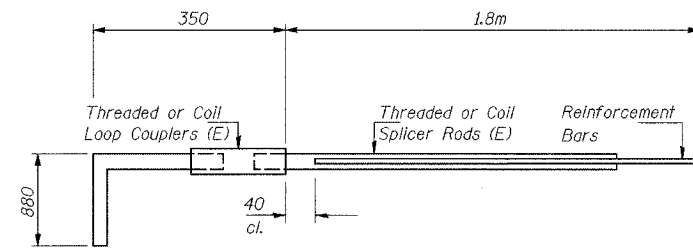


68201	ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FAI 74	*	TAZEWELL	1366	590
STA.			TO STA.		
F.H.W.A. REGION		ILLINOIS		PROJECT	



BAR SPLICER ASSEMBLY DETAIL AT ABUTMENT

Bar Size	No. Assemblies Required	Location
#15	31	S. Abutment
#15	30	N. Abutment

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

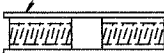
The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



** ONE PIECE

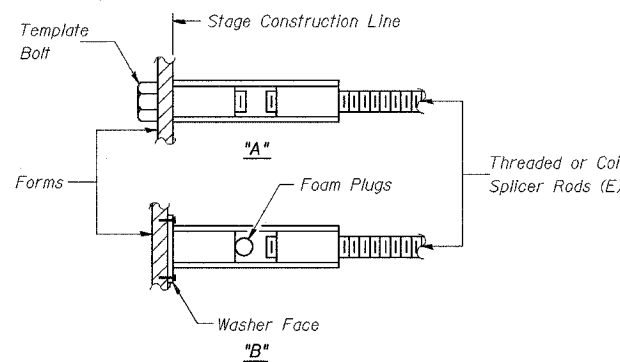
Wire Connector



WELDED SECTIONS

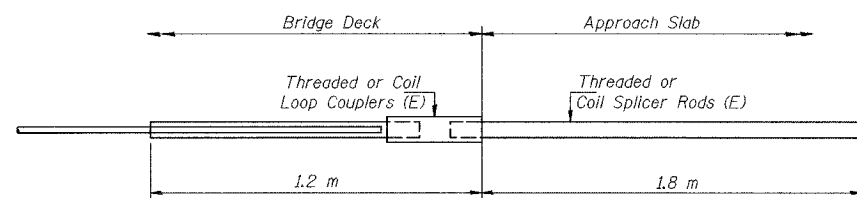
BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563M, 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.



**INTEGRAL ABUTMENT
BAR SPLICER ASSEMBLY DETAIL
FOR #15 BAR**

Min. Capacity = 100 kN - tension
Min. Pull-out Strength = 40 kN - tension
No. Required =

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:

- Minimum Capacity = $1.25 \times 10^{-3} \times f_y \times A_t$
(Tension in kN)
- Minimum *Pull-out Strength = $1.25 \times 10^{-3} \times f_{sallow} \times A_t$
(Tension in kN)

Where f_y = Yield strength of lapped reinforcement bars in MPa.
 f_{sallow} = Allowable tensile stress in lapped reinforcement bars in MPa (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars (mm²).
 * = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kN - tension	Min. Pull-Out Strength kN - tension
#15	640 mm	100	40
#20	790 mm	150	60
#25	1.32 m	250	100
#30	1.85 m	350	140

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."
 All dimensions are in millimeters (mm) except as noted.

NOTES:

- For North Abutment Details, see Sheets 35 and 36.
- For South Abutment Details, see Sheets 33 and 34.

DESIGNED	WJZ
CHECKED	SWS
DRAWN	VH
CHECKED	LRB

BSD-1 (M) 4-30-97

ILLINOIS DEPARTMENT OF TRANSPORTATION
 RAMP K-2 OVER
 MAIN ST & RAMP J-3
 F.A.I. ROUTE 74 (I-74)
 SECTION 90-IIB-5

BAR SPLICER DETAILS

alfred benesch & company
 CONSULTING ENGINEERS
 205 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
 JOB NO. 3573

SN: 090-0156
 TAZEWELL CO., IL.

STA. 10+529.222
 DATE: 12-23-04

2/3/2005

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