Supplemental Wind Load Instructions

Sandwich Doors: Residential

⚠ CAUTION	**Higher wind pressures and larger doors require additional reinforcement.** **Premature failure of door system may result from improper application.** **See chart in lower left corner of drawing sheet one for the approved wind pressures and door sizes.**

⚠ WARNING	**These instructions do not contain basic door installation steps and related safety information.** **Failure to follow basic installation steps and related safety information may result in injury or death.** **Door installers must follow a primary instruction manual for basic door installation steps and related safety information.**

The correct selection of door and framing materials in adherence with local building code directives is the responsibility of the building owner/designer. Use of a reinforced garage door does not constitute automatic compliance with any building code. Local building code officials determine compliance criteria.

A locking system must be installed if the door is not electrically operated.

See drawing for stop molding requirements, when door is not more than 1" wider than opening. When using stop molding, secure molding with minimum 8d nails or 2-1/2" long screws.

Professional Engineer's seal provided only for verification of wind load construction details. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Digitally signed by John E Scates
Date: 2025.05.29 10:49:38 -05'00'

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For Use With Drawing Number
Z4-09-02303

Strut Placement

	Door Height									
Section Number	6'-6" to 7'-0"	7'-6" to 8'-0"	8'-3" to 8'-9"	9'-0" to 10'-6"	10'-9" to 12'-3"	12'-6" to 14'-0"	14'-3" to 15'-9"	16'-0" to 17'-6"	17'-9" to 19'-3"	19'-6" to 20'-0"
12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A (window only)
11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A (window only)	1 at Detail B
10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A (window only)	1 at Detail B	0
9	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A (window only)	1 at Detail B	0	1 at Detail B
8	N/A	N/A	N/A	N/A	N/A	1 at Detail A (window only)	1 at Detail B	0	1 at Detail B	0
7	N/A	N/A	N/A	N/A	1 at Detail A (window only)	1 at Detail B	0	1 at Detail B	0	1 at Detail B
6	N/A	N/A	N/A	1 at Detail A (window only)	1 at Detail B	0	1 at Detail B	0	1 at Detail B	0
5	N/A	1 at Detail A (window only)	1 at Detail A (window only)	1 at Detail B	0	1 at Detail B	0	1 at Detail B	0	1 at Detail B
4	1 at Detail A (window only)	1 at Detail B	1 at Detail B	0	1 at Detail B	0	1 at Detail B	0	1 at Detail B	0
3	1 at Detail B	0	0	1 at Detail B	0	1 at Detail B	0	1 at Detail B	0	1 at Detail B
2	0	1 at Detail B	1 at Detail B	0	1 at Detail B	0	1 at Detail B	0	1 at Detail B	0
1	0	0	0	0	0	0	0	0	0	0

Push Nut Detail (use on all rollers)

use 3/8" I. D. on bottom fixture roller stem
use 7/16" I. D. on end hinge and top fixture roller stems

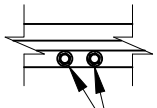
Push nut: Slide roller into fixture and tap push nut onto roller stem using 1/2" socket and hammer. Leave 1/8" to 1/4" space between push nut and fixture.

Track Bracket Spacing

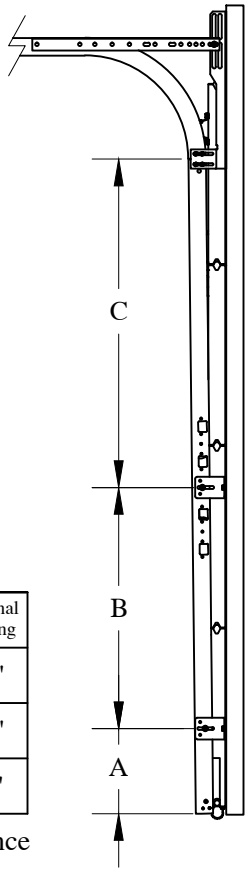
Track bracket spacing shown for doors up to four sections high. Additional door sections may be added for maximum door height depicted on line drawing. Track brackets must be added (per track) for each section and spaced at a distance not greater than the corresponding section height (see line drawing for required quantities).

Strut Placement Concerning Windows

Where a strut crosses a window, it is acceptable to move the strut from a position of "Strut above hinge" down to "Strut on top half of the hinge". It is also acceptable to move teks screws from the upper leg of the strut down to the lower leg of the strut (shown below) if needed to keep both teks embedded in the section. Both applications may be used at the same time as required.



teks



	Nominal Spacing
C	38"
B	28"
A	10"

+/- 3" tolerance

For Use With Drawing Number
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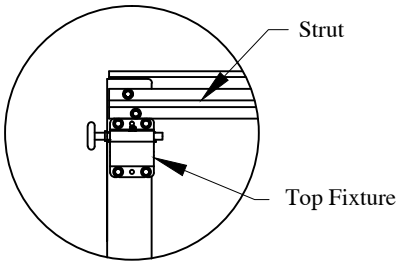
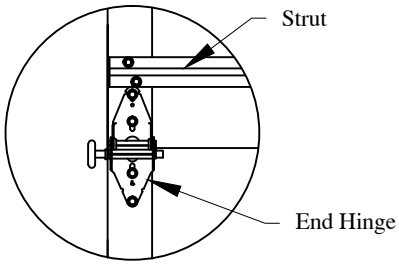
Strut Placement Detail



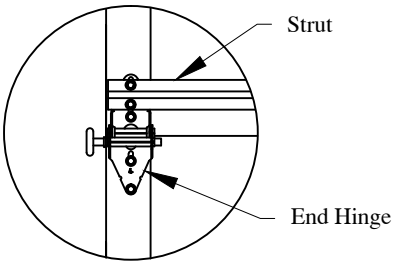
Strut above top fixture

Detail A
(window only)



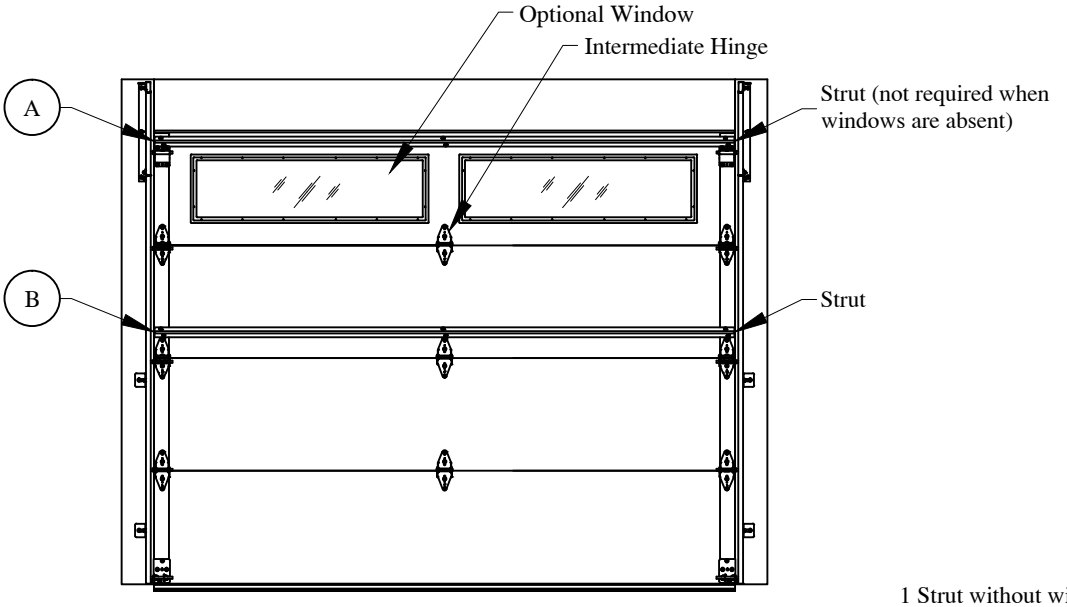
Strut above hinge

Detail B



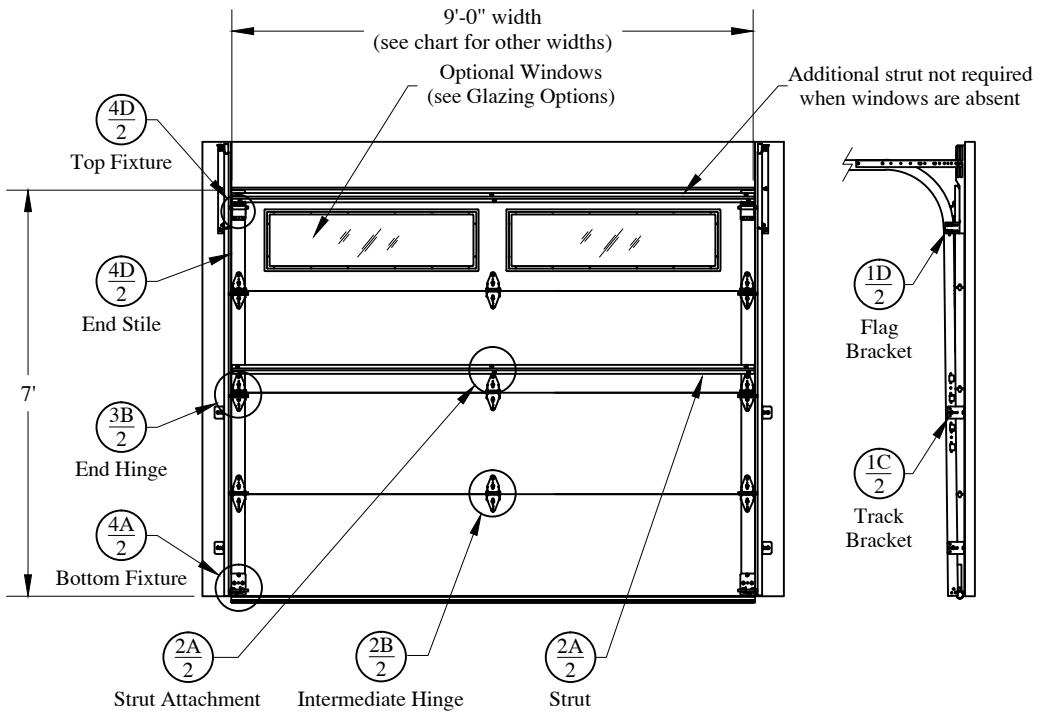
Strut on top half of hinge

Detail B
(optional placement)



1 Strut without window
2 Struts with window

Glazing Options: (max daylight opening 39-3/8" x 12-1/2")
- 1/8" Annealed DSB Glass
- 1/4" Tempered Glass or Polycarbonate
- 7/16" Insulated Glass comprised of Two Annealed DSB Glass or Two Tempered DSB Glass



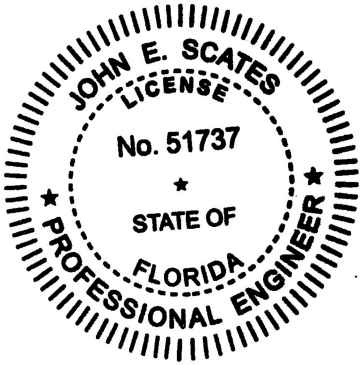
door height	section quantity	strut quantity	trk brkt per side
6'-6" to 7'-0"	4	1	2
7'-6" to 8'-0"	5	2	3
8'-3" to 8'-9"	5	2	3
9'-0" to 10'-6"	6	2	4
10'-9" to 12'-3"	7	3	5
12'-6" to 14'-0"	8	3	6
14'-3" to 15'-9"	9	4	7
16'-0" to 17'-6"	10	4	8
17'-9" to 19'-3"	11	5	9
19'-6" to 20'-0"	12	5	10

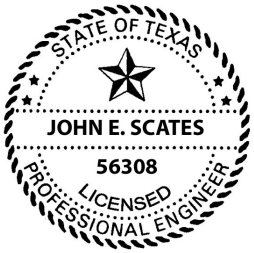
Track bracket quantities shown are for use with grade 2 or better Southern Yellow Pine. Refer to Jamb Attachment Detail supplemental instructions for usage of alternate jamb materials.

Supporting structural elements shall be designed by a registered professional engineer for wind loads shown on this drawing. If door is not electrically operated, a lock must be installed.

Width	Design Pressure (PSF)	Stile Qty.
<=8'-00"	+26.1 / -29.5	1
9'-00"	+23.2 / -26.2	1

Complies with current FBC (See Eval Report)
Complies with IBC/IRC 2018/2021/2024 (Texas)
Tested per ANSI/DASMA 108.
Glazing and door have not been tested for windborne debris.





Professional Engineer's seal provided only for verification of windload construction details

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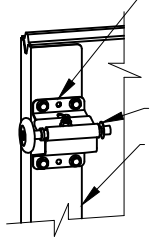
C.H.I. OVERHEAD DOORS
SCALE nts
DATE 03-09-2022
Model Series:
Sandwich Doors, Residential
C.H.I. Drawing: Z4-09-02303

Details on some views may have been omitted for clarity.



Top Fixture
(.059) galvanized steel top fixture attached with four 1/4" x 3/4" screws.

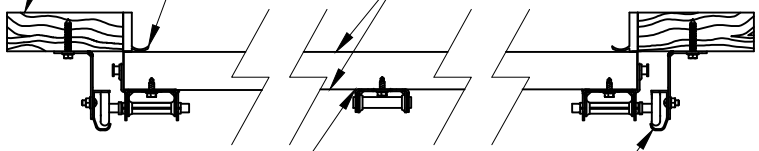
push nut

End Stile
(.034) steel end stile

The vertical wood jamb fasteners may be counter sunk to provide a flat mounting surface. See jamb attachment details for more information about attaching jambs to structure.

2" x 7/16" (nominal) stop molding to be attached with minimum 8d nail or 2-1/2"long screw on 8" spacing. Stop molding not required when door is more than 1" wider than opening.

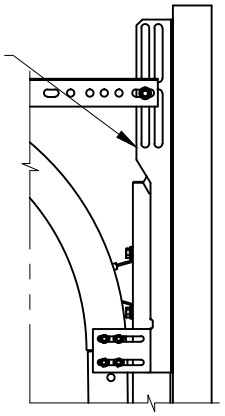
nominal (.0155) galvanized steel minimum

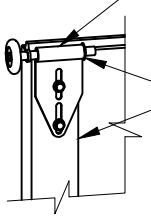


(.023) backer plate at each stile location.

2" (min) x .045 (min) galvanized steel track

Flag Bracket
(.086) galvanized steel flag bracket attached to wood jamb with three 5/16" x 1-5/8" wood lag screws, to horizontal track with two 1/4" x 5/8" track bolts and nuts and to vertical track with two 1/4" x 5/8" track bolts and nuts.



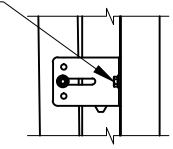


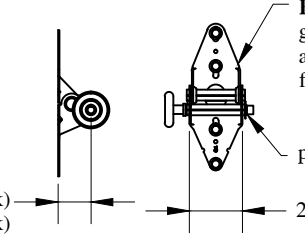
Optional Top Fixture
(.109) galvanized steel top fixture attached with two 1/4" x 3/4" screws.

push nut

(.034) steel end stile

Track Bracket
(.102) galvanized steel track bracket attached to wood jamb with one 5/16" x 1-5/8" wood lag screw per bracket and attached to vertical track with one 1/4" x 5/8" track bolt and nut or two 1/4" x 11/32" rivets.





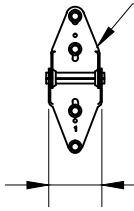
End Hinge
galvanized steel attached with four 1/4" x 3/4" screws.

push nut

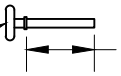
2" (max. for .058 thick)
4" (max. for .109 thick)

2 3/4"

Intermediate Hinge
(.058) galvanized steel attached with four 1/4" x 3/4" screws.

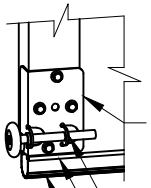


2 3/4"



nominal Ø 2" (min.)
10 (min.) ball roller with steel tire,
11 (min.) ball roller with nylon tire.

3-1/2" (min.) stem

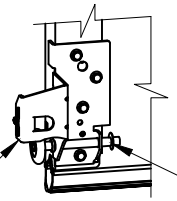


Bottom Bracket
(.102) galvanized steel bottom bracket attached with four red 1/4" x 3/4" screws.

Vinyl weatherstrip

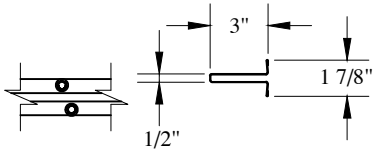
push nut

Aluminum extrusion



push nut

Optional Bottom Bracket
(.109) galvanized steel bottom bracket attached with four red 1/4" x 3/4" screws.

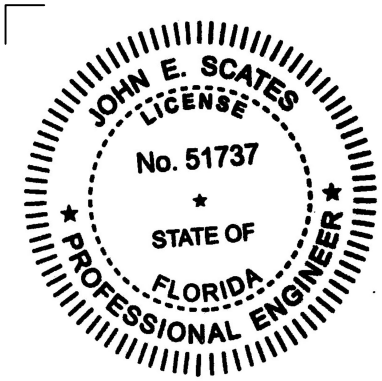


3"

1 7/8"

1/2"

Strut and Strut Attachment
(.040) 50 ksi galvanized steel 3" strut attached with two 1/4" x 3/4" screws per stile.



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