

SIDE

FRONT

SSP04a

SSP04c

POST DESIGNATOR	POST DESIGNATOR BASE
PFP02	PFP02
PFP03	PFP03
PFP04	PFP04
PFP05	PFP05
PFP06	PFP06

SSP04b Not Shown

## LAP SPLICE BREAKAWAY SYSTEM

**NUCOR**  
 BAR MILL GROUP  
 NUCOR STEEL MARION, INC.

SSP04a-c

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## INTENDED USE

The patented Lap Splice™ breakaway system can be used as a single (SSP04a), double (SSP04b) or triple post (SSP04c) sign support system within a 82 5/8 [2100] span. These systems have been successfully crash tested in both weak and strong soil and were evaluated in accordance with NCHRP Report 350 guidelines. The system meets or exceeded all of the requirements of the 1994 AASHTO *Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals*. It has also been approved by FHWA for use on Federal Aid Projects.

## COMPONENTS

The Lap Splice™ breakaway system shall consist of three parts: a base post (PFP02-PFP06), a signpost (PFP02-PFP06) and the splice hardware, which includes a patented threaded spacer bar. The base post shall be 42 [1067] mm long and can be optionally tapered at one end. The base post and signpost shall be of like weight, as specified by the user (PFP02-PFP06).

The proprietary Lap Splice™ Spacer Bar hardware consists of two fully threaded 5/16 x 1 1/2 [7.9 x 37.5] long plated hex head bolts, two flat washers, and two locking flange nuts (the hex bolts are identified by head markings of “L9”, as well as a red finish), one 5 [127] x 3/4 [19] x 3/8 [9.5] or 5 [127] x 3/4 [19] x 1/2 [12.7] threaded spacer bar. The spacer bars are color coded for use with specific weights of posts; silver colored 3/8 [9.5] thick spacer bars for PFP02 through PFP04 posts; gold colored 1/2 [12.7] thick spacer bars for PFP05 and PFP06 posts. Each spacer bar will be drilled and tapped (18 UNC). The spacer bar shall be fabricated from hot rolled carbon steel bars conforming to AASHTO M183M (ASTM A36M) or M1020. Splice hardware shall be cadmium plated in accordance with the requirements of ASTM A165 or zinc plated in accordance with the requirements of ASTM B633.

A soil stabilization plate (PLS02) is available for situations when additional soil support is needed. The plate's primary function is providing increased stability to the base post for greater wind load carrying purposes, and increasing the integrity of the base post during vehicular impact. The soil plate is required in soft soil for triple-post installations (SSP04c) that use the PFP06 signpost and is optional in all other configurations.

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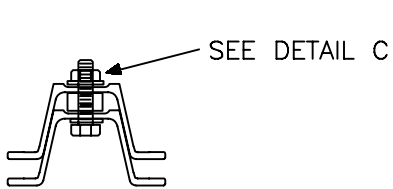
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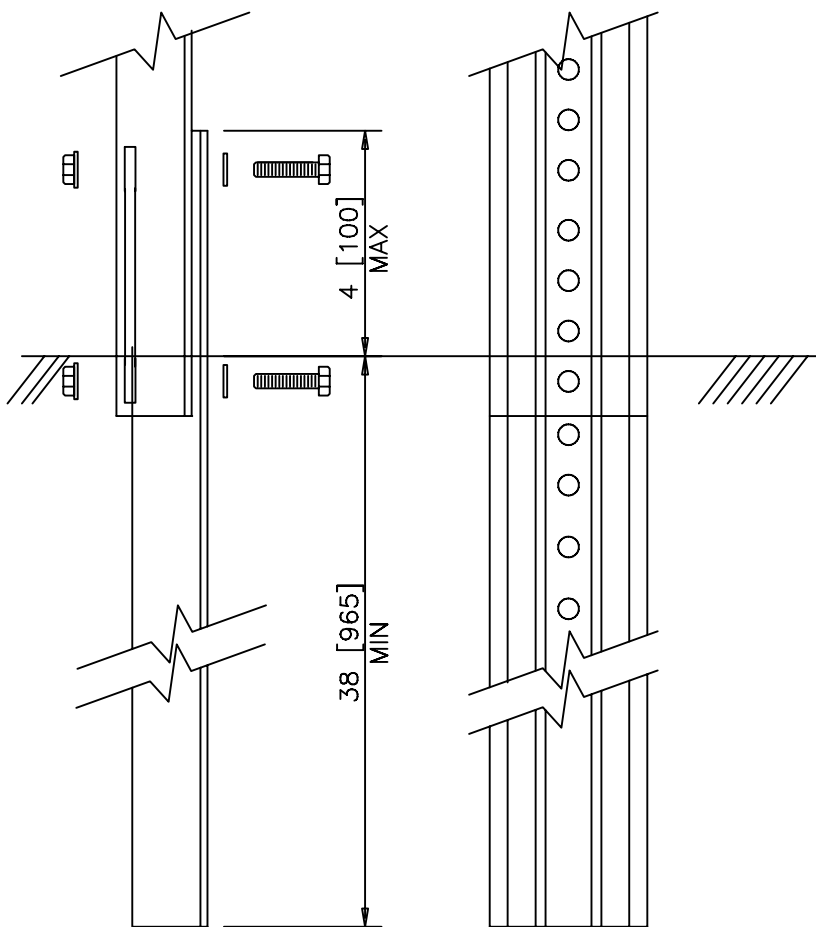
TOP

5/16 [7.9] SELF-LOCKING FLANGE NUT

THREADED SPACER BAR (SEE DETAIL B)

5/16 [7.9] WASHER

5/16 [7.9] X 1 1/2 [37.5] - 18 UNC BOLT (1,240 MPa TENSILE)



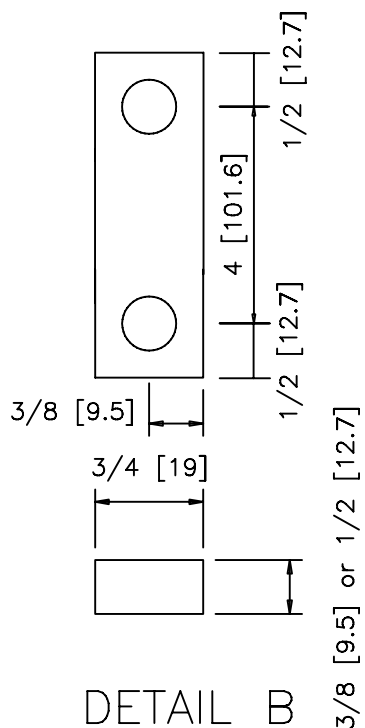
SIDE

FRONT

DETAIL A

SPLICE CONNECTION

DETAIL C  
CONNECTORS  
(PROPRIETARY)



DETAIL B

LAP SPLICE  
SPACER BAR  
(PROPRIETARY)

LAP SPLICE BREAKAWAY SYSTEM

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## APPROVALS

FHWA Acceptance Letter [SS-13](#), 08/31/1989  
FHWA Acceptance Letter [SS-13a](#), 10/02/1989  
FHWA Acceptance Letter [SS-13b](#), 12/12/1991  
FHWA Acceptance Letter [SS-47](#), 09/14/1994  
FHWA Acceptance Letter [SS-56](#), 11/10/1993

## REFERENCES

L.A. Staron, "Breakaway Sign Supports," Geometric and Roadside Design Acceptance Letter SS-13, Federal Highway Administration, Washington, D.C., October 2, 1989.

L.A. Staron, "Breakaway Sign Supports," Geometric and Roadside Design Acceptance Letter SS-13, Federal Highway Administration, Washington, D.C., July 13, 1996.

S.I. Sillan, "Breakaway Sign Supports," Geometric and Roadside Design Acceptance Letter SS-13, Federal Highway Administration, Washington, D.C., March 14, 1996.

## CONTACT INFORMATION

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*\* All Nucor Steel Marion Inc. products are produced from 100% recycled steel.*



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