

ELEVATION
(Concrete not shown)

SECTION A - A

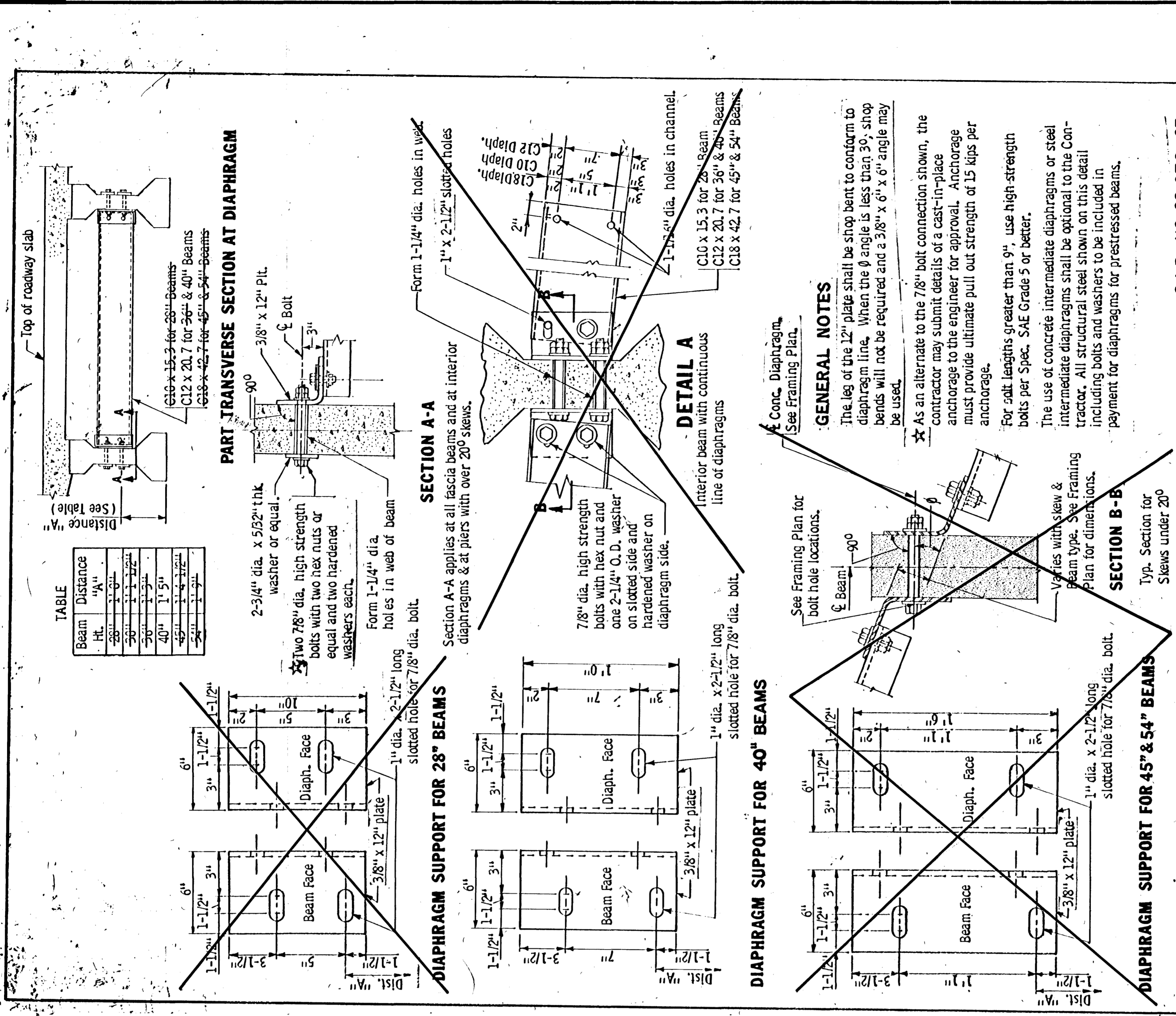
PROTECTION ANGLE FOR END OF SLAB

NOTES:
 Angles shall extend full width of roadway between curbs with a 1/2" open joint at each break in crown profile. Maximum length 22 feet.
 Angles shall be straightened to a tolerance of 1/16" in 10 feet after galvanizing.
 Material: Structural steel per S.P.E.C. 550b. Galvanize after fabrication per S.P.E.C. 3394.
 Set angle to proper grade and crown.
 All material will be paid for as structural steel S.P.E.C. 3306 AND INCLUDED IN SUPERSTRUCTURE QUANTITIES.

APPROVED: May 26, 1972

STATE OF MINNESOTA
 DEPARTMENT OF TRANSPORTATION
 RESEARCH AND STANDARDS DIVISION

DETAIL NO. **B551**



GENERAL NOTES

The leg of the 12" plate shall be shop bent to conform to diaphragm line. When the angle is less than 30°, shop bends will not be required and a 3/8" x 6" x 6" angle may be used.
 As an alternate to the 7/8" bolt connection shown, the contractor may submit details of a cast-in-place anchorage to the engineer for approval. Anchorage must provide ultimate pull out strength of 15 kips per anchorage.
 For salt lengths greater than 9", use high strength bolts per Spec. SAE Grade 5 or better.
 The use of concrete intermediate diaphragms or steel intermediate diaphragms shall be optional to the Contractor. All structural steel shown on this detail including bolts and washers to be included in payment for diaphragms for prestressed beams.

TABLE

Beam Ht.	Distance "A"
28"	1'-0"
36"	1'-1 1/2"
40"	1'-5"
45"	1'-6 1/2"
54"	1'-9"

PART TRANSVERSE SECTION AT DIAPHRAGM

SECTION A-A

Section A-A applies at all fascia beams and at interior diaphragms & at piers with over 20° skew.

DETAIL A

Interior beam with continuous line of diaphragms

DIAPHRAGM SUPPORT FOR 40" BEAMS

DIAPHRAGM SUPPORT FOR 45" & 54" BEAMS

APPROVED: July 8, 1976

STATE OF MINNESOTA
 DEPARTMENT OF TRANSPORTATION
 STANDARDS AND BRIDGE DESIGN
 ISSUED BY: OFFICE OF ENGINEERING STANDARDS

DETAIL NO. **B403**

REVISION: May 20, 1981

S.A.P. NO. 02-678-03