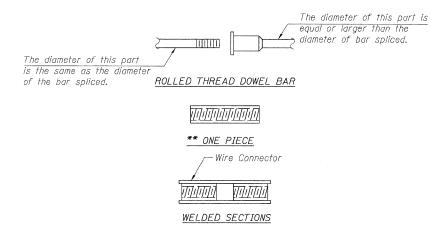
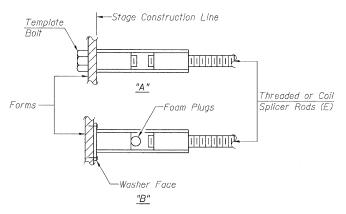
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



BAR SPLICER ASSEMBLY ALTERNATIVES

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 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 reinforcement bars.

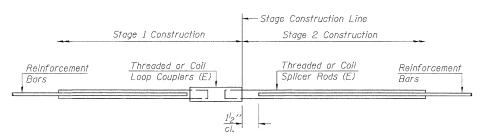
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

 Minimum Capacity = 1.25 x fy x A₁
 (Tension in kips) = 1.25 x fy x A₁
 Minimum *Pull-out Strength = 0.66 x fy x A₁ (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 SPLIC | ER ASSEMBLI | ES | | |
|----|------------------------------------|-----------------------|--|--|--|
| | Splicer Rod or Dowel Bar Length | Strength Requirements | | | |
| | | | 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 | | |
| | | | | | |
| | | | A CONTRACTOR OF THE STATE OF TH | | |
| | | | | | |
| | | | | | |



STANDARD

| Bar Size | No. Assemblies Required | Location | |
|-------------|----------------------------|-------------|--|
| #4 | 28 | Top Slab | |
| #5 | 54 | Bottom Slab | |
| #6 | 32 | Top Slab | |
| #6 | 39 | Sidewall | |
| | | | |

BAR SPLICER ASSEMBLY DETAILS S.N. 026-2019

| SHEET NO. R | F.A. RTE. | SECTION | COUNTY | TOTAL | SHEET NO. |
|-------------|---|------------------------------|--------------------|-------|--------------|
| | * | 114B-1(1) & 114B-1(2) | FAYETTE | 54 | 48 |
| OF 9 SHEETS | * F.A.F | P. RTE. 750, F.A.S. RTE. 719 | CONTRACT NO. 74110 | | |
| | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |





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