➢ **Identification of Shopdrawing Properties**

The following list contains explanations for the various items and areas of a **Shopdrawing** page. The number of the topic title corresponds to the circled number on the Shopdrawing located on the last page of this documentation.

! *__Note:__ this documentation is intended to help you understand the basic information presented on Alpine Shopdrawings viewed and/or printed from your computer. Depending on the complexity of your truss design, or lack thereof, more or less information may be specified. Please consult with your Alpine Help Desk representative or regional Alpine Engineering department for an explanation of information appearing on your actual shopdrawing not identified by this documentation.*

1. Job Information Header

This header line provides the following job reference detail information:

✦ **Job Key or Job Number** from the database (**V731-100** in this example).

✦ **Job Description or Designer Information** from the database (**1200 Park Central** in this example).

✦ **Truss Description Information** from New Truss (**32-0" 612** in this example).

2. Truss Creation Origin

Trusses may be generated using one of two methods: Manual input from **New Truss**, or by **Job Designer** from Layout. This note identifies which method was used to create the truss.

✦ **For trusses input using New Truss**, the note reads: **THIS DWG. PREPARED FROM COMPUTER INPUT (LOADS & DIMENSIONS) SUBMITTED BY TRUSS MFR.**

✦ **For trusses generated by Job Designer**, the note reads: **THIS DWG. PREPARED BY THE ALPINE JOB DESIGNER PROGRAM FROM THE TRUSS MF'R LAYOUT.**

3. Required Lumber Criteria

Materials required for the fabrication of the truss. The lumber details are defined as follows:

✦ **Chord Identification**: Top and Bottom chords.

✦ **Size**: Nominal size of the material specified, such as **2x4**, **2x6**, **2x8**, etc.

✦ **Type**: Code designation for the required lumber species (For example: **DF-L** = Doug Fir - Larch, **SP** = Southern Pine, **HF** = Hem Fir, **SPF** = Spruce-Pine-Fir, etc.).

✦ **Grade**: Material grade listed as **#2**, **#1**, **SS** (Select Structural), **MSR** (Machine Stress Rated), etc.

✦ **Miscellaneous additional required materials**: includes **Wedge** pieces, **Slider** members, and **Lumber Exceptions**.

4. Engineering Notes

Engineering notes are located in this portion of the drawing and are automatically applied to Shopdrawings based on the applicable truss design loads, bracing requirements, mechanical and ply-to-ply connection requirements, etc. Specific notes may also be manually applied to Shopdrawings where necessary as determined by the truss designer.

5. Chord Pitch

The **Chord Pitch** measures the vertical rise in inches per a horizontal length, or run. This example shows a vertical rise of 6" in a length (run) of 12". Therefore, the top chord pitch of the truss in this example is defined as 6/12.

6. Horizontal Dimension

This dimension identifies significant horizontal locations of the truss, such as the overall span, distance to the pitch break (peak), panel lengths, etc. All measurements are referenced from the left end of the truss as viewed on the Shopdrawing.

7. Vertical Dimension

This dimension identifies significant vertical distances of the truss, such as the heel height, the height to the top of the truss (peak), etc. All measurements are referenced from the bearing located at the left end of the truss as viewed on the Shopdrawing. User's may designate the dimension types they wish to display.

8. Top Chord

A **Top Chord** is the top most outside perimeter member of the truss. Chord material for fabrication is specified in the **Required Lumber Criteria Note**, located in the upper left portion of the shopdrawing.

9. Bottom Chord

A **Bottom Chord** is the bottom most outside perimeter member of the truss. Chord material for fabrication is specified in the Required Lumber Criteria Note, located in the upper left portion of the shopdrawing.

10. Maximum Reaction and Bearing Information

✦ **Rv** = Maximum **Vertical Reaction** in pounds (Continuous bearing is specified in **PLF**).

✦ **U** = Maximum **Wind Uplift** in pounds.

✦ **W** = Width of the bearing.

11. Connector Plate

The purpose of a **Connector Plate** is to connect web members to chord members, forming a plated joint. As with all truss plates, **Connector Plates** are applied to both faces of a truss. The size of the plate required is determined during the truss analysis routine based on the Job Setting design requirements. Plate sizes are identified as **Width x Length** (in inches), and the slot orientation is represented by parallel lines along the plate surface.

12. Heel Connector Plate

The purpose of **Heel Connector Plates** is to connect the top and bottom chords together at the end of the truss, typically referred to as the **Heel**. As with all truss plates, **Heel Connector Plates** are applied to both faces of a truss. The size of the plate required is determined during the truss analysis routine based on the Job Setting design requirements. Occasionally the need for wedges or slider blocks are required to adequately connect a heel joint. Plate sizes are identified as **Width x Length** (in inches), and the plate slot orientation is specified in an Alpine detail drawing identified by the code label following the plate size (**A2** in this example). Plate positioning details are available from the Alpine website (*www.alpeng.com*).

13. Peak Connector Plate

The purpose of **Peak Connector Plates** is to connect sloping top and/or bottom chords to web members where a change of pitch occurs, generally at the apex of the truss. As with all truss plates, **Peak Connector Plates** are applied to both faces of a truss. The size of the plate required is determined during the truss analysis routine based on the Job Setting design requirements. Plate sizes are identified as **Width x Length** (in inches), and the slot orientation is represented by parallel lines along the plate surface, and/or an Alpine detail drawing identified by the code label following the plate size (**R** in this example). Plate positioning details are available from the Alpine website (*www.alpeng.com*).

14. Chord Splice Plate

The purpose of a **Splice Plate** is to connect chord members together. Splice plates may occur at chord-to-web joints or between web joints. As with all truss plates, **Chord Splice Plates** are applied to both faces of the truss. The size of the plate required is determined during the truss analysis routine based on the Job Setting design requirements. Plate sizes are identified as **Width x Length** (in inches), and the slot orientation is represented by parallel lines along the plate surface.

15. Top Chord Overhang Rake Length

Outside edge length of the top chord overhang measured along the **Rake** (Slope). Display of this dimension is an **On**/**Off** toggle option in the Shopdraw tab of the Job Settings.

16. Left Jig Length

Dimension from the top edge of the top chord at the first pitch break (peak), to the bottom edge of the bottom chord at the left end of the truss. Display of this dimension is an **On**/**Off** toggle option in the Shopdraw tab of the Job Settings.

17. Right Jig Length

Dimension from the top edge of the top chord at the last pitch break (peak), to the bottom edge of the bottom chord at the right end of the truss. Display of this dimension is an **On**/**Off** toggle option in the Shopdraw tab of the Job Settings.

18. Truss Tag Identification or Truss Description

You have the option of including the truss **Tag** Id. or the truss **Description** in this lower left location of the Shopdrawing. The desired field setting located in the Shopdraw tab of the Job Settings must be selected to display this information.

19. Plate Type

This notation identifies the plate type required for the fabrication of the truss. Other plate types may be required in specific locations on the truss; however, this notation conveys the majority plate type required, which is generally **WAVE** plates.

20. Code/Criteria, Factor, and Tolerance Setting Selections

The information provided in this notation displays the settings used for the following:

✦ **Building Code**: The governing Code used for the truss design. **UBC** used in this screen view example.

✦ **Design Criteria**: The version of the TPI standard used for the truss design. **TPI2002(STD)** used in this screen view example.

✦ **Quality Assurance Factor (Cq)**: A factor used for plate placement and defect tolerance used in connector plate design. **1.00** used in this screen view example.

✦ **Max. Over-ride of Cq Factor**: An over-ride factor to be used when the desired manufacturing tolerances cannot be achieved at a particular joint. This factor reduces the defect tolerance for difficult to plate joints. **1.25** used in this screen view example.

✦ **Plate Rotational Tolerance**: A plate rotation range measured in degrees which must be met during the manufacturing process. **10** degrees used in this screen view example.

✦ **Over-ride of Plate Rotational Tolerance**: This over-ride setting increases plate capabilities by decreasing or eliminating the plate rotational tolerance. **0** degrees used in this screen view example.

21. Quantity, Plies, and Total

The information provided in this notation displays the following:

✦ **QTY**=: Indicates the number of this truss type required for the job.

✦ **PLY**=: Indicates the number of plies required for this truss.

! *Note: This information only appears when more than **1** ply is required.*

✦ **TOTAL**=: This is the total quantity of trusses times the number of plies.

22. Software Design Version

This Rev. (Revision) number represents the version of the **VIEW** software used to analyze and design the truss. This example used **Rev. 7.31.1027.21**.

23. Shopdrawing Sequence Number

Some truss manufacturers keep track of their Shopdrawings through the use of a **Sequence** number. You have the option of including a **Seq** number in the lower right location of the Shopdrawing by setting the **Sequence** field in the **Configuration** tab of the **User Preferences**. Each time a truss is saved to a job, the **Sequence** number is advanced by one number.

24. Scale of the Truss

This is the actual drawing scale of the truss design on the Shopdrawing. You have the ability to control this scale with a toggle button in the *Misc* section of the **Job Settings**, **Shopdraw** tab.

25. Date Field

You have the option of selecting between the **Current** date and the **Pic File** date to display in this field. The selection field called *Date from* is located in the Job Settings, Shopdraw tab.

✦ **Current**: Displays the current date of the Shopdrawing you generate.

✦ **Pic File**: Displays the date the truss was saved to the job.

26. Reference Number

The reference number is automatically generated by Alpine upon receipt after you transmit the design to one of our engineering offices which may be used to track a drawing at Alpine.

27. Drawing Number

The **DRWG** number is a unique drawing identifier automatically generated by Alpine after you transmit the design to one of our engineering offices which may be used to identify a drawing after it has been issued by Alpine.

28. Overall Length

The **O/A LEN** field identifies the total span of the truss, not including overhangs.

29. Job Number

This field displays your job **Job Number** (or **Job Key**) from the database (**V731-100** in this example).

30. Truss Type

This field displays the truss family **TYPE** code used to generate the truss design.

31. Design Load Criteria

- ✦ **TC LL** = **T**op **C**hord **L**ive **L**oad
- ✦ **TC DL** = **T**op **C**hord **D**ead **L**oad
- ✦ **BC DL** = **B**ottom **C**hord **D**ead **L**oad
- ✦ **BC LL** = **B**ottom **C**hord **L**ive **L**oad
- ✦ **TOT.LD.** = Total of all top and bottom live and dead loads.
- ✦ **DUR.FAC.** = Duration Factor.
- ✦ **SPACING** = The on-center spacing of the trusses.

32. Alpine Warning & Disclaimer Notes

These Warning and Disclaimer notes appear on all Alpine Shopdrawings and are meant to call attention to the importance of the care required in fabrication, handling, shipping, installation, and bracing, as well as the verification of truss plate steel properties. Truss manufacturers should be thoroughly aware of the rules and regulations contained in these notes.

33. Company Logo

Your company logo may be applied in this lower left corner by identifying the bitmap file you wish to use. In the *Misc* section of the **Job Settings**, **Shopdraw** tab is a field labeled **Logo BMP**. Use the **Browse** button for this field to locate the **BMP** file you wish to use.

34. Web

Internal members of the truss, connected to chords using Alpine connector plates, which are necessary to transfer forces and loads between the top and bottom chords.

35. Web Brace

The requirement of web bracing is determined during the truss analysis. A variety of web bracing selections are available in the *Bracing Type* toggle field located in the *Material Options* section of the **Job Settings**, **Analysis** tab. The actual brace type required is specified in the **Engineering Notes**.

36. Hanger Bearing

A **Hanger** is a hardware product which is designed to support the truss where a wall bearing is not present. The **Hanger** is fastened to a supporting member and the supported truss sits into the **Hanger**. *VIEW* calculates the hanger type and size for the bearing condition. The **Hanger** type is specified with the reaction at the bearing condition as well as the quantity and type of fasteners required for both the supported and supporting members of the bearing condition. Verification of the supporting member size and number of plies is also specified with the **Hanger** size and fastener information.

37. Number of Plies and Connection Schedule

When more than one member of a truss is required for the load condition it supports, a note indicating how many **Complete Trusses Required** is displayed with a small graphic ply representation for visual verification. The connection schedule for the attachment of the plies appears under the **Complete Trusses Required** notation.

38. Repair Condition

VIEW provides you with the ability to specify and analyze limited scab and gusset repair conditions on trusses. This display provides an example of how a damaged bottom chord might be repaired through the use of the *VIEW* scab repair tool. A graphic cross-hatched representation of the scab(s) is shown on the truss, and a note (**DM1** in this example) provides the size and connection specification details. Refer to the **Truss Repair Tools** documentation for further information regarding this topic.

39. Overhang

An **Overhang** is the portion of the chord which extends beyond the outside face of the bearing at the heel of the truss.