

SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM FOR USE IN HURRICANE ZONES REQUIRING LARGE & SMALL MISSILE IMPACT PROTECTION. (WET & DRY GLAZED)

GENERAL NOTES:

1. SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE, (I.B.C).

DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1609 OF THE INTERNATIONAL BUILDING CODE, FOR A BASIC WIND SPEED AS REQUIRED BY THE JURISDICTION WHERE PRODUCT WILL BE INSTALLED, AND FOR A DIRECTIONALITY FACTOR $K_d = 0.85$, IN ACCORDANCE WITH ASCE 7-16 STANDARD, AND SHALL NOT EXCEED THE DESIGN PRESSURE RATING INDICATED ON NOTE 2.

IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-16 SHALL BE FIRST REDUCED TO A.S.D. DESIGN WIND LOADS BY MULTIPLYING THEM BY 0.6 IN ORDER TO COMPARE THESE W/MAX. (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON THIS SHEET.

IN ORDER TO VERIFY THAT ANCHORS ON THIS P.E.D., AS TESTED, WERE NOT OVERSTRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. FASTENERS SPACING TO WOOD HAS BEEN DETERMINED IN ACCORDANCE WITH N.D.S. 2018.

THIS PRODUCT'S ADEQUACY FOR IMPACT AND CYCLIC RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1609.2 OF THE ABOVE MENTIONED CODE AS PER FLORIDA BUILDING CODE HIGH VELOCITY HURRICANE ZONE PROTOCOLS TAS-201, TAS-202, TAS-203, PER ARCHITECTURAL TESTING, INC. LABORATORY REPORTS # 74785.02-401-18, 89818.01-401-18, 86107.01-401-18, 86111.01-401-18, A1052.01-801-18, AND AS PER SUBMITTED STRUCTURAL CALCULATIONS PERFORMED AS PER SECTION 1604 OF THE ABOVE MENTIONED BUILDING CODE.
2. MAXIMUM DESIGN PRESSURE RATING FOR THIS WINDOW WALL SYSTEM SHALL BE AS SHOWN ON SHEETS 6, 7, 8, 9A, 13, 19 AND 20.
3. THIS PRODUCT WILL NOT REQUIRE A HURRICANE PROTECTION DEVICE.
4. THIS PRODUCT IS APPROVED FOR AIR/WATER INFILTRATION (SEE SCHEDULE ON SHEET 7).
5. SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS SHALL COMPLY WITH SECTION 2406 OF THE INTERNATIONAL BUILDING CODE.
6. PROVIDE 1 3/8" MAX. LOAD BEARING SHIM (TYP.), WHEN ALLOWED BY THIS DRAWING.
7. WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE BUILDING STRUCTURE. WOOD BUCKS MUST BE SOUTHERN PINE, $G = 0.55$.
8. REMAINING COMPONENTS FOR THIS WINDOW WALL SYSTEM SHALL BE AS INDICATED ON BILL OF MATERIALS, SHEET 3 OF THIS DRAWING.
9. ALL ALUMINUM EXTRUSIONS IN CONTACT WITH DISSIMILAR MATERIALS SHALL COMPLY WITH SECTION III-6 OF THE ALUMINUM DESIGN MANUAL 2015 EDITION.
10. ALL SCREWS AND BOLTS INSTALLED AT SEAWARD AREAS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES AND MEET ASTM A167, OR HOT DIPPED GALVANIZED (AFTER FABRICATION) CARBON STEEL AS PER ASTM A123 OR ASTM A153, OR HOT DIPPED GALVANIZED OR GALVANNEALED (PRIOR TO FABRICATION) AND MEET ASTM A653 WITH 50 ksi YIELD STRENGTH AND 90 ksi TENSILE STRENGTH.

ALL SCREWS AND BOLTS INSTALLED AT INLAND AREAS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES AND MEET ASTM A167, OR HOT DIPPED GALVANIZED (AFTER FABRICATION) CARBON STEEL AS PER ASTM A123 OR ASTM A153, OR HOT DIPPED GALVANIZED OR GALVANNEALED (PRIOR TO FABRICATION) AND MEET ASTM A653; HOT DIPPED GALVANIZED OR ELECTRO GALVANIZED PER ASTM A641, MECHANICALLY DEPOSITED ZINC COATING PER ASTM B695 OR ELECTRO DEPOSITED ZINC COATINGS PER ASTM BL33.
11. SHOP DRAWINGS PREPARED BASED ON THIS T.D.I REPORT AND TAKING INTO ACCOUNT THE SPECIFIC JOB CONDITIONS, SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AS PART OF THE PERMIT DOCUMENTS.
12. SUBSTRATE MATERIAL NOTED ON THIS DRAWING AS EXISTING BY OTHERS, POURED CONCRETE, GROUT FILLED CONCRETE BLOCK AND WOOD MUST WITHSTAND THE LOADS IMPOSED BY THIS PRODUCT.
13. THIS PRODUCT'S INSTALLATION SHALL COMPLY WITH ALL SPECS INDICATED IN THIS DRAWING PLUS ANY BUILDING AND ZONING REGULATIONS PROVIDED BY THE JURISDICTION WHERE PERMIT IS APPLIED TO.
14. (a) THIS P.E.D. PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; i.e. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.

(b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT, BASED ON THIS P.E.D., PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.

- (c) THIS P.E.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
 - (d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A PROFESSIONAL ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D.
 - (e) ORIGINAL P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.
15. PRODUCT MANUFACTURE'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT PRODUCT IN ACCORDANCE WITH TEXAS DEPARTMENT OF INSURANCE REQUIREMENTS. ONE LABEL SHALL BE PLACED FOR EVERY OPENING.


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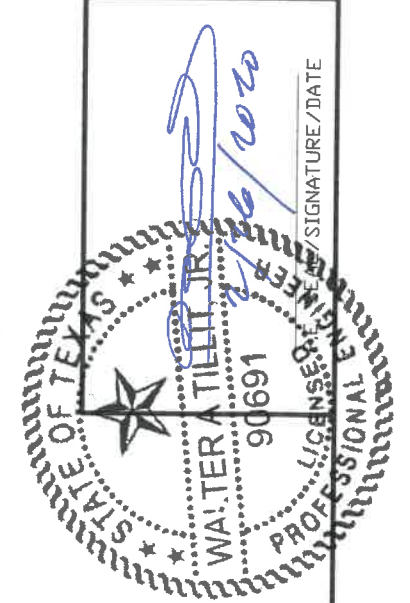
- SHEET 1: GENERAL NOTES, INDEX AND INSTRUCTIONS.
 SHEET 2: COMPONENTS.
 SHEET 3: BILL OF MATERIALS.
 SHEET 4: ISOMETRIC ELEVATION FOR FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM.
 SHEET 5: TYPICAL GLAZING DETAILS & GLASS SCHEDULE.
 SHEET 6: MAXIMUM DESIGN PRESSURE RATING SCHEDULE FOR A GIVEN GLASS TYPE AND GLASS PANEL DIMENSIONS.
 SHEET 7: MAXIMUM DESIGN PRESSURE RATING FOR STANDARD AND CORNER MULLIONS.
 SHEET 8: MAXIMUM DESIGN PRESSURE RATING FOR MULLION CONNECTIONS W/ 4" MIN. E.D. EXCEPT AS NOTED.
 SHEET 8A: MAXIMUM DESIGN PRESSURE RATING FOR MULLION CONNECTIONS W/ 2 3/4" MIN. E.D.. EXCEPT AS NOTED.
 SHEET 9: SILL AND HEAD CONNECTIONS DETAILS FOR STANDARD MULLIONS AND JAMBS (PLAN VIEWS).
 SHEET 10: SILL AND HEAD CONNECTION DETAILS FOR CORNER MULLIONS (PLAN VIEWS).
 SHEET 11: HEAD CONNECTION DETAILS (SIDE VIEW).
 SHEET 12: HEAD CONNECTION DETAILS (SIDE VIEW) (CONTINUED).
 SHEET 13: HORIZONTAL CONNECTION DETAIL (SIDE VIEW), WINDOW WALL ELEVATION W/ HORIZONTAL, MAXIMUM DESIGN PRESSURE RATING FOR HORIZONTAL AND MAXIMUM DESIGN PRESSURE RATING FOR JAMBS W/O ANCHORAGE.
 SHEET 14: SILL CONNECTION DETAILS (SIDE VIEWS).
 SHEET 15: SILL CONNECTION DETAILS (SIDE VIEWS) (CONTINUED).
 SHEET 16: SILL CONNECTION DETAILS (SIDE VIEWS) (CONTINUED).
 SHEET 17: HORIZONTAL SECTIONS AT STANDARD AND CORNER MULLION.
 SHEET 18: HORIZONTAL SECTIONS AT JAMBS.
 SHEET 19: MAXIMUM DESIGN PRESSURE RATING FOR JAMBS FASTENED W/ 3/8"Ø FASTENERS.
 SHEET 20: MAXIMUM DESIGN PRESSURE RATING FOR JAMBS FASTENED W/ 1/2"Ø FASTENERS.
 SHEET 21: CORNER DETAIL AT JAMB.

INSTRUCTIONS:

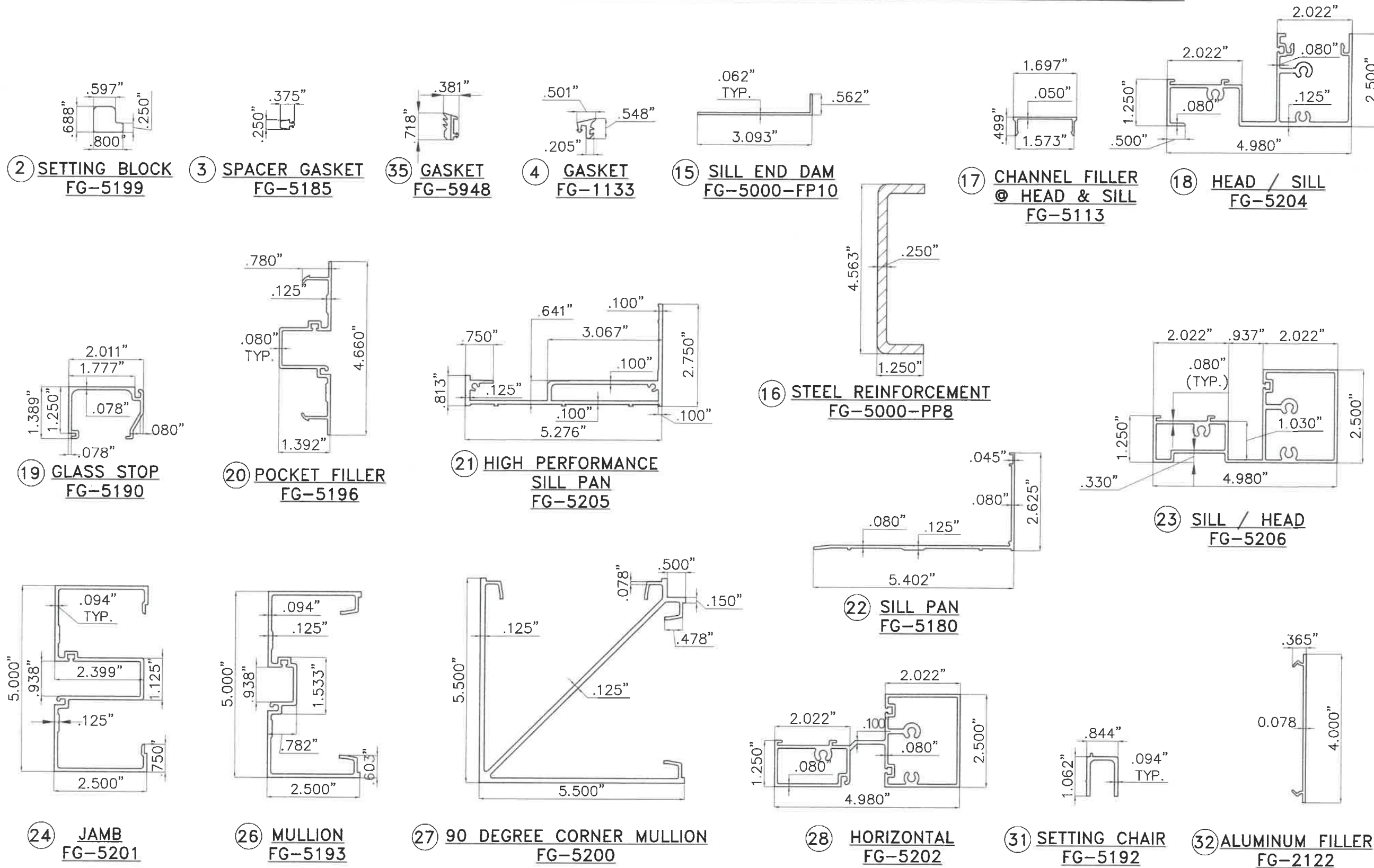
- STEP 1:** DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BUILDING HEIGHT, WIND ZONE, USING APPLICABLE ASCE 7 STANDARDS.
- STEP 2:** GO TO SCHEDULE ON SHEET 6 TO DETERMINE MAXIMUM DESIGN PRESSURE RATING (psf) OF DESIRED GLASS SIZE BASED ON GLASS PANEL DIMENSIONS.
- STEP 3:** DETERMINE MAXIMUM MULLION SPAN "L"(FT) FOR A GIVEN MULLION EFFECTIVE SPACING "b", ON SCHEDULE ON SHEET 7, AND SELECT ANCHOR OPTION W/ DESIGN PRESSURE RATING EQUAL OR GREATER THAN DESIGN LOAD SPECIFIED IN STEP 1 USING SCHEDULES ON SHEETS 8 AND 8A.
- STEP 4:** USE SCHEDULES ON SHEETS 19 AND 20, TO SELECT JAMB ANCHOR OPTION W/ ANCHORAGE OR SHEET 13 FOR W/O ANCHORAGE WITH DESIGN PRESSURE RATING EQUAL OR GREATER THAN DESIGN LOAD SPECIFIED IN STEP 1.
- STEP 5:** USE SCHEDULE ON SHEET 13, TO VERIFY MAXIMUM DESIGN PRESSURE RATING OF HORIZONTALS (IF USED), TO BE EQUAL OR GREATER THAN DESIGN LOAD SPECIFIED IN STEP 1.
- STEP 6:** THE LOWEST VALUE OF DESIGN PRESSURE RATING RESULTING FROM STEPS 2, 3, 4 AND 5 SHALL APPLY TO THE ENTIRE SYSTEM.

THIS DRAWING SHALL ONLY BE USED TO OBTAIN PERMITS UNDER THE TEXAS DEPARTMENT OF INSURANCE JURISDICTION

TEXAS DEPARTMENT OF INSURANCE - 2018																			
SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS  Oldcastle BuildingEnvelope 805 AIRPORT RD. TERRELL, TX 75160 www.OldcastleBE.com Phone 800-869-4567	M.P. DRAWN BY: 2/3/2020 DATE: 20-015 DRAWING No. SHEET 1 OF 21																		
WALTER A. TILLIT JR. P.E. PROFESSIONAL ENGINEER 6355 N.W. 36th. STREET, STE. 305 VIRGINIA GARDENS, FL 33166 Phone : (305) 871-1530 Fax : (305) 871-1531 TEXAS LIC. # 90691 FIRM REGISTRATION # F-13790	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV. NO</th> <th>DESCRIPTION</th> <th>DATE</th> <th>REV. NO</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>OLD</td> <td>14-077</td> <td>2</td> <td>2/3/2020</td> <td>3</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td>3</td> <td></td> <td>4</td> </tr> </tbody> </table>	REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE	1	OLD	14-077	2	2/3/2020	3	2			3		4
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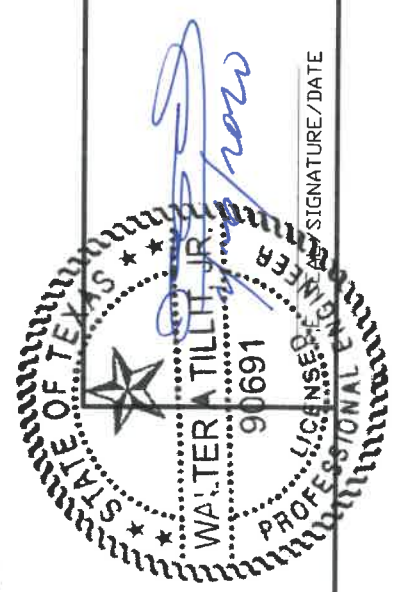


FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM COMPONENTS: WET & DRY GLAZED



TEXAS DEPARTMENT OF INSURANCE - 2018		M.P. DRAWN BY:	2/3/2020
SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS		DATE:	2/3/2020
Oldcastle BuildingEnvelope® 803 AIRPORT RD. TERRELL, TX 75160 www.OldcastleBE.com Phone 800-869-4567		DATE	
REV. NO.	DESCRIPTION	DATE	
1	OLD 14-077	2/3/2020	3
2			4

WALTER A. TILLIT JR. P.E.
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FIRM REGISTRATION # F-13790



SIGNATURE/DATE

BILL OF MATERIALS

ITEM No.	PART NUMBER	DESCRIPTION	DIMENSIONS	MATERIAL	MANUFACTURER	NOTES
1.	FS-54	PHILLIPS FLAT HEAD MACHINE SCREW UC	#10-24 x 3/8"	STEEL	VARIES	ZINC COATED, PER ASTM B-633.
2.	FG-5199	SETTING BLOCK	.800" x .688" x 4.00"	EPDM	EPG	
3.	FG-5185	SPACER GASKET	.250" x .250"	EPDM	EPG	
4.	FG-1133	EXTERIOR GASKET	.500" x .548"	EPDM	EPG	WET & DRY GLAZED GASKET
7.	FS-8	SPLINE ASSEMBLY SCREW	#14 x 1" HHSTS FS-322	STEEL	VARIES	STALGARD COATED, BY ELCO
8.	ANCHOR	SILL ANCHOR SCREW	#14 x 3/4" HHVTEK		ITW/BUILDEX	ZINC COATED, PER ASTM B-633.
9.	ANCHOR	HEAD ANCHOR SCREW	#14 x 1 1/2" HHVTEK		ITW/BUILDEX	ZINC COATED, PER ASTM B-633.
11.	FASTENER	PPH SELF TAPPING SCREW	#10 x 2 1/2"	STEEL	VARIES	ZINC COATED, PER ASTM B-633.
12.	FASTENER	PPH STEEL ATTACHMENT SCREW	#10 x 1"	STEEL	VARIES	ZINC COATED, PER ASTM B-633.
13.	SM-5601	ISOCRYL TAPE	.125" x .500" VARIES	POLYISOBUTYLENE	SCHNEE-MOOREHEAD	
14.	FG5000-FP-5	WATER DIVERTER	.876" x .54147" x .040" x 1.500"	RIGID PVC	OBE	
15.	FG-5000-FP-10	SILL END DAM	3.500" x .562" x 0.062" x 5.000"	6063-T6 ALUMINUM	OBE	
16.	FG-5000-PP8	STEEL REINFORCEMENT	1.250" x 4.563" x .250"	ZINC PAINTED STEEL	VARIES	ASTM A-36
17.	FG-5113	CHANNEL FILLER @ HEAD & SILL	1.697" x .500" x .062"	6063-T5	OBE	
18.	FG-5204	HEAD / SILL	4.980" x 2.500" x .080"	6063-T6	OBE	
19.	FG-5190	GLASS STOP	2.010" x 1.392" x .078"	6063-T5	OBE	
20.	FG-5196	POCKET FILLER	4.660" x 1.392" x .080"	6063-T5	OBE	
21.	FG-5205	HIGH PERFORMANCE SILL PAN	5.276" x 2.750" x .100"	6063-T6	OBE	
22.	FG-5180	SILL PAN	5.402" x 2.625" x .080"	6063-T6	OBE	
23.	FG-5206	SILL / HEAD	4.980" x 2.500" x .080"	6063-T6	OBE	
24.	FG-5201	JAMB	5.000" x 2.500" x .094"	6063-T6	OBE	
25.	NOT USED					
26.	FG-5193	MULLION	5.000" x 2.500" x .094"	6063-T6	OBE	
27.	FG-5200	90 DEGREE CORNER MULLION	5.500" x 5.500" x .125"	6063-T6	OBE	
28.	FG-5202	HORIZONTAL	4.980" x 2.500" x .080"	6063-T6	OBE	
29.	995	STRUCTURAL SEALANT	-	SILICONE	DOW CORNING	# 995
30.	795	PERIMETER SEALANT	-	SILICONE	DOW CORNING	# 795
31.	FG-5192	SETTING CHAIR	.844" x 1.062" x .094"	6063-T5	OBE	
32.	FG-2122	ALUMINUM JAMB FILLER	4.000" x .365" x .078"	6063-T6	OBE	
34.	ANCHOR	PFH TEK SCREW	#10 x 2.000"	ZINC COATED STEEL	VARIES	ZINC COATED, PER ASTM B-633.
35.	FG-5948	INTERIOR GASKET	.381" x .718"	EPDM	EPG	DRY GLAZED GASKET.

TEXAS DEPARTMENT OF INSURANCE --2018

M.P. DRAWN BY: 2/3/2020 DATE: 20-015 DRAWING No. SHEET 3 OF 21

SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS

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803 AIRPORT RD. TERRELL, TX 75160
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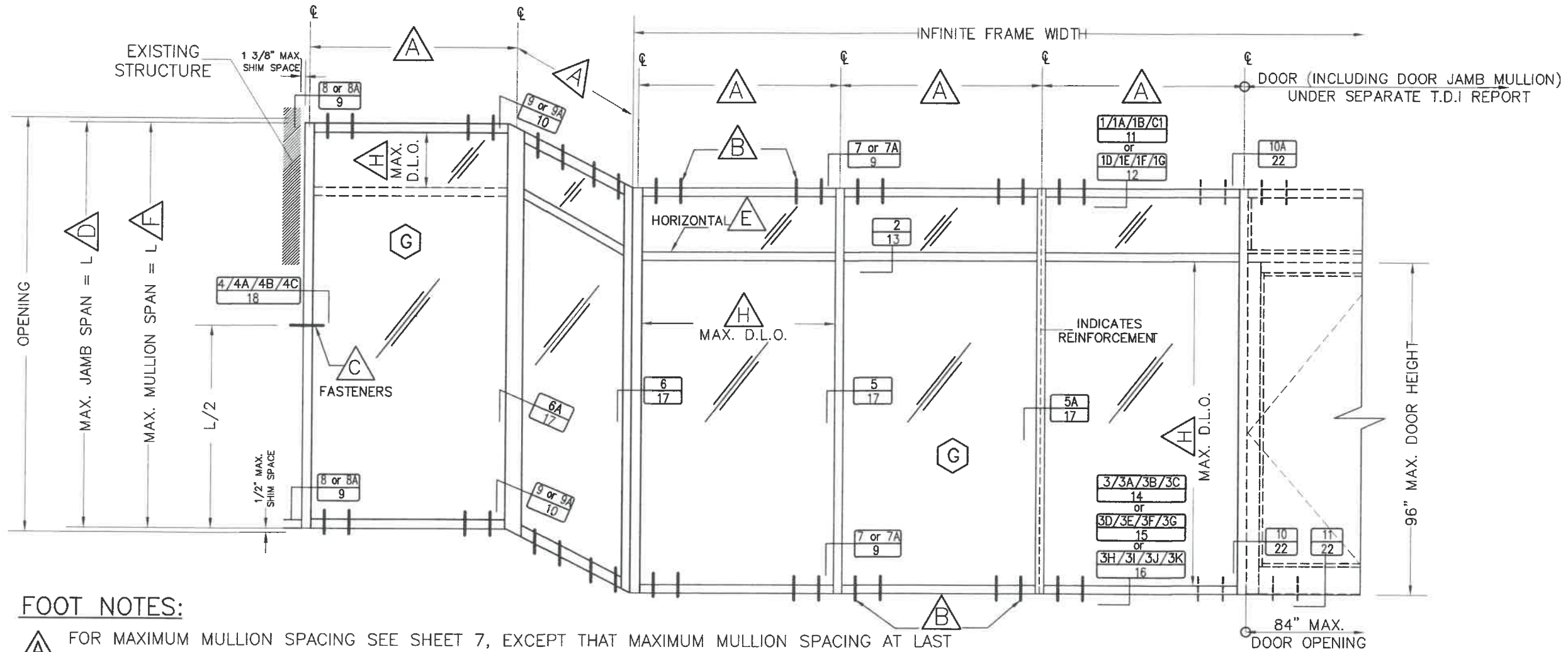
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FIRM REGISTRATION # F-13790



ISOMETRIC ELEVATION FOR FG-5000 FLUSH GLAZED ALUM. WINDOW WALL SYSTEM

N.T.S.



FOOT NOTES:

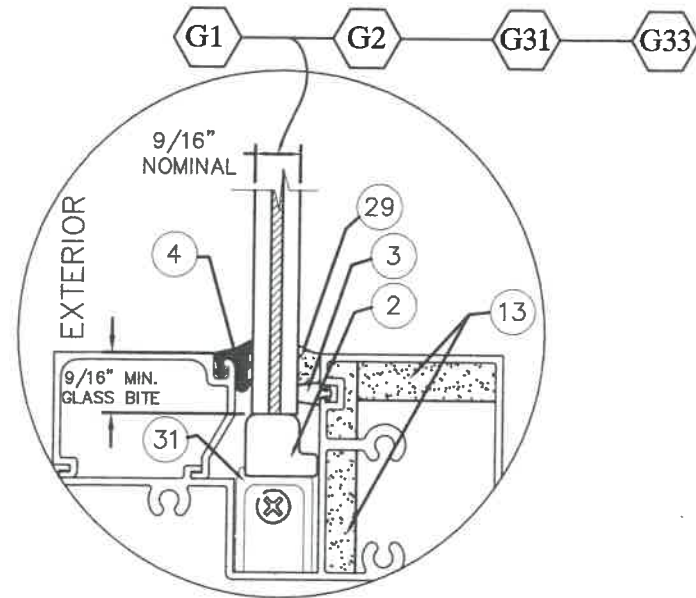
- A** FOR MAXIMUM MULLION SPACING SEE SHEET 7, EXCEPT THAT MAXIMUM MULLION SPACING AT LAST WINDOW WALL PANEL INSTALLED ADJACENT TO DOOR (WHEN APPLICABLE) SHALL NOT EXCEED 5'-0".
- B** FOR HEAD AND SILL FASTENERS QUANTITY, TYPES AND SPECS SEE SHEETS 8 & 8A.
- C** SEE SHEETS 19 & 20 FOR MAXIMUM DESIGN PRESSURE RATING FOR JAMB CONNECTED TO EXISTING STRUCTURE.
- D** SEE SHEET 13 FOR MAXIMUM DESIGN PRESSURE RATING FOR JAMB NOT CONNECTED TO EXISTING STRUCTURE.
- E** USE OF HORIZONTALS (SEE SECTION 2/13) IS LIMITED BY SCHEDULE ON SHEET 13.
- F** FOR MAXIMUM MULLION SPAN SEE SHEET 7.
- G** FOR GLAZING DETAILS AND GLASS SCHEDULE SEE SHEET 5.
- H** FOR MAXIMUM D.L.O. DESIGN PRESSURE RATING FOR GLASS, SEE SCHEDULE ON SHEET 6.

TEXAS DEPARTMENT OF INSURANCE -2018	
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SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS Oldcastle BuildingEnvelope 803 AIRPORT RD. TERRELL, TX 75160 www.OldcastleBE.com-Phone 800-869-4567	
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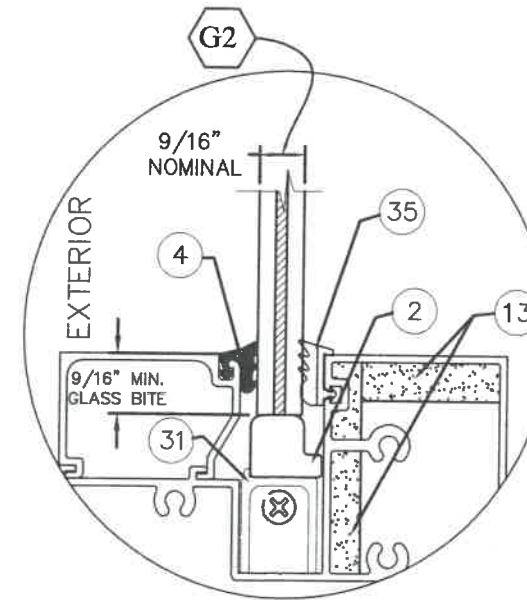
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TYPICAL GLAZING DETAILS



**GLASS TYPE G1, G2, G31, G33
WET GLAZED**



**GLASS TYPE G2
DRY GLAZED**

GLASS SCHEDULE WET GLAZED			
GLASS LABEL	GLASS COMPOSITION	MANUFACTURER NAME	MAXIMUM D.L.O.
G1	3/8" OVERALL THICKNESS LAMINATED GLASS CONSISTING OF TWO 1/4" HS GLASS, AND A 0.090" TROSIFOL PVB INTERLAYER	KURARAY AMERICA, Inc.	SEE SCHEDULE ON SHEET 6
G2	3/8" OVERALL THICKNESS LAMINATED GLASS CONSISTING OF TWO 1/4" HS GLASS, AND A 0.090" SENTRYGLAS PLUS INTERLAYER	KURARAY AMERICA, Inc.	SEE SCHEDULE ON SHEET 6
G31	3/8" OVERALL THICKNESS LAMINATED GLASS CONSISTING OF TWO 1/4" HS GLASS, AND A 0.090" SAFLEX PVB INTERLAYER	EASTMAN CHEMICAL COMPANY	SEE SCHEDULE ON SHEET 6
G33	3/8" OVERALL THICKNESS LAMINATED GLASS CONSISTING OF TWO 1/4" HS GLASS, AND A 0.075" VANCEVA/STORMGLASS COMPOSITE INTERLAYER	EASTMAN CHEMICAL COMPANY	SEE SCHEDULE ON SHEET 6

GLASS SCHEDULE DRY GLAZED			
GLASS LABEL	GLASS COMPOSITION	MANUFACTURER NAME	MAXIMUM D.L.O.
G2	3/8" OVERALL THICKNESS LAMINATED GLASS CONSISTING OF TWO 1/4" HS GLASS, AND A 0.090" SENTRYGLAS PLUS INTERLAYER	KURARAY AMERICA, Inc.	SEE SCHEDULE ON SHEET 6

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M.P. DRAWN BY: 2/3/2020 DATE: 20-015 DRAWING NO. SHEET 5 OF 21

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**MAXIMUM DESIGN PRESSURE RATING (psf) SCHEDULE FOR A GIVEN GLASS TYPE
AND GLASS PANEL DIMENSIONS "a" (in) x "b" (in) (SEE LEGEND)**

GLASS TYPE G1 & G31 : WET GLAZED		
DIMENSION "a" *	DIMENSION "b" *	MAXIMUM DESIGN PRESSURE RATING(psf)
24"	from 24" to 115"	±65.0
30"	from 30" to 115"	±65.0
36"	from 36" to 115"	±65.0
41.75"	from 41.75" to 102.5"	±65.0
48"	from 48" to 89"	±56.5
54"	from 54" to 79"	±50.3
57.5"	from 57.5" to 74"	±47.0

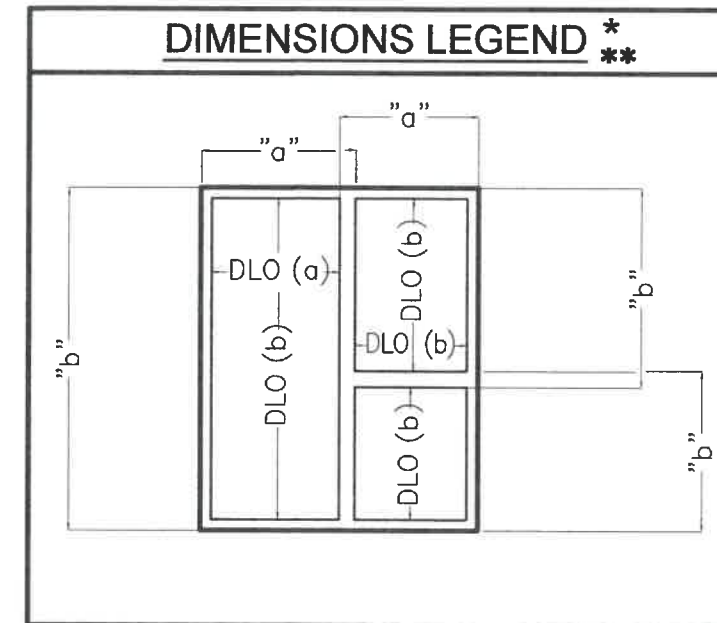
GLASS TYPE G2 : WET GLAZED		
DIMENSION "a" *	DIMENSION "b" *	MAXIMUM DESIGN PRESSURE RATING(psf)
24"	from 24" to 115"	±90.0
30"	from 30" to 115"	±90.0
36"	from 36" to 115"	±90.0
42"	from 42" to 115"	±90.0
47.5"	from 47.5" to 115"	±90.0
54"	from 54" to 101"	±79.2
57.5"	from 57.5" to 95"	±74.3

GLASS TYPE G2 : DRY GLAZED		
DIMENSION "a" *	DIMENSION "b" *	MAXIMUM DESIGN PRESSURE RATING(psf)
24"	from 24" to 115"	+60,-70
30"	from 30" to 115"	+60,-70
36"	from 36" to 115"	+60,-70
42"	from 42" to 115"	+60,-70
47.5"	from 47.5" to 115"	+60,-70
54"	from 54" to 101"	+60,-70
57.5"	from 57.5" to 95"	+60,-70

GLASS TYPE G33 : WET GLAZED		
DIMENSION "a" *	DIMENSION "b" *	MAXIMUM DESIGN PRESSURE RATING(psf)
24"	from 24" to 115"	+70,-80
30"	from 30" to 115"	+70,-80
36"	from 36" to 115"	+70,-80
42"	from 42" to 115"	+70,-80
48"	from 48" to 115"	+70,-80
54"	from 54" to 102"	+70,-80
57.5"	from 57.5" to 96"	+70,-80

*** DETERMINATION OF MAXIMUM DAY LIGHT OPENING (D.L.O.) AT EACH END OF GLASS GIVEN "a" & "b"**

SIDE	MAXIMUM DAY LIGHT OPENING	
	(D.L.O.) Formula at Vertical & Horizontal Mullions	(D.L.O.) Formula at Jamb, Head & Sill Frames
MAX. D.L.O. (a) (SHORT SIDE)	"a"-5.00"	"a"-5.00"
MAX. D.L.O. (b) (LONG SIDE)	"b"-5.00"	"b"-5.00"



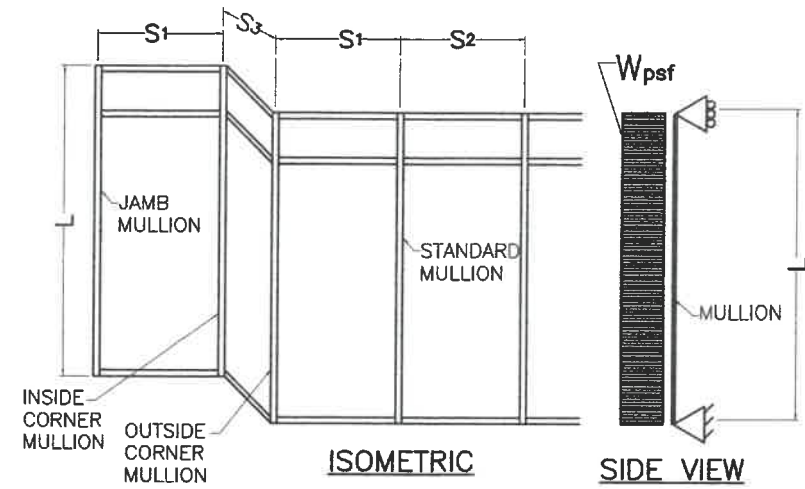
** SIDE "a" IS ALWAYS EQUAL OR SHORTER THAN "b". "a", "b" MAY BE ORIENTED IN ANY DIRECTION.

TEXAS DEPARTMENT OF INSURANCE -2018

SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS		M.P. DRAWN BY: 2/3/2020 DATE:	20-015 DRAWING NO. SHEET 6 OF 21
Oldcastle BuildingEnvelope 803 AIRPORT RD. TERRELL, TX 75160 www.OldcastleBE.com-Phone 800-869-4567		REV. NO. 1 DATE 2/3/2020 DESCRIPTION	REV. No. 3 DATE - DESCRIPTION -

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 TEXAS LIC. # 90691
 FIRM REGISTRATION # F-13790





L = MULLION SPAN

EFFECTIVE SPACING $b = \frac{S_1 + S_2}{2}$ (SEE SCHEDULE.)
(FOR STANDARD MULLION)

EFFECTIVE SPACING $b = \frac{S_1 + S_3}{2}$ (SEE SCHEDULE.)
(FOR CORNER MULLION)

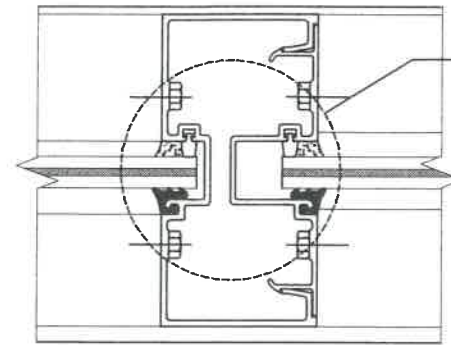
CASE DEFINITIONS

- CASE 1 :** UNREINFORCED STANDARD MULLION A (SEE DET. 5/17)
- CASE 2 :** REINFORCED STANDARD MULLION B FULL HEIGHT. (SEE DET. 5A/17)
- CASE 3 :** CORNER MULLION C FULL HEIGHT. (SEE DET. 6/17 & 6A/17)
(EITHER INSIDE OR OUTSIDE)

* MAXIMUM DESIGN PRESSURE RATING FOR STANDARD & CORNER MULLION WILL AUTOMATICALLY QUALIFY DESIGN PRESSURE RATINGS FOR JAMBS W/ ANCHORAGE FOR ANY GIVEN MULLION SPACING. FOR MAX. JAMB SPAN W/O ANCHORAGE SEE SCHEDULE ON SHEET 13. JAMB ANCHORAGE (WHEN USED) SHALL BE PERFORMED AT MID HEIGHT OF JAMBS.

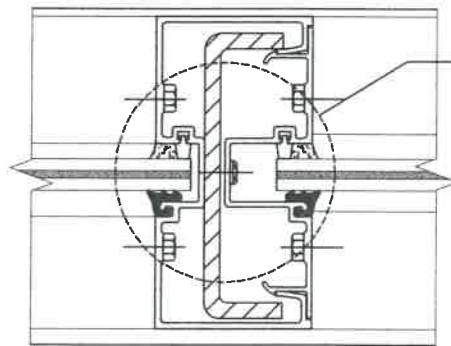
** MAXIMUM DESIGN PRESSURE RATING FOR DRY GLAZED MULLION INSTALLATIONS IS +60, -70 psf.

A	CASE:1	STANDARD MULLION (26) + (20)	$I_x = 5.580 \text{ in}^4$ $S_x = 2.227 \text{ in}^3$
	AIR/WATER INFILTRATION IS 15.0 psf IN TERMS OF ALUM.		



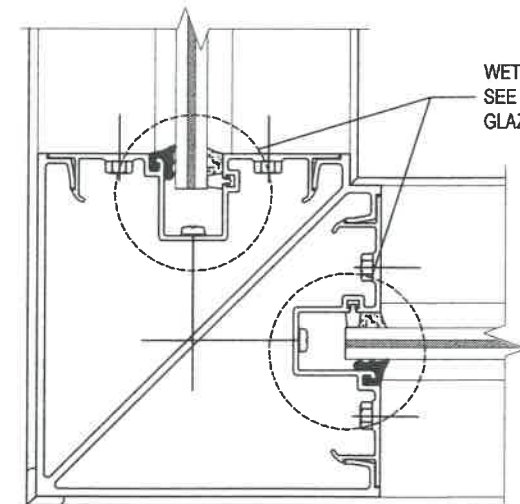
WET GLAZED SHOWN
SEE SHEET 5 FOR DRY
GLAZED DETAIL

B	CASE:2	STANDARD MULLION (26) + (20) W/ STEEL CHANNEL (16)	$I_x = 18.180 \text{ in}^4$ $S_x = 7.266 \text{ in}^3$
	AIR/WATER INFILTRATION IS 15.0 psf IN TERMS OF ALUM.		



WET GLAZED SHOWN
SEE SHEET 5 FOR DRY
GLAZED DETAIL

C	CASE:3	OUTSIDE/INSIDE CORNER MULLION (27) + (20)	$I_x = 17.141 \text{ in}^4$ $S_x = 4.336 \text{ in}^3$
	AIR/WATER INFILTRATION IS 15.0 psf IN TERMS OF ALUM.		



WET GLAZED SHOWN
SEE SHEET 5 FOR DRY
GLAZED DETAIL

**MAXIMUM DESIGN PRESSURE RATING FOR STANDARD & CORNER MULLIONS *
MAXIMUM MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN DESIGN PRESSURE RATING
AND A GIVEN MULLION EFFECTIVE SPACING "b"**

MAXIMUM DESIGN PRESSURE RATING (psf)	EFFECTIVE SPACING "b" (Ft-in)	CASE 1	CASE 2	CASE 3
		STANDARD UNREINFORCED MULLION A "L" (Ft-in)	STANDARD REINFORCED MULLION B "L" (Ft-in)	OUTSIDE/INSIDE CORNER MULLION C "L" (Ft-in)
60.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-10"	10'-0"	10'-0"
	4'-6"	8'-2"	10'-0"	10'-0"
	5'-0"	7'-4"	10'-0"	10'-0"
	5'-6"	6'-8"	10'-0"	10'-0"
	6'-0"	6'-1"	10'-0"	10'-0"
	6'-6"	5'-8"	9'-10"	10'-0"
	7'-0"	5'-3"	9'-6"	9'-8"
	7'-6"	4'-11"	9'-0"	9'-0"
65.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-5"	10'-0"	10'-0"
	4'-6"	7'-6"	10'-0"	10'-0"
	5'-0"	6'-9"	10'-0"	10'-0"
	5'-6"	6'-2"	10'-0"	10'-0"
	6'-0"	5'-8"	9'-10"	10'-0"
	6'-6"	5'-2"	9'-6"	9'-7"
	7'-0"	4'-10"	8'-11"	8'-11"
	7'-6"	4'-6"	8'-4"	8'-4"
70.0**	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-5"	10'-0"	10'-0"
	4'-6"	7'-6"	10'-0"	10'-0"
	5'-0"	6'-9"	10'-0"	10'-0"
	5'-6"	6'-2"	9'-11"	10'-0"
	6'-0"	5'-8"	9'-6"	9'-8"
	6'-6"	5'-2"	8'-11"	8'-11"
	7'-0"	4'-10"	8'-3"	8'-3"
	7'-6"	4'-6"	7'-9"	7'-9"
75.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-5"	10'-0"	10'-0"
	4'-6"	7'-6"	10'-0"	10'-0"
	5'-0"	6'-9"	10'-0"	10'-0"
	5'-6"	6'-2"	9'-7"	9'-10"
	6'-0"	5'-8"	9'-0"	9'-0"
	6'-6"	5'-2"	8'-4"	8'-4"
	7'-0"	4'-10"	7'-9"	7'-9"
	7'-6"	4'-6"	7'-2"	7'-2"
76.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-5"	10'-0"	10'-0"
	4'-6"	7'-6"	10'-0"	10'-0"
	5'-0"	6'-9"	10'-0"	10'-0"
	5'-6"	6'-2"	9'-6"	9'-8"
	6'-0"	5'-8"	8'-11"	8'-11"
	6'-6"	5'-2"	8'-2"	8'-2"
	7'-0"	4'-10"	7'-7"	7'-7"
	7'-6"	4'-6"	7'-1"	7'-1"
80.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-5"	10'-0"	10'-0"
	4'-6"	7'-6"	10'-0"	10'-0"
	5'-0"	6'-9"	9'-9"	10'-0"
	5'-6"	6'-2"	9'-2"	9'-2"
	6'-0"	5'-8"	8'-5"	8'-5"
	6'-6"	5'-2"	7'-9"	7'-9"
	7'-0"	4'-10"	7'-3"	7'-3"
	7'-6"	4'-6"	6'-9"	6'-9"
85.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-5"	10'-0"	10'-0"
	4'-6"	7'-6"	9'-11"	10'-0"
	5'-0"	6'-9"	8'-11"	10'-0"
	5'-6"	6'-2"	8'-2"	8'-2"
	6'-0"	5'-8"	7'-5"	7'-5"
	6'-6"	5'-2"	6'-8"	6'-8"
	7'-0"	4'-10"	6'-2"	6'-2"
	7'-6"	4'-6"	5'-5"	5'-5"
90.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-5"	10'-0"	10'-0"
	4'-6"	7'-6"	9'-4"	10'-0"

TEXAS DEPARTMENT OF INSURANCE - 2018

M.P. DRAWN BY: 2/3/2020 DATE: 20-015 DRAWING NO. SHEET 7 OF 21

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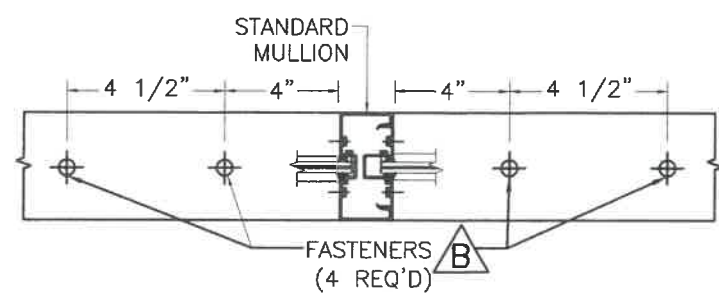
REV. NO.	DESCRIPTION	DATE
1	OLD 14-077	2/3/2020
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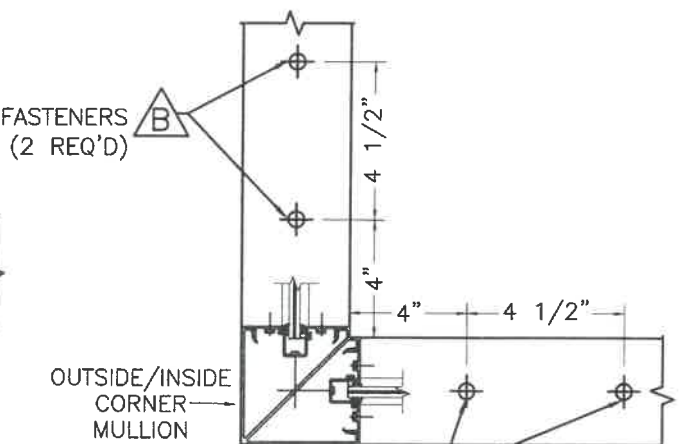


MAXIMUM DESIGN PRESSURE RATING FOR MULLION CONNECTIONS Δ

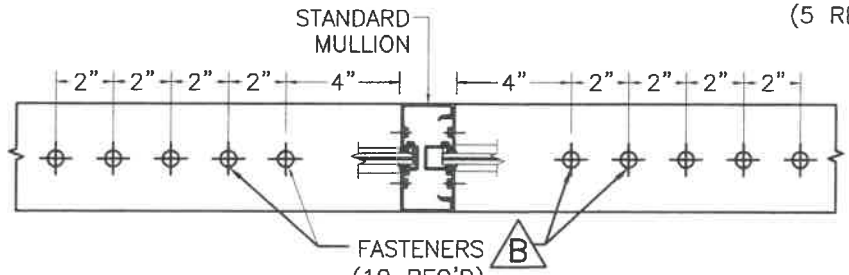
MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING (psf)					
		POURED CONCRETE (Min. f _c = 3ksi) SUBSTRATE			1/4" Min. THK. ASTM A-36 STEEL SUBSTRATE	DOUBLE BUCK 3" Min. THK. (G=0.55) WOOD SUBSTRATE	DOUBLE BUCK 3" Min. THK. (G=0.55) WOOD SUBSTRATE
		FASTENERS TYPES			FASTENERS	FASTENERS	FASTENERS
6'-2"	3'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	4'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	5'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	6'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	6'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	7'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	7'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	8'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	8'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	9'-0"	90.0	90.0	90.0	90.0	90.0	90.0
9'-6"	90.0	90.0	90.0	90.0	90.0	90.0	
10'-0"	90.0	90.0	90.0	90.0	90.0	90.0	



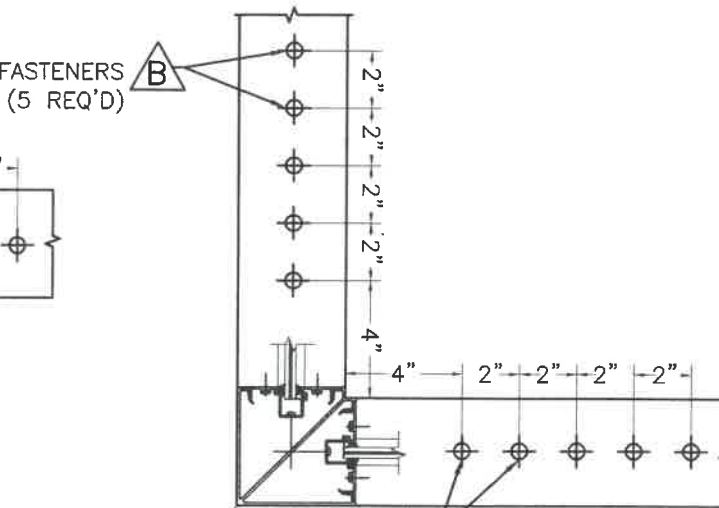
EXTERIOR
SCHMATIC CONCRETE & STEEL CONNECTION DETAIL *
 (AT STANDARD MULLION)



EXTERIOR
SCHMATIC CONCRETE & STEEL CONNECTION DETAIL *
 (AT OUTSIDE/INSIDE CORNER MULLION)



EXTERIOR
SCHMATIC WOOD CONNECTION DETAIL *
 (AT STANDARD MULLION)



EXTERIOR
SCHMATIC WOOD CONNECTION DETAIL *
 (AT OUTSIDE/INSIDE CORNER MULLION)

Δ **FASTENERS TYPES AND SUBSTRATES REQUIREMENTS W/ 4 1/2" MIN. E.D., BEYOND ANY FINISH MATERIAL**

- A - 3/8"Ø HILTI KWIK BOLT TZ ANCHOR W/ 2" Min. EMBEDMENT INTO 6" Min. THICK POURED CONCRETE (Min. f_c = 3 ksi).
- B - 3/8"Ø POWER FASTENERS TAPPER ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 3 ksi)
- C - 3/8"Ø HILTI HUS-H SCREW ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f_c = 3 ksi)
- D - 3/8"Ø TYPE "F" BOLT OR 3/8"Ø -16 ELCO CONSTRUCTION PRODUCTS DRILL FLEX SCREW TO 1/4" Min. THK. ASTM A-36 STEEL.
- E - 3/8"Ø LAG SCREWS TO DOUBLE 2 x WOOD BUCK (G=0.55) W/ 3" Min. PENETRATION INTO WOOD.
- E' - 1/2"Ø LAG SCREWS TO DOUBLE 2 x WOOD BUCK (G=0.55) W/ 3" Min. PENETRATION INTO WOOD.

* SEE CONNECTION DETAILS ON SHEETS 9,10 & 22.

TEXAS DEPARTMENT OF INSURANCE - 2018

M.P. DRAWN BY: 2/3/2020 DATE: 20-015 DRAWING NO. SHEET 8 OF 21

FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS

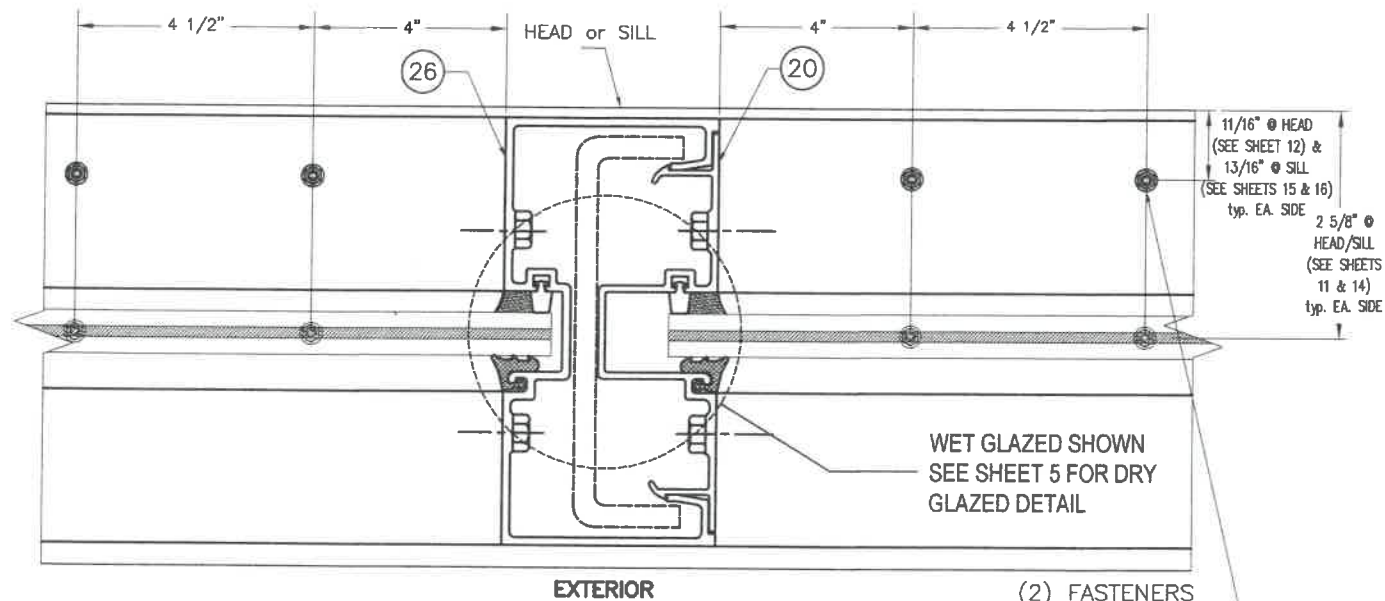
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REV. NO.	DESCRIPTION	DATE	BY	DATE
1	OLD 14-077	2/3/2020	3	4

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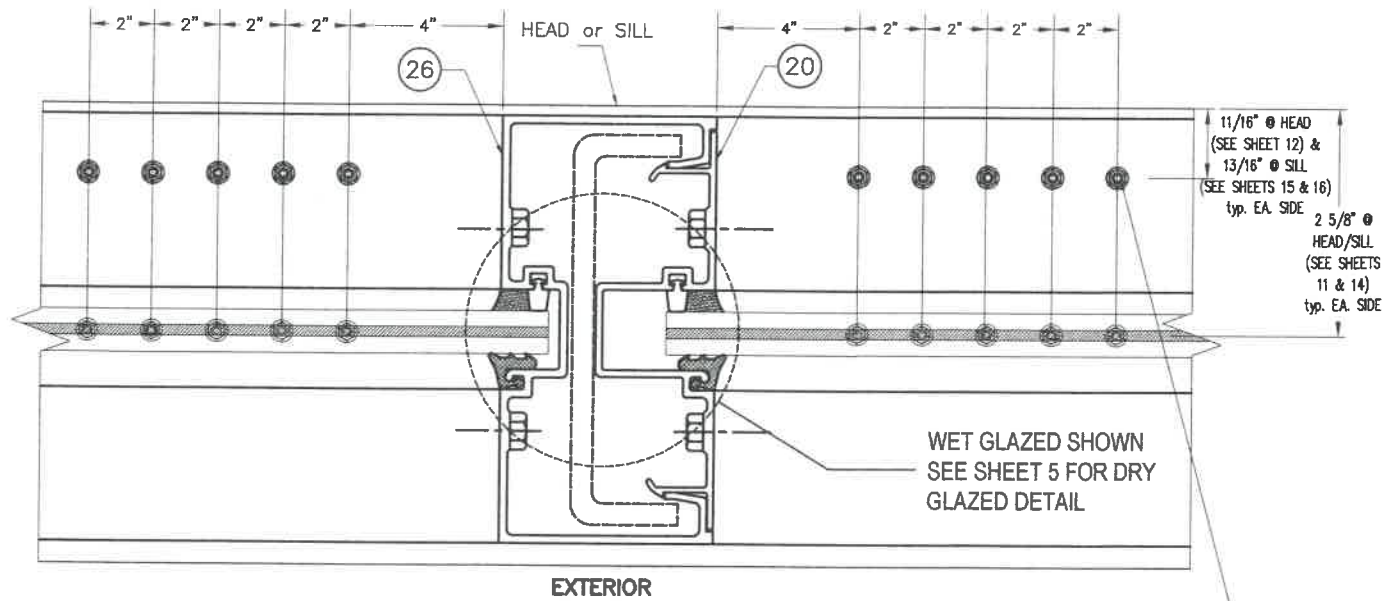


SILL AND HEAD CONNECTION DETAILS FOR STANDARD MULLIONS AND JAMBS (PLAN VIEWS)



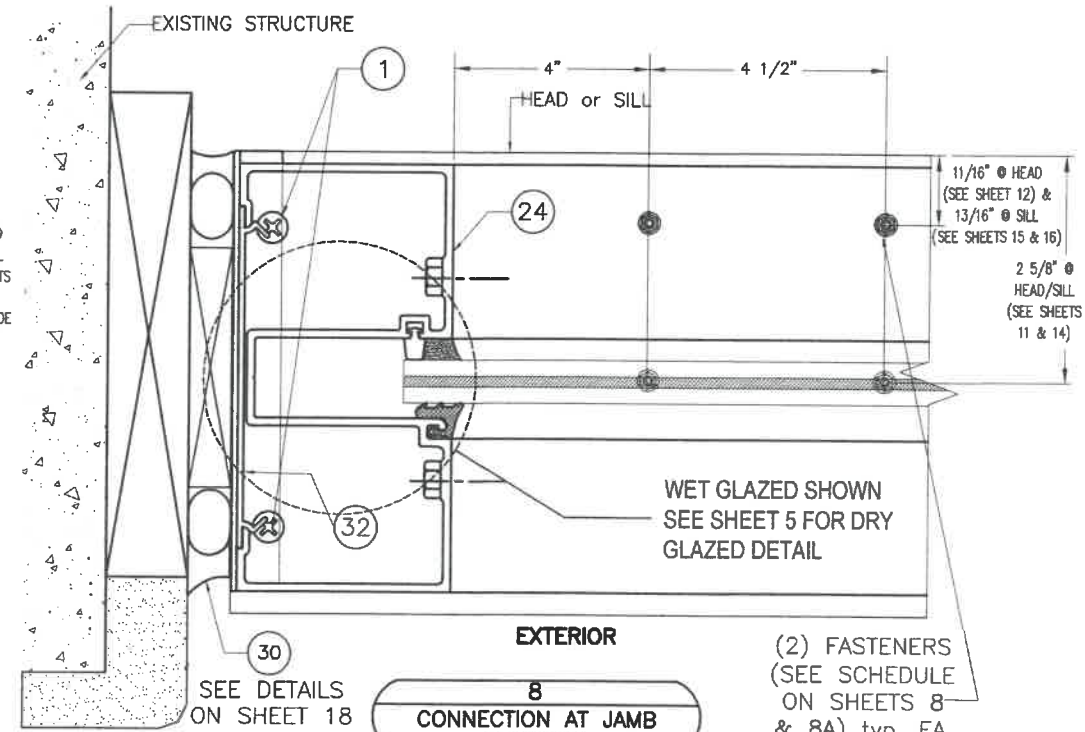
7
CONNECTION AT STANDARD MULLION

CONNECTION DETAIL APPLICABLE TO POURED CONCRETE OR STEEL



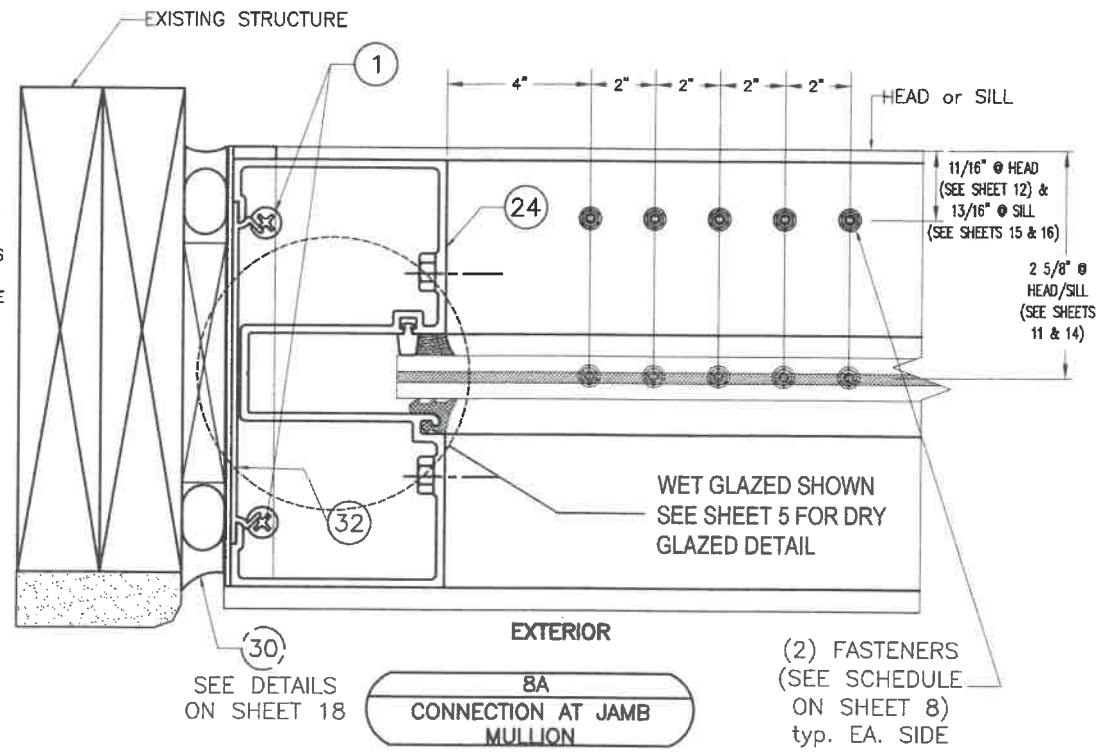
7A
CONNECTION AT STANDARD MULLION

CONNECTION DETAIL APPLICABLE TO WOOD ONLY



8
CONNECTION AT JAMB MULLION

CONNECTION DETAIL APPLICABLE TO POURED CONCRETE OR STEEL (SIMILAR)



8A
CONNECTION AT JAMB MULLION

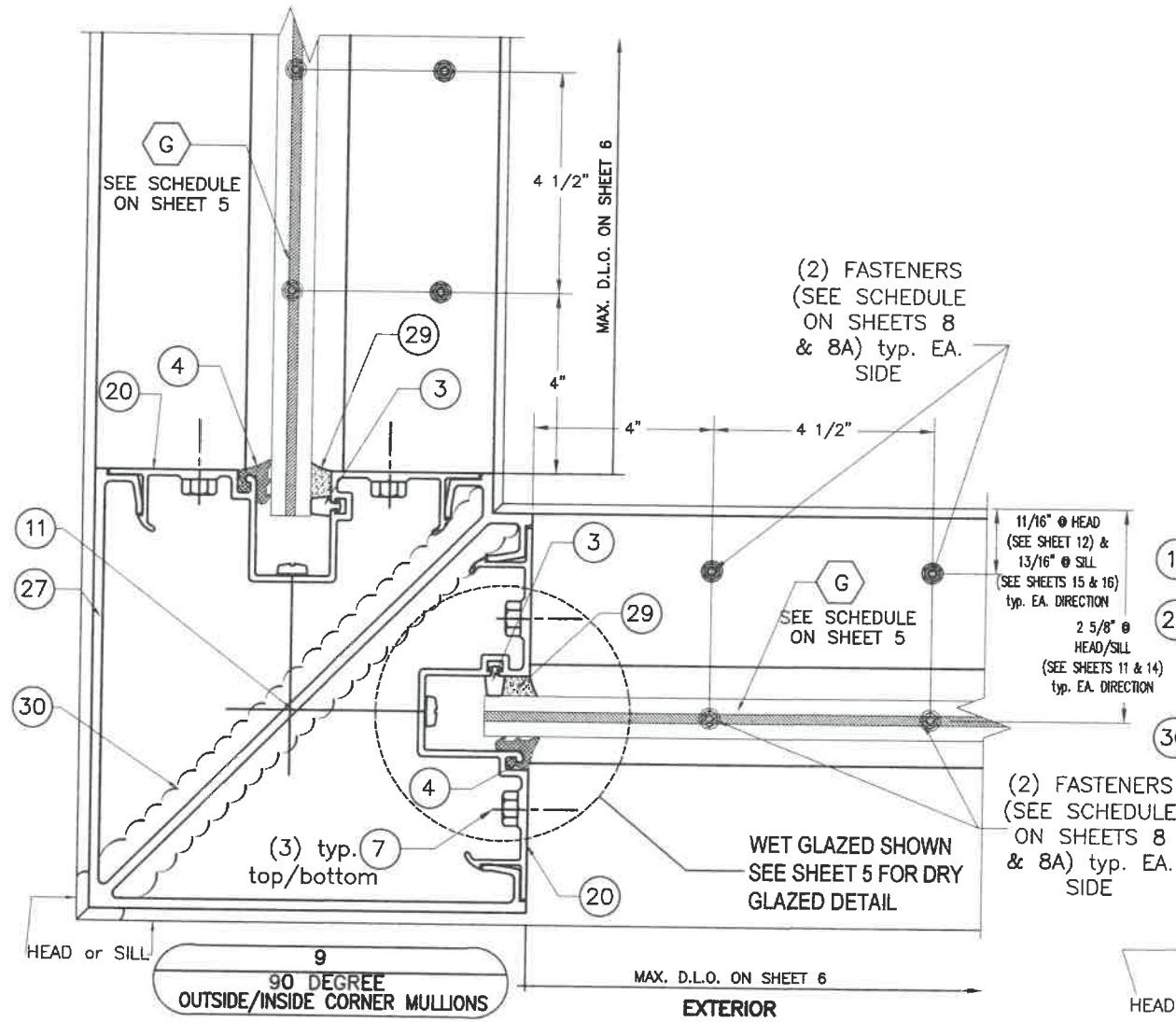
CONNECTION DETAIL APPLICABLE TO WOOD ONLY

TEXAS DEPARTMENT OF INSURANCE - 2018		M.P. DRAWN BY:	2/3/2020	DATE:	20-015	DRAWING No.	SHEET 9 OF 21
SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS		Oldcastle BuildingEnvelope® 803 AIRPORT RD. TERRELL, TX 75160 www.OldcastleBE.com-Phone 800-869-4667					
REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE		
1	OLD 14-077	2/9/2020	3				
2			4				

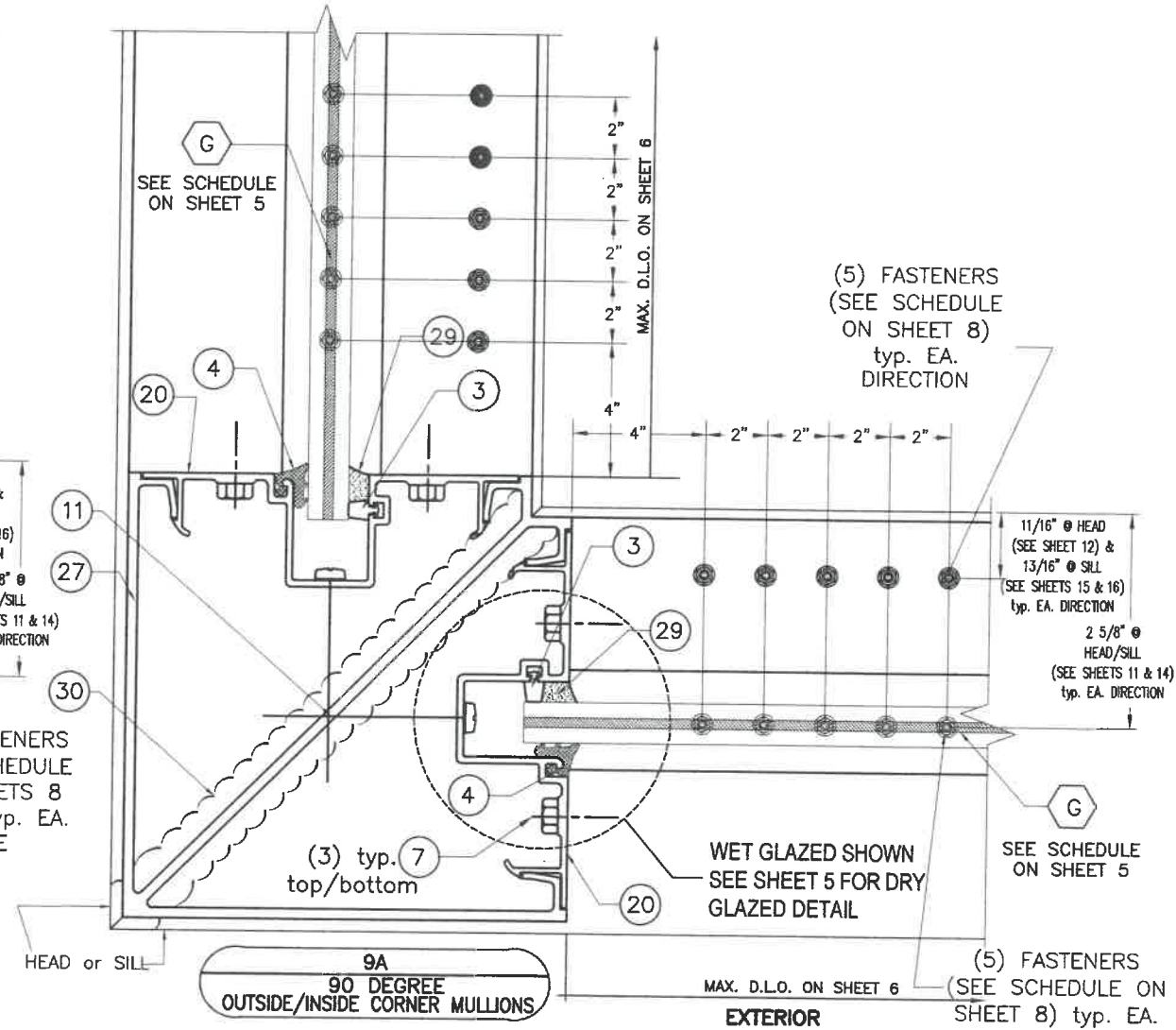
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SILL AND HEAD CONNECTION DETAILS FOR CORNER MULLIONS (PLAN VIEWS)



CONNECTION DETAIL APPLICABLE TO POURED CONCRETE, GROUT FILLED CONCRETE BLOCK OR STEEL



CONNECTION DETAIL APPLICABLE TO WOOD ONLY

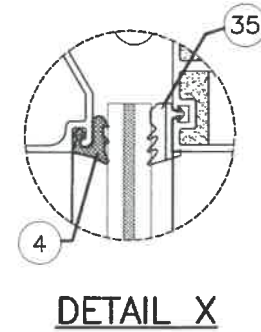
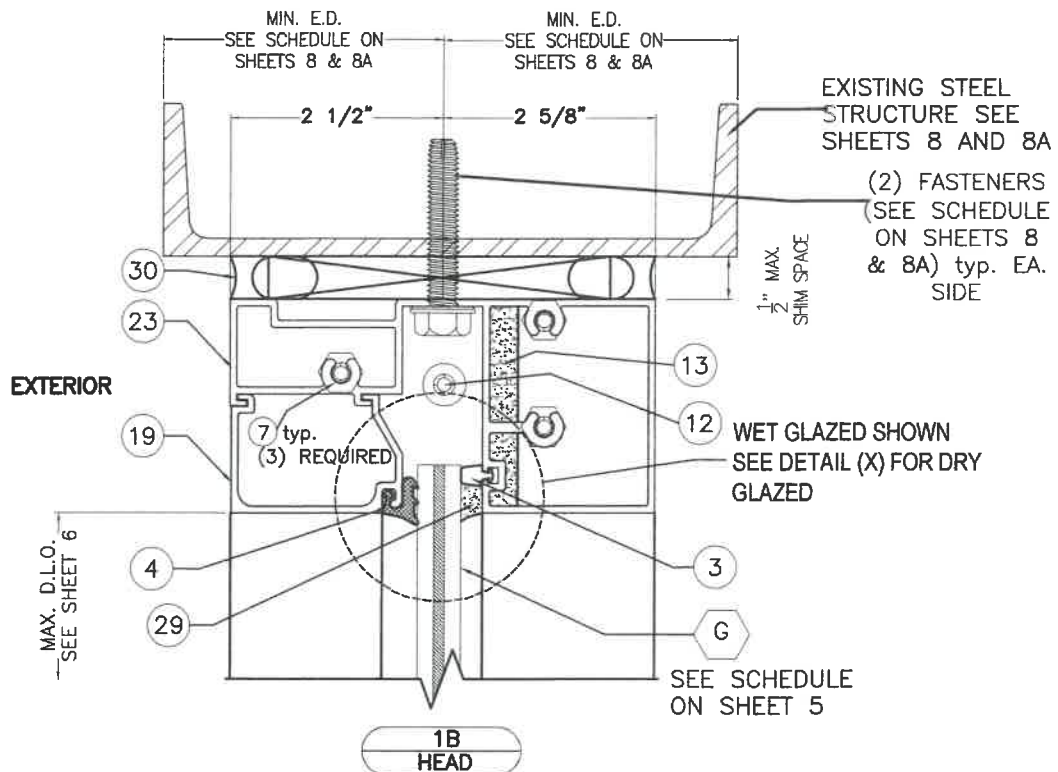
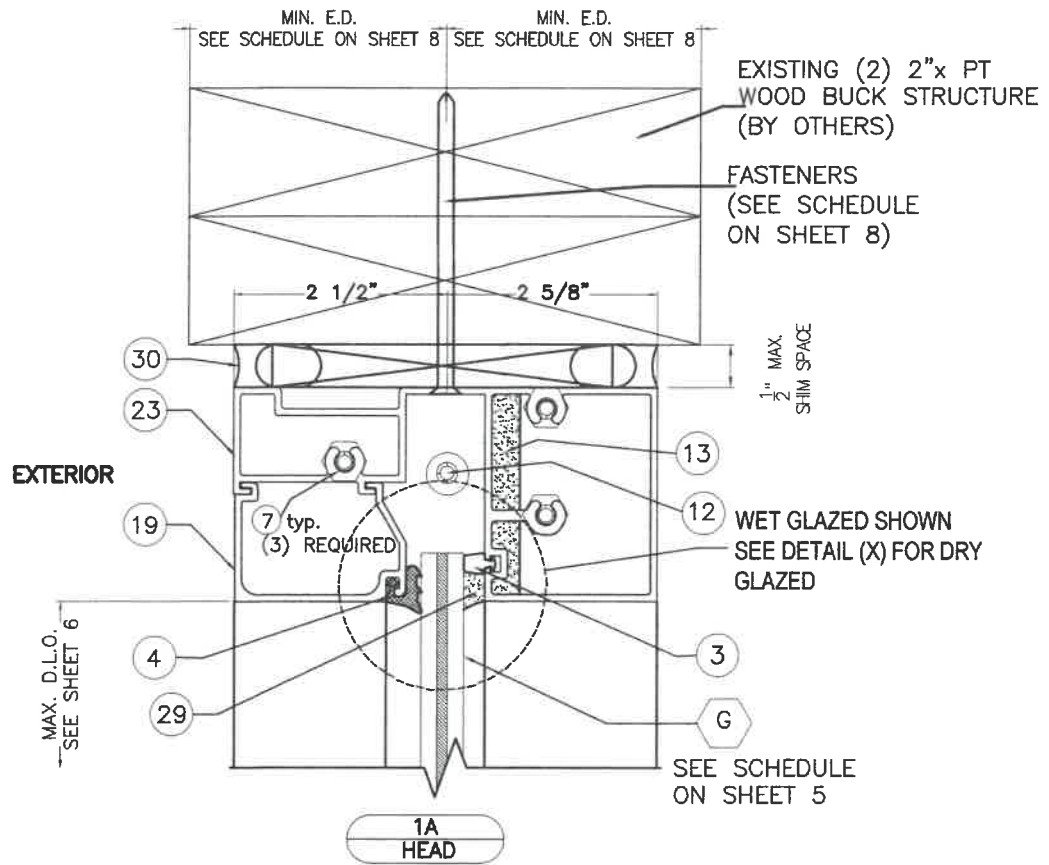
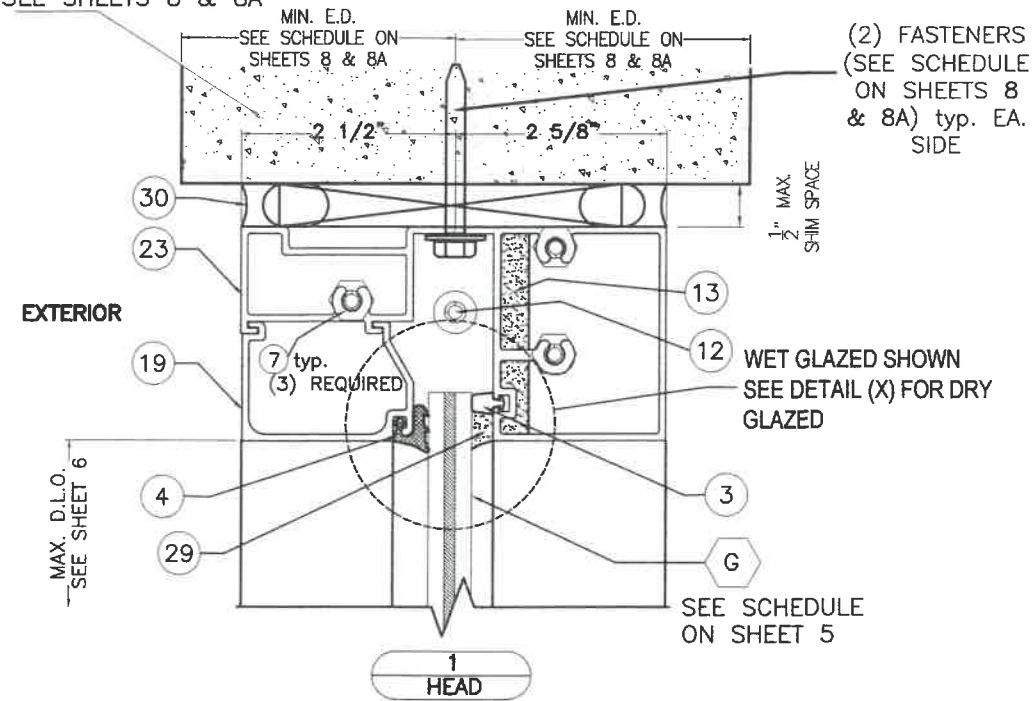
TEXAS DEPARTMENT OF INSURANCE --2018		M.P. DRAWN BY:	2/3/2020	DATE:	20-015	DRAWING NO.	SHEET 10 OF 21
SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS		Oldcastle BuildingEnvelope® 803 AIRFORT RD. TERRELL, TX 75160 www.OldcastleBE.com-Phone 800-869-4567					
REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE		
1	OLD 14-077	2/3/2020	3				
2			4				

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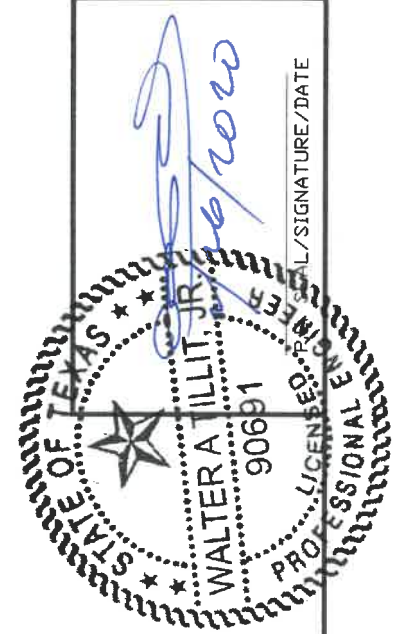
HEAD CONNECTION DETAILS

EXISTING POURED CONCRETE OR GROUT FILLED CONCRETE BLOCK STRUCTURE (BY OTHERS) SEE SHEETS 8 & 8A



TEXAS DEPARTMENT OF INSURANCE - 2018		M.P. DRAWN BY:	2/3/2020	DATE:	20-015	DRAWING NO.	SHEET 11 OF 21
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REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE		
1	OLD 14-077	2/5/2020	3				
2			4				

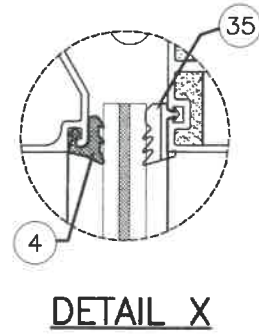
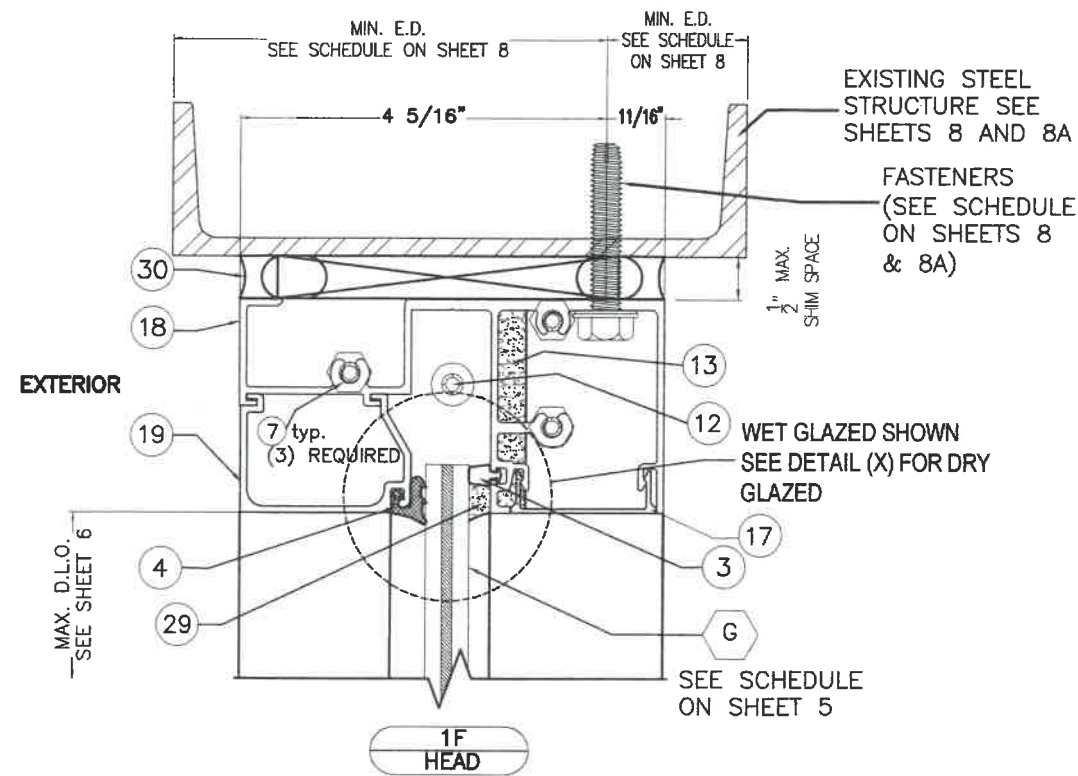
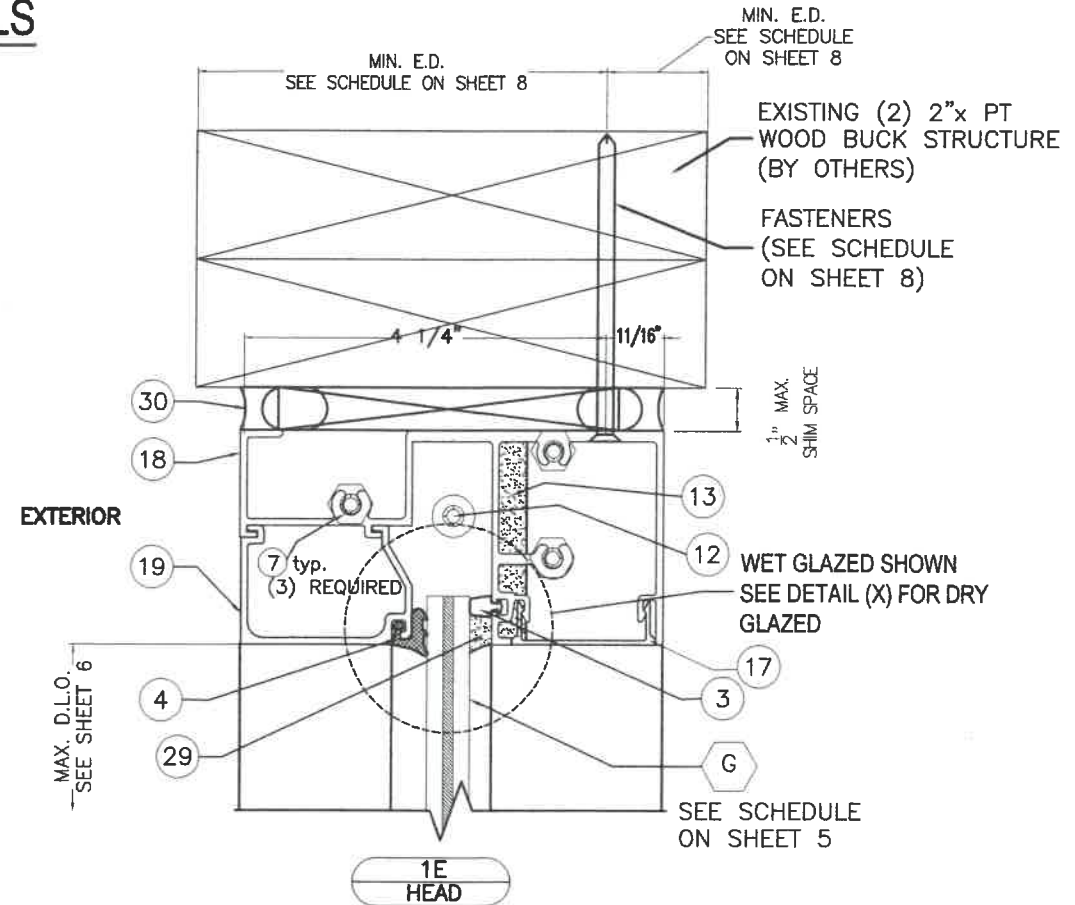
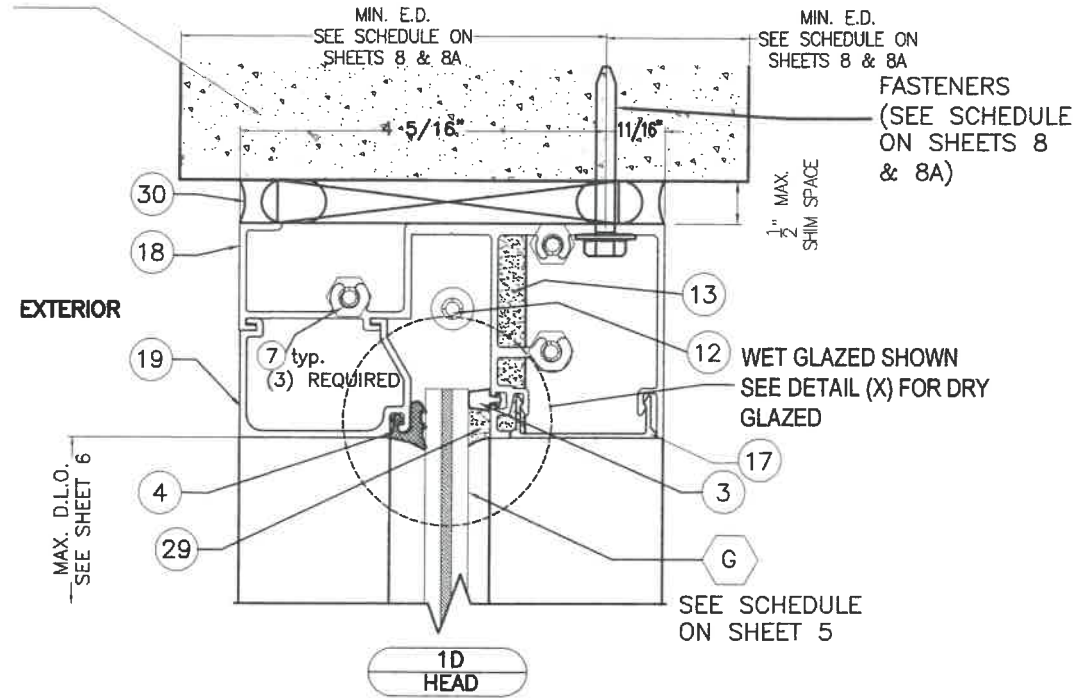
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HEAD CONNECTION DETAILS

(Continued)

EXISTING POURED CONCRETE OR GROUT FILLED CONCRETE BLOCK STRUCTURE (BY OTHERS) SEE SHEETS 8 & 8A



TEXAS DEPARTMENT OF INSURANCE - 2018	
M.P. DRAWN BY: 2/3/2020 DATE: 20-015 DRAWING NO. SHEET 12 OF 21	SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS Oldcastle BuildingEnvelope® 803 AIRPORT RD. TERRELL, TX 75160 www.OldcastleBE.com-Phone 800-869-4567
REV. NO. 1 DESCRIPTION DATE 2/9/2020	REV. NO. 3 DESCRIPTION DATE

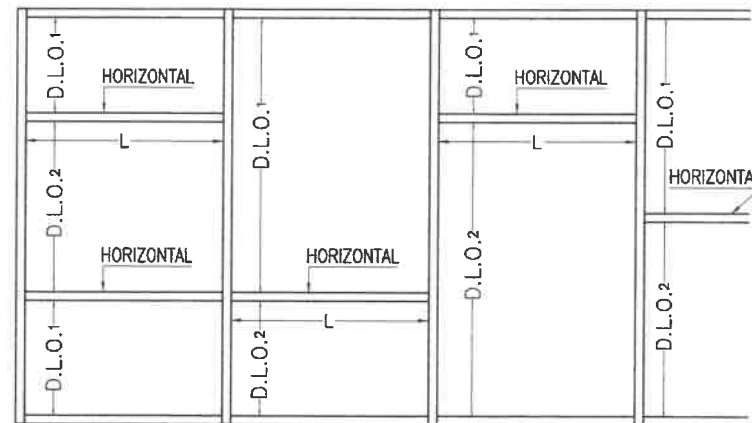
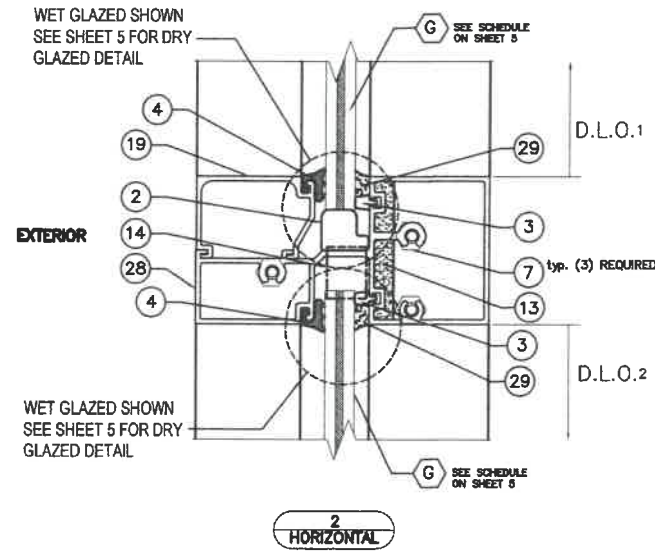
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MAXIMUM DESIGN PRESSURE RATING FOR HORIZONTAL
MAXIMUM HORIZONTAL SPAN "L" (ft) SCHEDULE
FOR A GIVEN DESIGN PRESSURE RATING (psf) AND
A GIVEN HORIZONTAL EFFECTIVE DAY LIGHT OPENING "D.L.O." (ft-in)

MAXIMUM DESIGN PRESSURE RATING FOR
JAMBS W/O ANCHORAGE
MAXIMUM JAMB SPAN "L" (ft) SCHEDULE
FOR A GIVEN DESIGN PRESSURE RATING (psf)
AND A GIVEN JAMB EFFECTIVE SPACING "b" (ft-in)

HORIZONTAL CONNECTION DETAIL



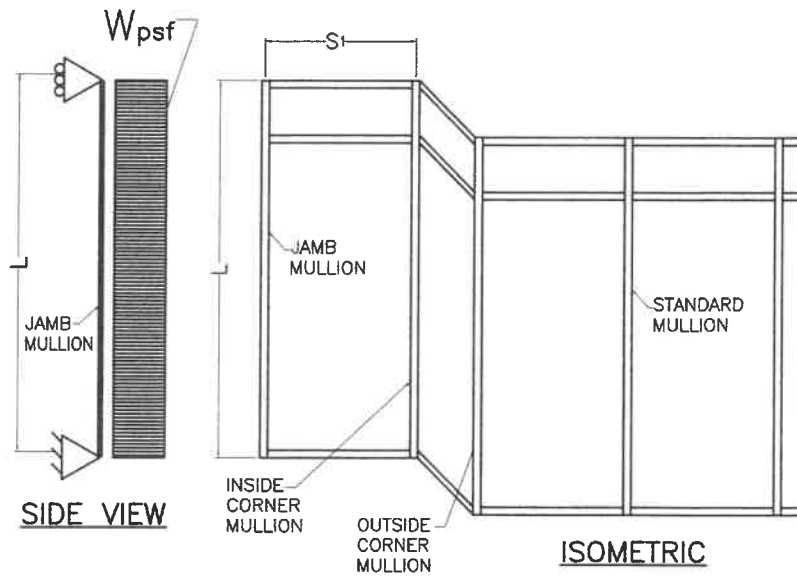
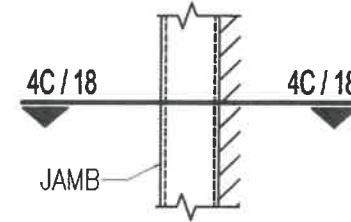
WINDOW WALL ELEVATION W/ HORIZONTAL

"L" = MAXIMUM HORIZONTAL SPAN

"D.L.O." = EFFECTIVE DAY LIGHT OPENING = $\frac{D.L.O.1 + D.L.O.2}{2}$
 FOR HORIZONTAL

MAXIMUM DESIGN PRESSURE RATING (psf)	EFFECTIVE DAY LIGHT OPENING "DLO" (ft-in)	MAXIMUM HORIZONTAL SPAN "L" (ft)
± 60.0 OR LESS	2'-0"	8'-0"
	2'-6"	8'-0"
	3'-0"	8'-0"
	3'-6"	8'-0"
	4'-0"	7'-5"
± 65.0	4'-6"	6'-7"
	5'-0"	5'-11"
	2'-0"	8'-0"
	2'-6"	8'-0"
	3'-0"	8'-0"
± 70.0	3'-6"	7'-10"
	4'-0"	6'-10"
	4'-6"	6'-1"
	5'-0"	5'-5"
	2'-0"	8'-0"
± 75.0	2'-6"	8'-0"
	3'-0"	8'-0"
	3'-6"	7'-3"
	4'-0"	6'-4"
	4'-6"	5'-8"
± 80.0	5'-0"	5'-1"
	2'-0"	8'-0"
	2'-6"	8'-0"
	3'-0"	7'-11"
	3'-6"	6'-9"
± 80.0	4'-0"	5'-11"
	4'-6"	5'-3"
	5'-0"	4'-9"
	2'-0"	8'-0"
	2'-6"	8'-0"
± 80.0	3'-0"	7'-5"
	3'-6"	6'-4"
	4'-0"	5'-7"
	4'-6"	4'-11"
	5'-0"	4'-5"

JAMB W/O ANCHORAGE (ELEVATION)



L = JAMB SPAN

EFFECTIVE SPACING (FOR FREESTANDING JAMB MULLION)

$b = \frac{S_1}{2}$ (SEE SCHEDULE)
 AT JAMB MULLION GLASS PANEL

MAXIMUM DESIGN PRESSURE RATING (psf)	EFFECTIVE SPACING "b" (ft-in)	JAMB W/O CONNECTION SPAN LF (ft-in)
60.0	1'-9"	9'-0"
	2'-0"	9'-0"
	2'-3"	9'-0"
	2'-6"	9'-0"
	2'-9"	8'-8"
	3'-0"	8'-4"
	3'-3"	8'-0"
	3'-6"	7'-9"
	3'-9"	7'-5"
	4'-0"	7'-3"
65.0	4'-1"	7'-1"
	1'-9"	9'-0"
	2'-0"	9'-0"
	2'-3"	9'-0"
	2'-6"	9'-0"
	2'-9"	8'-8"
	3'-0"	8'-4"
	3'-3"	8'-0"
	3'-6"	7'-9"
	3'-9"	7'-5"
70.0	4'-1"	6'-10"
	1'-9"	9'-0"
	2'-0"	9'-0"
	2'-3"	9'-0"
	2'-6"	8'-8"
	2'-9"	8'-4"
	3'-0"	8'-0"
	3'-3"	7'-9"
	3'-6"	7'-5"
	3'-9"	7'-3"
75.0	4'-1"	6'-8"
	1'-9"	9'-0"
	2'-0"	9'-0"
	2'-3"	8'-8"
	2'-6"	8'-4"
	2'-9"	8'-0"
	3'-0"	7'-9"
	3'-3"	7'-5"
	3'-6"	7'-3"
	3'-9"	6'-11"
76.0	4'-1"	6'-11"
	1'-9"	9'-0"
	2'-0"	9'-0"
	2'-3"	8'-8"
	2'-6"	8'-4"
	2'-9"	8'-0"
	3'-0"	7'-9"
	3'-3"	7'-5"
	3'-6"	7'-3"
	3'-9"	6'-11"
80.0	4'-1"	6'-11"
	1'-9"	9'-0"
	2'-0"	8'-10"
	2'-3"	8'-4"
	2'-6"	7'-11"
	2'-9"	7'-6"
	3'-0"	7'-3"
	3'-3"	6'-11"
	3'-6"	6'-8"
	3'-9"	6'-5"
4'-0"	6'-3"	
4'-1"	6'-2"	

TEXAS DEPARTMENT OF INSURANCE - 2018

M.P. DRAWN BY: 2/3/2020 DATE: 20-015 DRAWING NO. SHEET 13 OF 21

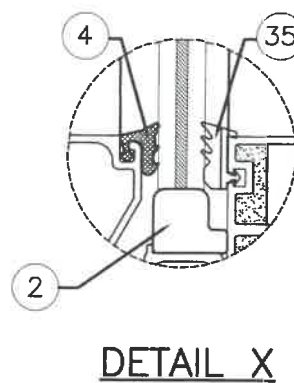
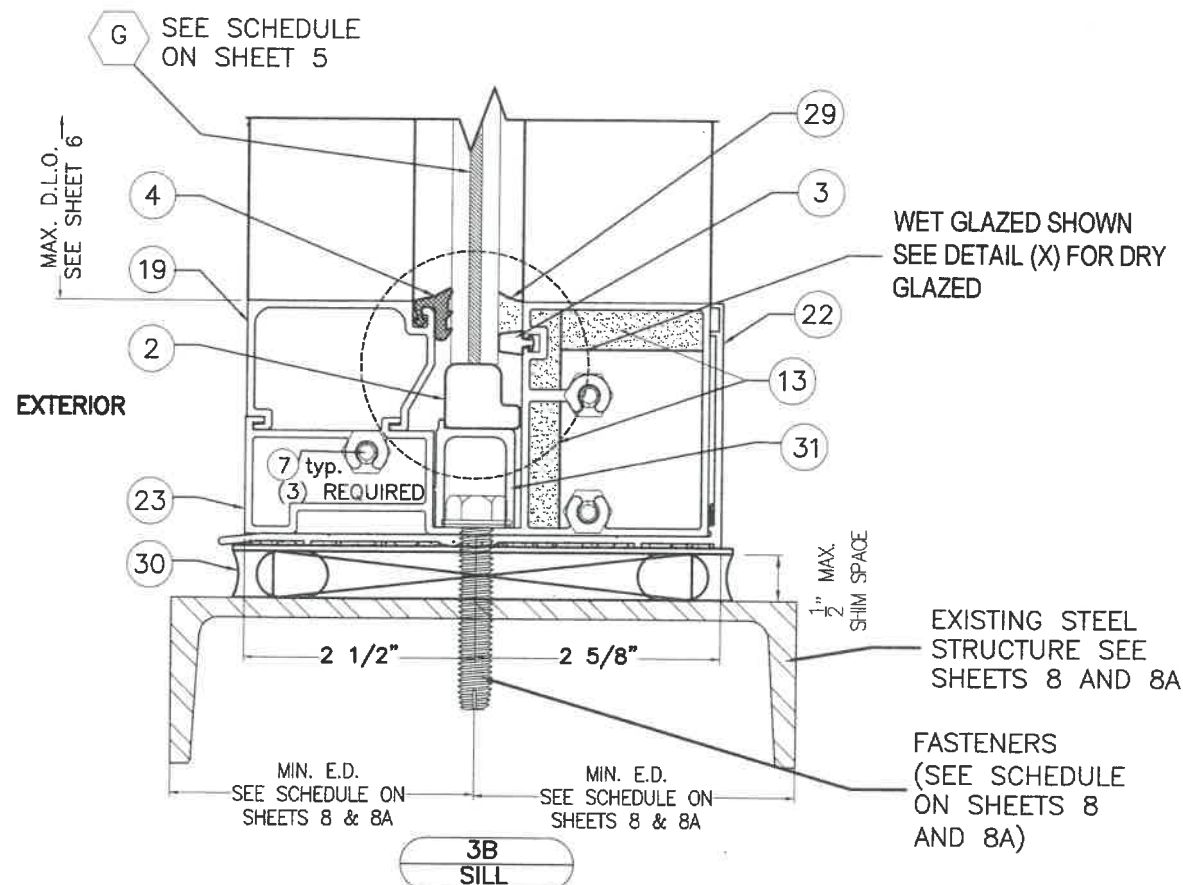
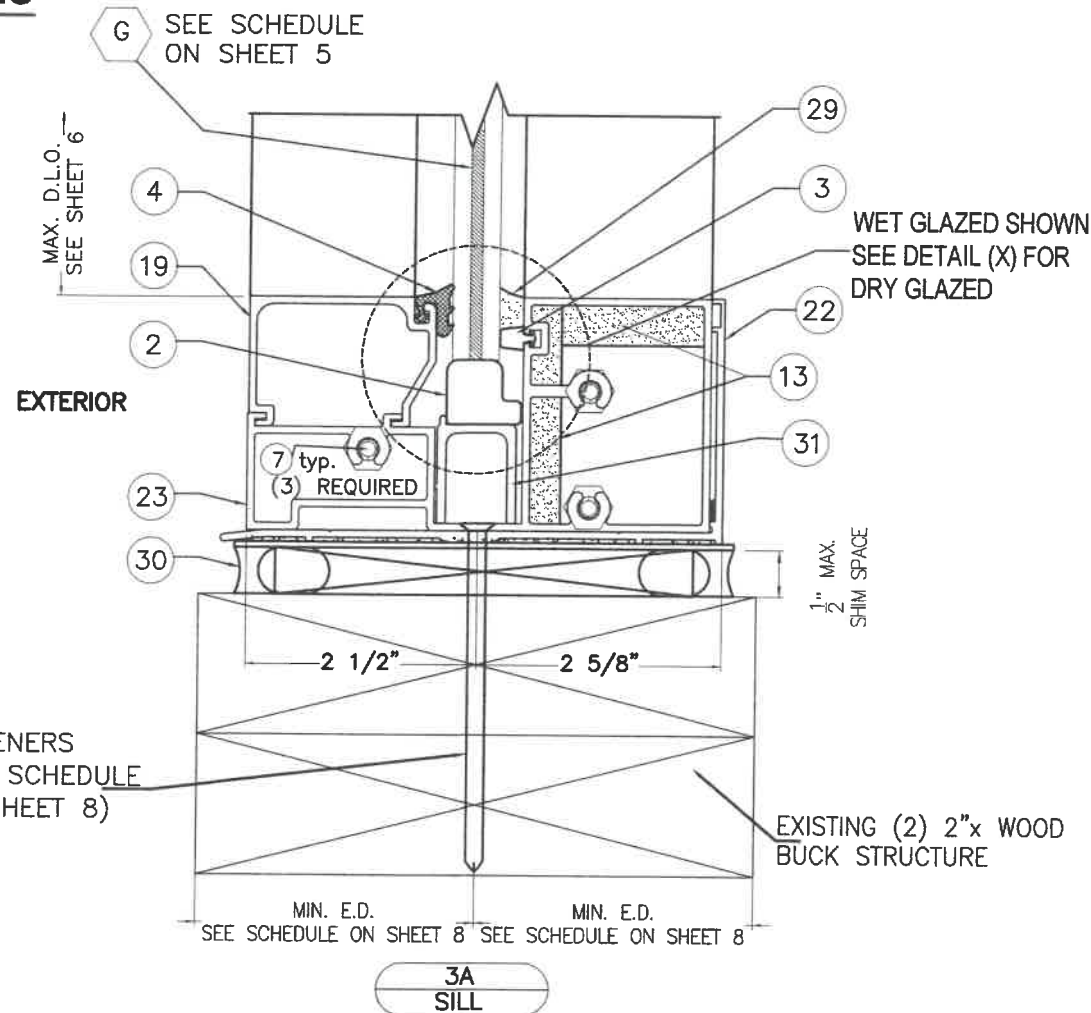
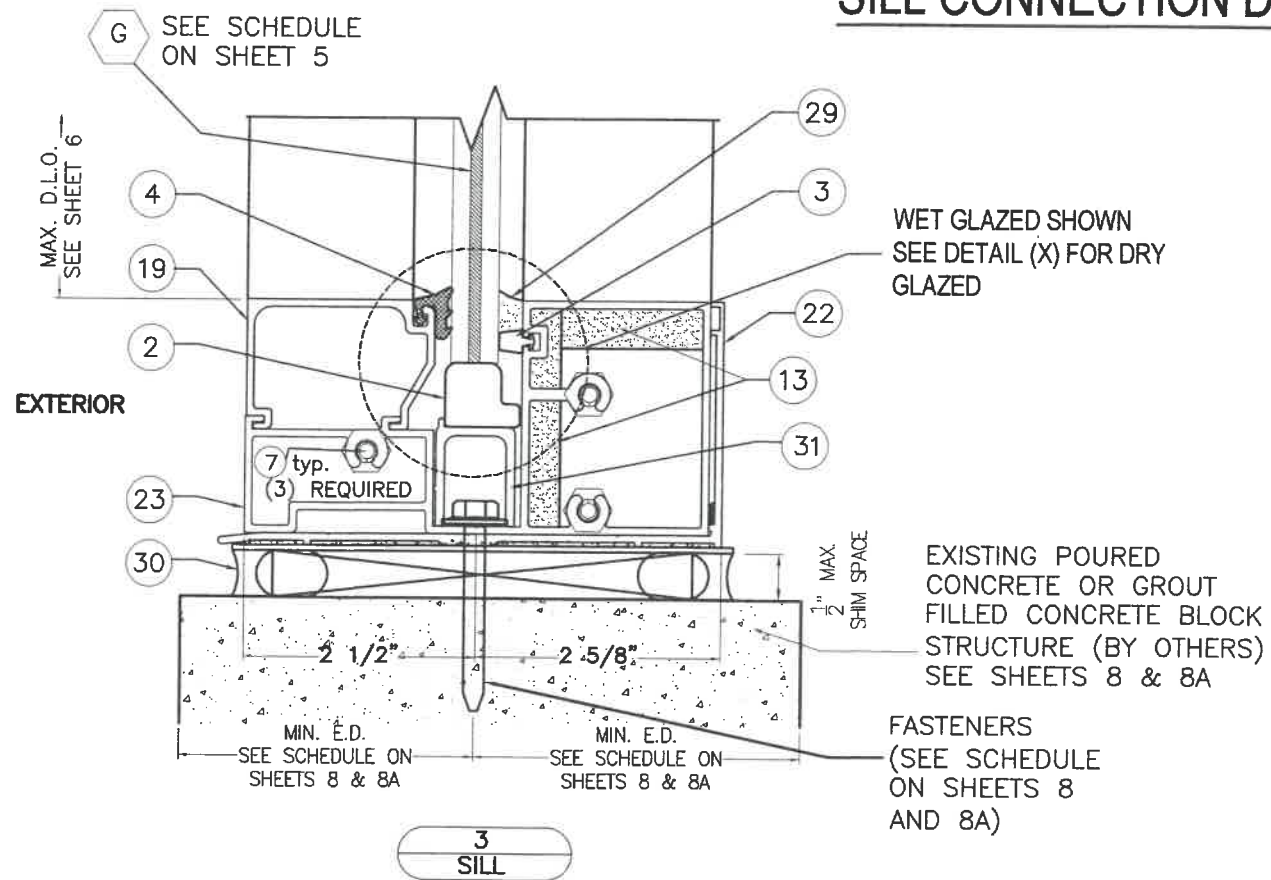
Oldcastle BuildingEnvelope
 803 AIRPORT RD. TERRELL, TX 75160
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REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
1	OLD 14-077	2/9/2020	3		
2			4		

WALTER A. TILLIT JR. P.E.
 PROFESSIONAL ENGINEER
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 Fax : (305) 871-1531
 TEXAS LIC. # 90691
 FIRM REGISTRATION # F-13790



SILL CONNECTION DETAILS



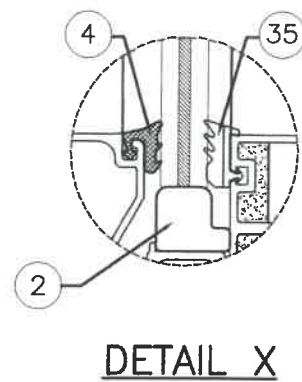
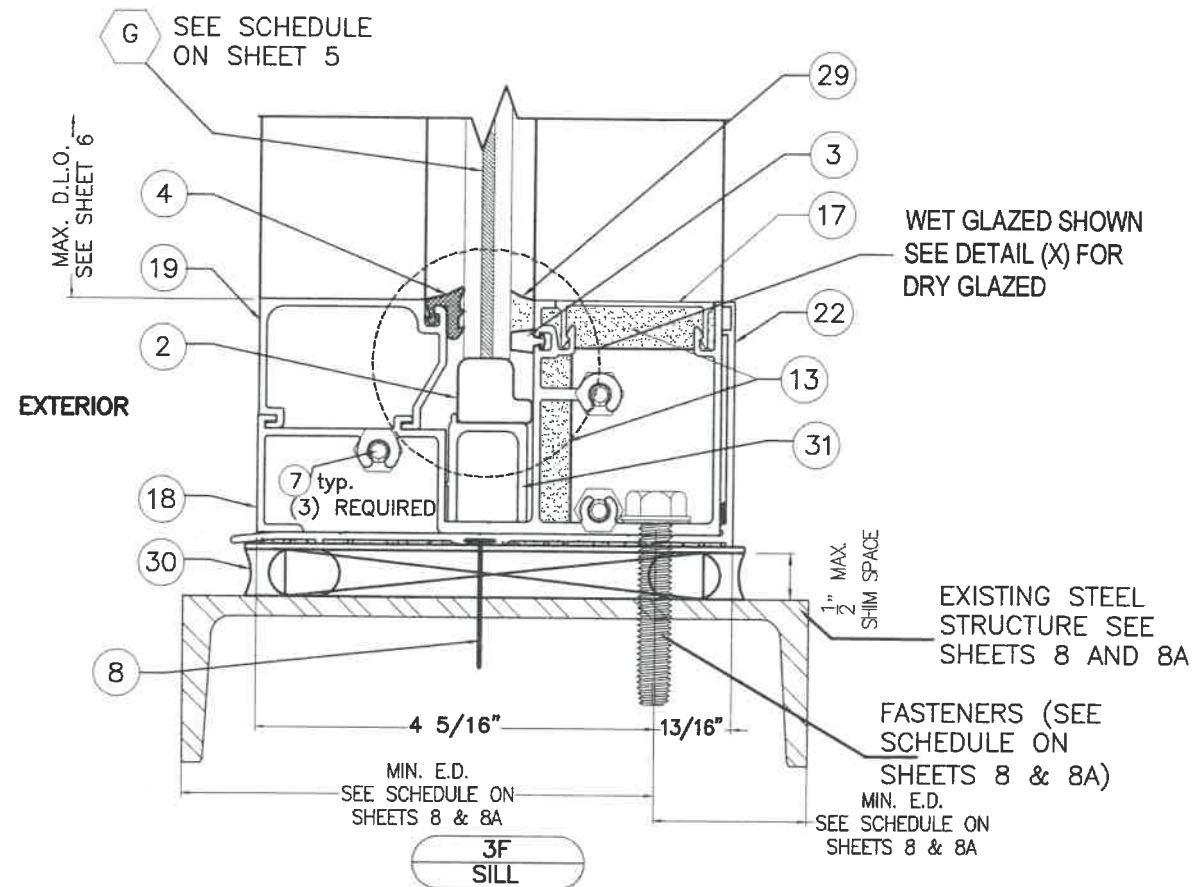
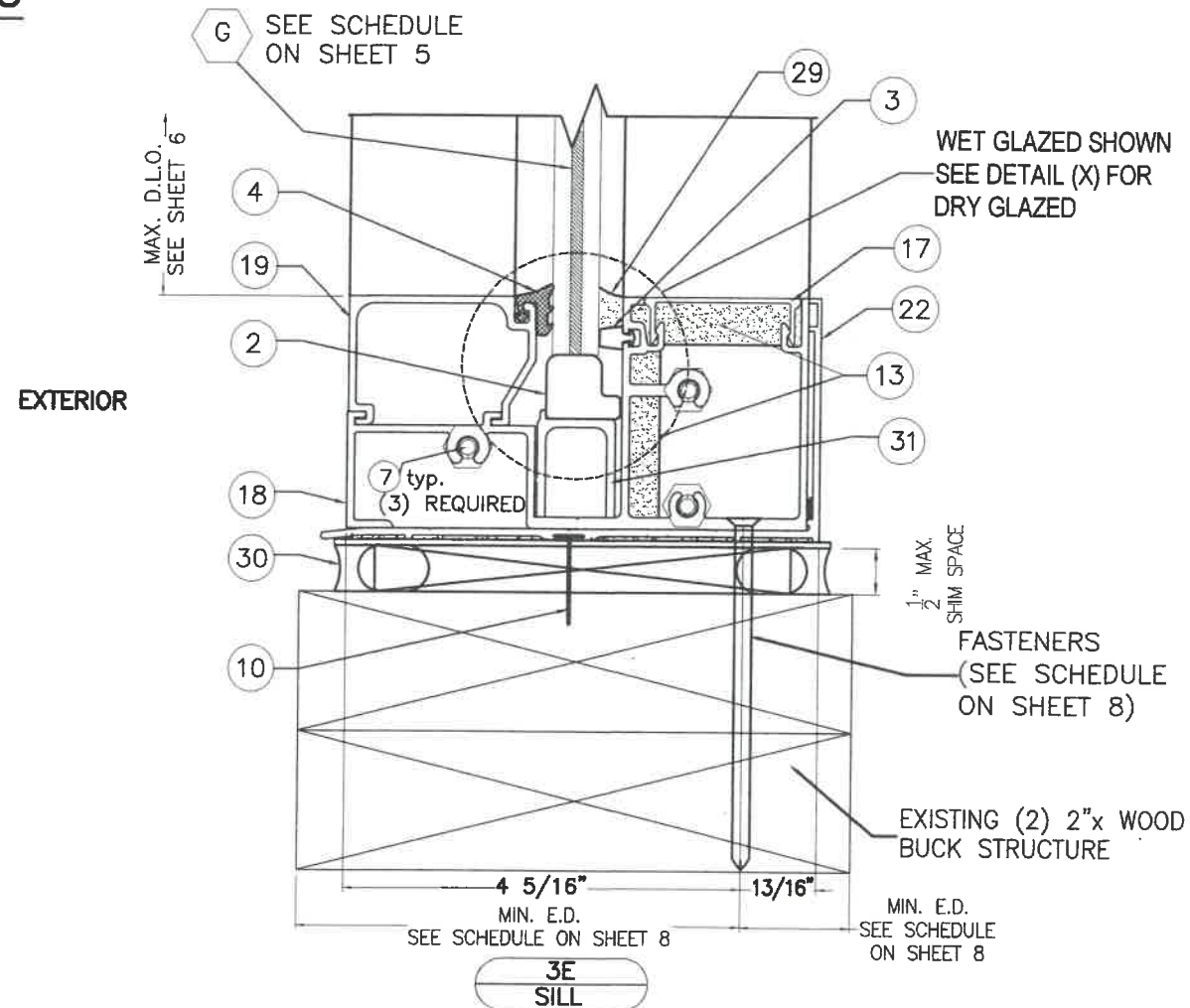
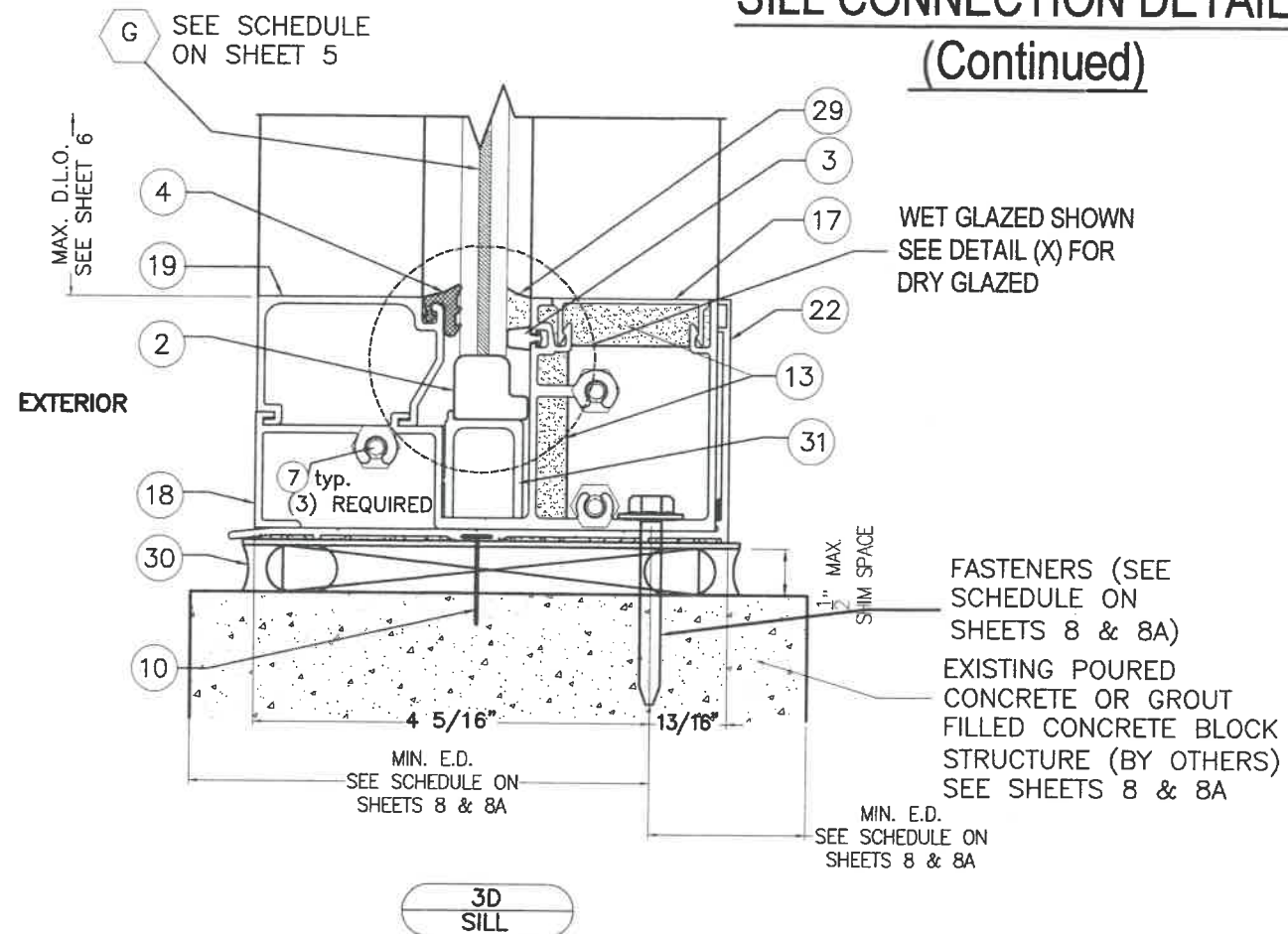
TEXAS DEPARTMENT OF INSURANCE - 2018		M.P. DRAWN BY: 2/3/2020	DATE: 2/3/2020	DRAWING NO. 20-015	SHEET 14 OF 21
SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS		Oldcastle BuildingEnvelope 803 AIRPORT RD. TERRELL, TX 75160 www.OldcastleBE.com Phone 800-869-4567			
REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
1	OLD 14-077	2/3/2020	3		
2			4		

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SILL CONNECTION DETAILS

(Continued)



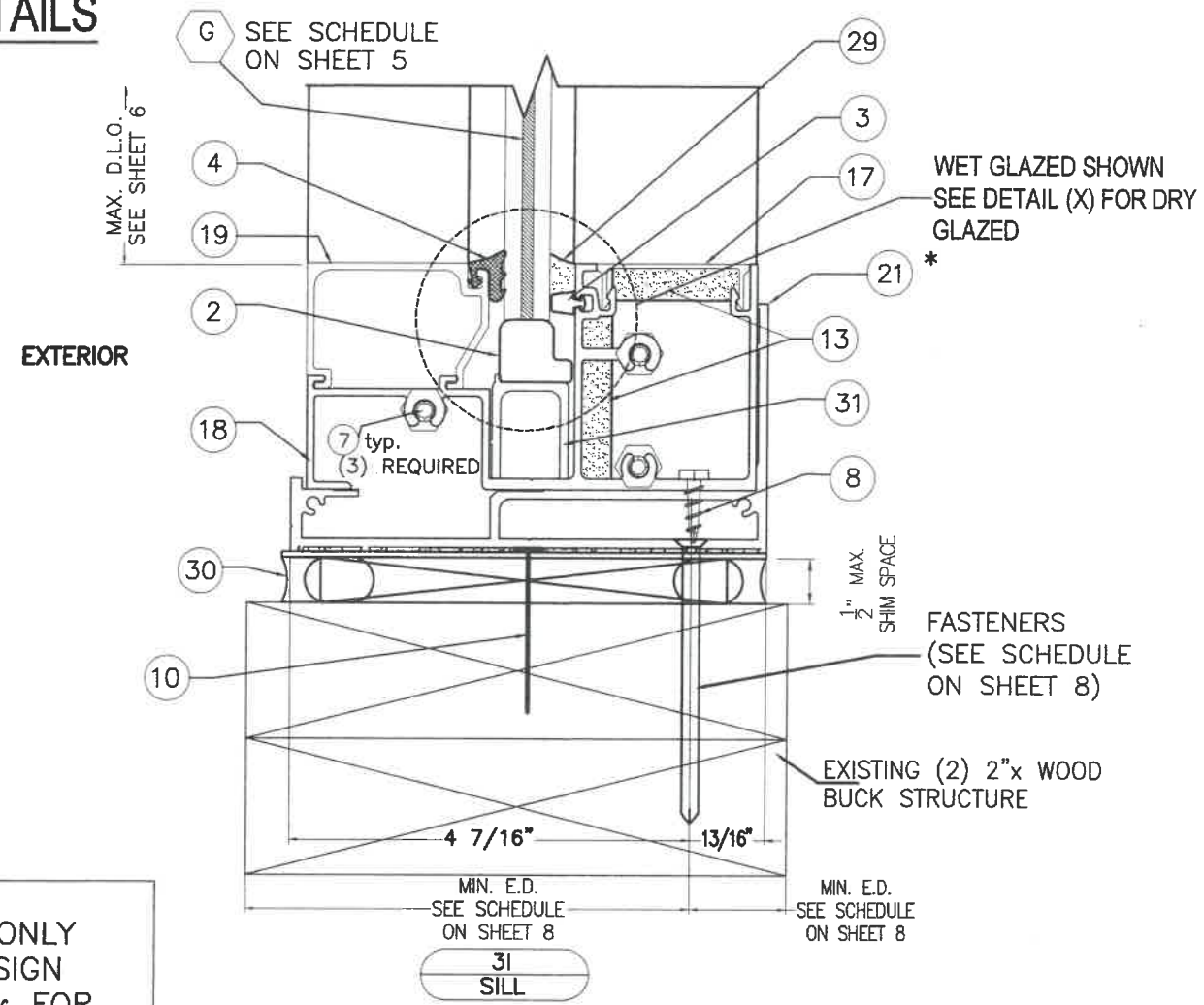
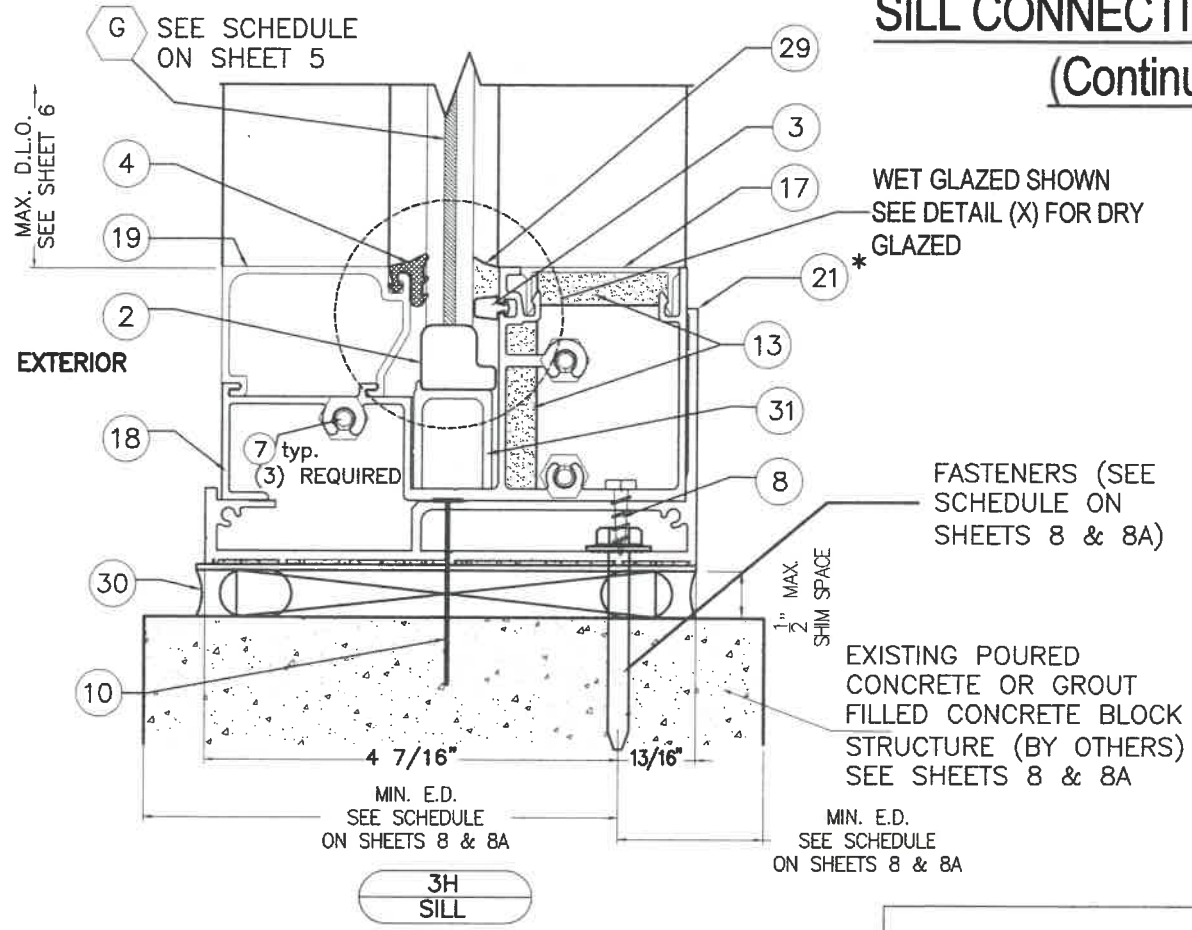
TEXAS DEPARTMENT OF INSURANCE - 2018		M.P.	DATE	DRAWING No.	SHEET 15 OF 21
SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS		DRAWN BY:	2/3/2020	20-015	
Oldcastle BuildingEnvelope® 803 AIRPORT RD. TERRELL, TX 75160 www.OldcastleBE.com Phone 800-869-4567		DATE	2/3/2020	REV. No	
REV. No	DESCRIPTION	DATE	REV. No	DATE	
1	OLD 14-077	2/3/2020	3		
2			4		

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TEXAS LIC. # 90691
FIRM REGISTRATION # F-13790

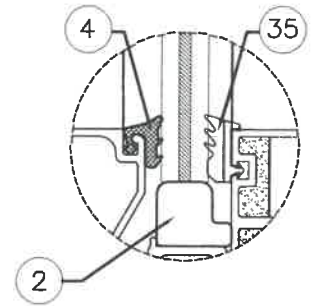
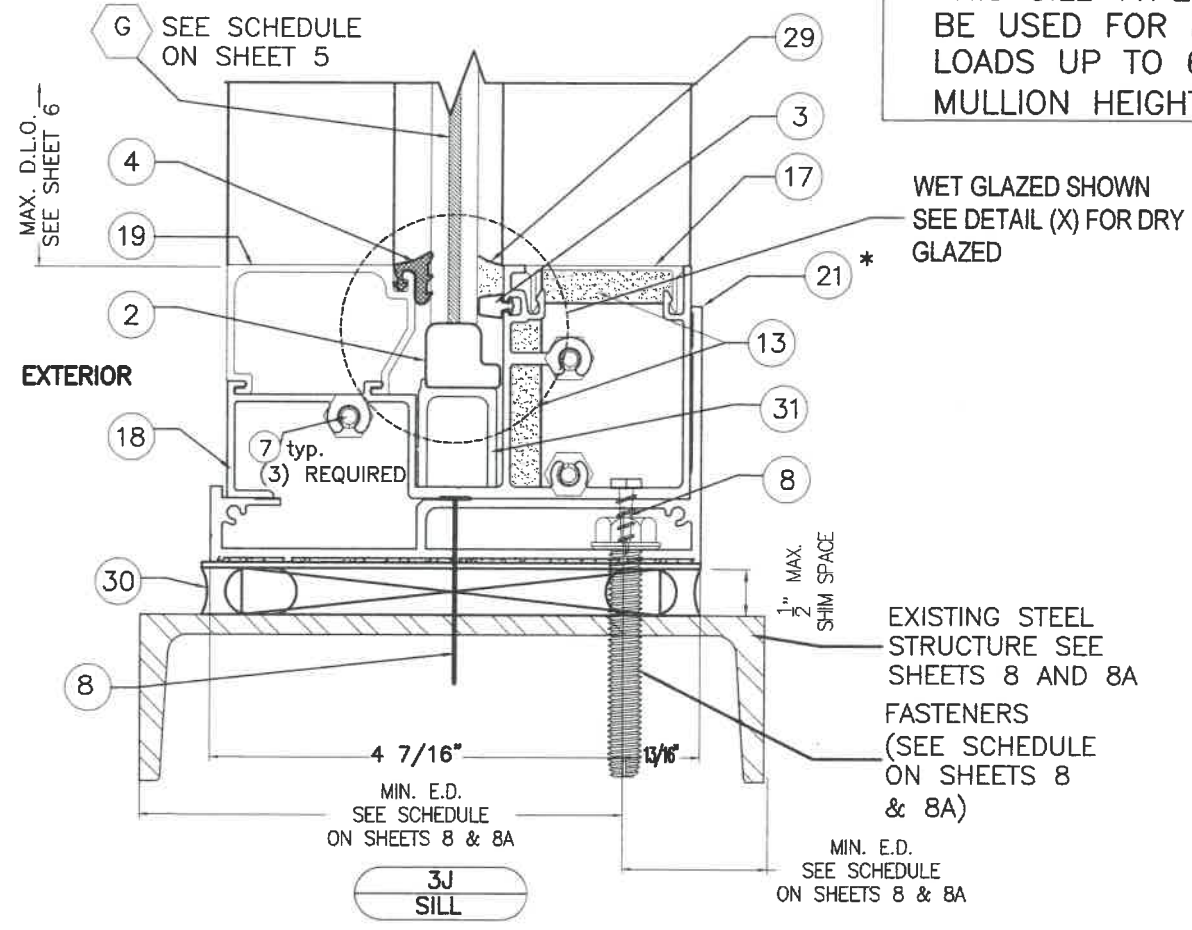


SILL CONNECTION DETAILS

(Continued)



* THIS SILL TYPE SHALL ONLY BE USED FOR MAX. DESIGN LOADS UP TO 65 psf & FOR MULLION HEIGHTS UP TO 108\".



DETAIL X

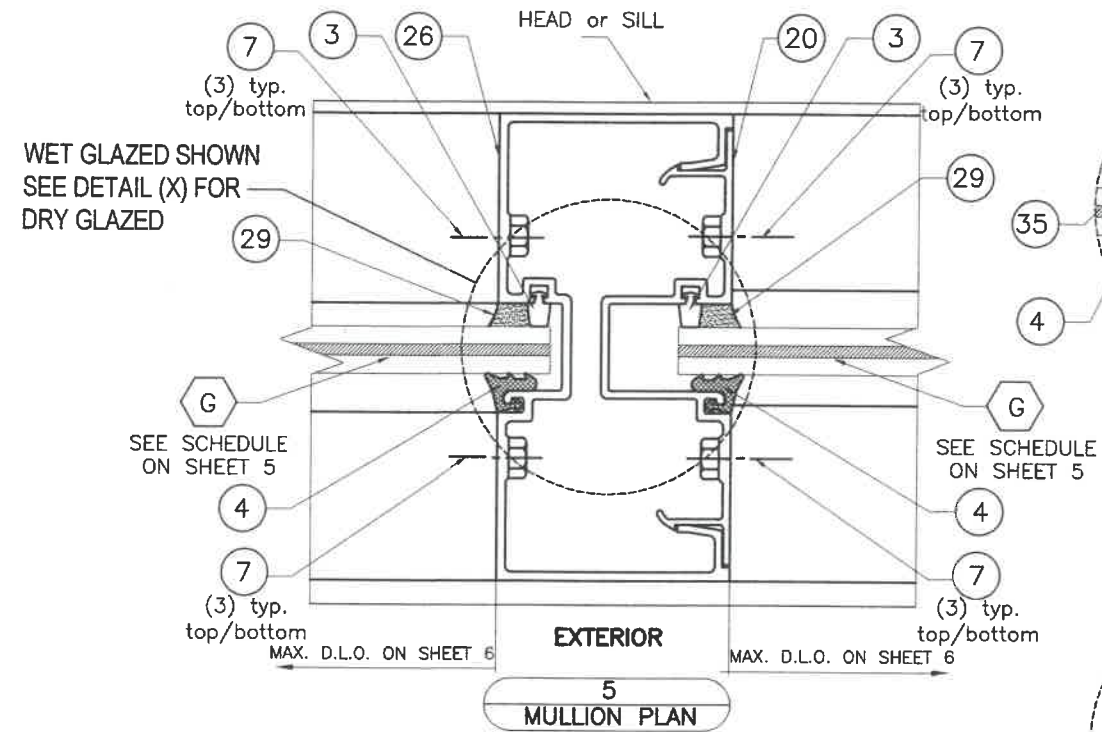
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SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS		DATE:	20-015
Oldcastle BuildingEnvelope® 803 AIRPORT RD. TERRELL, TX 75160 www.OldcastleBE.com Phone 800-869-4567		DATE	DRAWING NO.
REV. NO.	DESCRIPTION	DATE	REV. NO.
1	OLD 14-077	2/3/2020	3
2			4

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Fax : (305) 871-1531
TEXAS LIC. # 90891
FIRM REGISTRATION # F-13790

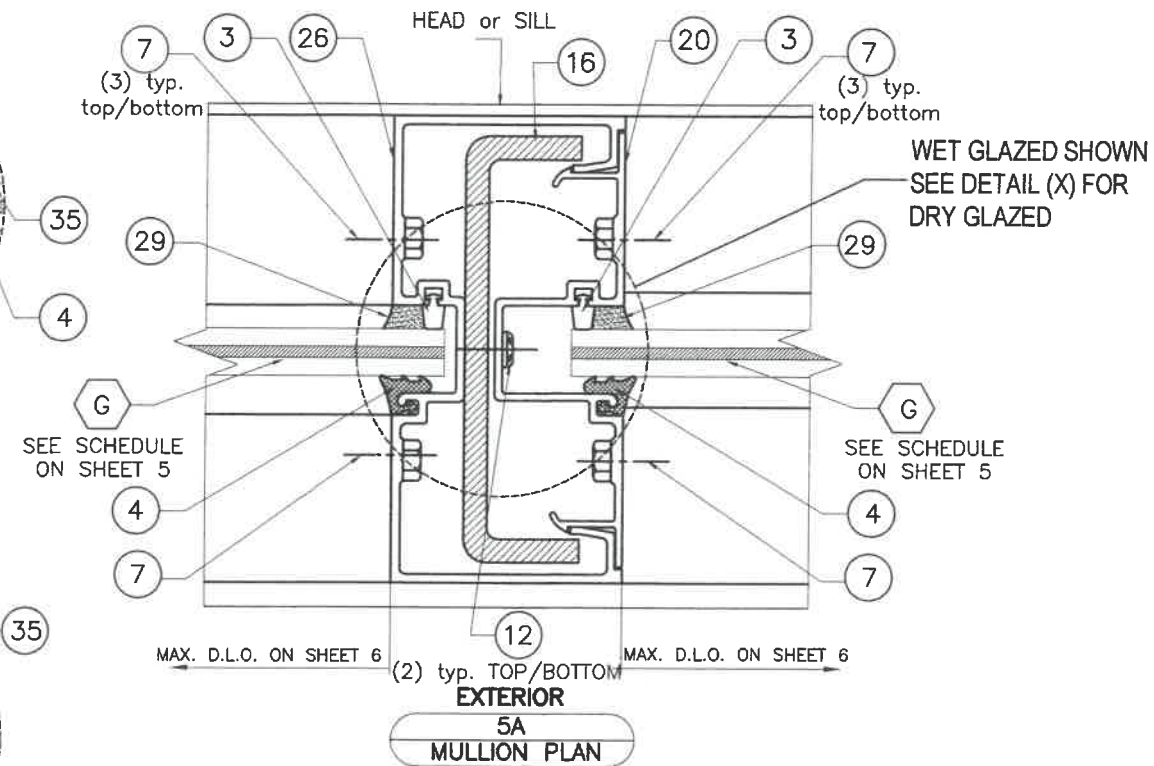


HORIZONTAL SECTIONS AT STANDARD AND CORNER MULLIONS

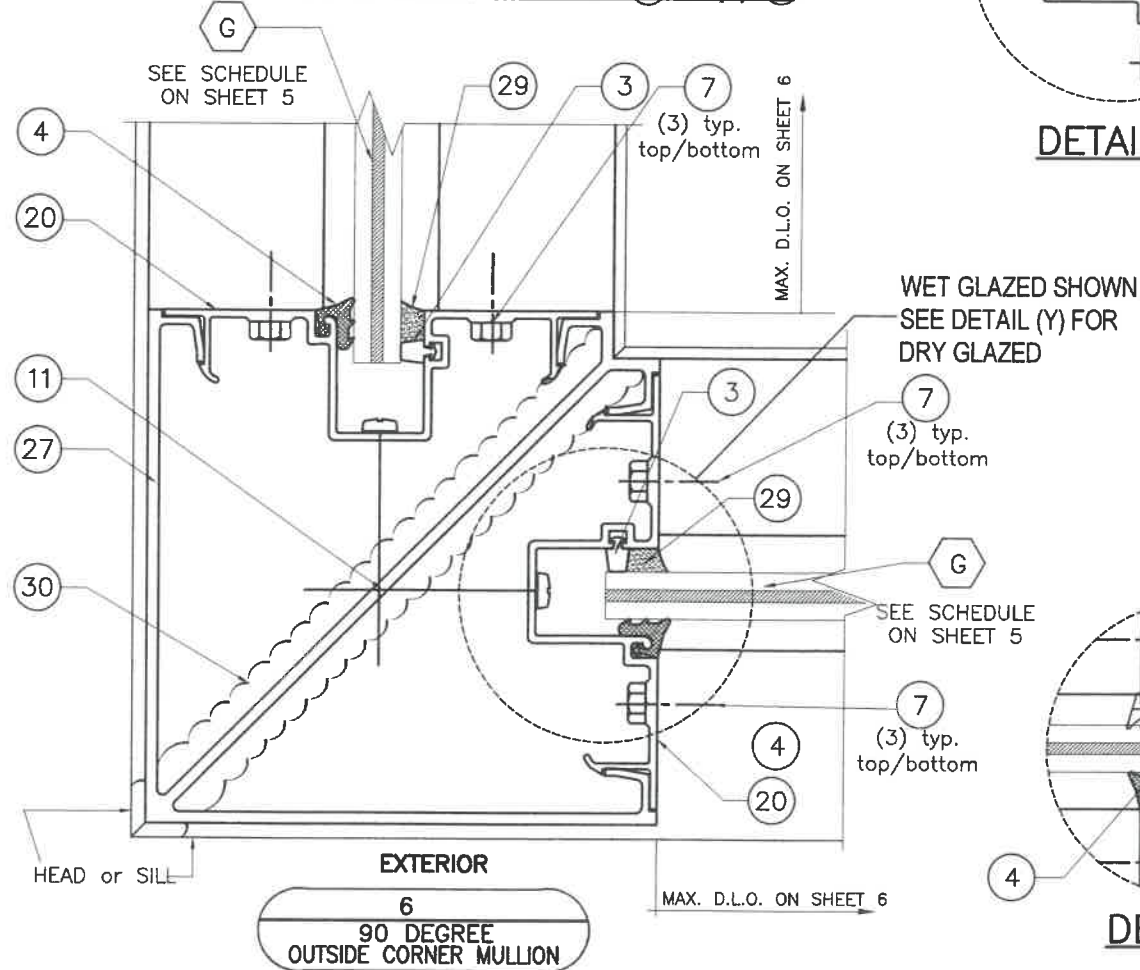
STANDARD MULLION 20 + 26



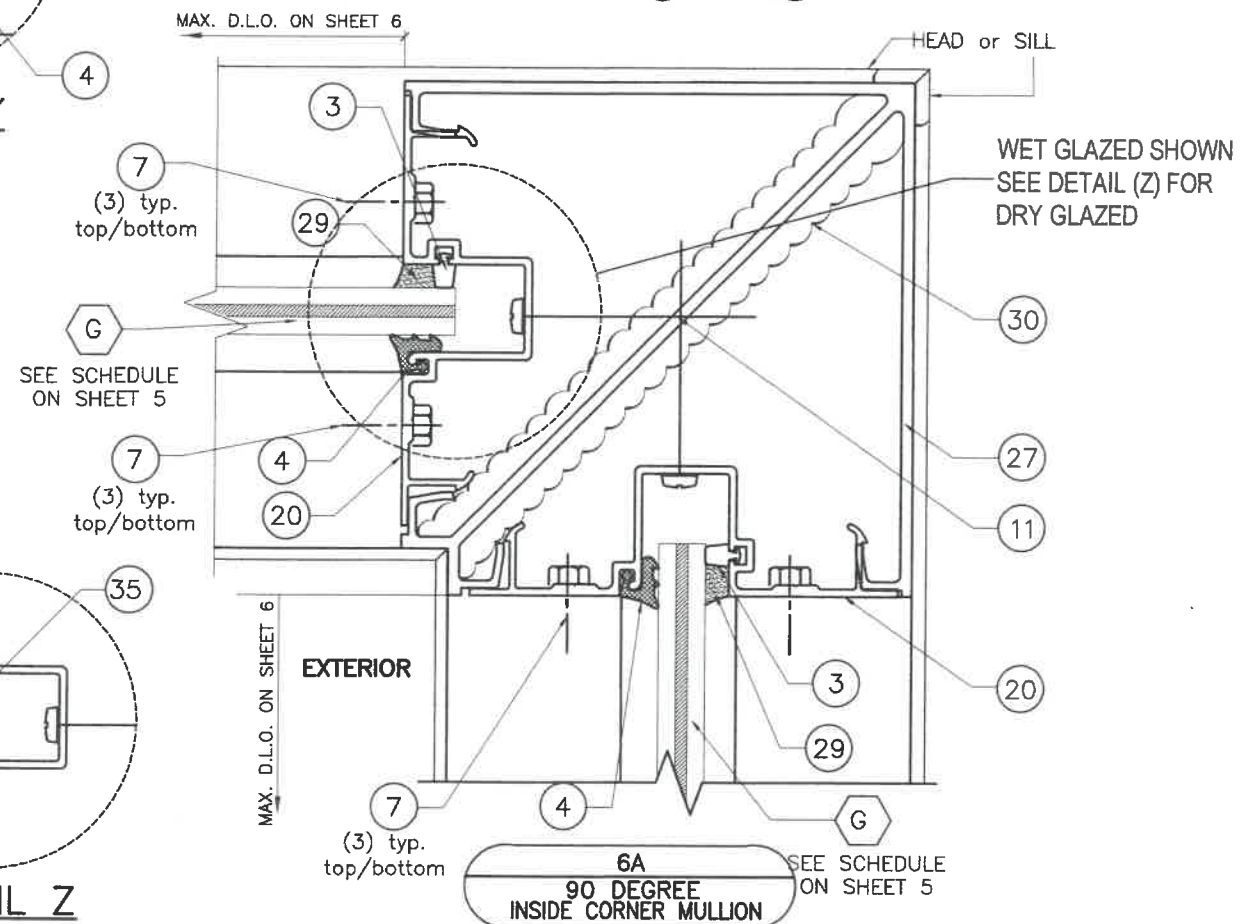
STANDARD MULLION 20 + 26 W/ STEEL CHANNEL 16



OUTSIDE CORNER MULLION 27 + (2) 20

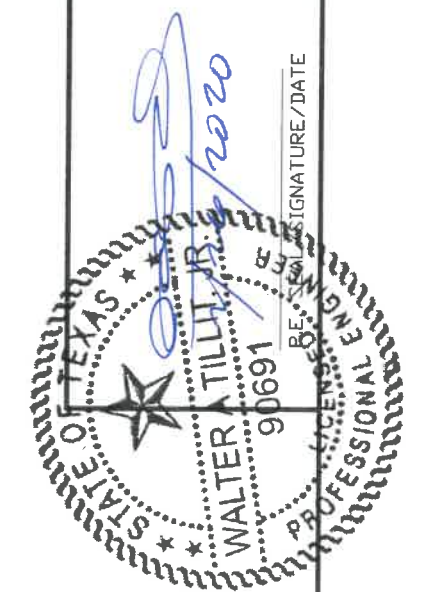


INSIDE CORNER MULLION 27 + (2) 20



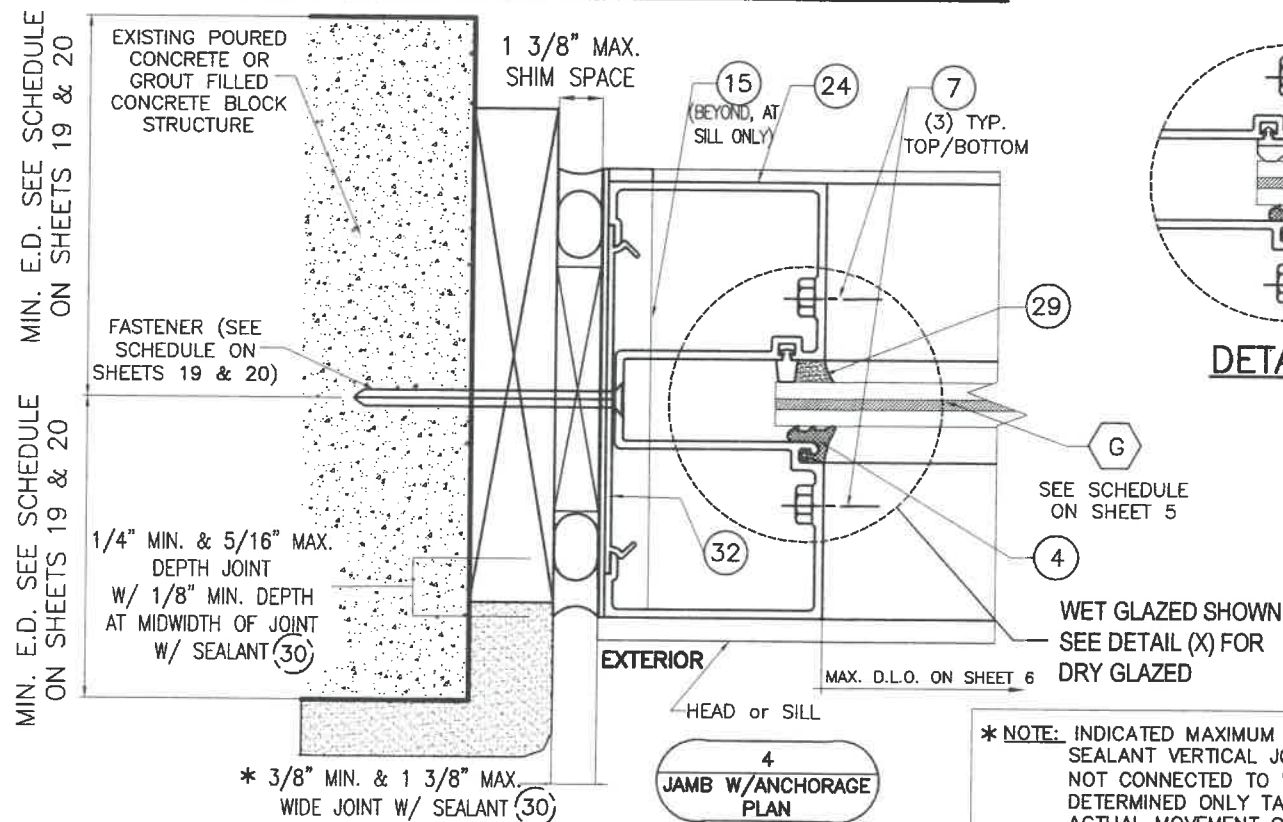
TEXAS DEPARTMENT OF INSURANCE - 2018	
M.P. DRAWN BY: 2/3/2020 DATE: 20-015 DRAWING NO.	DATE: 2/3/2020 REV. No. 3 DATE 2/3/2020 DESCRIPTION 1 OLD 14-077 2
SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS Oldcastle BuildingEnvelope 803 AIRPORT RD. TERRELL, TX 75160 www.OldcastleBE.com Phone 800-869-4567	

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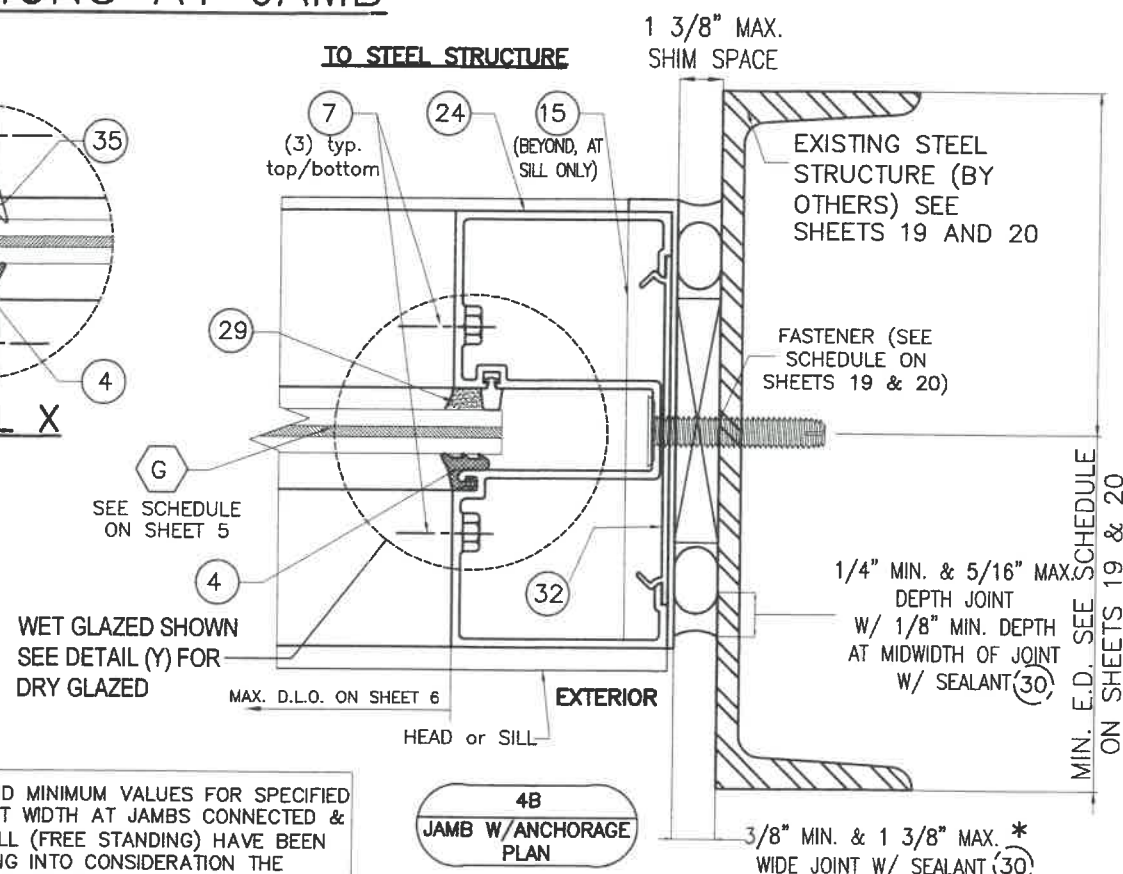


HORIZONTAL SECTIONS AT JAMB

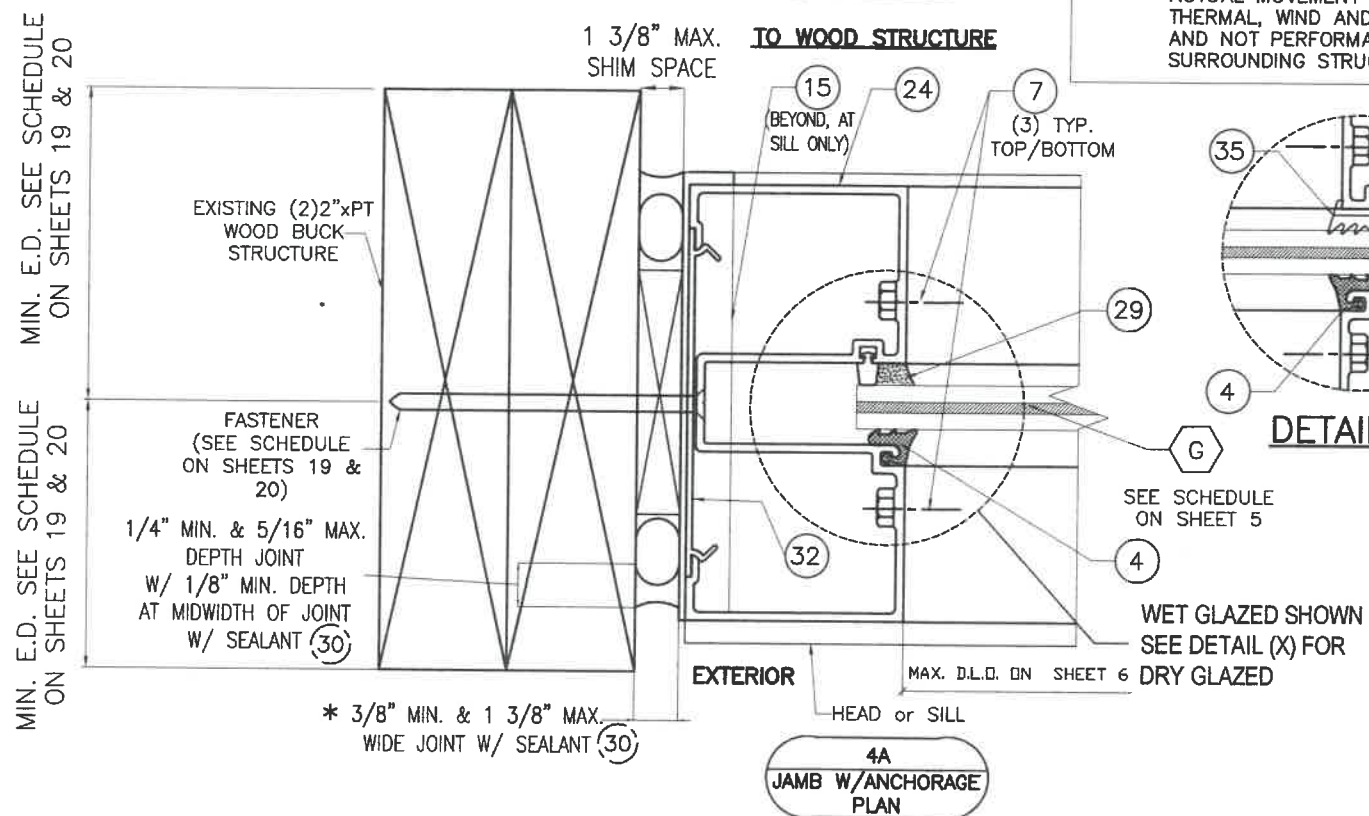
TO POURED CONCRETE OR GROUT FILLED CONCRETE BLOCK STRUCTURE



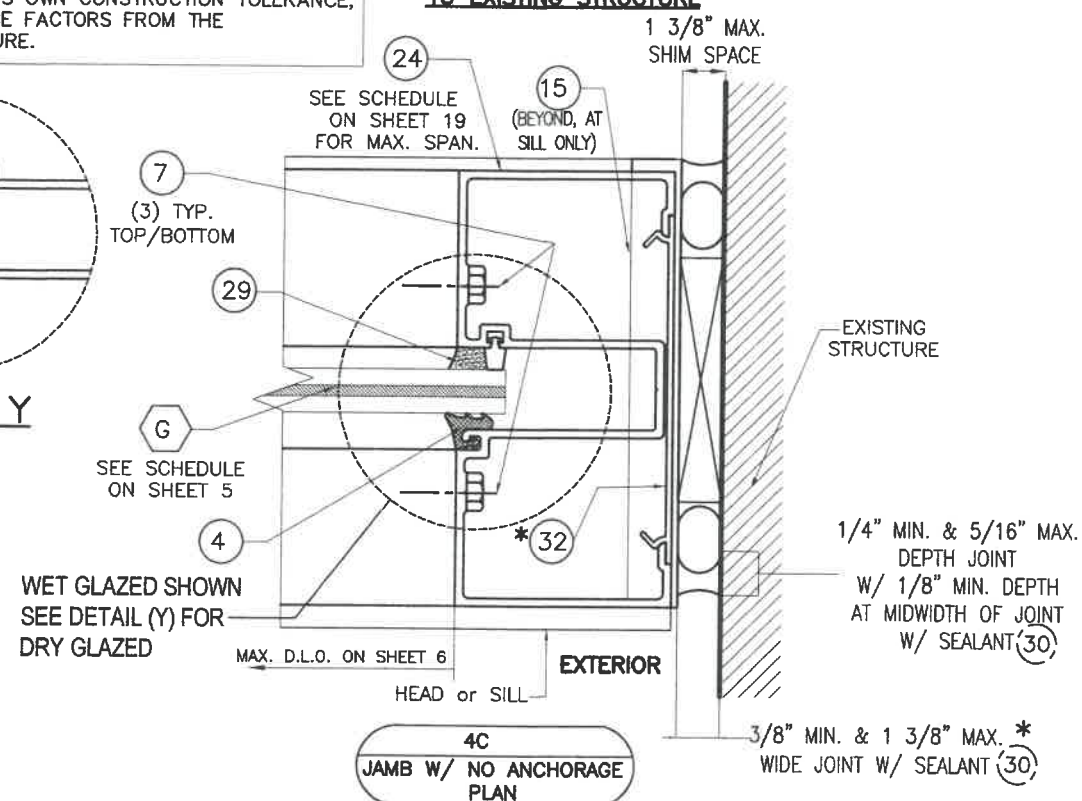
TO STEEL STRUCTURE



TO WOOD STRUCTURE



TO EXISTING STRUCTURE



* NOTE: INDICATED MAXIMUM AND MINIMUM VALUES FOR SPECIFIED SEALANT VERTICAL JOINT WIDTH AT JAMBS CONNECTED & NOT CONNECTED TO WALL (FREE STANDING) HAVE BEEN DETERMINED ONLY TAKING INTO CONSIDERATION THE ACTUAL MOVEMENT OF GLASS WALL AT JAMBS DUE TO THERMAL, WIND AND ITS OWN CONSTRUCTION TOLERANCE, AND NOT PERFORMANCE FACTORS FROM THE SURROUNDING STRUCTURE.

MIN. E.D. SEE SCHEDULE

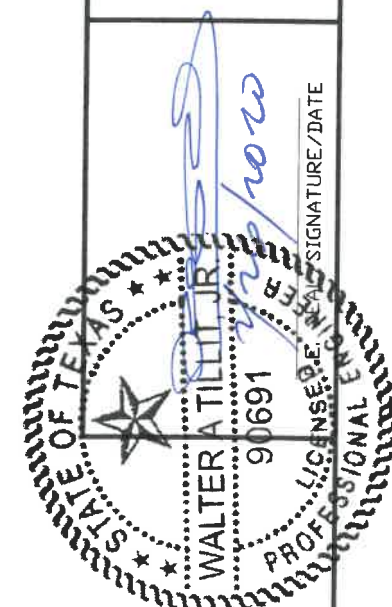
TEXAS DEPARTMENT OF INSURANCE - 2018

SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS

Oldcastle BuildingEnvelope

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FIRM REGISTRATION # F-13790



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REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
1	OLD 14-077	2/3/2020	3		
2			4		

MAXIMUM DESIGN PRESSURE RATING SCHEDULE FOR JAMBS FASTENED W/ 3/8"Ø FASTENERS

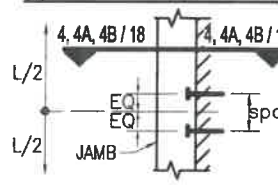
* SEE SHEET 13 FOR DEFINITION OF B

Table with columns for MAXIMUM MULLION SPAN, EFFECTIVE SPACING, and four options for FASTENERS CONNECTION (POURED CONCRETE, GROUT FILLED C. BLOCK, STEEL, WOOD). The table contains numerous numerical values representing pressure ratings.

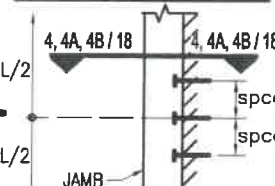
MIN. SPACING (spcg.) REQUIRED FOR DIFFERENT SUBSTRATES

- POURED CONCRETE: 4 1/2" MIN. O.C.
-GROUT FILLED C.B.: 8" MIN. O.C.
-STEEL: 4 1/2" MIN. O.C.
-WOOD: 2" MIN. O.C.

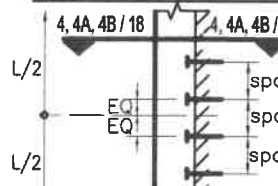
OPTION # 1 (ELEVATION) (2) FASTENERS CONNECTION



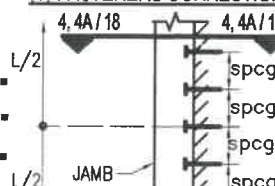
OPTION # 2 (ELEVATION) (3) FASTENERS CONNECTION



OPTION # 3 (ELEVATION) (4) FASTENERS CONNECTION



OPTION # 4 (ELEVATION) (5) FASTENERS CONNECTION

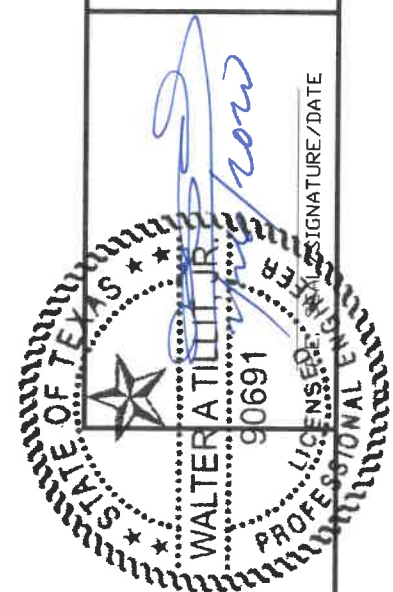


FASTENERS TYPES AND SUBSTRATES REQUIREMENTS W/ 2 3/4" MIN. E.D., BEYOND ANY FINISH MATERIAL

- J - 3/8"Ø HILTI KWIK BOLT 3 ANCHOR W/ 2" Min. EMBEDMENT INTO 6" Min. THICK POURED CONCRETE (Min. fc = 3 ksi).
K - 3/8"Ø POWER FASTENERS TAPPER ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. fc = 3 ksi).
L - 3/8"Ø HILTI HUS-H SCREW ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. fc = 3 ksi).
M - 3/8"Ø POWER FASTENERS TAPPER ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO GROUT FILLED CONCRETE BLOCK.
N - 3/8"Ø HILTI KWIK BOLT 3 ANCHOR W/ 2 1/2" Min. EMBEDMENT INTO GROUT FILLED CONCRETE BLOCK.
O - 3/8"Ø HILTI HUS-H SCREW ANCHOR W/ 2 3/4" Min. EMBEDMENT INTO GROUT FILLED CONCRETE BLOCK.
P - 3/8"Ø TYPE "F" BOLT OR 3/8"Ø -13 SAE GRADE 5 GALVANIZED STEEL HHB THRU BOLT W/ NUT & LOCK WASHER & 1 3/4" MIN. EDGE DISTANCE TO 1/4" Min. THK. ASTM A-36 OR 12 GAGE (0.108" MIN. THK.) Fy=33 ksi STEEL.
Q - 3/8"Ø LAG SCREWS TO DOUBLE 2 x WOOD BUCK (G=0.55) W/ 3" Min. PENETRATION INTO WOOD & 2" MIN. EDGE DISTANCE, BEYOND ANY FINISH MATERIAL.

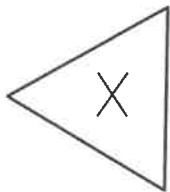
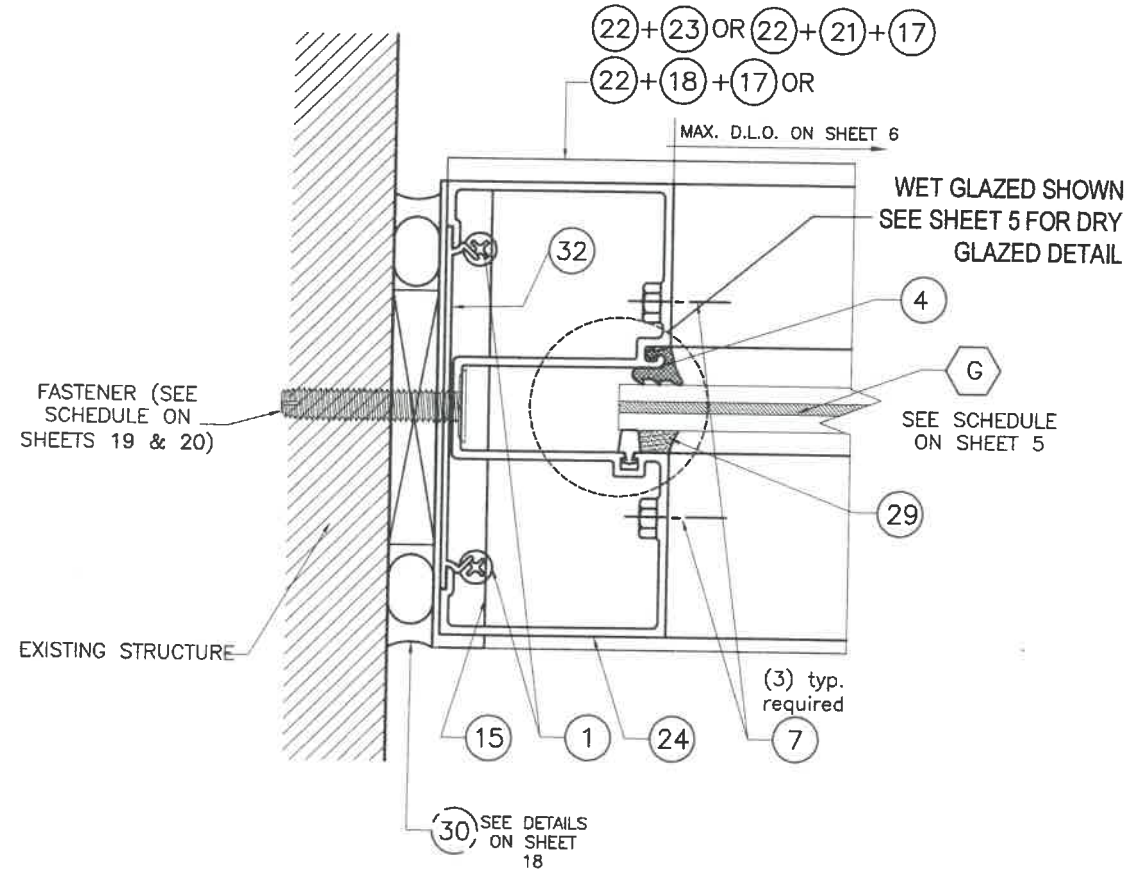
Administrative information including TEXAS DEPARTMENT OF INSURANCE, Oldcastle BuildingEnvelope, company address (803 AIRPORT RD. TERRELL TX 75160), phone (800-869-4567), and drawing details (DATE: 2/3/2020, DRAWING NO.: 20-015, SHEET 19 OF 21).

Professional Engineer information for WALTER A. TILLIT JR., P.E., including address (6355 N.W. 36th STREET, STE. 305, VIRGINIA GARDENS, FL 33166) and contact details (Phone: (305) 871-1530, Fax: (305) 871-1531, TEXAS LIC. # 90691, FIRM REGISTRATION # F-13790).

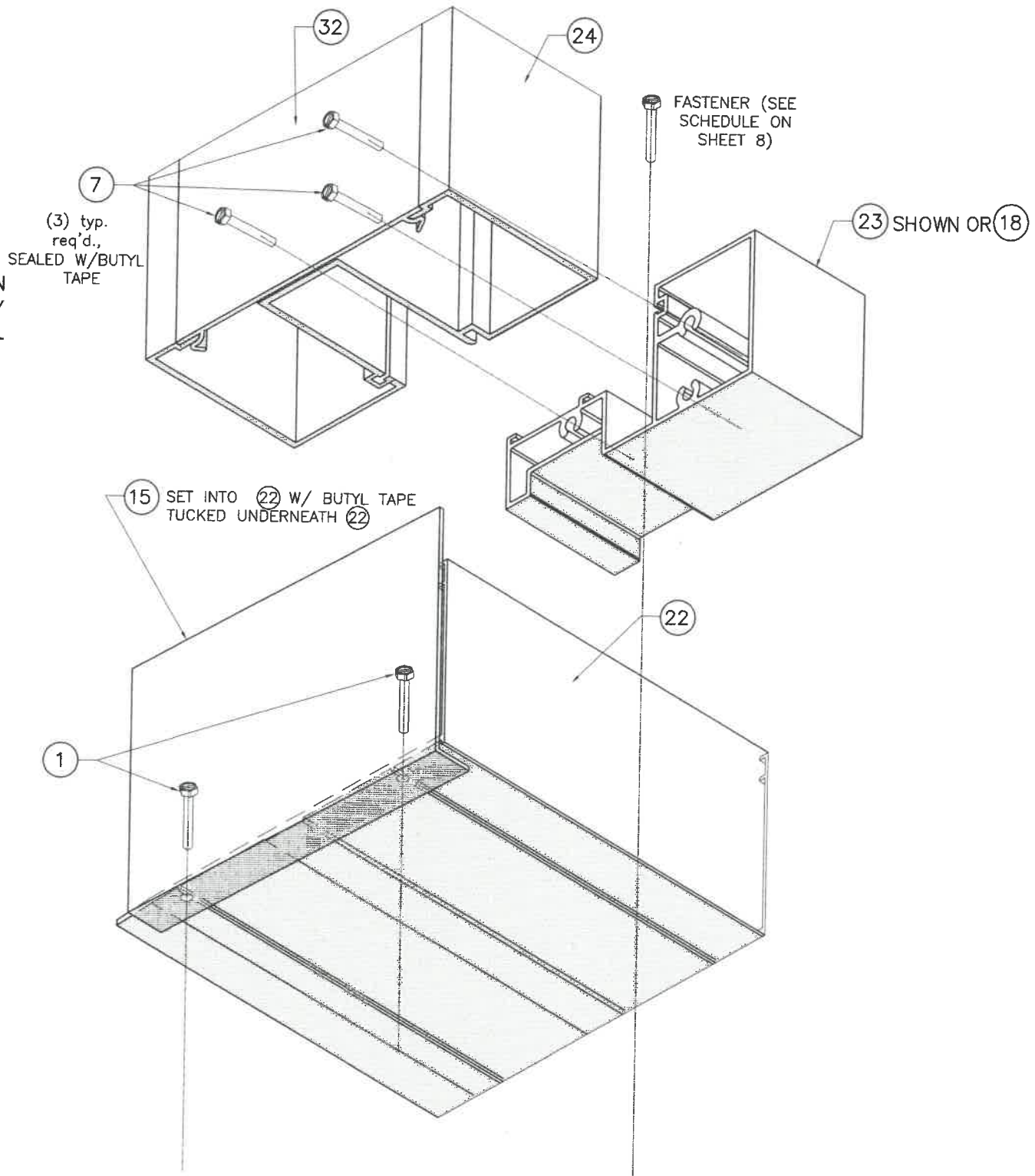


CORNER DETAIL AT JAMB

EXTERIOR



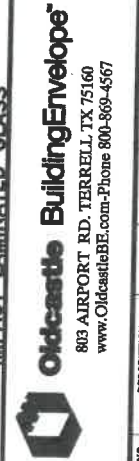
4D
JAMB PLAN



VIEW "X"
(ISOMETRIC)

TEXAS DEPARTMENT OF INSURANCE - 2018

SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS



REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	OLD 14-077	2/3/2020	3		
2			4		

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TEXAS LIC. # 90691
FIRM REGISTRATION # F-13790



SIGNATURE/DATE

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DRAWN BY:
2/3/2020
DATE:
20-015
DRAWING No.
SHEET 21 OF 21