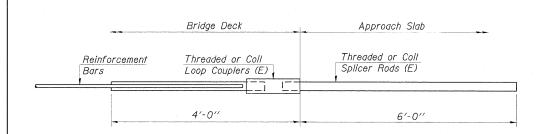


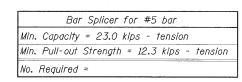
BAR SPLICER ASSEMBLY ALTERNATIVES

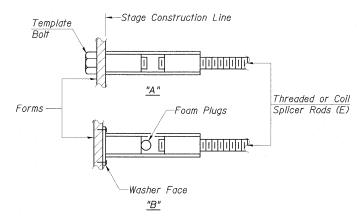
WELDED SECTIONS

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



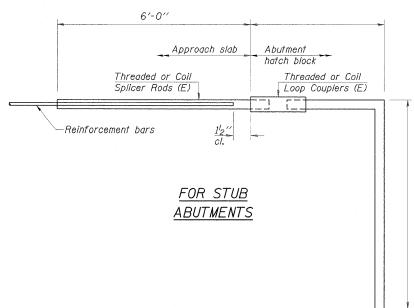
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS





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.



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

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.

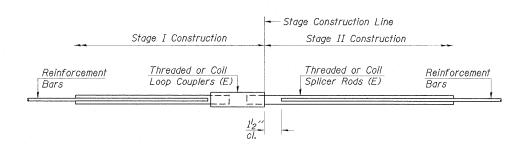
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

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

(lension in Kipo)
Minimum *Pull-out Strength = 0.66 x fy x 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					
	- p	Strength Requirements			
Bar Size to be Spliced		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''	<i>58.</i> 9	31.3		
#9	5′-9″	75.0	39.6		
#10	7'-3"	95.0	50.3		
#11	9'-0''	117.4	61.8		



STANDARD

Bar Size	No. Assemblies Required	Location
#5		Piers
#6	12	Abutments
#8	8	Piers

BSD-1

10-1-08

FILC NAME =	USER NAME = Brad Downen	DESIGNED - SF	REVISED -
\Bar Splicer Details.dgn		DRAWN - GLD	REVISED -
	PLOT SCALE = 10.0000 '/ IN.	CHECKED - WLB	REVISED -
	PLOT DATE = 3/10/2009	DATE - 03/10/2009	REVISED -

CITY OF SPRINGFIELD SPRINGFIELD, ILLINOIS

-		86 + 95.7	4 S.N.	BLY DETAILS 084–6001 (E) ACKSONVILLE	BRANCH
SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.

SHEET 16 OF 16 SHEETS COUNTY TOTAL SHEET NO.
SANGAMON 28 27 CONTRACT NO.9 3 4 8 5

7977

FED. ROAD DIST. NO. 6 | ILLINOIS | FED. AID PROJECT

SECTION*

05-00443-00-BR