INTEROFFICE MEMORANDUM

DATE: February 4, 2000

TO: **Bridge Division Personnel**

FROM: **Edward T. Fain, Bridge Engineer**

SUBJECT: **Diaphragm and Cross-Frame Connection Plates For Steel Beams and Girders**

Bridge Division's general policy for connection of diaphragms and cross frames to steel beams and girders, designed by either AASHTO Standard Specifications for Highway Bridges or LRFD Bridge Design Specifications, will be as follows:

Tangent Beams and Girders

1) Rolled Beams. Connection plates at exterior beams shall be full depth and shall be fillet welded to both top and bottom flanges. Connection plates at interior beams shall match the depth of the diaphragm.
2) Plate Girders. Connection plates at interior and exterior girders shall be full depth and shall be welded to both top and bottom flanges.

Curved Beams and Girders

Connection plates for interior and exterior beams and girders shall be full depth and shall be welded to both top and bottom flanges.

In cases where the calculated fatigue stress range exceeds the allowable for welding the connection plate to the tension flange, the Staff Engineer may approve alternate details.

Also, cross-frame or diaphragm lines should be slightly offset (no more than 6") from centerline of bearings, if required to avoid interference between anchor bolts and connection plates.