Supplemental Wind Load Instructions

Sandwich Doors: Skyline, Planks

⚠ 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.

JOHN E. SCATES
LICENSE
No. 51737
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

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: 2023.10.07 12:41:30 -05'00'

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For Use With Drawing Number
Z5-18-12317

Strut Placement

	Door Height								
Section Number	6'-0" to 8'-0"	8'-3" to 10'-0"	10'-3" to 12'-0"	12'-3" to 14'-0"	14'-3" to 16'-0"	16'-3" to 18'-0"	18'-3" to 20'-0"	20'-3" to 22'-0"	22'-3" to 24'-0"
12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A 1 at Detail B
11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A 1 at Detail B	1 at Detail B
10	N/A	N/A	N/A	N/A	N/A	N/A	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B
9	N/A	N/A	N/A	N/A	N/A	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B
8	N/A	N/A	N/A	N/A	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B
7	N/A	N/A	N/A	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B
6	N/A	N/A	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B
5	N/A	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B
4	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B
3	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B	1 at Detail A 1 at Detail B	1 at Detail B
2	1 at Detail C	1 at Detail C	1 at Detail C	1 at Detail C	1 at Detail C	1 at Detail C	1 at Detail C	1 at Detail C	1 at Detail C
1	1 at Detail C 1 at Detail A	1 at Detail C 1 at Detail A	1 at Detail C 1 at Detail A	1 at Detail C 1 at Detail A	1 at Detail C 1 at Detail A	1 at Detail C 1 at Detail A	1 at Detail C 1 at Detail A	1 at Detail C 1 at Detail A	1 at Detail C 1 at Detail A

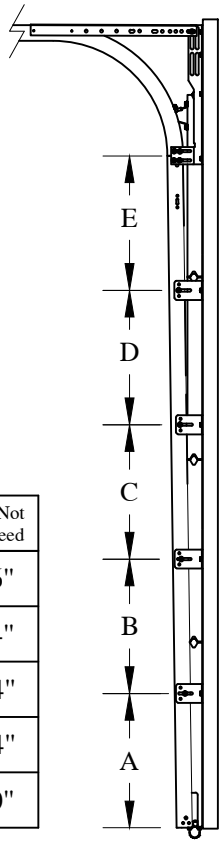
Push Nut Detail (use on all rollers)

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 a 1/2" socket and hammer. Leave an 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).



	Do Not Exceed
E	16"
D	14"
C	24"
B	24"
A	10"

+/- 3" tolerance

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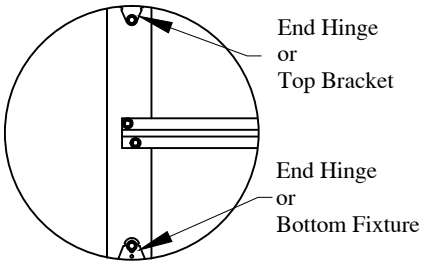
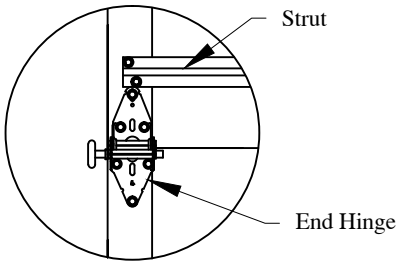
Z5-18-12317

Strut Placement Detail



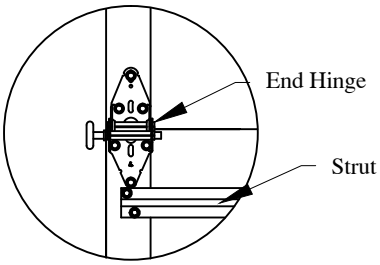
Strut in center of section

Detail A



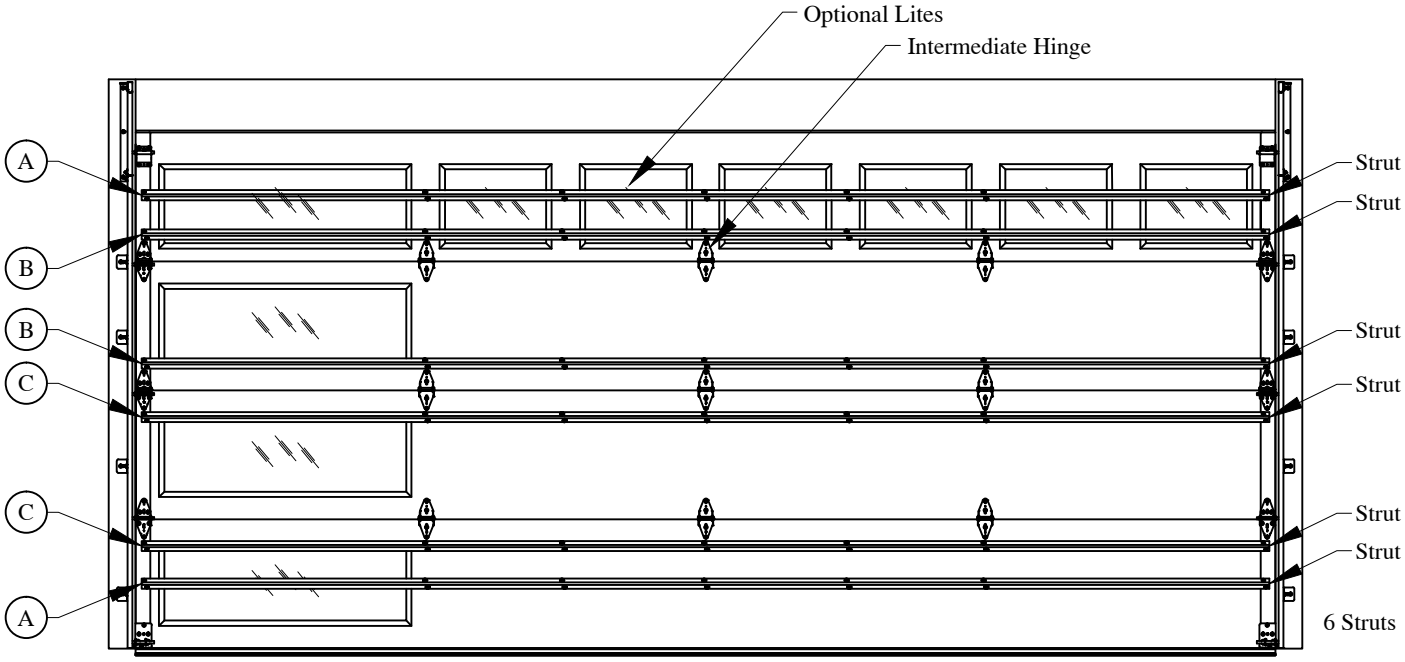
Strut above hinge

Detail B

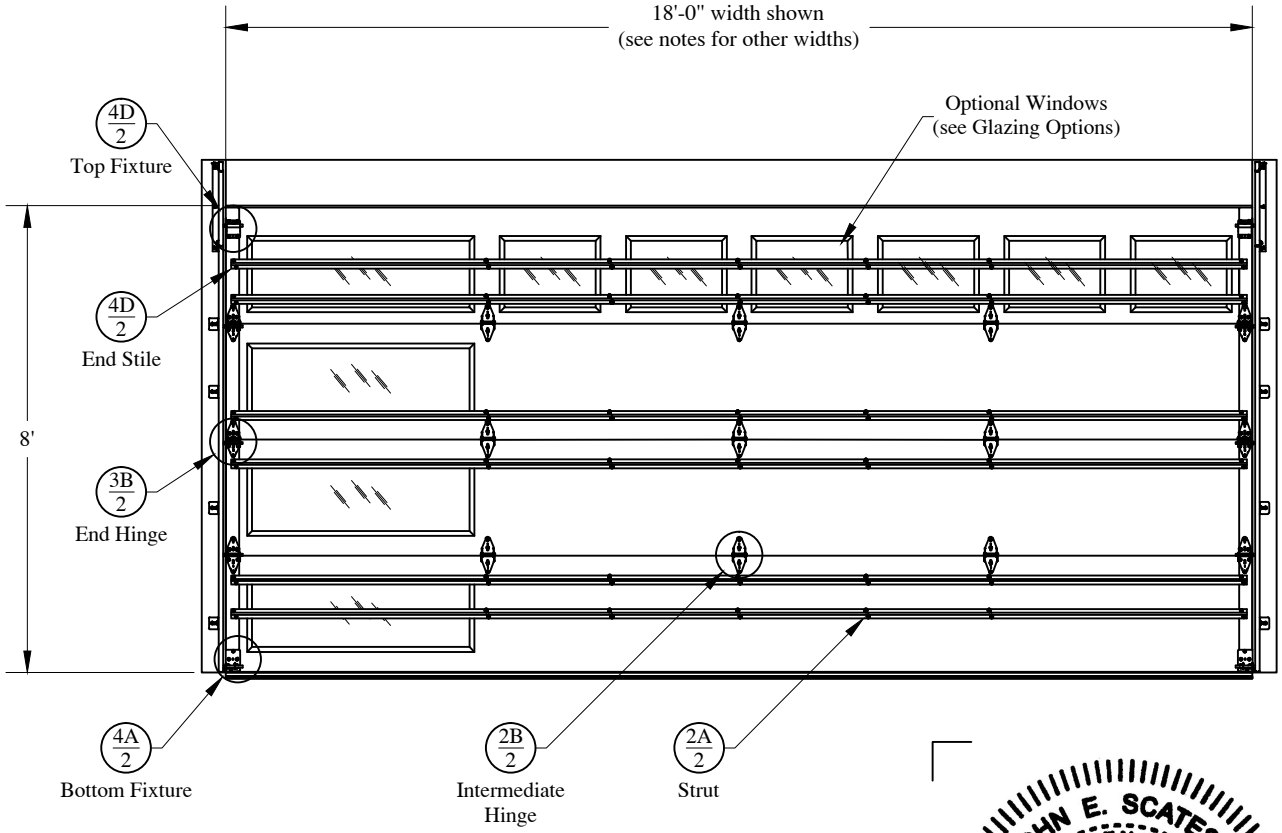


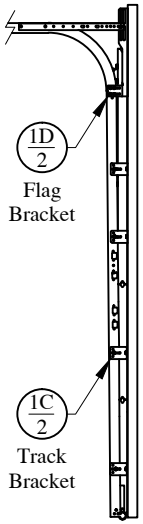
Strut below hinge

Detail C



Glazing Options: 39-3/8" x 12-1/2" D.L.O.
1/8" Annealed Glass or Polycarbonate
1/4" Tempered Glass
7/16" Insulated Glass comprised of
Two 1/8" Annealed Glass or
Two 1/8" Tempered Glass





Door Height	Section Quantity	Strut Quantity	Trk Brkt Per Side
6'-0" to 8'-0"	4	6	4
8'-3" to 10'-0"	5	8	6
10'-3" to 12'-0"	6	9	7
12'-3" to 14'-0"	7	11	8
14'-3" to 16'-0"	8	12	10
16'-3" to 18'-0"	9	14	11
18'-3" to 20'-0"	10	15	13
20'-3" to 22'-0"	11	17	15
22'-3" to 24'-0"	12	18	17

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.

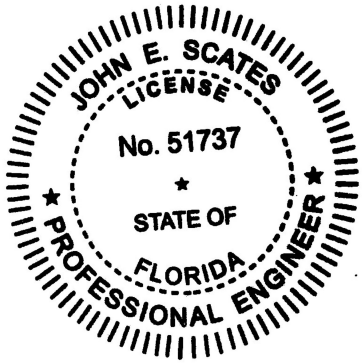
Supporting structural elements shall be designed by a registered professional engineer for wind loads shown on this drawing. If door is not electrically operated, a lock must be installed.

Complies with IBC/IRC 2018. Tested per ANSI/DASMA 108

Maximum door height: 24'-00"

Glazing and door have not been tested for windborne debris.

Width	Design Pressure (PSF)	Stile Qty.
22'-00"	+17.5 / -19.6	7
21'-00"	+19.2 / -21.6	7
20'-00"	+21.2 / -23.8	5
19'-00"	+23.5 / -26.3	5
18'-00"	+25.9 / - 29.1	5
17'-00"	+27.5 / -30.8	5
16'-04"	+28.6 / -32.0	5



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

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C.H.I. OVERHEAD DOORS

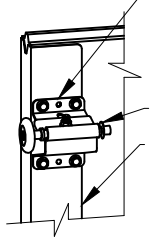
SCALE nts

DATE 03-24-2022

Models Series:
Skyline Flush, Planks

C.H.I. Drawing: Z5-18-12317

Details on some views may have been omitted for clarity.



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

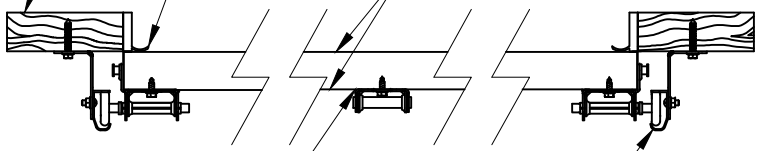
push nut

End Stile
(.066) 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 5" spacing. Stop molding not required when door is more than 1" wider than opening.

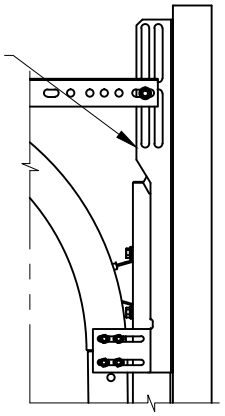
nominal (.0155) galvanized steel minimum

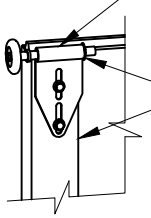


(.023) backer plate at each stile location.

2" (min) x .054 (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.



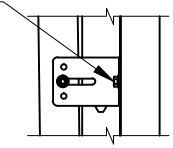


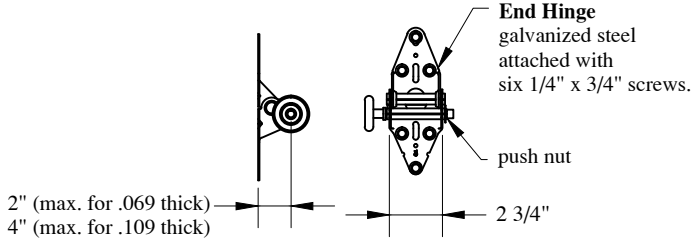
Optional Top Fixture
(.109) galvanized steel top fixture attached with two 1/4" x 3/4" screws.

push nut

(.066) 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 six 1/4" x 3/4" screws.

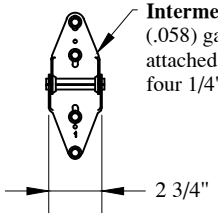
push nut

2" (max. for .069 thick)
4" (max. for .109 thick)

2 3/4"

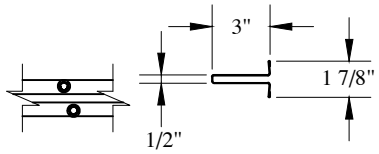
nominal Ø 2" (min.)
10 (min.) ball roller with nylon or steel tire.

3-1/2" (min.) stem

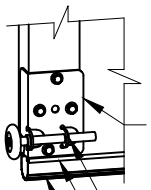


Intermediate Hinge
(.058) galvanized steel attached with four 1/4" x 3/4" screws.

2 3/4"



Strut and Strut Attachment
(.051) 50 ksi galvanized steel 3" strut attached with two 1/4" x 3/4" screws per stile.

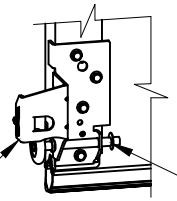


Bottom Bracket
(.102) galvanized steel bottom bracket attached with four red 1/4" x 3/4" screws.

Vinyl weatherstrip

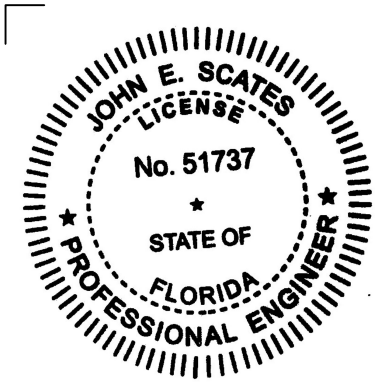
push nut

Aluminum extrusion



push nut

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



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page 5 of 5	