ROUTE NO.	SECTION	IROQUOIS		a TOTAL	SHEET NO.	9
F.A.S. 317	36-BR			21	16	
FED. ROAD DIST	, NO. 7	ILLINOIS	FED. AID PR	DJECT-		

STA. 1250+85.00

SN-038-2015

SHEET NO. 8*10* SHEETS

CONTRACT NO. 66171

<u>NOTES</u>
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

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) = $1.25 \times fy \times A_t$

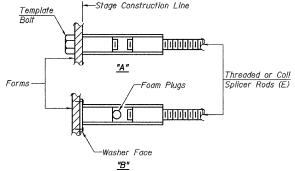
(Tension III kips)
Minimum *Pull-out Strength = $0.66 \times fy \times A_t$ (Tension in kips)

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					
Bar Size to be Spliced		Strength Requirements			
	Splicer Rod or Dowel Bar Length	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′′	58.9	31.3		
#9	5′-9′′	75.0	39.6		
#10	7′-3′′	95.0	50.3		
#11	9'-0"	117.4	618		



BAR SPLICER ASSEMBLY ALTERNATIVES

WELDED SECTIONS

ROLLED THREAD DOWEL BAR

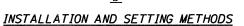
** ONE PIECE — Wire Connector

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

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

The diameter of this part is the same as the diamete

of the bar spliced.

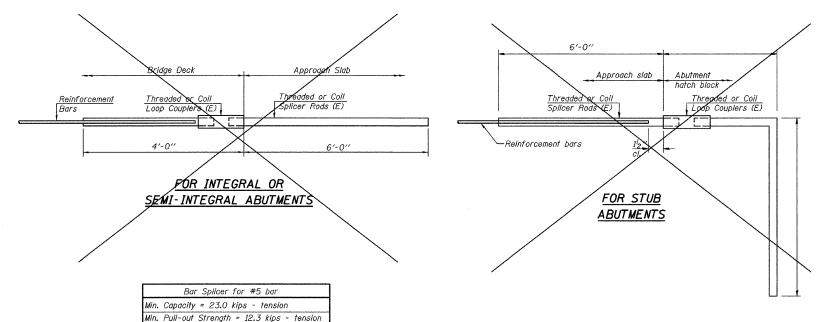


"A": Set bar splicer assembly by means of a template bolt. "B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms. (E) : Indicates epoxy coating.

Bar Splicer for #5 bar

Min. Capacity = 23.0 kips - tension Min. Pull-out Strength = 12.3 kips - tension

No. Required =



	Stage I Construction	Stage Construction Line Stage II Construction	
Reinforcement Bars	Threaded or Coil Loop Couplers (E)	Threaded or Coil Splicer Rods (E)	Reinforcement Bars
	1½″ ci.		

STANDARD

Bar Size	No. Assemblies Required	Location
#5	48	Top Slab
#5	52	Walls
#5	54	Bottom Slab

BAR SPLICER ASSEMBLY DETAILS F.A.S. ROUTE 317 (US 45) OVER TRIBUTARY TO SPRING CREEK SECTION 36-BR IROQUOIS COUNTY

DESIGNED CHECKED CHECKED

BSD-1 10-1-08

No. Required =

1 - Sheet inserted by Chamlin & Associates