TIMBER TECHNOLOGIES LLC
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GLUE LAMINATED COLUMN SPECIFICATION SHEET

Section Properties

COLUMN	DIMENSIONS	Area (in^2)	X Axis Section Modulus (in^3)	X Axis Moment of Inertia (in^4)
3-ply 2x6	4.13" x 5.38"	22.2	19.9	53.4
4-ply 2x6	5.50" x 5.38"	29.6	26.5	71.2
5-ply 2x6	6.88" x 5.38"	37.0	33.1	89.0
3-ply 2x8	4.13" x 7.13"	29.4	34.9	124.3
4-ply 2x8	5.50" x 7.13"	39.2	46.5	165.8
5-ply 2x8	6.88" x 7.13"	49.0	58.2	207.2

Column Design Values

Fc, Fb and Fv Design Values in psi from NDS Tables 4B and 4C

Members	Species and Grade	Bending F_{by} [1,2]	Compression Parallel to Grain F_c [2]	Modulus of Elasticity E	Shear Parallel to Grain F_v [2]
3ply 2x6 Titan Timber	Combo 42M #1SYP/1650f SPF	1900[1,2]	1,700 [2]	1,500,000	170 [2]
4ply 2x6 Titan Timber	Combo 42M #1 SYP/1650f SPF	2000[1,2]	1,700 [2]	1,500,000	170 [2]
3ply 2x8 Titan Timber	Combo 50 N1M10/SYP	2100	1,700	1,900,000	260
4ply 2x8 Titan Timber	Combo 50 N1M10/SYP	2300	1,700	1,900,000	260

Higher strength lumber may be substituted to fit design requirements

Notes:

1. The Edge Wise Bending Design Value F_b is based on APA Report T2010P-51 and in accordance with ASTM D4761- Standard Test Method for Mechanical Properties of Lumber
2. For Allowable Stress Design, the Load Duration Factor (C_D) increase can be applied to the Design Values for bending (F_b), shear (F_v), and parallel compression (F_c). Load Duration Factor when Wind or Seismic loads are included is 60% (C_D = 1.6) and when Snow is included but not Wind nor Seismic, adjustment is 15% (C_D = 1.15).
3. Base members are treated to .60 CCA for ground contact (50 year Warranty against insect damage and decay)
4. Notations:
   - NDS – National Design Specification for Wood Construction, 2005 Edition. This is an ANSI standard adopted as part of most building codes, including the International Building Code.
   - SPF-Spruce-Pine-Fir
   - SYP- Southern Yellow Pine
   - 1650f or 1950f – Bending Rating for Machine Stress Rated Lumber
5. Other adjustments and design considerations may apply to the column, depending on the application. A competent design professional should verify the accuracy, suitability, and applicability of the column design considerations before using the column design values for any general or specific application.

For technical assistance or member sizing call 715-962-4242 or fax 715-962-4193.

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