INTEROFFICE MEMORANDUM

Date: March 22, 1996

TO: DESIGN ENGINEERS

FROM: Dale F. Loe, Bridge Engineer

SUBJECT: Design of Elastomeric Expansion Bearings

Effective immediately, use the following procedure to design elastomeric expansion bearings for steel spans.

Design of Expansion Slot and Elastomeric Pad

Moderate temperature range = 0° F. to 120° F.

Steel expansion coefficient = 0.0000065

Load Factor = 1.2

Sleeve diameter (inches)

Expansion length (inches)

Slot length (inches)

Installation temperature range = 40° F. to 80° F.

Bolt tolerance = 0.5 inches

Plan dimensions based on installation at 60° F.

Slot Length = (120°) (0.0000065)(1.2)(Exp. Length) + (Sleeve Dia.) + (0.5") + (20°) (2))(0.0000065)(Exp. Length).

Design Exp. Length for pad =(60°) (0.0000065)(1.2)(Exp. Length) + (20°)(0.0000065) (Exp. Length).