11-18-2022 LETTING ITEM 011

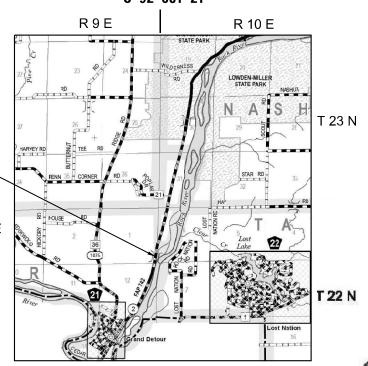
## **STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

FOR INDEX OF SHEETS, SEE SHEET NO. 2

# **PROPOSED** HIGHWAY PLANS

FAP 742 (IL 2) SECTION (39BR)BDR **PROJECT** NHPP-UIWH(782) **BRIDGE DECK AND APPROACH REPAIR OGLE COUNTY** 

C-92-081-21



BUITING

Michael & Butan For Maintenance of Truffic

1-SPAN OVER A DRAINAGE DITCH CONCRETE GIRDER SUPERSTRUCTURE WITH SPILL THROUGH ABUTMENTS.

> BACK TO BACK LENGTH = 87'-0" OUT TO OUT WIDTH = 39'-3"

**EXISTING STRUCTURE LOCATION** 

ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED,

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS 1-800-892-0123

PROJECT ENGINEER SCOTT WYATT, PE, SE PROJECT MANAGER MAHMOUD ETEMADI, PE

GROSS LENGTH =  $x_1xx$  FT. =  $x_1xxx$  MILE

NET LENGTH = x.xx FT. = x.xxx MILE

LOCATION OF SECTION INDICATED THUS: -STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION SUBMITTED August 16, 20 22

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 64R12

 $\circ$ 

#### SHEET INDEX

- GENERAL NOTES/ CONSTRUCTION SEQUENCE
- 3-5. SUMMARY OF QUANTITIES
- STAGING TYPICAL SECTION
- MAINTENANCE OF TRAFFIC PLAN STAGE 1
- MAINTENANCE OF TRAFFIC PLAN STAGE 2 8.
- DISTRICT 2 STANDARD 34.1
- 10. APPROACH PAVEMENT
- SN 071-0072 GENERAL PLAN AND ELEVATION 11.
- SN 071-0072 JOINT REMOVAL AND PLACEMENT DETAIL
- 13. SN 071-0072 PREFORMED JOINT STRIP SEAL DETAILS
- 14. SN 071-0072 BAR SPLICER ASSEMBLY AND MECHANICAL
  - SPLICER DETAILS
- SN 071-0072 TEMPORARY CONCRETE BARRIER FOR
  - STAGE CONSTRUCTION
- 16. SN 071-0072 PPC I-BEAM REPAIR

#### STATE HIGHWAY STANDARDS

000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH 701201-05 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS 701301-04 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY 701311-03 701321-18 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER TRAFFIC CONTROL DEVICES 701901-08

704001-08 TEMPORARY CONCRETE BARRIER 780001-05 TYPICAL PAVEMENT MARKINGS

782006-01 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

MAINTENANCE OF TRAFFIC GENERAL NOTES

#### SUGGESTED MAINTENANCE OF TRAFFIC SEQUENCING

INSTALL ALL STAGE 1 CONSTRUCTION TRAFFIC CONTROL SIGNALS, SIGNS, DRUMS, BARRICADES, TEMPORARY CONCRETE BARRIER, TEMPORARY IMPACT ATTENUATORS, AND TEMPORARY PAVEMENT MARKINGS AS DETAILED IN STAGE 1 PLANS AND APPROPRIATE STANDARD DRAWINGS. LOCATIONS FOR ADVANCE WARNING SIGNS, TEMPORARY BRIDGE SIGNALS, AND STOP LINES DO NOT CHANGE FROM STAGE 1 TO STAGE 2 UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

MERGE ALL TRAFFIC IN BOTH DIRECTIONS TO THE EXISTING WESTBOUND LANE AND SHOULDER OF SN 071-0015 CROSSING PINE CREEK.

COORDINATE WORK TO BE COMPLETED IN THIS STAGE WITH DETAILS IN THE BRIDGE

#### STAGE 2

CHANGE STAGE 1 CONSTRUCTION TRAFFIC CONTROL SIGNALS, SIGNS, DRUMS, BARRICADES, TEMPORARY CONCRETE BARRIER, TEMPORARY IMPACT ATTENUATORS, AND TEMPORARY PAVEMENT MARKINGS AS NEEDED TO REFLECT STAGE 2 PLANS AND APPROPRIATE STANDARD DRAWINGS.

MERGE ALL TRAFFIC IN BOTH DIRECTIONS TO THE EXISTING EASTBOUND LANE AND SHOULDER OF SN 071-0015 CROSSING PINE CREEK.

REMOVE ALL CONFLICTING TRAFFIC CONTROL ITEMS FROM STAGE 1 SETUP.

COORDINATE WORK TO BE COMPLETED IN THIS STAGE WITH DETAILS IN THE BRIDGE

REMOVE ALL CONSTRUCTION TRAFFIC CONTROL AND TEMPORARY CONSTRUCTION ITEMS.

REMOVE ANY REMAINING EXISTING TEMPORARY PAVEMENT MARKINGS WITHIN THE PERMANENT PAVEMENT MARKING LIMITS.

#### PAY ITEMS FOR MAINTENANCE OF TRAFFIC WORK

THE MAINTENANCE OF TRAFFIC CONTROL (MOT) PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT. HOWEVER, THE CONTRACTOR MAY MODIFY THE MOT PLANS TO MEET CONSTRUCTION NEEDS, BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE MOT PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

2. THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY PROPOSED CHANGE TO THE MOT PLANS.

3. ALL EXISTING PAYEMENT MARKINGS IN CONFLICT WITH THE MAINTENANCE OF TRAFFIC STRIPING SHALL BE BLACKED OUT TO THE LIMITS SHOWN IN THE PLANS.

4. ALL TEMPORARY PAVEMENT MARKING WHICH CONFLICTS WITH THE NEXT STAGE OR FINAL STRIPING SHALL BE REMOVED OR BLACKED OUT TO THE LIMITS SPECIFIED IN THE PLANS AND IN THE SCHEDULES OF PAVEMENT MARKING.

ALL TRAFFIC CONTROL DEVICES USED FOR THE MAINTENANCE OF TRAFFIC, AS DETAILED ON THE PLANS OR HIGHWAY STANDARD, SHALL BE REFLECTORIZED PRIOR TO INSTALLATION AND CLEANED AS SPECIFIED IN THE MAINTENANCE OF TRAFFIC SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

ALL EXISTING SIGNS WITHIN MAINTENANCE OF TRAFFIC LIMITS WHICH ARE OBSCURED BY OR INTERFERE WITH CONSTRUCTION OPERATIONS AND MAINTENANCE OF TRAFFIC, SHALL BE COVERED OR REMOVED BY THE CONTRACTOR UNLESS SPECIFIED IN THE PLANS OR WHEN DIRECTED BY THE ENGINEER. THIS WORK SHALL BE IN ACCORDANCE WITH ARTICLE 107.25 OF THE IDOT STANDARD SPECIFICATIONS.

7. A FULL DEPTH SAWCUT WILL BE REQUIRED BETWEEN PAVEMENT, CURB AND/OR GUTTER TO REMAIN AND PAVEMENT, CURB AND/OR GUTTER TO BE REMOVED PRIOR TO BEGINNING OF REMOVAL WORK. COST TO BE INCLUDED WITH APPLICABLE REMOVAL

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

ITEM "TEMPORARY BRIDGE TRAFFIC SIGNALS" IS INTENDED FOR THE MATERIAL, EQUIPMENT AND LABOR NECESSARY FOR THE INSTALLATION, MAINTENANCE AND RELOCATION OF THE TEMPORARY TRAFFIC SIGNALS AT BOTH ENDS OF THE PROJECT.

ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701201" IS INTENDED FOR THE MATERIAL, EQUIPMENT AND LABOR NECESSARY TO MAINTAIN SAFE TRAFFIC FLOW DURING SETUP, RELOCATION, AND REMOVAL OF TRAFFIC CONTROL ITEMS FOR "TRAFFIC CONTROL AND PROTECTION STANDARD 701321", AS WELL AS FOR PERMANENT APPROACH PAVEMENT GRINDING, PAVING, RUMBLE STRIP AND AGGREGATE SHOULDER OPERATIONS.

ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321" IS INTENDED FOR THE MATERIAL, EQUIPMENT AND LABOR NECESSARY FOR THE INSTALLATION, MAINTENANCE AND RELOCATION OF TEMPORARY TRAFFIC SIGNALS, SIGNS, DRUMS, LIGHTS, PANELS, AND REFLECTORS NECESSARY TO MAINTAIN SAFE TRAFFIC FLOW DURING STAGED CONSTRUCTION MAINTENANCE OF TRAFFIC IN ACCORDANCE WITH IDOT STANDARD 701321.

ITEM "SHORT TERM PAVEMENT MARKING REMOVAL" IS INTENDED FOR THE MATERIAL. EQUIPMENT AND LABOR NECESSARY TO REMOVE TEMPORARY PAVEMENT MARKINGS TO THE LIMITS SPECIFIED IN THE PLANS.

ITEM "TEMPORARY PAVEMENT MARKING TAPE" IS INTENDED FOR THE MATERIAL, EQUIPMENT AND LABOR NECESSARY TO PLACE AND MAINTAIN TEMPORARY PAVEMENT MARKING TAPE OF THE TYPE, SIZE AND LIMITS SPECIFIED IN THE PLANS, SPECIFICATIONS, AND IDOT STANDARD 780001.

ITEM "MODIFIED URETHANE PAVEMENT MARKING" IS INTENDED FOR THE MATERIAL. EQUIPMENT AND LABOR NECESSARY TO PLACE PERMANENT PAVEMENT MARKINGS OF TYPE AND TO THE LIMITS SPECIFIED IN THE PLANS, SPECIFICATIONS AND IDOT STANDARD 780001.

				ст	AGE I							
		1				Pa	vement Mi	arkings		Short Term	Marking F	Removal
Item	Location	Station Offs		fset	6" Blackout Tape			4" Perm.	Blackout Tape		,	
		Begin	End	Min	Max	Foot	Foot	Foot	Foot	SqFt	SqFt	SqFt
6" Blackout Tape	West Permanent Edgeline	119+80	124+50	14.8' Lt	14.8' Lt	170				•	•	•
6" Blackout Tape	Dbl Yellow CL South End	118+20	121+20	2.8' Lt	2.8' Lt	600				300		
6" Blackout Tape	Dbl Yellow CL North End	123+10	126+10	2.8' Lt	2.8' Lt	600				300		
4" White Temp Tape	Left Travel Lane Edgeline	119+80	124+50	14.8' Lt	20.0' Lt		470					
4" White Temp Tape	Right Travel Lane Edgeline	118+30	125+50	2.8' Lt	9.2' Rt		720					
24" White Temp Tape	Westbound Stop Line							12				
24" White Temp Tape	Eastbound Stop Line							12				
				ST/	AGE 2							
Temp Marking Removal	Stage 1 Lt Travel Ln Edgeline	119+80	124+50	14.8' Lt	20.0' Lt						157	
Temp Marking Removal	Stage 1 Rt Travel Ln Edgeline	118+30	125+50	8.0' Lt	9.2' Rt						240	
Temp Marking Removal	6" Blackout West Edgeline	119+80	124+50	14.8' Lt	14.8' Lt					235		
6" Blackout Tape	E Permanent Edgeline S End	119+80	121+20	12' Lt	12' Lt	140						
6" Blackout Tape	E Permanent Edgeline N End	123+10	124+50	12' Lt	12' Lt	140						
4" White Temp Tape	Right Travel Lane Edgeline	119+80	124+50	9.2 Rt	14.0 Rt		470					
4" White Temp Tape	Left Travel Lane Edgeline	118+30	125+50	14.8' Lt	2.0' Rt		720					
				POST	STAGE							
Temp Marking Removal	2-6" Blackout CL South End	118+20	121+20	2.8' Lt	2.8' Lt					300		
Temp Marking Removal	2-6" Blackout CL North End	123+10	126+10	2.8' Lt	2.8' Lt					300		
6" Blackout Tape	E Permanent Edgeline S End	119+80	121+20	12' Lt	12' Lt					70		
6" Blackout Tape	E Permanent Edgeline N End	123+10	124+50	12' Lt	12' Lt					70		
Temp Marking Removal	Stage 2 Rt Travel Ln Edgeline	119+80	124+50	9.2 Rt	14.0 Rt						157	
Temp Marking Removal	Stage 2 Lt Travel Ln Edgeline	118+30	125+50	14.8' Lt	2.0' Rt						240	
Temp Marking Removal	EB and WB, Signal Stop Lines											48
4" Permanent Marking	W Permanent White Edgeline	118+20	126+10	14.8' Lt	14.8' Lt				790			
4" Permanent Marking	E Permanent White Edgeline	118+20	126+10	9.2' Rt	9.2' Rt				790			
4" Permanent Marking	CL Permanent Double Yellow	118+20	126+10	2.8' Lt	2.8' Lt				1580			
	TOTAL					1,950	2,380	24	3,160	2	2,416	

COLLEGE OF DAVIENDENT NANDVING AND DENGOVAL

Location	Station		Temporary Conc Barrier		Guardrail Refl Type C		Bridge Rail Refl Type	
			Set Stage 1	Reloc Stage 2	Stage 1	Stage 2	Stage 1	Stage 2
	Begin	End	Foot	Foot	Each	Each	Each	Each
Stage 1 & Stage 2	120+20	124+00	388	388				
West Guardrail	119+80	121+45			7			
	122+55	124+50			8	10.0000		
West Bridge Rail	121+45	122+55			-		9	
East Guardrail	119+80	121+60				8		
	122+70	124+50				8		
East Bridge Rail	121+60	122+70						9
то	TAL		388	388		1	1	8

SHOULDER RUMBLE STRIP										
Stage 1 Location	Station	Station Limits		REMOVAL			TEMPORARY			
			Length Width		Area	Length				
	Begin	End	Foot	Foot	SY	Foot	Each			
West Shoulder South End	119+80	121+45	165	3	55	165	7			
West Shoulder North End	122+57	124+50	193	3	64	193				
Stage 2 Location										
East Shoulder South End	119+80	121+60	180	3	60	180	7			
East Shoulder North End	122+72	124+50	178	3	59	178				
	TOTAL				238	716	14			

0		
Wchi03	T TAMILTON CONSULTING	
ΜË	$\Pi$ ENGINEERS, INC.	
FILE NAME:	3230 Executive Drive, Joliet, Illinois 60431 Ph: (815) 730-3444 Fax: (815) 730-6703	
Ē	IL LICENSE NO. 184-003205 © 2020 HAMILTON CONSULTING ENGINEERS, INC.	

G	USER NAME = scottw	DESIGNED -	REVISED -
		DRAWN - DWS	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 8/16/2022	DATE -	REVISED -

SCALE: NA

IL 2 CROSSING DRAINAGE DITCH	F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
GENERAL NOTES / CONSTRUCTION SEQUENCE		(39BR)BDR	OGLE	16	2
GENELIAE NOTES / CONSTRUCTION CERCENCE			CONTRACT	NO. 64F	R12
CHEET 3 OF CHEETO CTA TO CTA			•		

	SUMMARY OF QUANTITIES	CONSTRUCTION CODE			
	30WWANT OF COANTITIES		I	80% FEDERAL	20% STATE
CODE		UNIT	TOTAL	BRIDGE	ROADWAY
NO.	ITEM		QUANTITY	SN 071-0072	RURAL
40602965	HOT-MIX ASPHALT BINDER COURSE, IL 9.5 FG, N50	TON	53		53
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL 9.5, MIX "C", N50	TON	53		53
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	755		755
50102400	CONCRETE REMOVAL	CU YD	7. 1	7. 1	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	7. 7	7. 7	
50300300	PROTECTIVE COAT	SQ YD	638.9	638.9	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	790	790	
50800515	BAR SPLICERS	EACH	12	12	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	82	82	
60260100	INLETS TO BE ADJUSTED	EACH	1	1	
64200108	SHOULDER RUMBLE STRIPS, 8 INCH	FOOT	716		716
67100100	MOBILIZATION	L SUM	1	1	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1		1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1		1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70106700	TEMPORARY RUMBLE STRIPS	EACH	1 4		14
70107006	PAVEMENT MARKING BLACKOUT TAPE, 6"	FOOT	1,950		1,950

AMILTON CONSULTING ENGINEERS, INC.

320 Executive Drive, Joliet, Illinois 60431
Pic. (815) 730-3444 Fax: (815) 730-6703
L. LICHOSE RO. 184-003205
6 2020 HAMILTON CONSULTING ENGINEERS, INC.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 2 CROSSING DRAINAGE DITCH
SCHEDULE OF QUANTITIES

SHEET 3 OF SHEETS STA, TO STA.

SCALE:

	SUMMARY OF QUANTITIES	CONSTRUCTION CODE			
	SUMMANT OF QUANTITIES			80% FEDERAL	20% STATE
				BRIDGE	ROADWAY
CODE NO.	ITEM	UNIT	TOTAL QUANTITY		
*	* *			SN 071-0072	RURAL
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	2,416		2, 416
70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	2, 380		2, 380
70307210	TEMPORARY PAVEMENT MARKING - LINE 24" - TYPE IV TAPE	FOOT	24		24
70400100	TEMPORARY CONCRETE BARRIER	FOOT	388	388	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	388	24	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
78001110	MODIFIED URETHANE PAVEMENT MARKING LINE 4"	FOOT	3, 160		3, 160
78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	49	49	
X0325201	SHOULDER RUMBLE STRIP REMOVAL	SQ FT	238		238
X0325748	ACRYLIC COATING	SQ YD	12	12	
X0325749	FIBER WRAP	SQ FT	191	191	
X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	528.7	528.7	
X7820007	GUARDRAIL REFLECTORS, TYPE C (SPECIAL)	EACH	49		49
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	619.5	619.5	
				U 0 000001814	RAINAGE DIT

AMILTON CONSULTING
ENGINEERS, INC.

3230 Executive Drive, Joliet, Illiands 60431
BL LCEDERS, ING.

LLCEDERS, ING.

18-032306
0 2020 HAMATON CONSULTING DIGNEERS, INC.

| DRAWN - DWS REVISED - | PLOT SCALE = 2.0015\*/in, CHECKED - HJH REVISED - | PLOT DATE = 8/9/2022 DATE - REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 2 CROSSING DRAINAGE DITCH
SCHEDULE OF QUANTITIES

SHEET 3 OF SHEETS STA. TO STA.

	SUMMARY OF QUANTITIES	CONSTRUCTION CODE			
	SUMMANT OF QUANTITIES			80% FEDERAL	20% STATE
				BRIDGE	ROADWAY
CODE NO.	ITEM	UNIT	TOTAL QUANTITY		
				SN 071-0072	RURAL
Z0012164	BRIDGE DECK MICROSILICA CONCRETE OVERLAY 2 1/2"	SQ YD	616.2	616.2	
Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	632.0	632.0	
Z0041895	POLYMER CONCRETE	CU FT	3. 2	3. 2	
Z0043800	PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR	SQ FT	16	16	

AMILTON CONSULTING ENGINEERS, INC.

220 Executive Drive, Joliet, Illinois 60431
Ptr (815) 730-6744 - Fax: (815) 730-6703
a. u.chosk no. 144-02050
a. u.chosk no. 144-02050
a. u.chosk no. 144-02050
a. u.chosk no. 144-02050

| DRAWN - DWS REVISED - | PLOT SCALE = 2,0002'/in. | CHECKED - H.JH REVISED - | PLOT DATE = 89/2022 | DATE - | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:

 IL 2 CROSSING DRAINAGE DITCH
 RTE.
 SECTION

 SCHEDULE OF QUANTITIES
 742 (39BR)BDR

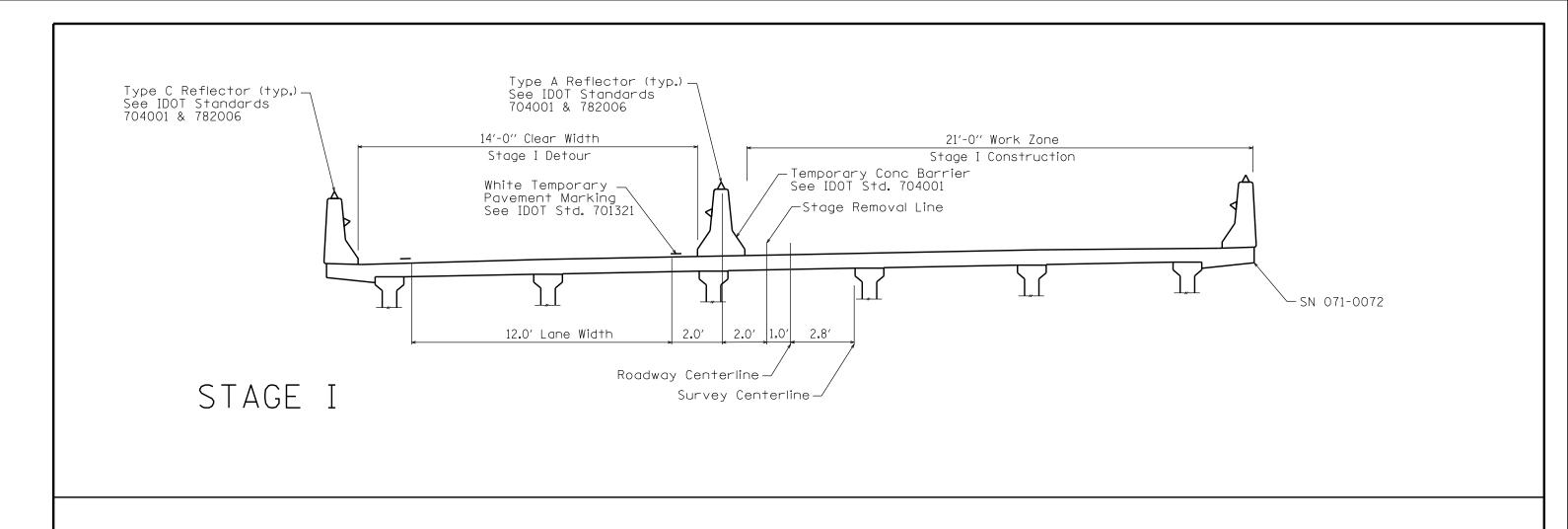
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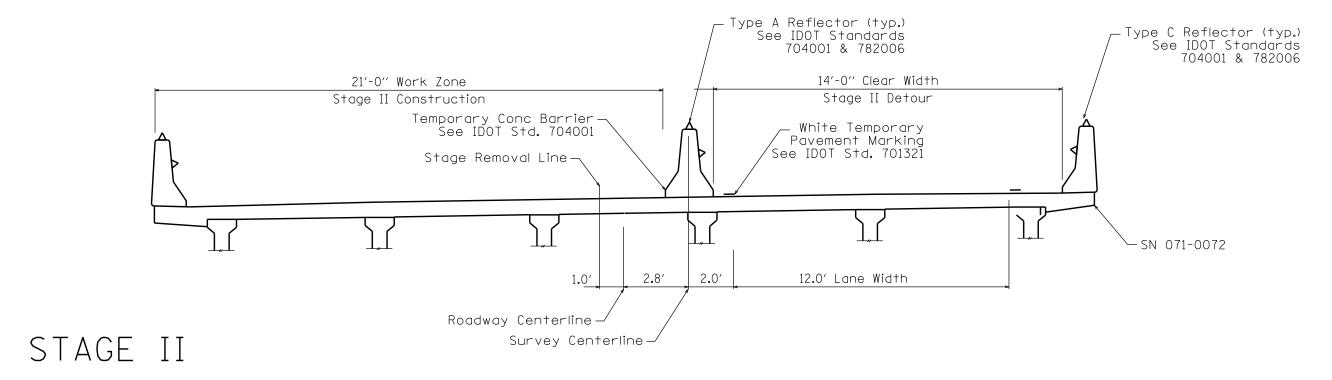
 RTE.
 SECTION
 COUNTY
 SHEETS NO.
 SHEETS NO.

 742
 (39BR)BDR
 OGLE
 16
 5

 CONTRACT NO. 64R12

 ILLINOIS FED, AID PROJECT





G USER NAME = \$USER\$ DESIGNED - REVISED 
DRAWN - MGB REVISED 
PLOT SCALE = \$SCALE\$ CHECKED - REVISED 
PLOT DATE = \$DATE\$ DATE - REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 2 CROSSING DRAINAGE DITCH
STAGING TYPICAL SECTION

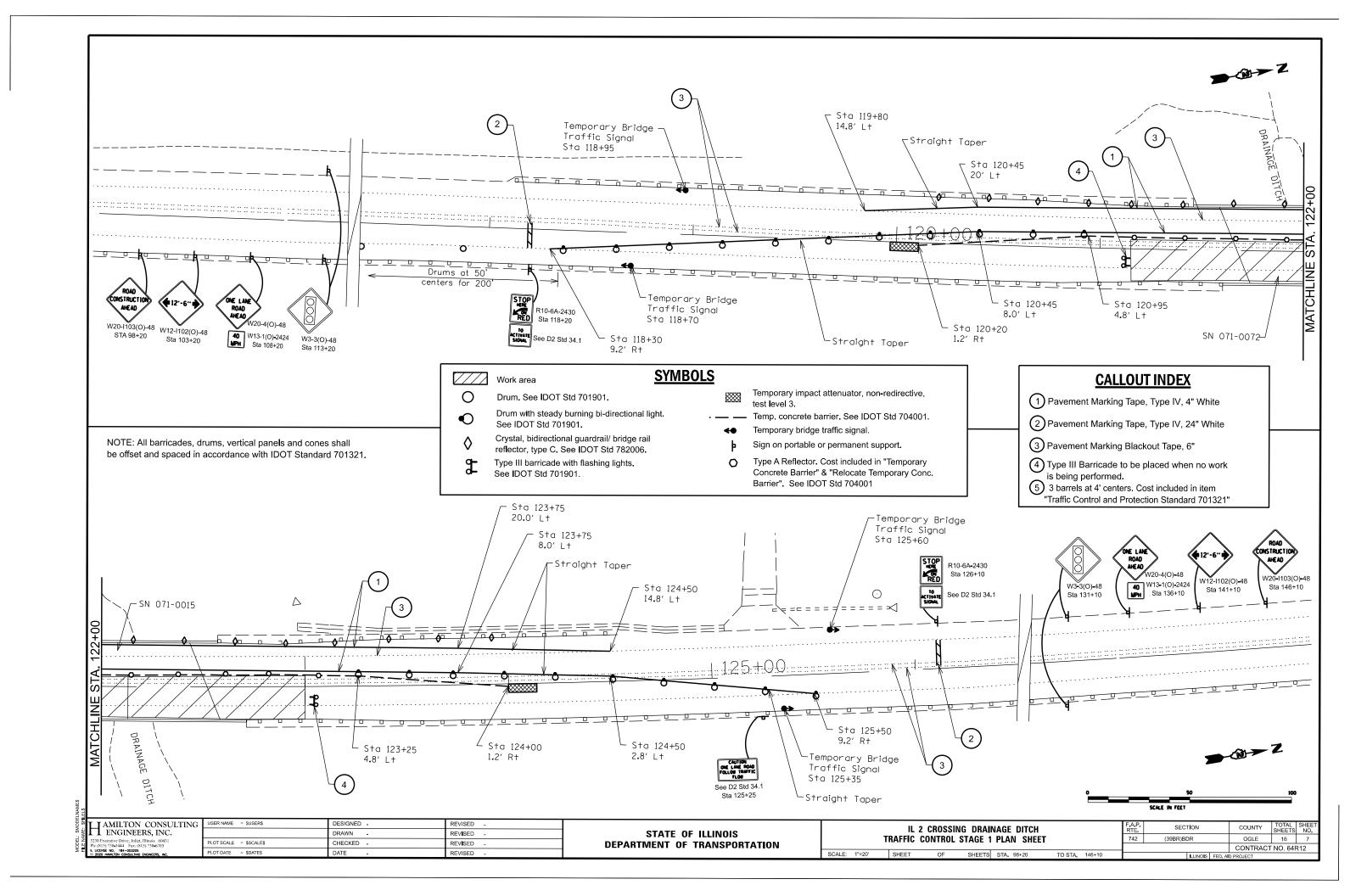
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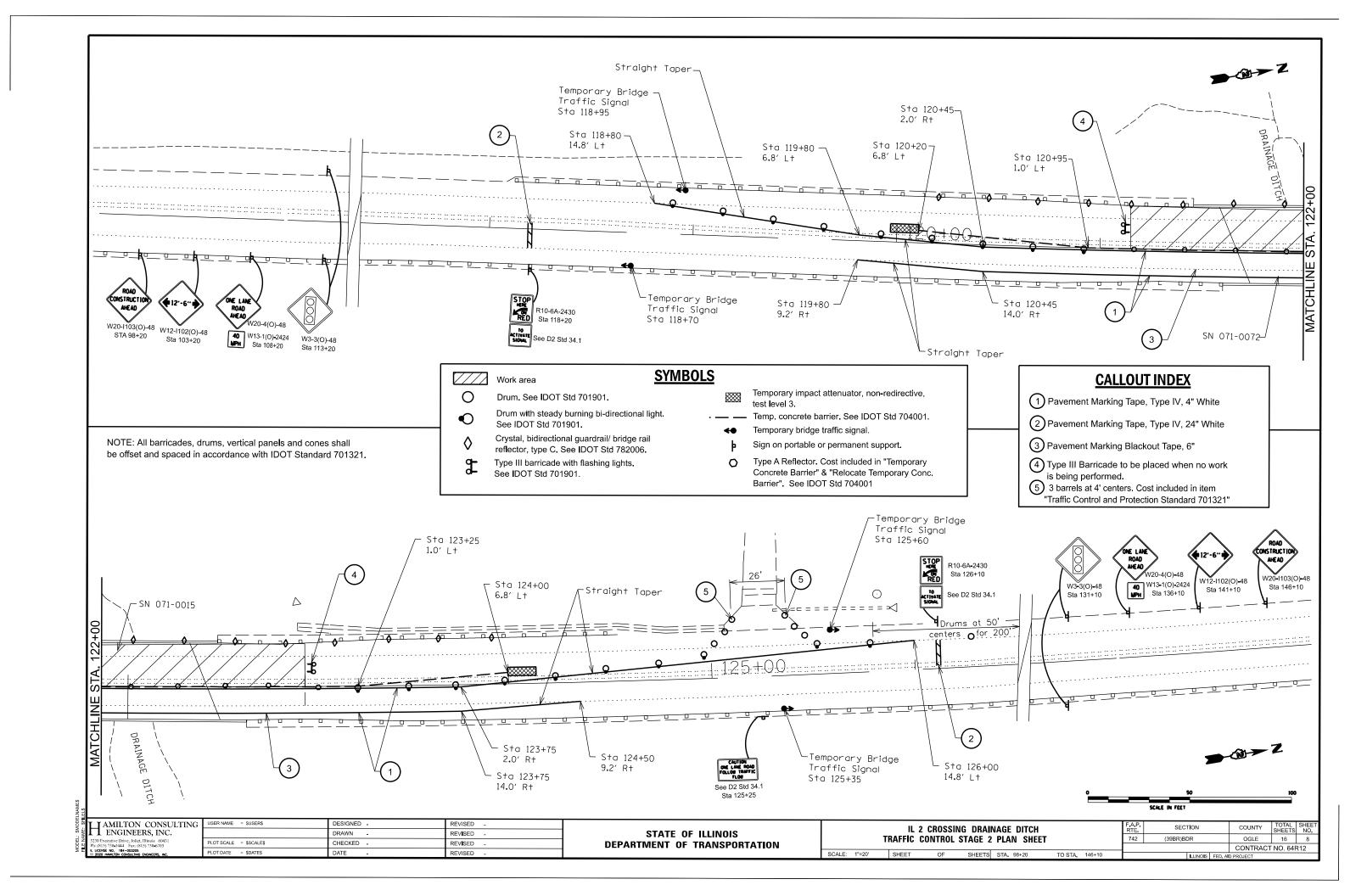
 
 F.A.P. RTE.
 SECTION
 COUNTY SHEETS NO.
 TOTAL SHEETS NO.

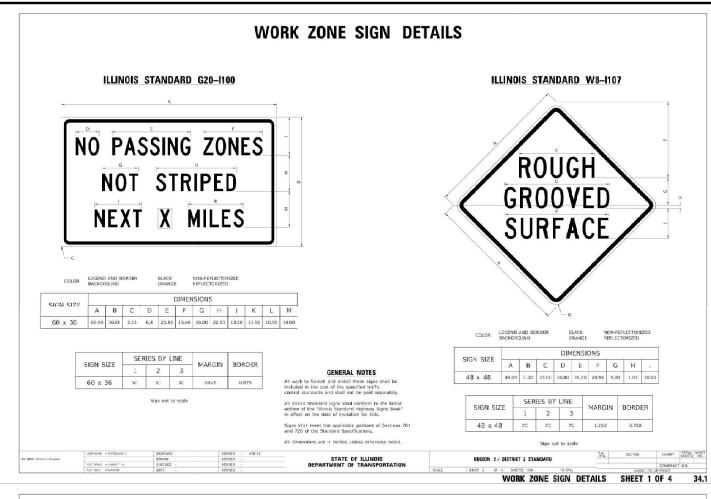
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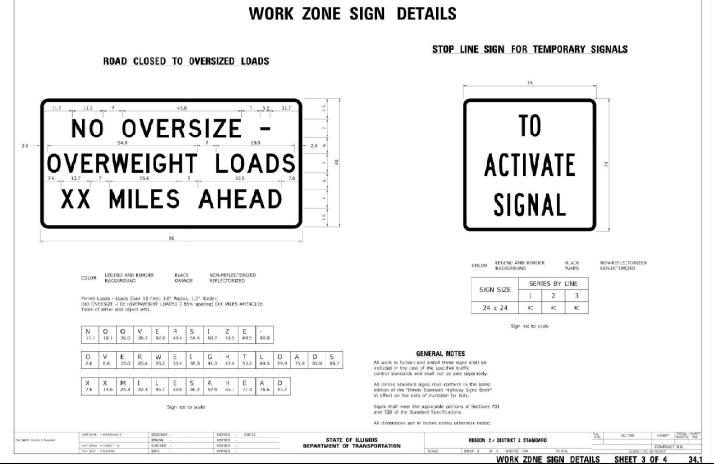
 CONTRACT NO. 64R12

 ILLINOIS FED. AID PROJECT







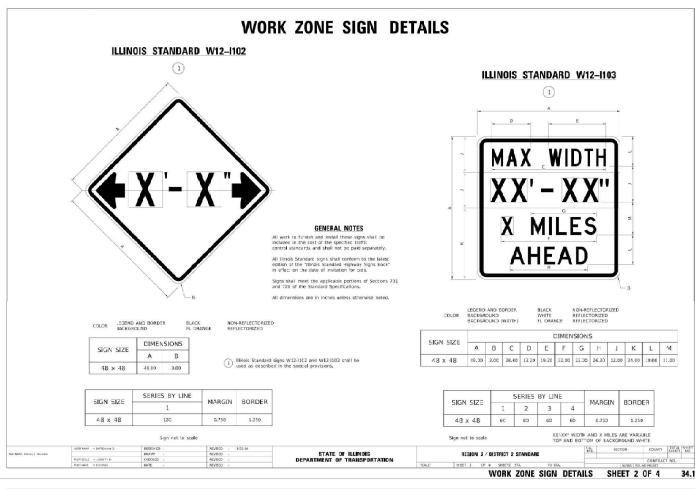


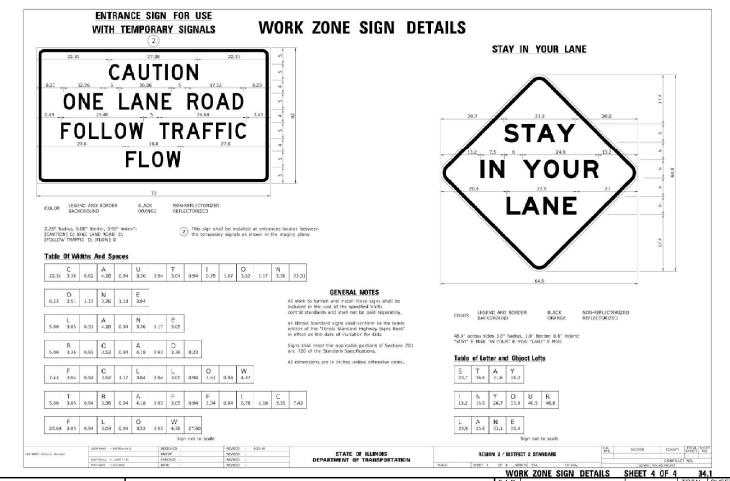
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742

(39BR)BDR

OGLE 16

CONTRACT NO. 64R12

IL 2 CROSSING DRAINAGE DITCH

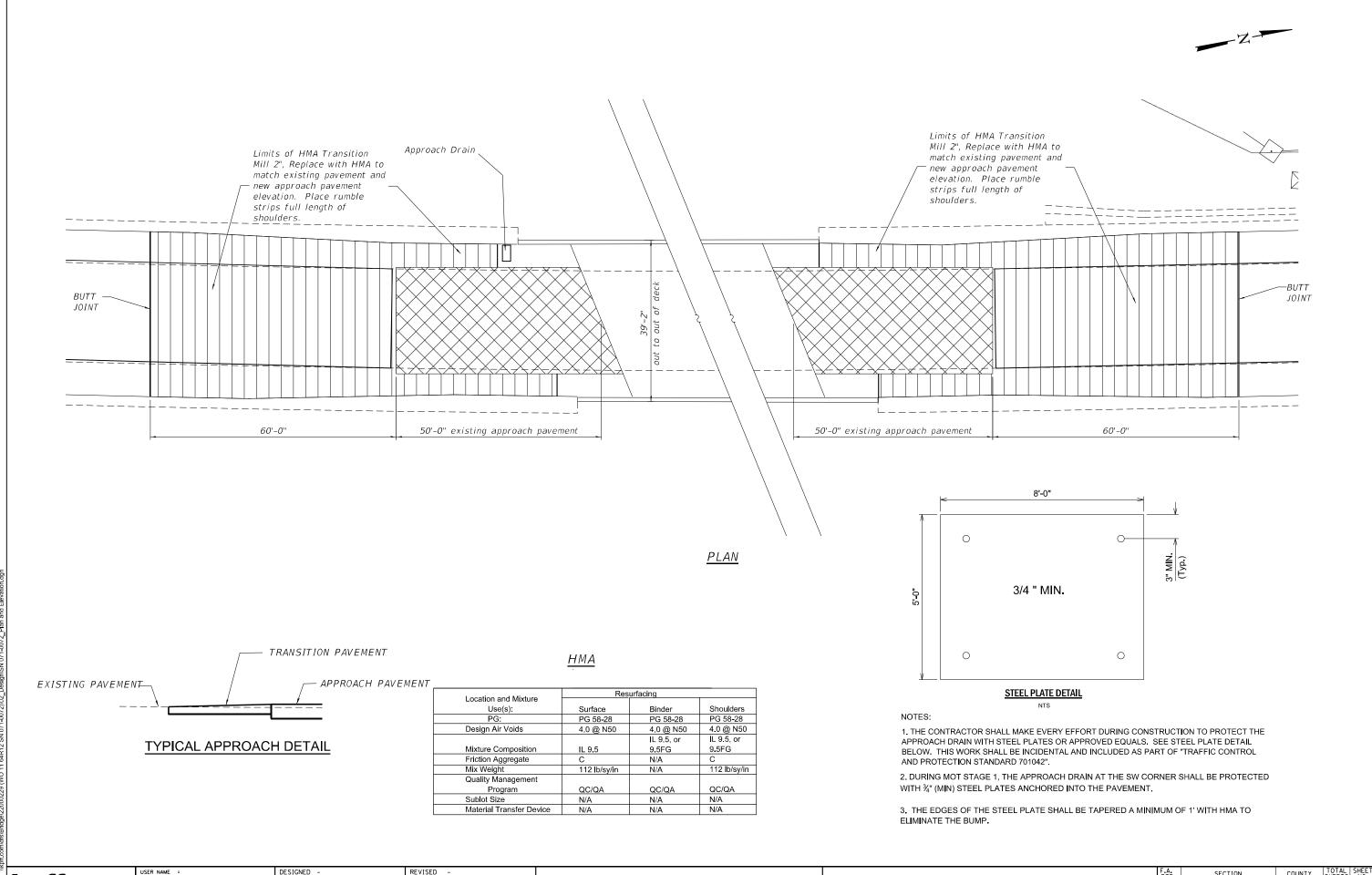
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SHEET 2 OF SHEETS STA.

STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

AMILTON CONSULTING ENGINEERS, INC.

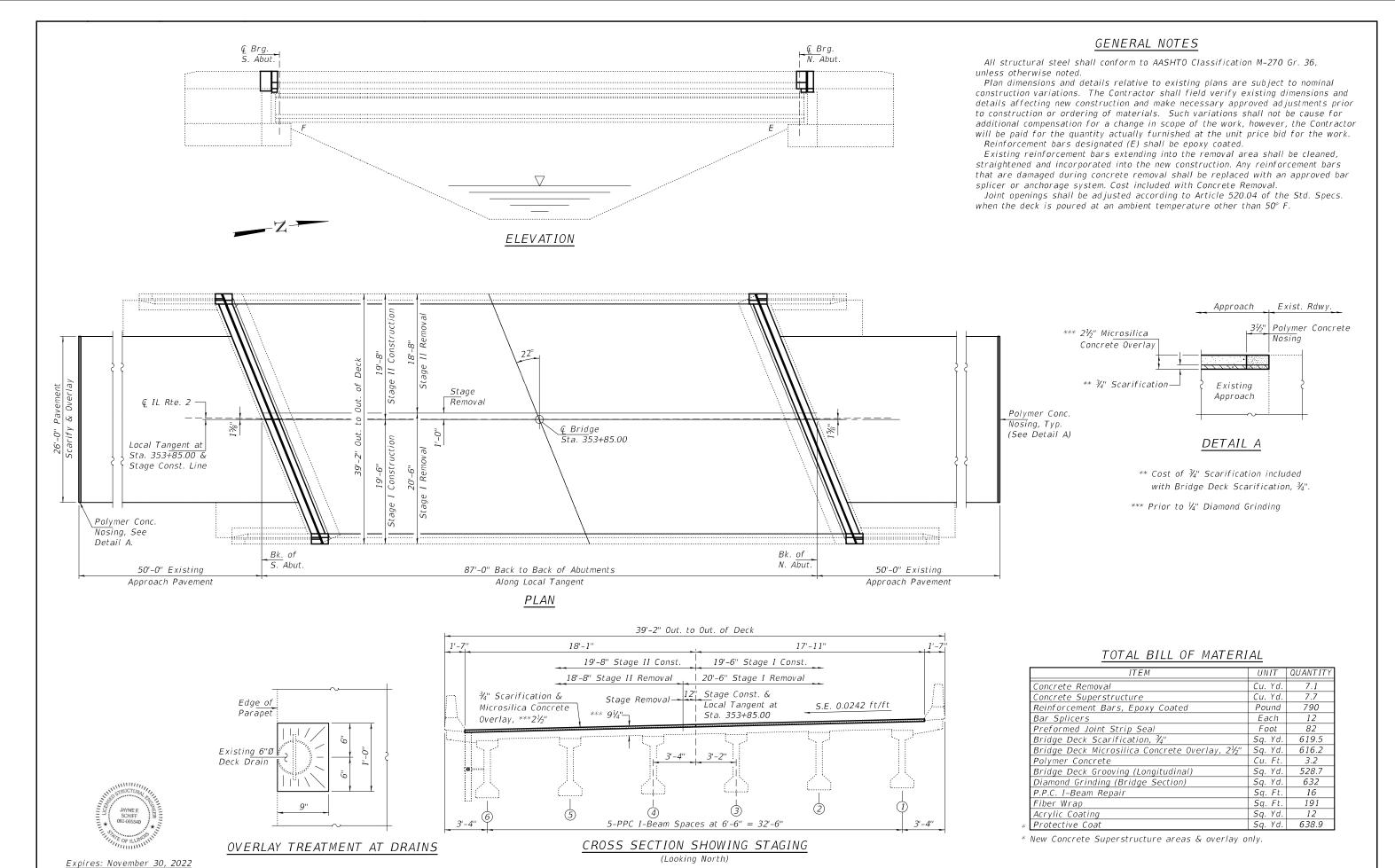


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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 2 OVER DRAINAGE DITCH SN 071-0072
PAVEMENT REMOVAL PLAN

F.A. RTE.	SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
742	(38BR)BDR			OGLE	16	10
				CONTRACT	「 NO. €	54R12
	ILLINOIS	FED.	AID	PROJECT		



# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DATE - SEPTEMBER 19, 2022

REVISED -

REVISED

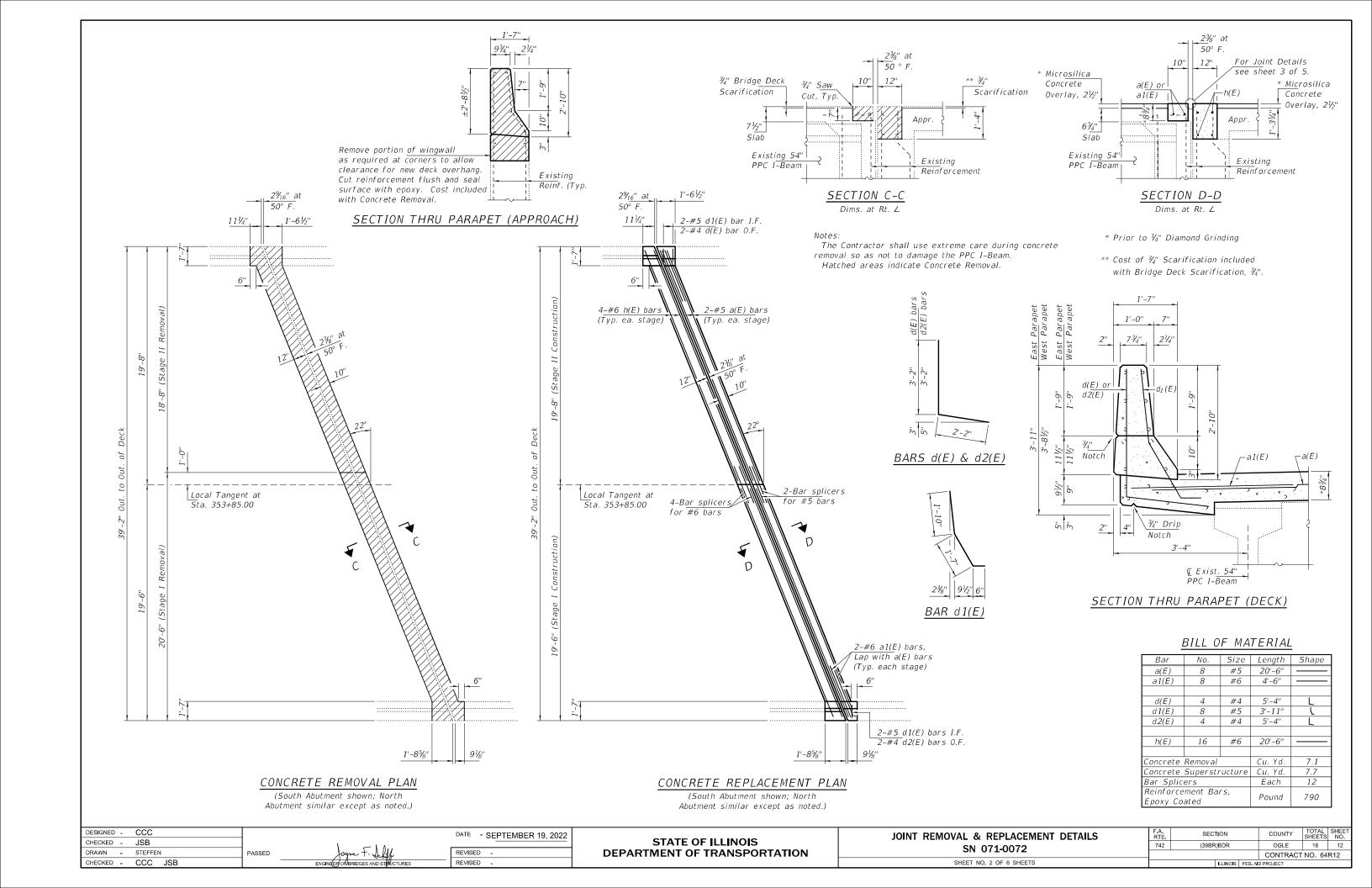
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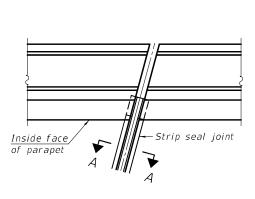
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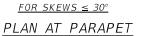
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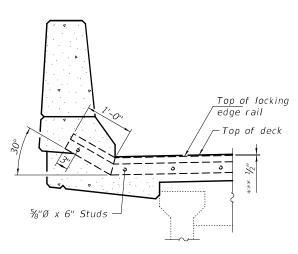
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CHECKED - CCC JSB







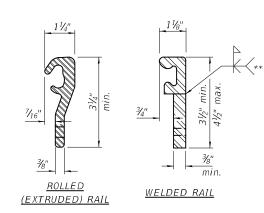


 $\frac{ELEVATION \ AT \ PARAPET}{(Skews \leq 30^{\circ})}$ 

#### \*\*\* Prior to 1/4" Diamond Grinding. Locking edge rail-Locking edge rail-11/2" at 50° F at 50° F Top of concrete Top of concrete -Strip seal \* $\frac{1}{8}$ "Ø x 6" studs at 6" cts. (alternate angled/bent studs with horizontal studs) at 50° F $\frac{3}{6}$ "Ø threaded rods in $\frac{7}{16}$ "Ø holes at $\pm 4$ '-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 SHOWING ROLLED RAIL JOINT SHOWING WELDED RAIL JOINT off flush with the plates after concrete is set.

#### SECTION A-A

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



Notes:

rated movement of 4 inches.

shall be followed.

rail splice detail.

length of the bridge approach slab.

The strip seal shall be made continuous and shall have a minimum thickness of ¼". 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

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 4½" maximum depth provided the anchorage system is revised

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

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

joint at the end of the precast bridge approach slab. For these

cases the pavement connector length shall be adjusted, not the

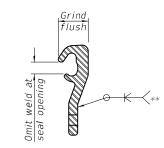
to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal

according to the manufacturer's recommendation.

The manufacturer's recommended installation methods

## LOCKING EDGE RAILS

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



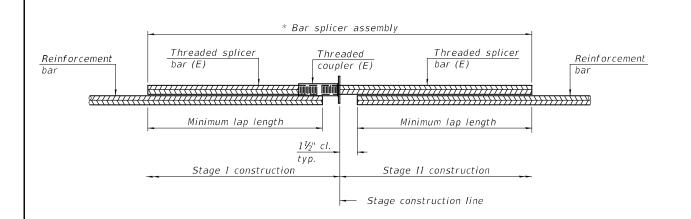
#### LOCKING EDGE RAIL SPLICE

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

#### BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	82

DESIGNED - CCC		DATE - SEPTEMBER 19, 2022		PREFORMED JOINT STRIP SEAL DETAILS	F.A. RTF	SECTION	COUNTY TOTAL SHEET SHEETS NO.
CHECKED - JSB	1 -11		STATE OF ILLINOIS	SN 071-0072	742	(39BR)BDR	OGLE 16 13
DRAWN - STEFFEN	PASSED Joyne + Jeff	REVISED -	DEPARTMENT OF TRANSPORTATION	SN 071-0072			CONTRACT NO. 64R12
CHECKED - CCC JSB	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -		SHEET NO. 3 OF 6 SHEETS		ILLINOIS FE	D. AID PROJECT



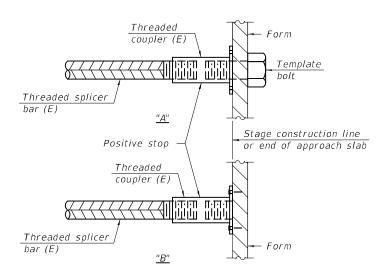
#### STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length +  $1\frac{1}{2}$ " + thread length

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

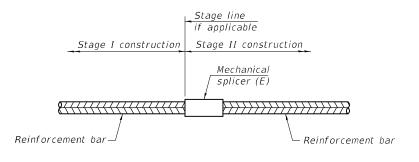
Location	Bar size	No. assemblies required	Minimum Iap length
Bridge Deck	#5	4	3'-6"
Abutment	#6	8	4'-0''



#### INSTALLATION AND SETTING METHODS

"A": Set bar splicer assembly by means of a template bolt "B": Set bar splicer assembly by nailing to wood forms or

cementing to steel forms.
(E): Indicates epoxy coating.



#### STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

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DESIGNED -	CCC			DATE - SEPTEMBER 19, 2022	
CHECKED -	JSB		1 - 1 4		
DRAWN -	STEFFEN	PASSED	Jayne F. Selff	REVISED -	
CHECKED -	CCC JSB	1	ENGINEER ON BRIDGES AND STRUCTURES	REVISED -	

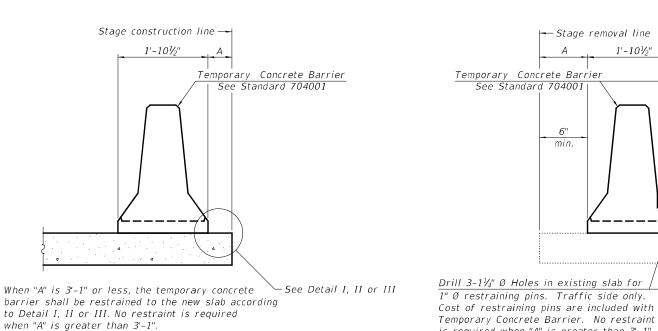
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

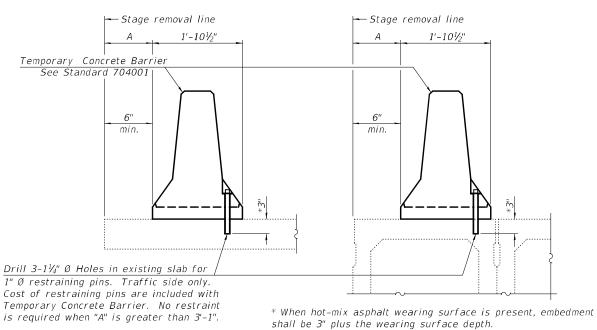
BAR SPLICER ASSEMBLY & MECHANICAL SPLICER DETAILS
SN 071-0072
SHEET NO. 4 OF 6 SHEETS

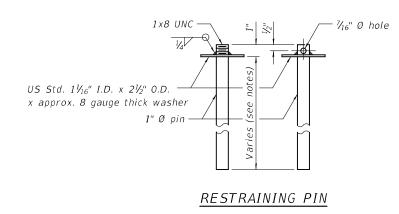
 F.A. RTE.
 SECTION
 COUNTY
 TOTAL SHEETS NO.
 SHEETS NO.

 742
 (39BR)BDR
 OGLE
 16
 14

 CONTRACT NO. 64R12





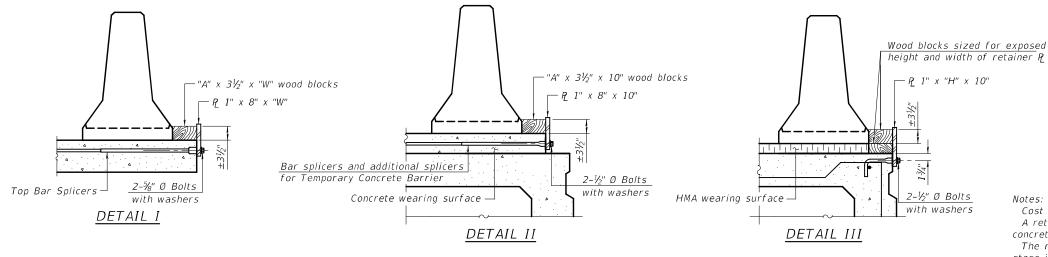


NEW SLAB OR NEW DECK BEAM

EXISTING SLAB

EXISTING DECK BEAM

#### SECTIONS THRU SLAB OR DECK BEAM



Detail I

Detail II

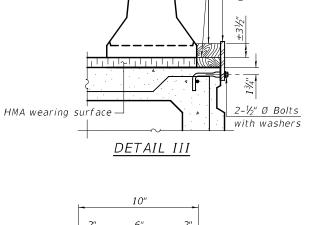
Detail I

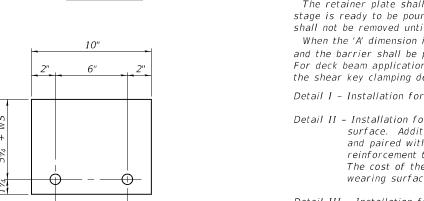
Detail II

- Ç 1/8" Ø Holes

2" Top bars Spa. 2"

(Detail I and II)





# ← Ç ¾" Ø Holes

## STEEL RETAINER P 1" x 8" x "W"

STEEL RETAINER P 1" x "H" x 10" (Detail III)

Cost of retainer assembly is included with Temporary Concrete Barrier. A retainer assembly shall be located at the approximate ( of each temporary concrete barrier.

BAR SPLICER FOR #4 BAR - DETAIL III

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than  $1\frac{1}{2}$ ", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

- Detail I Installation for a new bridge deck or bridge slab.
- Detail II Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
- Detail III Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

#### RAILING CRITERIA

NCHRP 350 Test Level Railing Weight (plf) 440

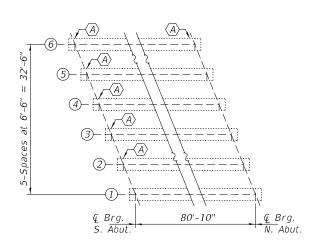
R-27 10-12-2021

DESIGNED - CCC CHECKED - JSB DRAWN - STEFFEN PASSED CHECKED - CCC JSB

DATE - SEPTEMBER 19, 2022 REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**  TEMPORARY CONCRETE BARRIER SN 071-0072 SHEET NO. 5 OF 6 SHEETS

SECTION COUNTY 16 15 742 (39BR)BDR OGLE CONTRACT NO. 64R12

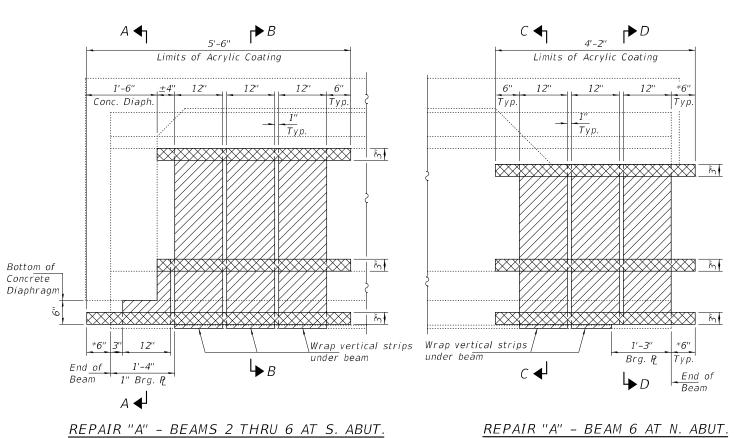


#### PARTIAL FRAMING PLAN

 $\langle A \rangle$  - F.R.P. Strengthening

### P.P.C. I-BEAM REPAIR ESTIMATED QUANTITIES

SOUT	H ABUT.	NORT	H ABUT.
Beam	Sq. Ft.	Beam	Sq. Ft.
6	4.0	6	2.0
5	3.0	5	1
4	3.0	4	-
3	2.0	3	-
2	2.0	2	-
1	-	1	-



\* Wrap horizontal anchorage

Note:

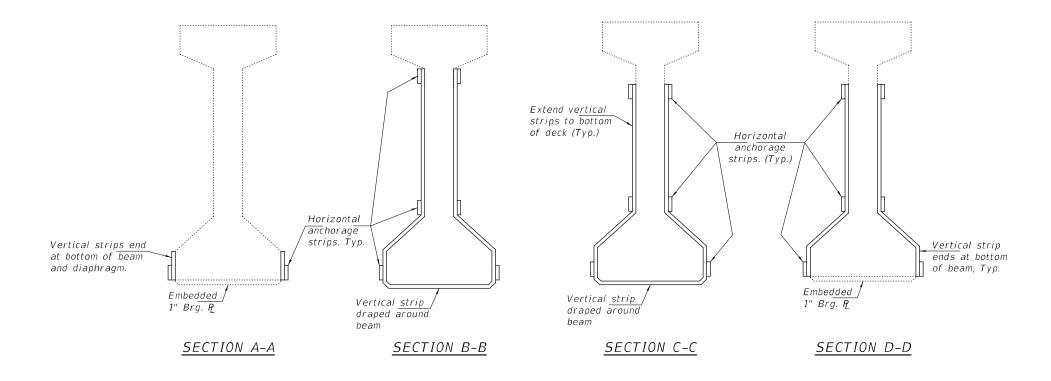
The existing concrete surface shall be cleaned and prepared in accordance with the Special Provisions.

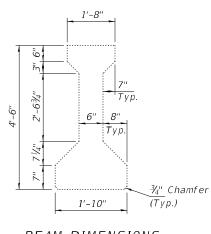
Acrylic Coating shall be placed over the fiber wrap repairs. Two coats shall be applied.

See Special Provisions for "FRP Strengthening."

Vertical FRP panels may be trimmed to fit around diaphragms. The minimum width of the trimmed legs must be 3". The FRP panel may terminate at the base of the diaphragm if the minimum width cannot be met. The horizontal anchorage strips must wrap 6" onto the diaphragm face if the strip is broken due to the diaphragm location.

strips around end of beam.





BEAM DIMENSIONS

COUNTY TOTAL SHEETS NO.

OGLE 16 16

CONTRACT NO. 64R12

DESIGNED -	CCC	
CHECKED -	JSB	
DRAWN -	STEFFEN	PASSED
CHECKED -	CCC JSB	

1 -1 1	DATE - SE <u>PTEMBER 19, 2022</u>
Joyne F. All	REVISED -
GINTER/ORBRIDGES AND STRVICTURES	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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PPC I-BEAM REPAIR	F.A. RTE	SEC	TION
SN 071-0072	742	(39BF	R)BDR
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SHEET NO. 6 OF 6 SHEETS			III LINIC