

A107 Toe-Nailed Jack Connections

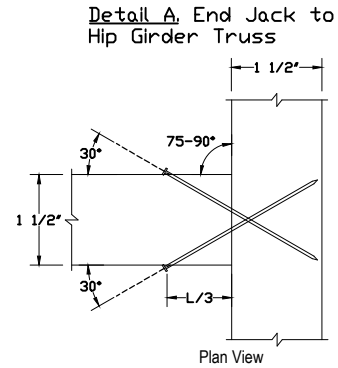
rev by - Nov 2021 - MB



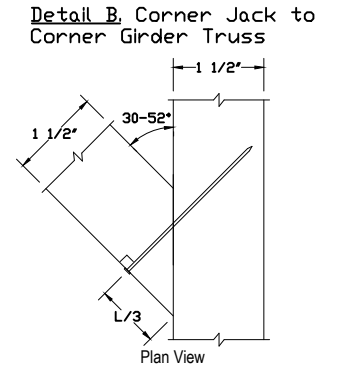
Markham, ON / Coquitlam, BC / Gatineau, QC

Nail Type	Min. Nail Spacing (in.)				No. of Nails	Minimum Chord Sizes		Lateral Nail Resistance (lbs)			
	SPF		D.Fir-L					Detail A		Detail B	
	c	d	c	d		SPF	D.Fir-L	SPF	D.Fir-L	SPF	D.Fir-L
0.120"Øx3.25' Pneumatic	1	1/2	1-1/4	5/8	2	2x4	2x4	188	209	152	173
					3	2x4	2x6	282	313	229	259
					4	2x6	2x6	376	418	305	346
0.131"Øx3.25' Pneumatic	1-1/8	5/8	1-3/8	3/4	2	2x4	2x4	221	246	174	197
					3	2x4	2x6	332	369	262	296
					4	2x6	2x6	442	492	349	395
0.122"Øx3.0' Common Spiral	1	1/2	1-1/4	5/8	2	2x4	2x4	192	215	152	172
					3	2x4	2x6	288	323	228	258
					4	2x6	2x6	385	431	304	344
0.152"Øx3.5' Common Spiral	1-1/4	5/8	1-5/8	7/8	2	2x4	2x4	283	322	225	254
					3	2x6	2x6	425	483	337	381
					4	2x6	-	566	-	450	-
0.144"Øx3.0' Common Wire	1-1/8	5/8	1-1/2	3/4	2	2x4	2x4	244	277	196	222
					3	2x4	2x6	366	416	294	333
					4	2x6	-	488	-	393	-
0.160"Øx3.5' Common Wire	1-3/8	3/4	1-5/8	7/8	2	2x4	2x4	304	346	243	275
					3	2x6	2x6	456	519	365	412
					4	2x6	-	609	-	486	-

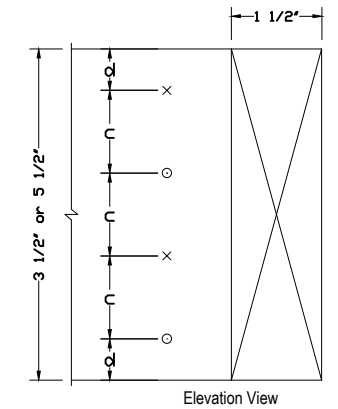
- Note:** Lateral nail resistances above are the maximum factored vertical (downwards or upwards for uplift) end reaction capacities based on the following:
- Capacities per CSA 086-09 (NBCC 2010) and CSA 086-14 (NBCC 2015).
 - All minimum No.1/No.2 grade, dry and untreated lumber, used in dry service conditions and normal term load duration factor.
 - All capacities are limited to toe-nailed Jack members.
 - Capacities are limited to the size, length & number of nails shown, the connection geometry shown in Details A & B, the minimum nail spacing requirements shown in Details 1 & 2, the lumber species combination and the minimum lumber chord sizes shown.
 - Ensure minimum nail spacing as the number of nails shown may not be possible.
 - 50% of the above lateral nail resistances shall be used for all square cut Jack ends that are not flush cut to the supporting girder member. Square cut Jacks are limited to a maximum 0.131" nail diameter.
 - Hangers may be required for connections exceeding these capacities and limitations.



L = nail length

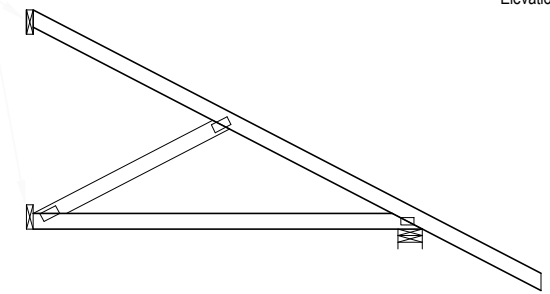
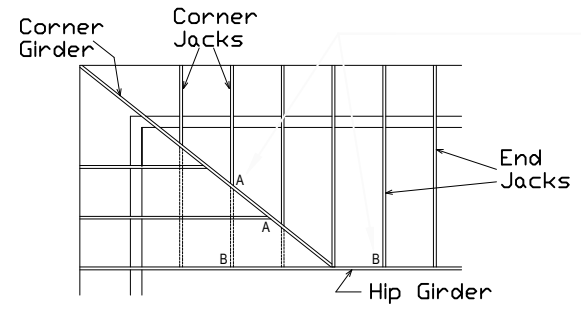
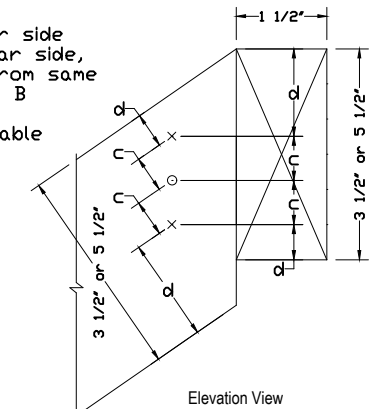


Detail 1. Minimum Nail Spacing Requirements



Detail 2. Minimum Nail Spacing Requirements

o = nail on far side
x = nail on near side, except nails from same side for Detail B
c & d = see table



CCMC #12182-L, 12802-L, 13124-L

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI-BIC (HANDLING, INSTALLING, RESTRAINING AND BRACING), JOINTLY PRODUCED BY TPIC, TPI AND SBGA, AND AVAILABLE AT WWW.SBGINDUSTRY.COM/BCSI-CANADA FOR BEST PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING. **IMPORTANT** FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. ALPINE SYSTEMS CORPORATION SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN ANY FAILURE TO BUILD THE TRUSSES IN CONFORMANCE WITH TPIC OR FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING OF TRUSSES. DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF CSA 086 CANADIAN STANDARDS ASSOCIATION, NBCC, AND TPIC. ALPINE CONNECTORS ARE MADE OF 6061 ALUMINUM OR 6061 GALV. STEEL EXCEPT AS NOTED. APPLY CONNECTORS TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION CONNECTORS PER DRAWINGS 160 A-Z. THE SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT DESIGN SHOWN. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY SPECIFIC BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER, PER APPLICABLE TPIC DESIGN STANDARD.

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