

Approach Slab

6'-0"

Threaded or Coil

Splicer Rods (E)

Bridge Deck

4'-0"

Threaded or Coil

Loop Couplers (E)

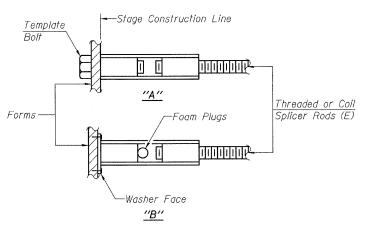
No. Required =

FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar

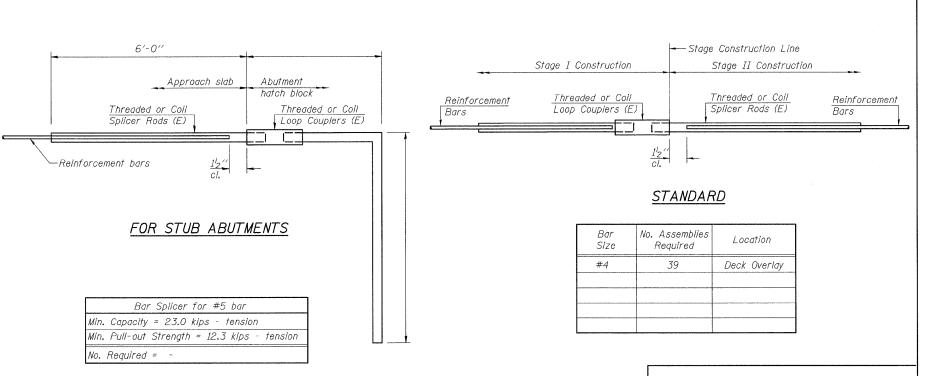
Min. Pull-out Strength = 12.3 kips - tension

Min. Capacity = 23.0 kips - tension



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.



reinforcement bars.

NOTES Bar splicer assemblies shall be of an approved type and shall develop in tension at least

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 ASSEMBLIES

kips - tension

23.0

33.1

45.1

58.9

75.0

95.0

117.4

Strength Requirements

Min. Capacity | Min. Pull-Out Strength

kips - tension

12.3

17.4

23.8

31.3

39.6

50.3

61.8

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7.9

125 percent of the yield strength of the lapped reinforcement bars.

bar splicer assembly satisfies the following requirements:

(Tension in kips)

Bar Size to

be Spliced

#4

#5

#6

#7

#8

#9

#10

#11

Minimum Capacity (Tension in kips) = 1.25 x fy x A_t

Minimum *Pull-out Strength = $0.66 \times fy \times A_t$

Where fy = Yield strength of lapped reinforcement bars in ksi. A_t = Tensile stress area of lapped reinforcement bars. * = 28 day concrete

Splicer Rod or

Dowel Bar Length

1'-8'

2'-0"

2'-7"

3'-5"

4'-6'

5'-9'

7'-3"

9'-0"

BSD-1 5-16-08

Reinforcement

| FILE NAME = | USER NAME = IDOT | DESIGNED - B.N.S. | REVISED - | | | DAD ODLIGED AGGERDLY DETAILS | | F.A.P. | SECTION | COUNTY | TOTAL SHEET |
|--------------------------|-----------------------------|---------------------------|-----------|------------------------------|--------|--|--------------|-------------------|------------------|-------------|--------------|
| bor_splicer_ossembly.sht | | DRAWN - D.L./R.E.S./F.M. | REVISED - | STATE OF ILLINOIS | 1 | BAR SPLICER ASSEMBLY DETAILS U.S. 45 / 52 OVER SMALL STREAM | | 330 | 17 B-1-I-1 | WILL | 29 22 |
| | PLOT SCALE = 50.0000 '/ IN. | CHECKED - B.N.S. / J.C.N. | REVISED - | DEPARTMENT OF TRANSPORTATION | | U.S. 45 / 52 UVER SMALL STREAM | S.N. 099-012 | | <i>2</i> | | CT NO. 60D68 |
| | PLOT DATE = 7/7/2008 | DATE - JULY 7, 2008 | REVISED - | | SCALE: | SHEET NO. S10 OF S11 SHEETS STA. | TO STA. | FED. ROAD DIST. I | O. ILLINOIS FED. | AID PROJECT | |