

F. A. L. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3523	12891	COOK	22	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ALIGN.	FED. AID PROJECT		

Sheet 5 of 9

**NOTES**

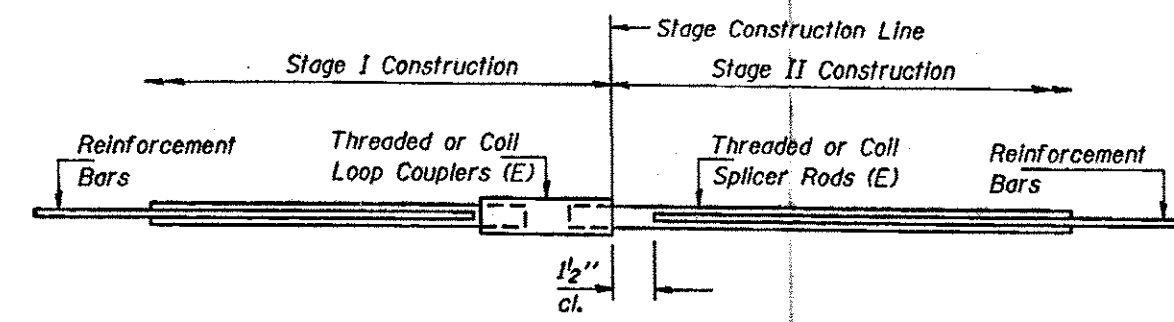
Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.  
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
 Bar splicer assemblies shall be epoxy coated according to 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 bar splicer assembly satisfies the following requirements:

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

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $f_{s_{allow}}$  = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)  
 $A_s$  = Tensile stress area of lapped reinforcement bars.  
 \* = 28 day concrete

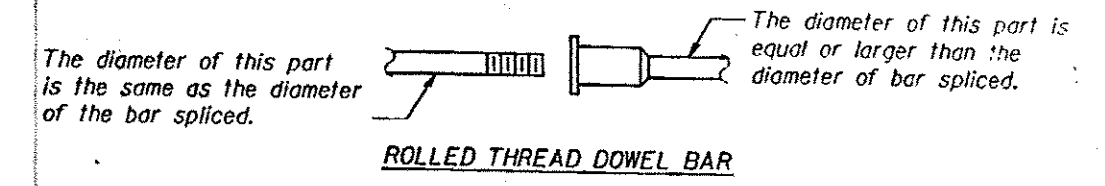
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

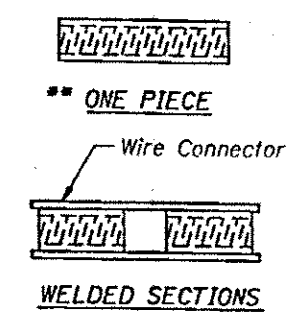


**SPLICER DETAIL**

Bar Size	No. Assemblies Required	Location
#5	24	WEST ABUTMENT
#5	24	EAST ABUTMENT
#5	32	PIER ONE
#5	32	PIER TWO



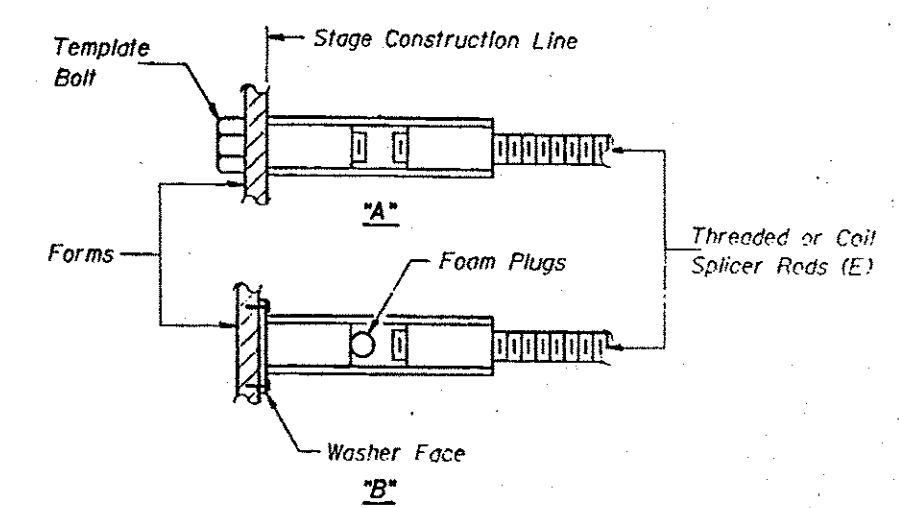
**ROLLED THREAD DOWEL BAR**



**WELDED SECTIONS**

**BAR SPLICER ASSEMBLY ALTERNATIVES**

\*\* Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



**INSTALLATION AND SETTING METHODS**

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

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**RAND ROAD  
OVER DES PLAINES RIVER  
SN 016-0362**

SCALE: NONE  
DATE: 01/27/98  
DRAWN BY: CADD  
CHECKED BY: TMS

True Jan 27 11:40:44 1998  
c:\projects\struct\ref\astm32 L16163

BSD-1 4-30-97

