STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

Washer Face

<u>"B"</u>

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

(E): Indicates epoxy coating.

cementing to steel forms.

Threaded or Coil

Splicer Rods (E)



11 SHEETS

* 81 (1-2, 1, 2-2) RS-1 & M



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:

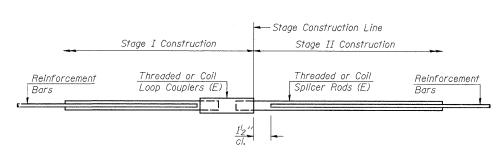
Minimum Capacity (Tension in kips) = 1.25 x fy x A_t

Minimum *Pull-out Strength = $0.66 \times fy \times A_t$ (Tension in kips)

Where fy = Yield strength of lapped reinforcement bars in ksi.

 A_t = Tensile stress area of lapped reinforcement bars. * = 28 day concrete

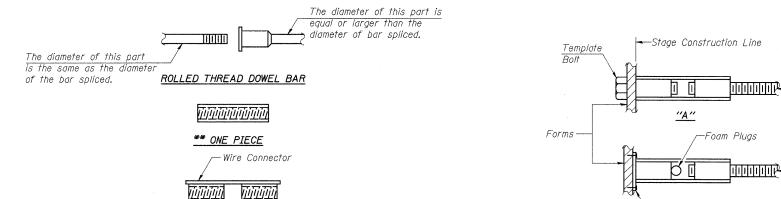
BAR SPLICER ASSEMBLIES Strength Requirements Bar Size to Splicer Rod or Min. Capacity | Min. Pull-Out Strength Dowel Bar Length be Spliced kips - tension kips - tension 14.7 7.9 #4 1'-8'' #5 12.3 2'-0" 23.0 17.4 #6 2'-7" 33.1 23.8 #7 3'-5" 45.1 58.9 4'-6" #8 31.3 5'-9" 75.0 #9 39.6 7'-3" #10 95.0 50.3 9'-0" 117.4 61.8 #11



STANDARD

Bar Size	No. Assemblies Required	Location
#5	8	Bridge Deck at South Abutment
#5	8	Bridge Deck at North Abutment
#6	3	South Abutment Backwall
#6	3	North Abutment Backwall
#6	3	North Abutment Backwall

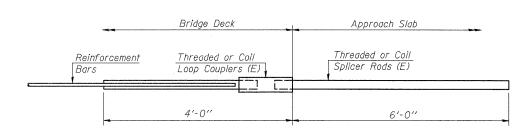
BAR SPLICER ASSEMBLY DETAILS F.A.I. 74 (OVER 38TH AVE.) ROCK ISLAND COUNTY STRUCTURE NO. 081-0109



BAR SPLICER ASSEMBLY ALTERNATIVES

WELDED SECTIONS

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

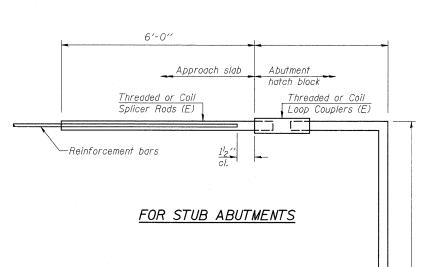


FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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

DESIGNED	DFM
CHECKED	DSG
DRAWN	EBS
CHECKED	DFM

BSD-1 5-16-08



	Bar Splicer for #5 bar
Min.	Capacity = 23.0 kips - tension
Min.	Pull-out Strength = 12.3 kips - tension