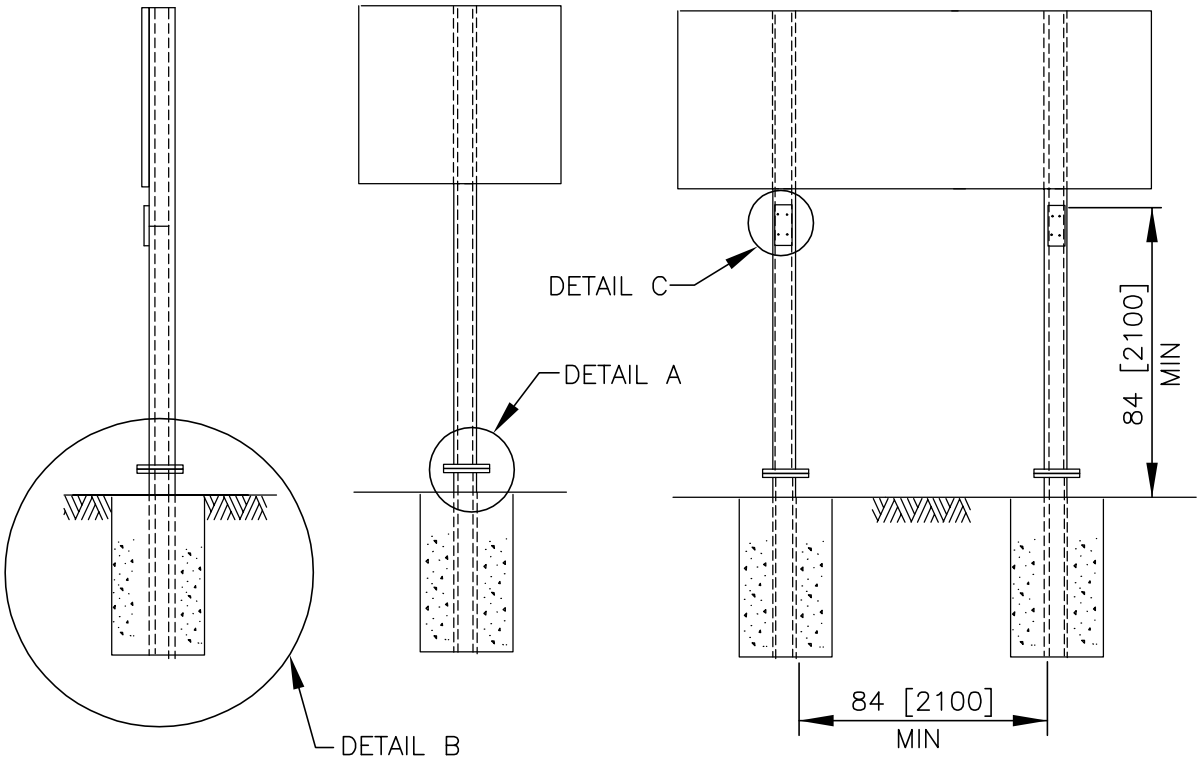

OMNI–DIRECTIONAL SLIPBASE WITH W–POST

SSS04a

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INTENDED USE

The om-directional slipbase with W-section post sign support system is a single-post (SSS04a) sign support system although two posts may be used as long as the post are at least 2100-mm apart. In no case, however, should the total mass of all the sign posts above the slip-plane and below the hinge be greater than 270 kg. The system has been successfully crash tested with the base embedded in concrete. The system is considered to meet the requirements of the 1985 AASHTO *Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals.*

COMPONENTS

The omni-directional slipbase with W-section post sign support system consists of a sign post (PWF07a), a base post (PTF07b). three FBX28b bolts and nuts, three FWC28b hardened steel washers for each bolt and a FPS11 keeper plate. The three FBX28b bolts pass through the FPS11 keeper plate fitted between the two slipbase plates, one on each end of the sign and base posts. The keeper plate keeps the bolts from sliding out of the assembly in windy conditions. The bolts tear through the keeper plate during a collision allowing the sign post and base post to separate. The post may be leveled by inserting shims (FPP15a-b) between the keeper plate and upper slipbase as required. The three slipbase nuts, coated with a dry lubricant, shall be tightened to a torque of 30 N-m ±5 N-m.

The base-post assembly (PWF07b) shall be embedded in a 20 MPa concrete with cement conforming to AASHTO M85 (ASTM C150) Type II. The concrete foundation shall be reinforced with 8 vertical bars of Grade 400 MPa bars conforming to either AASHTO M284M (ASTM D3936D) or AASHTO M31M (ASTM A615M). The spiral reinforcing shall conform to either ASTM A306 or AASHTO M32 (ASTM A82) and shall have 2 flat turns at the top and bottom and a 150-mm pitch.

The fuse plate (either FPP22 or FPP32) shall be attached to the expected impact side of the sign post (PWF12a). When the slipping fuse plate (FPP21-25) is used, the four FBX12b bolts and nuts shall be tightened one third turn past snug using the turn-of-the-nut method. When the perforated fuse plate (FPP31-35) is used the bolts must be at least snug. There should be a FWC12b washer under both the head and nut. The fuse plate is designed to either slip (FPP22) or fracture (FPP32) allowing the compression flange of the sign post (PWF12a) to act as a hinge. The hinge mechanism allows the post to rotate upward away from the impacting vehicle. The fuse plate assembly is only required for the two-post system (SSS04b).

OMNI-DIRECTIONAL SLIPBASE WITH W-POST

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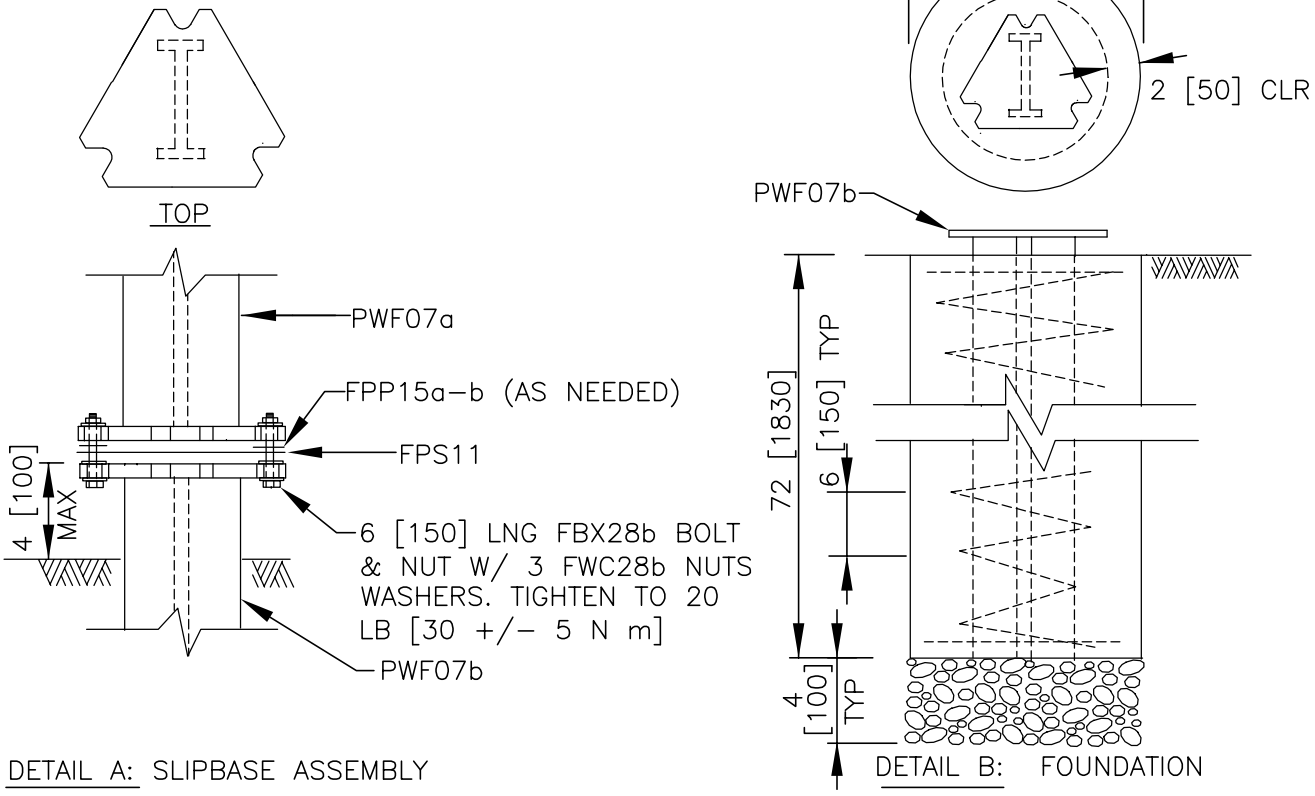

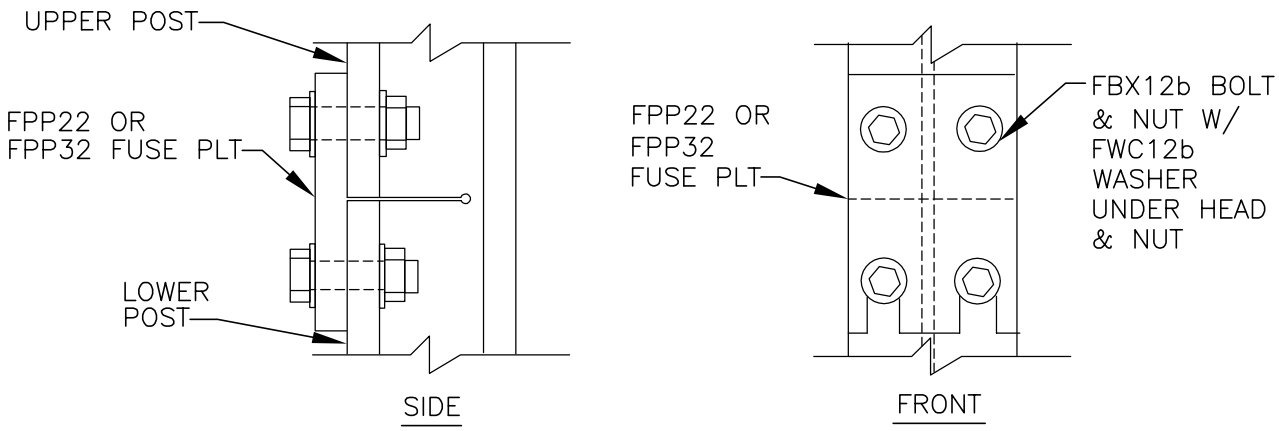

DETAIL C: FUSE PLATE ASSEMBLY

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