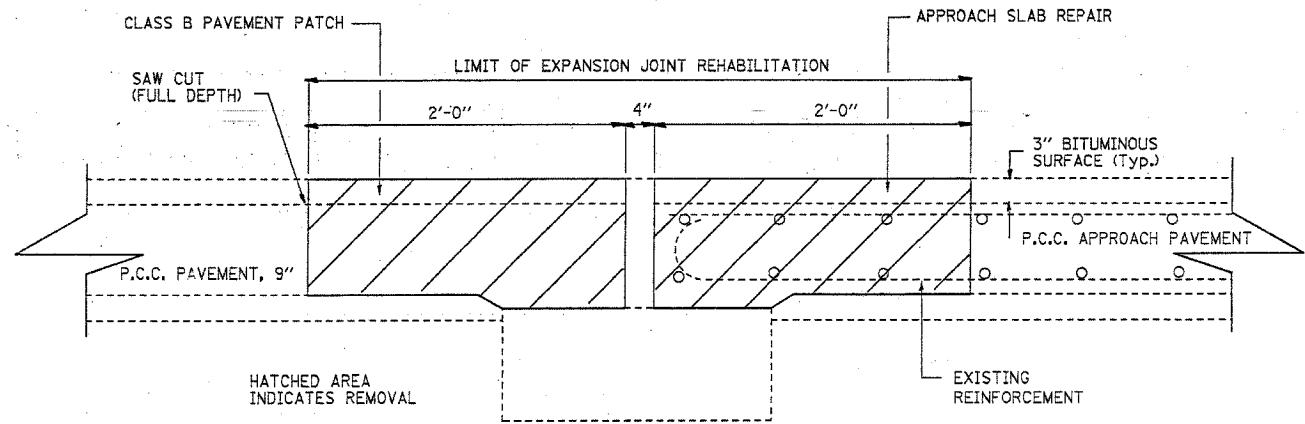
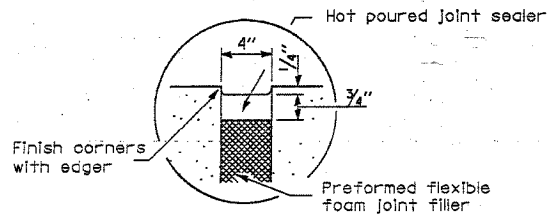


FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1348	3197(A&B)RS	COOK	33	17
FED. ROAD DIST. NO. 1		ILLINOIS	HIGHWAY PROJECT	

60721



EXISTING EAST PAVEMENT EXPANSION JOINT AT BRIDGE APPROACH SLAB



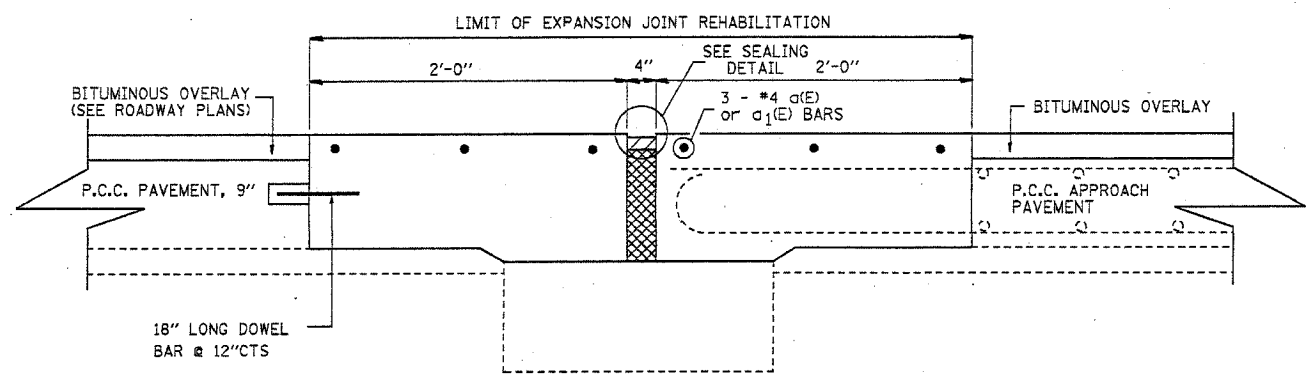
EXPANSION JOINT SEALING DETAIL

GENERAL NOTES:

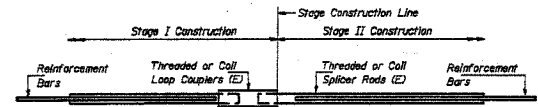
THE REMOVAL OF THE EXISTING EXPANSION JOINT SHALL BE PERFORMED IN A MANNER SO AS NOT TO DAMAGE THE EXISTING STEEL BARS OR ADJACENT CONCRETE OR CONCRETE SLAB, ANY DAMAGE DONE BY THE CONTRACTOR SHALL BE REPAIRED AT HIS EXPENSE.  
THIS WORK SHALL ALSO INCLUDE CLEANING AND STRAIGHTENING OF EXISTING STEEL BARS. ANY BARS IN NEED OF REPLACEMENT SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE 'STANDARD SPECIFICATIONS'.

REMOVAL OF THE EXISTING CONCRETE SHALL BE IN ACCORDANCE OF THE APPLICABLE PORTIONS OF SECTION 501. THE NEW CONCRETE, REINFORCEMENT AND PREFORMED EXPANSION JOINT SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE PORTIONS OF SECTION 503 OF THE 'STANDARD SPECIFICATIONS'. THIS WORK SHALL BE INCLUDED IN THE COST OF "APPROACH SLAB REPAIR (FULL DEPTH)".

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."



PROPOSED EAST PAVEMENT EXPANSION JOINT AT BRIDGE APPROACH SLAB SECTION A-A



SPLICER DETAIL

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 60 ksi yield strength, threaded or collared 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:

- ① Minimum Capacity (Tension in kips) =  $1.25 \times f_y \times A_s$
- ② Minimum \*Pull-out Strength (Tension in kips) =  $1.25 \times f_{sallow} \times A_s$

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $f_{sallow}$  = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)  
 $A_s$  = Tensile stress area of lapped reinforcement bars.  
\* = 28 day concrete

BAR SPLICER ASSEMBLIES				
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	

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.



ROLLED THREAD DOWEL BAR

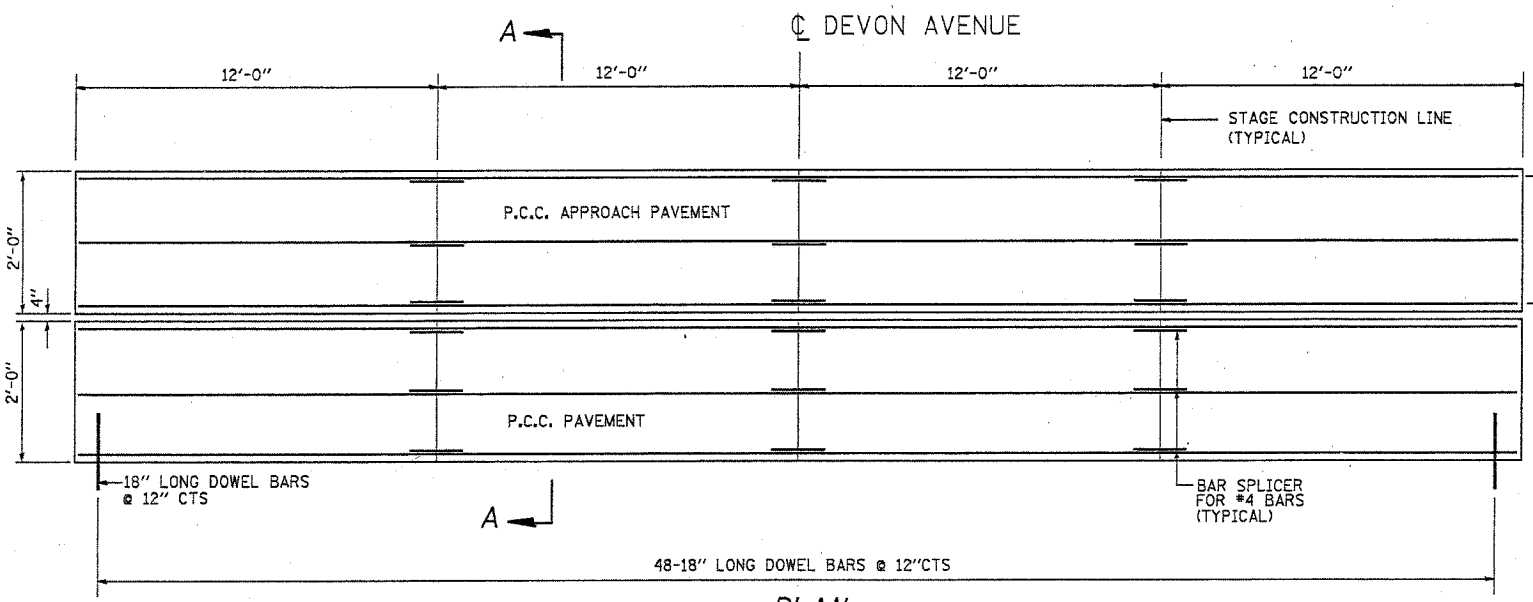


WELDED SECTIONS BAR SPLICER ASSEMBLY ALTERNATIVES

BILL OF MATERIAL

Bar No.	Size	Length	Shape
a(E)	#4	11'-9"	
Class B Patches, Type 1		Sq.Yd.	11
Saw Cuts		Foot	48
Dowel Bars		Each	48
Approach Slab Repair (Full Depth)		Sq.Yd.	11
Reinforcement Bars, (Epoxy Coated)		Pound	190
Bar Splicers		Each	18

Reinforcement bars designated (E) shall be epoxy coated.



PLAN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DEVON AVENUE  
(DES PLAINES RIVER ROAD TO CANFIELD ROAD)  
EXPANSION JOINT REHABILITATION STA. 40+35  
SCALE: VERT. \_\_\_\_\_  
HORIZ. \_\_\_\_\_  
DATE \_\_\_\_\_  
DRAWN BY MVT  
CHECKED BY TMS