MEMORANDUM TO DESIGN GROUP LEADERS & CONSULTANTS

April 17, 1991

Subject: Stay-In-Place Bridge Deck Forms

Due to continuing construction difficulties and durability concerns associated with the use of precast concrete deck panels, their use will be discontinued effective with projects scheduled for letting in June, 1991 or later. Bridge standard drawing 700-1 will be revised to reflect this change.

Steel stay-in-place forms will continue to be allowed on all projects having beams or girders. The design loads should continue to include 16 psf for the metal forms and 15 psf for future wearing surface. Field welding to steel beam or girder flanges continues to be prohibited.

This memorandum supersedes the previous design memorandum dated June 26, 1985.

B.A. Meetze, Jr.
Bridge Design Engineer

CC:
FHWA, Mr. Schroeder
Bridge Construction Engineer
Design Group Leaders
Consultants
Wayne Rush
Rocque Kneecce
Eddie Laboone

BAM/RLK/slb
TO:         DIRECTOR OF PRECONSTRUCTION
FROM:       DIRECTOR OF CONSTRUCTION
DATE:       APRIL 10, 1991
SUBJECT:    STAY IN PLACE PRESTRESSED CONCRETE DECK PANELS

The Bridge Construction Engineer has advised me of numerous
constructability problems that contractors are having concerning the subject
panels. They are listed below:

1. Camber in prestressed concrete girders usually causes
   grading difficulties in maintaining concrete and rebar clearances.

2. Finish of tops of prestressed concrete girders are not
   providing adequate tolerance for minimum clearances with panels.

3. Bearing strips used for panel grading compress in a short time
   frame causing minimum clearance problems.

4. Shear reinforcing steel in top of panels sometimes conflict
   with top mat of reinforcing steel.

5. Panels are easily damaged during shipment and handling.

6. Problems are compounded on sag vertical curves and skewed
   bents.

7. Reflective cracks in top portion of deck occurs at numerous
   panel joints causing concern for long term durability.

In summary, the Bridge Construction Engineer believes that the
Department should consider eliminating these panels as an option in bridge
decks. I concur in his recommendation. He will be glad to discuss this matter
with you or your assistants if necessary.

W. A. Keller, III

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