



**NFRC 102-2023 THERMAL PERFORMANCE
TEST REPORT**

Series/Model: UCW3500
Type: Glazed Wall System (Curtain Wall)

Rendered To:
FreMarq Innovations, Inc.
1101 North Mill St
Merrill, WI 54452

QCT Project No.:
QCT-TH-12765.01

Test Date:
9/13/2024

Report Date:
11/12/2024

QUAST CONSULTING AND TESTING, INC.
Exterior Façade/Fenestration Consulting & Testing
1055 Indianhead Drive • P.O. Box 241 • Mosinee, WI 54455-0241 • Phone: 715-693-TEST (8378) • Fax: 715-693-0689
www.qct-usa.com



Report No.: QCT-TH-12765.01

Page 1 of 8
Report Date: 11/12/2024
Test Date: 09/12/2024

**NFRC 102-2023 THERMAL PERFORMANCE
TEST REPORT**

Rendered To:

FreMarq Innovations, Inc.
1101 North Mill St
Merrill, WI 54452

Test Sample Identification:

Series/Model: UCW3500
Product Type: Glazed Wall System (Curtain Wall)
Thermal Break: Thermal Break:
Thermal Break Material: FortMax Propriety
Overall Size: 1005mm x 2005mm (39-1/2" x 79")
NFRC Standard Size: 2000mm x 2000mm (79" x 79")
Test Sample Submitted by: FreMarq Innovations, Inc.
Test Sample Submitted for: Validation for Initial Certification (prototype only) no plant qualification

Test Procedure:

U-factor tests were performed in a Guarded Hot Box in accordance with NFRC 102-2023, *Procedure for Measuring the Steady-State Thermal Transmittance of Fenestration Systems*.

Test Results Summary:

Standardized U-factor (U_{st}):	0.30	Btu/(hr·ft ² ·F)	CTS Method
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Report No.: QCT-TH-12765.01

Page 2 of 8

Report Date: 11/12/2024

Test Sample Description:

Test Date: 09/12/2024

Size Specification:	Frame
Size (inches)	39-1/2" x 79"
Daylight Opening (inches)	34-1/8" x 75-1/8"

Construction:	Frame
Corners	Square Cut
Fasteners	Screwed
Sealant	N.A.

Properties:	Frame
Material	Aluminum
Exterior Color	Silver
Exterior Finish	N.A.
Interior Color	Silver
Interior Finish	N.A.

Spacer:				
Code	Spacer Type	Primary Sealant	Secondary Sealant	Desiccant
TP-S	VTS	NA	Silicone	Yes

Reinforcement Description:	
Location	Material
None	N.A.

Grid:		
Size	Type	Pattern
None	N.A.	N.A.

Frame	
Glazing Method:	Exterior

Glazing Information:	
Layer 1	6mm VE-12M LowE (#2) - 0.222"
Gap 1	Argon 90 - 0.5"
Layer 2	6mm Clear - 0.222"
Gas Fill Method	Single-Probe*

*Stated per Client/Manufacturer

Not Applicable (N.A.)



Report No.: QCT-TH-12765.01

Page 3 of 8

Report Date: 11/12/2024

Test Date: 09/12/2024

Weatherstrip:

Type	Quantity	Location
None	N.A.	N.A.

Hardware:

Type	Quantity	Location
None	N.A.	N.A.

Drainage:

Type	Quantity	Location
None	N.A.	N.A.

Insulation:

Type	Quantity	Location
None		N.A.



Report No.: QCT-TH-12765.01

Page 4 of 8
 Report Date: 11/12/2024
 Test Date: 09/12/2024

Measured Test Data:

Heat Flows	Quantity	Units
1. Total Measured Metering Box Input (Q_{total})	981.58	Btu/hr
4. Surround Panel Heat Flow (Q_{sp})	29.59	Btu/hr
2. Surround Panel Thickness	9	inches
3. Surround Panel Conductance (C_{sp})	0.021	Btu/(hr·ft ² ·F)
5. Metering Box Wall Plus Flanking Loss (Q_{mb+fl})	-4.37	Btu/hr
6. EMF vs. Heat Flow Equation (Equivalent Information)	8626.7(EMF)+4.6827	
7. Net Test Specimen Heat Flow (Q_s)	956.36	Btu/hr

Areas	Quantity	Units
8. Specimen Projected Area (A_s)	43.34	ft ²
9. Specimen Projected Frame Area (A_f)	6.95	ft ²
10. Specimen Projected Glazing Area (A_g)	36.39	ft ²
11. Metering Box Opening Area (A_{mb})	64.00	ft ²
12. Metering Box Baffle Area Warm Side (A_{b1})	58.50	ft ²
13. Climate Room Baffle Area Cold Side (A_{b2})	80.00	ft ²
14. Surround Panel Interior Exposed Area (A_{sp})	20.66	ft ²

Test Conditions	Quantity	Units
15. Average Metering Room Air Temperature (t_h)	69.80	deg F
16. Average Climate Room Air Temperature (t_c)	-0.41	deg F
17. Average Guard Room Air Temperature (t_g)	73.02	deg F
18. Metering Room Average Relative Humidity	27.55	%
19. Measured Climate Room Wind Velocity (Perpendicular Flow)	13.51	mph
20. Measured Static Pressure Difference Across Test Specimen	0.01	psf
21. Surround Panel Warm Side Surface Temperature (t_{sp1})	69.09	deg F
22. Surround Panel Cold Side Surface Temperature (t_{sp2})	0.90	deg F

Thermal Transmittance	Quantity	Units
23. Specimen Thermal Transmittance (U_s)	0.31	Btu/(hr·ft ² ·F)
24. Standardized Thermal Transmittance (U_{ST} (CTS))	0.30	Btu/(hr·ft ² ·F)

Calculated Test Data:

CTS Method	Quantity	Units
25. Room Side Surface Emittance of CTS (ϵ_1)	0.84	N.A.
26. Room Side Surface Emittance of Specimen Frame (ϵ_{fl})	0.90	N.A.
27. Room Side Surface Emittance of Speciment Glazing (ϵ_{gl})	0.84	N.A.
28. Room Side Surface Emittance of Exposed Surround Panel (ϵ_{SP1})	0.90	N.A.
29. Area Weighted Emittance of all Room Side Surfaces (ϵ_{S1})	0.87	N.A.
30. Metering Box Baffle Emittance (ϵ_{b1})	0.95	N.A.
31. Equivalent Room Side Surface Temperature (t_1)	54.48	deg F
32. Equivalent Climate Side Surface Temperature (t_2)	3.84	deg F
33. Room Side Baffle Temperature (t_{b1})	69.44	deg F
34. Climate Side Baffle Temperature (t_{b2})	0.35	deg F
35. Measured Warm Side Surface Conductance(h_h)	1.44	Btu/(hr·ft ² ·F)
36. Measured Climate Side Surface Conductance (h_c)	5.19	Btu/(hr·ft ² ·F)
37. Test Specimen Thermal Conductance (C_s)	0.4357	Btu/(hr·ft ² ·F)
38. Convection Coefficient (K_c)	0.33	Btu/(hr·ft ² ·F)
39. Radiative Test Specimen Heat Flow (Q_{r1})	523.02	Btu/hr
40. Conductive Test Specimen Heat Flow (Q_{c1})	433.35	Btu/hr
41. Radiative Heat Flux of Test Specimen (q_{r1})	12.07	Btu/(hr·ft ²)
42. Convective Heat Flux of Test Specimen(q_{c1})	10.00	Btu/(hr·ft ²)
43. Standardized Warm Side Surface Conductance (h_{STh})	1.21	Btu/(hr·ft ² ·F)
44. Standardized Cold Side Surface Conductance (h_{STc})	5.28	Btu/(hr·ft ² ·F)

Test Duration

- The environmental systems were started on
9/12/24 4:05 PM
- The test parameters were considered stable for two consecutive four hour test periods from
9/13/24 12:15 AM to 9/13/24 8:15 AM
- The thermal performance test results were derived from
9/13/24 4:15 AM to 9/13/24 8:15 AM

Glazing Deflection (inches)*:

D.L.O. 1	D.L.O. 2	
0.000	N.A.	Glass deflection upon arrival
0.000	N.A.	Glass deflection prior to testing
0.000	N.A.	Glass deflection during testing
0.472,	N.A.	Effective gap width during testing

*Deflection determined using glass and gap meter

Condensation Thermocouples

1	54.71
2	54.80
3	55.61



Report No.: QCT-TH-12765.01

Page 6 of 8

Report Date: 11/12/2024

Test Date: 09/12/2024

References:

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 at the conclusion of the test.

A full calibration of the Quast Consulting and Testing, Inc. thermal test chamber (QCT-0123) in Mosinee, Wisconsin was conducted in 03/01/2024 in accordance with Quast Consulting and Testing, Inc. calibration procedure. A calibration check was performed in 02/22/2024.

"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 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, applicable only to the specimen tested, 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. Information that is supplied by the customer can affect the validity of results. "

The test sample was installed in a vertical orientation, the exterior of the specimen was exposed to the cold side. The direction of heat transfer was from the interior (warm side) to the exterior (cold side) of the specimen.

"Rating included in this report are for submittal to an NFRC licensed Inspection Agency (IA) and are not meant to be used for labeling purposes. Only those options identified on a valid Certification of Authorization (CA) are to be used for labeling purposes." The rating values were rounded in accordance to the NFRC unit conversions and rounding policy document (NFRC 601-2020).

Quast Consulting and Testing, Inc. is a NFRC accredited testing laboratory and all tests conducted in full compliance with NFRC approved procedures and requirements.

The Standardized Thermal Transmittance (Ust) was determined using CTS Method per NFRC 102, Section 8.2.A.

The experimental uncertainty associated for this test was <0.6%.



Report No.: QCT-TH-12765.01

Page 7 of 8

Report Date: 11/12/2024

Test Date: 09/12/2024

Detailed drawings, data files, a copy of this report and other pertinent project documentation will be retained by Quast Consulting and Testing, Inc. for a period of five years from the original test date. At the end of this retention period, such materials shall be discarded without notice and the service life of this report will expire. Results obtained were secured by using the designated testing methods. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. This report is the exclusive property of the client so named herein and represents only the product tested. This report may not be reproduced, except in full, without the written consent of Quast Consulting and Testing, Inc.

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

Appendix A: Condensation Thermocouple Locations (1 page)

Appendix B: Drawings (25 pages).

Author
Kassi Heil

Individual-In-Responsible-Charge
& Person Conducting Test
Jeff Zibton



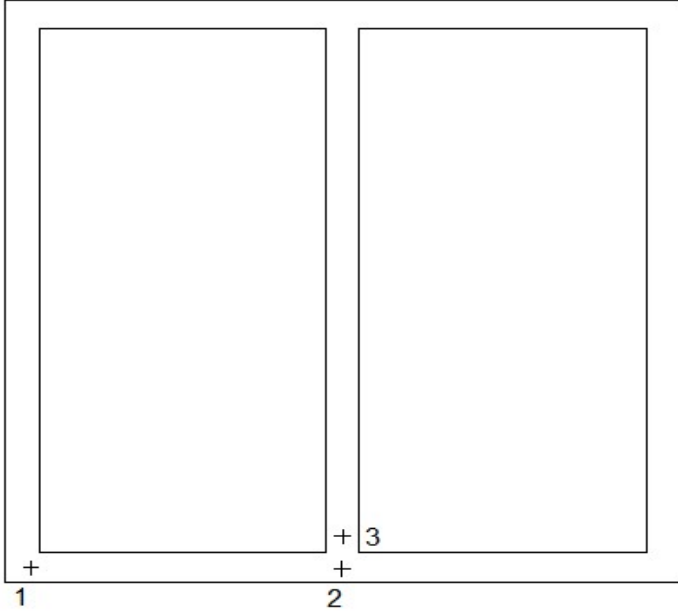
Report No.: QCT-TH-12765.01

Page 8 of 8
Report Date: 11/12/2024
Test Date: 09/12/2024

Revision No.	Date	Description
.01	11/12/24	Original report issued.



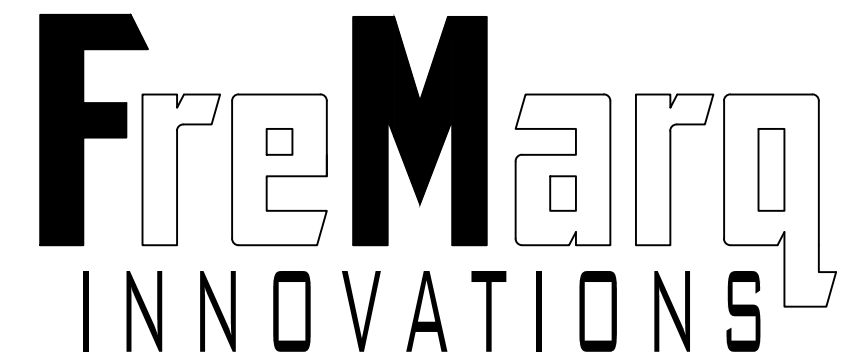
Appendix A: Condensation Thermocouple Locations





Appendix B: Drawings

PROJECT NAME:
 UCW3500 THERMAL TESTING



1101 NORTH MILL STREET PH: (715) 842-6842
 MERRILL, WISCONSIN 54452
 WWW.FREMARQINNOVATIONS.COM

CONTRACT & APPROVAL NOTES:

1. THESE FREMARQ DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH THE FOLLOWING CONTRACT DOCUMENTS AS RECEIVED AND IN ORDER OF IMPORTANCE:

FREMARQ PROPOSAL LETTER	DATE RECEIVED	DOCUMENT TITLE
PROJECT SPECIFICATIONS		
PROJECT STRUCTURALS		
PROJECT ARCHITECTURALS		
FREMARQ STRUCTURAL CALCULATIONS		

2. REVISIONS, ADDITIONS, OR DEDUCTIONS REQUIRE WRITTEN AUTHORIZATION OR A REVISED PURCHASE ORDER ACCOMPANYING RETURNED PRINTS.
3. FREMARQ INNOVATIONS, INC. WILL ASSUME NO RESPONSIBILITY BEYOND MANUFACTURING IN ACCORDANCE WITH THESE DRAWINGS OR FROM ERRORS RESULTING FROM THE USE OF THESE DRAWINGS BY OTHER TRADES.
4. APPROVAL BY BOTH THE ARCHITECT AND CUSTOMER SHALL CONSTITUTE ACCEPTANCE OF ALL DEVIATIONS MADE BY FREMARQ INNOVATIONS, INC. TO THE PLANS AND DIMENSIONS/SPECIFICATIONS DUE TO INADEQUATE OR MISSING INFORMATION.
5. REQUESTS FOR REVISIONS AFTER FREMARQ INNOVATIONS, INC. HAS BEEN AUTHORIZED TO PROCEED WITH FABRICATION WILL BE SUBJECT TO A MINIMUM HANDLING CHARGE PLUS THE COST OF FABRICATED MATERIALS.
6. IT IS THE RESPONSIBILITY OF THE CUSTOMER TO VERIFY DIMENSIONS. (SEE VERIFICATION BLOCK.) DRAWINGS MARKED "APPROVED" OR "APPROVED AS NOTED" EITHER ON THIS PAGE OR ON A SEPARATE TITLE SHEET SHALL BE INTERPRETED AS AN ACCURATE DEPICTION OF JOB REQUIREMENTS AND SUCH APPROVAL SHALL AUTHOR THE JOB'S RELEASE TO FABRICATION.
7. UPON DELIVERY OF THE FREMARQ MATERIAL TO THE JOBSITE, IT IS THE RESPONSIBILITY OF THE CUSTOMER TO INSURE THAT ALL SHIPPING DAMAGES AND/OR MATERIAL SHORTAGES ARE REPORTED TO FREMARQ WITHIN 2 WEEKS (10 WORKING DAYS). DAMAGES OR SHORTAGES REPORTED AFTER THIS PERIOD OF TIME WILL BE REFABRICATED AT CUSTOMER EXPENSE.
8. FREMARQ INNOVATIONS IS NOT RESPONSIBLE FOR ANY ERRORS AND/OR WORK THAT OCCURS FROM THE USE OF THESE DRAWINGS BY OTHER TRADES.

MISCELLANEOUS NOTES:

1. SUBMIT THESE DRAWINGS TO YOUR SEALANT MANUFACTURER FOR APPLICATION REVIEW AND RECOMMENDATIONS.
2. SUBMIT THESE DRAWINGS TO YOUR GLASS MANUFACTURER FOR APPLICATION REVIEW AND RECOMMENDATIONS.

GLAZING CONTRACTOR/CUSTOMER:

—

GENERAL CONTRACTOR:

—

ARCHITECT:

—

DIMENSION VERIFICATION BLOCK:
 I VERIFY THAT ALL DIMENSIONS INDICATED ON THESE ELEVATIONS ARE CORRECT AS SHOWN OR AS CORRECTED, AND HEREBY AUTHORIZE FABRICATION OF THE MATERIALS INDICATED HEREIN.

SIGNATURE _____
 COMPANY NAME _____
 DATE _____

JOB NO: RD2032	
PROJECT MNG'R:	BRIAN MELISKA
ESTIMATOR:	—
PRODUCTION ENG'R:	NL
SUBMISSION ENG'R:	NL
STRUCTURAL ENG'R:	—
SUBMISSION DRAWING SET	

DRAWING INDEX

COVER SHEETS	C01-C02
BUILDING FLOORPLANS	—
BUILDING SECTIONS	—
ERECTOR'S ELEVATIONS	E101
ERECTOR'S DETAILS	D101-D103
INSTALL DETAILS	—

SUBMITTALS PRINT RECORD

PHYS.	PDF	DATE	SHEETS	ISSUED TO	PURPOSE
X	X	04/19/24	SEE INDEX	ENG. DEPT.	ENG. REVIEW

SUBMITTALS REVISION RECORD

NO.	BY	DATE	DESCRIPTION

NOTE: DO NOT SCALE THESE DRAWINGS

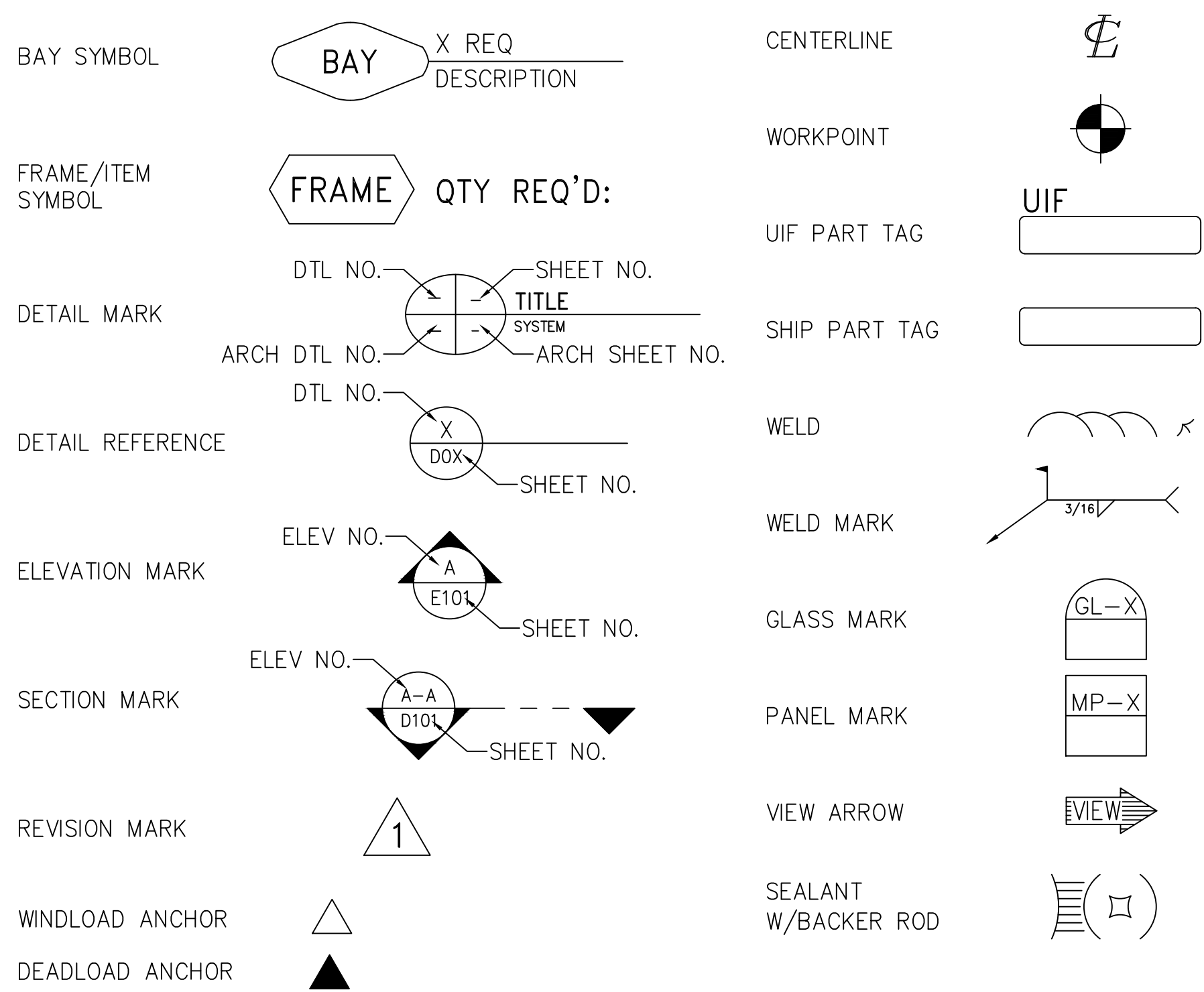
DRAWING NO. C01

PROJECT NAME/LOCATION:

UCW3500 THERMAL TESTING

STANDARD SYMBOLS/ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	NIC	NOT IN CONTRACT
AL/ALUM.	ALUMINUM	NTS	NOT TO SCALE
BM	BRAKE METAL	OPP	OPPOSITE (DETAIL)
CL	CENTERLINE	PSI	POUNDS PER SQUARE INCH
COL	COLUMN(LINE)	PW	PRESSURE WALL
CONC	CONCRETE	QTY	QUANTITY
D.F.O.	DOOR FRAME OPENING (SEE DLO)	REF DIM	REFERENCE DIMENSION
D.O.	DOOR OPENING	RO	ROUGH OPENING
DL	DEADLOAD	SIM	SIMILAR (DETAIL)
DLO	DAYLIGHT OPENING	SQ	SQUARE
DTL	DETAIL	ST/STL	STEEL
DWG	DRAWING	TOS	TOP OF SLAB
ELEV	ELEVATION	UCW	UNITIZED CURTAIN WALL
FD	FRAME DIMENSION	UIF	USED IN FABRICATION
GA	GAUGE	UNO	UNLESS OTHERWISE NOTED
INSUL	INSULATION	WIN DIM	WINDOW DIMENSION
KD	KNOCKED DOWN	WIN OPNG	WINDOW OPENING
MH	MULLION HEIGHT	WL	WINDLOAD
MO	MASONRY OPENING		



GENERAL NOTES:

- PERFORMANCE STANDARDS:
 - STRUCTURAL DESIGN IS BASED ON PROJECT-SPECIFIC LOADING CONDITIONS (SEE PROJECT NOTES).
 - FRAMING MEMBER DEFLECTION IS LIMITED TO:
 - SPANS LESS THAN 13'-6" [162"] = L/175 OR 3/4" MAXIMUM NORMAL TO THE PLANE OF THE GLASS (WHICHEVER IS LESS).
 - SPANS GREATER THAN 13'-6" [162"] = L/240 PLUS 1/4" NORMAL TO THE PLANE OF THE GLASS.
 - ALL HORIZONTAL MEMBERS CARRYING GLASS TO BE LIMITED TO A MAXIMUM DEFLECTION OF 1/8 INCHES IN THE PLANE OF THE GLASS. LIVE LOAD DEFLECTION 1/4 INCHES.
 - THE MAIN STRUCTURE MUST BE CAPABLE OF WITHSTANDING THE LOADS IMPOSED BY FREMARQ INNOVATIONS, INC.'S GLAZING SYSTEMS ACTING IN CONJUNCTION WITH THE LOADS SPECIFIED IN THE PROJECT NOTES AREA. IN ADDITION, THE STRUCTURE MUST PROVIDE SUITABLE ANCHORAGE FOR THESE SYSTEMS AND MUST BE ERECTED WITHIN SPECIFIED BUILDING TOLERANCES.
- MATERIALS:
 - ALUMINUM EXTRUSIONS SHALL CONFORM TO ASTM B22167 TYPE 6063-T5 OR -T6 AS REQUIRED.
 - FINISHES - ALL UNEXPOSED ALUMINUM TO BE MILL FINISH. EXPOSED ALUMINUM TO BE FINISHED AS LISTED IN PROJECT NOTES COLUMN.
 - SEALANTS - ASSEMBLY OR INTERNAL SYSTEM SEALANTS AND MASTICS USED FOR THE PURPOSE OF THESE INSTRUCTIONS ARE AS RECOMMENDED BY THE SEALANT MANUFACTURER.
 - STEEL CLIPS AND ANCHORS - ALL ANCHORS SHALL BE HOT-ROLLED STEEL, MINIMUM A36 ALLOY WITH A MINIMUM ONE COAT OF ZINC-RICH PRIMER.
 - FASTENERS - ALL FASTENERS INBOARD OF THE PRIMARY SEAL LINE SHALL BE ZINC OR CADMIUM-PLATED. ALL FASTENERS OUTBOARD OF THE PRIMARY SEAL LINE AND IN THE "WET ZONE" SHALL BE STAINLESS STEEL. ANY FASTENERS IN VISUAL AREAS ARE TO BE FACTORY-PAINTED TO MATCH FINISH. FREMARQ TO PROVIDE MATCHING AIR-DRY TOUCHUP PAINT WHERE NEEDED.
 - ALUMINUM CLADDING AND FORMED ALUMINUM SHAPES - PROPER ALLOY TO BE USED TO CLOSELY MATCH APPROVED FINISH.
 - MAXIMUM LENGTH OF FORMED ALUMINUM NOT TO EXCEED 10'-0" [120"] WITH STRETCH-OUT NOT TO EXCEED 4'-0" [48"].
 - MITERING AND NOTCHING OF INTERIOR TRIM IS TO BE A FIELD OPERATION. TRIM IS SHIPPED OVERLENGTH TO ALLOW FOR INCONSISTENT JOB CONDITIONS.
 - BOND BREAKER TAPE TO BE USED AT MALE/FEMALE CONNECTIONS.
 - ALL DOORS TO RECEIVE HARDWARE AS LISTED ON HARDWARE SCHEDULE. SCHEDULE MUST BE APPROVED AND HARDWARE MUST BE RECEIVED PRIOR TO FABRICATING DOORS.
 - SHIMS UTILIZED AT ALL ANCHORS ARE TO BE FULL-BEARING AND MADE FROM NON-COMPRESSIBLE MATERIAL. THIS INCLUDES SHIMS BETWEEN ANCHORS AND FRAMES AND ANCHORS AND BUILDING. ALL SHIMS ARE BY THE ERECTOR.

PROJECT NOTES:

- CURTAINWALL TO BE FREMARQ'S UCW3509C UNITIZED SYSTEM WITH FORTMAX™2500 THERMAL BARRIER.
 (UCW3509C = 3-1/16" X 9-1/8" CAPTURED UNITIZED CURTAINWALL)

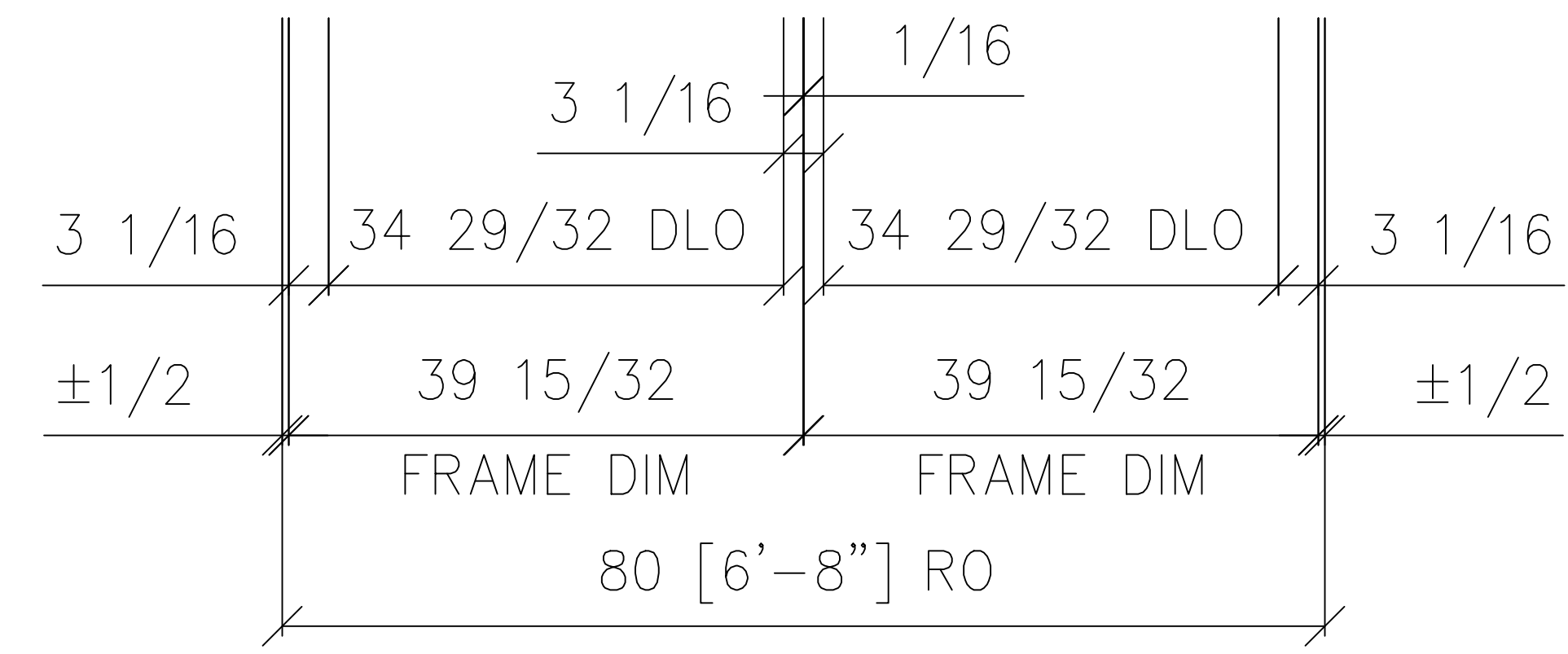
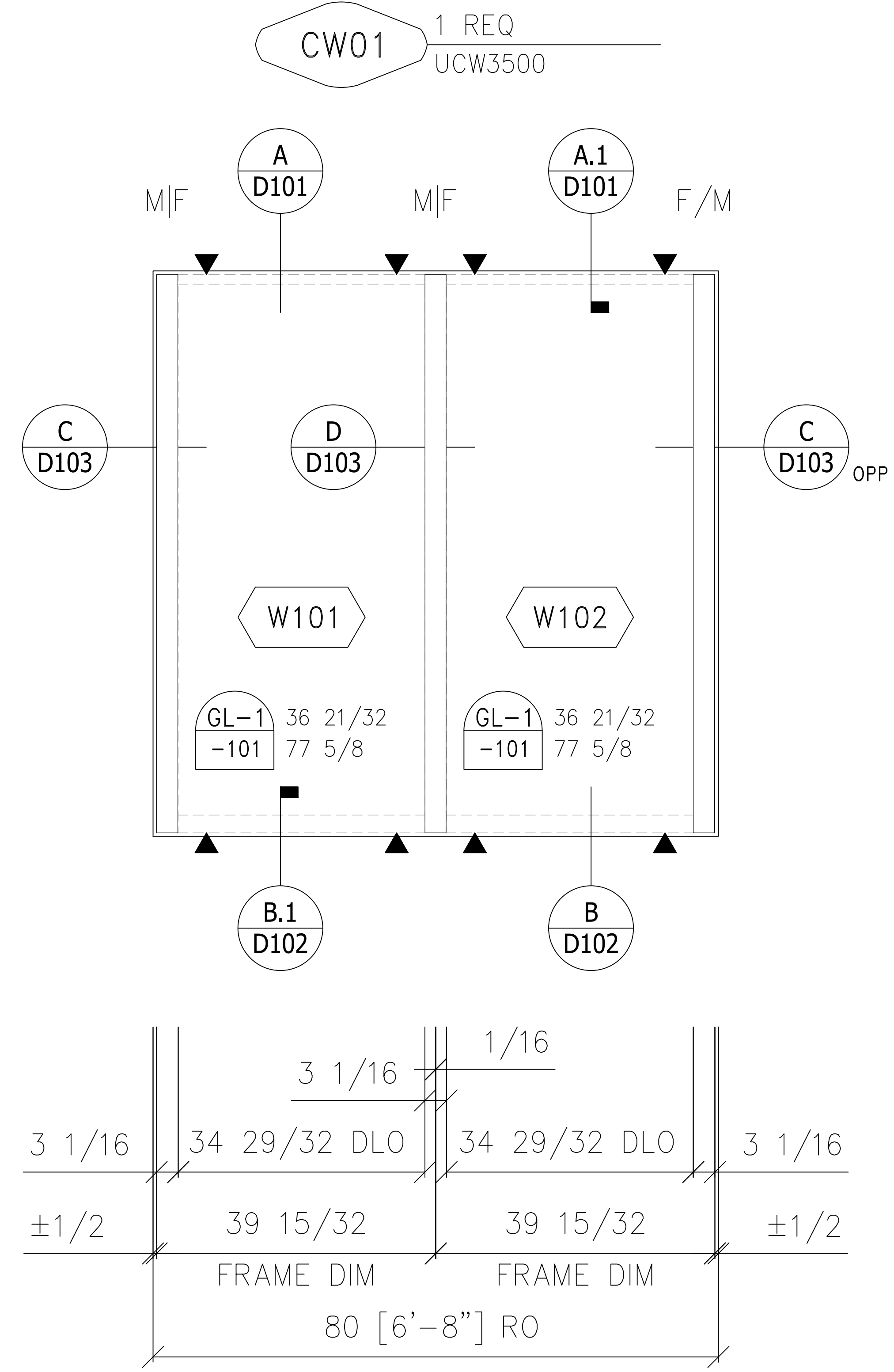
BUILDING CONDITIONS	STRUCTURAL NOTES
METAL STUDS -	WINDLOADS XX.X PSF (TYPICAL) XX.X PSF (overload)
POURED CONCRETE -	MAX. BUILDING HEIGHT +X'-X" ABOVE GRADE
PRE-CAST CONCRETE -	U-FACTOR 0.XX
MASONRY -	AIR INFILTRATION < X.XX CFM/FT²
STEEL -	WATER RESISTANCE XX PSF
	CONDENSATION FACTOR XX

PROJECT FINISH	<input type="checkbox"/> FINISH PENDING	<input type="checkbox"/> FINISH APPROVED
<u>ANODIZED</u>		
CLASS 1 COLORED	CLEAR	
<input type="checkbox"/> Light Bronze (ANO-301)	<input type="checkbox"/> Clear (ANO-215) Class I	
<input type="checkbox"/> Medium Bronze (ANO-302)	<input type="checkbox"/> Clear (ANO-204) Class II	
<input type="checkbox"/> Dark Bronze (ANO-303)	OTHER	
<input type="checkbox"/> Extra-Dark Bronze (ANO-304)	<input type="checkbox"/> XXXXX	
<input type="checkbox"/> Black (ANO-305)		
<u>PAINTED</u>		
<input checked="" type="checkbox"/> STD 70% KYNAR (NON-EXOTIC)	- FLUROPON #399D8728 SILVER METALLIC	

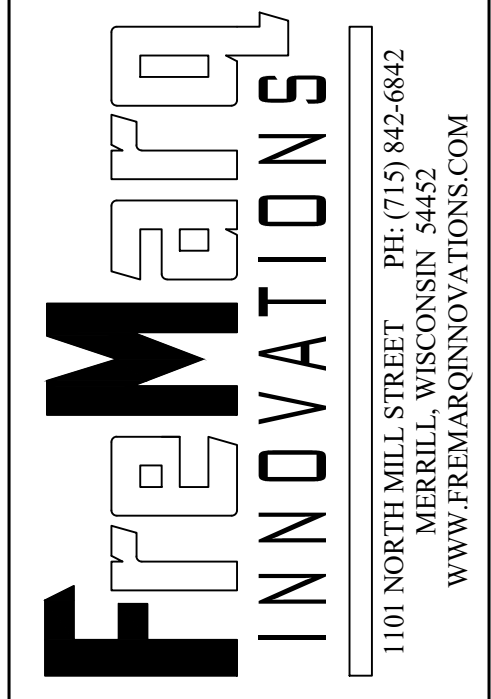
GLASS TYPES	SYMBOL
TAG DESCRIPTION	
GLASS TYPE 1 - 1" VISION, "CLEAR"	
1/4" VE-12M on Clear (#2)	
1/2" VTS Spacer with 90% Argon - 10% Air	
1/4" Clear	

DRAWN BY: NL	DATE: 04/19/24	NO.	BY	REVISIONS
UCW3500 THERMAL TESTING				
PROJECT:	LOCATION:	ARCHITECT:	CONTRACTOR:	
Fremarq INNOVATIONS				
1101 NORTH MILL STREET MERRILL, WISCONSIN 5452 WWW.FREMARQINNOVATIONS.COM				
JOB NUMBER RD2032				
SHEET TITLE COVER INFO SHEET				
DRAWING SCALE NONE				
DRAWING NO. C02				

GENERAL NOTES:
 1) Contractor to verify all dimensions in the field. All framing will be manufactured to the dimensions indicated unless otherwise noted.
 2) Architect to review all conditions for compliance to contract documents and, if required, provide correct details and/or dimensions to ensure proper coordination.
 3) Drawings marked "approved" or "approved as noted" shall be interpreted as an accurate condition of job requirements and such approval shall authorize release to fabrication.
 4) Fremarq shall not be responsible for any errors and/or work that occurs from the use of these drawings by other trades.



PROJECT:		UCW3500 THERMAL TESTING	
LOCATION:			
ARCHITECT:			
CONTRACTOR:			
DRAWN BY: NL		DATE: 04/18/24	
NO.		REVISIONS	
NO.		DATE	
NO.		BY	
<p>GENERAL NOTES:</p> <p>1) Contractor to verify all dimensions in the field. All framing will be manufactured to the dimensions indicated unless otherwise noted.</p> <p>2) Architect to review all conditions for compliance to contract documents and, if required, provide correct details and/or dimensions to ensure proper coordination.</p> <p>3) Drawings marked 'approved' or 'approved as noted' shall be interpreted as an accurate condition of job requirements and such approval shall authorize release to fabrication.</p> <p>4) Fremaraq shall not be responsible for any errors and/or work that occurs from the use of these drawings by other trades.</p>			

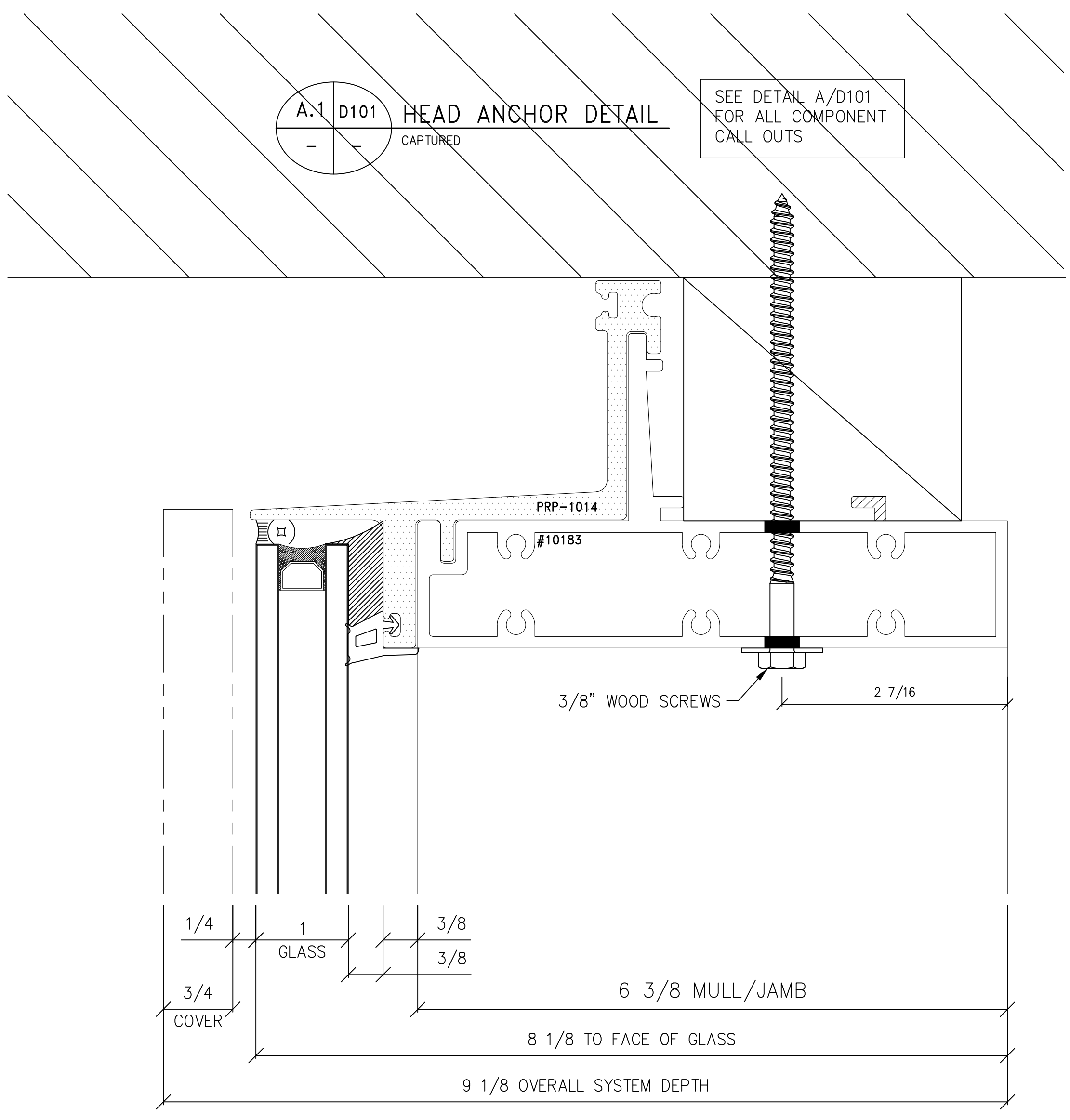
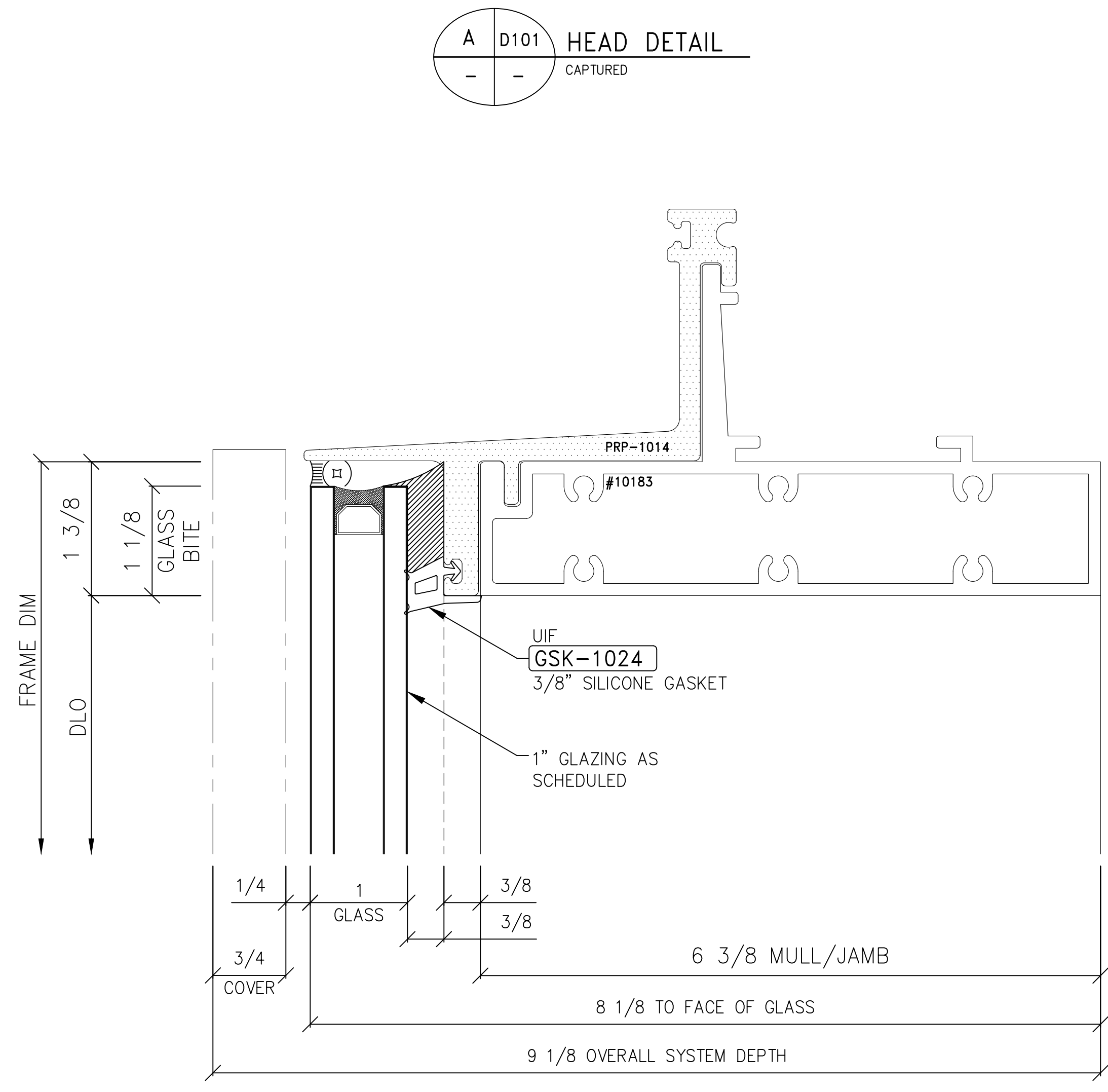


JOB NUMBER
RD2032

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ELEVATION SHEET

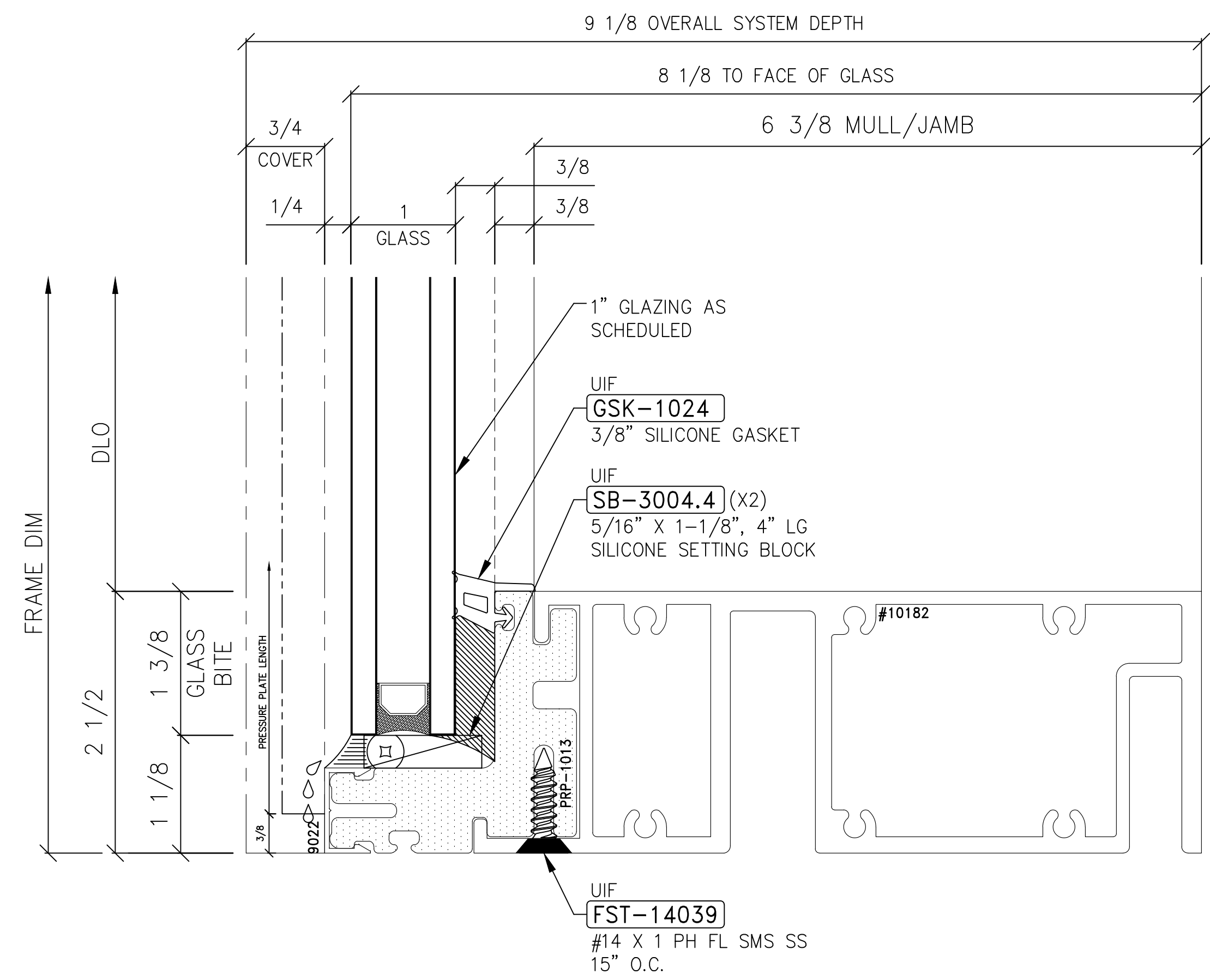
DRAWING SCALE
 11x17 = 6" = 1'-0"
 22x34 = 12" = 1'-0"

DRAWING NO.
E101



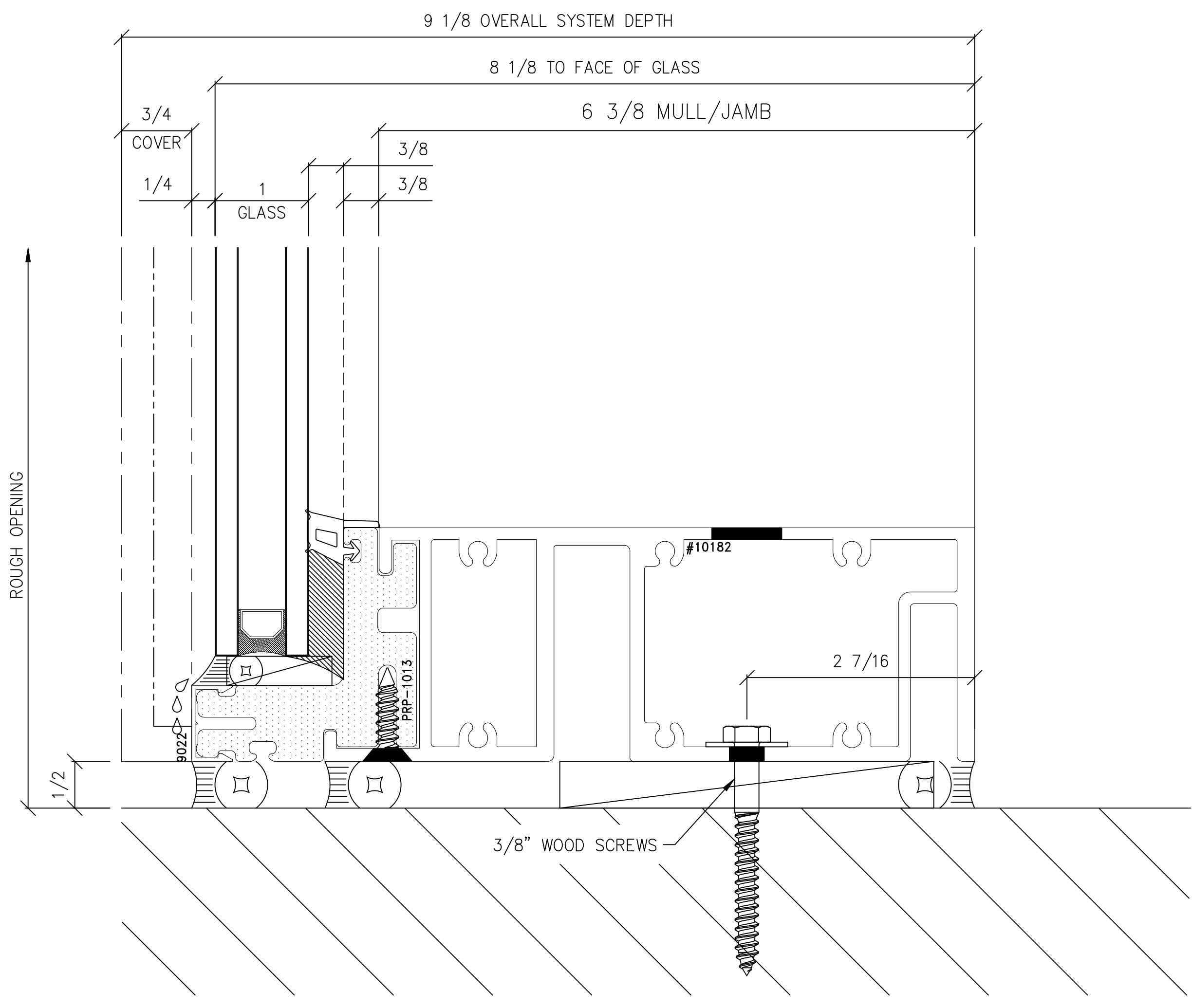
PROJECT: UCW3500 THERMAL TESTING		DRAWN BY: NL	
LOCATION:		DATE: 04/18/24	
ARCHITECT:		NO.	
CONTRACTOR:		BY	
REVISIONS		DATE	
NO.		BY	
<p>GENERAL NOTES:</p> <p>1) Contractor to verify all dimensions in the field. All framing will be manufactured to the dimensions indicated unless otherwise noted.</p> <p>2) Architect to review all conditions for compliance to contract documents and, if required, provide correct details and/or dimensions to ensure proper coordination.</p> <p>3) Drawings marked "approved" or "approved as noted" shall be interpreted as an accurate condition of job requirements and such approval shall authorize release to fabrication.</p> <p>4) Fremaraq shall not be responsible for any errors and/or work that occurs from the use of these drawings by other trades.</p>			
<p>Fremaraq INNOVATIONS</p> <p>1101 NORTH MILL STREET MERRILL, WISCONSIN 54452 WWW.FREMARQINNOVATIONS.COM</p>		<p>JOB NUMBER RD2032</p> <p>SHEET TITLE DETAIL SHEET</p> <p>DRAWING SCALE 11x17 = 6" = 1'-0" 22x34 = 12" = 1'-0"</p> <p>DRAWING NO. D101</p>	

B D102 SILL DETAIL
 CAPTURED

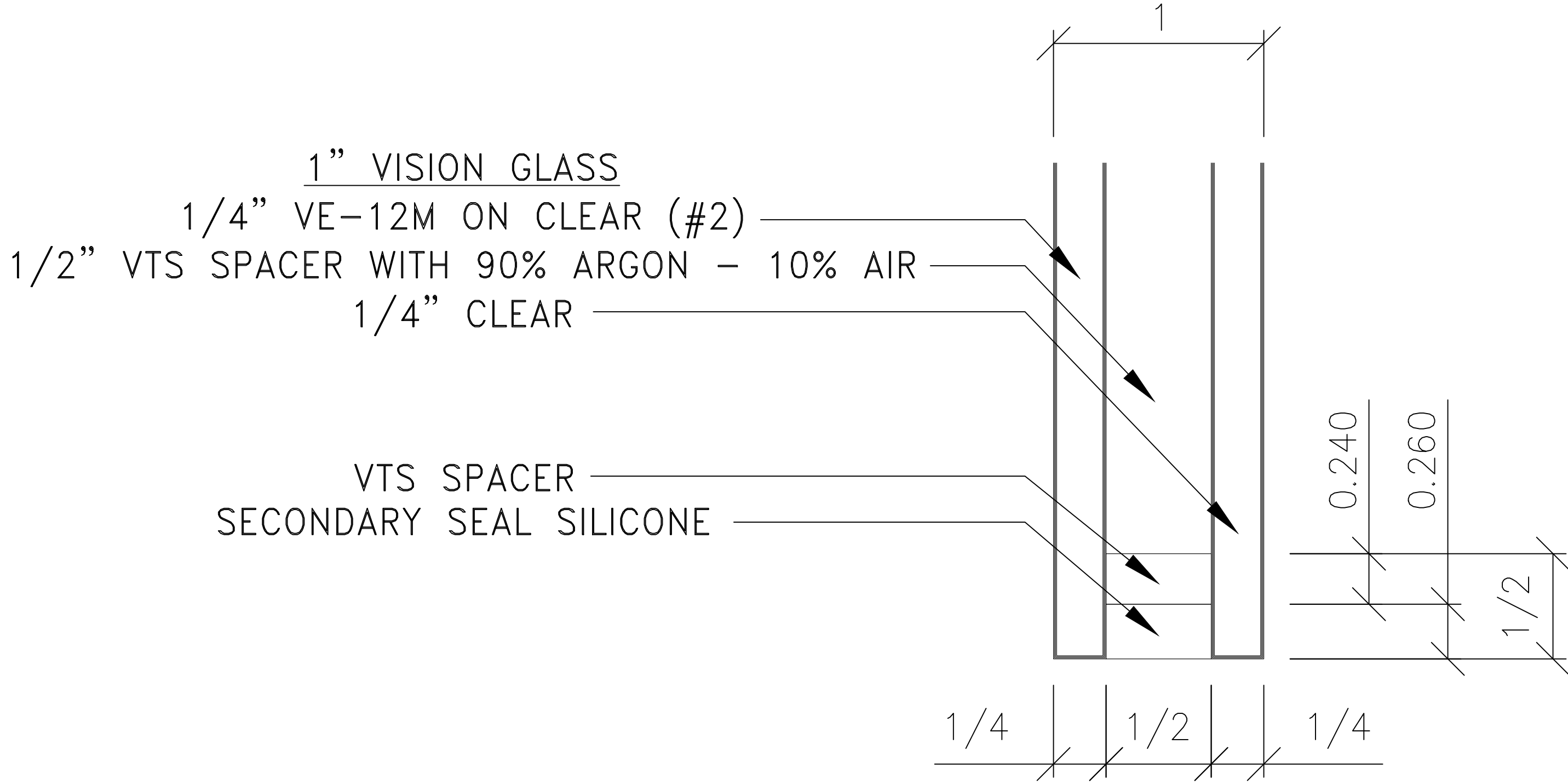


B.1 D102 SILL ANCHOR DETAIL
 CAPTURED

SEE DETAIL B/D102 FOR ALL COMPONENT CALL OUTS



PROJECT: UCW3500 THERMAL TESTING		DRAWN BY: NL		NO.		DATE		BY		REVISIONS	
LOCATION:		DATE: 04/18/24		NO.		DATE		BY		REVISIONS	
ARCHITECT:		GENERAL NOTES:		NO.		DATE		BY		REVISIONS	
CONTRACTOR:		1) Contractor to verify all dimensions in the field. All framing will be manufactured to the dimensions indicated unless otherwise noted.		NO.		DATE		BY		REVISIONS	
		2) Architect to review all conditions for compliance to contract documents and, if required, provide correct details and/or dimensions to ensure proper coordination.		NO.		DATE		BY		REVISIONS	
		3) Drawings marked 'approved' or 'approved as noted' shall be interpreted as an accurate condition of job requirements and such approval shall authorize release to fabrication.		NO.		DATE		BY		REVISIONS	
		4) Fremaraq shall not be responsible for any errors and/or work that occurs from the use of these drawings by other trades.		NO.		DATE		BY		REVISIONS	
		1101 NORTH MILL STREET MERRILL, WISCONSIN 54452 WWW.FREMARQINNOVATIONS.COM		JOB NUMBER		DRAWING SCALE		DRAWING NO.		REVISIONS	
				RD2032		11x17 = 6" = 1'-0" 22x34 = 12" = 1'-0"		D102		REVISIONS	
				SHEET TITLE						REVISIONS	
				DETAIL SHEET						REVISIONS	



5			
4			
3			
2			
1			
0			
NO.	DATE	BY	REVISIONS

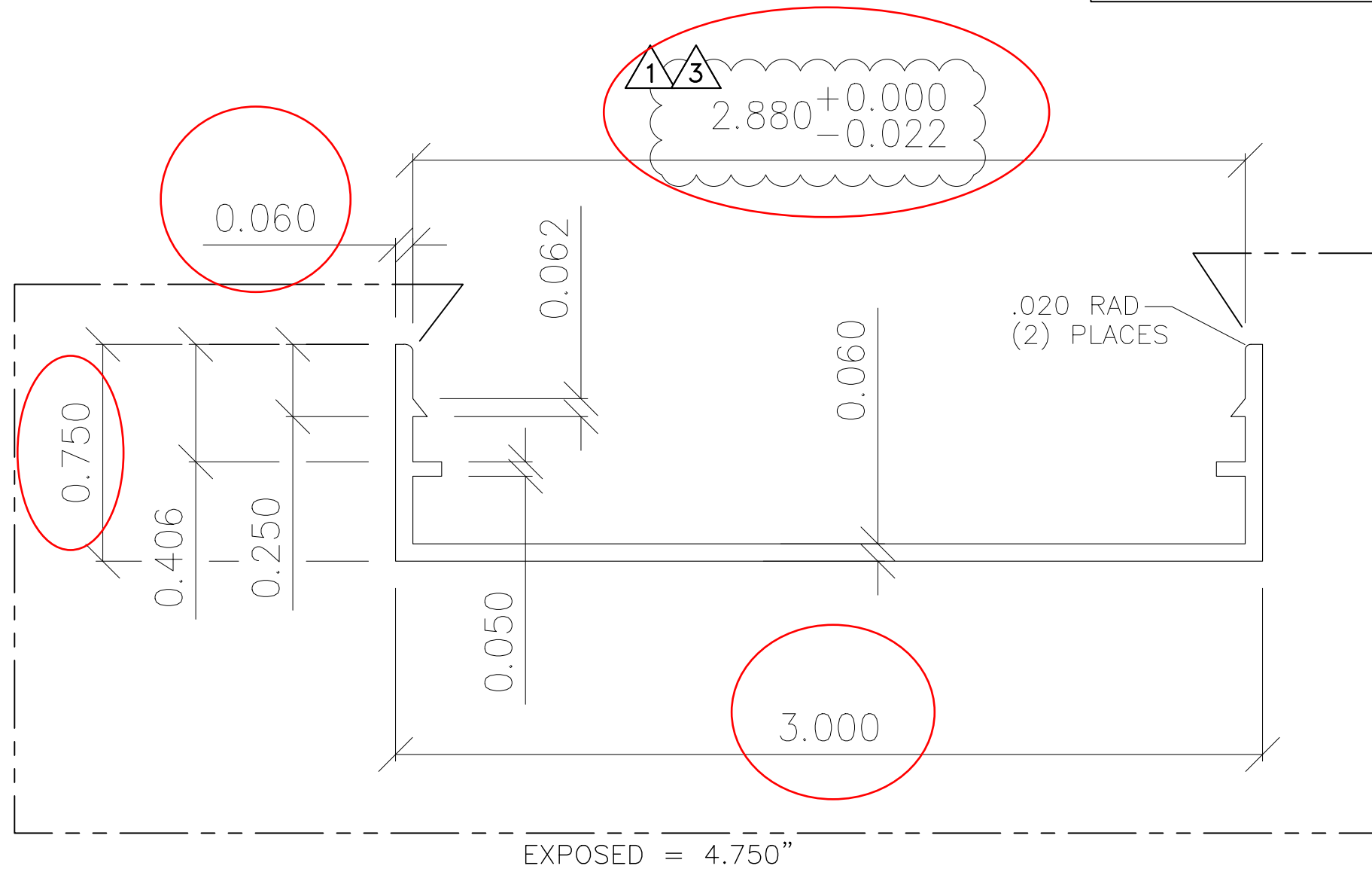
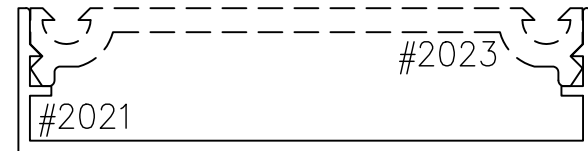


EXTRUSION TOLERANCES	
Wall Thickness Tolerances:	
Solid Wall = +.004/- .006	Hollow Wall = +.004/- .006
Angularity Tolerance = 1/2 Commercial	
Dimensional Tolerance = 3/4 Commercial	
UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"	

GENERAL NOTES:
 1) Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
 2) Bow, twist, and angularity are critical.

DIE NO. AND DESCRIPTION: GL1 - 1" VISION GLASS		DRAWN BY: NL	
PROJECT NAME AND JOB NUMBER: THERMAL TESTING		DATE: 04/18/24	
DIE INFO:		SHEET TITLE DIE PROFILE DWG	
ALLOY		DRAWING SCALE 2:1	
DIE TYPE: <input type="checkbox"/> SOLID <input type="checkbox"/> HOLLOW <input type="checkbox"/> DOUBLE HOLLOW <input type="checkbox"/> OTHER		DIE NO. GL1	
AREA IN ² AREA		PERIMETER IN ANODIZED PERIMETER	
WEIGHT LB/FT WEIGHT PER FOOT		PAINT IN PAINTED PERIMETER	
IXX IN ⁴ = Ixx		SX IN ³ = Sx	
IYY IN ⁴ = Iyy		SY IN ³ = Sy	

ASSEMBLY DETAIL
SCALE: 1:1



NOTE: PART SNAP FITS WITH PART #2023

NO.	DATE	BY	REVISIONS
5			
4			
3	01/26/24	BLB	REVISED TOLERANCES PER SAMPLE REVIEW
2	9/8/20	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK
1	-	-	ADDED TOLERANCE

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EXTRUSION TOLERANCES

Wall Thickness Tolerances:
 Solid Wall = +.004/-0.006 | Hollow Wall = +.004/-0.006

Angularity Tolerance = 1/2 Commercial

Dimensional Tolerance = 3/4 Commercial

UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"

DIE NO. AND DESCRIPTION:
2021 - 3" Wide x 3/4" Deep Cap

PROJECT NAME AND JOB NUMBER:
-

PROJECT REF DETAIL:
-

DIE INFO:
6063-T6

DIE TYPE:
 SOLID HOLLOW
 DOUBLE HOLLOW OTHER

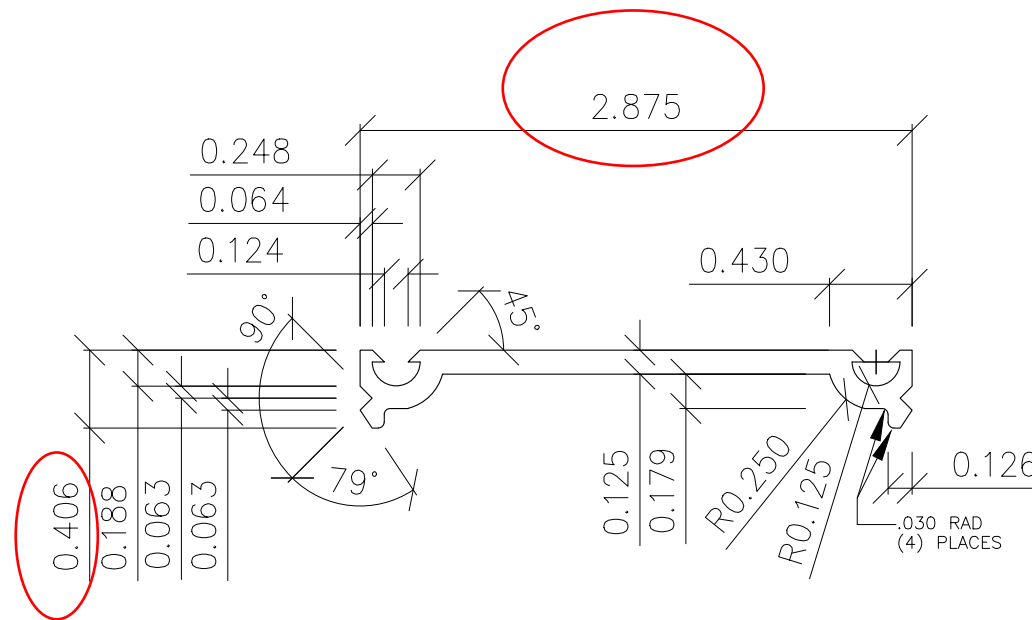
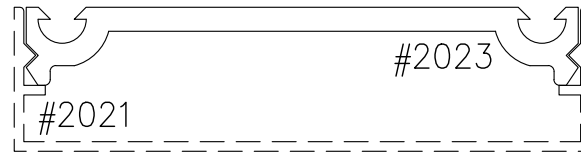
GENERAL NOTES:

- Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
- Bow, twist, and angularity are critical.

0.276 IN ² AREA	9.932 IN ANODIZED PERIMETER
0.331 LB/FT WEIGHT PER FOOT	4.600 IN PAINTED PERIMETER
0.012 IN ⁴ = I _{xx}	SX IN ³ = S _x
0.339 IN ⁴ = I _{yy}	SY IN ³ = S _y

DRAWN BY: TAF
DATE: 4/30/01
SHEET TITLE DIE PROFILE DWG
DRAWING SCALE 2:1
DIE NO. 2021

ASSEMBLY DETAIL
SCALE: 1:1



NOTE: PART SNAP FITS WITH PART #2021

NOTE: THIS IS A MILL FINISHED PART WITH NO EXPOSED SURFACES

NO.	DATE	BY	REVISIONS
5			
4			
3			
2			
1	9/8/20	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK

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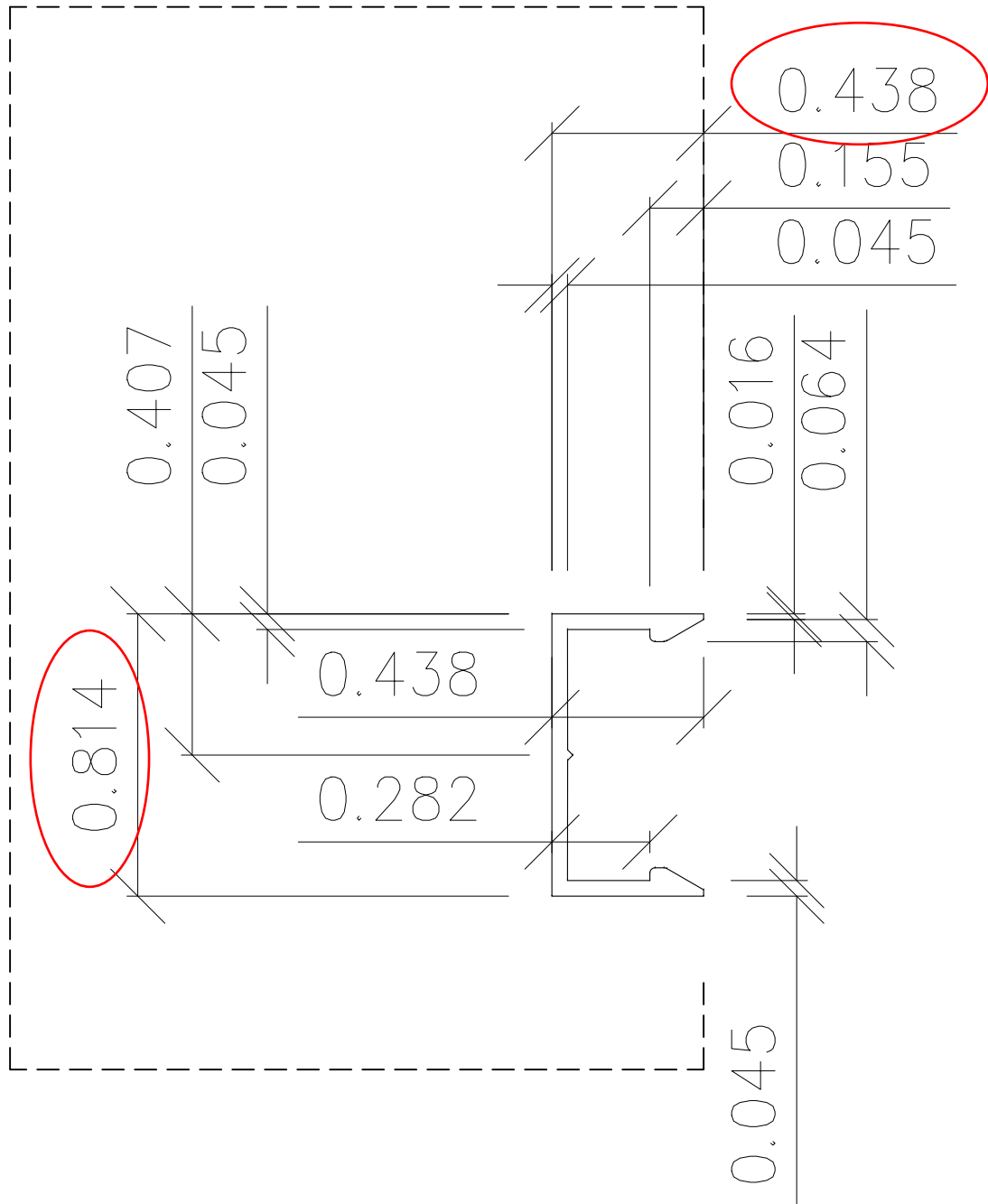
EXTRUSION TOLERANCES
 Wall Thickness Tolerances:
 Solid Wall = +.004/- .006 | Hollow Wall = +.004/- .006
 Angularity Tolerance = 1/2 Commercial
 Dimensional Tolerance = 3/4 Commercial
 UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"

GENERAL NOTES:
 1) Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
 2) Bow, twist, and angularity are critical.

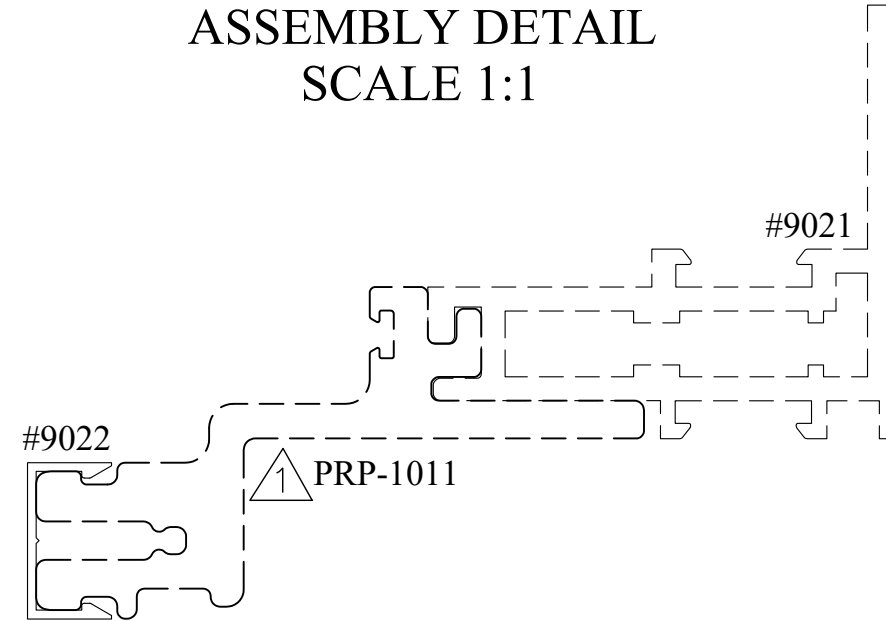
DIE NO. AND DESCRIPTION: 2023 - 3" Wide Pressure Plate		DRAWN BY: TAF	
PROJECT NAME AND JOB NUMBER: -		PROJECT REF DETAIL: -	
DIE INFO: 6063-T5		0.433 IN ² AREA	7.797 IN ANODIZED PERIMETER
DIE TYPE: <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> HOLLOW <input type="checkbox"/> DOUBLE HOLLOW <input type="checkbox"/> OTHER		0.520 LB/FT WEIGHT PER FOOT	0.000 IN PAINTED PERIMETER
		0.004 IN ⁴ = I _{xx}	SX IN ³ = S _x
		0.366 IN ⁴ = I _{yy}	SY IN ³ = S _y

DATE: 4/30/01	SHEET TITLE DIE PROFILE DWG
	DRAWING SCALE 1:1
	DIE NO. 2023

EXPOSED



ASSEMBLY DETAIL SCALE 1:1



NO.	DATE	BY	REVISIONS
5			
4			
3			
2	3/15/21	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK
1	10/16/18		CORRECTED ALUM. DIE #, PRP-1011 WAS PRP-1009

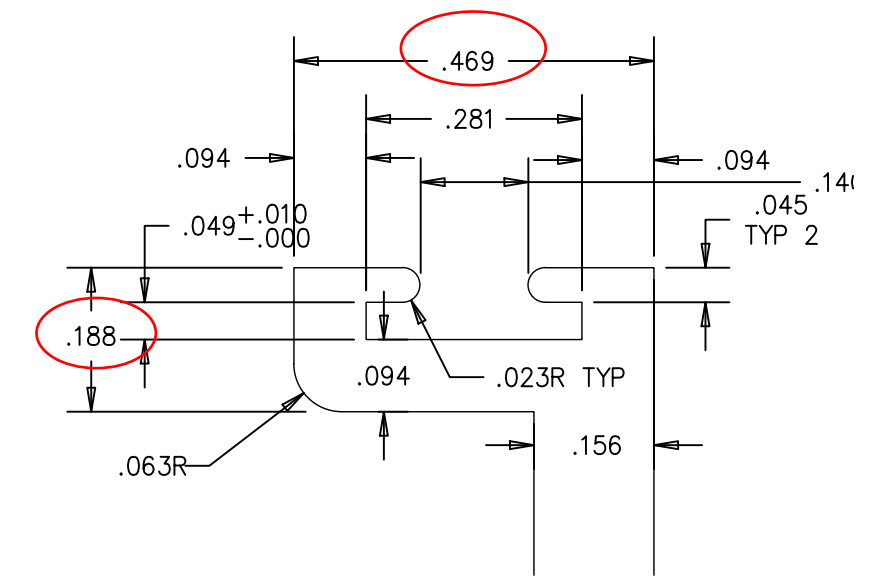
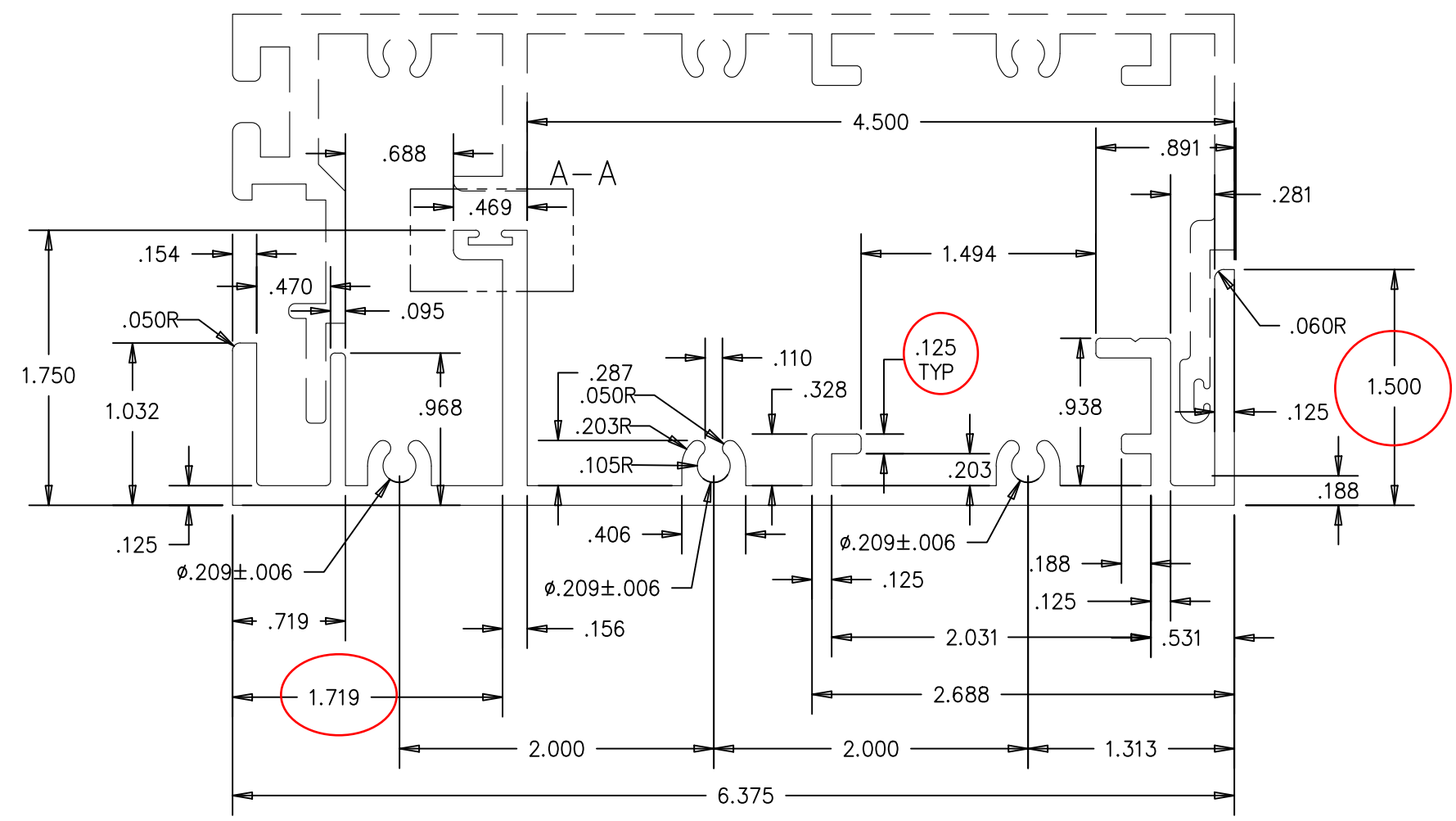


GENERAL NOTES:

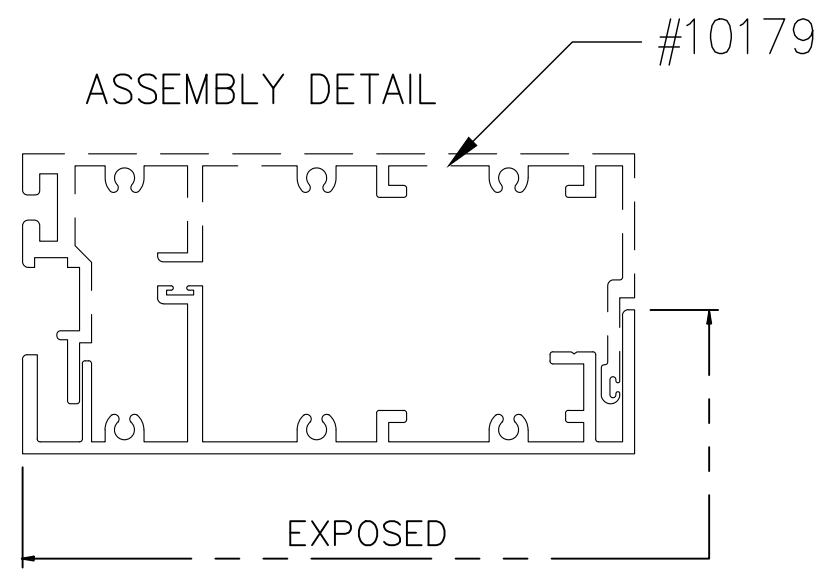
- Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
- Bow, twist, and angularity are critical.

EXTRUSION TOLERANCES	
Wall Thickness Tolerances:	
Solid Wall = +.004/- .006	Hollow Wall = +.004/- .006
Angularity Tolerance = 1/2 Commercial	
Dimensional Tolerance = 3/4 Commercial	
UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"	

DIE NO. AND DESCRIPTION:			DRAWN BY:
9022 - Zero Sightline Frame - 7/16" Cover			TAF
PROJECT NAME AND JOB NUMBER:		PROJECT REF DETAIL:	DATE:
-		-	7/12/18
DIE INFO:			SHEET TITLE
6063-T6	0.076 IN ² AREA	3.338 IN ANODIZED PERIMETER	DIE PROFILE DWG
	0.091 LB/FT WEIGHT PER FOOT	1.700 IN PAINTED PERIMETER	
DIE TYPE:			DRAWING SCALE
<input checked="" type="checkbox"/> SOLID <input type="checkbox"/> HOLLOW <input type="checkbox"/> DOUBLE HOLLOW <input type="checkbox"/> OTHER			2:1
	0.008 IN ⁴ = Ixx	SX IN ³ = Sx	DIE NO.
	0.001 IN ⁴ = Iyy	SY IN ³ = Sy	9022



VIEW A-A
SCALE 4:1



SCALE 1:2

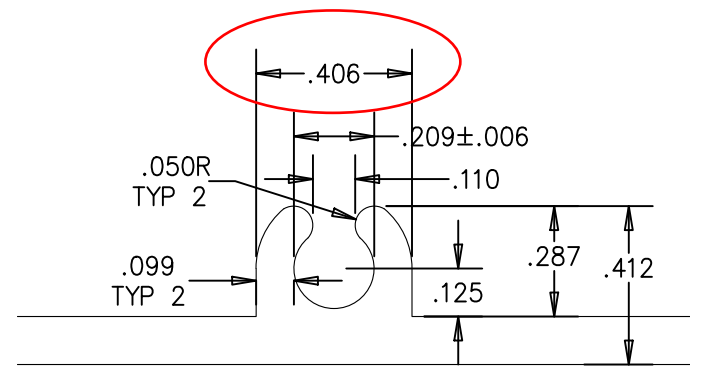
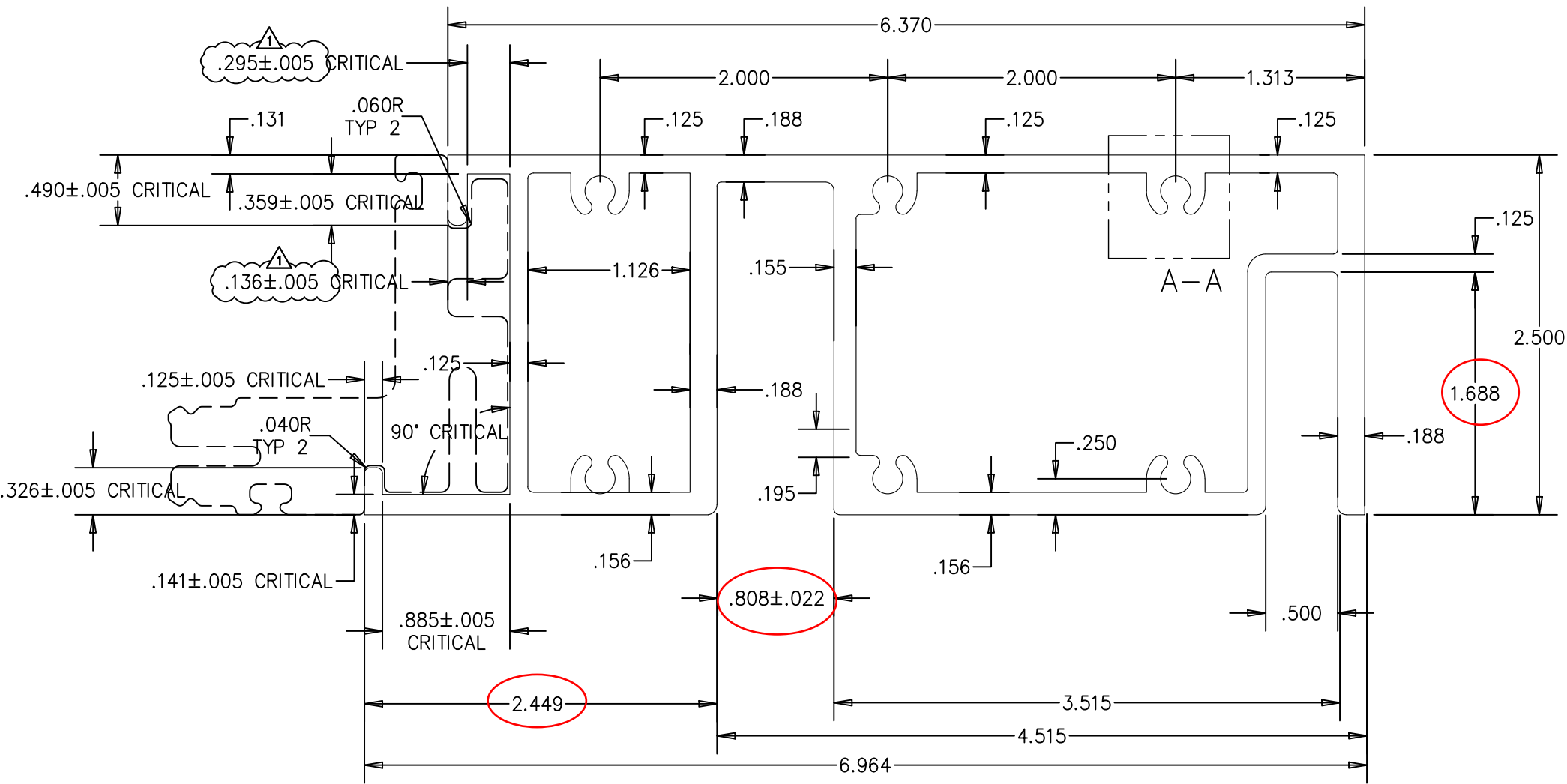
NO.	DATE	BY	REVISIONS
5			
4			
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2			
1			

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EXTRUSION TOLERANCES
 Wall Thickness Tolerances:
 Solid Wall = +.004/- .006 | Hollow Wall = +.004/- .006
 Angularity Tolerance = 1/2 Commercial
 Dimensional Tolerance = 3/4 Commercial
 UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"

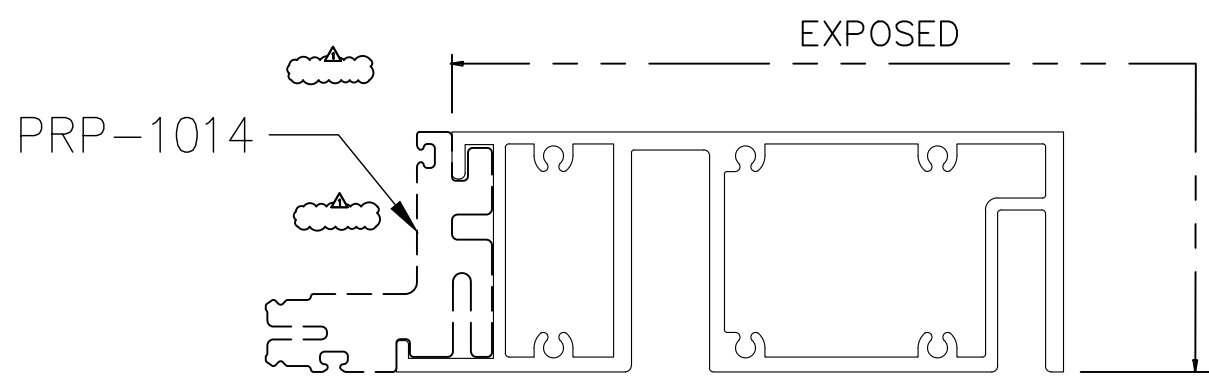
GENERAL NOTES:
 1) Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
 2) Bow, twist, and angularity are critical.

DIE NO. AND DESCRIPTION: VERTICAL STACK - FEMALE		DRAWN BY: TAF	
PROJECT NAME AND JOB NUMBER: SYSTEM DIE		DATE: 10/18/23	
DIE INFO: 6063 - T6		SHEET TITLE DIE PROFILE DWG	
ALLOY		DRAWING SCALE 1:1	
DIE TYPE: <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> HOLLOW <input type="checkbox"/> DOUBLE HOLLOW <input type="checkbox"/> OTHER		DIE NO. 10180	
1.915 IN ² AREA		30.093 IN ANODIZED PERIMETER	
2.298 LB/FT WEIGHT PER FOOT		7.885 IN PAINTED PERIMETER	
0.388 IN ⁴ = Ixx		0.343 IN ³ = Sx	
8.638 IN ⁴ = Iyy		3.278 IN ³ = Sy	



(X5) VIEW A-A
 SCALE = 2:1

ASSEMBLY DETAIL



SCALE 1:2

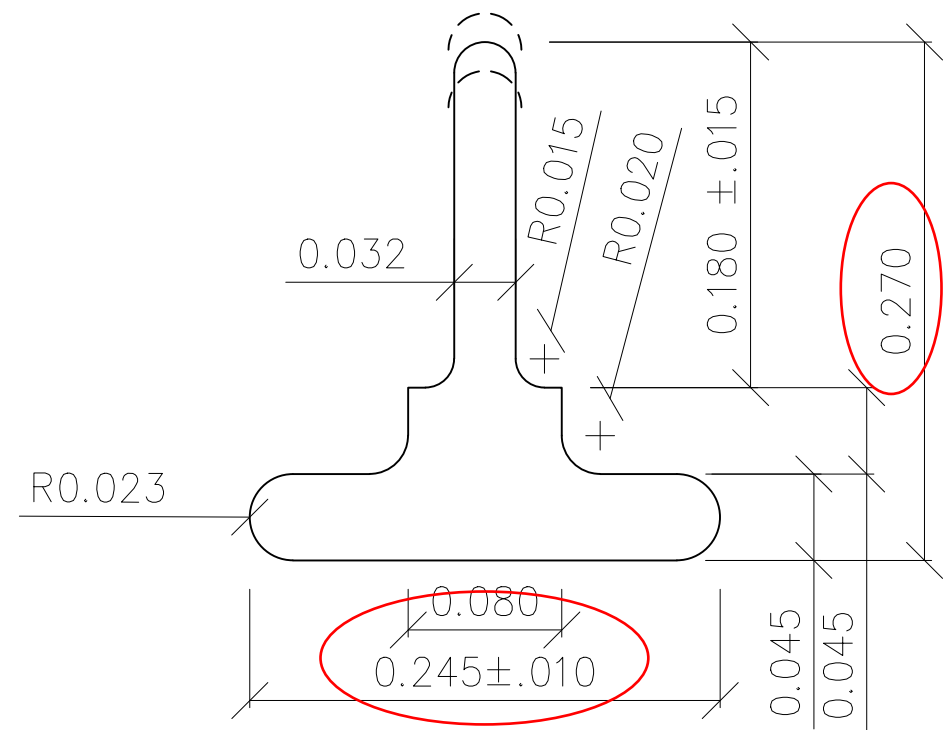
NO.	DATE	BY	REVISIONS
5			
4			
3			
2			
1	11/27/23	BJM	INCREASE PRP AREA FOR BETTER FIT AFTER 3D PRINT

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EXTRUSION TOLERANCES
 Wall Thickness Tolerances:
 Solid Wall = +.004/- .006 | Hollow Wall = +.004/- .006
 Angularity Tolerance = 1/2 Commercial
 Dimensional Tolerance = 3/4 Commercial
 UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"

GENERAL NOTES:
 1) Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
 2) Bow, twist, and angularity are critical.

DIE NO. AND DESCRIPTION: HORIZONTAL STACK - FEMALE		DRAWN BY: TAF	
PROJECT NAME AND JOB NUMBER: SYSTEM DIE		DATE: 10/19/23	
DIE INFO: 6063 - T6		SHEET TITLE DIE PROFILE DWG	
ALLOY		DRAWING SCALE 1:1	
DIE TYPE: <input type="checkbox"/> SOLID <input checked="" type="checkbox"/> HOLLOW <input type="checkbox"/> DOUBLE HOLLOW <input type="checkbox"/> OTHER		DIE NO. 10182	
3.290 IN ² AREA		43.222 IN ANODIZED PERIMETER	
3.948 LB/FT WEIGHT PER FOOT		8.885 IN PAINTED PERIMETER	
2.525 IN ⁴ = I _{xx}		1.784 IN ³ = S _x	
14.303 IN ⁴ = I _{yy}		3.795 IN ³ = S _y	



ACTUAL SIZE

TRELLEBORG - 3513-02-00

NO.	DATE	BY	REVISIONS
5			
4			
3			
2			
1	5/21/21	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK

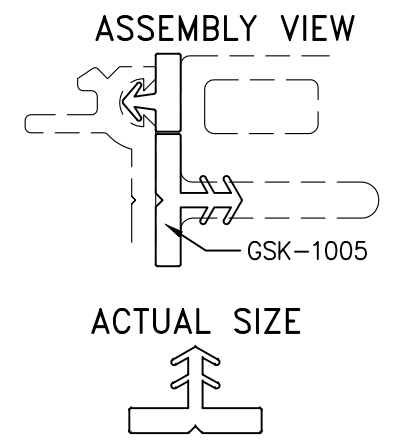
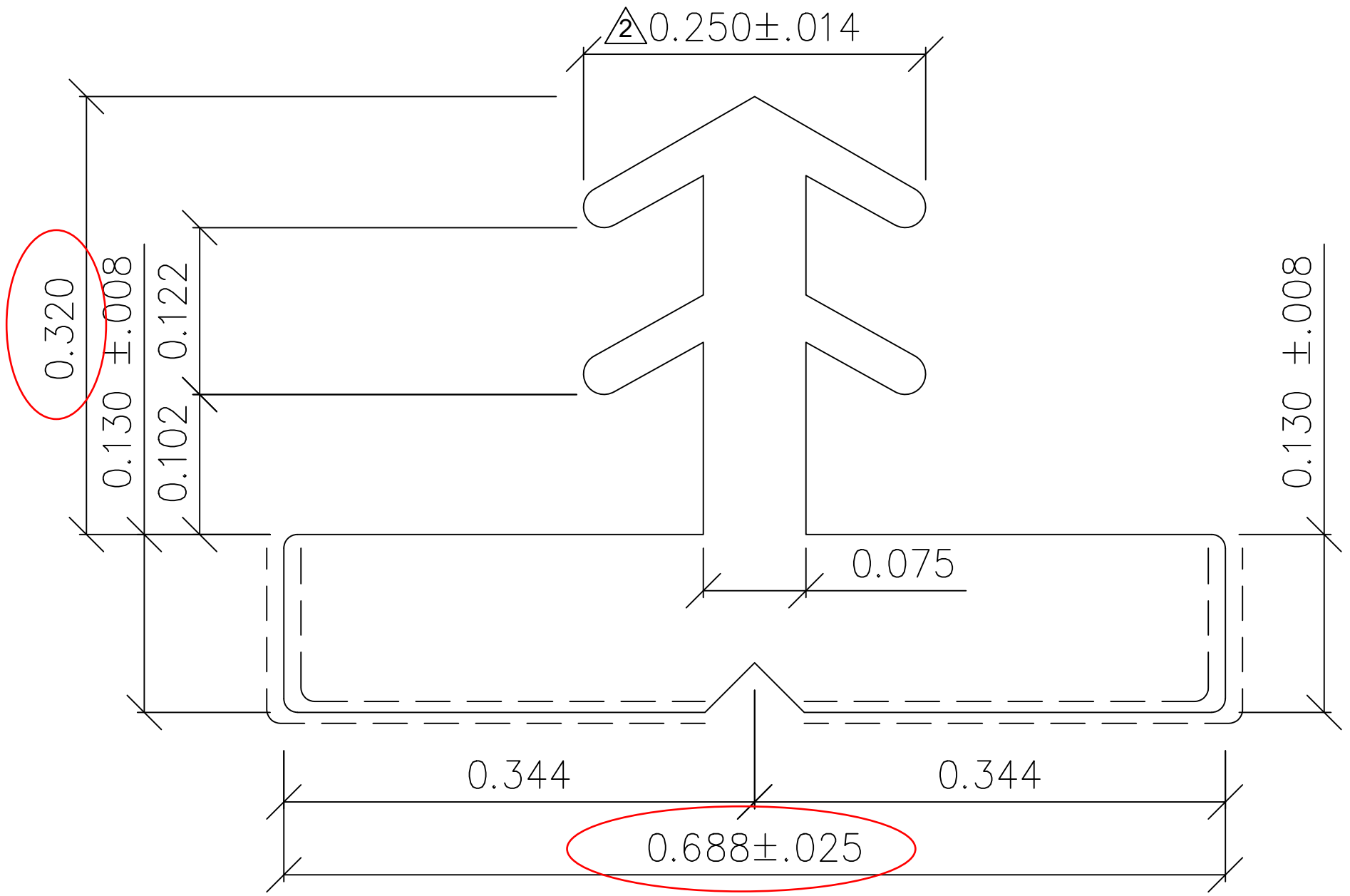
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GENERAL NOTES:
 1) Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
 2) Bow, twist, and angularity are critical.

EXTRUSION TOLERANCES	
Wall Thickness Tolerances:	
Solid Wall = +.004/-.006	Hollow Wall = +.004/-.006
Angularity Tolerance = 1/2 Commercial	
Dimensional Tolerance = 3/4 Commercial	
UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"	

DIE NO. AND DESCRIPTION:		DRAWN BY:	
GSK1003 - Sweep Gasket - 0.180" Leg		MRG	
PROJECT NAME AND JOB NUMBER:		PROJECT REF DETAIL:	
-		-	
DIE INFO:			
EPDM	0.020 IN ² AREA	0.948 IN ANODIZED PERIMETER	
	- LB/FT WEIGHT PER FOOT	- IN PAINTED PERIMETER	
DIE TYPE:	<input checked="" type="checkbox"/> SOLID <input type="checkbox"/> HOLLOW	0.0001 IN ⁴ = Ixx	SX IN ³ = Sx
	<input type="checkbox"/> DOUBLE HOLLOW <input type="checkbox"/> OTHER	0.0001 IN ⁴ = Iyy	SY IN ³ = Sy

DATE:		SHEET TITLE	
1/24/00		DIE PROFILE DWG	
		DRAWING SCALE 10:1	
		DIE NO. GSK-1003	



TRELLEBORG – 13540-02-00

NO.	DATE	BY	REVISIONS
5			
4			
3	5/21/21	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK
2	9/4/18	AMB	CHANGED DART SIZE
1	9/4/18	AMB	DURO CHANGED FROM 85 TO 70



GENERAL NOTES:

- Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
- Bow, twist, and angularity are critical.

EXTRUSION TOLERANCES	
Wall Thickness Tolerances:	
Solid Wall = +.004/- .006	Hollow Wall = +.004/- .006
Angularity Tolerance = 1/2 Commercial	
Dimensional Tolerance = 3/4 Commercial	
UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"	

DIE NO. AND DESCRIPTION:
 GSK1005 - Stem Isolator EPDM Gasket - 0.125" [1/8"] Gap

PROJECT NAME AND JOB NUMBER:
 -

PROJECT REF DETAIL:
 -

DIE INFO:
 70 Duro Black EPDM

- DIE TYPE:
- SOLID HOLLOW
- DOUBLE HOLLOW OTHER

0.123 IN ² AREA	2.970 IN ANODIZED PERIMETER
- LB/FT WEIGHT PER FOOT	- IN PAINTED PERIMETER
0.0017 IN ⁴ = Ixx	SX IN ³ = Sx
0.0036 IN ⁴ = Iyy	SY IN ³ = Sy

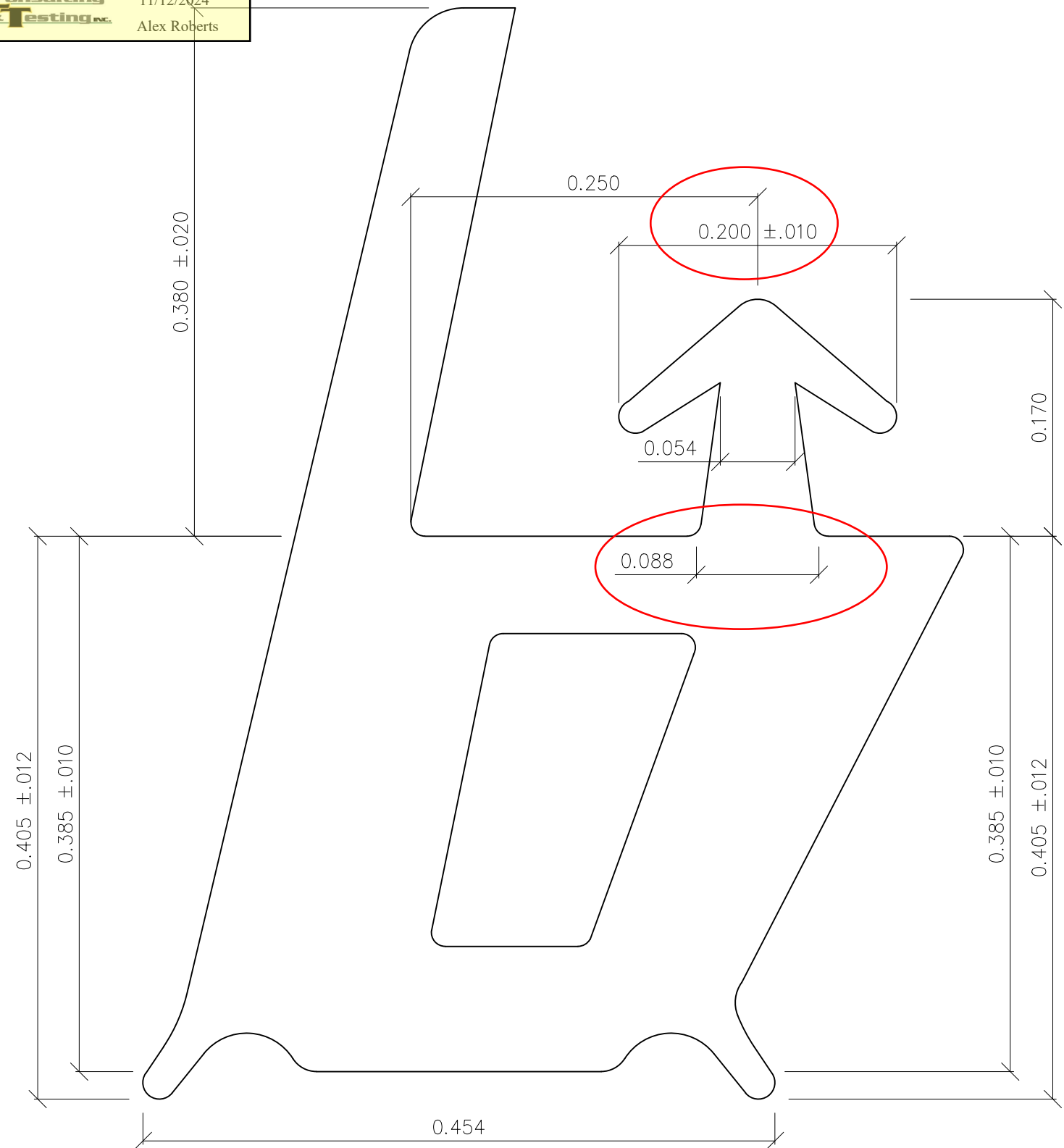
DRAWN BY:
 MRG

DATE:
 10/4/17

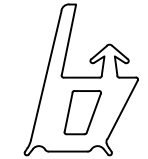
SHEET TITLE
**DIE
 PROFILE DWG**

DRAWING SCALE
 10:1

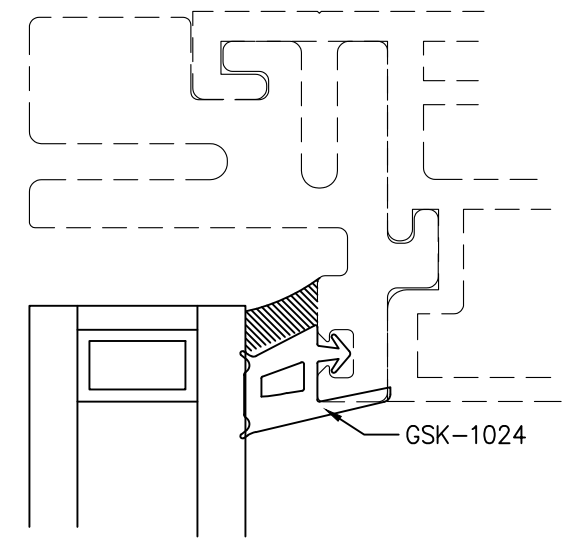
DIE NO.
GSK-1005



ACTUAL SIZE



ASSEMBLY DETAIL



TRELLEBORG - 14621-02-00

NO.	DATE	BY	REVISIONS
5			
4			
3			
2			
1	6/1/21	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK

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GENERAL NOTES:

- Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
- Bow, twist, and angularity are critical.

EXTRUSION TOLERANCES	
Wall Thickness Tolerances:	
Solid Wall = +.004/-0.006	Hollow Wall = +.004/-0.006
Angularity Tolerance = 1/2 Commercial	
Dimensional Tolerance = 3/4 Commercial	
UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"	

DIE NO. AND DESCRIPTION:
 GSK1024 - Interior Glazing Gasket (Fiberglass) - 0.375" [3/8"] Gap

PROJECT NAME AND JOB NUMBER:
 - PROJECT REF DETAIL:
 -

DIE INFO:
 70 Duro Black Silicone

- DIE TYPE:
- SOLID HOLLOW
- DOUBLE HOLLOW OTHER

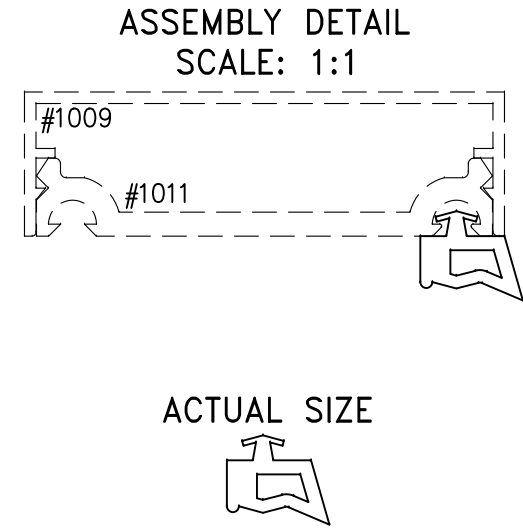
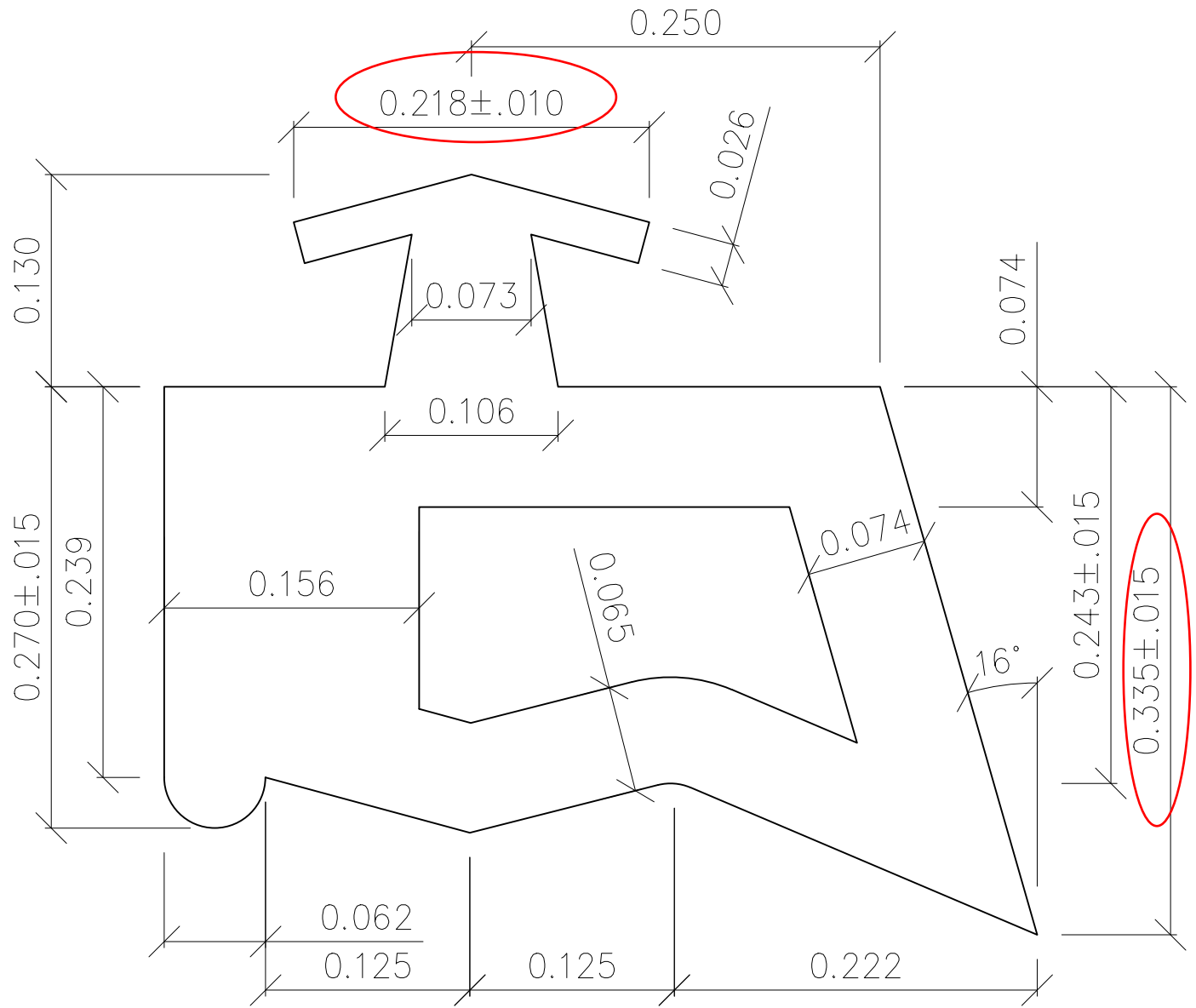
0.180 IN ²	3.182 IN
AREA	ANODIZED PERIMETER
- LB/FT	- IN
WEIGHT PER FOOT	PAINTED PERIMETER
0.0062 IN ⁴ = Ixx	SX IN ³ = Sx
0.0035 IN ⁴ = Iyy	SY IN ³ = Sy

DRAWN BY:
 MRG

DATE:
 3/13/19

SHEET TITLE
DIE PROFILE DWG
 DRAWING SCALE
 10:1

DIE NO.
GSK-1024



TRELLEBORG - 3080-04-00

NO.	DATE	BY	REVISIONS
5			
4			
3			
2	6/8/21	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK
1	4/6/21	BDK	BIGGER DART



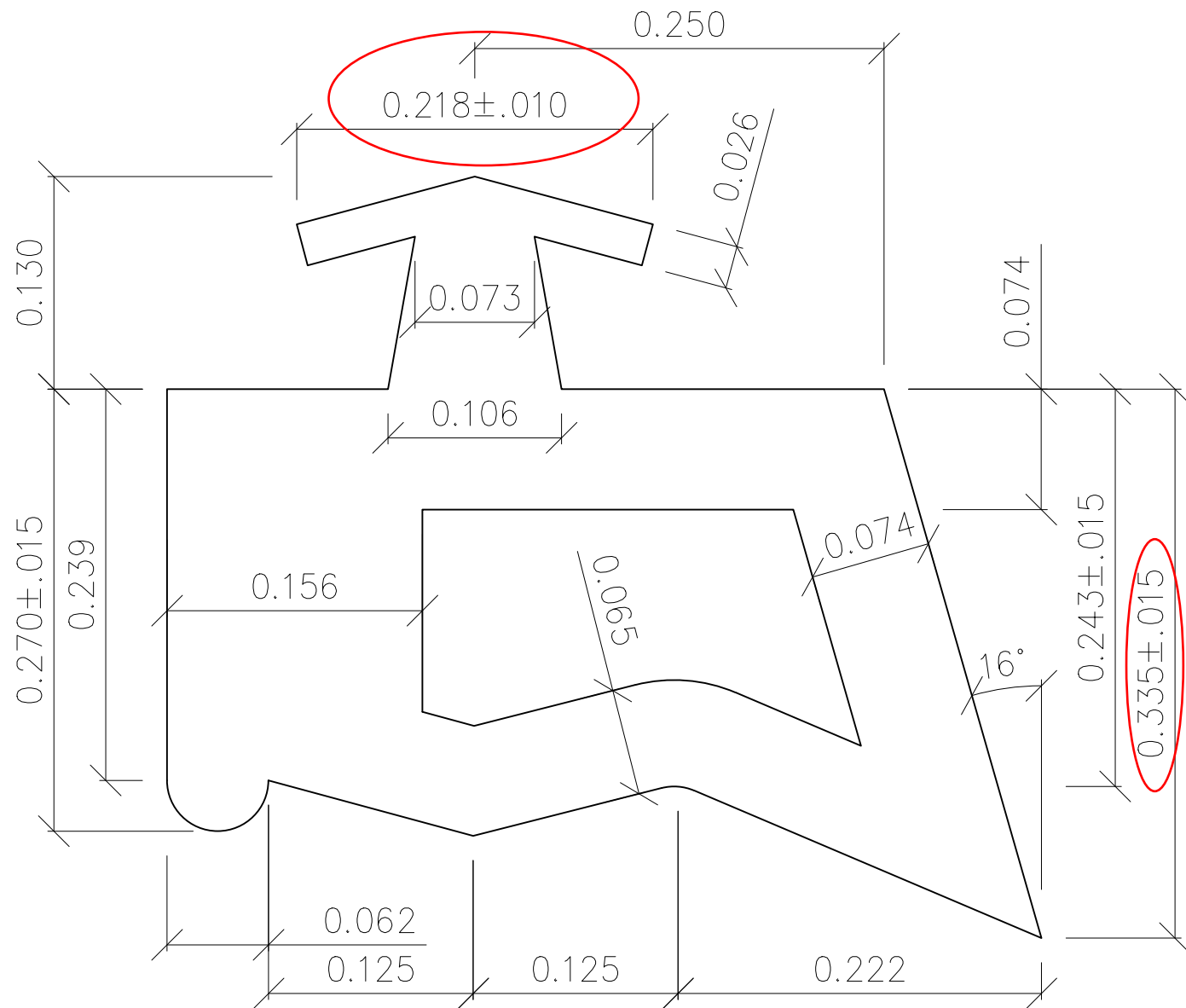
GENERAL NOTES:

- Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
- Bow, twist, and angularity are critical.

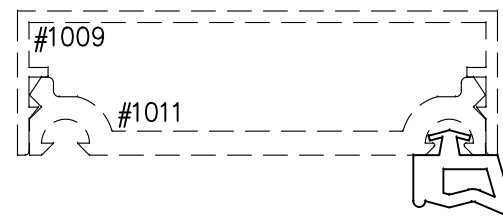
EXTRUSION TOLERANCES	
Wall Thickness Tolerances:	
Solid Wall = +.004/-0.006	Hollow Wall = +.004/-0.006
Angularity Tolerance = 1/2 Commercial	
Dimensional Tolerance = 3/4 Commercial	
UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"	

DIE NO. AND DESCRIPTION:		DRAWN BY:	
GSK3080 - Exterior Glazing Spacer - 0.250" Gap		MRG	
PROJECT NAME AND JOB NUMBER:		PROJECT REF DETAIL:	
Hershey Medical Center		-	
DIE INFO:		DATE:	
60 Duro EPDM		5/24/00	
ALLOY		0.114 IN ² AREA	2.119 IN ANODIZED PERIMETER
DIE TYPE:		- LB/FT WEIGHT PER FOOT	- IN PAINTED PERIMETER
<input type="checkbox"/> SOLID	<input checked="" type="checkbox"/> HOLLOW	0.0012 IN ⁴ = Ixx	SX IN ³ = Sx
<input type="checkbox"/> DOUBLE HOLLOW	<input type="checkbox"/> OTHER	0.0027 IN ⁴ = Iyy	SY IN ³ = Sy

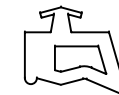
SHEET TITLE	
DIE PROFILE DWG	
DRAWING SCALE 10:1	
DIE NO. GSK-3080	



ASSEMBLY DETAIL
 SCALE: 1:1



ACTUAL SIZE



TRELLEBORG - 3080-02-02

NO.	DATE	BY	REVISIONS
5			
4			
3			
2	6/8/21	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK
1	4/6/21	BDK	BIGGER DART



GENERAL NOTES:

- Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
- Bow, twist, and angularity are critical.

EXTRUSION TOLERANCES

Wall Thickness Tolerances:	
Solid Wall = +.004/- .006	Hollow Wall = +.004/- .006
Angularity Tolerance = 1/2 Commercial	
Dimensional Tolerance = 3/4 Commercial	
UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"	

DIE NO. AND DESCRIPTION:

GSK3080 - Exterior Glazing Spacer - 0.250" Gap

PROJECT NAME AND JOB NUMBER:

Hershey Medical Center

PROJECT REF DETAIL:

-

DIE INFO:

60 Duro Silicone

ALLOY

DIE TYPE:

- SOLID HOLLOW
 DOUBLE HOLLOW OTHER

0.114 IN²

AREA

- LB/FT

WEIGHT PER FOOT

0.0012 IN⁴ = Ixx

0.0027 IN⁴ = Iyy

2.119 IN

ANODIZED PERIMETER

- IN

PAINTED PERIMETER

SX IN³ = Sx

SY IN³ = Sy

DRAWN BY:

MRG

DATE:

5/24/00

SHEET TITLE

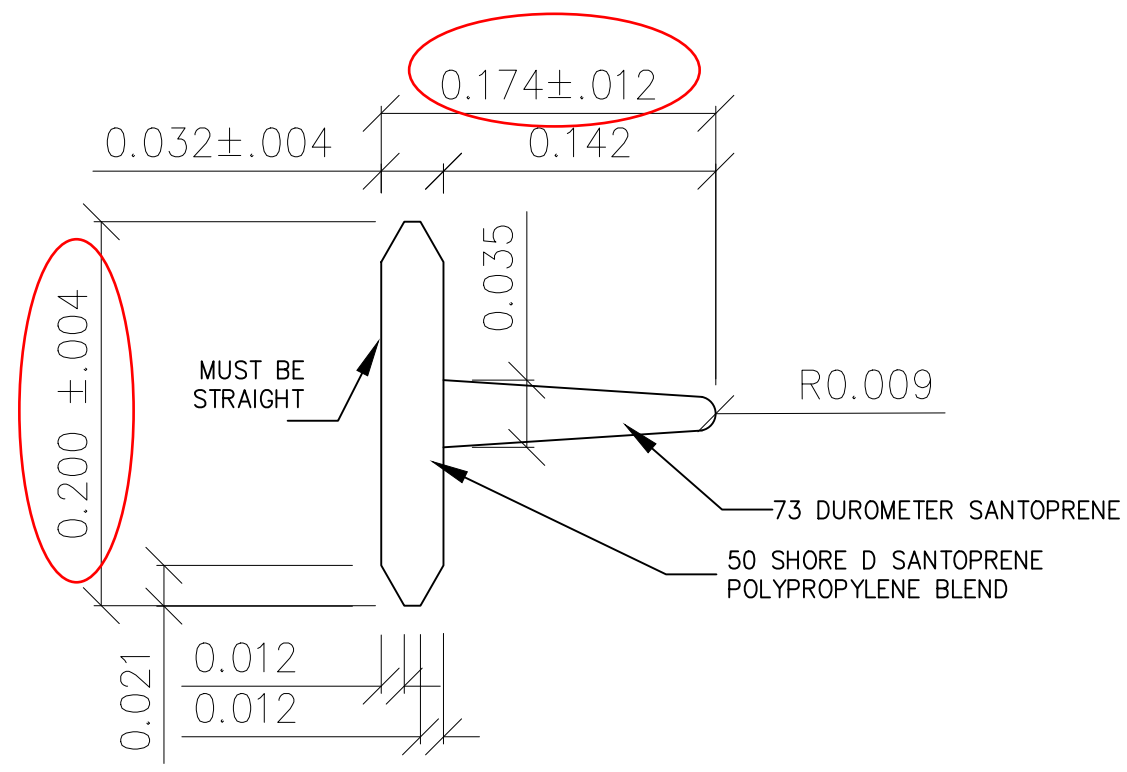
DIE PROFILE DWG

DRAWING SCALE

10:1

DIE NO.

GSK-3080S



ACTUAL SIZE

TRELLEBORG – 3998–01–01

NO.	DATE	BY	REVISIONS
5			
4			
3			
2			
1	6/16/21	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK

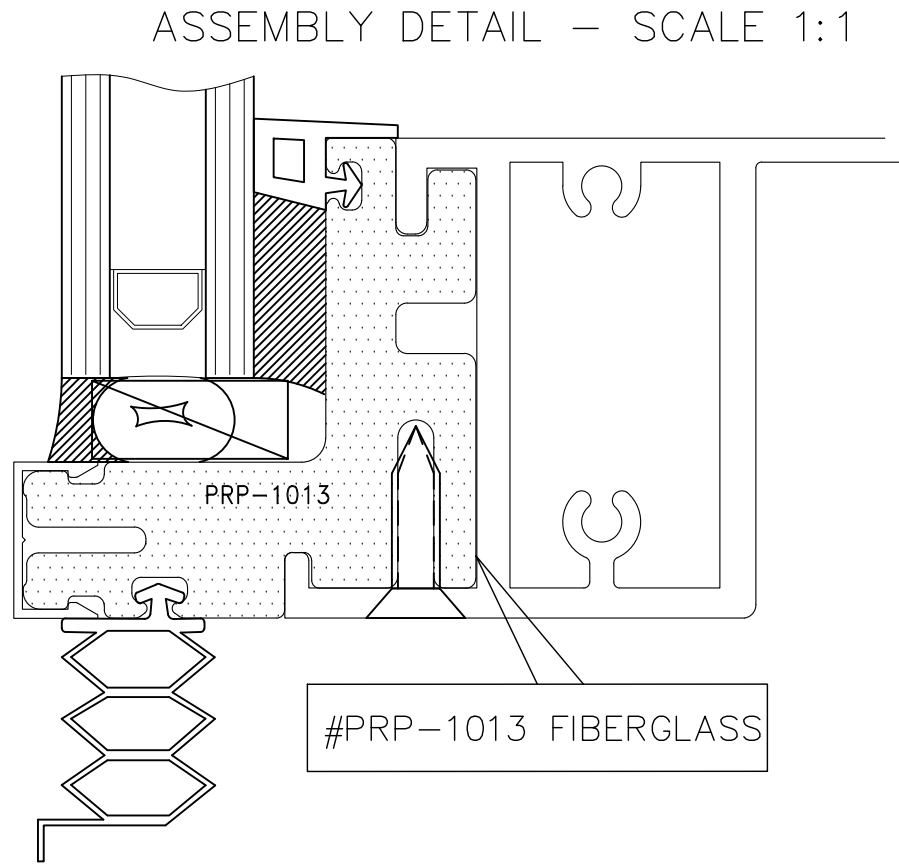
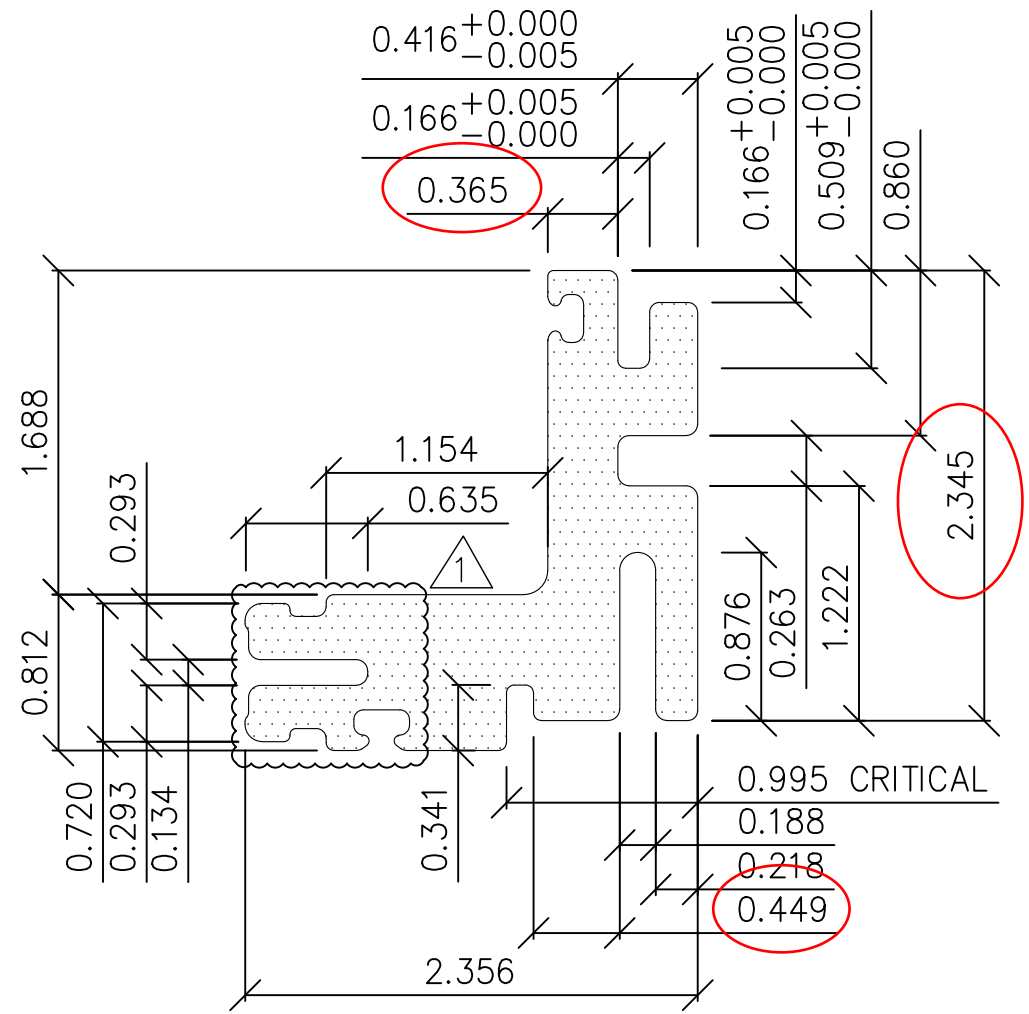
Fremarq INNOVATIONS
 1101 NORTH MILL STREET PH: (715) 842-6842
 MERRILL, WISCONSIN 54452
 WWW.FREMARQINNOVATIONS.COM

GENERAL NOTES:
 1) Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
 2) Bow, twist, and angularity are critical.

EXTRUSION TOLERANCES	
Wall Thickness Tolerances:	
Solid Wall = +.004/-.006	Hollow Wall = +.004/-.006
Angularity Tolerance = 1/2 Commercial	
Dimensional Tolerance = 3/4 Commercial	
UNSPECIFIED WALL THICKNESS: 0.125"	UNSPECIFIED RADII: 0.015"

DIE NO. AND DESCRIPTION:		DRAWN BY:	
GSK4448 - Co-Ex Weatherstrip Gasket - Fiberglass		MRG	
PROJECT NAME AND JOB NUMBER:		PROJECT REF DETAIL:	
-		-	
DIE INFO:			
73 Duro Black COEX	0.010 IN ² AREA	0.689 IN ANODIZED PERIMETER	
	- LB/FT WEIGHT PER FOOT	- IN PAINTED PERIMETER	
	0.0000 IN ⁴ = Ixx	SX IN ³ = Sx	
	0.0000 IN ⁴ = Iyy	SY IN ³ = Sy	
DIE TYPE:			
<input checked="" type="checkbox"/> SOLID <input type="checkbox"/> HOLLOW <input type="checkbox"/> DOUBLE HOLLOW <input type="checkbox"/> OTHER			
ALLOY			

SHEET TITLE	
DIE PROFILE DWG	
DRAWING SCALE 10:1	
DIE NO. GSK-4448	



PROFILE MATCHES VENDOR DWG - 01/27/22 BLB

DECEUNINCK - 10000632

NO.	DATE	BY	REVISIONS
5			
4			
3			
2	4/26/21	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK
1	XX/XX/XX	-	MODIFIED NOSE TO ACCEPT #9022 SNAP COVER

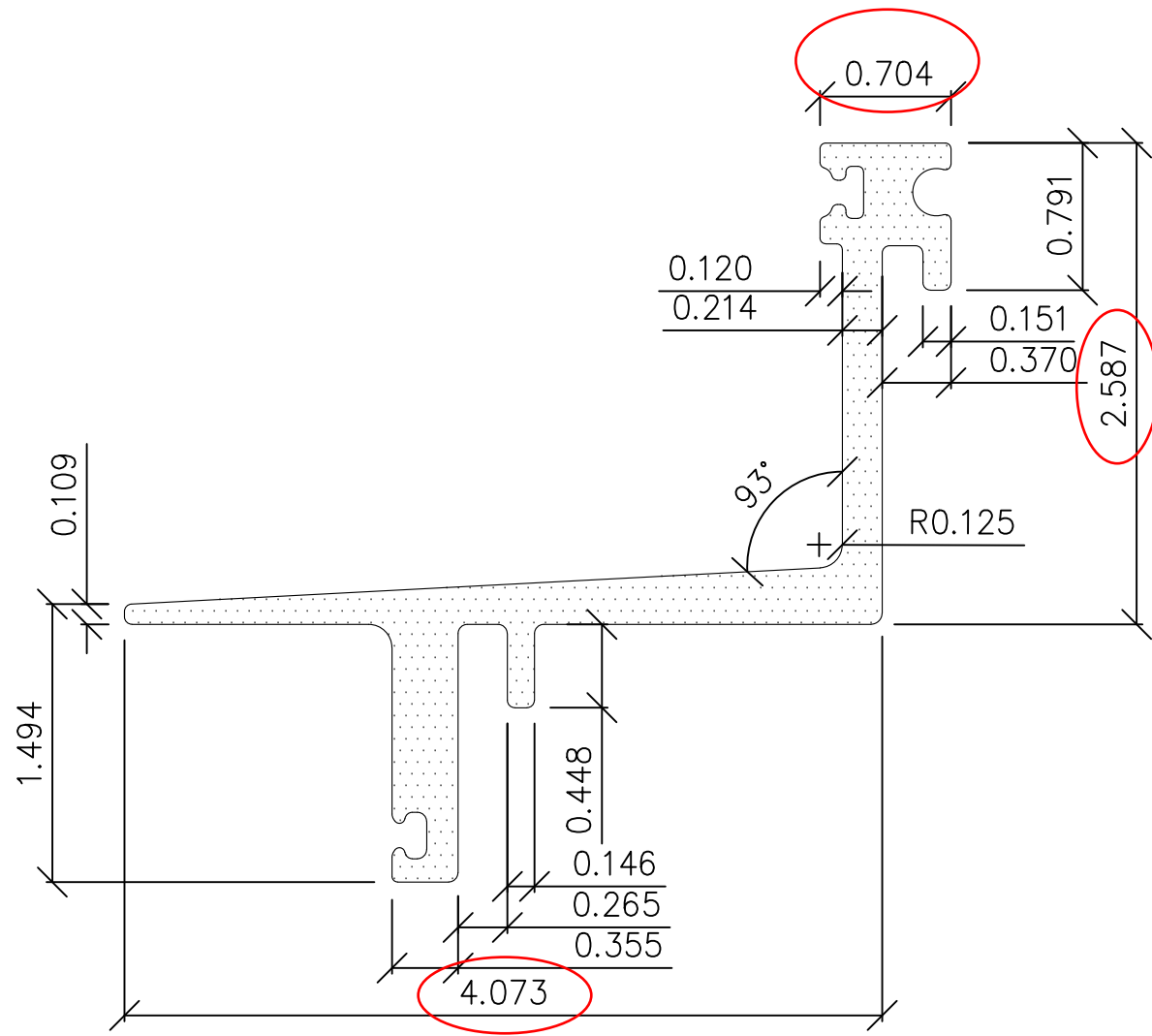
Fremarq INNOVATIONS
 1101 NORTH MILL STREET PH: (715) 842-6842
 MERRILL, WISCONSIN 54452
 WWW.FREMARQINNOVATIONS.COM

EXTRUSION TOLERANCES
 Wall Thickness Tolerances:
 Solid Wall = +.004/-0.006 | Hollow Wall = +.004/-0.006
 Angularity Tolerance = 1/2 Commercial
 Dimensional Tolerance = 3/4 Commercial
 UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"

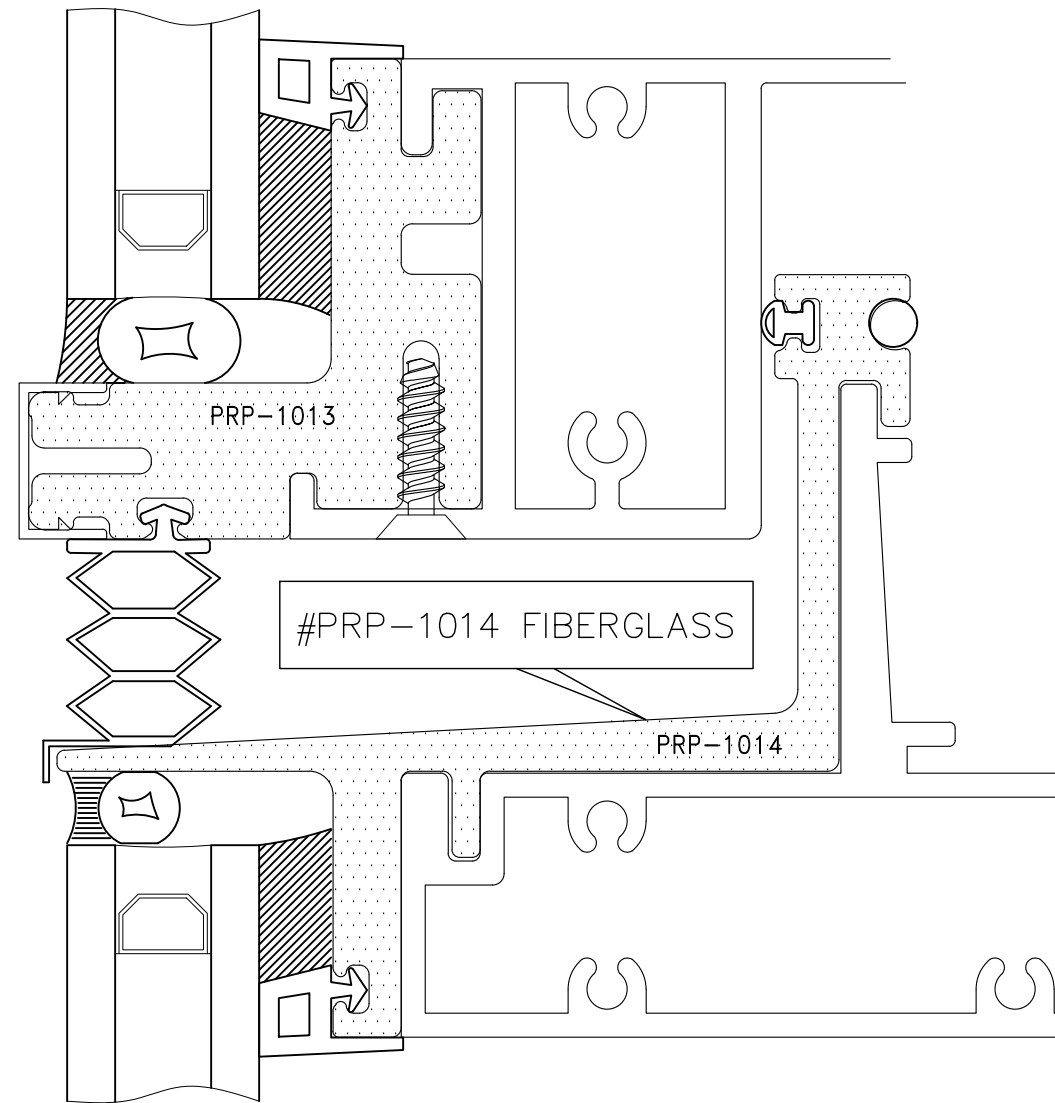
GENERAL NOTES:
 1) Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
 2) Bow, twist, and angularity are critical.

DIE NO. AND DESCRIPTION: #PRP-1013 - UCW Horizontal Insert		DRAWN BY: XXX	
PROJECT NAME AND JOB NUMBER: -		PROJECT REF DETAIL: -	
DIE INFO:		2.410 IN ² AREA	15.120 IN ANODIZED PERIMETER
ALLOY		2.176 LB/FT WEIGHT PER FOOT	0.000 IN PAINTED PERIMETER
DIE TYPE: <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> HOLLOW <input type="checkbox"/> DOUBLE HOLLOW <input type="checkbox"/> OTHER		1.576 IN ⁴ = I _{xx}	SX IN ³ = S _x
		0.458 IN ⁴ = I _{yy}	SY IN ³ = S _y

DATE: XX/XX/XX	SHEET TITLE DIE PROFILE DWG
	DRAWING SCALE 1:1
	DIE NO. PRP-1013



ASSEMBLY DETAIL – SCALE 1:1



PROFILE MATCHES VENDOR DWG – 01/27/22 BLB

DECEUNINCK – 10000633

NO.	DATE	BY	REVISIONS
1	4/26/21	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK



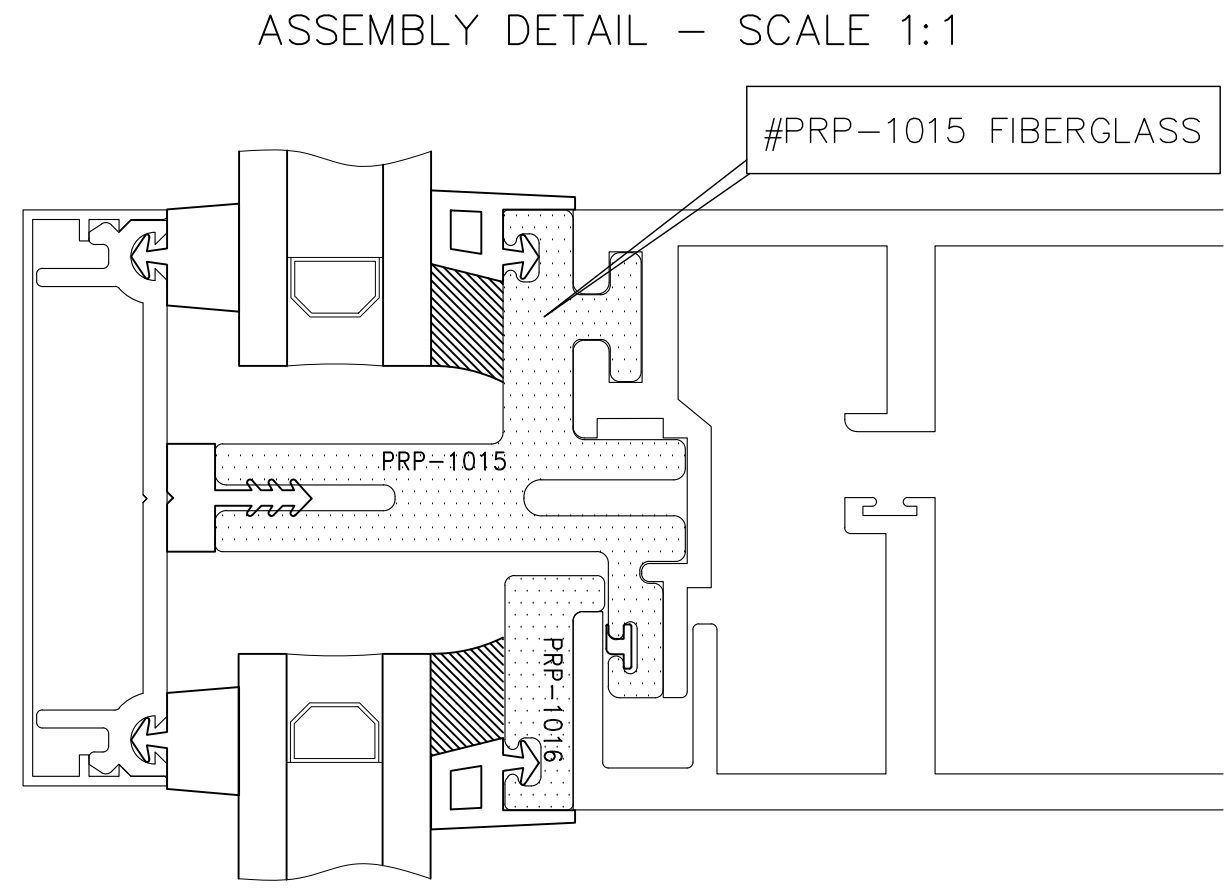
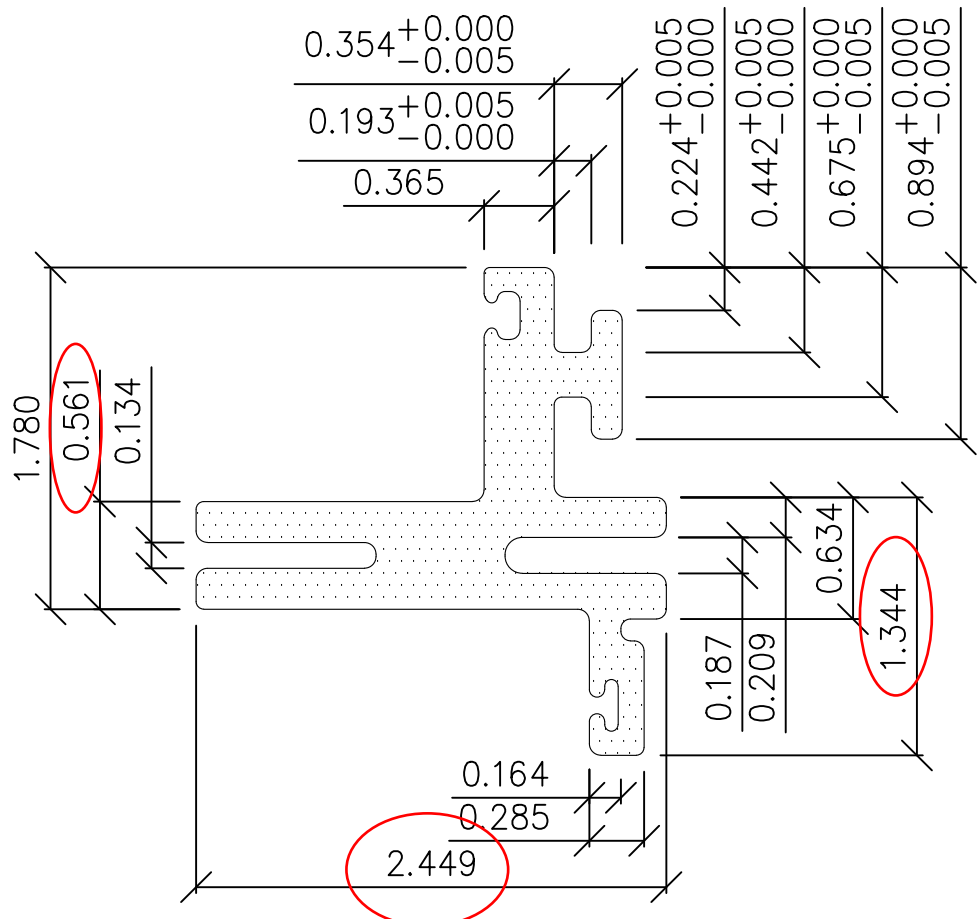
GENERAL NOTES:

- Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
- Bow, twist, and angularity are critical.

EXTRUSION TOLERANCES	
Wall Thickness Tolerances:	
Solid Wall = +.004/- .006	Hollow Wall = +.004/- .006
Angularity Tolerance = 1/2 Commercial	
Dimensional Tolerance = 3/4 Commercial	
UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"	

DIE NO. AND DESCRIPTION:		DRAWN BY:	
#PRP-1014 - UCW Chicken Head		XXX	
PROJECT NAME AND JOB NUMBER:		PROJECT REF DETAIL:	
-		-	
DIE INFO:		2.089 IN ² AREA	19.198 IN ANODIZED PERIMETER
ALLOY		1.886 LB/FT WEIGHT PER FOOT	0.000 IN PAINTED PERIMETER
DIE TYPE:		0.654 IN ⁴ = I _{xx}	SX IN ³ = S _x
<input checked="" type="checkbox"/> SOLID <input type="checkbox"/> HOLLOW		4.482 IN ⁴ = I _{yy}	SY IN ³ = S _y
<input type="checkbox"/> DOUBLE HOLLOW <input type="checkbox"/> OTHER			

DATE:		SHEET TITLE	
XX/XX/XX		DIE PROFILE DWG	
		DRAWING SCALE 1:1	
		DIE NO. PRP-1014	



PROFILE MATCHES VENDOR DWG - 01/27/22 BLB

DECEUNINCK - 10000635

NO.	DATE	BY	REVISIONS
1	4/26/21	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK

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EXTRUSION TOLERANCES

Wall Thickness Tolerances:
 Solid Wall = +.004/-0.006 | Hollow Wall = +.004/-0.006

Angularity Tolerance = 1/2 Commercial
 Dimensional Tolerance = 3/4 Commercial
 UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"

DIE NO. AND DESCRIPTION:
 #PRP-1015 - 3" Male Vertical Stack Insert

PROJECT NAME AND JOB NUMBER:
 -

PROJECT REF DETAIL:
 -

DIE INFO:

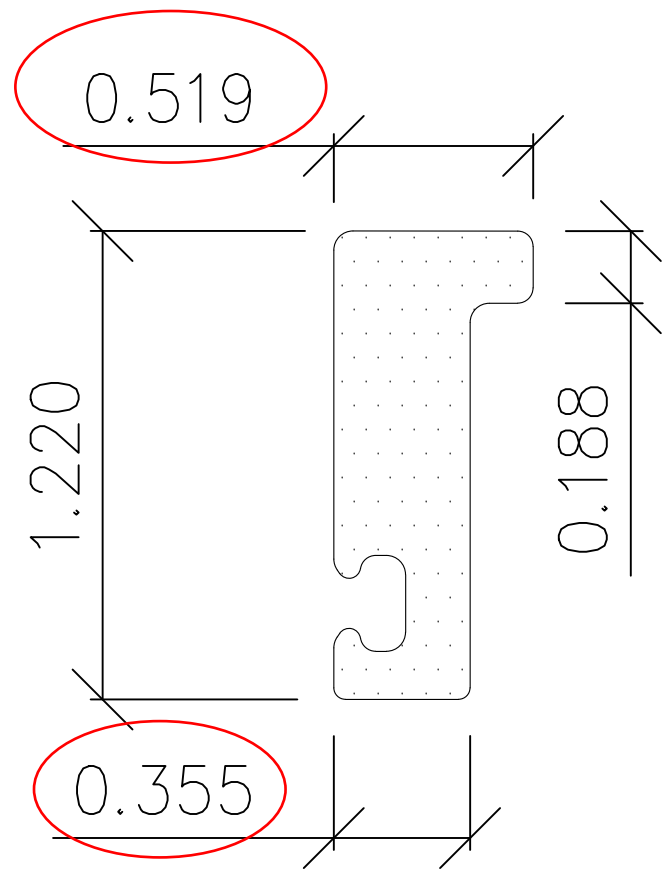
ALLOY: _____

DIE TYPE:
 SOLID HOLLOW
 DOUBLE HOLLOW OTHER

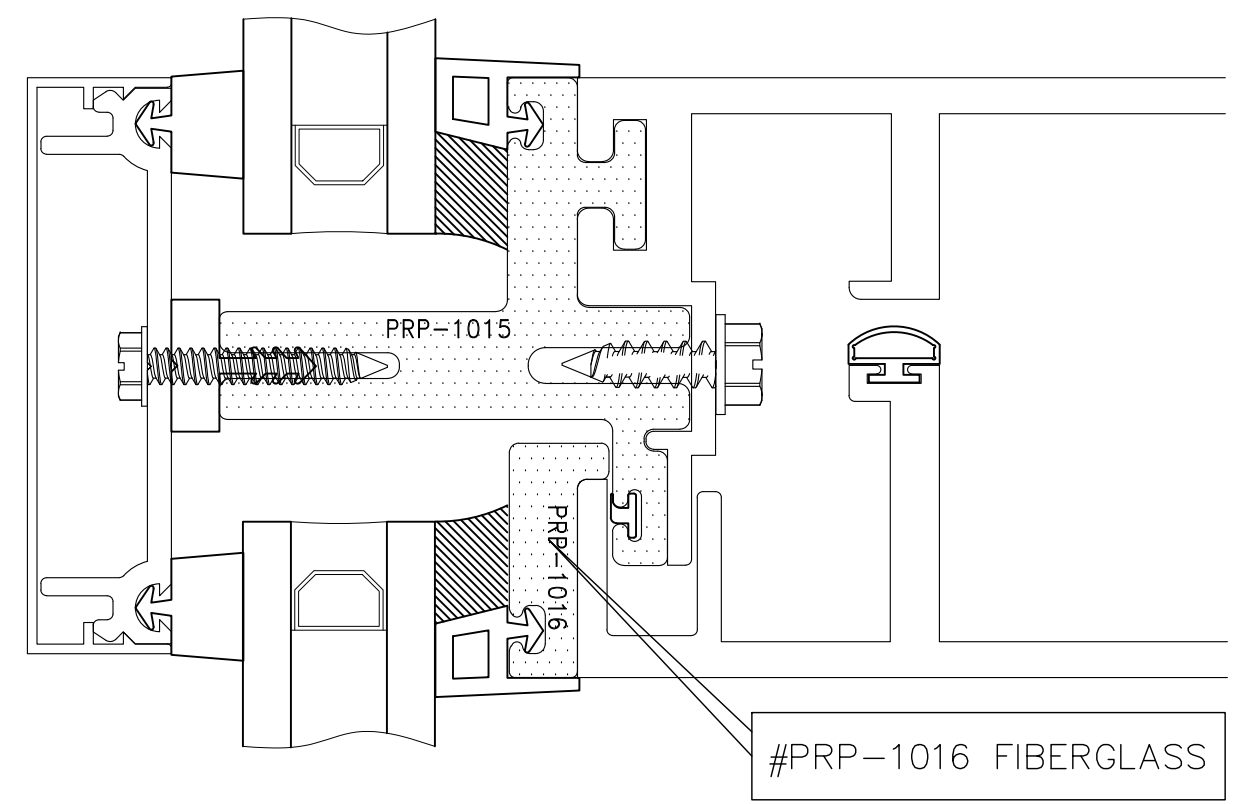
GENERAL NOTES:

- Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
- Bow, twist, and angularity are critical.

DRAWN BY: XXX
DATE: XX/XX/XX
SHEET TITLE DIE PROFILE DWG
DRAWING SCALE 1:1
DIE NO. PRP-1015



ASSEMBLY DETAIL – SCALE 1:1



PROFILE MATCHES VENDOR DWG – 01/27/22 BLB

DECEUNINCK – 10000648

NO.	DATE	BY	REVISIONS
5			
4			
3			
2			
1	4/27/21	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK

1101 NORTH MILL STREET PH: (715) 842-6842
 MERRILL, WISCONSIN 54452
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EXTRUSION TOLERANCES

Wall Thickness Tolerances:
 Solid Wall = +.004/-.006 | Hollow Wall = +.004/-.006

Angularity Tolerance = 1/2 Commercial

Dimensional Tolerance = 3/4 Commercial

UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"

DIE NO. AND DESCRIPTION:
 #PRP-1016 - 3" Female Vertical Stack Insert

PROJECT NAME AND JOB NUMBER:
 -

PROJECT REF DETAIL:
 -

DIE INFO:

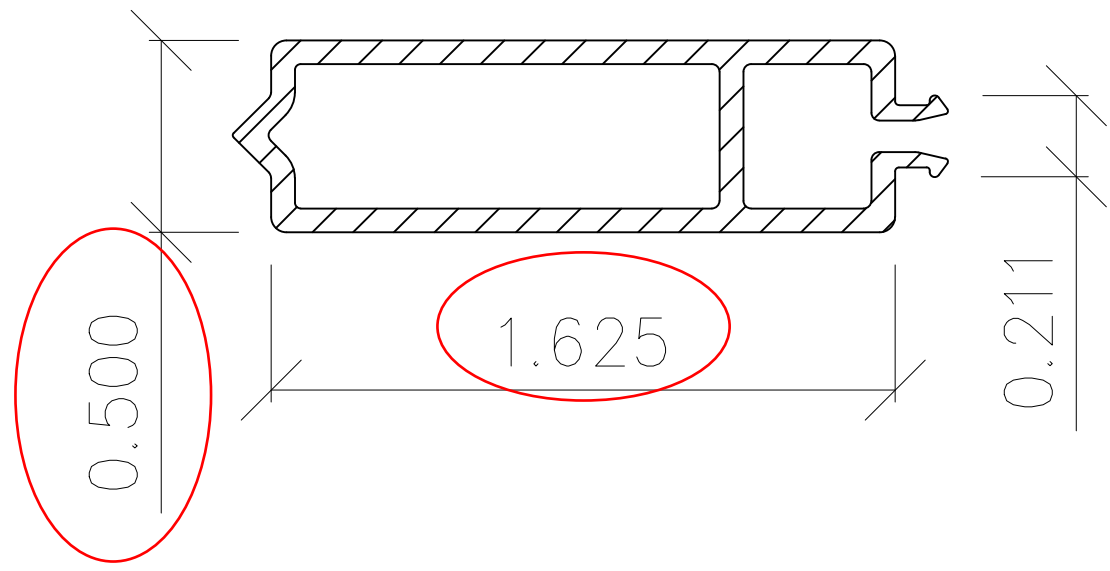
ALLOY: _____

DIE TYPE:
 SOLID HOLLOW
 DOUBLE HOLLOW OTHER


GENERAL NOTES:

- Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
- Bow, twist, and angularity are critical.

DRAWN BY: XXX	
DATE: XX/XX/XX	
SHEET TITLE DIE PROFILE DWG	DRAWING SCALE 2:1
DIE NO. PRP-1016	



NO.	DATE	BY	REVISIONS
5			
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3			
2			
1	5/14/21	NL	REVIEWED, TRANSFERRED TO NEW TITLE BLOCK



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 WWW.FREMARQINNOVATIONS.COM

EXTRUSION TOLERANCES

Wall Thickness Tolerances:
 Solid Wall = +.004/-.006 | Hollow Wall = +.004/-.006

Angularity Tolerance = 1/2 Commercial
 Dimensional Tolerance = 3/4 Commercial
 UNSPECIFIED WALL THICKNESS: 0.125" UNSPECIFIED RADII: 0.015"

GENERAL NOTES:

1) Standard commercial tolerances for extruded rod, bar & shapes apply -unless shown otherwise.
 2) Bow, twist, and angularity are critical.

DIE NO. AND DESCRIPTION: PVC4106 - 1-5/8" PVC Snap-in Pocket Filler		DRAWN BY: SDB	
PROJECT NAME AND JOB NUMBER: -		PROJECT REF DETAIL: -	
DIE INFO: PVC		0.281 IN ² AREA	6.136 IN ANODIZED PERIMETER
DIE TYPE: <input type="checkbox"/> SOLID <input checked="" type="checkbox"/> HOLLOW		- LB/FT WEIGHT PER FOOT	0.000 IN PAINTED PERIMETER
<input type="checkbox"/> DOUBLE HOLLOW <input type="checkbox"/> OTHER		0.0106 IN ⁴ = Ixx	SX IN ³ = Sx
		0.0843 IN ⁴ = Iyy	SY IN ³ = Sy

DATE: 2/23/09	SHEET TITLE DIE
	PROFILE DWG
	DRAWING SCALE 2:1
	DIE NO. PVC-4106