03-06-2015 LETTING ITEM 127

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	14-1HB-2-HDF	CLINTON	6	1
	ILLINOIS	CONTRACT NO. 76H44		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

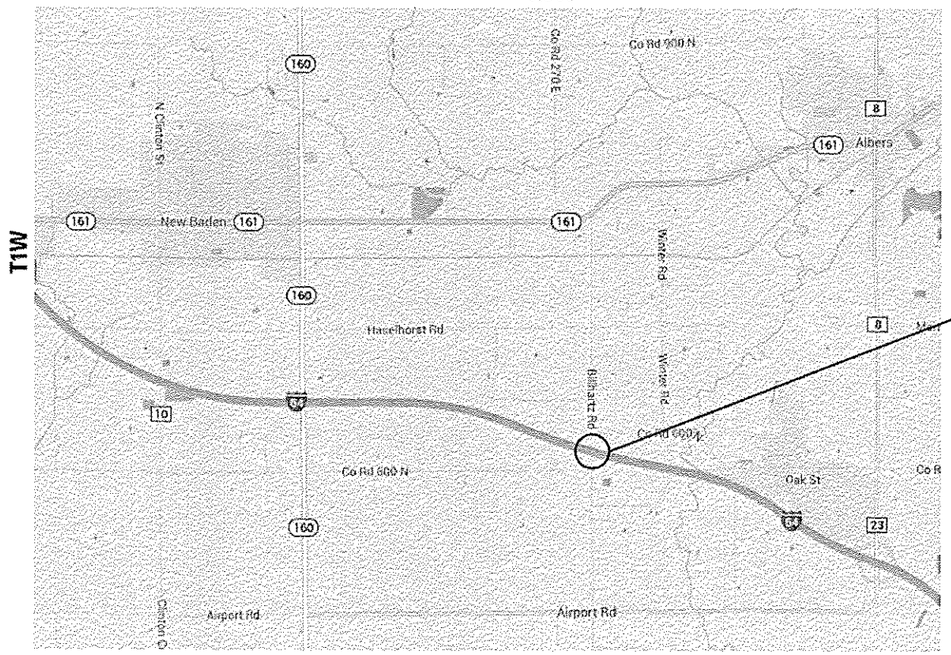
FAI ROUTE 64 (I–64)
SECTION 14–1HB–2–HDF

CURTAIN WALL REPAIR – MCHDF – S.N. 014–0039
CLINTON COUNTY

C–98–073–14

FOR INDEX OF SHEETS, SEE SHEET NO. 2

R5W



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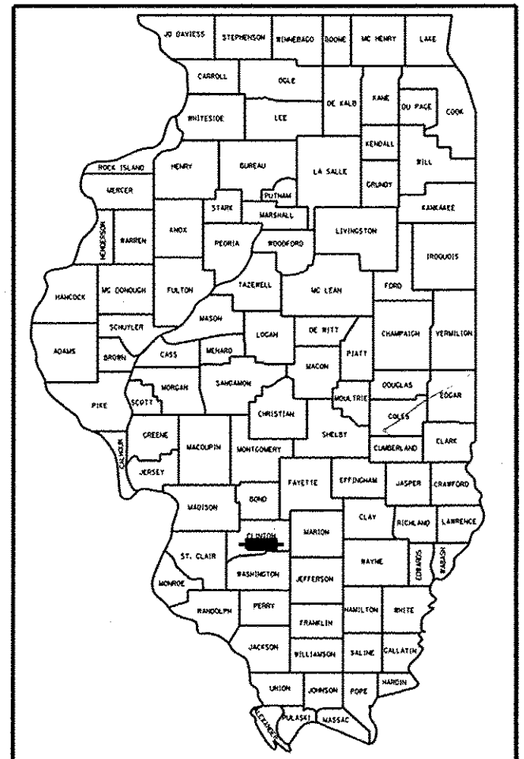
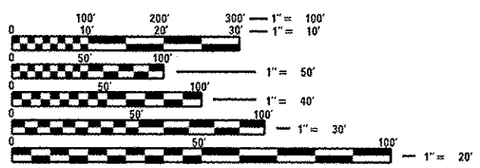
NOT TO SCALE

D–98–070–14



LOCATION OF SECTION INDICATED THUS: –

PROJECT LOCATION
S.N. 014–0039



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123
OR 811

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED December 12 20 14
Jeffrey J. Keirn
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER
Jan 30 2015
John D. Baranzelli, P.E.
acting ENGINEER OF DESIGN AND ENVIRONMENT
Jan 30 2015
Omer Osman, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT ENGINEER: TIM PADGETT 618–346–3325
PROJECT MANAGER: PHILIP COPPERNOLL 618–346–3480

CONTRACT NO. 76H44

GROSS LENGTH = 192.04 FT. = 0.036 MILE
NET LENGTH = 192.04 FT. = 0.036 MILE

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

ADT

2013 ADT = 24100 (ACTUAL)
2015 ADT = 24600 (ESTIMATED)
2035 ADT = 30000 (ESTIMATED)
SU = 24.9%
MU = 3.0%

COMMITMENTS

NONE

HIGHWAY STANDARDS

000001-06
001001-02
001006
701101-04
701106-02
701201-04
701400-08
701406-09
701428
701901-04

GENERAL NOTES

1. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE TO BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

   *CLINTON COUNTY ELECTRIC COOPERATIVE, INC. - ELECTRIC
   *COUNTRYMARK COOPERATIVE, LLP - PIPELINE
   *FRONTIER NORTH, INC. - COMMUNICATIONS
   *NEW MEMPHIS PUBLIC WATER DISTRICT - WATER

   MEMBERS OF J.U.L.I.E. CALL TOLL FREE (800) 892-0123 OR 811 AND ARE INDICATED BY *. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.

2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

3. ALL TURF AREAS DISTURBED BY THE CONTRACTOR SHALL BE SEEDED WITH THE APPROPRIATE EROSION CONTROL AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

4. NO OVERNIGHT LANE CLOSURES WILL BE ALLOWED ON THIS PROJECT.

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		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/12/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, ADT, COMMITMENTS
HIGHWAY STANDARDS, GENERAL NOTES

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	14-1HB-2-HDF	CLINTON	6	2
		CONTRACT NO. 76H44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

100% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	MINOR STRUCTURES 0014 014-0039
50102400	CONCRETE REMOVAL	CU YD	6.2	6.2
50200100	STRUCTURE EXCAVATION	CU YD	7.5	7.5
50300225	CONCRETE STRUCTURES	CU YD	6.2	6.2
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	460	460
50800530	MECHANICAL SPLICERS	EACH	70	70
67100100	MOBILIZATION	L SUM	1	1
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1
X7010410	SPEED DISPLAY TRAILER	CAL MO	1	1
8				

FILE NAME = o:\pe_work\pwidot\conoverpj\d0416821\d0716h44-sht-s00.dgn	USER NAME = conoverpj	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000 ' / in.	DRAWN -	REVISED -			64	14-1HB-2-HDF	CLINTON	6	3
	PLOT DATE = 12/12/2014	CHECKED -	REVISED -		SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.			CONTRACT NO. 76H44		
		DATE -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOT TO SCALE

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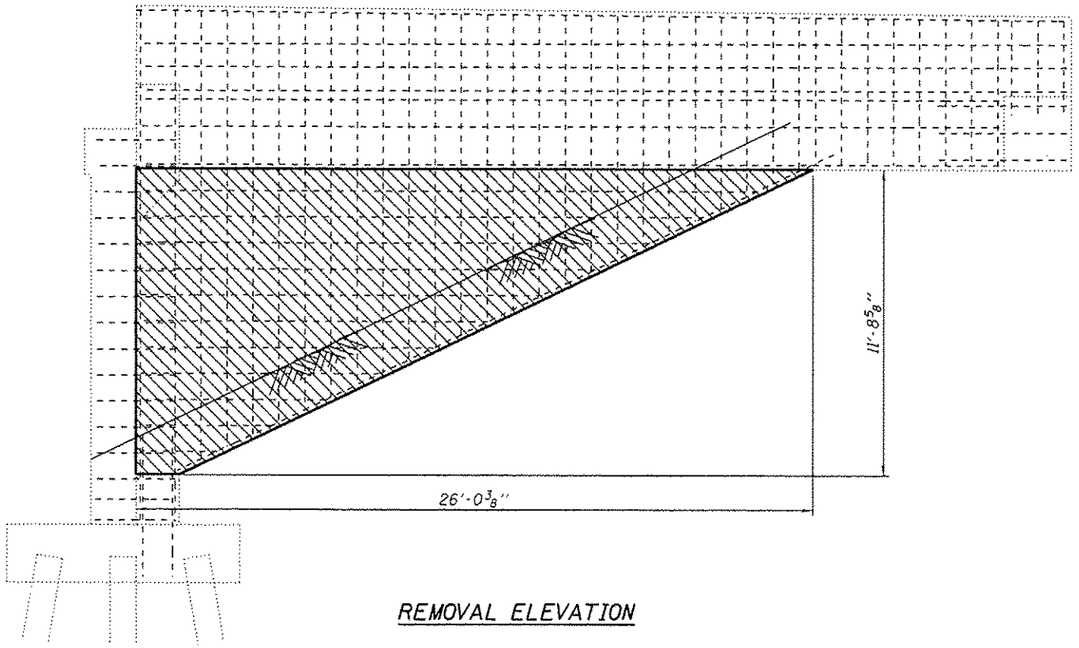
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/12/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

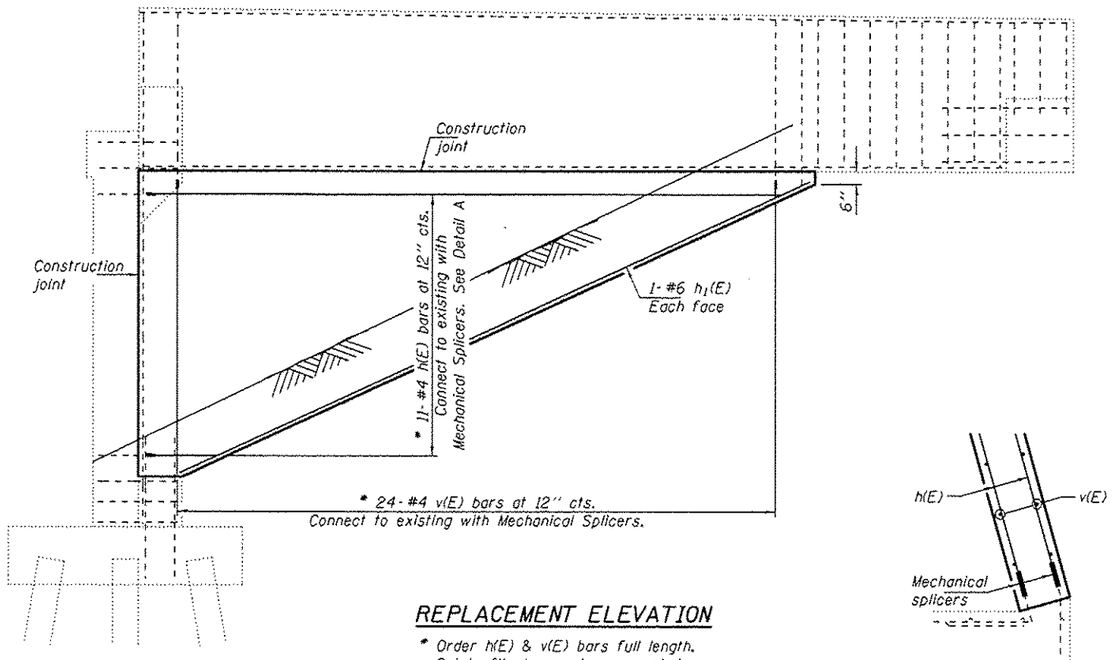
LOCATION MAP

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	14-1HB-2-HDF	CLINTON	6	4
		CONTRACT NO. 76H44		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



REMOVAL ELEVATION

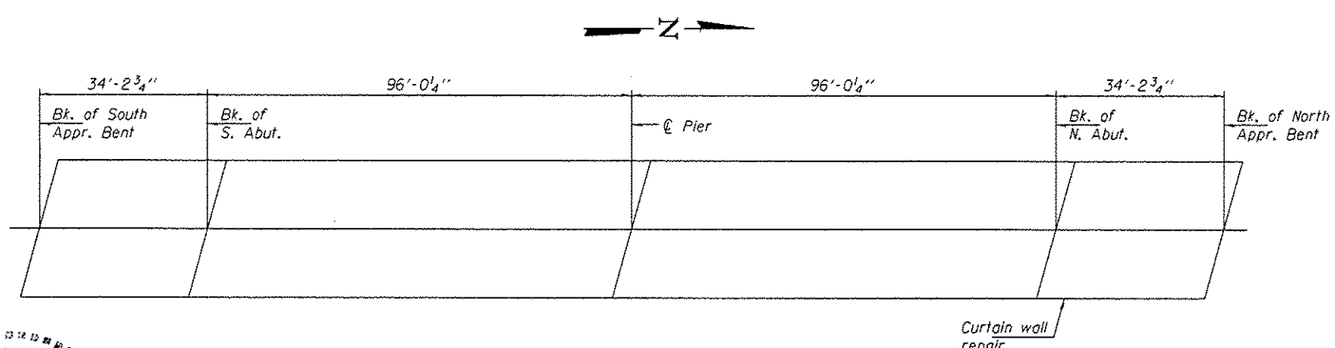


REPLACEMENT ELEVATION

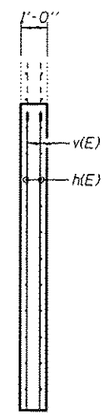
* Order h(E) & v(E) bars full length. Cut to fit skew and use remainder of bars in opposite face.

DETAIL A

Attach h(E) bars to the existing reinforcement extending from the abutment stem.



LOCATION SKETCH



SECTION THRU CURTAIN WALL

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

Hatched area indicates removal. Cut existing reinforcement 6" from removal line for installation of mechanical splicer.

The contractor shall ensure complete consolidation between existing & new concrete.

TOTAL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	11	#4	26'-9"	——
h_1(E)	2	#6	26'-8"	——
v(E)	24	#4	11'-7"	——
Mechanical Splicers			Each	70
Structure Excavation			Cu. Yd.	7.5
Concrete Removal			Cu. Yd.	6.2
Concrete Structures			Cu. Yd.	6.2
Reinforcement Bars, Epoxy Coated			Lbs.	460

LICENSED STRUCTURAL ENGINEER
DAVID CARL PUZEY
081-005470
SPRINGFIELD ILLINOIS
STATE OF ILLINOIS

EXPIRES 11-30-2016

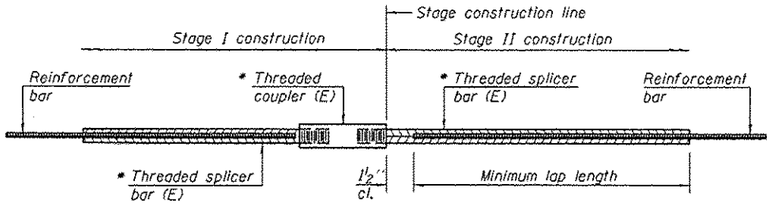
DESIGNED	Vishwa H. Yelgar	EXAMINED	
CHECKED		PASSED	
DRAWN	baliva	DATE	JANUARY 14, 2015
CHECKED	VHY DAB	REVISED	
		REVISED	

ACTING ENGINEER OF STRUCTURAL SERVICES
ACTING ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT CURTAIN WALL REPAIR DETAILS
BILLHARTZ RD. – FAS 783 OVER FAI 64
SN 014-0039
SHEET NO. 1 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	14-1HB-2-HDF	CLINTON	6	5
		CONTRACT NO. 76H44		
		ILLINOIS FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

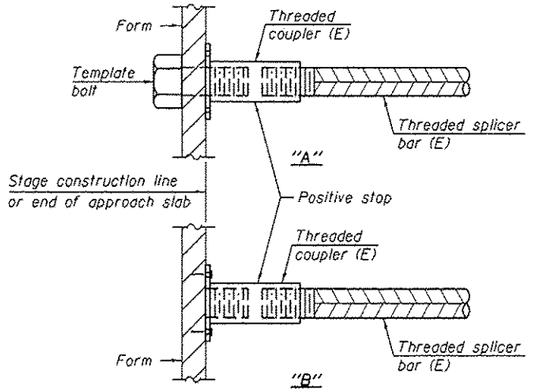
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

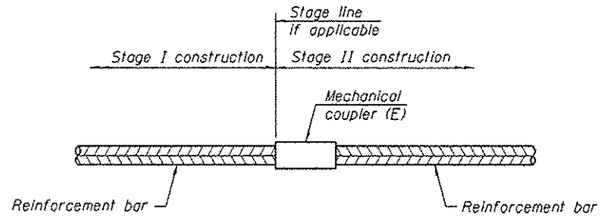
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



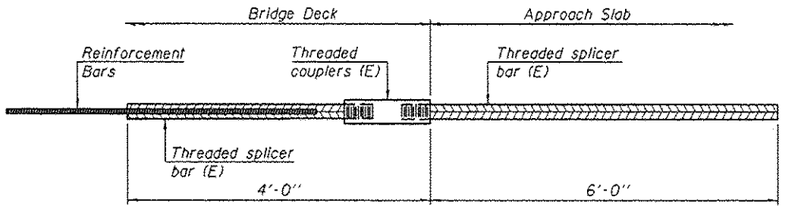
INSTALLATION AND SETTING METHODS

"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.



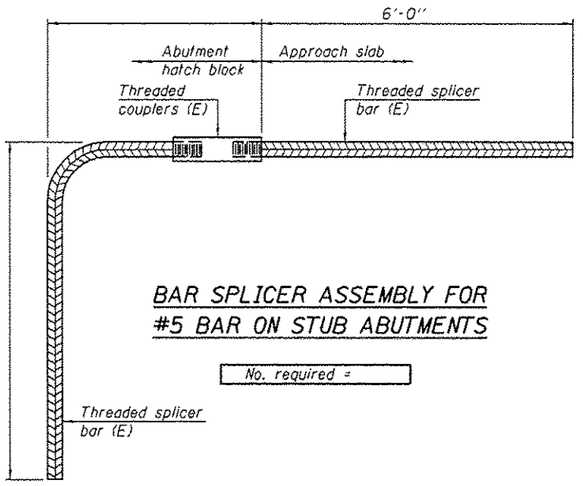
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Curtain wall	#4	70



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 1-27-12

DESIGNED VHV	EXAMINED	Timothy A. Sheldon, ACTING ENGINEER OF STRUCTURAL SERVICES	DATE JANUARY 14, 2015	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS SN 014-0039	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED DAB	PASSED	A. Carl Ramey, ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVISED			64	14-1HB-2-HDF	CLINTON	6	6
DRAWN baliva			REVISED		SHEET NO. 2 OF 2 SHEETS			CONTRACT NO. 76H44		
CHECKED VHV DAB								ILLINOIS FED. AID PROJECT		