TUBELITE INC. STANDARD ENTRANCE SERIES ALUMINUM OUT-SWING DOOR

THESE DOORS ARE RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

STANDARD

ALUMINUM OUT-SWING ENTRANCE DOOR

SEE SHEET 2 FOR DESIGN LOAD CAPACITY OF SINGLE AND DOUBLE DOORS.

DOORS NOT APPROVED FOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS REQUIRED.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2018 INTERNATIONAL RESIDENTIAL CODE (IRC) AND 2018 INTERNATIONAL BUILDING CODE (IBC)

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

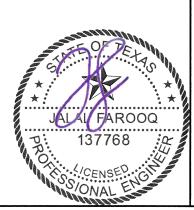
THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.

CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'

MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTIONS R613.4 AND R613.7.1 OF THE IRC AND SECTION 1714.5.1 OF THE IBC

NOTE: GLASS CAPACITIES ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS).



 AL-FAROOQ CORPORATION

 ENGINEERS & PRODUCT DEVELOPMENT

 9360 SUNSET DRIVE, SUITE 220

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 FAX. (305) 262-6978

 9 Suite

STANDARD ALUMINUM OUTSWING TUBELITE INC.
3056 Walker Ridge [
Walker, MI 49544
Tel. 800-866-2227

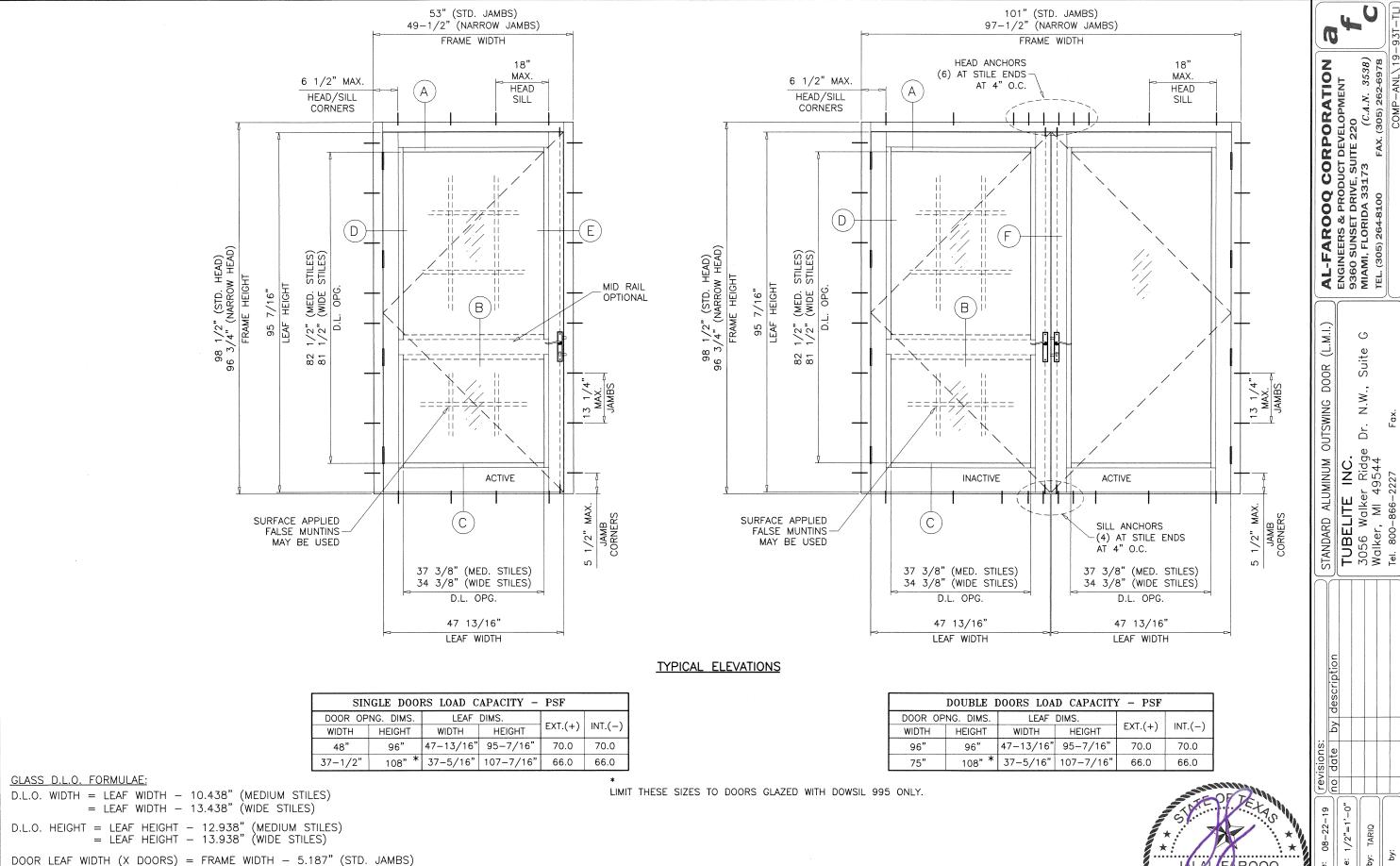
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19-93T

sheet 1 of 15



NOTE:

GLASS CAPACITIES ARE

BASED ON ASTM E1300-09 (3 SEC. GUSTS).

= FRAME WIDTH - 1.687" (NARROW JAMBS)

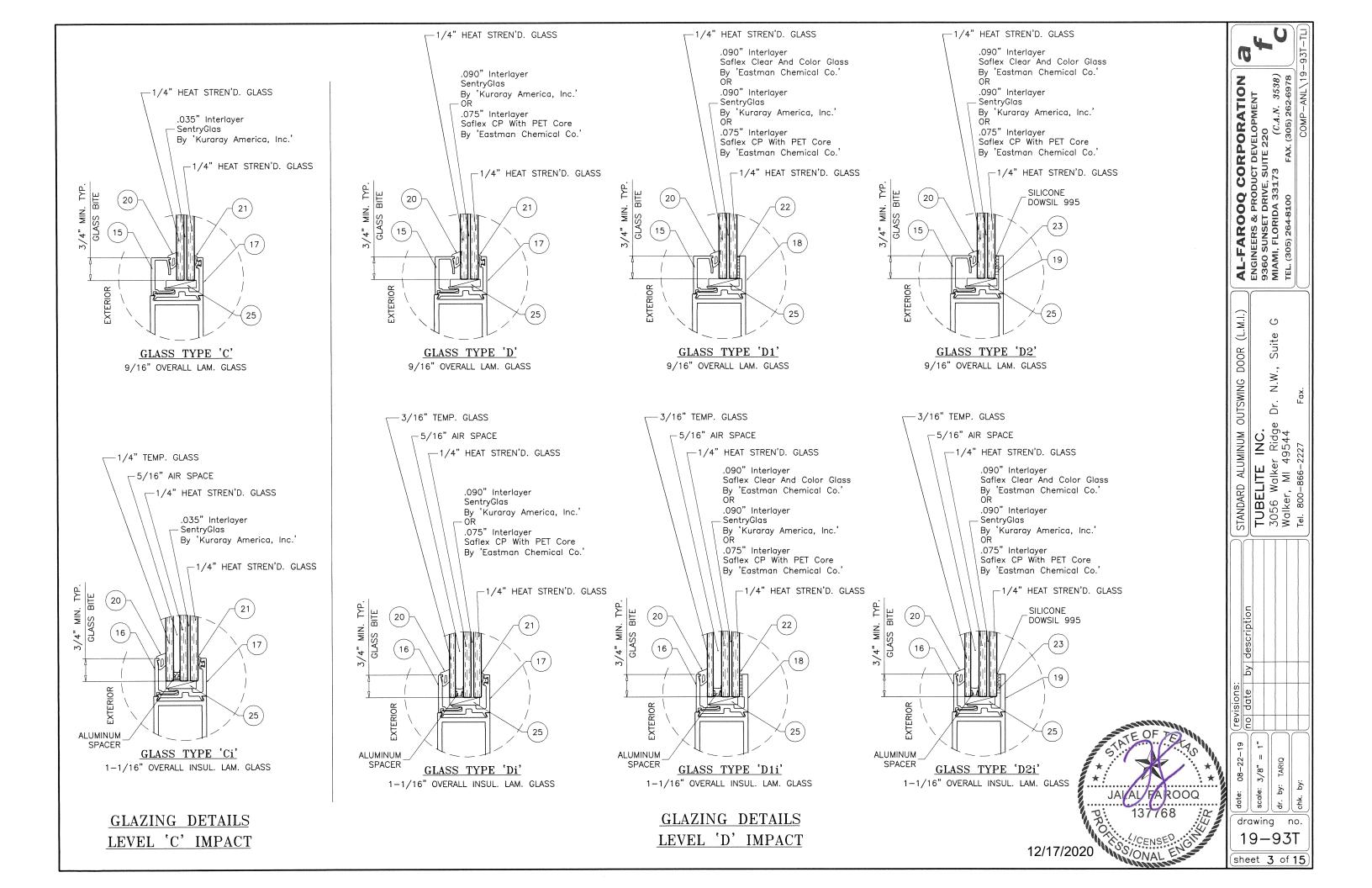
DOOR LEAF WIDTH (XX DOORS) = FRAME WIDTH -5.375" (STD. JAMBS) = FRAME WIDTH -1.875" (NARROW JAMBS)

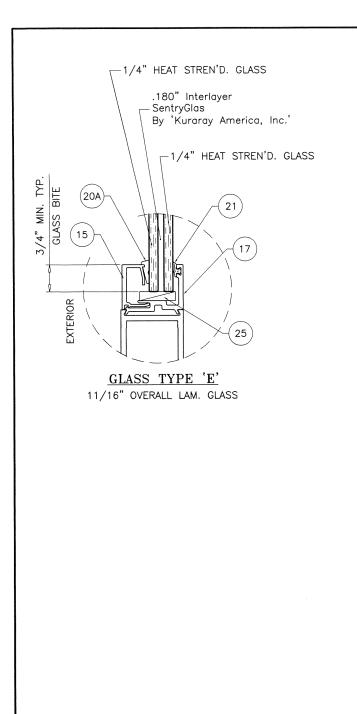
DOOR LEAF HEIGHT = FRAME HEIGHT - 3.062" (STD. HEAD) = FRAME HEIGHT - 1.3125" (NARROW HEAD)

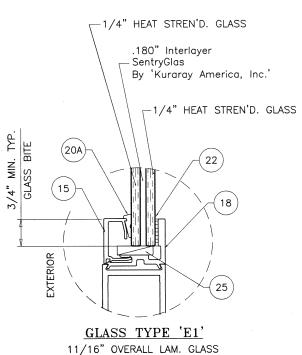
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drawing 19-93T

sheet 2 of 15







-3/16" TEMP. GLASS

3/4" MIN. TYP. GLASS BITE

(20A)

EXTERIOR

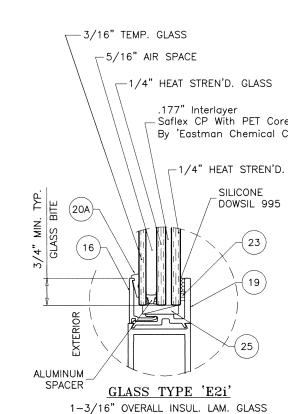
ALUMINUM

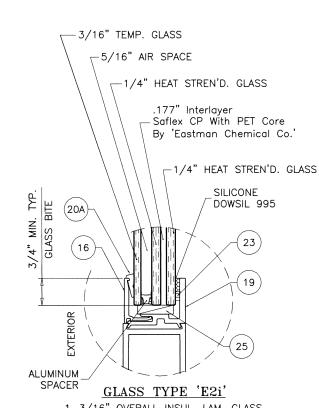
SPACER

(16)

-5/16" AIR SPACE

- SentryGlas





GLASS TYPE 'E2'

11/16" OVERALL LAM. GLASS

-1/4" HEAT STREN'D. GLASS

.177" Interlayer

3/4" MIN. TYP. GLASS BITE

(20A)

(15)

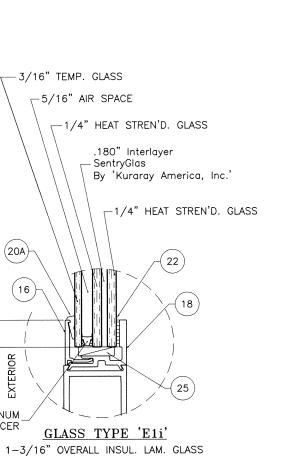
EXTERIOR

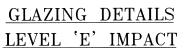
-Saflex CP With PET Core

By 'Eastman Chemical Co.'

-1/4" HEAT STREN'D. GLASS

SILICONE DOWSIL 995

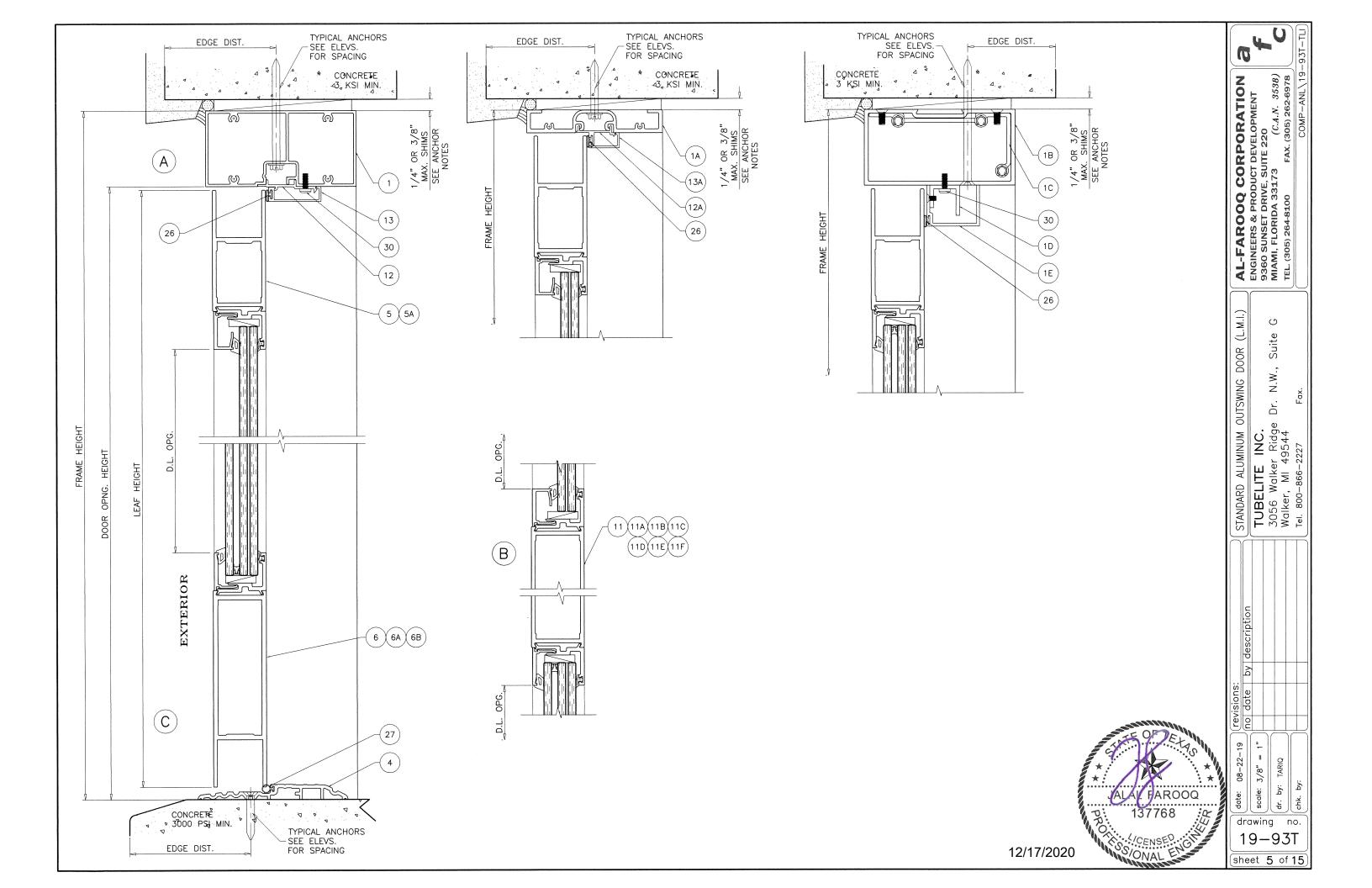


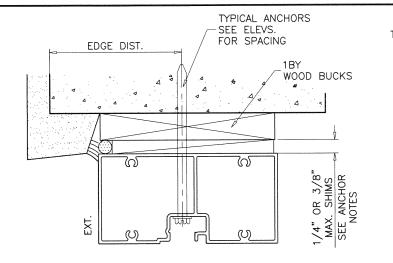


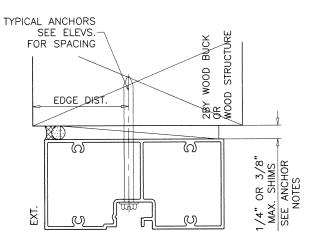
GLASS TYPE 'E1i'

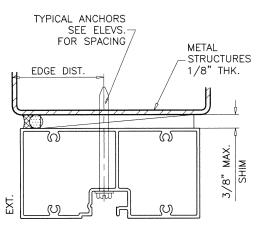


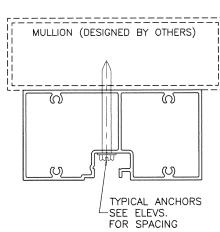
sheet 4 of 15











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19-93T

sheet **6** of **15**]

WOOD BUCKS AND METAL STRUCTURE NOT BY 'TUBELITE INC.' MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

1/4" DIA. TAPCON BY 'ITW' (Fu=125 KSI, Fy=100 KSI)

(1/4" MAX. SHIMS)

1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI) (3/8" MAX. SHIMS)

INTO 2BY WOOD BUCKS OR WOOD STRUCTURES 1-1/2" MIN. PENETRATION INTO WOOD (HEAD/JAMBS)

THRU 1BY BUCKS INTO CONC. OR MASONRY 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/JAMBS)

1-1/4" MIN. EMBED INTO MASONRY (JAMBS)

DIRECTLY INTO CONCRETE OR MASONRY

1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS) 1-1/4" MIN. EMBED INTO MASONRY (JAMBS)

1/4" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS) (3/8" MAX. SHIMS)

INTO MULLIONS (DESIGNED BY OTHERS)

OR

INTO 18 GA. METAL STUDS (Fy = 33 KSI MIN.)

OR

INTO METAL STRUCTURES (HEAD/SILL/JAMBS)

ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)

STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)

(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

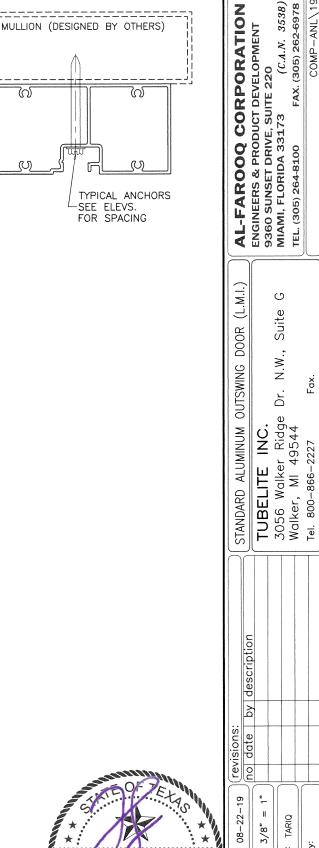
TYPICAL EDGE DISTANCE

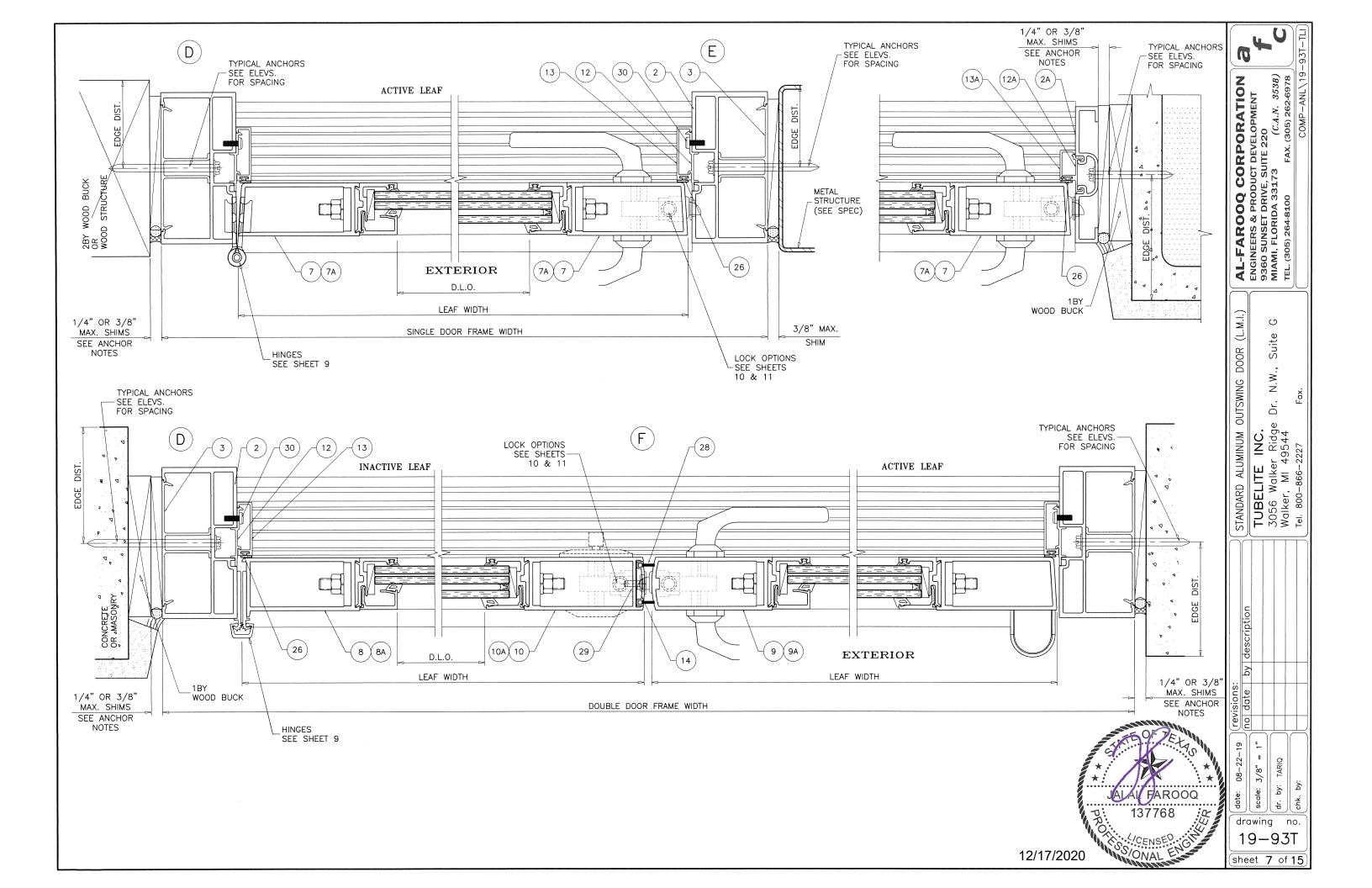
INTO CONCRETE AND MASONRY = 2-1/2" MIN.

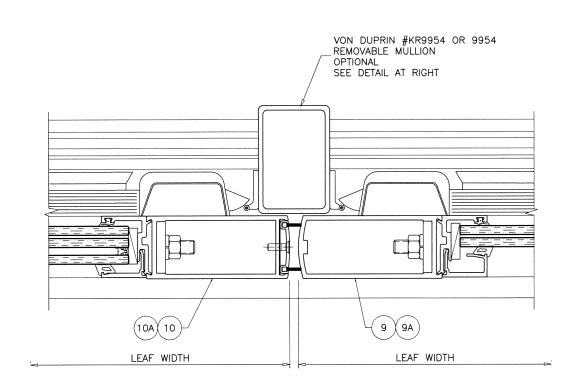
INTO WOOD STRUCTURE = 1" MIN.

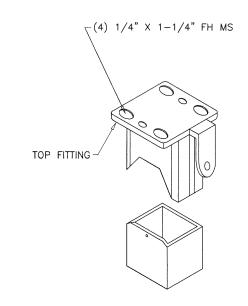
INTO METAL STRUCTURE = 1/2" MIN.

WOOD AT HEAD OR JAMBS SG = 0.55 MIN. CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN. C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

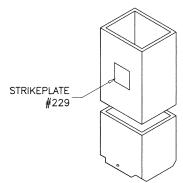


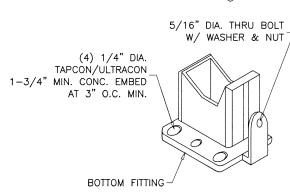


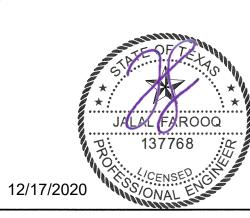




VON DUPRIN #KR9954
REMOVABLE MULLION
OPTIONAL
(USE ONLY WITH RIM EXIT DEVICE)







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Dr.

STANDARD ALUMINUM OUTSWING DOOR (L.M.I.) TUBELITE INC.
3056 Walker Ridge [Walker, MI 49544
Tel. 800-866-2227 revisions: 08-22-19 scale: 3/8" = 1"date:

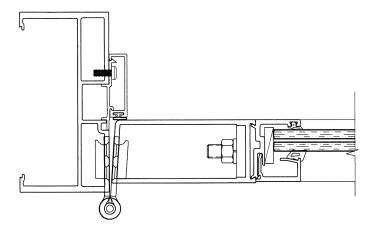
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HINGE OPTIONS:

OPTION #1:

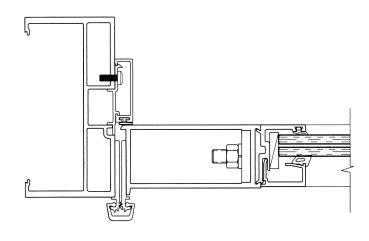
4-1/2" LONG FLUSH MOUNT STEEL BUTT HINGES 'BB1191' BY 'HAGER' OR 'ABH-663' BY 'ABH MANUFACTURING INC.' FASTENED WITH 12-20 X 1/2" FH MACHINE SCREWS FOUR PER HASP(LEAF). TOP AND BOTTOM HINGES AT 5-1/2" FROM ENDS INTERMEDIATE HINGES AT 32" O.C. MAX.

1" X 7-3/8" X 1/4" THK. ALUM BACK PLATE AT FRAME AND LEAF FASTENED WITH (4) #12-20 X 1/2" FH MACHINE SCREWS



OPTION #2:

CONTINUOUS GEAR ALUMINUM ROTON HINGE 'SL 11HD' BY 'SELECT' '780' BY 'HAGER' 'KCFM-95HD1' BY 'PEMKO' 'A110HD' BY 'ABH' FASTENED TO FRAME JAMB AND TO JAMB STILE WITH #12-24 X 7/16" FH MS SCREWS IN PAIRS AT 2", 4" AND 6" FROM TOP AND BOTTOM ENDS AND IN SINGLE ROW AT 10" O.C. THEREAFTER.



OPTION #3:

OFFSET PIVOT HINGES 'P795DT/IL/DB' BY 'TUBELITE' '180/M19/147' BY 'RIXON'

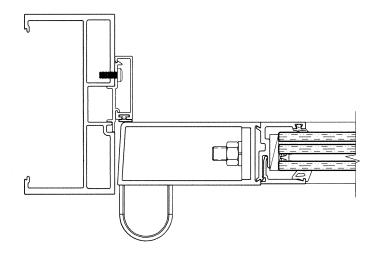
TOP AND BOTTOM HINGES FASTENED TO FRAME AND LEAF WITH (4) 1/4-20 X 5/8" FH MACHINE SCREWS

(11/16" X 1-1/2" X 6-1/2" LONG X 1/8" FLANGE THK. X 1/4" WEB THK.) FASTENED WITH (2) $1/4-20 \times 1-1/2$ " FH MACHINE SCREWS

BOTTOM SHIM 'C' CHANNEL $(1-1/4" \times 1-1/2" \times 9-1/2" \text{ LONG } \times 1/8" \text{ FLANGE THK. } \times 1/4" \text{ WEB THK.})$ FASTENED WITH (2) $1/4-20 \times 1-1/2$ " FH MACHINE SCREWS

INTERMEDIATE HINGES AT 35" O.C. FASTENED TO FRAME AND LEAF WITH (5) 1/4-20 X 5/8" FH MACHINE SCREWS

1" X 7-3/8" X 1/4" THK. ALUM BACK PLATE AT FRAME AND LEAF FASTENED WITH (4) #12-20 X 1/2" FH MACHINE SCREWS



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(L.M.I.) Suite DOOR ×. ×. STANDARD ALUMINUM OUTSWING Dr. TUBELITE INC.
3056 Walker Ridge [
Walker, MI 49544
Tel. 800-866-2227

by description

revisions: no date <u>ئ</u>ا 늘 물

drawing no.

19-93T sheet 9 of 15

LOCK OPTIONS:

3 POINT LOCK

MAX. LEAF HEIGHT = 96 IN.
MAX. LEAF WIDTH = 48 IN.
MAX. DESIGN LOAD = 70 PSF

MAX. LEAF HEIGHT = 108 IN.

MAX. LEAF WIDTH = 37-1/2 IN.

MAX. DESIGN LOAD = 66 PSF

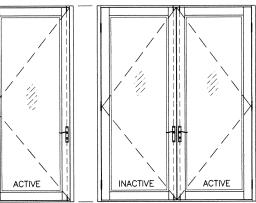
ACTIVE LEAF:

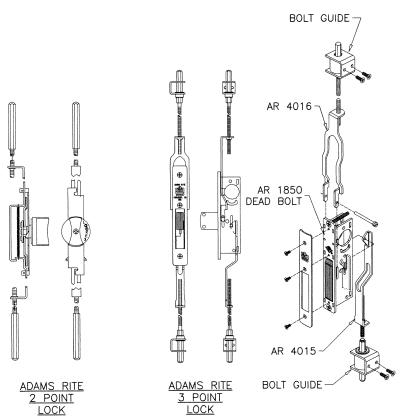
KEY OPERATED THREE POINT LOCK SYSTEM
'MS1853A/4015/4016' AND 'MS1850S/4015/4016' BY 'ADAMS RITE'
WITH CONCEALED FLUSH BOLTS AT TOP &
BOTTOM OF LOCK STILE AND A THUMB TURN ON THE
INTERIOR, LOCATED AT 40" FROM BOTTOM OF PANEL
FASTENED WITH
(2) #12-24 X 1/2" FH MACHINE SCREWS

INACTIVE LEAF:

MANUALLY OPERATED TWO POINT LOCK SYSTEM 'MS1881' AND 'MS2180' BY 'ADAMS RITE' WITH CONCEALED FLUSH BOLTS AT TOP & BOTTOM OF LOCK STILE AND A THUMB TURN ON THE INTERIOR, LOCATED AT 40" FROM BOTTOM OF PANEL FASTENED WITH

(2) #8-32 X 1/4" PH MACHINE SCREWS





LOCK OPTIONS:

RIM PANIC EXIT DEVICES

PANIC EXIT DEVICE

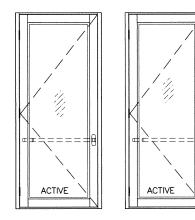
MAX. LEAF HEIGHT = 96 IN.

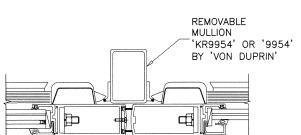
MAX. LEAF WIDTH = 42 IN.

MAX. DESIGN LOAD = 50 PSF

ACTIVE LEAF:

RIM PANIC EXIT DEVICE
'98/99XP' BY 'VON DUPRIN'
'33A/35A' BY 'VON DUPRIN'
'FL3790' BY 'FIRST CHOICE'
'WS AD8500' BY 'SARGENT'
LOCATED AT 40" FROM BOTTOM
FASTENED TO ACTIVE LEAF WITH WITH
(6) 10-24 X 1-1/8" PH MS





ACTIVE



(L.M.I.) \circ Suite DOOR × × Z STANDARD ALUMINUM OUTSWING Dr. TUBELITE INC.
3056 Walker Ridge [
Walker, MI 49544
Tel. 800-866-2227 by date ا <u>ب</u>ا ا gk. ∥ d. ∥

drawing no. 19-93T

sheet 10 of 15

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P. 137768

P. 12/17/2020

LOCK OPTIONS:

CVR PANIC EXIT DEVICES

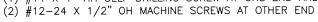
OPTION #1:

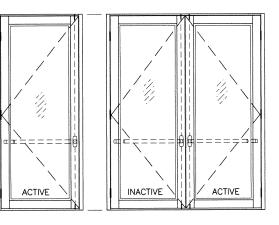
PANIC EXIT DEVICE MAX. LEAF HEIGHT = 96 IN. MAX. LEAF WIDTH = 48 IN. MAX. DESIGN LOAD = 70 PSF

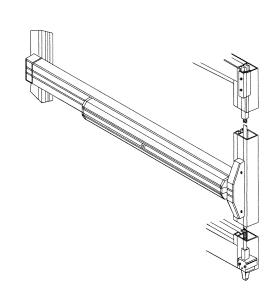
ACTIVE & INACTIVE LEAF:

CONCEALED VERTICAL ROD PANIC EXIT DEVICE '#2086' BY 'JACKSON PANIC SYSTEM' '3690FL' BY 'FIRST CHOICE' LOCATED AT 41" FROM SILL AT EACH LEAF. FASTENED WITH

(1) #14 X 1" HH SELF DRILLING SCREW AT ONE END AND







OPTION #2:

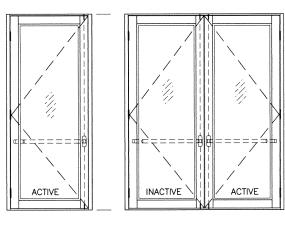
PANIC EXIT DEVICE MAX. LEAF HEIGHT = 96 IN. MAX. LEAF WIDTH = 48 IN. MAX. DESIGN LOAD = 70 PSF

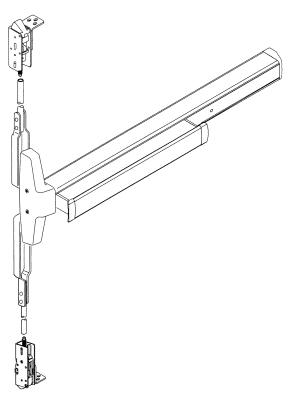
ACTIVE & INACTIVE LEAF:

CONCEALED VERTICAL ROD PANIC EXIT DEVICE 'HH9947' BY 'VON DUPRIN' LOCATED AT 40" FROM SILL AT EACH LEAF. FASTENED WITH

(2) #10-32 X 3/4" FH MACHINE SCREWS AT ONE END AND

(2) #10-24 X 1/2" FH MACHINE SCREWS AT OTHER END





OPTION #3:

PANIC EXIT DEVICE PANIC EXIT DEVICE MAX. LEAF HEIGHT = 96 IN. MAX. LEAF HEIGHT = 108 IN. MAX. LEAF WIDTH = 48 IN. MAX. LEAF WIDTH = 37-1/2 IN. MAX. DESIGN LOAD = 70 PSF MAX. DESIGN LOAD = 66 PSF

ACTIVE & INACTIVE LEAF:

CONCEALED VERTICAL ROD PANIC EXIT DEVICE '1690HH' BY 'FALCON' LOCATED AT 41" FROM SILL AT EACH LEAF. FASTENED WITH

(1) #14 X 1" HH SELF DRILLING SCREW AT ONE END AND

(2) #12-24 X 1/2" OH MACHINE SCREWS AT OTHER END



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date

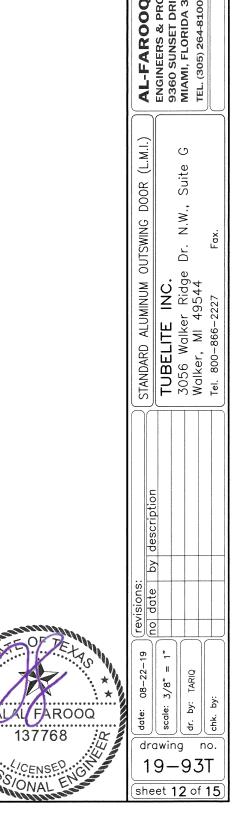
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drawing no. 19-93T

sheet **11** of **15**



1 1A 1B	E34224	1			
		1	DOOR FRAME HEAD (STANDARD)	6063-T6	_
1B	E4TB111	1	DOOR FRAME HEAD (NARROW)	6063-T6	-
	E34125	1	DOOR FRAME HEAD (CONCEALED CLOSERS)	6063-T6	-
1C	P4441	1	FRAME HEAD (CONCEALED CLOSERS) CORNER KEY	6063-T6	-
1 D	E6504	1	HEAD (CONCEALED CLOSERS) DOOR STOP	6063-T6	- ,
1E	E2298	1	HEAD (CONCEALED CLOSERS) DOOR STOP COVER	6063-T6	_
2	E34144	2	DOOR FRAME JAMB (STANDARD)	6063-T6	-
2A	E4TB11	2	DOOR FRAME JAMB (NARROW)	6063-T6	-
3	E34242	2	JAMB SHEAR CLIP (STANDARD)	6063-T6	-
4	E3550	1	THRESHOLD	6063-T6	-
5	E0054	1/ LEAF	LEAF TOP RAIL (MEDIUM)	6063-T6	-
5A	E0318	1/ LEAF	LEAF TOP RAIL (WIDE)	6063-T6	-
6	E0419	1/ LEAF	BOTTOM RAIL	6063-T6	-
6A	E2682	1/ LEAF	BOTTOM RAIL	6063-T6	-
6B	E2669	1/ LEAF	BOTTOM RAIL	6063-T6	_
7	E0086	1/ LEAF	LEAF HINGE/LOCK STILE (MEDIUM)	6063-T6	-
7A	E0416	1/ LEAF	LEAF HINGE/LOCK STILE (WIDE)	6063-T6	-
8	E0085	1/ LEAF	LEAF ALT. HINGE/LOCK STILE (MEDIUM)	6063-T6	_
8A	E0415	1/ LEAF	LEAF ALT. HINGE/LOCK STILE (WIDE)	6063-T6	-
9	E0087	1/ LEAF	LEAF ACTIVE STILE (MEDIUM)	6063-T6	_
9A	E0417	1/ LEAF	LEAF ACTIVE STILE (WIDE)	6063-T6	_
10	E1150	1/ LEAF	LEAF INACTIVE STILE (MEDIUM)	6063-T6	-
10A	E1151	1/ LEAF	LEAF INACTIVE STILE (WIDE)	6063-T6	-
11	E3256	AS REQD.	MID RAIL	6063-T6	OPTIONAL
11A	E3261	AS REQD.	MID RAIL	6063-T6	OPTIONAL
11B	E3258	AS REQD.	MID RAIL	6063-T6	OPTIONAL
11C	E3262	AS REQD.	MID RAIL	6063-T6	OPTIONAL
11D	E3266	AS REQD.	MID RAIL	6063-T6	OPTIONAL
11E	E3263	AS REQD.	MID RAIL	6063-T6	OPTIONAL
11F	E3265	AS REQD.	MID RAIL	6063-T6	OPTIONAL
12	E6510	AS REQD.	DOOR STOP BASE (STANDARD)	6063-T6	-
12A	E6500	AS REQD.	DOOR STOP BASE (NARROW)	6063-T6	-
13	E6505	AS REQD.	DOOR STOP (STANDARD)	6063-T6	-
13A	E6501	AS REQD.	DOOR STOP (NARROW)	6063-T6	-
14	E1152	AS REQD.	ASTRAGAL W'STRIP ADAPTER	6063-T6	-
15	E6533	4/ LEAF	EXTERIOR GLASS STOP (LAM. GLASS)	6063-T6	-
16	E6523	4/ LEAF	EXTERIOR GLASS STOP (INSUL. LAM. GLASS)	6063-T6	-
17	E6532	4/ LEAF	INTERIOR GLASS STOP (DRY GASKET)	6063-T6	_
18	E6512	4/ LEAF	INTERIOR GLASS STOP (GLAZING TAPE)	6063-T6	_
19	E6522	4/ LEAF	INTERIOR GLASS STOP (SILICONE)	6063-T6	-
20	P2908	4/ LEAF	EXTERIOR GLAZING GASKET (LEVEL D IMPACT)	EPDM	_
20A	P2901	4/ LEAF	EXTERIOR GLAZING GASKET (LEVEL E IMPACT)	EPDM	_
21	P0017	4/ LEAF	INTERIOR GLAZING GASKET	EPDM	-
22	3M VHB	4/ LEAF	INTERIOR GLAZING TAPE (.090" X .750")	FOAM	-
23	P6552	4/ LEAF	INTERIOR SPACER TAPE	FOAM	
25	P1912	2/ LITE	SETTING BLOCK AT 6" FROM ENDS	EPDM	DUROMETER 80±5 SHORE A
26	P6296	AS REQD.	FRAME HEAD/JAMB BULB W'STRIPPING	VINYL	_
27	P3450	AS REQD.	FRAME SILL BULB W'STRIPPING	VINYL	-
28	P938	AS REQD.	ASTRAGAL PILE W'STRIPPING	WOOL	ULTRAFAB
29	#10 X 5/8"	AS REQD.	ASTRAGAL ADAPTER FASTENERS, AT 12" O.C.	ST. STEEL	FH SELF DRILLING SCREWS
30	#10 X 1/2"	AS REQD.	GLASS STOP FASTENERS, AT 2" FROM ENDS & 12" O.C.	ST. STEEL	FH SELF DRILLING SCREWS
31	#12 X 1-1/2"	AS REQD.	FRAME ASSEMBLY FASTENERS	ST. STEEL	HH SELF DRILLING SCREWS
		_	-	_	-



12/17/2020

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