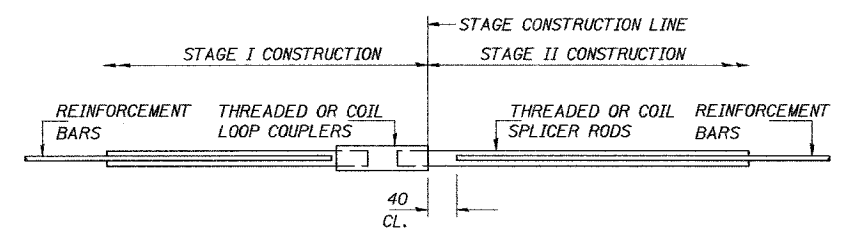


RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
619	120 BR-1	PUTNAM	28	18
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	
SHEET B-5 OF B-8				



BAR SPLICER ASSEMBLY DETAIL

BAR SIZE	NO. ASSEMBLIES REQUIRED	LOCATION
#16	72	CULVERT TOP & BOTTOM SLAB
#19	24	CULVERT WALLS

THE DIAMETER OF THIS PART IS THE SAME AS THE DIAMETER OF THE BAR SPLICED.

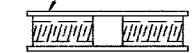
THE DIAMETER OF THIS PART IS EQUAL OR LARGER THAN THE DIAMETER OF BAR SPLICED.

ROLLED THREAD DOWEL BAR



** ONE PIECE

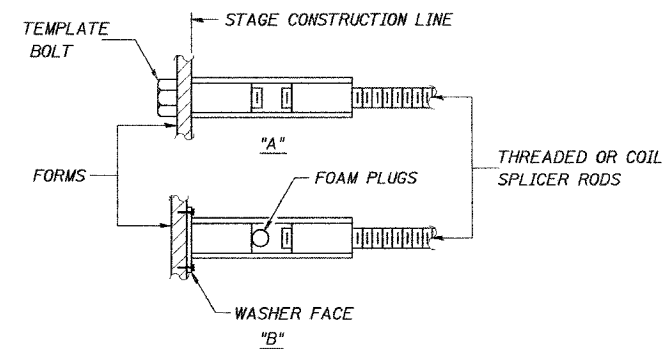
WIRE CONNECTOR



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

** HEAVY HEX NUTS CONFORMING TO ASTM A 563M, 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.

NOTES

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 400 MPa YIELD STRENGTH, THREADED OR COILED FULL LENGTH.

ALL REINFORCEMENT BARS SHALL BE LAPPED AND TIED TO THE SPLICER RODS OR DOWEL 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 kN) = $1.25 \times 10^{-3} \times F_y \times A_t$
- MINIMUM *PULL-OUT STRENGTH (TENSION IN kN) = $1.25 \times 10^{-3} \times F_{s \text{ ALLOW}} \times A_t$

WHERE F_y = YIELD STRENGTH OF LAPPED REINFORCEMENT BARS IN MPa.
 $F_{s \text{ ALLOW}}$ = ALLOWABLE TENSILE STRESS IN LAPPED REINFORCEMENT BARS IN MPa (SERVICE LOAD)
 A_t = TENSILE STRESS AREA OF LAPPED REINFORCEMENT BARS (mm²).
 * = 28 DAY CONCRETE

BAR SIZE TO BE SPLICED	SPLICER ROD OR DOWEL BAR LENGTH	STRENGTH REQUIREMENTS	
		MIN. CAPACITY kN - TENSION	MIN. PULL-OUT STRENGTH kN - TENSION
#16	610 mm	100	40
#19	790 mm	150	60

BAR SPLICER ASSEMBLIES SHALL BE ACCORDING TO SECTION 508 OF THE STANDARD SPECIFICATIONS, AND PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "BAR SPLICERS."

EXCEPT AS NOTED, THE FURNISHING AND INSTALLATION OF BAR SPLICER ASSEMBLIES WILL BE MEASURED ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT AS NOTED.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BAR SPLICER ASSEMBLY DETAILS
 ILLINOIS ROUTE 71 OVER AN INTERMITTENT STREAM
 F.A.P. RT. 619 - SECTION 120 BR-1
 PUTNAM COUNTY
 STATION 9+268.500
 STRUCTURE No. 078-2008

DATE: 8/31/06 DESIGNED BY: MY DRAWN BY: KDS
 CHECKED BY: SG CHECKED BY: MY

TRANSYSTEMS CORPORATION