

PRODUCT APPROVAL SPECIFICATION SHEET

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and approval numbers on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products.

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
1. EXTERIOR DOORS			
A. SWINGING			
B. SLIDING			
C. SECTIONAL			
D. ROLL UP			
E. AUTOMATIC			
F. OTHER			
2. WINDOWS			
A. SINGLE HUNG			
B. HORIZONTAL SLIDER			
C. CASEMENT			
D. DOUBLE HUNG			
E. FIXED			
F. AWNING			
G. PASS THROUGH			
H. PROJECTED			
I. MULLION			
J. WIND BREAKER			
K. DUAL ACTION			
L. OTHER			
3. PANEL WALL			
A. SIDING			
B. SOFFITS			
C. EIFS			
D. STOREFRONTS	oldcastle	FG-2000 STOREFRONT	FL#15072.1
E. CURTAIN WALLS			
F. WALL LOUVER			
G. GLASS BLOCK			
H. MEMBRANE			
I. GREENHOUSE			
J. OTHER			
4. ROOFING PRODUCTS			
A. ASPHALT SHINGLES			
B. UNDERLAYMENTS			
C. ROOFING FASTENERS			
D. NON-STRUCTURAL METAL ROOFING			
E. WOOD SHINGLES AND SHAKES			
F. ROOFING TILES			
G. ROOFING INSULATION			
H. WATERPROOFING			
I. BUILT UP ROOFING ROOF SYSTEMS			
J. MODIFIED BITUMEN			
K. SINGLE PLY ROOF SYSTEMS			
L. ROOFING SLATE			
M. CEMENTS-ADHESIVES COATINGS			

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
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N. LIQUID APPLIED ROOF SYSTEMS			
O. ROOF TILE ADHESIVE			
P. SPRAY APPLIED POLYURETHANE ROOF			
Q. OTHER			
5. SHUTTERS			
A. ACCORDION			
B. BAHAMA			
C. STORM PANELS			
D. COLONIAL			
E. ROLL-UP			
F. EQUIPMENT			
G. OTHERS			
6. SKYLIGHTS			
A. SKYLIGHT			
B. OTHER			
7. STRUCTURAL COMPONENTS			
A. WOOD CONNECTORS/ ANCHORS			
B. TRUSS PLATES			
C. ENGINEERED LUMBER			
D. RAILING			
E. COOLERS-FREEZERS			
F. CONCRETE ADMIXTURES			
G. MATERIAL			
H. INSULATION FORMS			
I. PLASTICS			
J. DECK-ROOF			
K. WALL			
L. SHEDS			
M. OTHER			
8. NEW EXTERIOR ENVELOPE PRODUCTS			
A.			
B.			

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite; 1) copy of the product approval, 2) the performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements. Further, I understand these products may have to be removed if approval cannot be demonstrated during inspection.



 APPLICANT SIGNATURE

3-17-14

 DATE

PRODUCT APPROVAL FOR SERIES FG-2000 STOREFRONT HIGH A.S.D. DESIGN PRESSURE W/ NON IMPACT MONOLITHIC TEMPERED GLASS

GENERAL NOTES:

1. SERIES FG-2000 STOREFRONT HIGH DESIGN PRESSURE W/ NON IMPACT MONOLITHIC TEMPERED GLASS, SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE W/ 2010 EDITION OF THE FLORIDA BUILDING CODE. THIS PRODUCT MAY BE INSTALLED WITHIN HIGH & NON-HIGH VELOCITY HURRICANE ZONES W/ LIMITATIONS AS PER NOTE 3 BELOW.
2. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTIONS 1620 (FOR HIGH VELOCITY HURRICANE ZONES) & 1608 (FOR NON-HIGH VELOCITY HURRICANE ZONES) OF THE ABOVE MENTIONED CODE FOR A BASIC WIND SPEED AS REQUIRED BY THE JURISDICTION WHERE THIS PRODUCT WILL BE INSTALLED FOR A DIRECTIONALITY FACTOR $K_d=0.85$, USING ASCE 7-10 FOR INSTALLATIONS UNDER 2010 FBC AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON NOTE 2.
3. IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-10 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 NOTE 2.
4. IN ORDER TO VERIFY THAT ANCHORS ON THIS P.E.D. AS TESTED WERE NOT OVERSTRESSED A 33% INCREASE ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. FASTENERS SPACING TO WOOD HAS BEEN DETERMINED IN ACCORDANCE WITH N.D.S. 2005 OR AVAILABLE TEST DATA FROM MANUFACTURER. THIS PRODUCT'S ADEQUACY FOR WIND RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTIONS 1625 (EXCEPT 1625.4) & 1714.5.3 OF THE ABOVE MENTIONED CODE AS PER PROTOCOL T&S-202 AND ASTM E330, PER ARCHITECTURAL TESTING INC. LABORATORY REPORT # 9946201-801-444 AND AS PER STRUCTURAL CALCULATIONS, PERFORMED AS PER SECTIONS 1804 & 1812 OF THE FLORIDA BUILDING CODE.
5. MAXIMUM A.S.D. DESIGN PRESSURE RATING FOR THIS PRODUCT SHALL BE AS SHOWN ON SHEETS 3, 5, 6 & 7.
6. THIS PRODUCT WILL REQUIRE AN APPROVED HURRICANE PROTECTION DEVICE IN ORDER TO RATE IT AS IMPACT RESISTANT. IF PRODUCT IS NOT PROTECTED WITH AN APPROVED HURRICANE PROTECTIVE DEVICE, THEN IT SHALL BE INSTALLED OUT OF THE HIGH VELOCITY HURRICANE ZONE AND OUT OF ANY WIND-BORNE DEBRIS REGIONS AS DEFINED ON SECTION 1809.2 OF THE FLORIDA BUILDING CODE.
7. THIS PRODUCT IS APPROVED FOR 12.11 g.s.f. AIR/WATER INFILTRATION.
8. TEMPERED GLASS TO COMPLY WITH SECTIONS 2411.1.3 OF THE FLORIDA BUILDING CODE.
9. PRODUCT SHALL COMPLY WITH SECTIONS 2406.1 2+H.4+1 AND 2411.4.2 OF THE FLORIDA BUILDING CODE.
10. PROVIDE 3/8 MAX. LOAD BEARING SHIM SPACE (TYP), WHEN ALLOWED BY THIS DRAWING.
11. WOOD BLOCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE BUILDING STRUCTURE. WOOD BLOCKS MUST BE SOUTHERN PINE, WITH $G = 0.55$.
12. REMAINING COMPONENTS FOR THIS PRODUCT SHALL BE AS INDICATED ON BILL OF MATERIALS SHEET 3 OF THIS DRAWING.
13. ALL ALUMINUM EXTRUSIONS IN CONTACT WITH STEEL, CONCRETE AND WOOD SHALL COMPLY WITH SECTIONS 2003.8.4.2, 2003.8.4.4, 2003.8.5 AND 2003.8.6 OF THE FLORIDA BUILDING CODE, RESPECTIVELY.
14. SHOP DRAWINGS PREPARED BASED ON THIS APPROVAL AND TAKING INTO ACCOUNT THE SPECIFIC JOB CONDITIONS, SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AS PART OF THE PERMIT DOCUMENTS.
15. STRUCTURAL SUBSTRATES NOTED ON THIS DRAWING AS EXISTING STEEL, BY OTHERS POURED CONCRETE, HOLLOW BLOCK AND WOOD MUST WITHSTAND THE LOADS IMPOSED BY THIS PRODUCT.
16. (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.
17. (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.
18. (c) THIS P.E.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
19. (d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED 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. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
20. (e) ORIGINAL P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

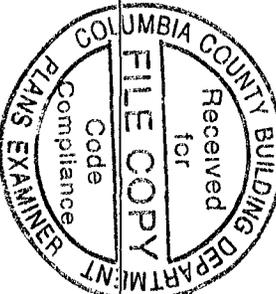
13. PRODUCT MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT PRODUCT IN ACCORDANCE WITH SECTION 1715.5 OF THE FLORIDA BUILDING CODE. ONE LABEL SHALL BE PLACED FOR EVERY OPENING.

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- SHEET 4 ELEVATION FOR SERIES FG-2000 STOREFRONT
- SHEET 5 MAXIMUM A.S.D. DESIGN PRESSURE RATING FOR MULLIONS.
- SHEET 6 SILL OR HEAD CONNECTIONS DETAILS (PLAN VIEWS) AND MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR MULLIONS W/ HEAD/SILL CONNECTIONS.
- SHEET 7 MAXIMUM A.S.D. DESIGN PRESSURE RATING FOR HORIZONTAL
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- SHEET 10 MAXIMUM A.S.D. DESIGN PRESSURE RATING & MAXIMUM FASTENERS SPACING SCHEDULE FOR JAMB CONNECTION AND CORNER DETAIL.

INSTRUCTIONS:

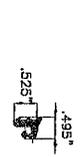
- STEP 1:** DETERMINE A.S.D. DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY BUILDING HEIGHT WIND ZONE, USING APPLICABLE ASCE 7 STANDARDS
- STEP 2:** GO TO SCHEDULE ON SHEET 3 TO DETERMINE MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf) CAPACITY OF DESIRED GLASS SIZE BASED ON GLASS PANEL DIMENSIONS.
- STEP 3:** DETERMINE MAXIMUM MULLION SPAN L_e (FT) FOR A GIVEN MULLION EFFECTIVE SPACING h_e ON SCHEDULE ON SHEET 5, AND SELECT ANCHOR OPTION W/ A.S.D. DESIGN PRESSURE RATING EQUAL OR GREATER THAN A.S.D. DESIGN WIND LOAD SPECIFIED IN STEP 1 USING SCHEDULE ON SHEET 6
- STEP 4:** DETERMINE MAXIMUM ANCHOR SPACING AT JAMB FOR A GIVEN MAXIMUM A.S.D. DESIGN PRESSURE RATING AND MAXIMUM MULLION SPACING, ON SHEET 10
- STEP 5:** USE SCHEDULE ON SHEET 7 TO VERIFY MAXIMUM A.S.D. DESIGN PRESSURE RATING OF HORIZONTALS (IF USED) FOR A GIVEN HORIZONTAL EFFECTIVE $D_{L.O.}$
- STEP 6:** THE LONGEST VALUE OF A.S.D. DESIGN PRESSURE RATING RESULTING FROM STEPS 2, 3 AND 5 SHALL APPLY TO THE ENTIRE SYSTEM.



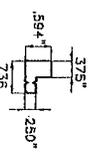
FLORIDA BUILDING CODE (High & Non High Velocity Hurricane Zone)		SERIES FG-2000 STOREFRONT HIGH DESIGN PRESSURE W/ NON-IMPACT MONOLITHIC TEMPERED GLASS		DRAWN BY: L.G./A.G.																					
TILTECO INC. <small>TILLIT TESTING & ENGINEERING COMPANY 6355 NW 58th St, Suite 200, Virginia Beach, VA 23462 Phone: 757-463-1111 / 757-463-1112 / 757-463-1113 e-mail: tilteco@tillit.com EB-0008719 WALTER A. TILLIT JR. P.E. FLORIDA Lic. # 44167</small>		Oldcastle BuildingEnvelope™ <small>803 Airport Rd Terrell, TX 75780 www.OldcastleBE.com Phone 800-868-4667</small>		11/30/11 DATE																					
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV. NO.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>BY</th> <th>CHK. BY</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>OLD 10-023</td> <td>11/30/11</td> <td>5</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td>4</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		REV. NO.	DESCRIPTION	DATE	BY	CHK. BY	DESCRIPTION	DATE	1	OLD 10-023	11/30/11	5				2			4				11-198 DRAWING No
REV. NO.	DESCRIPTION	DATE	BY	CHK. BY	DESCRIPTION	DATE																			
1	OLD 10-023	11/30/11	5																						
2			4																						
				SHEET 1 OF 10																					

COMPONENTS FOR SERIES FG-2000 STOREFRONT

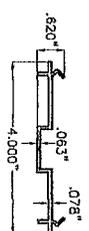
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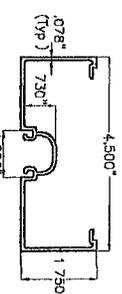
1 GLAZING GASKET
FG-1133



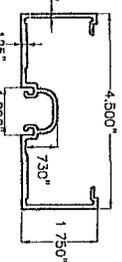
2 SETTING BLOCK
FG-1136



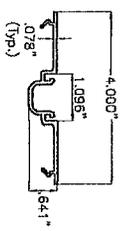
3 SILL FILLER
FG-2182



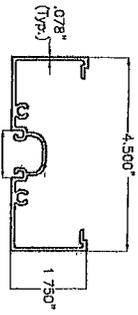
4 JAMB
FG-2100



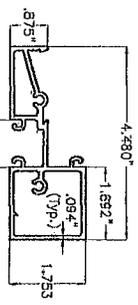
5 MULLION
FG-2101



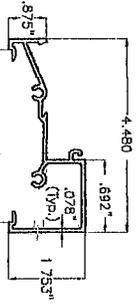
6 MULLION FILLER
FG-2102



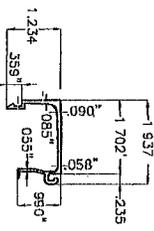
7 HEAD & JAMB
FG-2103



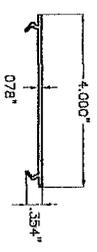
8 HORIZONTAL
FG-2104



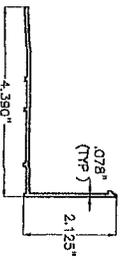
9 SILL
FG-2105



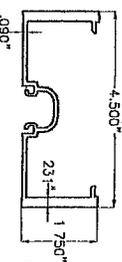
10 GLASS STOP
FG-2166



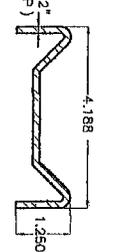
11 HEAD & JAMB FILLER
FG-2122



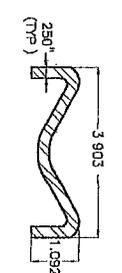
12 SUB SILL
FG-2169



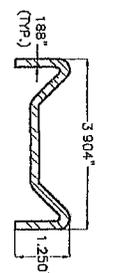
13 MULLION
FG-2228



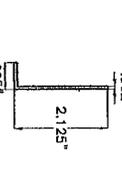
14 STEEL REINFORCEMENT
RS-1



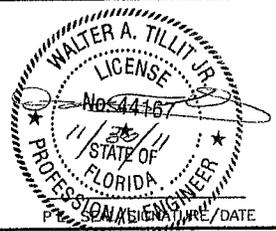
15 STEEL REINFORCEMENT
RS-9



16 STEEL REINFORCEMENT
RS-10



21 END DAM
FG-2000-FP-4



FLORIDA BUILDING CODE (High & Non High Velocity Hurricane Zone)

02011 TILECO, INC

TILECO INC.

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 WALTER A. TILLIT JR. P.E.
 FLORIDA Lic. # 44167

SERIES FG-2000 STOREFRONT
 HIGH DESIGN PRESSURE
 W/ NON-IMPACT MONOLITHIC TEMPERED GLASS

Oldcastle BuildingEnvelope™
 803 Airport Rd - Terrell, TX 75160
 www.OldcastleBE.com - Phone 800-868-4587

REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
1	OLD TO-023	07/29/10			

DRAWN BY: L.G./A.O.
 DATE: 11/30/11
 11-198
 DRAWING No

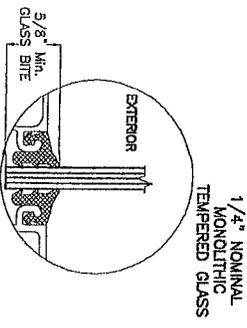
BILL OF MATERIALS

ITEM No.	PART NUMBER	DESCRIPTION	DIMENSIONS	MATERIAL	MANUFACTURER	NOTES
1.	FG-1133	GLAZING GASKET	.925" x .495"	EPDM	EPG	
2.	FG-1136	SETTING BLOCK	.375" x .564"	EPDM	EPG	
3.	FG-2182	SILL FILLER	4.00" x 4.00" x .078"	6063-T6 ALUMINUM	VARIES	LOCATED CENTER WITH ANCHOR'S LOCATION
4.	FG-2100	JAMB	4.50" x 1.750" x .078"	6063-T6 ALUMINUM	OBE	
5.	FG-2101	MULLION	4.50" x 1.750" x .094"	6063-T6 ALUMINUM	OBE	
6.	FG-2102	MULLION FILLER	4.00" x .641" x .078"	6063-T6 ALUMINUM	OBE	
7.	FG-2103	HEAD & JAMB	4.50" x 1.75" x .078"	6063-T6 ALUMINUM	OBE	
8.	FG-2104	HORIZONTAL	4.515" x 1.753" x .094"	6063-T6 ALUMINUM	OBE	
9.	FG-2105	SILL	4.480" x 1.753" x .078"	6063-T6 ALUMINUM	OBE	
10.	FG-2166	GLASS STOP	1.937" x 1.234" x varies	6063-T5 ALUMINUM	OBE	
11.	FG-2122	HEAD & JAMB FILLER	4.00" x .354" x .078" x 4" LONG	6063-T5 ALUMINUM	EPG	LOCATED CENTER WITH ANCHOR'S LOCATION
12.	FG-2169	SUB SILL	4.390" x 2.125" x .078"	6063-T5 ALUMINUM	OBE	
13.	FG-2228	MULLION	4.50" x 1.75" x .231"	6063-T6 ALUMINUM	OBE	
14.	RS-1	STEEL REINFORCEMENT	4.188" x 1.249" x .152"	A-36 STEEL	VARIES	ZINC PLATED
15.	RS-9	STEEL REINFORCEMENT	3.903" x 1.092" x .250"	A-36 STEEL	VARIES	ZINC PLATED
16.	RS-10	STEEL REINFORCEMENT	3.904" x 1.250" x .188"	A-36 STEEL	VARIES	ZINC PLATED
17.	795	PERIMETER SEALANT & VINYL JOINTS		SILICONE	DOW CORNING	LOCATED AT EACH INTERIOR FRAME CORNER
18.	FG-8	SPUNE ASSEMBLY SCREW	#14 x 1" HHSTS	STEEL	VARIES	
19.	FG-1000-FP-1	WATER DIVERTER SET IN SEALANT	1.187" x .750" x 1.343"	PVC	OBE	LOCATED AT EACH END OF & SEALED W/ POLYISOBUTYLENE
20.	SM-5801	TSOGRYL TAPE	1.25" x .500" VARIES	POLYISOBUTYLENE	SPHENE-WOODHEAD	LOCATED AT EACH END OF HORIZONTAL BETWEEN JOINTS
21.	FG-2000-FP-4	END DAM	.825" x 2.125" x .062"	6063-T6 ALUMINUM	OBE	FABRICATED LENGTH = 4.25"
22.	FS-22	SCREW FOR STEEL REINFORCEMENT	#12 x 1/2" PHILLIPS' FLAT HEAD	STEEL, ZINC COATED	VARIES	START @ 6" o.c. FROM ENDS, BALANCE @ 12" o.c.
23.		CLOSED CELL BACKER ROD	.500"	POLYETHYLENE	VARIES	

MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf) SCHEDULE FOR A GIVEN GLASS PANEL DIMENSIONS "a" (in) X "b" (in). (SEE LEGEND)

MAXIMUM DIMENSION "a" *	MAXIMUM DIMENSION "b" *	MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)
18"	from 18" to 312"	±60.0
24"	from 24" to 234"	±60.0
30"	from 30" to 186"	±60.0
36"	from 36" to 138"	±60.0
42"	from 42" to 132"	±60.0
48"	from 48" to 114"	±60.0
54"	from 54" to 96"	±59.9
60"	from 54" to 102"	±58.6
60"	from 60" to 84"	±60.0
66"	from 60" to 90"	±58.2
66"	from 66" to 78"	±60.0
72"	from 66" to 84"	±58.1
72"	from 72" to 78"	±60.0

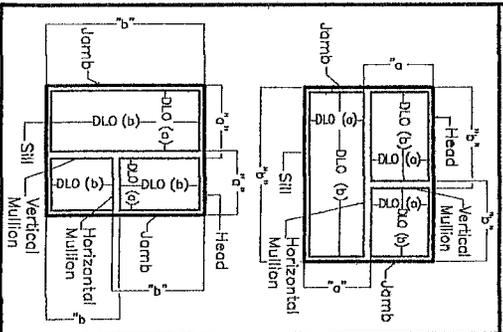
TYPICAL GLAZING DETAIL



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

SIDE	MAXIMUM DAY LIGHT OPENING
MAX. D.L.O. (SHORT SIDES)	MAX. D.L.O. (LONG SIDES)
(D.L.O.) Formula at Vertical & Horizontal Mullions	(D.L.O.) Formula at Jamb, Head & Sill
"a" - 3.50"	"a" - 3.50"
"b" - 3.50"	"b" - 3.50"

DIMENSIONS LEGEND *



FLORIDA BUILDING CODE (High & Non High Velocity Hurricane Zone)

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EB-0006719
WALTER A. TILLY, JR. P.E.
FLORIDA Lic. # 44167

SERIES FG-2000 STOREFRONT HIGH DESIGN PRESSURE
W/ NON-IMPACT MONOLITHIC TEMPERED GLASS

Oldcastle BuildingEnvelope™
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www.OldcastleBE.com Phone 800-889-4567

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11/30/11 DATE

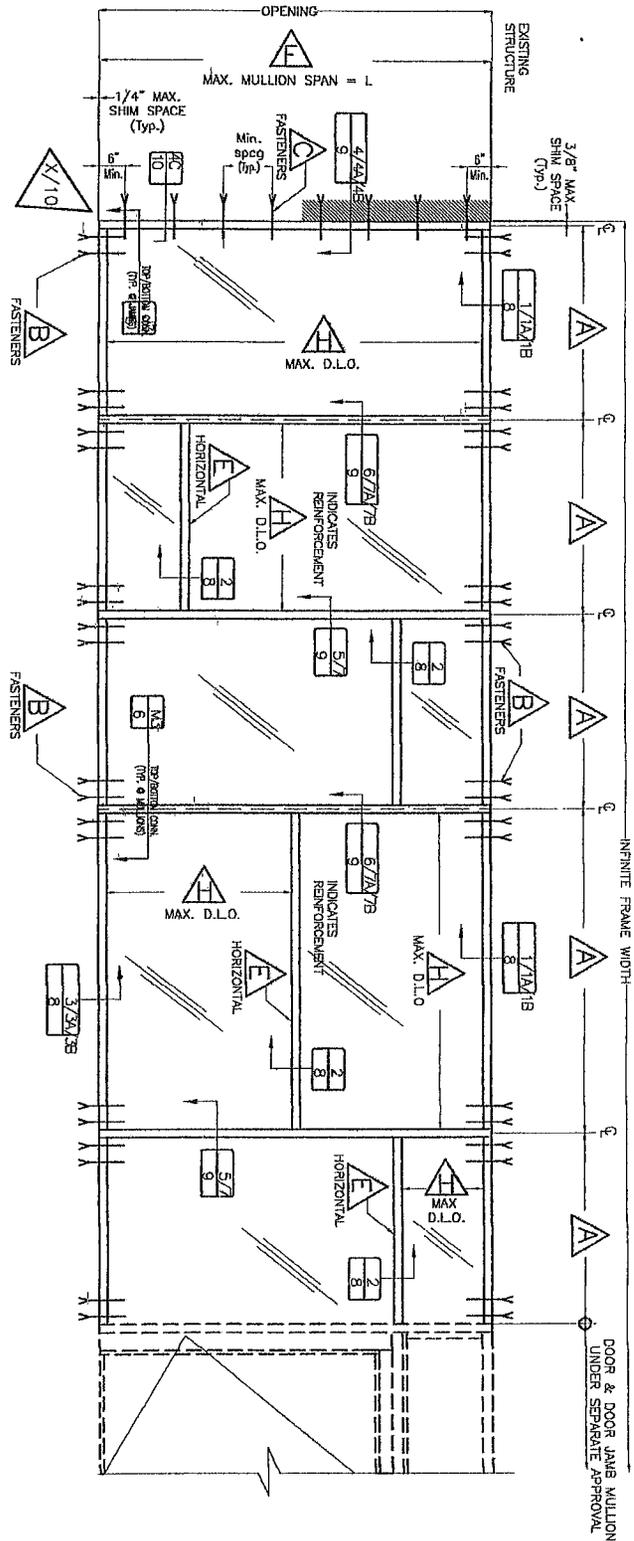
11-198 DRAWING No

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SHEET 3 OF 10

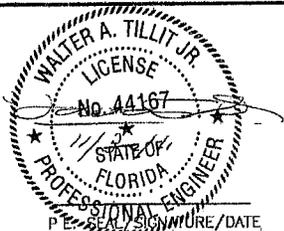
WALTER A. TILLY, JR.
LICENSE No 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
P.E. 3624 SIGNATURE/DATE

ELEVATION FOR SERIES FG-2000 STOREFRONT HIGH DESIGN PRESSURE



FOOT NOTES:

- A** FOR MAXIMUM MULLION SPACING ON CENTERS SEE SHEET 5
- B** FOR MULLIONS HEAD AND SILL FASTENERS QUANTITY, TYPES AND SPECS SEE SHEET 6
- C** FOR JAMB FASTENERS SPACING, TYPES AND SPECS SEE SHEET 10
- E** USE OF HORIZONTAL (SEE SECTION 2/8) LIMITED BY SCHEDULE ON SHEET 7
- F** FOR MAXIMUM MULLION SPAN SEE SHEET 5
- A** FOR GLAZING DETAILS AND GLASS SCHEDULE SEE SHEET 3
- H** FOR MAXIMUM D.L.O SEE SCHEDULE ON SHEET 3



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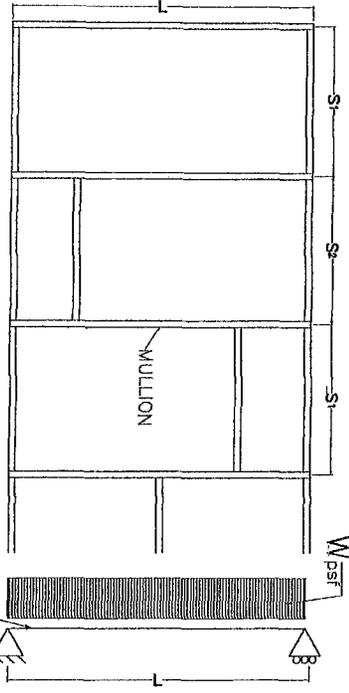
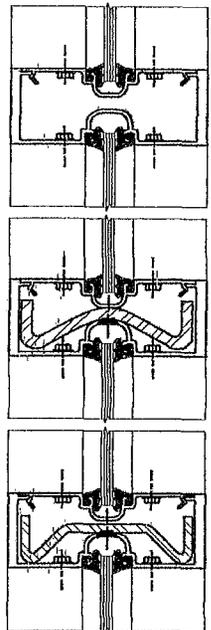
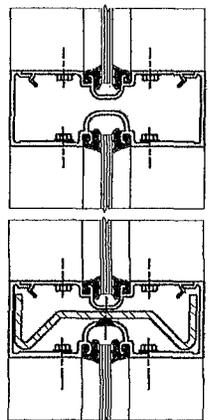
TILTECO INC.
 TILLIT TESTING & ENGINEERING COMPANY
 4355 N.W. 34th St., Ste. 305, VERO BEACH, FL 33166
 Phone: (888) 911-1350 Fax: (888) 911-1331
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 EB-0006719
 WALTER A. TILLIT JR. P.E.
 FLORIDA Lic. # 44167

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 SHEET 4 OF 10



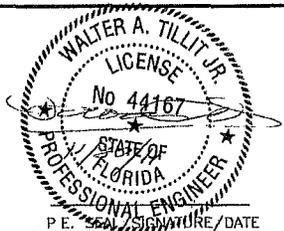
* MAXIMUM A.S.D. DESIGN PRESSURE RATING FOR MULLION WILL AUTOMATICALLY QUALIFY A.S.D. DESIGN PRESSURE RATINGS FOR JAMBS WITH ANCHORAGE FOR ANY GIVEN MULLION SPACING
 EFFECTIVE SPACING "b" = $\frac{S_1 + S_2}{2}$, S₁, S₂ = MULLION SPACING (o.c.)
 "L" = MAXIMUM MULLION SPAN
 STOREFRONT ELEVATION W/ MULLION
 SIDE VIEW

MAXIMUM A.S.D. DESIGN PRESSURE RATING FOR MULLIONS *
 MAXIMUM MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN A.S.D. DESIGN PRESSURE RATING
 (psf) AND A GIVEN MULLION EFFECTIVE SPACING "b" (ft)

MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	EFFECTIVE SPACING "b" (ft-h)	MAXIMUM MULLION SPAN "L" (ft)				
		CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
± 40.0	3'-0"	8'-0"	8'-0"	8'-0"	10'-0"	10'-0"
	3'-6"	8'-0"	8'-0"	8'-0"	10'-0"	10'-0"
	4'-0"	8'-0"	8'-0"	8'-0"	10'-0"	10'-0"
	4'-6"	7'-1"	8'-0"	8'-0"	10'-0"	10'-0"
	5'-0"	6'-5"	8'-0"	8'-0"	9'-8"	10'-2"
± 45.0	3'-0"	8'-0"	8'-0"	8'-0"	10'-0"	10'-0"
	3'-6"	7'-1"	8'-0"	8'-0"	10'-0"	10'-0"
	4'-0"	6'-4"	8'-0"	8'-0"	10'-0"	10'-0"
	4'-6"	5'-8"	7'-10"	8'-0"	9'-6"	9'-6"
	5'-0"	5'-2"	7'-1"	7'-1"	8'-7"	8'-11"
± 50.0	3'-0"	8'-0"	8'-0"	8'-0"	10'-0"	10'-0"
	3'-6"	7'-4"	8'-0"	8'-0"	10'-0"	10'-0"
	4'-0"	6'-7"	7'-10"	8'-0"	9'-6"	9'-6"
	4'-6"	6'-1"	7'-10"	7'-10"	9'-6"	9'-6"
	5'-0"	5'-5"	7'-10"	7'-10"	8'-9"	8'-6"
± 55.0	3'-0"	7'-9"	8'-0"	8'-0"	10'-0"	10'-0"
	3'-6"	6'-8"	8'-0"	8'-0"	10'-0"	10'-0"
	4'-0"	6'-10"	8'-0"	8'-0"	9'-8"	9'-8"
	4'-6"	6'-2"	7'-1"	7'-1"	8'-7"	8'-7"
	5'-0"	5'-6"	7'-1"	7'-1"	8'-0"	8'-7"
± 60.0	3'-0"	7'-1"	8'-0"	8'-0"	10'-0"	10'-0"
	3'-6"	6'-1"	8'-0"	8'-0"	10'-0"	10'-0"
	4'-0"	5'-4"	8'-0"	8'-0"	9'-11"	9'-11"
	4'-6"	4'-8"	7'-4"	7'-4"	8'-11"	8'-11"
	5'-0"	4'-0"	6'-4"	6'-4"	8'-11"	8'-11"

CASE DEFINITIONS

- CASE 1 : UNREINFORCED STANDARD MULLION M-1 (SEE DET 5/9)
- CASE 2 : REINFORCED STANDARD MULLION M-2 (SEE DET 6/9)
- CASE 3 : UNREINFORCED STANDARD MULLION M-3 (SEE DET 7/9)
- CASE 4 : REINFORCED STANDARD MULLION M-4 (SEE DET 7A/9)
- CASE 5 : REINFORCED STANDARD MULLION M-5 (SEE DET 7B/9)

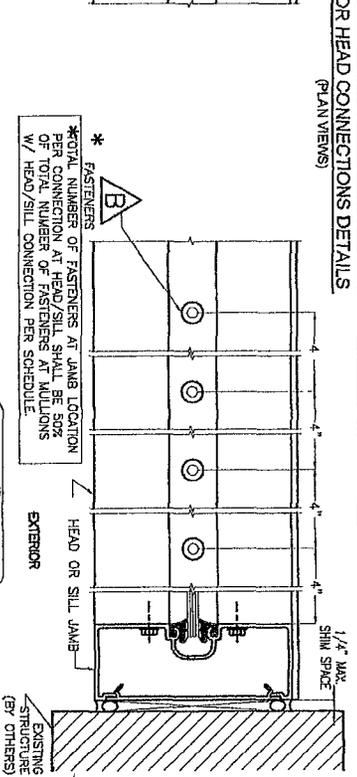
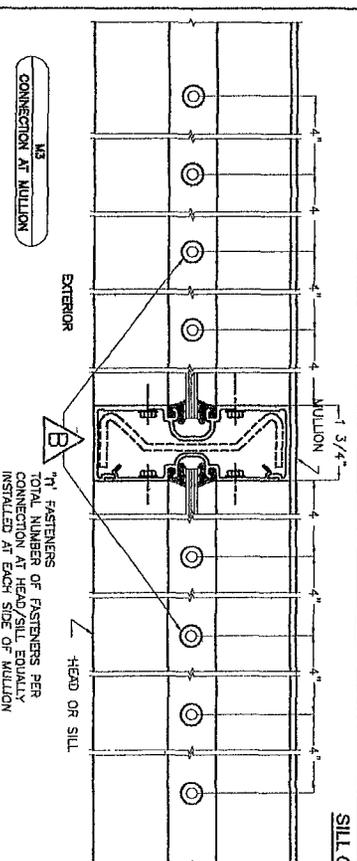


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 e-mail: tiltco@till.com
 EP-0005719
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 FLORIDA Lic. # 44167

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1	OLD 10-023	01/29/11	2		
2			3		



MAXIMUM A.S.D. DESIGN PRESSURE RATING SCHEDULE FOR MULLIONS W/ HEAD/SILL CONNECTIONS * X

MAXIMUM MULLION SPAN	ERECTIVE SPACING	POURED CONCRETE SUBSTRATE						WOOD SUBSTRATE 1 1/2" MIN. THK.						STEEL SUBSTRATE 1/2" MIN. THK.					
		FASTENER TYPE		FASTENER TYPE		FASTENER TYPE		FASTENER TYPE		FASTENER TYPE		FASTENER TYPE		FASTENER TYPE		FASTENER TYPE			
1/2 (F&H)	3/4 (F&H)	A (1/4")	B (1/4")	A (1/4")	B (1/4")	A (1/4")	B (1/4")	A (1/4")	B (1/4")	A (1/4")	B (1/4")	A (1/4")	B (1/4")	A (1/4")	B (1/4")	A (1/4")	B (1/4")		
3'-0"	3'-0"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
3'-6"	3'-6"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
4'-0"	4'-0"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
4'-6"	4'-6"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
5'-0"	5'-0"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
5'-6"	5'-6"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
6'-0"	6'-0"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
6'-6"	6'-6"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
7'-0"	7'-0"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
7'-6"	7'-6"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
8'-0"	8'-0"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
8'-6"	8'-6"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
9'-0"	9'-0"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
9'-6"	9'-6"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		
10'-0"	10'-0"	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0		

A-1/4" ELOC FASTENING SYSTEM, LLC. ULTRACON ANCHOR W/ 1 3/4" MIN. EMBEDMENT INTO POURED CONCRETE (MIN. FC = 2,730 PSI) OR W/ 1 1/4" MIN. EMBEDMENT INTO HOLLOW BLOCK (MIN. FM = 1,924 PSI) & 1" MIN. EDGE DISTANCE BEYOND ANY FINISH MATERIAL.

B-1/4" ELOC FASTENING SYSTEM, LLC. ULTRACON ANCHOR W/ 1 1/2" MIN. PENETRATION INTO 2X WOOD BUCK (G=0.5) & 1 5/8" MIN. EDGE DISTANCE BEYOND ANY FINISH MATERIAL.

B-5/16" ELOC FASTENING SYSTEM, LLC. ULTRACON ANCHOR W/ 1 1/2" MIN. PENETRATION INTO 2X WOOD BUCK (G=0.5) & 2" MIN. EDGE DISTANCE BEYOND ANY FINISH MATERIAL.

C-1/4" 20 SLOTTED INDENTED HEX WASHER HEAD THREAD CUTTING SCREW TYPE "T" ZINC COATED, W/ MIN. FV = 77 KSI, Fu = 100 KSI TO 1/8" MIN. THK. ASTM A-36 STEEL & 1" MIN. EDGE DISTANCE.

B FASTENERS TYPES (SPACED AT 4" O.C.)

* TOTAL NUMBER OF FASTENERS AT JAMB LOCATION PER CONNECTION AT HEAD/SILL SHALL BE 1/2 SIZE OF TOTAL NUMBER OF FASTENERS PER SCHEDULE W/ HEAD/SILL CONNECTION PER SCHEDULE.

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8355 N.W. 36th St., Ste. 205, WILMINGTON, FL 33166
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e-mail: tilteco@aol.com

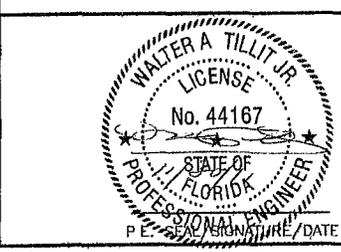
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FLORIDA Lic. # 44167

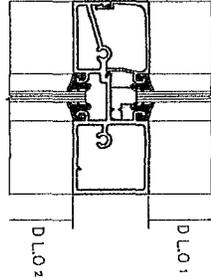
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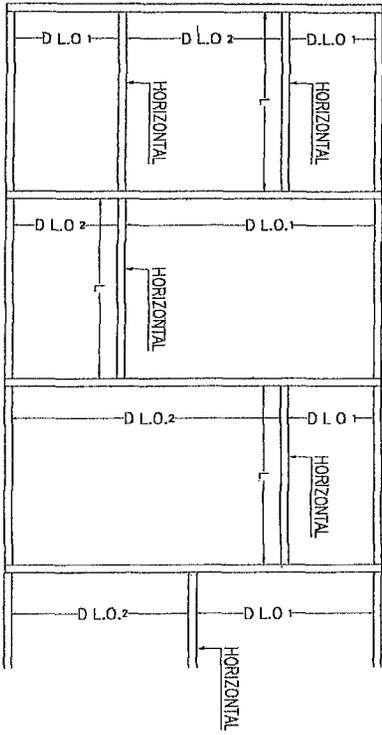
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SHEET 6 OF 10





SECTION AT HORIZONTAL



STOREFRONT ELEVATION W/ HORIZONTAL

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

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

MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	EFFECTIVE DAY LIGHT OPENING "D.L.O." (ft)	MAXIMUM HORIZONTAL SPAN "L" (ft)
± 400 OR LESS	2'-0"	6'-6"
	2'-6"	6'-6"
	3'-0"	6'-6"
	3'-6"	6'-6"
	4'-0"	6'-6"
	4'-6"	6'-6"
± 450	2'-0"	5'-0"
	2'-6"	5'-0"
	3'-0"	5'-0"
	3'-6"	5'-0"
	4'-0"	5'-0"
	4'-6"	5'-0"
± 500	2'-0"	4'-6"
	2'-6"	4'-6"
	3'-0"	4'-6"
	3'-6"	4'-6"
	4'-0"	4'-6"
	4'-6"	4'-6"
± 550	2'-0"	4'-0"
	2'-6"	4'-0"
	3'-0"	4'-0"
	3'-6"	4'-0"
	4'-0"	4'-0"
	4'-6"	4'-0"
± 600	2'-0"	4'-0"
	2'-6"	4'-0"
	3'-0"	4'-0"
	3'-6"	4'-0"
	4'-0"	4'-0"
	4'-6"	4'-0"



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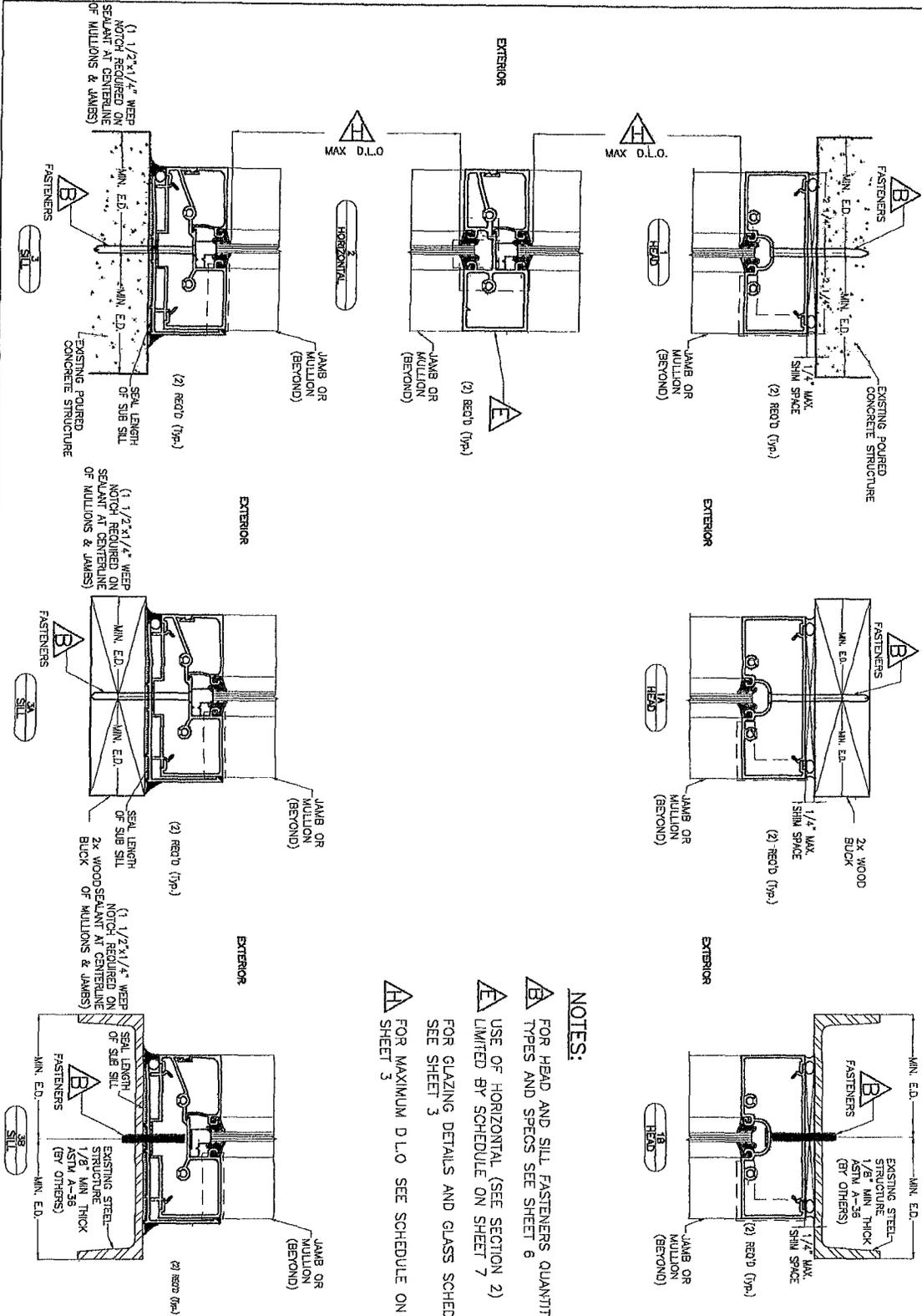
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P.E. SEAL/SIGNATURE/DATE

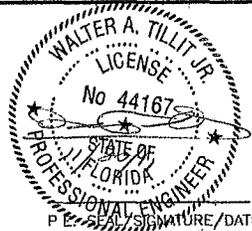
HEAD, HORIZONTAL & SILL CONNECTION DETAILS

(SIDE VIEW) SCALE 3/8" = 1"



NOTES:

- ▲ FOR HEAD AND SILL FASTENERS QUANTITY, TYPES AND SPECS SEE SHEET 6
- ▲ USE OF HORIZONTAL (SEE SECTION 2) LIMITED BY SCHEDULE ON SHEET 7
- ▲ FOR GLAZING DETAILS AND GLASS SCHEDULE SEE SHEET 3
- ▲ FOR MAXIMUM D.L.O. SEE SCHEDULE ON SHEET 3



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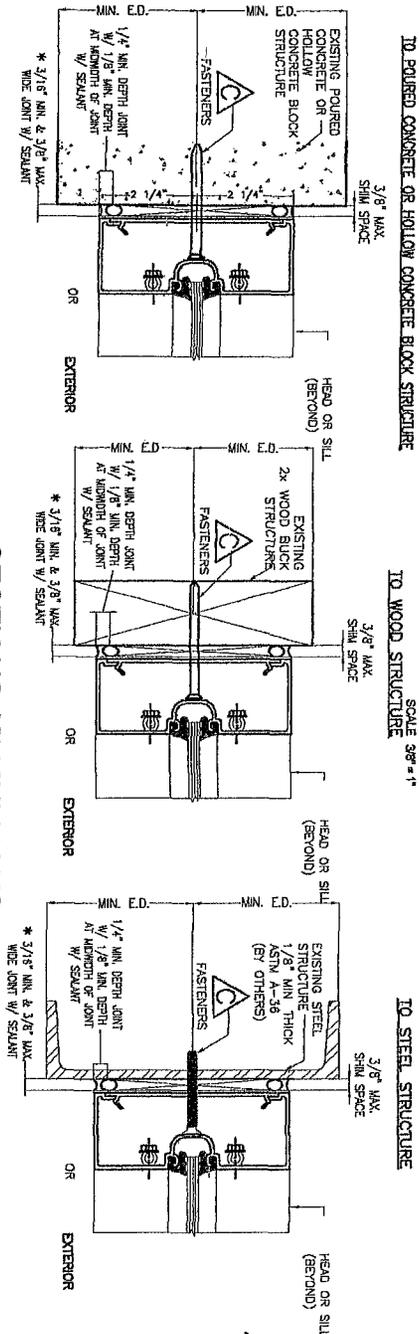
11/30/11 DATE

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SHEET 8 OF 10

SECTIONS AT JAMBS

SCALE 3/8" = 1"

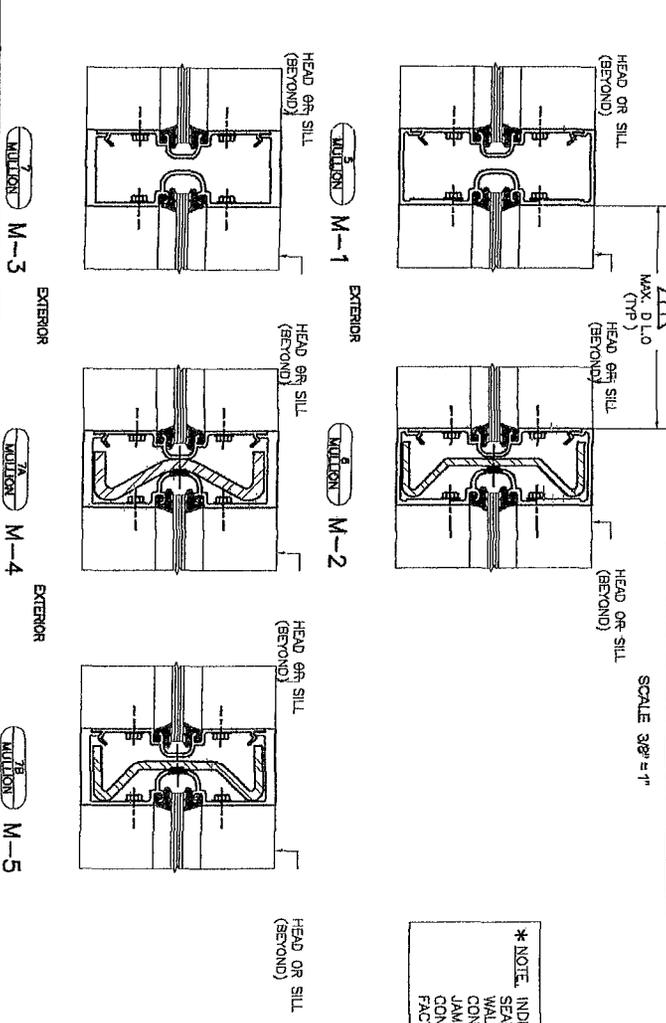


NOTES:

- FOR JAMB FASTENERS SPACING TYPES AND SPECS SEE SHEET 10
- FOR GLAZING DETAILS AND GLASS SCHEDULE - SEE SHEET 10
- FOR MAXIMUM D.L.O. SEE SCHEDULE ON SHEET 3.

SECTIONS AT MULLIONS

SCALE 3/8" = 1"



*NOTE. INDICATED MAXIMUM AND MINIMUM VALUES FOR SPECIFIED SEALANT VERTICAL JOINT WIDTH AT JAMBS CONNECTED TO WALL 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.

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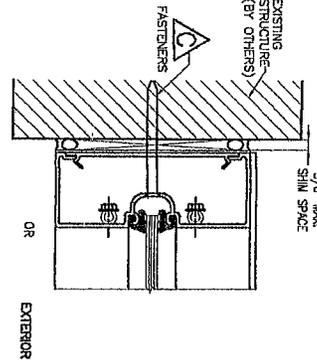
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REV. No.	DESCRIPTION	DATE	BY: No.	DESCRIPTION	DATE
1	OLD 10-023	11/30/11	1		
2			2		

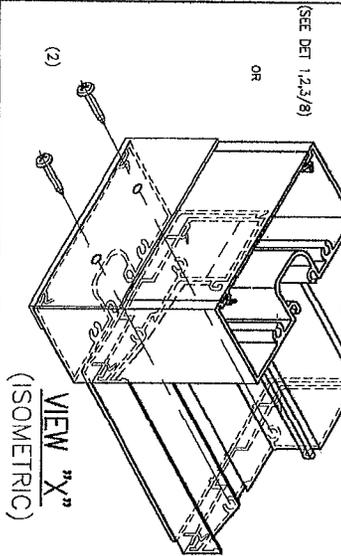
CORNER DETAIL AT JAMB

(PLAN VIEW) SCALE 3/8" = 1"
3/8" MAX. SHIM SPACE



**MAXIMUM A.S.D. DESIGN PRESSURE RATING & CORRESPONDING
MAXIMUM FASTENERS SPACING SCHEDULE FOR JAMB CONNECTION**

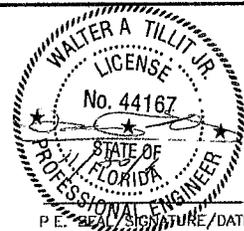
MAXIMUM A.S.D. DESIGN PRESSURE RATING (psf)	MULLION SPACING (ft/in)	JAMB FASTENERS SPACING "spcg" (in o.c.)		
		POURED CONCRETE OR HOLLOW CONCRETE BLOCK SUBSTRATES	WOOD 1 1/2" MIN. THK SUBSTRATE	STEEL 1/8" MIN. THK SUBSTRATE
35.0	3'-0"	A (1 1/4")	B (1 1/4")	B (5/16")
40.0	3'-0"	A (1 1/4")	B (1 1/4")	B (5/16")
45.0	3'-0"	A (1 1/4")	B (1 1/4")	B (5/16")
50.0	3'-0"	A (1 1/4")	B (1 1/4")	B (5/16")
55.0	3'-0"	A (1 1/4")	B (1 1/4")	B (5/16")
60.0	3'-0"	A (1 1/4")	B (1 1/4")	B (5/16")



VIEW "X"
(ISOMETRIC)

FASTENERS TYPES (SEE SPACING SCHEDULE)

- A - 1/4" E.L.C.O FASTENING SYSTEM, L.L.C. ULTRACON ANCHOR W/ 1 3/4" MIN. EMBEDMENT INTO POURED CONCRETE (Min. F_y = 2,730 ksi) OR W/ 1 1/4" MIN. EMBEDMENT INTO HOLLOW BLOCK (Min. F_y = 1,924 ksi) & 1 MIN. EDGE DISTANCE BEYOND ANY FINISH MATERIAL.
- B - 1/4" E.L.C.O FASTENING SYSTEM, L.L.C. ULTRACON ANCHOR W/ 1 1/2" MIN. PENETRATION INTO 2 X WOOD BLOCK (G-0-85) & 2" MIN. EDGE DISTANCE, BEYOND ANY FINISH MATERIAL.
- B' - 5/8" E.L.C.O FASTENING SYSTEM, L.L.C. ULTRACON ANCHOR W/ 1 1/2" MIN. PENETRATION INTO 2 X WOOD BLOCK (G-0-85) & 1 5/8" MIN. EDGE DISTANCE, BEYOND ANY FINISH MATERIAL.
- C - 1/4" 20-SLOTTED INDENTED HEX WASHER HEAD THREAD CUTTING SCREW TYPE F-1 ZINC COATED, W/ MIN F_y = 77 ksi, F_u = 100 ksi TO 1/8" MIN. THK. ASTM A-36 STEEL & 1" MIN. EDGE DISTANCE.



FLORIDA BUILDING CODE (High & Non High Velocity Hurricane Zone)

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TILTECO INC.

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REV. NO.	DESCRIPTION	DATE	BY	CHK	DATE
1	OLD 10-023	11/29/11	2		
2			4		

DRAWN BY: L.G./A.O.
DATE: 11/30/11
DRAWING NO: 11-198
SHEET 10 OF 10