

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(74-69HB-3)BR	PIATT	20	1
		ILLINOIS	CONTRACT NO. 70F73	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3

# PROPOSED HIGHWAY PLANS

F.A.I. ROUTE 72 (I-72)  
SECTION (74-69HB-3)BR  
PROJECT N/A  
BRIDGE DECK REPAIRS  
PIATT COUNTY

C-95-019-22

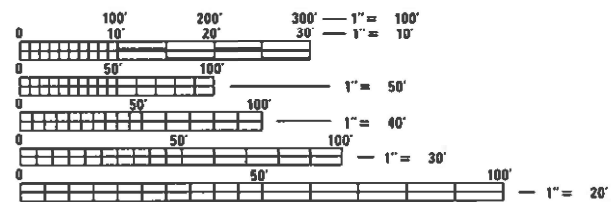
AT I-72 E OF WHITE HEATH

**CURRENT TRAFFIC DATA**

	LEG A I-72	LEG B FAS 1532
2023 ADT	14,200	475
2033 ADT	14,900	500
2043 AM DHV	1,050	500
2043 PM DHV	1,290	50
PU + PC%	77.8	92.4
SU%	3.5	6.1
MU%	18.7	1.5

**DESIGN DESIGNATION**

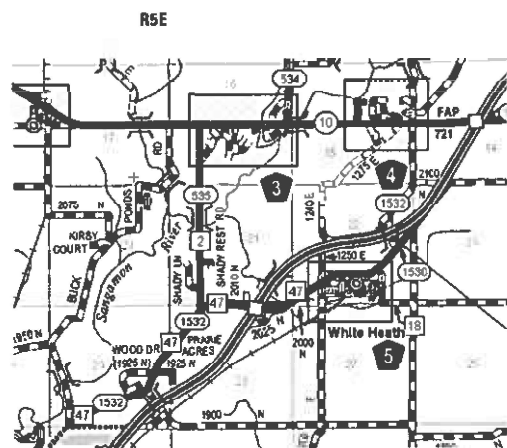
INTERSTATE (FAL-72)  
MAJOR COLLECTOR (FAS 1532)



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.

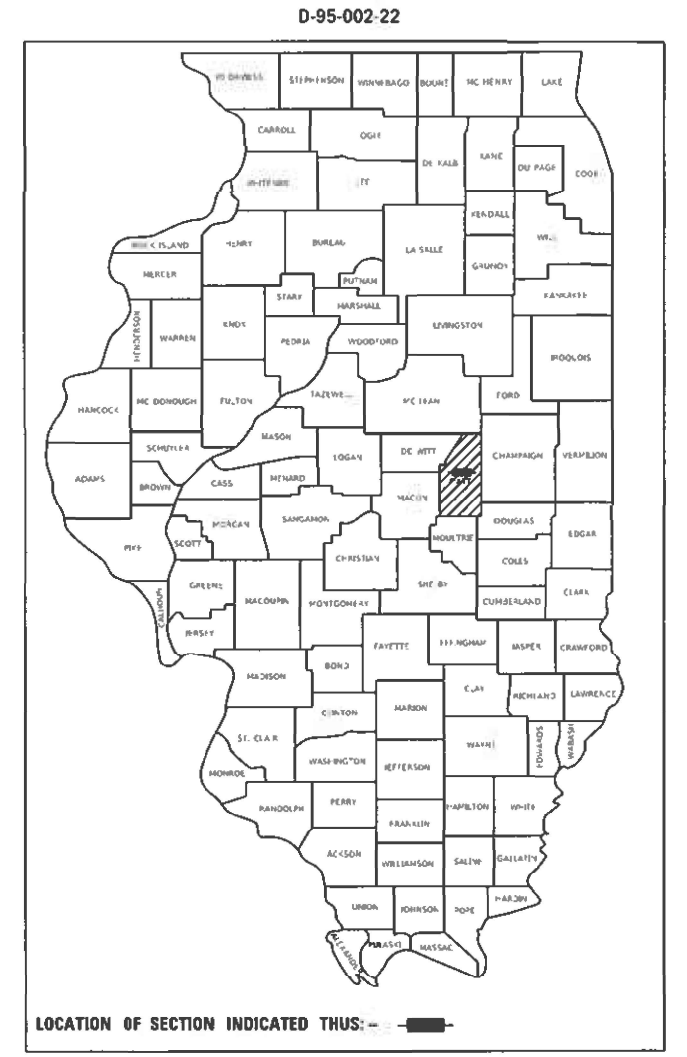
J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS  
1-800-892-0123  
OR 811  
WHITE HEATH TOWNSHIP

PROJECT ENGINEER: TIM BRANDENBURG  
PROJECT MANAGER: JEFF M. SHERER  
DISTRICT PHONE (217) 465-4181  
CONTRACT NO. 70F73



S.N. 074-0036  
STA. 50+00.00  
BRIDGE DECK REPAIRS

GROSS LENGTH = 304.00 FT. = 0.058 MILE  
NET LENGTH = 304.00 FT. = 0.058 MILE



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED *November 28, 2023*  
*David A. Stinson*  
REGIONAL ENGINEER

February 2, 2024  
*Scott A. Etkin*  
ENGINEER OF DESIGN AND ENVIRONMENT

February 2, 2024  
*Stephen M. Smith*  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

# INDEX OF SHEETS

<u>SHEET NO.</u>	<u>ITEM</u>
✓ 1	COVER SHEET
✓ 2	INDEX OF SHEETS/ HIGHWAY STANDARDS
✓ 2	GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5	GENERAL PLAN/ ELEVATION S.N. 074-0036
6	TYPICAL DECK CROSS-SECTION
7-8	DETAIL OF DECK END REPAIRS
9-11	DETAIL OF STEEL REPAIRS
12-16	DETAIL OF DECK PATCHING
✓ 17	DEAIL OF FLOOR DRAINS
✓ 18	DETAIL OF WEARING SURFACE
✓ 19	DETAIL OF BUTT-JOINTS
20	DETAIL OF ROAD CLOSURE

# LIST OF STANDARDS

<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
✓ 001006	DECIMAL OF AN INCH AND OF A FOOT
701001-02	OFF RD OPERATIONS, 2L, 2W, 15' FROM PAVEMENT EDGE
701006-05	OFF RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATION
701400-12	APPROACH TO LANE CLOSURE FREEWAY/ EXPRESSWAY
701406-13	LANE CLOSURE FREEWAY/ EXPRESSWAY DAY ONLY
701901-09	TRAFFIC CONTROL DEVICES

# GENERAL NOTES

**G.N.-100A**

ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR.

**G.N.-105.09A**

ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88)

**GN 406H Mixture Requirements**

Contract: 70F73

Location	CR 1532
Mixture Use	Mainline
AC/PG	PG 64-22
Design Air Voids	4.0% @ Ndes=50
Mix Comp(Gradation)	IL 9.5
Friction Aggregate	Mix C
Mixture Weight	112
Quality Management Program	QC/QA
Sublot Size	3000
Material Transfer Device (Required ?)	NO

COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

THERE ARE NO COMMITMENTS ASSOCIATED WITH THIS PROJECT

MODEL: \\MODELS\MAMES  
FILE: \\mames\pub\lib\cadd\benitey.com\PHWDOT\Documents\DOT Offices\Bnrite\_5\Projects\0570F73\Cadd\Bnrite\Hydro\Bnrite\70F73\IndexGeneralNotes.dgn

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	DRAWN - JMS	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 12/4/2023	DATE - 031220	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS/HIGHWAY STANDARDS  
GENERAL NOTES**

SCALE: NONE    SHEET 1    OF 1    SHEETS    STA.    TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(74-69HB-3)BR	PIATT	20	2
CONTRACT NO. 70F73				
ILLINOIS   FED. AID PROJECT				

**CONSTRUCTION CODE**  
**PIATT**  
**STRUCTURE**  
**IMPROVEMENT**  
**F.A.I. 72**  
**S.N. 074-0036**  
**STA. 50+00.00**  
**100% STATE**

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0047 RURAL
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	188.0	188.0
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	90.0	90.0
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	16.0	16.0
50102400	CONCRETE REMOVAL	CU YD	6.7	6.7
50157300	PROTECTIVE SHIELD	SQ YD	226.0	226.0
50300100	FLOOR DRAINS	EACH	16.0	16.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	7.7	7.7
50300260	BRIDGE DECK GROOVING	SQ YD	620.0	620.0
50300300	PROTECTIVE COAT	SQ YD	667.0	667.0
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3,330.0	3,330.0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	990.0	990.0
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	8.0	8.0
52100520	ANCHOR BOLTS, 1"	EACH	16.0	16.0
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	6.0	6.0
67100100	MOBILIZATION	L SUM	1.0	1.0

SPECIALTY ITEM (NONE)

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 FILE: \\MODELFNAME  
 PROJECT: \\PROJECTNAME  
 DRAWING: \\DRAWINGNAME  
 SHEET: \\SHEETNAME

USER NAME = Jeff.Sherer	DESIGNED - JMS	REVISED -
DRAWN - JMS	CHECKED -	REVISED -
PLOT SCALE = 40.0000 ' / in.	DATE - 11/15/2022	REVISED -
PLOT DATE = 12/4/2023		

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

**SUMMARY OF QUANTITIES**

SCALE: NONE SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(74-69HB-3)BR	PIATT	20	3
CONTRACT NO. 70F73			ILLINOIS FED. AID PROJECT	

**CONSTRUCTION CODE**  
**PIATT**  
**STRUCTURE**  
**IMPROVEMENT**  
**F.A.I. 72**  
**S.N. 074-0036**  
**STA. 50+00.00**  
**100% STATE**

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0047 RURAL
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1.0	1.0
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28.0	28.0
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	8.0	8.0
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	1,950.0	1,950.0
Z0001905	STRUCTURAL STEEL REPAIR	POUND	1,625.0	1,625.0
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	599.0	599.0
Z0012164	BRIDGE DECK MICROSILICA CONCRETE OVERLAY 2 1/2"	SQ YD	599.0	599.0
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	8.0	8.0
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	56.0	56.0
Z0041895	POLYMER CONCRETE	CU FT	3.0	3.0

SPECIALTY ITEM (NONE)

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USER NAME = Jeff.Sherer	DESIGNED - JMS	REVISED -
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PLOT DATE = 12/4/2023		

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

**SUMMARY OF QUANTITIES**

SCALE: NONE SHEET 2 OF 2 SHEETS STA. TO STA.

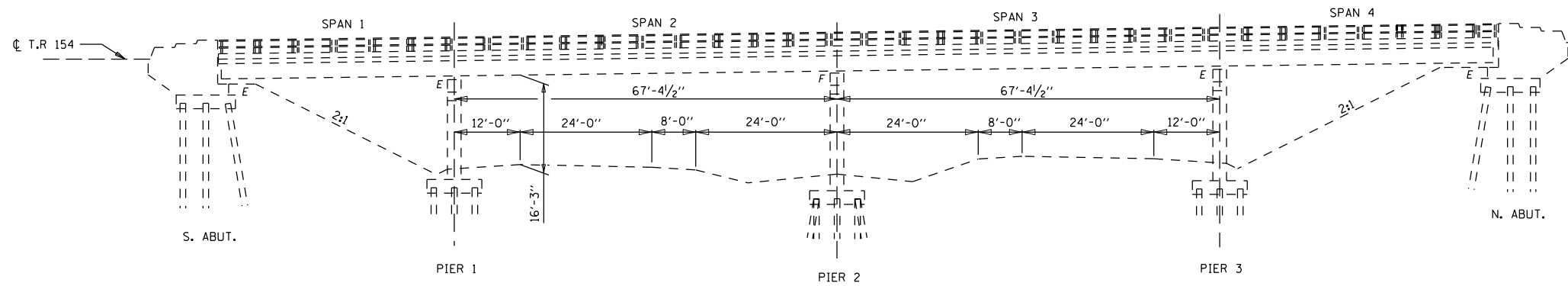
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(74-69HB-3)BR	PIATT	20	3
CONTRACT NO. 70F73			ILLINOIS FED. AID PROJECT	

S.N. 074-0036 WAS BUILT IN 1962 AS FA ROUTE 135, SECTION 74-69HB-3 AT STATION 1358+00.00 IN PIATT COUNTY. THE STRUCTURES IS A FOUR (4) SPAN, 7" THICK REINFORCED DECK WITH 4 33' WF STEEL BEAMSON STEEL/CONCRETE PILE SUPPORTED PIERS AND ABUTMENTS.

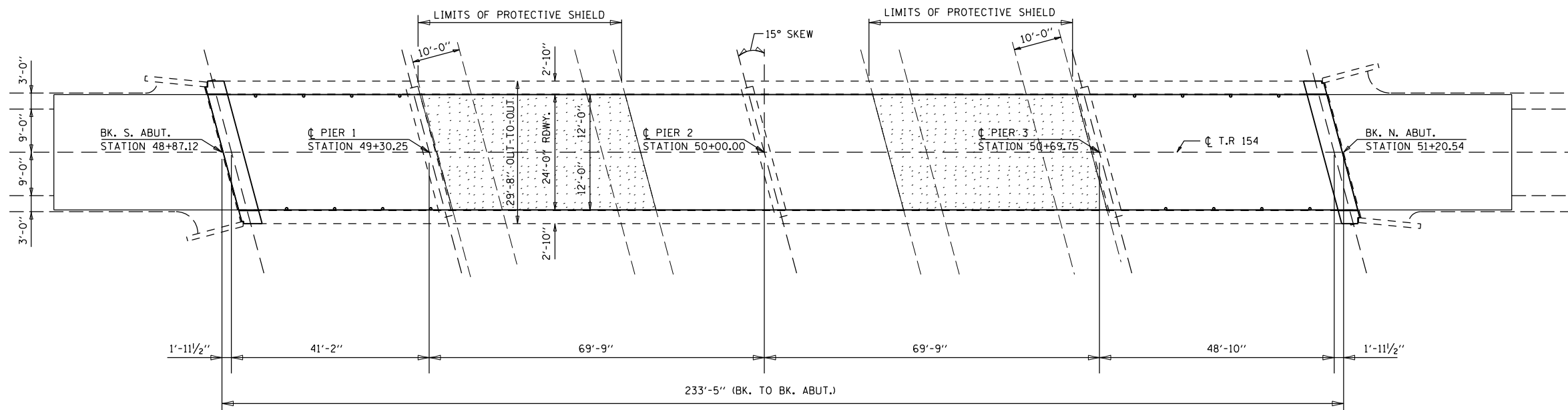
THE STRUCTURE HAS A BACK-TO-BACK ABUTMENT LENGTH OF 233'-5", OUT-TO-OUT WIDTH OF 29'-8", BRIDGE ROADWAY WIDTH OF 24'-0", AND AN APPROACH ROADWAY WIDTH OF 18'-0".

SEE LIST OF PROPOSED IMPROVEMENTS ON THIS SHEET.

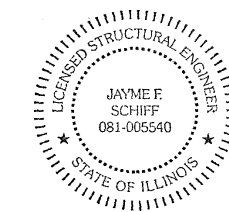
WORK SHALL BE COMPLETED UTILIZING A ROAD CLOSURE.



ELEVATION VIEW



PLAN VIEW



EXPIRES 11-30-2024

*Jayme F. Schiff*

INDEX OF SHEETS

1. GENERAL PLAN AND ELEVATION 074-0036.
2. EXISTING DECK CROSS-SECTION.
- 3.-4. DETAIL OF DECK ENDS.
- 5.-7. DETAILS OF BEARING AND STRUCTURAL STEEL.
- 8.-11. DETAIL OF DECK PATCHING (FULL DEPTH).
12. SCHEDULE OF DECK PATCHING.
13. DETAIL OF FLOOR DRAINS.
14. DETAIL OF WEARING SURFACE.
15. DETAIL OF BUTT-JOINT AT ABUTMENTS.

PROPOSED IMPROVEMENTS

1. PERFORM CONCRETE REMOVAL AT ABUTMENTS.
2. REMOVE/ REPLACE DIAPHRAGMS AND BEARINGS AT ABUTMENTS.
3. PERFORM BRIDGE DECK SCARIFICATION.
4. PERFORM DECK PATCHING (FULL-DEPTH).
5. REMOVE/ REPLACE FLOOR DRAINS.
6. PLACEMENT OF PROPOSED MICROSILICA CONCRETE WEARING SURFACE.
7. PERFORM BRIDGE DECK GROOVING.
8. PLACE HOT-MIX ASPHALT RUN DOWNS AT APPROACHES.

GENERAL NOTES

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 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. COST INCLUDED WITH DECK SLAB REPAIR

AREAS OF DECK REPAIRS SHOWN ARE ESTIMATED. THE ENGINEER SHALL SHOW ACTUAL LOCATIONS OF THE DECK REPAIRS ON AS-BUILT PLANS.

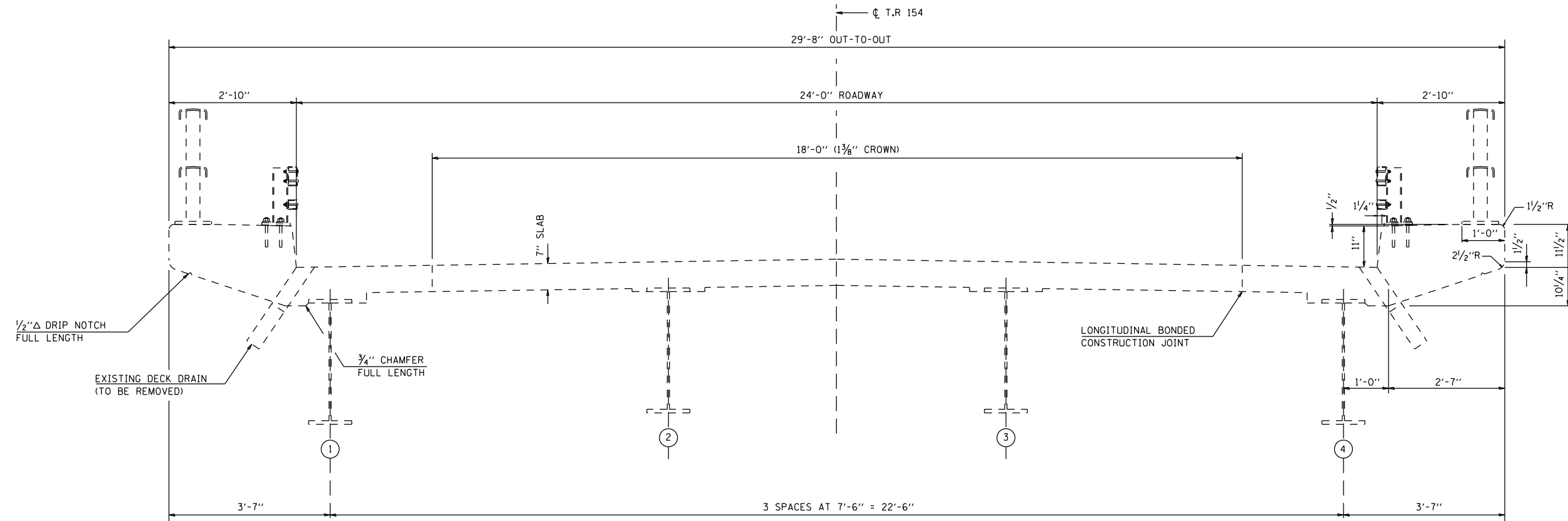
BRIDGE PAINTING COMPLETED AUGUST, 2023.

TOTAL BILL OF MATERIALS

ITEM	UNIT	TOTAL
PROTECTIVE SHIELD	SQ YD	226.0
FLOOR DRAINS	EACH	16.0
CONCRETE REMOVAL	CU YD	6.7
CONCRETE SUPERSTRUCTURE	CU YD	7.7
BRIDGE DECK GROOVING	SQ YD	620.0
PROTECTIVE COAT	SQ YD	667.0
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3,330.0
REINFORCEMENT BARS, EPOXY COATED	POUND	990.0
ELASTOMERIC BEARING ASSEMBLY TYPE I	EACH	8.0
ANCHOR BOLTS 1"Ø	EACH	16.0
JACK AND REMOVE EXISTING BEARINGS	EACH	8.0
STRUCTURAL STEEL REMOVAL	POUND	1,950.0
STRUCTURAL STEEL REPAIR	POUND	1,625.0
BRIDGE DECK MICROSILICA CONC. OVERLAY 2 1/2"	SQ YD	599.0
BRIDGE DECK SCARIFICATION 3/4"	SQ YD	599.0
DECK SLAB REPAIR (FULL-DEPTH) TYPE 1	SQ YD	8.0
DECK SLAB REPAIR (FULL-DEPTH) TYPE 2	SQ YD	56.0
POLYMER CONCRETE	CU FT	3.0

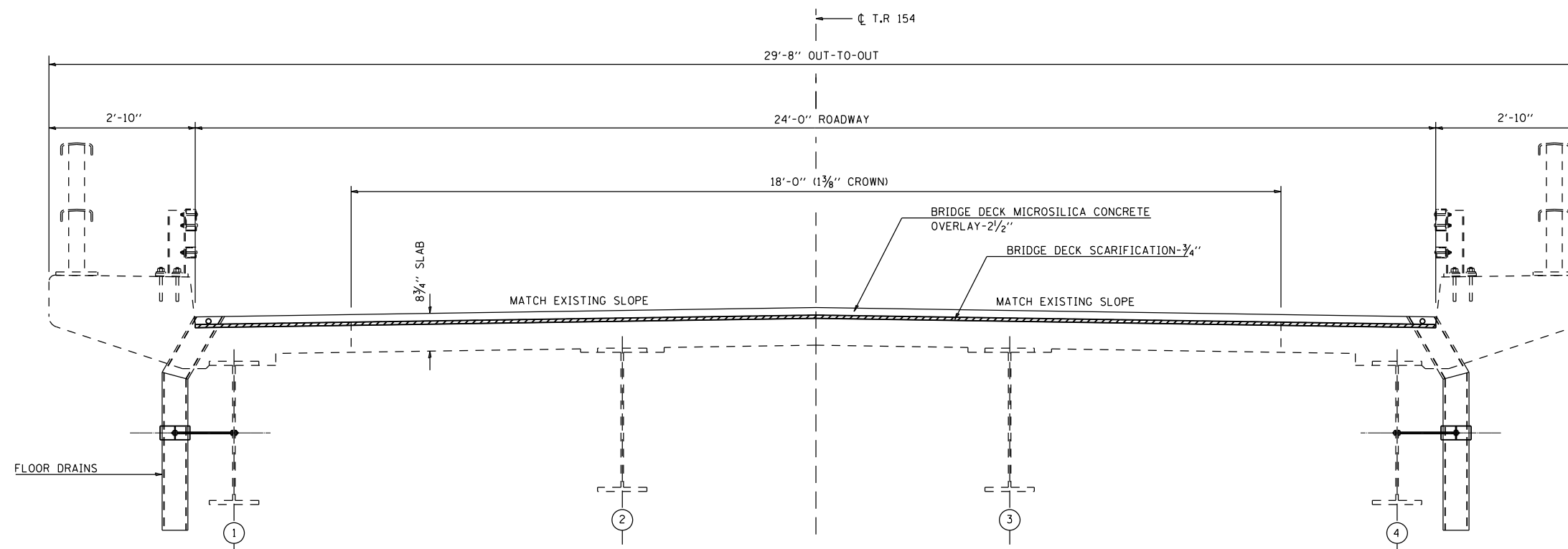
# EXISTING DECK CROSS SECTION

S.N. 074-0036



# PROPOSED DECK CROSS SECTION

S.N. 074-0036



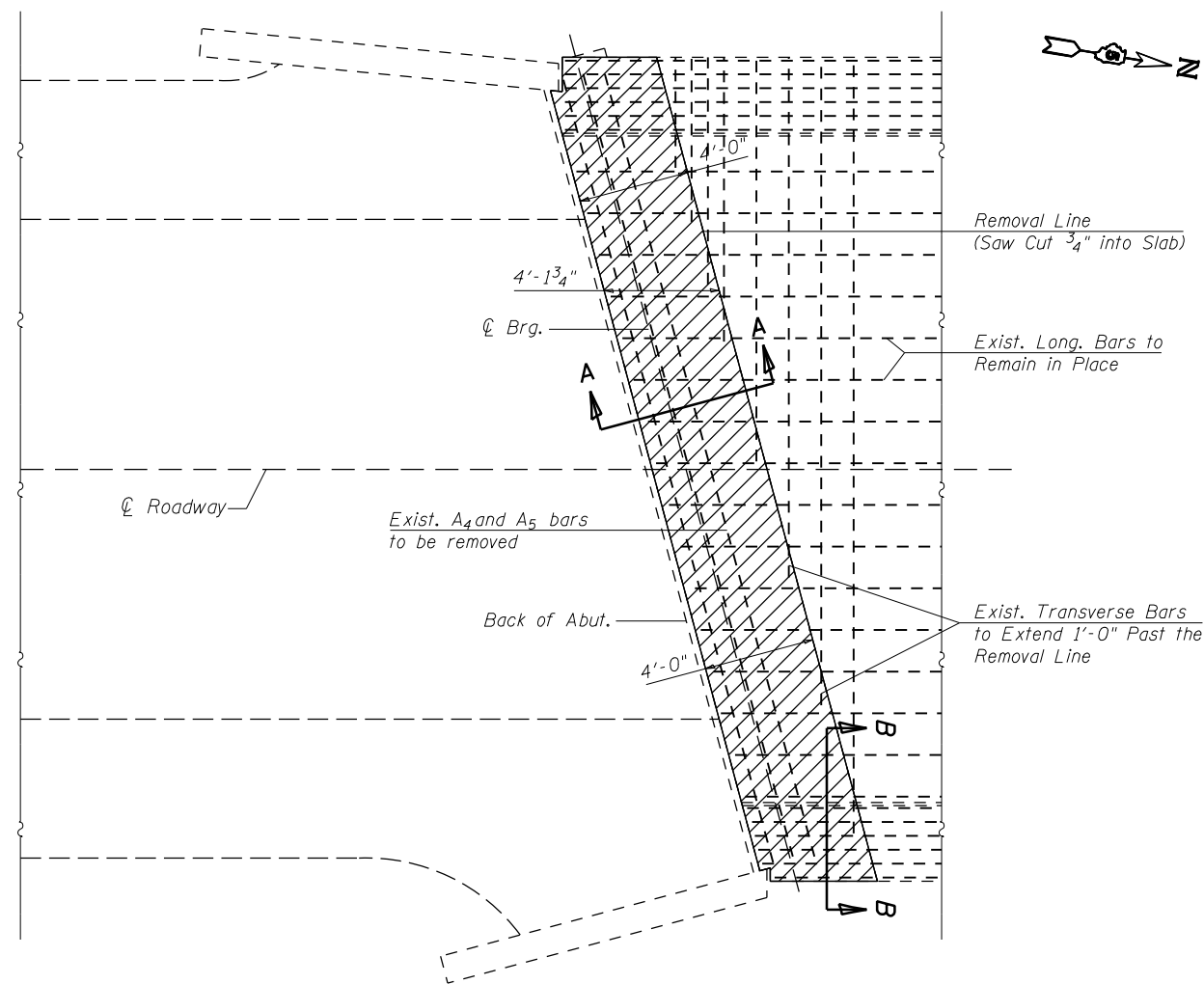
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

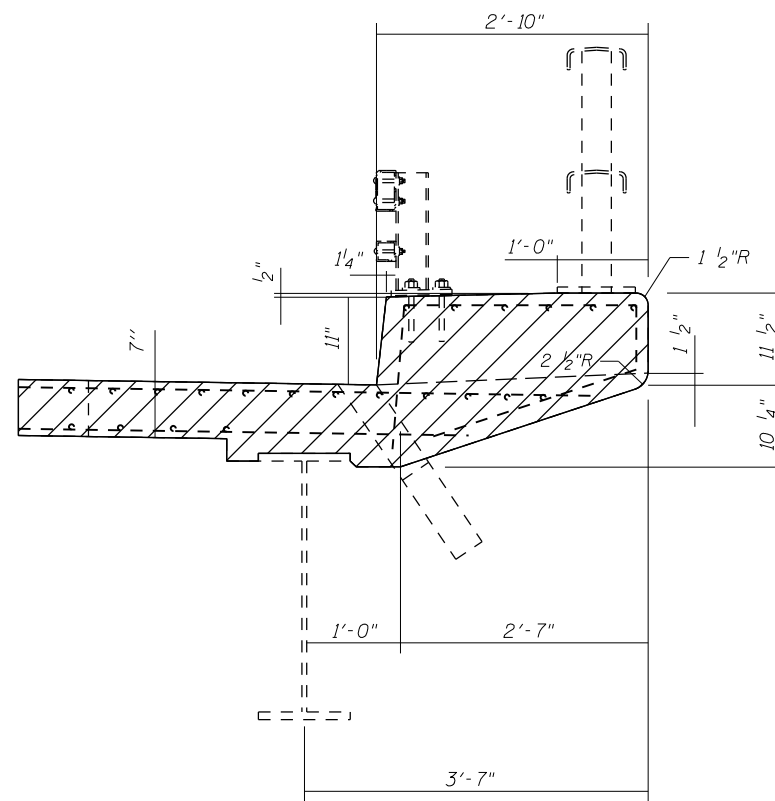
DECK CROSS SECTIONS  
 S.N. 074-0036

SCALE: NONE SHEET NO. 2 OF 14 SHEETS STA. TO STA.

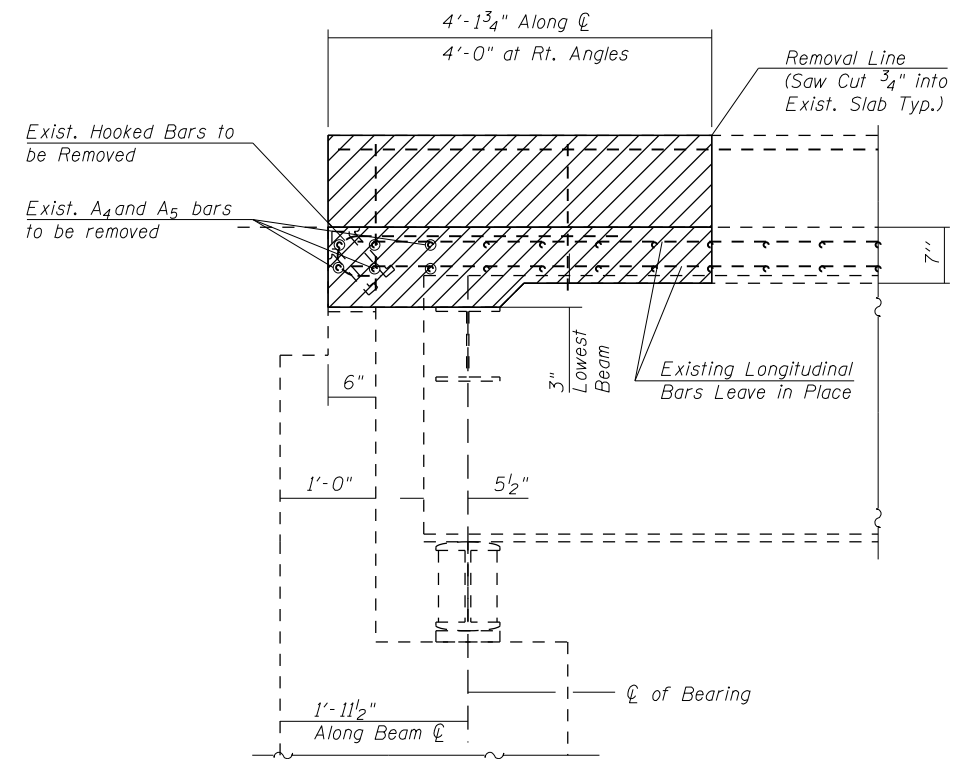
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(74-69HB-3)BR	PIATT	20	6
CONTRACT NO. 70F73				
ILLINOIS FED. AID PROJECT				



**TRANSVERSE REINFORCEMENT  
BAR DETAIL:**



**SECTION B-B**



**SECTION A-A**

**LEGEND:**

Concrete Removal

**NOTES**

South abutments shown, North Abutment similar.  
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.

**BILL OF MATERIAL**

Item	Unit	Total
Concrete Removal	Cu Yd	6.7

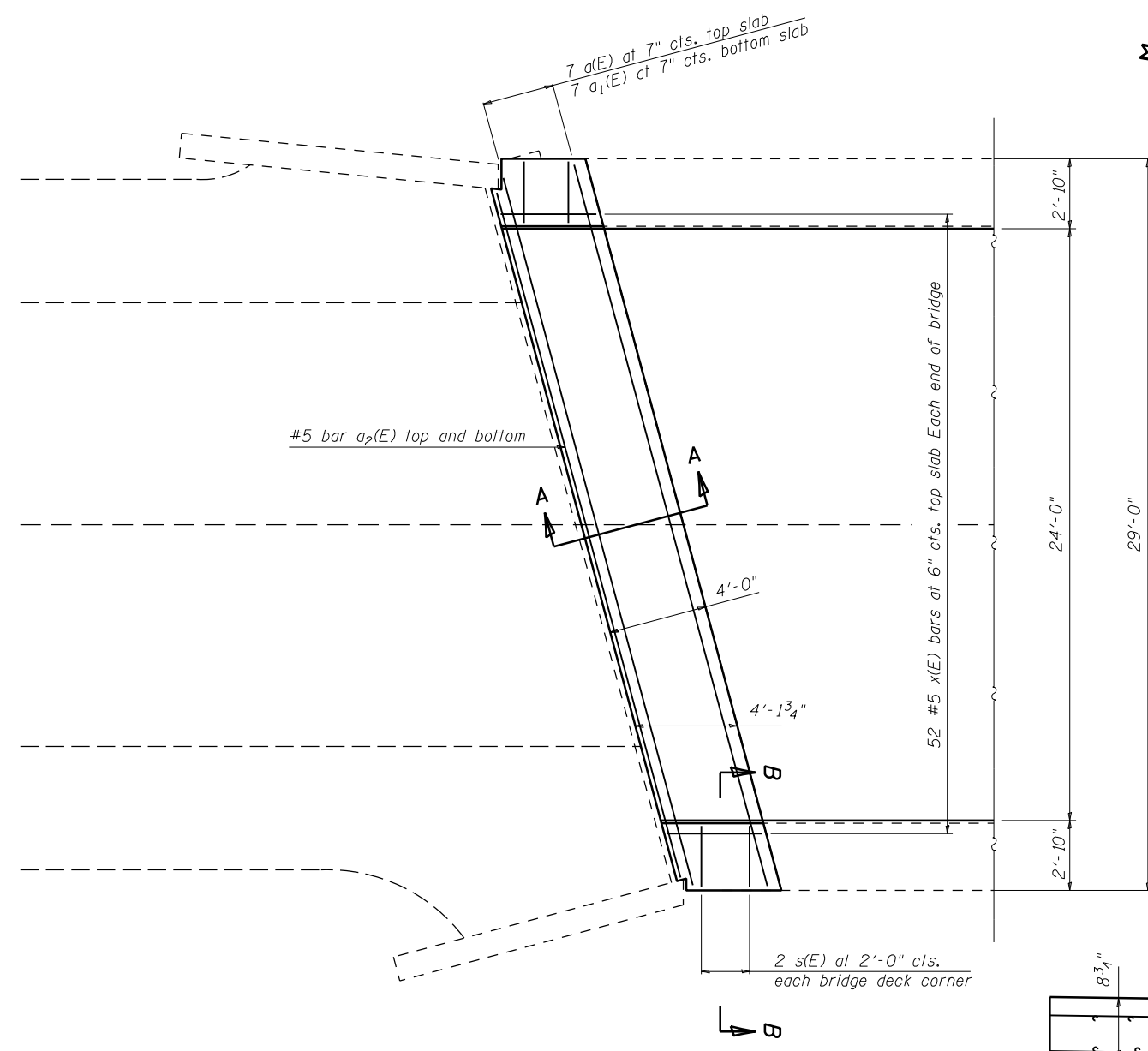
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	PLOT DATE = 12/4/2023		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

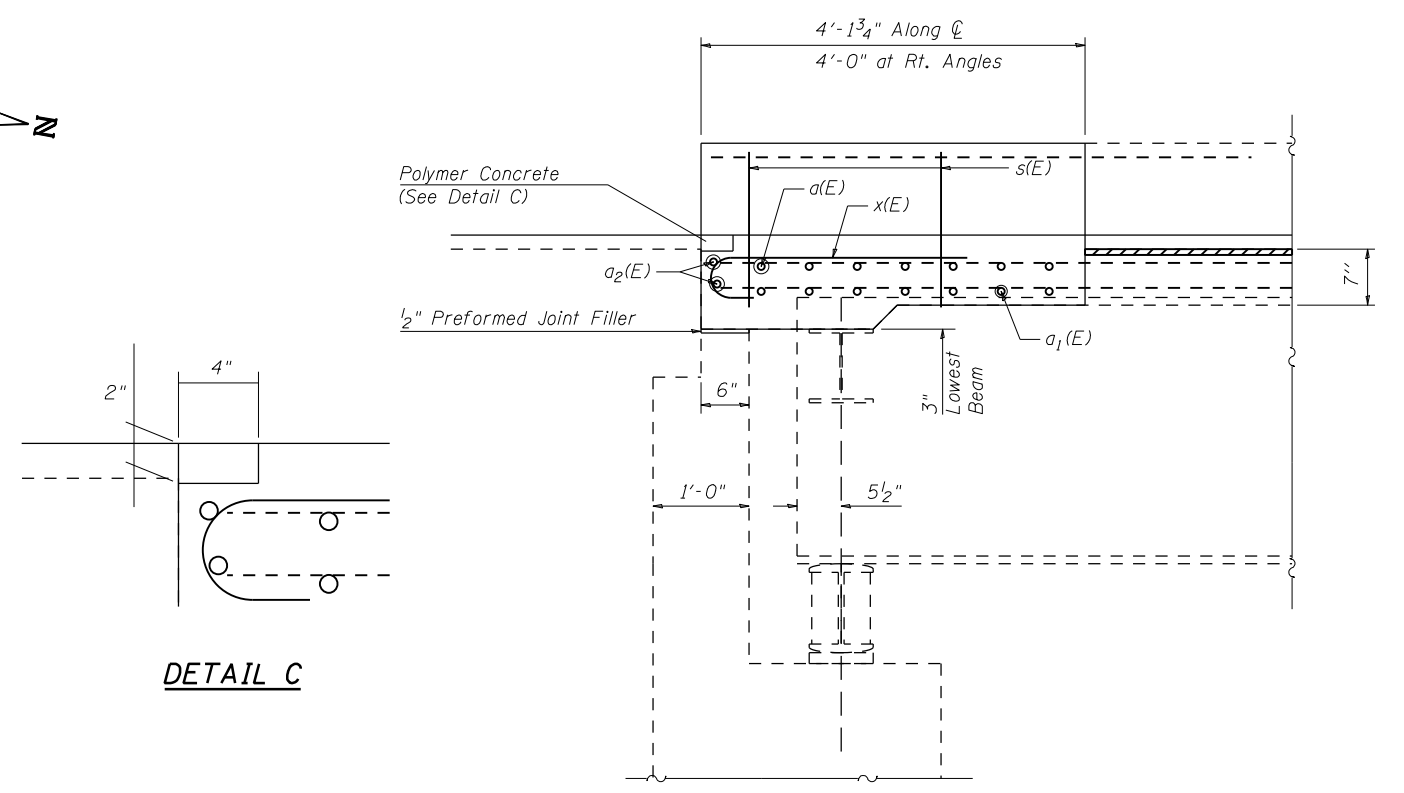
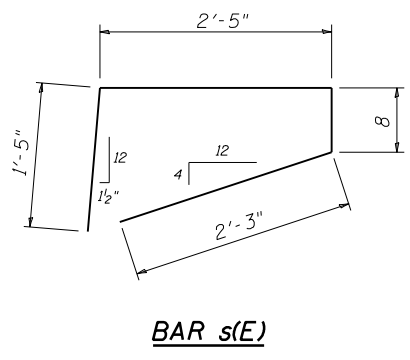
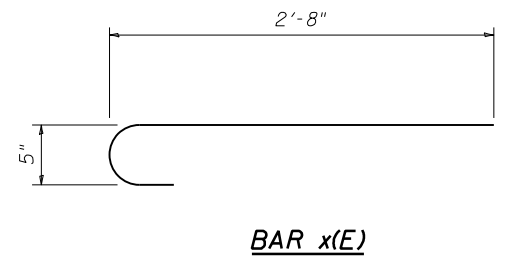
**DETAIL OF COCNRTE REMOVAL AT DECK ENDS  
S.N. 074-0036**

SCALE: NONE SHEET NO. 3 OF 14 SHEETS STA. TO STA.

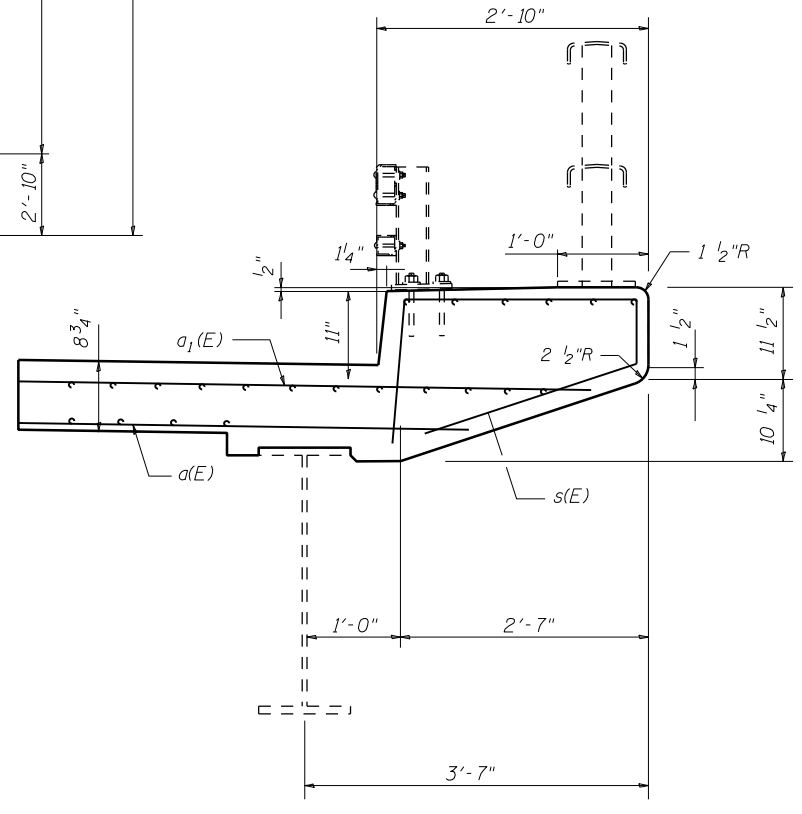
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(74-69HB-3)BR	PIATT	20	7
CONTRACT NO. 70F73				
ILLINOIS FED. AID PROJECT				



**TRANSVERSE REINFORCEMENT  
BAR DETAIL:**



**SECTION A-A**



**SECTION B-B**

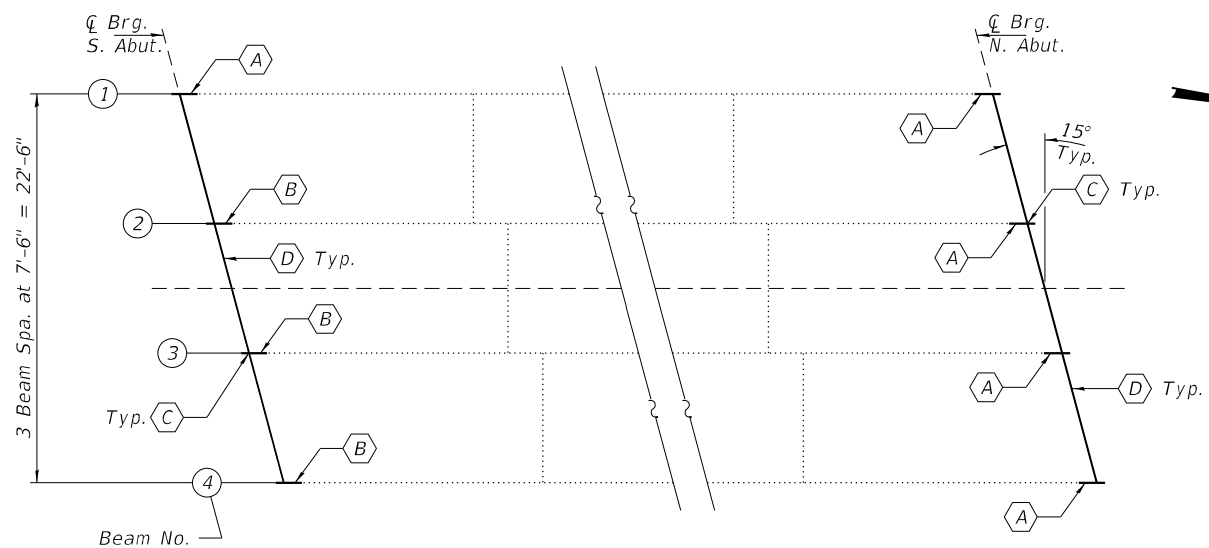
**NOTES**

- South abutments shown, North Abutment similar.
- 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 work, however, the contractor will be paid for the quantity actually furnished at the unit price bid work.
- Reinforcement bars designated (E) shall be epoxy coated.
- Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Cost included with concrete structure.
- Areas of repairs shown are estimated. The Engineer shall show actual locations of the repairs on As-Built Plans.

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	14	#4	28'-6"	—
a1(E)	14	#4	27'-6"	—
a2(E)	4	#4	28'-9"	—
x(E)	104	#5	3'-3"	C
s(E)	8	#4	6'-9"	▽
Concrete SuperStructures			Cu Yd	7.7
Reinforcement Bars, Epoxy Coated			Pound	990.0
Polymer Concrete			Cu Ft	3.0

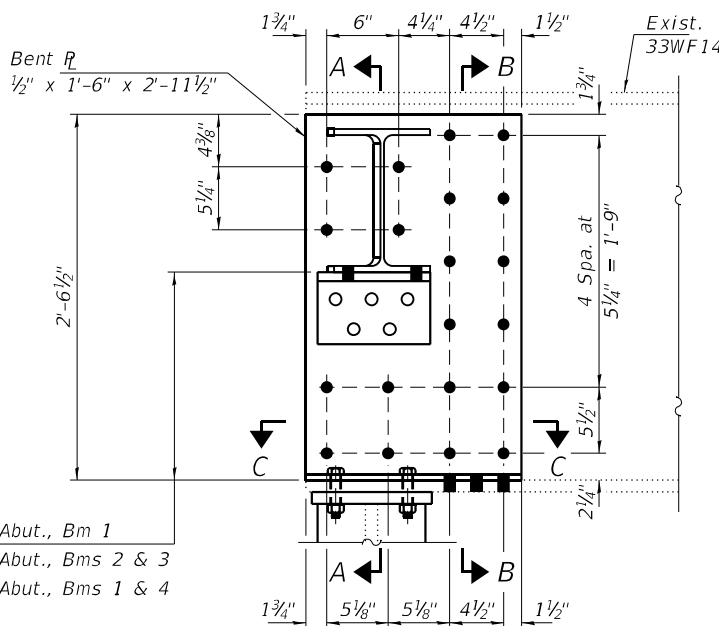




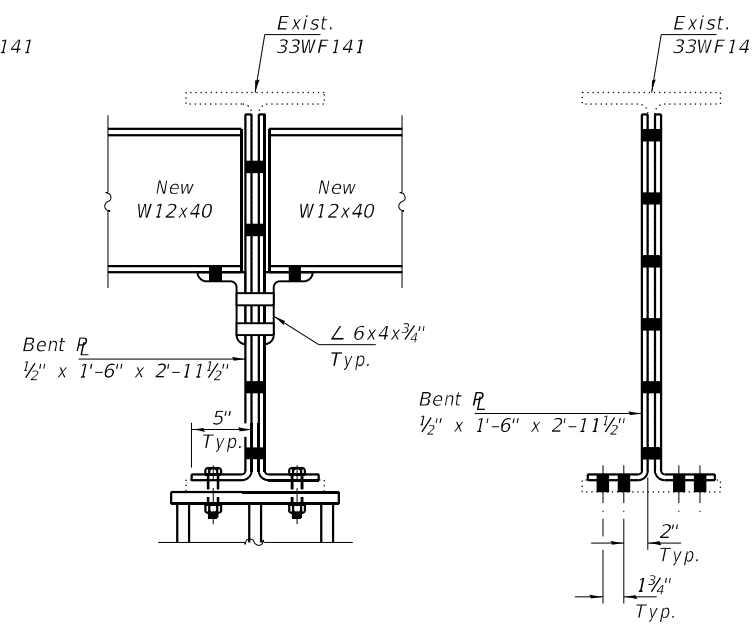
**PARTIAL FRAMING PLAN**

- (A) - Beam End Repairs - Repair A
- (B) - Beam End Repairs - Repair B
- (C) - Bearing removal and replacement. See sheet 3 of 3 for details.
- (D) - Diaphragm & clip angle removal and replacement. See sheet 2 of 3 for details.

1'-5 3/8" - S. Abut., Bm 1  
 1'-4 1/4" - N. Abut., Bms 2 & 3  
 1'-5 3/8" - N. Abut., Bms 1 & 4

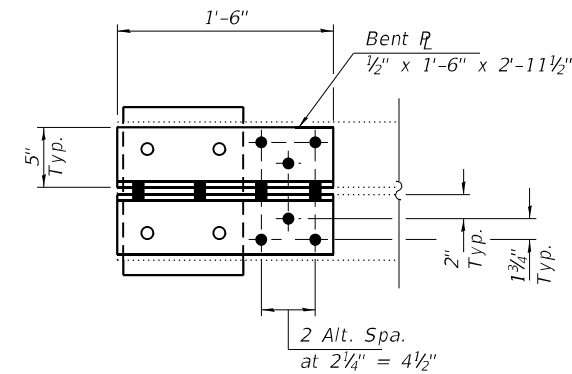


**REPAIR A**  
(5 Locations)

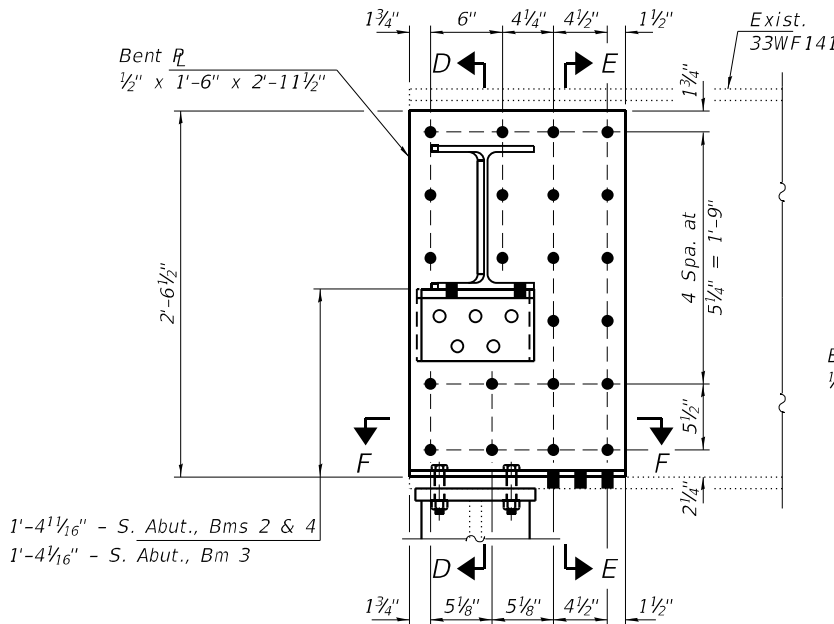


**SECTION A-A**  
(Interior beam shown)

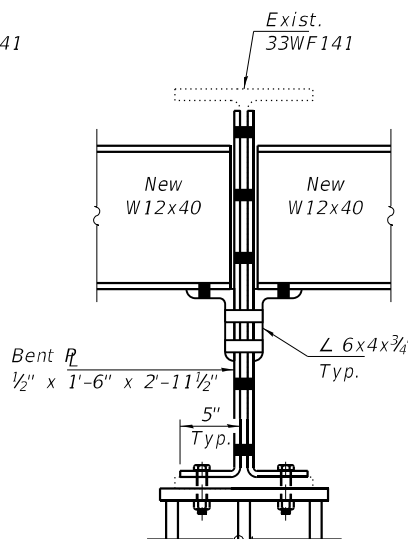
**SECTION B-B**



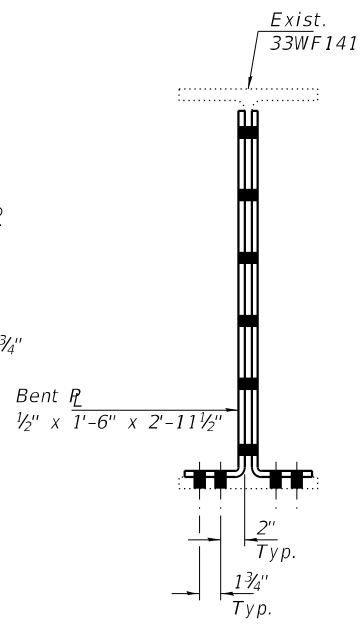
**SECTION C-C**



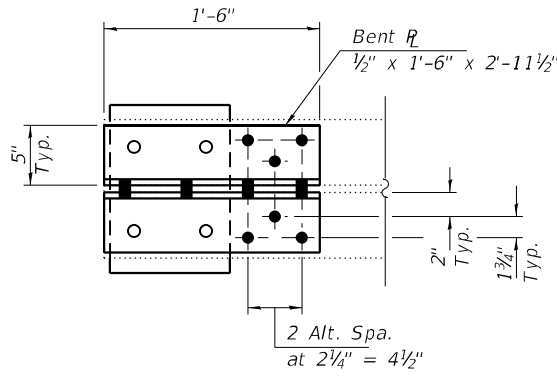
**REPAIR B**  
(3 Locations)



**SECTION D-D**  
(Interior beam shown)



**SECTION E-E**



**SECTION F-F**

**NOTES**

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.  
 Diaphragm connection holes shall be 1 1/8"Ø for 3/4"Ø bolts. Two hardened washers shall be required at diaphragm connections.  
 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 structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".  
 All new Structural Steel and bearing assemblies shall be hot dip galvanized according to Special Provision "Hot Dip Galvanizing for Structural Steel".

**BILL OF MATERIAL**

Item	Unit	Total
Structural Steel Repair	Pound	1625
Furnishing & Erecting Structural Steel	Pound	1950
Structural Steel Removal	Pound	1950

**BOLT HOLE LEGEND**

- - Field drill using existing steel has a template.
- - Shop drill holes in new steel.

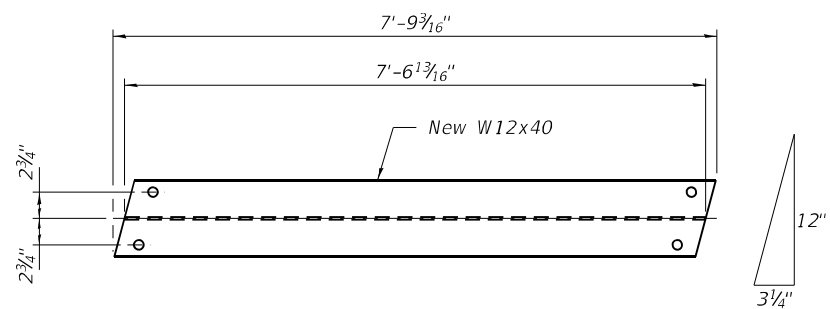
DESIGNED - CCC	EXAMINED	DATE - FEBRUARY 02, 2024
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES	REVISER -
DRAWN - daburdell	PASSED	REVISER -
CHECKED - CCC ATH	ENGINEER OF BRIDGES AND STRUCTURES	

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

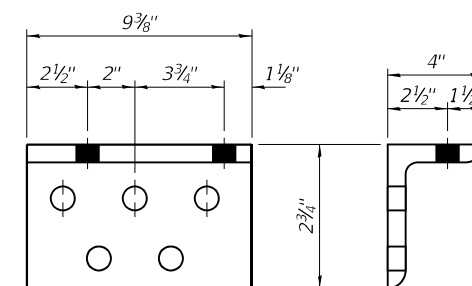
**REPAIR DETAILS**  
**SN 074-0036**

SHEET NO. 1 OF 3 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(74-69HB-3)BR	PIATT	20	9
CONTRACT NO. 70F73				
ILLINOIS FED. AID PROJECT				


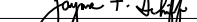


**DIAPHRAGM**  
(6 Required)



**CLIP ANGLE**  
∠ 6x4x3/4" - 9 3/8" long  
(12 Required)

DESIGNED - CCC
CHECKED - ATH
DRAWN - daburdell
CHECKED - CCC ATH

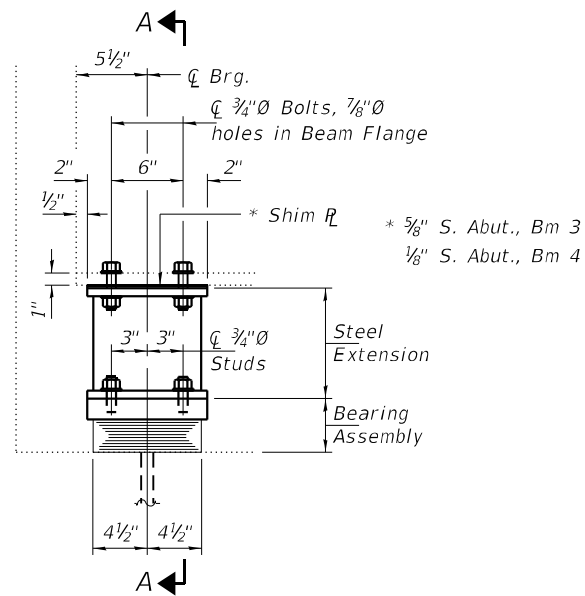
EXAMINED	 ENGINEER OF STRUCTURAL SERVICES
PASSED	 ENGINEER OF BRIDGES AND STRUCTURES

DATE - FEBRUARY 02, 2024
REVISED -
REVISED -

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

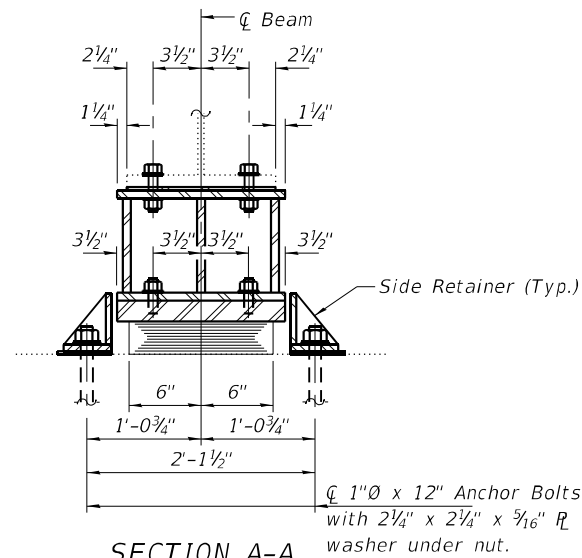
**REPAIR DETAILS**  
**SN 074-0036**  
SHEET NO. 2 OF 3 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(74-69HB-3)BR	PIATT	20	10
ILLINOIS FED. AID PROJECT			CONTRACT NO. 70F73	



**ELEVATION AT ABUTMENT**

**TYPE I ELASTOMERIC EXP. BRG.**



**SECTION A-A**

**BEAM REACTIONS**

R <sub>ϕ</sub>	(K)	24.0
R <sub>L</sub>	(K)	38.0
Imp.	(K)	10.9
R (Total)	(K)	72.9

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.

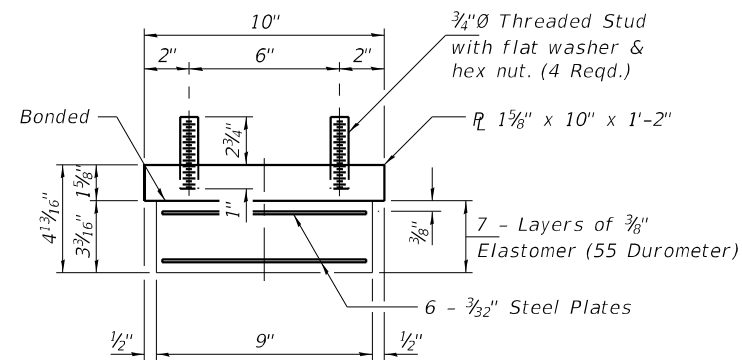
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

Min. jack capacity = 25 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.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

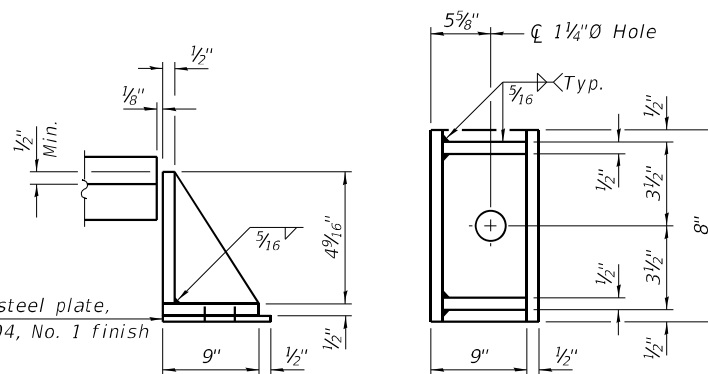
Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.



**BEARING ASSEMBLY**

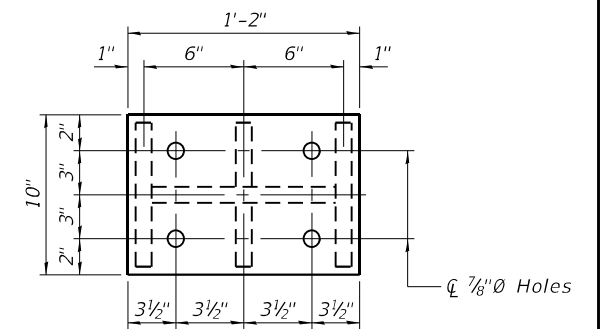
Note:

Shim plates shall not be placed under Bearing Assembly.

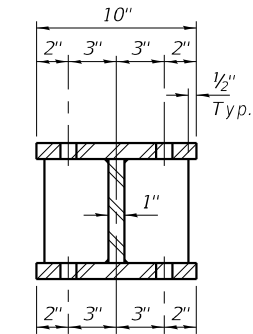


**SIDE RETAINER**

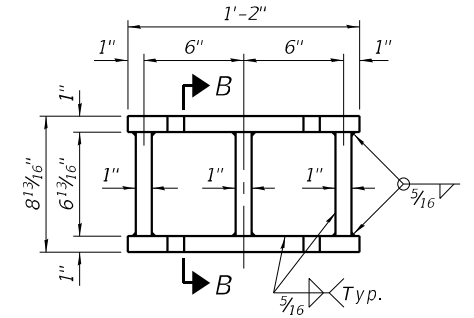
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



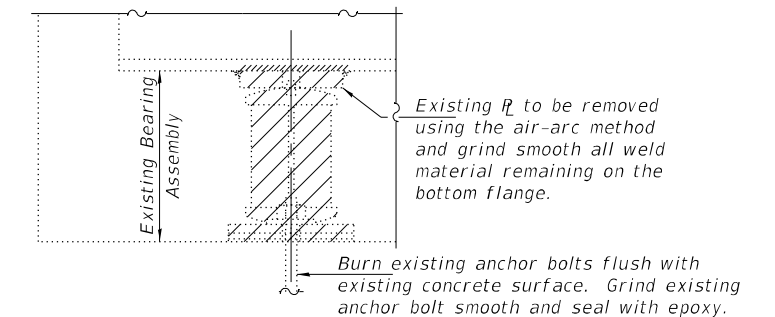
**PLAN TOP AND BOTTOM PLATE**



**SECTION B-B**



**STEEL EXTENSION DETAIL**



**EXISTING BEARING REMOVAL DETAIL**

Cost included with Jack and Remove Existing Bearings.

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	8
Jack and Remove Existing Bearings	Each	8
Furnishing and Erecting Structural Steel	Pound	1880
Anchor Bolts, 1"Ø	Each	16

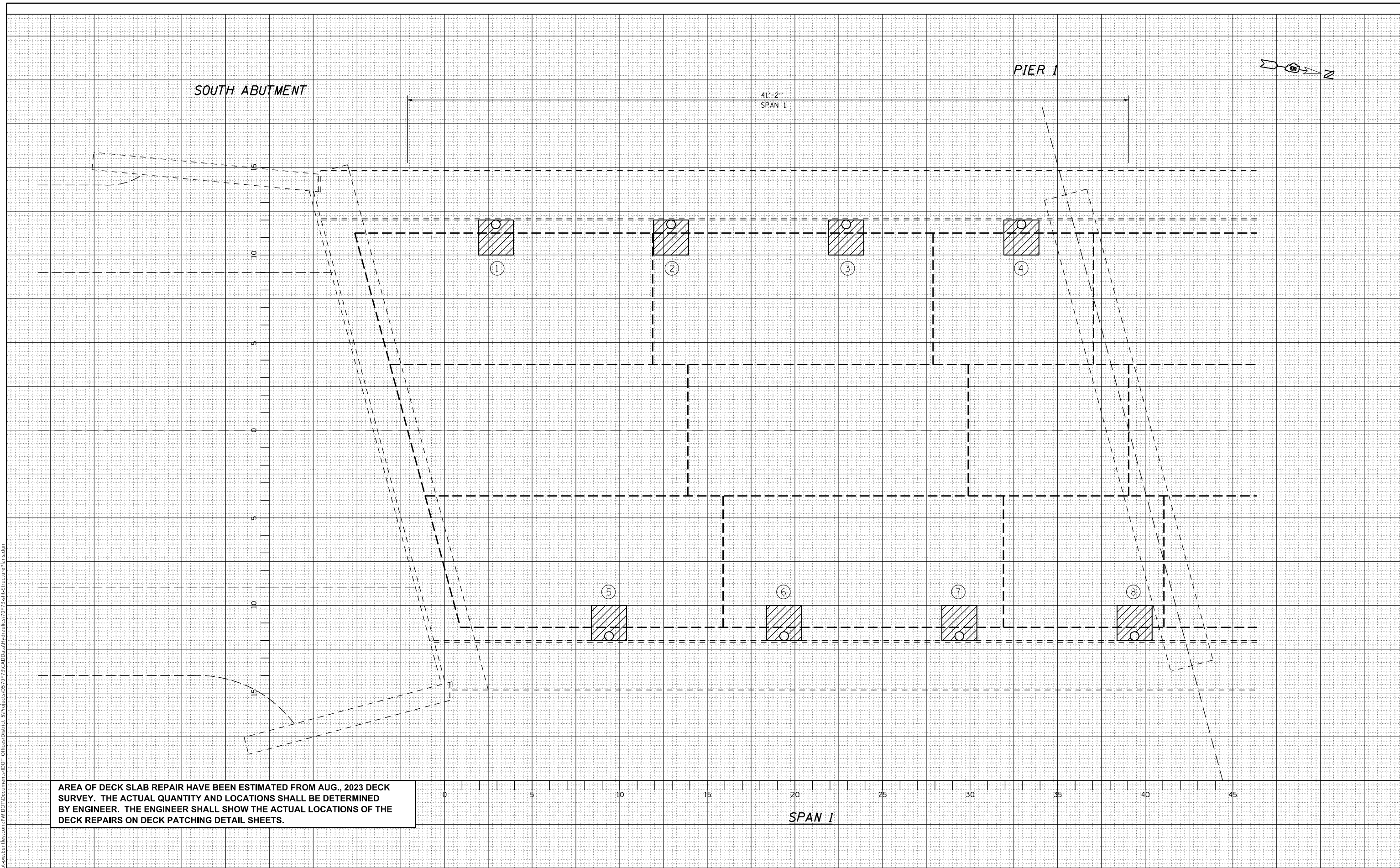
TYI/REPS 5-17-2018

DESIGNED - CCC	EXAMINED	DATE - FEBRUARY 02, 2024	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>BEARING DETAILS SN 074-0036</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
CHECKED - ATH	PASSED	REVIS			72	(74-69HB-3)BR	PIATT	20	11	
DRAWN - daburdell		REVIS			CONTRACT NO. 70F73					
CHECKED - CCC ATH					ILLINOIS FED. AID PROJECT					

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

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AREA OF DECK SLAB REPAIR HAVE BEEN ESTIMATED FROM AUG., 2023 DECK SURVEY. THE ACTUAL QUANTITY AND LOCATIONS SHALL BE DETERMINED BY ENGINEER. THE ENGINEER SHALL SHOW THE ACTUAL LOCATIONS OF THE DECK REPAIRS ON DECK PATCHING DETAIL SHEETS.

USER NAME = Jeff.Sherer	DESIGNED - JMS	REVISED -
PLOT SCALE = 40,0000 ' / in.	DRAWN - JMS	REVISED -
PLOT DATE = 12/4/2023	CHECKED -	REVISED -
	DATE - 06292021	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>DETAIL OF DECK PATCHING</b>			
<b>S.N. 074-0036</b>			
SCALE: 1' = 8	SHEET 8	OF 14 SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(74-69HB-3)BR	PIATT	20	12
CONTRACT NO. 70F73				
ILLINOIS FED. AID PROJECT				



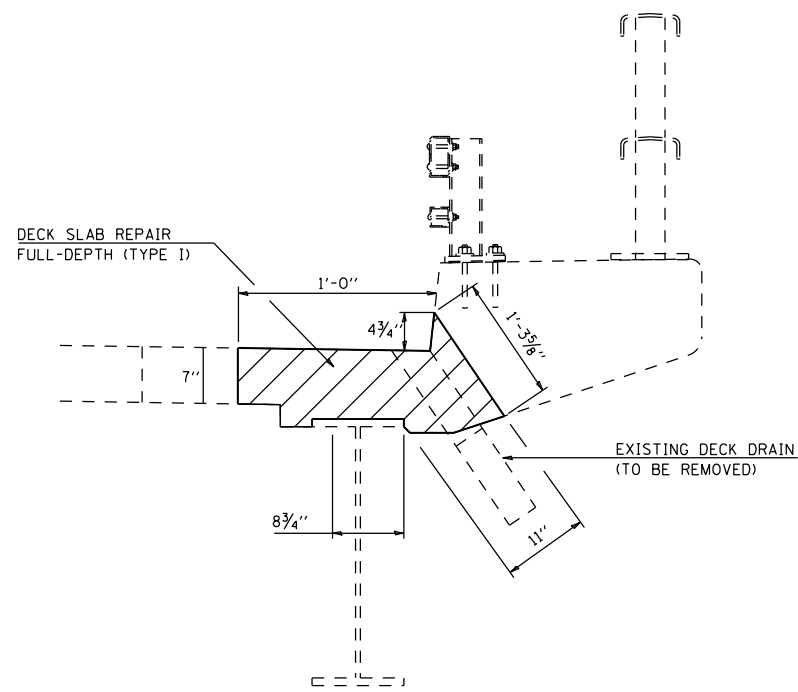




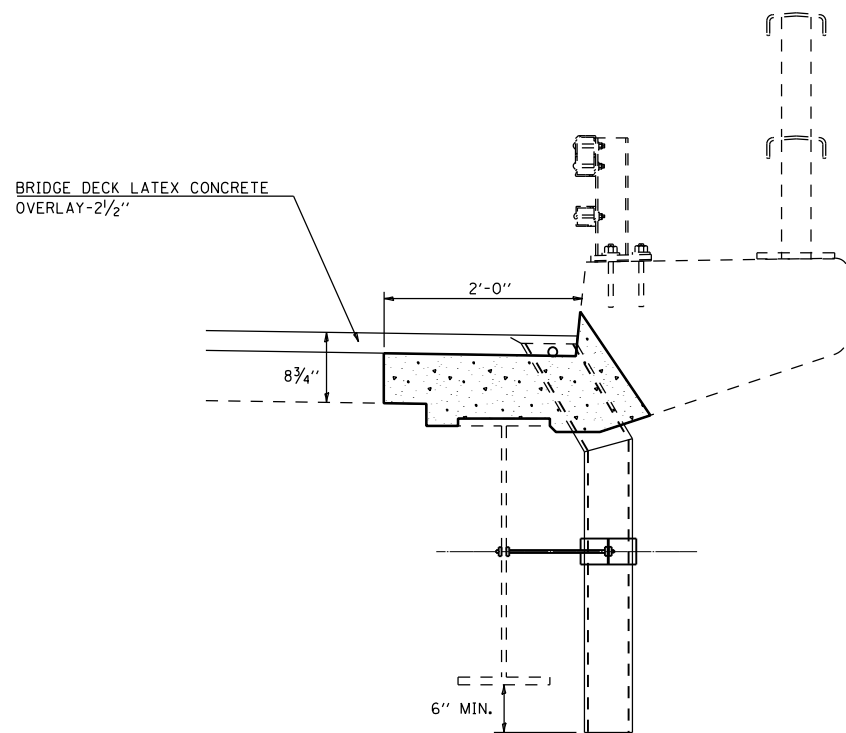




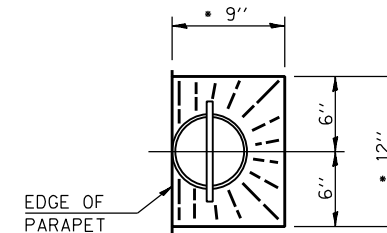




SECTION AT EXISTING DECK DRAIN

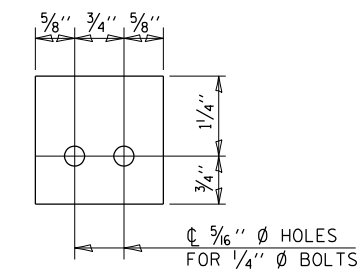


SECTION PROPOSED FLOOR DRAIN

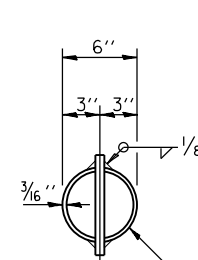


TOP PLAN

• SLOPE TO DRAIN



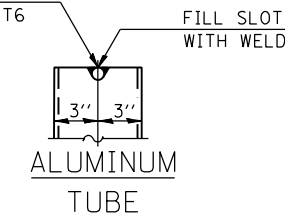
SECTION A-A



6" O.D. ALUMINUM TUBE ALLOY 6061-T6, 6" Ø FIBERGLASS OR 6" Ø PVC

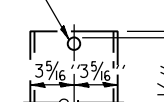
TOP PLAN (ALUMINUM TUBE SHOWN)

1/2" Ø x 8" ALUMINUM BAR ASTM B 211 ALLOY 6061-T6

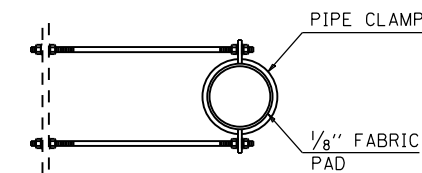


FILL SLOT WITH WELD

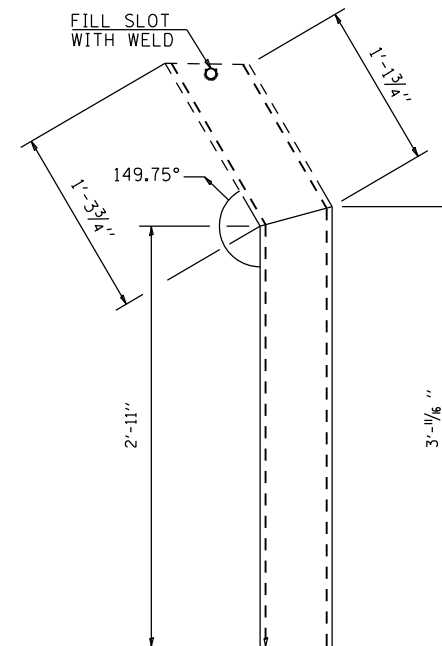
1/2" Ø x 8" FIBERGLASS REINFORCED PLASTIC REBAR



FIBERGLASS/ PVC PIPE



TOP PLAN (DRAIN CLAMP)



FLOOR DRAIN

NOTES:

PATCH SIZES SHOWN REPRESENT CONDITIONS AT THE TIME THE PLANS WERE COMPLETED. THE ACTUAL SIZES AND LOCATIONS SHALL BE DETERMINED BY THE ENGINEER AND SHOWN ON THE AS-BUILT PLANS.

COST OF REMOVAL OF EXISTING DRAINS IS INCLUDED IN DECK SLAB REPAIR.

EXTREME CARE MUST BE USED WHEN REMOVING CONCRETE NEAR THE TOP FLANGE OF THE BEAMS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE BEAMS.

FLOOR DRAINS NEED NOT BE PAINTED.

FIBERGLASS PIPE SHALL CONFORM TO ASTM D 2996, WITH SHORT-TIME RUPTURE STRENGTH HOOP TENSILE STRESS OF 30,000 P.S.I. MINIMUM.

ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING OF MATERIALS.

GALVANIZED CLAMPING DEVICE AND ALL STUD BOLTS, WASHERS AND NUTS ACCORDING TO AASHTO M232. COST OF CLAMPING DEVICE AND GALVANIZING INCLUDED WITH FLOOR DRAIN.

BILL OF MATERIALS

ITEM	UNIT	TOTAL
FLOOR DRAINS	EACH	16.0

FILE NAME =	USER NAME = Jeff.Sherer	DESIGNED - JMS	REVISED -
px:\1ldot-pw.bentley.com\PIWIDOT\Documents\DOT Offices\District 5\Projects\0570F73\CDRAWN\Drawings\2013-shr-StructurePlans\REVISED -			
PLOT SCALE = 40.0000' / in.	CHECKED -	REVISIED -	
PLOT DATE = 12/4/2023	DATE - 061621	REVISIED -	

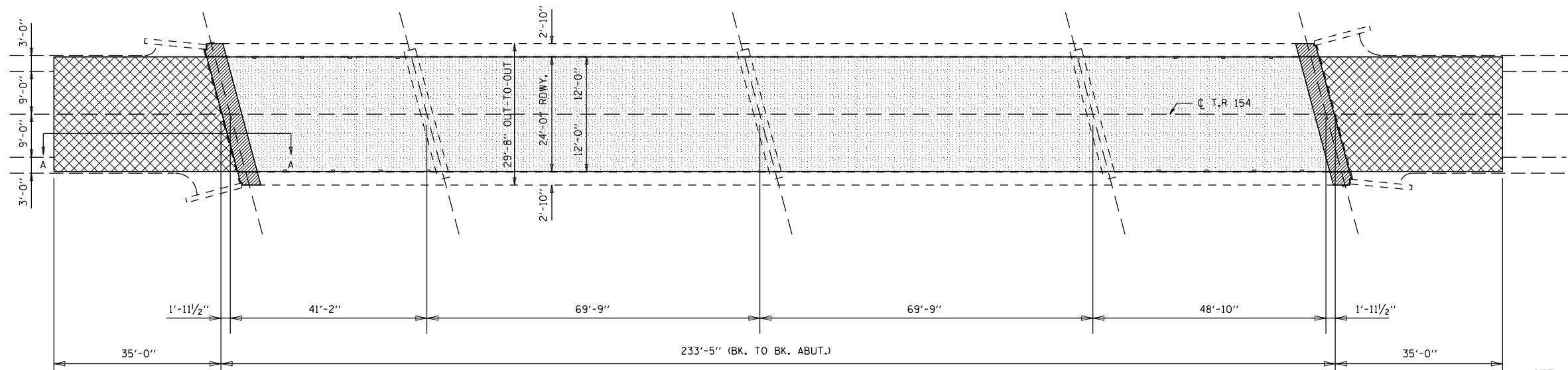
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAIL OF DECK FLOOR DRAINS  
S.N. 074-0036

SCALE: NONE SHEET NO. 13 OF 14 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(74-69HB-3)BR	PIATT	20	17
CONTRACT NO. 70F73				
ILLINOIS FED. AID PROJECT				

# BRIDGE DECK SCARIFICATION PLAN



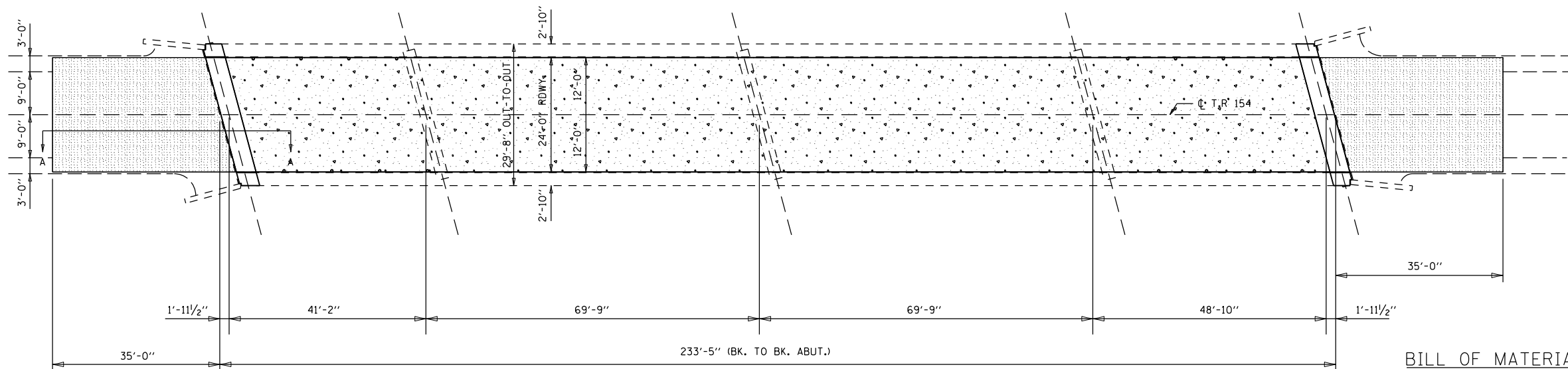
SEE JOINT DETAILS AT ABUTMENTS  
SEE BRIDGE APPROACH DETAILS

- HMA SURFACE REMOVAL BUTT-JOINT
- CONCRETE REMOVAL
- BRIDGE DECK SCARIFICATION, 3/4"

### BILL OF MATERIALS

ITEM	UNIT	TOTAL
BRIDGE DECK SCARIFICATION - 3/4"	SQ YD	599.0
HMA SURFACE REMOVAL - BUTT JOINT	SQ YD	188.0

# WEARING SURFACE PLACEMENT PLAN



SEE JOINT DETAILS AT ABUTMENTS  
SEE BRIDGE APPROACH DETAILS

- HOT-MIX ASPHALT SURFACE COURSE, MIX "C" N50 (1 1/2")
- CONCRETE SUPERSTRUCTURE
- BRIDGE DECK MICROSILICA CONCRETE OVERLAY - 2 1/2"

### BILL OF MATERIALS

ITEM	UNIT	TOTAL
HMA SURF COURSE MIX "C" N50	TON	16.0
BRIDGE DECK MICRO CONC. OVLY., 2 1/2"	SQ YD	599.0
BRIDGE DECK GROOVING	SQ YD	620.0

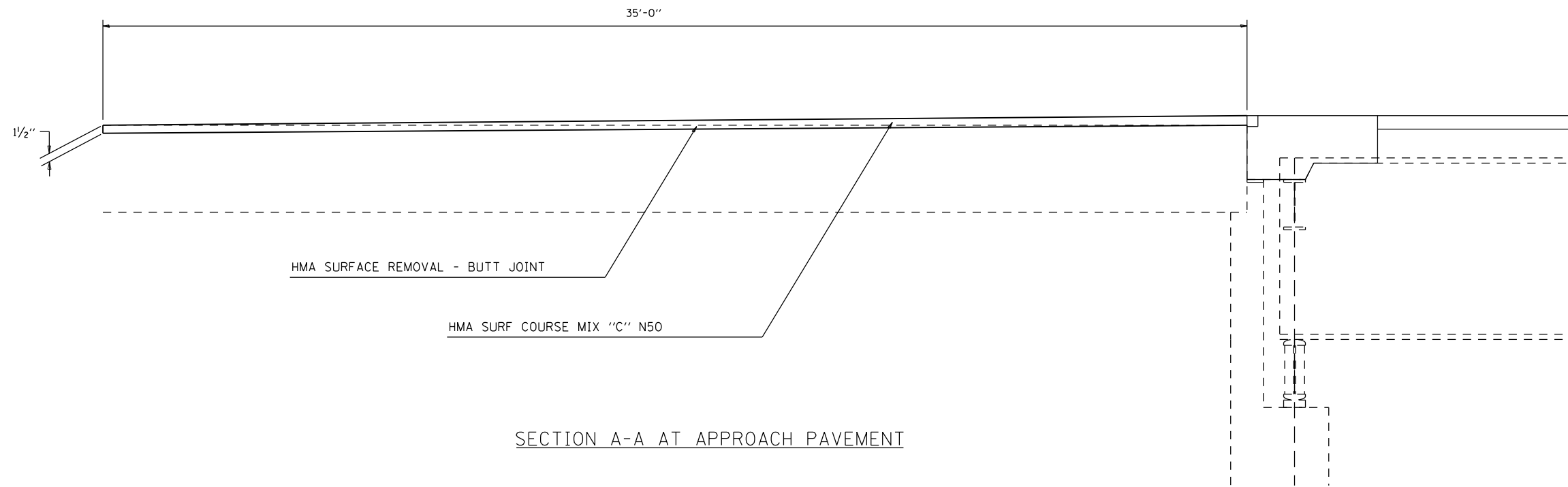
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		DATE - 061621	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETAIL OF WEARING SURFACE  
S.N. 074-0036**

SCALE: NONE      SHEET NO. 14 OF 14 SHEETS      STA.      TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(74-69HB-3)BR	PIATT	20	18
CONTRACT NO. 70F73				
ILLINOIS FED. AID PROJECT				



FILE NAME =	USER NAME = Jeff.Sherer	DESIGNED - JMS	REVISED -
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	PLOT SCALE = 40.0000' / in.	DATE - 061621	REVISED -
	PLOT DATE = 12/4/2023		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETAIL OF BUTT-JOINTS  
S.N. 074-0036**

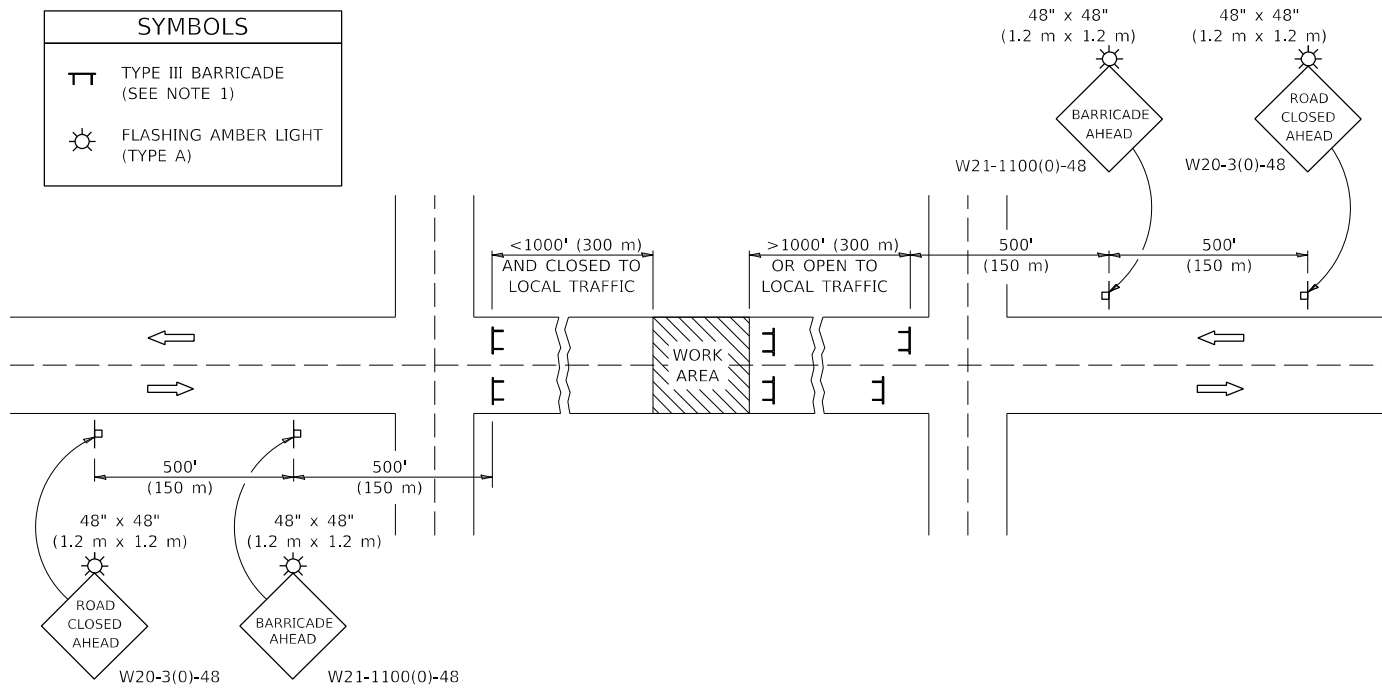
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(74-69HB-3)BR	PIATT	20	19
CONTRACT NO. 70F73				
ILLINOIS FED. AID PROJECT				

# ROAD CLOSURE

# SIDEROAD / STREET CLOSURE

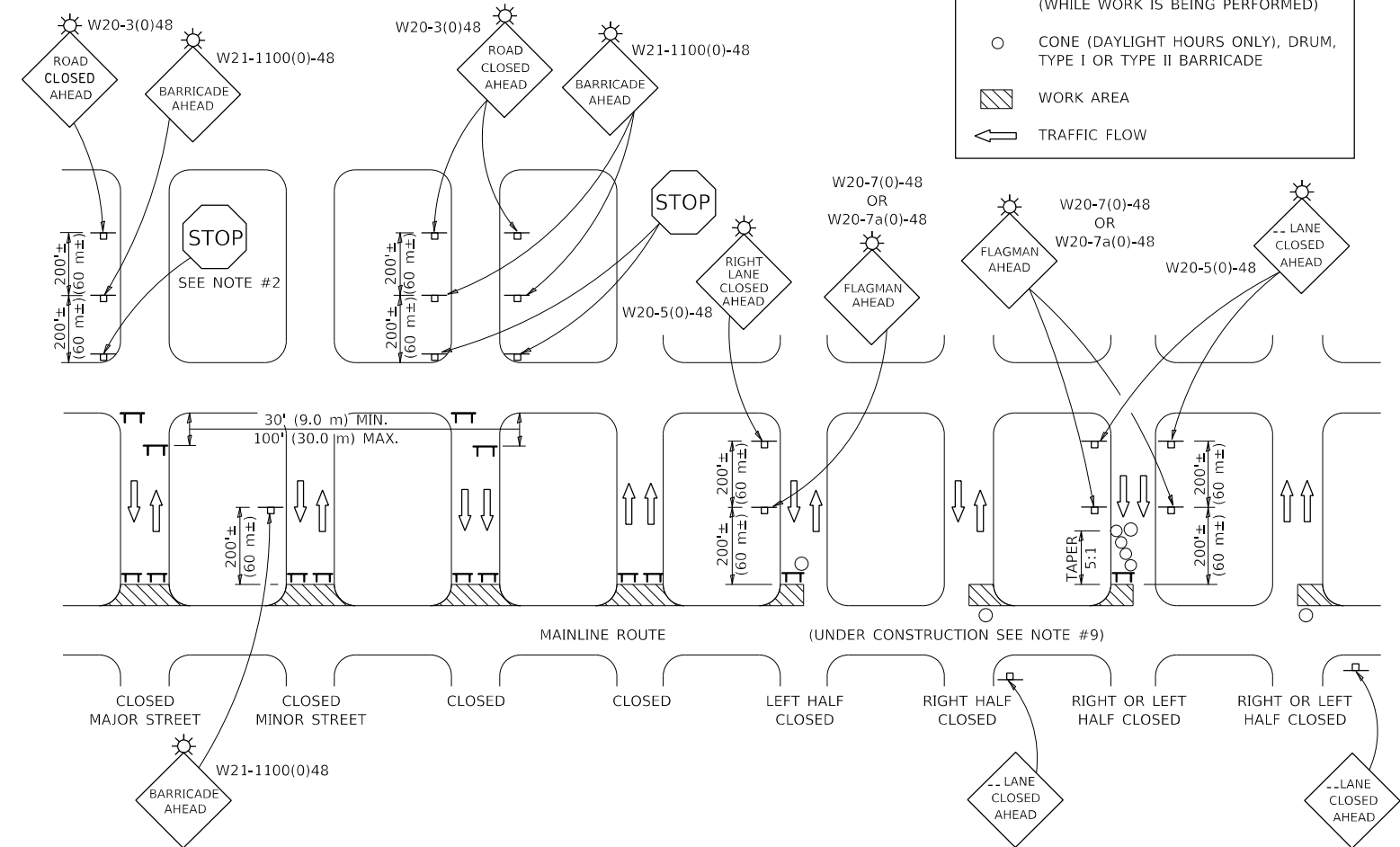
SYMBOLS	
	TYPE III BARRICADE (SEE NOTE 1)
	FLASHING AMBER LIGHT (TYPE A)



## GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON STANDARD 701901 "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- IF THE ROAD IS OPEN TO LOCAL TRAFFIC OR EXCEEDS 1000' (300 m), ANOTHER SET OF TYPE III BARRICADES, EQUIPPED AS IN NOTE 1 ABOVE, SHALL BE PLACED AT EACH END OF THE WORK AREA.
- WHEN A STOP CONDITION EXISTS, NO SIGNS ARE REQUIRED IN ADVANCE OF THE "STOP" SIGN WHEN THE ROAD IS CLOSED WITHIN 100' (30 m) OF THE INTERSECTION.
- STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & DESIGN OF TYPE III BARRICADES.
- IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON AN NCHRP 350 TEMPORARY SIGN SUPPORT DIRECTLY IN FRONT OF THE BARRICADE.
- REFLECTORIZED STRIPING SHALL APPEAR ON BOTH SIDES OF THE TYPE III BARRICADES IF ROAD IS OPEN TO LOCAL TRAFFIC.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- A MINIMUM OF TWO FLASHING LIGHTS SHALL BE USED AT NIGHT ON EACH APPROACH IN ADVANCE OF THE WORK AREA. FLASHING LIGHTS SHALL BE INSTALLED ABOVE THE FIRST TWO SIGNS IN THE SERIES.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- FORMS BT. 725 AND BT. 726 ARE REQUIRED.
- WHEN A SIDEROAD INTERSECTS THE HIGHWAY ON WHICH WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC DEVICES SHALL BE ERECTED AND PROVIDED AS DIRECTED BY THE ENGINEER.
- AN ADDITIONAL SIGN MAY BE REQUIRED AT A MAJOR INTERSECTING ROAD IN ADVANCE OF THE CLOSURE. THE ADDITIONAL SIGN SHALL GIVE THE DISTANCE TO THE BARRICADE IN MILES OR FRACTIONS OF A MILE.

SYMBOLS	
	TYPE III BARRICADE (SEE NOTE)
	FLASHING LIGHT
	FLAGGER WITH TRAFFIC CONTROL SIGN (WHILE WORK IS BEING PERFORMED)
	CONE (DAYLIGHT HOURS ONLY), DRUM, TYPE I OR TYPE II BARRICADE
	WORK AREA
	TRAFFIC FLOW



## GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- WHERE A STOP CONDITION EXISTS, AS SHOWN ABOVE, WARNING SIGNS MAY BE OMITTED IN ADVANCE OF THE "STOP" SIGN.
- STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & MANUFACTURE OF TYPE III BARRICADES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ONE FLASHING LIGHT IS REQUIRED ABOVE EACH ADVANCE WARNING SIGN DURING HOURS OF DARKNESS.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- FORMS BT 725 AND BT 726 ARE REQUIRED.
- THE MAINLINE ROUTE TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PLANS, SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS.
- ALL FLAGGERS REQUIRED AT SIDE ROADS AND ENTRANCES REMAINING OPEN TO TRAFFIC AND/OR ADDITIONAL BARRICADES REQUIRED BY THE ENGINEER TO CLOSE SIDE ROADS AND ENTRANCES WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.

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

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL & PROTECTION DEVICES  
(ROAD & SIDEROAD / STREET CLOSURES)

DISTRICT 5 DETAIL NO. 7020000

USER NAME = Jeff.Sherer	DESIGNED - JMS	REVISED - 11/06
	DRAWN - JMS	REVISED - 12/07
PLOT SCALE = 40,0000 ' / in.	CHECKED -	REVISED - 09/09 KJT
PLOT DATE = 12/4/2023	DATE - 090623	REVISED -

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(74-69HB-3)BR	PIATT	20	20
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				