

CLOPAY MODELS 84A, 94, 98  
 IDEAL MODELS 4F, 4RST  
 HOLMES MODEL 48, 48B

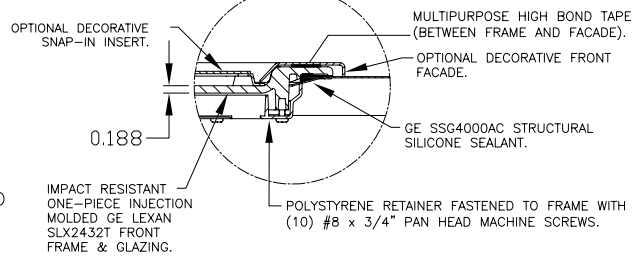


DETAIL 'D'

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SECTION B-B  
 OPTIONAL IMPACT RESISTANT GLAZING

ONE ROW OF IMPACT-RESISTANT GLAZING IN EITHER TOP SECTION (SHOWN) OR NEXT-TO-THE-TOP SECTION (NOT SHOWN). MAX. GLAZING SIZE IS 18'-1/2" x 11". GLAZING IS INJECTION MOLDED GE LEXAN SLX2432T, AN APPROVED CC2 PLASTIC IN ACCORDANCE WITH IBC/FBC 2606. SEE SECTION B-B FOR ASSEMBLY DETAILS.



REV	DATE	DESCRIPTION
13	11/30/07	HOLMES NOW AVAIL UP TO 12'
14	07/07/08	MAX HT INCREASED TO 16'
15	08/08/08	ADDED 48B.

DOOR HEIGHT	NUMBER OF SECTIONS*
6'0" TO 7'0"	4
7'6" TO 8'9"	5
9'0" TO 10'6"	6
10'9" TO 12'3"	7
12'6" TO 14'0"	8
14'3" TO 15'9"	9
16'0"	10

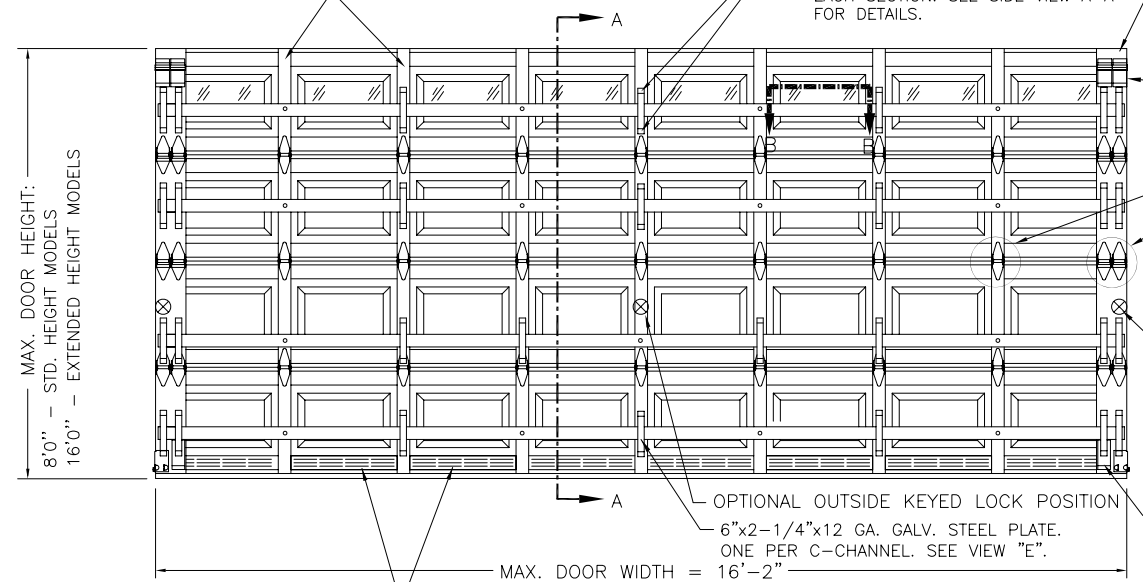
\* SECTION ARE EITHER 18" OR 21" HIGH

INSTALLER MODEL	RETAIL MODEL	DESCRIPTION
94, 4RST	84A, 48, 48B	WOODGRAIN TEXTURE, RAISED PANEL, GALV. INTER. STILES
98, 4F	-	WOODGRAIN TEXTURE, FLUSH PANEL, GALV. INTER. STILES

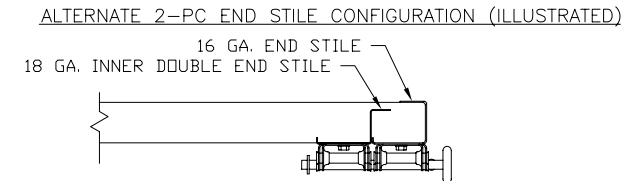
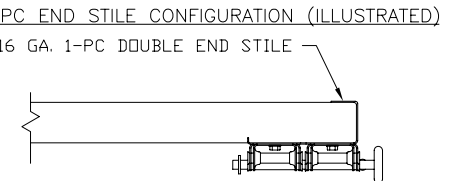
ONE INTERMEDIATE STILE BETWEEN EACH EMBOSS LOCATION. ATTACHED W/ PATENTED TOG-L-LOC SYSTEM (TOP & BOT) AND URETHANE ADHESIVE (ALONG CENTER).

SPECIAL FASTENER REQUIREMENTS FOR DOORS WITH OPTIONAL IMPACT RESISTANT LITES FOR THESE (2) LOCATIONS FOR CENTER STRAP ON EACH SECTION. SEE SIDE VIEW A-A FOR DETAILS.

1-PC END STILE CONFIGURATION: (SEE ILLUSTRATION BELOW)  
 16 GA. GALVANIZED 1-PC DOUBLE END STILES ATTACHED TO DOOR SKIN WITH PATENTED TOG-L-LOC SYSTEM, (2) AT TOP INSIDE, (2) BOTTOM INSIDE, (4) ALONG OUTSIDE EDGE OF 18" SECTIONS & (6) ALONG OUTSIDE EDGE OF 21" SECTIONS.  
 ALTERNATE 2-PC END STILE CONFIGURATION: (SEE ILLUSTRATION BELOW)  
 16 GA. GALVANIZED END STILES ATTACHED TO DOOR SKIN WITH PATENTED TOG-L-LOC SYSTEM [(2) AT TOP INSIDE, (2) BOTTOM INSIDE, (4) ALONG OUTSIDE EDGE OF 18" SECTIONS & (6) ALONG OUTSIDE EDGE OF 21" SECTIONS] AND SEPARATE 18 GA. GALV. INNER DOUBLE END STILES ATTACHED TO TOP AND BOTTOM RAIL WITH PATENTED TOG-L-LOC SYSTEM.

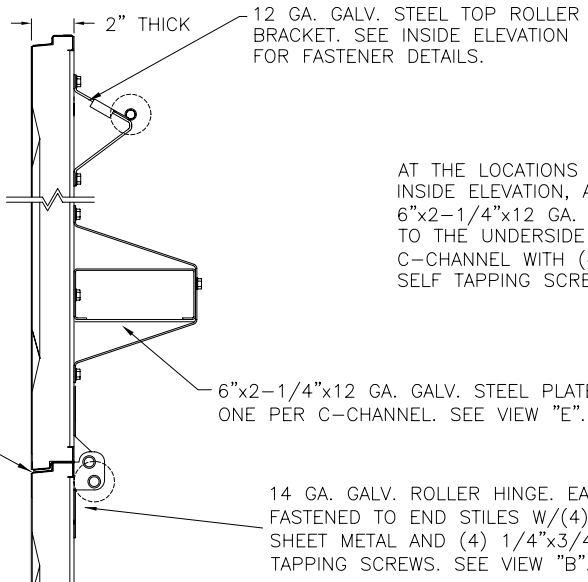


(2) 12 GA. GALV. STEEL TOP ROLLER BRACKETS (2-1/2" x 5-3/8"). EACH BRACKET ATTACHED W/(4) #14x5/8" SHEET METAL SCREWS. ADJUSTABLE SLIDE ATTACHED TO TOP BRACKET WITH (2) 1/4"x1/2" BOLTS AND NUTS PER BRACKET.

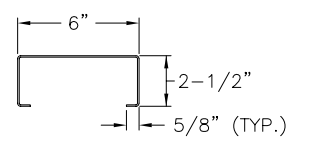
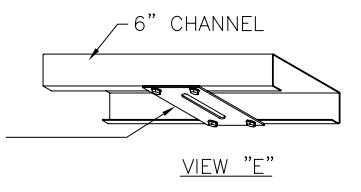


LOCK POSITION (BOTH SIDES). TWO POINT LOCKING REQUIRED. LOCKS HAVE 5/8" MIN. ENGAGEMENT. SEE LAYOUT OF EACH LOCK OPTION BELOW.

DOORS WITH 2" TRACK USE (2) STACKED LHR BRACKETS (2-1/2"x5"x 12 GA.) AS INNER BOTTOM BRACKET ATTACHED WITH (2) 1/4"x3/4" SELF TAPPING SCREWS. DOORS WITH 3" TRACK USE (1) 3-IN ROLLER CARRIER (1-1/8"x2-1/4" x 12 GA.) AS INNER BOTTOM BRACKET ATTACHED WITH (2) 1/4"x3/4" SELF TAPPING SCREWS.

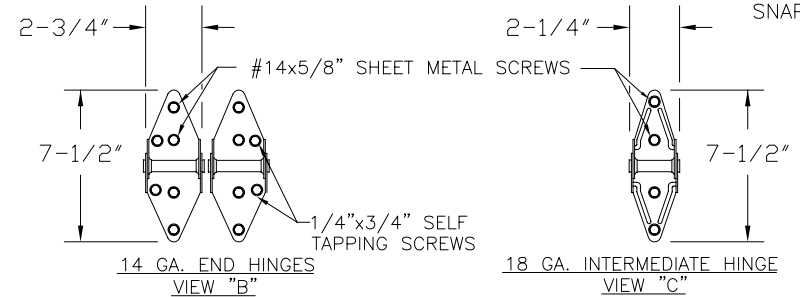
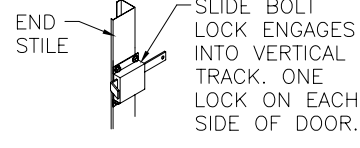
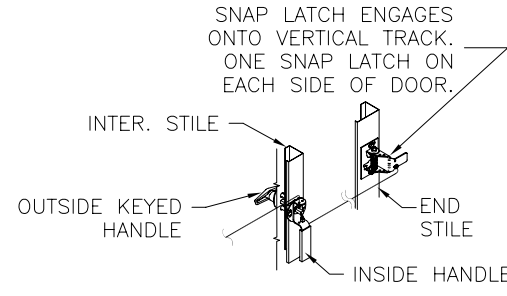
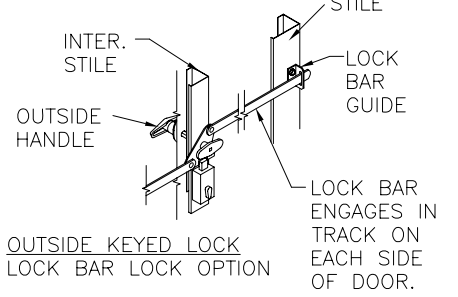


AT THE LOCATIONS NOTED ON INSIDE ELEVATION, ATTACH THE 6"x2-1/4"x12 GA. STEEL PLATE TO THE UNDERSIDE OF THE THE C-CHANNEL WITH (4) 1/4"x3/4" SELF TAPPING SCREWS.



LOCATION OF OPTIONAL VENTS. AREA OF VENTS NOT TO EXCEED 120 SQ. INCHES.

MAX. DOOR WIDTH = 16'-2" INSIDE ELEVATIONS



24 GA. DDS STEEL EXTERIOR SKIN WITH G-40 GALVANIZING, BAKED-ON PRIMER AND A BAKED-ON POLYESTER PAINTED TOP COAT APPLIED TO BOTH SIDES OF STEEL SKIN. (ASTM No. A653).

ONE 6" TALL C-CHANNEL PER DOOR SECTION. (SEE VIEW "D") C-CHANNEL ATTACHED AT EACH STILE LOCATION WITH (1) 1/4"x3/4" SELF TAPPING SCREW.

1-1/4" WIDE x 16 GA. GALV. STRAP. (7) PER DOOR SECTION. OPTIONAL: (8) STRAPS ON 2ND (LOCK) SECTION (SEE INSIDE ELEVATION). EACH STRAP ATTACHED WITH (3) 1/4"x3/4" SELF TAPPING SCREWS (TWO SCREWS TO DOOR, ONE SCREW TO C-CHANNEL). SPECIAL REQUIREMENTS FOR DOORS WITH OPTIONAL IMPACT RESISTANT LITES: FOR STRAPS AT CENTER OF DOOR, TOP AND BOTTOM SCREWS SHALL BE REPLACED BY 1/4"-20x5/8 AND FASTENED WITH (1) 1/4" NUT EACH. A CLEARANCE HOLE (9/32" DIA.) MAY BE DRILLED FOR EACH FASTENER.

12 GA. GALV. STEEL BOTTOM BRACKET (3-1/2" x 5-1/2") ATTACHED WITH (2) #14x5/8" SHEET METAL SCREWS.

SECTION A-A (SIDE VIEW)

DESIGN LOADS: +46.6 P.S.F. & -52.0 P.S.F.  
 TEST LOADS: +70.0 P.S.F. & -78.0 P.S.F.

DESIGN ENGINEER:  
 MARK W. WESTERFIELD, P.E.  
 FL P.E. # 48495, NC P.E.  
 #23832, TX P.E. #91513  
 DESIGN LOADS: +46.6 P.S.F. & -52.0 P.S.F.  
 TEST LOADS: +70.0 P.S.F. & -78.0 P.S.F.



TOLERANCES  
 Unless Stated Otherwise  
 .00 = ±.03  
 .000 = ±.015  
 .0000 = ±.007  
 Degrees = ±1/2"

CLOPAY BUILDING PRODUCTS  
 8585 DUKE BLVD.  
 MASON, OHIO 45040  
 (513) 770-4800

MANUFACTURING PRODUCT CODE MPC: PAN-2F143	PAGE: 1 OF 3	MAX. SIZE 16'2"W x 16'0"H
DATE: 2/15/95	DESCRIPTION: DOUBLE CAR W8 HURRICANE PAN DOOR	
DRAWN BY: MWW	DRAWING NUMBER: 101300	CLOPAY WINDLOAD RATING W8
CHECKED BY: SH	VER: FPA	

FLORIDA PRODUCT APPROVAL 5684.17

# TRACK AND JAMB CONFIGURATION

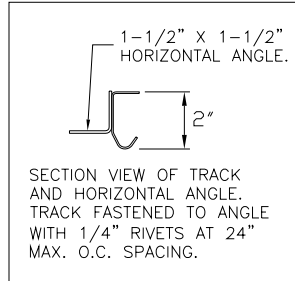
## TRACK CONFIGURATION: DOORS UP TO 8'0" HIGH

TRACK CONFIGURATION ABOVE THE DOOR OPENING DOES NOT AFFECT THE WIND LOAD RATING.

HORIZONTAL TRACK SUPPORT BY DOOR INSTALLER (TO SUIT).  
 HORIZONTAL ANGLE ATTACHED TO FLAG BRACKET WITH (1) 3/8" X 3/4" CARRIAGE BOLT.

HORIZONTAL TRACK ATTACHED TO VERTICAL TRACK WITH (2) 1/4" X 3/4" BOLTS AND NUTS.

2" GALV. STEEL TRACK, TRACK THICKNESS: 0.083".



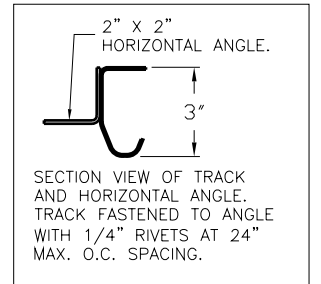
## TRACK CONFIGURATION: DOORS 8'3" TO 16'0" HIGH

TRACK CONFIGURATION ABOVE THE DOOR OPENING DOES NOT AFFECT THE WIND LOAD RATING.

HORIZONTAL ANGLE ATTACHED TO FLAG BRACKET WITH (1) 3/8" X 3/4" CARRIAGE BOLT.

3" GALV. TAPERED STEEL TRACK AND ANGLE. TRACK THICKNESS: 0.101". ANGLE THICKNESS: 0.080".

HORIZONTAL TRACK SUPPORT BY DOOR INSTALLER (TO SUIT).



14'-0" 156"  
 16'-0" 180"

## JAMB CONFIGURATION: DOORS UP TO 8'0" HIGH

2x6 SYP WOOD JAMB. SEE "JAMB PREPARATION NOTE" ON SHEET THREE.

16 GA. GALV. 1-PC DOUBLE STEEL END STILE (OR ALTERNATE 2-PC CONFIGURATION, SEE SHEET ONE).

20 GA. GALV. STEEL INTER. STILE. (1) INTER. STILE BETWEEN EACH EMBOSS (SEE INSIDE ELEVATION ON SHEET ONE). DOORS 16'2" WIDE HAVE (7) INTER. STILES PER SECTION.

18 GA. GALV. STEEL CENTER HINGE FASTENED TO INTER. STILES W/(4) EACH #14x5/8" SHEET METAL SCREWS.

7/16" I.D. ROUND PUSH NUT OR LOCK NUT FASTENER.

14 GA. GALV. STEEL ROLLER HINGES FASTENED TO END STILES W/(4) EACH #14x5/8" SHEET METAL SCREWS AND (2) 1/4" SELF TAPPING SCREWS PER END HINGE.

2" DIA. LONG STEM STEEL ROLLER WITH STEEL OR NYLON TIRE. ROLLER TO BE EITHER STEM THREADED FOR 7/16" NUT OR TO BE USED WITH A 7/16" PUSHNUT.

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## JAMB CONFIGURATION: DOORS 8'3" TO 16'0" HIGH

2x6 SYP WOOD JAMB. SEE "JAMB PREPARATION NOTE" ON SHEET THREE. 2-1/2" MIN.

16 GA. GALV. 1-PC DOUBLE STEEL END STILE (OR ALTERNATE 2-PC CONFIGURATION, SEE SHEET ONE).

20 GA. GALV. STEEL INTER. STILE. (1) INTER. STILE BETWEEN EACH EMBOSS (SEE INSIDE ELEVATION ON SHEET ONE). DOORS 16'2" WIDE HAVE (7) INTER. STILES PER SECTION.

ENTER HINGE FASTENED TO INTER. STILES W/(4) EACH #14x5/8" SHEET METAL SCREWS.

14 GA. GALV. STEEL ROLLER HINGES FASTENED TO END STILES W/(4) EACH #14x5/8" SHEET METAL SCREWS AND (2) 1/4" SELF TAPPING SCREWS PER END HINGE.

2" DIA. LONG STEM STEEL ROLLER WITH STEEL OR NYLON TIRE. ROLLER TO BE EITHER STEM THREADED FOR 7/16" NUT OR TO BE USED WITH A 7/16" PUSHNUT.

MANUFACTURING PRODUCT CODE  
 MPC: PAN-2F143

REV	DATE	DESCRIPTION
15	-	SEE REVISION HISTORY ON SHEET ONE

# JAMB ATTACHMENT AND SUPPORTING STRUCTURE

## 2x6 JAMB TO SUPPORTING STRUCTURE ATTACHMENT: NOTES

- 1) ALL THE LOAD FROM THE DOOR IS TRANSFERRED TO THE TRACK AND THEN FROM THE TRACK TO THE 2x6 VERTICAL SYP (GRADE #2 OR BETTER) JAMBS. NO LOAD FROM THE DOOR IS TRANSFERRED TO THE HORIZONTAL (TOP) JAMB.
- 2) ALL JAMB FASTENERS MAY BE (BUT ARE NOT REQUIRED TO BE) COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.
- 3) EACH VERTICAL JAMB SEES A MAXIMUM DESIGN LOAD OF +372.8 LB & -416 LB. PER LINEAR FOOT OF JAMB.
- 4) A 1/3 STRESS INCREASE FOR WIND LOAD WAS NOT USED IN THE CALCULATION OF ALLOWABLE LOADS FOR ANCHORS AND FASTENERS FOR STEEL, CONCRETE AND MASONRY.

### WOOD FRAME BUILDINGS

STUD WALLS OF DOOR OPENING SHALL BE FRAMED SOLID BY NOT LESS THAN (3) 2x6 PRESSURE TREATED GRADE #2 OR BETTER WOOD STUD OF A STRESS GRADE NOT LESS THAN 1200 PSI NOMINAL EXTREME FIBER STRESS IN BENDING ( $F_b$ ) FOR DOORS UP TO 8'0" HIGH AND NOT LESS THAN (4) 2x6 PRESSURE TREATED GRADE #2 OR BETTER WOOD STUD OF A STRESS GRADE NOT LESS THAN 1200 PSI NOMINAL EXTREME FIBER STRESS IN BENDING ( $F_b$ ) FOR DOORS 8'3" TO 12'0" HIGH. STUD WALLS TO BE CONTINUOUS FROM FOOTING TO TIE BEAMS AND IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.

### BLOCK WALL OR CONCRETE

2x6 WOOD JAMB SHALL BE ANCHORED TO GROUT REINFORCED BLOCK WALL OR CONCRETE COLUMN. BLOCK WALL CELLS SHALL BE FILLED WITH CONCRETE AND REINFORCED WITH #5 BAR EXTENDING INTO THE FOOTING AND INTO TIE BEAMS. ALL BARS SHALL BE CONTINUOUS FROM THE TIE BEAMS TO FOOTING PER BLOCK WALL OR CONCRETE COLUMN. BLOCK WALLS AND CONCRETE COLUMNS TO BE DESIGNED BY BUILDING PROFESSIONAL OF RECORD AND IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.

### JAMB PREPARATION NOTE

THE METHOD OF ATTACHMENT TO THE SUPPORTING STRUCTURE OF THE PRESSURE TREATED 2x6 WOOD JAMBS SHALL BE APPROVED BY THE PROFESSIONAL OF RECORD FOR THE STRUCTURE AND IN ACCORDANCE WITH CURRENT BUILDING CODES FOR THE LOADS LISTED ON THIS DRAWING. PREPARATION OF JAMBS BY OTHERS.

ALL MOUNTING OF TRACK, ANGLES, HORIZONTAL TRACK SUPPORTS, AND ALL OTHER DOOR HARDWARE TO BE INSTALLED PER CLOPAY INSTALLATION INSTRUCTIONS SUPPLIED WITH DOOR SYSTEM UNLESS OTHERWISE NOTED.

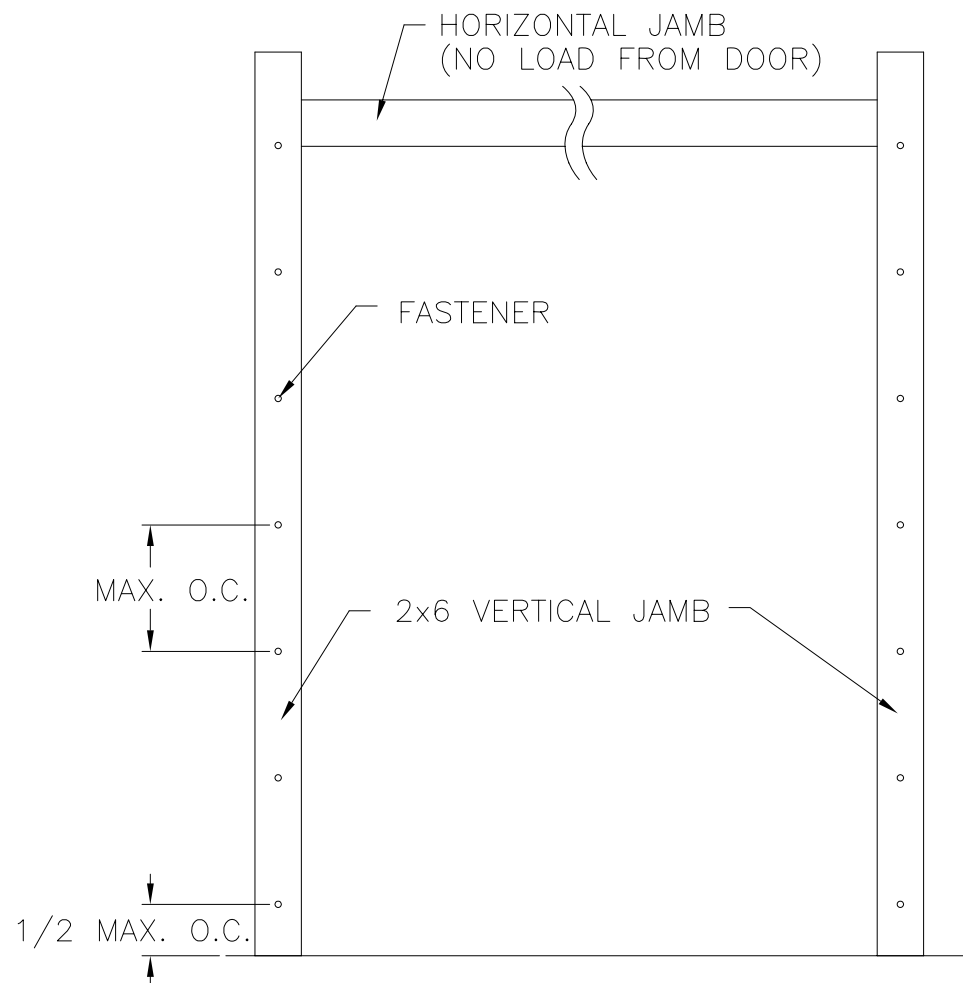
## 2x6 JAMB TO SUPPORTING STRUCTURE MINIMUM FASTENER REQUIREMENTS

(NOT TO BE USED FOR ATTACHMENT OF TRACK BRACKETS OR ANGLE TO 2x6 VERTICAL JAMBS OR SUPPORTING STRUCTURE)

BUILDING TYPE	FASTENER TYPE	* MAXIMUM ON CENTER DISTANCE BETWEEN FASTENERS	STEEL WASHERS REQUIRED?
C-90 BLOCK (HOLLOW OR GROUTED)	1/4" x 3" (1-1/4" EMBED) ITW TAPCON CONCRETE ANCHOR (2-1/2" MIN. EDGE DISTANCE)	6-1/4"	1" O.D.
3,000 PSI MIN. CONCRETE	1/4" x 4" (1-3/4" EMBED) ITW TAPCON CONCRETE ANCHOR (2-1/2" MIN. EDGE DISTANCE)	18"	1" O.D.
3,000 PSI MIN. CONCRETE	1/2" x 4" (2-1/4" EMBED) ITW RED HEAD TRUBOLT WEDGE ANCHOR (2" MIN. EDGE DISTANCE)	24"	INCLUDED
WOOD FRAME (SYP 0.55 SG)	1/2" x 4" (1-5/8" EMBED) LAG SCREW (ASTM A307, GRADE A) (2-1/2" MIN. EDGE DISTANCE)	14"	1" O.D.
2,000 PSI MIN. CONCRETE	3/8" x 5" (1-3/4" EMBED) WEJ-IT SLEEVE ANCHOR (2-1/2" MIN. EDGE DISTANCE)	14"	INCLUDED

CLOPAY DOES NOT SUPPLY JAMB ATTACHMENT FASTENERS.

\* - FIRST ANCHOR/SCREW STARTING FROM BOTTOM AT NO MORE THAN HALF OF MAXIMUM ON CENTER DISTANCE.



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 MASON, OHIO 45040  
 (513) 770-4800

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DRAWN BY: MWW	DRAWING NUMBER: 101300	CLOPAY WINDLOAD RATING W8
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