

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) FOR NON-HIGH VELOCITY HURRICANE ZONES (NON-HVHZ).
5. THIS PRODUCT IS NON-IMPACT RATED & MUST BE SHUTTERED WITH A FLORIDA CODE APPROVED SHUTTER WHERE REQUIRED BY CODE.
6. ALL ANCHORS SECURING PRODUCT FRAMES TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
7. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF $K_d = 0.85$ MAY BE APPLIED PER THE ASCE-7 STANDARD.
8. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE.
9. TO THE BEST OF OUR KNOWLEDGE, THE PRODUCT SHOWN HEREIN IS QUALITY ASSURED BY A FLORIDA STATE APPROVED CERTIFICATION/QA ENTITY & SHALL BE LABELED IN ACCORDANCE WITH THE FBC AND THE FLORIDA DEPARTMENT OF BUSINESS & PROFESSIONAL REGULATION SPECIFICATIONS. THESE DRAWINGS SHOW ALL APPLICABLE ELEVATION, COMBINATION, INSTALLATION & COMPARATIVE ANALYSIS CONDITIONS AS DETERMINED THROUGH TESTING & ENGINEERING RATIONAL ANALYSIS. PRODUCT ASSEMBLY SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, THE MANUFACTURER'S QUALITY ASSURANCE SPECIFICATIONS & TESTING REPORTS.
10. CERTIFICATION OF THIS PRODUCT SHALL BE CONSIDERED VOID IF IT IS INSTALLED WITHOUT A BUILDING PERMIT FROM THE APPLICABLE LOCAL BUILDING DEPARTMENT OR IF IT IS INSTALLED BY ANYONE OTHER THAN A LICENSED CONTRACTOR EXPERIENCED WITH INSTALLATIONS OF THIS TYPE OF PRODUCT.

EVALUATION OF THIS PRODUCT IS BASED ON APPLICABLE STANDARDS AND/OR INFORMATION & RESULTS FROM APPLICABLE TEST REPORTS. THE FLORIDA BUILDING CODE VERSION CONSIDERED WITH THIS EVALUATION WAS THAT IN FORCE AT THE TIME OF THE EVALUATION. IN THE EVENT OF CODE VERSION CHANGES/UPDATES OR IN THE EVENT THAT NEW OR ADDITIONAL TESTING IS COMPLETED ON THIS PRODUCT, PRIOR TO STATING CODE COMPLIANCE WITH THE STATE, THE MANUFACTURER SHALL CONFIRM WITH THE EVALUATION ENGINEER OF RECORD THAT EVERYTHING SPECIFIED HERE-IN IS CURRENT WITH ALL CURRENT TESTING, CODES AND APPLICABLE STANDARDS.

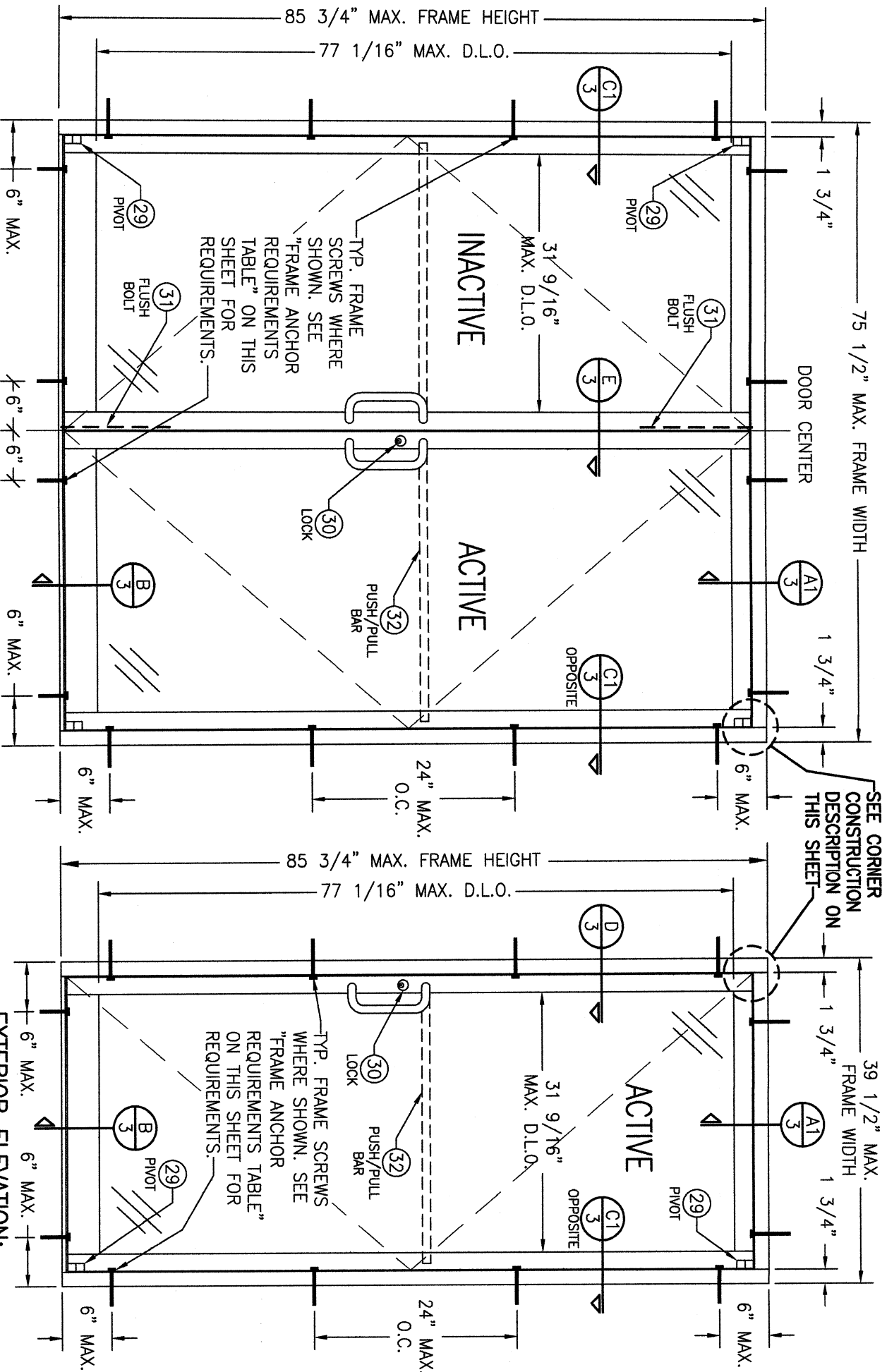
NOTE: THESE DOOR UNITS ARE NOT APPROVED FOR USE WHERE WATER INFILTRATION RESISTANCE IS REQUIRED BY THE DOOR. UNLESS UNITS ARE INSTALLED IN NON-HABITABLE AREAS WHERE THE UNIT & THE AREA ARE DESIGNED TO ACCEPT WATER INFILTRATION, UNITS SHALL BE INSTALLED ONLY AT LOCATIONS PROTECTED BY A CANOPY OR OVERHANG WHERE-BY THE OVERHANG(OH) RATIO IS EQUAL TO OR MORE THAN 1.0 PER FBC.

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

FRAME ANCHOR REQUIREMENTS TABLE

FRAME SCREWS			
OPENING TYPE (SUBSTRATE)	FRAME TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 14 SMS OR WOOD SCREW	1 1/4"	1"
MIN. 16 GA. 50 KSI METAL STUD	1/4-14 GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	1/4-14 GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	1/4-14 GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"
C-90 CMU/2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"

(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS, ELCO CRETE-FLEX, ITW RAMSET/RED HEAD TAPCONS OR HILTI KWIK-CON II (HARDENED STEEL OR S.S.).



EXTERIOR ELEVATION:
DOUBLE DOOR ASSEMBLY IN 450 FRAMING

SCALE: 3/4" = 1'-0"

ALLOWABLE DESIGN PRESSURE
+/-30 PSF

EXTERIOR ELEVATION:
SINGLE DOOR ASSEMBLY IN 450 FRAMING

SCALE: 3/4" = 1'-0"

CORNER & FRAME END CONSTRUCTION
FOR SHEET 1 ELEVATIONS:

FRAME HEAD CORNER: HEAD IS SQUARE CUT, BUTTED TO VERTICAL MEMBER & SECURED WITH SHEAR BLOCK PART #10. VERTICAL MEMBER IS FASTENED TO SHEAR BLOCK WITH FOUR(4) NO. 10 X 1 19/32" S.S. PH FASTENERS INTO THE SHEAR BLOCK SCREW SPLINES. HEAD MEMBER IS FASTENED TO THE SHEAR BLOCK WITH TWO(2) NO. 10 X 9/16" S.S. SCREWS. EACH CORNER IS SEALED WITH SILICONE.
FRAME SIL CORNER: SIL IS SQUARE CUT, BUTTED TO VERTICAL MEMBER, SECURED TO THE VERTICAL MEMBER USING A PIVOT ASSEMBLY OR STEEL CLIP, FASTENED WITH THREE(3) NO. 12-24 X 3/8" FHMS AT THE FRAME & TWO(2) NO. 12-24 X 3/8" FHMS AT THE SIL, & SEALED WITH SILICONE.
DOOR PANEL CORNERS: VERTICAL STILES RUN THROUGH AND ARE SECURED TO THE RAILS AT THE TOP & BOTTOM WITH 1/4" THICK EXTRUDED CHANNELS. EACH CHANNEL IS FASTENED TO THE STILE & RAIL WITH 1/4-20 X 3/4" FHMS & 3/16" THICK STEEL NUT PLATES. THE INTERSECTION OF EACH CORNER JOINT WAS WELDED WITH A 1/2" DIA. PLUG WELD AND A 1 1/8" LONG FILLET WELD AT BOTH WEBS OF THE RAIL.



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W.R.M.		W.W.S.	
PLOT: 1=16	DATE: 02/04/08		
NO.	REVISION DESCRIPTION	BY	DATE
A1	UPDATE TO PRESENT STANDARDS	W.W.S.	05/27/08
B1	UPDATE TO PRESENT STANDARDS	W.R.M.	08/24/11
C1	UPDATE TO PRESENT STANDARDS	W.W.S.	12/15/14
D1	UPDATE GLAZING DETAILS	W.W.S.	07/19/23

DRAWING TITLE		MANUFACTURER	
190 NARROW, 350 MEDIUM & 500 WIDE STILE DOORS IN TRIFAB VG 450 FRAMING		KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555	
CONSULTANTS			
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424			
CERTIFICATION			
WARREN W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO.		REV.	
1571		D	
SHEET NO.			
1		OF 6	

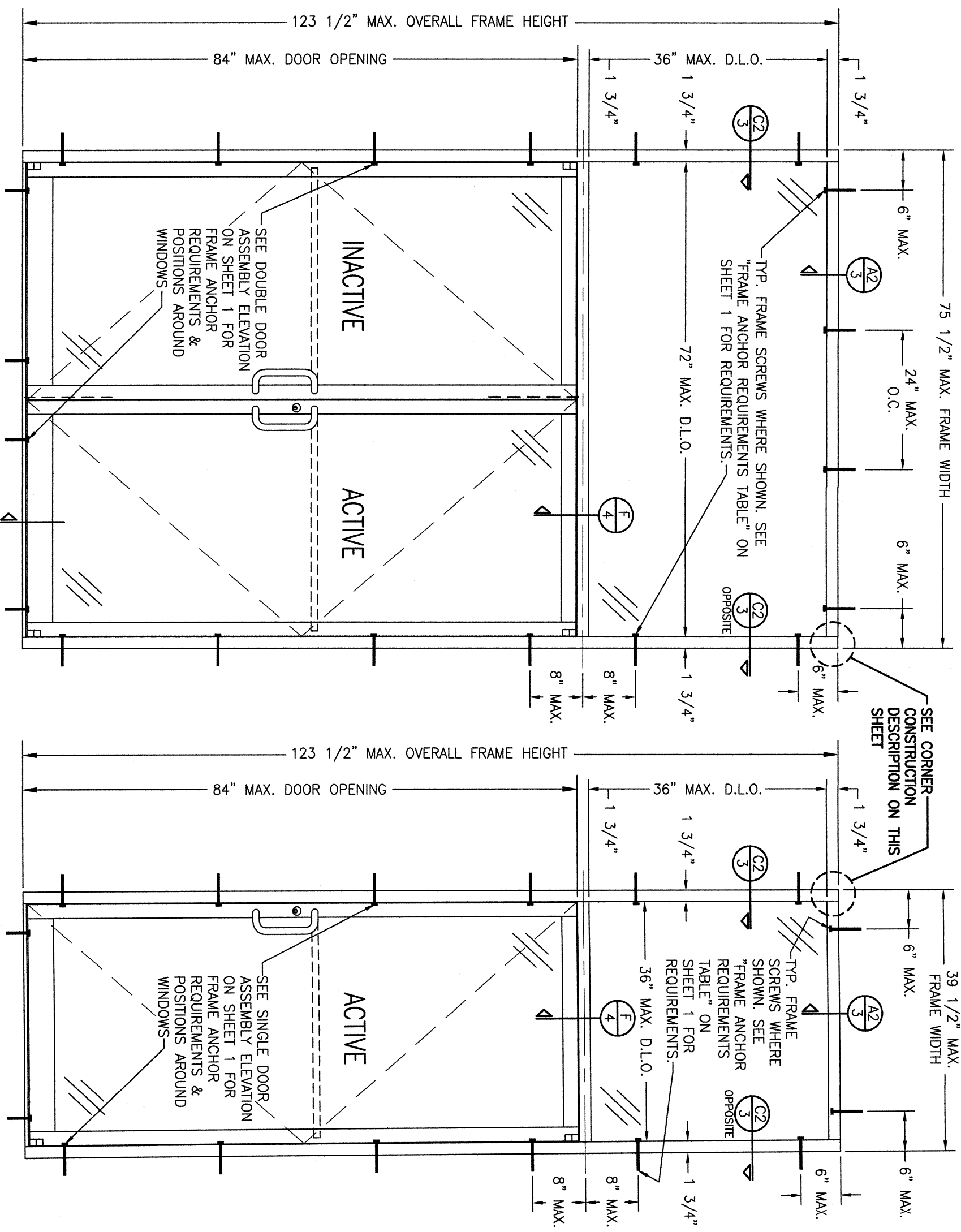
CORNER & FRAME END CONSTRUCTION
FOR SHEET 2 ELEVATIONS:

FRAME HEAD CORNER: HEAD IS SQUARE CUT, BUTTED TO VERTICAL MEMBER & SECURED WITH SHEAR BLOCK PART #11. VERTICAL MEMBER IS FASTENED TO SHEAR BLOCK WITH THREE(3) NO. 10 X 1 19/32" S.S. PH FASTENERS INTO THE SHEAR BLOCK SCREW SPLINES. HEAD MEMBER IS FASTENED TO THE SHEAR BLOCK WITH TWO(2) NO. 10 X 9/16" S.S. SCREWS. EACH CORNER IS SEALED WITH SILICONE.

INTERMEDIATE TRANSOM END: TRANSOM BAR IS SQUARE CUT, BUTTED TO VERTICAL MEMBER & SECURED WITH SHEAR BLOCK PART #10. VERTICAL MEMBER IS FASTENED TO SHEAR BLOCK WITH FOUR(4) NO. 10 X 1 19/32" S.S. PH FASTENERS INTO THE SHEAR BLOCK SCREW SPLINES. TRANSOM BAR IS FASTENED TO THE SHEAR BLOCK WITH TWO(2) NO. 10 X 9/16" S.S. SCREWS. EACH CORNER IS SEALED WITH SILICONE.

FRAME SILL CORNER: SILL IS SQUARE CUT, BUTTED TO VERTICAL MEMBER, SECURED TO THE VERTICAL MEMBER USING A PIVOT ASSEMBLY OR STEEL CLIP, FASTENED WITH THREE(3) NO. 12-24 X 3/8" FHMS AT THE FRAME & TWO(2) NO. 12-24 X 3/8" FHMS AT THE SILL, & SEALED WITH SILICONE.

DOOR PANEL CORNERS: VERTICAL STILES RUN THROUGH AND ARE SECURED TO THE RAILS AT THE TOP & BOTTOM WITH 1/4" THICK EXTRUDED CHANNELS. EACH CHANNEL IS FASTENED TO THE STILE & RAIL WITH 1/4-20 X 3/4" PHMS & 3/16" THICK STEEL NUT PLATES. THE INTERSECTION OF EACH CORNER JOINT WAS WELDED WITH A 1/2" DIA. PLUG WELD AND A 1 1/8" LONG FILLET WELD AT BOTH WEBS OF THE RAIL.



EXTERIOR ELEVATION:
DOUBLE DOOR ASSEMBLY WITH 450 FRAMING/TRANSOM

SCALE: 3/4" = 1'-0"
(FOR DOOR DETAIL NOT SHOWN; SEE
INDIVIDUAL UNIT ELEVATION)

EXTERIOR ELEVATION:
SINGLE DOOR ASSEMBLY WITH
450 FRAMING/TRANSOM

SCALE: 3/4" = 1'-0"
(FOR DOOR DETAIL NOT SHOWN; SEE
INDIVIDUAL UNIT ELEVATION)

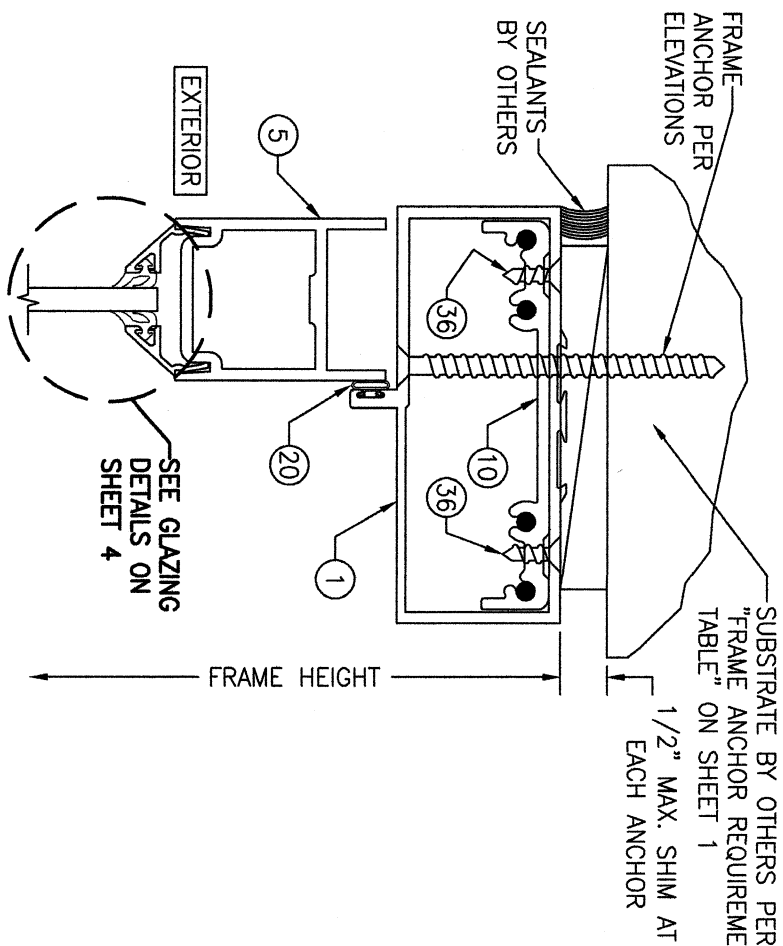
ALLOWABLE DESIGN PRESSURE

+/-30 PSF

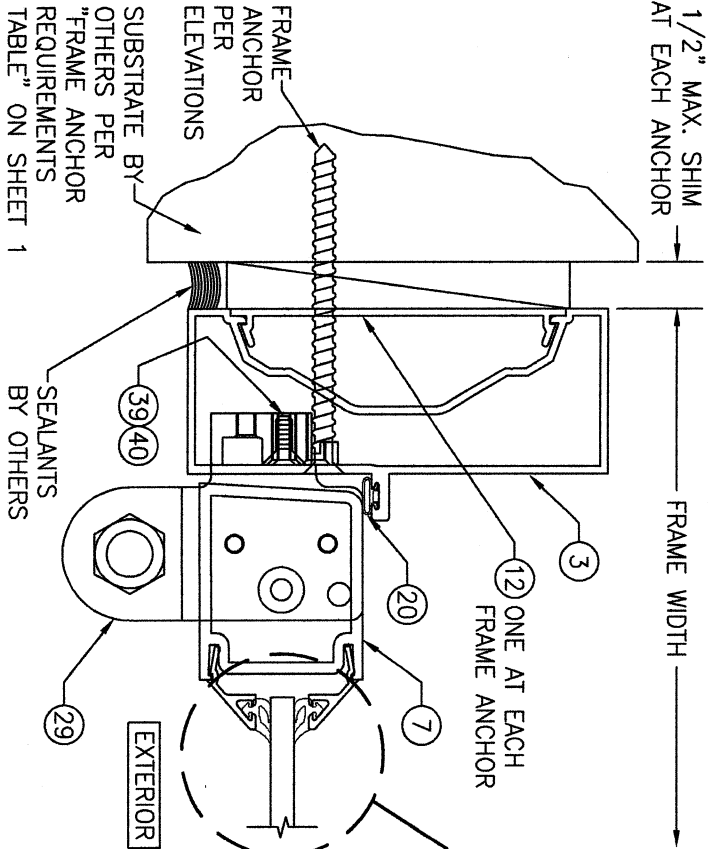
NO.	REVISION	DESCRIPTION	BY	DATE

DRAWING TITLE 190 NARROW, 350 MEDIUM & 500 WIDE STILE DOORS IN TRIFAB VG 450 FRAMING		CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424	MANUFACTURER KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555
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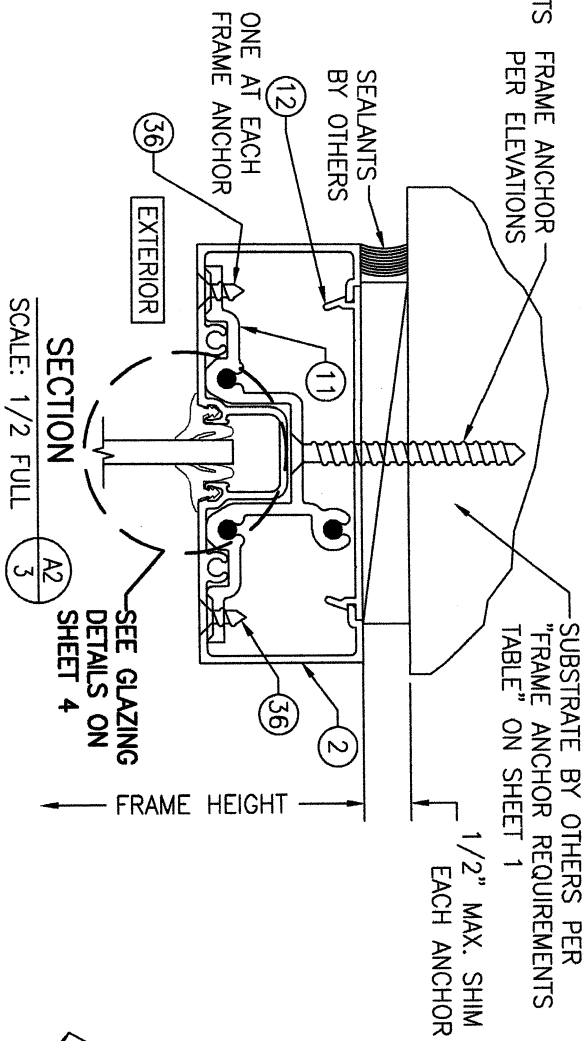
CERTIFICATION WARREN W. SCHAEFER, P.E. P.E. NO. 44135		DRAWING NO. 1571	REV. D
SHEET NO. 2		OF 6	



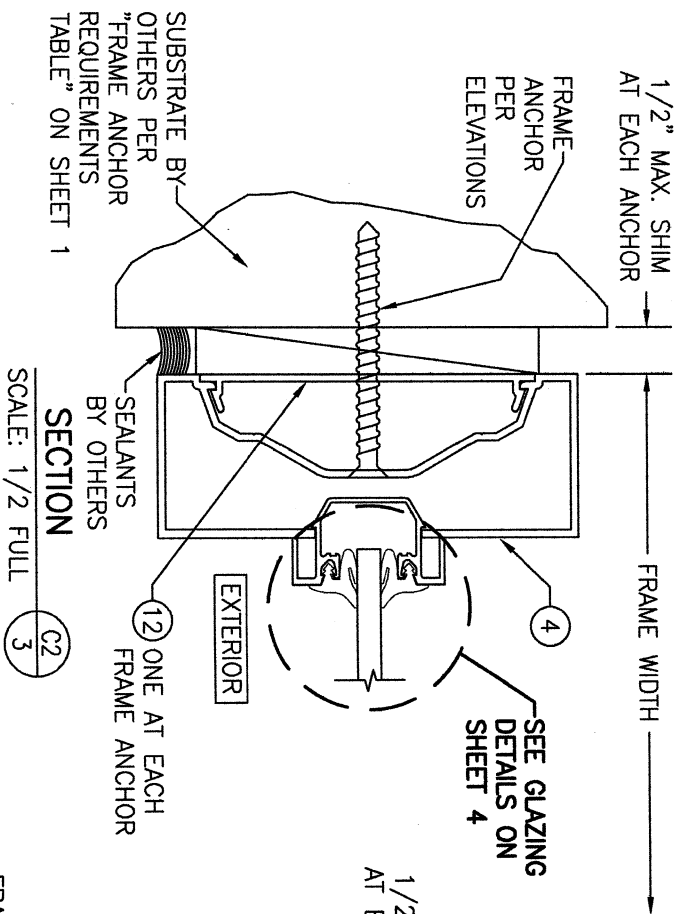
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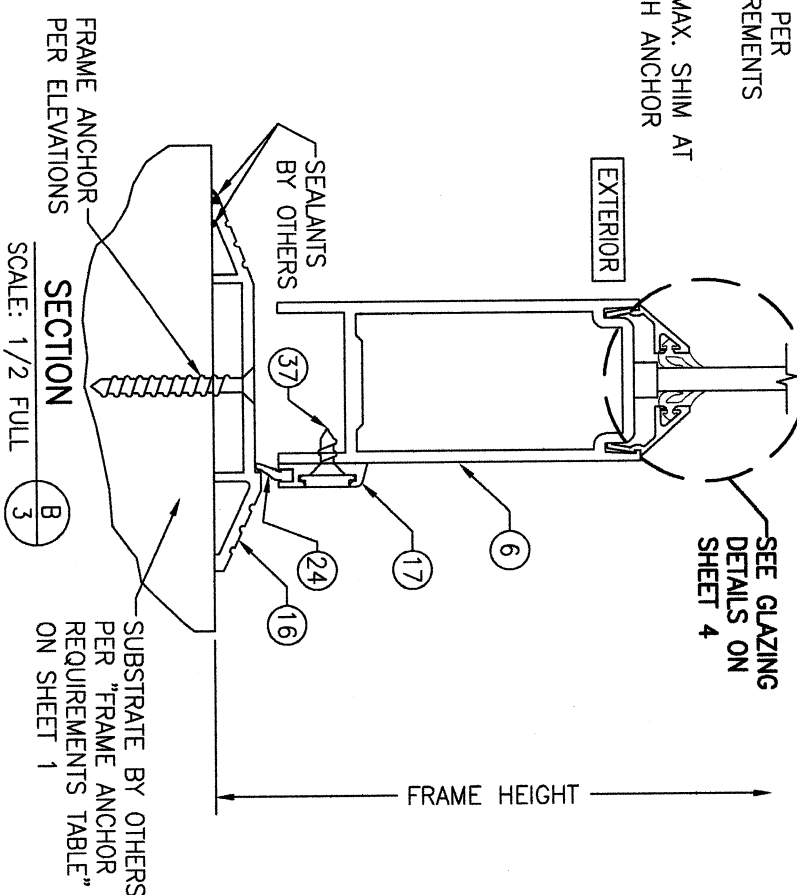
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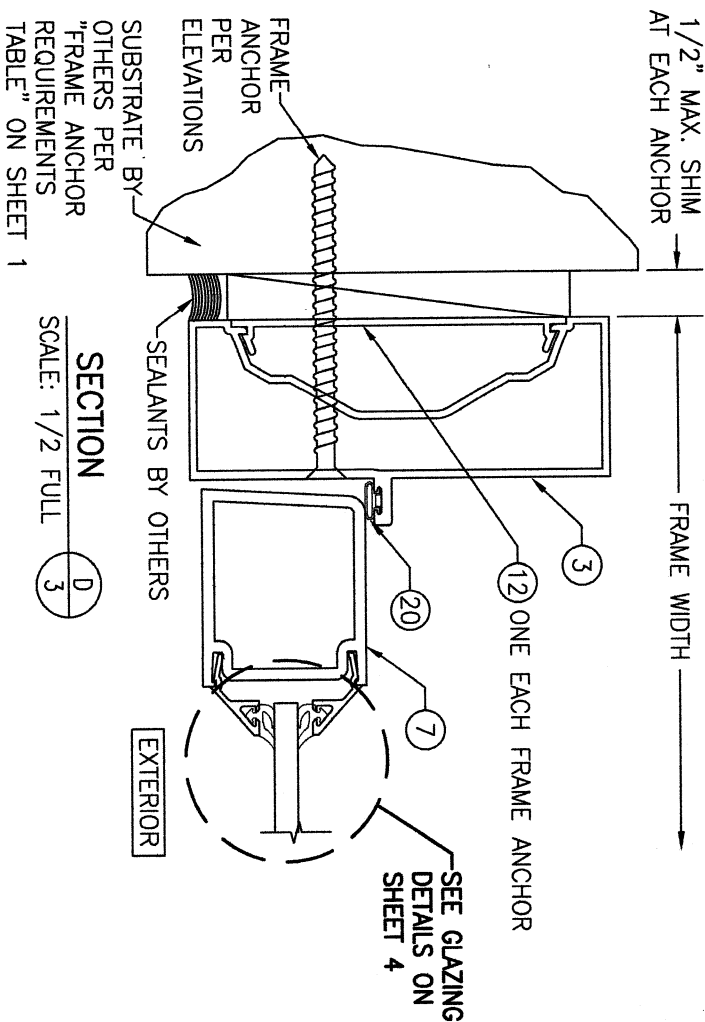
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SECTION C2
SCALE: 1/2 FULL



SECTION B
SCALE: 1/2 FULL

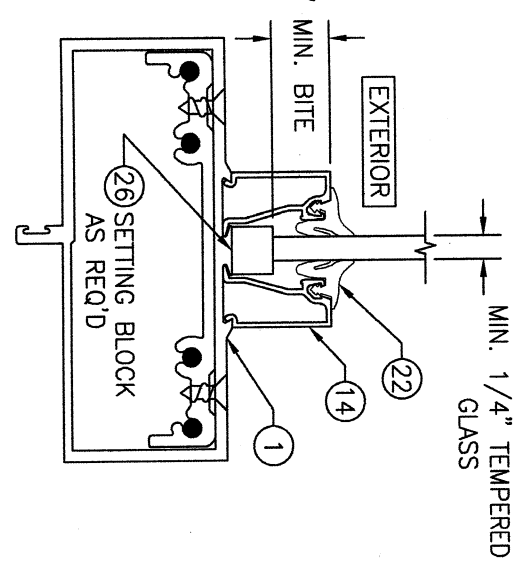
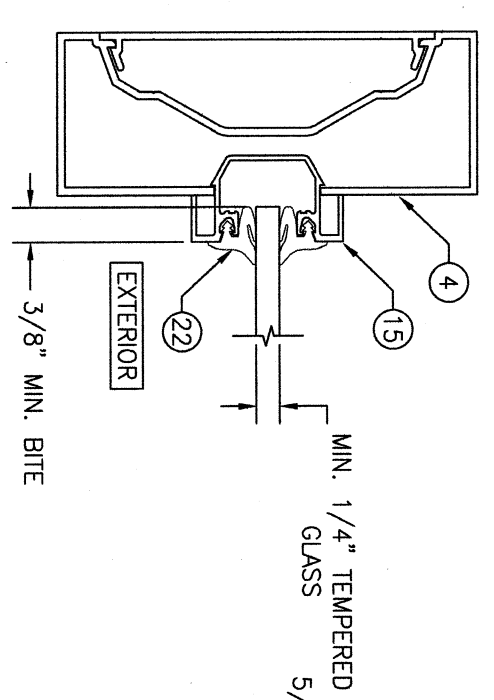
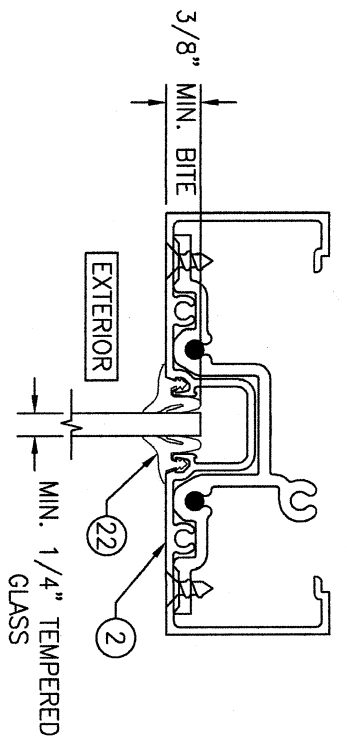
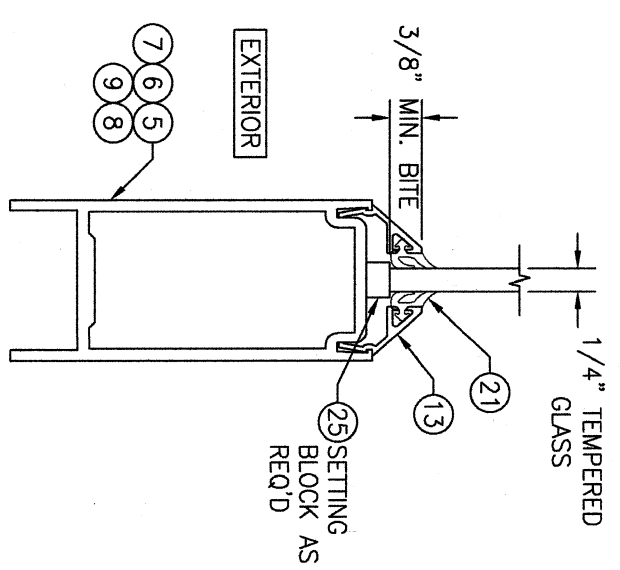
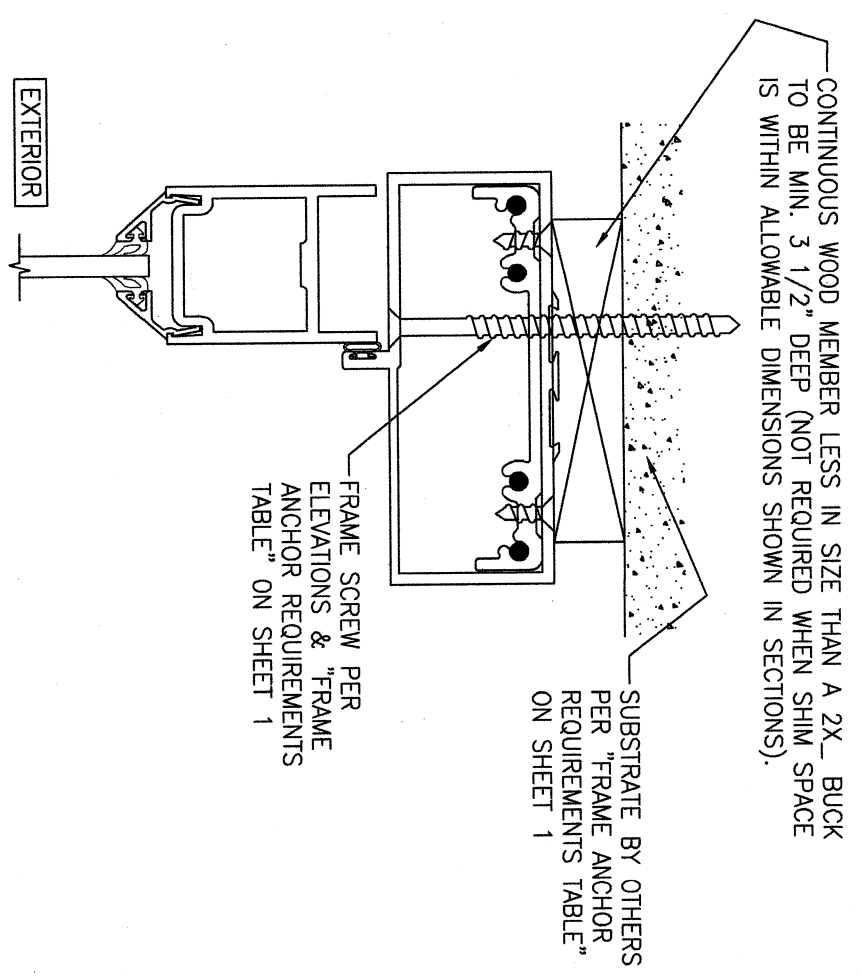
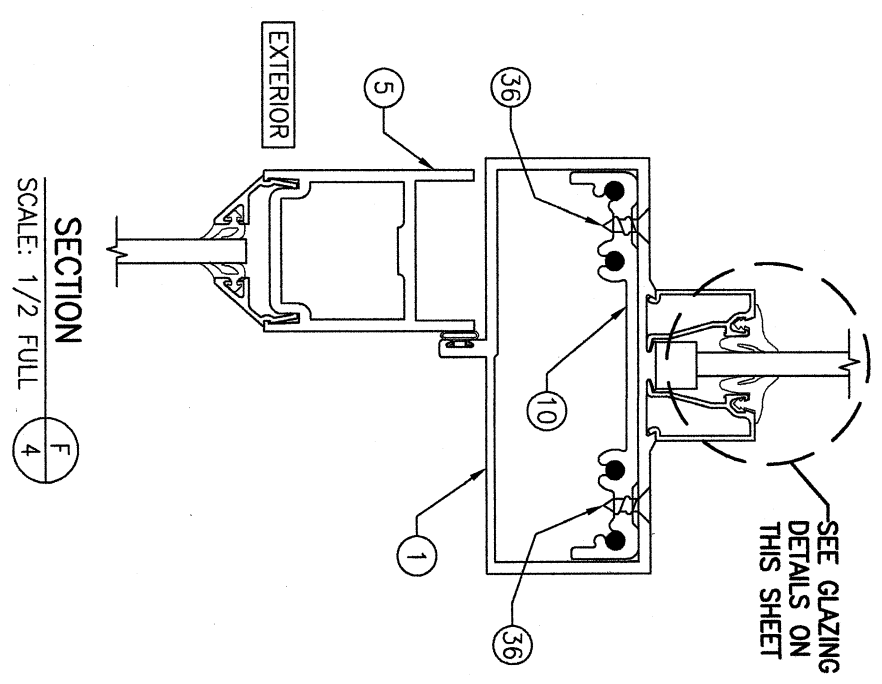
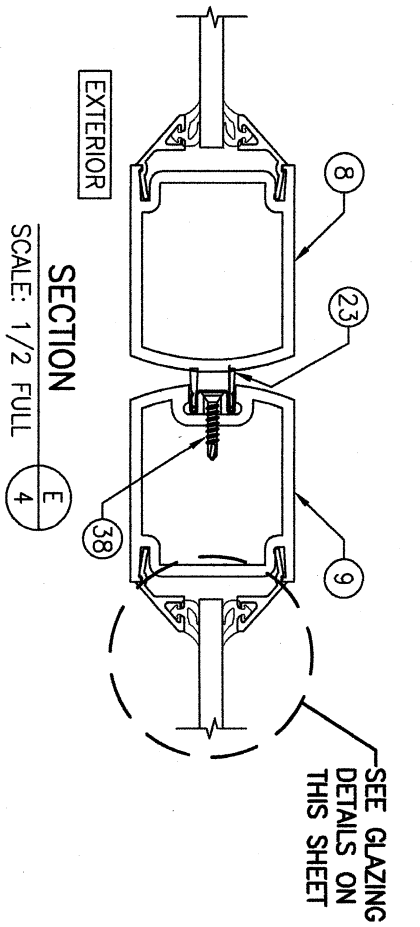


SECTION D
SCALE: 1/2 FULL

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DRAWING TITLE	CONSULTANTS	MANUFACTURER
190 NARROW, 350 MEDIUM & 500 WIDE STILE DOORS IN TRIFAB VG 450 FRAMING	W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 26376 NADIR ROAD, UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424	KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555

CERTIFICATION	DRAWING NO.	REV.
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	1571	D
	SHEET NO.	3 OF 6

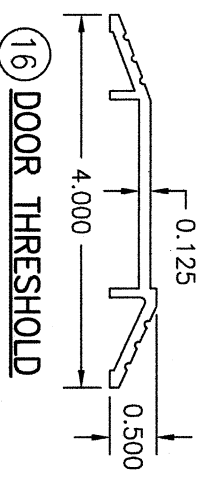
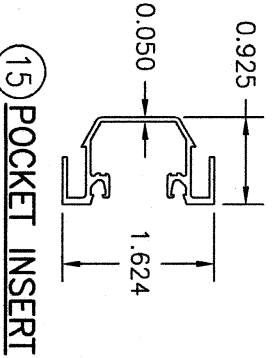
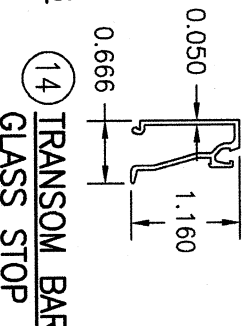
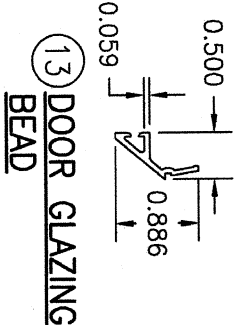
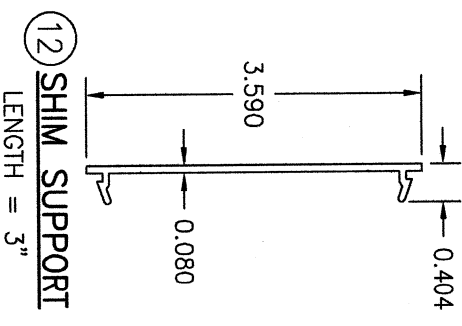
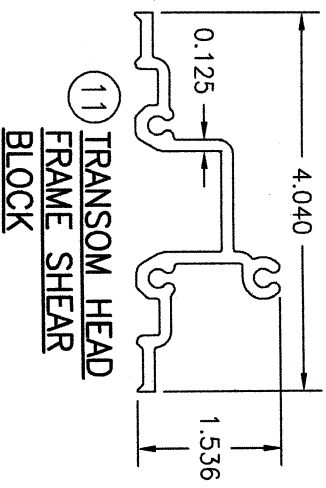
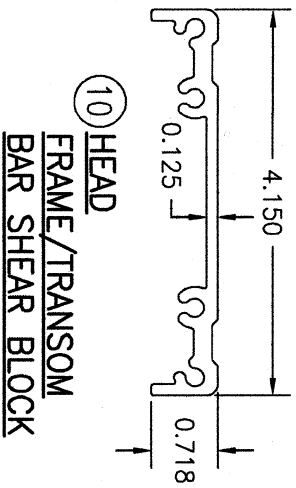
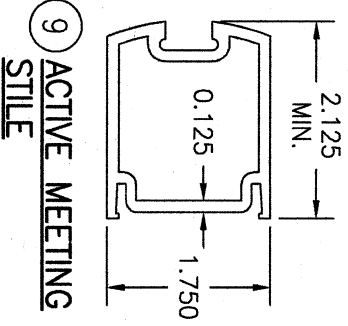
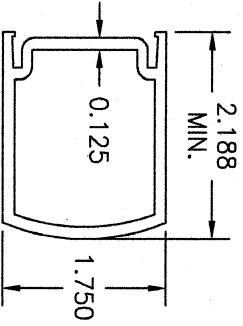
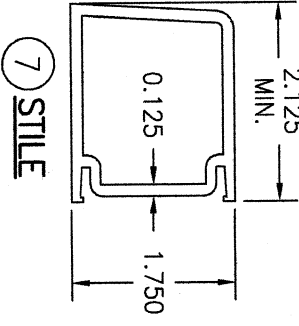
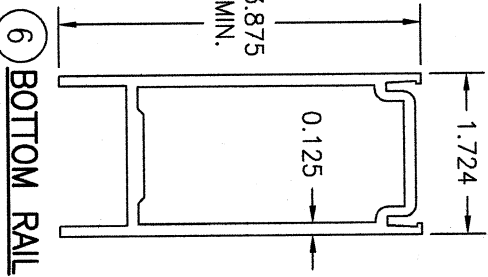
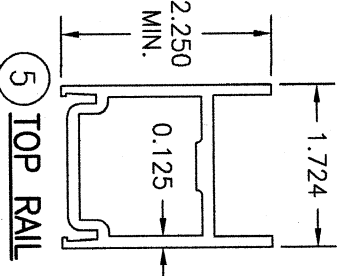
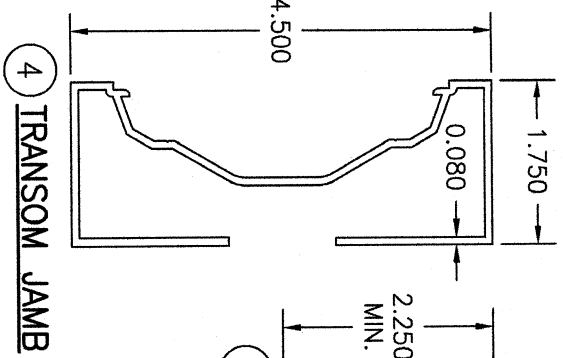
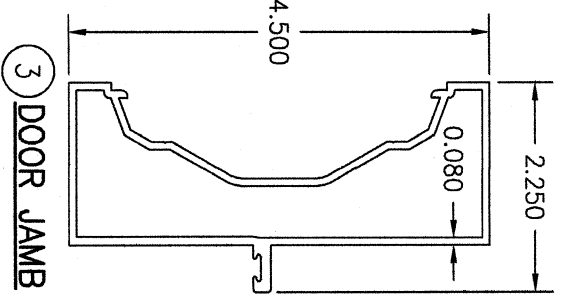
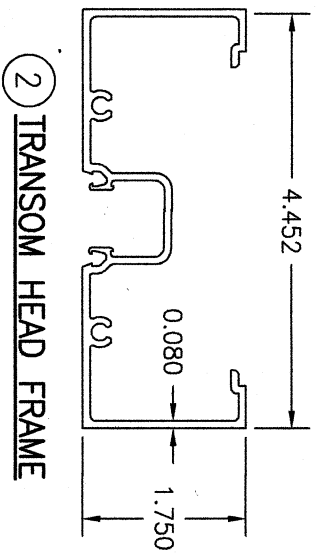
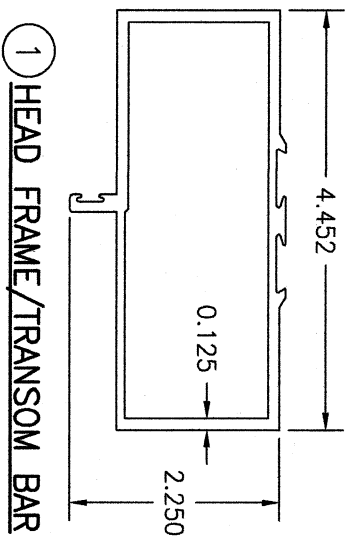


OPTIONAL DIRECT MOUNT DETAIL TO SUBSTRATE WITH SPACER
(HEAD SECTION SHOWN, SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

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DRAWING TITLE 190 NARROW, 350 MEDIUM & 500 WIDE STILE DOORS IN TRIFAB VG 450 FRAMING	CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 26376 MADIR ROAD, UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424	MANUFACTURER KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555
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CERTIFICATION WARREN W. SCHAEFER, P.E. P.E. NO. 44135	DRAWING NO. 1571 REV. D	SHEET NO. 4 OF 6
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STILE & RAIL NOTE: STILES & RAILS SHOWN ARE FOR THE 190 NARROW STILE CONDITION. THE 350 MEDIUM & 500 WIDE DOOR STILES & RAILS ARE NEARLY IDENTICAL IN PROFILE TO THE 190 EXCEPT STRETCHED TO LARGER WIDTHS. THUS THE "MIN." DIMENSIONS SHOWN.

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DRAWING TITLE	CONSULTANTS	MANUFACTURER
190 NARROW, 350 MEDIUM & 500 WIDE STILE DOORS IN TRIFAB VG 450 FRAMING	W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 26376 NADIR ROAD, UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424	KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555

CERTIFICATION	DRAWING NO.	REV.	SHEET NO.
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	1571	D	5 OF 6

ITEM #	PART #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS			
1	450-020	HEAD FRAME/TRANSOM BAR	6063-T6 ALUMINUM
2	450-CG-001	TRANSOM HEAD FRAME	6063-T6 ALUMINUM
3	450-094	DOOR JAMB	6063-T6 ALUMINUM
4	450-094	TRANSOM JAMB	6063-T6 ALUMINUM
5	200-020	TOP RAIL	6063-T6 ALUMINUM
6	200-030	BOTTOM RAIL	6063-T6 ALUMINUM
7	200-002	STILE	6063-T6 ALUMINUM
8	200-004	INACTIVE MEETING STILE	6063-T6 ALUMINUM
9	200-003	ACTIVE MEETING STILE	6063-T6 ALUMINUM
10	450-103	HEAD FRAME/TRANSOM BAR SHEAR BLOCK	6063-T6 ALUMINUM
11	450-CG-224	TRANSOM HEAD FRAME SHEAR BLOCK	6063-T6 ALUMINUM
12	450-126	SHIM SUPPORT	6063-T6 ALUMINUM (ONE AT EACH FRAME ANCHOR LOCATION)
13	200-041	DOOR GLAZING BEAD	6063-T6 ALUMINUM
14	450-022	TRANSOM BAR GLASS STOP	6063-T6 ALUMINUM
15	450-033	POCKET INSERT	6063-T6 ALUMINUM
16	069-139	DOOR THRESHOLD	6063-T6 ALUMINUM
17	200-798	DOOR BOTTOM SWEEP ASSEMBLY	6063-T6 ALUMINUM
SEALS AND SEALANTS			
20	027-078	DOOR BULB WEATHERING	ALCRYN
21	027-563	DOOR GLAZING WEATHERING	EPDM
22	027-074	FRAME GLAZING WEATHERING	EPDM
23	200-496	ASTRAGAL WEATHERSTRIPPING	VARIED
24	027-309	DOOR BOTTOM RAIL WEATHER SWEEP	EPDM
25	027-555	SETTING BLOCK AS REQ'D	EPDM
26	027-366	SETTING BLOCK AS REQ'D	EPDM
HARDWARE			
29	050-322	TOP OFFSET PIVOT	BY: KAWNEER
	050-326	RH BOTTOM OFFSET PIVOT	(2 PIVOTS PER PANEL)
	050-327	LH BOTTOM OFFSET PIVOT	
30	LOCK ASSEMBLY FOR ACTIVE DOOR		BY: ADAMS-RITE
	50-100	DEADLOCK	
	35-001	CYLINDER	BY: KAWNEER STANDARD
	37-176	THUMBTURN	
31	037-227	FLUSH BOLT (2 PER INACTIVE PANEL)	BY: KAWNEER STANDARD
32	137-700	CO-9 PUSH / CP-II PUSH	BY: KAWNEER
MISCELLANEOUS FASTENERS			
36	-	NO. 10 X 9/16" S.S. SCREW	2 PER SHEAR BLOCK
37	-	NO. 6 X 3/8" S.S. SCREW	1/4" FROM ENDS & 10" MAX. O.C.
38	-	NO. 6 X 11/16" SCREW	9 PER LEAF
39	-	5/16"-18 X 5/8" SCREW	2 PER TOP PIVOT HINGE
40	-	1/4-20 X 3/8" SCREW	3 PER BOTTOM PIVOT HINGE

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DATE:		DATE:	
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DRAWING TITLE		190 NARROW, 350 MEDIUM & 500 WIDE STILE DOORS IN TRIFAB VG 450 FRAMING
CONSULTANTS		MANUFACTURER
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.		KAWNEER COMPANY, INC.
26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424		555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555

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