

Window Options:
 1/8" DSB
 1/4" Tempered Glass
 7/16" Insulated Glass
 7/16" Tempered Insulated Glass

18'-2" (see chart for other widths)
 maximum opening size is door width less 2"
 Optional full view windows
 DLO 45-1/4" x 19" max

Door Height	Section Quantity	Strut Quantity	Trk Brkt Per Side
6'-0" to 8'-0"	4	8	5
8'-3" to 10'-0"	5	10	7
10'-3" to 12'-0"	6	12	9
12'-3" to 14'-0"	7	14	11
14'-3" to 16'-0"	8	16	13
16'-3" to 18'-0"	9	18	15
18'-3" to 20'-0"	10	20	17
20'-3" to 22'-0"	11	22	19
22'-3" to 24'-0"	12	24	21

Track bracket quantities shown are for use with grade 2 or better southern pine jambs. When using softer wood species like spruce-pine-fir (SPF) use the quantity of track brackets specified in the chart plus two track brackets per side.

Supplemental Instructions contain details for doors up to 24'-0" high. These are required in addition to this drawing for installation. Always use supplemental instructions in addition to this drawing during door installation.

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

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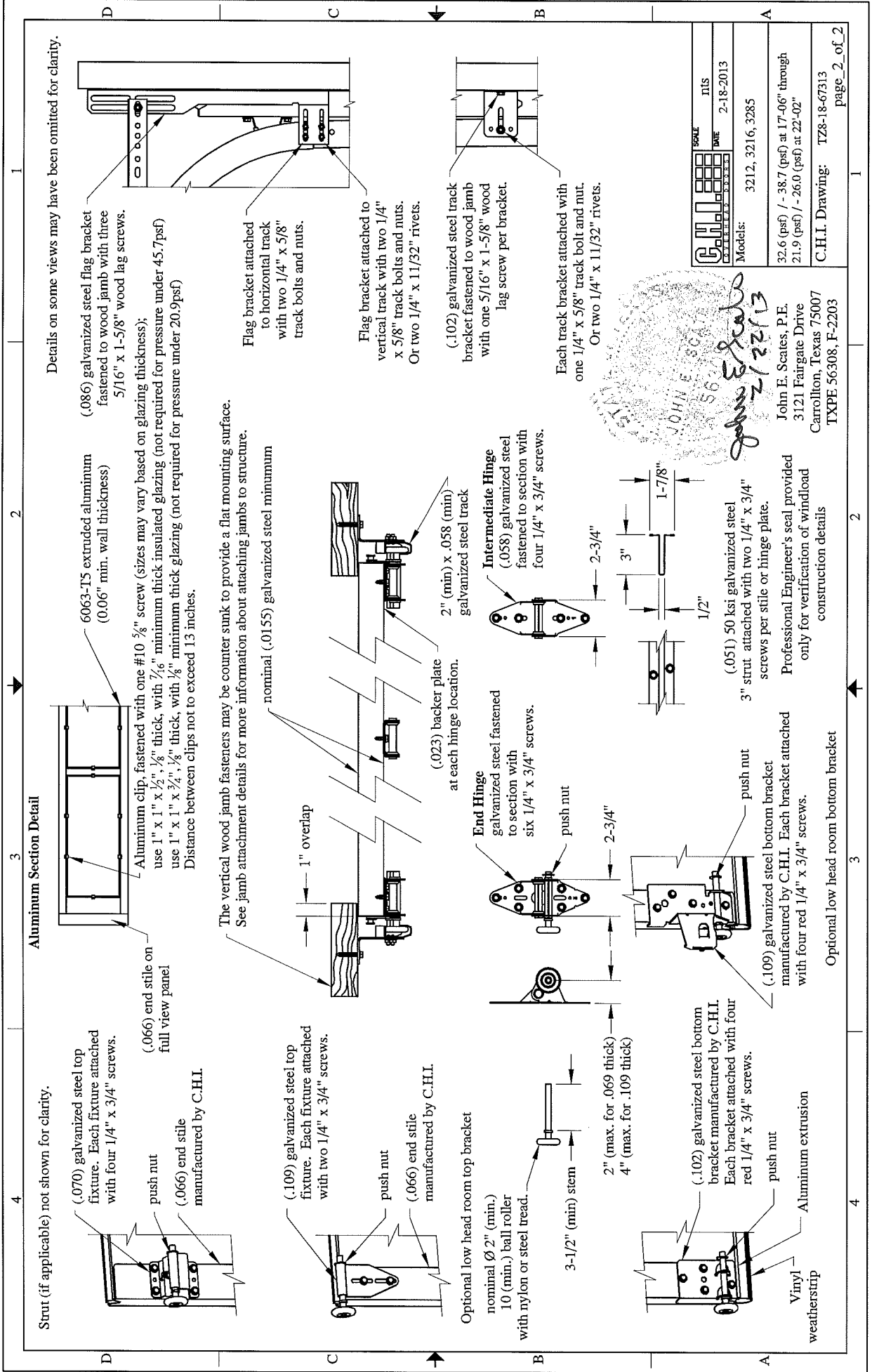
John E. Scates
 2/22/13
 John E. Scates, P.E.
 3121 Fairgate Drive
 Carrollton, Texas 75007
 TXPE, 56308, F-2203

This door has been evaluated per ASCE 7-02 & 7-05 as referenced by 2006 IBC 1609, & 2006 IRC 301, in accordance with ANS/DASMA 108-02, 108-05, & ASTM E330-02. Design Pressures (DP) typically meet requirements for the following exposures B wind speeds. These wind speeds are for 8' high doors on buildings with a flat roof height less than 30 feet.

Door Width	With and Without Windows	Backer Plates
22'-02"	21.9 / - 26.0 (psf)	127 (mph)
21'-02"	24.0 / - 28.5 (psf)	133 (mph)
20'-02"	26.5 / - 31.4 (psf)	139 (mph)
19'-02"	29.3 / - 34.8 (psf)	146 (mph)
18'-02"	32.6 / - 38.7 (psf)	154 (mph)
17'-06"	32.6 / - 38.7 (psf)	154 (mph)

Supporting structural elements to be designed by registered professional engineer for specified wind loads. If door is not electrically operated, a lock must be installed.
 Door height: 24'-0" max
 Section height: 24" max
 Backer plate quantity is minimum per section.

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Strut (if applicable) not shown for clarity.

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

push nut
(.066) end stile manufactured by C.H.I.

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

push nut
(.066) end stile manufactured by C.H.I.

Optional low head room top bracket
nominal \varnothing 2" (min.)
10 (min.) ball roller
with nylon or steel tread.

3-1/2" (min) stem
2" (max. for .069 thick)
4" (max. for .109 thick)

(.102) galvanized steel bottom bracket manufactured by C.H.I. Each bracket attached with four red 1/4" x 3/4" screws.

push nut
Aluminum extrusion
Vinyl weatherstrip

Aluminum Section Detail

Aluminum clip, fastened with one #10 5/8" screw (sizes may vary based on glazing thickness); use 1" x 1" x 1/2", 1/8" thick, with 7/16" minimum thick insulated glazing (not required for pressure under 45.7psf) use 1" x 1" x 3/4", 1/8" thick, with 1/8" minimum thick glazing (not required for pressure under 20.9psf) Distance between clips not to exceed 13 inches.

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.

nominal (.0155) galvanized steel minimum

(.023) backer plate at each hinge location.

End Hinge galvanized steel fastened to section with six 1/4" x 3/4" screws.

push nut

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

2" (min) x .058 (min) galvanized steel track

3" strut attached with two 1/4" x 3/4" screws per stile or hinge plate.

(.051) 50 ksi galvanized steel screws per stile or hinge plate.

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Details on some views may have been omitted for clarity.

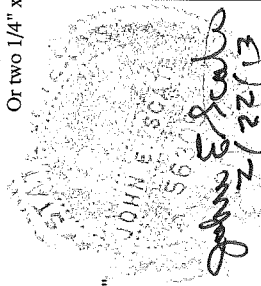
(.086) galvanized steel flag bracket fastened to wood jamb with three 5/16" x 1-5/8" wood lag screws.

Flag bracket attached to horizontal track with two 1/4" x 5/8" track bolts and nuts.

Flag bracket attached to vertical track with two 1/4" x 5/8" track bolts and nuts. Or two 1/4" x 11/32" rivets.

(.102) galvanized steel track bracket fastened to wood jamb with one 5/16" x 1-5/8" wood lag screw per bracket.

Each track bracket attached with one 1/4" x 5/8" track bolt and nut. Or two 1/4" x 11/32" rivets.



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SCALE	NIS
DATE	2-18-2013
Models:	3212, 3216, 3285
	32.6 (psf) / - 38.7 (psf) at 17'-06" through 21.9 (psf) / - 26.0 (psf) at 22'-02"
C.H.I. Drawing:	TZ8-18-67313 page_2_of_2