

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

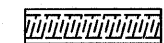
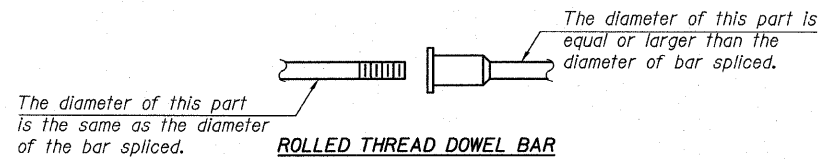
**NOTES**

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:

- ① Minimum Capacity =  $1.25 \times f_y \times A_t$   
(Tension in kips)
- ② Minimum \*Pull-out Strength =  $0.66 \times f_y \times A_t$   
(Tension in kips)

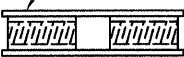
Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $A_t$  = Tensile stress area of lapped reinforcement bars.  
\* = 28 day concrete

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
#4	1'-8"	14.7	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



**\*\* ONE PIECE**

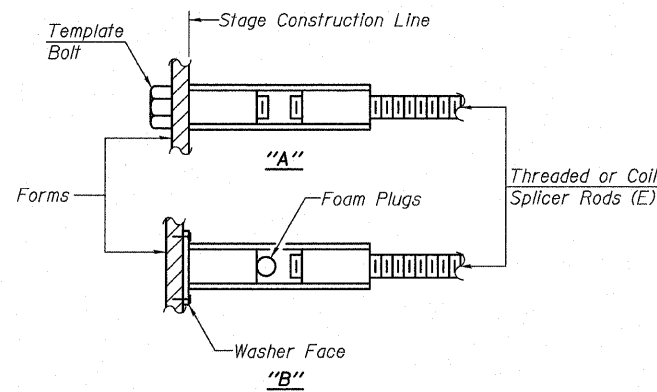
Wire Connector



**WELDED SECTIONS**

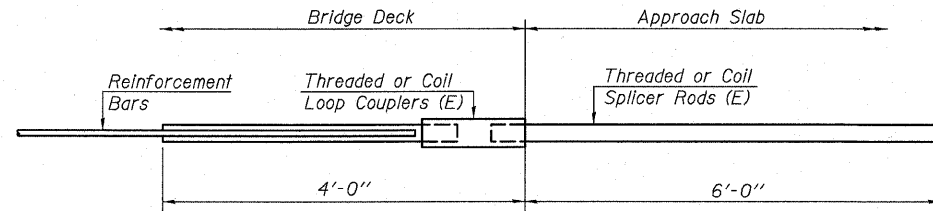
**BAR SPLICER ASSEMBLY ALTERNATIVES**

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

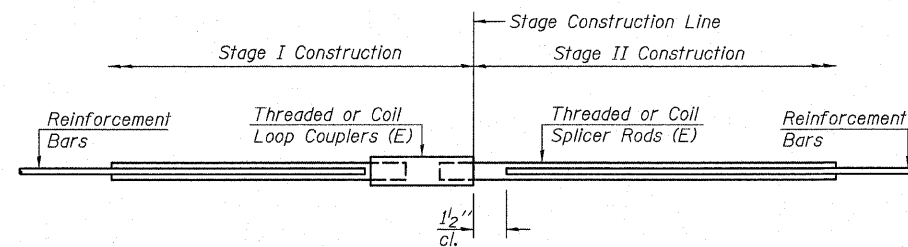


**INSTALLATION AND SETTING METHODS**

"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.



**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**



**STANDARD**

**N.B. STRUCTURE**

Bar Size	No. Assemblies Required	Location
#4	4	N. Abut.
#4	4	S. Abut.
#4	4	Pier
#5	469	Deck
#5	40	Pier
#6	8	N. Diaphragm
#6	8	S. Diaphragm
#7	10	Pier
#8	6	N. Abut.
#8	6	S. Abut.

**S.B. STRUCTURE**

Bar Size	No. Assemblies Required	Location
#4	4	N. Abut.
#4	4	S. Abut.
#4	4	Pier
#5	469	Deck
#5	40	Pier
#6	8	N. Diaphragm
#6	8	S. Diaphragm
#7	10	Pier
#8	6	N. Abut.
#8	6	S. Abut.

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 240

**BAR SPLICER ASSEMBLY DETAILS**

STRUCTURE NO. 028-0079 (N.B.)

STRUCTURE NO. 028-0080 (S.B.)

SHEET NO. 22	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	57	(28-5)VB-1	FRANKLIN	81	45
SHEETS 29	CONTRACT NO. 78157				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					



Eastport Business Center 1  
100 Lanter Court, Suite 1  
Collinsville, Illinois 62234  
618-345-2200  
Design Firm License No. 184.001115

DESIGNED JAD  
CHECKED MJP  
DRAWN JAD  
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