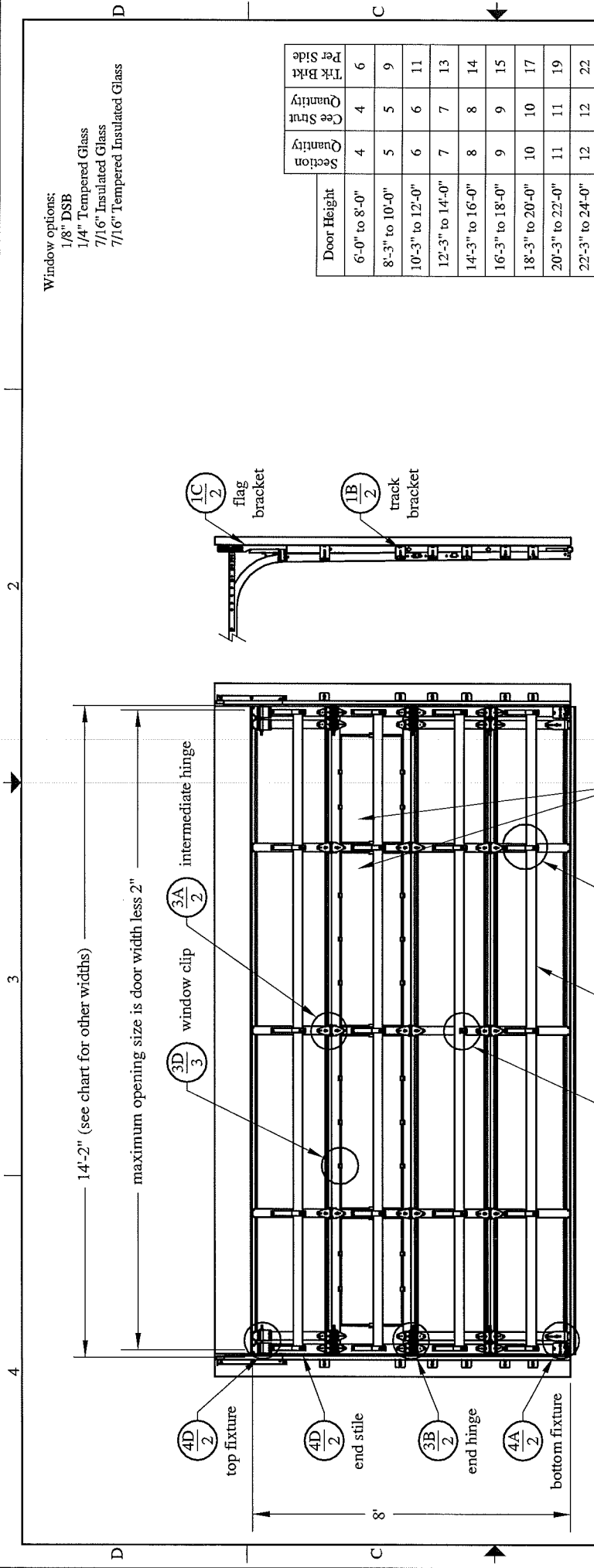


Window options:  
 1/8" DSB  
 1/4" Tempered Glass  
 7/16" Insulated Glass  
 7/16" Tempered Insulated Glass

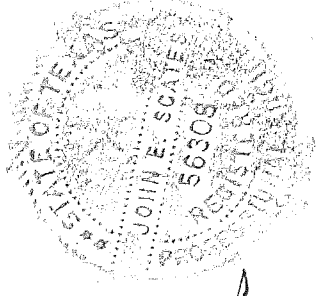


Door Height	Section Quantity	Cee Strut Quantity	Trk Brkt Per Side
6'-0" to 8'-0"	4	4	6
8'-3" to 10'-0"	5	5	9
10'-3" to 12'-0"	6	6	11
12'-3" to 14'-0"	7	7	13
14'-3" to 16'-0"	8	8	14
16'-3" to 18'-0"	9	9	15
18'-3" to 20'-0"	10	10	17
20'-3" to 22'-0"	11	11	19
22'-3" to 24'-0"	12	12	22

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 three track brackets per side or seven track brackets per side for doors taller than 14 feet.

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.

<b>JOHN E. SCATES, P.E.</b>		DATE	2-12-2013
PROFESSIONAL ENGINEER		NO.	56308
STATE OF TEXAS			
Models:	3220, 3221, 3222, 3240,		
	3241, 3242, 3250, 3251, 3252		
51.3 (psf) / - 56.2 (psf) at 10'-02" through			
31.2 (psf) / - 34.2 (psf) at 18'-02"			
C.H.I. Drawing:	TZ111-14-66313	page 1 of 3	



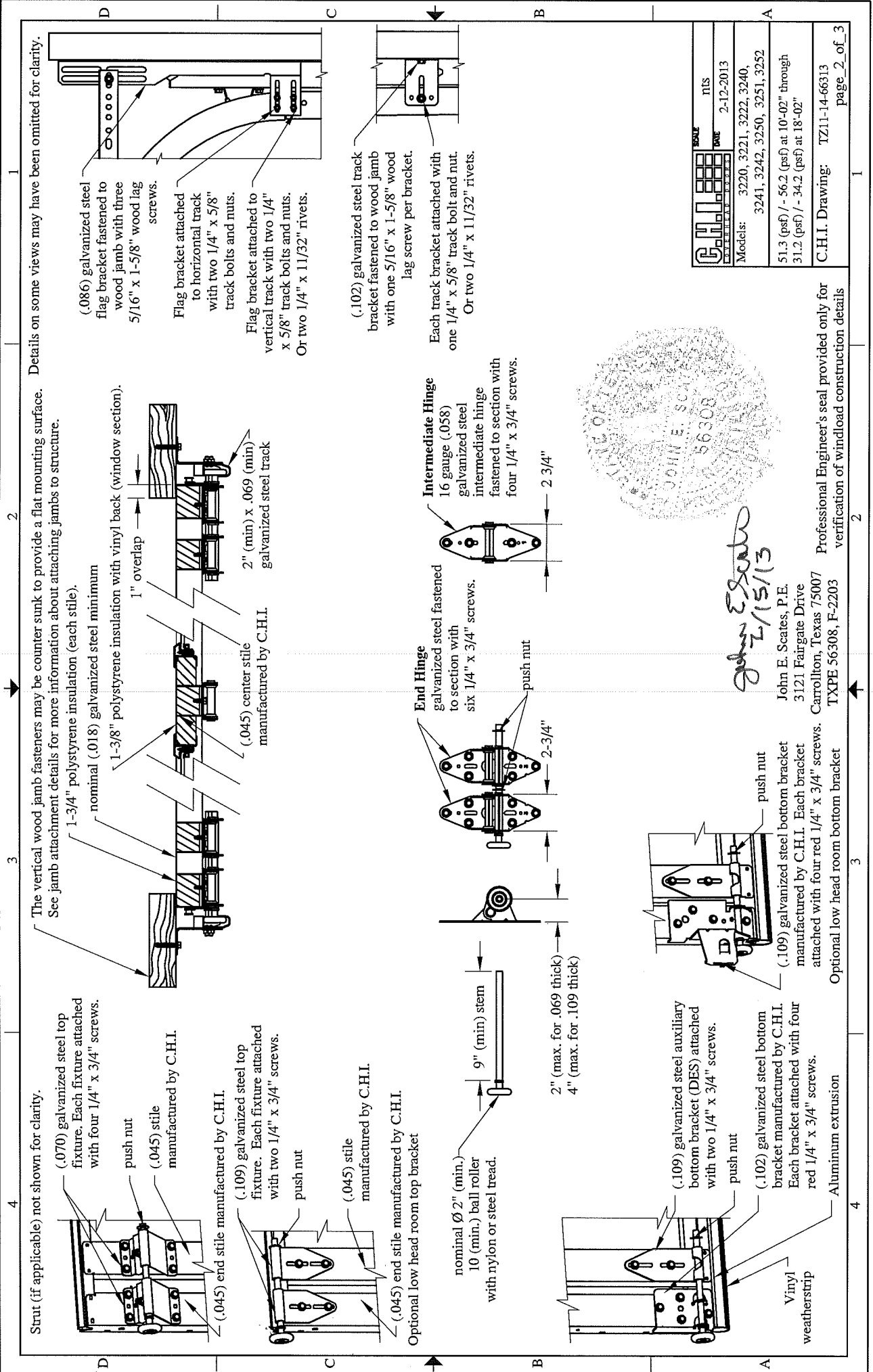
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 2/15/13  
 John E. Scates, P.E.  
 3121 Fairgate Drive  
 Carrollton, Texas 75007  
 TXPE 56308, F-2203

This door has been evaluated per ASCE 7-02 & 7-05 as referenced by 2006 IBC 1609 & 2006 IRC 301, in accordance with ANSI/DASMA 108-02, 108-05, & ASTM E330-02. Design Pressures (DP) typically meet requirements for the following exposure 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		center stiles
	Design Pressure	Exp B	
18'-02"	31.2 / - 34.2 (psf)	150 (mph)	4
17'-02"	34.9 / - 38.3 (psf)	158 (mph)	4
16'-02"	39.4 / - 43.2 (psf)	167 (mph)	3
15'-02"	44.8 / - 49.0 (psf)	178 (mph)	3
14'-02"	51.3 / - 56.2 (psf)	190 (mph)	3
13'-02"	51.3 / - 56.2 (psf)	189 (mph)	3
12'-02"	51.3 / - 56.2 (psf)	189 (mph)	2
11'-02"	51.3 / - 56.2 (psf)	188 (mph)	2
10'-02"	51.3 / - 56.2 (psf)	188 (mph)	2

Center stile 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  
(.045) stile manufactured by C.H.I.

(.045) 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  
(.045) stile manufactured by C.H.I.

(.045) end stile manufactured by C.H.I.  
Optional low head room top bracket

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

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

(.109) galvanized steel auxiliary bottom bracket (DES) attached with two 1/4" x 3/4" screws.

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

Aluminum extrusion

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.

1-3/4" polystyrene insulation (each stile).  
nominal (.018) galvanized steel minimum

1-3/8" polystyrene insulation with vinyl back (window section).

1" overlap  
(.045) center stile manufactured by C.H.I.  
2" (min) x .069 (min) galvanized steel track

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.

Intermediate Hinge

16 gauge (.058) galvanized steel intermediate hinge fastened to section with four 1/4" x 3/4" screws.

End Hinge

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

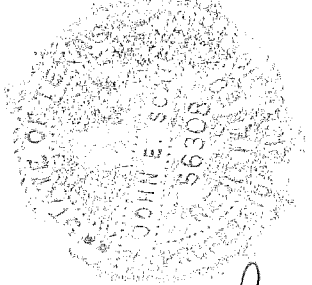
push nut

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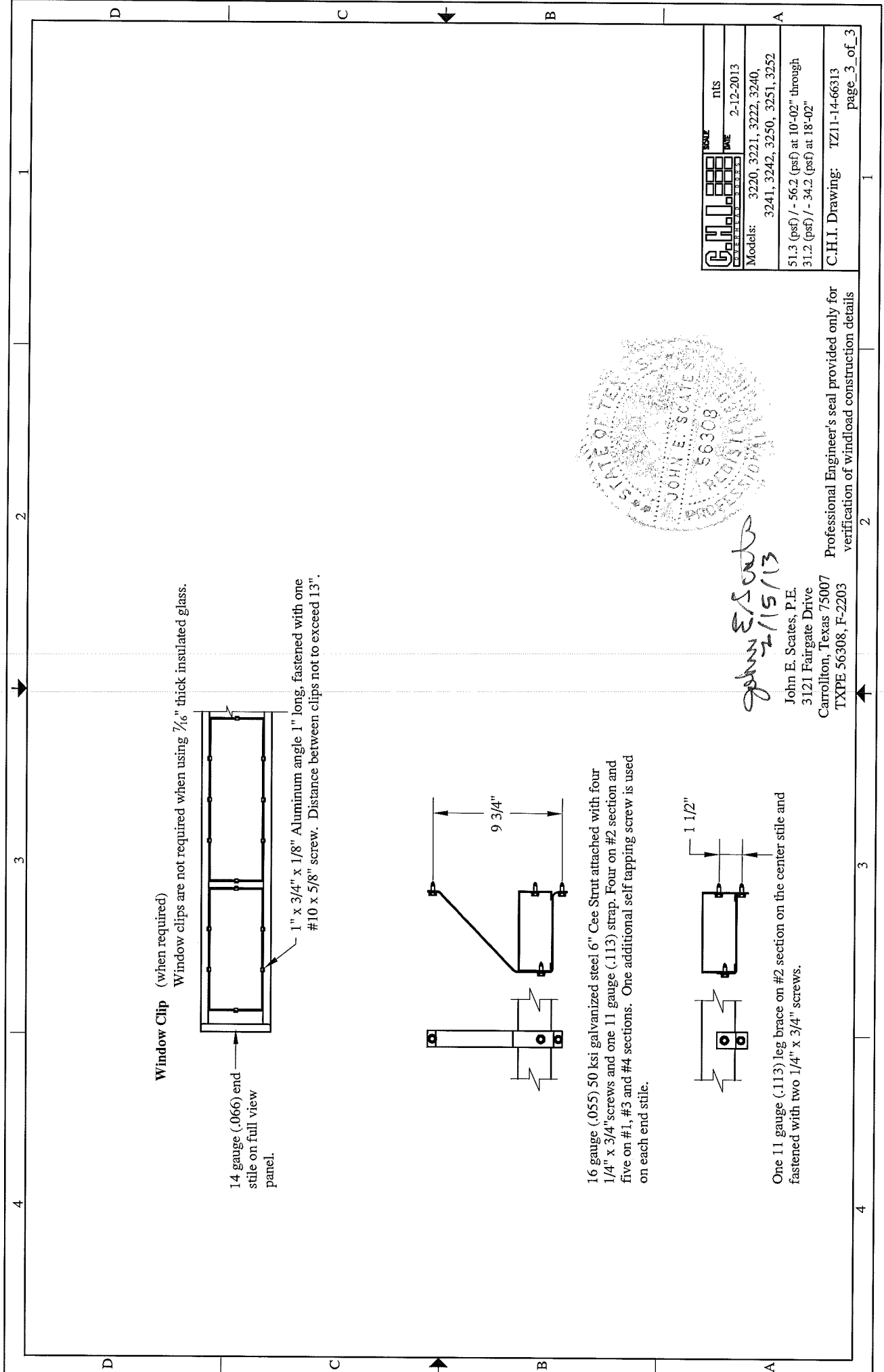
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3121 Fairgate Drive  
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(.109) galvanized steel bottom bracket manufactured by C.H.I. Each bracket attached with four red 1/4" x 3/4" screws.  
Optional low head room bottom bracket

	SCALE	NIS
	DATE	2-12-2013
Models:	3220, 3221, 3222, 3240, 3241, 3242, 3250, 3251, 3252	
	51.3 (psf) / - 56.2 (psf) at 10'-02" through 31.2 (psf) / - 34.2 (psf) at 18'-02"	
C.H.I. Drawing:		YZ11-14-66313
		page 2 of 3

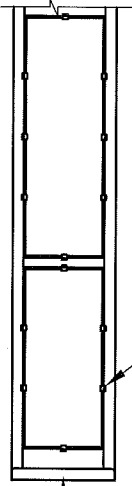


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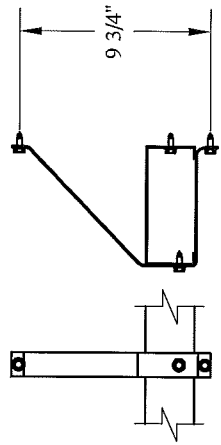
**Window Clip (when required)**

Window clips are not required when using 1/16" thick insulated glass.

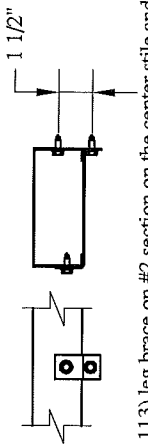


14 gauge (.066) end stile on full view panel.

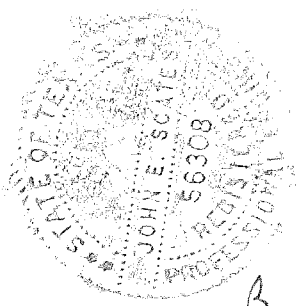
1" x 3/4" x 1/8" Aluminum angle 1" long, fastened with one #10 x 5/8" screw. Distance between clips not to exceed 13".



16 gauge (.055) 50 ksi galvanized steel 6" Cee Strut attached with four 1/4" x 3/4" screws and one 11 gauge (.113) strap. Four on #2 section and five on #1, #3 and #4 sections. One additional self tapping screw is used on each end stile.



One 11 gauge (.113) leg brace on #2 section on the center stile and fastened with two 1/4" x 3/4" screws.



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<b>C.H.I.</b>	SCALE	nts
	DATE	2-12-2013
Models: 3220, 3221, 3222, 3240, 3241, 3242, 3250, 3251, 3252		
51.3 (psf) / - 56.2 (psf) at 10'-02" through 31.2 (psf) / - 34.2 (psf) at 18'-02"		
C.H.I. Drawing: TZ11-14-66313		page_3_of_3