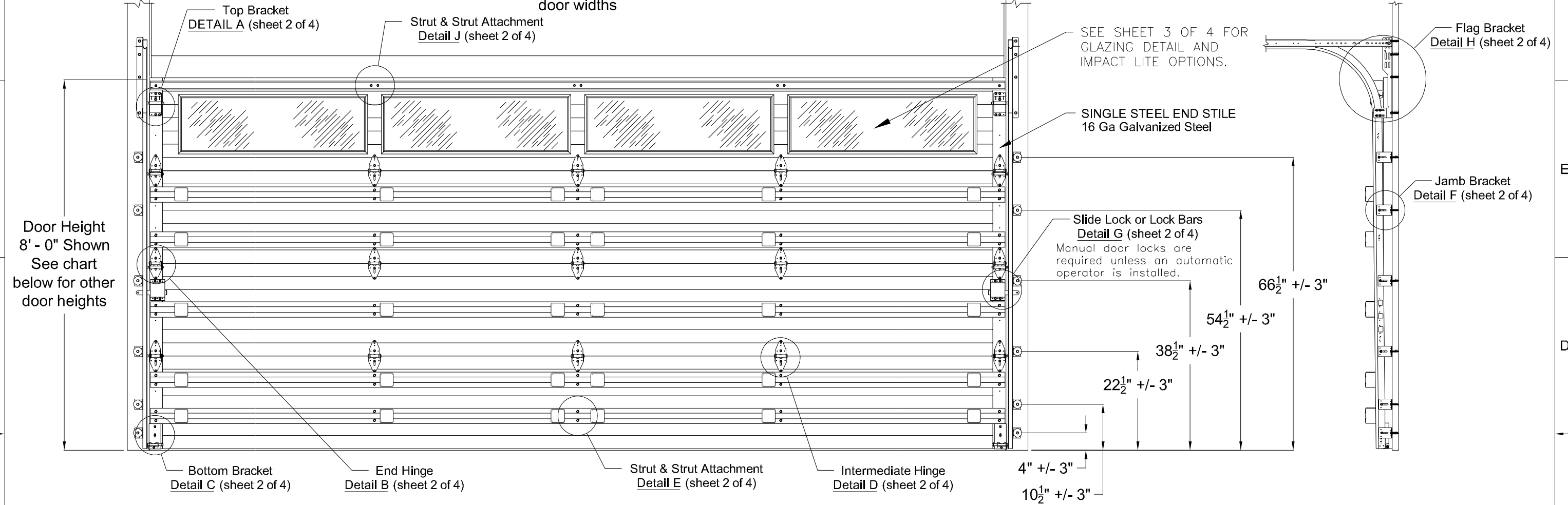


Door Width 16' - 2" Shown
See chart below for other door widths

NOTE: Track configuration above the door opening does not affect the wind load rating of the door.



Door Height 8' - 0" Shown
See chart below for other door heights

This product has been evaluated per ANSI/DASMA 108 for static air pressure.
This product has been evaluated per ANSI/DASMA 115 for large missile impact and cyclic wind pressure.

Jamb bracket quantities shown are for use with grade 2 or better southern pine jambs.
Supporting structural elements are to be designed by a registered professional engineer for specific wind loads.

Door Widths Up To	Design Pressures		End Stiles	Model Number						Impact Resistant
	+ psf	- psf		Minimum Center		Minimum Center		Minimum Center		
10'-2"	31.3	-34.9	Single	2	2	1	1	2	2	YES
12'-2"	31.3	-34.9	Single	2	2	2	2	2	2	YES
14'-2"	31.3	-34.9	Single	4	4	2	2	3	3	YES
16'-2"	31.3	-34.9	Single	3	3	3	3	3	3	YES

This product is available in narrower sizes with the same PSF and constructed as shown.
This product is designed and sold by PSF. The AHJ or Engineer of Record is responsible for determining the PSF required for any given site.

Door Height	Total No. of Sections	Total # of Struts (When lite section is the top section. If not see the notice at the right)	Jamb Brkts/ Side
6'-0"	3	5	5
6'-0"	4	6	5
6'-3"	4	6	5
6'-6"	4	6	6
6'-9"	4	6	6
7'-0"	4	6	6
7'-3"	4	6	6
7'-6"	4	6	6
7'-6"	5	8	6
7'-9"	4	6	6
7'-9"	5	8	6
8'-0"	4	6	6
8'-0"	5	8	6

Maximum section height is 24 in.
Maximum door height is 20 ft.
All doors, even those above the tested height, are available with jamb brackets or commercial full angle.
The maximum spacing of the jamb brackets/track clips should be maintained.

NOTICE:
These drawings are a supplement to the installation instructions for a standard door and only covers those procedures that vary from standard door installation. If these specific procedures are not followed, the door may not perform as designed.

NOTICE:
The lite section of this door may be replaced with a section with another lite style or a solid section. In either case the strut and stile configuration should remain the same.

NOTICE:
Only one lite section per door is permitted. The lite section can be used anywhere except for the bottom section. If the lite section is not the top section then the struts must be located as shown in the STRUT CONFIGURATION on sheet 3 of 4.

IMPACT RESISTANT

COMPLIES WITH IBC/IRC 2018

John E. Scates, P.E.
2560 King Arthur Blvd. Ste 124-54
Lewisville, Texas 75056
Texas P.E. 56308/F2203

Professional Engineer seal provided only for verification of wind load construction details.

DESCRIPTION:
16' 2" HT 5000 ALUMINUM SERIES W/LITES
WIND LOAD SECTIONAL DOOR
DESIGN PRESSURE +31.3/-34.9 PSF

DRAWING NO.: WLTI-5000-0194-08-31-35L **REV.** A

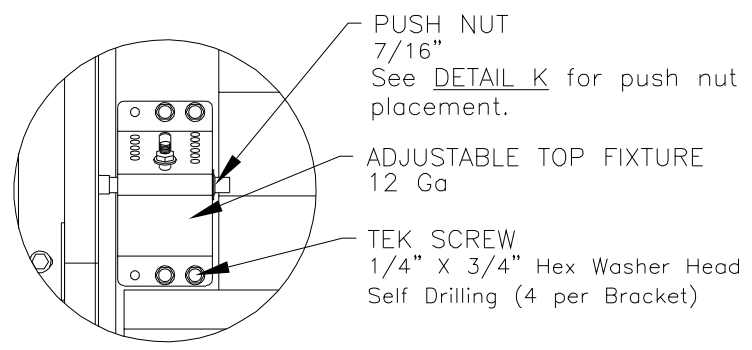
DATE DRN: 11/17/18 **DRAWN BY:** MVS **REV. DATE:** 2/22/22

MODEL(S): See Sheet 3 **SHEET:** 1 OF 4

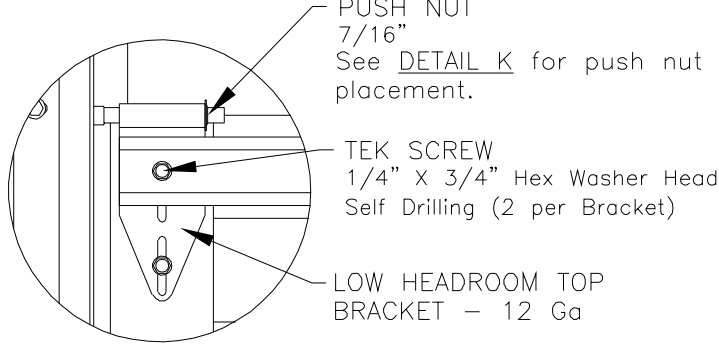
320 Sycamore
Wauseon, Ohio 43567
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A

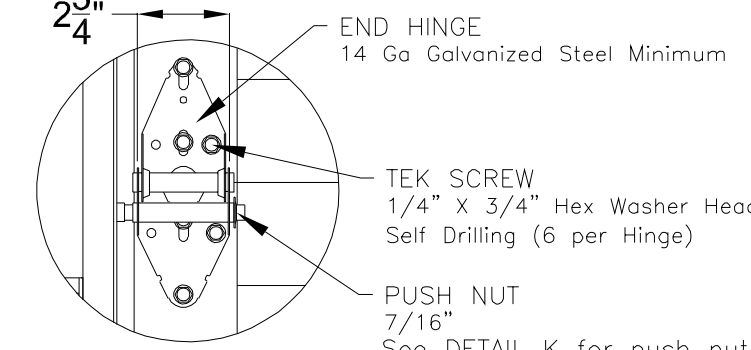
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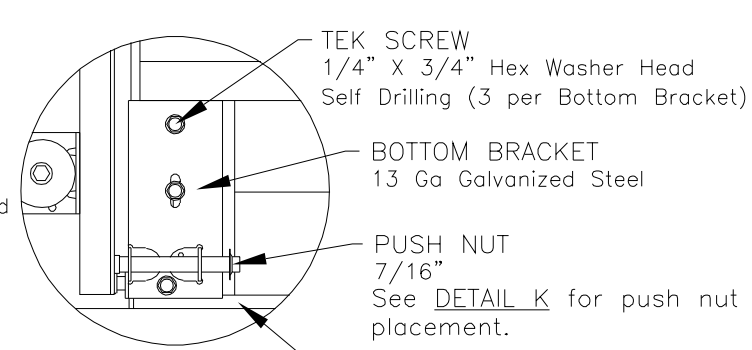
DETAIL A



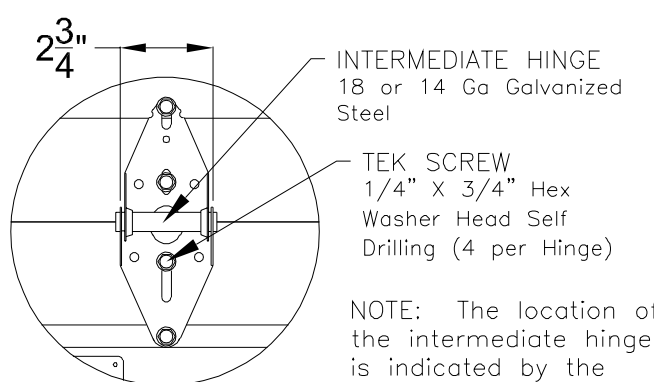
LOW HEADROOM TOP BRACKET



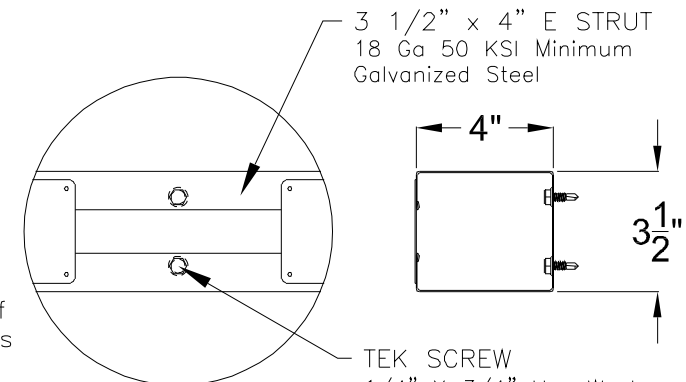
DETAIL B



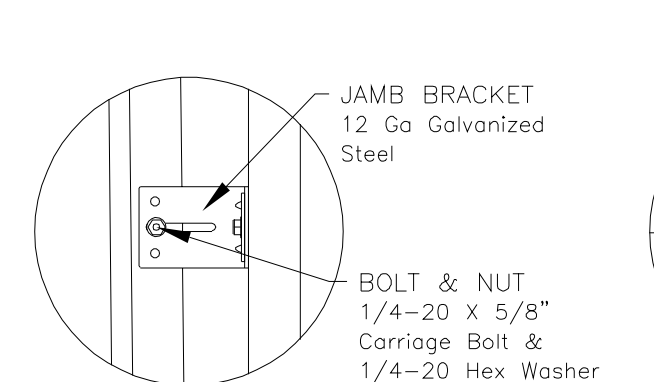
DETAIL C



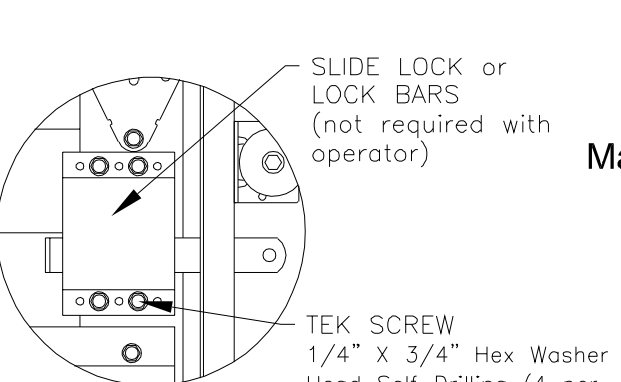
DETAIL D



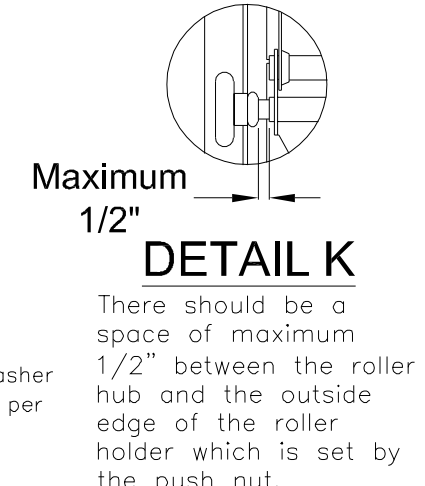
DETAIL E



DETAIL F



DETAIL G

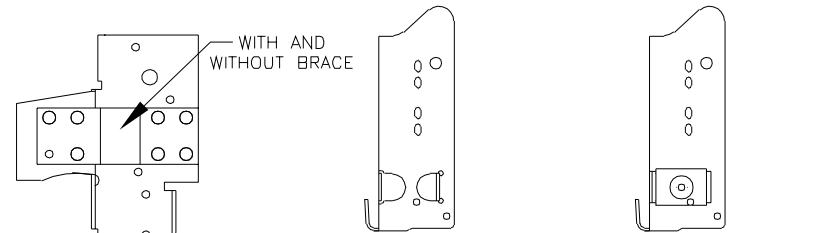


DETAIL K

NOTE: The location of the intermediate hinges is indicated by the toggle lock dimples at the top of each section.

NOTE: Details on some views omitted for clarity.

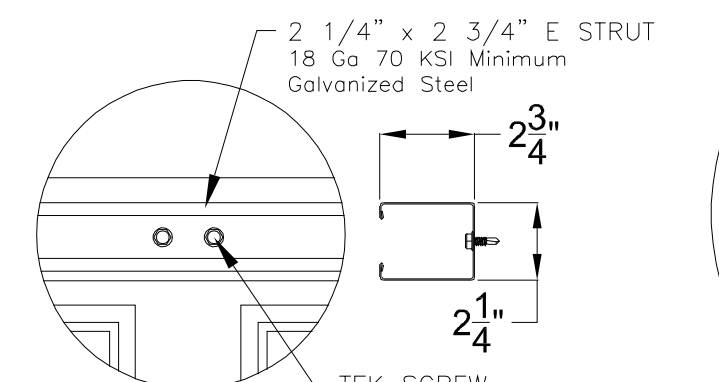
Double end stiles and end hardware may be provided on wider or heavier doors.



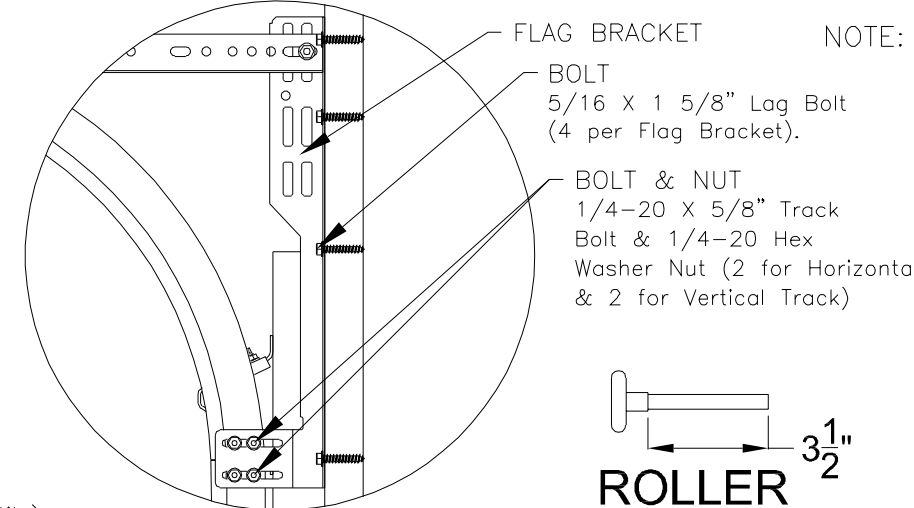
RESIDENTIAL & LIGHT COMMERCIAL
For Low Headroom With 2" Track and Single End Stiles

COMMERCIAL
For Standard, High & Vertical Lift With 2" Track and Single End Stiles

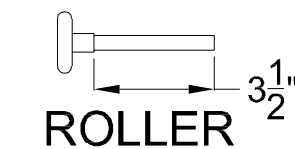
COMMERCIAL
For Standard, High & Vertical Lift With 3" Track and Single End Stiles



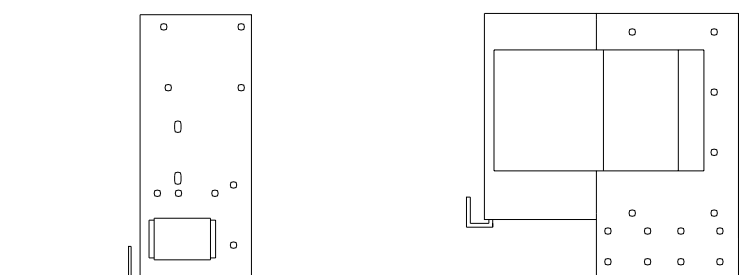
DETAIL J



DETAIL H



ROLLER
2" Diameter Nominal Eleven Ball Nylon or Ten Ball Steel with a Minimum Workable Shaft Length Shown.

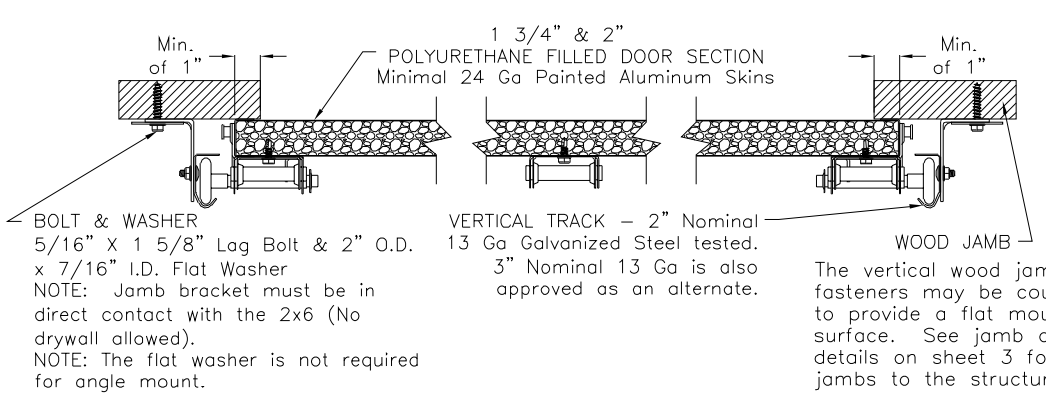


COMMERCIAL HEAVY DUTY
For Standard, High & Vertical Lift With 3" Track and Double End Stiles

COMMERCIAL HEAVY DUTY
For Low Headroom With 3" Track and Double End Stiles

ALTERNATE BOTTOM BRACKETS

NOTE: The bottom bracket tested (shown in DETAIL C) is the lightest bracket available.



IMPACT RESISTANT



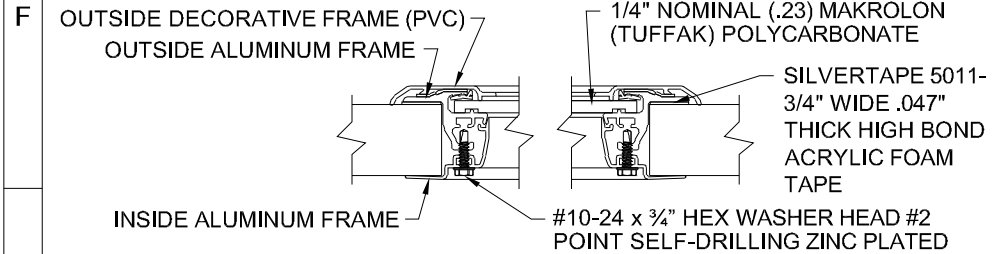
320 Sycamore
Wauseon, Ohio 43567
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DESCRIPTION: 16' 2" HT 5000 ALUMINUM SERIES W/LITES WIND LOAD SECTIONAL DOOR DESIGN PRESSURE +31.3-34.9 PSF			
DRAWING NO.: WLTI-5000-0194-08-31-35L	REV.: A		
DATE DRN: 11/17/18	DRAWN BY: MVS	REV. DATE: 2/22/22	
MODEL(S): See Sheet 3		SHEET: 2 OF 4	

Professional Engineer seal provided only for verification of wind load construction details.

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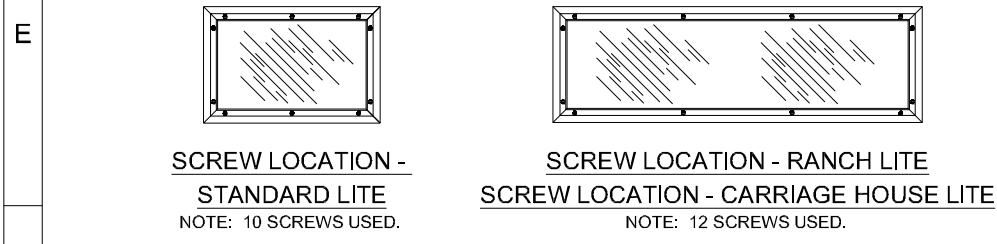
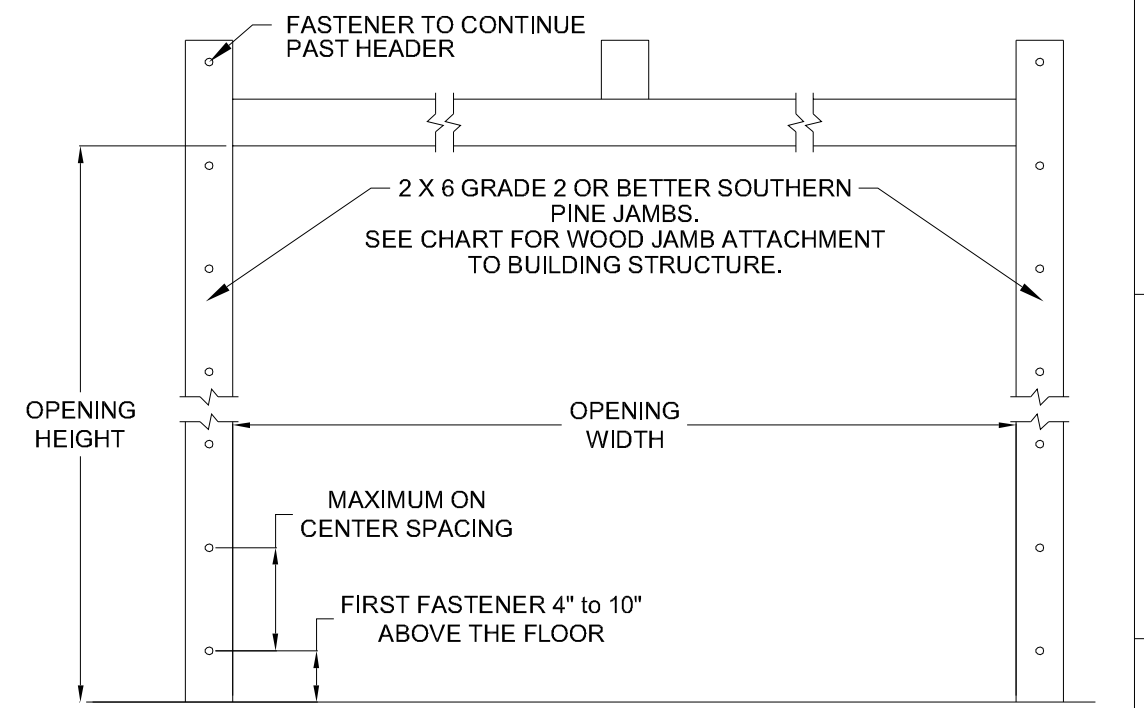
1 2 3 4 5 6 7 8



MODEL NUMBERS AND IMPACT LITE OPTIONS

MODEL NUMBERS AVAILABLE	LITE OPTIONS AVAILABLE				
	CARRIAGE HOUSE	RANCH	STANDARD	LARGE COMMERCIAL 24 x 12	SMALL COMMERCIAL 24 x 6
HT 5_10 SERIES	X	X	X		
HT 5_67 SERIES	X				
HT 5_68 SERIES	X				
HT 5_70 SERIES		X			
HT 5_78 SERIES		X			
HT5_80 SERIES			X		
HT5_87 SERIES			X		
	38 1/2" x 12 1/2"	38 1/2" x 10 1/2"	17 1/2" x 10 1/2"		

DAY LIGHT OPENING (DLO) - WIDE x TALL

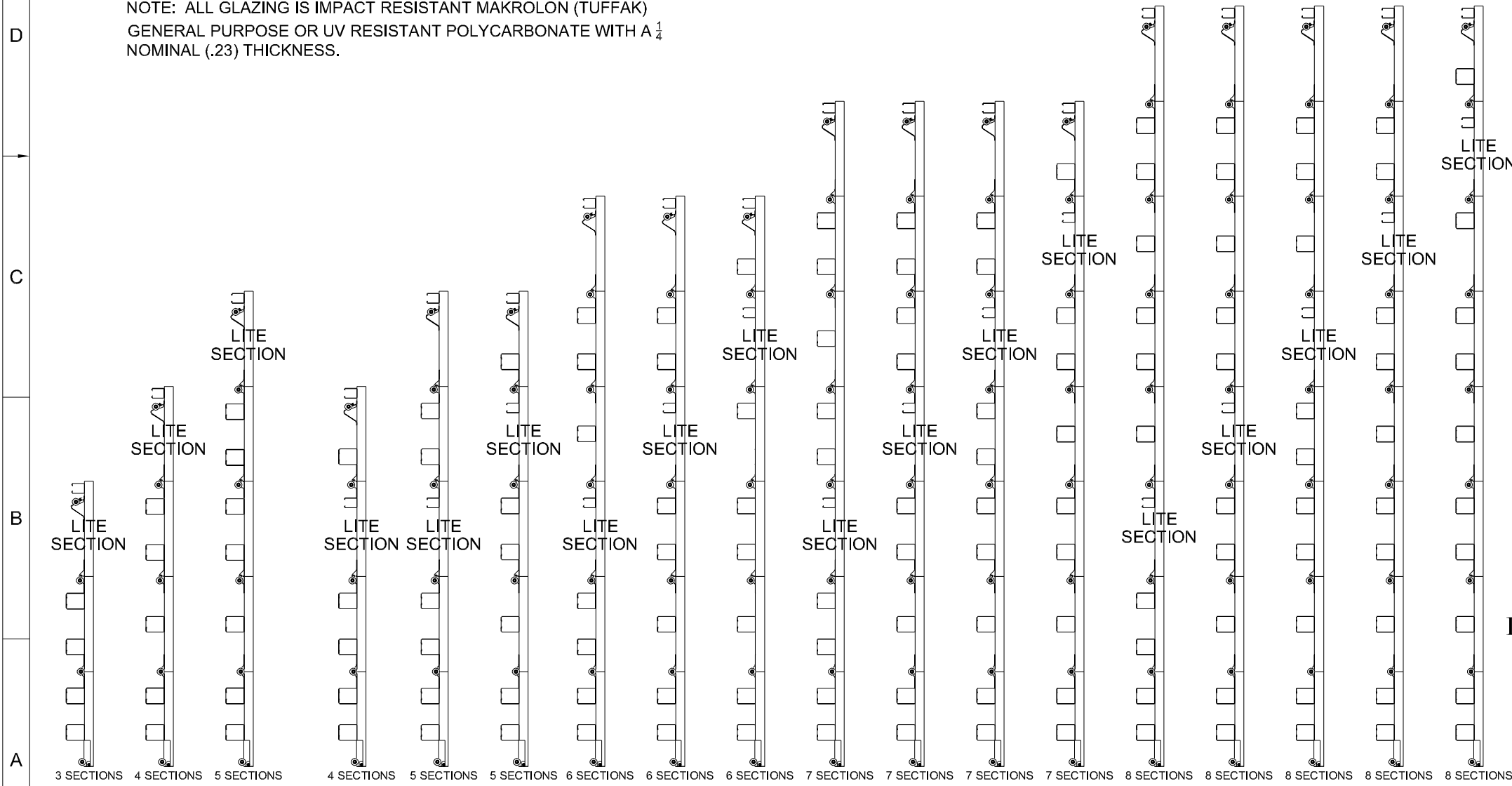


GLAZING DETAIL

NOTE: ALL GLAZING IS IMPACT RESISTANT MAKROLON (TUFFAK) GENERAL PURPOSE OR UV RESISTANT POLYCARBONATE WITH A 1/4 NOMINAL (.23) THICKNESS.

WOOD JAMB ATTACHMENT						
Building Structure	Fastener Type	Minimum Embedment	Minimum Edge Distance	Minimum on Center Spacing	Maximum on Center Spacing	Allowable Tension Load
Min. 2500 PSI to 4000 PSI Concrete	Tapcon + (PLUS) 1/4" w/ 1" OD washer	2"	2.50"	5.00"	24"	551
Southern Pine	3/8" Lag w/ 1 1/8" OD washer	1.50"	1.50"	1.50"	24"	620
Spruce Pine Fir	3/8" Lag w/ 1 1/8" OD washer	1.50"	1.50"	1.50"	22"	482

NOTE: 2X6 mounted to the wall must be Southern Pine Grade 2 or better.



STRUT CONFIGURATION

IMPACT RESISTANT

John E. Scates, P.E.
2560 King Arthur Blvd. Ste 124-54
Lewisville, Texas 75056
Texas P.E. 56308/F2203

Professional Engineer seal provided only for verification of wind load construction details.

Haas Door
A Nofziger Company

DESCRIPTION:
16' 2" HT 5000 ALUMINUM SERIES W/LITES
WIND LOAD SECTIONAL DOOR
DESIGN PRESSURE +31.3/-34.9 PSF

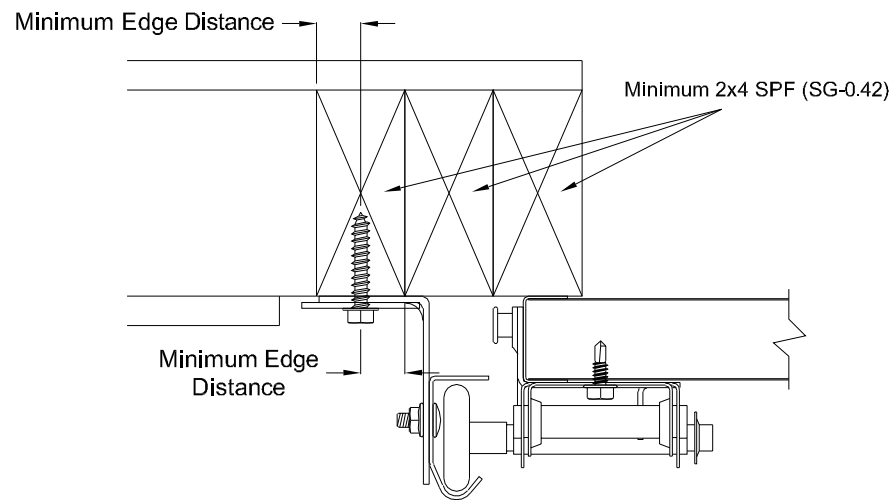
DRAWING NO.: WLTI-5000-0194-08-31-35L **REV.:** A

DATE DRN: 11/17/18 **DRAWN BY:** MVS **REV. DATE:** 2/22/22

MODEL(S): See Sheet 3 **SHEET:** 3 OF 4

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Wauseon, Ohio 43567
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1 2 3 4 5 6 7 8



Direct Wood Mounting Detail

Bracket Mount Shown, Reverse and Continuous Angle Mount Also Approved As Alternate.

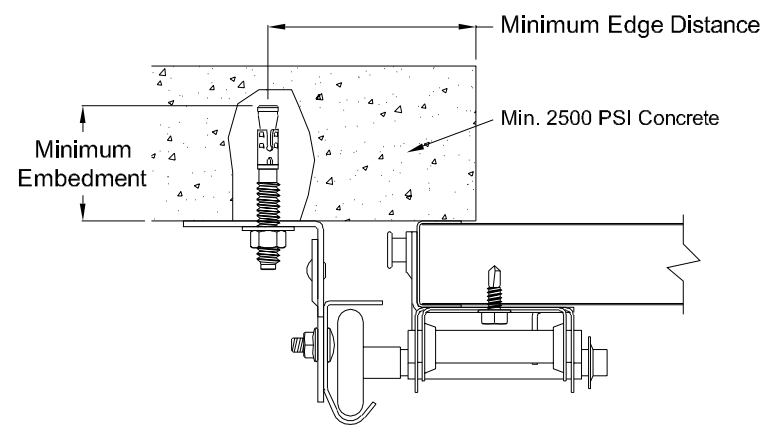
439 lbs. per anchor allowable load

5/16" Dia. Lag Screw w/1-1/8" O.D. Flat Washer (shall conform to ANSI/ASME standard B18.2.1)

Minimum Screw Length: Spruce-Pine-Fur (SPF) - 2-1/2"
Southern Pine - 1-5/8"

Minimum Edge Distance: 1/2"

Maximum on Center Spacing: 21"



Direct Concrete Mounting Detail

Continuous Angle Clip Mount Shown, Bracket and Reverse Continuous Angle Mount Also Approved As Alternate.

831 lbs. per anchor allowable load

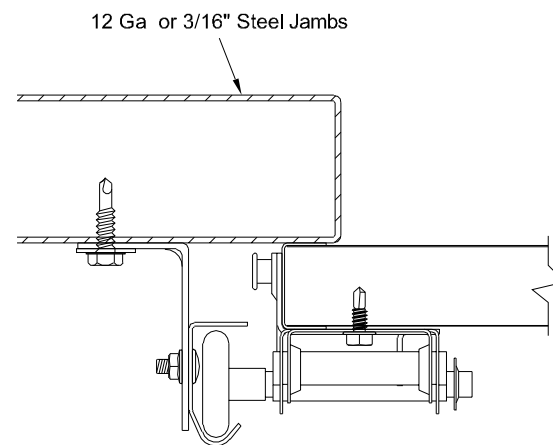
3/8" Dia. Ankr-Tite CCAT w/1-1/8" O.D. Flat Washer (by Wej-It Fastening Systems)

Minimum Embedment: 2-5/8"

Minimum Edge Distance: 2-1/2"

Minimum on Center Spacing: 6"

Maximum on Center Spacing: 24"



Direct Steel Mounting Detail

Bracket Mount Shown, Reverse and Continuous Angle Mount Also Approved As Alternate.

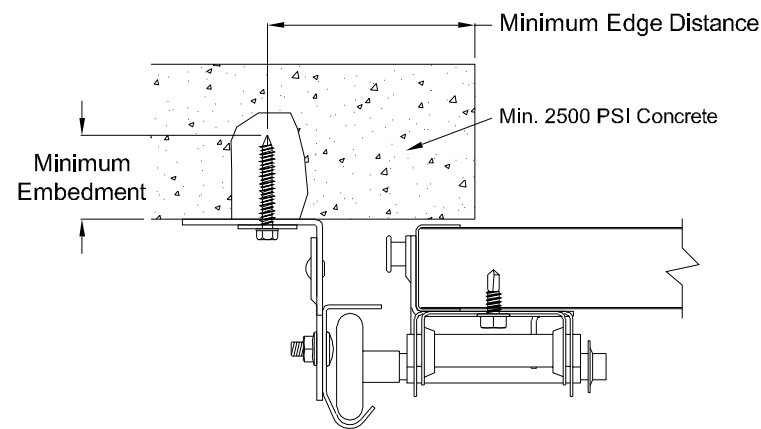
232 lbs. per anchor allowable load - 12 Ga Steel

569 lbs. per anchor allowable load - 3/16" Steel

5/16"-12 Tek Self-Drilling Screw w/9/16" O.D. Flat Washer

12 Ga Maximum on Center Spacing: 11"

3/16" Maximum on Center Spacing: 24"



Direct Concrete Mounting Detail

Continuous Angle Clip Mount Shown, Bracket and Reverse Continuous Angle Mount Also Approved As Alternate.

562 lbs. per anchor allowable load

1/4" Dia. Concrete Self-Tapping & Wedge Anchor w/1" O.D. Flat Washer (Includes Tapcon+ (by ITW), Wedge-Bolt+ (by Powers Fasteners) & Red Head

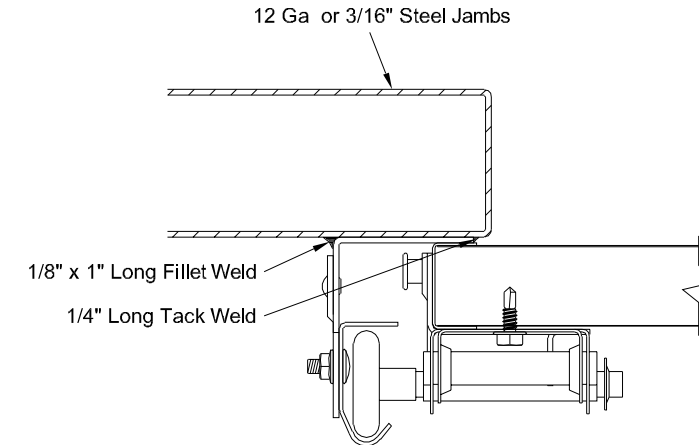
TruBolt wedge anchor (by ITW))

Minimum Embedment: 2"

Minimum Edge Distance: 2-1/2"

Minimum on Center Spacing: 5"

Maximum on Center Spacing: 24"



Direct Steel Mounting Detail

Reverse Continuous Angle Clip Mount Shown, Continuous Angle Mount Also Approved As Alternate.

1272 lbs. per anchor allowable load

1/8" Nom. x 1" Long Fillet and 1/4" Long Tack Weld (E60xx Electrodes Min.)

Welds performed by a certified welder or inspected by a certified welding inspector to verify integrity of the welds.

Maximum on Center Spacing: Apply welds at each roller location not to exceed 24"

IMPACT RESISTANT

John E. Scates, P.E.
2560 King Arthur Blvd. Ste 124-54
Lewisville, Texas 75056
Texas P.E. 56308/F2203

Professional Engineer seal provided only for verification of wind load construction details.



DESCRIPTION:
16' 2" HT 5000 ALUMINUM SERIES W/LITES
WIND LOAD SECTIONAL DOOR
DESIGN PRESSURE +31.3/-34.9 PSF

DRAWING NO.: WLTI-5000-0194-08-31-35L **REV.** A

DATE DRN: 11/17/18 **DRAWN BY:** MVS **REV. DATE:** 2/22/22

MODEL(S): See Sheet 3 **SHEET:** 4 OF 4

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