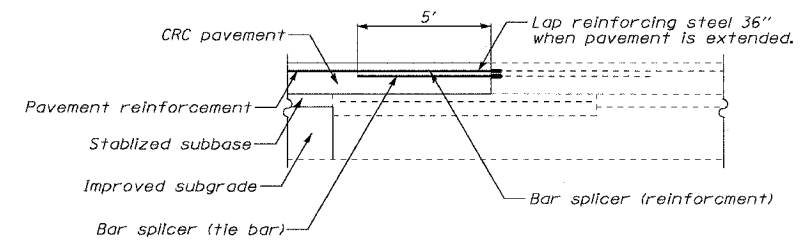


PLAN
(CONNECTION TO EXISTING LONG TERM TRANSVERSE CONSTRUCTION JOINT)



LONG TERM TRANSVERSE CONSTRUCTION JOINT SECTION A-A

NOTES

- This detail shows connection of proposed CRC pavement to existing pavement at an existing long term transverse construction joint.
- Bar splicer assemblies shall be of an IDOT approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
- Bar splicers shall be of the "coupler" type, and shall not have flanges.
- 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 (Tension in ksi) = $1.25 \times f_y \times A(t)$
 - Minimum Pull-out Strength (Tension in ksi) = $1.25 \times f_s(\text{allow}) \times A(t)$

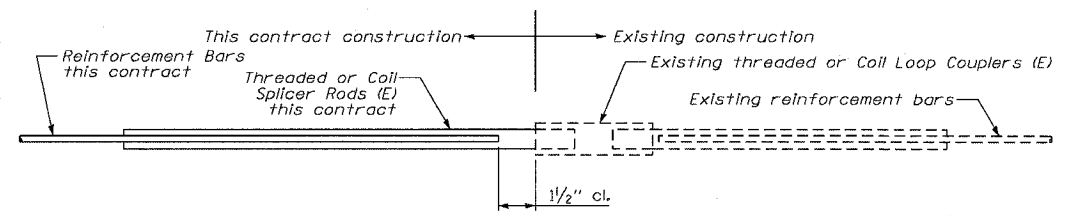
Where:
 f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_s(\text{allow})$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 $A(t)$ = Tensile stress area of lapped reinforcement bars (in^2).
 * = 28 day concrete

| Bar Size to be Spliced | Splicer Rod or Dowel Bar Length | STRENGTH REQUIREMENTS | |
|------------------------|---------------------------------|------------------------------|---------------------------------------|
| | | Min. Capacity (kips) tension | Min. Pull-Out Strength (kips) tension |
| #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 |

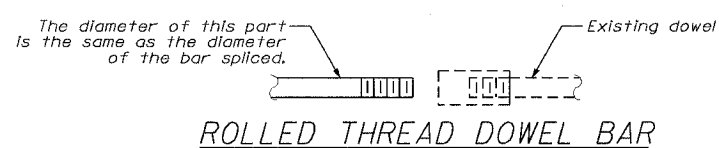
- Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted.
- Reinforcement shall not be paid for separately but included in the cost of PAVEMENT REINFORCEMENT, 14".
- Connection to long term transverse construction joint work includes the installation of the bar splicers. Payment for this work will be included in the cost of CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT, 14".
- Tie bars to be drilled and grouted shall not be paid for separately but included in the cost of PORTLAND CEMENT CONCRETE SHOULDERS, 14".

GENERAL NOTES

- See Standard 421001 for details of CRC pavement reinforcement.
- See Standards 420001 and 420401 for details of joints and tie bars not shown.
- See Standard 483001 for pcc shoulder details



BAR SPLICER ASSEMBLY DETAIL
(E) : Indicates epoxy coating.



ROLLED THREAD DOWEL BAR