



# DIRECT BURIAL CIRCULAR WOOD POST

SSF21a

SHEET NO.

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1 OF 2

2006

### INTENDED USE

The direct burial circular wood post small sign support system is a single-post (SSF21a) system that is similar to the direct burial wood post system (SSF20a-b). The 127 mm circular wood post (PDP33) with two 50 mm breakaway holes was tested and judged to meet the requirements of the 1985 AASHTO *Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals* for both strong and weak soil conditions. Systems using the other post sizes have not been tested but have been approved based on the results of the test described above and tests of rectangular wood post systems (SSF20a-b).

### COMPONENTS

The direct burial circular wood post small sign support system consists of a circular wood post (PDP30-37) set directly in the soil. Any circular wood post with a section modulus less than 80 percent of that of a 184 mm by 140 mm rectangular timber post (PDP24) is considered acceptable. Circular timber posts with section moduli of  $294(10)^3$  mm<sup>3</sup> or less (PDP36), therefore, may be used. Care must be taken to ensure that the dimensions that determine moment of inertia are at the groundline since circular wood posts generally have a significant taper. Many agencies embed this system in soilcrete or concrete as well.

### REFERENCES

R. L. Stoughton, J. R. Stoker and E. F. Nordlin, "Vehicle Impact Tests Breakaway Wood Supports for Dual-Support Roadside Signs," Transportation Research Record 868, Transportation Research Board, Washington, D.C., 1982.

L. A. Staron, "Breakaway Sign Supports," Geometric and Roadside Design Acceptance Letter SS-27, Federal Highway Administration, May 15, 1992.

L. A. Staron, "Breakaway Sign Supports," Geometric and Roadside Design Acceptance Letter SS-36, Federal Highway Administration, September 3, 1993.

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