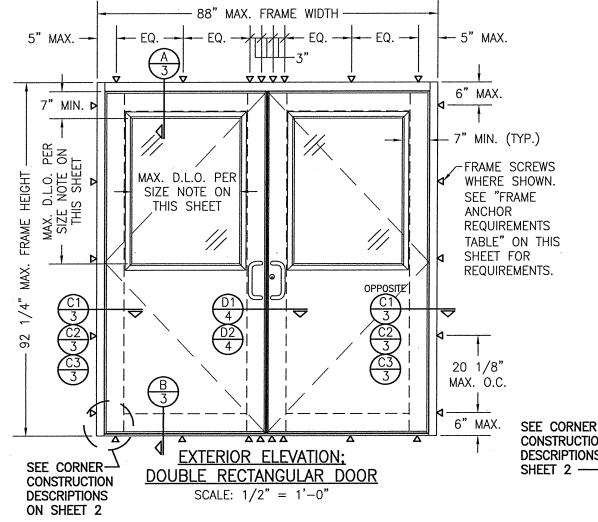


- THIS PRODUCT HAS BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)
- 2. OPÉNINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
- 3. ALL HARDWARE & FASTENERS SHALL BE 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. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH 2018 IBC REFERENCED STANDARDS ASTM E330, E1886 & E1996 FOR LARGE MISSILE IMPACT PRODUCTS. ALL TESTING OF THIS PRODUCT TO STANDARDS LESS CURRENT THAN THOSE SPECIFIED IN THE 2018 IBC HAS BEEN DETERMINED EQUIVALENT TO THE MORE CURRENT VERSIONS OF THOSE STANDARDS REFERENCED IN THE 2018 IBC
- 5. THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING CODE (IBC).
- IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS PRODUCT.
- 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.
- 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 INTERNATIONAL BUILDING CODE, A DIRECTIONALITY FACTOR OF KD = 0.85 MAY BE APPLIED PER THE ASCE-7 STANDARD.
- 9. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL BE SEPARATED OR COATED AS REQUIRED TO AVOID CORROSION OF EITHER MATERIAL.
- 10. TO THE BEST OF OUR KNOWLEDGE, THE PRODUCT SHOWN HEREIN ARE QUALITY ASSURED BY AN APPROVED CERTIFICATION/QA ENTITY & SHALL BE LABELED IN ACCORDANCE WITH APPLICABLE STANDARDS. 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.
- 11. CERTIFICATION OF THIS PRODUCT SHALL BE CONSIDERED VOID IF THEY ARE INSTALLED WITHOUT A BUILDING PERMIT FROM THE APPLICABLE LOCAL BUILDING DEPARTMENT OR IF THEY ARE 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 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. 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 THE UNITS ARE INSTALLED IN NON-HABITABLE AREAS WHERE THE UNIT & THE AREA ARE DESIGNED TO ACCEPT WATER INFILTRATION OR THE UNITS ARE INSTALLED AT LOCATIONS PROTECTED BY A CANOPY OR OVERHANG WHERE-BY THE OVERHANG(OH) RATIO IS EQUAL TO OR MORE THAN 1.0 PER FBC.



TO AVOID CONFUSION, LOCK & HINGE CONDITIONS ARE NOT CALLED OUT/SPECIFIED IN THE ELEVATIONS. SEE PRESSURE TABLE ON THIS SHEET & PARTS LIST ON SHEET 7 FOR ALL LOCK & HINGE OPTIONS.

FRAME ANCHOR REQUIREMENTS TABLE			
FRAME SCREWS			
OPENING TYPE (SUBSTRATE)	FRAME TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
(2) MIN. 2X6 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 12 SMS OR WOOD SCREW	1 1/4"	7/8"
MIN. 18 GA. 33 KSI METAL STUD	NO. 12 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	NO. 12 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 0.1" THK 6063-T5 ALUM.	NO. 12 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. C-90 CONCRETE FILLED CMU OR SOLID 2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 3/4"	2"

- (1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.), ITW RAMSET/RED HEAD TAPCONS (C.S. OR S.S.) OR HILTI KWIK-CON II (C.S OR S.S.)
- (2) 2X6 BUCKS SHALL BE OF A MINIMUM DEPTH REQUIRED TO MEET ANCHOR EDGE DISTANCE REQUIREMENTS BUT NO LESS THAN 4".

ALLOWA	BLE DESIGN	N PF R UNI	RESSURE TS)
LOCK CONDITION	ALLOWABLE DE PRESSURE (ESIGN DP)	WIND ZONE RATING

•			
LOCK CONDITION	ALLOWABLE DESIGN PRESSURE (DP)	WIND ZONE RATING	
	DOUBLE DOORS		
1	+/-50 PSF	3	
2	+/-50 PSF	3	
3	+/-50 PSF	3	
SINGLE DOORS			
1	+/-70 PSF	4	
2	+/-70 PSF	4	
3	+/-70 PSF	3	
4	(1) +/-75 PSF	4	
1) ONLY A	CONTINUOUS GEAR	HINGE IS	

APPLICABLE FOR USE WHEN DP EXCEEDS +/-70 PSF.

- 5" MAX. 5" MAX. 6" MAX. 7" MIN. D 7" MIN. (TYP.) PER ON ET FRAME SCREWS HEIGHT D.L.O. NOTE S SHEE MAX. D.L.O. PER WHERE SHOWN. SIZE NOTE ON SEE "FRAME THIS SHEET **ANCHOR** FRAME REQUIREMENTS TABLE" ON THIS SHEET FOR MAX. REQUIREMENTS. OPPOSITE' 4 20 1/8" MAX. O.C. 6" MAX CONSTRUCTION DESCRIPTIONS ON **EXTERIOR ELEVATION:** SINGLE RECTANGULAR DOOR SCALE: 1/2" = 1'-0'

46" MAX. FRAME WIDTH

DOOR GLASS D.L.O. SIZE NOTE: DIMENSIONS OF THE DOOR PANEL D.L.O. SHALL BE SUCH THAT THE OVERALL D.L.O. AREA DOES NOT EXCEED 7.36 SQ. FT. (1060 SQ. IN.)

LOCK CONDITION 1:

3-POINT LOCK ITEM #39 AT SINGLE DOOR AND ACTIVE PANEL OF DOUBLE DOOR; TOP & BOTTOM FLUSH BOLTS ITEM #40 & 41 AT INACTIVE PANEL OF DOUBLE DOOR. LOCK CONDITION 2: KAWNEER 1686 EXIT DEVICE ITEM #42 AT EACH PANEL (SINGLE & DOUBLE DOORS) LOCK CONDITION 3:

CORBIN RUSWIN EXIT DEVICE ITEM #43 AT EACH PANEL (SINGLE & DOUBLE DOORS) WITH REMOVABLE MULLION AT DOUBLE DOORS. LOCK CONDITION 4:

SCHLAGE MORTISE LOCK ITEM #44 (SINGLE DOORS ONLY)

> THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUC 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 MANUFACTUREF

W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (REG. NO. F-14980)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL. 33418
PHONE. 561-744-3424 DOORS **IMPACT** TITLE FLUSHLINE 1707 Á.

CHECKED BY:

W.W.S.

ATE: 03/04/21

KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555

FRAMES

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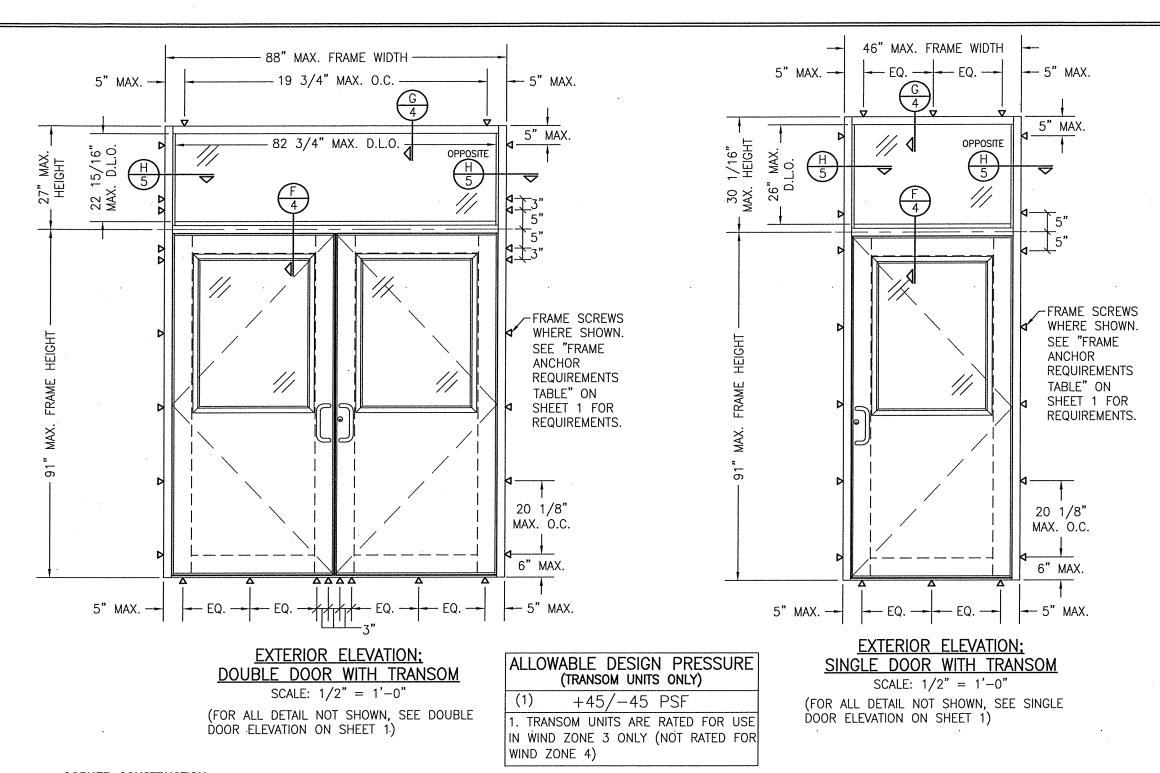
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03/04/21

KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555

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DOORS

IMPACT

TITLE FLUSHLINE W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (REG. NO. F-14980)

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CORNER CONSTRUCTION:

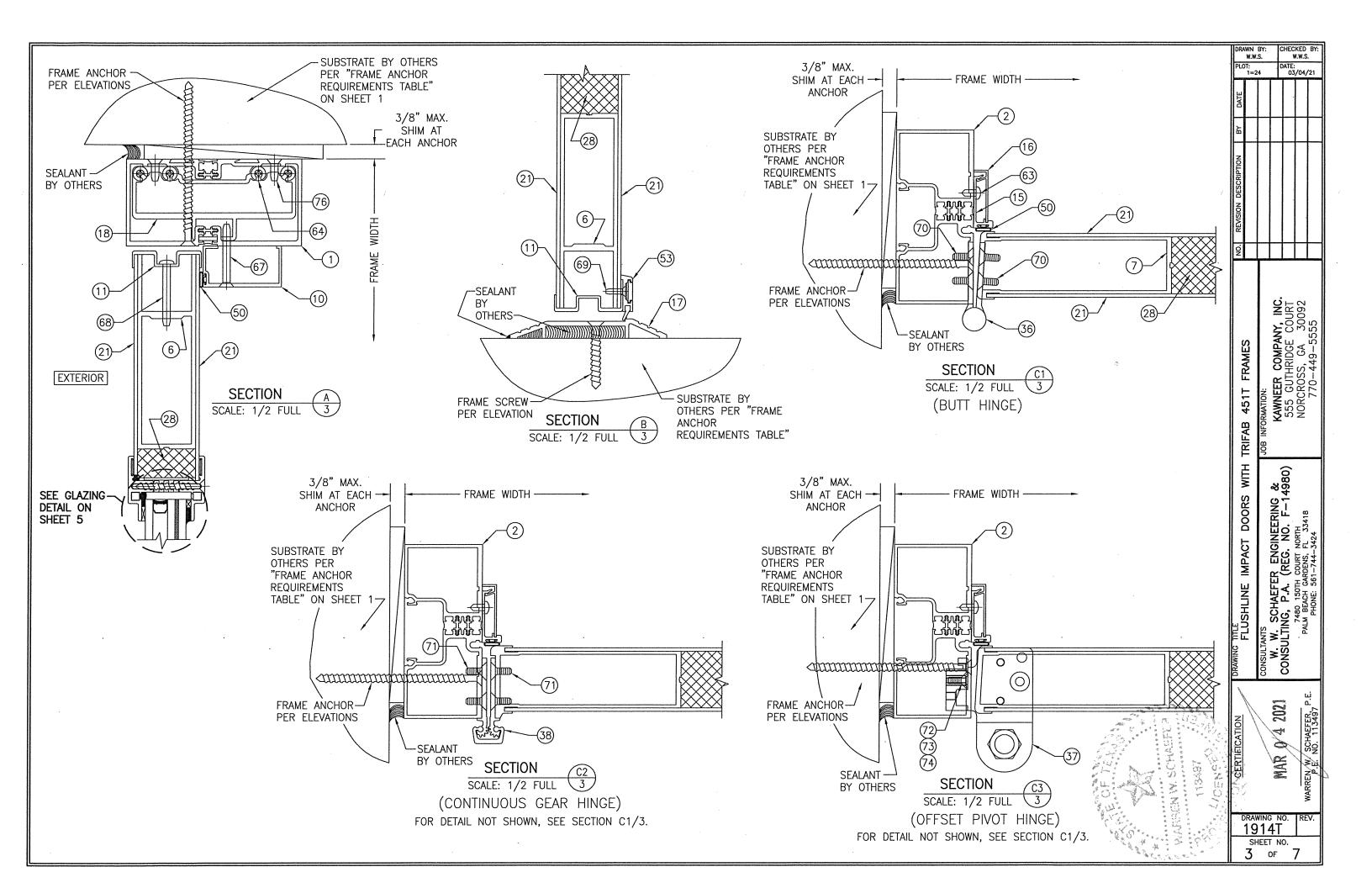
TRANSOM FRAME HEAD CORNER: VERTICAL FRAME MEMBERS RUN THROUGH WHILE THE HORIZONTAL FRAME MEMBER IS SQUARE CUT, BUTTED AND MECHANICALLY FASTENED WITH A SHEAR BLOCK (ITEM #20). THE SHEAR BLOCK IS MECHANICALLY FASTENED TO THE VERTICAL FRAME MEMBER WITH 2 NO. 10 X 1 19/32" PHTF TYPE B SCREWS & TO THE HORIZONTAL FRAME MEMBER WITH 1 NO. 10 X 9/16" FHTF TYPE B SCREWS. CORNERS ARE SEALED WITH DOW 795 SILICONE SEALANT.

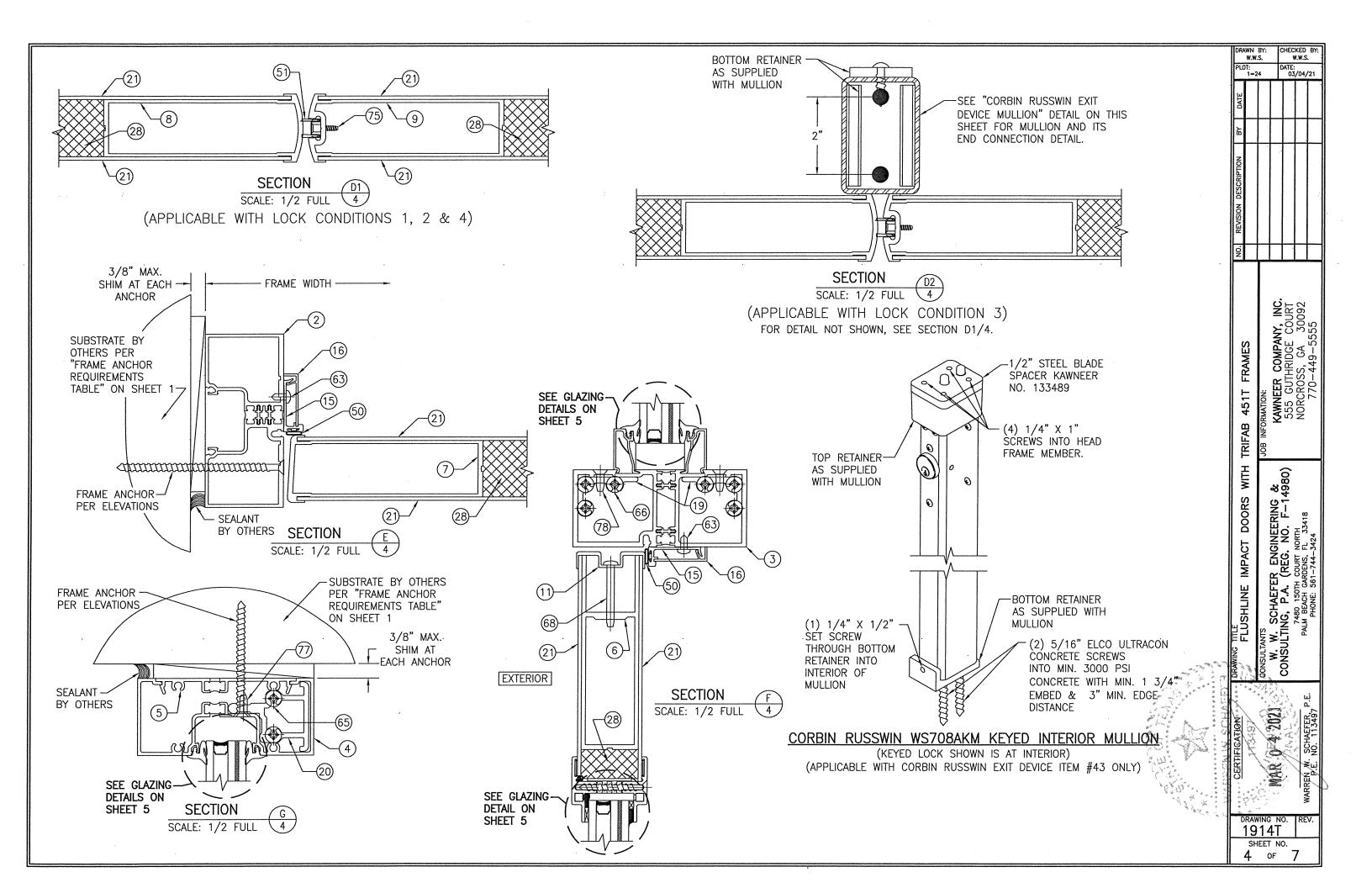
DOOR HEAD FRAME CORNER: VERTICAL FRAME MEMBERS RUN THROUGH WHILE THE HORIZONTAL FRAME MEMBER IS SQUARE CUT, BUTTED AND MECHANICALLY FASTENED WITH A SHEAR BLOCK (ITEM #18). THE SHEAR BLOCK IS MECHANICALLY FASTENED TO THE VERTICAL FRAME MEMBER WITH 4 NO. 10 X 1 19/32" PHTF TYPE B SCREWS & TO THE HORIZONTAL FRAME MEMBER WITH 2 NO. 10 X 9/16" FHTF TYPE B SCREWS. CORNERS ARE SEALED WITH DOW 795 SILICONE SEALANT.

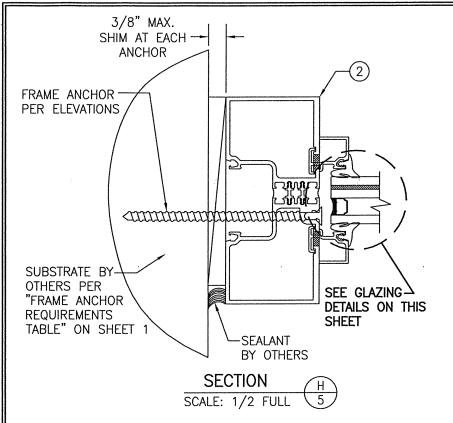
DOOR HEAD/TRANSOM MULLION ENDS: VERTICAL FRAME MEMBERS RUN THROUGH WHILE THE HORIZONTAL FRAME MEMBER IS SQUARE CUT, BUTTED AND MECHANICALLY FASTENED WITH 2 SHEAR BLOCKS (ITEM #19). EACH SHEAR BLOCK IS MECHANICALLY FASTENED TO THE VERTICAL FRAME MEMBER WITH 3 NO. 10 X 2 1/4" PHTF SCREWS & TO THE HORIZONTAL FRAME MEMBER WITH 1 NO. 10 X 9/16" FHTF TYPE B SCREWS. CORNERS/ENDS ARE SEALED WITH DOW 795 SILICONE SEALANT.

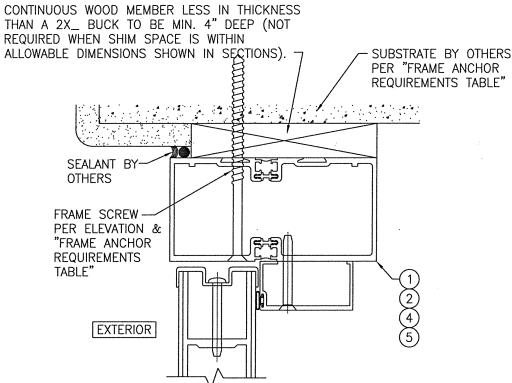
FRAME SILL CORNER: VERTICAL FRAME MEMBERS RUN THROUGH WHILE THE SILL MEMBER IS SQUARE CUT, BUTTED TO THE VERTICAL FRAME MEMBERS & SECURED TO EACH FRAME MEMBER WITH AN ANGLE CLIP ITEM #26. THE ANGLE CLIP IS SCREWED TO THE SILL & FRAME MEMBERS WITH NO. 12 -24 X 3/8" FHMS SCREWS (2 AT SILL; 3 AT FRAME). CORNERS ARE SEALED WITH DOW 795 SILICONE SEALANT.

DOOR PANEL CORNER: VERTICAL STILES RUN THROUGH AND ARE SECURED TO THE RAILS AT THE TOP & BOTTOM WITH A WELD CLIP ITEM #27. EACH WELD CLIP IS FASTENED TO THE STILE & RAIL WITH TWO(2) 1/4-20 X 3/4" PHMS & 3/16" THICK STEEL NUT PLATES. THE INTERSECTION OF EACH CORNER JOINT IS WELDED WITH A 1/2" DIA. PLUG WELD AND A 1 1/8" LONG FILLET WELD AT BOTH WEBS OF THE RAIL.



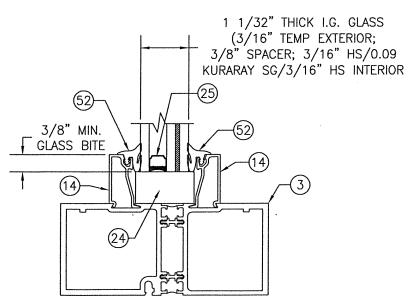




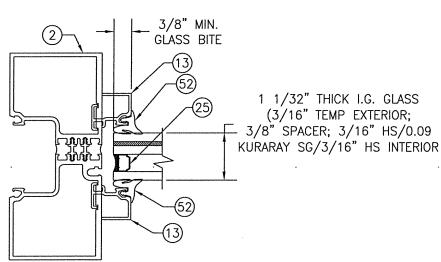


OPTIONAL DIRECT MOUNT DETAIL TO SUBSTRATE WITH SPACER

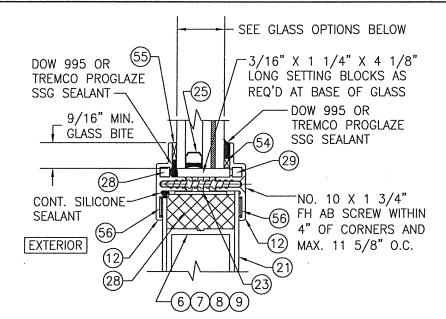
(HEAD SECTION SHOWN; SIDES ARE INSTALLED THE SAME) (FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



TYPICAL TRANSOM SILL GLAZING DETAIL



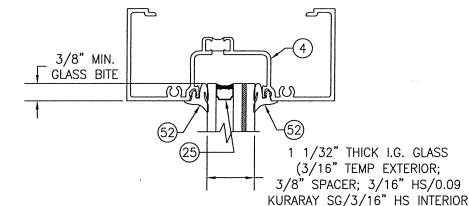
TYPICAL TRANSOM JAMB GLAZING DETAIL



TYPICAL DOOR PANEL GLAZING DETAIL

GLASS OPTIONS:

OPTION 1: 1" THICK I.G. GLASS (3/16" TEMP EXTERIOR; 3/8" SPACER; 3/16" HS/0.09 EASTMAN CHEM. CO. SAFLEX/3/16" HS INTERIOR OPTION 2: 1" THICK I.G. GLASS (3/16" TEMP EXTERIOR; 3/8" SPACER; 3/16" HS/0.09 KURARAY BUTACITE PVB/3/16" HS INTERIOR



TYPICAL TRANSOM HEAD GLAZING DETAI

DRAWING TITLE FLUSHLINE IMPACT DOORS WITH	CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (REG. NO. F-14980)	7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561—744—3424	
CERTIFICATION	MAR-0 4 2021	WARREN W. SCHAEFER, P.E. P.E. NO. 113497	7
19 SH	VING NO. 14T HEET NO. OF	7 REV.	

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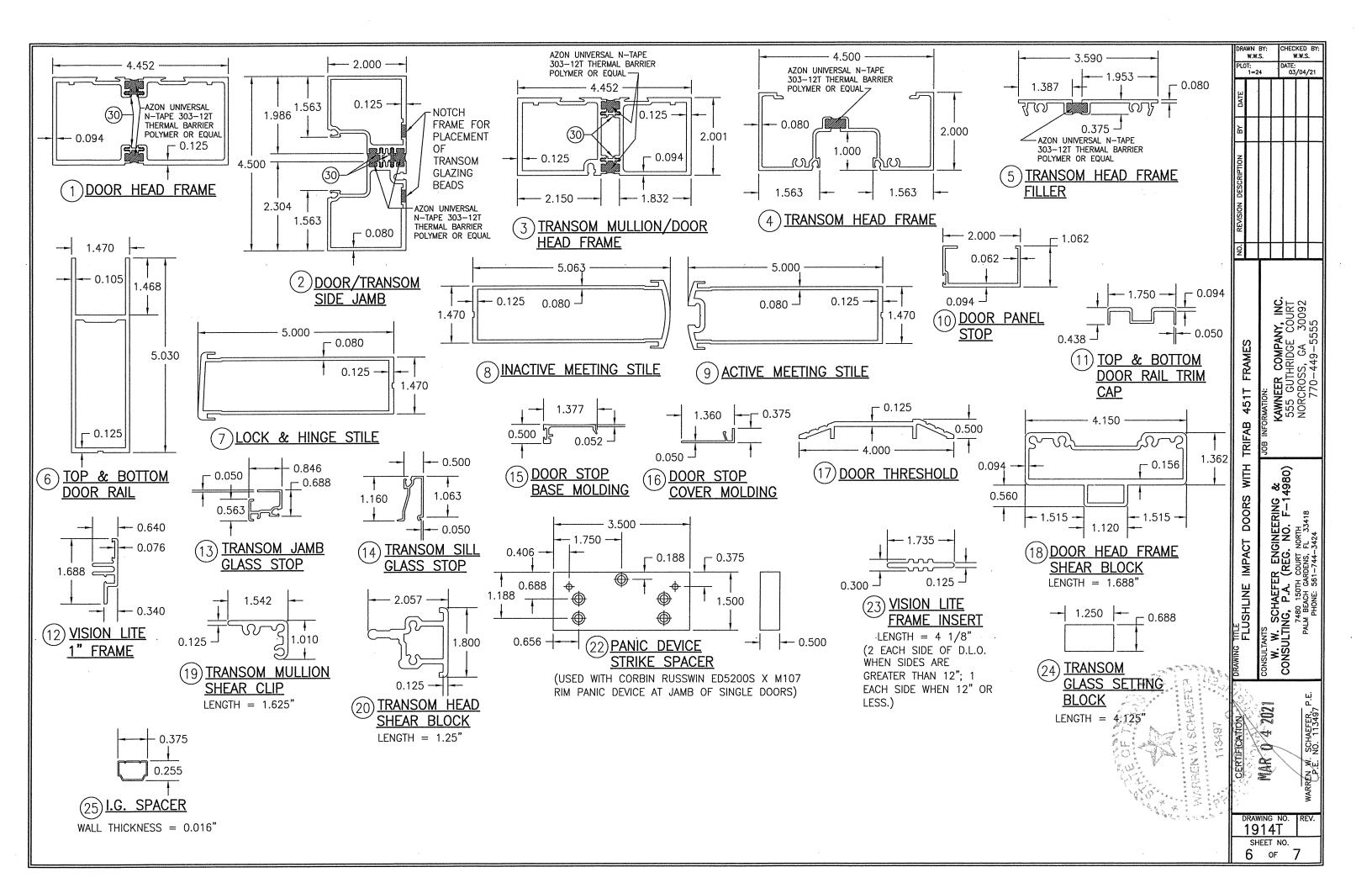
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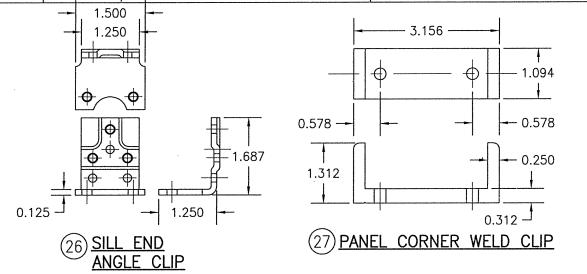
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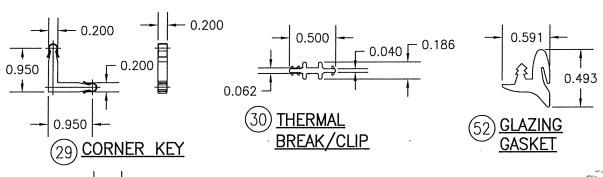
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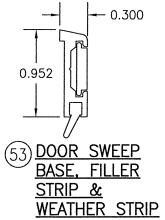


ITEM #		MANUFACTURER/NOTES	ITE
	PARTS		
1	DOOR HEAD FRAME	6063-T6 ALUMINUM	
2	DOOR/TRANSOM SIDE JAMB	6063-T6 ALUMINUM	
3	TRANSOM MULLION/DOOR HEAD FRAME	6063-T6 ALUMINUM	1
4	TRANSOM HEAD FRAME	6063-T6 ALUMINUM	
5	TRANSOM HEAD FRAME FILLER	6063-T6 ALUMINUM	
6	TOP & BOTTOM DOOR RAIL	6063-T6 ALUMINUM	<u> </u>
7	LOCK & HINGE STILE	6063-T6 ALUMINUM	
8	INACTIVE MEETING STILE	6063-T6 ALUMINUM	<u> </u>
9	ACTIVE MEETING STILE	6063-T6 ALUMINUM	
10	DOOR PANEL STOP	6063-T6 ALUMINUM	[]
11	TOP & BOTTOM DOOR RAIL TRIM CAP	6063-T6 ALUMINUM	
12	VISION LITE 1" FRAME (GLASS STOP)	6063-T6 ALUMINUM	
13	TRANSOM JAMB GLASS STOP	6063-T6 ALUMINUM	
14	TRANSOM SILL GLASS STOP	6063-T6 ALUMINUM	ļ L
15	DOOR STOP BASE MOLDING	6063-T6 ALUMINUM	
16	DOOR STOP COVER MOLDING	6063-T6 ALUMINUM	
17	DOOR THRESHOLD	6063-T6 ALUMINUM	
18	DOOR HEAD FRAME SHEAR BLOCK	6063—T6 ALUMINUM	
19	TRANSOM MULLION SHEAR CLIP	6063—T6 ALUMINUM	
20	TRANSOM HEAD SHEAR BLOCK	6063-T6 ALUMINUM	
21	0.09" THICK DOOR PANEL SHEET	FIBER REINFORCED PLASTIC OR 5005 ALUMINUM	
22	PANIC DEVICE STRIKE SPACER	ALUMINUM; USED W/ITEM #43 & SINGLE DOOR ONLY	
23	VISION LITE FRAME INSERT	ABS BLACK	
24	TRANSOM GLASS SETTING BLOCK	EPDM	
25	DOOR GLASS IG SPACER	A93105 ALUMINUM	
26 27	SILL END ANGLE CLIP	HR STEEL 6063-T6 ALUMINUM	
28	PANEL CORNER WELD CLIP FOAM FILL	5.0 LB/CF PVC FOAM CORE	
29	VISION-LITE CORNER KEY	DIE CAST ZINK	
30	THERMAL BREAK/CLIP	POLYPROPYLENE (DUROMETER = 67 +/-5)	
30	HARDWARE	POLIFROPILENE (DOROMETER = 07 +7-3)	
36		HAGAR A797 304 SS NRP	
37	OFFSET PIVOT HINGE	TOP PIVOT: KAWNEER NO. 050300/035520	
57	OTTSET TWOT TIMBE	INTERMEDIATE PIVOT: KAWNEER NO. 037233/037234	1
		BOTTOM PIVOT: KAWNEER NO. 037837/035524/035523	0.9
38	CONTINUOUS GEAR HINGE	KAWNEER NO. 050821	
39	3-POINT MULTI-POINT ACTIVE DOOR LOCK	KAWNEER NO. T237601	
40	INACTIVE DOOR TOP FLUSH BOLT	KAWNEER NO. 050079	
· 41	INACTIVE DOOR BOTTOM FLUSH BOLT	KAWNEER NO. 050079	
42	CONCEALED ROD EXIT/PANIC DEVICE	KAWNEER 1686	
43	RIM PANIC DEVICE WITH KEYED REMOVABLE MULLION		
44	MORTISE LOCK	SCHLAGE L9453L PACKAGE	
	SEALS & SEALANTS		
50	WEATHERING BULB	ALCRYN/RIGID PVC (DUROMETER = 60)	
51	ADJUSTABLE ASTRIGAL SEAL	SS/NYLON/POLYURETHANE	
52	GLAZING GASKET	EPDM SHORE A (DUROMETER = $65 + /-5$)	
53	DOOR SWEEP BASE, FILLER STRIP & WEATHER STRIP		
54	1/8" X 3/16" SPACER	POLYURETHANE FOAM	
55	3/16" X 3/8" GLAZING TAPE	CLOSED CELL PVC	
56	1/8" X 3/8" GLAZING TAPE	CLOSED CELL PVC	
	FASTENERS		
1	, , , , , , , , , , , , , , , , , , , ,		
6.3	NO. 8 X 3/8" PHTE TYPE AB SCREWS	1" FROM ENDS & MAX. 9" O.C.	
	NO. 8 X 3/8" PHTF TYPE AB SCREWS NO. 10 X 1 19/32" PHTF SCREWS	1" FROM ENDS & MAX. 9" O.C. 4 PER SHEAR BLOCK	

T	ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
1		FASTENERS CONT'D	
٦	65	NO. 10 X 1 19/32" PHTF SCREWS	2 PER SHEAR BLOCK
	66	NO. 10 X 2 1/4" PHTF SCREWS	3 PER SHEAR BLOCK
	67	NO. 10 X 1 5/8" FHTF TYPE "B" SCREWS	1" FROM ENDS & MAX. 16" O.C.
7	68	NO. 10 X 1 19/32" FHTF TYPE "B" SCREWS	6" FROM ENDS & MAX. 10" O.C.
1	69	NO. 8 X 1/2" FHTF TYPE "B" SCREWS	1/4" FROM ENDS & MAX. 9 1/2" O.C.
	70	NO. 12-24 X 9/16" SS FH SCREW	4 PER BUTT HINGE LEAF
1	71	NO. 12-24 X 11/16" SS FH SCREWS	2 9/16" FROM ENDS & MAX. 5 1/8" O.C.
7	72	5/16"-18 X 5/8" SS SCREW	2 PER TOP PIVOT HINGE
7	73	NO. 12-24 X 9/16" SS SCREW	2 PER INTERMEDIATE PIVOT HINGE
	74	1/4-20 X 3/8" SS SCREW	3 PER BOTTOM PIVOT HINGE
		0.279-0.188 DIA. X 0.563" LONG ADJUSTING SCREW	POSITIONED AS REQUIRED BY KAWNEER
	76	NO. 10 X 9/16" FHTF TYPE B SCREW	4 PER SHEAR BLOCK
	77	NO. 10 X 9/16" FHTF TYPE B SCREW	1 PER SHEAR BLOCK
7	78	NO. 10 X 9/16" FHTF TYPE B SCREW	2 PER SHEAR BLOCK







CONSULTANTS

W. W. SCHAEFER ENGINEERING & KAWNEER COMPANY, INC.

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555 GUTHRIDGE COURT

NORCROSS, GA 30092

PHONE: 561–744–3424

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DRAWING NO. R 1914T SHEET NO. 7 OF 7

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