

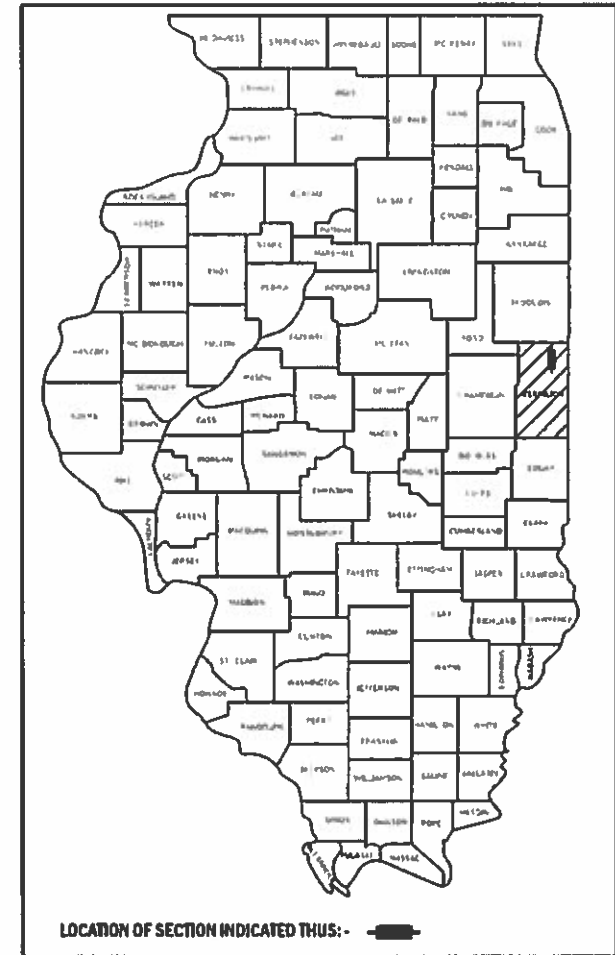
068

03-08-2019 LETTING ITEM 068

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	148X-3)BR-2	VERMILION	25	1
CONTRACT NO. 70C97				

D-95-060-18



FOR INDEX OF SHEETS, SEE SHEET NO. 2  
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3-5

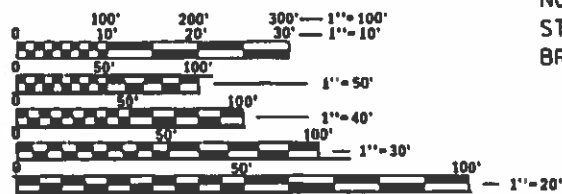
# PROPOSED HIGHWAY PLANS

FAP ROUTE 332 (IL-1)  
SECTION (48X-3)BR-2  
PROJECT NHPP-APUT(950)  
BRIDGE DECK REPAIRS OVER  
NORTH FORK VERMILION RIVER  
1.4 MILES NORTH OF ROSSVILLE  
VERMILION COUNTY

C-95-097-18

CURRENT TRAFFIC DATA	
<b>STR. 092-0033</b>	
2016 ADT	= 5,750
2026 ADT	= 6,050
PU+PC %	= 89.8
SU %	= 5.2
MU%	= 5.0

**DESIGN DESIGNATION**  
OTHER PRINCIPAL ARTERIAL



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.

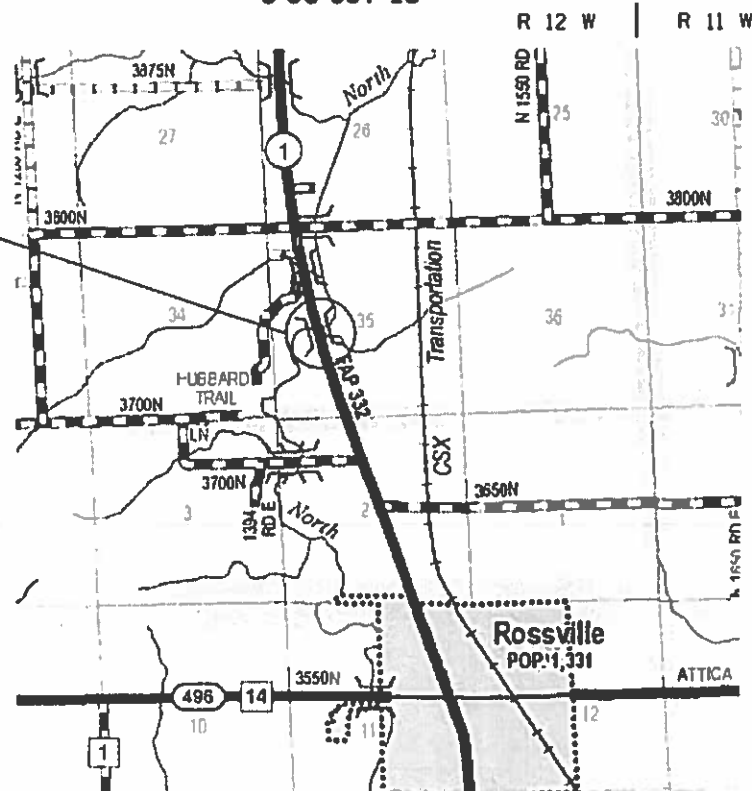
J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

TOWNSHIP: GRANT

PROJECT ENGINEER: TIM BRANDENBURG  
PROJECT MANAGER: ERIC SHAWLER  
1-217-466-7102

CONTRACT NO. 70C97

EXISTING S.N. 092-0033  
F.A.P. 332 IL-1  
NORTH FORK VERMILION RIVER  
STATION 909+81.00  
BRIDGE DECK REPAIR



GROSS LENGTH = 360.00 FT. = 0.068 MILE  
NET LENGTH = 360.00 FT. = 0.068 MILE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED December 9, 2018  
*[Signature]*  
DEPUTY DIRECTOR OF HIGHWAYS SECTION THREE ENGINEER

Feb 1 2019  
*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

Feb 1 2019  
*[Signature]*  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS



# SUMMARY OF QUANTITIES

VERMILION CO.
FAP 332 (IL-1)
RURAL / TWO LANE
BRIDGE DECK REPAIR
S.N. 092-0033
80% FEDERAL / 20% STATE
0059

CODE NO.	ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	41.0
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	222.0
40603415	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, N50	TON	25.0
48203100	HOT-MIX ASPHALT SHOULDERS	TON	83.0
50102400	CONCRETE REMOVAL	CU YD	2.1
50300255	CONCRETE SUPERSTRUCTURE	CU YD	2.7
50300260	BRIDGE DECK GROOVING	SQ YD	981.0
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	630.0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	330.0
50800515	BAR SPLICERS	EACH	8.0
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	12.0
52100520	ANCHOR BOLTS 1"	EACH	48.0
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	6.0
67100100	MOBILIZATION	LSUM	1.0
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1.0

\* SPECIALTY ITEM

FILE NAME =	USER NAME = shawleres	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES S.N. 092-0033</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pw:\IL084EBIDINTEG\Illinois.gov\PWIDOT\Documents\	si\DOT Offices\District 5\Projects\DS70C97\CADDData\Struc	DRAWN	REVISED			332	(48X-3)BR-2	VERMILION	25	3	
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -			CONTRACT NO. 70C97					
\$MODELNAME\$	PLOT DATE = 10/16/2018	DATE -	REVISED -			SCALE:	SHEET 1 OF 3 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	

# SUMMARY OF QUANTITIES

<b>VERMILION CO.</b>
<b>FAP 332 (IL-1)</b>
<b>RURAL / TWO LANE</b>
<b>BRIDGE DECK REPAIR</b>
<b>S.N. 092-0033</b>
<b>80% FEDERAL / 20% STATE</b>
<b>0059</b>

CODE NO.	ITEM	UNIT	QUANTITY
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1.0
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1.0
70400100	TEMPORARY CONCRETE BARRIER	FOOT	600.0
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	600.0
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2.0
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2.0
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	249.0
X7200201	WIDTH RESTRICTION SIGNING	LSUM	1.0
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	12.0
Z0006014	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2 INCHES	SQ YD	1,053.0
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	1,053.0
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	52.0
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.0

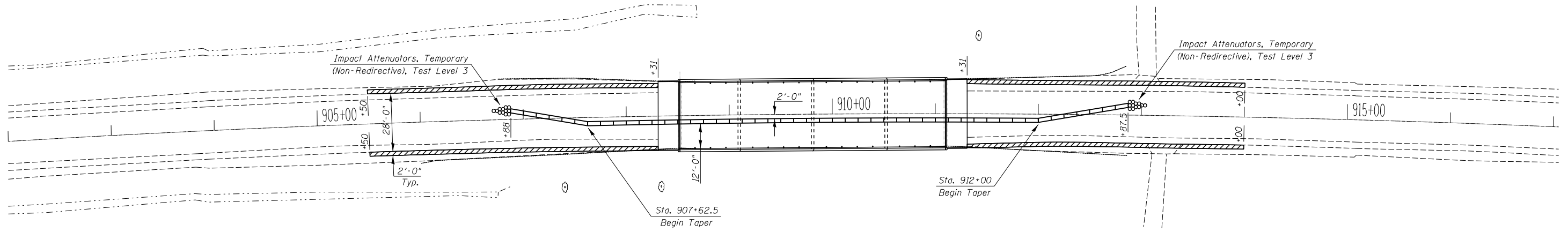
\* SPECIALTY ITEM





## STAGE I CONSTRUCTION S.N. 092-0033

Pre-Stage HMA Shoulder Widening, 6"  
(Earth Excavation & HMA Shoulders)



**PLAN NOTES:**

ALL STAGING DETAILS SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321 AND PAID FOR AT THE CONTRACT UNIT PRICE PER EACH LOCATION.

ALL WORK WITHOUT TEMPORARY CONCRETE BARRIER IN PLACE SHALL BE IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION STANDARDS 701201 AND 701206.

FOR ADDITIONAL DETAILS ASSOCIATED WITH TEMPORARY CONCRETE BARRIER, SEE HIGHWAY STANDARD 704001.

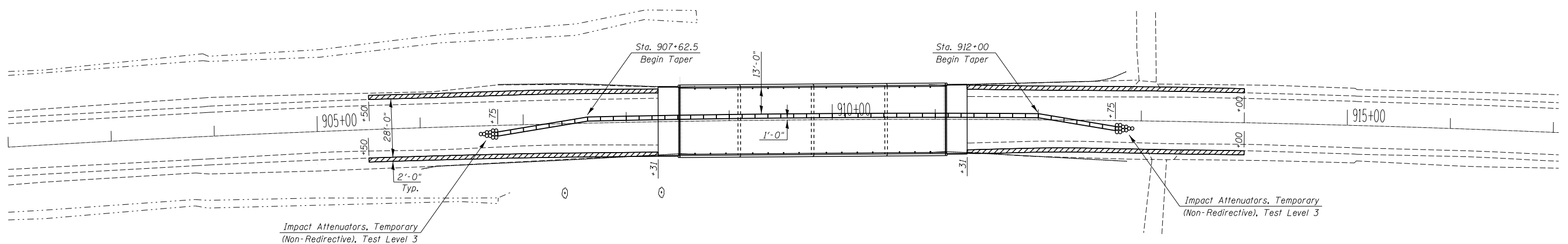
REFLECTORIZED TEMPORARY MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER, AND ALONGSIDE BOTH SIDES OF THE WORK AREA. EXISTING MARKINGS THAT CONFLICT WITH THE STAGED TRAFFIC MARKINGS SHALL BE REMOVED OR COVERED. COST TO REMOVE EXISTING MARKINGS AND FOR THE PLACEMENT AND REMOVAL OF TEMPORARY MARKINGS SHALL BE INCLUDED WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

REFLECTORS SHALL BE ATTACHED TO GUARDRAIL AT 25 FOOT CENTERS. COST TO BE INCLUDED WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

EARTH EXCAVATION Stage I & II							
Structure	Side	Begin Station	End Station	Length (foot)	Shldr Width (foot)	Depth (foot)	Removal (cu yd)
092-0033	Northbound	905+50	908+31	281.0	2.0	0.5	10.41
	Northbound	911+31	914+00	269.0	2.0	0.5	9.96
	Southbound	905+50	908+31	281.0	2.0	0.5	10.41
	Southbound	911+31	914+00	269.0	2.0	0.5	9.96
						Totals	40.74

HOT-MIX ASPHALT SHOULDERS (Pre-Stage HMA Shoulder 6") Stage I & II								
Structure	Side	Begin Station	End Station	Length (foot)	Shldr Width (foot)	Area (sq yd)	HMA Tons	
092-0033	Northbound	905+50	908+31	281.0	2.0	62.45	20.98	
	Northbound	911+31	914+00	269.0	2.0	59.78	20.09	
	Southbound	905+50	908+31	281.0	2.0	62.45	20.98	
	Southbound	911+31	914+00	269.0	2.0	59.78	20.09	
						Totals	244.46	82.14

## STAGE II CONSTRUCTION S.N. 092-0033



Pre-Stage HMA Shoulder Widening, 6"  
(Earth Excavation & HMA Shoulders)

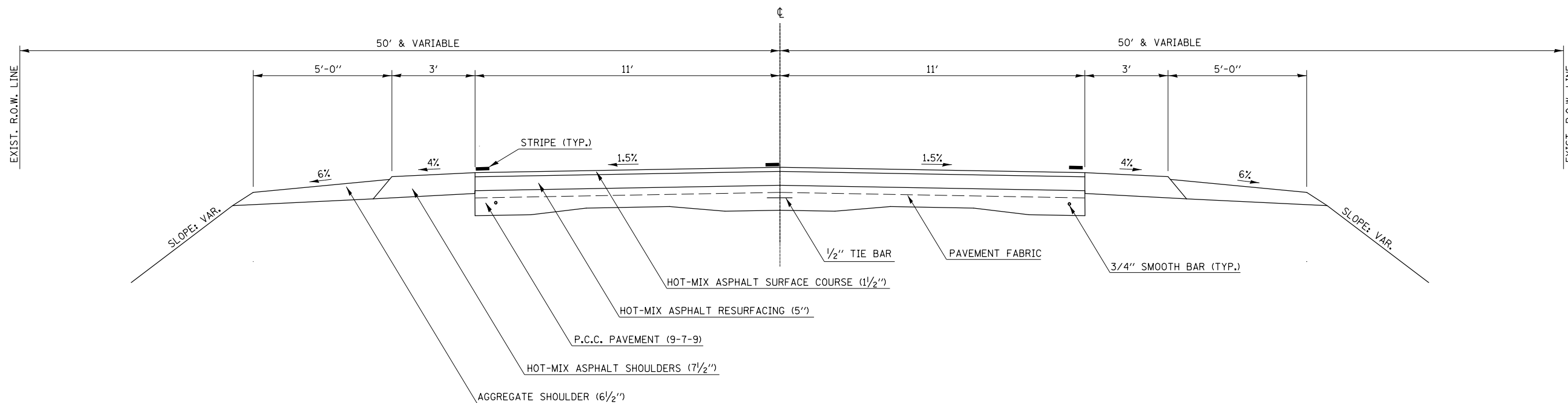
### BILL OF MATERIAL

Item	Unit	Total
Earth Excavation	Cu Yd	41.0
Hot-Mix Asphalt Shoulders	Tons	83.0
Temporary Concrete Barrier	Foot	600.0
Relocate Temporary Concrete Barrier	Foot	600.0
Impact Attenuators, Temporary (Non-Redirective), Test Level 3	Each	2.0
Impact Attenuators, Relocate (Non-Redirective), Test Level 3	Each	2.0

# EXISTING TYPICAL CROSS SECTION

S.N. 092-0033 OMISSION STA. 908+31.00 to 911+30.64

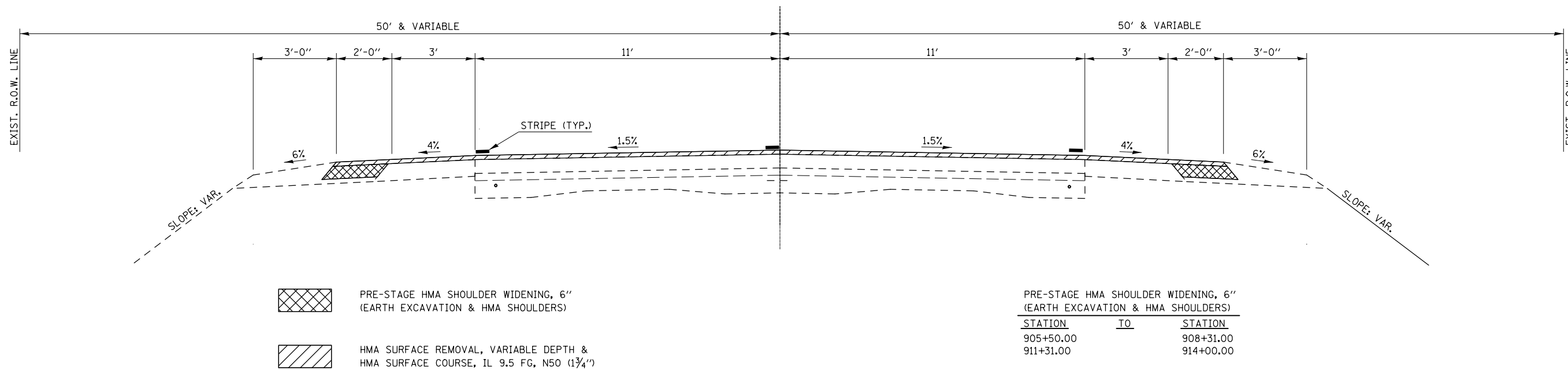
STATION TO STATION  
905+50.00 914+00.00



# 4 PROPOSED TYPICAL CROSS SECTION

S.N. 092-0033 OMISSION STA. 908+31.00 to 911+31.00

STATION TO STATION  
908+01.00 908+31.00 SOUTH APPROACH TRANSITION  
911+31.00 911+61.00 NORTH APPROACH TRANSITION



PRE-STAGE HMA SHOULDER WIDENING, 6" (EARTH EXCAVATION & HMA SHOULDERS)

HMA SURFACE REMOVAL, VARIABLE DEPTH & HMA SURFACE COURSE, IL 9.5 FG, N50 (1 3/4")

PRE-STAGE HMA SHOULDER WIDENING, 6" (EARTH EXCAVATION & HMA SHOULDERS)

STATION	TO	STATION
905+50.00		908+31.00
911+31.00		914+00.00

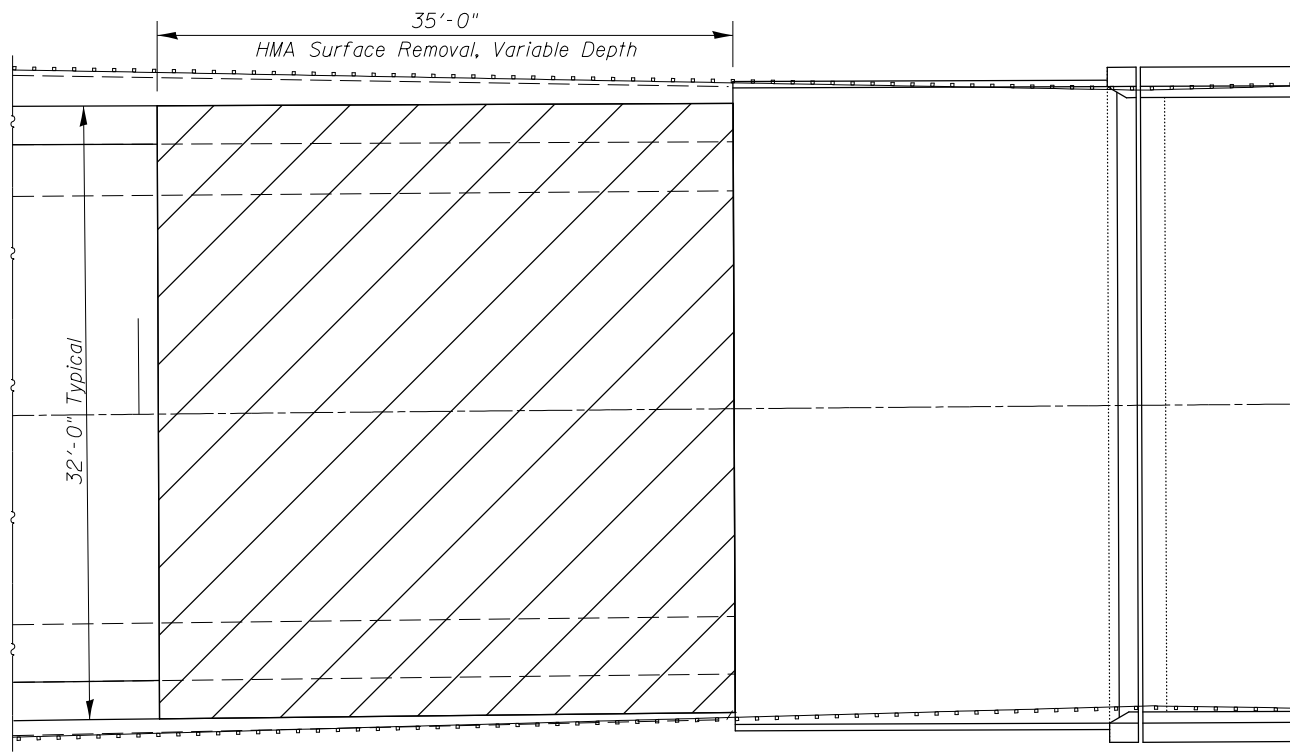
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\$MODELNAME\$	PLOT DATE = 6/13/2018	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

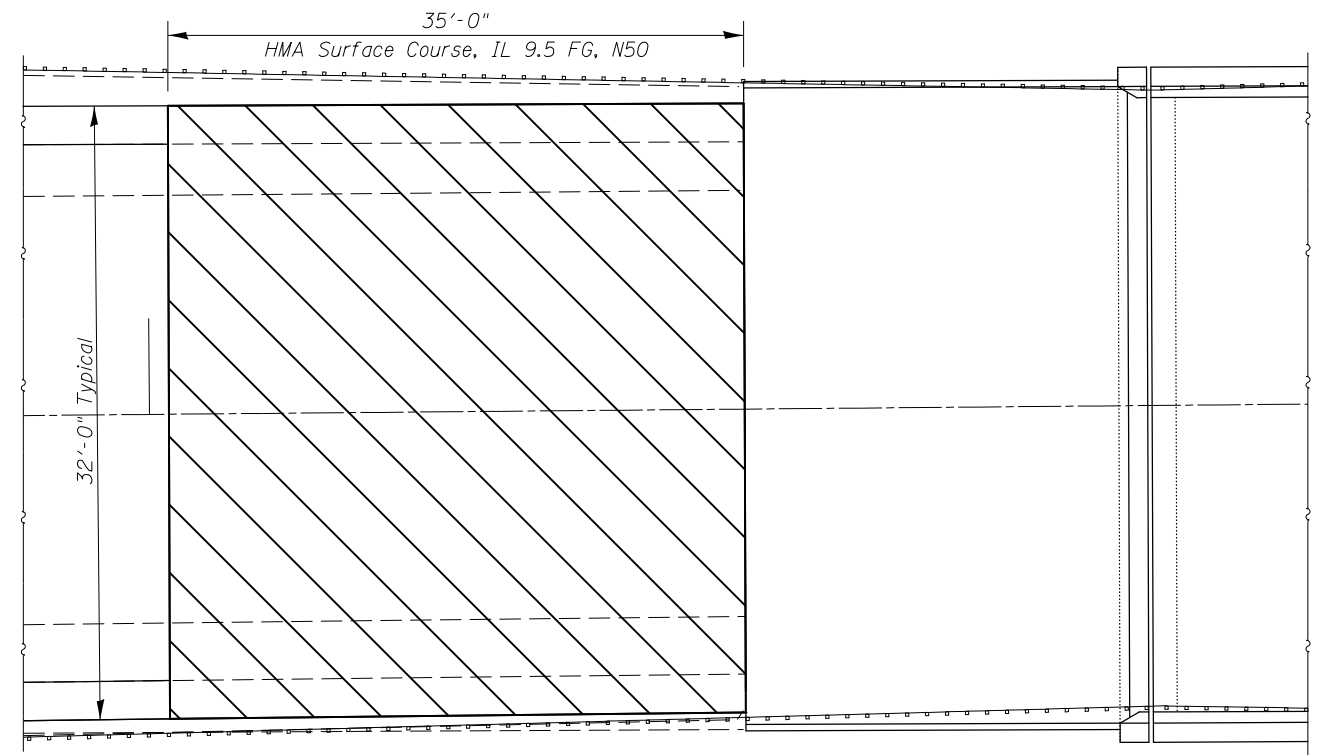
TYPICAL CROSS SECTION  
S.N. 092-0033

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

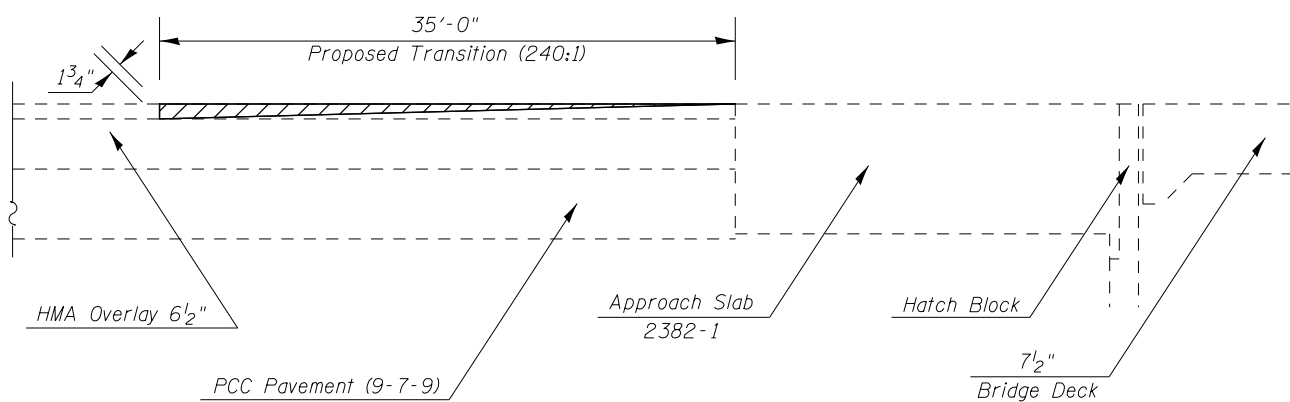
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(48X-3)BR-2	VERMILION	25	7
CONTRACT NO. 70C97				
ILLINOIS FED. AID PROJECT				



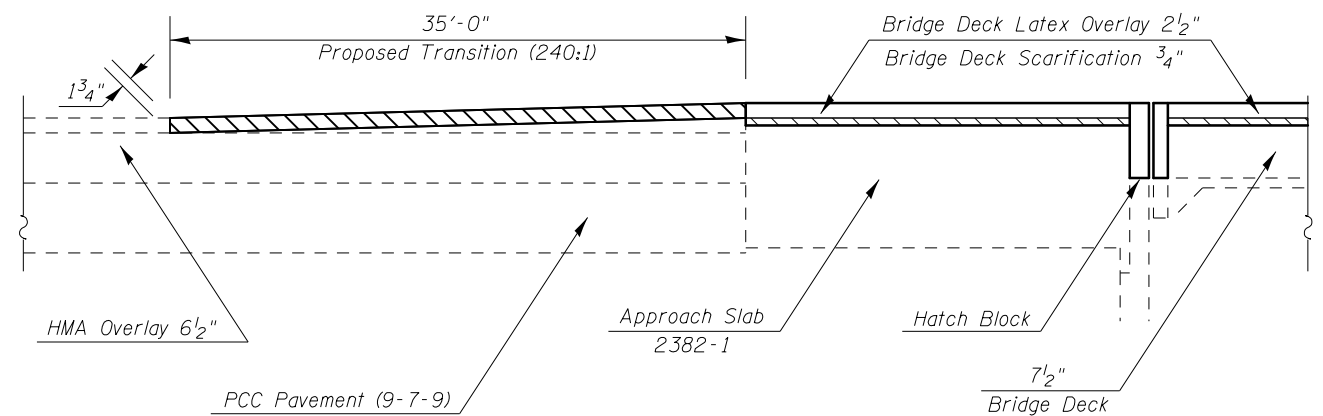
**EXISTING PLAN - SOUTH APPROACH  
NORTH APPROACH SIMILAR**



**PROPOSED PLAN - SOUTH APPROACH  
NORTH APPROACH SIMILAR**



**EXISTING PLAN - SOUTH APPROACH  
NORTH APPROACH SIMILAR**



**PROPOSED PLAN - SOUTH APPROACH  
NORTH APPROACH SIMILAR**

**NOTE:**

Paver Electronic Grade Control Shall Be Operated From A Preset Grade Control Stringline, See Article 406.06(e)

Part of the Pre-Stage Shoulder Resurfacing May Be Removed During Final Paving Transitions That Are Required To Match Proposed Deck Elevations.

**LEGEND:**

- HMA Surface Removal, Variable Depth
- Hot-Mix Asphalt Surface Course, IL 9.5 FG, N50 (196 Lbs/Sq Yd)

**BILL OF MATERIAL**

Item	Unit	Total
Hot-Mix Asphalt Surface Removal, Variable Depth	Sq Yd	249.0
Hot-Mix Asphalt Surface Course, IL 9.5 FG, N50	Ton	25.0

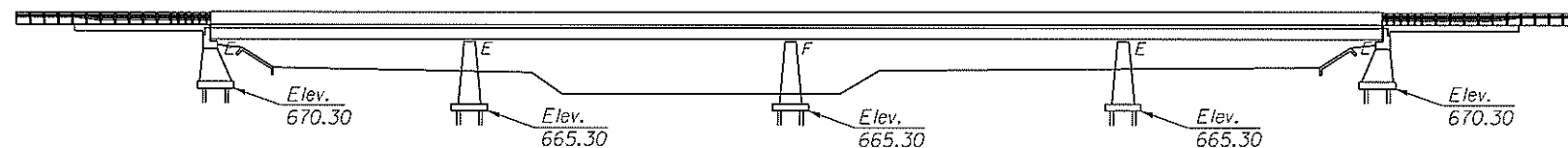
Quantities Included for Both Approach Transitions

# GENERAL PLAN & ELEVATION

## S.N. 092-0033

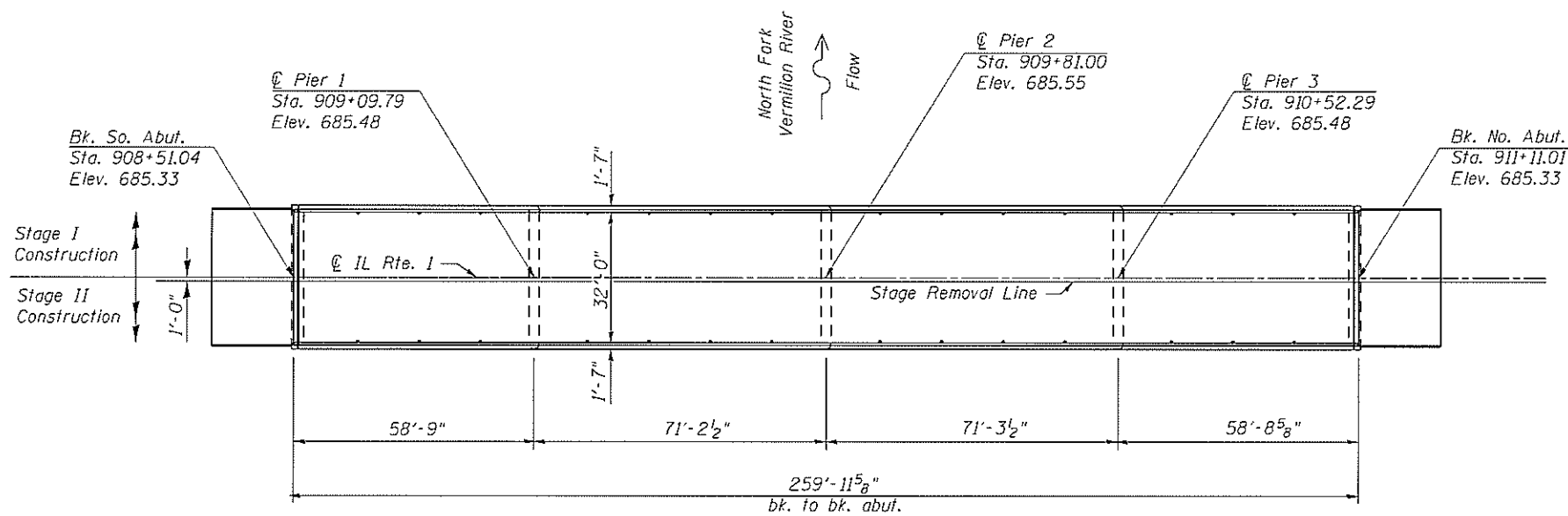
Structure 092-0033 Was Built In 1940 As SBI I, Section 48X-3B At Station 909+81 By The State Of Illinois In Vermilion County. The Deck Was Replaced In 1986 As FAP 132, Section 48X-3BR At Station 909+81. In 2005 Day Labor Project 02F512 Removed And Replaced The Bearings And Joints At Both Abutments. The Scour Issue At This Structure Was Mitigated In 2010 As Section D5-SCOUR MITIGATION 2009-3 At Station 909+81. In 2016 Day Labor Project 16G507 Replaced Diaphragms And Completed Beam End Repairs. The Existing Structure Is A Four Span Steel Beam Structure On Untreated Timber Pile Supported Open Abutments And Piers. The Structure Measures 259'-11<sup>5</sup>/<sub>8</sub>" Back To Back Of Abutments With An Out To Out Width Of 35'-2" And A Face To Face Parapet Width Of 32'-0".

Work Shall Be Completed With Stage Construction.

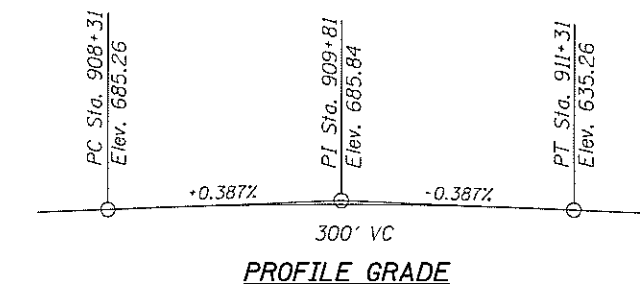


**ELEVATION VIEW**

(Elevations from As-Built Plans for Perspective Only)



**PLAN VIEW**



**PROFILE GRADE**



*Dr. Carl Puzey 4/15/19*  
Expires 11/30/20

### GENERAL NOTES

All Structural Steel Shall Conform To AASHTO Classification M-270 Gr. 50, Unless Otherwise Noted.

Reinforcement Bars Designated (E) Shall Be Epoxy Coated.

Plan Dimensions And Details Relative To The 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 Work, However, The Contractor Will Be Paid For The Quantity Actually Furnished At The Unit Price Bid For The Work.

Joint Openings Shall Be Adjusted According To Article 520.04 Of The Standard Specifications When The Deck Is Poured At An Ambient Temperature Other Than 50°F.

Prior To Pouring The New Concrete Deck, All Heavy Or Loose Rust, Loose Mill Scale And Other Loose Or Potentially Detrimental Foreign Material Shall Be Removed From The Surface In Contact With Concrete. Removal Shall Be Accomplished By Methods That Will Not Damage The Steel And The Cost Will Be Included In The Pay Item Covering Removal Of Existing Concrete.

Synthetic Fibers Shall Be Added To The Bridge Deck Latex Concrete Overlay. See Special Provisions.

Existing Structural Steel That Will Be In Contact With New Structural Steel Shall Be Cleaned And Painted Prior To Erection As Required By The GBSP "Cleaning And Painting Contact Surface Areas Of Existing Steel Structures".

All New Structural Steel and Bearing Assemblies Shall Be Hot Dipped Galvanized. See Special Provisions for "Hot Dip Galvanizing For Structural Steel".

A Visual Deck Survey Was Performed on May 09, 2017, Determined Full Depth Patching Would Not Be Required. Should Areas For Full-Depth Patching Be Identified After Bridge Deck Scarification, The R.E. shall Show Them On The Bridge Deck Patching Sheet Provided.

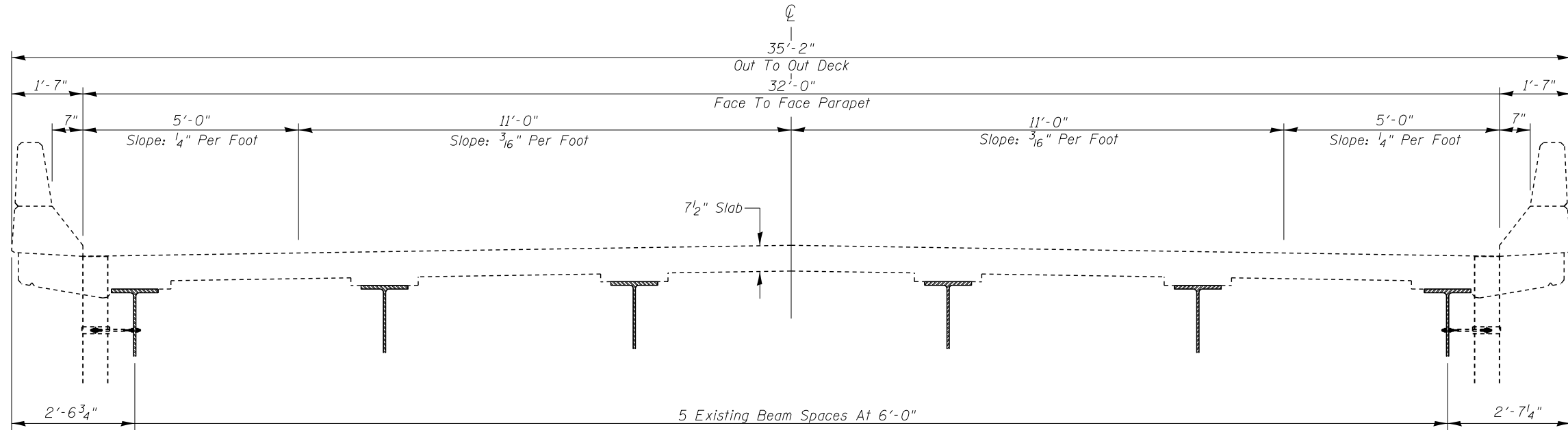
See Special Provisions "Deck Slab Repair" For Additional Requirements Pertaining To Deck Slab Repair.

### BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu Yd	2.1
Concrete Superstructures	Cu Yd	2.7
Furnishing And Erecting Structural Steel	Pound	630.0
Reinforcement Bars (Epoxy Coated)	Pound	330.0
Bar Splicers	Each	8.0
Elastomeric Bearing Assembly, Type II	Each	12.0
Anchor Bolts, 1"	Each	48.0
Bridge Deck Grooving	Sq Yd	981.0
Jack And Remove Existing Bearings	Each	12.0
Bridge Deck Latex Concrete Overlay, 2 1/2"	Sq Yd	1053.0
Bridge Deck Scarification 3/4"	Sq Yd	1053.0
Structural Repair Of Concrete (Depth Equal To Or Less Than 5")	Sq Yd	52.0
Silicone Joint Sealer, 2 3/4"	Foot	68.0
Polymer Concrete	Cu Ft	7.8
Deck Slab Repair (Full Depth, Type I)	SO YD	10.0
Deck Slab Repair (Full Depth, Type II)	SO YD	10.0
Temporary Shoring and Cribbing	each	4.0

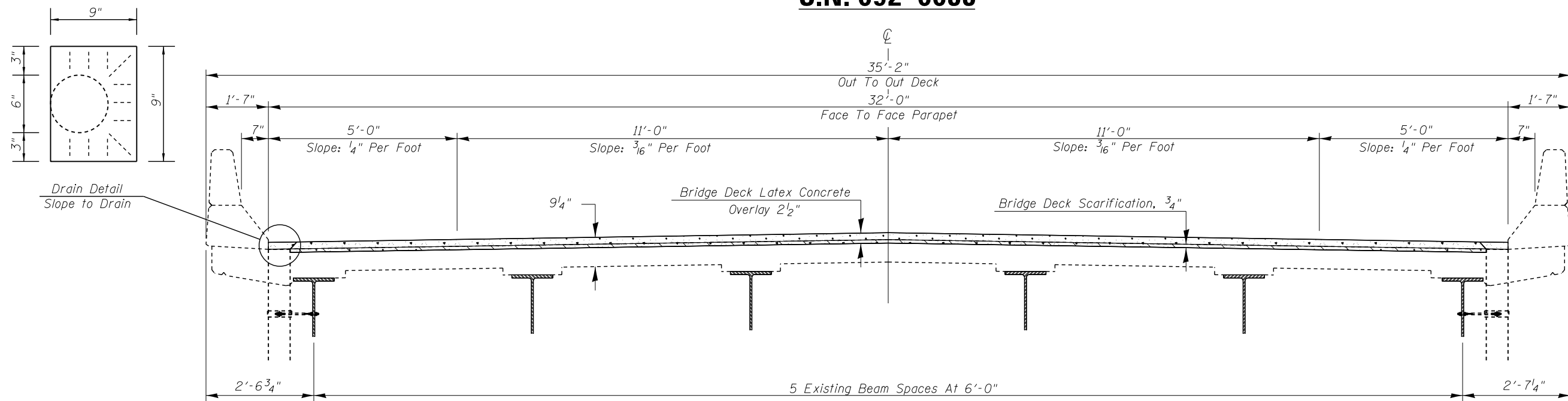
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pw\1\084EBID\INTEG\binos.gov\PW\DOT\Documents\DOT Offices\District 5\Projects\0570C97\CADD\at\Structures\DS\DRAW\Brdge.dgn	RTIC	RTIC	REVISED -			332	(48X-3)BR-2	VERMILION	25	9
PLOT SCALE = 40.0000 / 1 in.	CHECKED - TJB	REVISED -	REVISED -			CONTRACT NO. 70C97				
PLOT DATE = 1/15/2019	DATE -	REVISED -	REVISED -			SCALE:	SHEET 1 OF 14 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT

## EXISTING DECK CROSS SECTION S.N. 092-0033



LOOKING NORTH

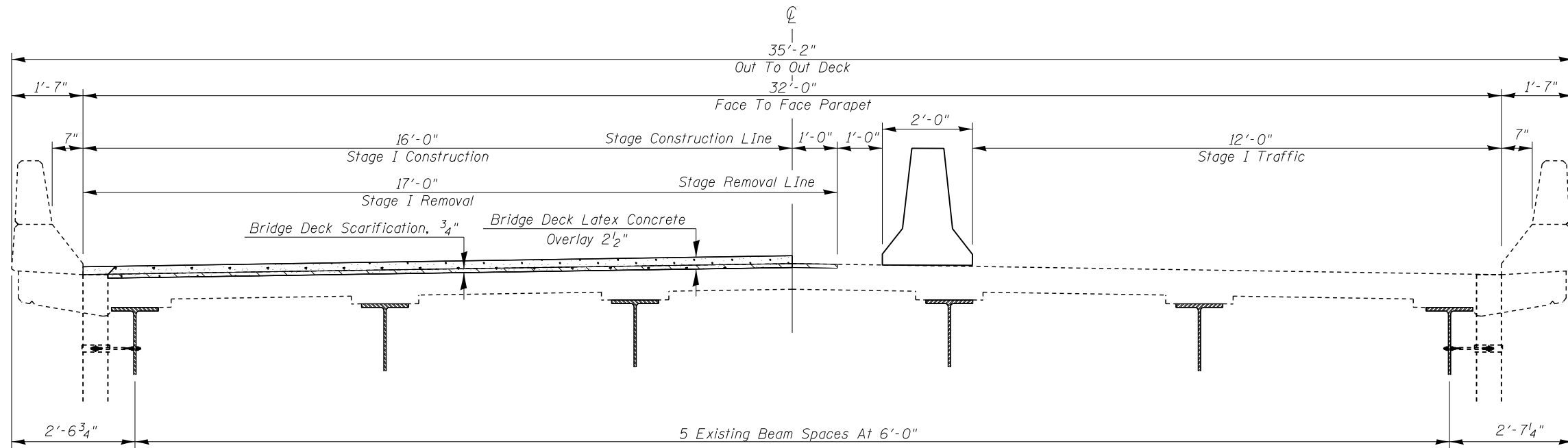
## PROPOSED DECK CROSS SECTION S.N. 092-0033



LOOKING NORTH

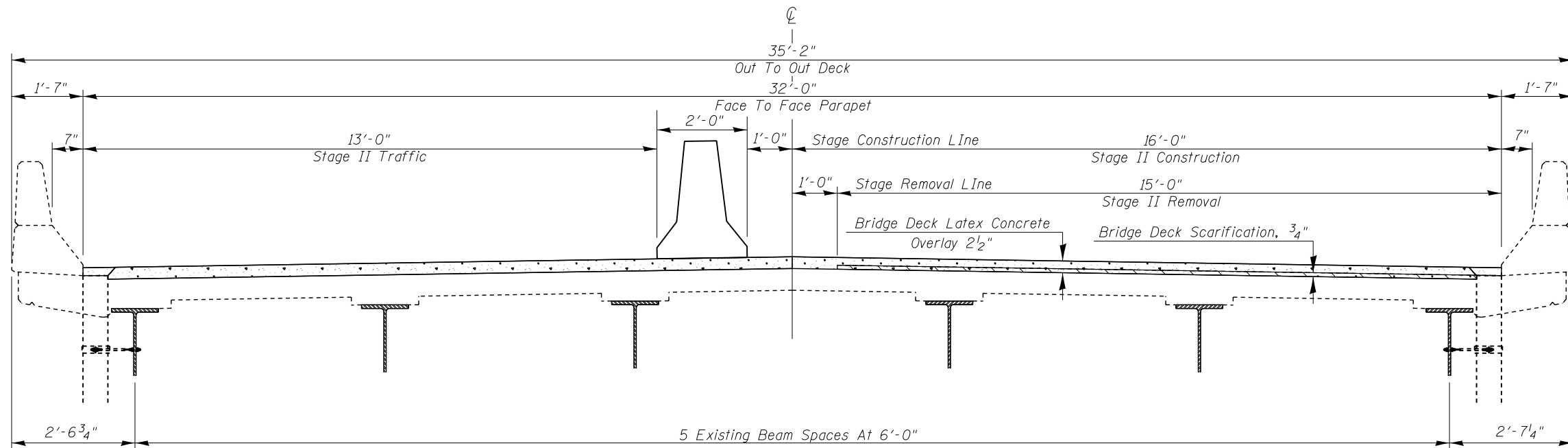
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PLOT SCALE = 40,000' / in.						CONTRACT NO. 70C97					
PLOT DATE = 10/10/2018						ILLINOIS FED. AID PROJECT					

## STAGE I CONSTRUCTION DETAIL S.N. 092-0033



LOOKING NORTH

## STAGE II CONSTRUCTION DETAIL S.N. 092-0033



LOOKING NORTH

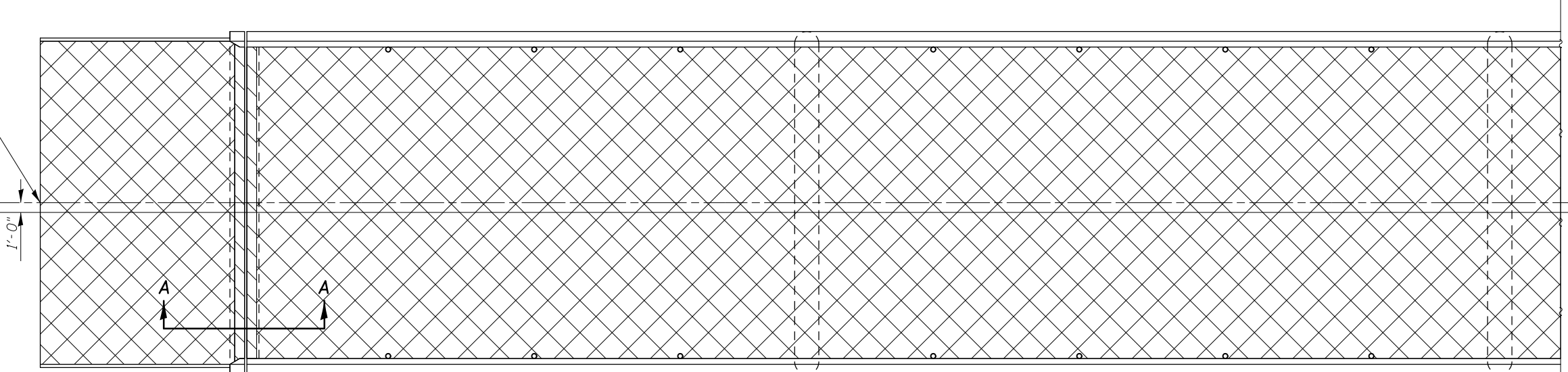
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PLOT SCALE = 40.0000' / in.						ILLINOIS FED. AID PROJECT						
CHECKED - TJB						CONTRACT NO. 70C97						
DATE -												



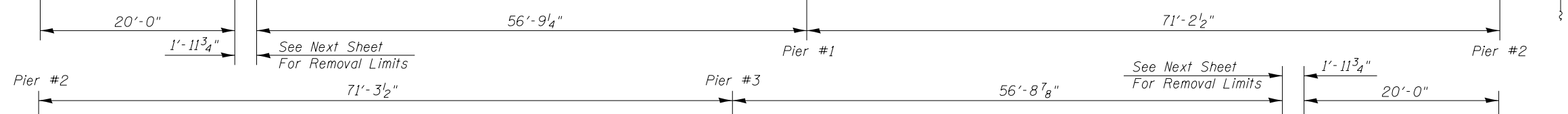
South End Of Approach Pavement

Stage I Construction

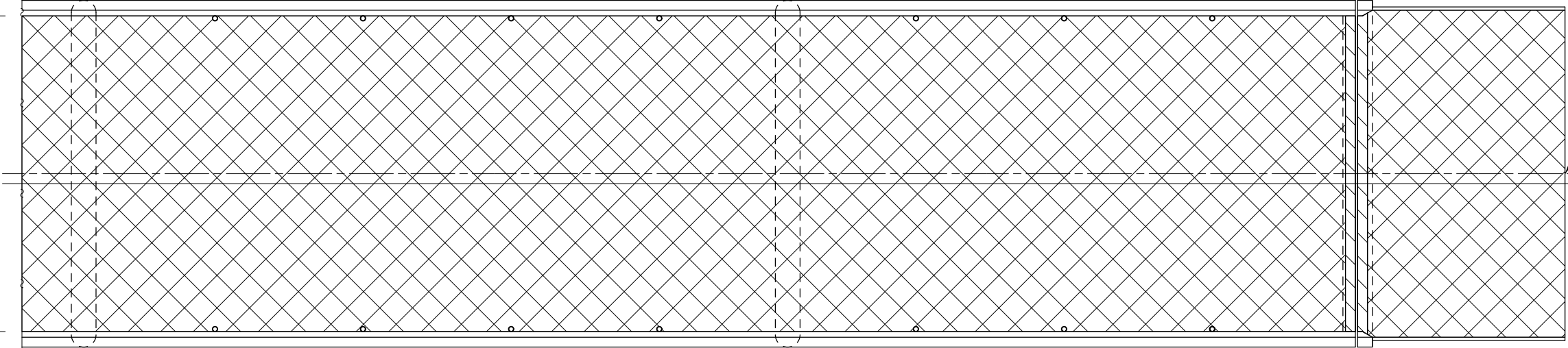
Stage II Construction



Stage Construction Line



32'-0" Typical

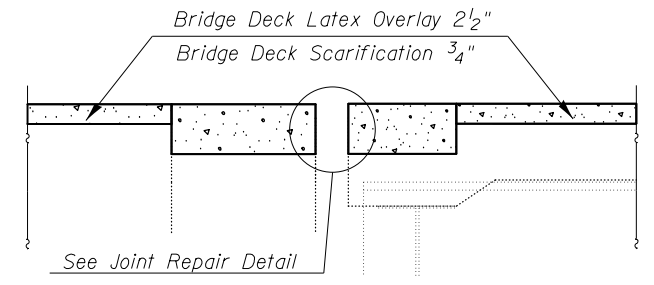


North End Of Approach Pavement

33'-2" Typical

**LEGEND:**

- Bridge Deck Scarification  $\frac{3}{4}$ " & Bridge Deck Latex Concrete Overlay  $2\frac{1}{2}$ "
- Concrete Removal & Concrete Superstructure



**SECTION A-A**

**NOTE:**

Synthetic Fibers Shall Be Added To The Bridge Deck Latex Concrete Overlay. See Special Provisions.

**BILL OF MATERIAL**

Item	Unit	Total
Bridge Deck Scarification $\frac{3}{4}$ "	Sq Yd	1053.0
Bridge Deck Latex Concrete Overlay $2\frac{1}{2}$ "	Sq Yd	1053.0
Bridge Deck Grooving	Sq Yd	981.0

FILE NAME =	USER NAME = shawler	DESIGNED - ESS	REVISED -
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PLOT SCALE = 40,000' / 1"	CHECKED - TJB	REVISED -	REVISED -
\$MODELNAME	DATE - 1/15/2019	REVISED -	REVISED -

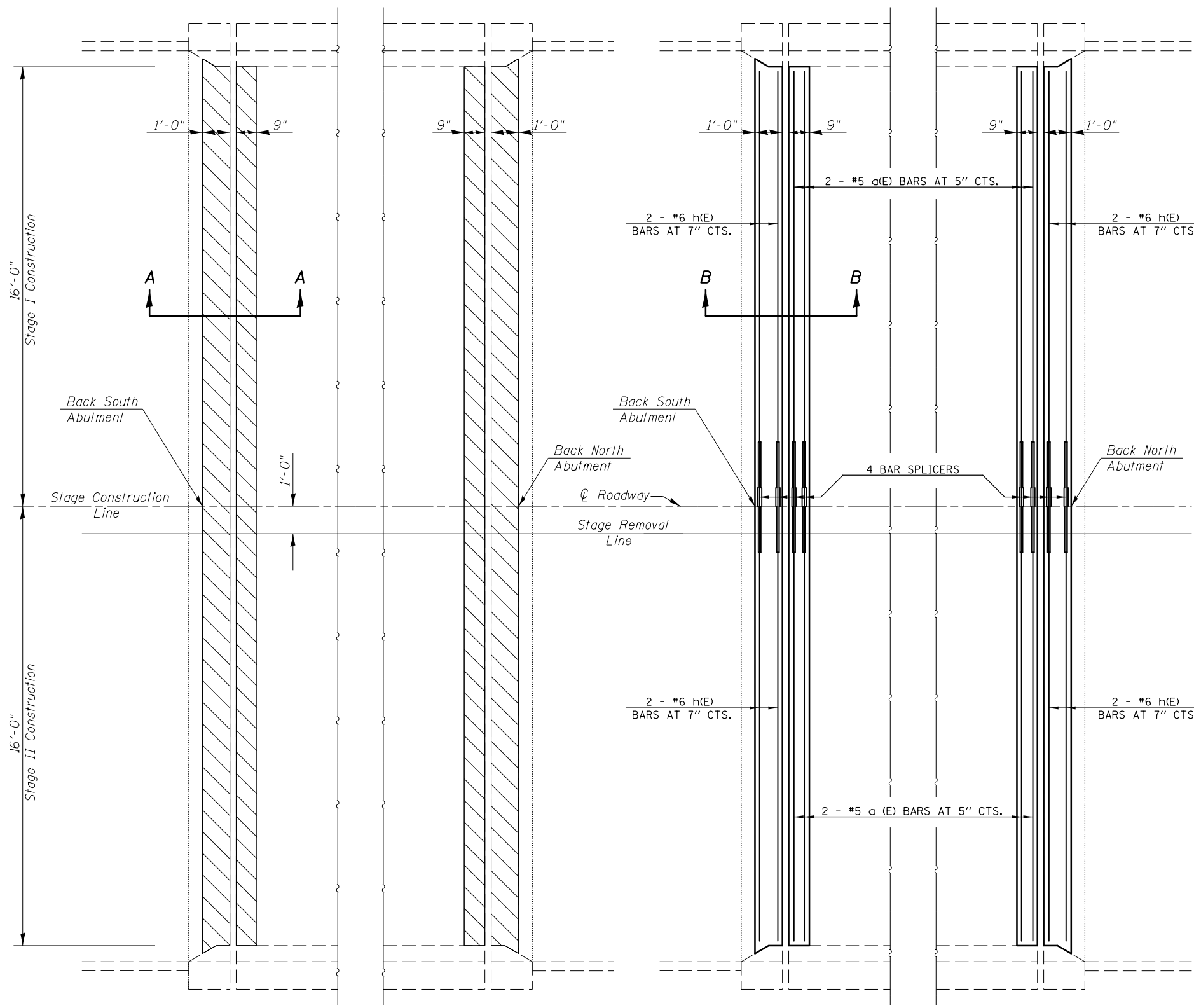
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**WEARING SURFACE PLAN  
S.N. 092-0033**

SCALE: SHEET 4 OF 14 SHEETS STA. TO STA.

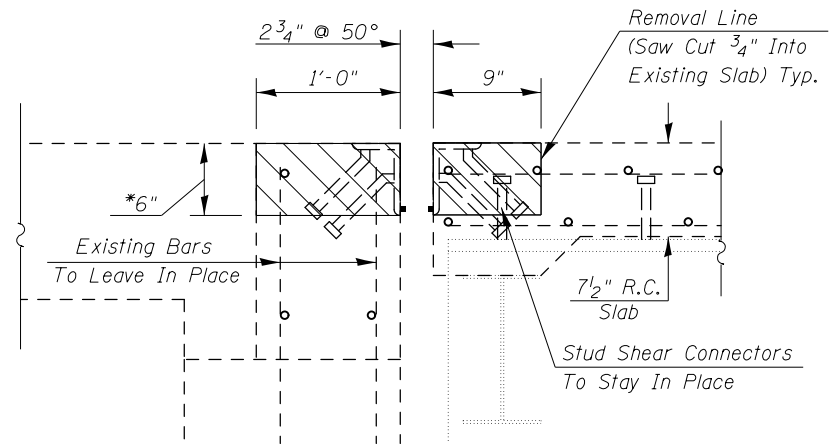
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(48X-3)BR-2	VERMILION	25	12
CONTRACT NO. 70C97				
ILLINOIS FED. AID PROJECT				



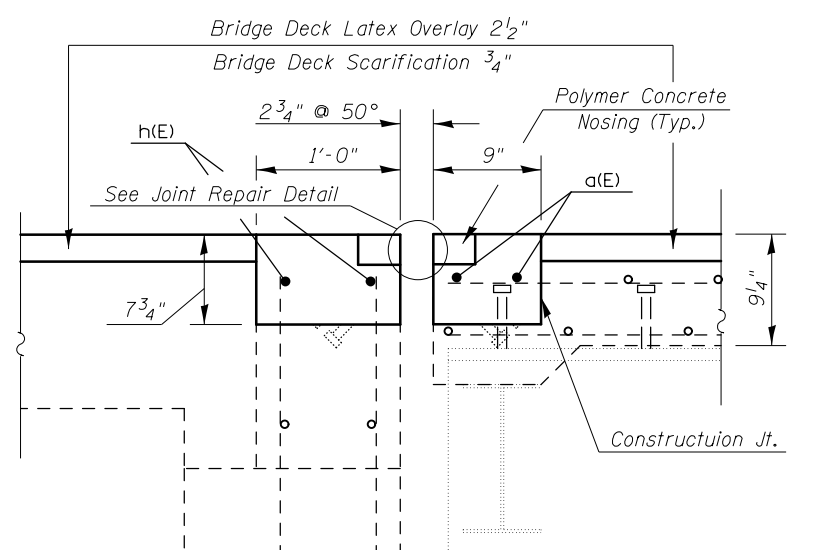


**PLAN VIEW**  
CONCRETE REMOVAL

**PLAN VIEW**  
CONCRETE SUPERSTRUCTURE



**SECTION A-A**  
CONCRETE REMOVAL



**SECTION B-B**  
CONCRETE SUPERSTRUCTURE

**LEGEND:**  
 Concrete Removal

**NOTE:**  
 \* Existing Steel 3/4" φ @ 1'-0" Cts. Studs Shall Be Cut Off At The Concrete Removal Line. The Cost Of Cutting The Existing Studs Shall Be Included In The Cost Of Concrete Removal And No Additional Compensation Will Be Allowed.

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 With Concrete Removal.

Reinforcement Bars Designated (E) Shall Be Epoxy Coated.

**BILL OF MATERIAL**

BAR NO.	SIZE	LENGTH	SHAPE
a(E)	#5	15'-9"	—
h(E)	#6	15'-9"	—
Concrete Removal	Cu Yd	2.1	
Concrete Superstructure	Cu Yd	2.7	
Reinforcement Bars (Epoxy Coated)	Pound	330.0	
Bar Splicers	Each	8.0	

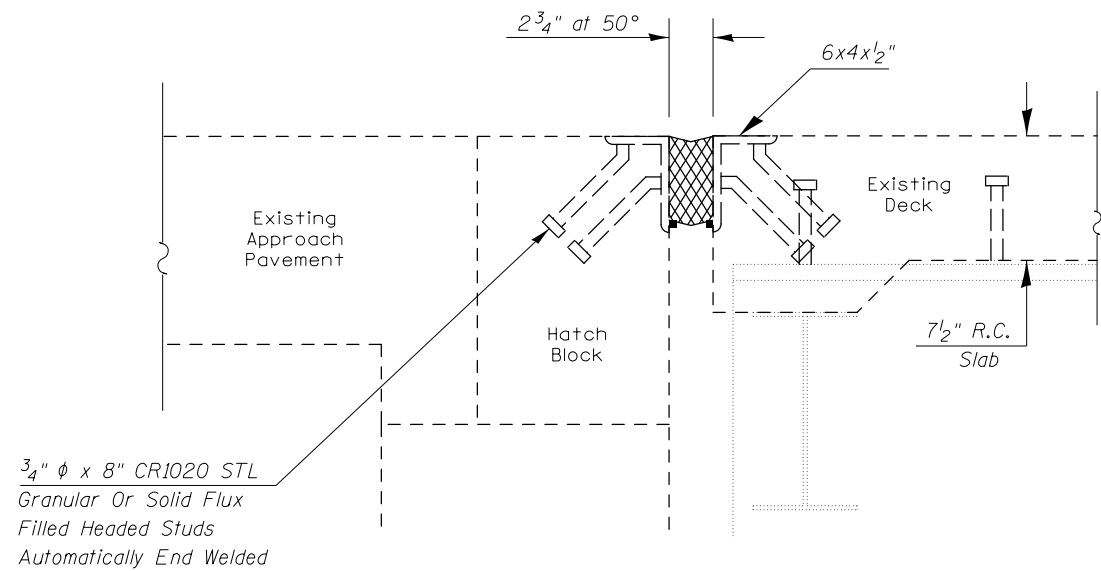
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pw:\IL04EB\INTEG\Illinois.gov\PWIDOT\Documents\DOT Offices\District 5\Projects\0570C97\CADD\Structures\0570C97\0570C97.dgn		ESS	REVISED -
PLOT SCALE = 40,0000' / 1"	CHECKED - TJB		REVISED -
SMODELNAME	PLOT DATE = 6/13/2018	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

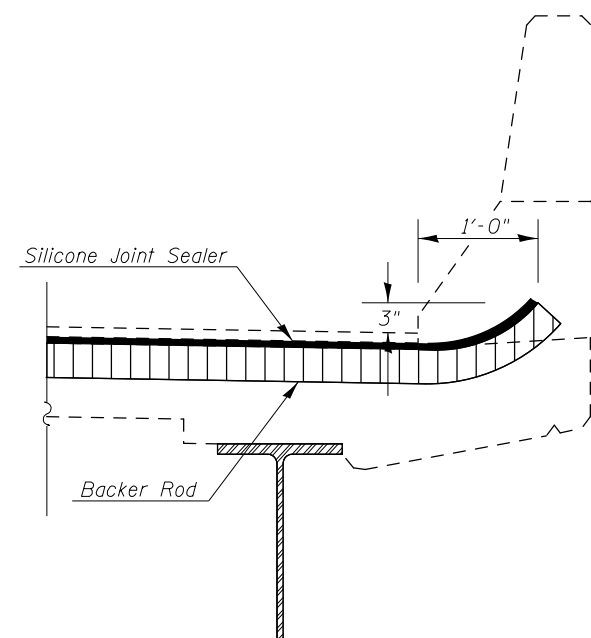
**CONCRETE REMOVAL & CONCRETE SUPERSTRUCTURE DETAILS**  
**S.N. 092-0033**

SCALE: SHEET 5 OF 14 SHEETS STA. TO STA.

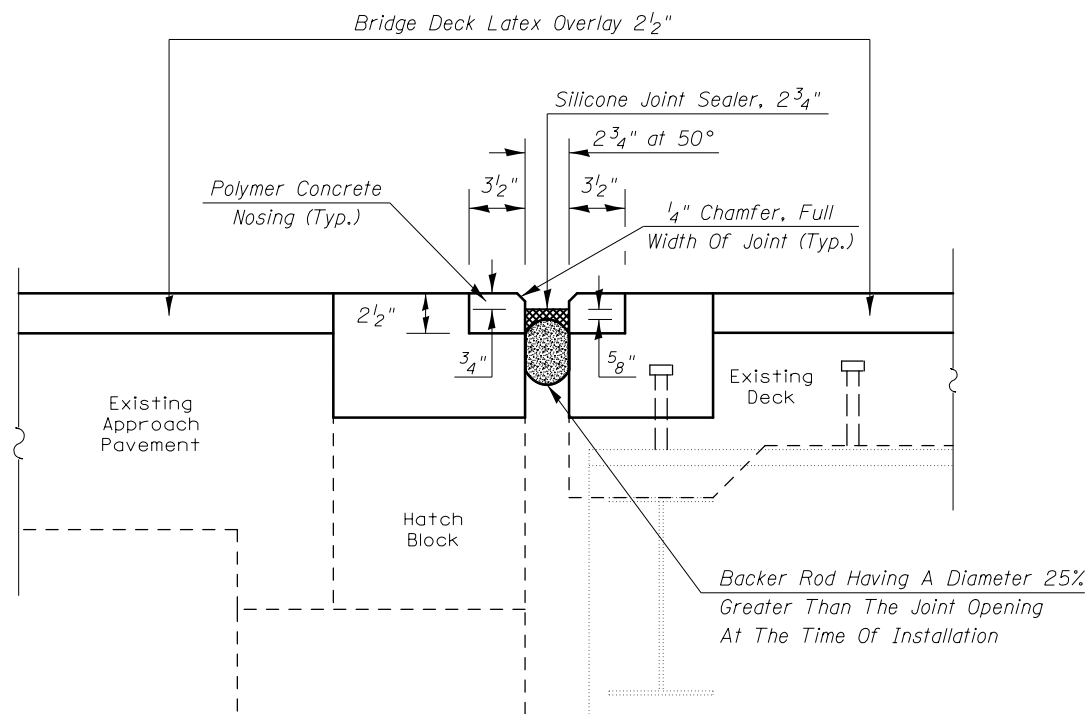
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(48X-3)BR-2	VERMILION	25	13
CONTRACT NO. 70C97				
ILLINOIS FED. AID PROJECT				



**SECTION AT EXISTING JOINT**



**SECTION AT PARAPET  
SILICONE JOINT SEALER**



**SECTION AT PROPOSED JOINT**

**BILL OF MATERIAL**

Item	Unit	Total
Silicone Joint Sealer, 2 3/4"	Foot	68.0
Polymer Concrete	Cu Ft	7.8

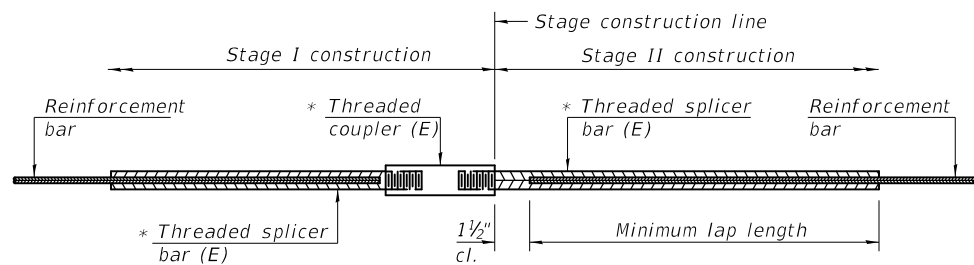
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\$MODELNAME\$	PLOT DATE = 6/13/2018	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**JOINT REPLACEMENT DETAILS  
S.N. 092-0033**

SCALE: SHEET 6 OF 14 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(48X-3)BR-2	VERMILION	25	14
CONTRACT NO. 70C97				
ILLINOIS FED. AID PROJECT				

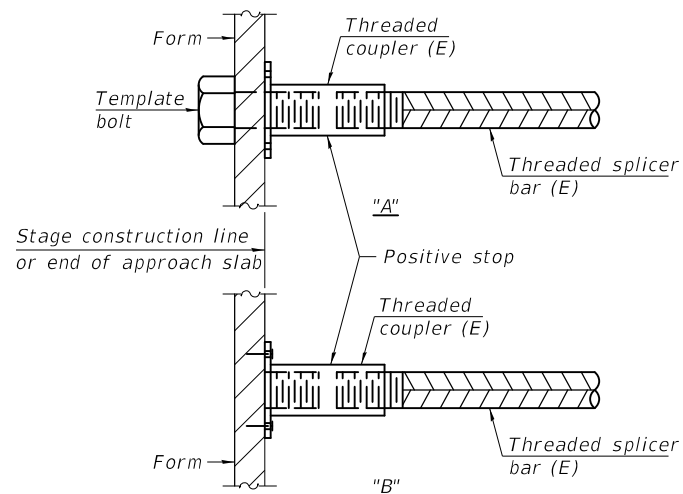


**STANDARD BAR SPLICER ASSEMBLY**

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

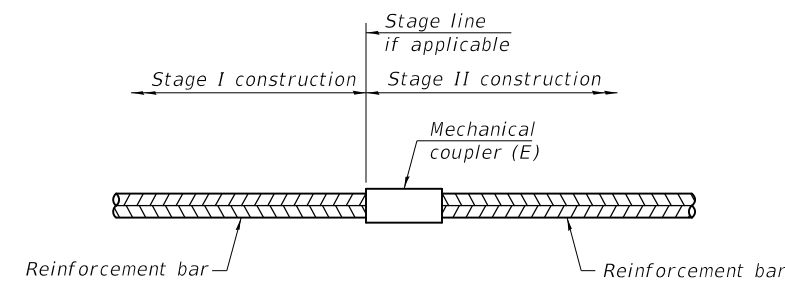
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Hatch Blocks	#6	4	4'-0"
Deck Ends	#5	4	3'-0"



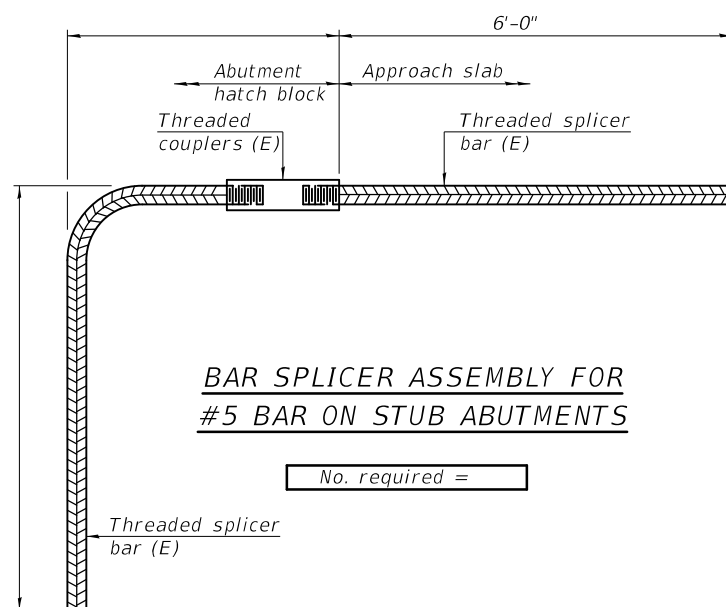
**INSTALLATION AND SETTING METHODS**

"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



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

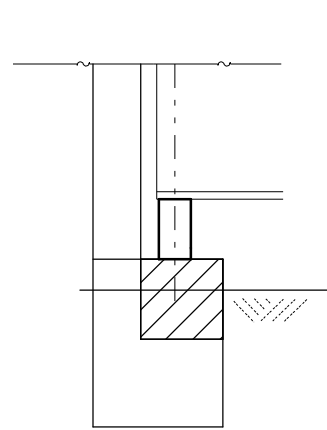
No. required =

**NOTES**

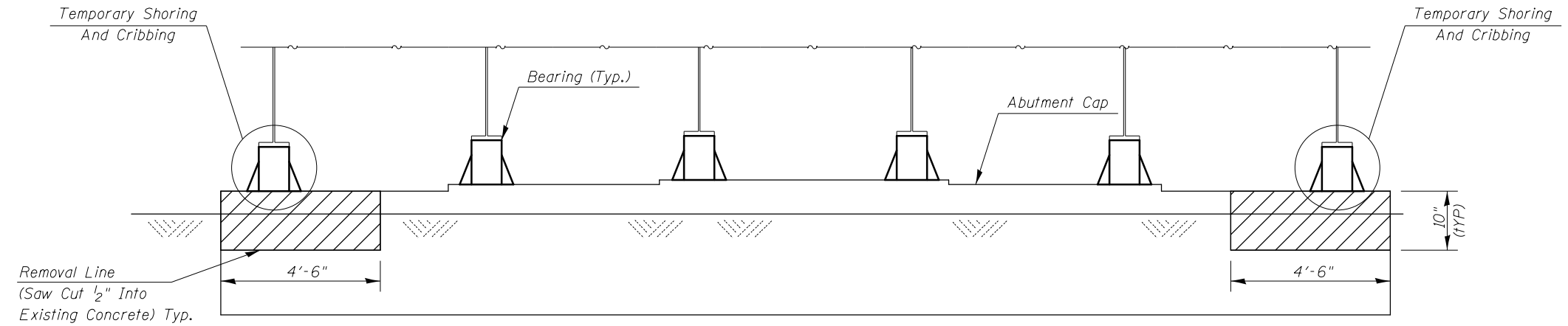
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.  
 All reinforcement shall be lapped and tied to the splicer bars.  
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.  
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 2-17-2017

FILE NAME =	USER NAME = shawleres	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS S.N. 092-0033</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL084EB\INTEG\Illinois.gov\PWIDOT\Documents\DOT Offices\District 5\Projects\D570C97\CADD\Structures\D570C97\0001\Drawings.dgn		CHECKED -	REVISED -			332	(48X-3)BR-2	VERMILION	25	15
PLOT SCALE = 40,0000' / 1"		DATE -	REVISED -			CONTRACT NO. 70C97				
\$MODELNAME	PLOT DATE = 6/13/2018					ILLINOIS FED. AID PROJECT				



**ELEVATION - END VIEW  
(TYPICAL)**



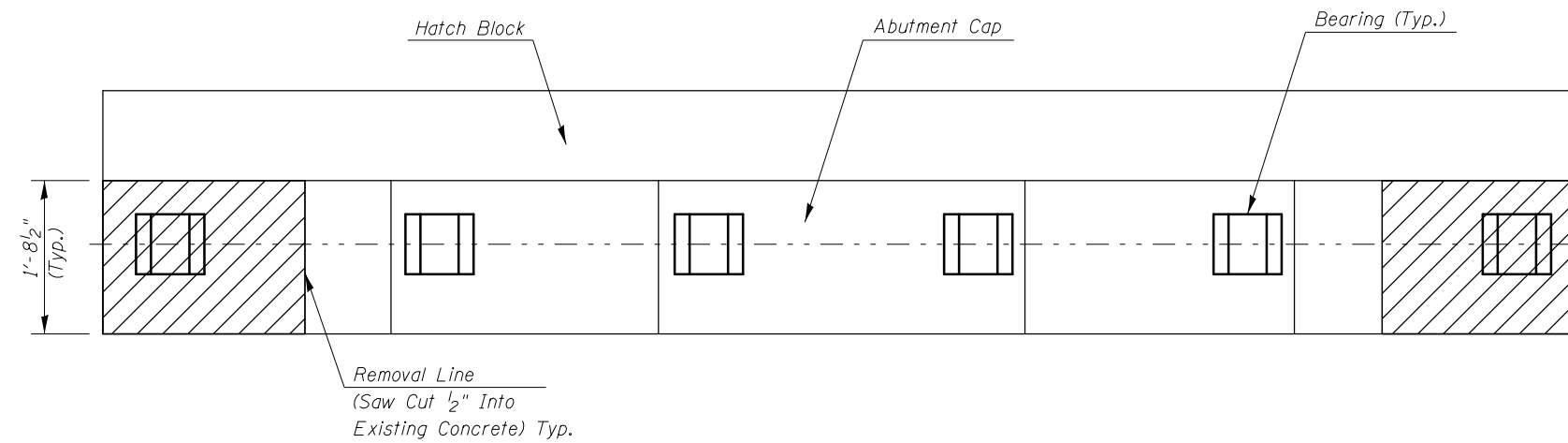
**ELEVATION - NORTH ABUTMENT  
SOUTH ABUTMENT SIMILAR**

**LEGEND:**

Structure Repair Of Concrete,  
Depth Less Than Or Equal To 5"

**NOTE:**

See Special Provision For Structural Repair Of Concrete.  
See Special Provision For Temporary Shoring & Cribbing.

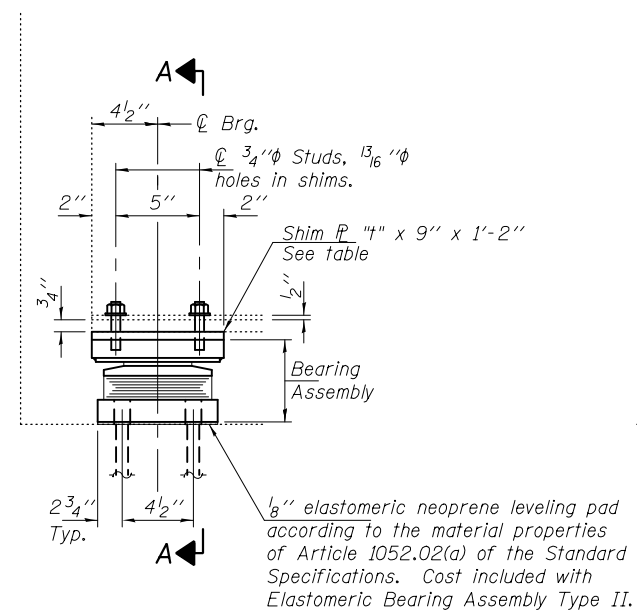


**PLAN - NORTH ABUTMENT  
SOUTH ABUTMENT SIMILAR**

**BILL OF MATERIAL**

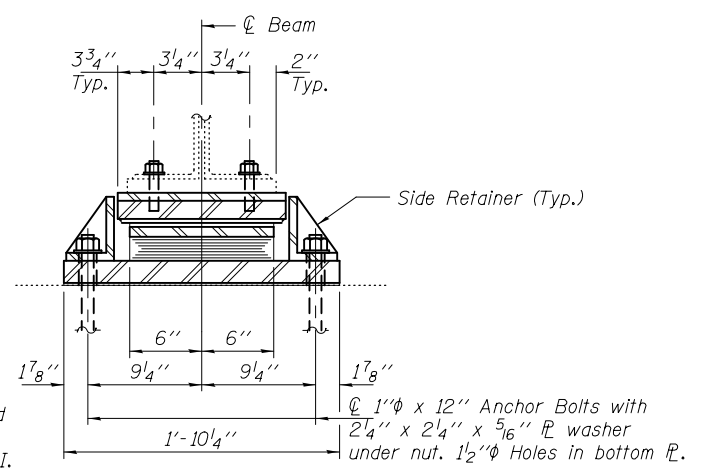
Item	Unit	Total
Structural Repair Of Concrete (Depth Less Than Or Equal To 5")	Sq Ft	52.0
Temporary Shoring And Cribbing	Each	4.0

Quantities Included for Both Abutments



**ELEVATION AT ABUTMENT**

**TYPE II TFE ELASTOMERIC EXP. BRG.**



**SECTION A-A**

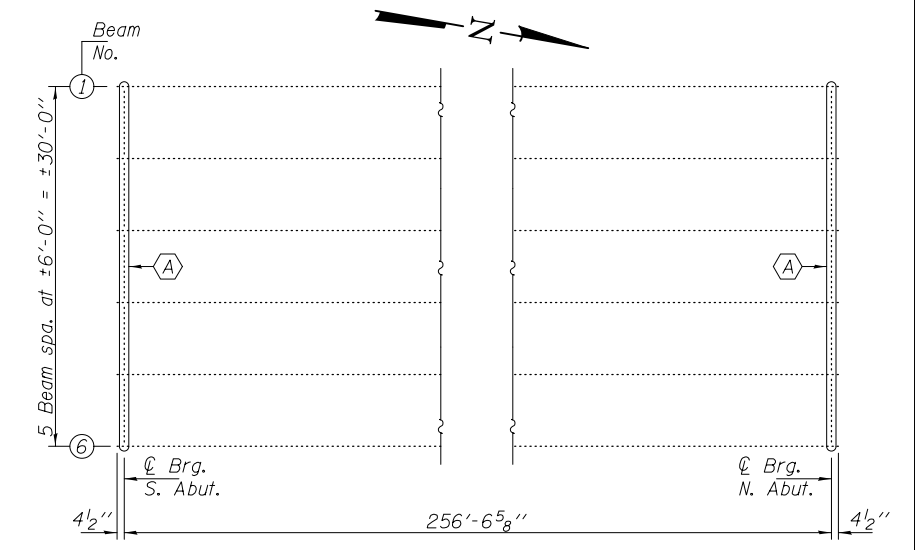
**BEAM REACTIONS**

R <sub>1</sub>	(K)	18.0
R <sub>2</sub>	(K)	31.7
Imp.	(K)	8.7
R (Total)	(K)	58.4

Notes:  
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.  
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.  
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).  
 Min. jack capacity = 30 Tons.  
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F<sub>y</sub>=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.  
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.  
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.  
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.  
 The 1/8 inch PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.  
 Bonding of 1/8 inch PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

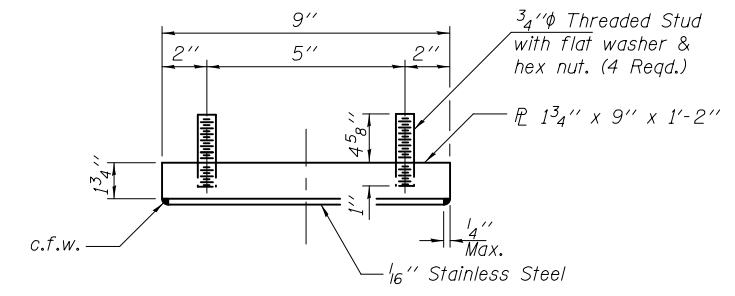
**SHIM PLATE THICKNESS "t"**

Location	Beam Numbers					
	1	2	3	4	5	6
N. Abut.	1 9/16"	1 5/16"	1 5/16"	1 5/16"	1 5/16"	1 1/16"
S. Abut.	1 5/16"	1 9/16"	1 3/16"	1 3/16"	1 5/16"	1 5/16"

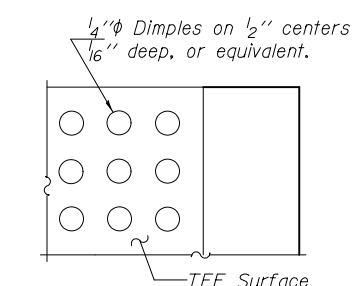


**PARTIAL FRAMING PLAN**

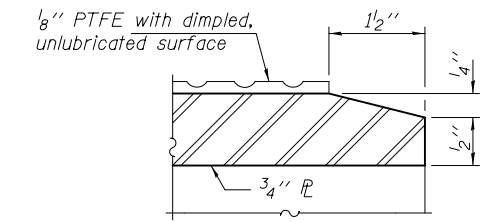
A - Bearing replacement.



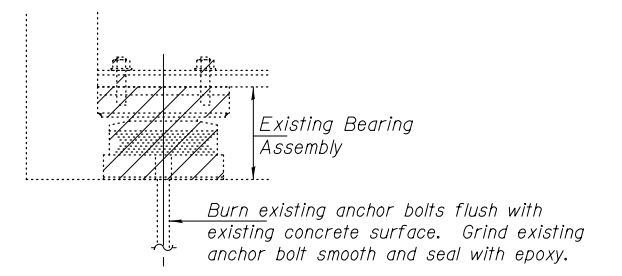
**TOP BEARING ASSEMBLY**



**PLAN-PTFE SURFACE**

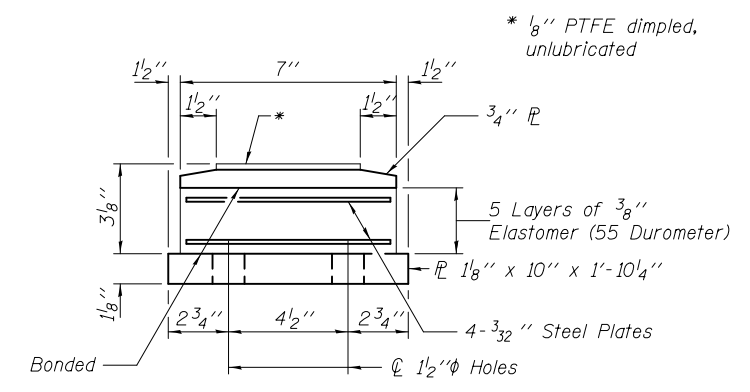


**SECTION THRU PTFE**

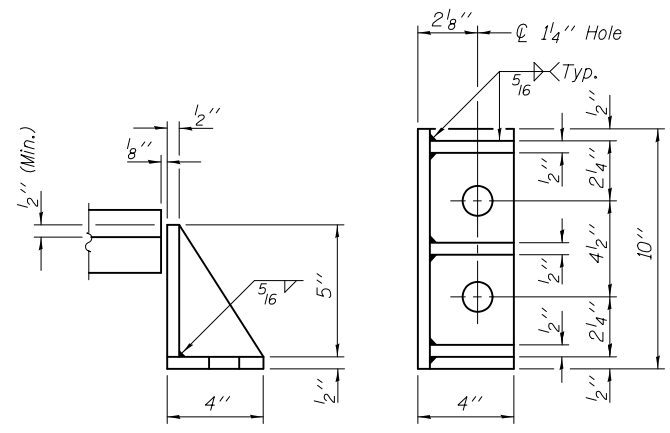


**EXISTING BEARING REMOVAL DETAIL**

Cost included with Jack and Remove Existing Bearings.

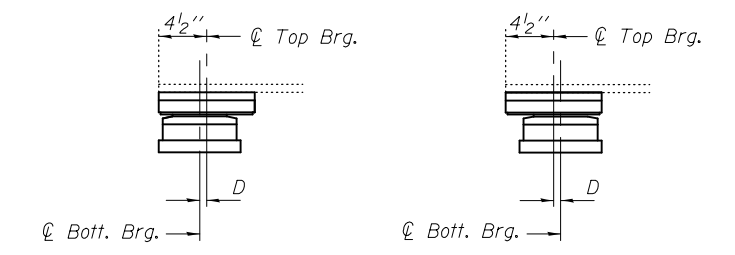


**BOTTOM BEARING ASSEMBLY**



**SIDE RETAINER**

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



**SETTING ANCHOR BOLTS AT EXP. BRG.**

D = 1/8 inch per each 100' of expansion for every 15 degree temp. change from the normal temp. of 50 degrees Fahrenheit.

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	12
Jack and Remove Existing Bearings	Each	12
Furnishing and Erecting Structural Steel	Pound	630
Anchor Bolts 1" dia	Each	48

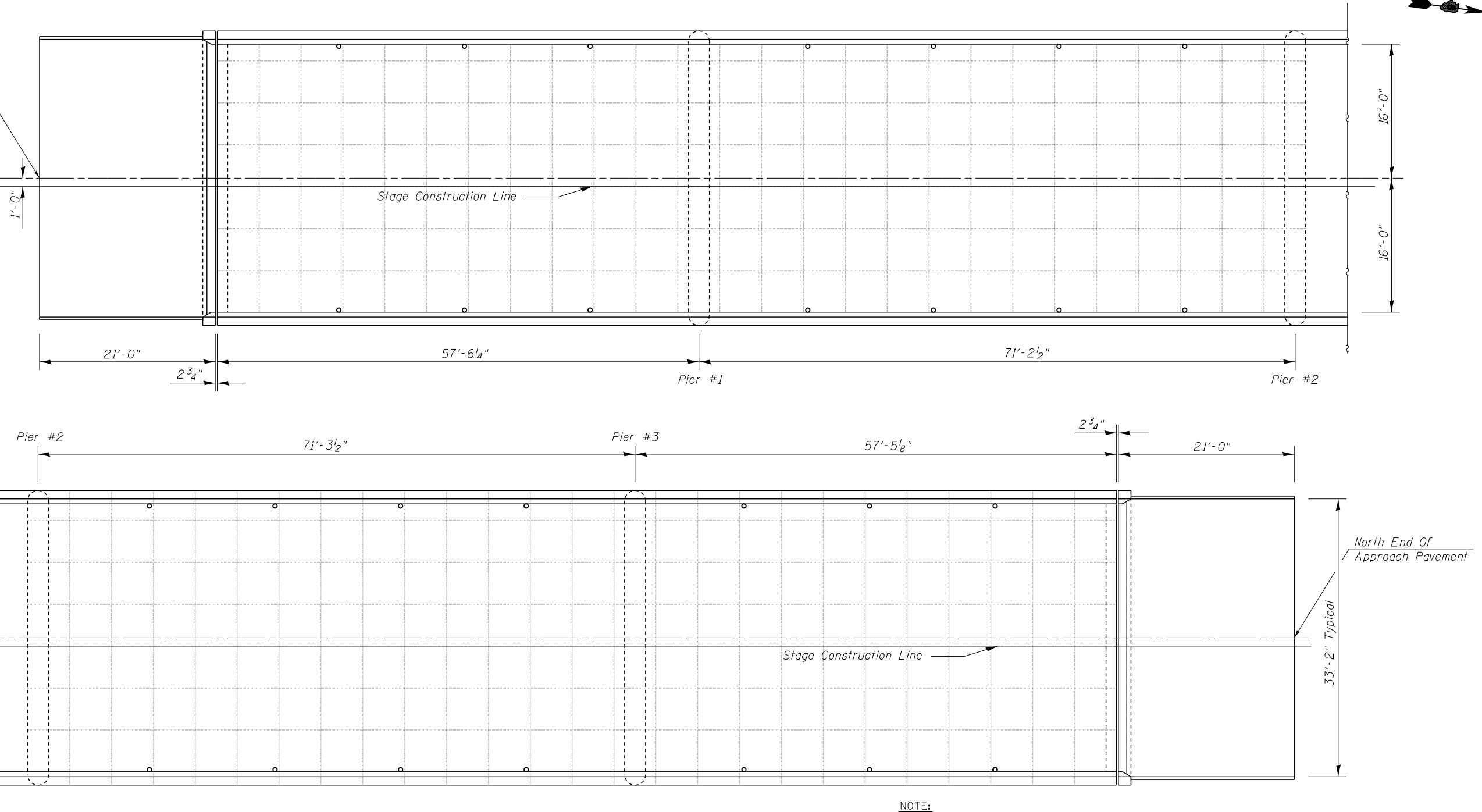
TYII/REPS 12-03-2008



South End Of Approach Pavement

Stage I Construction

Stage II Construction



**NOTE:**

A Visual Deck Survey Was Performed on May 09, 2017 It Determined Full Depth Patching Would Not Be Required. The Full Depth Patching Quantities Were Estimated at 2 Percent. Should Areas for Full-Depth Patching Be Identified After Bridge Deck Scarification, The R.E. Should Show Them On The Bridge Deck Patching Sheet Provided. Grid Lines Are Shown at 5 FT Intervals.

PATCH NO.	SIZE	REPAIR FULL DEPTH		SO YD
		TY I	TY II	
SO FT	SO FT	SO FT	SO FT	SO YD

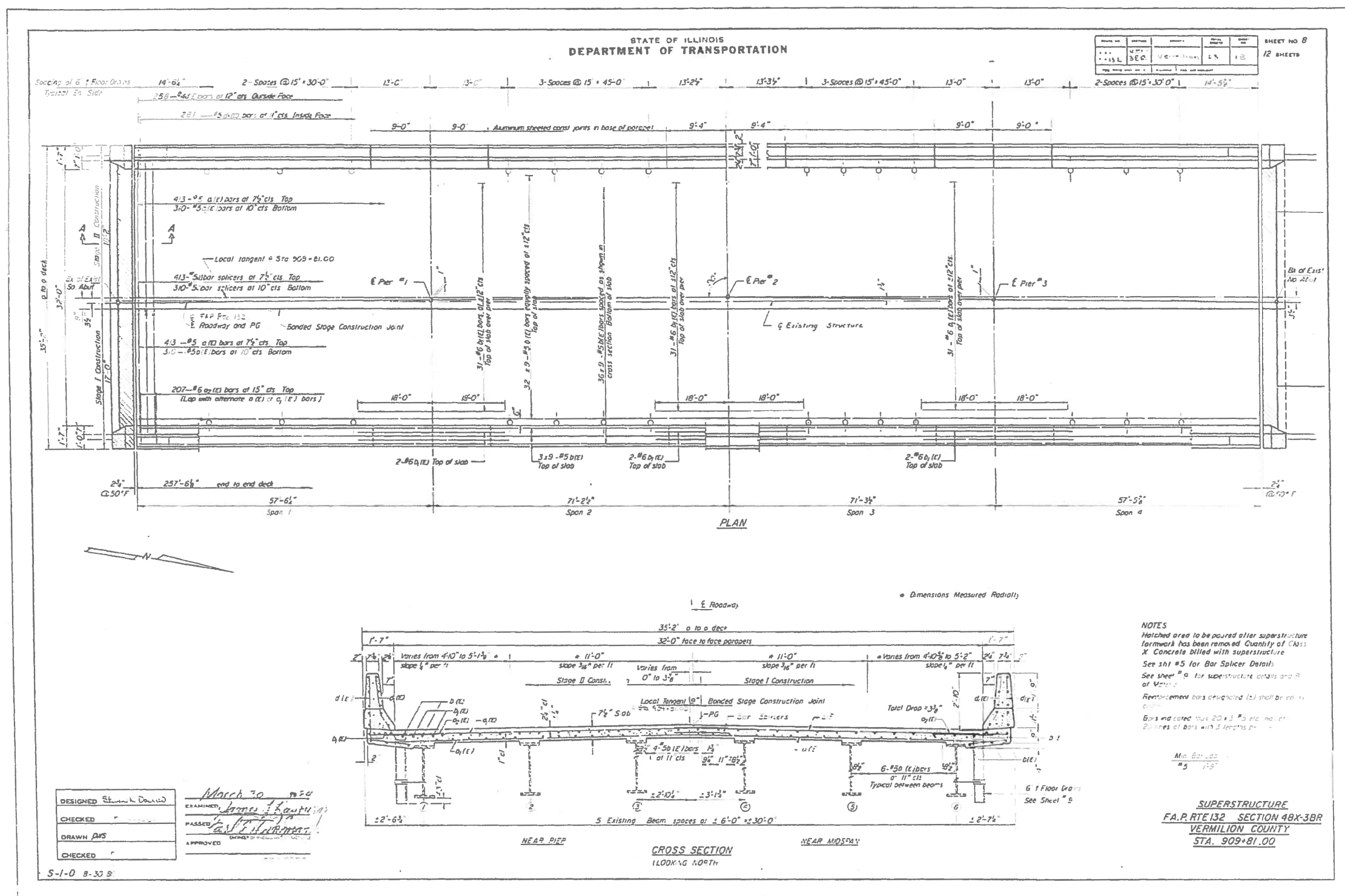
PATCH NO.	SIZE	REPAIR FULL DEPTH		SO YD
		TY I	TY II	
SO FT	SO FT	SO FT	SO FT	SO YD

PATCH NO.	SIZE	REPAIR FULL DEPTH		SO YD
		TY I	TY II	
SO FT	SO FT	SO FT	SO FT	SO YD

**BILL OF MATERIAL**

Item	Unit	Total
Deck Slab Repair (Full Depth, Type I)	SQ YD	10.0
Deck Slab Repair (Full Depth, Type II)	SQ YD	10.0

# AS-BUILT PLANS FOR INFORMATION ONLY

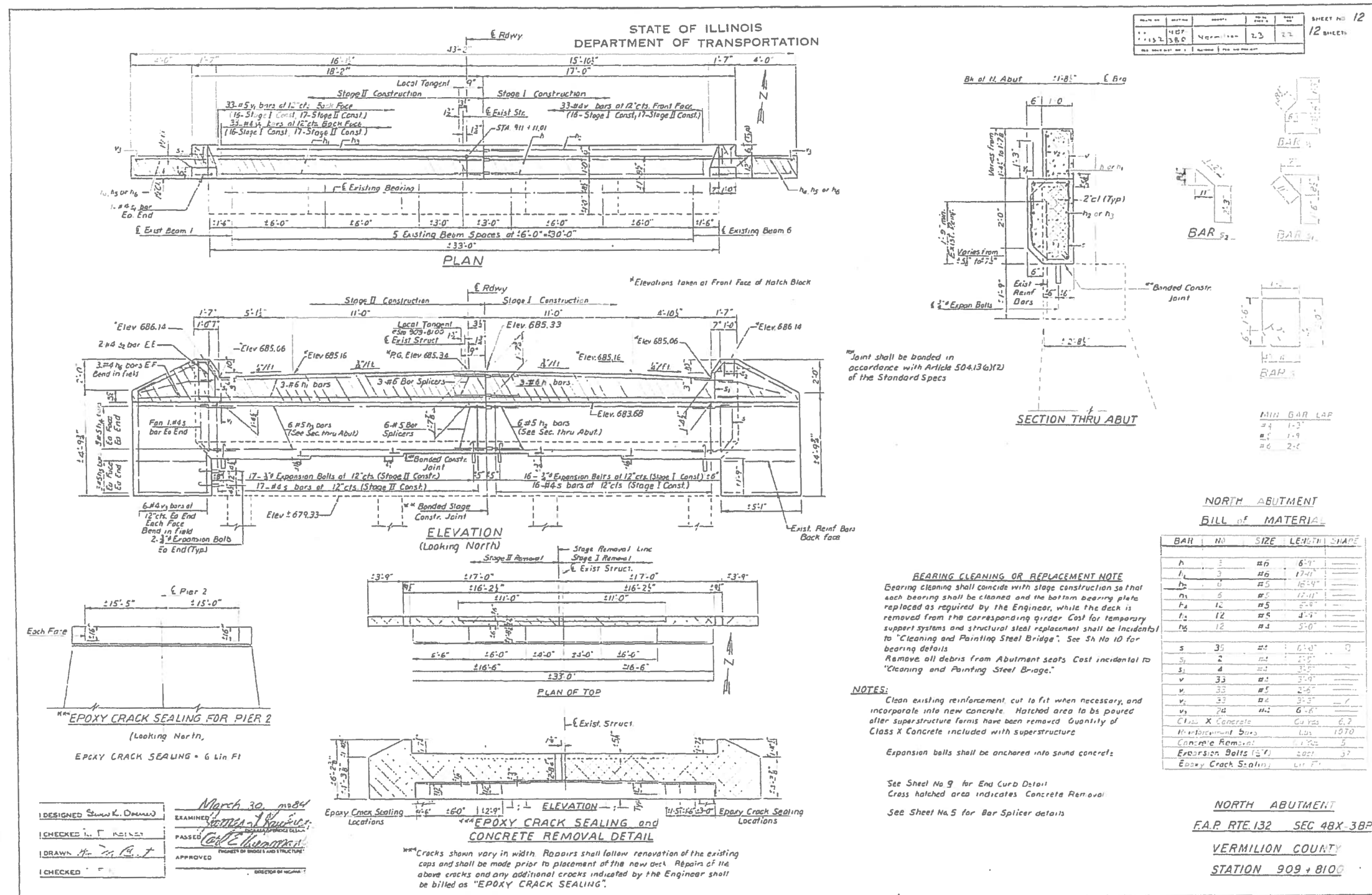


FILE NAME =	USER NAME = shawler	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	AS BUILT PLANS FOR INFORMATION ONLY	SCALE:	SHEET 11 OF 14 SHEETS	STA.	TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw\1\084EB\INTEG\Illinois.gov\PWIDOT\Documents\DOT Offices\District 5\Projects\0570C97\CADD\Structures\0570C97\Drawings		CHECKED -	REVISED -							332	(48X-3)BR-2	VERMILION	25	19
SMODELNAME	PLOT DATE = 6/13/2018	CHECKED -	REVISED -											CONTRACT NO. 70C97
		DATE -	REVISED -											ILLINOIS FED. AID PROJECT





# AS-BUILT PLANS FOR INFORMATION ONLY



DATE	BY	CHKD	APP'D	SHEET NO.
11/13/18	SHAW	SHAW	SHAW	12
SHEET NO. 12				12 SHEETS

**NORTH ABUTMENT  
BILL OF MATERIAL**

BAR NO.	SIZE	LENGTH	SHAPE
h	#6	6'-9"	
h1	#6	17'-4"	
h2	#5	16'-5"	
h3	#5	12'-11"	
h4	#5	2'-8"	
h5	#5	4'-9"	
h6	#4	5'-0"	
s	#4	6'-0"	□
s1	#4	2'-0"	
s2	#4	3'-0"	
v	#4	3'-9"	
v1	#5	2'-6"	
v2	#4	3'-3"	
v3	#4	6'-6"	
Class X Concrete			
Manufactured Bars			
Concrete Removal			
Expansion Bolts (1/2")			
Epoxy Crack Sealant			

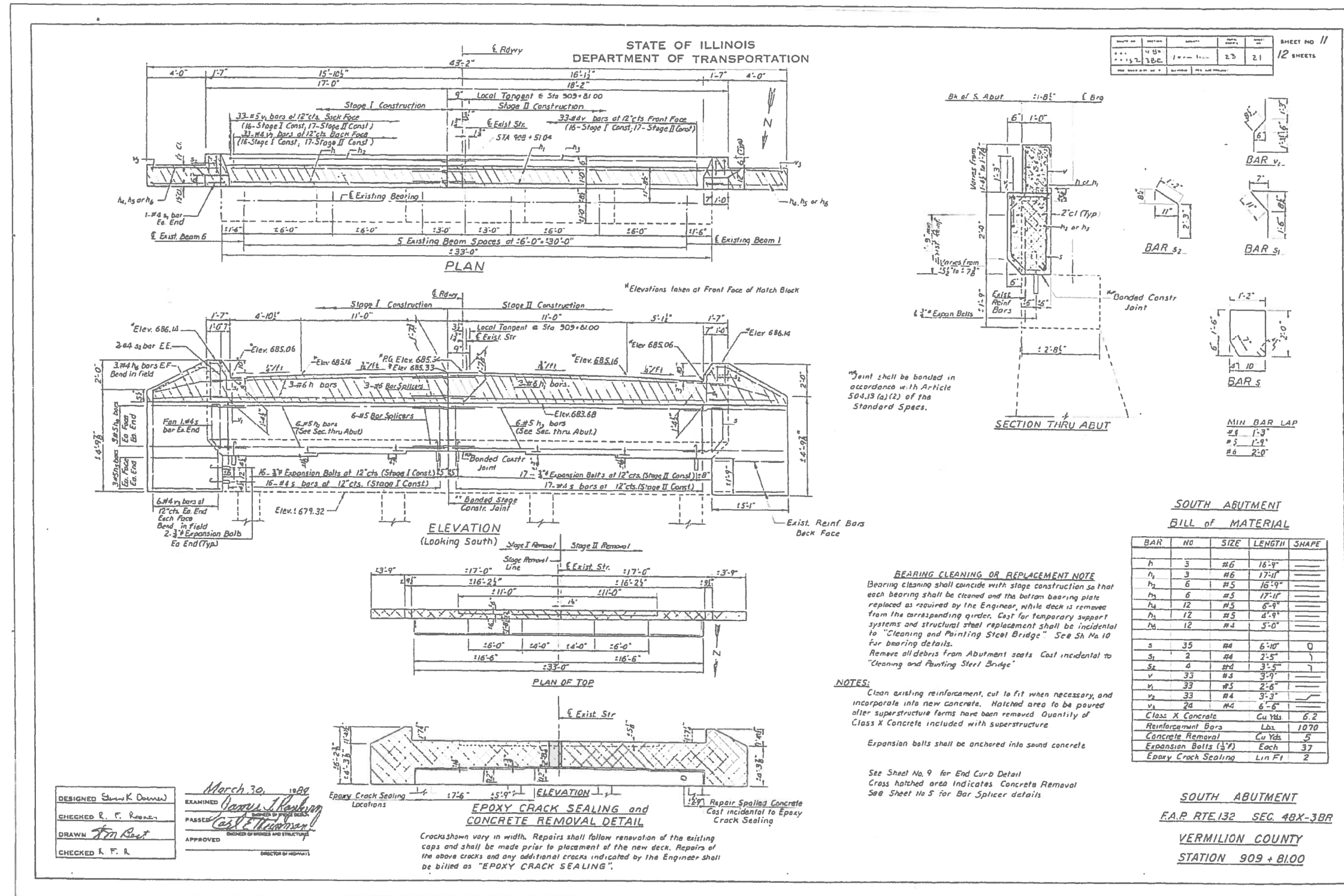
**BEARING CLEANING OR REPLACEMENT NOTE**  
Bearing cleaning shall coincide with stage construction so that each bearing shall be cleaned and the bottom bearing plate replaced as required by the Engineer, while the deck is removed from the corresponding girder. Cost for temporary support systems and structural steel replacement shall be incidental to "Cleaning and Painting Steel Bridge". See SH No 10 for bearing details.  
Remove all debris from Abutment seats. Cost incidental to "Cleaning and Painting Steel Bridge."

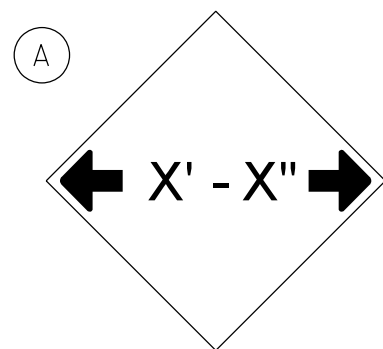
**NOTES:**  
Clean existing reinforcement cut to fit when necessary, and incorporate into new concrete. Hatched area to be poured after superstructure forms have been removed. Quantity of Class X Concrete included with superstructure.  
Expansion bolts shall be anchored into sound concrete.  
See Sheet No 9 for End Curb Detail.  
Cross hatched area indicates Concrete Removal.  
See Sheet No 5 for Bar Splicer details.

DESIGNED: SHAW, K. D. (Date: March 30, 2018)  
CHECKED: [Signature]  
DRAWN: [Signature]  
APPROVED: [Signature]

**EPOXY CRACK SEALING AND CONCRETE REMOVAL DETAIL**  
Cracks shown vary in width. Repairs shall follow renovation of the existing caps and shall be made prior to placement of the new deck. Repairs of the above cracks and any additional cracks indicated by the Engineer shall be billed as "EPOXY CRACK SEALING".

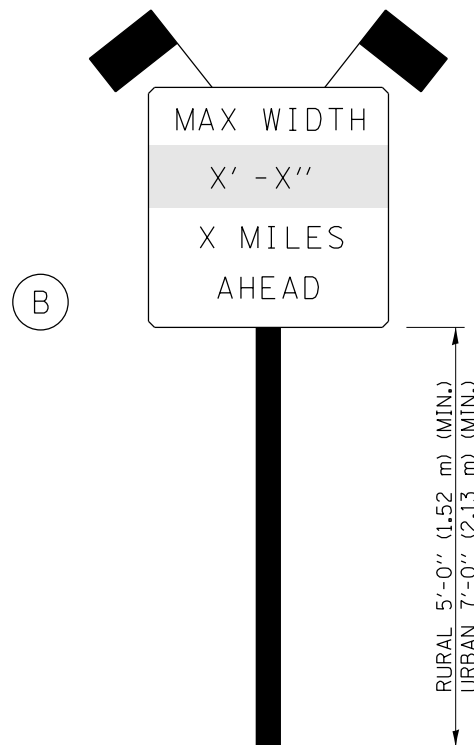
# AS-BUILT PLANS FOR INFORMATION ONLY



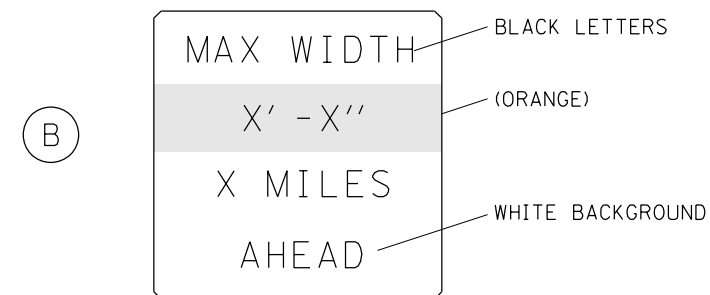


W12-2(0)-48"x48"(1200x1200)

SIGN (A) 2 SIGNS - W12-2(0)-48"x48"(1200x1200) ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.



SIGN PANEL, TYPE II



W12-I103(0)-48"x48"(1200x1200)  
"D" LETTERS/NUMBERS

SIGN (B) 2 SIGNS - (SIGN PANEL, TYPE II) AS SHOWN ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

STAGE WIDTHS:

STAGE 1 WIDTH = 12'-0" ACTUAL; 10'-6" POSTED; REQUIRED

STAGE 2 WIDTH = 13'-0" ACTUAL; 11'-6" POSTED; REQUIRED

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. ALL (B) SIGNS SHALL HAVE FLAGS INSTALLED UNLESS OTHERWISE DIRECTED.
3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
4. ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
5. ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE DIRECTED.
6. ALL SIGNS SHOWN ORANGE (O) SHALL BE FLUORESCENT ORANGE.
7. ALL SIGNS SHOWN SHALL CONSIST OF THE CURRENT RETROREFLECTIVE SHEETING REQUIREMENTS AS OUTLINED IN SECTION 1106.01 OF THE STANDARD SPECIFICATIONS BOOK.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = showleres	DESIGNED -	REVISED - 03/11 -KJT
pw:\11084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 5\Projects\057000\Drawings\Structures\0570097.sht.Bridge		CHECKED -	REVISED - 05/08
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED - 10/08 - KJT
	PLOT DATE = 6/13/2018	DATE -	REVISED - 7/09 - KJT

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

WIDTH RESTRICTION SIGNING

SCALE: SHEET NO. 1 OF 3 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. X7200201

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(48X-3)BR-2	VERMILION	25	23
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 70C97	

**S.N. 092-0033**

WIDTH RESTRICTION SIGNINGS FOR IL-1  
NORTHBOUND TRAFFIC

**B1** NORTHBOUND  
ERECT BY JUCTION IL-119 SIGN  
7 MILES AHEAD

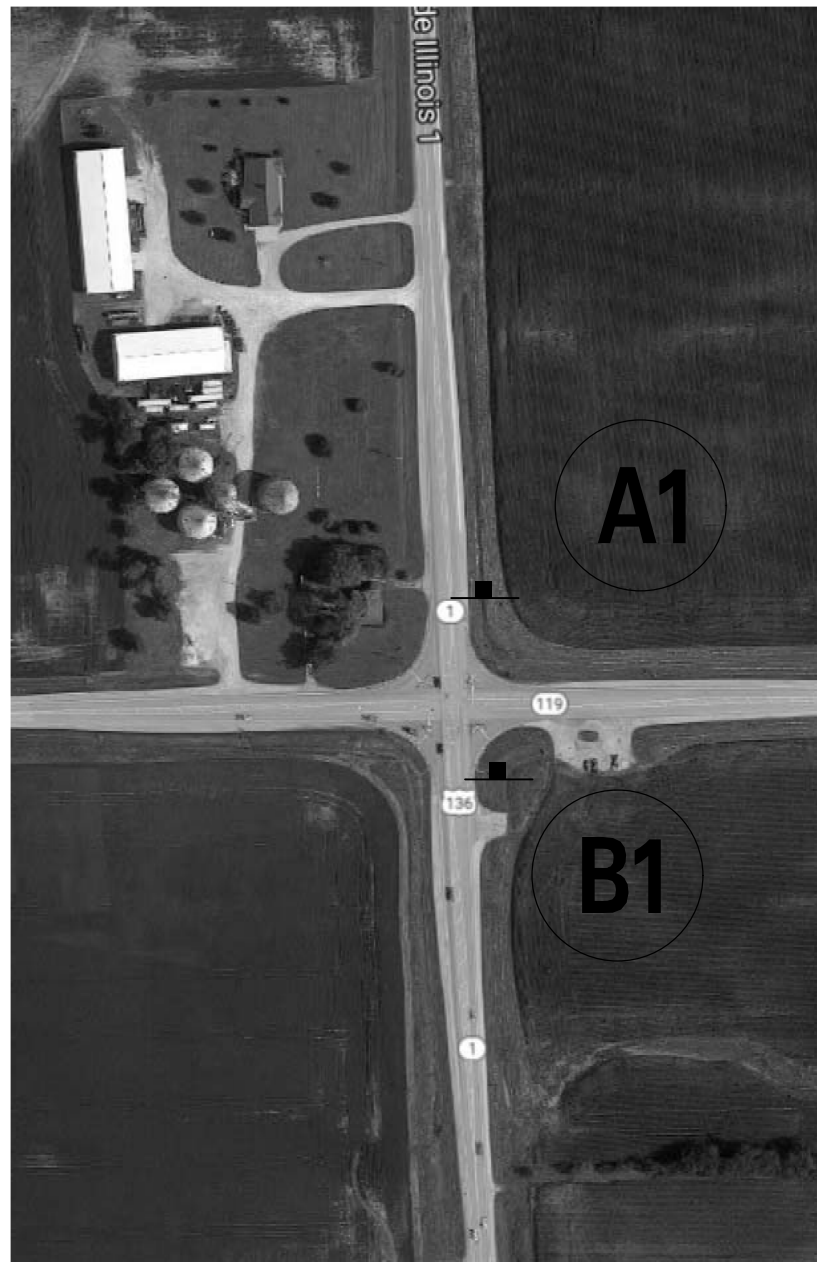
**A1** NORTHBOUND  
ERECT BY NORTH IL-1 SIGN  
INCLUDE 7.0 MILE AHEAD SIGN

7.0 MILES

**A2** NORTHBOUND  
ERECT BY SCHOOL SPEED LIMIT 20MPH AHEAD SIGN  
INCLUDE 2.0 MILE AHEAD SIGN

2.0 MILES

NORTH OF DANVILLE  
INTERSECTION OF IL-1 & US-136



ROSSVILLE  
INTERSECTION OF IL-1 & ATTICA ST.



FILE NAME =	USER NAME = shawleres	DESIGNED -	REVISED -
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	PLOT SCALE = 40,0000' / 1".	CHECKED -	REVISED -
\$MODELNAME\$	PLOT DATE = 6/13/2018	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

WIDTH RESTRICTION SIGNING  
S.N. 092-0033

SCALE: SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(48X-3)BR-2	VERMILION	25	24
CONTRACT NO. 70C97				
ILLINOIS FED. AID PROJECT				

**S.N. 092-0033**

WIDTH RESTRICTION SIGNINGS FOR IL-1  
SOUTHBOUND TRAFFIC

HOOPSTON  
INTERSECTION OF IL-1 & IL-9

**A3** SOUTHBOUND  
ERECT BY SOUTH IL-1 SIGN  
INCLUDE 3.0 MILE AHEAD SIGN

3.0 MILES

**B2** SOUTHBOUND  
ERECT BY JUCTION IL-119 SIGN  
3 MILES AHEAD



FILE NAME =	USER NAME = shawleres	DESIGNED -	REVISED -
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\$MODELNAMES	PLOT DATE = 6/13/2018	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

WIDTH RESTRICTION SIGNING  
S.N. 092-0033

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	(48X-3)BR-2	VERMILION	25	25
CONTRACT NO. 70C97				
ILLINOIS FED. AID PROJECT				