SHEET NO. 12 OF 13 SHEETS RTE. SECTION

COUNTY 266I 00-00095-II-BR LAKE BAR SPLICER DETAILS C-91-169-00 ILLINOIS

CONTRACT NO.: 83789

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 x fy x A,

Tension in kips, Minimum \*Pull-out Strength = 1.25 x  $fs_{allow}$  x  $A_t$ 

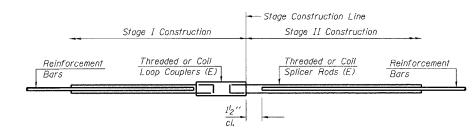
Where fy = Yield strength of lapped reinforcement bars in ksi.

fs<sub>allow</sub> = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)

A<sub>t</sub> = Tensile stress area of lapped reinforcement bars. \* = 28 day concrete

	BAR SPLIC	ER ASSEMBLI	ES
		Strengt	h Requirements
	Splicer Rod or Dowel Bar Length		Min. Pull-Out Strength kips - tension
#4	1'-8''	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7''	33.1	13.3
#7	3′-5″	45.1	18.0
#8	4′-6′′	58.9	23.6
#9	5′-9″	75.0	30.0
#10	7′-3′′	95.0	38.0
#11	9'-0"	117.4	46.8

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."



## STANDARD

Bar Size	No. Assemblies Required	Location
#5	225	Deck
#6	16	Diaphragms
#7	12	Abutments

BAR SPLICER DETAILS HUNT CLUB ROAD OVER MILL CREEK SECTION 00-00095-11-BR LAKE COUNTY STATION 116+60.00 STRUCTURE NO. 049-3072

NOTES

—The diameter of this part is equal or larger than the 1111111 The diameter of this part diameter of bar spliced. is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR

नागागागागा \*\* 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

Washer Face

<u>"B"</u>

Stage Construction Line

Foam Plugs

Threaded or Coil

Splicer Rods (E)

<u>"A"</u>

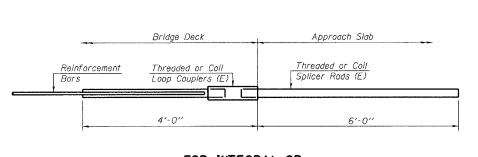
<u>Template</u> Bolt

Forms -

"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.

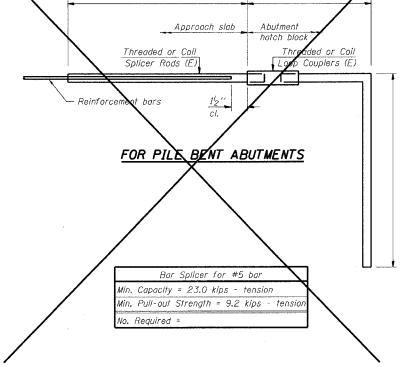
(E): Indicates epoxy coating.

6'-0"



## FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar Min. Capacity = 23.0 kips - tension Min. Pull-out Strength = 9.2 kips - tension No. Required = 80



BSD-1 9-01-03