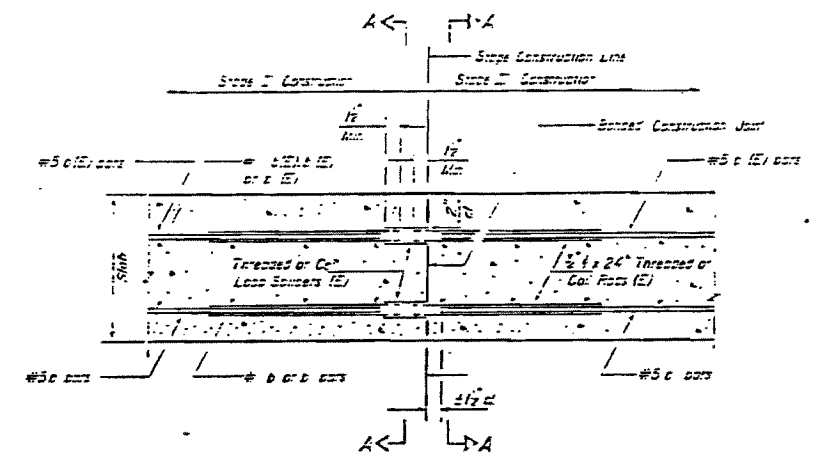
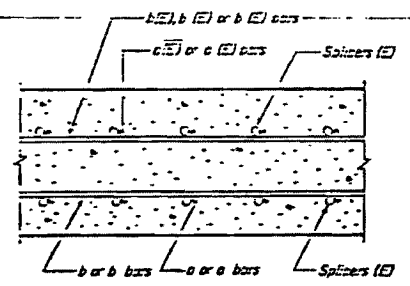


**NORTH BOUND BRIDGE
STRUCTURE NO. 099-0090
EXISTING PLAN**

IL ROUTE 53
SHEET NO. 48 P



SECTION THRU SLAB



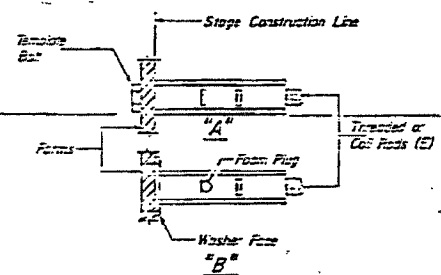
SECTION A-A

SPLICER DETAILS
(No. Reqt. 96)

NOTE: USE STEEL SPLICER (COUPLER) ASSEMBLIES BETWEEN STAGE CONSTRUCTION.
COST TO BE INCIDENTAL TO REINFORCEMENT BARS.

"ONE PIECE"
Wire Coupler
WELDED SECTIONS

SPLICER ALTERNATIVES
** ready mix tests conforming to ASTM A563, Grades C, D or DII may be used.



INSTALLATION AND SETTING METHODS

"A": Set splicer by means of a template bolt.
"B": Set splicer by nailing to wood forms or cementing to steel forms.
(E): Indicates epoxy coating, see Special Provisions.

NOTES

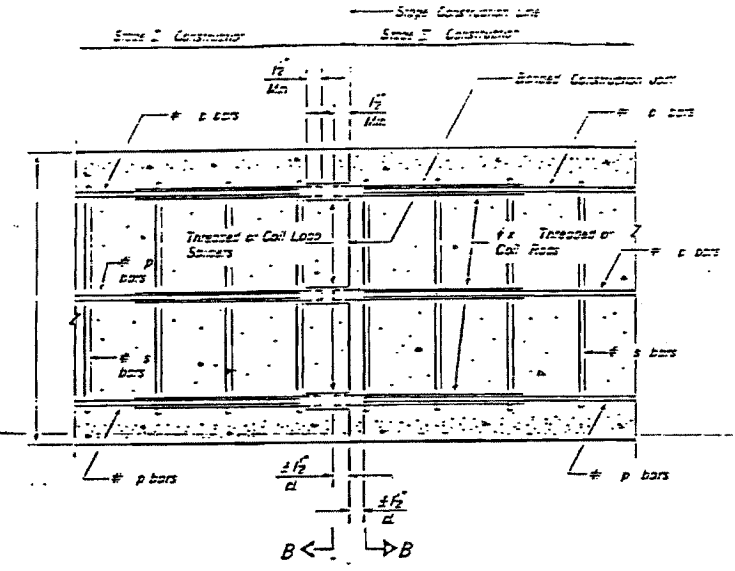
Steel Splicer (Coupler) assembly shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Steel Splicer rods shall be of minimum 60 ksi yield strength, threaded or coated full length and have effective tensile stress area equal or greater than that of the lapped reinforcement bars.
Splicer rods shall extend minimum 1/2 inches into the couplers.
All reinforcement bars shall be lapped and tied to the splicer rods.
Splicer (coupler) assembly in the slab shall be epoxy coated in accordance with the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed splicer (coupler) assembly satisfies the following requirements:

- Minimum Capacity = $1.25 \times f_y \times A_s$
(Tension in kips)
- Minimum Pull-out Strength = $1.25 \times f_{s,allow} \times A_s$
(Tension in kips)

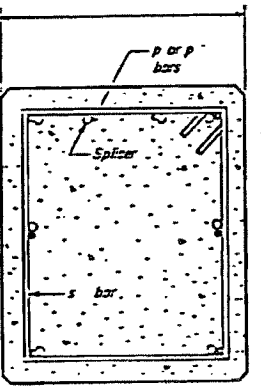
Where f_y = Yield strength of lapped reinforcement bars in k.s.i.
 $f_{s,allow}$ = Allowable tensile stress in lapped reinforcement bars in k.s.i. (Service Load)
 A_s = Tensile stress area of lapped reinforcement bars.
* 26 dry concrete

Typical Splicer (Coupler) Assembly Sizes:

In Slabs	#5 bar top with 1/2" Splicer (Coupler) x 2'-0" Splicer Rods	Minimum Capacity = 23.0 kips-tension Minimum Pull-out Strength = 9.2 kips-tension
In Sub-structures	#7 bar top with 1" Splicer (Coupler) x 3'-5" Splicer Rods	Minimum Capacity = 45.1 kips-tension Minimum Pull-out Strength = 18.0 kips-tension
	#8 bar top with 1 1/2" Splicer (Coupler) x 4'-6" Splicer Rods	Minimum Capacity = 52.9 kips-tension Minimum Pull-out Strength = 23.5 kips-tension



SECTION THRU ABUTMENTS AND PIERS



SECTION B-B

SPLICER DETAILS
(No. Reqt.)

BAR SPLICER (COUPLER) DETAILS AT STAGE CONSTRUCTION

FOR REFERENCE ONLY

DESIGNED	EXAMINED	19
CHECKED	PASSED	WORKER'S PROVISION
DRAWN	APPROVED	WORKER'S PROVISION AND ENCLAVES
CHECKED		WORKER'S PROVISION