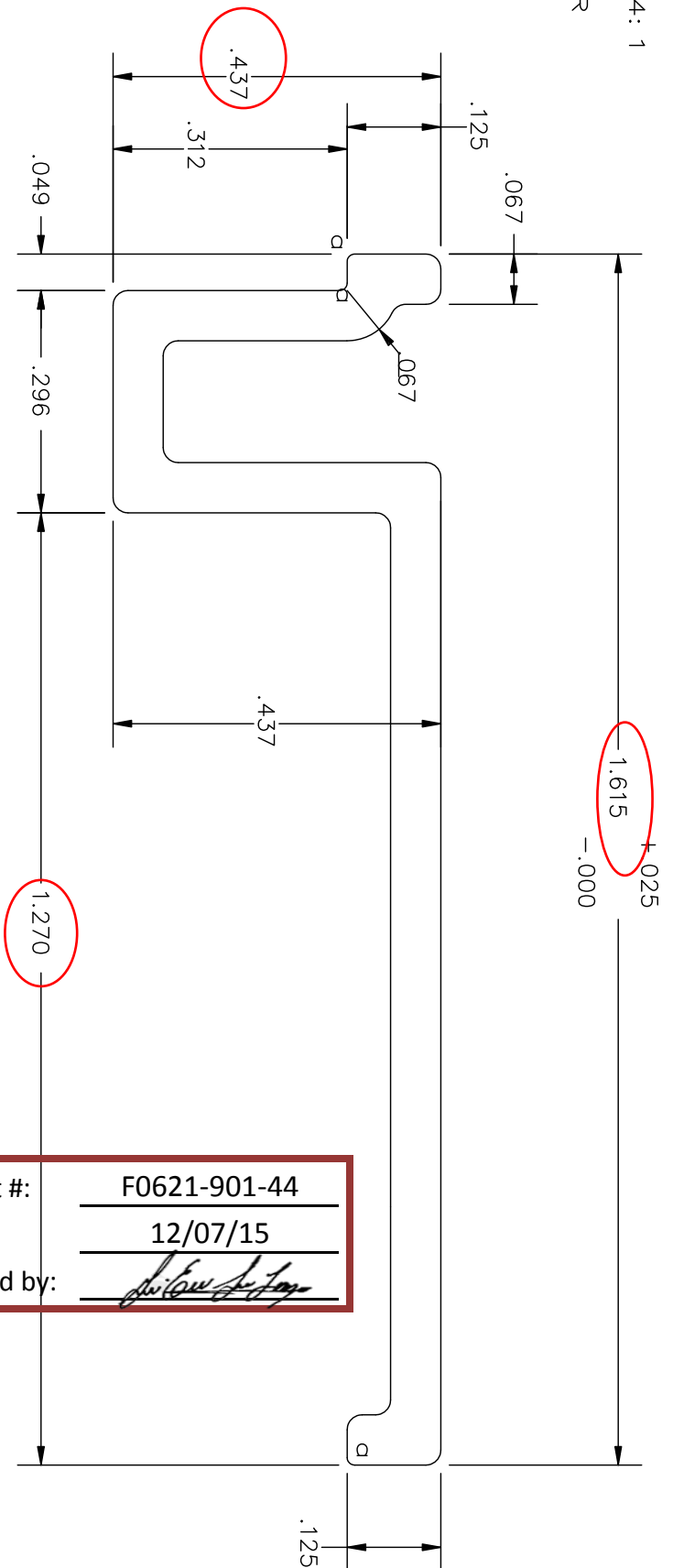


ACTUAL SIZE

| | | |
|--|--------------|--------------------|
| | Report #: | F0621-901-44 |
| | Date: | 12/07/15 |
| | Verified by: | <i>[Signature]</i> |

| | | | | | | | |
|--------------------------------|--------------|-----------------|--------------------|--------------------|---|--------|---------|
| CYCLOID DESIGNS | DWG: 181-D8R | DATE: 17-JUN-94 | SLIDING PATIO DOOR | FAB REF XXX-XXX | FIT TO 308-D17 | 308-D1 | 308-D16 |
| TITLE: PATIO DOOR SCREEN TRACK | | | | RS1060 | EXTERNAL WALL: 0.055 INTERNAL WALL: x.xxx CORNER TYP: 0.020R WEIGHT: 0.052 LB/FT | | |

SCALE: 4:1
 a=0.010R



SCALE: 1/2:1

APPROVED
 28-OCT-95
 CYCLOID DESIGNS

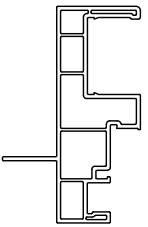
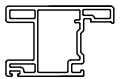
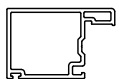
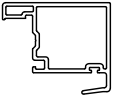
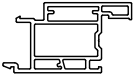
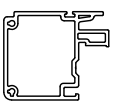


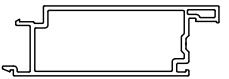
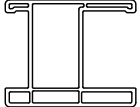
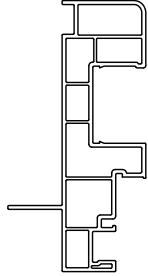
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| | Report #: | F0621-901-44 |
| | Date: | 12/07/15 |
| | Verified by: | <i>[Signature]</i> |

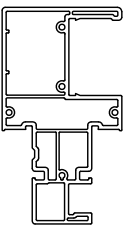



ACTUAL SIZE

CYCLOID DESIGNS
 DWG: 181-D15
 DATE: 27-OCT-95
 TITLE: PATIO DOOR ANTI-LIFT
 RS1076

| | | | | |
|---------|---------|---------|--|--|
| FAB REF | | | | |
| XXX-XXX | | | | |
| FIT TO | 308-D1 | 308-D16 | | |
| | 308-D17 | | | |

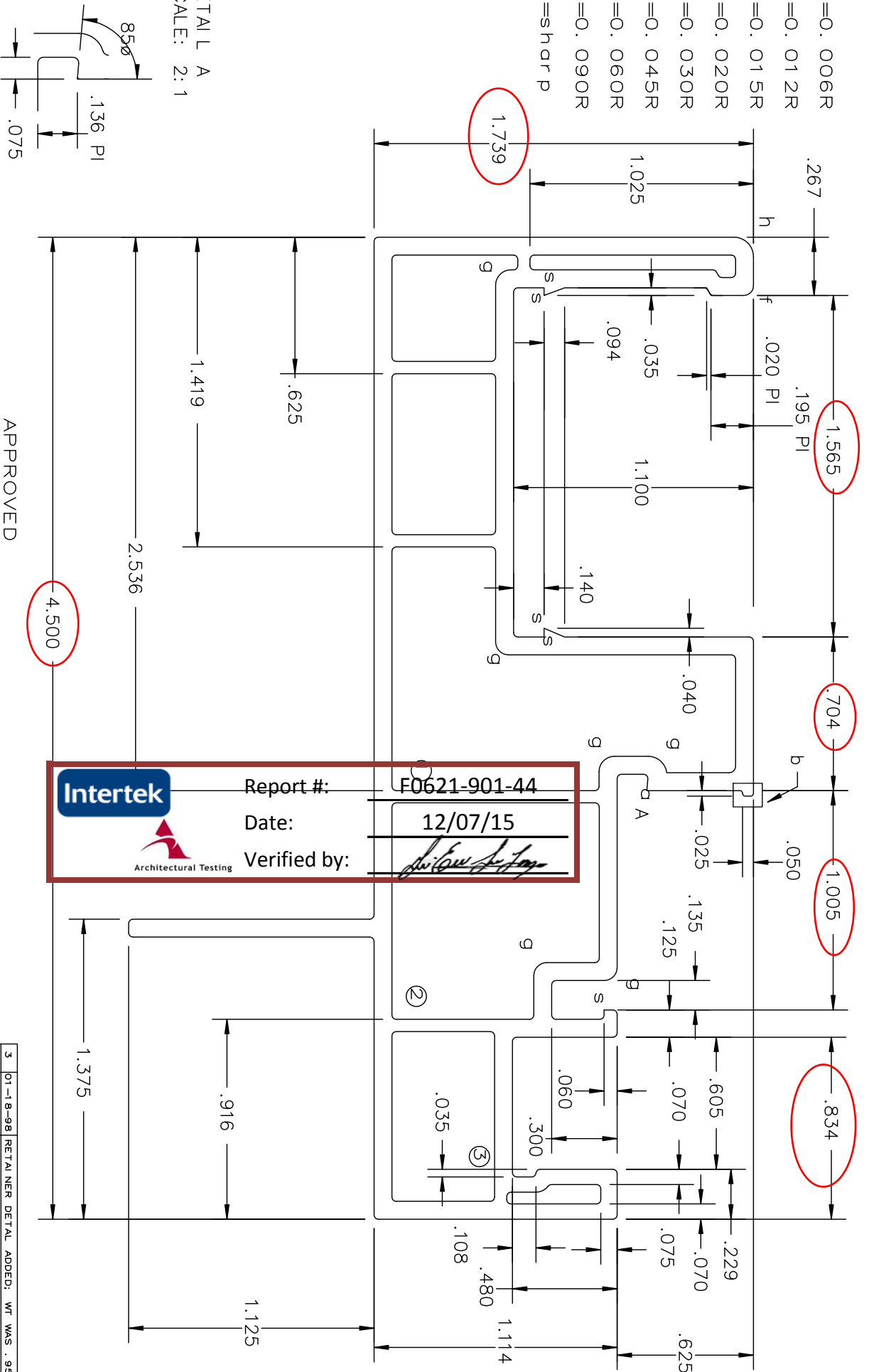
© 1995 COPYRIGHT KING EXTRUSIONS LTD WOODINVILLE, WASH ALL RIGHTS RESERVED
 EXTERNAL WALL: 0.067
 INTERNAL WALL: X.XXX
 CORNER TYP. 0.020R
 WEIGHT: 0.101 LB/FT

| | | | | | | | | | | | | |
|--|---|---|--|--|--|---|--|---|---|---|---|---|
|  <p>308-D1 RS1 295</p> |  <p>308-D1 0 RS1 296</p> |  <p>308-D1 1 RS1 297</p> |  <p>308-D1 2 RS1 298</p> |  <p>③ 308-D1 3 RS1 299</p> |  <p>308-D1 4 RS1 300</p> |  <p>1 81 -D8 RS1 060</p> |  <p>305-D35 RS1 281 FROM 305 SYSTEM</p> |  <p>② 308-D1 5 RS1 303</p> |  <p>308-D2 RS1 304</p> |  <p>308-D1 6 RS1 305</p> | <p>APPROVED 18-OCT-04 CYCLOID DESIGNS</p> | <p>NO: 308-D0 DATE: 16-FEB-98 SLI DI NG PATI O DOOR</p> <p>TI TLE: GENERAL PARTS LAYOUT</p> |
| <p>3 05-18-98 PROFILE REVISED 2 02-11-99 INTERNAL WEB REMOVED 1 04-23-98 PART REVISED REV DATE REMARKS</p> | | | | | | | | | | | | |

| | | | | | | | |
|---|--|---|--|--|--|---|---|
|  <p>308-D1 7 RS1 306</p> |  <p>308-D20 RS1 307</p> |  <p>1 81 -D1 5 RS1 076</p> |  <p>④ 308-D25 RS1 786</p> | | <p>Report #: F0621-901-44 Date: 12/07/15 Verified by: <i>[Signature]</i></p> | <p>APPROVED 18-OCT-04 CYCLOID DESIGNS</p> | <p>NO: 308-D0 DATE: 16-FEB-98 SLI DI NG PATI O DOOR</p> <p>TI TLE: GENERAL PARTS LAYOUT</p> |
| <p>4 10-18-04 PROFILE ADDED REV DATE REMARKS</p> | | | | | | | |

SCALE : 1 . 5 : 1

a=0. 006R
 b=0. 012R
 c=0. 015R
 d=0. 020R
 e=0. 030R
 f=0. 045R
 g=0. 060R
 h=0. 090R
 s=sharp



DETAIL A
 SCALE: 2:1

APPROVED

16-FEB-98

CYCLOID DESIGNS

Intertek
 Architectural Testing
 Report #: F0621-901-44
 Date: 12/07/15
 Verified by: *[Signature]*

| FAB REF | 308-F2A | 308-F3 | 308-F5A | FIT TO | 308-D13 | 305-D35 | 308-D18 | 181-D8 | 308-D19 |
|---------|---------|--------|---------|--------|---------|---------|---------|--------|---------|
| 308-F2 | 308-F3 | | 308-D13 | | | | | | |

| REV | DATE | REMARKS |
|-----|----------|------------------------------------|
| 3 | 01-18-98 | RETAILER DETAIL ADDED: WT WAS .954 |
| 2 | 01-18-98 | WALL MOVED: DIM WAS 0.954 |
| 1 | 01-18-98 | WALL MOVED: DIM WAS 2.716 |

CYCLOID DESIGNS

DWG: 308-D1

DATE: 11-FEB-98


TITLE: FRAME WITH FIN

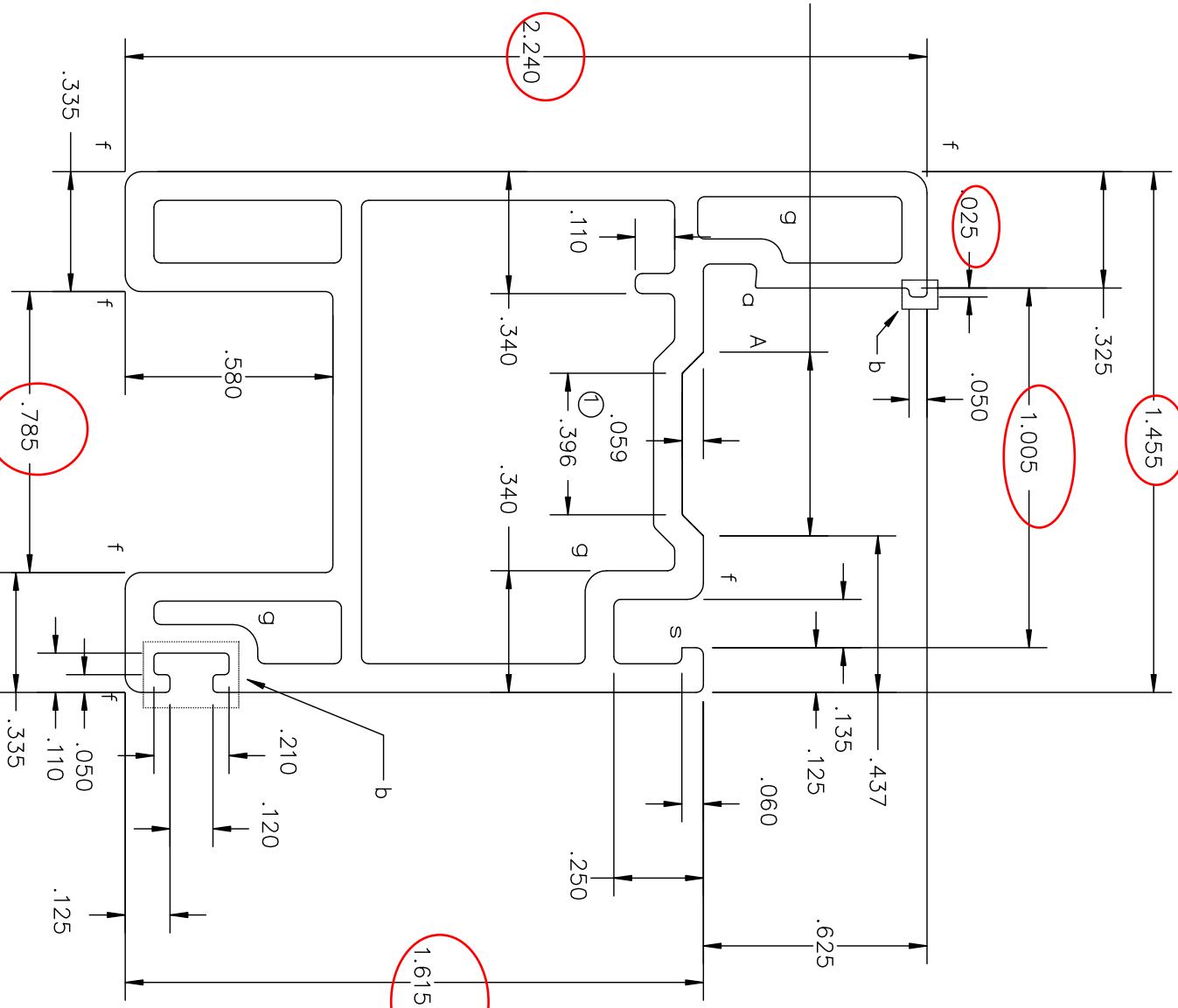
RS1295


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EXTERNAL WALL: 0.082
 INTERNAL WALL: 0.056
 CORNER TYP: 0.020R
 WEIGHT: 0.953 LB/FT

SCALE : 2 : 1


 Report #: F0621-901-44
 Date: 12/07/15
 Verified by: *[Signature]*

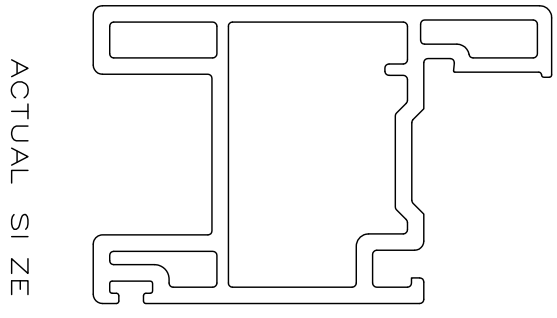


CYCLOID DESIGNS 
 DWG: 308-D10
 TITLE: SASH BOTTOM
 DATE: 13-FEB-98
 RSI 296

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| REV | DATE | DI | REVISIONS | ADDED |
|-----|----------|----|-------------|-------|
| 1 | 04-28-98 | | DI MENSI ON | ADDED |
| | 308-D15 | | 291-D7 | |

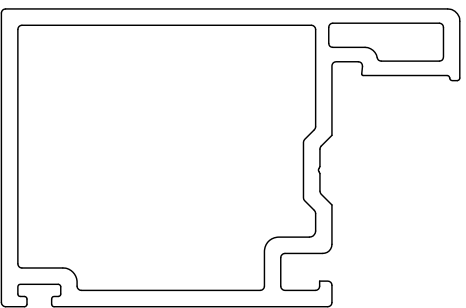
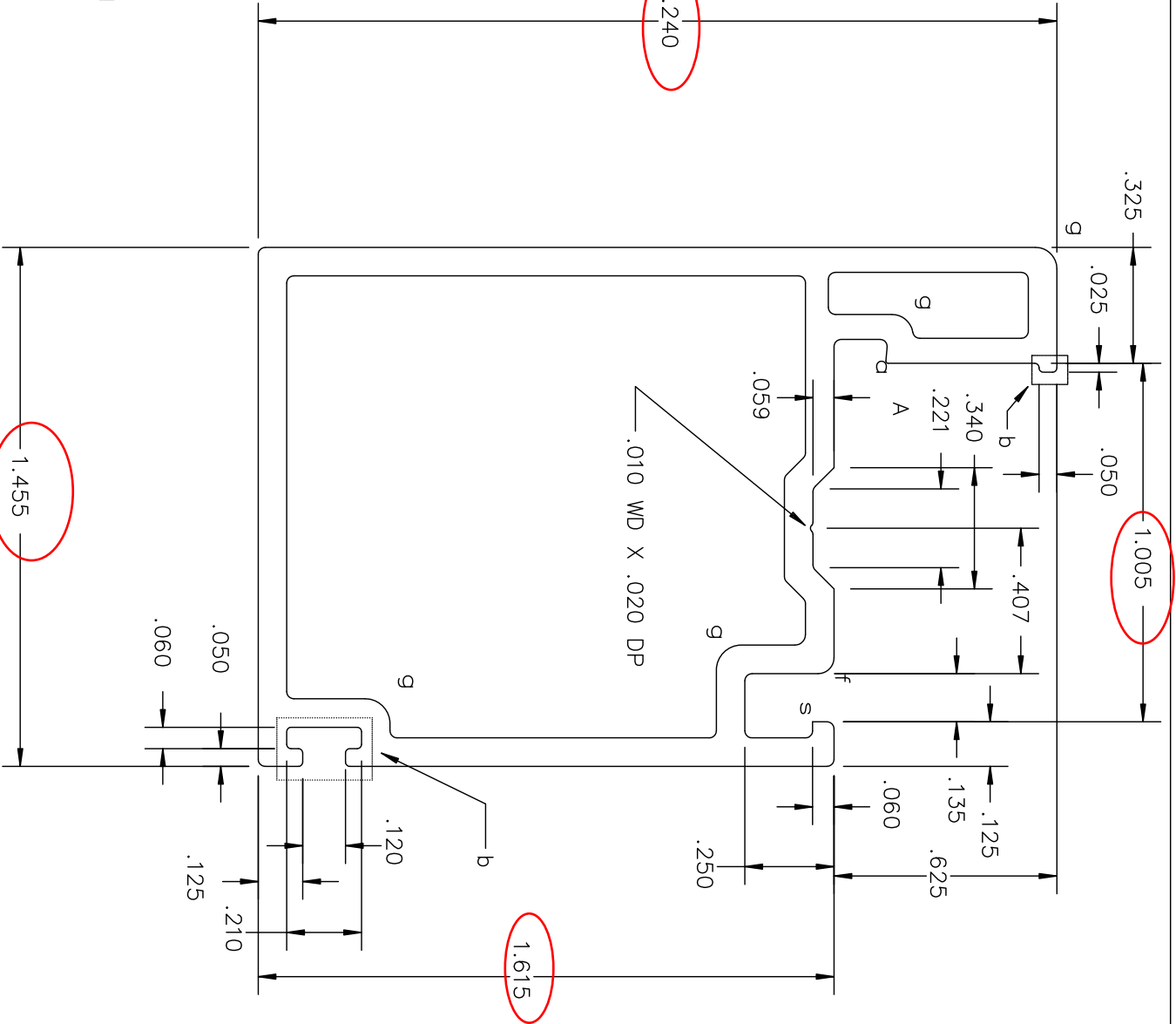
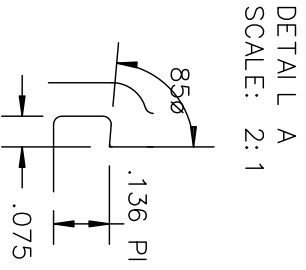
EXTERNAL WALL: 0.080
 INTERNAL WALL: 0.064
 CORNER TYP: 0.020R
 WEIGHT: 0.453 LB/FT



APPROVED AS CORRECTED
 28-APR-98
 CYCLOID DESIGNS
 APPROVED
 16-FEB-98
 s=sharp
 g=0.060R
 f=0.045R
 e=0.030R
 d=0.020R
 c=0.015R
 b=0.012R
 a=0.006R

SCALE : 2 : 1


 Report #: F0621-901-44
 Date: 12/07/15
 Verified by: *[Signature]*




ACTUAL SIZE

- a=0.006R
- b=0.012R
- c=0.015R
- d=0.020R
- e=0.030R
- f=0.045R
- g=0.060R
- s=sharp

APPROVED
 16-FEB-98
 CYCLOID DESIGNS

| REV | DATE | DI M CHANGE: | WAS .124 |
|---------|----------|--------------|----------|
| 1 | 01-18-98 | | |
| FAB REF | 308-F5D | 308-F6 | |
| 308-F5 | | | |
| REV | DATE | DI M CHANGE: | WAS .124 |
| 1 | 01-18-98 | | |
| FAB REF | 308-F5D | 308-F6 | |
| 308-F5 | | | |
| REV | DATE | DI M CHANGE: | WAS .124 |
| 1 | 01-18-98 | | |
| FAB REF | 308-F5D | 308-F6 | |
| 308-F5 | | | |
| REV | DATE | DI M CHANGE: | WAS .124 |
| 1 | 01-18-98 | | |
| FAB REF | 308-F5D | 308-F6 | |
| 308-F5 | | | |

CYCLOID DESIGNS  DWG: 308-D11 DATE: 11-FEB-98
 TITLE: SASH RS1297
 © 1998 COPYRI GHT ROYAL SIERRA I NC SPARKS, NEVADA ALL RI GHTS RESERVED
 EXTERNAL WALL: 0.080
 INTERNAL WALL: 0.064
 CORNER TYP: 0.020R
 WEI GHT: 0.381 LB/FT

SCALE : 2 : 1

.325

.025

.050

1.005

.407

.125

.060

.625

.250

.135

.060

.125

.060

.071

.060

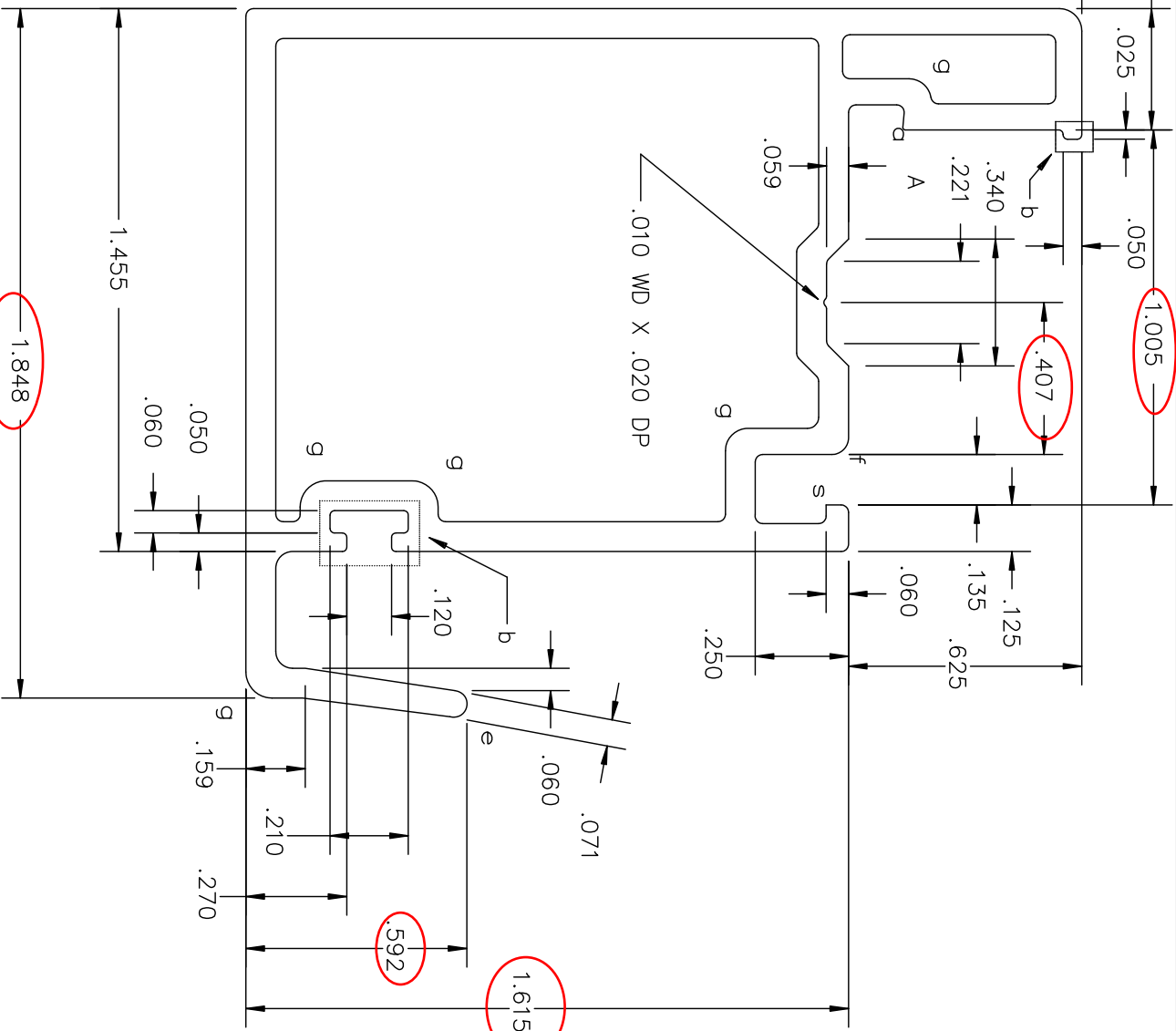
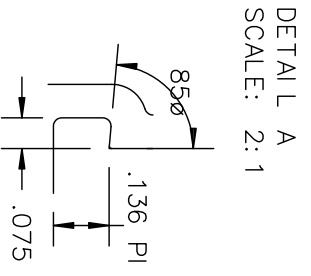
.210

.270

2.240

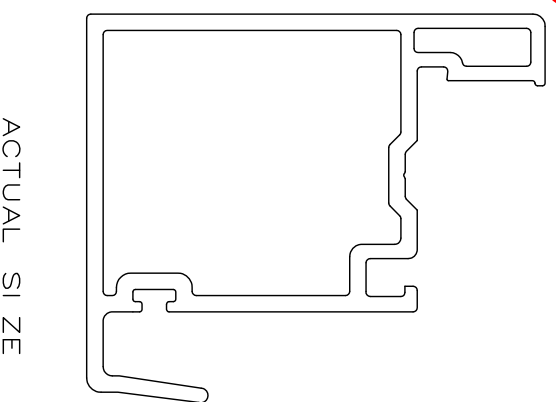
Intertek
Architectural Testing

Report #: F0621-901-44
Date: 12/07/15
Verified by: *[Signature]*



- a=0.006R
- b=0.012R
- c=0.015R
- d=0.020R
- e=0.036R
- f=0.045R
- g=0.060R
- s=sharp

APPROVED
16-FEB-98
CYCLOID DESIGNS



CYCLOID DESIGNS
DWG: 308-D12
DATE: 11-FEB-98
TITLE: INTERLOCK
RS1298

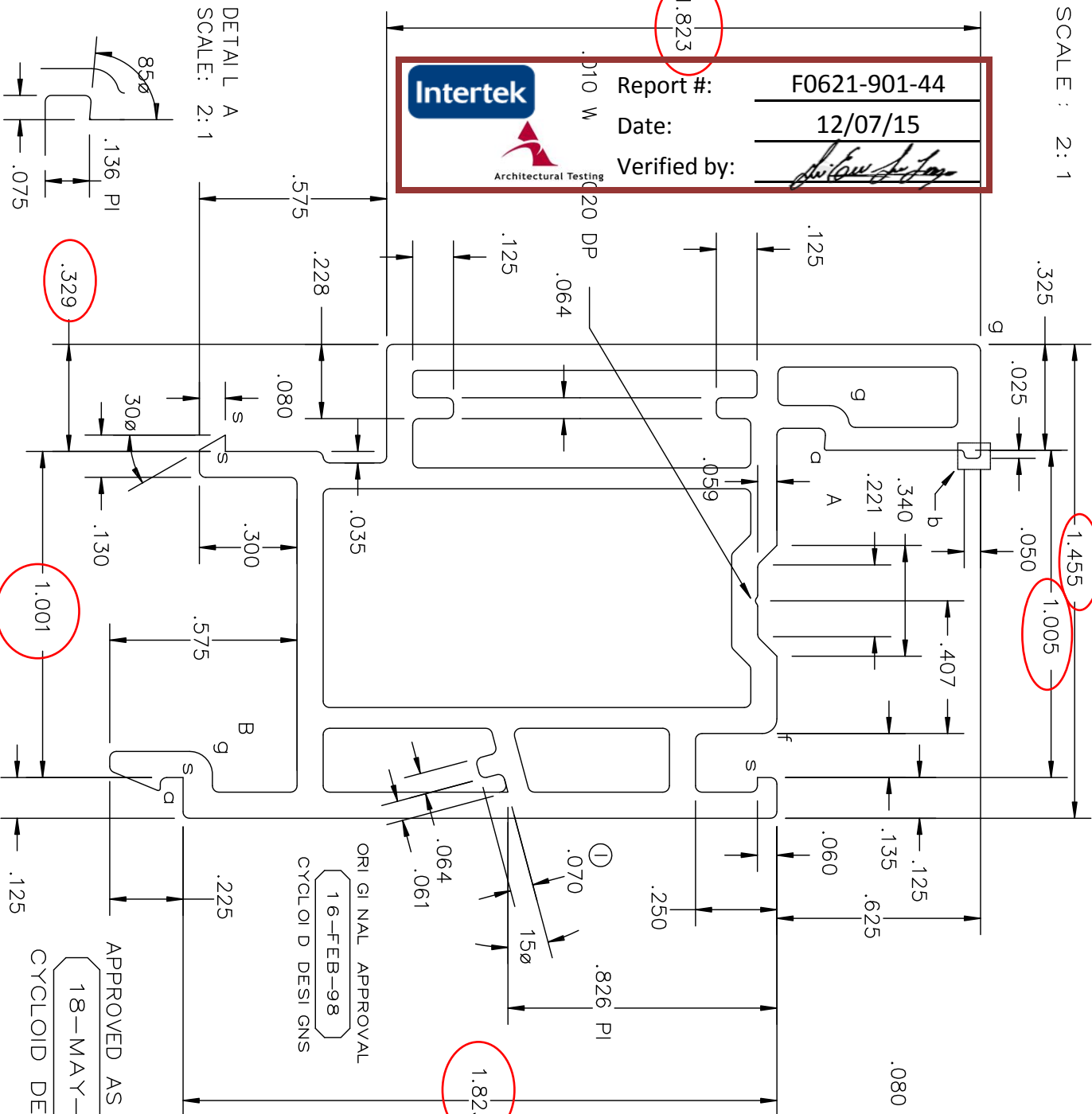
| | | | |
|---------|---------|---------|---------|
| FAB REF | | | |
| 308-F6 | | | |
| FIT TO | 305-D35 | 308-D13 | 308-D18 |
| | 291-D7 | | |

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EXTERNAL WALL: 0.080
INTERNAL WALL: 0.064
CORNER TYP: 0.020R
WEIGHT: 0.426 LB/FT

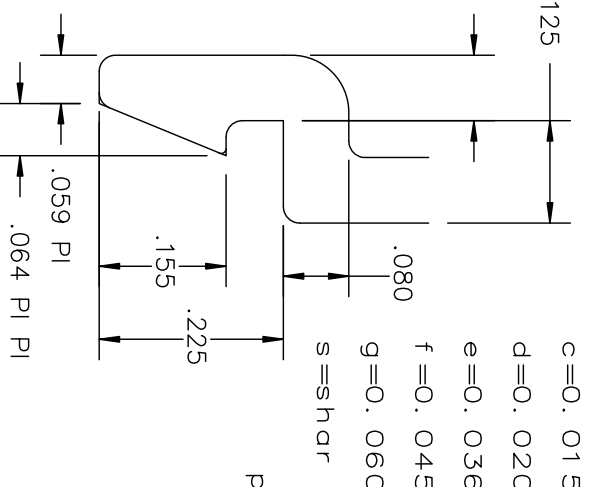
SCALE : 2 : 1

| | | |
|--|--------------|--------------------|
| | Report #: | F0621-901-44 |
| | Date: | 12/07/15 |
| | Verified by: | <i>[Signature]</i> |

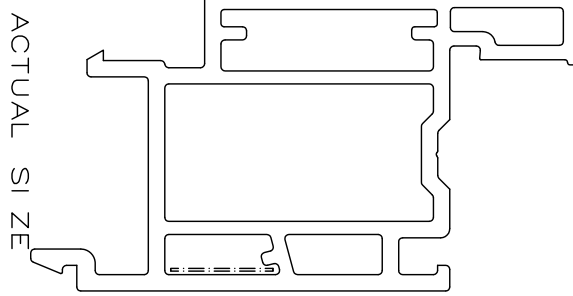


DETAIL B
SCALE: 4:1

a=0.006R
b=0.012R
c=0.015R
d=0.020R
e=0.036R
f=0.045R
g=0.060R
s=sharp



| REV | DATE | REMARKS |
|-----|-----------|--------------------------------------|
| 1 | 18-MAY-99 | TIT EXTENDED, WASH. 035: WT WAS .517 |



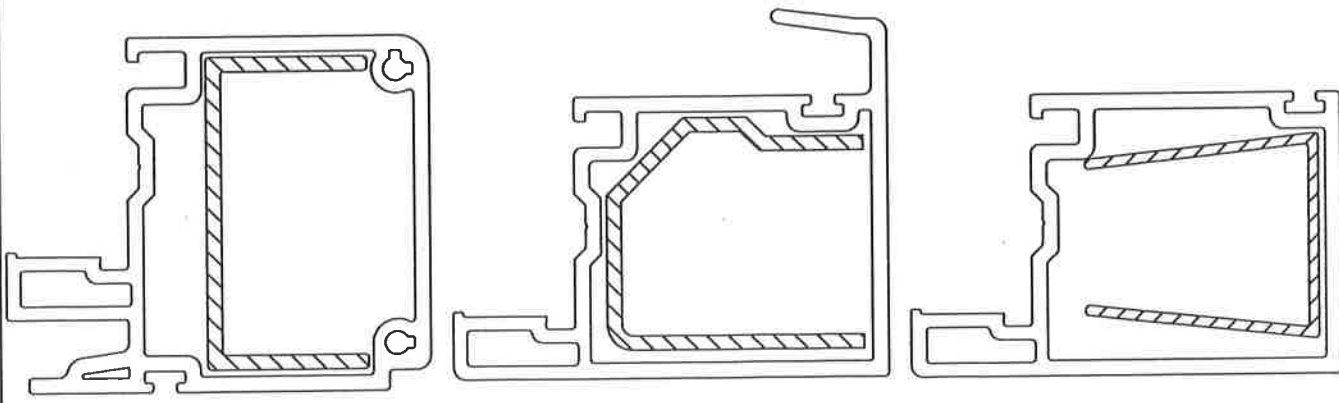
APPROVED AS REVISED
18-MAY-99
CYCLOID DESIGNS
ACTUAL SIZE

| FAB REF | 308-F4A | FIT TO | 308-D1 | 308-D16 | 308-D17 | 305-D35 | 308-D18 |
|---------|---------|--------|--------|---------|---------|---------|---------|
| | | | 291-D7 | 308-D10 | 308-D11 | 308-D13 | 308-D14 |

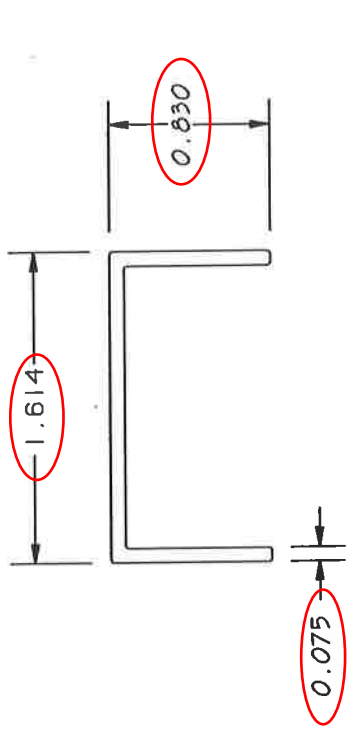
CYCLOID DESIGNS
DWG: 308-D13
DATE: 11-FEB-98
VENTILATOR
RS1299

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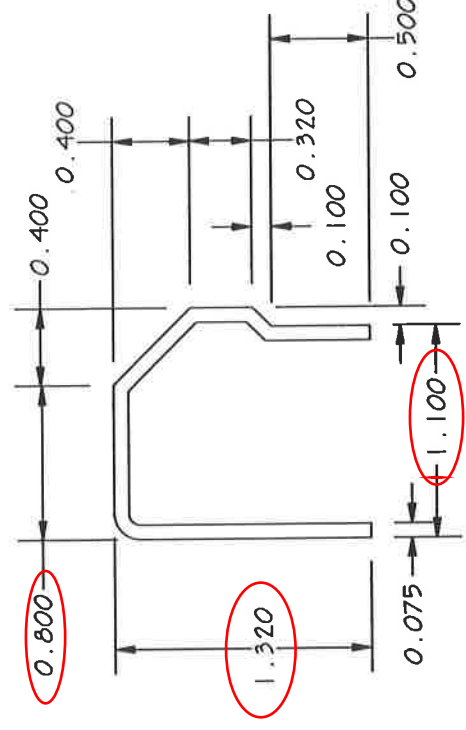
EXTERNAL WALL: 0.080
INTERNAL WALL: 0.064
CORNER TYP: 0.020R
WEIGHT: 0.518 LB/FT



1 y-y = 0.093 in 4
N51042



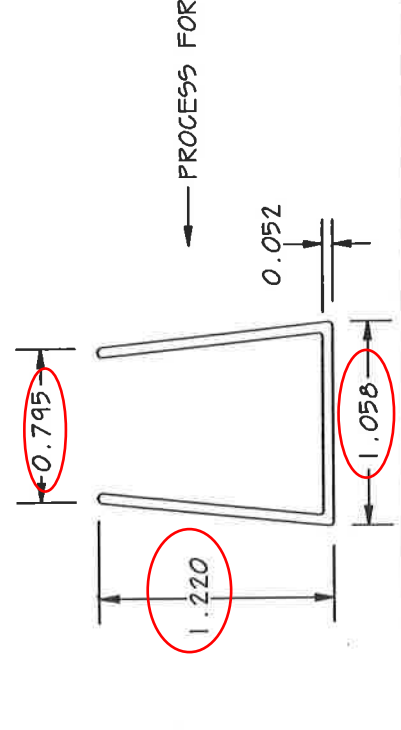
1 y-y = 0.058 in 4
N51011-2





NOTE: STEEL FOR
AAMA STRUCTURAL TEST
AND NFRC SIMULATIONS

PROCESS FOR MOTRISE AND HANDLE HOLES
N5788 PUNCHED

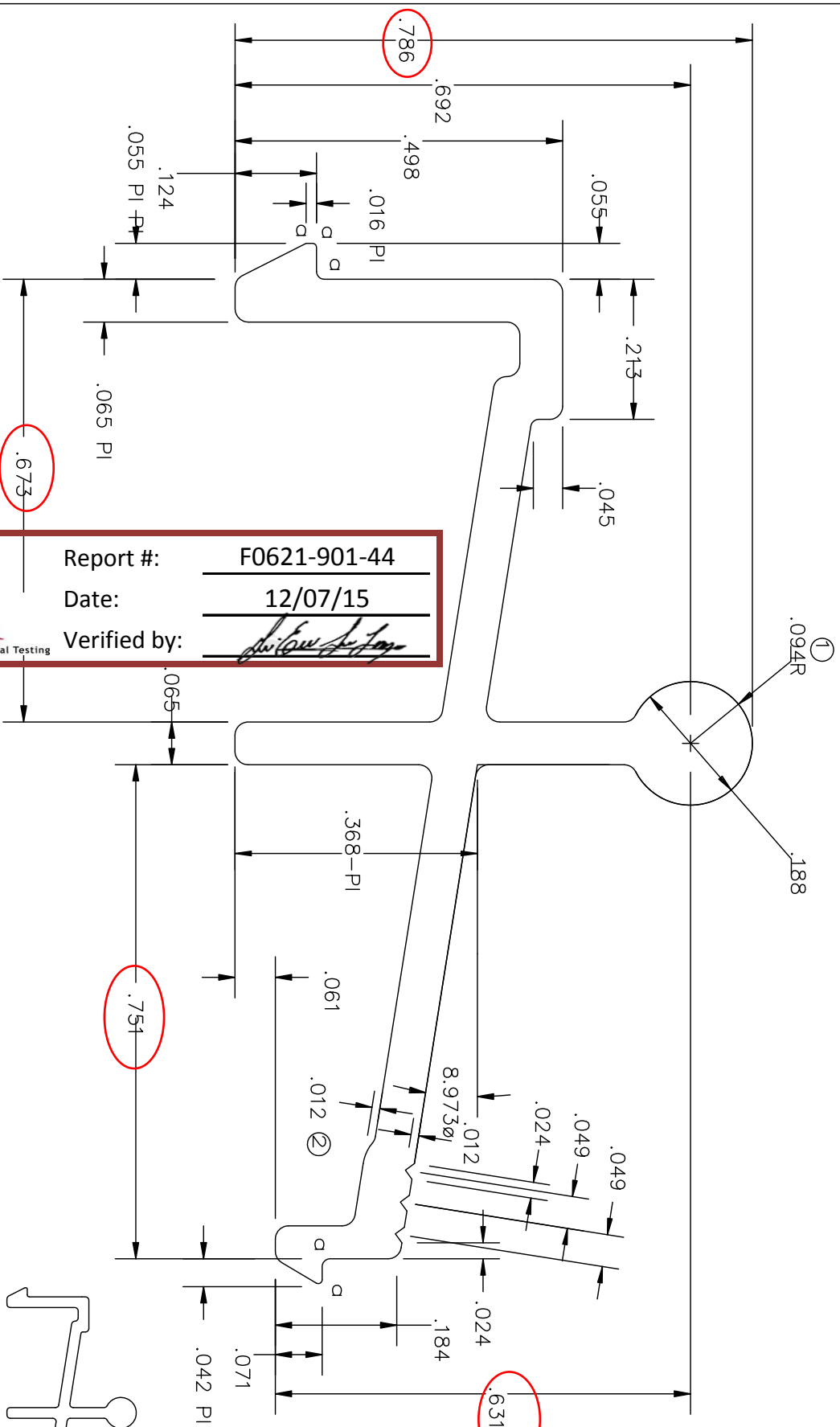
1 y-y = 0.029 in 4



| | | |
|---|--------------|--|
|   Architectural Testing | Report #: | F0621-901-44 |
| | Date: | 12/07/15 |
| | Verified by: |  |

| | | | | |
|---|-----------------------------------|-----------------|--|---|
| CYCLOID DESIGNS  | DWG: 308-R1 | DATE: 14-APR-98 | © 1998 COPYRIGHT ROYAL SIERRA EXTRUSIONS INC RENO, NEVADA ALL RIGHTS RESERVED | EXTERNAL WALL: X.XXX INTERNAL WALL: X.XXX CORNER TYP: 0.XXXX WEIGHT: X.XXX LB/FT |
| | TITLE: PROPOSED STEEL REINFORCING | | | |

SCALE: 4:1



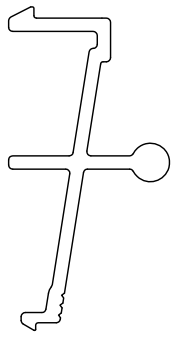
a=0.006R
 b=0.012R
 c=0.015R
 d=0.020R
 e=0.030R
 f=0.045R
 g=0.060R
 s=sharp

Intertek Report #: F0621-901-44
 Architectural Testing Date: 12/07/15
 Verified by: *[Signature]*

APPROVED
 23-APR-98

CYCLOID DESIGNS

ACTUAL SIZE

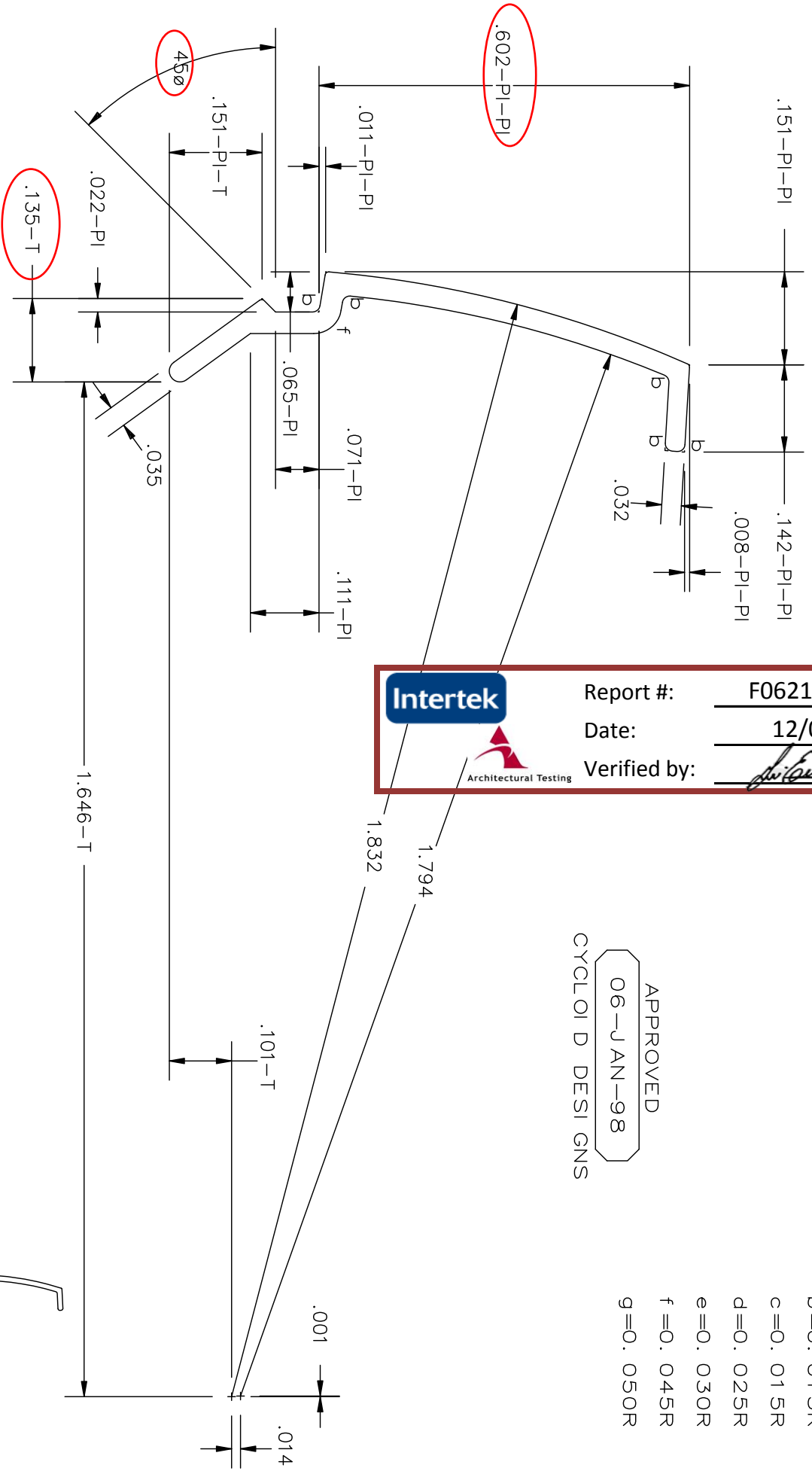


| FAB REF | REV | DATE | REMARKS |
|---------|-----|----------|------------------------------------|
| XXX-XXX | 1 | 04-23-98 | DI A CHANGED: WAS .210 WT WAS .132 |
| | 2 | 08-25-98 | CORRECTED NOMINAL WALL: ADDED DIM |

CYCLOID DESIGNS
 DWG: 308-D19
 DATE: 11-FEB-98
 TITLE: TRACK
 RS1301

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 EXTERNAL WALL: 20.065
 INTERNAL WALL: 0.0065
 CORNER TYP: 0.020R
 WEIGHT: 0.128 LB/FT

SCALE: 4:1



| | | |
|--|--------------|--------------------|
| | Report #: | F0621-901-44 |
| | Date: | 12/07/15 |
| | Verified by: | <i>[Signature]</i> |

APPROVED
06-JAN-98

CYCLOID DESIGNS

- a=0.006R
- b=0.013R
- c=0.015R
- d=0.025R
- e=0.030R
- f=0.045R
- g=0.050R

| | | | |
|---|--------------|---|--------|
| CYCLOID DESIGNS | DWG: 305-D35 | DATE: 02-JAN-97 | RS1281 |
| TITLE: GLAZING BEAD: 3/4" GLASS | | © 1998 COPYRIGHT ROYAL SERRA INC SPARKS, NEVADA ALL RIGHTS RESERVED | |
| EXTERNAL WALL: 0.035 INTERNAL WALL: X.XXX CORNER TYP: 0.006R WEIGHT: 0.023 LB/FT | | ACTUAL SIZE | |