048

FAI RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
72	(10-70)BR	CHAMPAIGN	44	1
	ILLINOIS	CONTRACT NO. 70D63		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

F.A.I. ROUTE 72 (I-72)
SECTION (10-70)BR
PROJECT NHPP-7SPS(287)
BRIDGE DECK REPAIRS
CHAMPAIGN COUNTY

C-95-023-19

D-95-002-24



LOCATION OF SECTION INDICATED THUS: -

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

CURRENT TRAFFIC DATA

		FAI-72	IL-47
2019	ADT	17,000	3,750
2029	ADT	18,400	4,250
2039	ADT	19,700	4,750
2039	DHV (AM)	1,780	540
2039	DHV (PM)	1,760	425
	PU/PC%	82.8	90.9
	SU%	3.7	4.8
	MU%	13.5	4.3

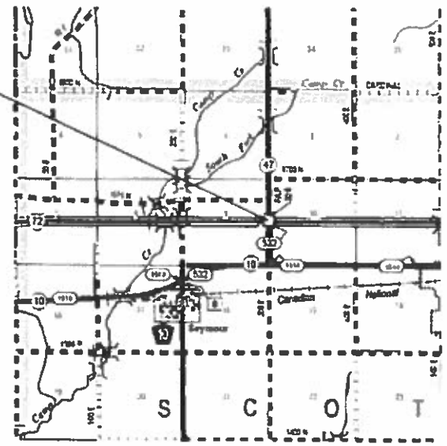
DESIGN DESIGNATION
INTERSTATE



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

S.N. 010-0056
STA. 1674+22.18 (FAI-72)
STA. 50+00.00 (IL-47)
BRIDGE DECK REPAIRS



GROSS LENGTH = 321.584 FT. = 0.0600 MILE
NET LENGTH = 321.584 FT. = 0.0600 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED January 22, 20 20
REGIONAL ENGINEER
March 20, 20 20
ENGINEER OF DESIGN AND ENVIRONMENT
March 20, 20 20
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROJECT ENGINEER: TIM BRANDENBURG
PROJECT MANAGER: JEFF M. SHERER

CONTRACT NO. 70D63

REV. 3/2/20

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS/ HIGHWAY STANDARDS/ GENERAL NOTES
3-5	SUMMARY OF QUANTITIES
6	GENERAL PLAN AND ELEVATION
9	EXISTING TYPICAL CROSS-SECTION
8-10	STAGED CONSTRUCTION DETAILS
11	WEARING SURFACE PLAN
12	DETAIL OF JOINT TREATMENT AT ABUTMENTS
13-14	DETAIL OF STRUCTURAL STEEL REPAIRS
15-19	DETAILS OF DECK SLAB REPAIRS
20	DETAIL OF DECK PATHING AT DRAINS AND HUB GUARDS
21-24	DETAIL OF STRUCTURAL REPAIR OF CONCRETE
25	DETAIL OF HOT-MIX ASPHALT AT APPROACH PAVEMENT
26	DETAIL OF STONE DUPMED RIP-RAP
27-30	AS-BUILT DETAIL OF DECK SLAB REPAIR
31-41	AS-BUILT PLANS
42-44	DETAIL OF WIDTH RESTRICTION SIGNING

LIST OF STANDARDS

STANDARD NO.	DESCRIPTION
000001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
701006-05	OFF RD OPERATIONS, 2L,2W, 15' TO 24" FROM EOP
701011-04	OFF RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-05	LANE CLOSURE, 2L 2W, DAY ONLY SPEEDS > 45 MPH LANE
701301-04	CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701321-18	LANE CLOSURE, 2L 2W, BRIDGE REPAIR WITH BARRIER
701400-09	APPROACH TO LANE CLOSURE - FREEWAY/ EXPRESSWAY
701401-12	LANE CLOSURE FREEWAY/ EXPRESSWAY FOR SPEEDS > 45 MPH
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY

GENERAL NOTES

G.N.-100A

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

GN 105.07C

EXISTING STATE-OWNED AND MAINTAINED UNDERGROUND UTILITY FACILITIES EXIST WITHIN THE ROW. THE DEPARTMENT IS NOT A MEMBER OF JULIE AND DOES NOT LOCATE IT'S OWN FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE AT THEIR OWN EXPENSE FOR SECURING AN APPROVED LOCATING FIRM TO LOCATE ALL EXISTING IDOT UNDERGROUND FACILITIES PRIOR TO COMMENCING ANY EXCAVATION, PER THE REQUIREMENTS OF ARTICLE 803 OF THE STANDARD SPECIFICATIONS. UTILITY LOCATES MAY ALSO BE REQUIRED OUTSIDE THE PROJECT LIMITS, SUCH AS FOR TRAFFIC CONTROL SIGNING AND OTHER ITEMS. THE CONTRACTOR MAY OBTAIN, ON REQUEST, PLANS OF EXISTING ELECTRICAL FACILITIES FROM THE DEPARTMENT. FOR FURTHER INFORMATION, THE CONTRACTOR MAY CONTACT THE DISTRICT TRAFFIC OPERATIONS ENGINEER, GARY SIMS, AT 217-251-4859.

GN 406H

Location	IL 47
Mixture Use	Mainline & Shoulder Surface
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	N.A.

G.N.-1004.01

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

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS/HIGHWAY STANDARDS

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	2
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

REV. 3/5/20 REV. 3/2/20

				CHAMPAIGN COUNTY FAI-72 INTERSTATE BRIDGE DECK REPAIRS S.N. 010-0056 URBAN 90% FED, 10% STATE
CODE			TOTAL	0059
NO.	ITEM	UNIT	QUANTITY	
28100707	STONE DUMPED RIPRAP, CLASS A4	SQ YD	96.0	96.0
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	65.0	65.0
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL 9.5, MIX "C", N50	TON	13.0	13.0
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	356.0	356.0
50102400	CONCRETE REMOVAL	CU YD	1.2	1.2
50157300	PROTECTIVE SHIELD	SQ YD	303.0	303.0
50300100	FLOOR DRAINS	EACH	12.0	12.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1.3	1.3
50300260	BRIDGE DECK GROOVING	SQ YD	910.0	910.0
50300300	PROTECTIVE COAT	SQ YD	14.0	14.0
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	2,820.0	2,820.0
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	6.0	6.0
67100100	MOBILIZATION	L SUM	1.0	1.0
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1.0	1.0
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1.0	1.0

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY QUANTITIES

SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	3
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CHAMPAIGN COUNTY FAI-72 INTERSTATE BRIDGE DECK REPAIRS S.N. 010-0056 URBAN 90% FED, 10% STATE 0059
70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1.0	1.0
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1.0	1.0
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28.0	28.0
70400100	TEMPORARY CONCRETE BARRIER	FOOT	662.5	662.5
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	662.5	662.5
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2.0	2.0
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2.0	2.0
X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	53.0	53.0
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1.0	1.0
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	2,705.0	2,705.0
Z0001905	STRUCTURAL STEEL REPAIR	POUND	2,310.0	2,310.0
Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	749.0	749.0
Z0006014	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2 INCHES	SQ YD	963.0	963.0
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	963.0	963.0
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	245.0	245.0

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SUMMARY QUANTITIES

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	4
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

				CHAMPAIGN COUNTY FAI-72 INTERSTATE BRIDGE DECK REPAIRS S.N. 010-0056 URBAN 90% FED, 10% STATE
CODE			TOTAL	0059
NO.	ITEM	UNIT	QUANTITY	
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	90.9	90.9
Z0021906	SILICONE JOINT SEALER, 1.5"	FOOT	68.0	68.0
Z0041895	POLYMER CONCRETE	CU FT	8.0	8.0

NO SPECIALTY ITEMS

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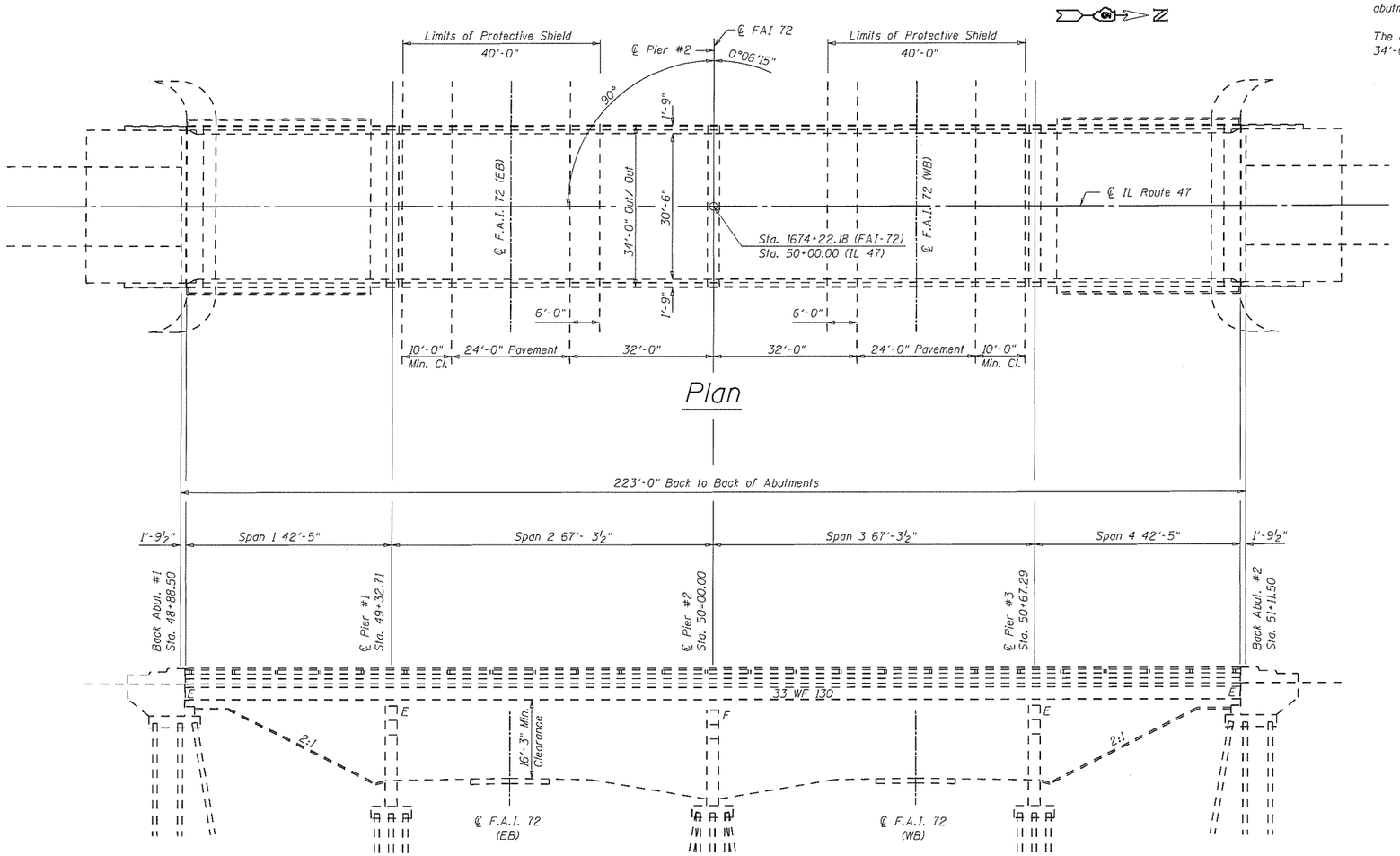
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY QUANTITIES

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	5
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		



Structure Number 010-0056 was built in 1969, Section 10-70HB-2 at Station 1674+22.18 by the State of Illinois in Champaign County. The Structure was rehabilitated in 2001 and received an HMA wearing surface. The structure is a four (4) span 7 1/2" thick reinforced concrete deck, steel continuous beam bridge on concrete pile supported abutments and creosoted timber pile supported piers.

The existing structure has a back-to-back abutment length of 223'-0", and out-to-out width of 34'-0", clear width of 30'-6", and an approach roadway width of 32'-0".

PROPOSED WORK

1. Remove HMA Wearing Surface from Deck
2. Remove HMA Surface from Approaches
3. Perform Deck Slab Repair
4. Place Floor Drains
5. Remove Existing Polymer Nosing at Joints
6. Perform Concrete Removal at Hatches
7. Remove and Replace diaphragms
8. Perform Beam End Repairs
9. Place Concrete Superstructure at Hatches
10. Perform Bridge Deck Scarification $\frac{3}{4}$"
11. Place Bridge Deck Latex Concrete $2\frac{1}{2}$"
12. Perform Bridge Deck Grooving.
13. Place Polymer Concrete
14. Place Silicone Joint Seal

INDEX OF SHEETS

1. General Plan and Elevation
2. Deck Cross Sections
3.-5. Staging Details
6. Wearing Surface Plan
7. Joint Details at Abutments
8.-9. Structural Steel Repairs
10.-13. Bridge Deck Patching Details
14. Schedule of Deck Slab Repair
15. Detail of Patching at Deck Drains
16.-19. Detail of Structural Repair of Concrete
20. Detail of Stone Dumped Riprap
21. Detail of Hot-Mix Asphalt Approach Pavement
22.-25. As-Built Patching Sheets
26.-36. As-Built Plans

DAVID CARL PUZEY
081.005470
LICENSED STRUCTURAL ENGINEER OF
STATE OF ILLINOIS

D. Carl Puzey 3/23/2020
Expires 11/30/2020

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.

S.N. 010-0056 has been determined, through testing, not to involve asbestos in the bituminous bridge deck wearing surface or waterproofing membrane as certified with BBS from 2536 dated October 19, 2001.

Protective coat shall be applied to the top and inside face of parapets and deck surface of new concrete adjacent to joints.

Synthetic Fibers shall be included in the Bridge Deck Latex Concrete Overlays, See Special Provisions.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	1.2
Protective Shield	Sq. Yd.	303.0
Floor Drains	Each	12.0
Concrete Superstructure	Cu. Yd.	1.3
Bridge Deck Grooving	Sq. Yd.	910.0
Protective Coat	Sq. Yd.	14.0
Furnishing & Erecting Structural Steel	Pound	2,820.0
Structural Steel Removal	Pound	2,705.0
Structural Steel Repair	Pound	2,310.0
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	749.0
Bridge Deck Latex Concrete Overaly $2\frac{1}{2}$"	Sq. Yd.	963.0
Bridge Deck Scarification $\frac{3}{4}$"	Sq. Yd.	963.0
Structural Repair of Concrete =< 5"	Sq. Ft.	245.0
Deck Slab Repair (Full-Depth, Type 2)	Sq. Yd.	90.9
Silicone Joint Seal $1\frac{1}{2}$"	Foot	68.0
Polymer Concrete	Cu. Ft.	8.0

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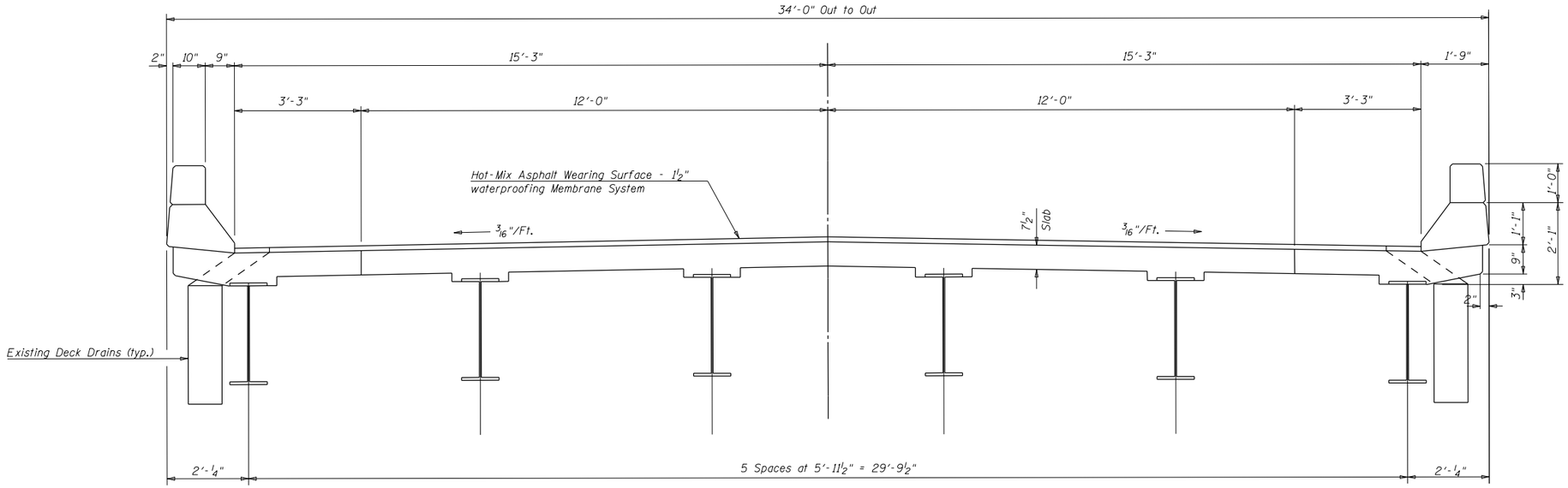
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
S.N. 010-0056

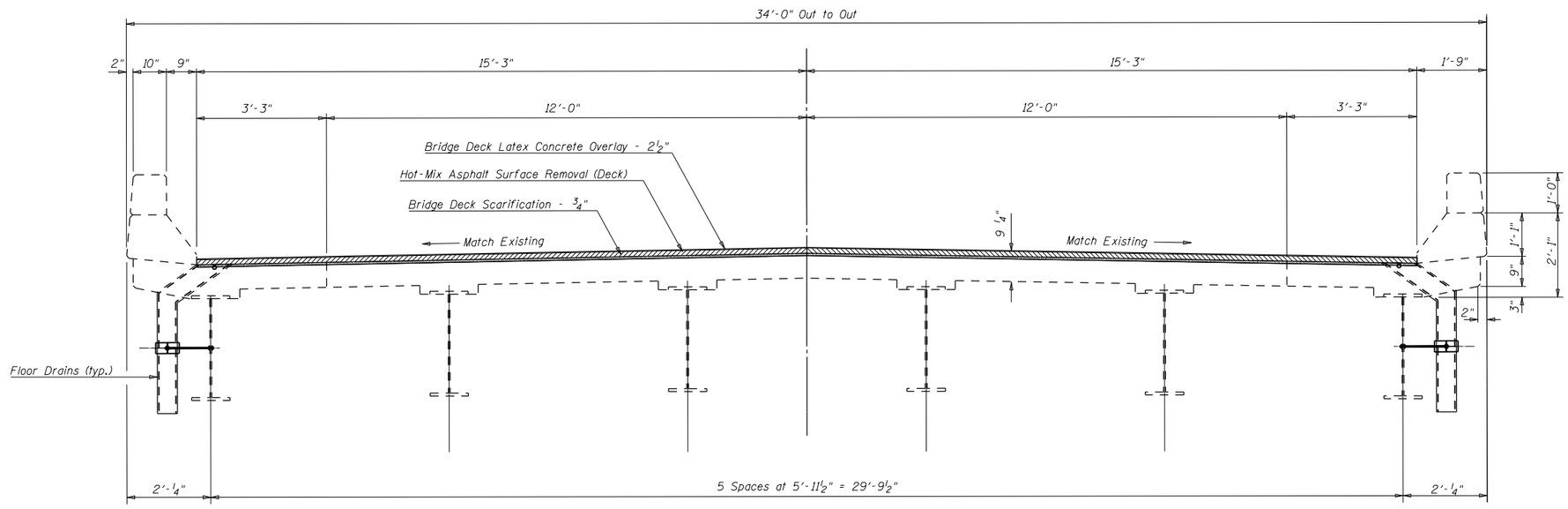
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	6
		CONTRACT NO. 70D63		
	ILLINOIS FED. AID PROJECT			

EXISTING TYPICAL CROSS–SECTION



PROPOSED TYPICAL CROSS–SECTION



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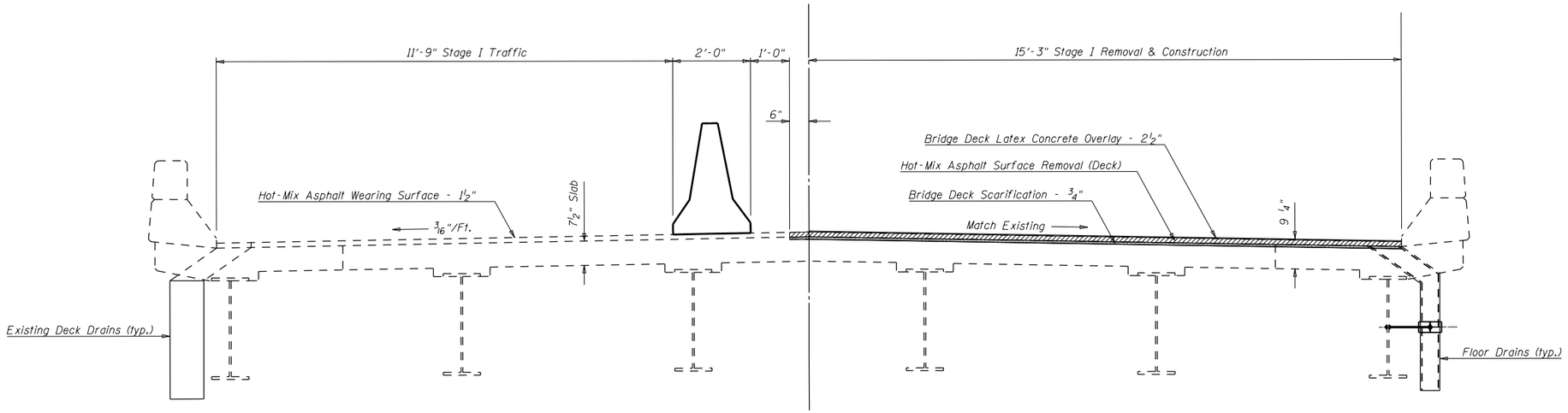
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TYPICAL CROSS–SECTIONS
S.N. 010–0056

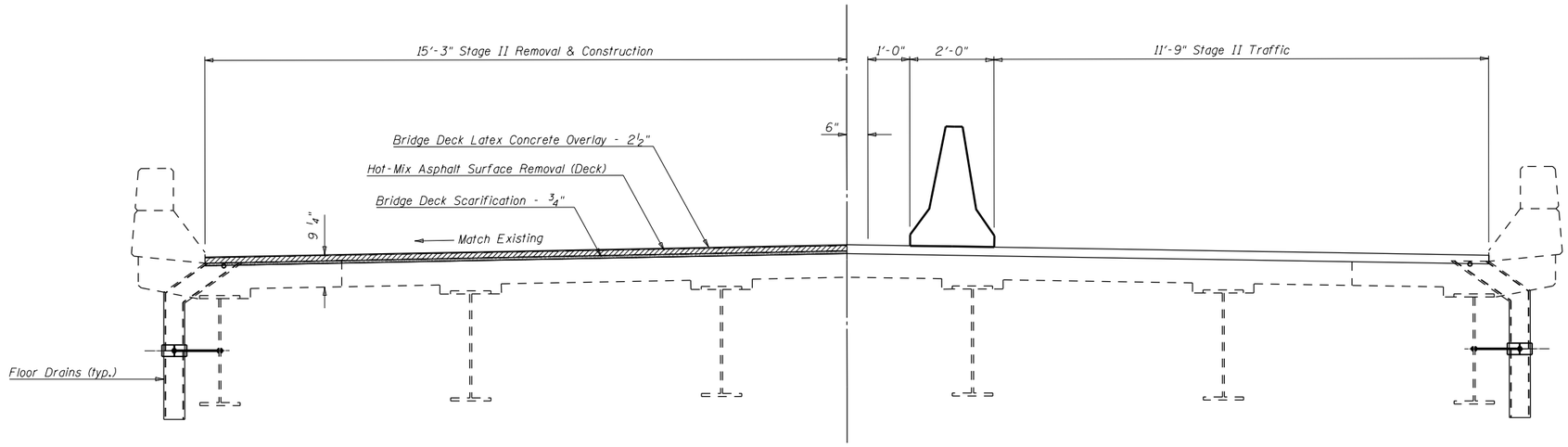
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	7
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

STAGE I CONSTRUCTION DETAIL
(LOOKING NORTH)



STAGE II CONSTRUCTION DETAIL
(LOOKING NORTH)



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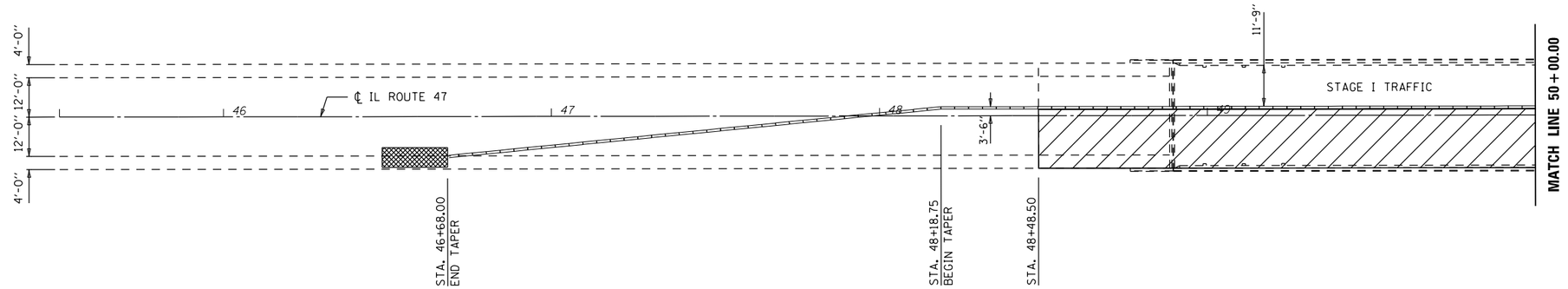
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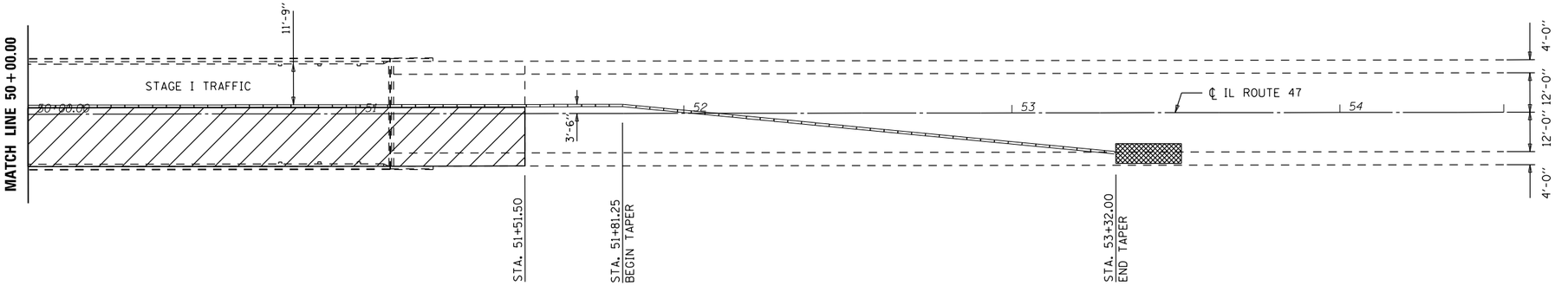
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	8
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

STAGE I TEMPORARY CONCRETE BARRIER LAYOUT





70400100 TEMPORARY CONCRETE BARRIER

		STATION			STATION	LENGTH
TAPER	RT	46+68.00		RT	48+18.75	150.0
	RT	48+18.75		RT	51+81.25	362.5
TAPER	RT	51+81.25		RT	53+32.00	150.0
					SUB-TOTAL =	662.5

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, 701301 AND 701311.

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

EXISTING OR TEMPORARY PAVEMENT MARKINGS SHALL BE ON BOTH SIDES OF THE OPEN LANE FROM STOP BAR TO STOP BAR. PAVEMENT MARKINGS THAT CONFLICT WITH STAGED TRAFFIC MARKINGS SHALL BE REMOVED. THIS WORK SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

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

TEMPORARY CONCRETE BARRIER

PROPOSED WORK AREA

IMPACT ATTENUATOR

BILL OF MATERIALS

ITEM	UNIT	TOTAL
TEMPORARY CONCRETE BARRIER	FOOT	662.5
IMPACT ATTENUATOR TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3	EACH	2.0

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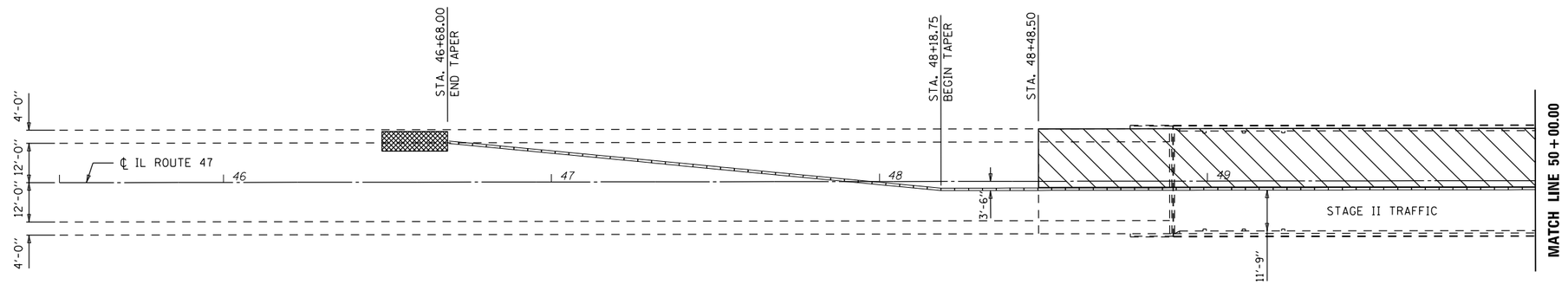
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

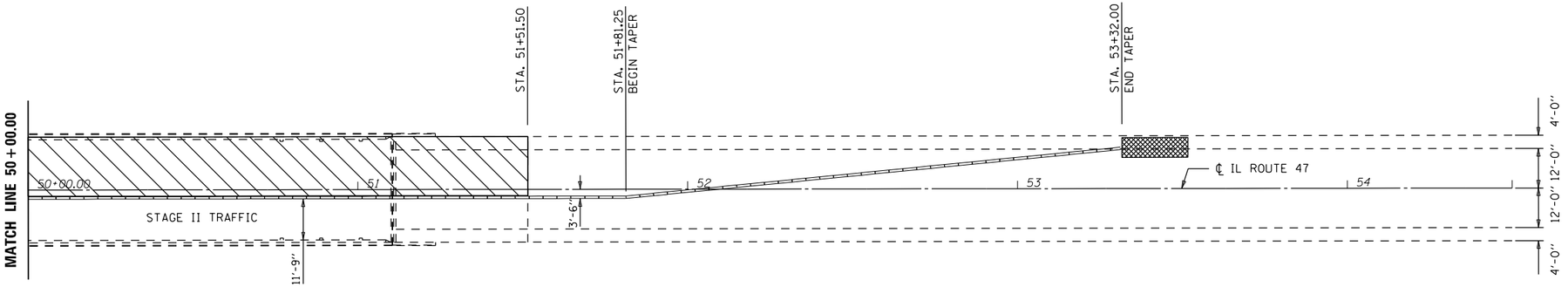
TEMPORARY CONCRETE BARRIER LAYOUT DETAIL
S.N. 010-0056

SCALE: NONE | SHEET 4 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	9
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

STAGE II TEMPORARY CONCRETE BARRIER LAYOUT





70400200 RELOCATE TEMPORARY CONCRETE BARRIER

		STATION	TO		STATION	LENGTH
TAPER	LT	46+68.00		LT	48+18.75	150.0
	LT	48+18.75		LT	51+81.25	362.5
TAPER	LT	51+81.25		LT	53+32.00	150.0
					SUB-TOTAL =	662.5

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, 701301 AND 701311.

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

EXISTING OR TEMPORARY PAVEMENT MARKINGS SHALL BE ON BOTH SIDES OF THE OPEN LANE FROM STOP BAR TO STOP BAR. PAVEMENT MARKINGS THAT CONFLICT WITH STAGED TRAFFIC MARKINGS SHALL BE REMOVED. THIS WORK SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

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

TEMPORARY CONCRETE BARRIER

PROPOSED WORK AREA

IMPACT ATTENUATOR

BILL OF MATERIALS

ITEM	UNIT	TOTAL
REL TEMPORARY CONCRETE BARRIER	FOOT	662.5
IMPACT ATTENUATOR RELOCATE (NON-REDIRECTIVE) TEST LEVEL 3	EACH	2.0

USER NAME = shererjm	DESIGNED - JMS	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0360 ' / in.	CHECKED - JMS	REVISED -	
PLOT DATE = 12/26/2019	DATE - 061819	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

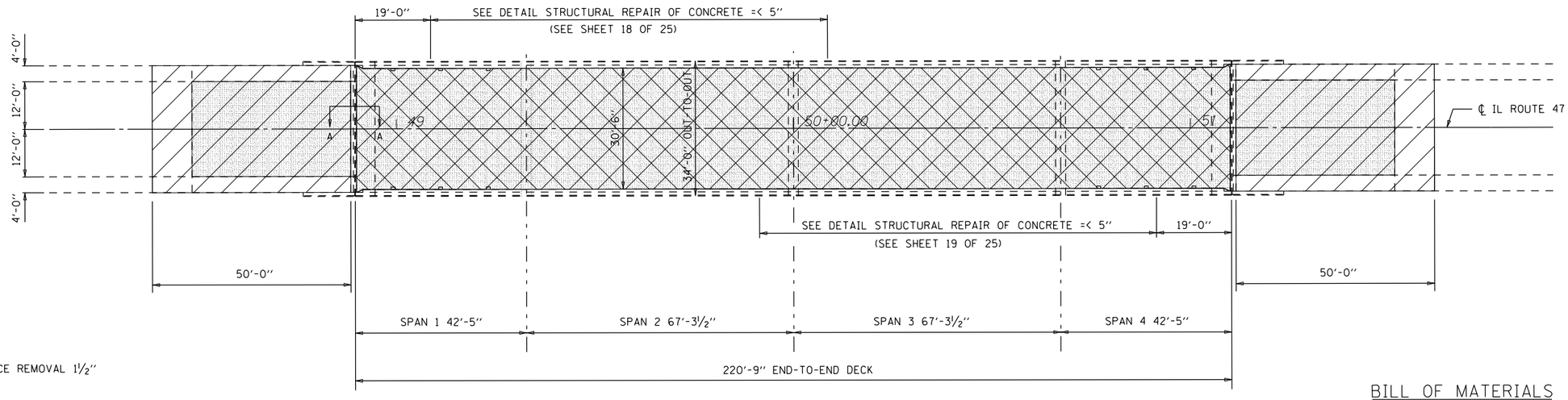
TEMPORARY CONCRETE BARRIER LAYOUT DETAIL
S.N. 010-0056

SCALE: NONE | SHEET 5 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	10
		CONTRACT NO. 70D63		
	ILLINOIS FED. AID PROJECT			

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DETAIL OF WEARING SURFACE REMOVAL



HMA SURFACE REMOVAL 1½"

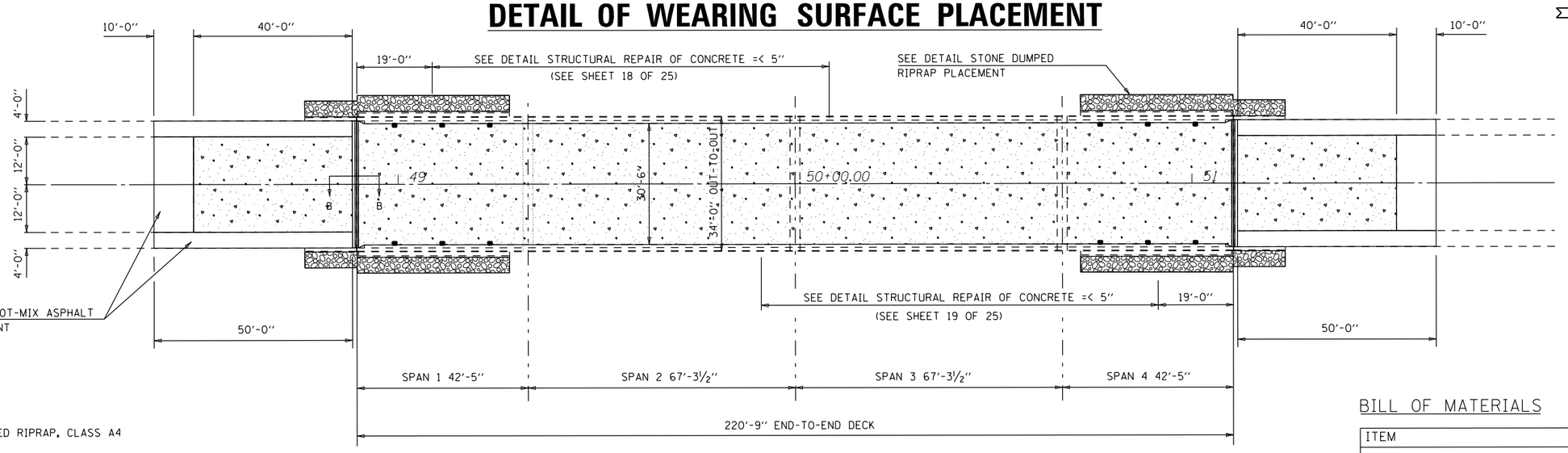
HMA SURFACE REMOVAL (DECK)

BRIDGE DECK SCARIFICATION - ¾"

BILL OF MATERIALS

ITEM	UNIT	TOTAL
HMA SURFACE REMOVAL 1½"	SQ YD	356.0
HMA SURFACE REMOVAL (DECK)	SQ YD	749.0
BRIDGE DECK SCARIFICATION ¾"	SQ YD	963.0

DETAIL OF WEARING SURFACE PLACEMENT



STONE DUMPED RIPRAP, CLASS A4

BRIDGE DECK LATEX CONCRETE OVERLAY, 2½"

BILL OF MATERIALS

ITEM	UNIT	TOTAL
HMA SURFACE COURSE, MIX "C", N50	TON	13.0
BRIDGE DECK GROOVING	SQ YD	910.0
BRIDGE DECK LATEX CONCRETE OVLY, 2½"	SQ YD	963.0

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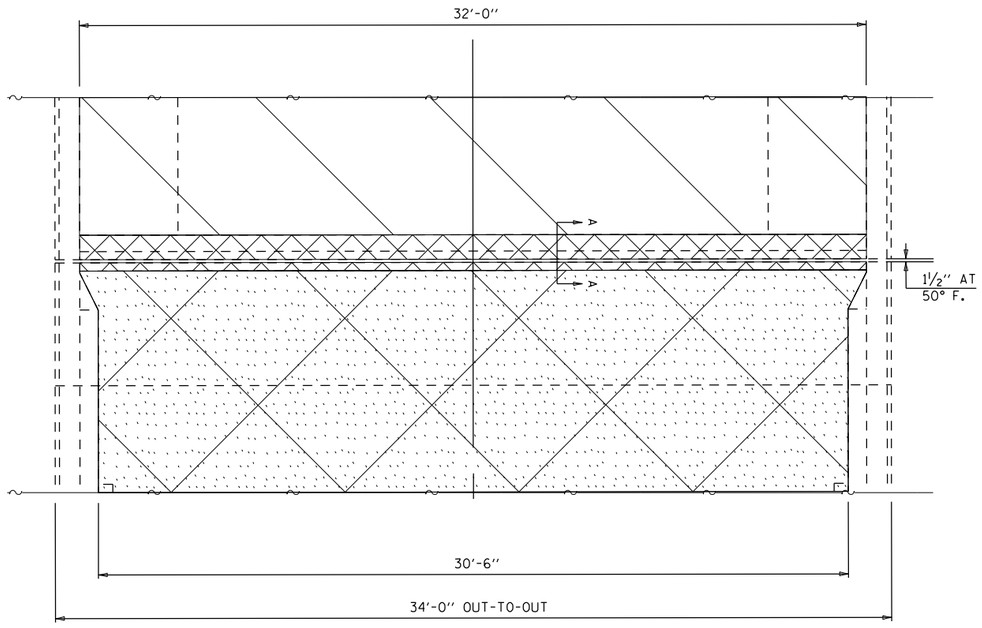
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PLOT DATE = 12/26/2019	DATE - 061819	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEARING SURFACE PLAN
S.N. 010-0056

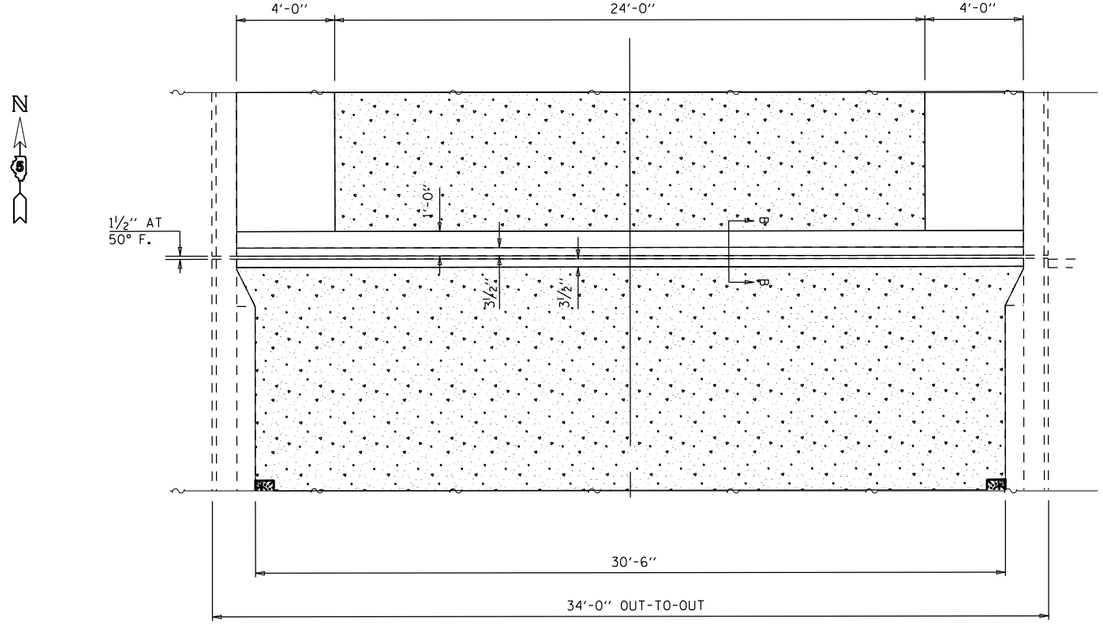
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	11
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		



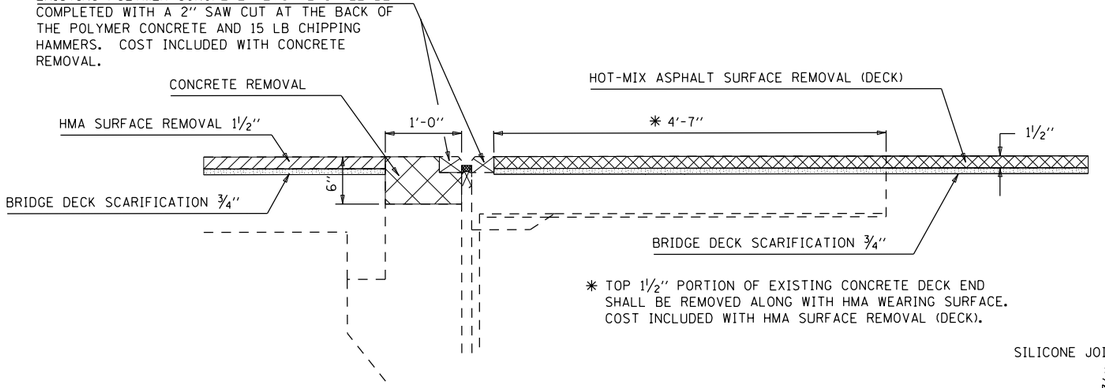
EXISTING PLAN

(ABUTMENT NO. 2 SHOWN, ABUTMENT NO. 1 SIMILAR)

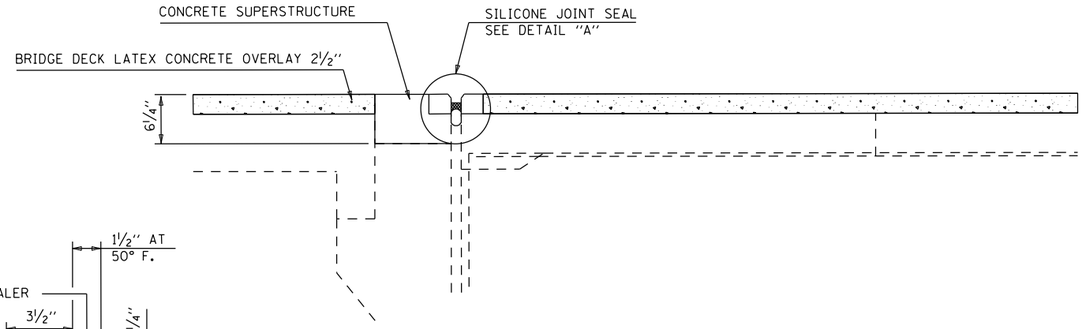


PROPOSED PLAN

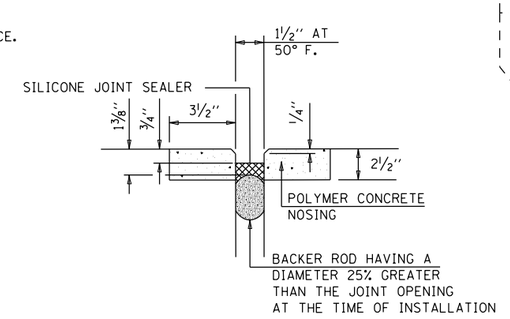
(ABUTMENT NO. 2 SHOWN, ABUTMENT NO. 1 SIMILAR)



SECTION A-A THRU ABUTMENTS



PROPOSED SECTION B-B THRU ABUTMENTS



SILICONE JOINT SEAL DETAIL "A"

BILL OF MATERIALS

ITEM	UNIT	TOTAL
CONCRETE REMOVAL	CU YD	1.2
CONCRETE SUPERSTRUCTURE	CU YD	1.3
SILICONE JOINT SEALER, 1½"	FOOT	68.0
POLYMER CONCRETE	CU FT	8.0

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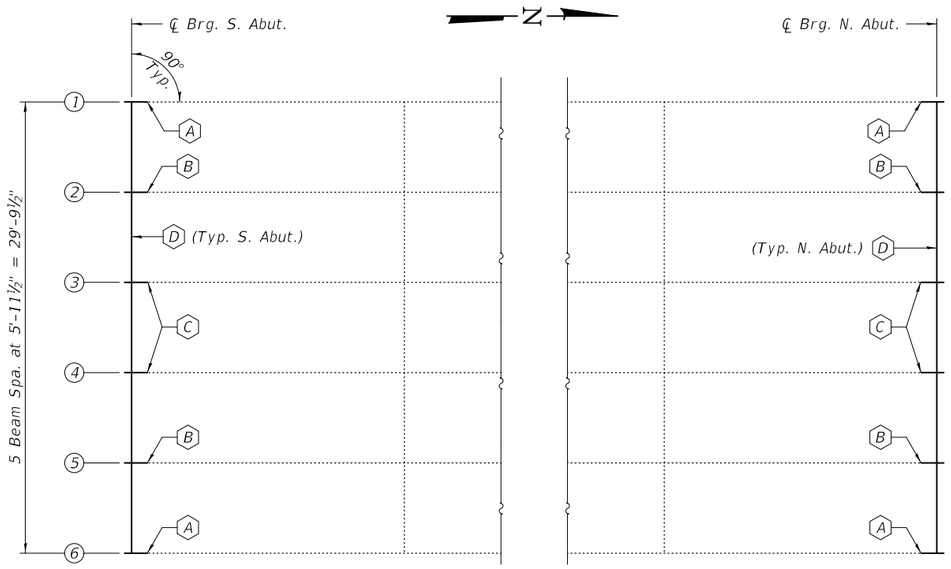
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	DRAWN -	REVISED -	
PLOT SCALE = 40.0360 ' / in.	CHECKED - JMS	REVISED -	
PLOT DATE = 12/26/2019	DATE - 061819	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF JOINT TREATMENT AT ABUTMENTS
S.N. 010-0056

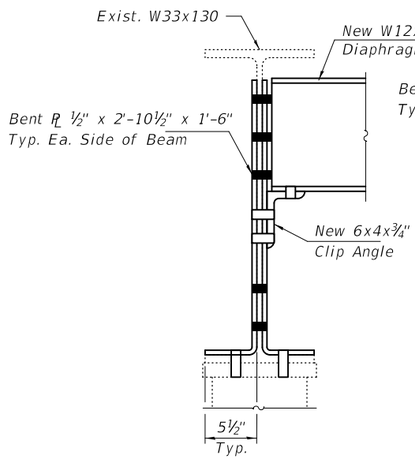
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

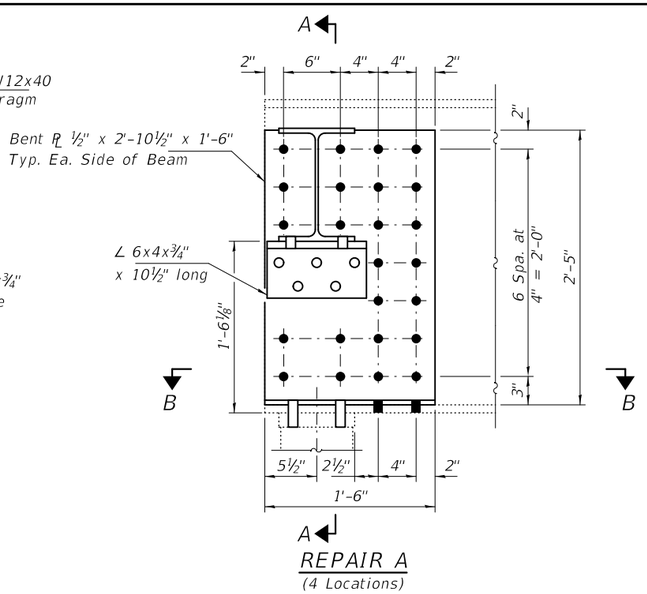


PARTIAL FRAMING PLAN

- (A) – Beam End Repair – Repair A
- (B) – Beam End Repair – Repair B
- (C) – Beam End Repair – Repair C
- (D) – Remove and Replace Diaphragms and Clip Angles.

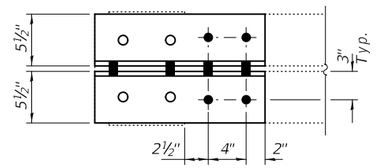


SECTION A-A

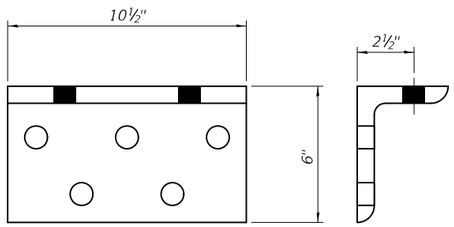


REPAIR A

(4 Locations)



SECTION B-B



CLIP ANGLE DETAILS

∠ 6x4x¾" x 10½" long
(20 Required)

NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

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.

All structural steel shall be hot-dip galvanized. See special Provisions for "Hot Dip Galvanizing For Structural Steel".

Fasteners shall be high strength bolts. Bolts ¾"Ø, open holes $1\frac{3}{16}$"Ø, unless otherwise noted.

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".

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

After the new beam is in its final position, the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection".

BOLT HOLE LEGEND

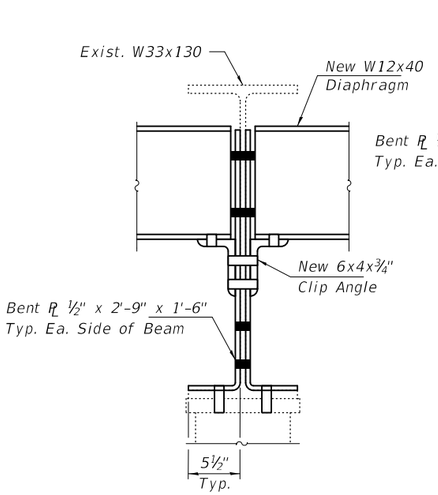
- ○ – Field drill using existing steel as template.
- ● – Shop drill holes in new steel.

BILL OF MATERIAL

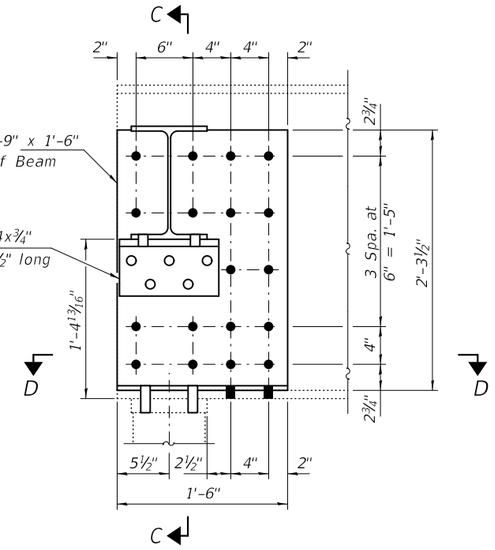
ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	2310
Structural Steel Removal	Pound	2705
Furnishing and Erecting Structural Steel	Pound	2820

DESIGNED - JOV	EXAMINED	DATE - MARCH 23, 2020	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
CHECKED - ATH	ENGINEER OF STRUCTURAL SERVICES		
DRAWN - Venkat Reddy	PASSED	REVISED -	**REPAIR DETAILS SN 010-0056**
CHECKED - JOV ATH	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -	SHEET NO. 8 OF 25 SHEETS

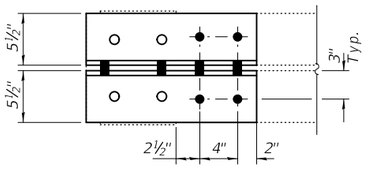
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	13
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		



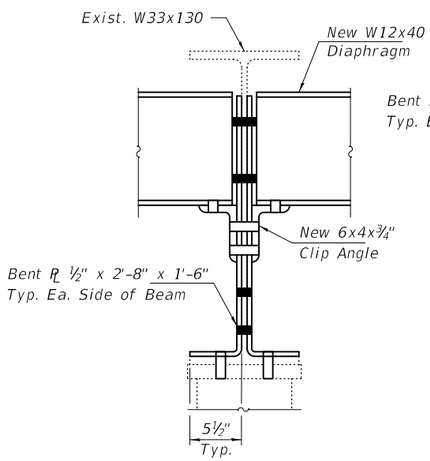
SECTION C-C



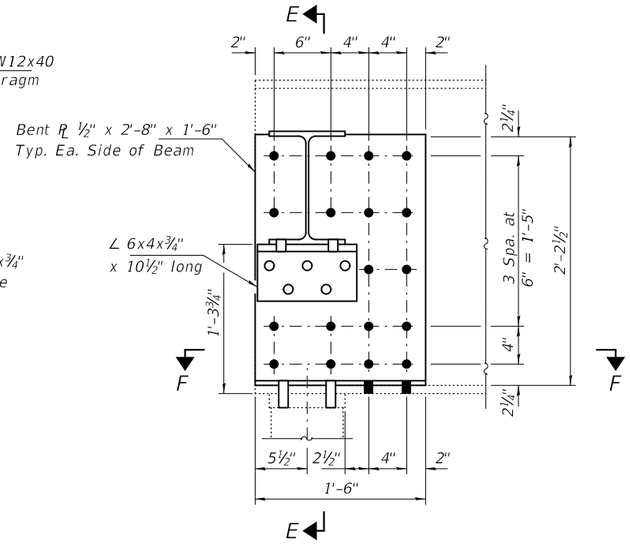
REPAIR B
(4 Location)



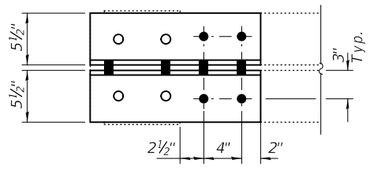
SECTION D-D



SECTION E-E



REPAIR C
(4 Location)



SECTION F-F

BOLT HOLE LEGEND

○ – Field drill using existing steel as template.

● – Shop drill holes in new steel.

DESIGNED - JOV	EXAMINED	ENGINEER OF STRUCTURAL SERVICES	DATE - MARCH 23, 2020	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REPAIR DETAILS SN 010-0056	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - ATH						72	(10-70)BR	CHAMPAIGN	44	14
DRAWN - *Venkat Reddy*	PASSED	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -		SHEET NO. 9 OF 25 SHEETS			CONTRACT NO. 70D63		
CHECKED - JOV ATH			REVISED -				ILLINOIS	FED. AID PROJECT		

SPAN 1 S.N. 010–0056

SPAN 1 42'-5"

⑨

STAGE I TRAFFIC

℄ IL 47

STAGE I & II REMOVAL

MATCH LINE ℄ PIER 1

STAGE II TRAFFIC

①

SEE SHEET 19

0 5 10 15 20 25 30 35 40 45 50

0 5 10 15

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

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

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USER NAME = shererjm	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0360 ' / in.	CHECKED -	REVISED -
PLOT DATE = 12/26/2019	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF DECK SLAB REPAIR (FULL DEPTH)
S.N. 010–0056

SCALE: 6 | SHEET 10 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	15
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

SPAN 2 S.N. 010–0056

SPAN 2 67-3½''

STRUCTURAL CONCRETE REPAIR =< 5'' (SEE SHEET 24)

Ⓐ Ⓑ

℄ IL 47

STAGE I TRAFFIC

STAGE I & II REMOVAL

STAGE II TRAFFIC

MATCH LINE ℄ PIER 1

MATCH LINE ℄ PIER 2

②

0 5 10 15 20 25 30 35 40 45 50 55 60 65

–15 –10 –5 0 5 10 15

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

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

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PLOT DATE = 12/26/2019	DATE -	REVISED -

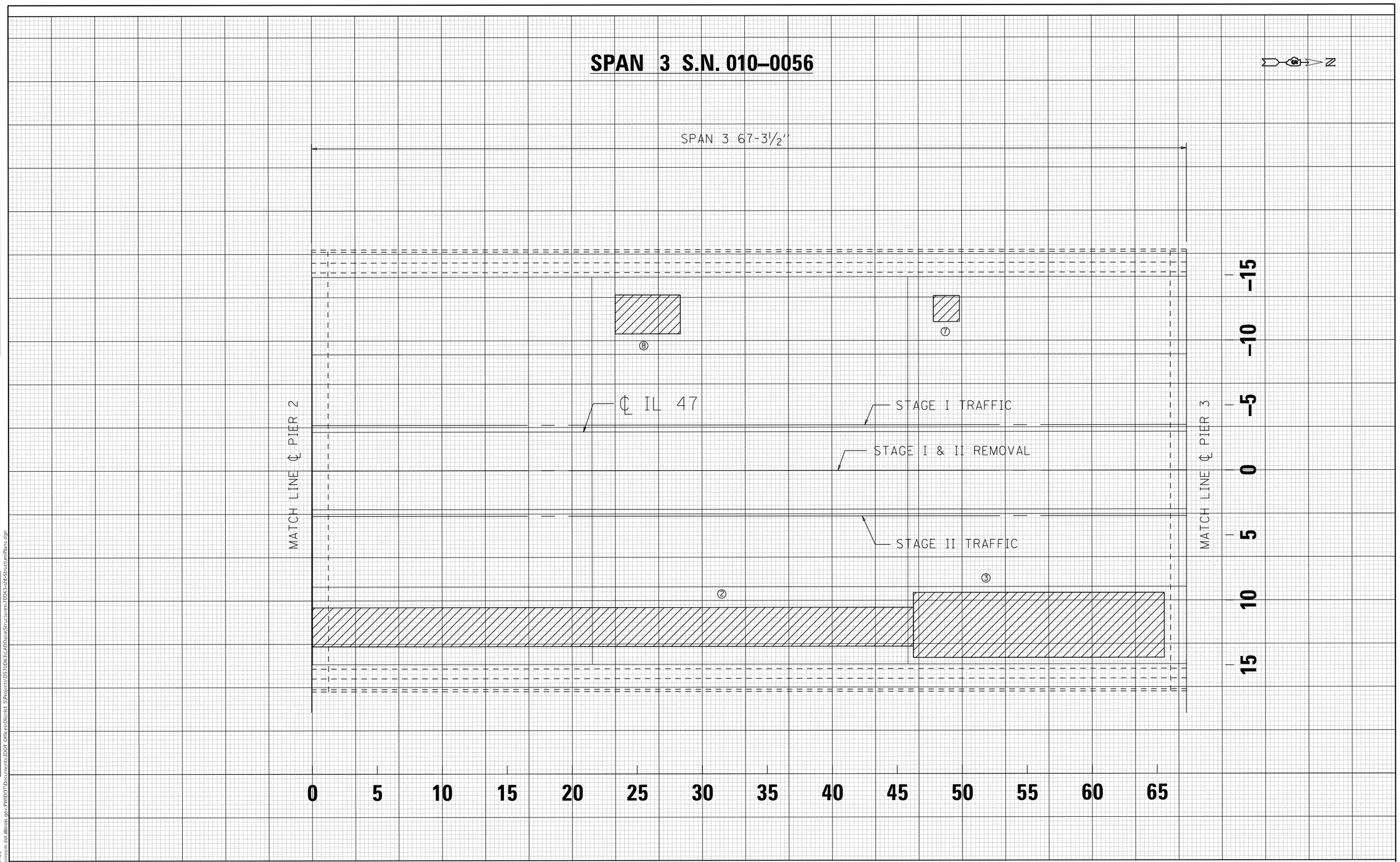
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF DECK SLAB REPAIR (FULL DEPTH)
S.N. 010–0056

SCALE: 6 | SHEET 11 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	16
		CONTRACT NO. 70D63		
	ILLINOIS FED. AID PROJECT			

SPAN 3 S.N. 010–0056



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

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

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PLOT DATE = 12/26/2019	DATE -	REVISED -	

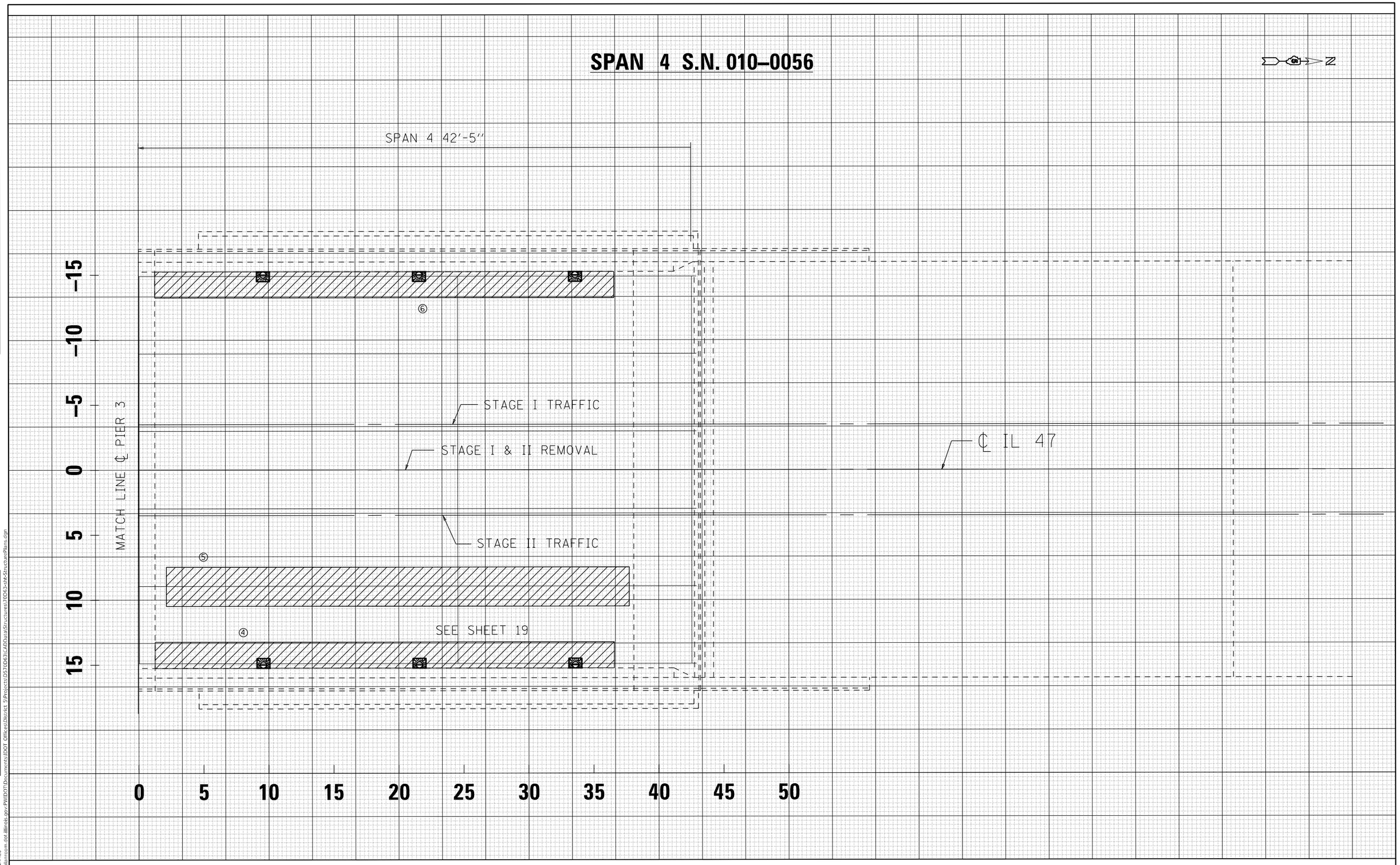
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF DECK SLAB REPAIR (FULL DEPTH)
S.N. 010–0056

SCALE: 6 | SHEET 12 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	17
		CONTRACT NO. 70D63		
	ILLINOIS FED. AID PROJECT			

SPAN 4 S.N. 010–0056



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	DRAWN -	REVISED -	
PLOT SCALE = 40.0360 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 12/26/2019	DATE -	REVISED -	

DETAIL OF DECK SLAB REPAIR (FULL DEPTH)
S.N. 010–0056

SCALE: 6 | SHEET 13 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	18
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

PATCH NO.	SIZE		DECK SLAB REPAIR (FULL DEPTH T1)	DECK SLAB REPAIR (FULL DEPTH T2)
	LENGTH (FT)	WIDTH (FT)	SQ YD	SQ YD
1	35	2		7.8
2	103.3	3		34.4
3	19.3	5		10.7
4	35	2		7.8
5	35.6	3		11.9
6	35	2		7.8
7	3	3		1
8	5	3		1.7
9	35	2		7.8
10				
11				
12				
13				
14				
15				
16				
17				

TOTAL = 90.9

NOTES:

AREA OF DECK SLAB REPAIR HAVE BEEN ESTIMATED FROM MAY 20TH, 2019 DECK SURVEY. THE ACTUAL QUANTITY AND LOCATIONS SHALL BE DETERMINED BY THE ENGINEER. THE ENGINEER SHALL SHOW THE ACTUAL LOCATIONS OF THE DECK REPAIRS ON DECK PATCHING DETAIL SHEETS.

LONGITUDINAL REMOVAL FOR DECK SLAB REPAIR (FULL-DEPTH, TYPE II) MUST BE DONE IN ALTERNATING SECTIONS OF NO MORE THAN 10 FEET. ADJACENT SECTIONS MUST NOT BE REMOVED UNTIL BOTH OF THE FOLLOWING REQUIREMENTS ARE MET:

1. ATLEAST 72 HOURS SHALL HAVE ELAPSED FROM THE END OF THE PREVIOUS POUR, AND...

2. THE CONCRETE SHALL HAVE ATTAINED A MINIMUM MODULUS OF RUPTURE OF 650 PSI OR A MINIMUM COMPRESSIVE STRENGHT OF 3500 PSI.

BILL OF MATERIALS

ITEM	UNIT	TOTAL
DECK SLAB REPAIR (FULL DEPTH TYPE II)	SQ YD	90.9

MODEL: $MODELNAME$
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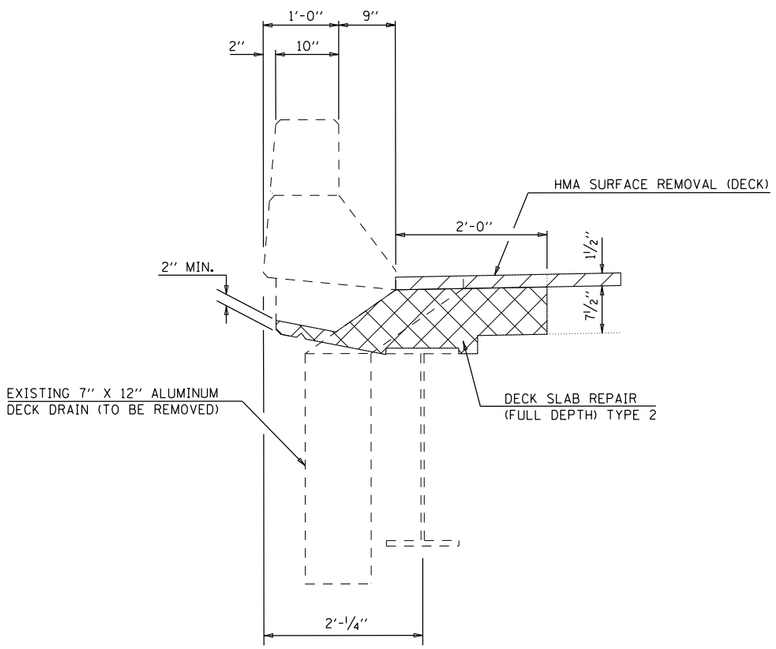
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	DRAWN -	REVISED -	
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PLOT DATE = 12/26/2019	DATE - 061819	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

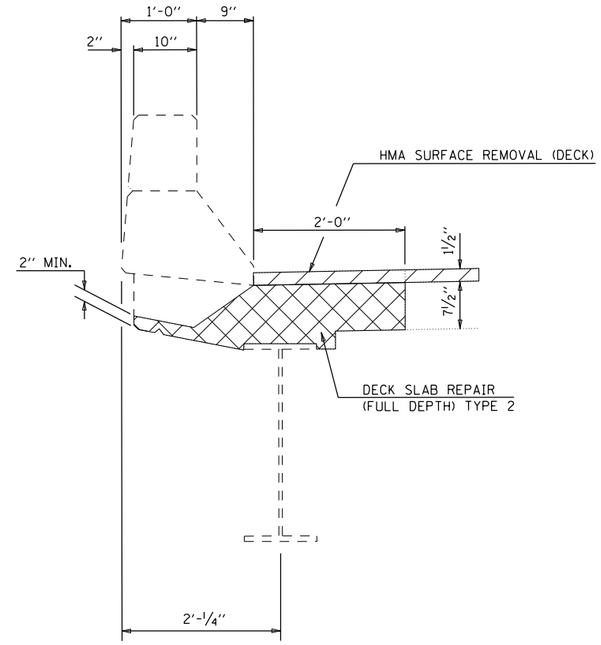
SCHEDULES OF DECK SLAB REPAIR (FULL DEPTH)
S.N. 010-0056

SCALE: NONE | SHEET 14 OF 25 SHEETS | STA. | TO STA.

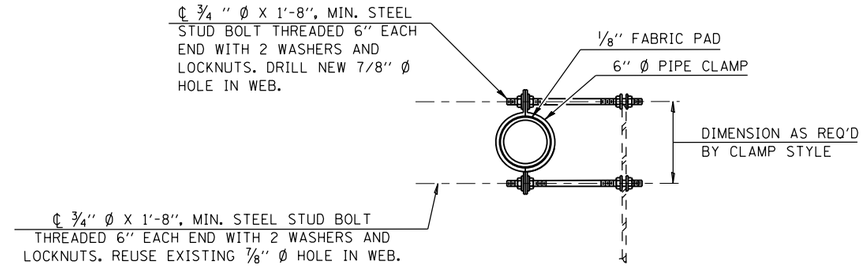
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	19
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		



SECTION AT EXISTING DECK DRAIN

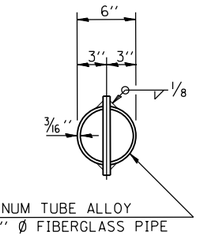


SECTION BETWEEN EXISTING DECK DRAIN



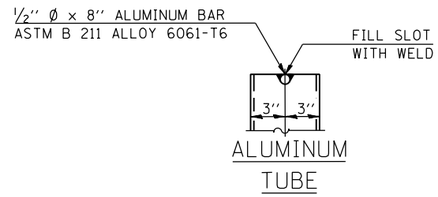
SECTION A-A

SHOWING PIPE CLAMP
ANCHORAGE STYLE

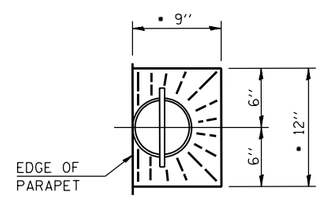


TOP PLAN

(ALUMINUM TUBE SHOWN)

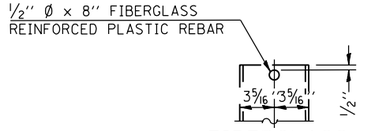


ALUMINUM
TUBE

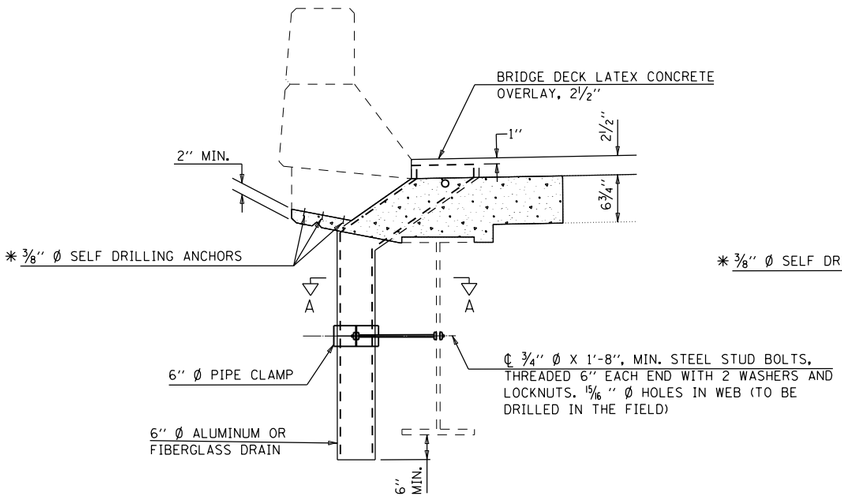


TOP PLAN

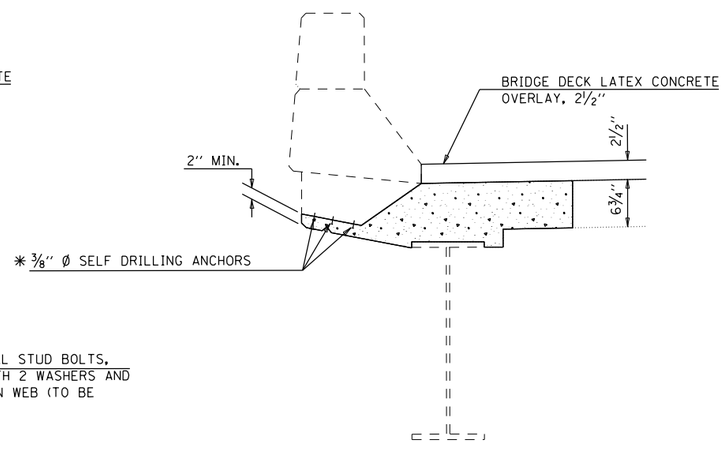
• SLOPE TO DRAIN



FIBERGLASS
PIPE

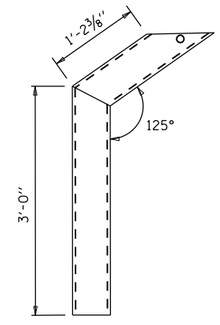


SECTION AT PROPOSED FLOOR DRAIN



SECTION BETWEEN PROPOSED FLOOR DRAIN

(SEE PATCH LOCATIONS 1,9,4,6)



FLOOR DRAIN

NOTES:

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.

GALVANIZE CLAMPING DEVICE AND ALL STUD BOLTS, WASHERS AND NUTS ACCORDING TO AASHTO M232.

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

✱ 3/8" Ø SELF DRILLING ANCHORS TO BE USED AT LOCATIONS DETERMINED BY ENGINEER. COST INCLUDED WITH DECK SLAB REPAIR OF THE TYPE SPECIFIED.

COST OF EXISTING DECK DRAIN REMOVAL INCLUDED IN DECK SLAB REPAIR.

BILL OF MATERIALS

ITEM	UNIT	TOTAL
FLOOR DRAINS	EACH	12.0

MODEL: $MODELNAMES
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PLOT DATE = 12/26/2019	DATE - 061819	REVISED -	

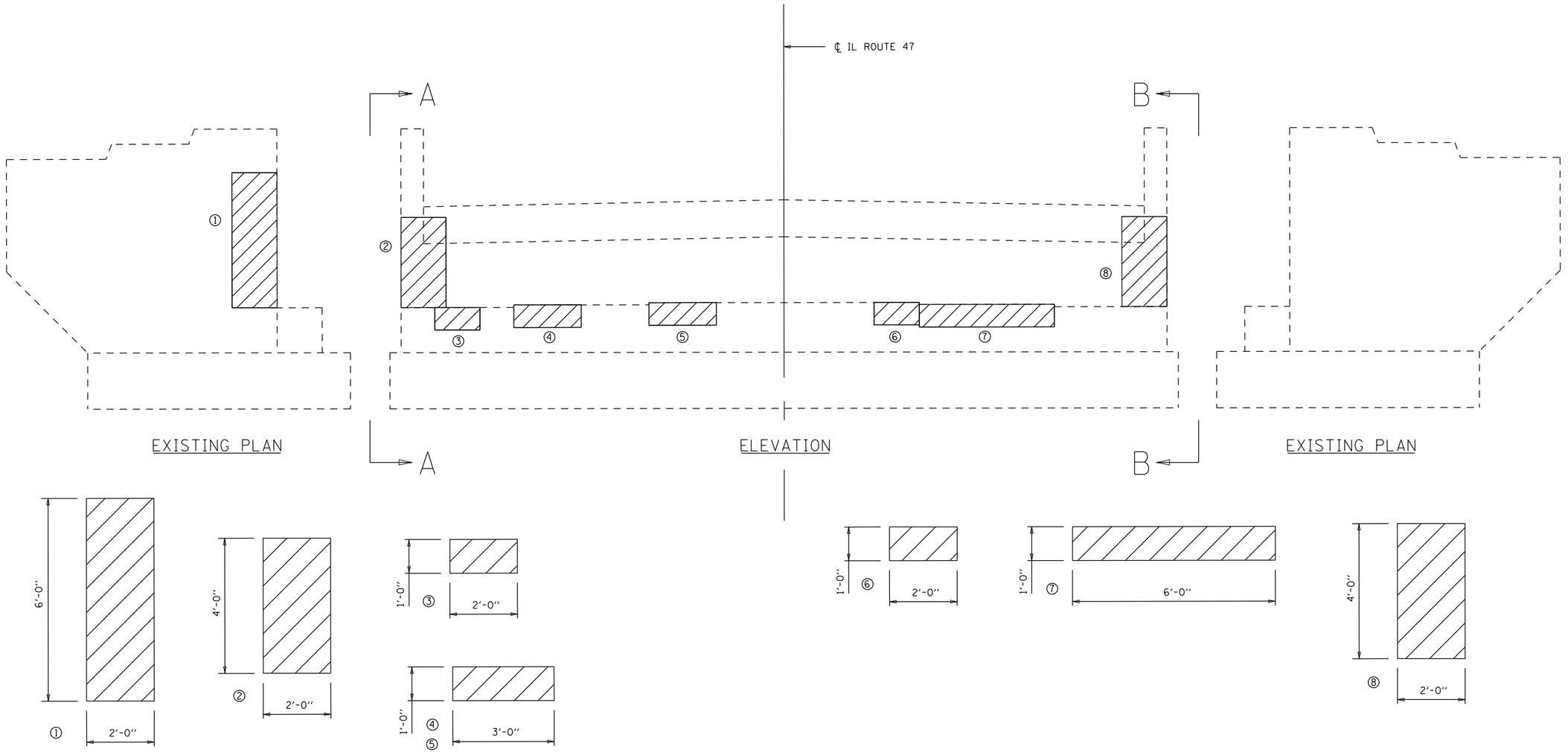
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF PATCHING AT DECK DRAINS
S.N. 010-0056

SCALE: NONE | SHEET 15 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	20
		CONTRACT NO. 70D63		
	ILLINOIS FED. AID PROJECT			

DETAIL OF NORTH ABUTMENT (NO. 2 LOOKING NORTH)



BILL OF MATERIALS

ITEM	UNIT	TOTAL
STRUCTURAL REPAIR OF CONC. =< 5''	SQ FT	44.0

USER NAME = shererjm	DESIGNED - JMS	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0360 ' / in.	CHECKED - JMS	REVISED -	
PLOT DATE = 12/26/2019	DATE - 061819	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

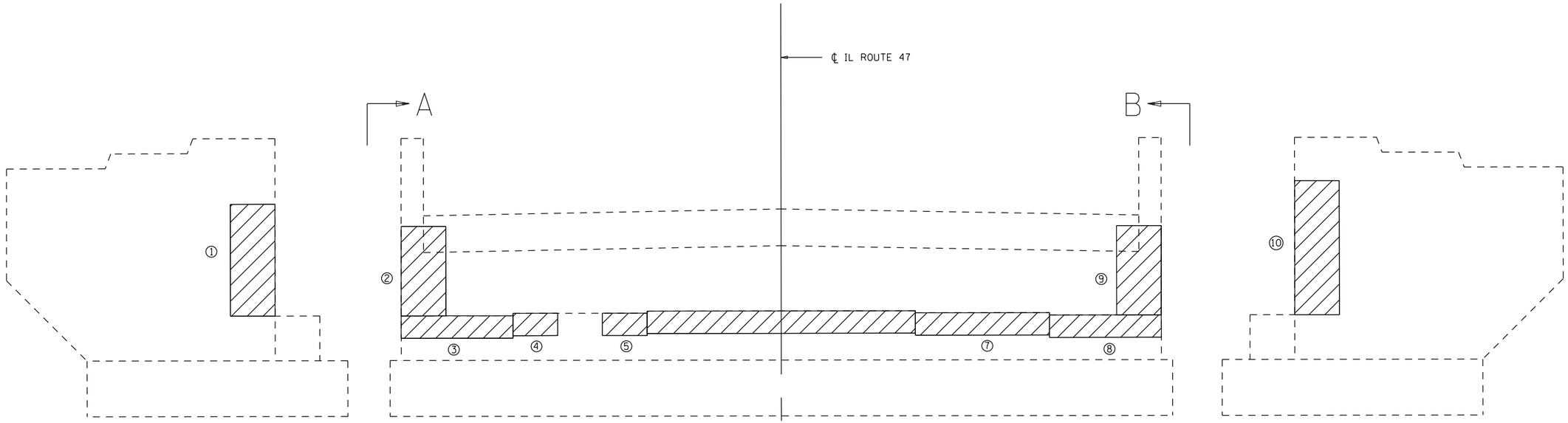
DETAIL STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES) S.N. 010-0056

SCALE: NONE | SHEET 16 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	21
		CONTRACT NO. 70D63		
	ILLINOIS FED. AID PROJECT			

MODEL: $MODELNAME$
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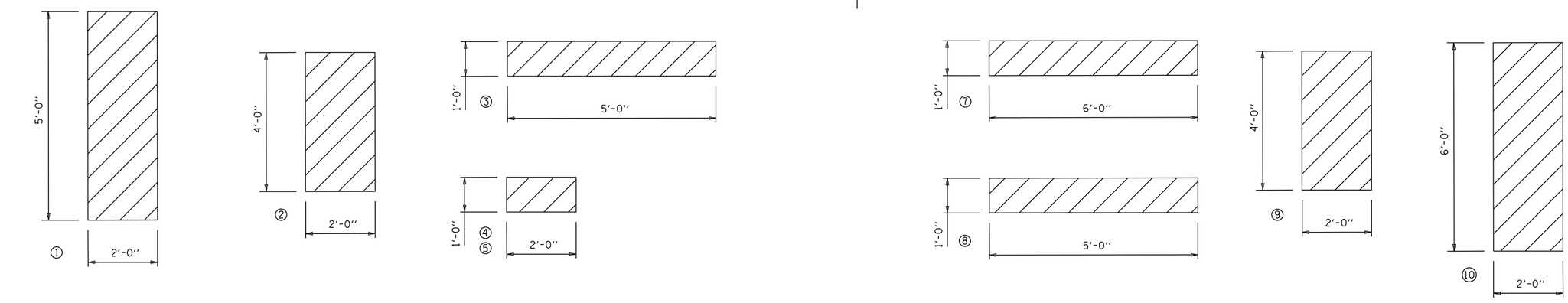
DETAIL OF SOUTH ABUTMENT (NO. 1 LOOKING SOUTH)

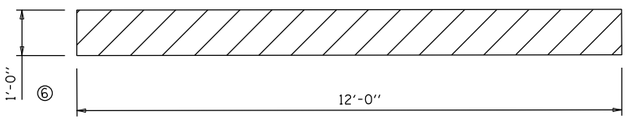


EXISTING PLAN

ELEVATION

EXISTING PLAN





BILL OF MATERIALS

ITEM	UNIT	TOTAL
STRUCTURAL REPAIR OF CONC. =< 5"	SQ FT	70.0

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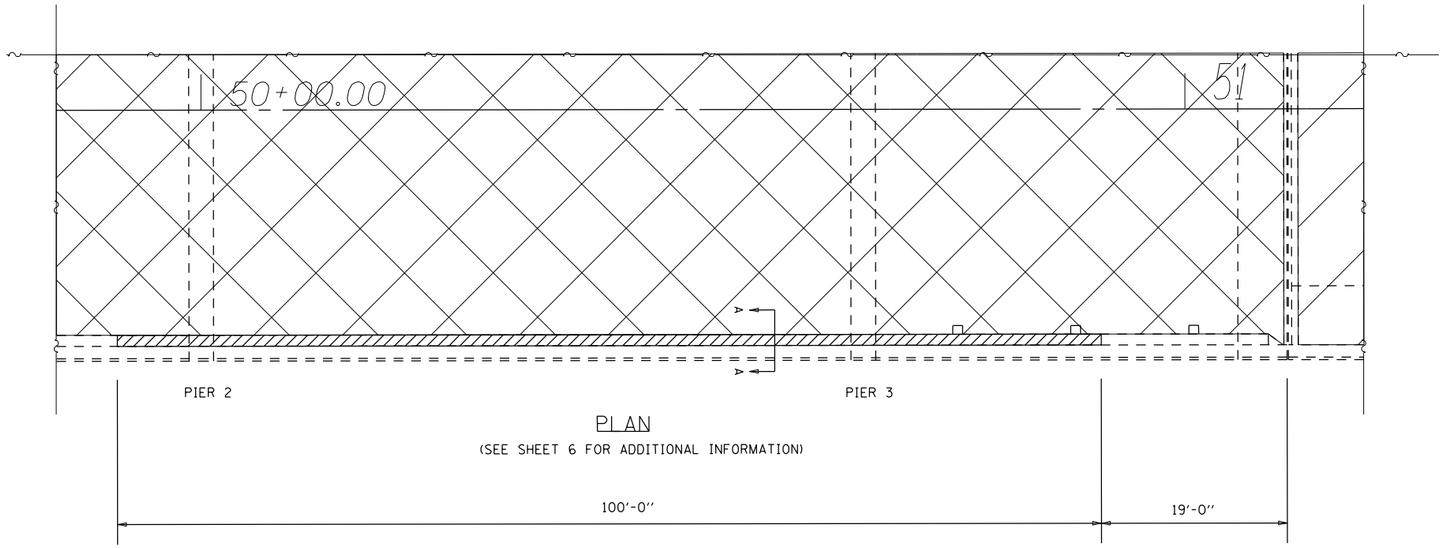
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES) S.N. 010-0056

SCALE: NONE | SHEET 17 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	22
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

DETAIL OF EAST PARAPET WALL FACE

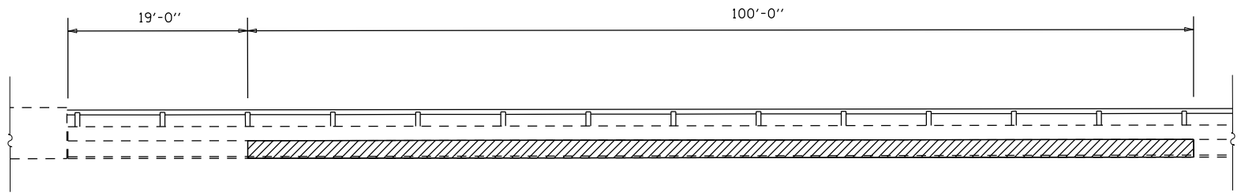


PLAN

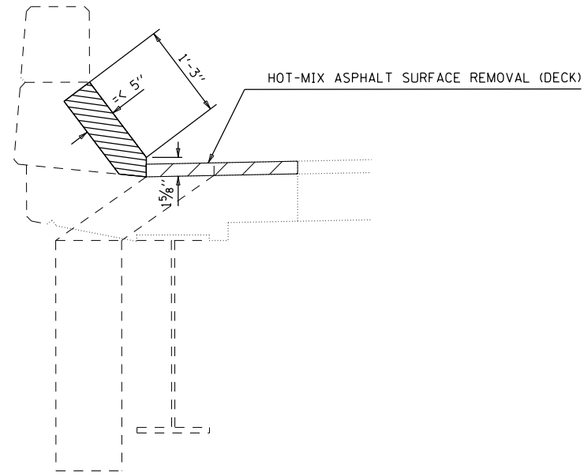
(SEE SHEET 6 FOR ADDITIONAL INFORMATION)

100'-0"

19'-0"



ELEVATION



SECTION A-A THRU PARAPET

BILL OF MATERIALS

ITEM	UNIT	TOTAL
STRUCTURAL REPAIR OF CONC. =< 5"	SQ FT	125.0
PROTECTIVE COAT	SQ YD	14.0

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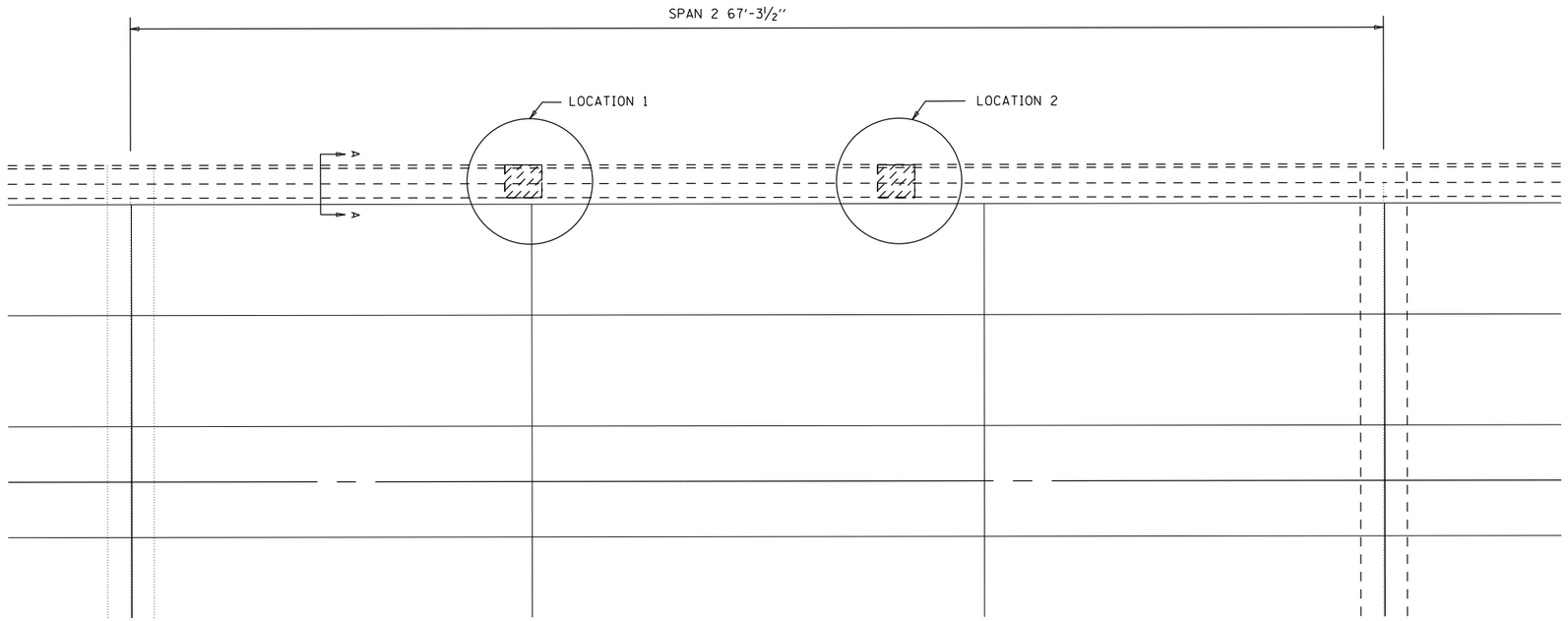
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES) S.N. 010-0056

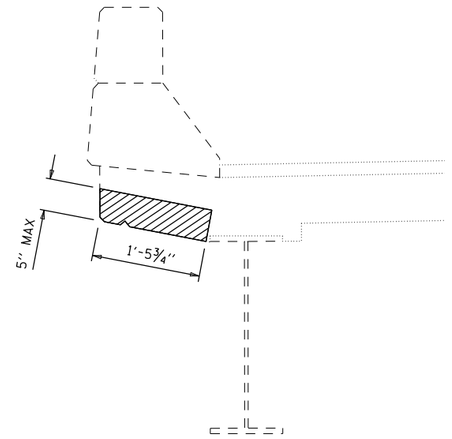
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	23
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

DETAIL OF WEST HUB GUARD



PLAN



SECTION A-A THRU PARAPET

BILL OF MATERIALS

ITEM	UNIT	TOTAL
STRUCTURAL REPAIR OF CONC. =< 5''	SQ FT	6.0

USER NAME = shererjm	DESIGNED - JMS	REVISED -	
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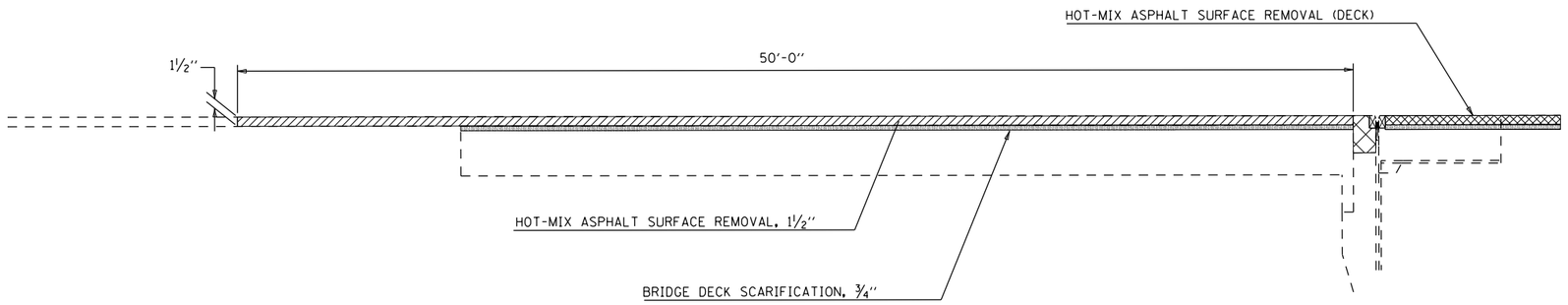
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL STRUCTURAL REPAIR OF CONCRETE
(DEPTH EQUAL TO OR LESS THAN 5 INCHES) S.N. 010-0056

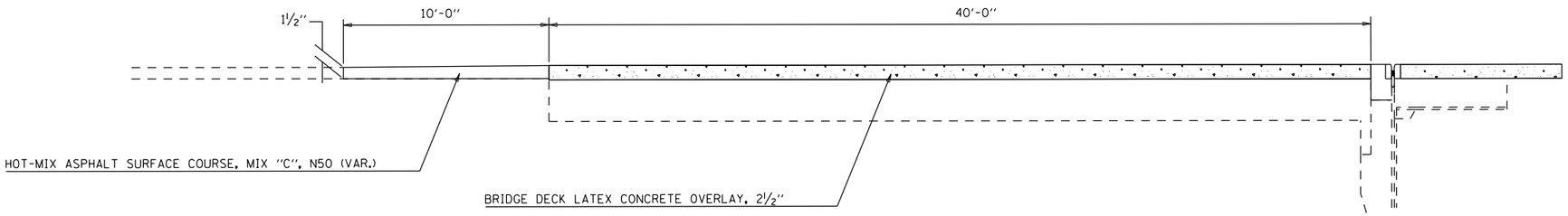
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	24
		CONTRACT NO. 70D63		
	ILLINOIS FED. AID PROJECT			

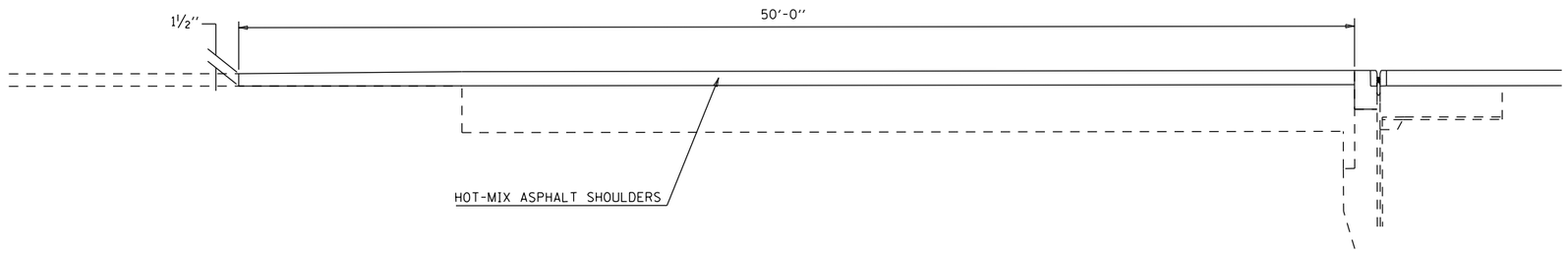
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DETAIL OF REMOVAL AT APPROACH PAVEMENT



DETAIL OF PROPOSED WEARING SURFACE AT APPROACH PAVEMENT



DETAIL OF HOT-MIX ASPHALT SHOULDERS AT APPROACH PAVEMENT

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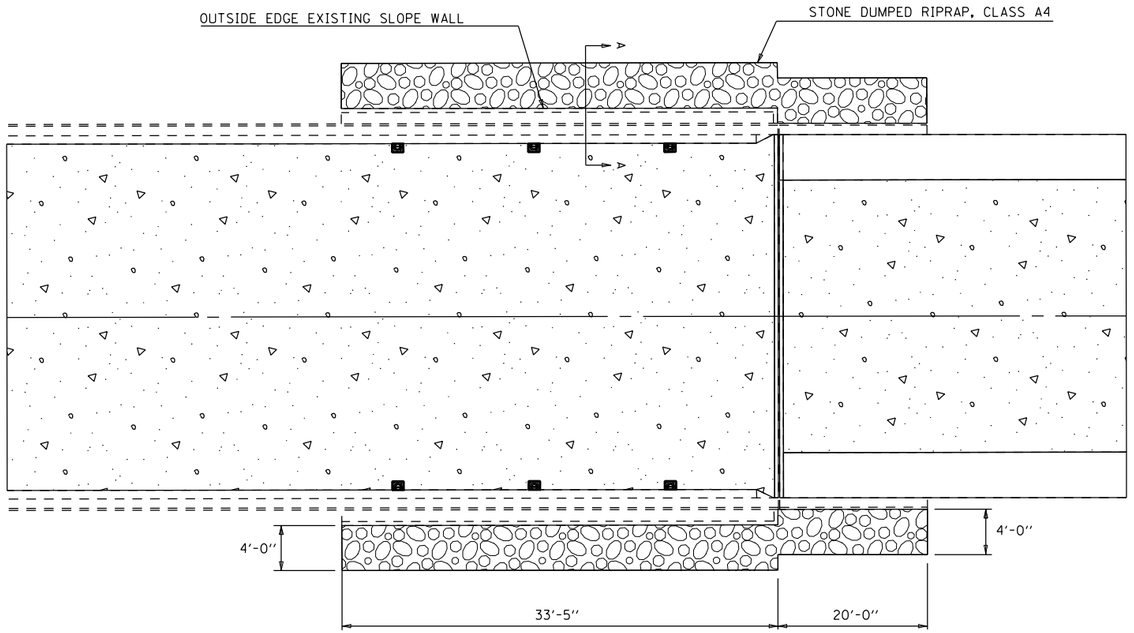
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PLOT DATE = 12/26/2019	DATE - 061819	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

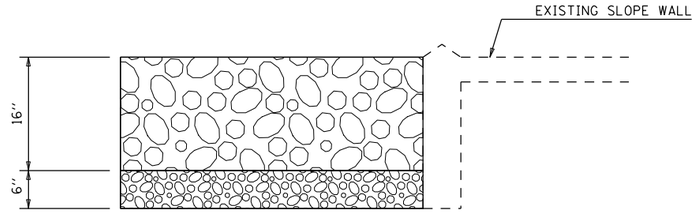
DETAIL HOT–MIX ASPHALT APPROACH PAVEMENT

SCALE: NONE | SHEET 20 OF 25 SHEETS | STA. | TO STA.

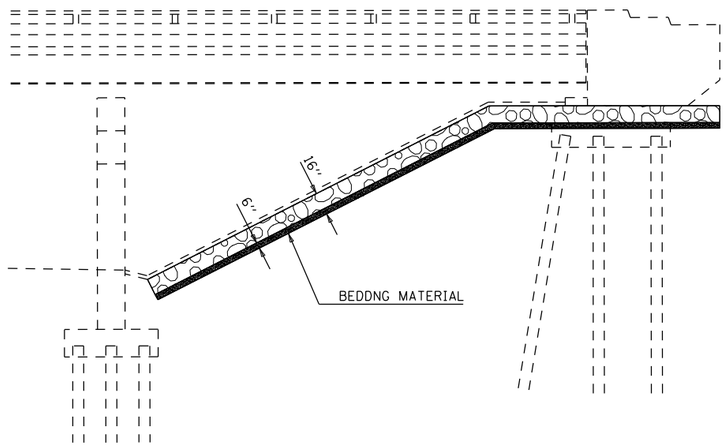
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	25
		CONTRACT NO. 70D63		
		ILLINOIS	FED. AID PROJECT	



PLAN AT ABUTMENT (TYPICAL)



SECTION A-A



ELEVATION AT ABUTMENT (TYPICAL)

BILL OF MATERIALS

ITEM	UNIT	TOTAL
STONE DUMPED RIPRAP, CLASS A4	SQ YD	96.0

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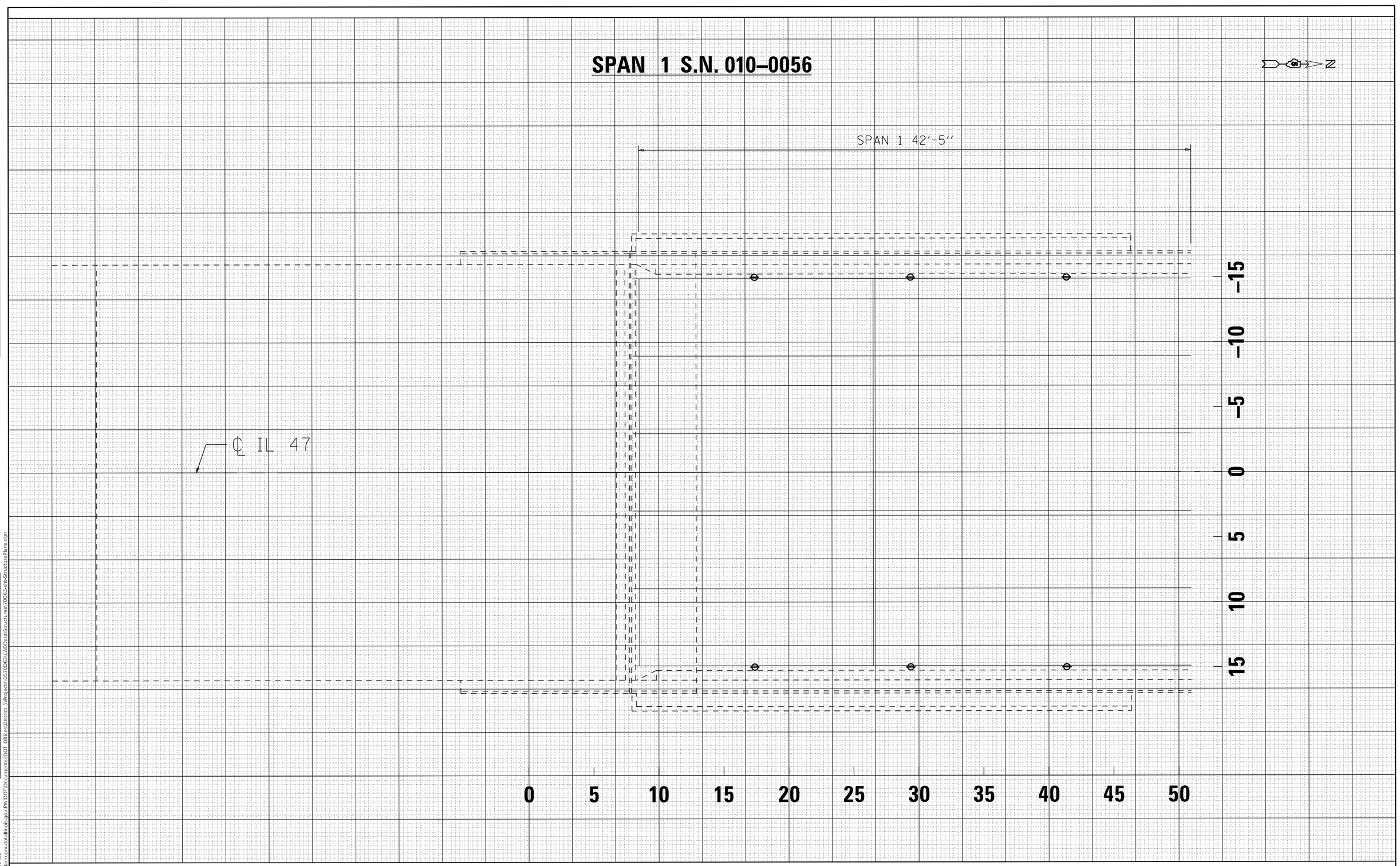
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL STONE DUMPED RIPRAP
S.N. 010-0056

SCALE: NONE | SHEET 21 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	26
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

SPAN 1 S.N. 010–0056



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

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

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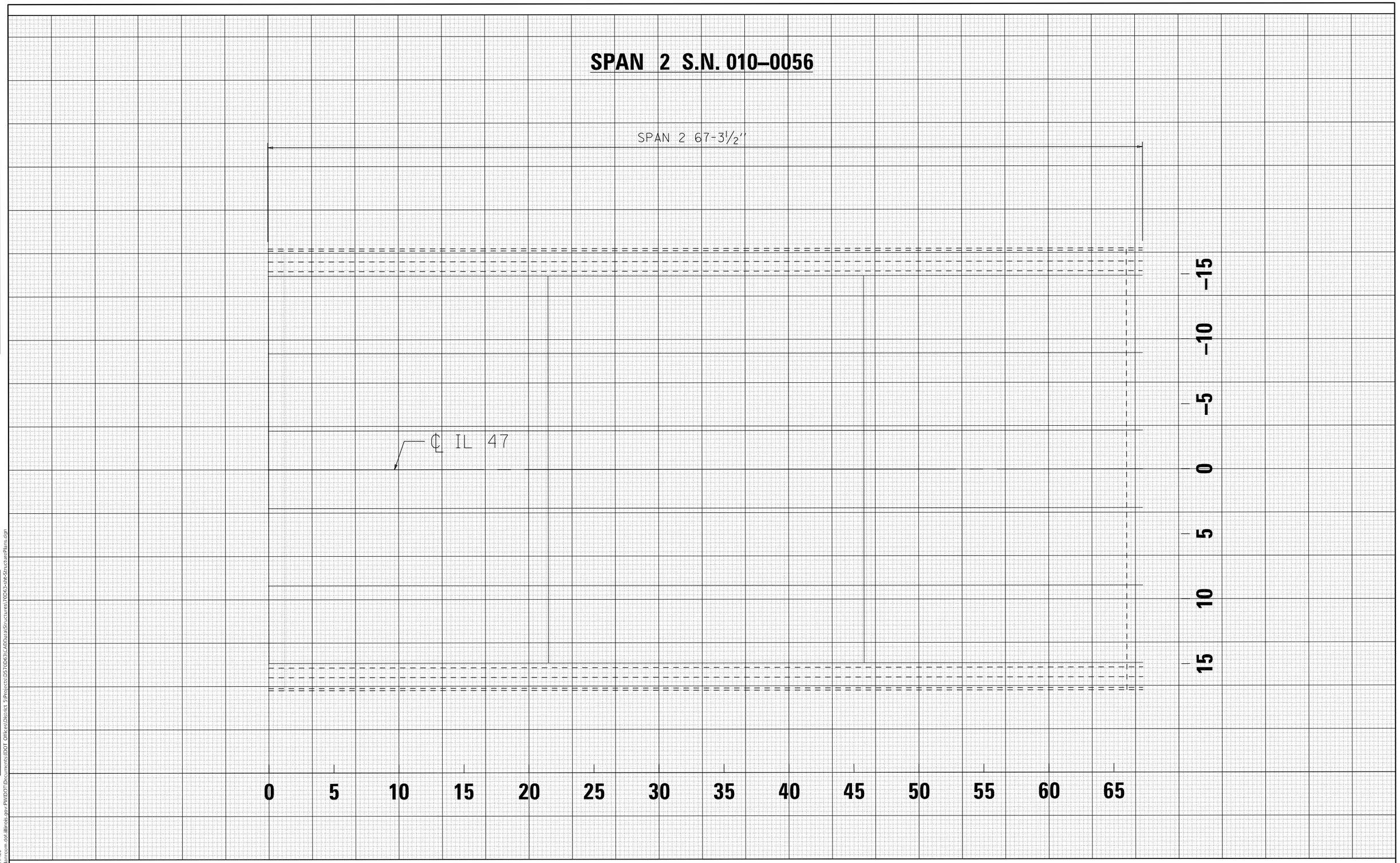
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS–BUILT DETAIL OF DECK SLAB REPAIR (FULL DEPTH)
S.N. 010–0056

SCALE: 6 | SHEET 22 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	27
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

SPAN 2 S.N. 010–0056



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

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

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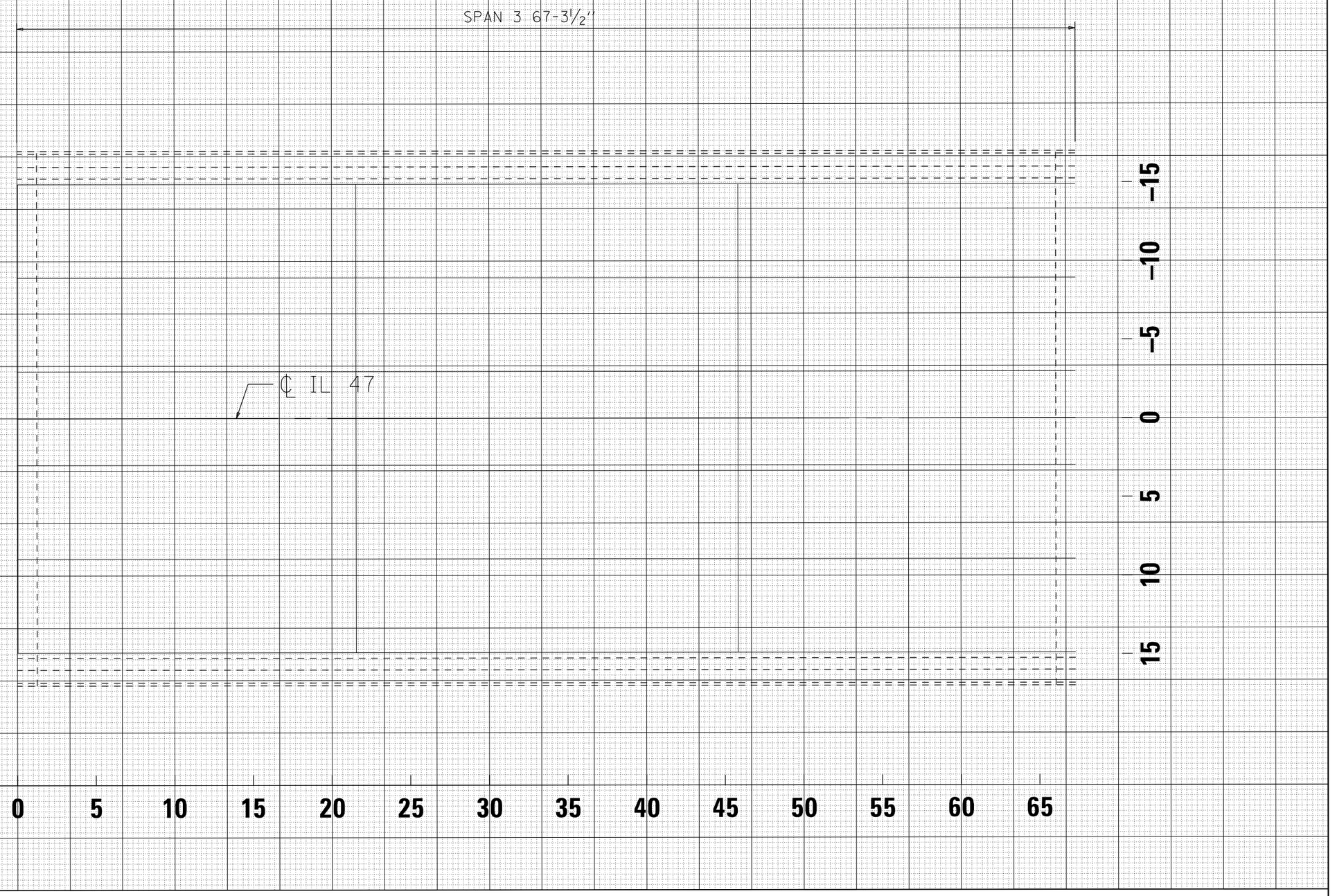
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PLOT DATE = 12/26/2019	DATE -	REVISED -	

AS–BUILT DETAIL OF DECK SLAB REPAIR (FULL DEPTH)
S.N. 010–0056

SCALE: 6 | SHEET 23 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	28
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

SPAN 3 S.N. 010–0056



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

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
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AREAS
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BY
DATE

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PLOT DATE = 12/26/2019	DATE -	REVISED -

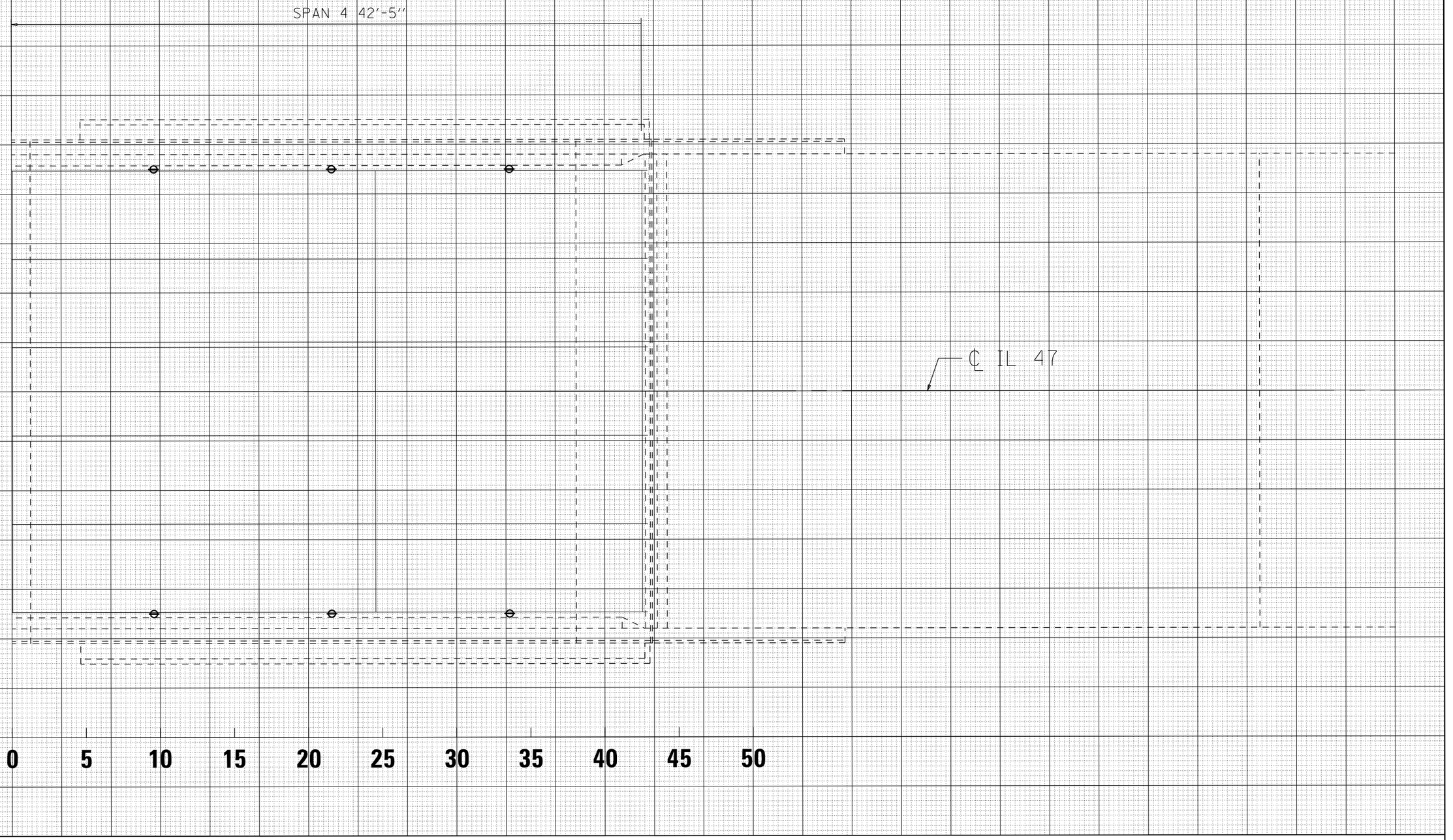
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS–BUILT DETAIL OF DECK SLAB REPAIR (FULL DEPTH)
S.N. 010–0056

SCALE: 6 | SHEET 24 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	29
		CONTRACT NO. 70D63		
		ILLINOIS	FED. AID PROJECT	

SPAN 4 S.N. 010–0056



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

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

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	DRAWN -	REVISED -
PLOT SCALE = 40.0360 ' / in.	CHECKED -	REVISED -
PLOT DATE = 12/26/2019	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS–BUILT DETAIL OF DECK SLAB REPAIR (FULL DEPTH)
S.N. 010–0056

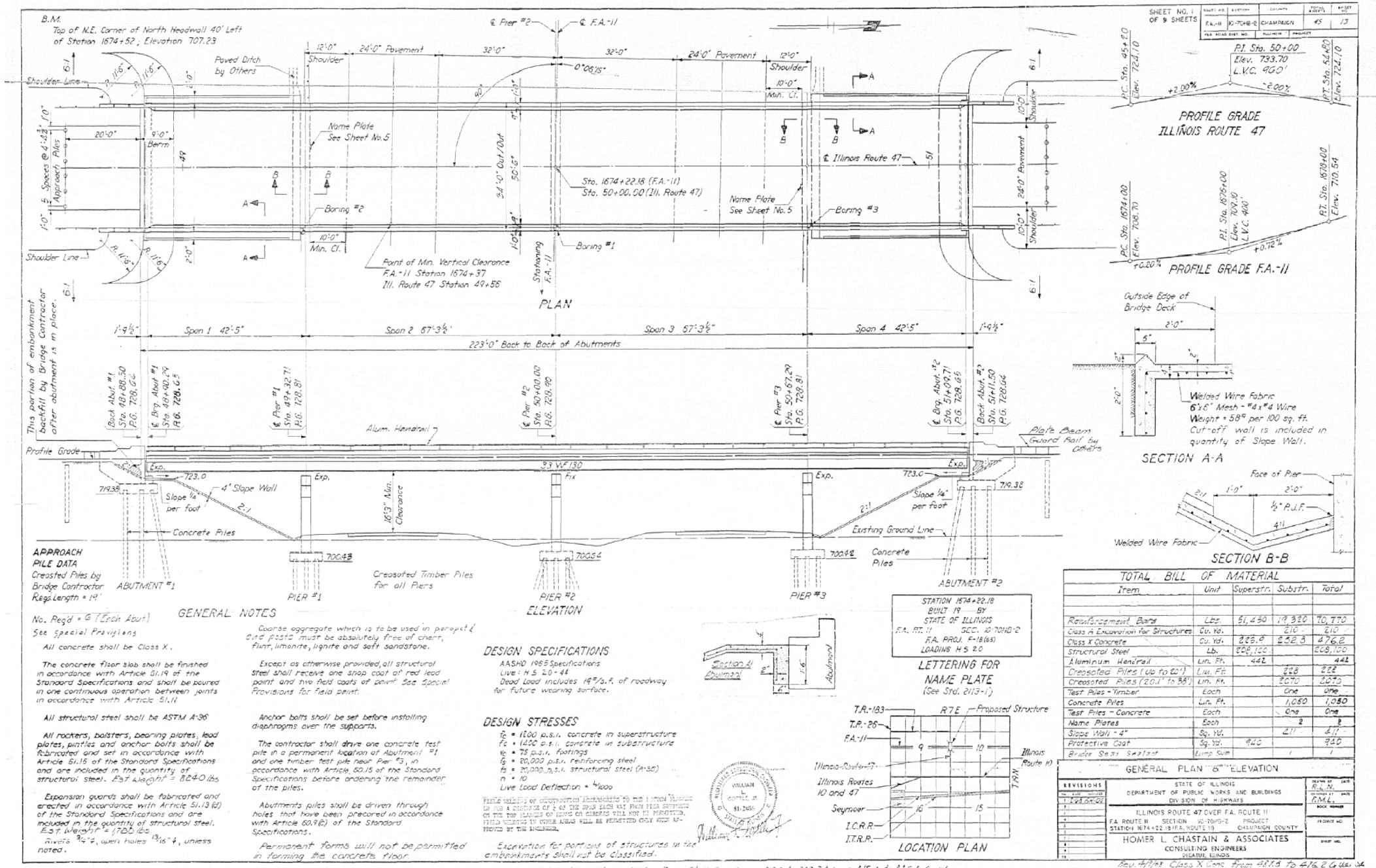
SCALE: 6 | SHEET 25 OF 25 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	30
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1 OF 9 SHEETS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.-11	10-70HB-2	CHAMPAIGN	45	13
FED. ROAD DIST. NO.		FED. AID PROJECT		

B.M.
Top of N.E. Corner of North Headwall 40' Left of Station 1674+52 ; Elevation 707.23



P.I. Sta. 50+00
Elev. 733.70
L.V.C. 900'
P.C. Sta. 45+50.0
Elev. 724.10
P.T. Sta. 54+00
Elev. 724.10
+2.00%
-2.00%
PROFILE GRADE ILLINOIS ROUTE 47

P.C. Sta. 1674+00
Elev. 708.70
P.I. Sta. 1675+00
Elev. 709.10
L.V.C. 400'
P.T. Sta. 1678+00
Elev. 710.54
+0.20%
+0.12%
PROFILE GRADE F.A.-11

SECTION A-A

SECTION B-B

APPROACH PILE DATA
Creosoted Piles by Bridge Contractor
Reqd. Length = 19'
No. Reqd = 6 (Each Abut.)
See Special Provisions

Creosoted Timber Piles for all Piers

GENERAL NOTES

All concrete shall be Class X.

The concrete floor slab shall be finished in accordance with Article 51.19 of the Standard Specifications and shall be poured in one continuous operation between joints in accordance with Article 51.11

All structural steel shall be ASTM A-36

All rockers, bolsters, bearing plates, lead plates, pintles and anchor bolts shall be fabricated and set in accordance with Article 51.15 of the Standard Specifications and are included in the quantity of structural steel. Est. Weight = 8240 lbs.

Expansion guards shall be fabricated and erected in accordance with Article 51.13(d) of the Standard Specifications and are included in the quantity of structural steel. Est. Weight = 1720 lbs.

Rivets ¾" ϕ, when holes 13/16" ϕ, unless noted.

Coarse aggregate which is to be used in parapet & end posts must be absolutely free of chert, flint, limonite, lignite and soft sandstone.

Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of paint. See Special Provisions for field paint.

Anchor bolts shall be set before installing diaphragms over the supports.

The contractor shall drive one concrete test pile in a permanent location of Abutment #1 and one timber test pile near Pier #3, in accordance with Article 50.15 of the Standard Specifications before ordering the remainder of the piles.

Abutments piles shall be driven through holes that have been precored in accordance with Article 50.9(2) of the Standard Specifications.

Permanent forms will not be permitted in forming the concrete floor.

DESIGN SPECIFICATIONS
AASHO 1965 Specifications
Live : H S 20-44
Dead Load includes 19#/s.f. of roadway for future wearing surface.

DESIGN STRESSES
f_c = 1200 p.s.i. concrete in superstructure
f_c = 1400 p.s.i. concrete in substructure
v_c = 75 p.s.i. footings
f_s = 20,000 p.s.i. reinforcing steel
f_s = 20,000 p.s.i. structural steel (A-36)
n = 10
Live Load Deflection = L/1000

FIELD WELDING OF CONSTRUCTION APPURTENANCES TO THE FLANGES OF THE A STRUCTURE OF 1 1/2 OR OVER EACH WAY FROM FIELD SPLICES OR THE FLANGES OF BEAMS OR GIRDERS WILL NOT BE PERMITTED. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

Excavation for portions of structures in the embankments shall not be classified.

STATION 1674+22.18
BUILT 19 BY
STATE OF ILLINOIS
F.A. RT. 11 SEC. 10-70HB-2
F.A. PROJ. F-18(65)
LOADING H S 20

LETTERING FOR NAME PLATE
(See Std. 2113-1)

LOCATION PLAN

TOTAL BILL OF MATERIAL

Item	Unit	Superstr.	Substr.	Total
Reinforcement Bars	Lbs.	51,430	19,320	70,770
Class A Excavation for Structures	Cu. Yd.		210	210
Class X Concrete	Cu. Yd.	223.9	252.3	476.2
Structural Steel	Lb.	208,100		208,100
Aluminum Handrail	Lin. Ft.	442		442
Creosoted Piles (Up to 60')	Lin. Ft.		228	228
Creosoted Piles (60.1' to 80')	Lin. Ft.		2070	2070
Test Piles - Timber	Each		One	One
Concrete Piles	Lin. Ft.		1,050	1,050
Test Piles - Concrete	Each		One	One
Name Plates	Each		2	2
Slope Wall - 4"	Sq. Yd.		211	211
Protective Coat	Sq. Yd.	940		940
Bridge Seat Septum	Lump Sum		1	1

GENERAL PLAN & ELEVATION

REVISIONS	STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	DESIGN BY / DATE
1 5-21-64 Cl.		R.M.L.
	ILLINOIS ROUTE 47 OVER F.A. ROUTE 11	DRAWN BY / DATE
	F.A. ROUTE 11 SECTION 10-70HB-2 PROJECT	ROCK HEIGHER
	STATION 1674+22.18 (F.A. ROUTE 11) CHAMPAIGN COUNTY	CHECKED BY
	HOMER L. CHASTAIN & ASSOCIATES CONSULTING ENGINEERS DECATUR, ILLINOIS	SHEET NO.

Rev. 4/7/65 Class X Conc. from 487.8 to 476.2 Cu. yds.

4-16-64 J.M.J. added bridge seat septum
Rev. Cl. X Con. from 212.7 to 232.7 ft from 415.4 to 435.8 Cu. yds.
Relaid Bars from 41,121 to 45,716 ℄ from 64,164 to 64,957 Lbs.; Slope Wall from 420 to 411 SY.

USER NAME = shererjm	DESIGNED - JMS	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**AS-BUILT PLANS S.N. 010-0056**	
	DRAWN -	REVISED -			
PLOT SCALE = 40.0360 ' / in.	CHECKED - JMS	REVISED -			
PLOT DATE = 12/26/2019	DATE - 061819	REVISED -		SCALE: NONE SHEET 1 OF 11 SHEETS STA. TO STA.	

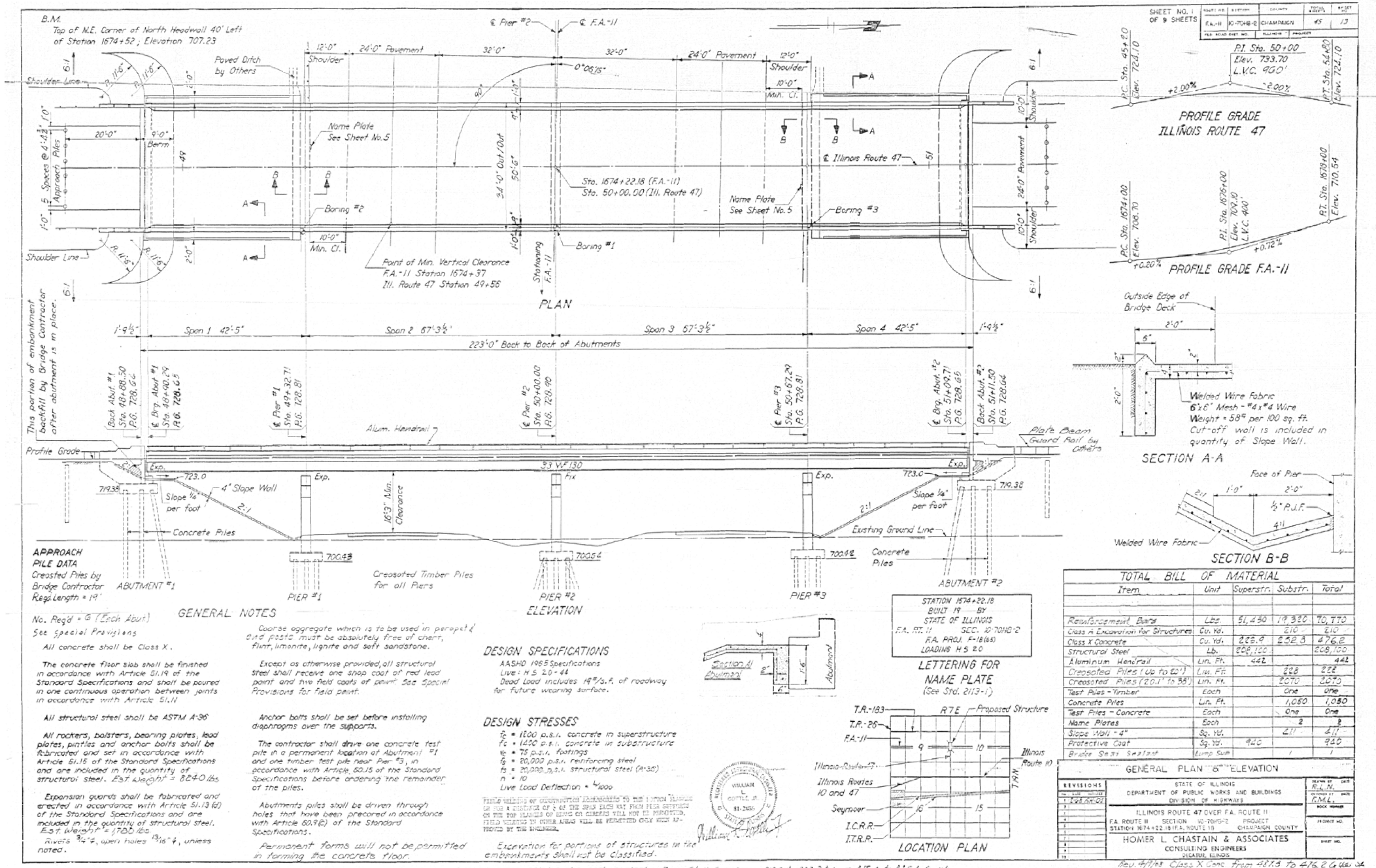
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	31
		CONTRACT NO. 70D63		
		ILLINOIS FED. AID PROJECT		

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SHEET NO. 1 OF 9 SHEETS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.-11	10-70HB-2	CHAMPAIGN	45	13
FED. ROAD DIST. NO.		FED. AID PROJECT		

B.M.
Top of N.E. Corner of North Headwall 40' Left of Station 1674+52 ; Elevation 707.23



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Elev. 733.70
L.V.C. 900'
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PROFILE GRADE ILLINOIS ROUTE 47

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PROFILE GRADE F.A.-11

SECTION A-A

SECTION B-B

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AASHO 1965 Specifications
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STATION 1674+22.18
BUILT 19 BY
STATE OF ILLINOIS
F.A. RT. 11 SEC. 10-70HB-2
F.A. PROJ. F-18(65)
LOADING H S 20

LETTERING FOR NAME PLATE
(See Std. 2113-1)

LOCATION PLAN

TOTAL BILL OF MATERIAL

Item	Unit	Superstr.	Substr.	Total
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Creosoted Piles (Up to 60')	Lin. Ft.		228	228
Creosoted Piles (60.1' to 80')	Lin. Ft.		2070	2070
Test Piles - Timber	Each		One	One
Concrete Piles	Lin. Ft.		1,050	1,050
Test Piles - Concrete	Each		One	One
Name Plates	Each		2	2
Slope Wall - 4"	Sq. Yd.		211	211
Protective Coat	Sq. Yd.	940		940
Bridge Seat Septum	Lump Sum		1	1

GENERAL PLAN & ELEVATION

REVISIONS	STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	DESIGN BY / DATE
1 5-21-64 Cl.		R.M.L.
	ILLINOIS ROUTE 47 OVER F.A. ROUTE 11	DRAWN BY / DATE
	F.A. ROUTE 11 SECTION 10-70HB-2 PROJECT	ROCK HEIGHER
	STATION 1674+22.18 (F.A. ROUTE 11) CHAMPAIGN COUNTY	CHECKED BY
	HOMER L. CHASTAIN & ASSOCIATES CONSULTING ENGINEERS DECATUR, ILLINOIS	SHEET NO.

Rev. 4/7/65 Class X Conc. from 487.8 to 476.2 Cu. yds.

4-16-64 J.M.J. added bridge seat septum
Rev. Cl. X Con. from 212.7 to 232.7 ft from 415.4 to 435.8 Cu. yds.
Relaid Bars from 41,121 to 45,716 ℄ from 64,164 to 64,957 Lbs.; Slope Wall from 420 to 411 SY.

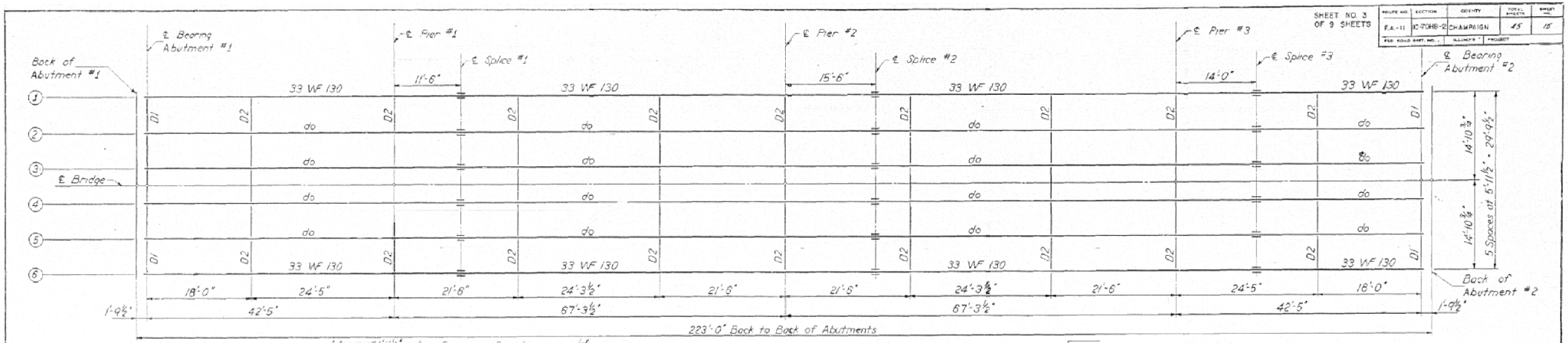
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PLOT SCALE = 40.0360 ' / in.	CHECKED - JMS	REVISED -			
PLOT DATE = 12/26/2019	DATE - 061819	REVISED -		SCALE: NONE SHEET 1 OF 11 SHEETS STA. TO STA.	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	31
		CONTRACT NO. 70D63		
		ILLINOIS FED. AID PROJECT		

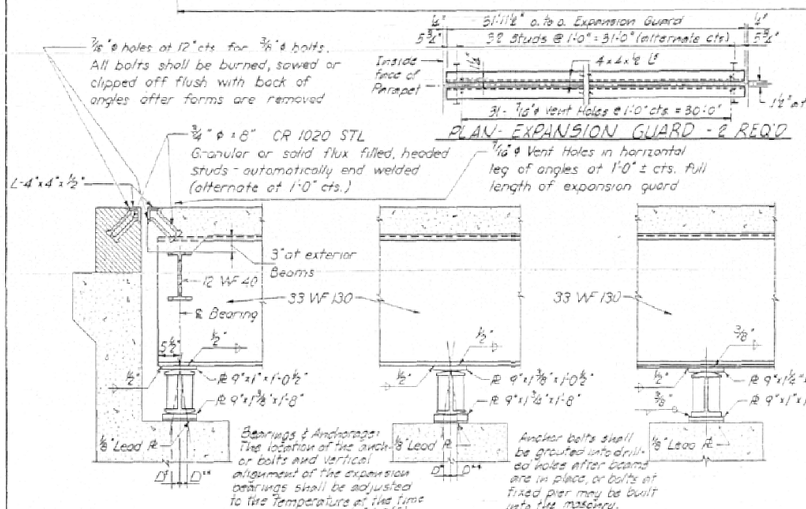
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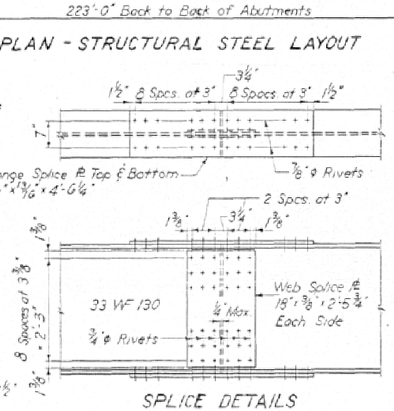
SHEET NO. 3 OF 9 SHEETS

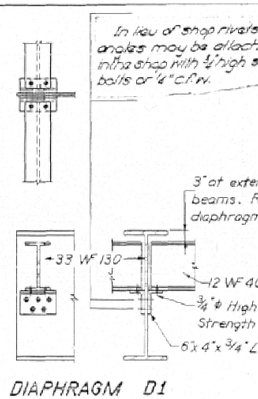
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F.A.-11	10-70HB-2	CHAMPAIGN	45	15
FED. ROAD DIST. NO. -	ILLINOIS	PROJECT		

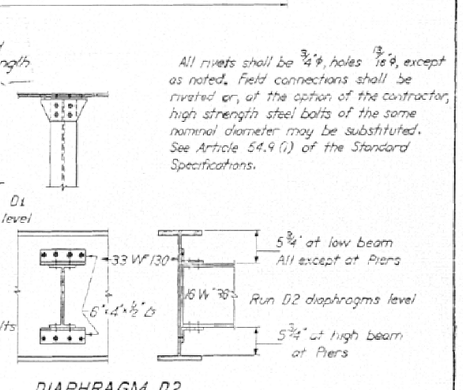


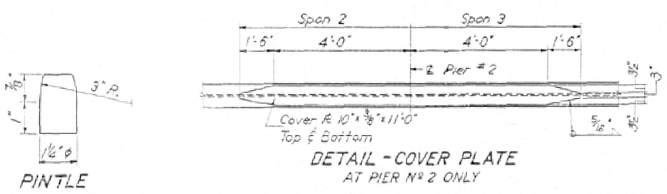
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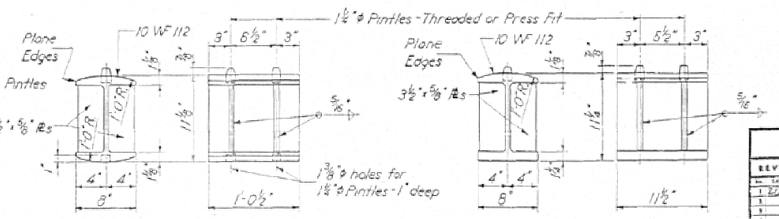




ELEVATION - TOP OF BEAMS *

LOCATION	BEAMS		
	1 ℄ 6	2 ℄ 5	3 ℄ 4
℄ Bearing Abut. #1	727.78	727.89	727.98
Pier #1	727.89	728.00	728.09
Splice #1	727.92	728.03	728.12
Pier #2	727.97	728.08	728.17
Splice #2	727.98	728.09	728.18
Pier #3	727.88	727.98	728.08
Splice #3	727.85	727.96	728.05
℄ Bearing Abut. #2	727.78	727.89	727.5.

*These elevations are theoretical top of WF elevations and are to be used for fabrication of structural steel. They do not include any allowance for deflection.



STRUCTURAL STEEL

REVISIONS			
No.	DATE	DETAILS	BY
1	8/23/19	ADD'L SHEETS	F.A.L.
2			
3			
4			
5			
6			
7			
8			
9			
10			

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

ILLINOIS ROUTE 47 OVER F.A. ROUTE 11
F.A. ROUTE 11 SECTION 10-70HB-2 PROJECT
STATION 167+22.18 (F.A. ROUTE 11) CHAMPAIGN COUNTY

HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

DESIGNED BY: F.A.L.
DRAWN BY: F.A.L.
CHECKED BY: F.A.L.
BOOK NUMBER
PROJECT NO.
SHEET NO.

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	DRAWN -	REVISED -	
PLOT SCALE = 40.0360 ' / in.	CHECKED - JMS	REVISED -	
PLOT DATE = 12/26/2019	DATE - 061819	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

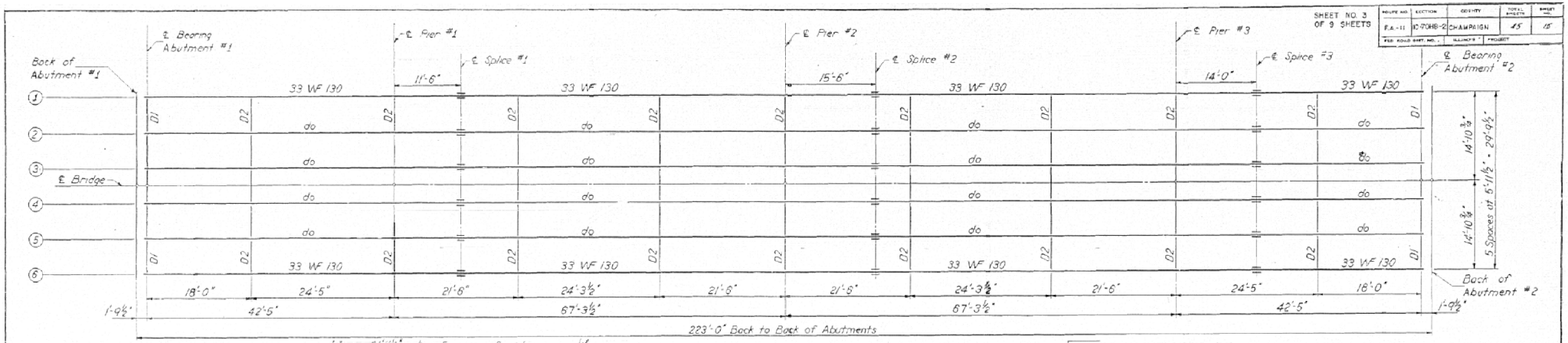
AS-BUILT PLANS
S.N. 010-0056

SCALE: NONE | SHEET 3 OF 11 SHEETS | STA. | TO STA.

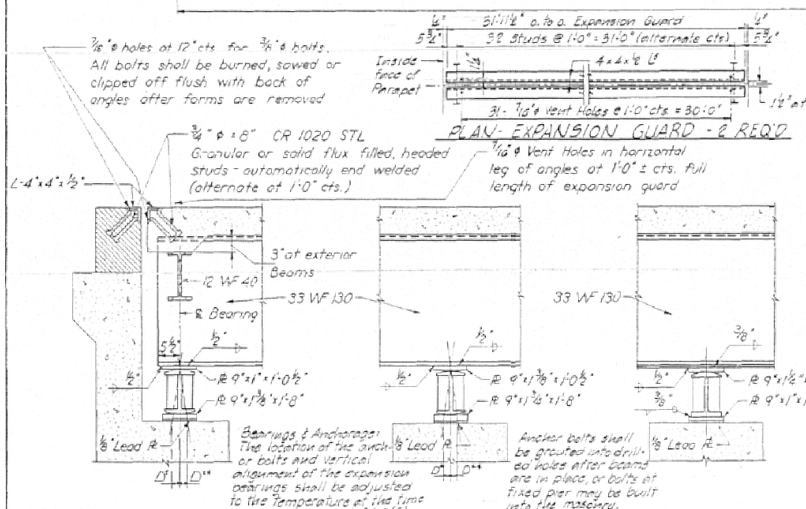
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	33
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	ILLINOIS FED. AID PROJECT			

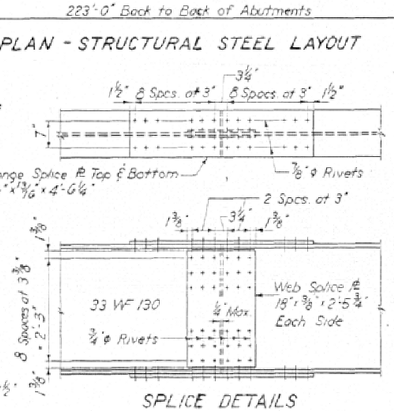
SHEET NO. 3 OF 9 SHEETS

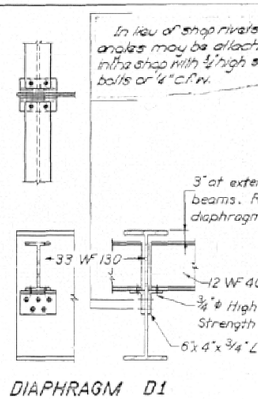
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.-11	10-70HB-2	CHAMPAIGN	45	15
FED. ROAD DIST. NO. -	ILLINOIS	PROJECT		

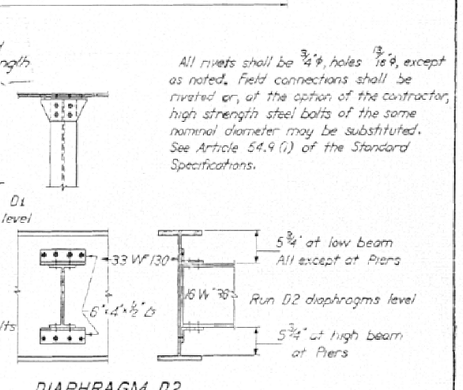


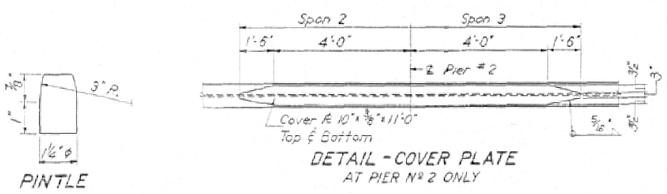
PLAN - STRUCTURAL STEEL LAYOUT







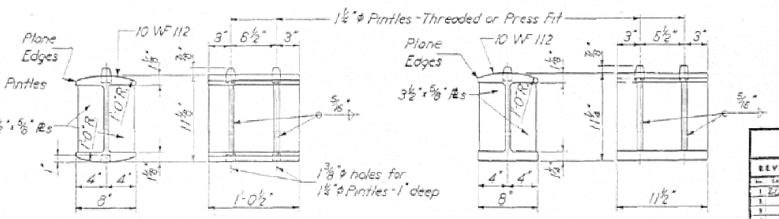




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STRUCTURAL STEEL

REVISIONS			
No.	DATE	DETAILS	BY
1	8/23/19	ADD'L SHEETS	F.A.L.
2			
3			
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7			
8			
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10			

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

ILLINOIS ROUTE 47 OVER F.A. ROUTE 11
F.A. ROUTE 11 SECTION 10-70HB-2 PROJECT
STATION 167+22.18 (F.A. ROUTE 11) CHAMPAIGN COUNTY

HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

DESIGNED BY: F.A.L.
DRAWN BY: F.A.L.
CHECKED BY: F.A.L.
BOOK NUMBER
PROJECT NO.
SHEET NO.

MODEL: SMODELNAMES
FILE NAME: pw:\planroom.dot.illinois.gov:PWIDOT\Documents\IDOT Offices\District 5\Projects\DS70D63\CADData\Structures\70D63-sht-StructurePlans.dgn

USER NAME = shererjm	DESIGNED - JMS	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0360 ' / in.	CHECKED - JMS	REVISED -	
PLOT DATE = 12/26/2019	DATE - 061819	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
S.N. 010-0056

SCALE: NONE | SHEET 3 OF 11 SHEETS | STA. | TO STA.

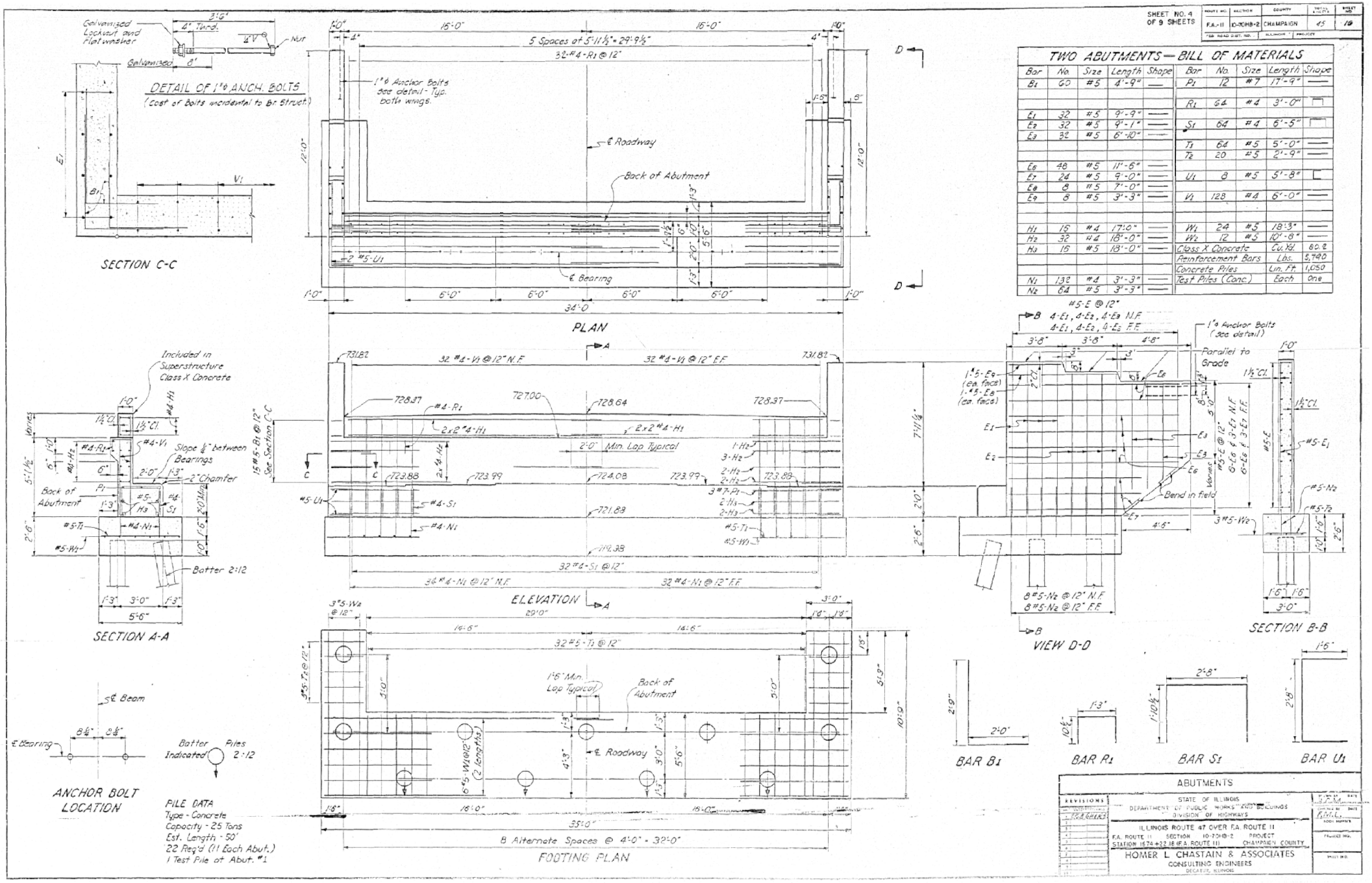
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	33
		CONTRACT NO. 70D63		
	ILLINOIS FED. AID PROJECT			

SHEET NO. 4 OF 9 SHEETS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.-11	10-70HB-2	CHAMPAIGN	45	19
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

TWO ABUTMENTS — BILL OF MATERIALS

Bar	No.	Size	Length	Shape	Bar	No.	Size	Length	Shape
B1	60	#5	4'-9"		P1	12	#7	17'-9"	
E1	32	#5	9'-9"		R1	64	#4	3'-0"	
E2	32	#5	9'-1"		S1	64	#4	6'-5"	
E3	32	#5	6'-10"		T1	64	#5	5'-0"	
E6	48	#5	11'-6"		T2	20	#5	2'-9"	
E7	24	#5	9'-0"		U1	8	#5	5'-8"	
E8	8	#5	7'-0"		V1	128	#4	6'-0"	
E9	8	#5	3'-3"		W1	24	#5	18'-3"	
H1	15	#4	17'-0"		W2	12	#5	10'-8"	
H2	32	#4	18'-0"		Class X Concrete			Cu. Yd.	60.2
H3	16	#5	18'-0"		Reinforcement Bars			Lbs.	5,790
N1	132	#4	3'-3"		Concrete Piles			Lin. Ft.	1,050
N2	64	#5	3'-3"		Test Piles (Conc.)			Each	One



ABUTMENTS

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

ILLINOIS ROUTE 47 OVER F.A. ROUTE 11
F.A. ROUTE 11 SECTION 10-70HB-2 PROJECT
STATION 1674+22.18 (F.A. ROUTE 11) CHAMPAIGN COUNTY

HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

DESIGNED BY F.M.L.

REVISIONS	DATE
1 T.S. & F. SHEETS	
2	
3	
4	
5	
6	
7	
8	

USER NAME = shererjm	DESIGNED - JMS	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0360 ' / in.	CHECKED - JMS	REVISED -
PLOT DATE = 12/26/2019	DATE - 061819	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
S.N. 010-0056

SCALE: NONE | SHEET 4 OF 11 SHEETS | STA. | TO STA.

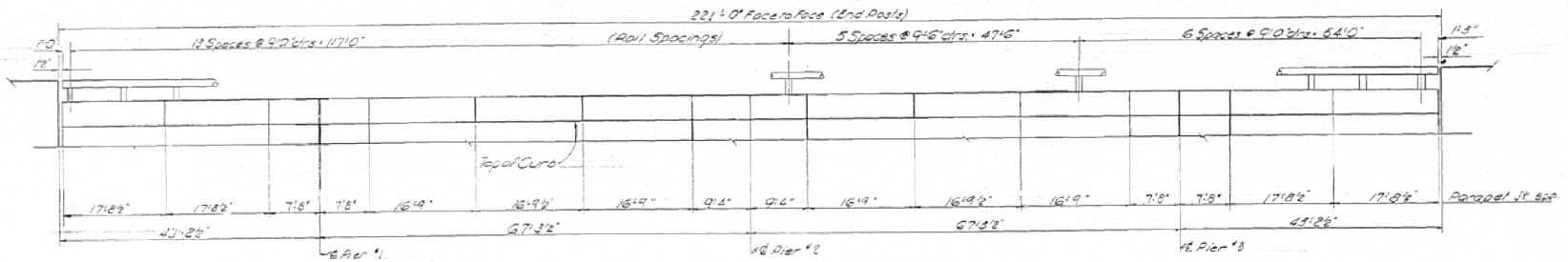
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	34
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

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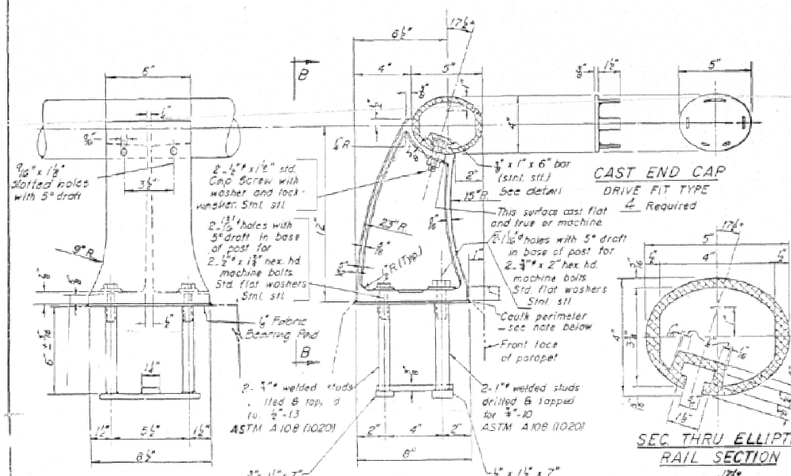
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

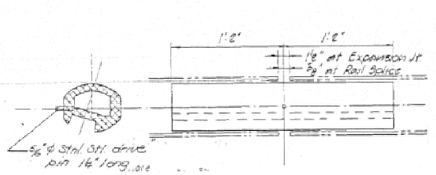
SECT. NO.	REGION	COUNTY	TOTAL SHEETS	SHEET NO.
A.A.I. 72	10-72	Champaign	44	18
F.A.I. 11	1968			
PROJ. RANGE SECT. NO.	TWP. NO.	RGE. OR PROJECT		

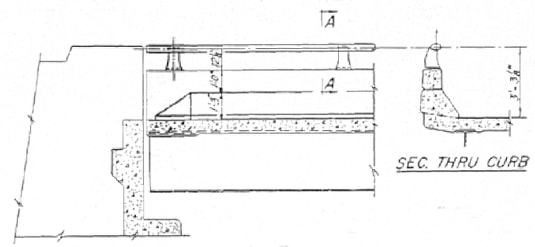
SHEET NO. 6
9 SHEETS



ELEVATION







NOTES

All Posts shall be normal to parapet.

All Aluminum Alloy Extruded Rail shall conform to ASTM specification B-221 alloy 6061-T6, and shall extend a minimum of 2 panel lengths (attached to minimum of 3 posts) except at ends or at open joints where a minimum of 1 panel length is required. All joints in railing must be spliced per detail.

See Special Provisions for following Material Specifications:

Cast Aluminum Alloy Bridge Post — Alloy A344-T4
Stainless Steel Bars, Caps, Screws, Washers and Lockwashers.
Fabric Bearing Pad

METHOD of MEASUREMENT: Aluminum handrail shall be measured in lineal feet. The length paid for shall be the over all length along the top longitudinal railing member thru all posts and gaps.

BASIS of PAYMENT: Aluminum handrail shall be paid for at the contract unit price per lineal foot for ALUMINUM HANDRAIL, measured as specified, which price shall be payment in full for all materials, fabrication, transportation, and erection.

Expansion rail splice, end caps, and hardware to be incidental to item ALUMINUM HANDRAIL.

Provide 1-½" and 2-⅛" Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade — high spots shall be ground, and low spots shimmed.

BILL OF MATERIAL

Item	Unit	Quantity
ALUMINUM HANDRAIL	Lin. Ft.	422

ALUMINUM HANDRAIL
F.A.R.T. 11 SEC. 10-72BR
CHAMPAIGN COUNTY
STA. 1674+22.18

DESIGNED	EXAMINED	19
CHECKED	PASSED	
DRAWN Wm. M. Best	APPROVED	
CHECKED		

Note:
Seal **perim**eter of base of post to **parapet with** two component non-staining gray sealing compound with **polysulfide** liquid polymers —gun **grade** with primer.

R-17 Dwn 5-28-64 Rev. 1-20-65
Bid Item: Zone

MODEL: SMODELNAMES
FILE NAME: pw:\planroom.dot.illinois.gov:PWIDOT\Documents\IDOT Offices\District 5\Projects\DS70D63\CADData\Structures\70D63-sht-StructurePlans.dgn

USER NAME = shererjm	DESIGNED - JMS	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0360 ' / in.	CHECKED - JMS	REVISED -
PLOT DATE = 12/26/2019	DATE - 061819	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

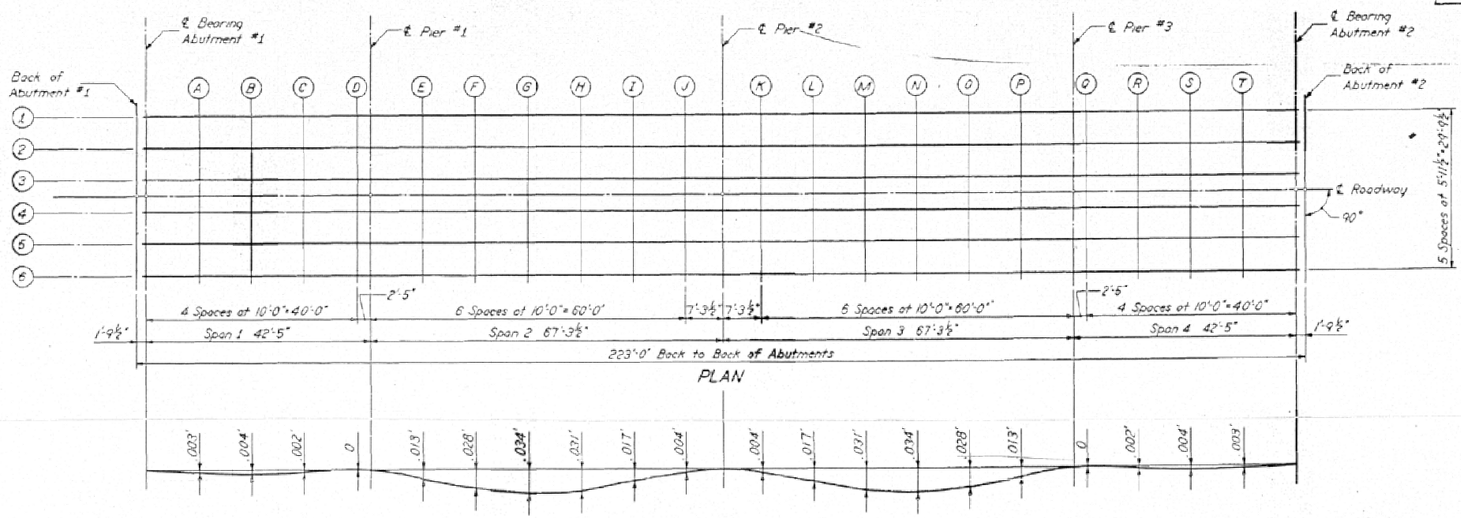
AS-BUILT PLANS
S.N. 010-0056

SCALE: NONE | SHEET 6 OF 11 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	36
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

SHEET NO. 7 OF 9 SHEETS

PROJECT NO.	MAT. TYPE	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 72	(10-70)B-2	CHAMPAIGN	45	19
I.D.H. PROJECT NO.				



DEAD LOAD DEFLECTION
(Excludes Weight of Structural Steel)

The above deflections are not for use in the field if the Engineer is working from the Theoretical Grade Elevations Adjusted for Dead Load Deflection

SPAN 1

LOCATION	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVS ADJUSTED FOR DEAD LOAD DEFLECTION
℄ BEARING ABUT #1	1	4890.290	14.895	728.402	728.402
	2	4890.290	8.937	728.510	728.510
	3	4890.290	2.979	728.603	728.603
	4	4890.290 -	2.979	728.603	728.603
	5	4890.290 -	8.937	728.510	728.510
	6	4890.290 -	14.895	728.402	728.402
LINE A	1	4900.290	14.895	728.445	728.448
	2	4900.290	8.937	728.553	728.556
	3	4900.290	2.979	728.646	728.649
	4	4900.290 -	2.979	728.646	728.649
	5	4900.290 -	8.937	728.553	728.556
	6	4900.290 -	14.896	728.445	728.448
LINE B	1	4910.290	14.895	728.485	728.489
	2	4910.290	8.937	728.593	728.597
	3	4910.290	2.979	728.686	728.690
	4	4910.290 -	2.979	728.686	728.690
	5	4910.290 -	8.937	728.593	728.597
	6	4910.290 -	14.895	728.485	728.489
LINE C	1	4920.290	14.895	728.520	728.522
	2	4920.290	8.937	728.628	728.630
	3	4920.290	2.979	728.721	728.723
	4	4920.290 -	2.979	728.721	728.723
	5	4920.290 -	8.937	728.628	728.630
	6	4920.290 -	14.895	728.520	728.522
LINE D	1	4930.290	14.895	728.551	728.551
	2	4930.290	8.937	728.659	728.659
	3	4930.290	2.979	728.752	728.753
	4	4930.290 -	2.979	728.752	728.753
	5	4930.290 -	8.937	728.659	728.660
	6	4930.290 -	14.895	728.551	728.551
℄ PIER #1	1	4932.707	14.895	728.558	728.558
	2	4932.707	8.937	728.666	728.666
	3	4932.707	2.979	728.759	728.759
	4	4932.707 -	2.979	728.759	728.759
	5	4932.707 -	8.937	728.666	728.666
	6	4932.707 -	14.895	728.558	728.558

SPAN 2

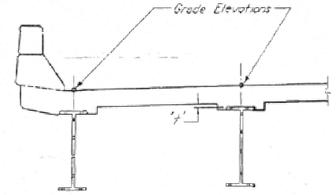
LOCATION	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVS ADJUSTED FOR DEAD LOAD DEFLECTION
LINE E	1	4942.707	14.895	728.544	728.597
	2	4942.707	8.937	728.652	728.705
	3	4942.707	2.979	728.745	728.798
	4	4942.707 -	2.979	728.745	728.798
	5	4942.707 -	8.937	728.652	728.705
	6	4942.707 -	14.896	728.544	728.597
LINE F	1	4952.707	14.895	728.606	728.684
	2	4952.707	8.937	728.714	728.742
	3	4952.707	2.979	728.807	728.835
	4	4952.707 -	2.979	728.807	728.835
	5	4952.707 -	8.937	728.714	728.742
	6	4952.707 -	14.895	728.606	728.634
LINE G	1	4962.707	14.895	728.623	728.657
	2	4962.707	8.937	728.731	728.765
	3	4962.707	2.979	728.824	728.858
	4	4962.707 -	2.979	728.824	728.858
	5	4962.707 -	8.937	728.731	728.765
	6	4962.707 -	14.895	728.623	728.657
LINE H	1	4972.707	14.895	728.637	728.668
	2	4972.707	8.937	728.745	728.776
	3	4972.707	2.979	728.838	728.869
	4	4972.707 -	2.979	728.838	728.869
	5	4972.707 -	8.937	728.745	728.776
	6	4972.707 -	14.895	728.637	728.668
LINE I	1	4982.707	14.895	728.649	728.679
	2	4982.707	8.937	728.754	728.784
	3	4982.707	2.979	728.847	728.877
	4	4982.707 -	2.979	728.847	728.877
	5	4982.707 -	8.937	728.754	728.784
	6	4982.707 -	14.895	728.648	728.678
LINE J	1	4992.707	14.895	728.658	728.688
	2	4992.707	8.937	728.766	728.796
	3	4992.707	2.979	728.858	728.888
	4	4992.707 -	2.979	728.858	728.888
	5	4992.707 -	8.937	728.766	728.796
	6	4992.707 -	14.895	728.658	728.688
℄ PIER #2	1	4999.998	14.895	728.652	728.682
	2	4999.998	8.937	728.760	728.790
	3	4999.998	2.979	728.853	728.883
	4	4999.998 -	2.979	728.853	728.883
	5	4999.998 -	8.937	728.760	728.790
	6	4999.998 -	14.895	728.652	728.682

SPAN 3

LOCATION	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVS ADJUSTED FOR DEAD LOAD DEFLECTION
LINE K	1	5007.293	14.895	728.651	728.555
	2	5007.293	8.937	728.758	728.763
	3	5007.293	2.979	728.852	728.856
	4	5007.293 -	2.979	728.852	728.856
	5	5007.293 -	8.937	728.758	728.763
	6	5007.293 -	14.895	728.651	728.655
LINE L	1	5017.293	14.895	728.646	728.663
	2	5017.293	8.937	728.754	728.771
	3	5017.293	2.979	728.847	728.864
	4	5017.293 -	2.979	728.847	728.864
	5	5017.293 -	8.937	728.754	728.771
	6	5017.293 -	14.895	728.646	728.663
LINE M	1	5027.293	14.895	728.637	728.668
	2	5027.293	8.937	728.745	728.776
	3	5027.293	2.979	728.838	728.869
	4	5027.293 -	2.979	728.838	728.869
	5	5027.293 -	8.937	728.745	728.776
	6	5027.293 -	14.895	728.637	728.668
LINE N	1	5037.293	14.895	728.623	728.657
	2	5037.293	8.937	728.731	728.765
	3	5037.293	2.979	728.824	728.858
	4	5037.293 -	2.979	728.824	728.858
	5	5037.293 -	8.937	728.731	728.765
	6	5037.293 -	14.895	728.623	728.657
LINE O	1	5047.293	14.895	728.606	728.634
	2	5047.293	8.937	728.714	728.742
	3	5047.293	2.979	728.807	728.835
	4	5047.293 -	2.979	728.807	728.835
	5	5047.293 -	8.937	728.714	728.742
	6	5047.293 -	14.895	728.606	728.634
LINE P	1	5057.293	14.895	728.564	728.597
	2	5057.293	8.937	728.692	728.705
	3	5057.293	2.979	728.785	728.798
	4	5057.293 -	2.979	728.785	728.798
	5	5057.293 -	8.937	728.692	728.705
	6	5057.293 -	14.895	728.564	728.597
℄ PIER #3	1	5067.293	14.895	728.556	728.558
	2	5067.293	8.937	728.664	728.666
	3	5067.293	2.979	728.759	728.759
	4	5067.293 -	2.979	728.759	728.759
	5	5067.293 -	8.937	728.664	728.666
	6	5067.293 -	14.895	728.556	728.558

SPAN 4

LOCATION	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVS ADJUSTED FOR DEAD LOAD DEFLECTION
LINE Q	1	5069.706	14.895	728.551	728.551
	2	5069.706	8.937	728.659	728.660
	3	5069.706	2.979	728.752	728.753
	4	5069.706 -	2.979	728.752	728.753
	5	5069.706 -	8.937	728.659	728.660
	6	5069.706 -	14.896	728.551	728.551
LINE R	1	5075.706	14.895	728.520	728.522
	2	5075.706	8.937	728.628	728.630
	3	5075.706	2.979	728.721	728.723
	4	5075.706 -	2.979	728.721	728.723
	5	5075.706 -	8.937	728.628	728.630
	6	5075.706 -	14.895	728.520	728.522
LINE S	1	5085.706	14.895	728.485	728.489
	2	5085.706	8.937	728.593	728.597
	3	5085.706	2.979	728.686	728.690
	4	5085.706 -	2.979	728.686	728.690
	5	5085.706 -	8.937	728.593	728.597
	6	5085.706 -	14.895	728.485	728.489
LINE T	1	5099.706	14.895	728.443	728.448
	2	5099.706	8.937	728.553	728.556
	3	5099.706	2.979	728.646	728.649
	4	5099.706 -	2.979	728.646	728.649
	5	5099.706 -	8.937	728.553	728.556
	6	5099.706 -	14.895	728.440	728.443
℄ BEARING ABUT #2	1	5109.706	14.895	728.400	728.402
	2	5109.706	8.937	728.510	728.510
	3	5109.706	2.979	728.603	728.603
	4	5109.706 -	2.979	728.603	728.603
	5	5109.706 -	8.937	728.510	728.510
	6	5109.706 -	14.895	728.402	728.402



To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown, minus slab thickness, equals the Fillet Heights "f" above top flange of beams.

DECK ELEVATIONS

REVISIONS	STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	PLANS PREPARED BY
		CHECKED BY
	F.A. ROUTE 11 SECTION (10-70)B-2 PROJECT	PROJECT NO.
	STATION 167+22.18 (F.A. ROUTE 11) CHAMPAIGN COUNTY	SHEET NO.
	HOMER L. CHASTAIN & ASSOCIATES CONSULTING ENGINEERS DECATUR, ILLINOIS	

MODEL: SMODELNAMES
FILE NAME: pw:\planroom.dot.illinois.gov:PWDOTDocuments\IDOT Offices\District 5\Projects\DS70D63\CADDataStructures\70D63-sht-StructurePlans.dgn

USER NAME = shererjm	DESIGNED - JMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	AS–BUILT PLANS S.N. 010–0056
	DRAWN -	REVISED -		
PLOT SCALE = 40.0360 ' / in.	CHECKED - JMS	REVISED -		SCALE: NONE SHEET 7 OF 11 SHEETS STA. TO STA.
PLOT DATE = 12/26/2019	DATE - 061819	REVISED -		

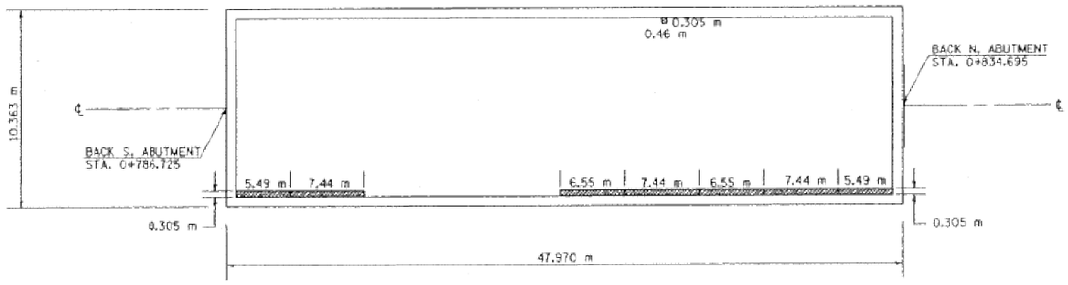
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	37
		CONTRACT NO. 70D63		
	ILLINOIS FED. AID PROJECT			

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	CHAMPAIGN	409	129

* FAP 326 & FAS 532
** (38RS-4, 13TRS-1 & 5RS-3

STRUCTURE NO. 010-0056
IL 47 SOUTH OF MAHOMET
OVER I-72

PROPOSED BRIDGE DECK SLAB REPAIR



FULL DEPTH

PROTECTIVE SHIELD WILL BE USED BETWEEN BEAMS 1 & 2, AND BETWEEN BEAMS 5 & 6. THE PROTECTIVE SHIELD WILL BE USED TO PROTECT I-72 EAST & WESTBOUND LANES.

NOTE: LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.

SURVEY DATES 7-26-2000

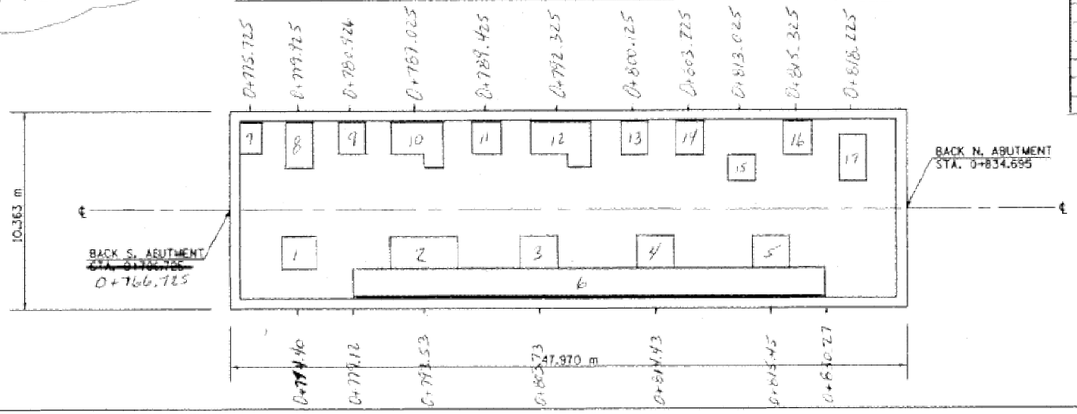
ALL PATCHES SHOWN ARE PARTIAL DEPTH.

THE ONLY FULL DEPTH PATCHES PLACED WERE @ THE DECK DRAIN LOCATIONS SHOWN ON PLAN SHEET # 131.

NOTE: PATCH LOCATIONS NOT TO SCALE ALTHOUGH STATIONS & DIMENSIONS ARE CORRECT

STRUCTURE NO. 010-0056
IL 47 SOUTH OF MAHOMET
OVER I-72

AS BUILT BRIDGE DECK SLAB REPAIR



PATCH #	SIZE (METERS)
1	0.33 x 0.40
2	0.61 x 0.82
3	2.61 x 0.48
4	0.43 x 0.44
5	0.61 x 0.58
6	51.13 x 0.30
7	0.3 x 0.25
8	0.35 x 0.57
9	0.4 x 0.3
10	(.10 x 0.3) + (.21 x 0.43)
11	0.3 x 0.3
12	(1.0 x 0.3) + (0.5 x 0.43)
13	0.3 x 1.09
14	0.32 x 0.30
15	0.32 x 0.53
16	0.50 x 0.69
17	0.49 x 0.57

THE ENGINEER SHOULD MARK THE ACTUAL REPAIR LOCATIONS IN THE AS BUILT PLANS.

AS BUILT

PARTIAL DEPTH

FULL DEPTH

MODEL: $MODELNAME$
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	DRAWN -	REVISED -
PLOT SCALE = 40.0360 ' / in.	CHECKED - JMS	REVISED -
PLOT DATE = 12/26/2019	DATE - 061819	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
S.N. 010-0056

SCALE: NONE | SHEET 8 OF 11 SHEETS | STA. | TO STA.

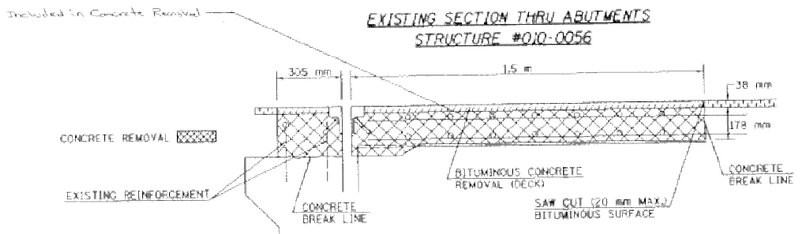
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	38
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

DETAILS FOR STRUCTURE #010-0056

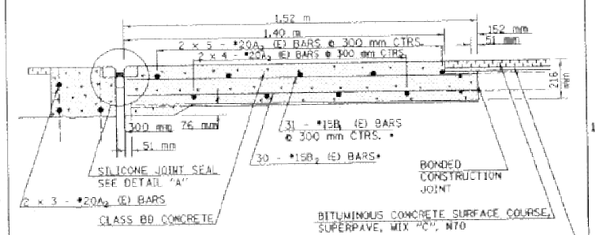
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	CHAMPAIGN	4-09	1-30

* FAP 326 & FAS 332
** 136RS-4, 137RS-1 & 58S-3

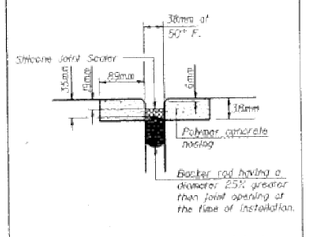
EXISTING SECTION THRU ABUTMENTS STRUCTURE #010-0056



PROPOSED SECTION THRU ABUTMENTS STRUCTURE #010-0056

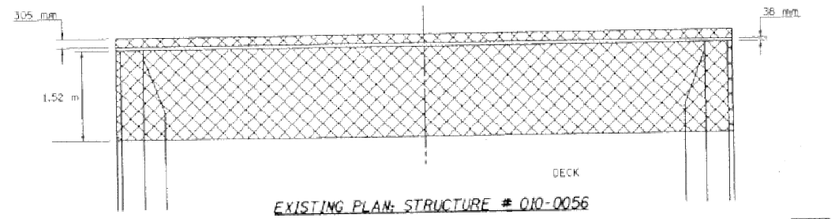


* NOTE: LAP NEW BARS WITH EXISTING BARS. PROVIDE ADEQUATE LAP (MIN. 510 mm).



SILICONE JOINT SEAL DETAIL DETAIL "A"

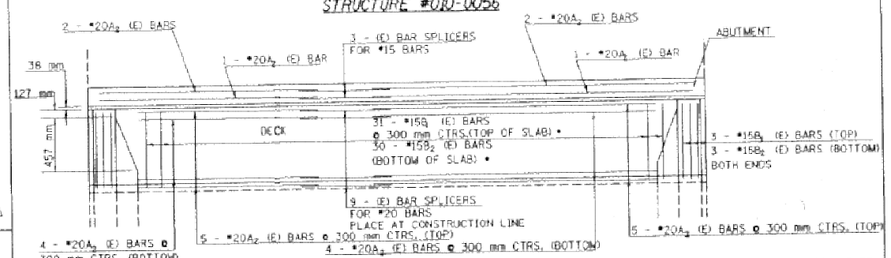
CONCRETE REMOVAL STRUCTURE #010-0056



EXISTING PLAN: STRUCTURE # 010-0056

CONCRETE REMOVAL

BAR PLACEMENT DETAIL STRUCTURE #010-0056



PROPOSED PLAN: STRUCTURE # 010-0056

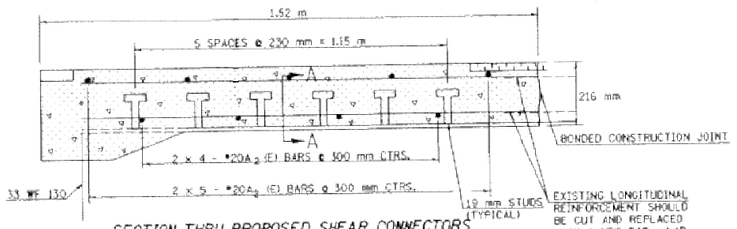
* NOTE : LAP NEW BARS WITH EXISTING BARS PROVIDE ADEQUATE LAP (MIN. 510 mm)

BILL OF MATERIALS STRUCTURE * 010-0056

BAR	NO.	SIZE	LENGTH	SHAPE
A_2	48	#20	4.953	
A_3	12	#20	1.219	
B_1	74	#15	1.398	
B_2	72	#15	1.398	
B_4	8	#30	1.398	
B_5	8	#15	1.398	
D_1	12	#15	1.016	
D_2	24	#15	0.686	
D_3	12	#15	1.168	
E_1	16	#15	1.398	

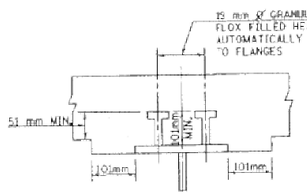
REINFORCEMENT BARS (E)	KG.	1100
CONCRETE SUPERSTRUCTURE	CU.M.	13.6
BAR SPLICERS	EA.	24

STUD SHEAR CONNECTORS STRUCTURE #010-0056

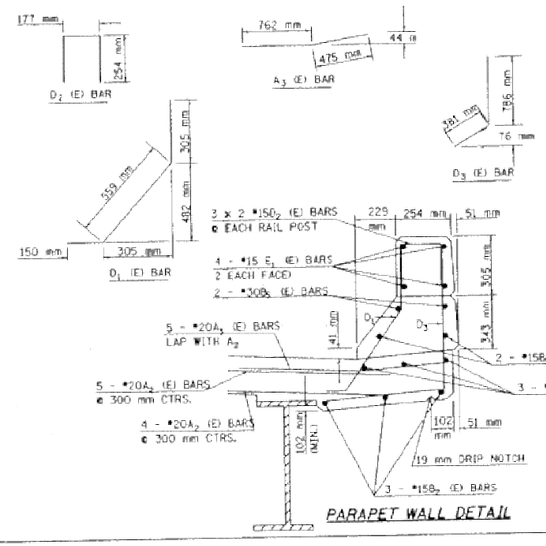


SECTION THRU PROPOSED SHEAR CONNECTORS

NOTE: TO BE USED ON APPROACH END OF STRUCTURES ONLY



SECTION A-A



PARAPET WALL DETAIL

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	DRAWN -	REVISED -	
PLOT SCALE = 40.0360 ' / in.	CHECKED - JMS	REVISED -	
PLOT DATE = 12/26/2019	DATE - 061819	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
S.N. 010-0056

SCALE: NONE | SHEET 9 OF 11 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	39
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

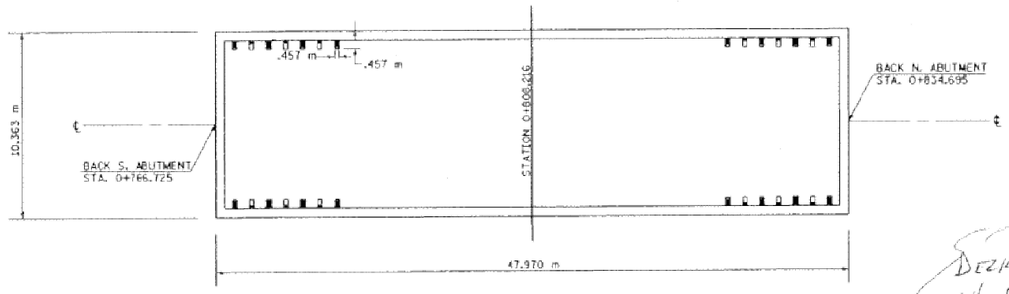
DATES

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	CHAMPAIGN	409	131

* FAP 326 & FAS 532
** 136RS-4, 151RS-1 & 5RS-3

STRUCTURE NO. 010-0056
IL 47 SOUTH OF MAHOMET
OVER I-72

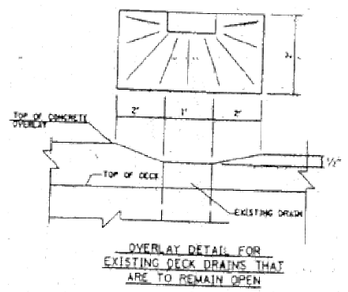
DECK DRAIN REHABILITATION



DECK DRAINS REMOVED AND REPLACED W/ FULL DEPTH PATCHES PER THIS DETAIL

AREAS OF FULL DEPTH PATCHING ARE AT EACH DECK DRAIN AND AS SHOWN ON THE PLAN VIEW OF THE DECK. THE EXACT SIZE AND LOCATION OF THE PATCHES SHALL BE DETERMINED BY THE ENGINEER. THE DECK DRAINS NEAR THE END OF THE DECK ARE TO BE REMOVED, THEN EVERY OTHER DRAIN WORKING TOWARD THE CENTER OF THE BRIDGE IS TO BE REMOVED. THE REMOVAL OF THE EXISTING DRAINS WILL NOT BE PAID FOR SEPERATELY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR FULL DEPTH PATCHING.

PROTECTIVE SHIELD WILL BE USED BETWEEN BEAMS 1 & 2, AND BETWEEN BEAMS 5 & 6. THE PROTECTIVE SHIELD WILL BE USED TO PROTECT I-72 EAST & WESTBOUND LANES.

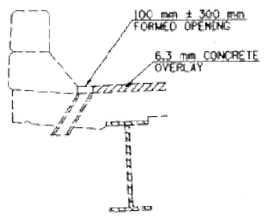


OVERLAY DETAIL FOR EXISTING DECK DRAINS THAT ARE TO REMAIN OPEN

X = DENOTES DECK DRAIN ELIMIATION LOCATIONS

= 0.209 m² PER FULL DEPTH PATCH

DRAIN BUILD-UP DETAIL



SECTION AT DRAIN

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FILE NAME: pw:\\plantroom.dot.illinois.gov:PWIDOTDocuments\IDOT Offices\District 5\Projects\D570D63\CADData\Structures\70D63-sht-StructurePlans.dgn

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	DRAWN -	REVISED -	
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PLOT DATE = 12/26/2019	DATE - 061819	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
S.N. 010-0056

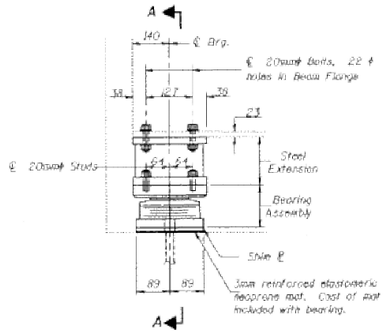
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		

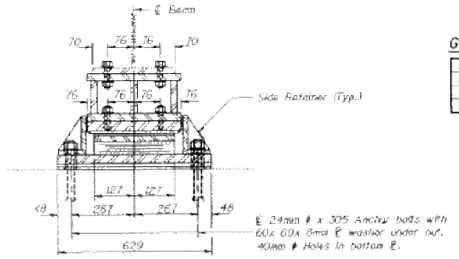
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	CHAMPAIGN	469	132

* FAP 326 & FAS 532
** 13RS-4, 13TRS-1 & 5RS-3

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION AT ABUTMENT

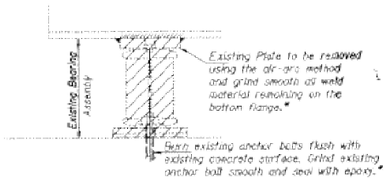


SECTION A-A

GIRDER REACTIONS

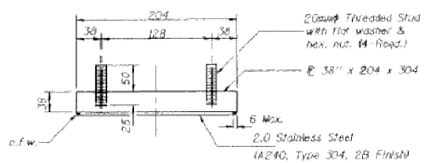
RA	(K)	14
RA	(K)	29
Imp.	(K)	8.7
R (Total)	(K)	51.7

EXISTING BEARING REMOVAL DETAIL

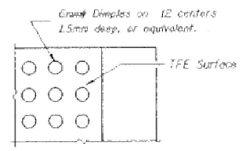


Cost is included with "Jack and Remove Existing Bearings".

TYPE II TFE ELASTOMERIC EXP. BRG.



TOP BEARING ASSEMBLY

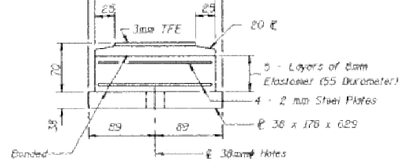


PLAN-TFE SURFACE

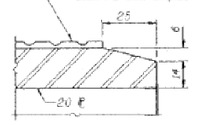
Notes: Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost shall be included with Furnishing and Erecting Structural Steel.
New steel extensions, side retainers, shim ℄'s, connection bolts, and anchor bolts are included with Furnishing and Erecting Structural Steel.
See Sheet\93 of Aw\for Anchor Bolt Installation.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
Min. jack capacity = 27.2 M. Tons.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	12
Jack And Remove Existing Bearings	Each	12



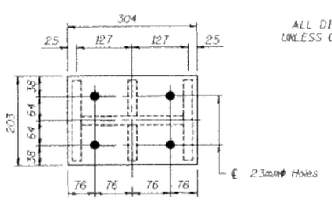
BOTTOM BEARING ASSEMBLY



SECTION THRU TFE

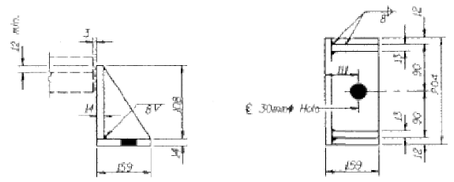
Note: The 3mm TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 3mm TFE sheet during galvanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



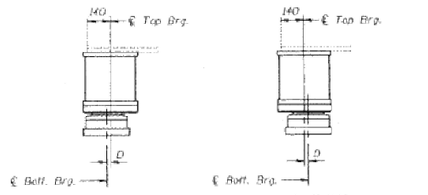
PLAN TOP AND BOTTOM PLATE

ALL DIMENSIONS IN MM UNLESS OTHERWISE SHOWN



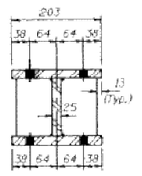
SIDE RETAINER

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

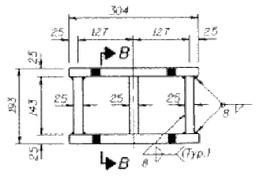


SETTING ANCHOR BOLTS AT EXP. BRG.

D= 1mm per each 10M of expansion for every 6° temp. change from the normal temp. of 10°C.



SECTION B-B



STEEL EXTENSION DETAIL

DESIGNED		20
CHECKED	EXAMINED	
DRAWN	PASSED	
CHECKED		

TYII/REPS 01-27-2000

ABUTMENTS
S.N. 010-0056

MODEL: $MODELNAME$
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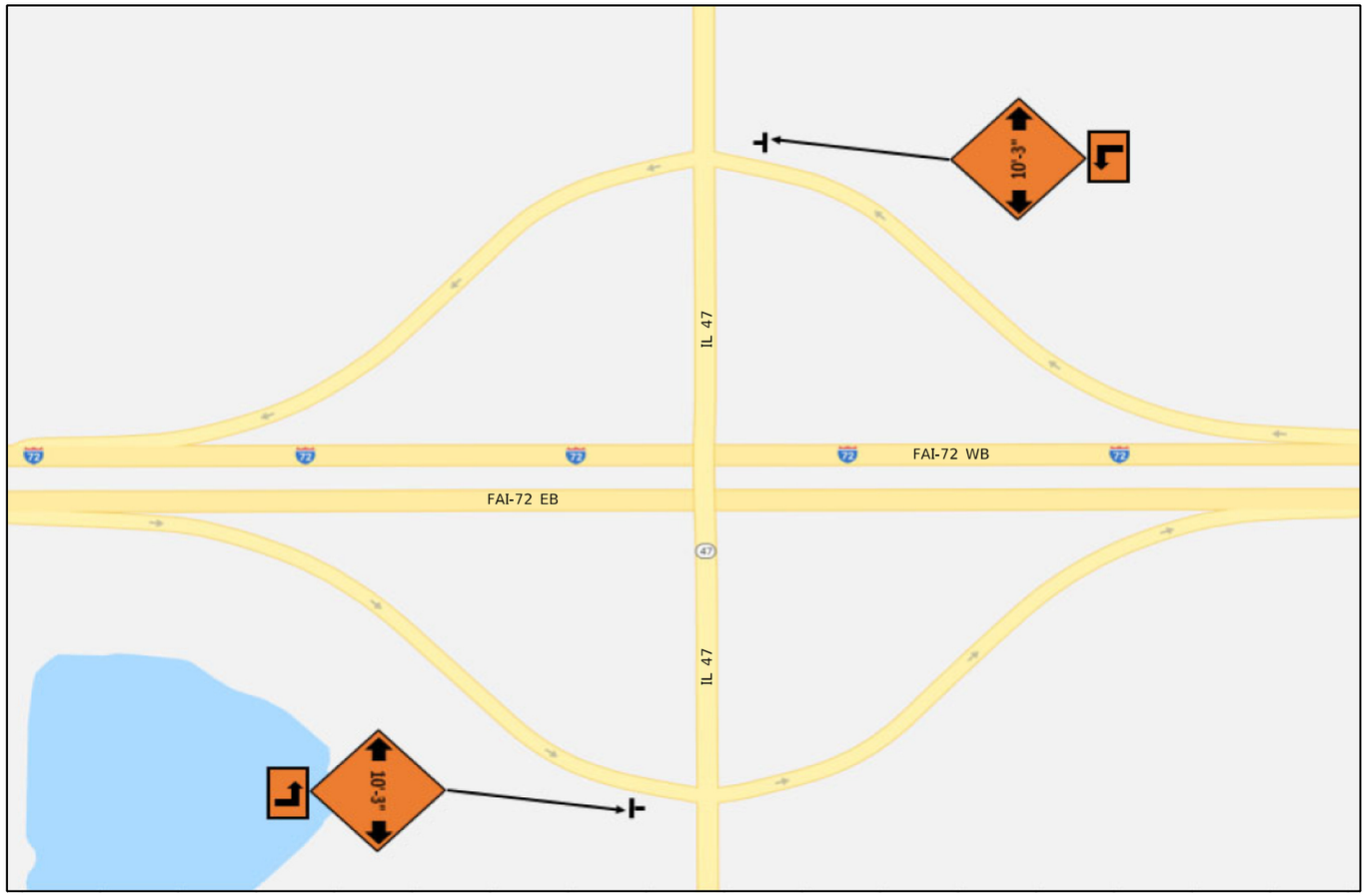
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PLOT DATE = 12/26/2019	DATE - 061819	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS
S.N. 010-0056

SCALE: NONE | SHEET 11 OF 11 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	41
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		



N

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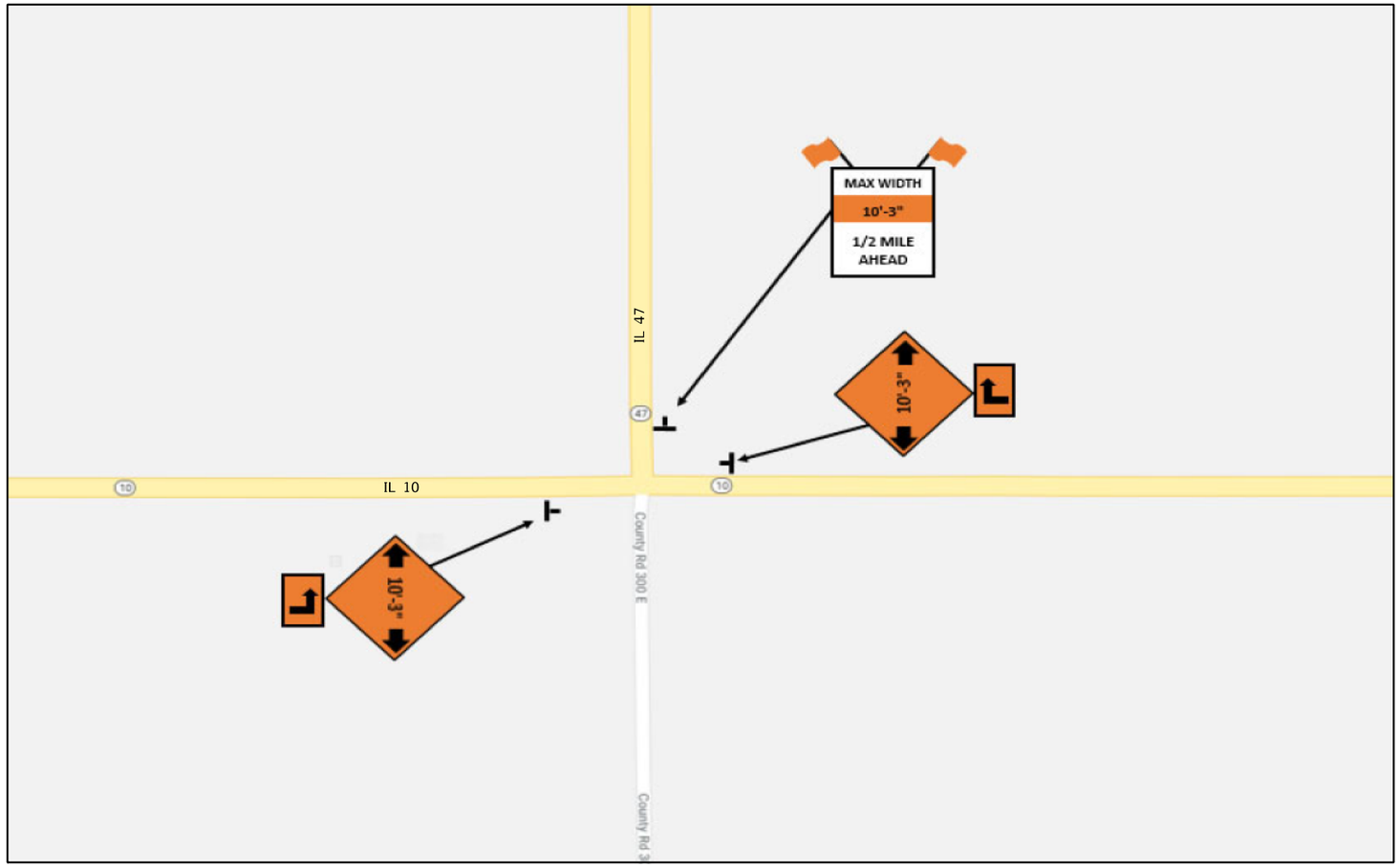
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	DRAWN -	REVISED -	
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PLOT DATE = 12/26/2019	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF WIDTH RESTRICTION SIGNING
S.N. 010–0056

SCALE: | SHEET 1 OF 3 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	42
		CONTRACT NO. 70D63		
	ILLINOIS	FED. AID PROJECT		



N

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	DRAWN -	REVISED -	
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PLOT DATE = 12/26/2019	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF WIDTH RESTRICTION SIGNING
S.N. 010–0056

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	43
		CONTRACT NO. 70D63		
	ILLINOIS FED. AID PROJECT			



N

MODEL: SMODEL NAMES
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PLOT DATE = 12/26/2019	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF WIDTH RESTRICTION SIGNING
S.N. 010–0056

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	(10-70)BR	CHAMPAIGN	44	44
		CONTRACT NO. 70D63		
	ILLINOIS FED. AID PROJECT			