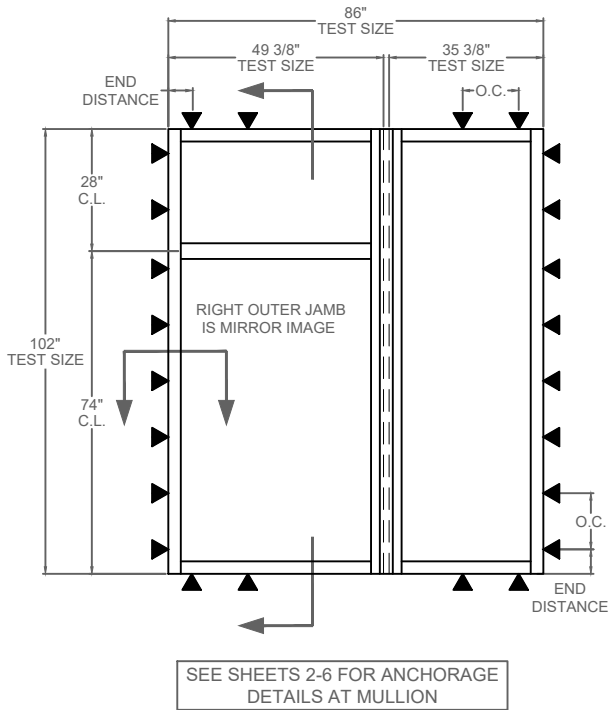
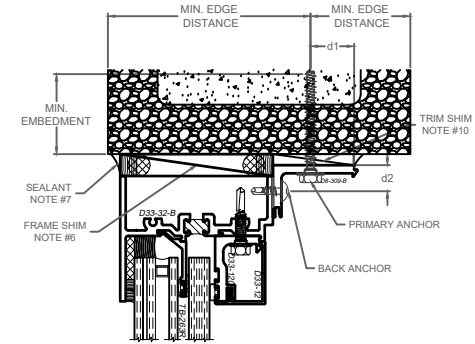
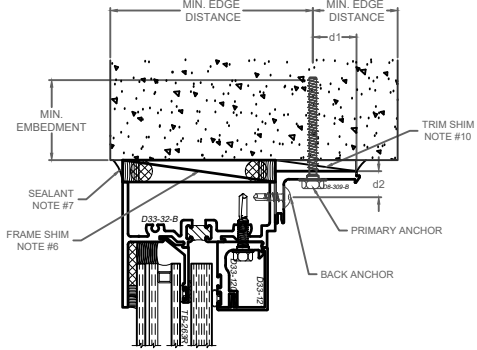
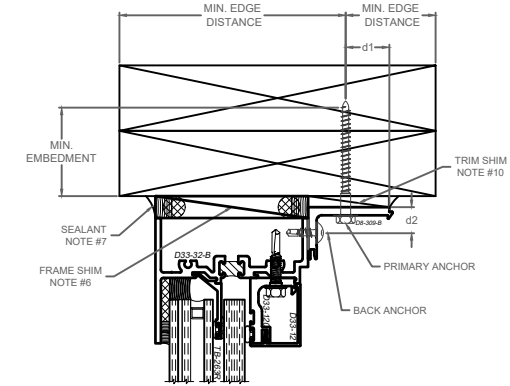


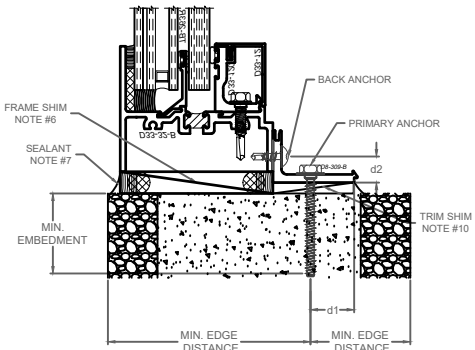
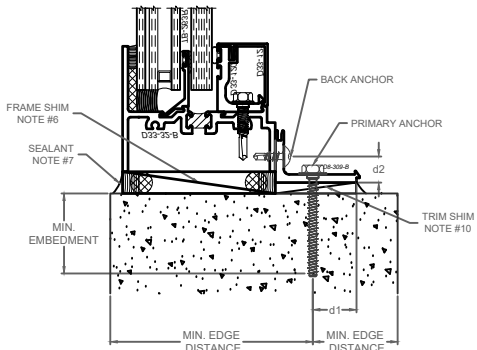
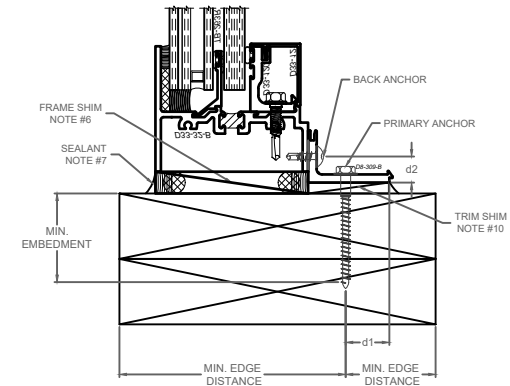
		PRIMARY ANCHOR (TO RO CONDITION)						"BACK" ANCHOR (TRIM TO FRAME)				
SUBSTRATE	LOCATION	HARDWARE (ACCEPTABLE TRADE NAME OR EQUIVALENT)	O.C. SPACING (MAX)	END DISTANCE (MAX)	EMBEDMENT (MIN)	SUBSTRATE EDGE DISTANCE (MIN)	d1 INSTALL DIMENSION	HARDWARE (ACCEPTABLE TRADE NAME OR EQUIVALENT)	O.C. SPACING (MAX)	END DISTANCE (MAX)	EMBEDMENT (MIN)	d2 INSTALL DIMENSION
WOOD SG = 0.42	HEAD	1/4" Ø LAG SCREW, FULL BODY	4"	4"	1-1/2"	1"	7/8"	#1/4-14 or 1/4-20 CONDITION CW OR SAE GR. 5 PAN OR HEX HEAD SCREW	6"	4"	3 THREADS	1/2"
	SILL											
	JAMB											
CONCRETE 3,000 PSI	HEAD	3/8" Ø HILTI KWIK HUS-EZ (KH-EZ)	14"	4"	3-1/4"	3-3/4"	7/8"					
	SILL											
	JAMB											
CONCRETE 4,000 PSI	HEAD	3/8" Ø HILTI KWIK HUS-EZ (KH-EZ)	14"	4"	3-1/4"	3-3/4"	7/8"					
	SILL											
	JAMB											
CMU (GROUT FILLED) f _m = 1,500 PSI	HEAD	3/8" Ø HILTI KWIK HUS-EZ (KH-EZ)	10"	4"	3-1/4"	3-3/4"	7/8"					
	SILL											
	JAMB											



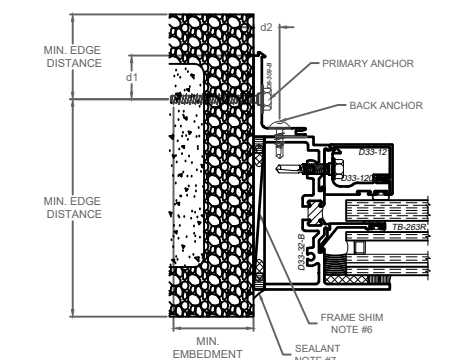
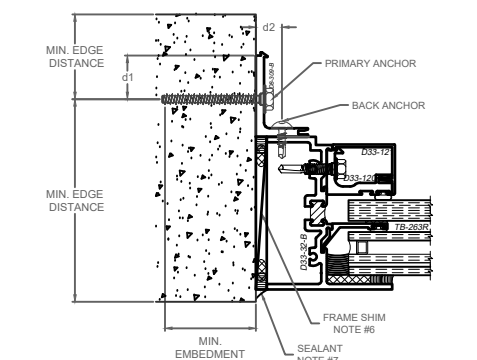
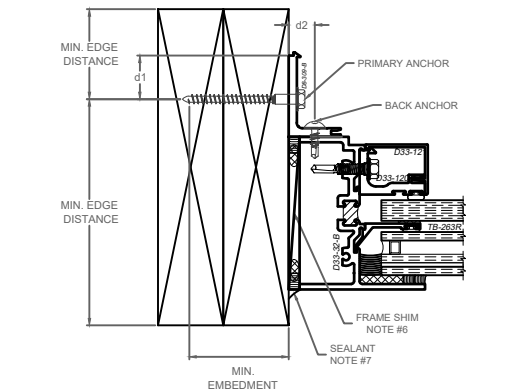
1. Installations depicted comply with:
Florida Building Code - 8th Ed. (FBC 2023)
International Building Code (IBC 2021)
National Design Specifications (ANSI/AWC NDS 2018)
Aluminum Design Manual (ADM 2020)
Safe Rooms for Tornadoes and Hurricanes (FEMA P-361)
ICC/NSSA Standard for the Design and Construction of Storm Shelters (ICC 500-2020)
2. The products depicted in this drawing have been proven for resistance to wind-borne debris for a 15 lb 2x4 @ 100 MPH per ICC 500 and ASTM E1886 test protocols.
- Maximum size: **86" x 102"** Design pressure: **+/- 250 psf**
3. Lag screws shall be used for a wood substrate. Screw materials and dimensions shall meet the requirements of ANSI / ASME Standard B18.2.1. All lag screw conditions must be pre-drilled with hole diameters of 40-70% of the fastener diameter. Wood buck installations are assumed to use 2 X S-P-F (G= 0.42) or denser. Tapered or partial bucks are not allowed.
4. Approved screw anchors shall be used for concrete substrate. Anchor materials and dimensions shall meet the requirements of ICC-ES AC106 - Acceptance Criteria for Predrilled Fasteners (Screw Anchors) in concrete or masonry elements. Anchor embedment shall be as indicated herein. Install per ESR-3027 requirements. Concrete installations are assumed to be at least f_c = 3,000 (or 4,000) psi, normal weight concrete.
5. Approved screw anchors shall be used for CMU substrate. Anchor materials and dimensions shall meet the requirements of ICC-ES AC106 - Acceptance Criteria for Predrilled Fasteners (Screw Anchors) in concrete or masonry elements. Anchor embedment shall be as indicated herein. Install per ESR-3056 requirements. Concrete masonry installations are assumed at least ASTM C90, Type II, Grade N, with f_m = 1,500 psi, and type M or S mortar.
6. Maximum shim thickness between frame and substrate is generally 1/4" (1/2" permitted at head and sill when mullions are indicated). See Note 10 and d2 distance limit. Shims shall be non-compressible and load-bearing type.
7. Drawings depict details necessary to meet structural load requirements, but do not address air infiltration, water penetration, intrusion or thermal performance requirements of the installation. See manufacturer's Installation Instructions for sealing, flashing, drainage and other requirements.
8. Minimum fastener on center spacing to be coordinated with fastener manufacturer's technical data for the expected substrate.
9. All substrate types shall be secured to the building structure to resist all design loads, and shall have widths that exceed the window frame widths.
10. When mullions are indicated, provide full load-bearing shims (1/4" max. thickness) between snap trim and substrate at locations beyond the 32" long anchor plates. These shims match the thickness of the anchor plates and allow for uniform placement of trim.



HEAD



SILL



JAMBS

LEFT JAMBS SHOWN. RIGHT JAMBS ARE MIRROR IMAGES.

Wayne K Helmila

Digitally signed by Wayne K Helmila
DN: CN=Wayne K Helmila,
dnQualifier=A01410C0000018CDB8F4AFB001A652B,
O=Wisconsin, C=US
Date: 2024.08.29 09:40:03-05'00'

RICE
ENGINEERING

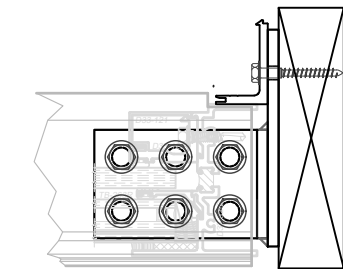
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

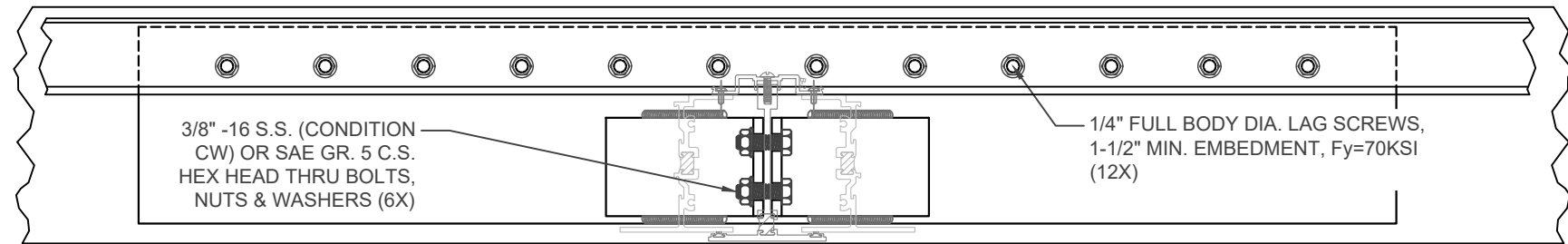


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COA: 9090

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Scale: NONE		Drawn by: B. FOOTE
Winco Window Co. 6200 Maple Ave. St. Louis, MO 63130 PHONE: 314-725-8088		
WINCO Product: 3350 FEMA (SHT. 1 OF 6)		
Installation: ANCHORAGE: SNAP TRIM		
Certification: ICC 500 / FEMA P-361		

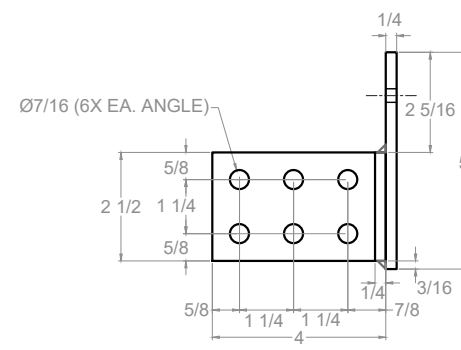


SECTION B-B
(ROTATED 90 DEG)

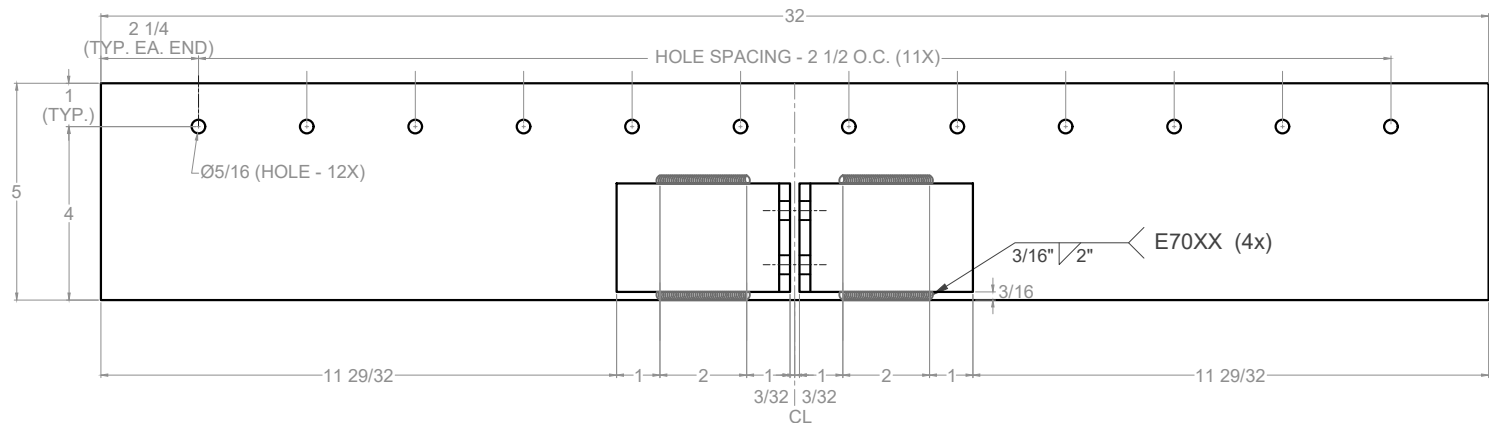


SECTION A-A PLAN VIEW AT SILL
REINFORCING STEEL BARS AT MULLION NOT SHOWN - SEE SHEET 6 FOR DETAILS

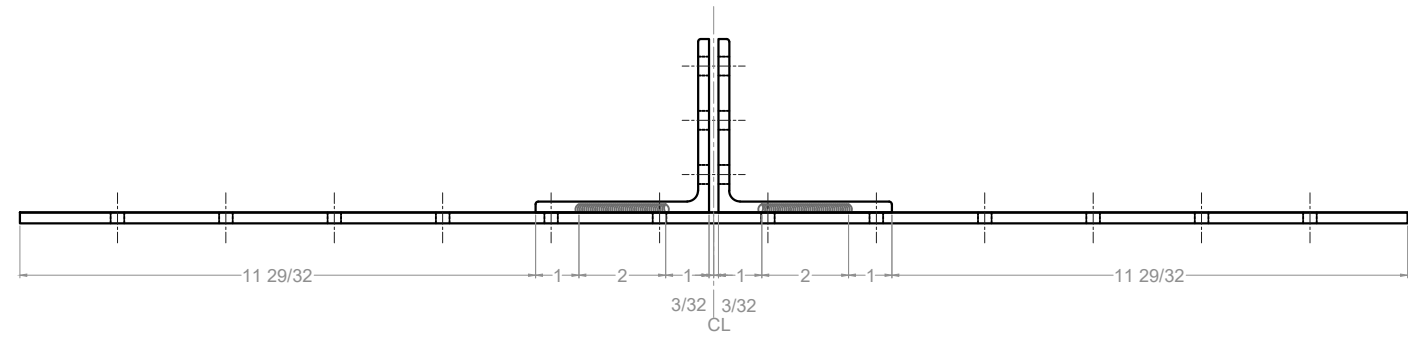
FASTENER DETAILS - WOOD SUBSTRATE & MULLION



SECTION B-B
(ROTATED 90 DEG)



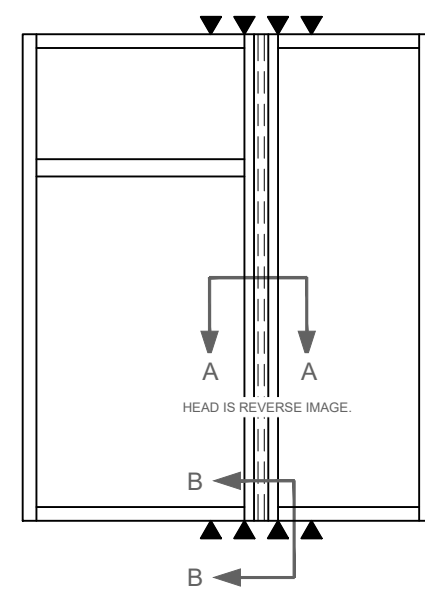
SECTION A-A PLAN VIEW AT SILL



FRONT ELEVATION VIEW AT SILL

ANCHOR ASSEMBLY @ SILL - WOOD SUBSTRATE (HEAD IS REVERSE IMAGE)

BASEPLATES & CLIP ANGLES MATERIAL: A36 CARBON STEEL, 1/4" THK., W/ ZINC PRIMER

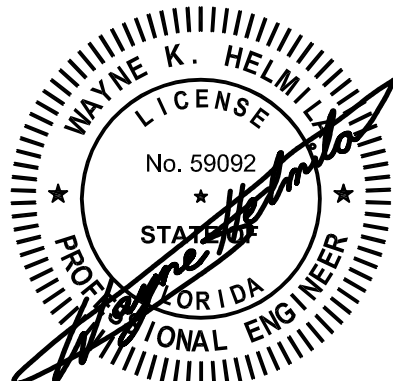


SEE SHEET 1 FOR ANCHORAGE BEYOND
ANCHOR ASSEMBLY PLATES

RICE ENGINEERING

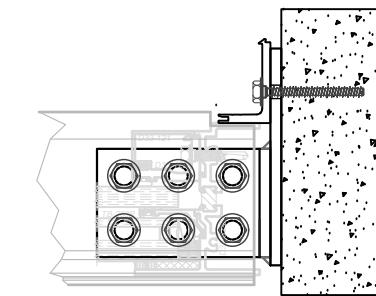
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

1. See Sheet 1 for general notes.
2. See Sheet 3 for 3,000 PSI concrete substrate anchorage details.
3. See Sheet 4 for 4,000 PSI concrete substrate anchorage details.
4. See Sheet 5 for CMU substrate anchorage details.

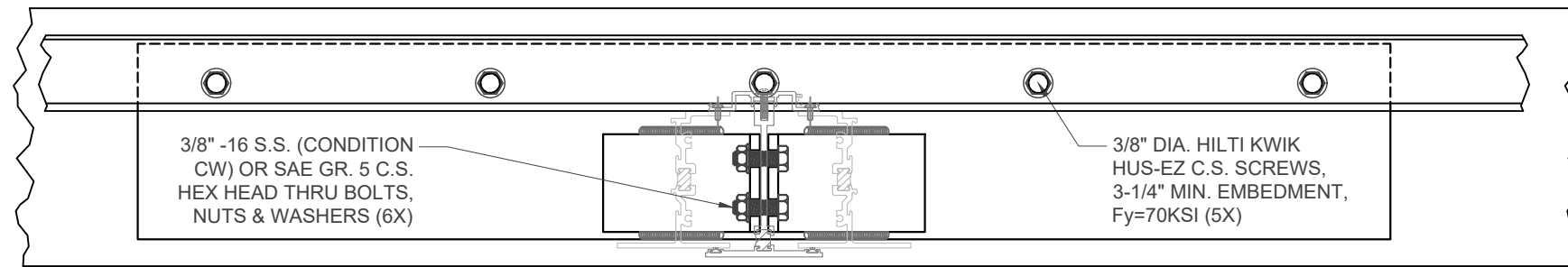


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Scale: NONE		Drawn by: B. FOOTE
Winco Window Co. 6200 Maple Ave. St. Louis, MO 63130 PHONE: 314-725-8088		
WINCO Product: 3350 FEMA (SHT. 2 OF 6)		
Installation: ANCHORAGE AROUND MULLION		
Certification: ICC 500 / FEMA P-361		

08/29/2024
COA: 9090

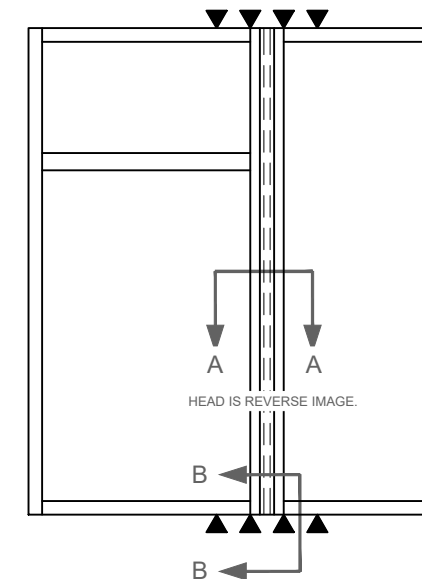


SECTION B-B
(ROTATED 90 DEG)

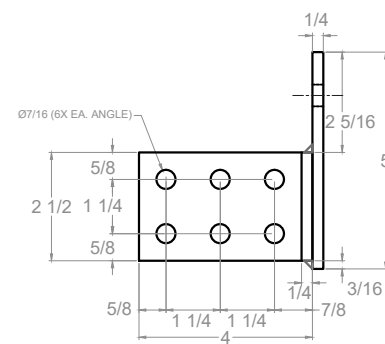


SECTION A-A PLAN VIEW AT SILL
REINFORCING STEEL BARS AT MULLION NOT SHOWN - SEE SHEET 6 FOR DETAILS

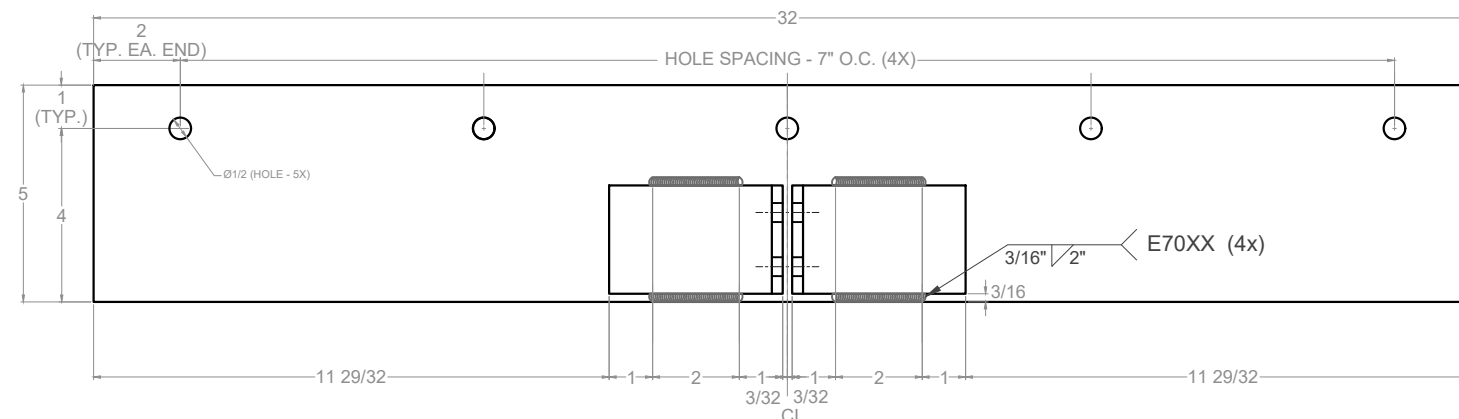
FASTENER DETAILS - 3,000 PSI CONCRETE SUBSTRATE & MULLION



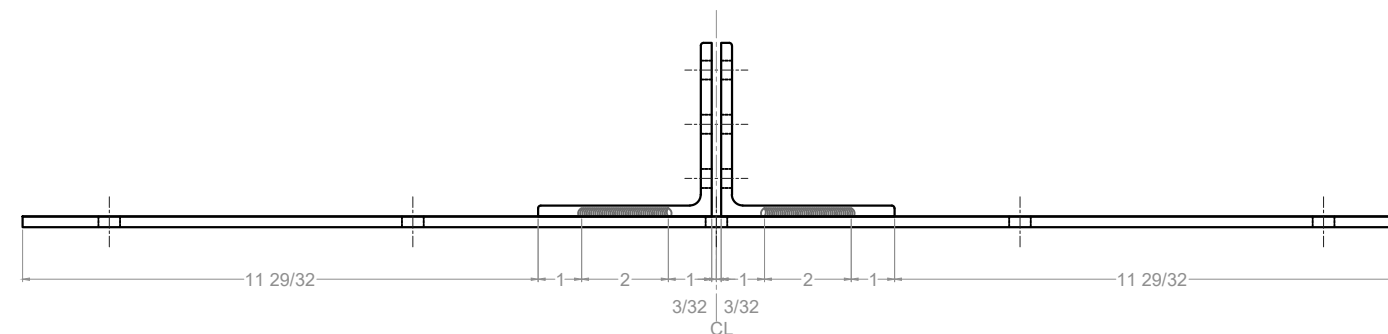
SEE SHEET 1 FOR ANCHORAGE BEYOND
ANCHOR ASSEMBLY PLATES



SECTION B-B
(ROTATED 90 DEG)



SECTION A-A PLAN VIEW AT SILL



FRONT ELEVATION VIEW AT SILL

ANCHOR ASSEMBLY @ SILL - 3,000 PSI CONCRETE SUBSTRATE (HEAD IS REVERSE IMAGE)

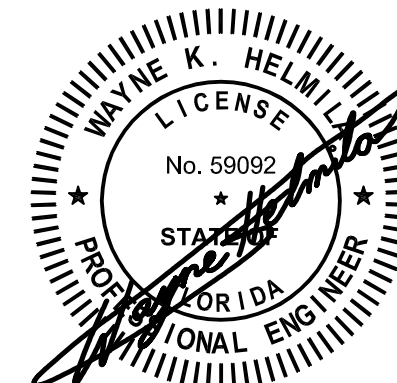
BASEPLATES & CLIP ANGLES MATERIAL: A36 CARBON STEEL, 1/4" THK., W/ ZINC PRIMER

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Luxemburg, WI 54217
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Fax: (920) 617-1100
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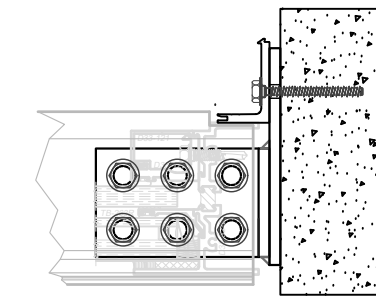
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

1. See Sheet 1 for general notes.
2. See Sheet 2 for wood substrate anchorage details.
3. See Sheet 4 for 4,000 PSI concrete substrate anchorage details.
4. See Sheet 5 for CMU substrate anchorage details.

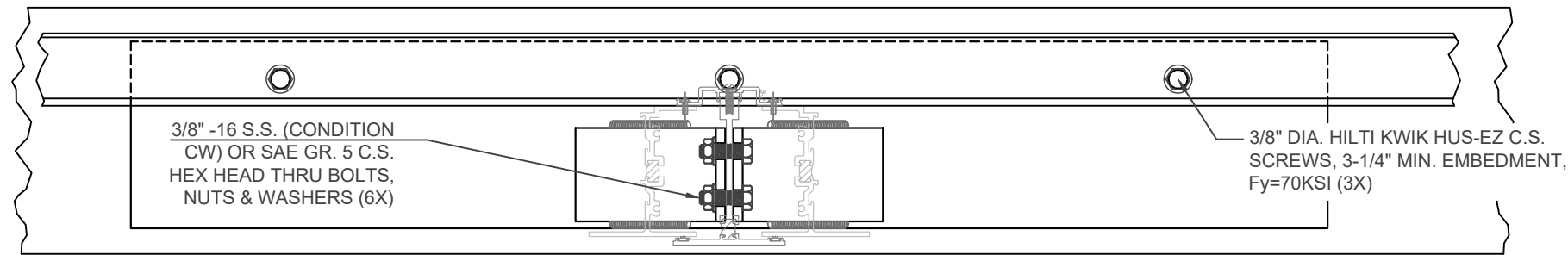


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Winco Window Co.		
6200 Maple Ave.		
St. Louis, MO 63130		
PHONE: 314-725-8088		
WINCO Product: 3350 FEMA (SHT. 3 OF 6)		
Installation: ANCHORAGE AROUND MULLION		
Certification: ICC 500 / FEMA P-361		

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COA: 9090

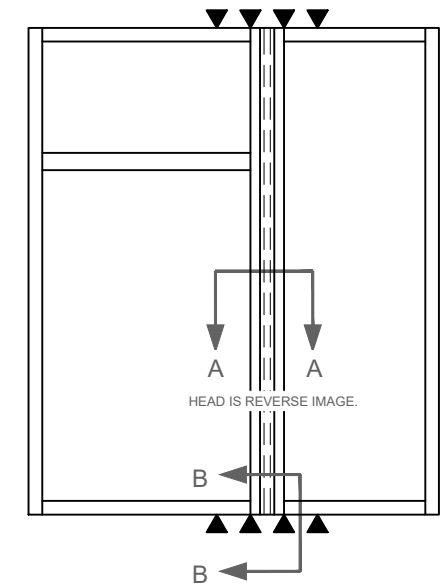


SECTION B-B
(ROTATED 90 DEG)

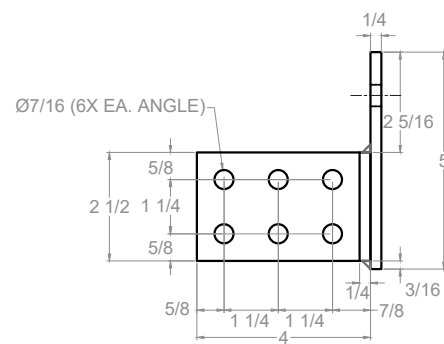


SECTION A-A PLAN VIEW AT SILL
REINFORCING STEEL BARS AT MULLION NOT SHOWN - SEE SHEET 6 FOR DETAILS

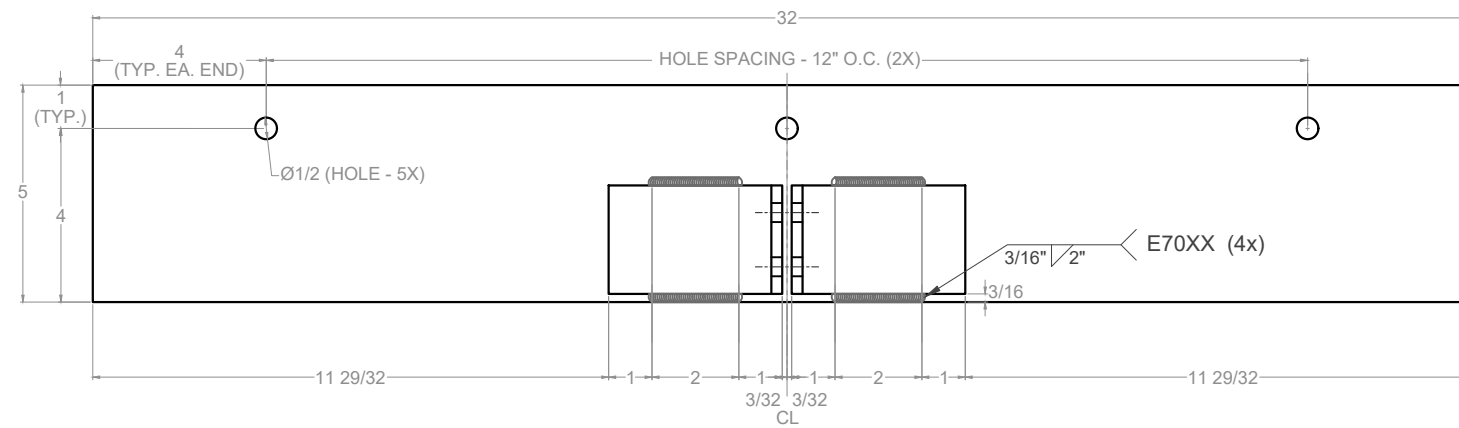
FASTENER DETAILS - 4,000 PSI CONCRETE SUBSTRATE & MULLION



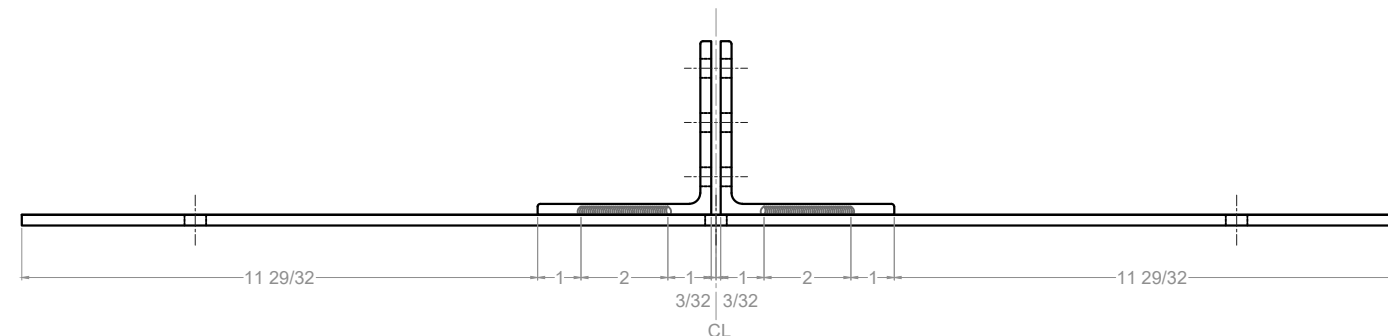
SEE SHEET 1 FOR ANCHORAGE BEYOND
ANCHOR ASSEMBLY PLATES



SECTION B-B
(ROTATED 90 DEG)



SECTION A-A PLAN VIEW AT SILL



FRONT ELEVATION VIEW AT SILL

ANCHOR ASSEMBLY @ SILL - 4,000 PSI CONCRETE SUBSTRATE (HEAD IS REVERSE IMAGE)

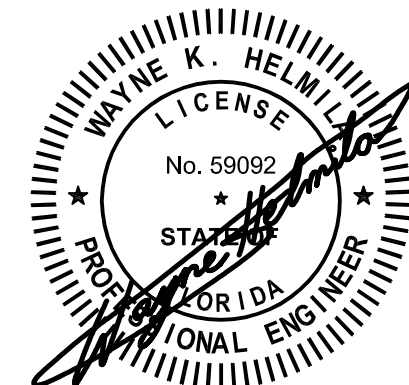
BASEPLATES & CLIP ANGLES MATERIAL: A36 CARBON STEEL, 1/4" THK., W/ ZINC PRIMER

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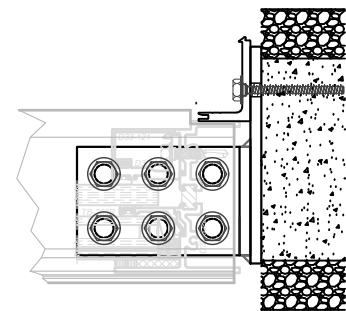
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

1. See Sheet 1 for general notes.
2. See Sheet 2 for wood substrate anchorage details.
3. See Sheet 3 for 3,000 PSI concrete substrate anchorage details.
4. See Sheet 5 for CMU substrate anchorage details.

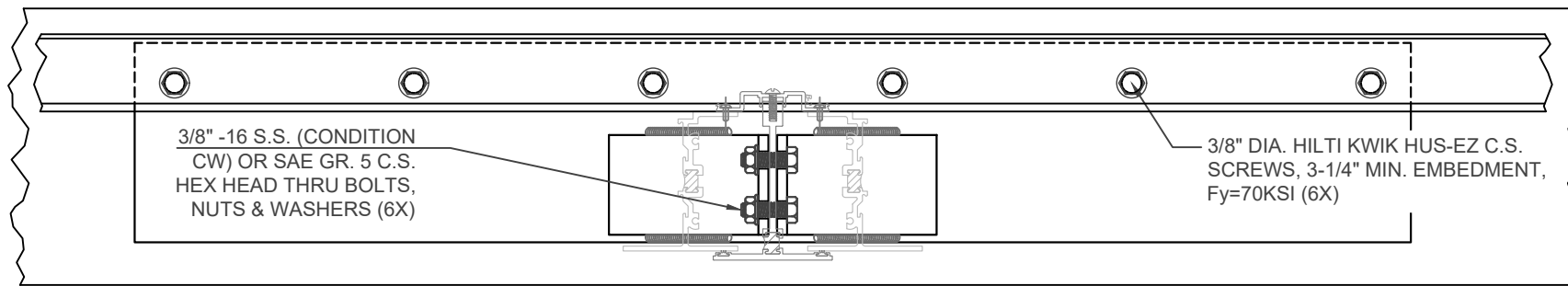


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Winco Window Co.		
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St. Louis, MO 63130		
PHONE: 314-725-8088		
WINCO Product: 3350 FEMA (SHT. 4 OF 6)		
Installation: ANCHORAGE AROUND MULLION		
Certification: ICC 500 / FEMA P-361		

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COA: 9090

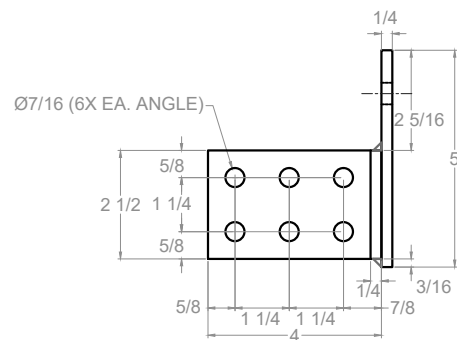


SECTION B-B
(ROTATED 90 DEG)

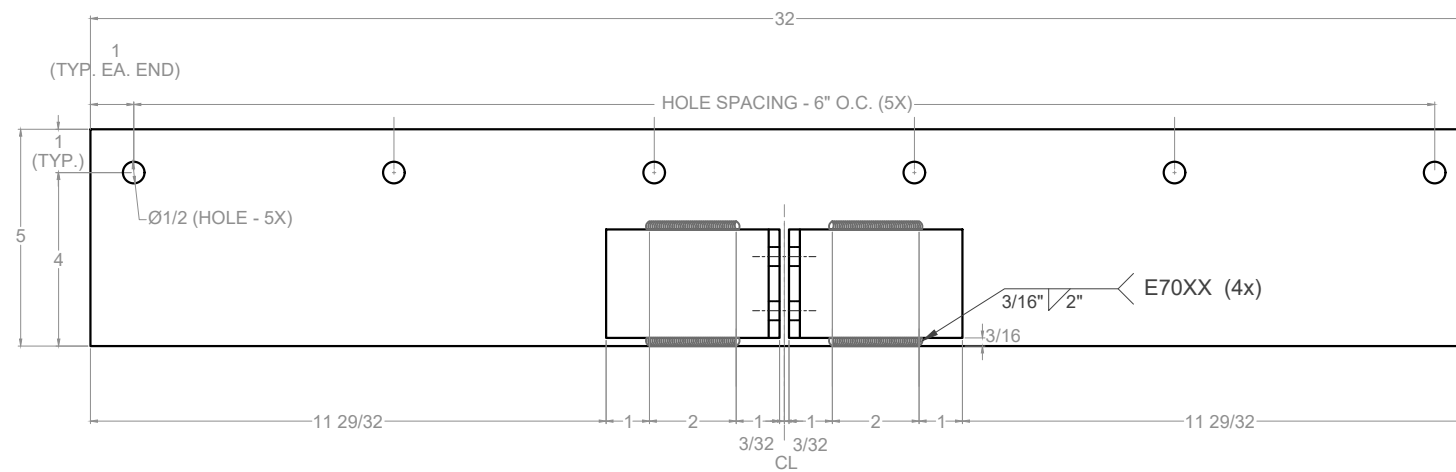


SECTION A-A PLAN VIEW AT SILL
REINFORCING STEEL BARS AT MULLION NOT SHOWN - SEE SHEET 6 FOR DETAILS

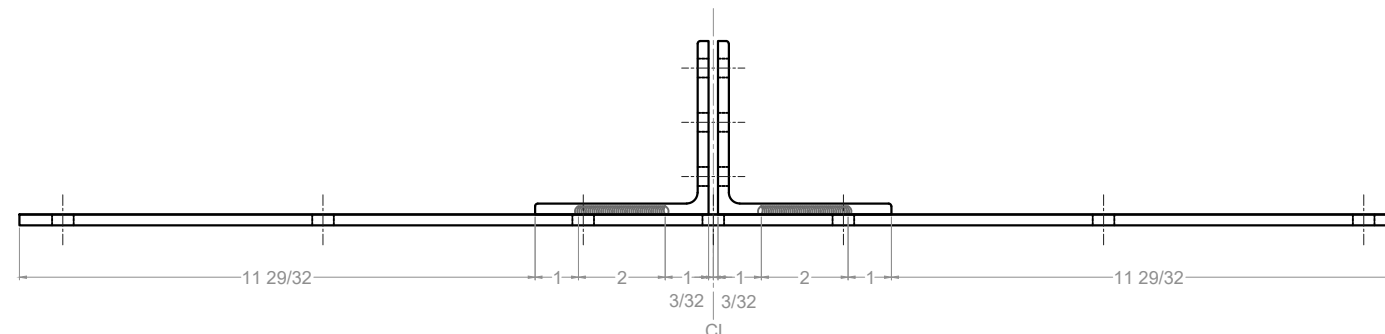
FASTENER DETAILS - CMU SUBSTRATE & MULLION



SECTION B-B
(ROTATED 90 DEG)



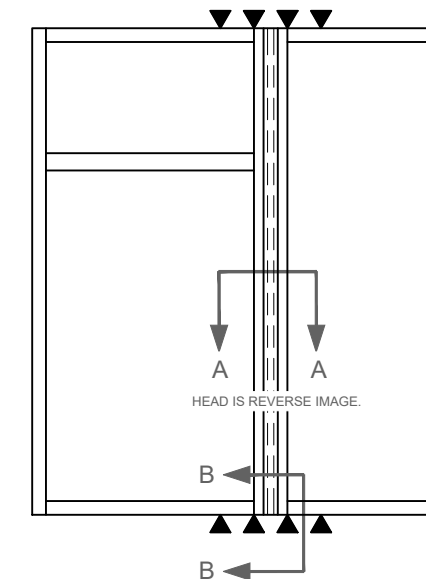
SECTION A-A PLAN VIEW AT SILL



FRONT ELEVATION VIEW AT SILL

ANCHOR ASSEMBLY @ SILL - CMU SUBSTRATE (HEAD IS REVERSE IMAGE)

BASEPLATES & CLIP ANGLES MATERIAL: A36 CARBON STEEL, 1/4" THK., W/ ZINC PRIMER



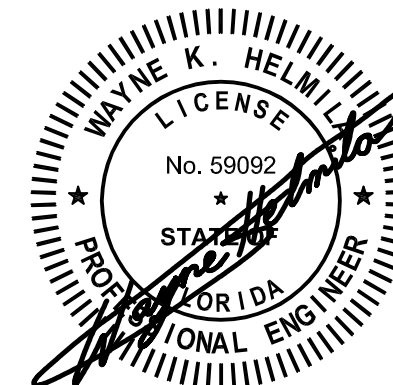
SEE SHEET 1 FOR ANCHORAGE BEYOND
ANCHOR ASSEMBLY PLATES

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Certificate of Authorization: #9090
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Registration No: 59092

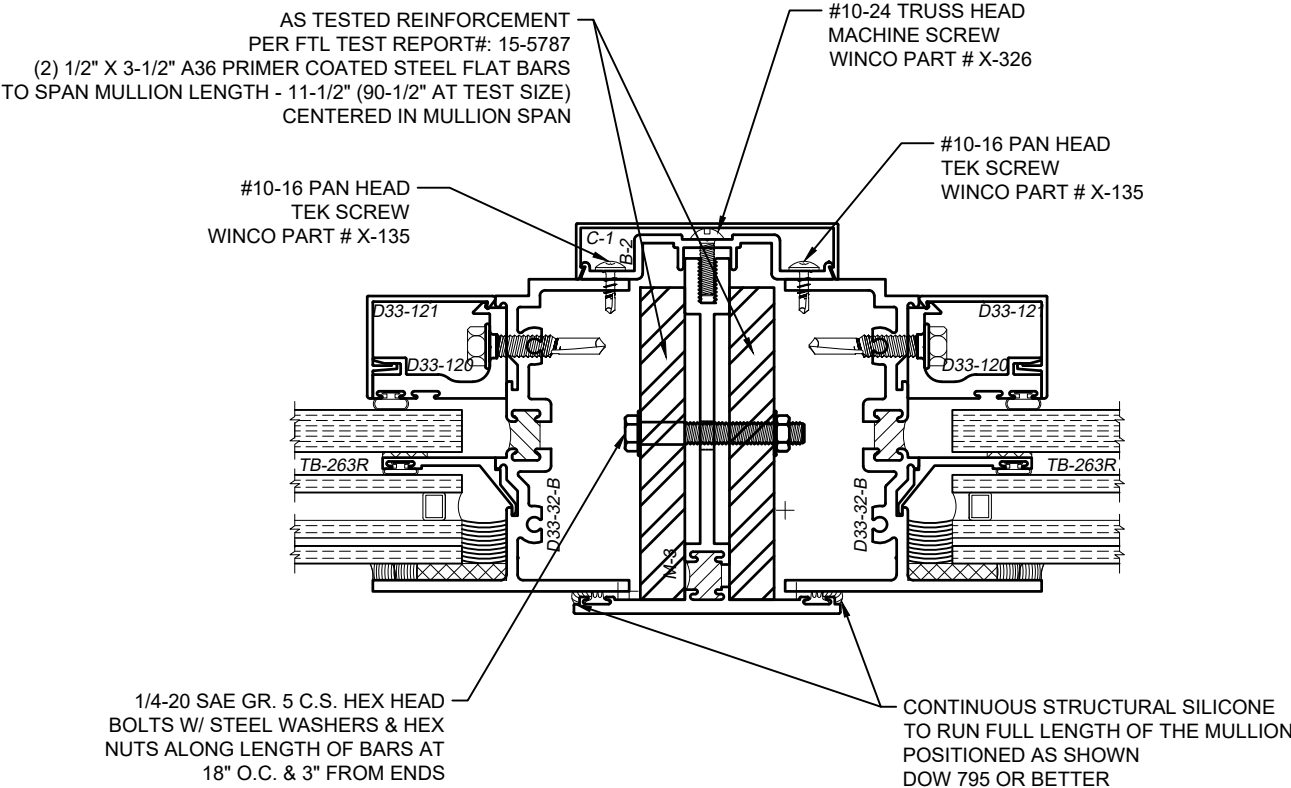
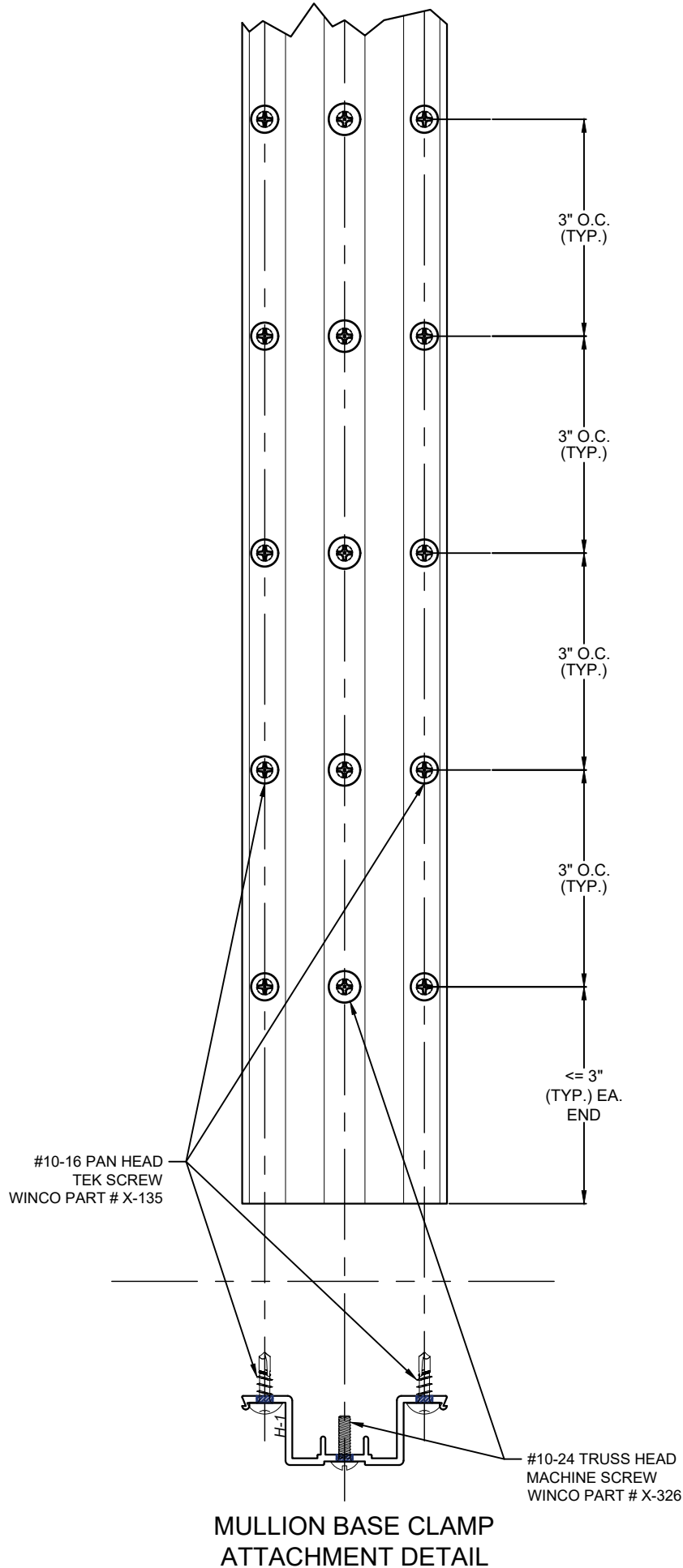
1. See Sheet 1 for general notes.
2. See Sheet 2 for wood substrate anchorage details.
3. See Sheet 3 for 3,000 PSI concrete substrate anchorage details.
4. See Sheet 4 for 4,000 PSI concrete substrate anchorage details.



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Winco Window Co. 6200 Maple Ave. St. Louis, MO 63130 PHONE: 314-725-8088		
WINCO Product: 3350 FEMA (SHT. 5 OF 6)		
Installation: ANCHORAGE AROUND MULLION		
Certification: ICC 500 / FEMA P-361		

08/29/2024
COA: 9090

1. SEE SHEET 1 FOR GENERAL NOTES.
2. BASE CLAMP FASTENER PATTERN
PER FTL TEST REPORT #: 15-5787



STEEL REINFORCEMENT & MISC. DETAILS
AT MULLION

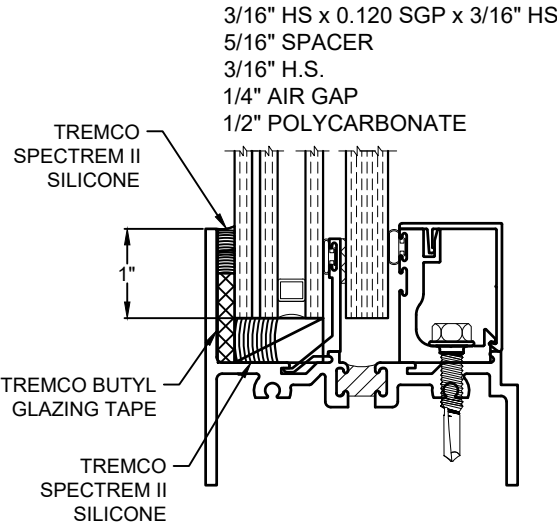
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Phone: (920) 617-1042
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Wayne K. Helmila
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COA: 9090

GLASS MAKE-UP (EXTERIOR TO INTERIOR)



GLAZING DETAIL

Rev.	Description	Date
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Scale: NONE		Drawn by: B. FOOTE
Winco Window Co.		
6200 Maple Ave. St. Louis, MO 63130		
PHONE: 314-725-8088		
WINCO Product: 3350 FEMA (SHT. 6 OF 6)		
Installation: MULLION AND GLAZING DETAILS		
Certification: ICC 500 / FEMA P-361		