

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	1213B-1	COOK	94	74
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 60640

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 400 MPa 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 kN)
 - ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_t$
(Tension in kN)
- Where f_y = Yield strength of lapped reinforcement bars in kN.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

The diameter of this part is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

ROLLED THREAD DOWEL BAR



**** ONE PIECE**

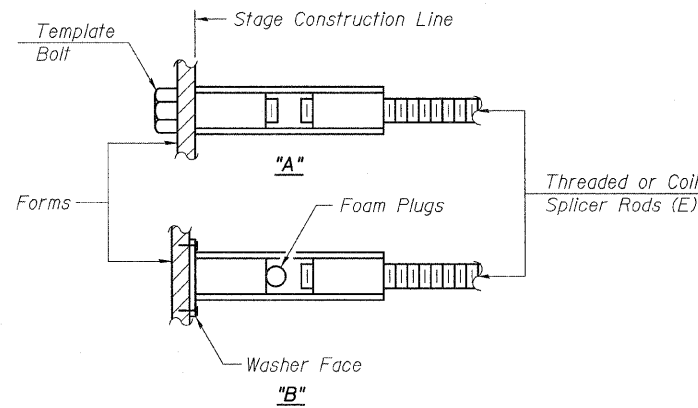
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

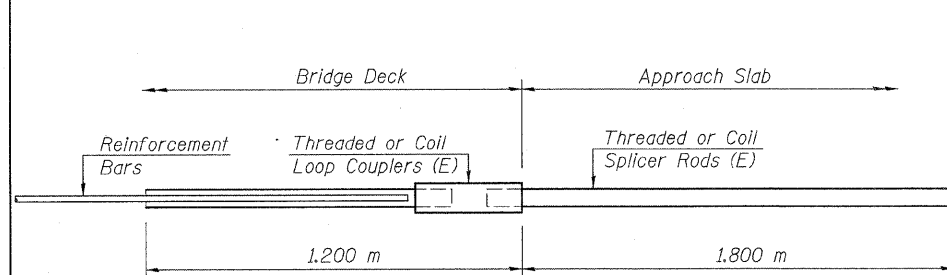
** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

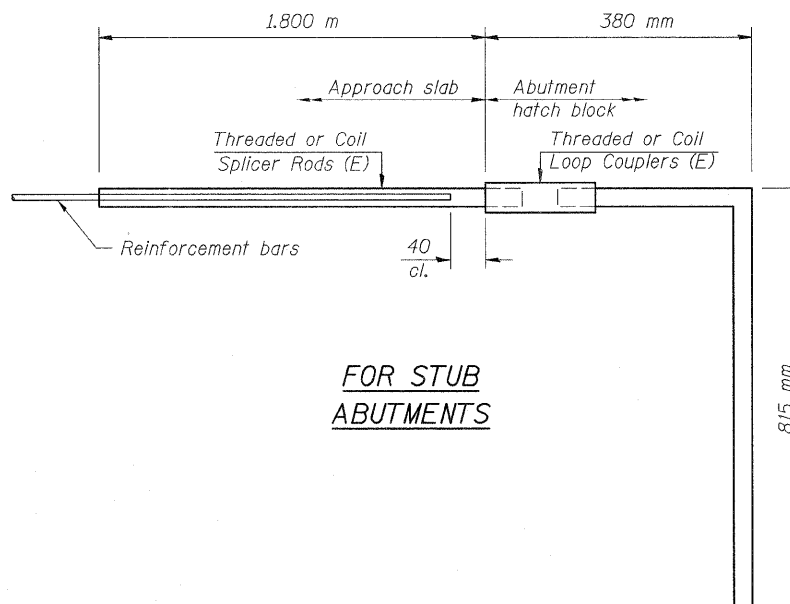
"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kN - tension	Min. Pull-Out Strength kN - tension
#15	660 mm	100	55
#20	790 mm	150	80
#25	1.04 m	250	135
#30	1.37 m	350	185



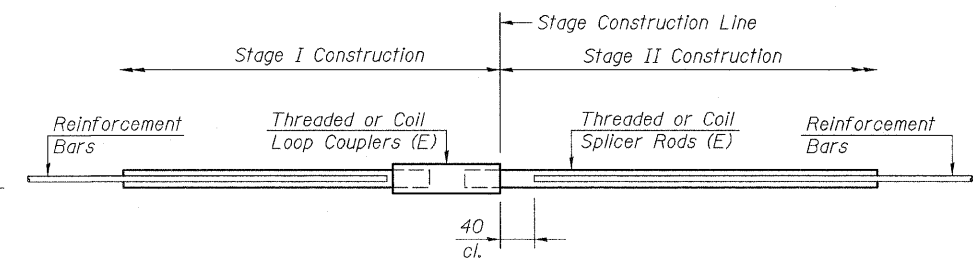
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #15 bar	
Min. Capacity = 102 KN - tension	
Min. Pull-out Strength = 55 KN - tension	
No. Required = -	



FOR STUB ABUTMENTS

Bar Splicer for #15 bar	
Min. Capacity = 102 KN - tension	
Min. Pull-out Strength = 55 KN - tension	
No. Required = 164	



STANDARD

Bar Size	No. Assemblies Required	Location
#15	769	Slab
#25	15	
#15	15	Abutments
#20	7	
Total	806	

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY DETAILS
 CENTRAL AVENUE (F.A.U. RTE. 2798)
 OVER
 INTERSTATE 90 (KENNEDY EXPWY.) & C.T.A.
 F.A.I. RTE. 90 SECTION: 1213B-1
 COOK COUNTY STATION 1+000.000
 STRUCTURE NO. 016-0659

SCALE: NONE DRAWN BY: D.L./F.M.
 DATE: JANUARY 16, 2009 CHECKED BY: B.N.S./J.C.M.

CHRISTIAN-ROGE & ASSOC., INC.
 CHICAGO ILLINOIS