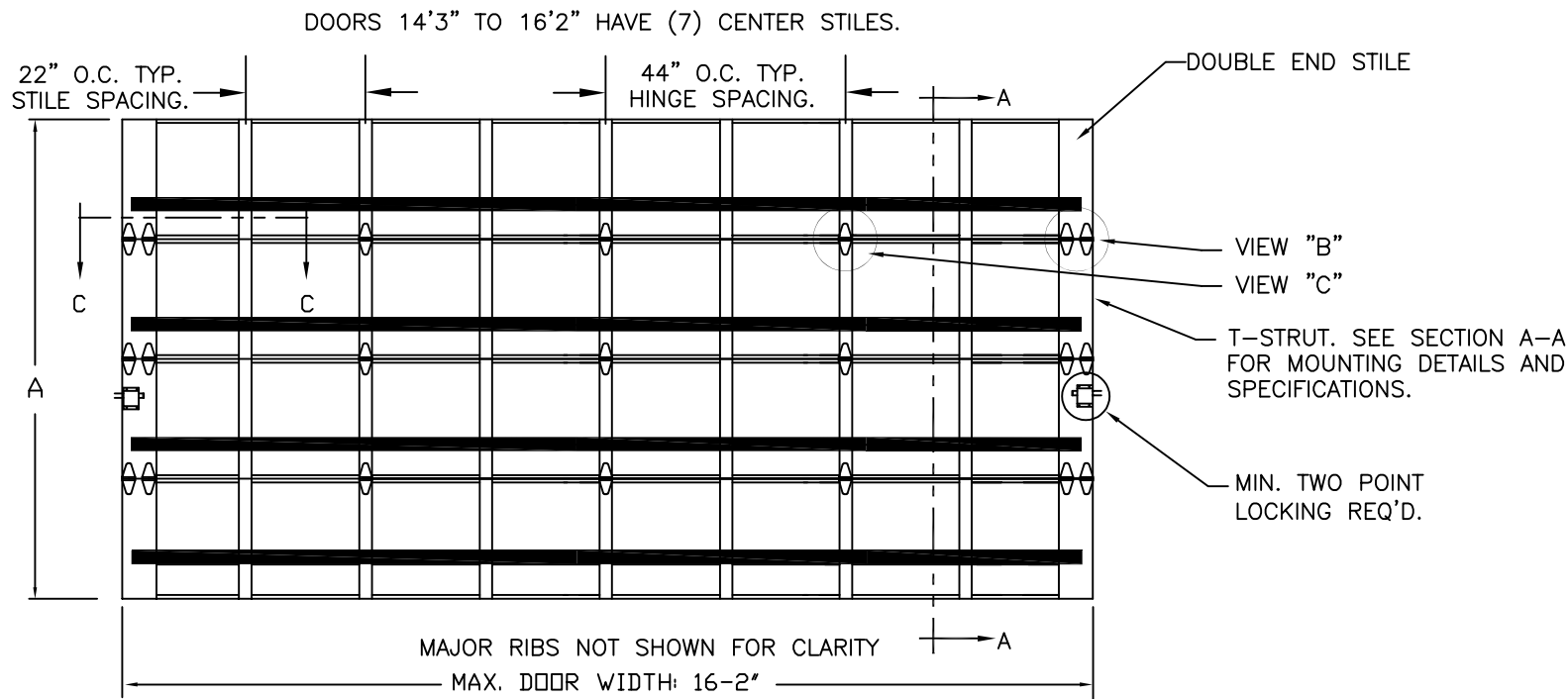


MODELS AVAILABLE (CLOPAY/ HOLMES/ IDEAL)
524, 520 / 224 / C4ST, C0ST

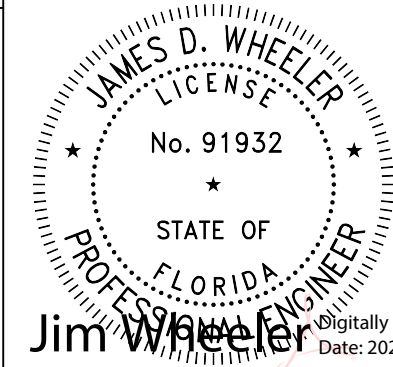
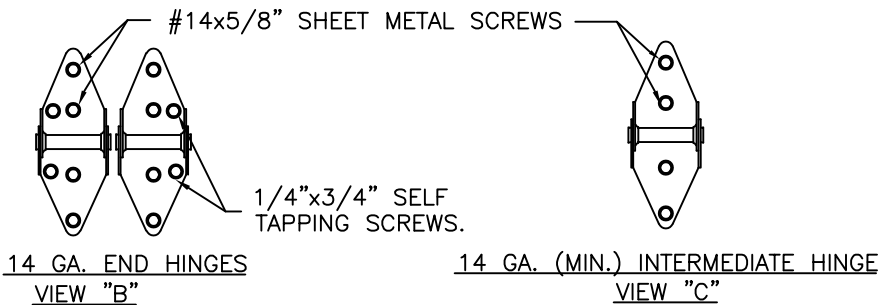
SHEET:
1 OF 3

REVISIONS					
REV. NO.	ZONE:	DATE:	ECN NO.	APPVD:	DESCRIPTION
01	-	2/17/14	-	SH	REVISED STILE NOTES.
02	-	8/10/20	-	SH	UPDATED TITLE BLOCK AND REMOVED WIND CHART

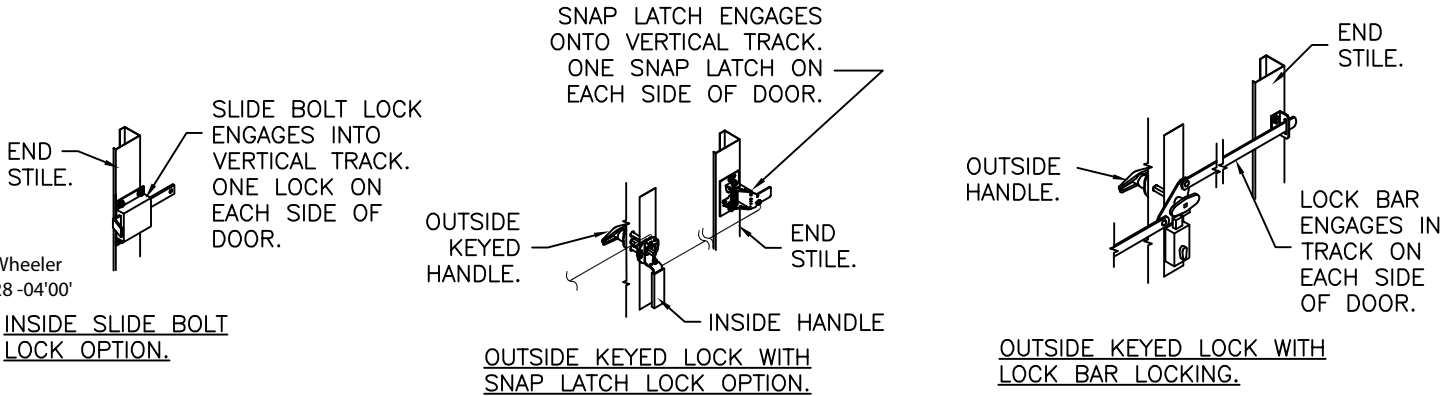


THIS DOOR MEETS THE REQUIREMENTS OF THE
LARGE MISSILE IMPACT AND CYCLIC TESTING.

DOOR HEIGHT 'A'	NUMBER OF SECTIONS
UP TO 8'-0"	4
8'-3" THRU 10'-0"	5
10'-3" THRU 12'-0"	6
12'-3" THRU 14'-0"	7
14'-3" THRU 16'-0"	8
16'-3" THRU 18'-0"	9



DESIGN ENGINEER:
JAMES D. WHEELER, P.E.
FLORIDA LICENSE No. 91932



DESIGN LOADS: +38.0 P.S.F. & -42.0 P.S.F.
TEST LOADS: +57.0 P.S.F. & -63.0 P.S.F.

Unless Stated Otherwise
TOLERANCES are
.0 = ±.031
.00 = ±.015
.000 = ±.005
.0000 = ±.001
Degrees = ±1/2°
Unless Stated Otherwise
DIMENSIONS ARE IN INCHES.

Clopay
CORPORATION

8585 Duke Boulevard
Mason, OH 45040 USA
Tel. No. 513-770-4800
Fax No. 513-770-4853

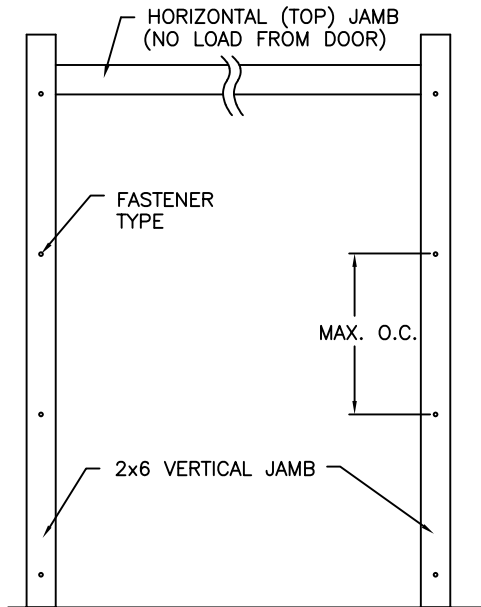
MANUFACTURING PRODUCT CODE C-PAN-1E448			
PART NO.: N/A			
WINDLOAD RATING W6 DP38T			
DESCRIPTION: COMMERCIAL RIBBED DOORS UP TO 16'2"W (SEE TABLE)			
DRAWN BY: SH	DATE: 2/12/14	SCALE: NTS	DWG. SIZE B
CHECKED BY: SH	DATE: 2/12/14	SHEET 1 OF 3	
DWG. NO.: 104858		VER: IBC	

MODELS AVAILABLE (CLOPAY/ HOLMES/ IDEAL)
524, 520 / 224 / C4ST, C0ST

SHEET:
2 OF 3

REVISIONS

REV. NO.	ZONE:	DATE:	ECN NO.	APPVD:	DESCRIPTION
02	-	-	-	-	SEE REVISION HISTORY ON SHEET ONE.



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. EACH VERTICAL JAMB SEES A MAXIMUM DESIGN LOAD OF +304 LB & -336 LB. PER LINEAR FOOT OF JAMB.
3. ALL JAMB FASTENERS MAY BE (BUT ARE NOT REQUIRED TO BE) COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.
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.

NOTE: 2x6 WOOD JAMBS ARE NOT REQUIRED WITH CONTINUOUS ANGLE MOUNT TRACK. HOWEVER, IF DESIRED ON STEEL JAMBS OR CONCRETE OR BLOCK WALLS, APPROVED FASTENERS AS DETAILED BELOW SHOULD BE INCREASED IN LENGTH BY 1-1/2" AND INSTALLED DIRECTLY THROUGH THE ANGLE AND 2x6 WOOD JAMBS INTO THE STEEL JAMBS OR CONCRETE OR BLOCK WALLS. ANCHORS CAN BE (BUT ARE NOT REQUIRED TO BE) COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE. CONTINUOUS ANGLE TRACK CAN BE ANCHORED DIRECTLY TO GROUT REINFORCED BLOCK WALL OR 3,000 PSI MIN. CONCRETE COLUMN OR STEEL JAMBS.

FASTENER ATTACHMENT TO SUPPORTING STRUCTURE SCHEDULES

BUILDING TYPE	FASTENER TYPE	MAXIMUM ON-CENTER DISTANCE BETWEEN FASTENERS*	STEEL WASHERS REQUIRED?
HOLLOW BLOCK WALL	1/4" x 1-1/4" MIN. EMBED ULTRACON CONCRETE ANCHOR	5-1/2"	1" O.D.
GROUT FILLED BLOCK WALL	1/4" x 1-3/4" MIN. EMBED ULTRACON CONCRETE ANCHOR	9"	1" O.D.
2000 PSI MIN. CONCRETE	1/4" x 1" MIN. EMBED ULTRACON CONCRETE ANCHOR	7-3/4"	1" O.D.
2000 PSI MIN. CONCRETE	1/4" x 1" MIN. EMBED TAPCON CONCRETE ANCHOR	4-1/2"	1" O.D.
2000 PSI MIN. CONCRETE	3/8" x 1-3/4" MIN. EMBED WEJ-IT ANKR TITE SLEEVE ANCHOR	16-1/2"	INCLUDED
4000 PSI MIN. CONCRETE	3/8" x 1-3/4" MIN. EMBED WEJ-IT ANKR TITE SLEEVE ANCHOR	24"	INCLUDED
WOOD FRAME (SYP 0.55 SG)	1/2" x 3" LAG SCREW (ASTM A307, GRADE A) 1-5/8" EMBED INTO STRUCTURE	17-3/4"	1" O.D.
14GA STEEL (0.060" MIN.)	1/4"-14 x 1" ITW BUILDDEX TEKS SELF-DRILLING FASTENER	7-1/2"	1" O.D.
12GA STEEL (0.105" MIN.)	1/4"-14 x 1" ITW BUILDDEX TEKS SELF-DRILLING FASTENER	13"	1" O.D.
1/8" STEEL	1/4"-14 x 1" ITW BUILDDEX TEKS SELF-DRILLING FASTENER	15-1/2"	1" O.D.

* FIRST (BOTTOM) ANCHOR STARTING AT NO MORE THAN HALF OF THE MAXIMUM ON-CENTER DISTANCE. HIGHEST ANCHOR INSTALLED AT LEAST AS HIGH AS THE DOOR OPENING.
CLOPAY DOES NOT SUPPLY JAMB ATTACHMENT FASTENERS.
MINIMUM DISTANCE BETWEEN CENTER OF ANCHOR AND EDGE OF CONCRETE BLOCK: 2-1/2", EXCLUDING STUCCO THICKNESS.

DESIGN ENGINEER:
JAMES D. WHEELER, P.E.
FLORIDA LICENSE No. 91932

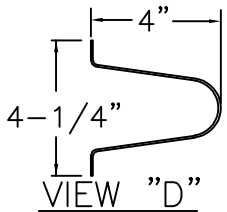
SECTIONS ARE 1-7/8" THICK
PANELS ROLL FORMED OF
.022" MIN. HOT DIPPED G-40
GALVANIZING, ROLL FORMED
STEEL.

ADJUSTABLE TOP ROLLER BRACKET
OF 12 GA. GALV. STEEL, INSTALLED
ON DOOR WITH (4) #14 X 5/8" LG
SHEET METAL SCREWS

ONE 4" T-STRUT PER
SECTION. (SEE VIEW "D")
EACH T-STRUT ATTACHED
AT EACH STILE LOCATION
WITH (2) 1/4"x3/4" SELF
TAPPING SCREWS.

TONGUE & GROOVE JOINT.

END HINGE. SEE DETAILS
AT VIEW "B" ON SHEET 1.



4" TALL TAPER STRUT.
0.062" MIN. GALV. STEEL,
80 KSI. MIN.

BOTTOM SECTION REINFORCED
WITH TEMPERED ALUMINUM
EXTRUSION WITH INTEGRAL
RETAINER FOR FLEXIBLE VINYL
ASTRAGAL

(2) STACKED LHR BRACKETS USED
AS INNER BOTTOM BRACKET (NOT
SHOWN).

BOTTOM ROLLER BRACKET OF 12 GA.
MIN. GALV. STEEL, FASTENED WITH
(4) #14 X 5/8" LG SHT. MTL.
SCREWS

SECTION A-A (SIDE VIEW)

DESIGN LOADS: +38.0 P.S.F. & -42.0 P.S.F.
TEST LOADS: +57.0 P.S.F. & -63.0 P.S.F.

Unless Stated Otherwise
TOLERANCES are
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MANUFACTURING PRODUCT CODE
C-PAN-1E448

PART NO.: N/A

WINDLOAD RATING
W6 DP38T

DESCRIPTION: COMMERCIAL RIBBED DOORS UP TO 16'2"W (SEE TABLE)

DRAWN BY: SH DATE: 2/12/14 SCALE: NTS DWG. B

CHECKED BY: SH DATE: 2/12/14 SHEET 2 OF 3 SIZE B

DWG. NO.: 104858 VER: IBC

FLORIDA PRODUCT APPROVAL 48404.20

MODELS AVAILABLE (CLOPAY/ HOLMES/ IDEAL)
524, 520 / 224 / C4ST, C0ST

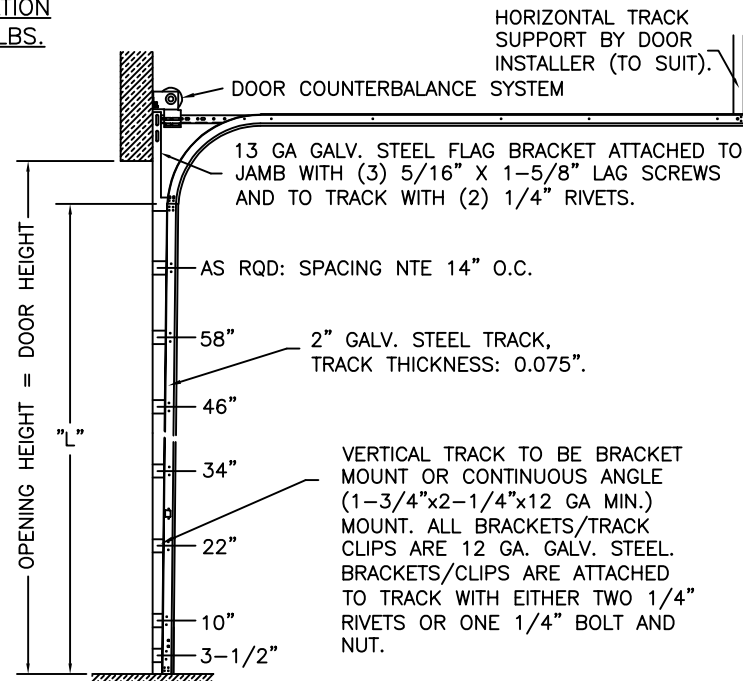
SHEET:
3 OF 3

REVISIONS

REV. NO.	ZONE:	DATE:	ECN NO.	APPVD:	DESCRIPTION
02	-	-	-	-	SEE REVISION HISTORY ON SHEET ONE.

2" TRACK CONFIGURATION
DOORS UP TO 800 LBS.

NOTE DOUBLE TRACK HEADROOM, HI-LIFT TRACK, FOLLOW-THE- ROOF TRACK, AND VERTICAL LIFT TRACK ARE AVAILABLE OPTIONS. TRACK CONFIGURATION ABOVE THE DOOR OPENING DOES NOT AFFECT THE WIND LOAD RATING.



HORIZONTAL TRACK SUPPORT BY DOOR INSTALLER (TO SUIT).

13 GA GALV. STEEL FLAG BRACKET ATTACHED TO JAMB WITH (3) 5/16" X 1-5/8" LAG SCREWS AND TO TRACK WITH (2) 1/4" RIVETS.

AS RQD: SPACING NTE 14" O.C.

2" GALV. STEEL TRACK, TRACK THICKNESS: 0.075".

VERTICAL TRACK TO BE BRACKET MOUNT OR CONTINUOUS ANGLE (1-3/4"x2-1/4"x12 GA MIN.) MOUNT. ALL BRACKETS/TRACK CLIPS ARE 12 GA. GALV. STEEL. BRACKETS/CLIPS ARE ATTACHED TO TRACK WITH EITHER TWO 1/4" RIVETS OR ONE 1/4" BOLT AND NUT.

DOOR HEIGHT	"L"
6'-6"	70"
7'-0"	76"
7'-6"	82"
8'-0"	88"
8'-6"	94"
9'-0"	100"
9'-6"	106"
10'-0"	112"
10'-6"	118"
11'-0"	124"
11'-6"	130"
12'-0"	136"
12'-6"	142"
13'-0"	148"
13'-6"	154"
14'-0"	160"
14'-6"	166"
15'-0"	172"
15'-6"	178"
16'-0"	184"
16'-6"	190"
17'-0"	196"
17'-6"	202"
18'-0"	208"

JAMB CONFIGURATION
DOORS UP TO 800 LBS.

BRACKET MOUNT JAMB CONFIGURATION

1" DOOR OVERLAP (EACH SIDE)
2x6 SYP WOOD JAMB. REQUIRED FOR BRACKET MOUNT.

2-1/2" X 12 GA GALV. STEEL TRACK BRACKETS FASTENED TO WOOD JAMBS WITH 5/6" X 1-5/8" LAG SCREWS NOT TO EXCEED 14" ON-CENTER.

2" GALV. STEEL TRACK FASTENED TO 12 GA GALV STEEL TRACK BRACKETS WITH EITHER (2) 1/4" DIA. RIVETS OR (1) 1/4" X 5/8" BOLT & NUT PER TRACK BRACKET.

OPTIONAL STOP MOULDING BY INSTALLER (TO SUIT).

16 GA GALV. STEEL DOUBLE-END-STILE FASTENED WITH TDG-L-LDC SYSTEM AT TOP, BOTTOM AND CENTER.

18 GA. MIN. GALV. STEEL INTERMEDIATE STILE FASTENED TO DOOR SKIN WITH TOG-L-LDC SYSTEM AT TOP, BOTTOM AND EACH MAJOR RIB.

2x6 SYP JAMB (IF PRESENT; SEE JAMB NOTES ON SHEET 2).

ONE 5/16" x 1-5/8" LAG SCREW SPACED AT THE SAME DISTANCES AS THE TRACK BOLTS (I.E. 3-1/2", 10", AND EVERY 12"). ALSO TWO LAG SCREWS LOCATED ABOVE VERTICAL - HORIZONTAL TRACK JUNCTION.

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

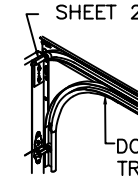
7/16" I.D. ROUND PUSH NUT FASTENER.
14 GA. GALV. STEEL ROLLER HINGES FASTENED TO END STILES W/(4) EACH #14x5/8" SHEET METAL SCREWS AND (2) 1/4" SELF TAPPING SCREWS PER END HINGE.

2" DIA. 7-1/2" LONG STEM, 10 BALL STEEL ROLLER WITH STEEL OR NYLON TIRE.

SECTION C-C

PREPARATION OF JAMBS BY OTHERS.

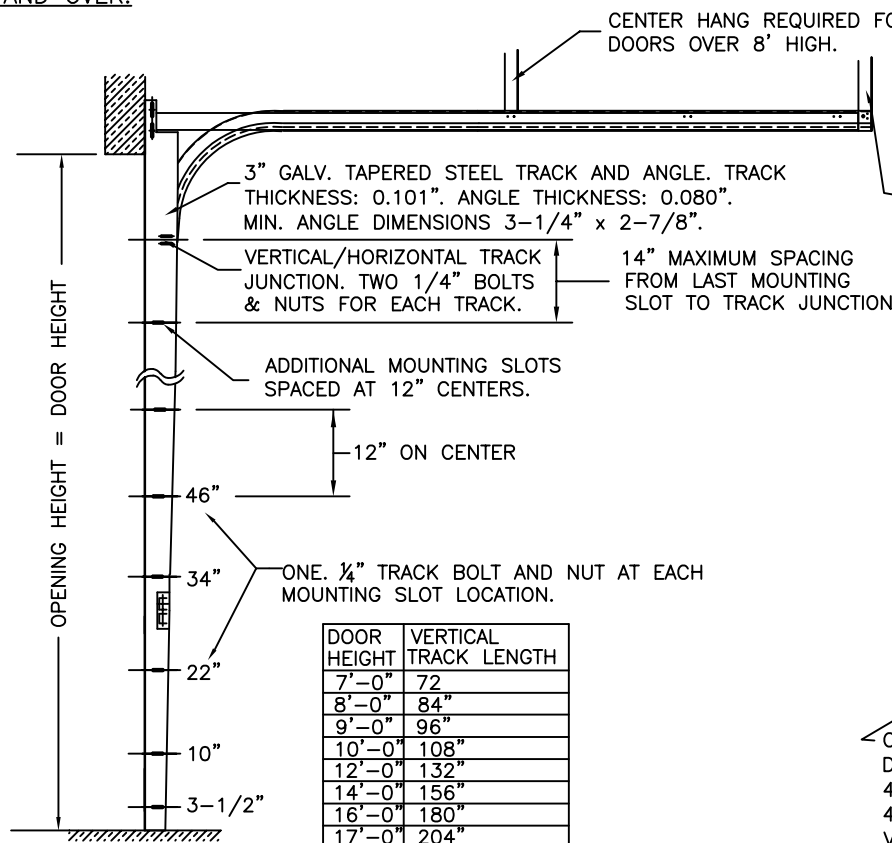
LHR BRACKET (2-1/2" x 5-3/4" x 12GA) ATTACHED WITH (2) 1/4" x 3/4" SELF TAPPING SCREWS. NOTE THAT LHR BRACKETS ARE ALSO USED WITH "DOUBLE END STILE" AS NOTED ON SHEET 2.



DOUBLE TRACK LOW HEADROOM OPTION
(AVAIL. FOR BOTH 2" AND 3" TRACK)

3" TRACK CONFIGURATION
DOORS 800 LBS AND OVER.

NOTE DOUBLE TRACK HEADROOM, HI-LIFT TRACK, FOLLOW-THE- ROOF TRACK, AND VERTICAL LIFT TRACK ARE AVAILABLE OPTIONS. TRACK CONFIGURATION ABOVE THE DOOR OPENING DOES NOT AFFECT THE WIND LOAD RATING.



CENTER HANG REQUIRED FOR DOORS OVER 8' HIGH.

3" GALV. TAPERED STEEL TRACK AND ANGLE. TRACK THICKNESS: 0.101". ANGLE THICKNESS: 0.080". MIN. ANGLE DIMENSIONS 3-1/4" x 2-7/8".

VERTICAL/HORIZONTAL TRACK JUNCTION. TWO 1/4" BOLTS & NUTS FOR EACH TRACK.

14" MAXIMUM SPACING FROM LAST MOUNTING SLOT TO TRACK JUNCTION

ADDITIONAL MOUNTING SLOTS SPACED AT 12" CENTERS.

12" ON CENTER

ONE. 1/4" TRACK BOLT AND NUT AT EACH MOUNTING SLOT LOCATION.

DOOR HEIGHT	VERTICAL TRACK LENGTH
7'-0"	72"
8'-0"	84"
9'-0"	96"
10'-0"	108"
12'-0"	132"
14'-0"	156"
16'-0"	180"
17'-0"	204"
18'-0"	228"

JAMB CONFIGURATION
DOORS 800 LBS AND OVER.

1" DOOR OVERLAP (EACH SIDE)

2x6 SYP JAMB (IF PRESENT; SEE JAMB NOTES ON SHEET 3).

3-1/4" x 2-7/8" MIN. x 0.080" TAPERED ANGLE. SEE LAG BOLT MOUNTING AT TRACK CONFIGURATION BELOW.

0.101" THICK 3" GALV. STEEL TRACK FASTENED TO TAPERED ANGLE. TRACK ATTACHED TO TAPERED ANGLE WITH ONE 1/4"x5/8" BOLT & NUT AT EACH MOUNTING SLOT.

OPTIONAL STOP MOULDING BY DOOR INSTALLER (TO SUIT).
16 GA GALV. STEEL DOUBLE-END-STILE FASTENED WITH TDG-L-LDC SYSTEM AT TOP, BOTTOM AND CENTER.

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

18 GA. GALV. STEEL CENTER HINGE FASTENED TO SECTION 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.

3" DIA. 8-1/2" LONG STEM BALL BEARING STEEL ROLLER.

SECTION C-C

PREPARATION OF JAMBS BY OTHERS.

DESIGN LOADS: +38.0 P.S.F. & -42.0 P.S.F.
TEST LOADS: +57.0 P.S.F. & -63.0 P.S.F.

Unless Stated Otherwise TOLERANCES are
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DESCRIPTION: COMMERCIAL RIBBED DOORS UP TO 16'2"W (SEE TABLE)			
DRAWN BY: SH	DATE: 2/12/14	SCALE: NTS	DWG. SIZE B
CHECKED BY: SH	DATE: 2/12/14	SHEET 3 OF 3	
DWG. NO.: 104858		VER: IBC	

DESIGN ENGINEER:
JAMES D. WHEELER, P.E.
FLORIDA LICENSE No. 91932

FLORIDA PRODUCT APPROVAL 48404.20