A100 General Notes

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ALPINE®
AN ITW COMPANY
Markham, ON / Coquitlam, BC / Gatineau, QC

SPECIFICATIONS:

Design standards conform to applicable provisions of TPIC, CSA 086 and NBCC, BCBC, ABC, and OBC (latest adopted editions) Alpine Systems Corporation certifies that trusses manufactured to its design are suitable for the use specifically indicated provided that:

1. The truss loading, as well as load transfer mechanism, is indicated on the drawing.
2. The building matches the type of building requested by the manufacturer, which is indicated on the drawing.
3. Compression chords, typically Top Chords, are braced using a continuous rigid diaphragm sheathing, or are braced at intervals not exceeding 12.5 times their thickness [18.75" o.c.], or as specified on the individual design. Tension chords, typically Bottom Chords, are braced using a continuous rigid diaphragm sheathing, or are braced at intervals not exceeding 80 time their thickness, 10'-0" o.c. maximum, or as specified on the individual design. All other members are to be braced as indicated by the individual design. Bracing that is referred to here is to be securely anchored to prevent overall movement of the structures as a whole.
4. A properly designed bracing system, maintaining the trusses in a plumb position and providing resistance to wind, seismic loads and sway is installed. Bracing appearing on Alpine drawings is used as a component of the truss and forms an integral part of the truss component design.
5. Proper care and handling of trusses during fabrication, shipping and erection are the responsibilities of the fabricator and the erectors respectively. Procedures consistent with good workmanship and good building practices are the responsibility of the building contractor.
6. Trusses are supported where indicated on the design sheet and anchored where considered necessary by the designer of the overall structure. Bearing sizes and bearing details shown on the design are adequate or more than adequate to prevent crushing of the truss member. This does not, however, take into account the overall stability of the supporting structure. Alpine does not design supporting structures.
7. Material:
   - A. The lumber used shall be of the size and species, or better, as indicated on the truss drawing.
   - B. Unless expressly noted, this truss design is not applicable for use with fire retardant, preservative treated or unseasoned lumber.
   - C. The moisture content of the lumber shall not exceed 19% at time of fabrication, unless otherwise noted.
   - D. Plates used by the fabricator are supplied by Alpine and are of that type, size and gauge as indicated on the drawings and placed on both faces of the truss.
   - E. Plate positioning: Laterally centered on the joint left to right. Chord and web member bites according to Table 5.1.(7), TPIC 1996/2011 or Table 7.1.7, TPIC 2014, unless otherwise specified on plate positioning table or when shown on truss drawing.
   - F. The truss is manufactured by an authorized fabricator in accordance with a design approved by a registered professional engineer authorized by Alpine.
   - G. Unless otherwise specified on the individual design sheets, the component is designed for a Dry Service Condition, i.e. the in-service average moisture content of the lumber is not to exceed 15% in any one year and is never to exceed 19%. Failure to comply with this requirement will affect the structural integrity of the component and Alpine Systems will not guarantee the components performance.
8. Dimensions and geometry of the installed truss match that of the design sheet.
9. Brace Locations and Lengths:
   - A. One (1) continuous lateral brace, (CLB) to be placed at the center of the web length.
   - B. Two (2) CLB's to be placed at third points of web length.
   - C. T-Brace, Scab Brace & L-Braces are to be a minimum of 90% of the length of the web.
10. MINIMUM DEFLECTION REQUIREMENTS;
    Maximum truss deflection shall be based on the greater of live or dead load deflection for trusses; 1-1/3 live plus dead load deflection for Part 9 Housing and Small Building and Sectional/Mobile home roof trusses Live Load or Total Load deflection for Part 4 and Part 4 Low Human Occupancy [Farm] Trusses Live Load or Total Load deflection for Part 4 Floor truss designs for Residential and Small Building occupancy

    MAXIMUM DEFLECTION shall be limited as follows:
    - A. With plaster or gypsum board ceiling finish:
      - Part 4: LL= L/360 TL= L/240
      - Part 9: TL= L/360
    - B. Other than plaster or gypsum board ceiling finish:
      - Part 4 including Low Human Occupancy: LL= L/240 TL= L/180
      - Part 9: TL= L/360
    - C. Part 4 floor truss design:
      - With plaster or gypsum board ceiling: LL= L/360 TL= L/240
      - Other than plaster or gypsum board ceiling: LL= L/240 TL= L/180
    - D. Cantilever deflection shall be limited to length of cantilever/120.
    - E. Overhang Deflection - Maximum overhang deflection shall be based on total load and shall be limited to overhang length/120.
    - F. Top Chord Panel Deflection - Maximum top chord panel deflection shall be based on total load and shall be limited to panel length/180.
    - G. Bottom Chord Panel Deflection - Maximum bottom chord panel deflection shall be based on total load and shall be limited to panel length/360.
    - H. Horizontal Deflection at Supports - Maximum horizontal total load deflection shall not exceed 25 mm.

SPECIAL ENGINEERING NOTES:

1. Handling care should be taken during shipping and erection of trusses.
2. Warning: Special handling care should be taken during shipping and erection. We recommend seeking the advice of a local Professional Engineer.
3. Warning: The configuration/length of this truss is such that extreme caution must be exercised In handling and installation to prevent damage. Refer to BCSI-B1C for recommendations. We Recommend seeking the advice of a local Professional Engineer.
4. ********** WARNING ********** DANGER ******** Special and extreme precautions should be taken to insure that these trusses do not bend more than 3'0" out of plane during fabrication, handling, shipping and installation. Special attention is required so that the handling and bracing recommendations set forth in TPI publication BCSI-B1C are strictly adhered to. Ensure that the temporary and permanent bracing is adequate and that trusses are installed straight and plumb. Be advised that trusses with broken or damaged members or connector plates shall be scrapped and replaced. Repair of any member is impossible due to the critical nature of this structure. A temporary support at the center of the span is strongly recommended during the erection of these trusses and should remain there until all permanent bracing is in place. Seek the advice of a local Professional Engineer.
5. Truss shall be used in enclosed buildings in non-corrosive environments with adequate ventilation. Failure to provide proper ventilation will result in the eventual damage to the component.
6. The bottom chord of an attic frame must be adequately braced by using cross bracing and/or strapping as required by the National Building Code, latest adopted edition, in conjunction with appropriate chord size and room size.

HARSH ENVIRONMENTAL CONDITIONS:

NOTE: If this truss is to be used in harsh environmental conditions, we recommend the following:
1. Relative humidity must not exceed 70% for more than six consecutive days.
2. End of lumber segments are to be coated with sealant such as 'Thompsons Water Seal' to prevent movement of moisture through lumber.
3. After fabrication, all connector plates are to recieve two coats of Glidden Coal Tar Epoxy #5270/5271. All material is to be applied at a rate of 10.5 Mils wet to achieve 8.0 Mils dry. Plates must be completely coated to prevent air access to exposed portions of plate including teeth outside the surface of the wood.
4. Trusses to be inspected periodically for signs of corrosion in metal connector plates. Plates that become corroded must be immediately repaired or replaced.
5. Lumber and plate values have been reduced to take into account the harsh environmental conditions.

TO THE BEST OF OUR KNOWLEDGE THESE RECOMMENDATIONS WILL EXTEND SERVICEABLE LIFE OF THE TRUSS UNDER HARSH ENVIRONMENT CONDITIONS. NO WARRANTY OR GUARANTEE OF ANY KIND IS EXPRESSED OR IMPLIED. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR APPLICATION OF PRODUCTS USED.

DUE TO THE CORROSIVE NATURE OF THE ENVIRONMENT IN WHICH THIS DESIGN IS TO BE USED, THE PERFORMANCE OF THIS FRAME AND ITS CONNECTIONS CAN NOT BE GUARANTEED BY ALPINE SYSTEMS CORPORATION.

MAXIMUM ALLOWABLE CHORD CSI'S FOR 4 & 5 PLY GIRDERS:

	TOP OR BOTTOM CHORD SIZE			
FASTENER TYPE	2X6	2X8	2X10	2X12
1/2"Ø Bolts	0.90	0.93	0.94	0.95
0.22"Ø Simpson SDW screws	0.96	0.96	0.97	0.98
0.25"Ø RSS GRK screws	0.95	0.96	0.97	0.97
0.25"Ø Simpson SDS screws	0.95	0.96	0.97	0.97

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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 SBCA, AND AVAILABLE AT WWW.SBCINDUSTRY.COM/BCSI-CANDA 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 O86 (CANADIAN STANDARDS ASSOCIATION), NBCC, AND TPIC. ALPINE CONNECTORS ARE MADE OF 20GA ASTM A653 GR40 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.