User Guide to Standard Plans Section S – OVERHEAD SIGNS - TUBULAR

Appendix A: Post Type Selection – Single Post

Introduction

Standard Plans for single post tubulars include 6 post type designations (I-VI). The sign designer uses this Appendix and the Standard Plans to determine the post type and shows the post type on the project plans.

Procedure:

- Determine the basic dimensions (see Figure 1 or Figure 2)
  - Sign Panel Depth, \( D \), in inches
  - Span in feet
  - Height \( H \) from bottom of base plate to center of sign panel in feet
- Verify the basic dimensions meet the following limitations.
  - \( D \) must be 50 inches, 60 inches, 70 inches, 80 inches, 90 inches, 100 inches, 110 inches, or 120 inches
  - \( Span \) must be less than or equal to 38 feet
  - \( H \) must be between 21 feet-0 Inches and 29 feet-0 Inches inclusive.
- Verify minimum vertical clearance
  - If the structure is on the Extra Legal Load Network, other criteria might apply.
  - Check whether clearance should be adjusted for future additional paving, overlay, or widening.
- Verify the design conforms to additional limitations
  - Details of the structure and sign panels must conform to the typical Standard Plans for single post tubulars.
  - Must not include CMS or EMS or other electronic sign panels.
  - Center of sign panel must be no more than 43 feet above the surrounding terrain.
  - Extra attachments are limited to:
    - Single-sheet sign-panels strapped directly to the vertical portion of the post. Maximum area of the sign panels is the lesser of 50 square feet or 10% of the truss length times the panel depth \( D \). The sign must be approximately centered on the post horizontally. The sign must be below the bend in the post.
- Use the table on Sheet S31 of the Standard Plans to choose the post size.
Appendix A: Post Type Selection – Single Post

Span 20'-0'' to 38'-0''

Example:

Panel Depth = 7'-6''
Height = 23'-0''
Span = 32'-0''
Post Type # is III (3)

VERTICAL POST CANTILEVER

Figure 1: Explanation of Dimensions for Vertical Post
Appendix A: Post Type Selection – Single Post

Span 20'-0" to 38'-0"

6'-0" max 9'-2" for "H"= 29'-0" max
7'-9" for "H"= 21'-0" min

"D"=Panel depth

"H" Mast arm

Height of Sign 21'-0" to 29'-0"

"H"= 29'-0" max

Figure 2: Explanation of Dimensions for Slanted Post