element

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PERFORMANCE EVALUATION OF

HORIZONTAL SLIDING WINDOW

"925 R.S. SERIES SIDE SLIDER"

For WINDSPEC INC.

IN ACCORDANCE WITH:

AAMA/WDMA/CSA 101/I.S.2/A440-11 and A440S1-17

Report to:	Windspec Inc. 1310 Creditstone Road Concord, Ontario, Canada L4K 5T7
Attention:	Mr. Oren Anava
Telephone: Email:	905-738-8311 oren@windspec.com
Original Report No.:	19-06-B0157-1N 7 Pages, 1 Appendix
Proposal No.:	19-006-081458
Original Report Date:	April 22, 2020

Product Manufacturer:	Windspec Inc.
Product Type:	Horizontal Sliding Window
Product Series/Model:	925 R.S. Series Side Slider
Primary Product Designator:	Class LC – PG3360 – Size tested 2500 x 2000 mm – Horizontal Sliding Window Class LC – PG70 – Size tested 98.43 x 78.74 in – HS
Secondary Product Designator:	
Positive Design Pressure:	3360 Pa (70.18 psf)
Negative Design Pressure:	3360 Pa (70.18 psf)
Water Penetration Resistance:	510 Pa (10.65 psf)
Air Infiltration/Exfiltration	Canadian A3 Level
Test Completion Date:	April 15, 2020
Report Number:	19-06-B0157-1N

1.0 INTRODUCTION

At the request of Windspec Inc., Element was retained to evaluate the physical performance of a horizontal sliding window, identified as "925 R.S. Series Side Slider", in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-11 Standard, "NAFS – North American Fenestration Standard/Specification for windows, doors, and skylights," and A440S1-17 Canadian Supplement, as outlined in proposal number 19-06-081458

Exova Specimen No.:	19-06-B0157-1
Type:	Horizontal Sliding Window
Model:	925 R.S. Series Side Slider
Overall Window Size:	2500 mm x 2000 mm (98.43" x 78.74")
Sampling	Not Applicable

2.0 SAMPLE DESCRIPTION

The following sample description has verified by Element. Details and drawings of the described test specimen, as provided by the manufacturer, have been included in Appendix A.

Product Type:	Horizontal Slider, double run double slider, extruded aluminum, 2500 mm x 2000 mm (98.43" x 78.74")
Frame:	Extruded Aluminum 2500 mm x 2000 mm x 152 mm (98.43" x 78.74" x 5.98"), two primary sashes, two secondary sashes
Sash:	Extruded Aluminum, four, 880 mm x 1450 mm x 20 mm (34.65" x 57.09" x 0.79")
Joinery:	
Frame:	Butt joined, each corner fastened with four #8x1" pan head screws, sealed with butyl pad
Sash:	Butt joined, each corner fastened with one #8x1" pan head screw
Installation:	
Buck:	Wood Buck
Fasteners:	Frame fastened to buck with 15 #10x2" flat head screws, five per jamb, 310 mm (12.20") c/c, five at head, 400 mm (15.75") c/c, screw heads sealed with flexible sealant
Sealant:	Exterior frame perimeter sealed with flexible sealant
Glazing Type:	
Primary Sashes:	One per sash, single glazed, annealed, glass thickness 6 mm (0.24")
Secondary Sashes:	One per sash, single glazed, annealed, glass thickness 6 mm (0.24")
Glazing Method:	Channel glazed, dry glazed
Glazing Spline:	Flexible PVC, full perimeter, one per pane
Reinforcement:	Steel bar, four, 13 mm x 8 mm (0.51" x 0.31"), one per meeting stile, internal cavity, full length
Thermal Break:	
Frame:	
Thermal Strut:	Polyamide, two rows, 28 mm (1.10") wide, full perimeter, crimped in place
Sash:	None

Drainage/Ventilation:

Frame:

Drain Slot:	Four, 15 mm x 3 mm (0.59" x 0.12"), sill, central channel, 90 mm (3.54"), 550 mm (21.65"), 1140 mm (44.88"), and 1550 mm (61.02") from the right jamb from interior Four, 20 mm x 5 mm (0.79" x 0.20"), sill, secondary sash interior channel, 100 mm (3.94"), 560 mm (22.05"), 1140 mm (44.88"), and 1580 mm (62.20") from the right jamb from interior Four, 18 mm x 2 mm (0.71" x 0.08"), secondary sash exterior channel, 170 mm (6.69"), 630 mm (24.80"), 1210 mm (47.64"), and 1650 mm (64.96") from the right jamb from interior
Drain Slot with Eye Lid Cover:	Four, 28 mm x 6 mm (1.10" x 0.24"), sill, exterior face, 40 mm (1.57") and 700 mm (27.56") from the ends

Weather-stripping:

Primary Sash:

Pile with Fin:	2 rows, 4 mm (0.16") high, top and bottom rails, interior and exterior face, kerf mounted 2 rows, 4 mm (0.16") high, interior sash, lock stile, interior and exterior face, kerf mounted 1 row, 4 mm (0.16") high, meeting stiles, facing opposing sash, kerf mounted
Pile:	2 rows, 4 mm (0.16") high, exterior sash, lock stile, interior and exterior face, kerf mounted
Dust Plug:	Pile, four, 20 mm x 5 mm (0.79" x 0.20"), 6 mm (0,24") high, two per meeting stile, at top and bottom rails, facing opposing sash

Secondary Sash:

Pile with Fin:	2 rows, 4 mm (0.16") high, interior sash, top and bottom rail and lock stile, one at interior and exterior face, kerf mounted
Pile:	2 rows, 4 mm (0.16") high, exterior sash, top and bottom rail and lock stile, interior and exterior face, kerf mounted 1 row, 4 mm (0.16") , meeting stiles, facing opposing sash, kerf mounted

Hardware:

Latch:	Aluminum, snap-in, one per sash, pull lock stiles, at the centre

3.0 TEST RESULTS

Table 1 - Summarized Testing Results in Reference to
AAMA/WDMA/CSA 101/I.S.2/A440-11 and
A440S1-17 Canadian Supplement

Test	Requirements		Results		Rating
Operating Force (Clause 9.3.1) *Per ASTM E2068* Test Date: October 18, 2019	Operating: The maximum force to initiate and maintain the sash shall be less than the following, N (lbf)		Sash Measured Force, N (lbf)		**PASS**
	US Application:				
	Force to Initiate	Report	Initiate:	89.7 (20.17)	
	Force to Maintain	115 (25.85)	Maintain:	44.3 (9.96)	
	Canadian Application:				
	Force to Initiate:	90 (20.23)			
	Force to Maintain:	45 (10.12)			
	Latching Device: The maximum force required to open and close the latch shall be less than the following:		Latching Device Measured force, N (lbf)		
			Open:	10.2 (2.29)	
	Maximum Force:	100 (22.5)	Close:	N/A	
Air Leakage Resistance (Clause 9.3.2) *Per ASTM E283* **Test Date:** October 18, 2018	Allowable rate of air leakage shall be less than or equal to the following, L/s.m² (cfm/ft²), at the subsequent test pressure:		Test area, m² (ft²): 5.0 (53.82)		**PASS** Canadian A3 Level
	Test Pressure, Pa (psf):	75 (1.57)	Measured Air Leakage Rate, L/s.m² (cfm/ft²):		
	Gateway, A2:	1.5 (0.30)	Infiltration:	0.1 (0.03)	
	Canadian A3:	0.5 (0.10)	Exfiltration:	0.3 (0.05)	

Table 1, Continued - Summarized Testing Results in Reference to
AAMA/WDMA/CSA 101/I.S.2/A440-11 and
A440S1-17 Canadian Supplement

Test	Requirements		Results		Rating
Water Penetration Resistance (Clause 9.3.3) *Per ASTM E547* **Test Date:** October 22, 2019	No water leakage shall be observed at the following specified pressure differential, Pa (psf):		No water leakage was observed at the following specified pressure differential, Pa (psf):		**PASS** Gateway **(LC25-HS)** Optional Performance **(LC70-HS)**
	Gateway Performance:		**Optional Performance:**		
	Test Pressure:	180 (3.76)	Test Pressure (w/out Sceen):	510 (10.65)	
	Optional Performance:				
	Test Pressure:	510 (10.65)			
Uniform Load Deflection (Clause 9.3.4.2) *Per ASTM E330* **Test Date:** February 4, 2020	The deflection of the unsupported span at the following specified test pressures shall be measure and reported, Pa (psf):		Measured net deflection of Meeting Stile mm (in):		**PASS** Gateway **(LC25-HS)** Optional Performance **(LC70-HS)**
	Allowable deflection: Report only		Span, mm (in): 1450 (57.09)		
	Gateway Performance:		Positive:	35.0 (1.38)	
	Test Pressure:	±1200 (25.06)	Negative:	34.5 (1.36)	
	Optional Performance:				
	Test Pressure:	±3360 (70.18)			
Uniform Load Structural (Clause 9.3.4.3) *Per ASTM E330* **Test Date:** February 4, 2020	There shall be no permanent damage to the window components after the following specified test pressures, Pa (psf). No member shall have permanent deflect more that 0.4% of span.		Measured net deflection of Meeting Stile mm (in):		**PASS** Gateway **(LC25-HS)** Optional Performance **(LC70-HS)**
	Allowable permanent deflection, mm (in): 5.8 (0.23)		Span, mm (in): 1450 (57.09)		
	Optional Performance:		Positive:	0.3 (0.01)	
	Test pressure:	±1800 (37.59)	Negative:	0.4 (0.01)	
	Optional Performance:				
	Test Pressure:	±5040 (105.26)			

Table 1, Continued - Summarized Testing Results in Reference to AAMA/WDMA/CSA 101/I.S.2/A440-11 and A440S1-17 Canadian Supplement

Test	Requirements					Results		Rating
Forced-Entry Resistance (Clause 9.3.5) *Per ASTM F588* **Test Date:** April 15, 2020	No entry shall be gained during the following test sequence:					For Type A Window no entry was gained during the following specified test sequence:		**PASS** Grade 20
	Load Identification	Grade Loads, N (lbf)						
		10	20	30	40			
	Disassembly T1:	5 min		10 min		Disassembly T1:	No Entry	
	Manipulation T1:	5 min		10 min		Manipulation T1:	No Entry	
	L1:	667 (150)	890 (200)	1112 (250)	1334 (300)	L1:	No Entry	
	L2:	333 (75)	445 (100)	667 (125)	667 (150)	L1+L2	No Entry	
	L3:	111 (25)	155 (35)	222 (50)	267 (60)	L1+L2+L3	No Entry	
						L1+L2+L3+lift	No Entry	
Deglazing (Clause 9.3.6.3) **Test Date** April 15, 2020	The panel shall be operable and there shall be no glass breakage or disengagement of glazing materials from panel frame after the application following test loads , N(lbf)					Measured Panel deflection, mm (in):		**PASS**
						Member:	Deflection:	
	Glazing Engagement, mm (in): 10.0 (0.39)					Top Rail:	0.5 (0.02)	
	Allowable, mm (in):	9.0 (0.35)				Bottom Rail:	0.5 (0.02)	
	Stiles test load:	320 (71.94)				Pull Stile:	1.0 (0.04)	
	Rails test load:	230 (51.71)				Meeting Stile:	1.0 (0.04)	

4.0 MODIFICATIONS

The following modification was made to the Windspec Inc., Horizontal Sliding Window "925 R.S. Series Side Slider" Element Specimen No.: 19-06-B0157-1, during testing to achieve the results stated in this report.

- Water Penetration Resistance:
  - The piles with fin at the exterior sash top and bottom rails, lock stile, and interior and exterior sash meeting stiles were replaced with piles with no fin
- Uniform Load Testing:
  - All meeting stiles were internally reinforced with 13 mm x 8 mm (0.51" x 0.31") steel bars

5.0 CONCLUSIONS

Based on the results of the testing, the Windspec Inc., Horizontal Sliding Window "925 R.S. Series Side Slider" Element Specimen No.: 19-06-B0157-1 achieved the following results.

Results

- Operating Force — Pass
- Air Leakage Resistance — Canadian A3 Level
- Water Penetration Resistance — 510 Pa (10.65 psf)
- Uniform Load Deflection — ±3360 Pa (70.18 psf)
- Uniform Load Structural — ±5040 Pa (105.26 psf)
- Forced Entry Resistance — Grade 20
- Deglazing — Pass
- Insect Screen Serviceability — Pass

Product Designation for Class LC:

- Class LC – PG3360 – Size tested 2500 x 2000 mm – Horizontal Sliding Window
- Class LC – PG70 – Size tested 98.43 x 78.74 in – HS

Product Manufacturer:	Windspec Inc.
Product Type:	Horizontal Sliding Window
Product Series/Model:	925 R.S. Series Side Slider
Primary Product Designator:	Class LC – PG3360 – Size tested 2500 x 2000 mm – Horizontal Sliding Window Class LC – PG70 – Size tested 98.43 x 78.74 in – HS
Secondary Product Designator:	
Positive Design Pressure:	3360 Pa (70.18 psf)
Negative Design Pressure:	3360 Pa (70.18 psf)
Water Penetration Resistance:	510 Pa (10.65 psf)
Air Infiltration/Exfiltration	Canadian A3 Level
Test Completion Date:	April 15, 2020
Report Number:	19-06-B0157-1N

6.0 REPORT REVISION SUMMARY

Report No.:	Date:	Description of Revisions:
19-06-B0157-1N	April 22, 2020	Report Issued

Reported by:

Scott Hallam, B.Eng. Ext 11511
Building Systems Specialist, Building Systems
Building Science Division

Reviewed by:

Allan Lawrence, Ext. 11212
Supervisor, Building Systems
Building Science Division

APPENDIX A

Manufacturer's Detail Drawings

(12 Pages)

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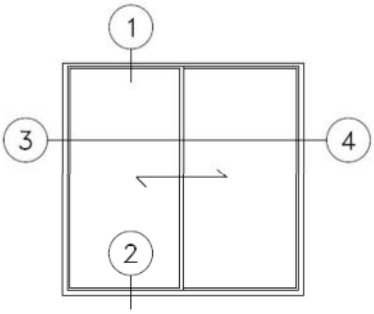
APPROVED

925 R.S. SERIES
SIDE SLIDER TYPICAL SECTIONS



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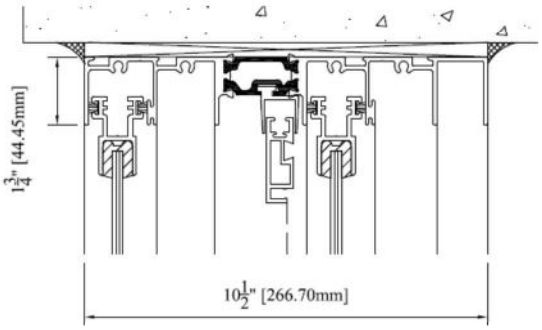

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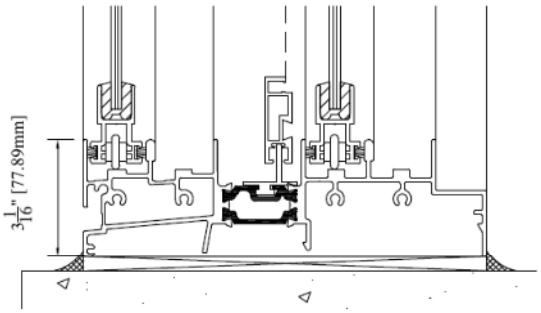

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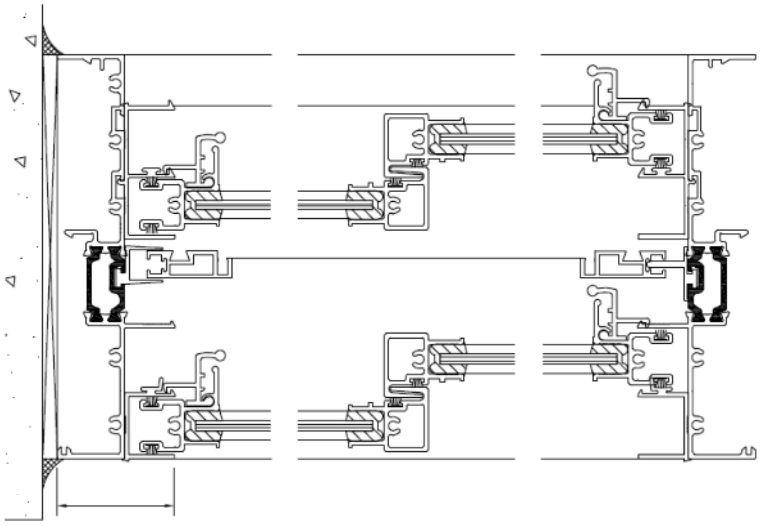
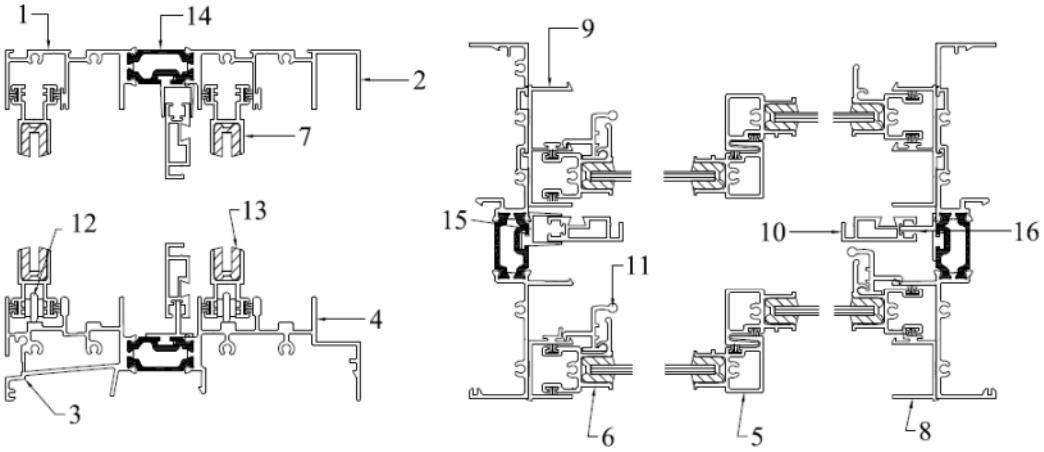


4

WINDSPEC INC.
MANUFACTURERS OF HIGH PERFORMANCE 'WINDSPEC' WINDOWS
ALUMINUM ENTRANCE SYSTEMS AND ARCHITECTURAL PANELS
1310 CREDITSTONE RD, CONCORD, ONTARIO L4K 5T7
Telephone (905) 738 -8311 Fax (905) 738 - 6188

NOVEMBER 2019

925 R.S. SERIES
SIDE SLIDER COMPONENTS



1. Exterior frame	2. Interior frame	3. Exterior sill	4. Interior sill
5. Meet rail	6. Pull rail	7. Sash rail	8. Exterior jamb adaptor
9. Interior jamb adaptor	10. Screen	11. Lock handle	12. Wheel
13. Gasket	14. Thermal strut 28 mm	15. Screen bottom track	16. Screen top track

element

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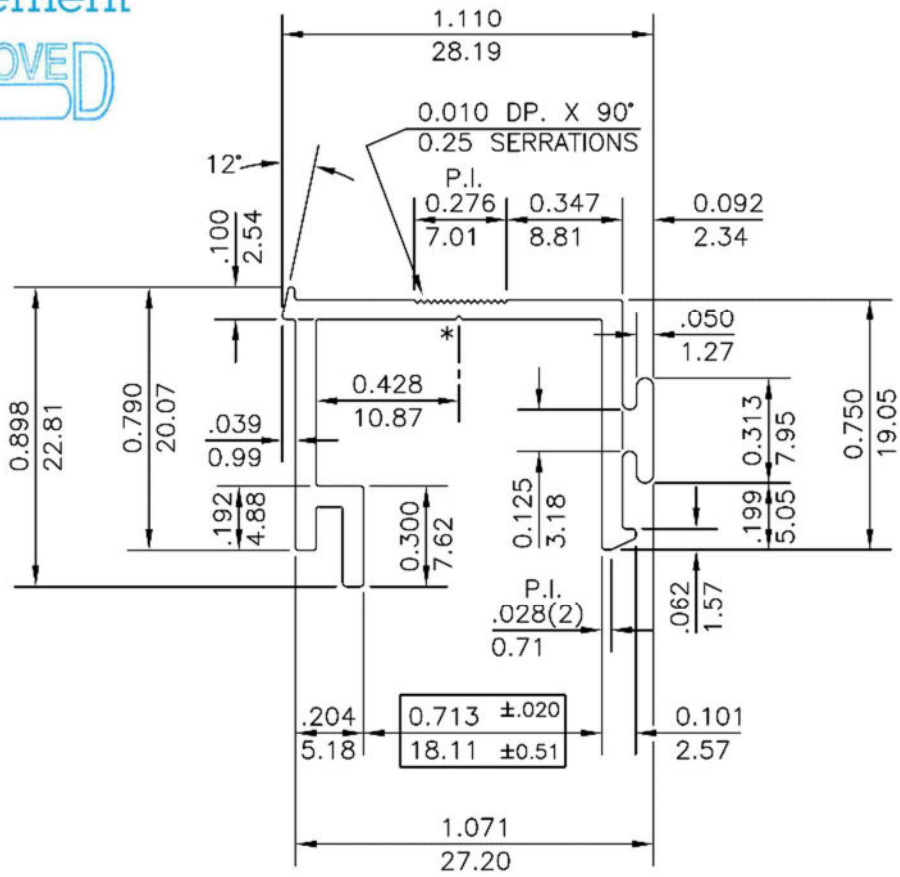
WINDSPEC INC.
MANUFACTURERS OF HIGH PERFORMANC
ALUMINUM ENTRANCE SYSTEMS AND AR
1310 CREDITSTONE RD, CONCORD, ONTAR
Telephone (905) 738 -8311 Fax (905) 738 - 6188

NOVEMBER 2019

CUSTOMER	PART NO.	DIE NO.	DASH
AALCOR	W–92012	AS–47368	1
DESCRIPTION: EXTRUSION SCREEN ADAPTER 920	TARRIF# 7604.29.10.00	PROPOSAL# 10544–4	
INDALEX LIMITED 5675 Kennedy Road Mississauga, Ontario L4Z 2H9	DATE / SYM / REVISION		

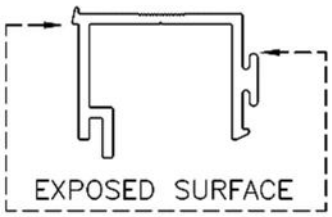
element APPROVED



ANODIZED QUALITY

SURFACE FINISH CRITICAL

(*) = 0.010(0.25)D. X 90° (1)
UNMARKED RADII = RADIUS TO SUIT



ACTUAL SIZE

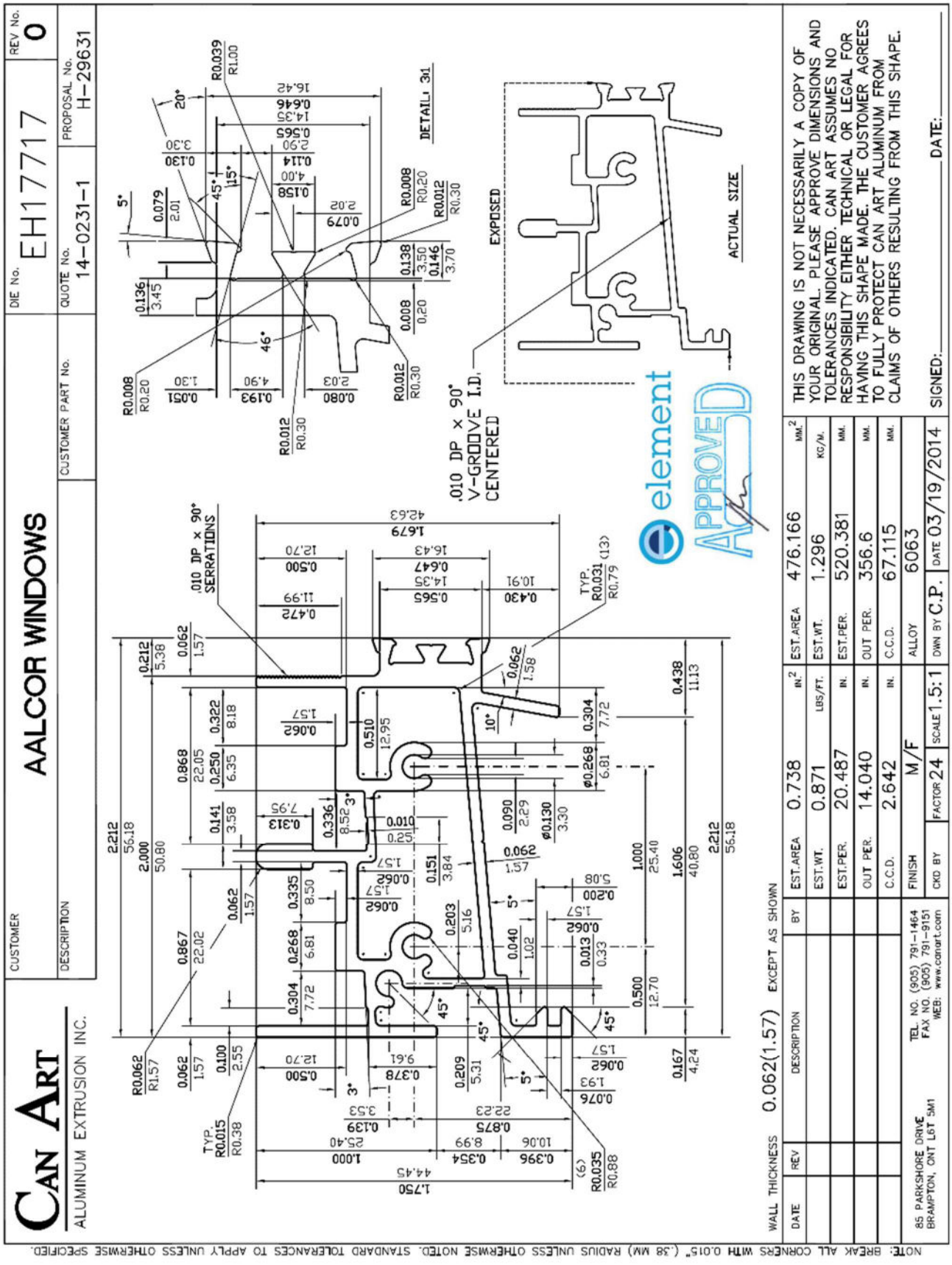
INDALEX ALUMINUM SOLUTIONS

UNSPECIFIED WALL THICKNESS: 0.062(1.57)

EST. AREA 0.193 IN² 125 MM²		OUT PER. — IN — MM	
EST. WT. 0.227 LBS/FT. 0.338 KG/M		FACTOR 28	
EST. PER. 6.305 IN 160 MM		C.C.D. 1.286 IN 33 MM	
DWN BY G.S.	ALLOY 6063–T5	SCALE 2:1	DATE 03/11/10

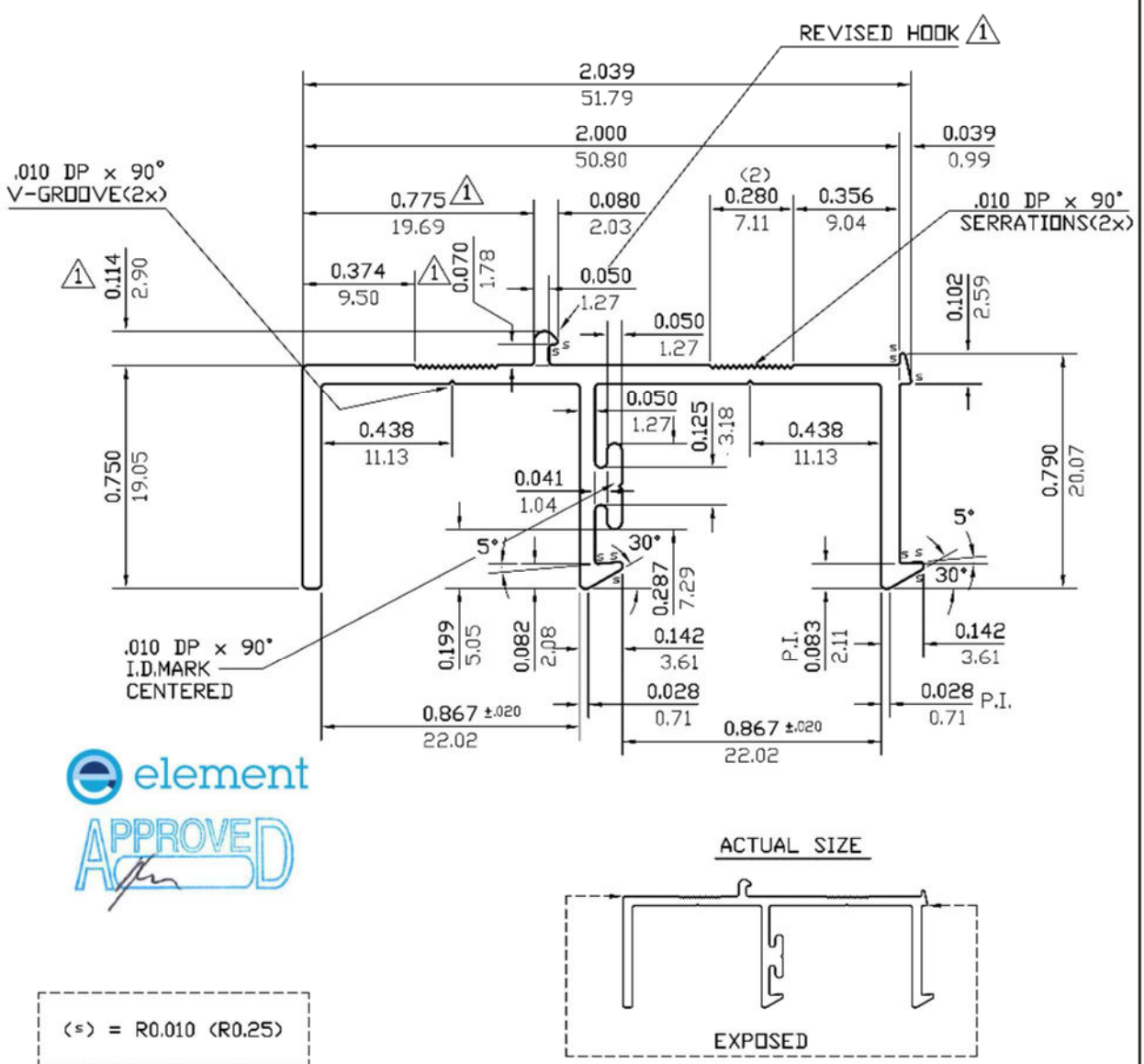
BREAK ALL CORNERS .010"R (0.25R) UNLESS OTHERWISE NOTED.

STANDARD ALUMINUM ASSOCIATION TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED


CAN ART
ALUMINUM EXTRUSION INC.
CUSTOMER
AALCOR WINDOWS
DESCRIPTION
CUSTOMER PART No.
DIE No. EH17717
QUOTE No. 14-0231-1
PROPOSAL No. H-29631
REV No. 0
85 PARKSHORE DRIVE
BRAMPTON, ONT L6T 5M1
TEL. NO. (905) 791-1464
FAX NO. (905) 791-9151
WEB: www.canart.com
WALL THICKNESS 0.062(1.57) EXCEPT AS SHOWN
FINISH M/F
ALLOY 6063
CKD BY
FACTOR 24
SCALE 1.5:1
DWN BY C.P.
DATE 03/19/2014
EST.AREA 0.738 IN.2
EST.WT. 0.871 LBS/FT.
EST.PER. 20.487 IN.
OUT PER. 14.040 IN.
C.C.D. 2.642 IN.
EST.AREA 476.166 MM.2
EST.WT. 1.296 KG/M.
EST.PER. 520.381 MM.
OUT PER. 356.6 MM.
C.C.D. 67.115 MM.
.010 DP x 90° V-GROOVE I.D. CENTERED
.010 DP x 90° SERRATIONS
DETAIL 3x1
EXPOSED
ACTUAL SIZE
APPROVED
element
THIS DRAWING IS NOT NECESSARILY A COPY OF YOUR ORIGINAL. PLEASE APPROVE DIMENSIONS AND TOLERANCES INDICATED. CAN ART ASSUMES NO RESPONSIBILITY EITHER TECHNICAL OR LEGAL FOR HAVING THIS SHAPE MADE. THE CUSTOMER AGREES TO FULLY PROTECT CAN ART ALUMINUM FROM CLAIMS OF OTHERS RESULTING FROM THIS SHAPE.
SIGNED:
DATE:
NOTE: BREAK ALL CORNERS WITH 0.015" (.38 MM) RADIUS UNLESS OTHERWISE NOTED. STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED.

CUSTOMER		DIE No.	REV. No.
AALCOR WINDOWS		ES08814	2
DESCRIPTION	CUSTOMER PART No.	QUOTE No.	PROPOSAL No.
INT. JAMB ADAPTER – 920	E1920	08–0422–1–R–1	S–5768

NOTE: BREAK ALL CORNERS WITH 0.015" (.38 MM) RADIUS UNLESS OTHERWISE NOTED. STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED.



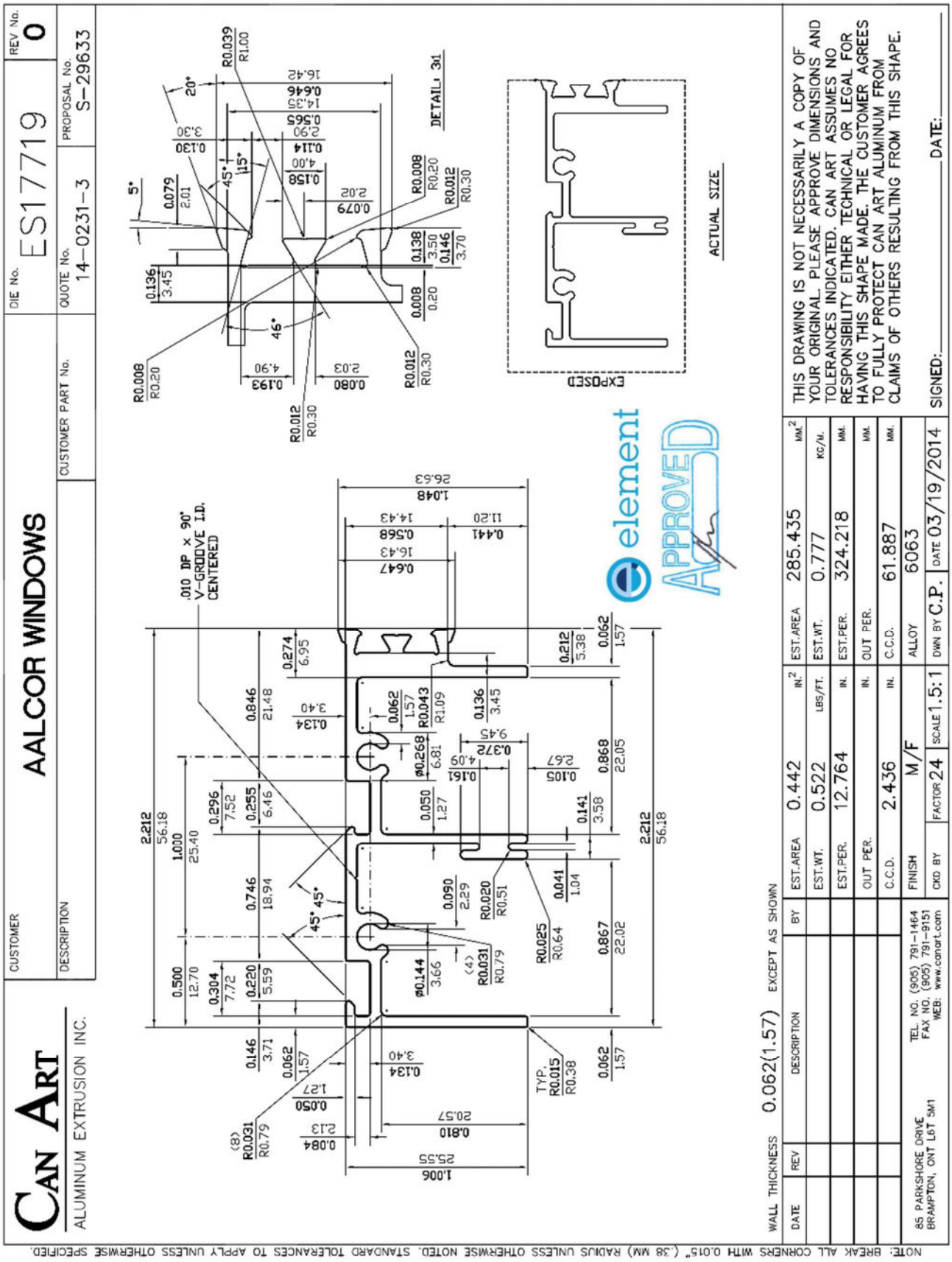
WALL THICKNESS 0.062 (1.57) EXCEPT AS SHOWN

DATE	REV	DESCRIPTION	BY
05/12/08	2	REVISED HOOK. REVISED WTS & MEASURE.	PAUL
01/20/01	1	UPDATED DRAWING.	PAUL

EST.AREA	0.277	IN.^{2}	EST.AREA	178.430	MM.^{2}
EST.WT.	0.326	LBS/FT.	EST.WT.	0.486	KG/M.
EST.PER.	9.470	IN.	EST.PER.	240.543	MM.
OUT PER.		IN.	OUT PER.		MM.
C.C.D.	2.192	IN.	C.C.D.	55.681	MM.
FINISH	ANODIZE		ALLOY	6063	
CKD BY	FACTOR 29	SCALE 2:1	DWN BY C.P.	DATE 09/11/1996	

CAN ART
ALUMINUM EXTRUSION INC.
85 PARKSHORE DRIVE
BRAMPTON, ONT L6T 5M1
TEL. NO. (905) 791–1464
FAX NO. (905) 791–9151
WEB: www.canart.com

SIGNED: _____ DATE: _____


CAN ART
ALUMINUM EXTRUSION INC.
CUSTOMER
AALCOR WINDOWS
DESCRIPTION
CUSTOMER PART No.
DIE No. ES17719
QUOTE No. 14-0231-3
PROPOSAL No. S-29633
REV No. 0
DETAIL 3:1
ACTUAL SIZE
EXPOSED
.010 DP x 90° V-GROOVE I.D. CENTERED
APPROVED
element
WALL THICKNESS 0.062(1.57) EXCEPT AS SHOWN
EST.AREA 0.442 IN.2
EST.WT. 0.522 LBS/FT.
EST.PER. 12.764 IN.
OUT PER. IN.
C.C.D. 2.436 IN.
FINISH M/F
CKD BY
FACTOR 24
SCALE 1.5:1
EST.AREA 285.435 MM.2
EST.WT. 0.777 KG/M.
EST.PER. 324.218 MM.
OUT PER. MM.
C.C.D. 61.887 MM.
ALLOY 6063
DWN BY C.P.
DATE 03/19/2014
THIS DRAWING IS NOT NECESSARILY A COPY OF YOUR ORIGINAL. PLEASE APPROVE DIMENSIONS AND TOLERANCES INDICATED. CAN ART ASSUMES NO RESPONSIBILITY EITHER TECHNICAL OR LEGAL FOR HAVING THIS SHAPE MADE. THE CUSTOMER AGREES TO FULLY PROTECT CAN ART ALUMINUM FROM CLAIMS OF OTHERS RESULTING FROM THIS SHAPE.
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DATE:
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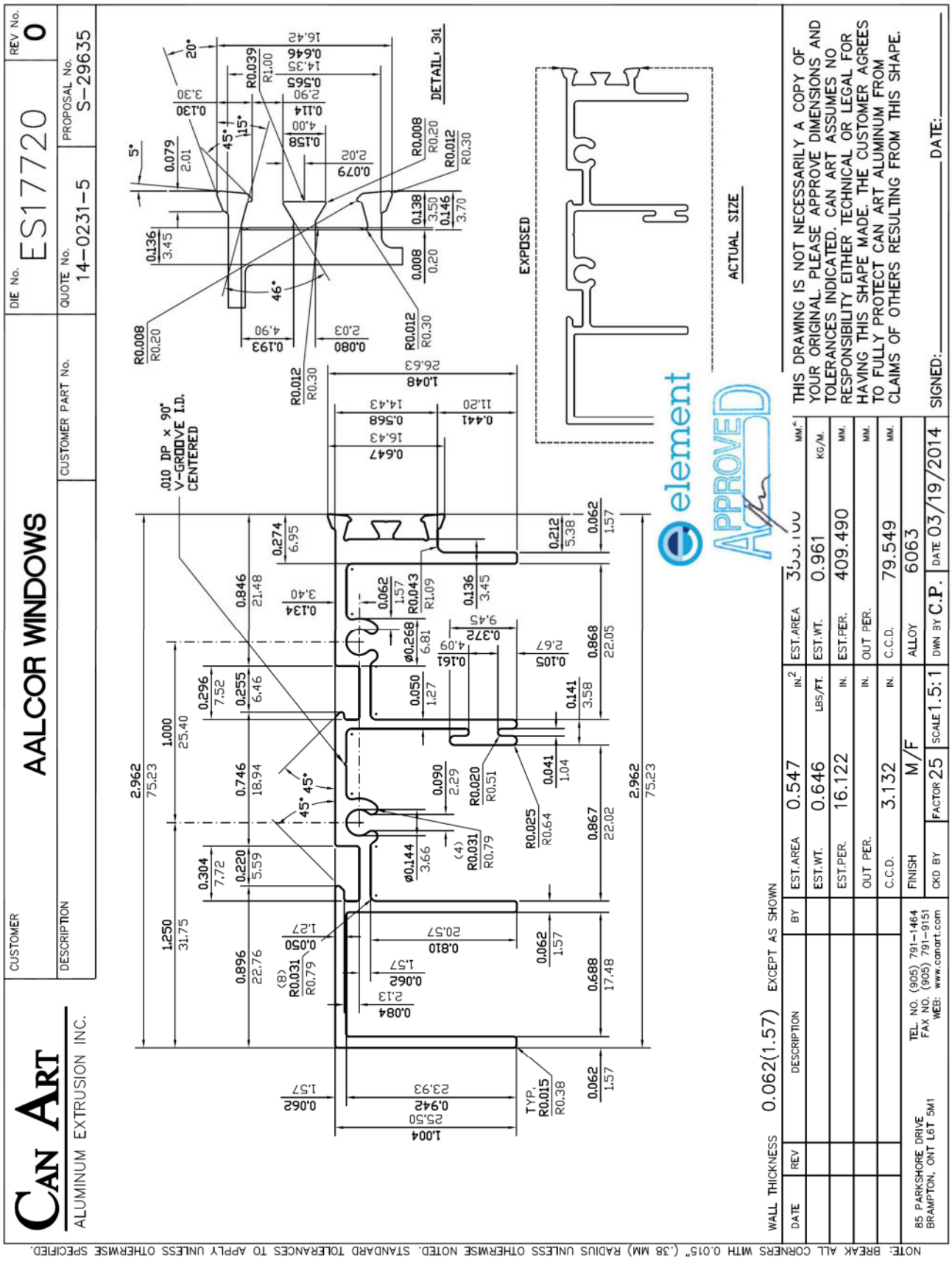
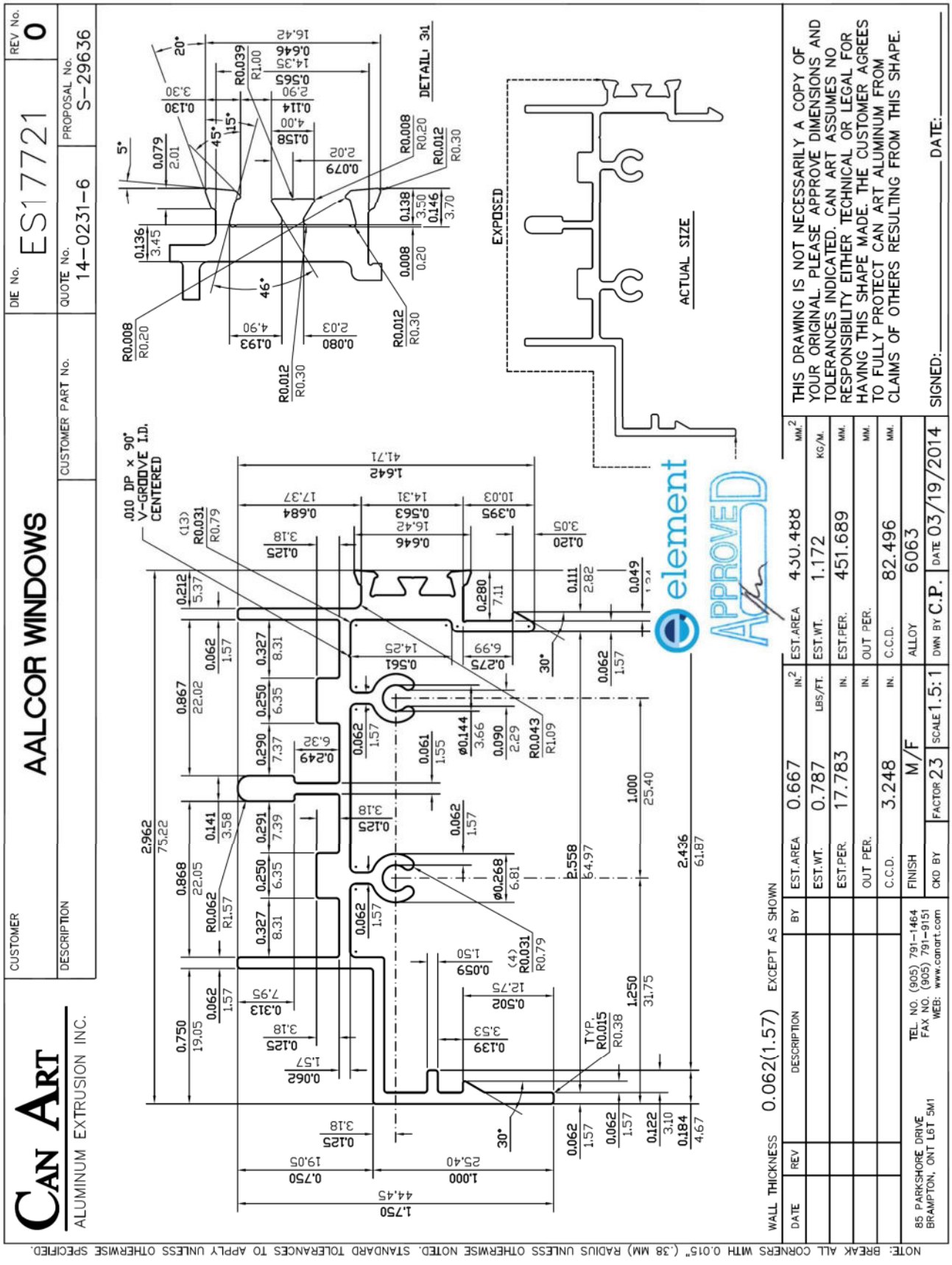
BRAMPTON, ONT L6T 5M1
TEL. NO. (905) 791-1464
FAX NO. (905) 791-9151
WEB: www.canart.com
NOTE: BREAK ALL CORNERS WITH 0.015" (.38 MM) RADIUS UNLESS OTHERWISE NOTED. STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED.


CAN ART
ALUMINUM EXTRUSION INC.
85 PARKSHORE DRIVE
BRAMPTON, ONT L6T 5M1
TEL NO. (905) 791-1464
FAX NO. (905) 791-9151
WEB: www.canart.com
CUSTOMER
AALCOR WINDOWS
DESCRIPTION
CUSTOMER PART No.
DIE No. ES17720
QUOTE No. 14-0231-5
PROPOSAL No. S-29635
REV No. 0
DETAIL 3:1
EXPOSED
ACTUAL SIZE
.010 DP x 90° V-GROOVE I.D. CENTERED
APPROVED
element
THIS DRAWING IS NOT NECESSARILY A COPY OF YOUR ORIGINAL. PLEASE APPROVE DIMENSIONS AND TOLERANCES INDICATED. CAN ART ASSUMES NO RESPONSIBILITY EITHER TECHNICAL OR LEGAL FOR HAVING THIS SHAPE MADE. THE CUSTOMER AGREES TO FULLY PROTECT CAN ART ALUMINUM FROM CLAIMS OF OTHERS RESULTING FROM THIS SHAPE.
SIGNED:
DATE:
WALL THICKNESS 0.062(1.57) EXCEPT AS SHOWN
EST.AREA 0.547 IN.2
EST.WT. 0.646 LBS/FT.
EST.PER. 16.122 IN.
OUT PER. IN.
C.C.D. 3.132 IN.
FINISH M/F
CKD BY
FACTOR 25
SCALE 1.5:1
EST.AREA 390.100 MM.2
EST.WT. 0.961 KG/M.
EST.PER. 409.490 MM.
OUT PER. MM.
C.C.D. 79.549 MM.
ALLOY 6063
DWN BY C.P.
DATE 03/19/2014
NOTE: BREAK ALL CORNERS WITH 0.015" (.38 MM) RADIUS UNLESS OTHERWISE NOTED. STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED.


CAN ART
ALUMINUM EXTRUSION INC.
85 PARKSHORE DRIVE
BRAMPTON, ONT L6T 5M1
TEL. NO. (905) 791-1464
FAX NO. (905) 791-9151
WEB: www.canart.com
CUSTOMER
AALCOR WINDOWS
DESCRIPTION
CUSTOMER PART No.
DIE No. ES17721
QUOTE No. 14-0231-6
PROPOSAL No. S-29636
REV No. 0
DETAIL 3/1
EXPOSED
ACTUAL SIZE
.010 DP x 90° V-GROOVE I.D. CENTERED
WALL THICKNESS 0.062(1.57) EXCEPT AS SHOWN
EST.AREA 0.667 IN.2
EST.WT. 0.787 LBS/FT.
EST.PER. 17.783 IN.
OUT PER. IN.
C.C.D. 3.248 IN.
FINISH M/F
CKD BY
FACTOR 23
SCALE 1.5:1
EST.AREA 430.488 MM.2
EST.WT. 1.172 KG/M.
EST.PER. 451.689 MM.
OUT PER. MM.
C.C.D. 82.496 MM.
ALLOY 6063
DWN BY C.P.
DATE 03/19/2014
APPROVED
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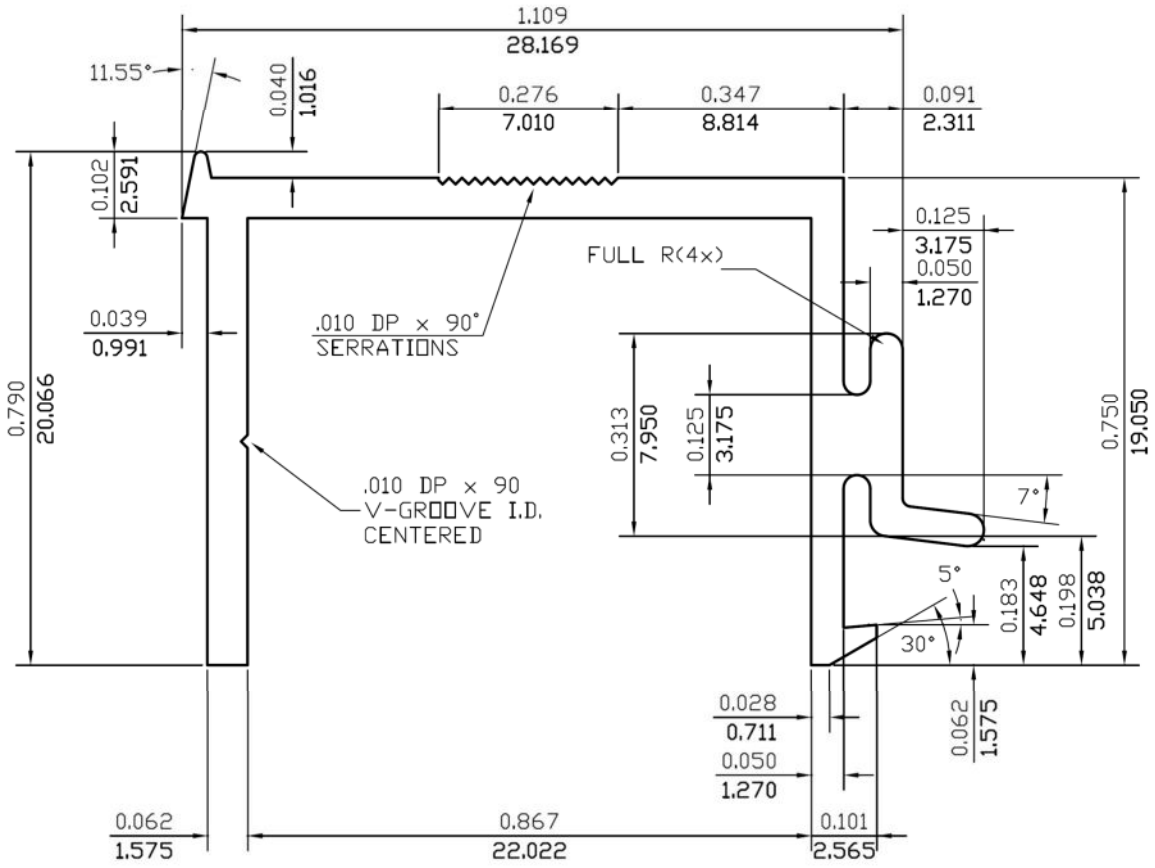
SIGNED:
DATE:
NOTE: BREAK ALL CORNERS WITH 0.015" (.38 MM) RADIUS UNLESS OTHERWISE NOTED. STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED.

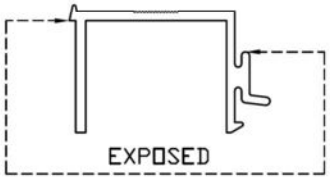
CUSTOMER PART No.	CUSTOMER	DIE No.
E1919	AALCOR	ES09084
DESCRIPTION	EXTERIOR JAMB ADAPTOR	PROPOSAL No. S-6339

NOTE: BREAK ALL CORNERS WITH 0.015" (.38 MM) RADIUS UNLESS OTHERWISE NOTED. STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED.



element APPROVED

ACTUAL SIZE



WALL THICKNESS 0.062(1.57) EXCEPT AS SHOWN

DATE	REV	DESCRIPTION	BY
03/11/02	1	UPDATED DRAWING	L.L.

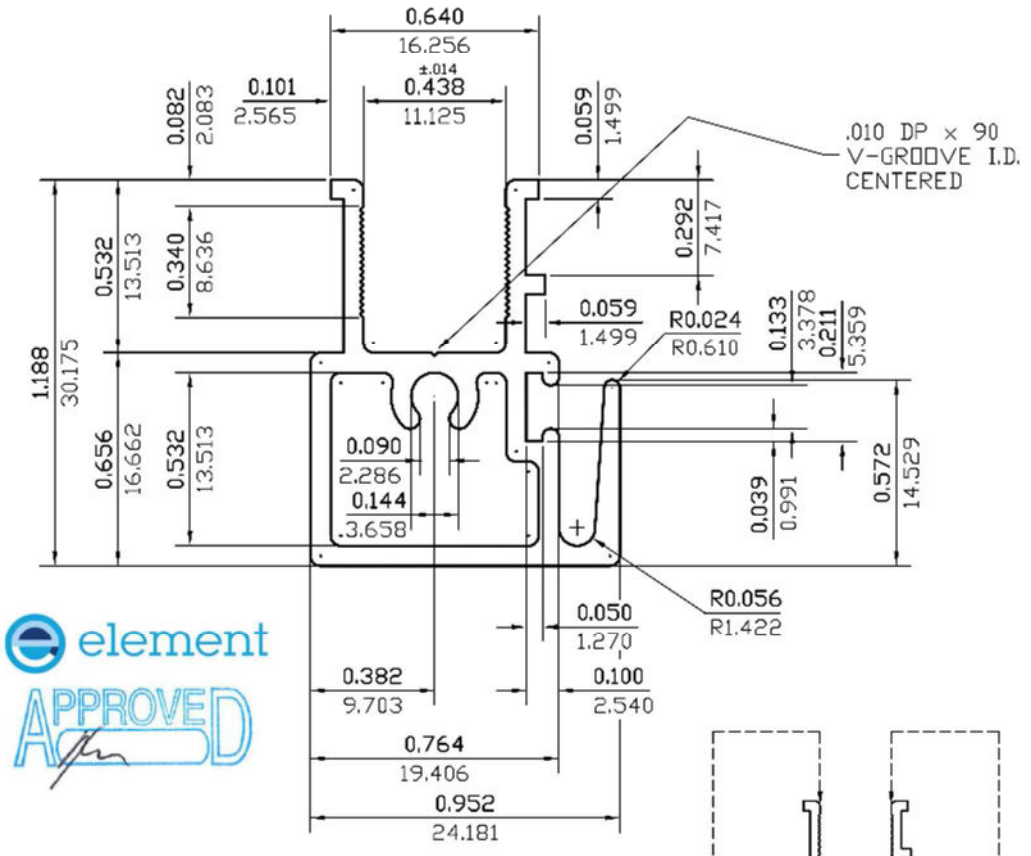
EST.AREA	0.168	IN.^{2}	EST.AREA	108.112	MM.^{2}
EST.WT.	0.198	LBS/FT.	EST.WT.	0.294	KG/M.
EST.PER.	5.886	IN.	EST.PER.	149.500	MM.
OUT PER.		IN.	OUT PER.		MM.
C.C.D.	1.363	IN.	C.C.D.	34.617	MM.
FACTOR 30	FINISH ANOD.		ALLOY & TEMP. 6063-T5		
CKD BY	SCALE 4:1		DWN BY C.P.	DATE 04/18/97	

CAN ART
ALUMINUM EXTRUSION INC.
428 JUTRAS DRIVE S.
WINDSOR, ONT. N8N 5C5
TEL. NO. (519) 727-4399
FAX NO. (519) 727-6434
E-MAIL: canart@canart.com

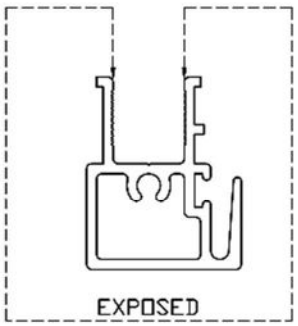
SIGNED: _____ DATE: _____

CUSTOMER PART No.	CUSTOMER AALCOR	DIE No. EH09063
DESCRIPTION	MEETING RAIL	PROPOSAL No. H–6209

NOTE: BREAK ALL CORNERS WITH 0.015" (.38 MM) RADIUS UNLESS OTHERWISE NOTED. STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED.



(.) = R0.031(R0.79)
UNMARKED = FULL



ACTUAL SIZE

WALL THICKNESS 0.062(1.57) EXCEPT AS SHOWN

DATE	REV	DESCRIPTION	BY
10/23/01	1	UPDATED DRAWING	L.L.

EST.AREA	0.309	IN.^{2}	EST.AREA	199.551	MM.^{2}
EST.WT.	0.365	LBS/FT.	EST.WT.	0.543	KG/M.
EST.PER.	9.890	IN.	EST.PER.	251.199	MM.
OUT PER.	7.039	IN.	OUT PER.	178.8	MM.
C.C.D.	1.464	IN.	C.C.D.	37.173	MM.

FACTOR 27	FINISH ANOD.	ALLOY & TEMP. 6063–T5			
CKD BY	SCALE 2:1	DWN BY C.P.	DATE 03/18/97		

CAN ART
ALUMINUM EXTRUSION INC.

85 PARKSHORE DRIVE
BRAMPTON, ONT L6T 5M1
TEL. NO. (905) 791–1464
FAX NO. (905) 791–9151
E–MAIL: canart@canart.com

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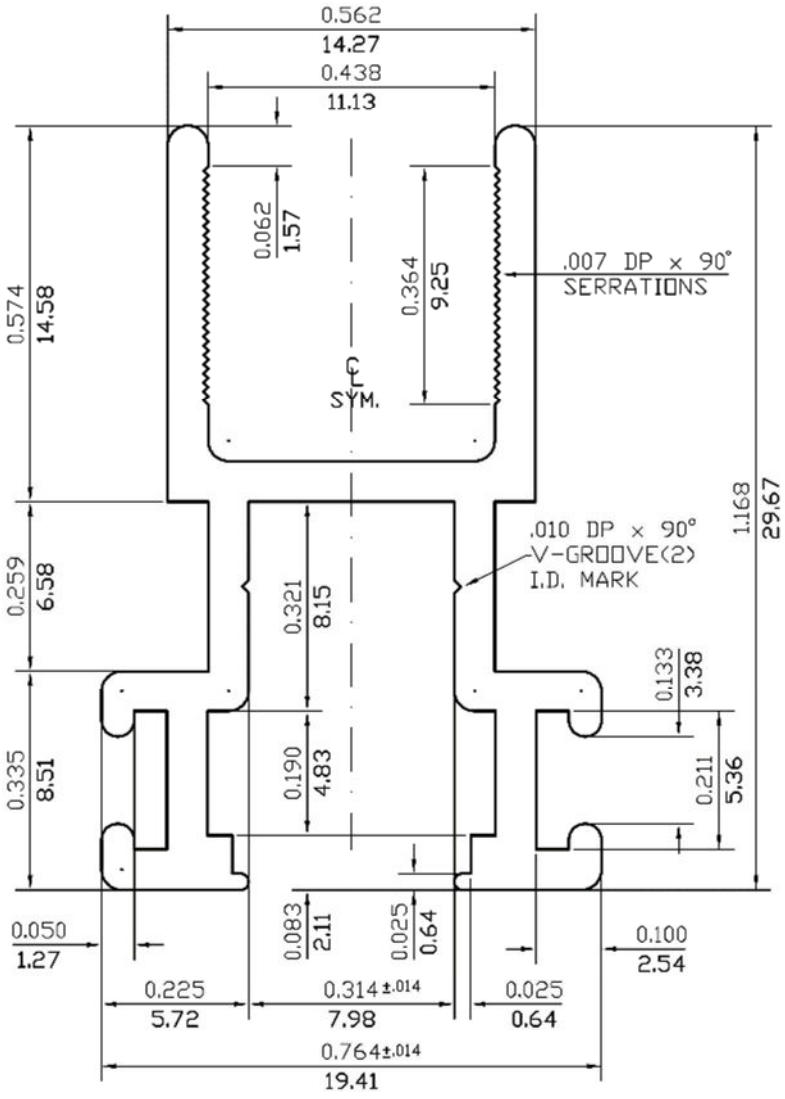
SIGNED: _____ DATE: _____

CAN ART
ALUMINUM EXTRUSION INC.

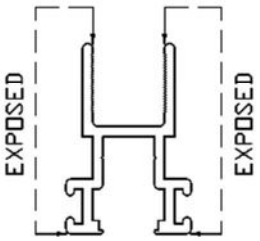
CUSTOMER	AALCOR
DESCRIPTION	SASH –920
DIE No.	ES08891
PROPOSAL No.	S–5906
CUSTOMER No.	9216



(.) = R0.031(R0.79)
UNMARKED = FULL

element
APPROVED

ACTUAL SIZE



WALL THICKNESS EXCEPT AS SHOWN 0.062(1.57)

DATE	SYM	REVISION	BY
01/20/01	1	UPDATED DRAWING	P.M.

EST.AREA	0.214 IN.²	EST.AREA	138 MM.²
EST.WT.	0.253 LBS/FT.	EST.WT.	0.376 KG/M.
EST.PER.	7.339 IN.	EST.PER.	186.4 MM.
OUT PER.	IN.	OUT PER.	MM.
C.C.D.	1.325 IN.	C.C.D.	34 MM.
FACTOR	29 SCALE 4:1	DATE	11/14/96

NOTE: BREAK ALL CORNERS WITH 0.015" (.38 MM) RADIUS UNLESS OTHERWISE NOTED.
STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED.

DWN BY C.P.
CKD BY

EXT. RATIO	CONTAINER 7	FINISH ANODIZED	ALLOY & TEMP. 6063–T5

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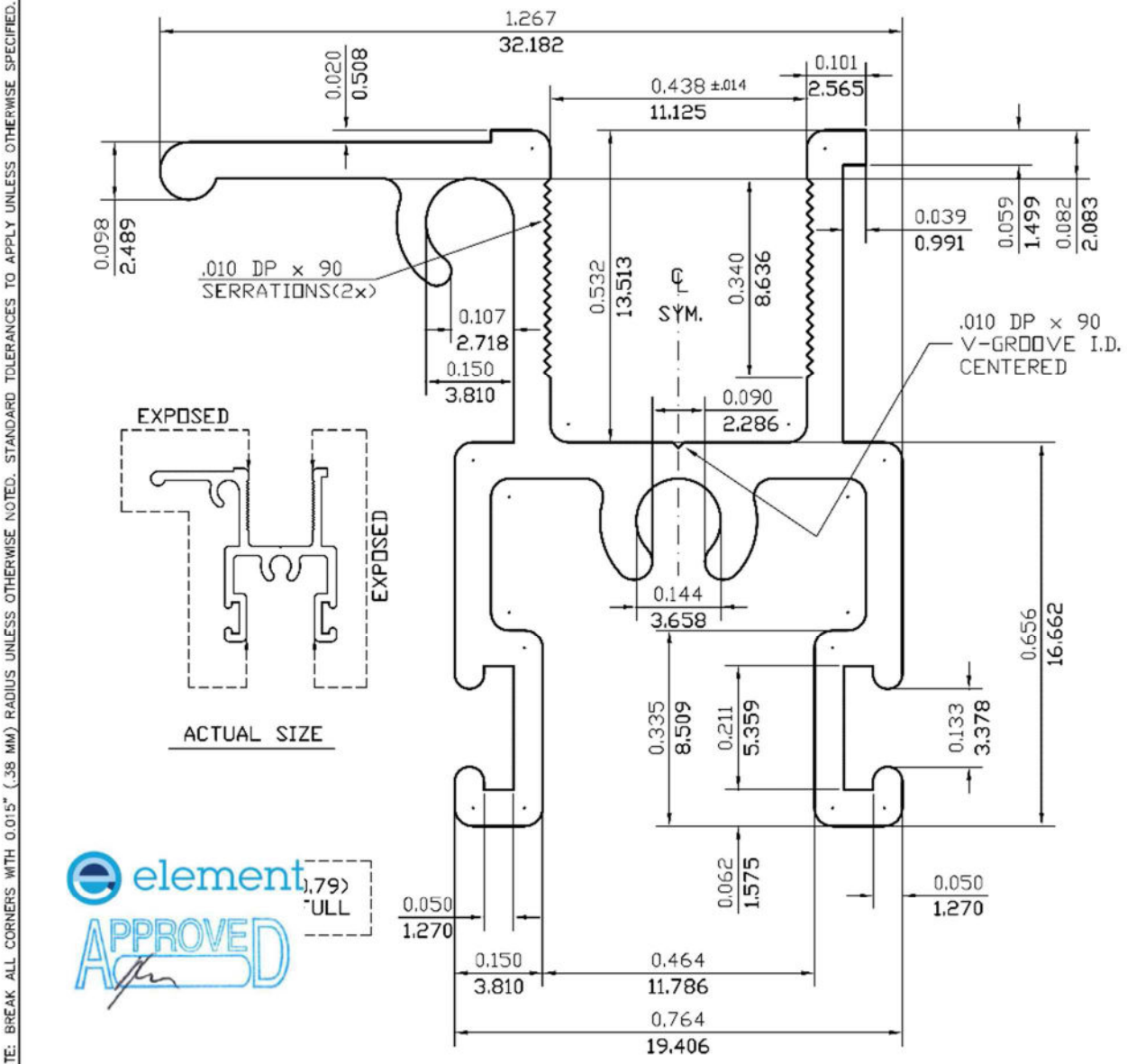
PLEASE SIGN:

DATE:

CUSTOMER PART No.	CUSTOMER	DIE No.
1916	AALCOR	ES09060
DESCRIPTION	PULL RAIL – 920	PROPOSAL No. S–6222

NOTE: BREAK ALL CORNERS WITH 0.015" (.38 MM) RADIUS UNLESS OTHERWISE NOTED. STANDARD TOLERANCES TO APPLY UNLESS OTHERWISE SPECIFIED.



WALL THICKNESS 0.062(1.57) EXCEPT AS SHOWN

DATE	REV	DESCRIPTION	BY
03/11/02	1	UPDATED DRAWING	L.L.

EST.AREA	0.284	IN.^{2}	EST.AREA	183.290	MM.^{2}
EST.WT.	0.335	LBS/FT.	EST.WT.	0.499	KG/M.
EST.PER.	9.395	IN.	EST.PER.	238.638	MM.
OUT PER.		IN.	OUT PER.		MM.
C.C.D.	1.689	IN.	C.C.D.	42.906	MM.
FACTOR 28	FINISH ANOD.		ALLOY & TEMP. 6063–T5		
CKD BY	SCALE 4:1		DWN BY C.P.	DATE 03/21/97	

CAN ART
ALUMINUM EXTRUSION INC.

428 JUTRAS DRIVE S.
WINDSOR, ONT. N8N 5C5
TEL. NO. (519) 727-4399
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SIGNED: _____ DATE: _____