

06-16-2023 LETTING ITEM 093

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
24	(64-3B)-8	MASSAC	9	1
		ILLINOIS	CONTRACT NO. 78996	

FOR INDEX OF SHEETS, SEE SHEET NO. 3
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4

PROPOSED HIGHWAY PLANS

FAI. ROUTE 24 (I-24)
SECTION (64-3B) I-8
PROJECT N/A
BRIDGE PEIR REPAIRS (BARGE IMPACT)
MASSAC COUNTY

C-99-043-23

TRAFFIC DATA

SN 064-0035
I-24 2021 ADT = 28800 (TWO WAY)
23% TRUCKS

TOWNSHIPS

SECTION 8, TOWNSHIP 16S, RANGE 8E

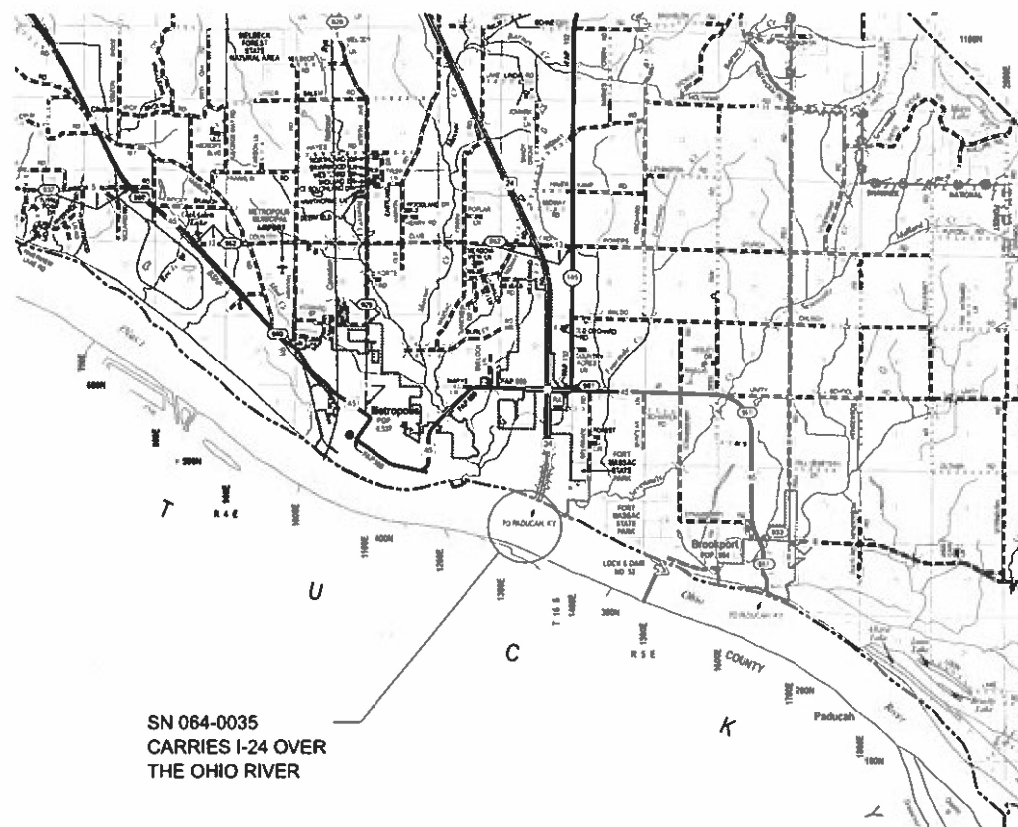
DESIGN DESIGNATION : N/A

COORDINATE SYSTEM : ILLINOIS COORDINATE SYSTEM, EAST ZONE
POSTED SPEED : 70 MPH

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

PROJECT ENGINEER GRANT DETERDING

CONTRACT NO. 78996



SN 064-0035
CARRIES I-24 OVER
THE OHIO RIVER

GROSS LENGTH = N/A FT. = N/A MILES
NET LENGTH = N/A FT. = N/A MILES



LOCATION OF SECTION INDICATED THUS: - [black rectangle] -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED MARCH 20 20 23

Kirk H. Brown
REGION FIVE ENGINEER

May 12, 2023
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

May 12, 2023
[Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

USER NAME = D:\er\S&P	DESIGNED - DRS	REVISOR -
PLOT SCALE = 100.0000 / 1"	DRAWN - DRS	REVISOR -
PLOT DATE = 2/27/2023	CHECKED - MAS	REVISOR -
	DATE - 10/17/2022	REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:	SHEET	OF	SHEETS	STA	TO STA
SIGNATURES					
FAL. RTE.	SECTION	COUNTY	TOTAL SHEETS	NO.	
24	164-381-1-8	MASSAC	9	2	
CONTRACT NO. 78996					
ILLINOIS FED. AID PROJECT					

Prepared By: *Charles Klein*
DISTRICT STUDIES & PLANS ENGINEER

Examined By: *Monique Noe*
DISTRICT LAND ACQUISITION ENGINEER

Examined By: *Cassie Nelson*
DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: *R. G. G.*
DISTRICT OPERATIONS ENGINEER

Examined By: *Doug J. Willis*
DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: *Doug J. Willis*
DISTRICT CONSTRUCTION ENGINEER

Examined By: *Ann Hodge*
DISTRICT MATERIALS ENGINEER

USER NAME = Derek.Snyder	DESIGNED - DRS	REVISED -
	DRAWN - DRS	REVISED -
	CHECKED - MAS	REVISED -
PLOT SCALE = 100,0000' / in.		
PLOT DATE = 2/27/2023	DATE - 10/17/2022	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
INDEX OF SHEETS, GENERAL NOTES, STANDARDS					

F.A.L. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
24			3
MASSAC			9
(64-3B) I-8			3
CONTRACT NO. 78996			
ILLINOIS			
FED. AID PROJECT			

THE WORK IN THIS CONTRACT CONSIST OF REPAIRS TO PIER 12
 DUE TO BARGE IMPACT. THE COST OF GETTING TO AND FROM
 THIS PIER AND THE WORKING PLATFORM TO DO THESE REPAIRS
 IS INCLUDED WITH MOBILIZATION LUMP SUM.

GENERAL NOTES

5-9

SN 064-0035 PIER REPAIR DETAILS

4

SUMMARY OF QUANTITIES

3

GENERAL NOTES, INDEX OF SHEETS, AND STANDARDS

2

SIGNATURES

1

COVER SHEET

INDEX OF SHEETS

701901-08

TRAFFIC CONTROL DEVICES

001006

DECIMAL OF AN INCH AND OF A FOOT

001001-02

AREAS OF REINFORCEMENT BARS

000001-08

STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

STANDARDS

USER NAME = Derek.Snyder	DESIGNED - DRS	REVISED -
	DRAWN - DRS	REVISED -
	CHECKED - MAS	REVISED -
PLOT SCALE = 100.0173' / in.		
PLOT DATE = 2/8/2023	DATE - 10/17/2022	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.
SUMMARY OF QUANTITIES					
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEET NO.	9	4
24	(64-3B) I-8	MASSAC	CONTRACT NO. 78996	ILLINOIS FED. AID PROJECT	

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	60
50800530	MECHANICAL SPLICERS	EACH	8
67100100	MOBILIZATION	L SUM	1
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	10.7
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	13.5

SUMMARY OF QUANTITIES

COUNTY:	MASSAC CO
ROUTE:	FA1 24
FUNDING:	100% STATE
LOCATION:	064-0035
TOTAL QUANTITY	STRUCTURE 0013

REV. - MS

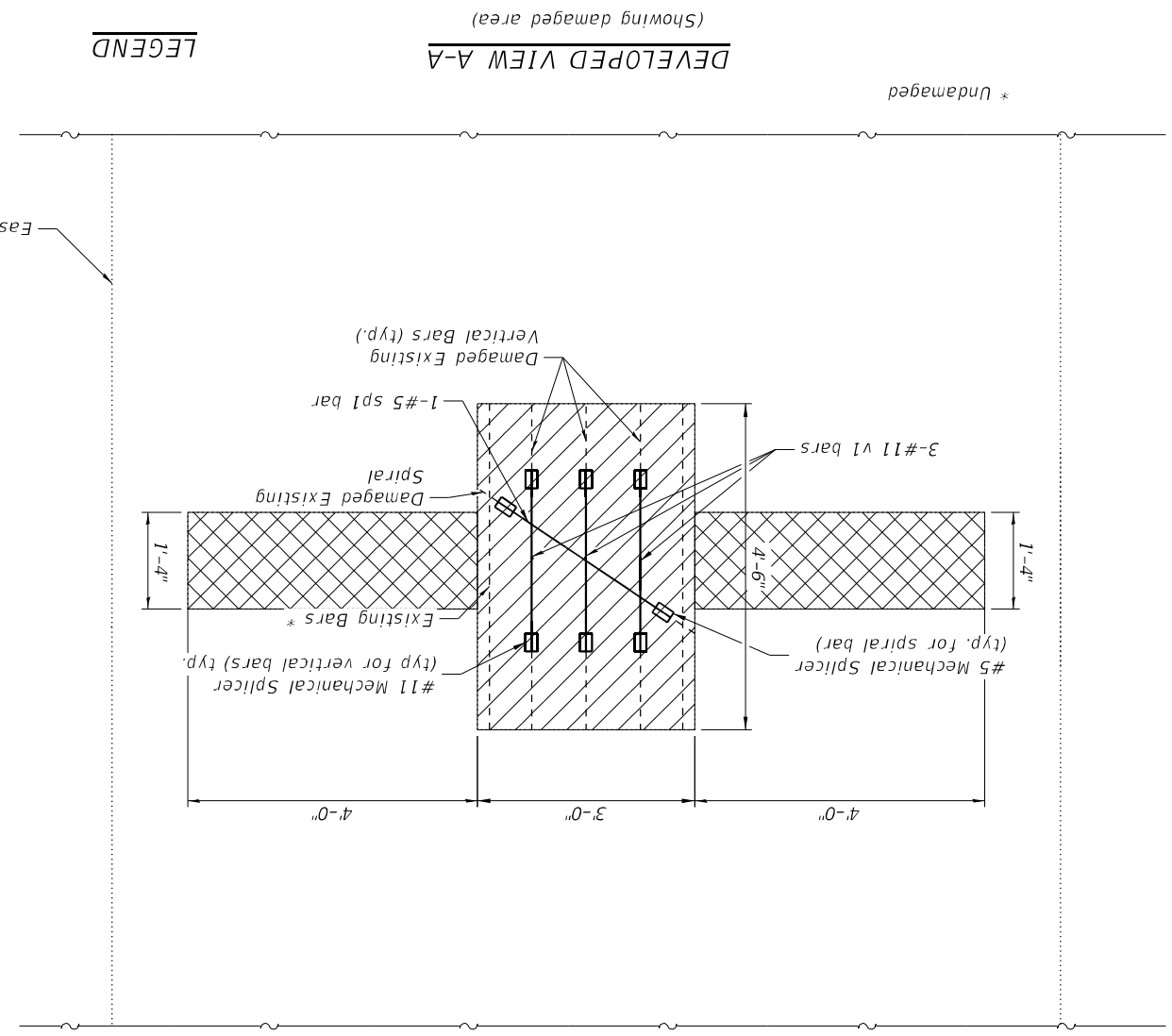


USER NAME =	z Davidson	DESIGNED -	KWB	REVISD	-
PROJECT DATE =	03/27/2023	CHECKED -	MDC	REVISD	-
PLOT SCALE =	2:6,000 1" = 1'-0"	DRAWN -	JDC	REVISD	-
PROJECT NO. =	0640035-78996-002-Details.dgn	CHECKED -	CFS	REVISD	-

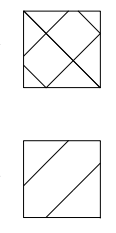
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PIER 12 REPAIR DETAILS
 STRUCTURE NO. 064-0035

SECTION	(64-3B)-8	ILLINOIS	FED. AID PROJECT
COUNTY	MASSAC	CONTRACT NO.	78996
TOTAL SHEETS	9		
SHEET NO.	6		

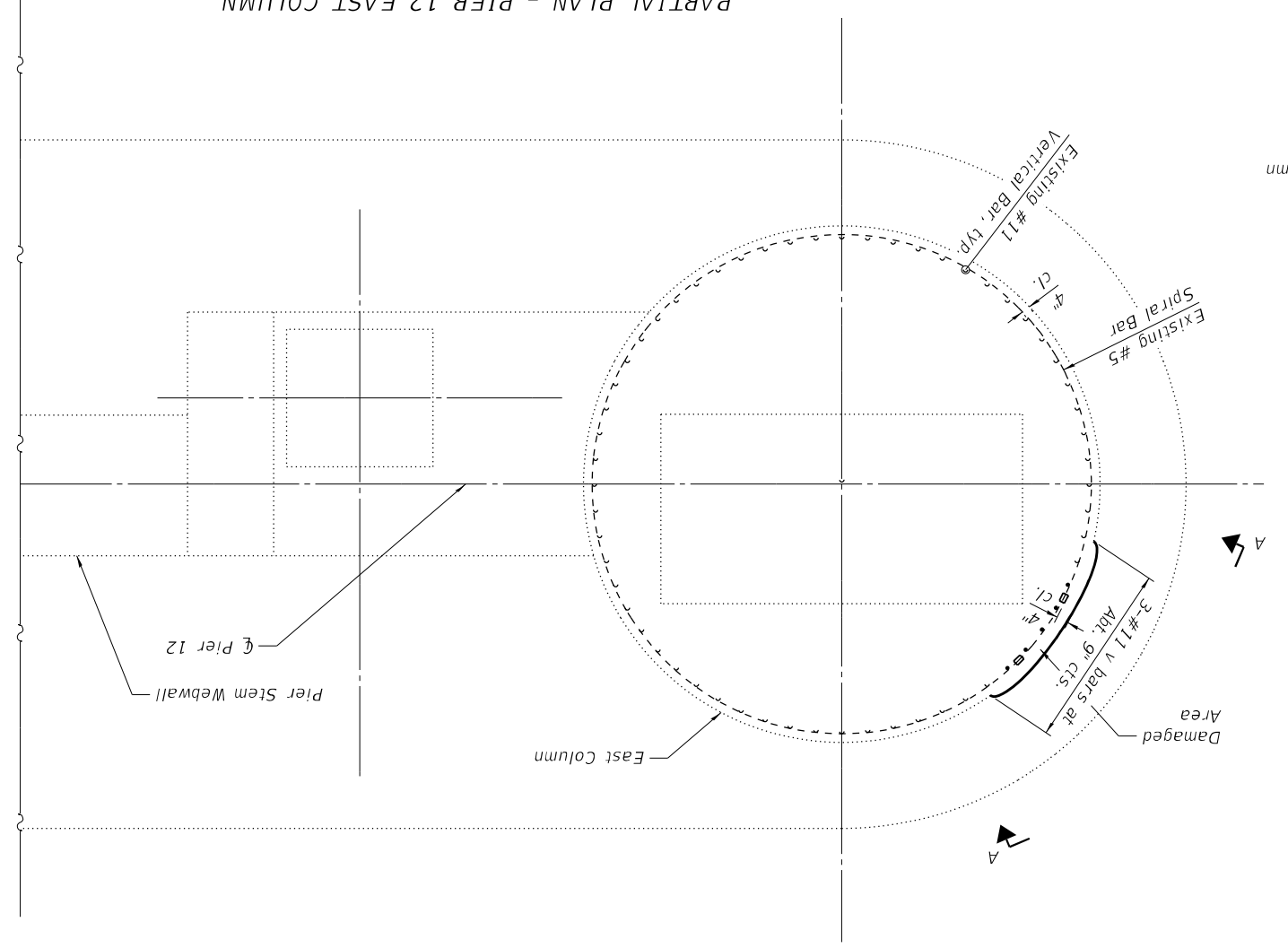


DEVELOPED VIEW A-A
 (Showing damaged area)



Structural Repair of Concrete (Greater than 5" depth)
 Structural Repair of Concrete (Less than 5" depth)

PARTIAL PLAN - PIER 12 EAST COLUMN
 Center-to-center spacing of #11 - H23 bars = ±9"
 Spiral pitch = 12" : Spiral diameter = 14'-4"



TOTAL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
v1	3	#11	3'-0"	—
sp1	1	#5	2'-3"	—
Reinforcement Bars	Pound	60	Total	
Mechanical Splicers	Each	8		
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq Ft	10.7		
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq Ft	13.5		

NOTES:
 Existing reinforcement shall be cleaned and incorporated into the repaired area where it will be mechanically spliced with new reinforcement bars. Cost included with Structural Repair of Concrete (Depth Greater Than 5 Inches).
 Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.



USER NAME =	zdavison
DESIGNED -	KWB
CHECKED -	CFS
DRAWN -	JDC
CHECKED -	MDC
REVISOR	

1-1-2020

BSD-1

REVISION	DESCRIPTION
1	DESIGNED
2	CHECKED
3	DRAWN
4	CHECKED
5	REVISOR

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

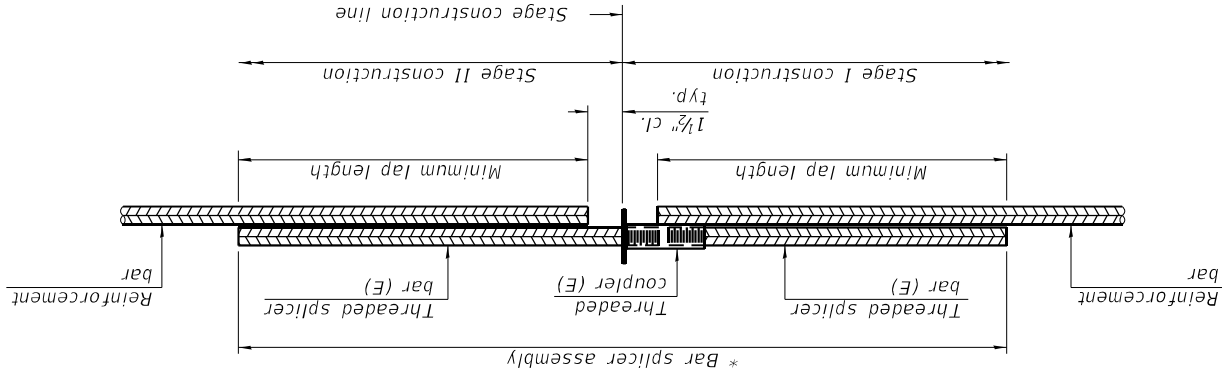
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 064-0035

SHEET NO.	24
TOTAL SHEETS	9
COUNTY	MASSAC
SECTION	(64-3B)-8
CONTRACT NO.	78996

Location	Bar size	No. assemblies required	Minimum lap length

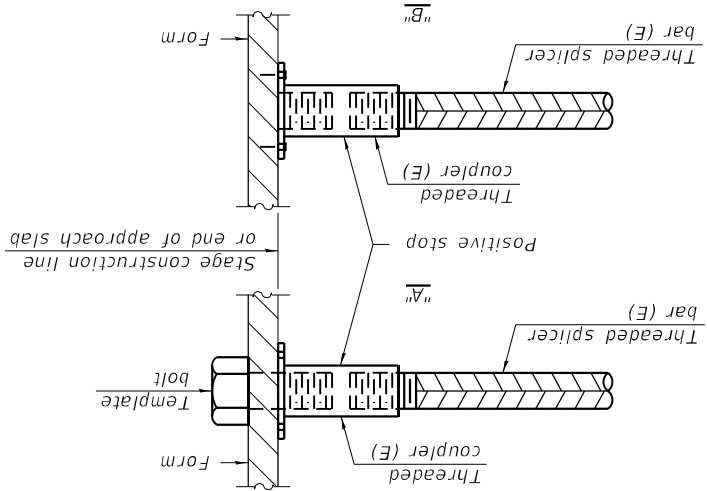
Threaded splicer bar length = min. lap length + 1 1/2" + thread length
 * Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

STANDARD BAR SPLICER ASSEMBLY PLAN
 (All components shall be provided from one supplier)



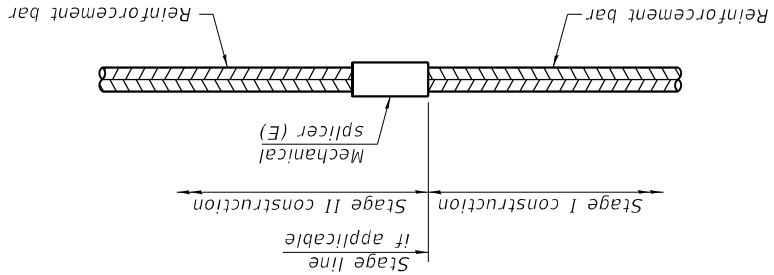
INSTALLATION AND SETTING METHODS

"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.



Location	Bar size required	No. assemblies
Pier 12	#11	6
Pier 12	#5	2

STANDARD MECHANICAL SPLICER



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.



USER NAME =	ostojas
CHECKED =	KWB
DESIGNED =	KWB
CHECKED =	CFS
DRAWN =	JDC
CHECKED =	MDC
REVISOR =	
REVISOR =	
REVISOR =	
REVISOR =	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLAN REFERENCE SHEET
STRUCTURE NO. 064-0035

FILE NAME =	S:\2021\21JL033 - P1R 199-38 09 - GEI - Various - HW-011-124 BR Pier Repair 064-0035\CADD\CADD Sheets\0640035-78996-004-Reference1.dgn
PLOT DATE =	03/27/2023
PLOT SCALE =	02.0000" = 1'-0"
USER NAME =	ostojas
DESIGNED =	KWB
CHECKED =	CFS
DRAWN =	JDC
CHECKED =	MDC
REVISOR =	
REVISOR =	
REVISOR =	
REVISOR =	

FOR INFORMATION ONLY

