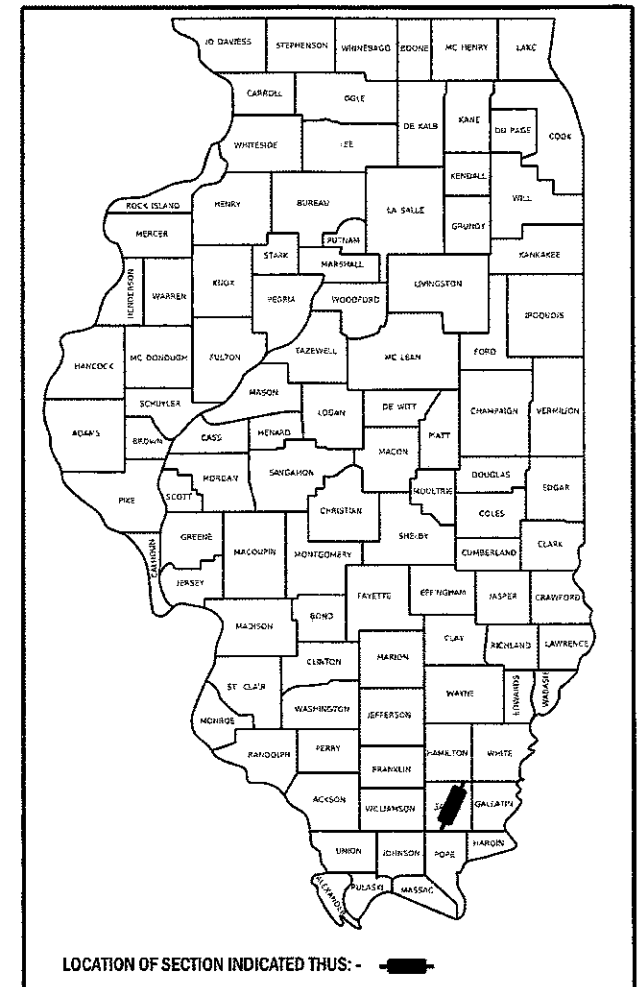


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	D9 BRIDGE REPAIR 2018-1	SALINE	39	1
		ILLINOIS	CONTRACT NO. 78579	

D-99-030-17



PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 332 (US 45)
SECTION D9 BRIDGE REPAIR 2018-1
PROJECT NHPP-EPFK(302)
BRIDGE REPAIRS AND APPROACH WORK
SALINE COUNTY

C-99-030-17

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEETS NO. 4-6

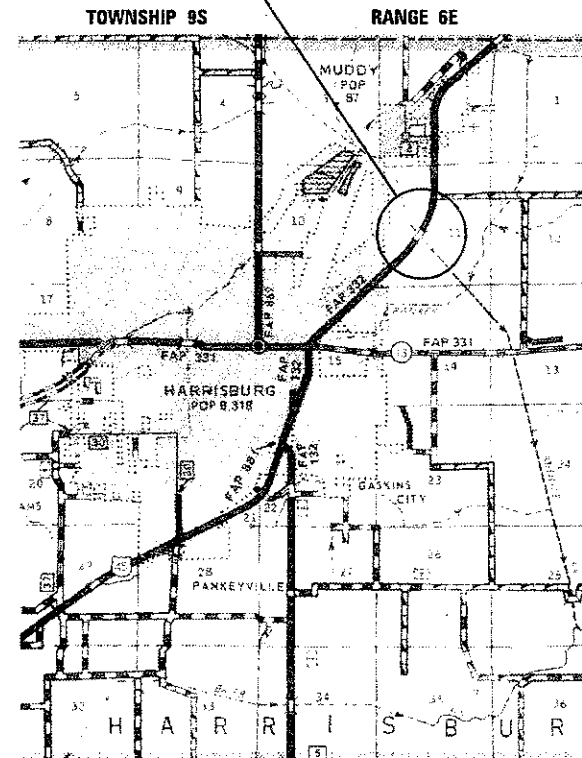
TRAFFIC DATA

SN 083-0062
SN 083-0048
2015 TWO-WAY ADT = 9,700
WITH 16.0% TRUCKS
SPEED LIMIT: 55 MPH

TOWNSHIP

HARRISBURG

IMPROVEMENT LOCATION
STRUCTURE 083-0048 (E)
STRUCTURE 083-0062 (E)
US 45 OVER MIDDLE FORK
SALINE RIVER



GROSS LENGTH = 475.35 FT. = 0.090 MILE
NET LENGTH = 475.35 FT. = 0.090 MILE

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

PROJECT ENGINEER: DAVID PICHE (618) 351-5227
DESIGN ENGINEER: ADRIAN ADAMS (618) 351-5262

CONTRACT NO. 78579

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Oct 16 2017
Jeffrey L. Keen REGIONAL ENGINEER
Feb 2 2018
Adrian Adams ENGINEER OF DESIGN AND ENVIRONMENT
Feb 7 2018
David P. Chaf DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

GENERAL NOTES

- 1) THE THICKNESS OF HOT-MIX ASPHALT MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT-MIX ASPHALT MIXTURE IS PLACED.
- 2) FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL HOT MIX ASPHALT	2.016 TONS/CU YD
ALL AGGREGATE	2.05 TONS/CU YD
RIPRAP	1.50 TONS/CU YD
EARTH	110 LBS/CU FT
- 3) PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS THE RESIDENT ENGINEER SHALL CONTACT THE BUREAU OF OPERATIONS AND ARRANGE FOR INSPECTION AND APPROVAL OF THE PAVEMENT MARKING LAYOUT.
- 4) WHERE STAGE I TRAFFIC DRIVES OVER THE EXISTING OUTSIDE SHOULDER, BOTH EXISTING DRAINAGE SCUPPERS SHALL BE COVERED WITH A METAL PLATE TO ADEQUATELY PROTECT THEM FROM CARRYING THE FULL WEIGHT OF TRAFFIC IMPACTS. THE METAL PLATES SHALL BE HELD BACK 6" FROM CURB FOR DRAINAGE AND SHALL BE FASTENED TO THE APPROACH SHOULDER PAVEMENT SURROUNDING THE SCUPPER AS APPROVED BY THE ENGINEER. THE COST OF FURNISHING, INSTALLATION, MAINTAINING, AND REMOVING THE METAL PLATES IS INCLUDED IN TRAFFIC CONTROL AND PROTECTION, 701423.
- 5) AFTER A LIFT OF HOT-MIX ASPHALT HAS BEEN PLACED, THE LANE SHALL REMAIN CLOSED TO TRAFFIC UNTIL THE NEW MAT HAS COOLED TO 150 DEGREES FAHRENHEIT.
- 6) COMMITMENTS: NONE AS OF DECEMBER 15, 2017

INDEX OF SHEETS

- | | |
|-------|---|
| 1 | COVER SHEET |
| 2 | GENERAL NOTES, INDEX OF SHEETS, STANDARDS, AND MIXTURE REQUIREMENTS |
| 3 | SIGNATURE SHEET |
| 4-6 | SUMMARY OF QUANTITIES |
| 7 | SCHEDULES |
| 8 | GENERAL PLAN AND ELEVATION |
| 9 | STAGING DETAILS SN 083-0048 |
| 10-11 | JOINT RECONSTRUCTION DETAILS @ ABUTMENTS SN 083-0048 |
| 12 | JOINT RECONSTRUCTION DETAILS @ PIERS SN 083-0048 |
| 13 | DECK SLAB REPAIR |
| 14 | SOUTH APPROACH PLAN AND PROFILE SN 083-0062 |
| 15 | NORTH APPROACH PLAN AND PROFILE SN 083-0062 |
| 16 | BAR SPLICER ASSEMBLY DETAILS |
| 17 | PREFORMED JOINT STRIP SEAL DETAILS |
| 18 | TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION |
| 19 | BUTT JOINT DETAIL |

MIXTURE REQUIREMENTS

LOCATIONS	HOT-MIX ASPHALT SURFACE COURSE
MIXTURE USE(S):	HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70
AC/PG:	PG64-22
ABR % (MAX):	SEE SPECIAL PROVISION
DESIGN AIR VOIDS:	4.0%, 70 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5MM
FRICTION AGGREGATE:	D SURFACE
MIXTURE WEIGHT:	112 LBS/SQ YD/IN
QUALITY MANAGEMENT PROGRAM:	QC/QA
SUBLOT SIZE:	TBD

LOCATIONS	HOT-MIX ASPHALT LEVELING BINDER
MIXTURE USE(S):	HOT-MIX ASPHALT LEVELING BINDER, N70, FINE GRADED
AC/PG:	PG64-22
ABR % (MAX):	SEE SPECIAL PROVISION
DESIGN AIR VOIDS:	4.0%, 70 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5MM FINE GRADED
FRICTION AGGREGATE:	NONE
MIXTURE WEIGHT:	112 LBS/SQ YD/IN
QUALITY MANAGEMENT PROGRAM:	QC/QA
SUBLOT SIZE:	NA

LOCATIONS	HOT-MIX ASPHALT SHOULDERS
MIXTURE USE(S):	HOT-MIX ASPHALT SURFACE COURSE, N30, IL-9.5L
AC/PG:	PG64-22
ABR % (MAX):	SEE SPECIAL PROVISION
DESIGN AIR VOIDS:	4.0%, 30 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5L
FRICTION AGGREGATE:	NONE
MIXTURE WEIGHT:	112 LBS/SQ YD/IN
QUALITY MANAGEMENT PROGRAM:	QC/QA
SUBLOT SIZE:	NA

STANDARDS

- | | |
|-----------|---|
| 000001-06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-02 | AREAS OF REINFORCEMENT BARS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 420001-09 | PAVEMENT JOINTS |
| 701421-08 | LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 TO 55 MPH |
| 701422-10 | LANE CLOSURE, MULTILANE, FOR SPEEDS ≥ THAN 45 TO 55 MPH |
| 701423-10 | LANE CLOSURE, MULTILANE, WITH BARRIER FOR SPEEDS ≥ THAN 45 TO 55 MPH |
| 701901-07 | TRAFFIC CONTROL DEVICES |
| 704001-08 | TEMPORARY CONCRETE BARRIER |
| 780001-05 | TYPICAL PAVEMENT MARKINGS |

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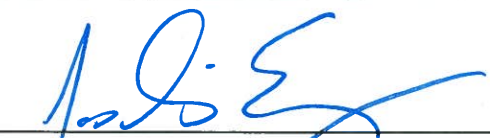
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

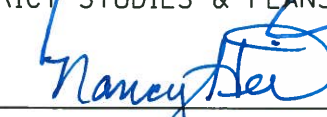
**GENERAL NOTES, INDEX OF SHEETS,
STANDARDS, AND MIXTURE REQUIREMENTS**


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	D9 BRIDGE REPAIR 2018-1	SALINE	19	2
			CONTRACT NO. 78579	
ILLINOIS FED. AID PROJECT				


SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____


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Prepared By: 
DISTRICT STUDIES & PLANS ENGINEER


Examined By: 
DISTRICT LAND ACQUISITION ENGINEER

Examined By: 
DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: 
DISTRICT OPERATIONS ENGINEER

Examined By: 
DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: 
DISTRICT CONSTRUCTION ENGINEER

Examined By: 
DISTRICT MATERIALS ENGINEER

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	D9 BRIDGE REPAIR 2018-1	SALINE	19	3
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78579	

SUMMARY OF QUANTITIES

COUNTY: SALINE
 ROUTE: FAP 332 (US45)
 FUNDING: 20% STATE 80% FED
 LOCATION: RURAL
 ROADWAY
 0059

CODE NUMBER	ITEM DESCRIPTION	UNIT	
40600637	LEVELING BINDER (MACHINE METHOD), 1L-9.5FG, N70	TON	2
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	624
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SQ YD	121
40600990	TEMPORARY RAMP	SQ YD	334
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	171
48203100	HOT-MIX ASPHALT SHOULDERS	TON	44
50102400	CONCRETE REMOVAL	CU YD	27.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	30.0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	5,010
50800515	BAR SPLICERS	EACH	44
52000110	PREFORMED JOINT STRIP SEAL	FOOT	180
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	975

12

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SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____				ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES - CONT

COUNTY:	SALINE
ROUTE:	FAP 332 (US45)
FUNDING:	20% STATE 80% FED
LOCATION:	RURAL
	ROADWAY
	0059

CODE NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	2
64300450	IMPACT ATTENUATORS (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3
67100100	MOBILIZATION	LSUM	1
70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	LSUM	1
70100320	TRAFFIC CONTROL AND PROTECTION, STANDARD 701422	LSUM	1
70100325	TRAFFIC CONTROL AND PROTECTION, STANDARD 701423	EACH	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	84
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SD FT	28
70400100	TEMPORARY CONCRETE BARRIER	FOOT	463
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	413
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1

12

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			SCALE: _____ SHEET _____ OF _____ SHEETS STA. _____ TO STA. _____		

PAVEMENT MARKING SCHEDULE								
STATION		NOTES		PAINT PAVEMENT MARKING - LINE 4''			SHORT TERM PAVEMENT MARKING	
				SOLID WHITE	WHITE SKIP DASH	SOLID YELLOW	WHITE SKIP DASH	YELLOW EDGE
				FOOT	FOOT	FOOT	FOOT	FOOT
SN 083-0048								
71+11.47	RT	TO	75+46.82	RT			436	
71+11.47		TO	75+46.82		ALONG CENTERLINE		110	44
71+11.47	LT	TO	75+46.82	LT			436	40
SN 083-0062								
70+72.47	RT	TO	71+52.47	RT			80	
70+72.47		TO	71+52.47		ALONG CENTERLINE		20	
70+72.47	LT	TO	71+52.47	LT			80	
74+05.82	RT	TO	74+65.82	LT			60	
74+05.82		TO	74+65.82		ALONG CENTERLINE		20	
74+05.82	LT	TO	74+65.82	LT			60	
SUBTOTAL							576	150
TOTAL							576	44
							576	84

PAVING SCHEDULE							
STATION		COMMENTS	PCC REMOVAL BUTT JOINT	HMA REMOVAL BUTT JOINT	HMA SURFACE COURSE, MIX "D", N70	HMA SHOULDERS	
SN 083-0048			SO YD	SO YD	TON	TON	
71+11.47	TO	71+51.47	DRIVING LANE		89	6	4
71+11.47	TO	71+51.47	PASSING LANE		72	6	2
71+56.10	TO	72+33.22	DRIVING LANE			15	
71+56.10	TO	72+33.22	PASSING LANE			12	
72+34.38	TO	73+23.01	DRIVING LANE			17	
72+34.38	TO	73+23.01	PASSING LANE			14	
73+24.17	TO	74+02.19	DRIVING LANE			15	
73+24.17	TO	74+02.19	PASSING LANE			12	
74+06.82	TO	75+06.82	DRIVING LANE			15	10
74+06.82	TO	75+06.82	PASSING LANE			15	5
75+06.82	TO	75+46.82	DRIVING LANE		89	6	4
75+06.82	TO	75+46.82	PASSING LANE		72	6	2
SN 083-0062			SO YD	SO YD	TON	TON	
70+72.47	TO	71+52.47	DRIVING LANE	26	84	9	6
70+72.47	TO	71+52.47	PASSING LANE	21	67	9	3
74+05.82	TO	74+65.82	DRIVING LANE	41	84	7	5
74+05.82	TO	74+65.82	PASSING LANE	33	67	7	3
TOTALS			121	624	171	44	

TEMPORARY CONCRETE BARRIER		
SN 083-0048		
STAGE	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER
	FOOT	FOOT
STAGE 1 - STA 71+48 TO STA 75+60.50	413	
STAGE 2 - STA 71+48 TO STA 76+10.50	50	413
TOTAL	463	413

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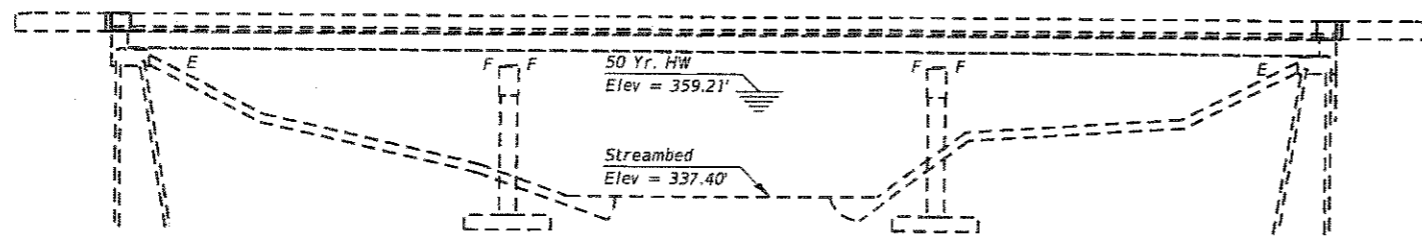
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES	
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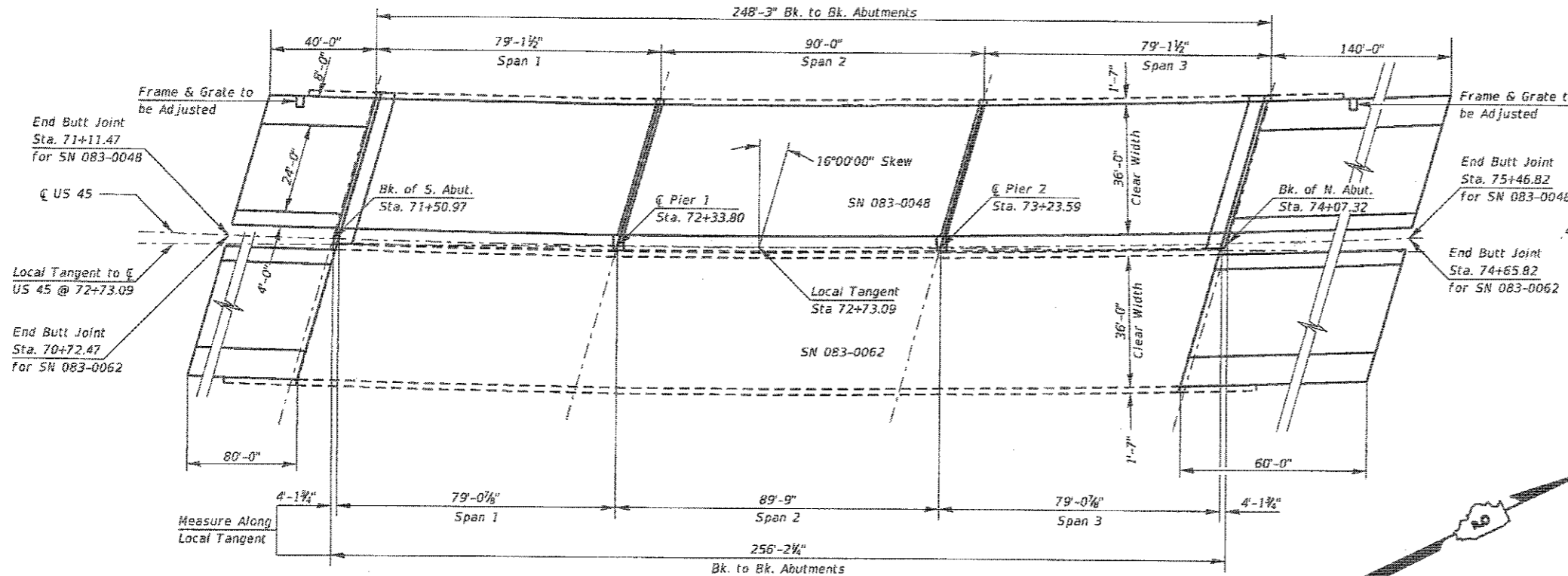
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CONTRACT NO. 78579				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

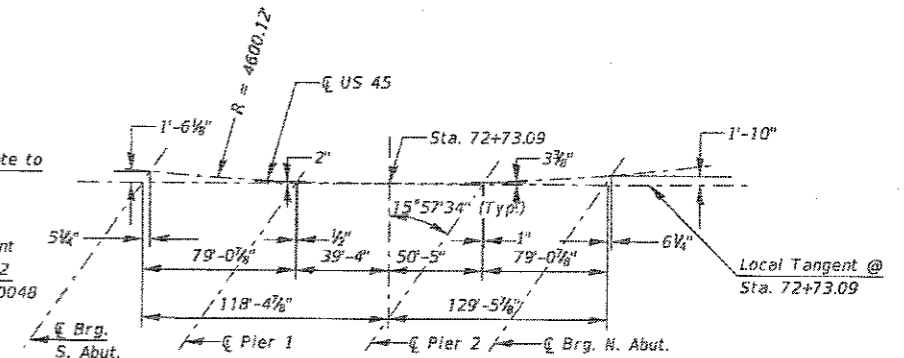
Reinforcement bars designated (E) shall be epoxy coated.
 Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to 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.
 Existing reinforcement bars extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included in Concrete Removal.
 The work, material, and equipment involved in saw cutting shall be considered included in the price bid for Concrete Removal.



ELEVATION

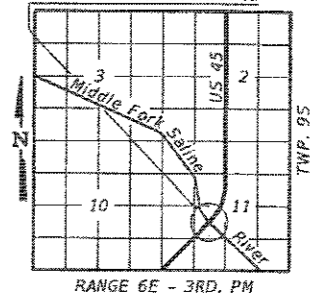


PLAN



OFFSET SKETCH
Not to Scale

STRUCTURE LOCATIONS

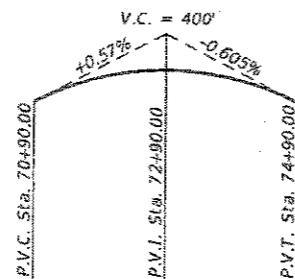


TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	27.6
Concrete Superstructure	Cu. Yd.	30.0
Reinforcement Bars, Epoxy Coated	Pound	5010
Bar Splicers	Each	44
Preformed Joint Strip Seal	Foot	180
Waterproofing Membrane System	Sq. Yd.	975
HMA Surface Course, Mix "D", N70	Ton	171
Deck Slab Repair (Partial)	Sq. Yd.	2

BRIDGE REPAIRS & APPROACH WORK
U.S. ROUTE 45 OVER MIDDLE FORK SALINE RIVER
F.A.P. ROUTE 332 - SECTION D9 BRIDGE REPAIR 2018-1
SALINE COUNTY
STATION 72+73.09
STRUCTURE NO. 083-0048
STRUCTURE NO. 083-0062

PROFILE GRADE
Along - Median of U.S. 45

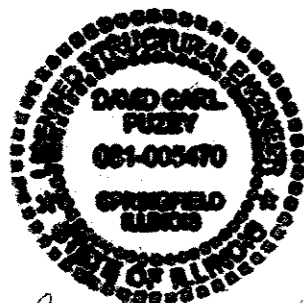


CURVE DATA

$\Delta = 49^{\circ}40'17.92''$
 $D = 1^{\circ}14'43.90''$
 $T = 2129.04 \text{ Ft.}$
 $L = 3988.00 \text{ Ft.}$
 $E = 458.80 \text{ Ft.}$
 $R = 4600.12 \text{ Ft.}$
 $PC = \text{Sta. } 57+41.53$
 $PT = \text{Sta. } 97+29.53$
 $PI = \text{Sta. } 78+70.58$
 $SE = 0.04 \text{ ft/ft}$
 $SE \text{ Attained} = 56+11.87 \text{ to } 58+11.87$
 $SE \text{ Removed} = 96+54.37 \text{ to } 98+54.37$

SCOPE OF WORK

- 1) Setup TC&P 701423 with barrier for work in the SB passing lane of US 45.
- 2) Perform deck slab repairs, joint reconstruction, water proofing membrane system, and HMA overlays shown.
- 3) Adjust TC&P 701423 with barrier for work in the SB driving lane of US 45.
- 4) Perform deck slab repairs, joint reconstruction, water proofing membrane system, HMA overlays shown.
- 5) Remove TC&P 701423.
- 6) Approach pavement profile correction (SN 083-0062 only)



David Carl Fuzzy
Expires 1/30/18

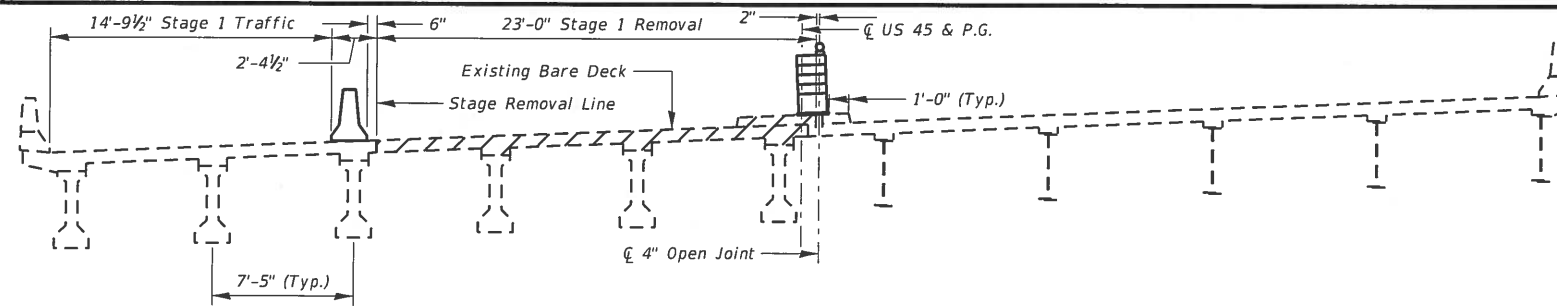
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	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

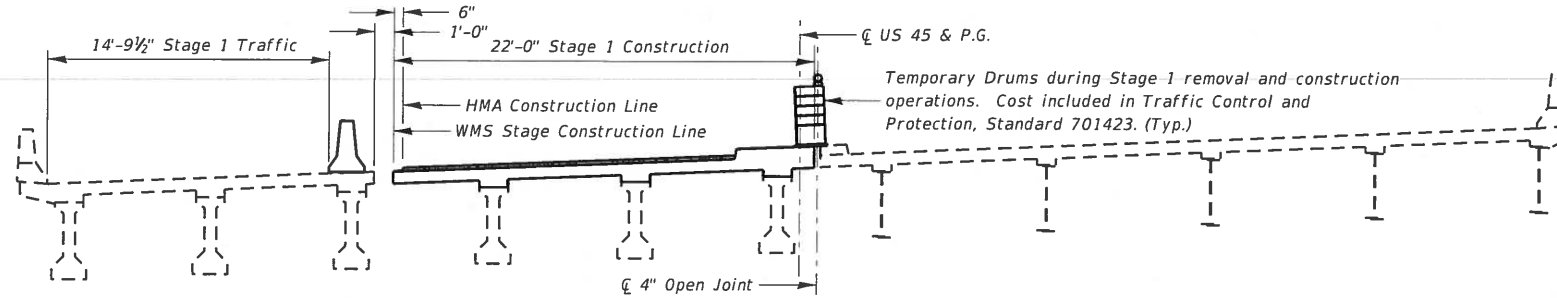
GENERAL PLAN AND ELEVATION

SCALE: _____ SHEET 1 OF 12 SHEETS STA. _____ TO STA. _____

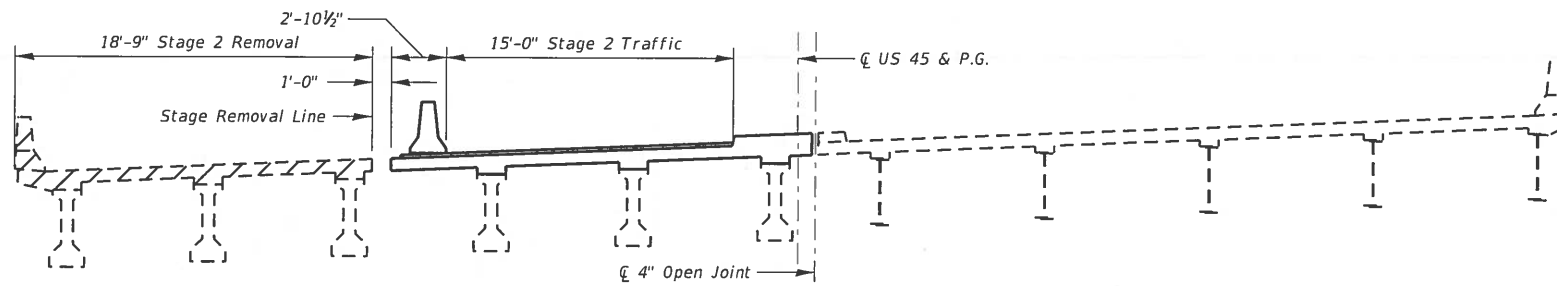
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CONTRACT NO. 78579				



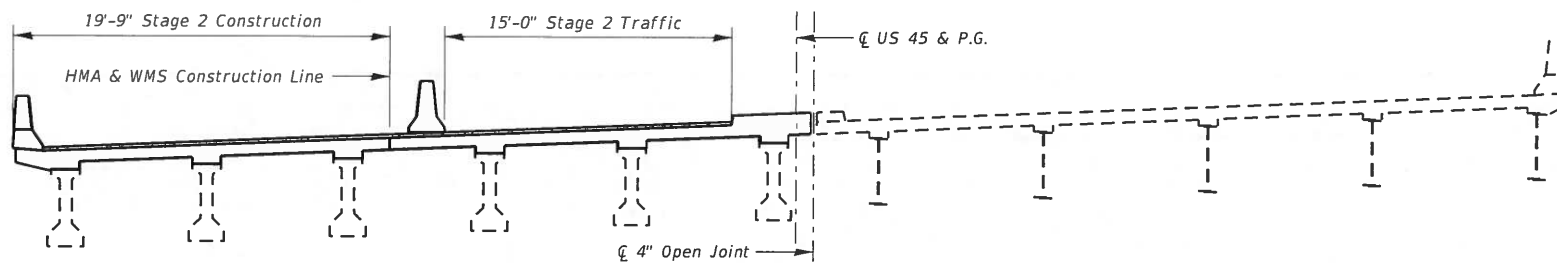
STAGE 1 REMOVAL



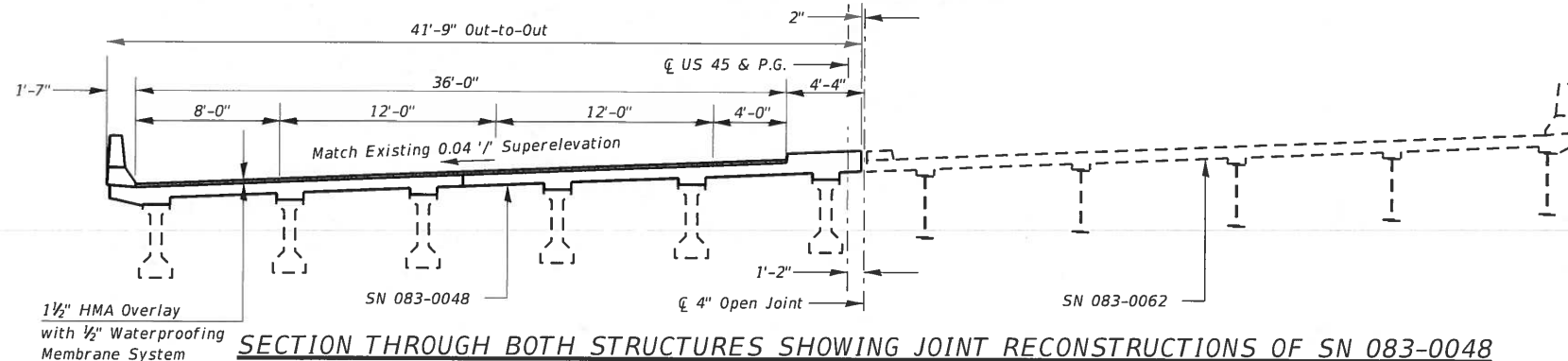
STAGE 1 CONSTRUCTION



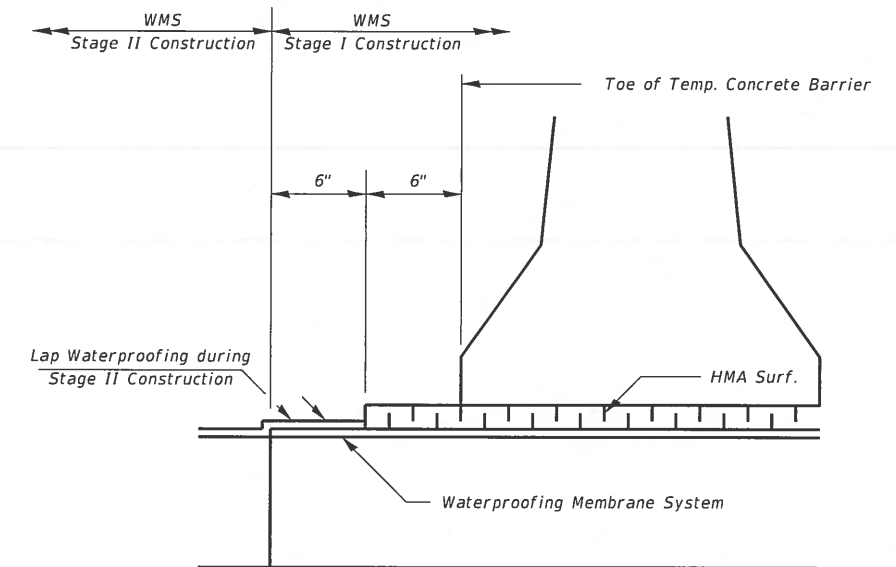
STAGE 2 REMOVAL



STAGE 2 CONSTRUCTION



SECTION THROUGH BOTH STRUCTURES SHOWING JOINT RECONSTRUCTIONS OF SN 083-0048
All Sections Looking North



WATERPROOFING TREATMENT AT STAGE CONSTRUCTION
Not to Scale



Concrete Removal at joint reconstructions

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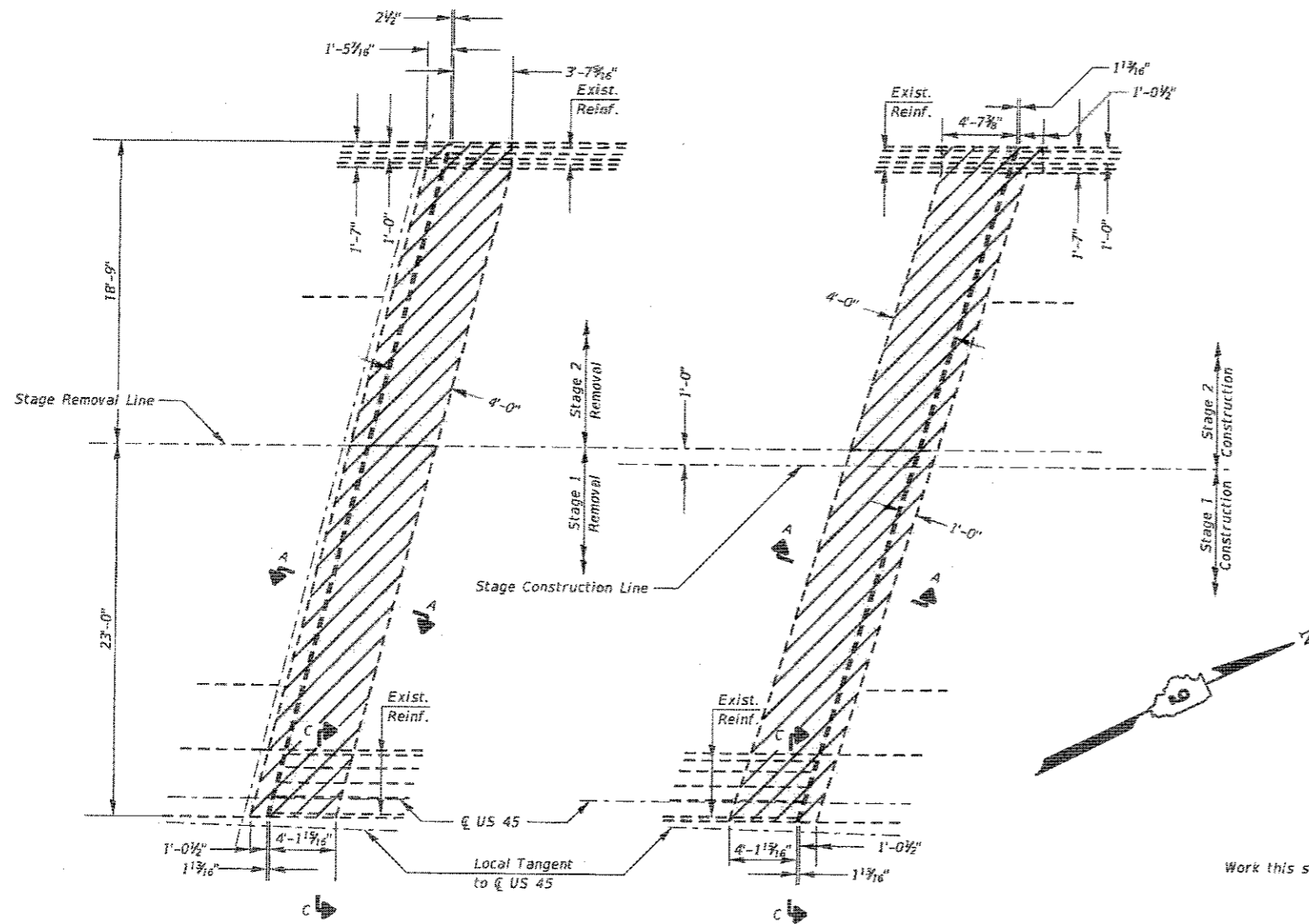
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	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STAGING DETAILS
SN 083-0048**

SCALE: _____ SHEET 2 OF 12 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	D9 BRIDGE REPAIR 2018-1	SALINE	19	9
CONTRACT NO. 78579				
ILLINOIS FED. AID PROJECT				



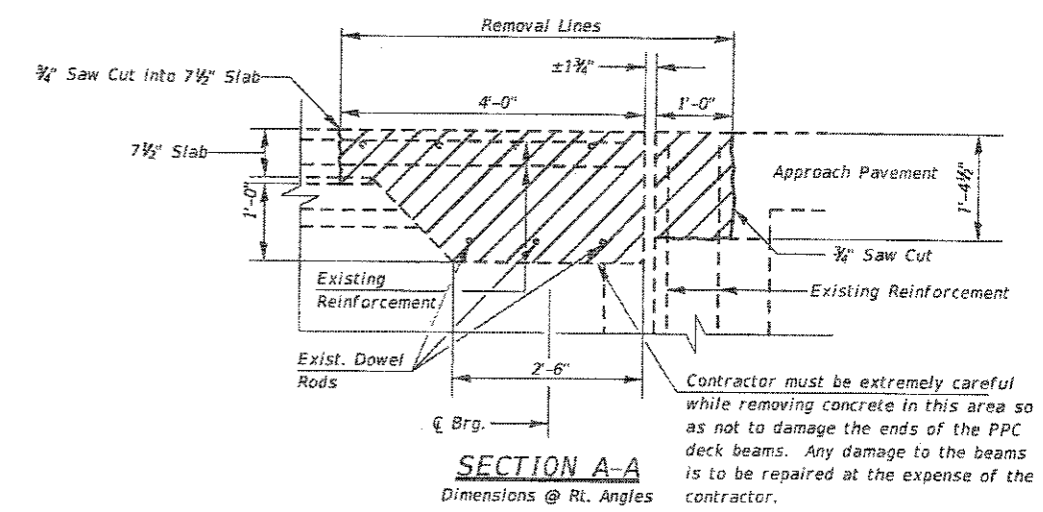
**JOINT @ SOUTH ABUTMENT
SHOWING CONCRETE REMOVAL**

**JOINT @ NORTH ABUTMENT
SHOWING CONCRETE REMOVAL**

Concrete Removal

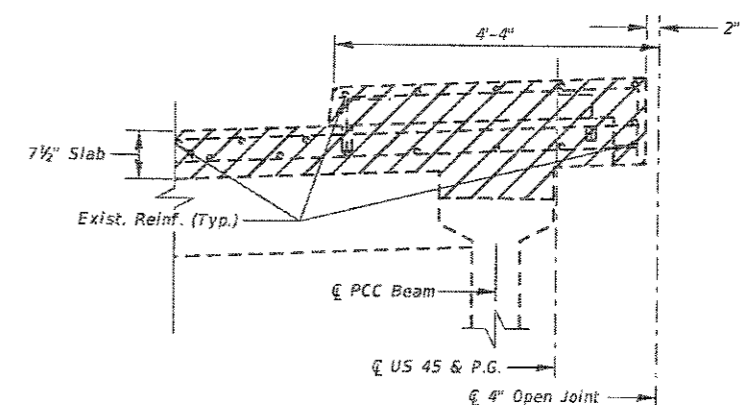
Note: Horizontal dimensions in sections A-A & B-B are at right angles. Dimensions are based on a rolled rail strip joint. If the Contractor elects to use welded rail strip seal joint deck dimensions may require adjustments to satisfy the details on sheet 10 of 12.

Work this sheet with sheet 4 of 12.

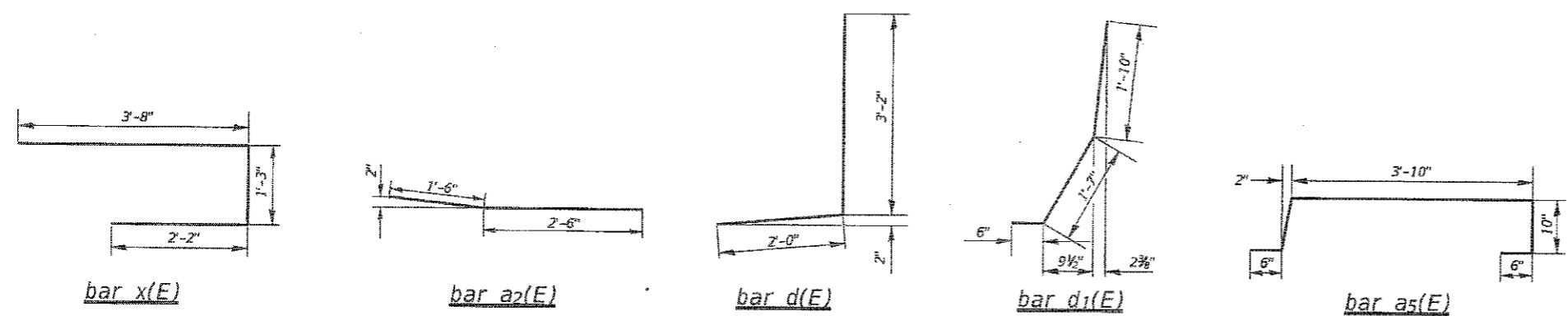


**SECTION A-A
Dimensions @ Rt. Angles**

Contractor must be extremely careful while removing concrete in this area so as not to damage the ends of the PPC deck beams. Any damage to the beams is to be repaired at the expense of the contractor.



SECTION C-C THROUGH DIAPHRAGM



**JOINT RECONSTRUCTION DETAILS
US ROUTE 45 OVER MIDDLE FORK SALINE RIVER
F.A.P. ROUTE 332 - SECTION D9 BRIDGE REPAIR 2018-1
SALINE COUNTY
STATION 72+73.09
STRUCTURE 083-0048**

USER NAME = adamsam	DESIGNED -	REVISED -
PLOT SCALE = 10,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 1/16/2018	CHECKED -	REVISED -
	DATE	REVISED -

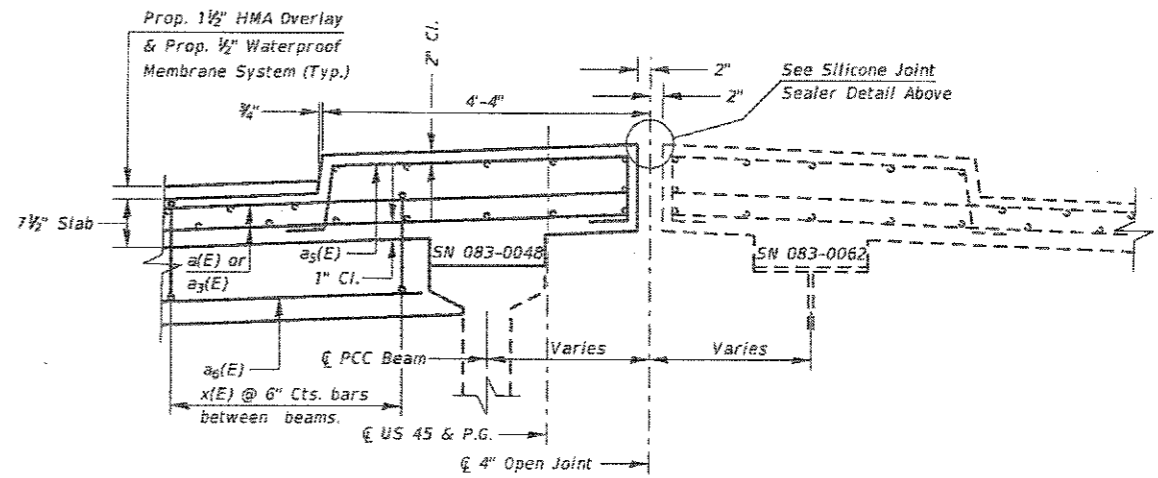
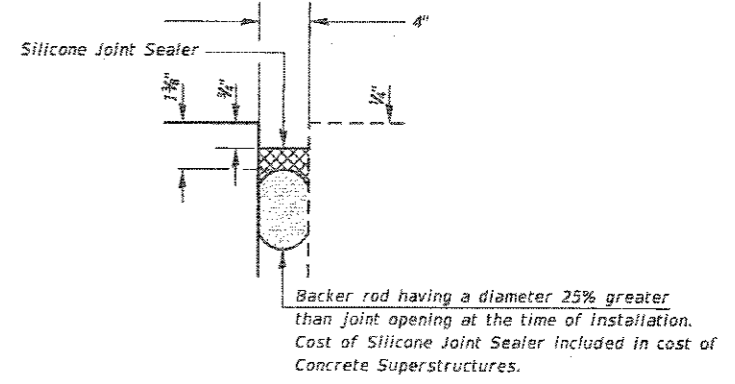
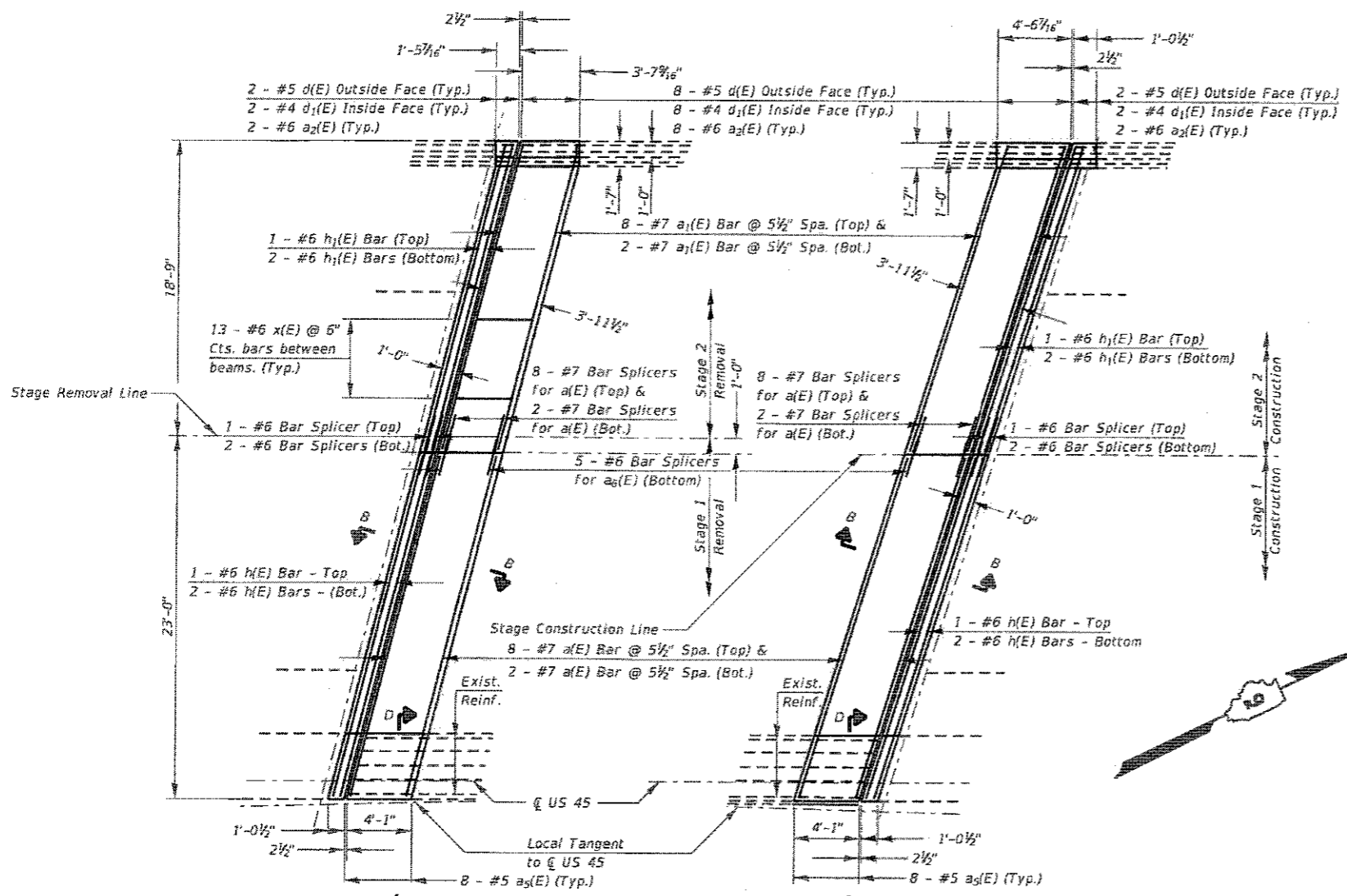
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**JOINT RECONSTRUCTION DETAILS
SN 083-0048**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	D9 BRIDGE REPAIR 2018-1	SALINE	19	10
CONTRACT NO. 78579				

SCALE: _____ SHEET 3 OF 12 SHEETS STA. _____ TO STA. _____

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**JOINT @ SOUTH ABUTMENT
SHOWING NEW CONCRETE**

**JOINT @ NORTH ABUTMENT
SHOWING NEW CONCRETE**

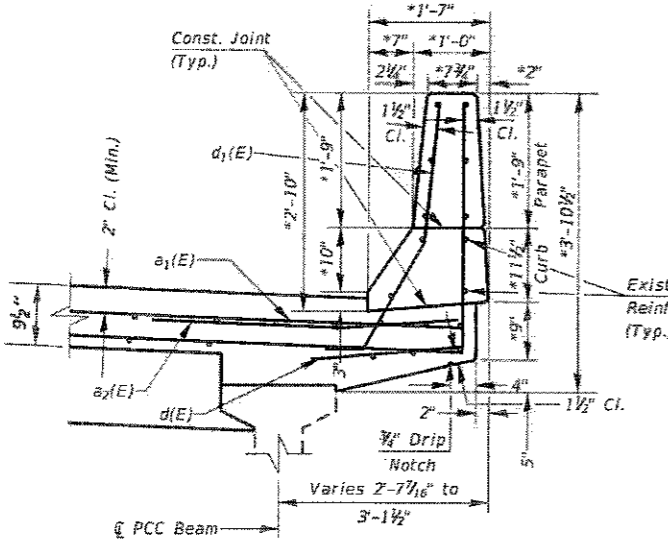
SECTION D-D THROUGH DIAPHRAGM

Work this sheet with sheet 3 of 12.

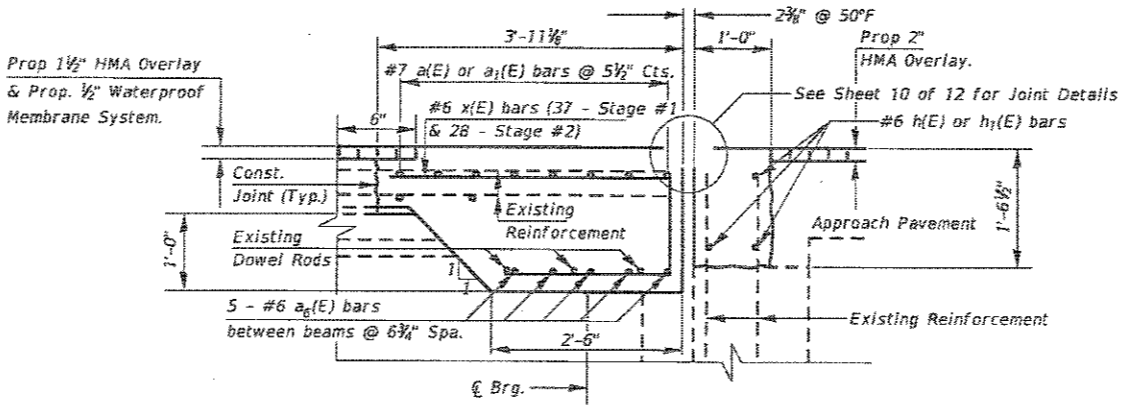
BILL OF MATERIAL (ALL JOINTS)

Bar	No.	Size	Length	Shape
a1(E)	20	#7	23'-9"	—
a2(E)	20	#7	19'-3"	—
a3(E)	24	#6	4'-0"	—
a4(E)	8	#6	23'-9"	—
a5(E)	8	#6	19'-3"	—
a6(E)	20	#5	6'-6"	J
a6(E)	50	#6	6'-7"	—
d(E)	24	#4	5'-2"	J
d1(E)	24	#5	3'-11"	J
h1(E)	6	#6	23'-9"	—
h2(E)	6	#6	19'-3"	—
x(E)	130	#6	7'-1"	—
Concrete Superstructure	Cu. Yd.	30.0		
Concrete Removal	Cu. Yd.	27.6		
Bar Splicers	Each	44		
Reinforcement Bars, Epoxy Coated	Pound	5010		

Note: * Field Verify (match existing)



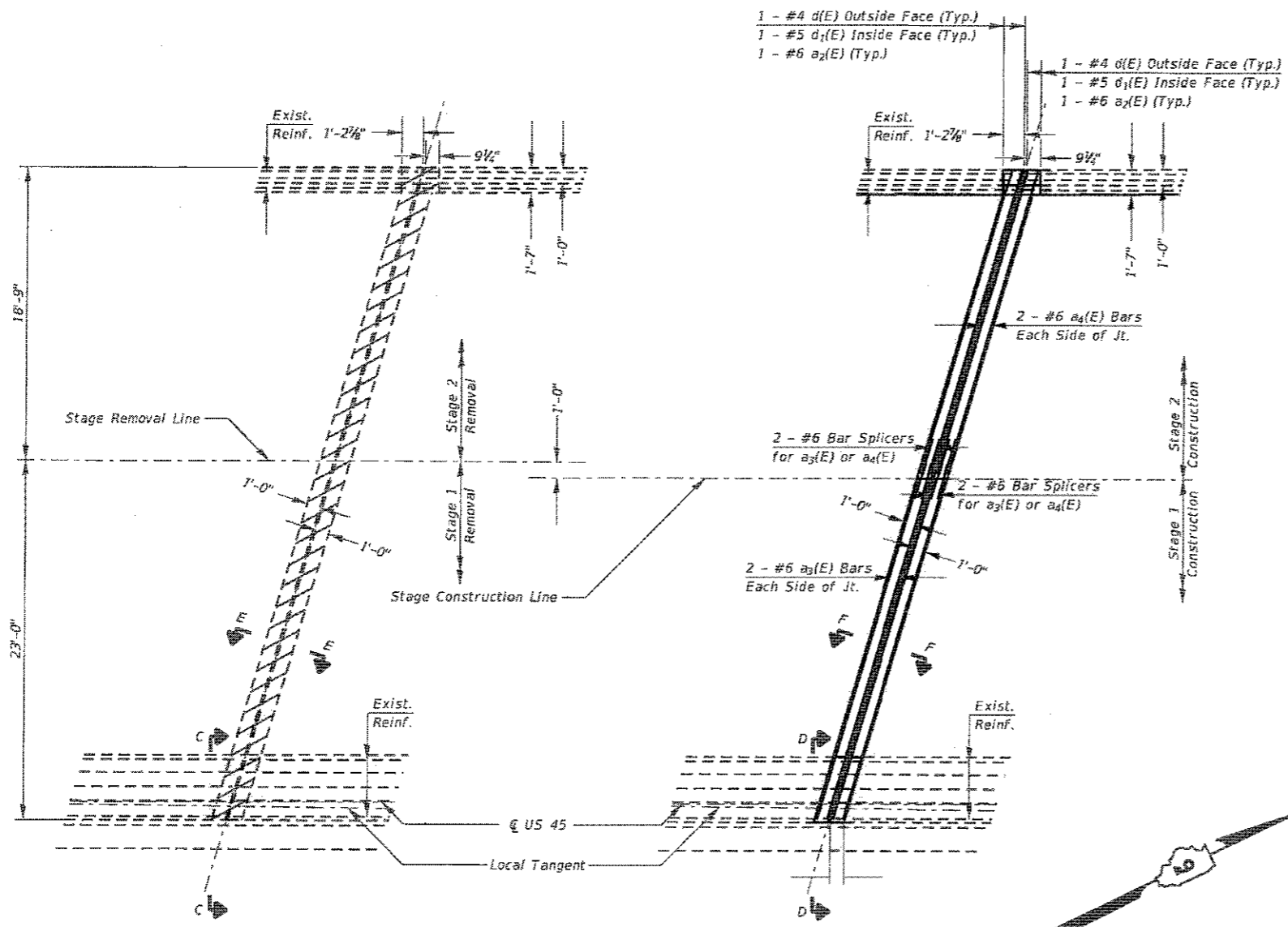
**SECTION THROUGH PARAPET @ ABUTMENTS
Deck on PCC I-Beam Section**



**SECTION B-B
Dimensions @ Rt. Angles**

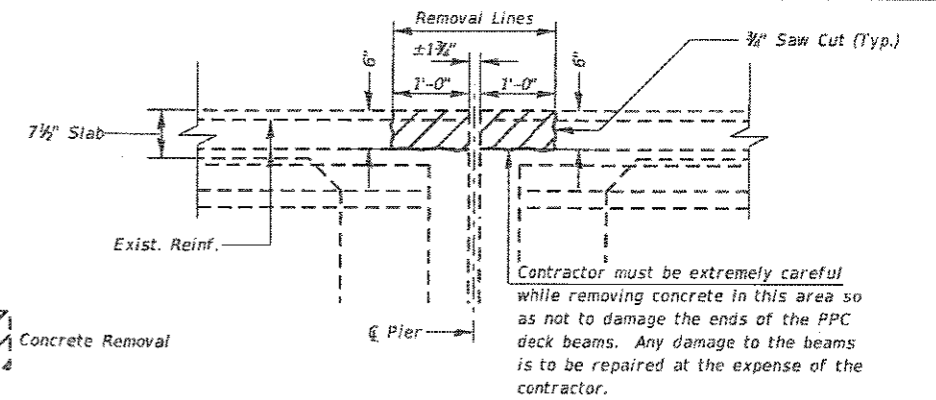
Note: Horizontal dimensions in section D-D are at right angles. Dimensions are based on a rolled rail strip joint. If the Contractor elects to use welded rail strip seal joint deck dimensions may require adjustments to satisfy the details on sheet 10 of 12.

**JOINT RECONSTRUCTION DETAILS
US ROUTE 45 OVER MIDDLE FORK SALINE RIVER
F.A.P. ROUTE 332 - SECTION D9 BRIDGE REPAIR 2018-1
SALINE COUNTY
STATION 72+73.09
STRUCTURE 083-0048**



JOINT @ PIER #2
SHOWING NEW CONCRETE
 Pier #1 Similar

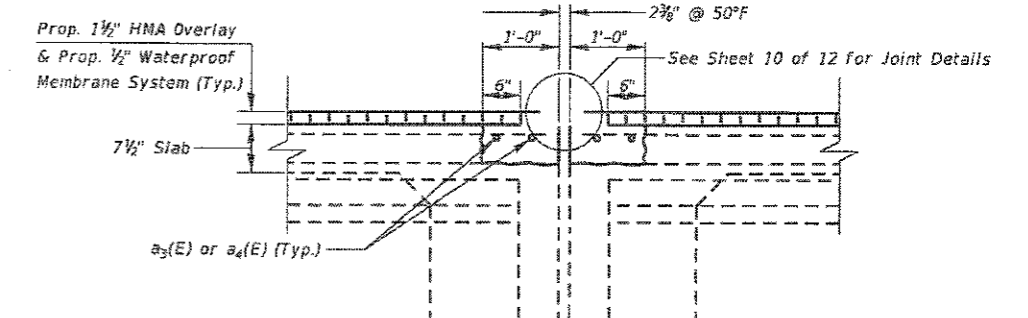
Work this sheet with sheet 3 of 12 and 4 of 12.



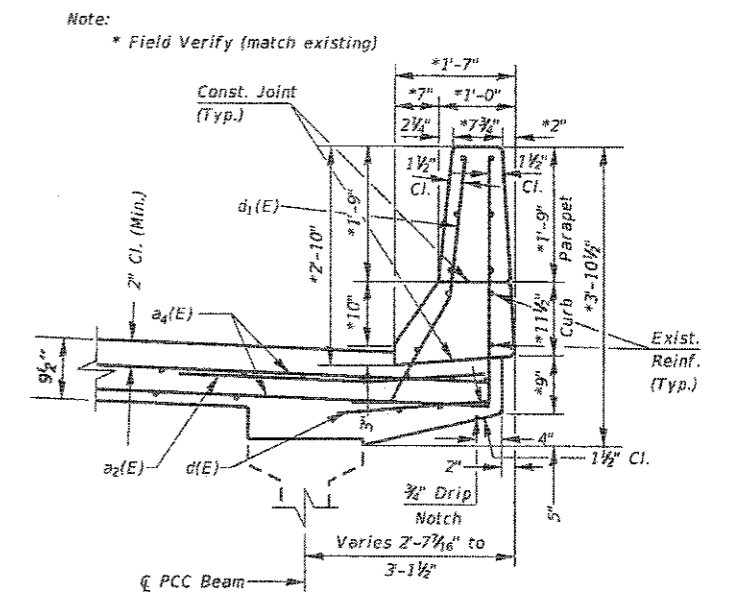
Concrete Removal

Contractor must be extremely careful while removing concrete in this area so as not to damage the ends of the PPC deck beams. Any damage to the beams is to be repaired at the expense of the contractor.

SECTION E-E
 Dimensions @ Right Angles



SECTION F-F
 Dimensions @ Right Angles



SECTION THROUGH PARAPET @ PIERS
 Deck on PPC I-Beam Section

Note:
 * Field Verify (match existing)

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PLOT DATE = 1/19/2018	DATE -	REVISED -

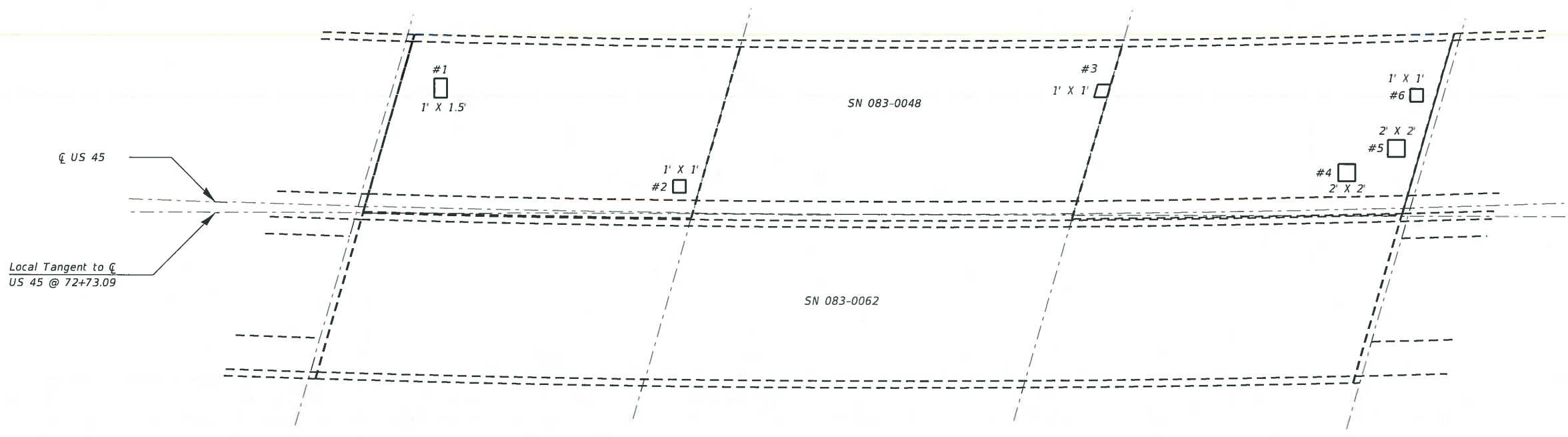
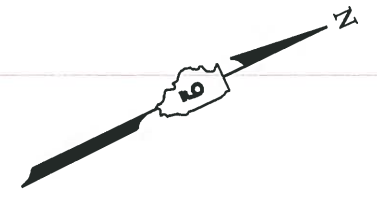
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

JOINT RECONSTRUCTION DETAILS @ PIERS
 SN 083-0048

SCALE: SHEET 5 OF 12 SHEETS STA. TO STA.

F.A.P. RTE. 332	SECTION D9 BRIDGE REPAIR 2018-1	COUNTY SALINE	TOTAL SHEETS 19	SHEET NO. 12
CONTRACT NO. 78579			ILLINOIS FED. AID PROJECT	

Notes:
 The resident engineer will determine final patch locations and quantities in the field before bridge deck patching operations begin.
 Area of deck repairs shown are estimates. The engineer shall show actual locations for deck repairs on as-built plans.



PLAN

Deck Slab Repair (Partial)			
Number	Length (Ft.)	Width (Ft.)	Area (Sq. Ft.)
1	1.5	1	1.5
2	1	1	1
3	1	1	1
4	2	2	4
5	2	2	4
6	1	1	1
Total (Sq. Ft.)			12.5
Total (Sq. Yd.)			2

BILL OF MATERIAL

Item	Unit	Total
Deck Slab Repair (Partial)	Sq. Yd.	2

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PLOT DATE = 12/7/2017	CHECKED - _____	REVISED - _____
	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

DECK SLAB REPAIR




SCALE: _____ SHEET 6 OF 12 SHEETS STA. _____ TO STA. _____

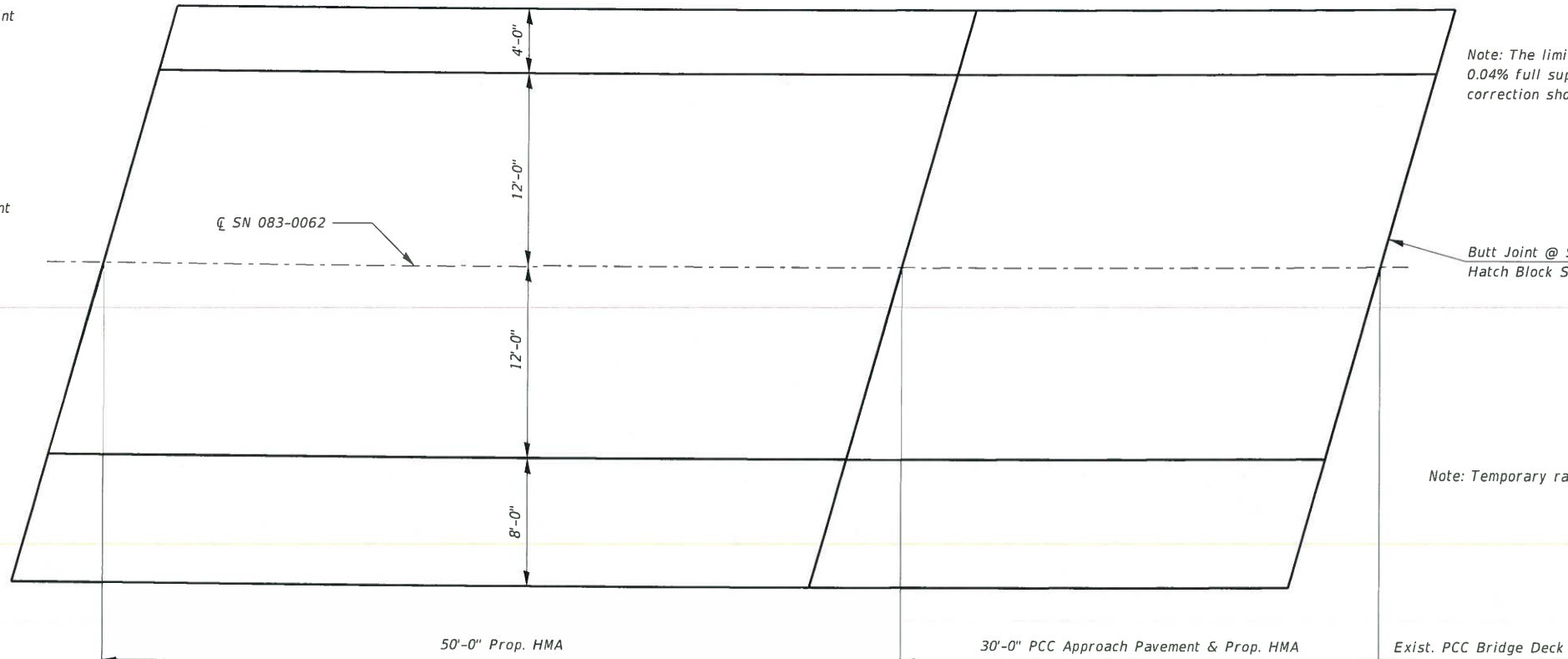
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	D9 BRIDGE REPAIR 2018-1	SALINE	19	13
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78579	

DATE	
BY	
SURVEYED	
PLOTTED	
CHECKED	
RT. OF WAY CHECKED	
NO.	
CAADD FILE NAME	
PLAN	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
MARKS CHECKED	
B.M. NOTED	
STRUCTURE NOTATIONS CHK'D	
NO.	
PROFILE	
NOTE BOOK	
NO.	

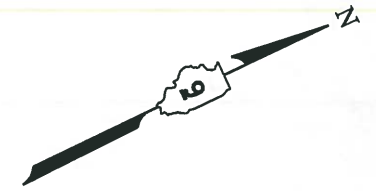
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-  HMA Surface Removal - Butt Joint
-  3/4\" Leveling Binder
-  PCC Surface Removal - Butt Joint

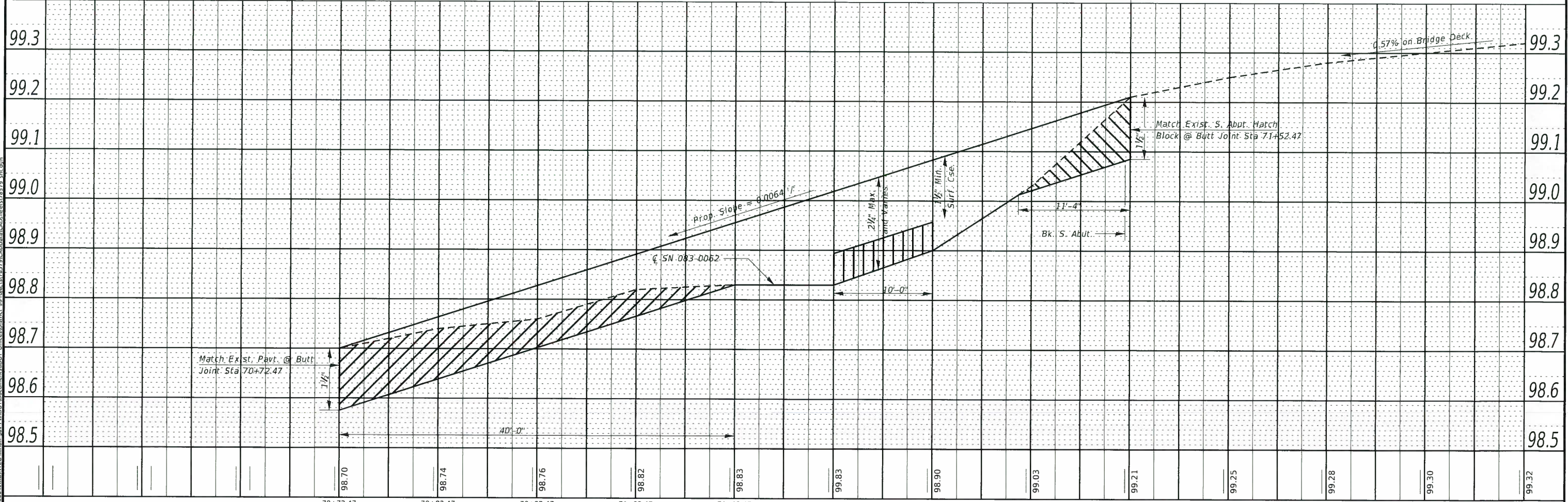


Note: The limits of the approach profile correction are within the existing 0.04% full superelevation. The cross section of the approach profile correction should match this existing superelevation.

Note: Temporary ramp shall be 5' in length at a 40:1 minimum taper.



PLAN





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PLOT SCALE = 10.0000' / in.	DRAWN -	REVISED -		SCALE: _____	SHEET 7	OF 12 SHEETS	STA. _____	TO STA. _____	CONTRACT NO. 78579		
PLOT DATE = 12/7/2017	CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT							
DATE -	DATE -	REVISED -									

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	BY		
	DATE		
	NOTE BOOK		
	NO.		
	CAUTION FILE NAME		

PROFILE	SURVEYED	BY	DATE
	GRADES CHECKED		
	B.M. NOTED		
	STRUCTURE NOTATIONS CRED		
	NO.		

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-  HMA Surface Removal - Butt Joint
-  PCC Surface Removal - Butt Joint

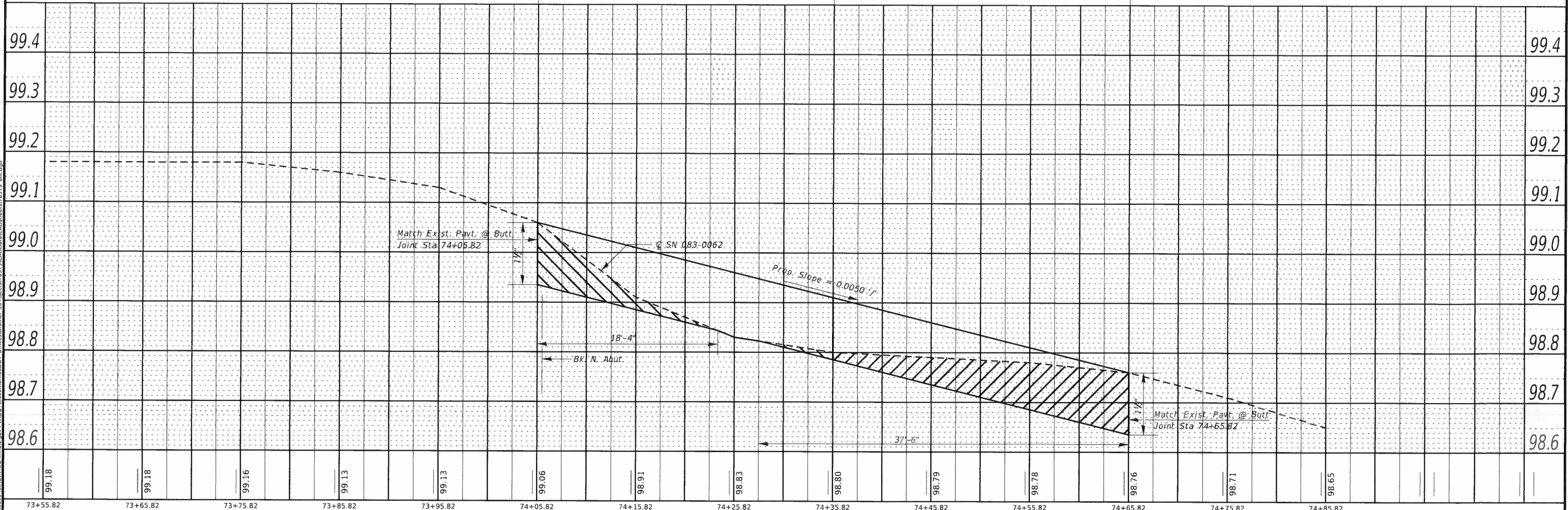
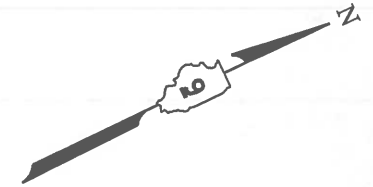
Butt Joint @ N. Abut. Hatch
Block Sta 74+05.82

Note: Temporary ramp shall be 5' in length at a 40:1 minimum taper.

Note: The limits of the approach profile correction are within the existing 0.04% full superelevation. The cross section of the approach profile correction should match this existing superelevation.

Exist. PCC Bridge Deck 30'-0" Exist. PCC Approach Pavement & Prop. HMA 30'-0" Prop. HMA

PLAN



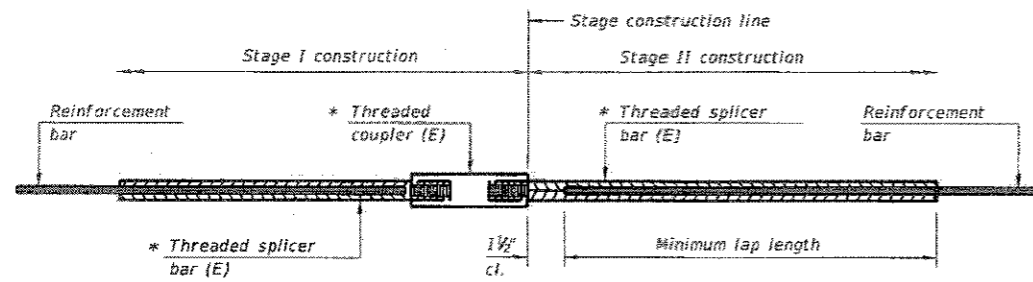
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PLOT DATE = 12/7/2017	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH APPROACH PROFILE CORRECTION
SN 083-0062

SCALE: _____ SHEET 8 OF 12 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	D9 BRIDGE REPAIR 2018-1	SALINE	19	15
CONTRACT NO. 78579				
ILLINOIS FED. AID PROJECT				

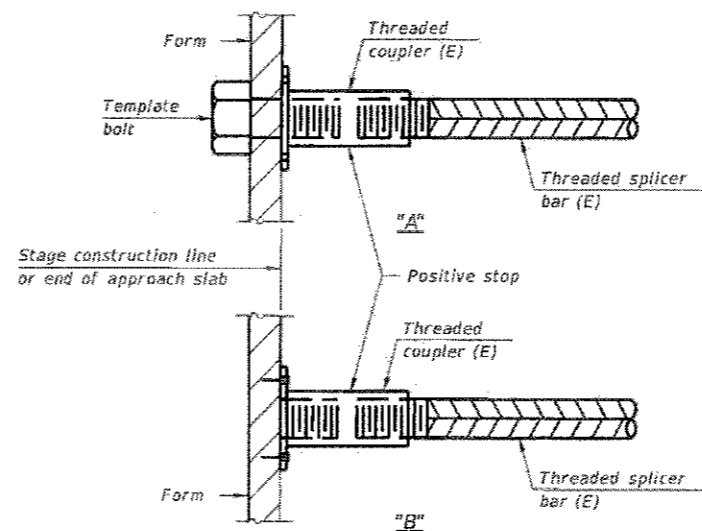


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1 1/2' + thread length

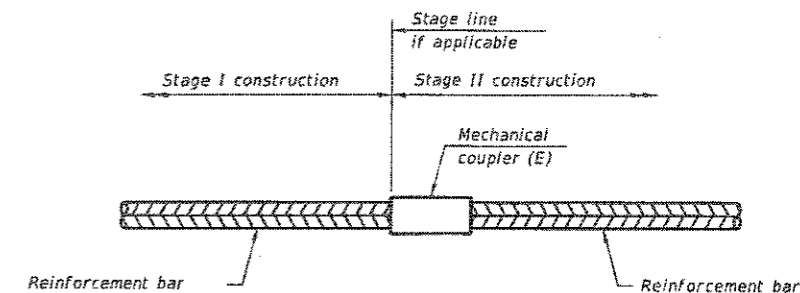
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Abutments	#7	20	4'-2"
Hatch Block	#6	6	4'-0"
Piers	#6	8	3'-7"
Abutments	#6	10	4'-10"



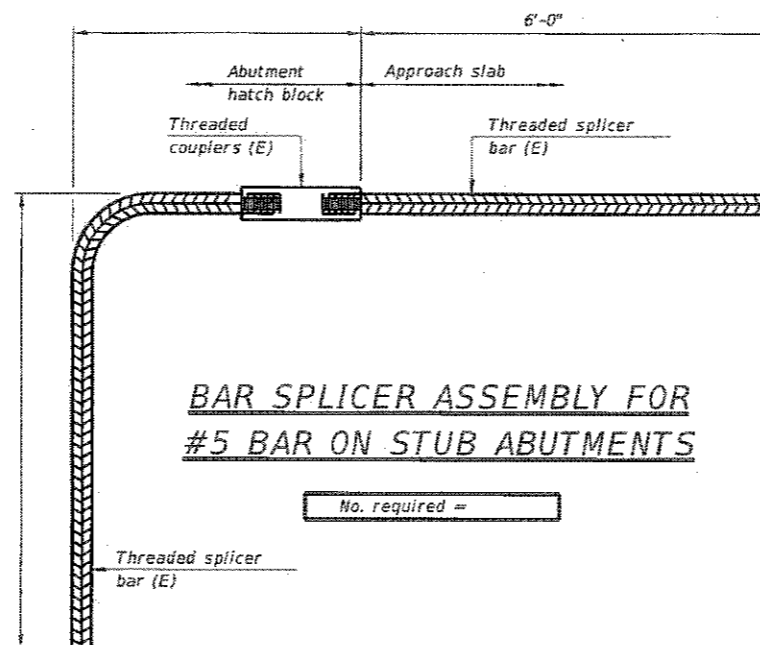
INSTALLATION AND SETTING METHODS

"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



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

2-17-2017

USER NAME = adamsam	DESIGNED -	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 3/16/2018	CHECKED -	REVISED -
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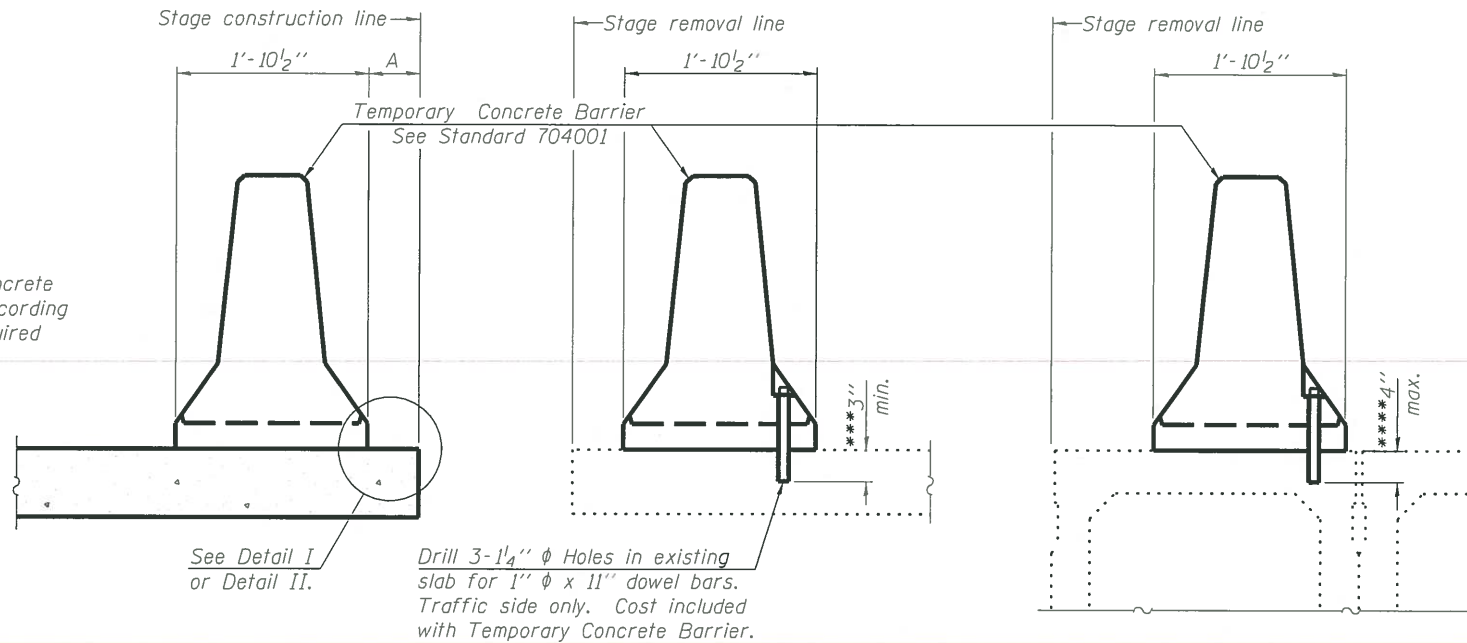
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY DETAILS

SCALE: SHEET 9 OF 12 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	D9 BRIDGE REPAIR 2018-1	SALINE	19	16
CONTRACT NO. 78579			ILLINOIS FED. AID PROJECT	

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

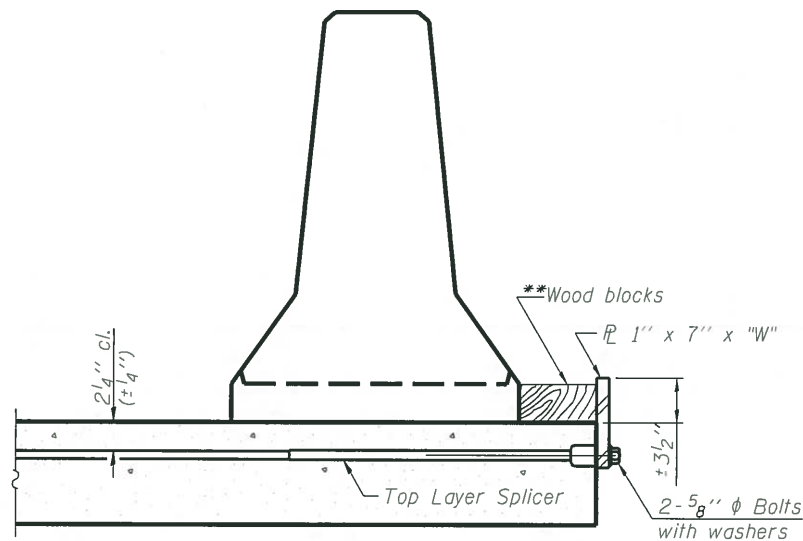
NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

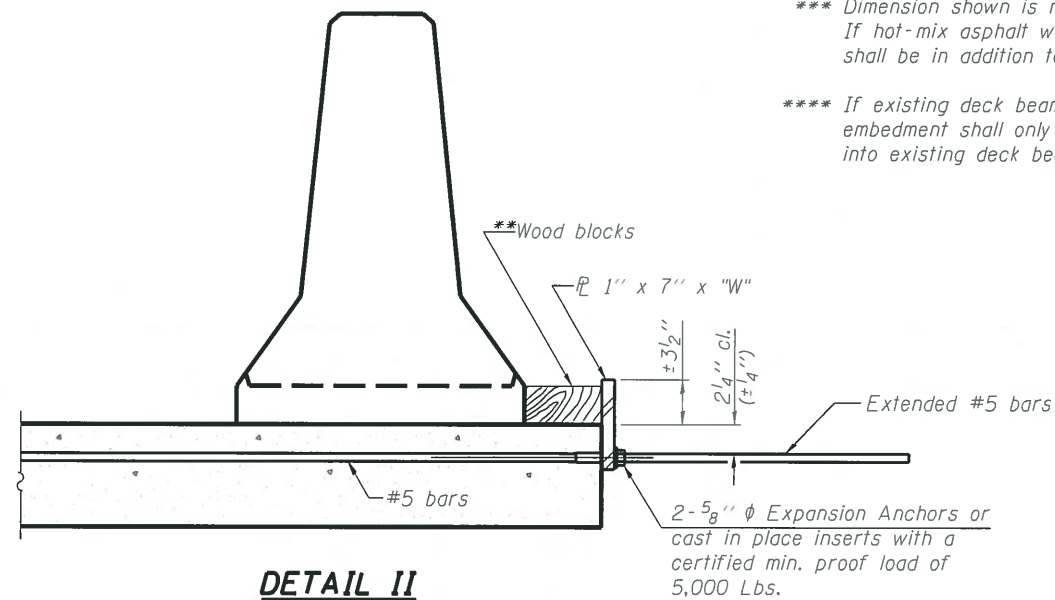
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

SECTIONS THRU SLAB OR DECK BEAM



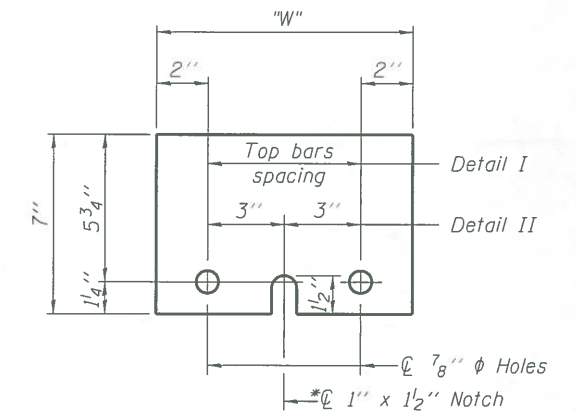
DETAIL I



DETAIL II

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27

7-1-10

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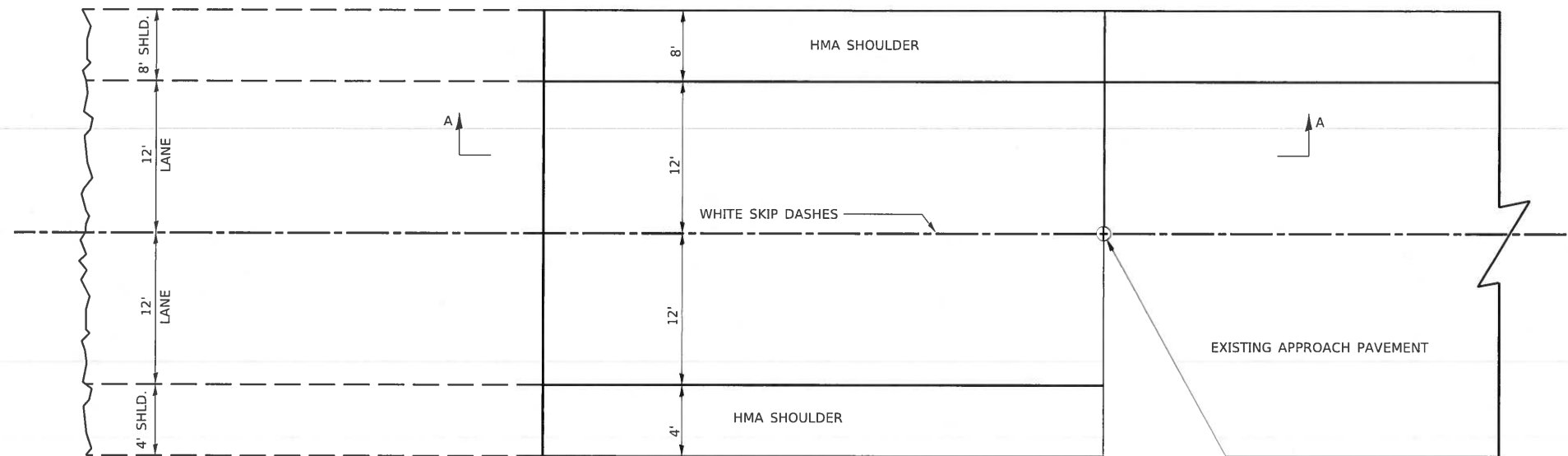
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION

SCALE: _____ SHEET 11 OF 12 SHEETS STA. _____ TO STA. _____

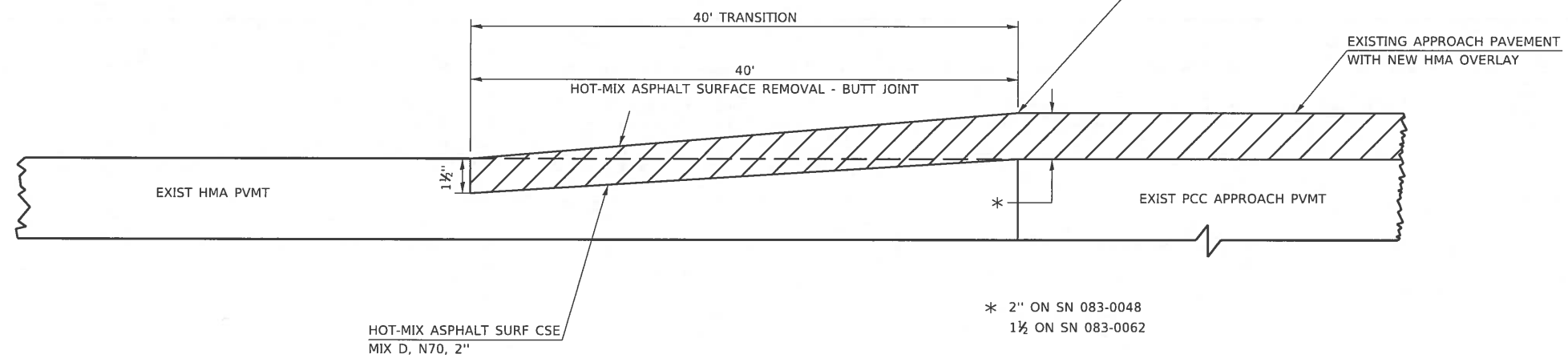
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332	D9 BRIDGE REPAIR 2018-1	SALINE	19	18
CONTRACT NO. 78579			ILLINOIS FED. AID PROJECT	

BUTT JOINT



HALF PLAN

STA 71+51.47 & STA 75+06.82 LT & RT ON SN 083-0048
 STA 71+12.47 & STA 74+65.82 LT & RT ON SN 083-0062



SECTION A-A

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PLOT SCALE = 100.0000' / in.	DATE - _____	REVISED - _____
PLOT DATE = 12/7/2017		

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BUTT JOINT DETAIL

SCALE: _____ SHEET 12 OF 12 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	D9 BRIDGE REPAIR 2018-1	SALINE	19	19
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78579	