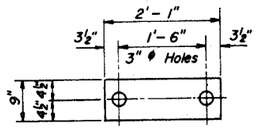
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

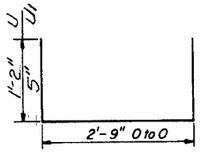
FOR INFORMATIONAL PURPOSES ONLY

*102DRIM & (102BR-1)M-1				
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
516	-	LEE	29	23
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJ.	

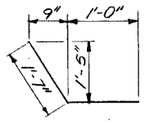
SHEET NO. 3
8 SHEETS



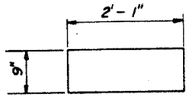
FABRIC BEARING PAD

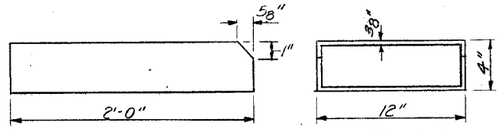


U & U1 BAR



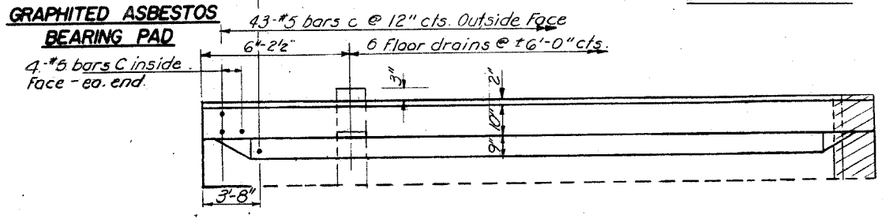
C1 BAR



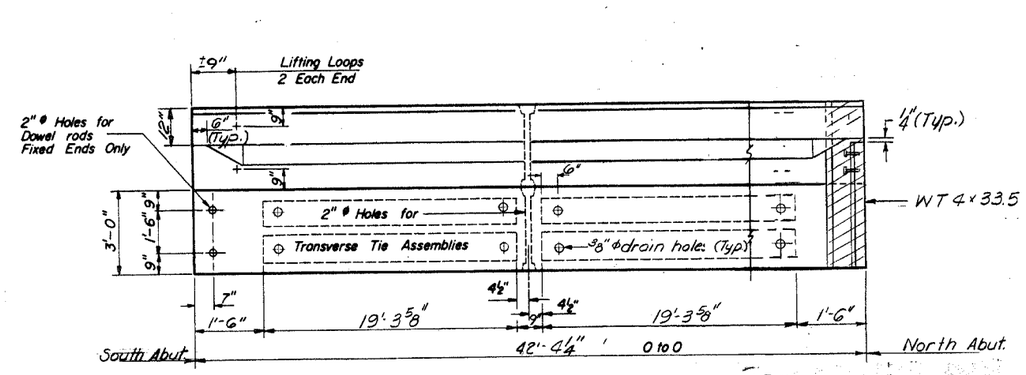


DRAIN DETAIL

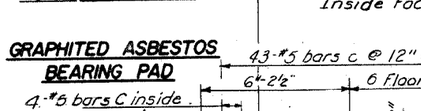
GRAPHITED ASBESTOS BEARING PAD



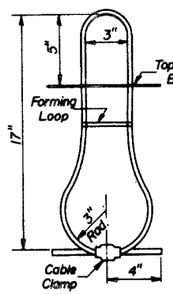
PLAN OF OUTSIDE BEAM



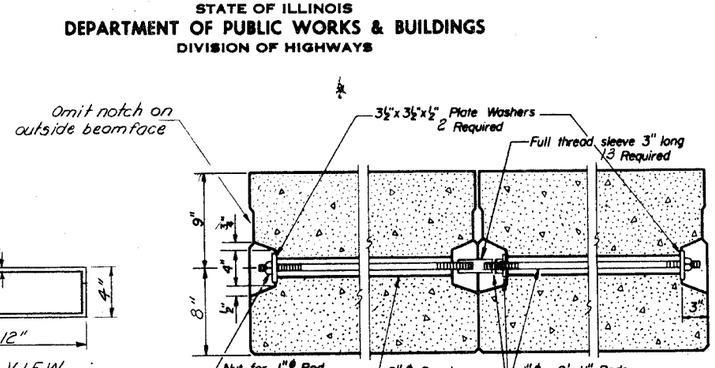
PLAN



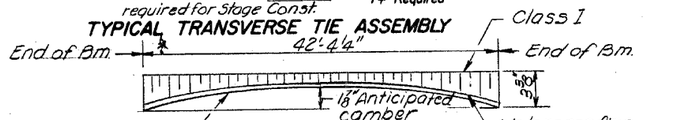
END PLAN (FIXED)
(See Sh. #4 for end of Bm. details @ Exp. End)



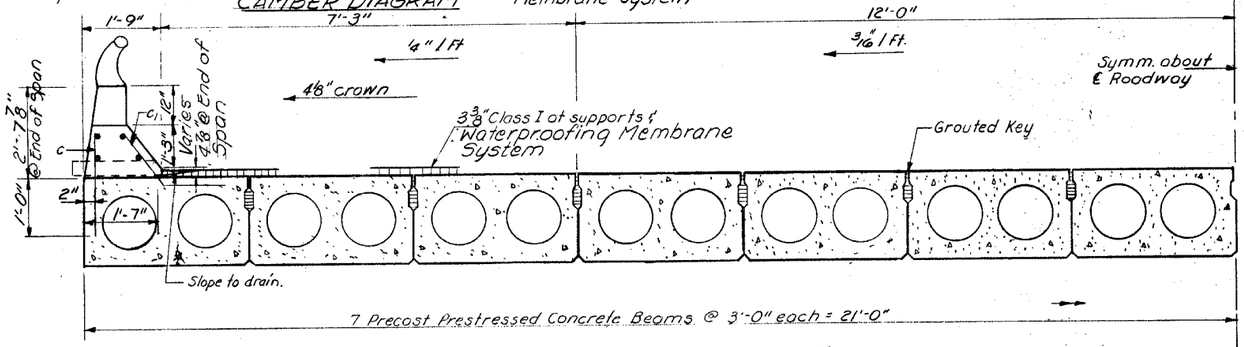
LIFTING LOOP DETAIL

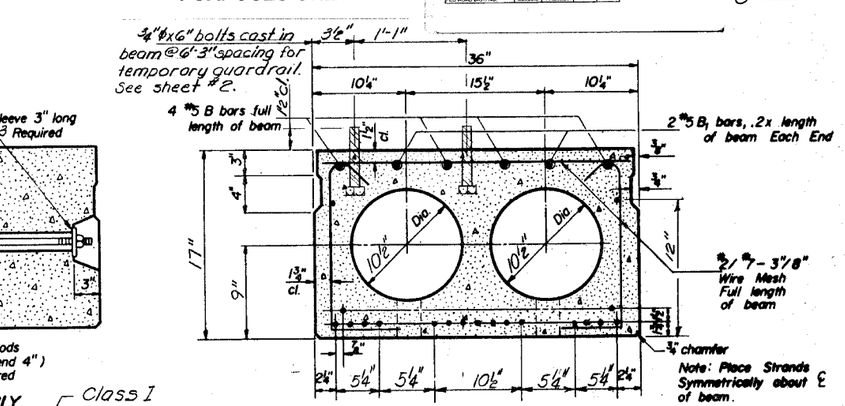


TYPICAL TRANSVERSE TIE ASSEMBLY



CAMBER DIAGRAM

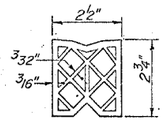


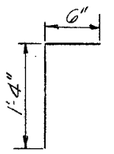


TYPICAL SECTION

19 - 7/16" ϕ Strands Each Strand Stressed to 28,500 lbs.
15 Strands 1¾" up 2 Strands 3¼" up 2 Strands 12" up

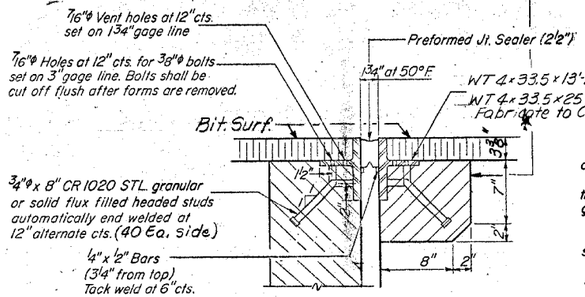
HALF CROSS SECTION





D BAR

Apply epoxy to back face only
See Std. Specs. Art. 504.13(a)(2)



DETAIL "A"

PREFORMED JOINT SEALER (2½")

GENERAL NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 7/16" and the nominal cross-sectional area shall be 0.115 sq. in..
Lifting loops shall be ½" ϕ diameter, 6 x 25 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 21,000 lbs.
The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside beam shall be filled with grout after transverse tie assembly is in place.
Longitudinal shear keys shall be packed with a very dry mix of 2:1 sand and P.C. mortar.
After beams have been erected, holes for the dowel anchors shall be drilled into the sub-structure and the anchor dowels shall be grouted in place.
Dowel rods shall be AASHO M 227 or AASHO M 31. Transverse tie rods shall be AASHO M 227 Grade 70-80.
After fabrication the transverse tie assemblies (tie rods, nuts, washers and sleeves) shall be hot-dipped galvanized in accordance with AASHO Designation M 232
Cost of reinforcement and accessories cast into the beam, of bearing pads, ... and of grouting longitudinal shear keys is included in unit price bid for "Precast Prestressed Concrete Deck Beams".
Drains shall be of Aluminum sheets welded ASTM: B 209 alloy 6061-T6. Cost of drains shall be incidental to Class X Concrete.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
b	3	#5	15'-9"	
b1	3	#5	27'-9"	
Precast Prestressed Concrete Deck Beams (17")			Sq. Ft.	1779
Class X Concrete			Cu. Yds.	3.5
Reinforcement Bars			Lbs.	140

for Curb & parapet details and quantities see Sheet #4.

NOTE: Dimensions are at right angles.
Hatched areas to be poured after beams have been erected and joints grouted.
Ends of beams shall be aligned at the expansion joints. Any lineal variation in the beam lengths shall be placed at the fixed joint.
See End of Beam Detail for reinforcement. Sheet #4

DESIGNED	J. M. Patel
CHECKED	J. B. Nadkarni
	BKR
DRAWN - JAMES R. CARNAHAN	
CHECKED	J. B. N.

EXAMINED Nov. 24 1971
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED H. G. Baumann
ENGINEER OF DESIGN
APPROVED Richard H. Poltermann
CHIEF HIGHWAY ENGINEER

PD-1-S 11-19-65 Rev. 5-20-68

SUPERSTRUCTURE
S.B.I. RT. 89 SEC. 102-BR
LEE COUNTY
STA. 489+50