

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
**PROPOSED
HIGHWAY PLANS**

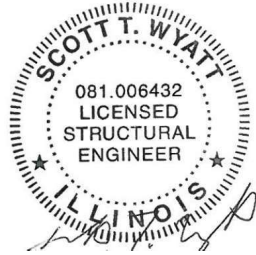
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 39	(141-1HB)BDR	OGLE	10	1
		ILLINOIS	CONTRACT NO. 64T97	

D-92-071-25



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

SEE SHEET 2 FOR INDEX OF SHEETS



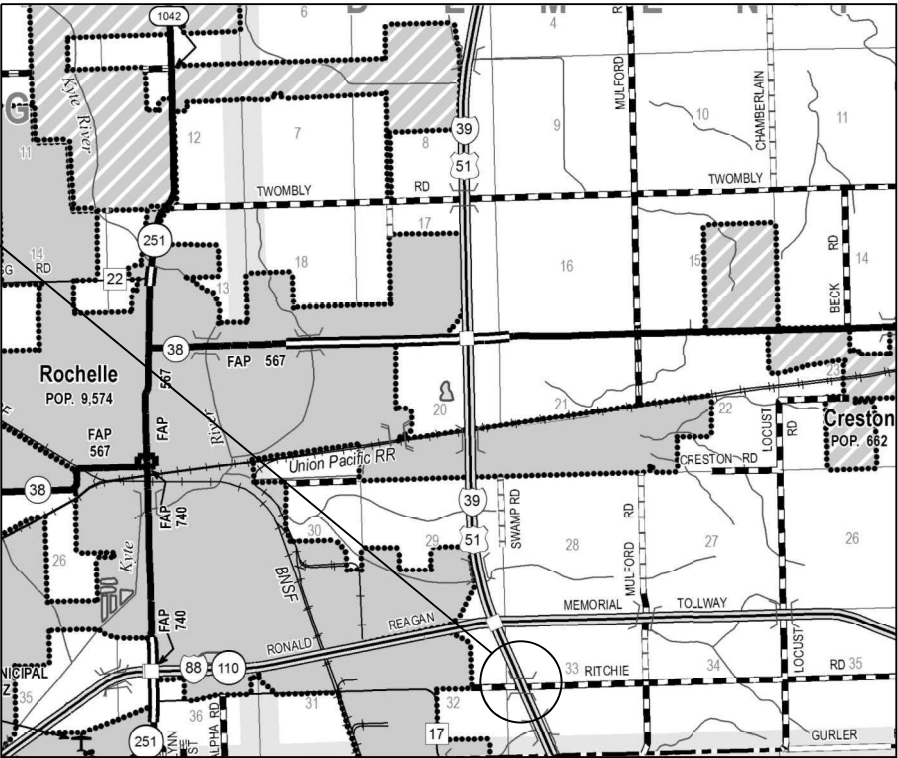
2-28-25
EXP. 11-30-26

ROUTE FAI 39
SECTION (141-1HB)BDR
PROJECT
BRIDGE REHABILITATION
OGLE COUNTY, IL

C-92-199-24

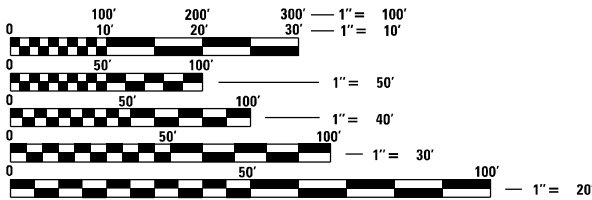
EXISTING STRUCTURE

SN 071-0064 A TWO SPAN
STEEL GIRDER SUPERSTRUCTURE
WITH CLOSED ABUTMENTS
BACK TO BACK LENGTH = 284'-10 1/2"
OUT TO OUT WIDTH = 36'-6"



LOCATION MAP

GROSS LENGTH = 284.86 FT. = 0.05 MILE
NET LENGTH = 284.86 FT. = 0.05 MILE



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZE PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER SCOTT WYATT, PE, SE
PROJECT MANAGER DERRICK LOPEZ, PE

CONTRACT NO. 64T97

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 6 20 25

Julia Thompson
REGIONAL ENGINEER

May 9 20 25
Scott Wyatt
ENGINEER OF DESIGN AND ENVIRONMENT

May 9 20 25
Derrick Lopez
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

1. COVER SHEET
2. INDEX OF SHEETS, HIGHWAY STANDARDS AND GENERAL NOTES
3. SUMMARY OF QUANTITIES
4. PLAN AND ELEVATION
5. RESURFACING PLAN
6. EXPANSION JOINT REPLACEMENT
7. BARRIER DETAILS
8. PREFORMED JOINT STRIP SEAL
9. BARRIER IMPROVEMENTS
10. 40.1 D2 TRAFFIC CONTROL FOR ROAD CLOSURE

000001-08 STANDARDS SYMBOLS, ABBREVIATIONS AND PATTERNS
001006 DECIMALS OF AN INCH AND OF A FOOT
701001-02 OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5m) TO 24" (600 mm) AWAY FROM PAVEMENT EDGE
701006-05 OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600 mm) FROM PAVEMENT EDGE
701101-05 OFF-ROAD MOVING OPERATIONS, MULTILANE, 15' (4.5m) TO 24" (600 mm) FROM PAVEMENT EDGE
701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701400-12 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701406-13 LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701411-09 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >= 45 MPH
701901-10 TRAFFIC CONTROL DEVICES
701428-01 TRAFFIC CONTROL, SETUP AND REMOVAL, FREEWAY/EXPRESSWAY

THE STRUCTURE NUMBER SHALL REMAIN 071-0064.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

RITCHIE ROAD WILL BE CLOSED DURING CONSTRUCTION.

THE CONTRACTOR SHALL CONTACT THE IDOT DISTRICT 2 ENGINEER AT (815) 284-2271 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE CONTRACTOR SHALL NOTIFY TRAFFIC OPERATIONS A MINIMUM OF 5 DAYS PRIOR TO PLACING PERMANENT PAVEMENT MARKING OR SIGNING.

Quality Management Program To Be Used row will have QC/QA (Quality Control/Quality Assurance), QCP (HMA Quality Control for Performance), or PFP (HMA Pay for Performance using percent within limits jobsite sampling). Which one to use will be determined by Materials. They will need quantities for each type of mix used (i.e. surface, binder, etc.), See BDE Manual Ch. 53-4.07 or contact the District Mixtures Control Engineer for more information.

THE AREA TO BE TACKED AND PRIMED SHALL BE LIMITED TO THAT WHICH CAN BE COVERED BY THE NEXT DAY'S PRODUCTION, BUT NO MORE THAN FIVE DAYS IN ADVANCE OF THE PLACEMENT OF THE HMA, UNLESS APPROVED BY THE ENGINEER.

IDOT IS NOT A MEMBER OF JULIE. IF YOU ARE NEAR ANY OVERHEAD LIGHTING, INTERSECTION LIGHTING, OR TRAFFIC SIGNALS, CONTACT THE IDOT TRAFFIC CONTROL OFFICE AT 815/284-5469 AT LEAST 48 HOURS PRIOR TO WORK.

MODEL: Default
FILE NAME: \\net\comdata\bridge\240551 (NO #10 - SN 071-0064)\02_Design (MS)\64T97-03 - SDO.dgn

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				100% STATE	
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	BRIDGE	
				0047	
				SN 071-0064	
40604060	HOT-MIXED ASPHALT SURFACE COURSE, IL 9.5, MIX "D", N50	TON	104	104	
44000156	HOT-MIXED ASPHALT SURFACE REMOVAL, 1¾ "	SQ YD	1062	1062	
50102400	CONCRETE REMOVAL	CU YD	17	17	
50104000	BRIDGE RAIL REMOVAL	FOOT	568	568	
50157300	PROTECTIVE SHIELD	SQ YD	363	363	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	17	17	
50800515	REINFORCEMENT BARS, EPOXY COATED	POUND	1484	1484	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	78	78	
67100100	MOBILIZATION	L SUM	1	1	
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	1	1	
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	1	
Z0053750	RETROFIT CONCRETE PARAPET - FOOT	FOOT	568	568	
X0325748	ACRYLIC COATING	SQ YD	431	431	
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
X5810100	WATERPROOFING MEMBRANE SYSTEM	SQ YD	1062	1062	

				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SN 071-0064 RITCHIE RD CROSSING I-39 (FAI 39) SCHEDULE OF QUANTITIES				FA RTE.	SECTION	COUNTY	SHEETS	SHEET NO.
		DRAWN - DWS	REVISED -						39	(141-1HB)BDR	OGLE	10	3
	PLOT SCALE = 2.0000' / in.	CHECKED - HJH	REVISED -		SCALE: SHEET 3 OF SHEETS STA. TO STA.				CONTRACT NO. 64T97				
	PLOT DATE = 2/28/2025	DATE -	REVISED -						ILLINOIS FED. AID PROJECT				

SCOPE OF WORK

- Barrier Rail Improvements
- Remove and Replace Expansion Joints
- Remove Wearing Surface, Apply Waterproofing Membrane, Replace Wearing Surface

GENERAL NOTES

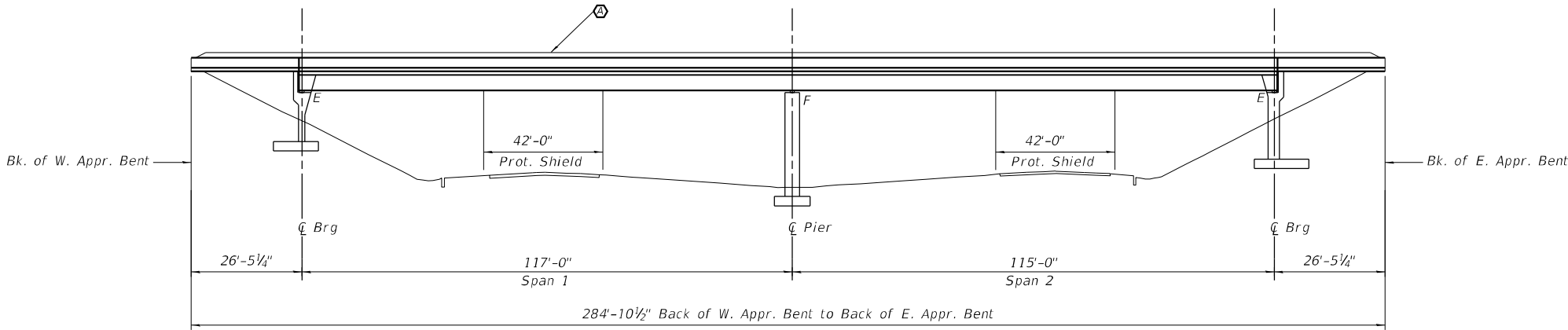
Plan dimensions and details relative to the existing structure have been taken from the existing plans and are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering 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.

Reinforcement bars designated (E) shall be epoxy coated.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system at the Contractor's expense.

Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

Ritchie Road will be closed during construction.

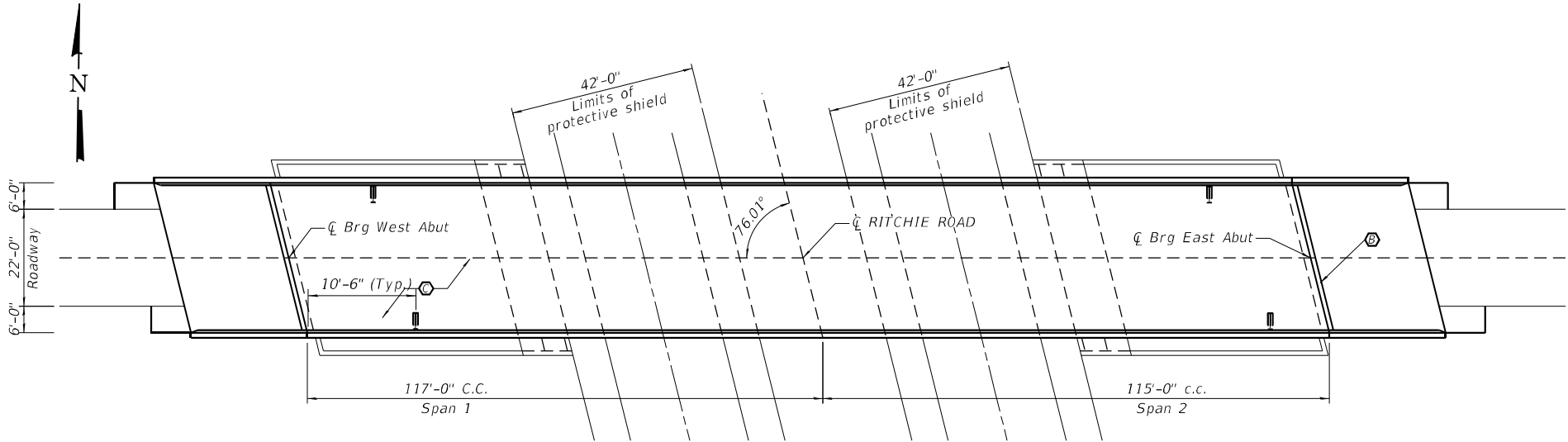


ELEVATION

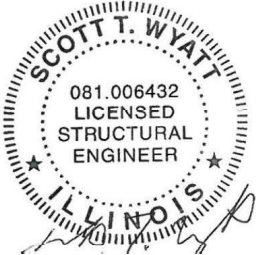
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Waterproofing Membrane System	Sq. Yd.	1062
Bridge Rail Removal	Foot	568
Retrofit Concrete Parapet	Foot	568
Acrylic Coating	Sq. Yd.	431
Protective Shield	Sq. Yd.	363
Concrete Removal	Cu. Yd.	17
Reinforcement Bars Epoxy Coated	Pound	1484
Preformed Joint Strip Seal	Foot	78
Concrete Superstructure	Cu. Yd.	17

* On Existing Parapet and Parapet Retrofit



PLAN



2-28-25
EXP 11-30-26

MODEL: Default
FILE NAME: \\kpff.com\dfs\Bridges\2400651 (WO #10 - SN 071-0064)\02_Design (MS)\04197-04 - Plan & Elev.dgn

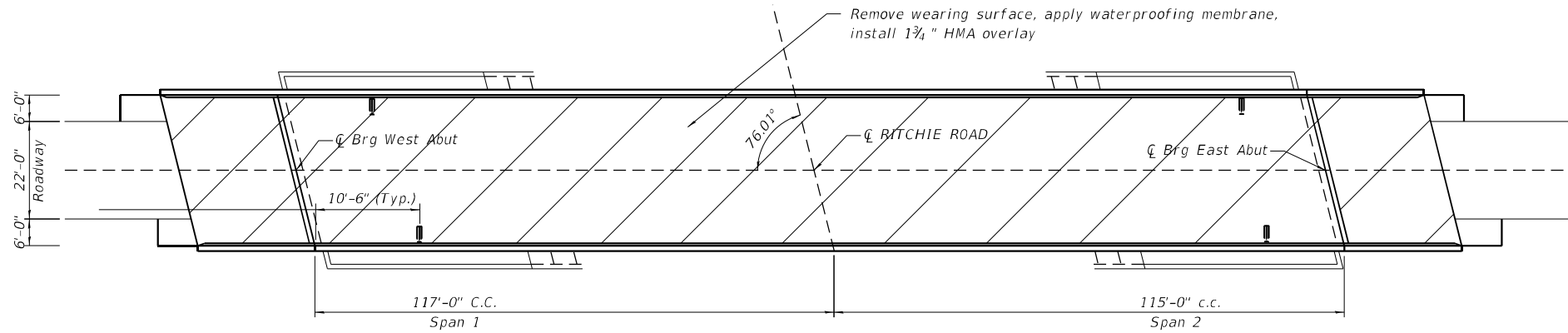


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	CHECKED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 071-0064 RITCHIE ROAD OVER F.A.I. 39 (I-39)
PLAN AND ELEVATION

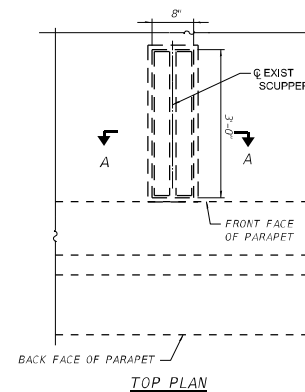
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(141-1HB)BDR	OGLE	10	4
SN 071-0064		CONTRACT NO. 64T97		
ILLINOIS		FED. AID PROJECT		



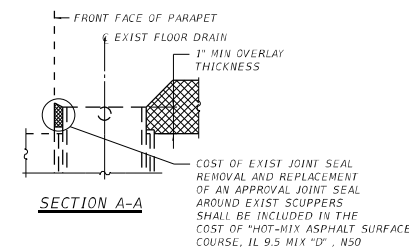
PLAN

HMA

Location(s):	Surface
Mixture Use(s):	Surface
Binder Grade (AC/PG):	PG 58-28
Design Air Voids:	4.0 @ Ndes=50
Mixture Composition: (Mixture Gradation):	IL 9.5
Friction Aggregate:	Mixture "D"
Mixture Weight:	112 LB/SQ YD/IN
Quality Management Program:	See Gen. Notes
Sublot Size:	N/A



TOP PLAN



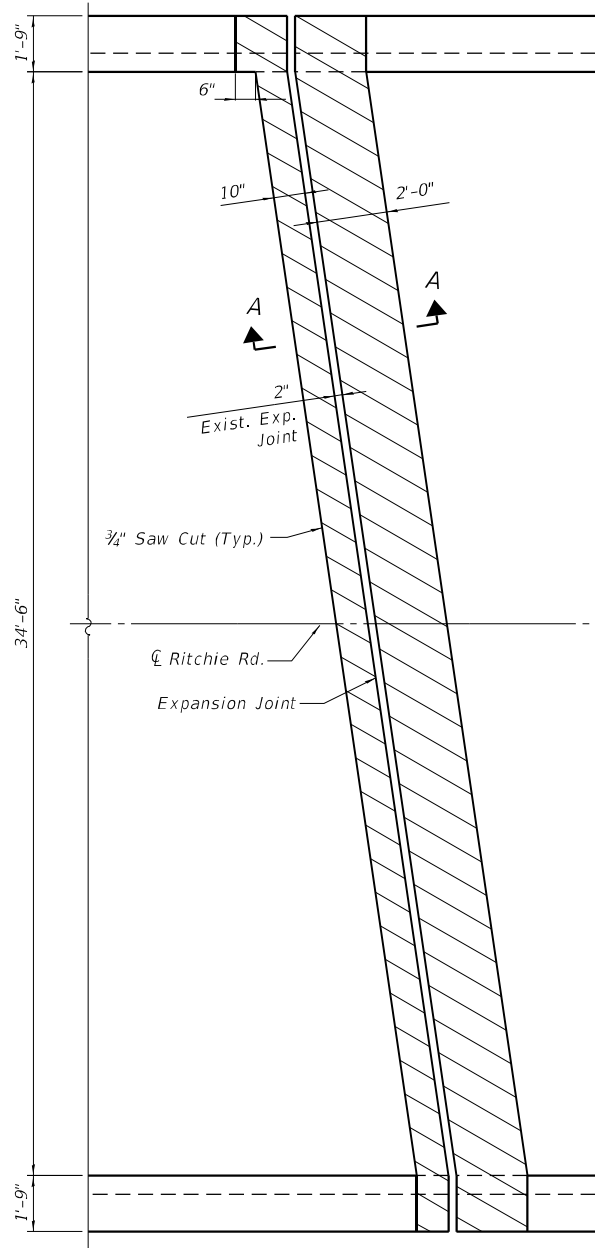
SECTION A-A

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 071-0064 RITCHIE ROAD OVER F.A.I. 39 (I-39)
OVERLAY REPLACEMENT

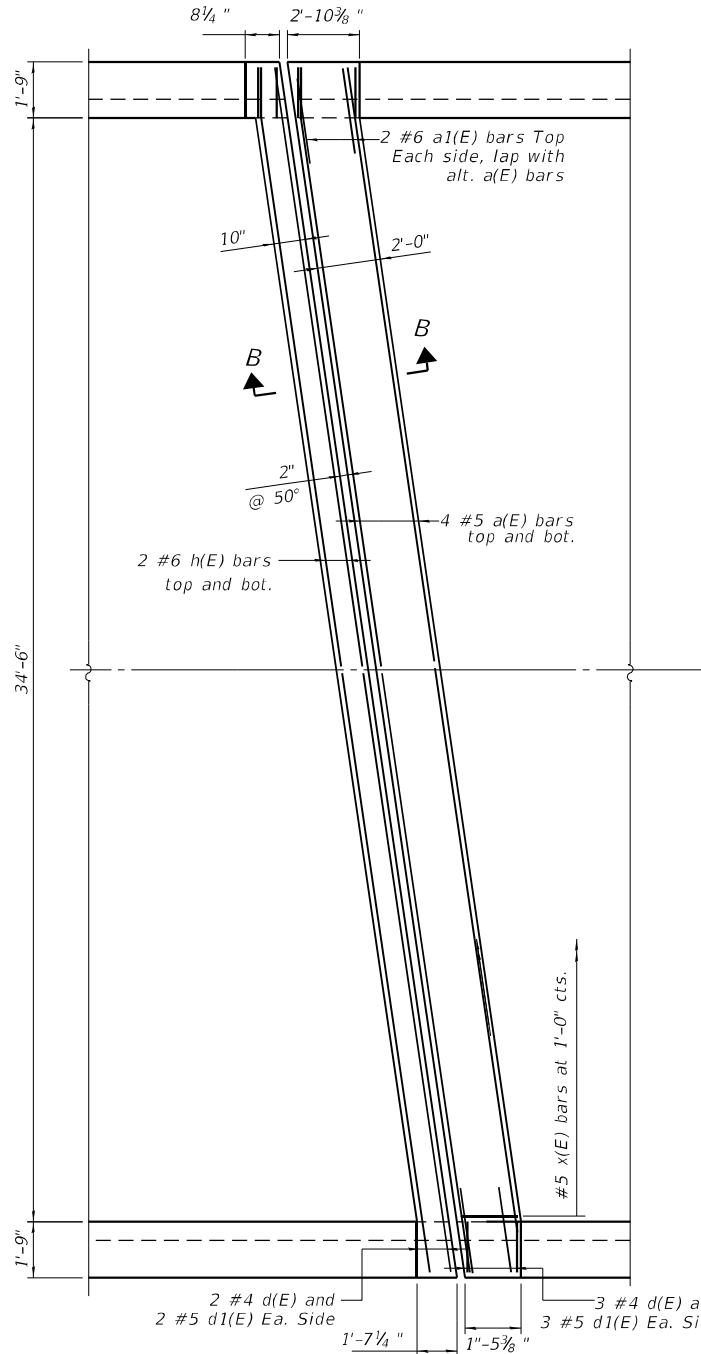
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SN 071-0064		CONTRACT NO. 64T97		
ILLINOIS		FED. AID PROJECT		

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	CHECKED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

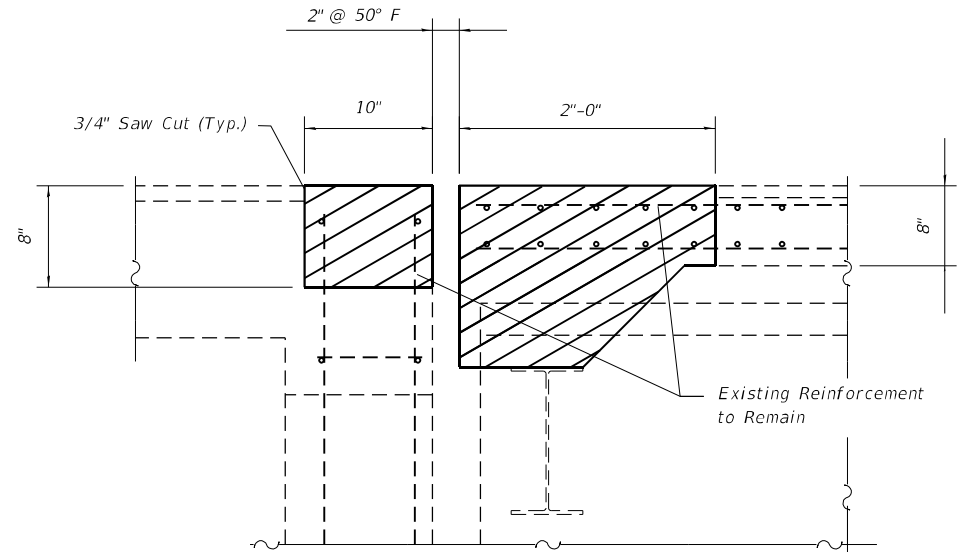


REMOVAL PLAN

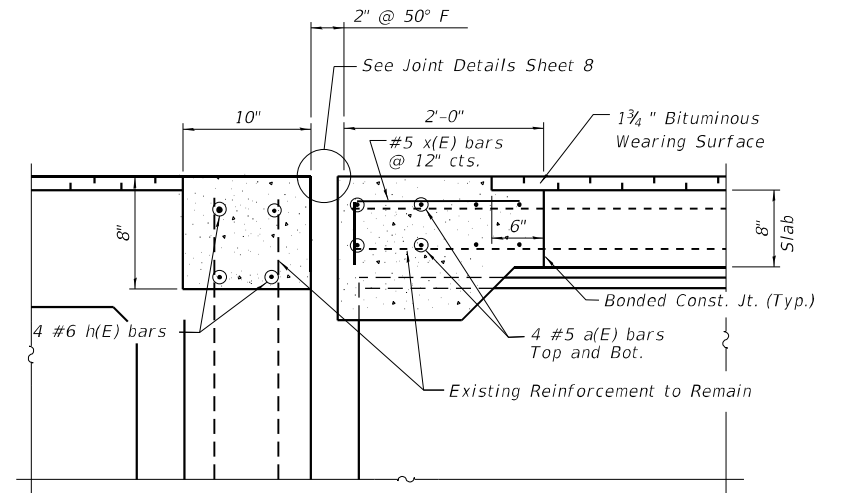
Joint at W. Abut. shown, E. abutment symmetrical



REPLACEMENT PLAN



SECTION A-A



SECTION B-B

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FILE NAME: \\kpff.com\dfs\Bridges\2400551 (WO #10 - SN 071-0064)\02_Design (MS)\4197-06 - Joint Replacement.dgn



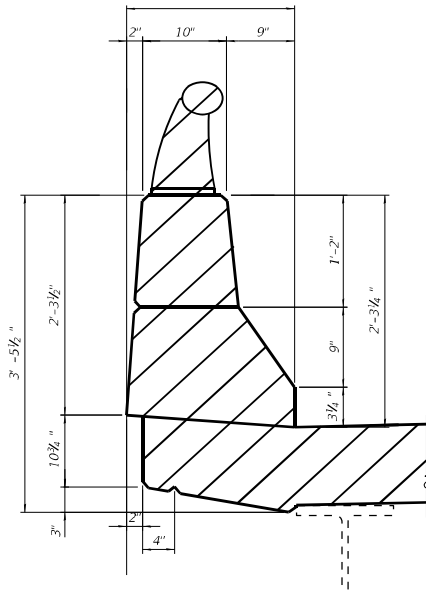
1560 Sherman Ave, Suite 1020
Evanston, IL 60201
847-859-7790
www.kpff.com

USER NAME =	DESIGNED -	REVISED -
	CHECKED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

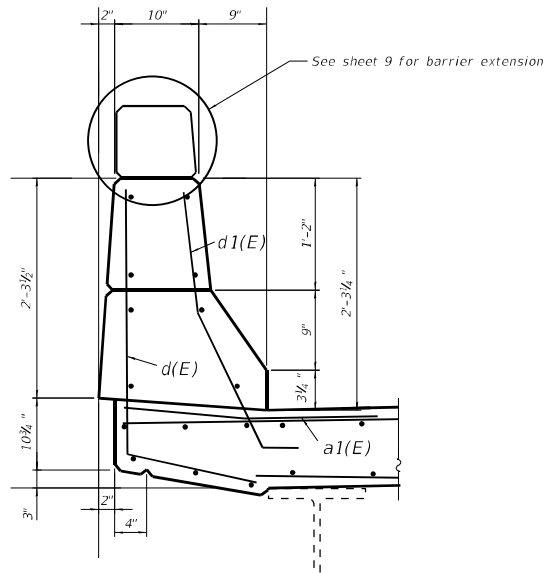
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 071-0064 RITCHIE ROAD OVER F.A.I. 39 (I-39)
JOINT REMOVAL AND REPLACEMENT DETAILS

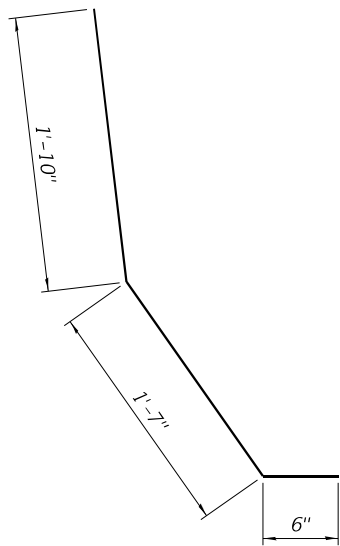
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(141-1HB)BDR	OGLE	10	6
SN 071-0064		CONTRACT NO. 64T97		
ILLINOIS		FED. AID PROJECT		



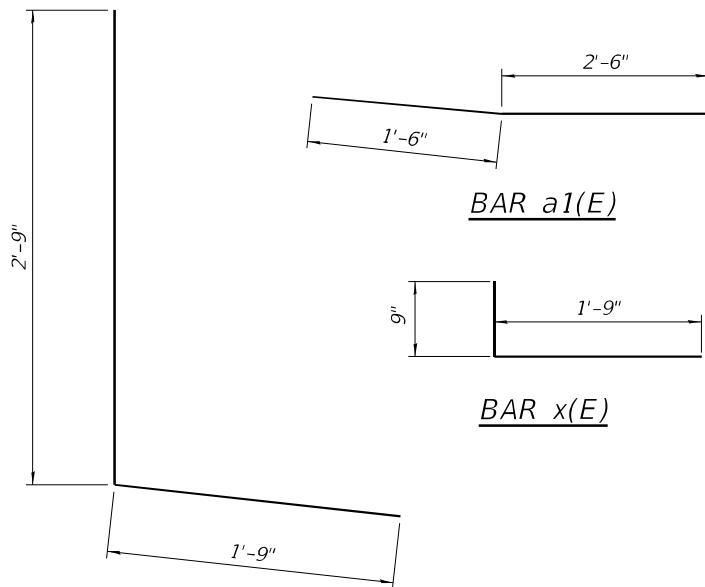
SECTION THOROUGH BRIDGE PARAPET



SECTION THRU BRIDGE PARAPET
SHOWING REPLACEMENT



BAR d1(E)



BAR a1(E)

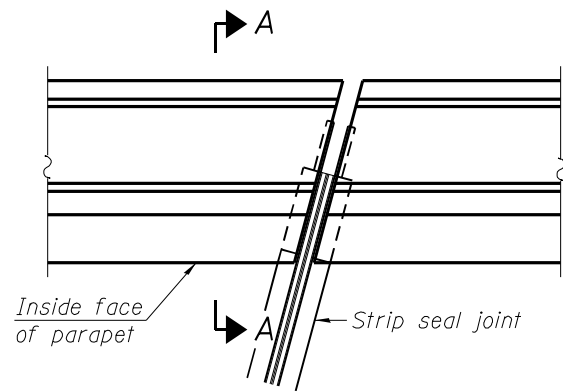
BAR x(E)

BILL OF MATERIAL

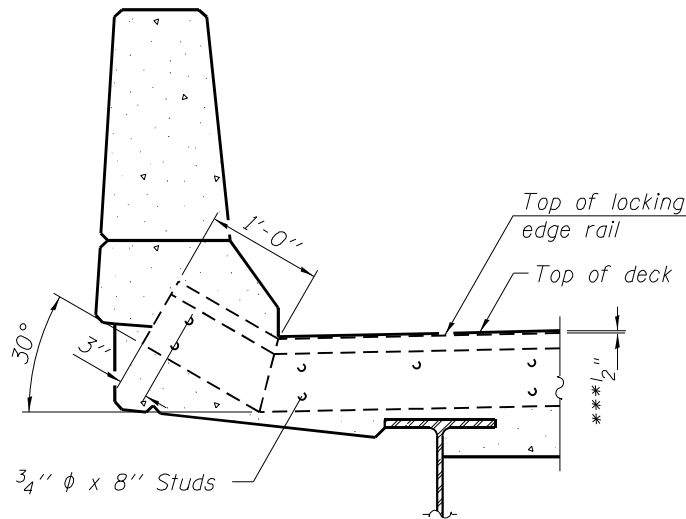
Bar	No.	Size	Length	Shape
a(E)	16	5	38'-6"	—
a1(E)	8	6	4'-0"	—
d(E)	20	4	4'-6"	└
d1(E)	20	5	3'-11"	└
b(E)	8	6	38'-6"	—
x(E)	66	5	2'-5"	└
Concrete Removal			Cu. Yd	17
Concrete Superstructure			Cu. Yd	17
Reinforcement Bars, Epoxy Coated			Pound	1484

USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

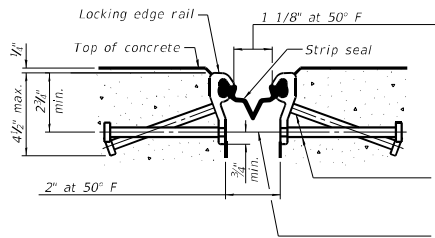
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39	(141-1HB)BDR	OGLE	10	7
SN 071-0064		CONTRACT NO. 64T97		
ILLINOIS		FED. AID PROJECT		



PLAN
(For skews $\leq 30^\circ$)



SECTION A-A

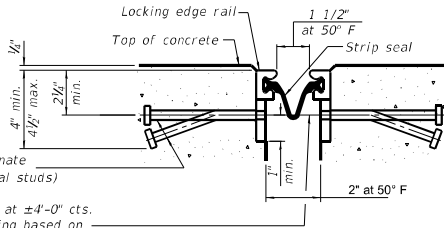


SHOWING ROLLED RAIL JOINT

* $\frac{3}{16}$ " ϕ x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

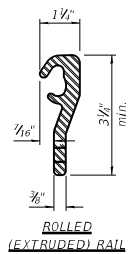
$\frac{3}{16}$ " ϕ threaded rods in $\frac{3}{16}$ " ϕ holes at ± 4 -0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



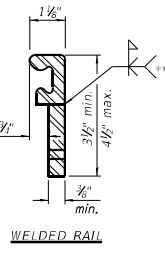
SHOWING WELDED RAIL JOINT

SECTION A-A



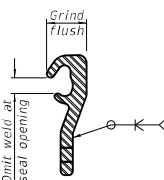
LOCKING EDGE RAILS

** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.



Notes:

The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}$ ". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the $4\frac{1}{2}$ " maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The Maximum space between locking edge rail segments shall be $\frac{3}{16}$ " and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

The top surface of sidewalk sliding plates shall have a raised pattern according to ASTM A786.

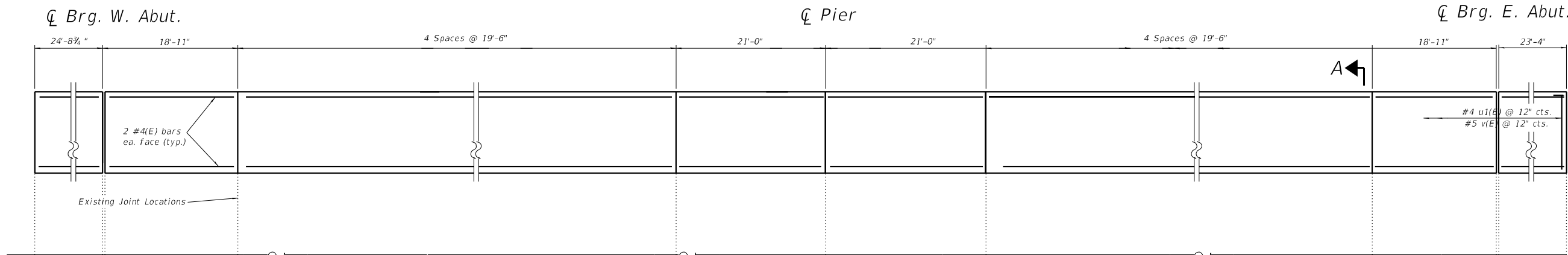
Cost of parapet sliding plates, sidewalk sliding plates, embedded plates, anchorage studs, and expansion anchors included with Preformed Joint Strip Seal.

39" constant slope barrier shown, 44" constant slope barrier similar as noted.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(141-1HB)BDR	OGLE	10	8
SN 071-0064		CONTRACT NO. 64T97		
ILLINOIS		FED. AID PROJECT		

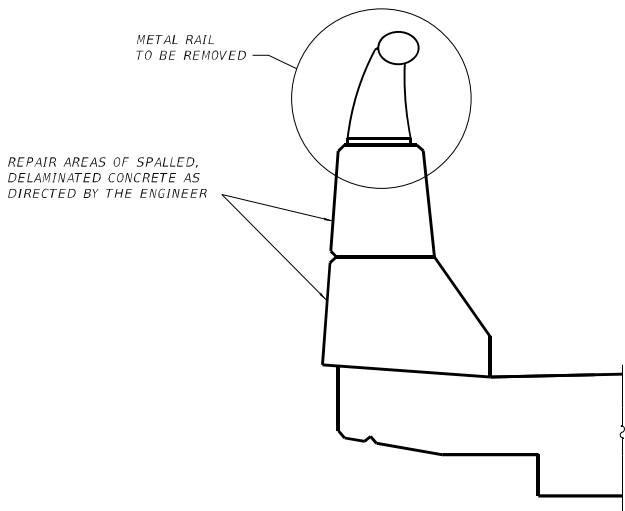


If the anchorage section of the approach guardrail conflicts with the barrier improvements, it shall be removed during rail removal and replaced after the barrier concrete has cured. Cost included with Remove Barrier Rail.

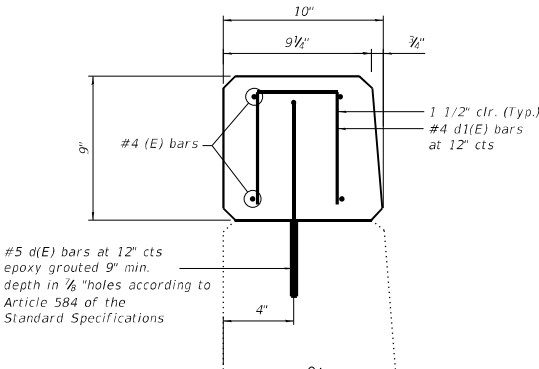
INSIDE ELEVATION NORTH BARRIER
(SOUTH SIMILAR)

NOTES

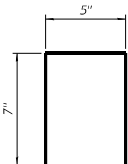
1. All exposed edges shall be chamfered $\frac{3}{4}$ "
2. Cost of all materials, labor and equipment to complete the work as detailed and specified in the Special Provisions shall be included in the cost of "Retrofit Concrete Parapet" with the exception of Bridge Rail Removal and Acrylic Coating.
3. Retrofit Concrete Parapet shall be used on both sides of the structure over the full length of the structure.
4. Acrylic Coating to be applied to inside face, outside face and top surface of the existing and reconstructed parapet.



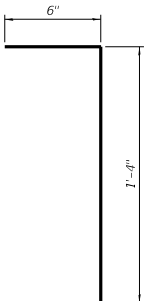
EXISTING BARRIER SECTION



SECTION A-A



BAR d1(E)



BAR d(E)

MODEL: Default
FILE NAME: \\kpff.com\dfs\Bridges\2400651 (WO #10 - SN 071-0064)\02_Design (MS)\4197-09 - Barrier Improvements.dgn



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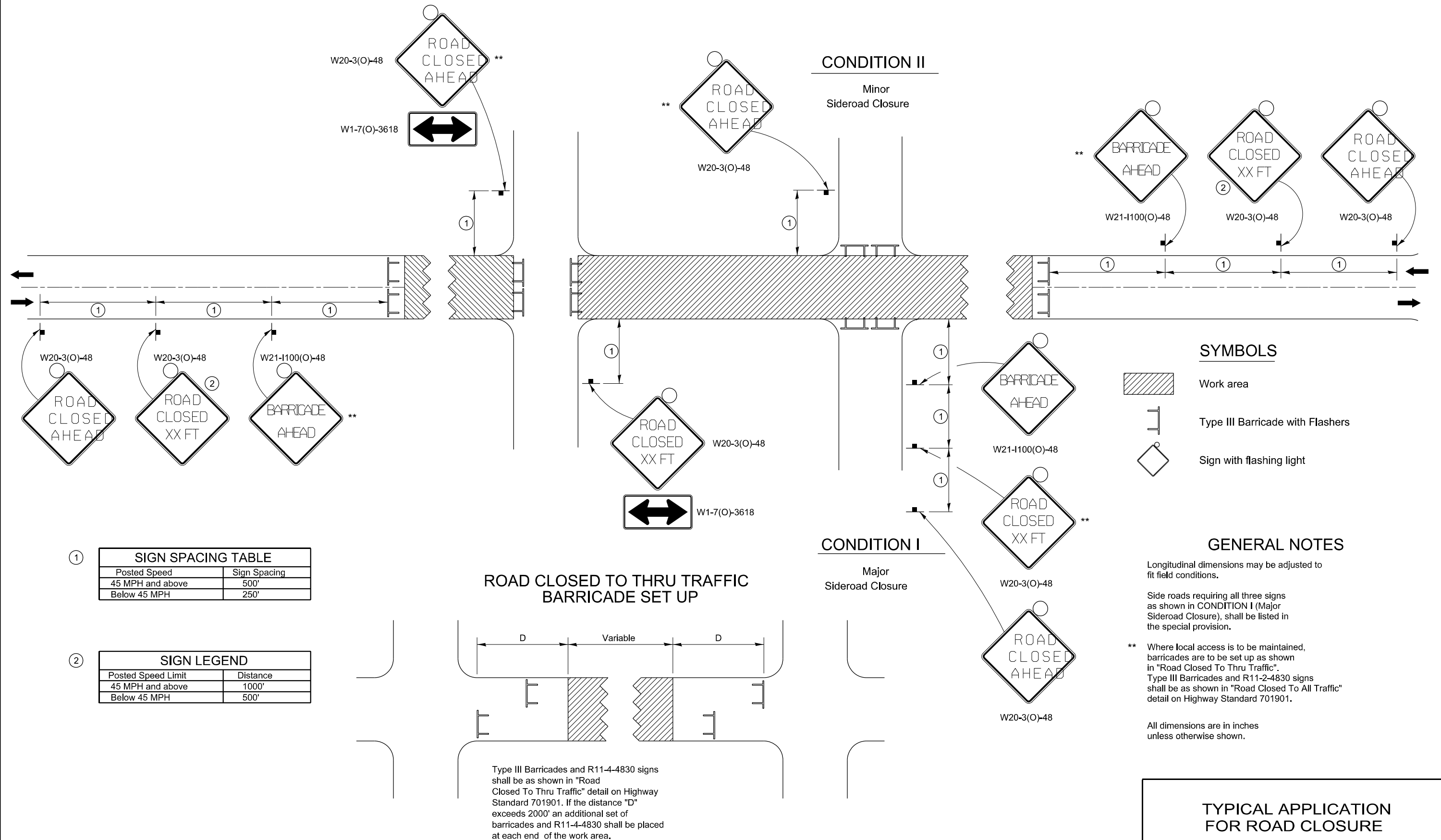
USER NAME =	DESIGNED -	REVISED -
	CHECKED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SN 071-0064 RITCHIE ROAD OVER F.A.I. 39 (I-39)
BARRIER IMPROVEMENTS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(141-IHB)BDR	OGLE	10	9
SN 071-0064		CONTRACT NO. 64T97		
ILLINOIS		FED. AID PROJECT		

TRAFFIC CONTROL FOR ROAD CLOSURE



FILE NAME: C:\Users\scottw\Desktop\WO 10 64197 Ritchie Rd\Submittals\I22Standards.cel	USER NAME = scottw	DESIGNED - Designed By	REVISED - 8-03-17	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SN 071-0064 RITCHIE ROAD OVER F.A.I. 39 (I-39)	SCALE: Scale	SHEET Sheet Number 5 of 5	TOTAL SHEETS 5	STA. Station From	TO STA. Station To	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 2,0045" / in.	DRAWN - Drawn By	REVISED - 1-05-16								Route	(141-1H3300) On	Ogden	Total Sheet Number	40.1
	PLOT DATE = 1/23/2025	CHECKED - Checked By	REVISED - 8-27-13								Long Section	SN 071-0064	CONTRACT NO. 66007		
		DATE - Checked Date	REVISED - 10-17-11								ILLINOIS	FED. AID PROJECT	Multiple County Names		