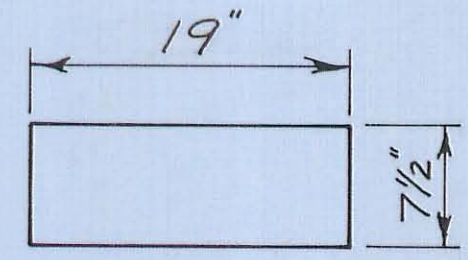
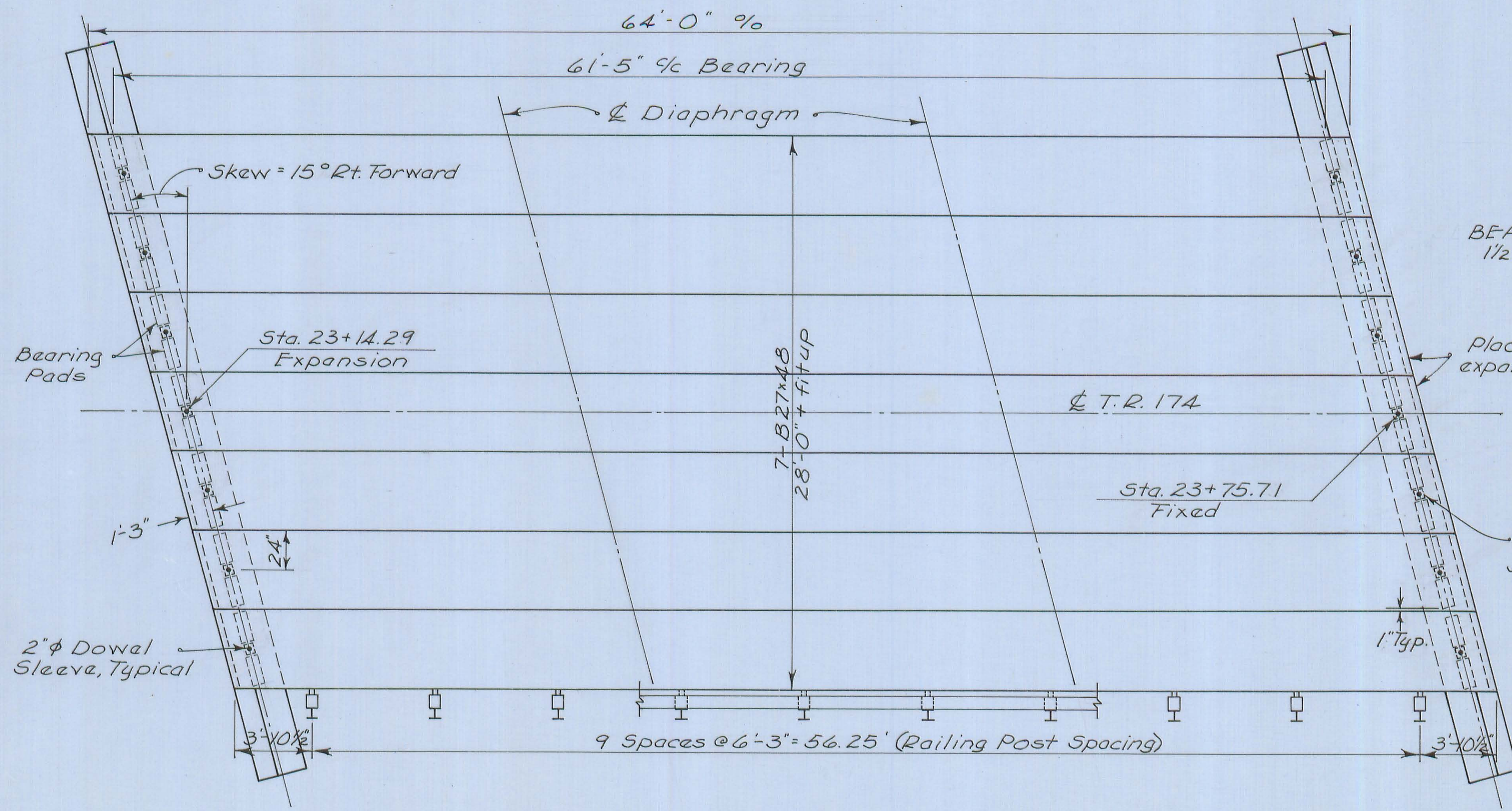


FHWA REGION	STATE	PROJECT
5	OHIO	

12  
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LOGAN COUNTY  
T.R. 174-0.44



BEARING PAD DETAILS  
1 1/2" thick, 60 durometer

Place 1 1/2" x 4" x 29'-0" strip of preform. expansion joint filler, both ends

6" x 6" x 1 1/2" preformed expansion joint filler, to be included with dowels for payment.

NOTES

ASPHALT CONCRETE SURFACE COURSE shall consist of a variable thickness of 403 and a 1 1/4" thickness of 404. The 403 shall be placed in two operations. The first course shall be of 1 1/4" uniform thickness. The second course shall be feathered to place the surface parallel to and 1/4" below final pavement surface elevation.

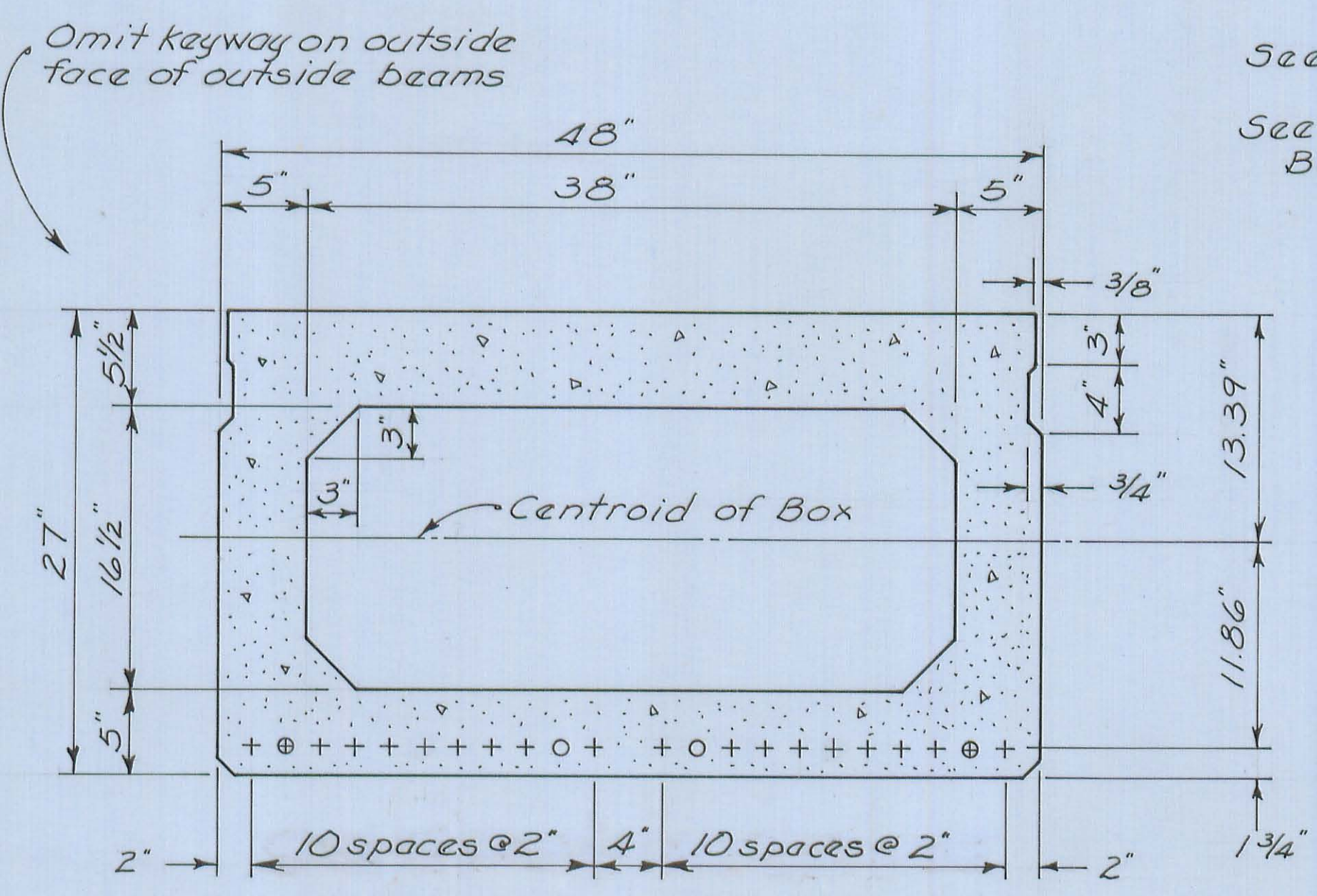
TOTAL CAMBER, which includes an allowance for camber growth due to creep, is 1 3/4".

SHIMS: 14 shims, 1/8" thick, as per 711.21 shall be provided. They shall be the same plan dimension as the bearing pads, and included with the bearing pads for payment.

RAILING POSTS: Railing posts shall be Type 2, as shown on DBR-2-73. The post length shall be 3'-8 1/4". Vertically slotted holes, 3" x 1 1/2" shall be provided in the 7" x 1 1/2" plate.

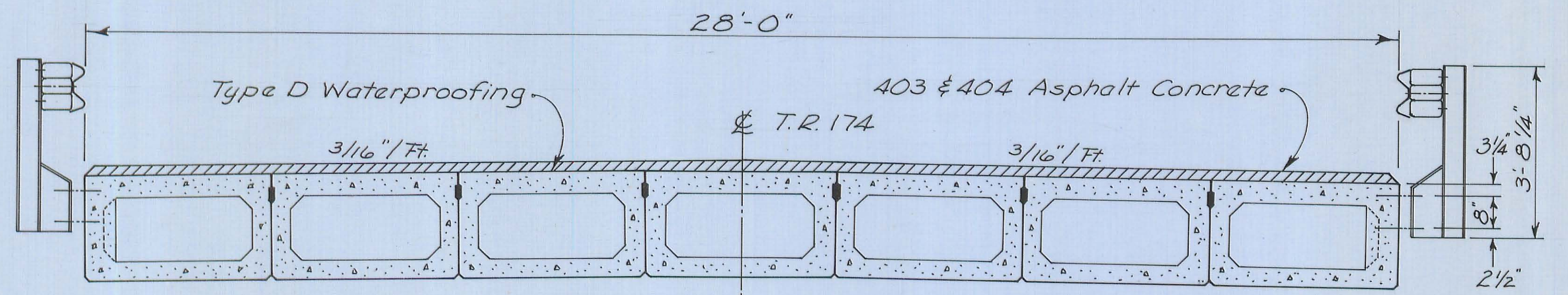
RAILING POST ANCHORS: Railing post anchors shall conform to DBR-2-73 for prestressed concrete box beams, non-composite design. Vertical spacing shall be 8".

PLAN



TYPICAL B27x48, 64'-0" %  
STRAND LOCATION

See DBR-2-73 for Railing Details  
See PSBD-1-81 for additional Beam Details



TRANSVERSE SECTION

BEAM DESIGN NOTES

PRESTRESSING STEEL: 22 strands, ASTM A416, Grade 270, 1/2" Dia., seven-wire, uncoated, stress-relieved strand.  
 $A_s = 0.153 \text{ sq. in.}$   $f'_s = 270,000 \text{ p.s.i.}$   
 Initial stress  $0.7f'_s = 189,000 \text{ p.s.i.}$   
 Stress @ release  $0.63f'_s = 170,100 \text{ p.s.i.}$  (Assumed at section of max. moment)  
 Number and length of strands debonded:  
 ○ - 2 strands @ 1'-6"  
 ⊙ - 2 strands @ 2'-6" (measured from beam end)  
 TENSILE BARS @ TOP:  
 Full length: 4 - No. 5 bars  
 Additional bars @ each end:  
 6 - No. 5 bars @ 10'-2"

CONCRETE STRESSES: Min. concrete strength @ 28 days,  $f'_c = 5500 \text{ psi}$  Min. concrete strength @ time of initial prestress,  $f'_{ci} = 4,000 \text{ psi}$ .  
 INITIAL CAMBER = 0.81 in. which is at the time of the transfer of stress and includes deflection due to weight of beam but does not include an allowance for creep.

LOGAN COUNTY HIGHWAY DEPT.  
CHESTER R. KURTZ, CO. ENGINEER

SUPERSTRUCTURE DETAILS  
Br. No. 174-0.44  
Liberty Township  
Logan County

DESIGNED	DRAWN	CHECKED	REVIEWED	REVISED
R.A.B.	R.A.B.	C.R.K.		2-16-82 R.A.B.

SUPERSTRUCTURE DETAILS