

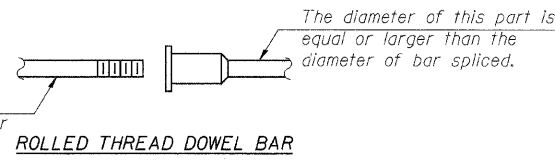
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 22 28 SHEETS
FA1 57	*	WILL	303	176	
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	
Contract #62253					

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

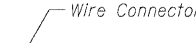
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



ROLLED THREAD DOWEL BAR



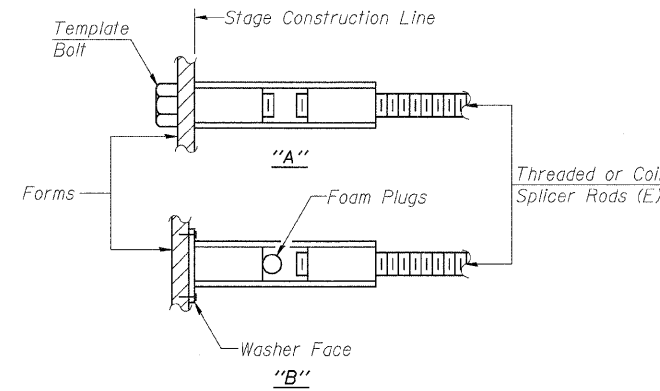
**** ONE PIECE**



WELDED SECTIONS

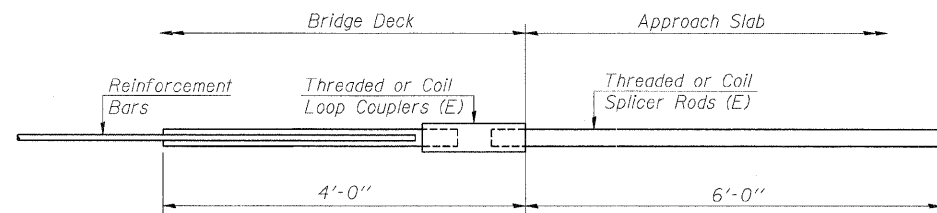
BAR SPLICER ASSEMBLY ALTERNATIVES

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



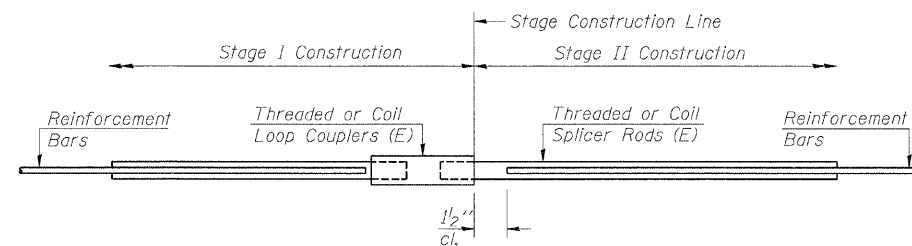
INSTALLATION AND SETTING METHODS

"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.



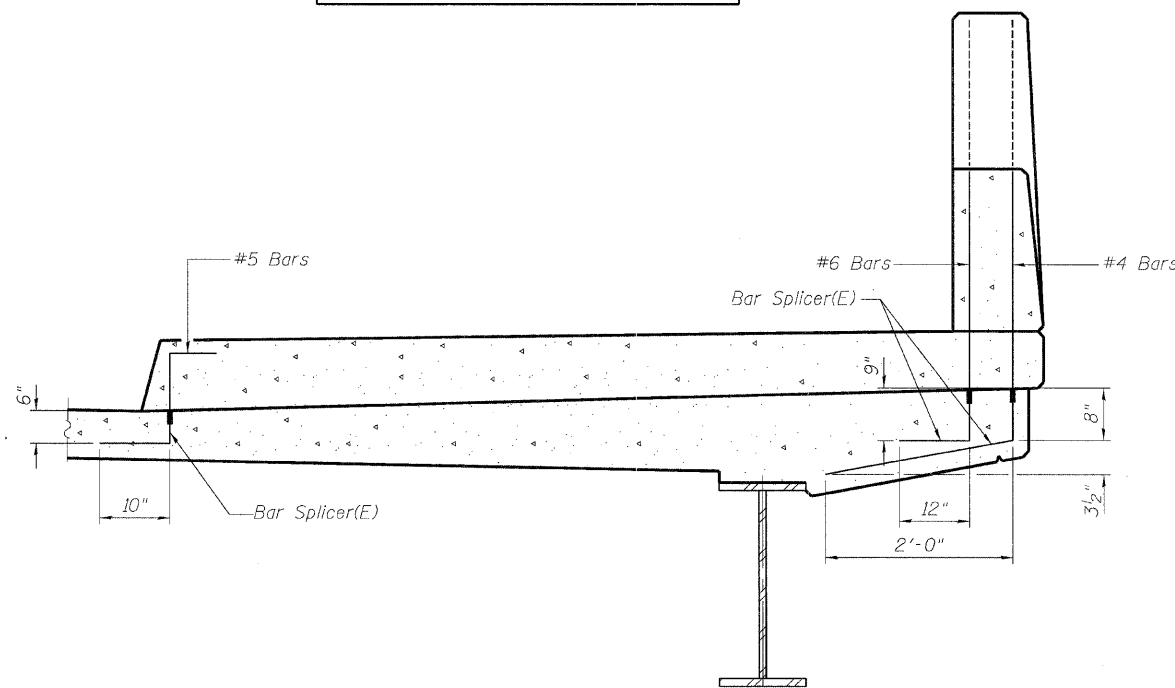
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 160



STANDARD

Bar Size	No. Assemblies Required	Location
5	2	W. Abutment
7	10	W. Abutment
5	16	Pier
10	12	Pier
6	8	Pier
8	4	Pier
6	16	Diaphragm
5	2	E. Abutment
7	10	E. Abutment
4	205	Deck - d ₃ (E)
4	10	Deck - d ₆ (E)
5	740	Deck
5	213	Deck - c(E)
5	426	Deck - c ₃ (E)
6	205	Deck - d ₄ (E)
6	10	Deck - d ₇ (E)



TYPICAL SIDEWALK BAR SPLICER DETAILS

BAR SPLICER ASSEMBLY DETAILS

MANHATTAN-MONEE ROAD (CH-6)
 OVER I-57
 F.A. I-57 SEC. 99(1&2) R 3&9-
 IHB-1-BR2
 WILL COUNTY STA.14037+43.90
 STRUCTURE NUMBER 099-4647

DESIGN FIRM REGISTRATION
 No. 184-000450

 1817 SOUTH NEIL STREET
 SUITE 100
 CHAMPAIGN, IL 61820
 PHONE : 217.373.8900
 FAX : 217.373.8923

NOTE: DIMENSIONAL DATA IS NOT TO BE OBTAINED BY SCALING ANY PORTION OF THIS DRAWING.		DRAWING NUMBER
DESIGNED BY: SMM	PROJECT NO: 102230	S-22
DRAWN BY: MEW/SLD	DATE: 06/2008	
CHECKED BY: SLD		
APPROVED BY: SMM		
ACTIVITY	INITIALS	