# 03-08-2024 LETTING ITEM 044

# INDEX OF SHEETS

COVER SHEET

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- 2. GENERAL NOTES AND PROJECT SPECIFIC NOTES
- 3–6. SUMMARY OF QUANTITIES
- 7-8. SCHEDULE OF QUANTITIES
- 9. REMOVAL PLAN
- 10. PROPOSED PLAN
- 11-14. STAGING DETAILS
- 15-31. STRUCTURE DETAILS S.N. 102-0046
- 32. PAVEMENT MARKING PLAN
- 33-39. DISTRICT STANDARDS

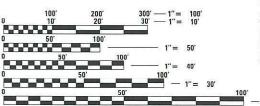
#### **HIGHWAY STANDARDS** 000001-08 701006-05 001001-02 701201-05 420001-10 701301-04 420401-13 701311-03 601101-02 701321-18 630001-13 701901-09 631031-18 704001-08 631033-09 780001-05 701001-02 782006-01

ADT = 5000 (2021)

SU = 4.0%

MU = 4.0%

US 24 OVER TP&W RR (S.N. 102-0046)



PROJECT BEGINS STA. 452 + 10.02 -PROJECT ENDS STA. 456 + 96.43

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

PROJECT MANAGER: JACOB WECK (309)671–3473

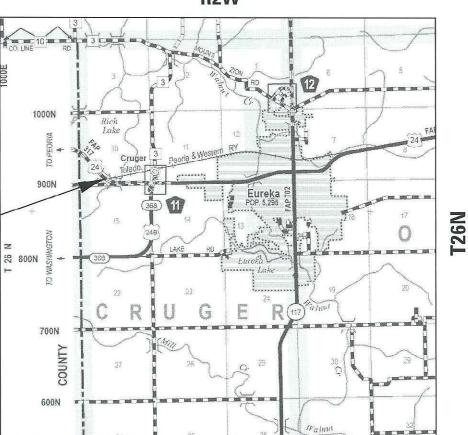
# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

# PROPOSED HIGHWAY PLANS

FAP 317 (US ROUTE 24)
SECTION (18–2VB)BRR
PROJECT NHPP–G983(664)
BRIDGE PRESERVATION
WOODFORD COUNTY

C-94-062-22

R2W



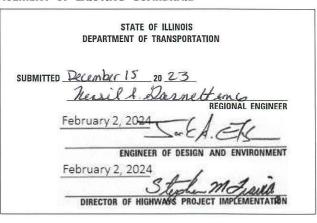
GROSS LENGTH = 486 FT. = 0.09 MILE NET LENGTH = 486 FT. = 0.09 MILE | F.A.P | SECTION | COUNTY | TOTAL | SHEET | NO. | SHEET | SHEET | NO. | SHEET | S

# D-94-044-22



# PROJECT DESCRIPTION:

WORK INCLUDES SCARIFICATION AND MICROSILICA OVERLAY ON BRIDGE DECK, APPROACH PAVEMENTS AND CONNECTOR PAVEMENTS; JOINT REPLACEMENTS; RIP RAP SWALES; AND REPLACEMENT OF EXISTING GUARDRAIL



PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

#### COMMITMENTS

Commitments are not to be altered without the written approval of all parties to which the commitment was made,

No commitments have been made on this contract.

## **ENVIRONMENTAL REVIEWS**

Prior to the use of any proposed borrow areas, use areas (temporary access roads, detours, run—arounds, etc.) and/or waste areas, the Contractor shall file the required environmental resource request surveys according to Section 107.22 of the Standard Specifications. These surveys are required in order for the Department to conduct cultural and biological resource surveys for the proposed site.

The required environmental resource documentation shall include the following:

- \* BDE Form 2289 (Borrow Site Review)
- \* BDE Form 2290 (Waste/Use Area Review)
- \* A location map showing the size limits and location of the use area
- Color photographs depicting the use area
- \* Borrow Area Entry Agreement form D4 P[0101

Prior to any waste materials being removed from the construction site the required environmental resource surveys shall be obtained and filed by the Contractor. Excess waste products removed from the construction site shall be disposed of as required in Section 202.03 of the Standard Specifications.

Any protruding metal bars shall be removed prior to the disposal of broken concrete at approved disposal sites.

Please note that a minimum of four weeks shall be allowed for the District to obtain the required waste site environmental clearances and six weeks for the required borrow site environmental clearances,

## **BRIDGE OVERLAY NOTIFICATION**

After placement of the bridge deck overlay, the Resident Engineer shall notify the District Bridge Maintenance Engineer of the "as constructed" milling depth and overlay thickness for updating the Illinois Highway Information System.

# POLYMERIZED BITUMINOUS MATERIALS (TACK COAT) RATES

Surface Type	Residual Rate
Milled (HMA or PCC)	0.08 lb /sq ft
Existing Pavement	0.08 lb /sq ft
Fog Coat (between lifts)	0.08 lb /sq ft

# HOT-MIX ASPHALT MIXTURE REQUIREMENTS

Mainline & Shoulders Shoulders	
Surface 2"	Partial Depth Patching
PG 58-28	PG 58–28
4.0% @ N = 50	4.0% @N = 50
II 0.5	IL 9.5
IL 3.3	IL 5.5
Mix C	Mix D
QCQA	QCQA
No	No
	Surface 2" PG 58-28 4.0% @ N = 50  IL 9.5  Mix C QCQA

#### Notes:

- 1) Individual lift thickness of each mix type will be no less than 3 times nominal maximum aggregate size and no more than 6 times nominal maximum aggregate size, unless otherwise approved by the Engineer.
- 2) For design purposes, mixture weight for all mixes is determined to be 112.0 lb/s.y./in., unless otherwise noted.
- 3) Sublot size for PFP and QCP mixes will be 600 tons, unless otherwise agreed to by the Engineer and the paving contractor.

#### **BUTT JOINT CUTTING TIME RESTRICTION**

Butt joints shall not be milled more than three (3) days prior to placement of the HMA surface course.

## **PAVING SURFACE COURSE**

Continuous paving operations on the main roadway shall be maintained at all times during the construction of the hot-mix asphalt surface. No interruptions for side roads, entrances, turn lanes, etc. will be allowed.

# SECURING DRAINAGE STRUCTURE GRATES

Prior to routing traffic onto the shoulders as shown in the staging plans, the Constructor shall secure gratings on shoulder inlets as directed by the Engineer. This work will not be paid for separately, but shall be included in the cost of the traffic control pay item.

# PROJECT SPECIFIC NOTES

SCALE:

THE FULL 8" THICKNESS OF GUARDRAIL AGGREGATE EROSION CONTROL SHALL BE INSTALLED ALONG THE LEFT SIDE OF US 24 AT THE LOCATIONS NOTED IN THE PLANS. ALONG THE RIGHT SIDE OF US 24, A VARIABLE THICKNESS SHALL BE INSTALLED ON TOP OF EXISTING AGGREGATE AT THE LOCATIONS NOTED IN THE PLANS TO ELIMINATE ANY DROF-OFF AT THE EDGE OF THE SHOULDER.

THE CONTRACTOR SHALL ADJUST THE DEPTH OF PROPOSED RIPRAP, AS NECESSARY, TO AVOID ANY UTILITY CONFLICTS.

GEN	IERAL N	OTES AN	D PROJE	СТ	F.A.P RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SPECIFIC NOTES		317	(18-2VB)BRR	WOODFORD	39	2			
	OI L	CITIC NO	ILO				CONTRACT	NO. 68	3H23
SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED	AID PROJECT		

CONST. CODE

80% FED
20% STATE

BR I DGE

0047

				0047
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 102-0046
,				
20200100	EARTH EXCAVATION	CU YD	31	31
28100225	STONE RIPRAP, CLASS B3	TON	102	102
40600295	POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)	POUND	704	704
40600982	HOT - MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	489	489
+0000302	THE PILA ASTRIALT SON ACE REMOVAL - BOTT SOUNT	30 15	403	403
40600990	TEMPORARY RAMP	SQ YD	489	489
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	48	48
42000060	WELDED WIRE REINFORCEMENT	SQ YD	243	243
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	448	448
44000100	PAVEMENT REMOVAL	SQ YD	449	449
44000300	CURB REMOVAL	FOOT	134	134
44213208	TIE BARS 1 1/4"	EACH	95	95
50102400	CONCRETE REMOVAL	CU YD	21	21
50105220	PIPE CULVERT REMOVAL	FOOT	130	130
50300255	CONCRETE SUPERSTRUCTURE	CU YD	23.2	23.2

USER NAME = jacob weck	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 12/15/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONST. CODE 80% FED 20% STATE BR I DGE 0047

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 102-0046
50300260	BRIDGE DECK GROOVING	SQ YD	1386	1386
50300300	PROTECTIVE COAT	SQ YD	1900	1900
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3650	3650
				-
50800515	BAR SPLICERS	EACH	32	32
52000050	PREFORMED JOINT SEAL 4	FOOT	133	133
52000110	PREFORMED JOINT STRIP SEAL	FOOT	137	137
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	1	1
,				
60600605	CONCRETE CURB, TYPE B	FOOT	35	35
63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	337.5	337.5
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2
03100003	THATTE BARREN TERMINAL, THE S	LACIT	-	
63100089	TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	2	2
63200310	GUARDRAIL REMOVAL	FOOT	515	515
66201120	CONCRETE SHOULDER CURB	FOOT	21	21
67100100	MOBILIZATION	L SUM	1	1

# \*= SPECIALTY ITEM

USER NAME = jacob weck	DESIGNED -	REVISED -	_
	DRAWN -	REVISED -	
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -	
PLOT DATE = 12/15/2023	DATE -	REVISED -	

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	_					F.A.P RTE	SECTION
	S	UMMAKY	OF QU	ANTITIES		317	(18-2VB)BRR
CALE: 1"=100"	SHEET 2	OF 4	SHEETS	STA N/A	ΤΟ STΔ Ν/Δ		TILINOIS

COUNTY TOTAL SHEET NO.
WOODFORD 39 4

CONST. CODE

80% FED
20% STATE

BRIDGE

0047

				0047
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 102-0046
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
, 0100130	THE CONTROL AND THE PERIOD OF	2 3011		-
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	4	4
70106700	TEMPORARY RUMBLE STRIP	EACH	6	6
70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	FOOT	1802	1802
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	752	752
70400100	TEMPORARY CONCRETE BARRIER	FOOT	613	613
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	613	613
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2
78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	1946	1946
78200011	BARRIER WALL RELFLECTORS, TYPE C	EACH	6	6
X0326444	SURFACE FILLER (SPECIAL)	GALLON	0.4	0.4
X4421000	PARTIAL DEPTH PATCHING	TON	60	60

\*= SPECIALTY ITEM

 USER NAME
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 PLOT SCALE
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 PLOT DATE
 = 12/15/2023
 DATE
 REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: 1"=100' SHEET 3 OF 4 SHEETS STA. N/A TO STA. N/A

CONST. CODE

80% FED
20% STATE

BRIDGE

0047

				0047
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 102-004
X4421002	PARTIAL DEPTH PATCHING (SPECIAL)	SQ YD	353	353
X5030550	PROTECTIVE COAT (SPECIAL)	SQ YD	342	342
X6350204	LINEAR DELINEATOR PANELS, 4 INCH	EACH	4	4
Z0001002	GUARDRAIL AGGREGATE EROSION CONTROL	TON	63	63
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	1386	1386
20012130	SATURD DECK SCANIFICATION 5/4	30 10	1300	
Z0012162	BRIDGE DECK MICROSILICA CONCRETE OVERLAY 2 1/4"	SQ YD	1386	1386
70013798	CONSTRUCTION LAYOUT	L SUM	1	1
Z0015802	PLUG EXISTING DECK DRAINS	EACH	1	1
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1
70023200	FILLING DRAINAGE STRUCTURES	EACH	2	2
20023200		Entern		
Z0065730	SLOPE WALL SLURRY PUMPING	CU YD	7	7
Z0076600	TRAINEES	HOUR	1,000	1,000
Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	1,000	1,000

Ø 0042

USER NAME = jacob.weck	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 12/15/2023	DATE -	REVISED -

STATI	E 01	FILLINOIS
DEPARTMENT	OF	TRANSPORTATION

						F.A.P RTE			COUNTY	TOTAL SHEETS	SHEET NO.
SUMMARY OF QUANTITIES					317	(18-2VB)BRR		WOODFORD	39	6	
									CONTRACT	NO. 68	3H23
SCALE: 1"=100'	SHEET 4	OF 4	SHEETS	STA. N/A	TO STA. N/A		ILLINOIS	FED. AID	PROJECT		

	MAINLINE SCHEDULE								
LOCATION				POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)	HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT	TEMPORARY RAMP	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50		
				40600295	40600982	40600990	40604050		
STA.	STA. TO STA. SIDE		SIDE	POUND	SQ YD	SQ YD	TON		
452+10.02 452+60.02 LT		352	244	244.4	27				
456+46.43 456+96.43 LT		352	244	244.4	21				
TOTALS				704	489	488.9	48		

PATCHING SCHEDULE							
	LOC	CATION		PARTIAL DEPTH PATCHING (SPECIAL)	PARTIAL DEPTH PATCHING		
				X4421002	X4421000		
STA.	STA. TO STA. SIDE		SQ YD	TON			
450+40.97	ТО	452+60.02	LT/RT	219	37		
456+46.43	ТО	457+80.47	LT/RT	134	23		
	TC	TALS		353	60		

DRAIN	IAGE	SCHEDULE					
LOCATIC	N	PIPE CULVERT REMOVAL					
		50105220					
STA.	SIDE	FOOT					
453+43	LT	65					
456+08	LT	65					
TOTALS	5	130					

EROSION CONTROL SCHEDULE								
	LOC	ATION	STONE RIPRAP, CLASS B3  GUARDRAIL AGG. EROSION CONTROL		EARTH EXCAVATION			
				28100225	Z0001002	20200100		
STA.	ТО	STA.	SIDE	TON	TON	CU YD		
453+14.62	ТО	453+34.62	LT	48.2				
456+27.29	456+27.29 TO 456+33.29 LT			4.5				
456+75.82 TO 456+95.82 LT			LT	49.7				
451+99.27	ТО	452+97.53	RT		7	3.4		
452+06.32	ТО	453+44.79	LT		30	14.8		
455+53.19 TO 457+00.88 RT			5	2.5				
456+05.70	ТО	457+06.25	LT		20	9.9		
	ТО	TALS		102.4	63	31		

					GUARDRA	AIL SCHEDULE	GUARDRAIL SCHEDULE								
LOCATION				CURB REMOVAL	CONCRETE CURB, TYPE B	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 6	TRAFFIC BARRIER TERMINAL, TYPE 6B	GUARDRAIL REMOVAL						
				44000300	60600605	63000001	63100085	63100089	63200310						
STA.	ТО	STA.	SIDE	FOOT	FOOT	FOOT	EACH	EACH	FOOT						
456+46.43	TO	456+95.82	LT	50											
456+46.43	TO	456+80.89	LT		35										
451+99.27	ТО	452+61.06	RT			62.5			63						
452+61.06	ТО	453+10.49	RT					1	50						
452+06.32	ТО	453+07.48	LT			100			100						
453+07.48	ТО	453+45.42	LT				1		38						
455+40.24	TO	455+89.67	RT					1	50						
455+89.67	ТО	457+00.88	RT			112.5	1		113						
456+05.08	ТО	456+43.02	LT						38						
456+43.02	ТО	457+06.25	LT			62.5			63						
	TO	TALS		50	35	337.5	2	2	515						

CONCRETE HEADWALL FOR PIPE DRAINS						
LOCATION	QUANTITY					
	60100060					
STA.	EACH					
456+30.37	1					
TOTALS	1					

MOBILIZATION	
LOCATION	QUANTITY
LOCATION	67100100
	L SUM
JOBSITE	1
TOTALS	1

TRAFFIC CONTROL AND PROTECTION, STANDARD 701321					
LOCATION	QUANTITY				
LOCATION	70100405				
	EACH				
JOBSITE	1				
TOTALS	1				
	•				

TRAFFIC CONTROL AND PROTECTION, STANDARD 701201				
LOCATION	QUANTITY			
LOCATION	70100450			
	L SUM			
JOBSITE	1			
TOTALS	1			

TEMPORARY BRIDGE TRAFFIC SIGNALS					
LOCATION	QUANTITY				
	70106500				
STA.	SIDE	EACH			
450+15.97	RT	1			
450+40.97	LT	1			
458+65.47	1				
458+90.47	1				
TOTALS	4				

TEMPORARY RUMBLE STRIPS	
LOCATION	QUANTITY
LOCATION	70106700
	EACH
JOB SITE	6
TOTALS	6

USER NAME = jacob weck	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED -	REVISED -
PLOT DATE = 12/15/2023	DATE -	REVISED -

SCHEDULE OF QUANTITIES										F.A.P RTE SECTION				TOTAL SHEETS	SHEET NO.
		St	HEDU	JLE	OF QUA	ANTITIES			317	317 (18-2VB)BRR			WOODFORD	39	7
													CONTRACT	NO. 68	3H23
SCALE: 1"=100"   SHEET 1 OF 2 SHEETS   STA. N/A TO STA. N/A											ILLINOIS	FED. AI	D PROJECT		

BARRIER WALL REFLECTO	E C							
LOCATION	QUANTITY							
LOCATION	LOCATION							
STA. TO STA.	SIDE	EACH						
453+10.49 TO 455+40.24	RT	3						
453+45.42 TO 456+05.08	LT	3						
TOTALS	6							

CONCEDUCTON LAY		
CONSTRUCTON LAY		
LOCATION	QUANTITY	
		Z0013798
STA.	SIDE	L SUM
JOBSITE	1	
TOTALS	1	

LINEAR DELINEATOR PAN	ICH	
LOCATION	QUANTITY	
LOCATION	X6350204	
STA. TO STA.	SIDE	EACH
451+99.27 TO 453+10.49	RT	1
452+06.32 TO 453+44.79	LT	1
455+40.24 TO 457+00.88	RT	1
456+05.08 TO 457+06.25	LT	1
TOTALS	4	

		SHORT	TERM PA	VEMENT N	VEMENT MARKING				
				7010	7005	70300150			
	LO	CATION		PAVEMENT BLACKOUT	MARKING TAPE, 5"	SHORT TERM PAVEMENT MARKING REMOVAL			
	S	TAGE 1		SOLID	DOUBLE YELLOW	SOLID			
STA.	STA. TO STA.			FOOT	FOOT	SQ FT			
449+65.97	TO	459+40.47	CENTER		894				
451+30.47	TO	457+75.97	RT	650		271			
	S	TAGE 2							
451+30.47	ТО	457+75.97	LT	258		108			
449+65.97	TO	459+40.47	CENTER			373			
	SUB	-TOTALS		908	894	752			
	Т	OTALS		18	02	752			

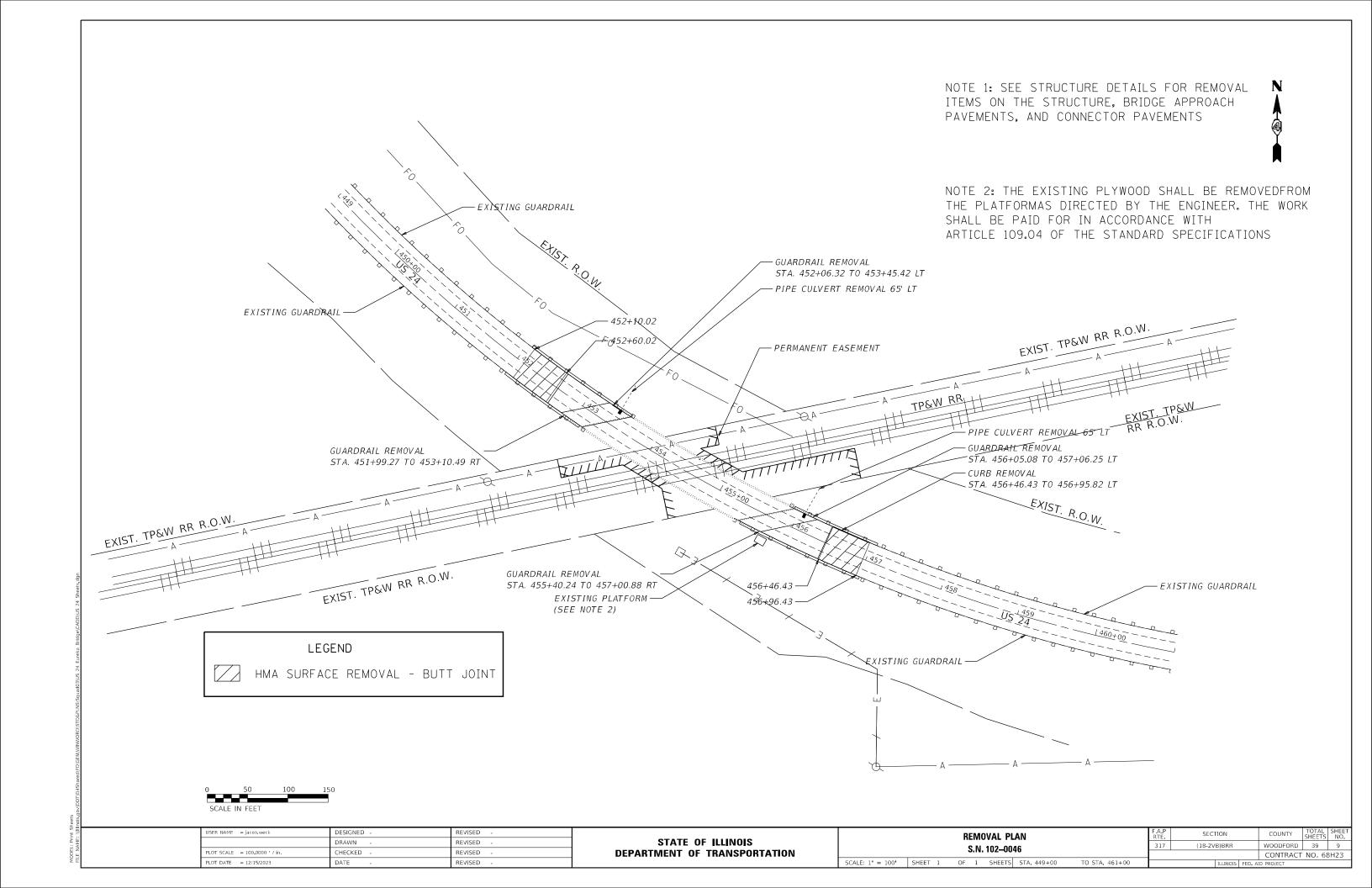
			PAVEMENT I	MARK I NGS						
				7800	9004					
	LOCAT	LION	Į.	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"						
				SOLID WHITE	DOUBLE YELLOW					
				FOOT	FOOT					
STA.	452+10.02	ТО	456+96.43	973	973					
			SUB-TOTALS	973	973					
	TOT	AL		1946						

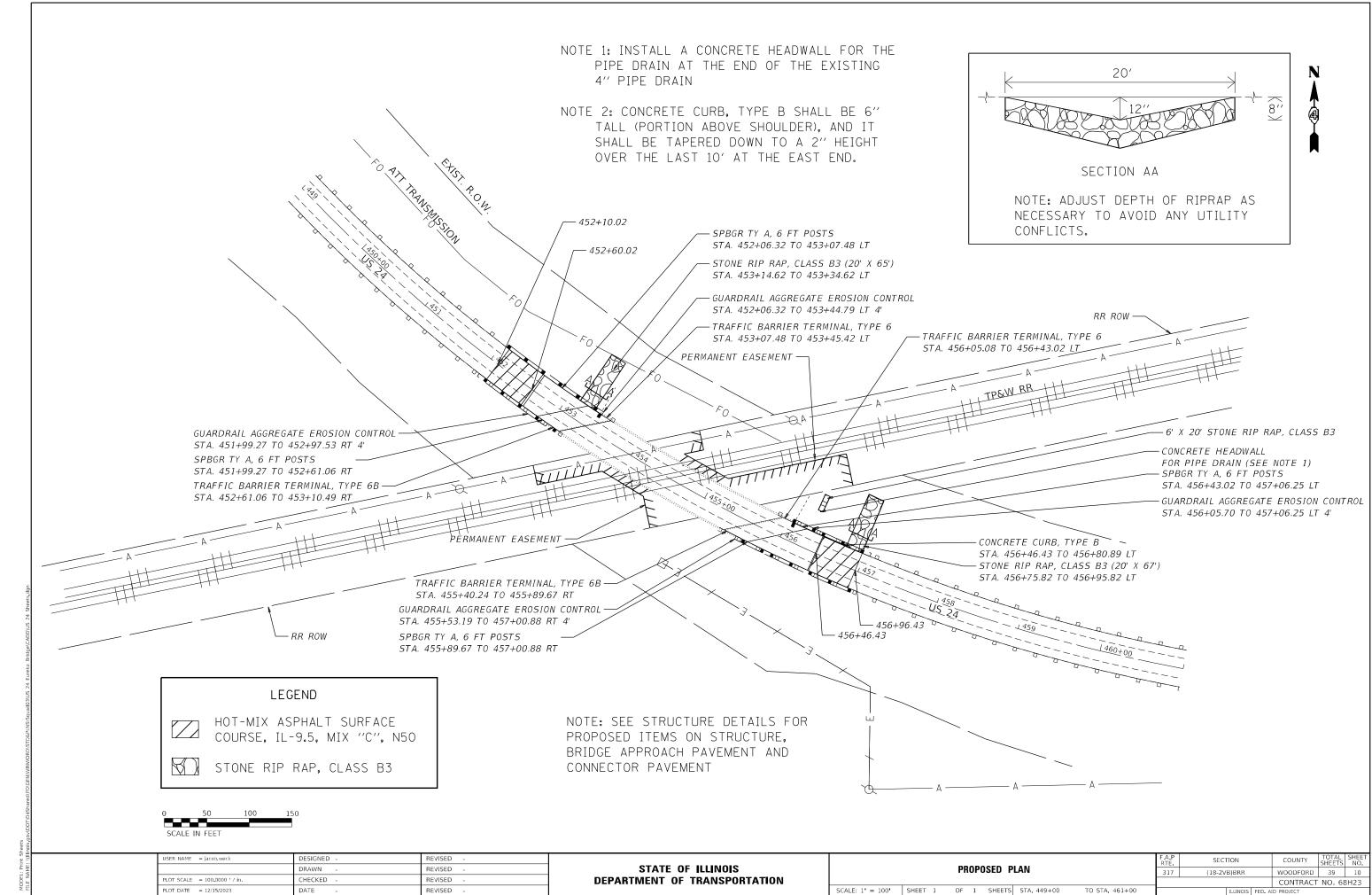
TE	MPC	RARY CONC	BARRIER SCHEDULE				
	LOC	CATION	TEMPOR CONCRE BARRI	ETE	RELOCATE TEMPORARY CONCRETE BARRIER		
				704001	00	70400200	
	ST	AGE 1		FOOT		FOOT	
STA.	ТО	STA.	LT/RT				
451+51.22	TO	457+55.22	LT/RT	613			
	ST	AGE 2					
451+51.22	ТО	457+55.22	LT/RT			613	
			613	<u> </u>	613		

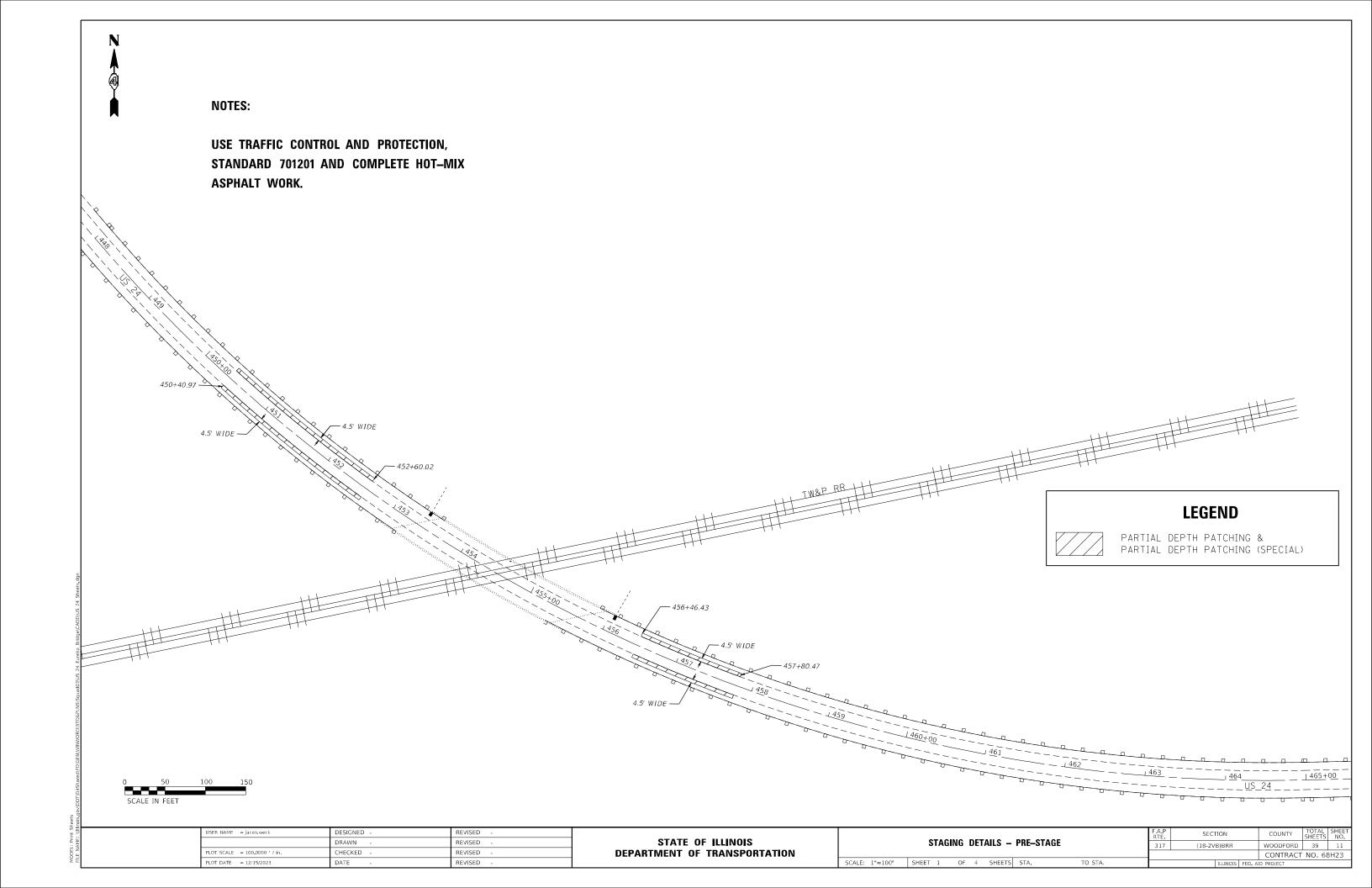
	TE	MPORA	RY IMPACT ATTENUATOR	SCHEDULE			
LOC	ATION		IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3			
STATION OFFSET LT/RT			70600250	70600350			
ST	AGE 1		EACH	EACH			
451+51.22	4.00	LT	1				
457+55.22	4.00	LT	1				
ST	AGE 2						
451+51.22	4.00	RT		1			
457+55.22	4.00	RT		1			
Т	OTAL		2	2			

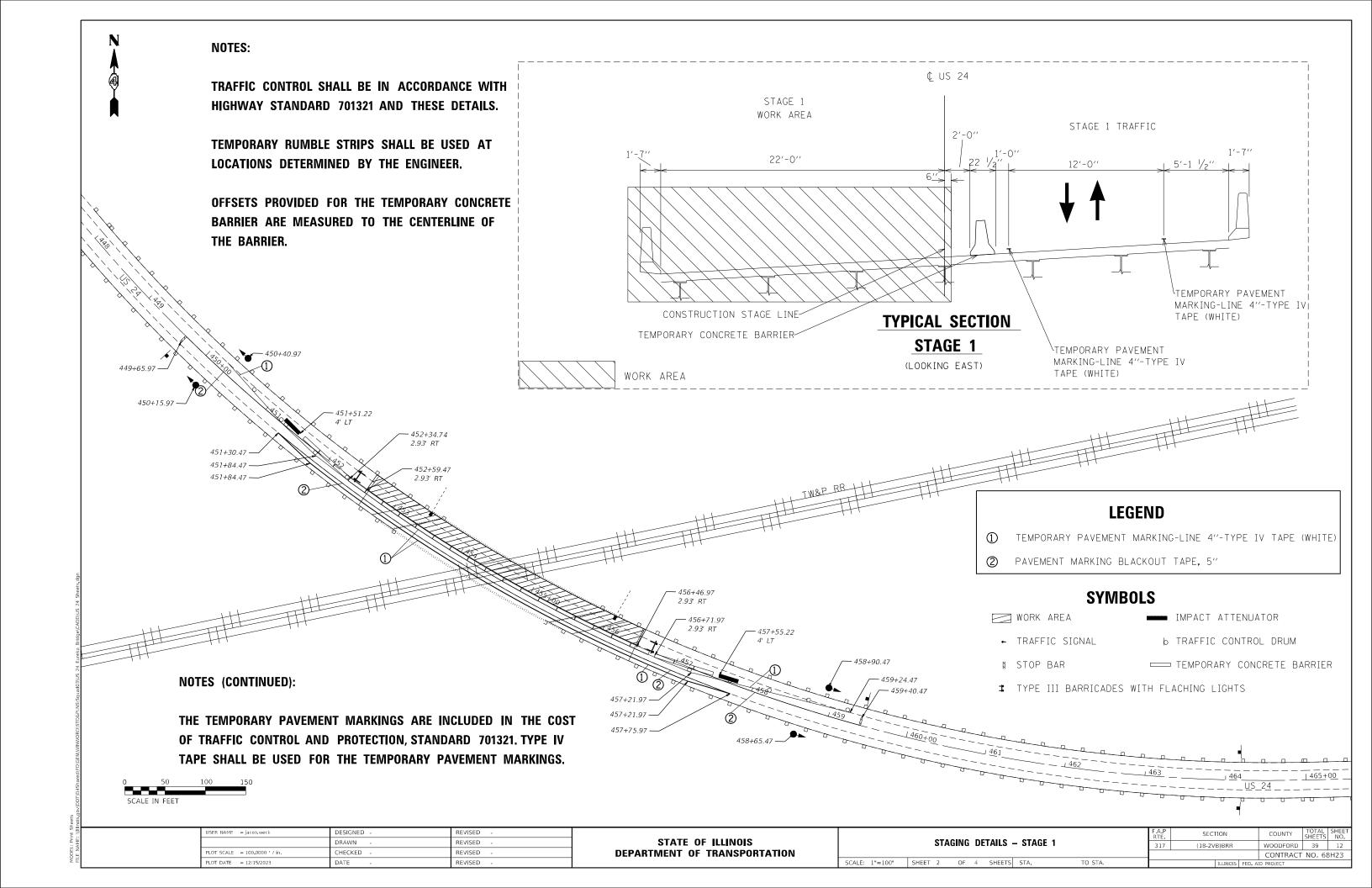
RAILROAD PROTECTIVE LIABILITY INS	URANCE
	QUANTITY
LOCATION	Z0048665
	L SUM
JOB SITE	1
TOTALS	1

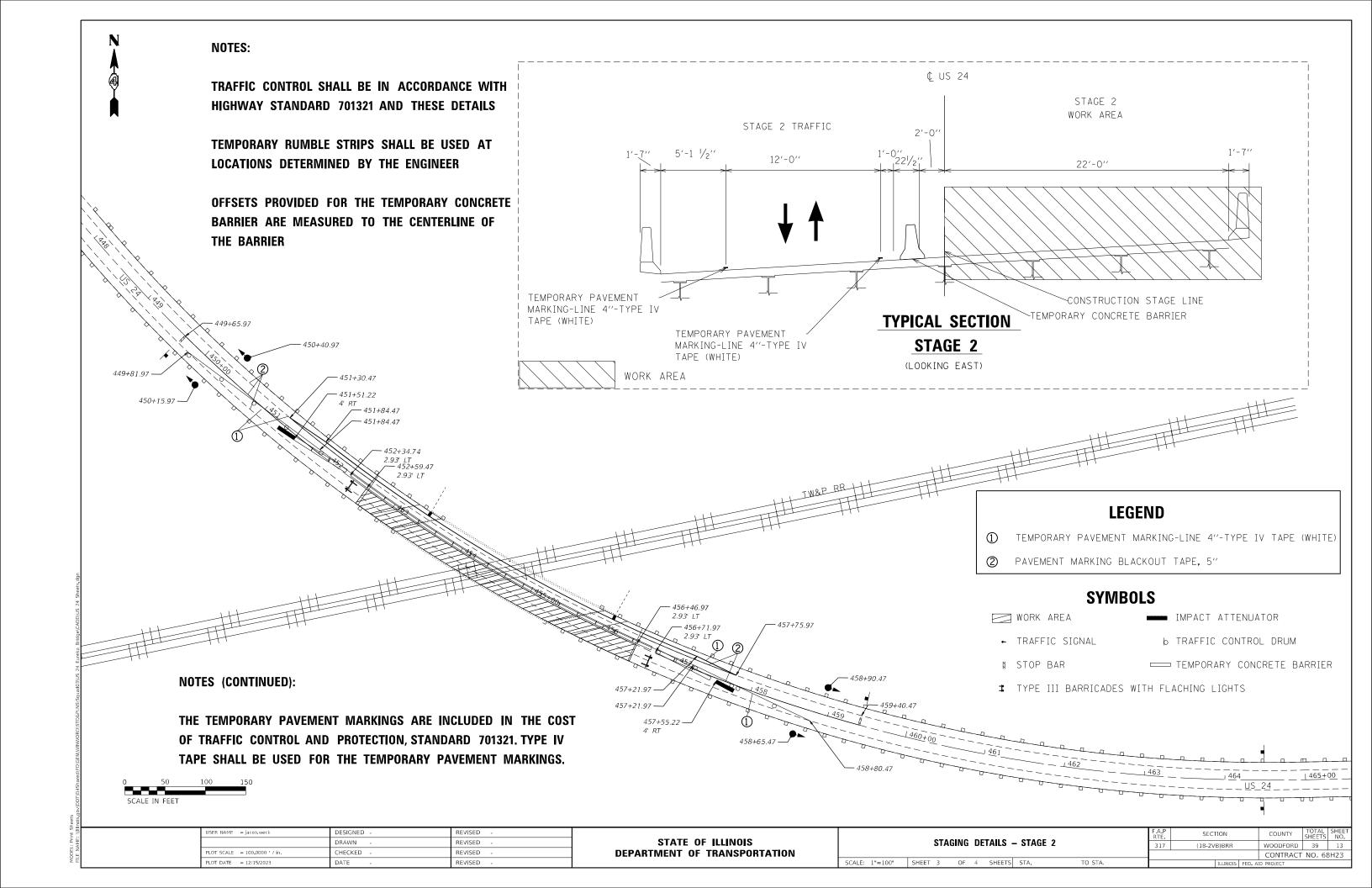
									F.A.P RTE	SEC.	TION		COUNTY	TOTAL SHEETS	SHEET NO.
	S	CHEDU	JLE	OF QU	ANTIT	IES			317	(18-2VB)BRR			WOODFORD	39	8
													CONTRACT	NO. 68	3H23
SCALE: 1"=100   SHEET 2 OF 2 SHEETS STA. N/A TO STA. N/A											ILLINOIS	FED. A	D PROJECT		

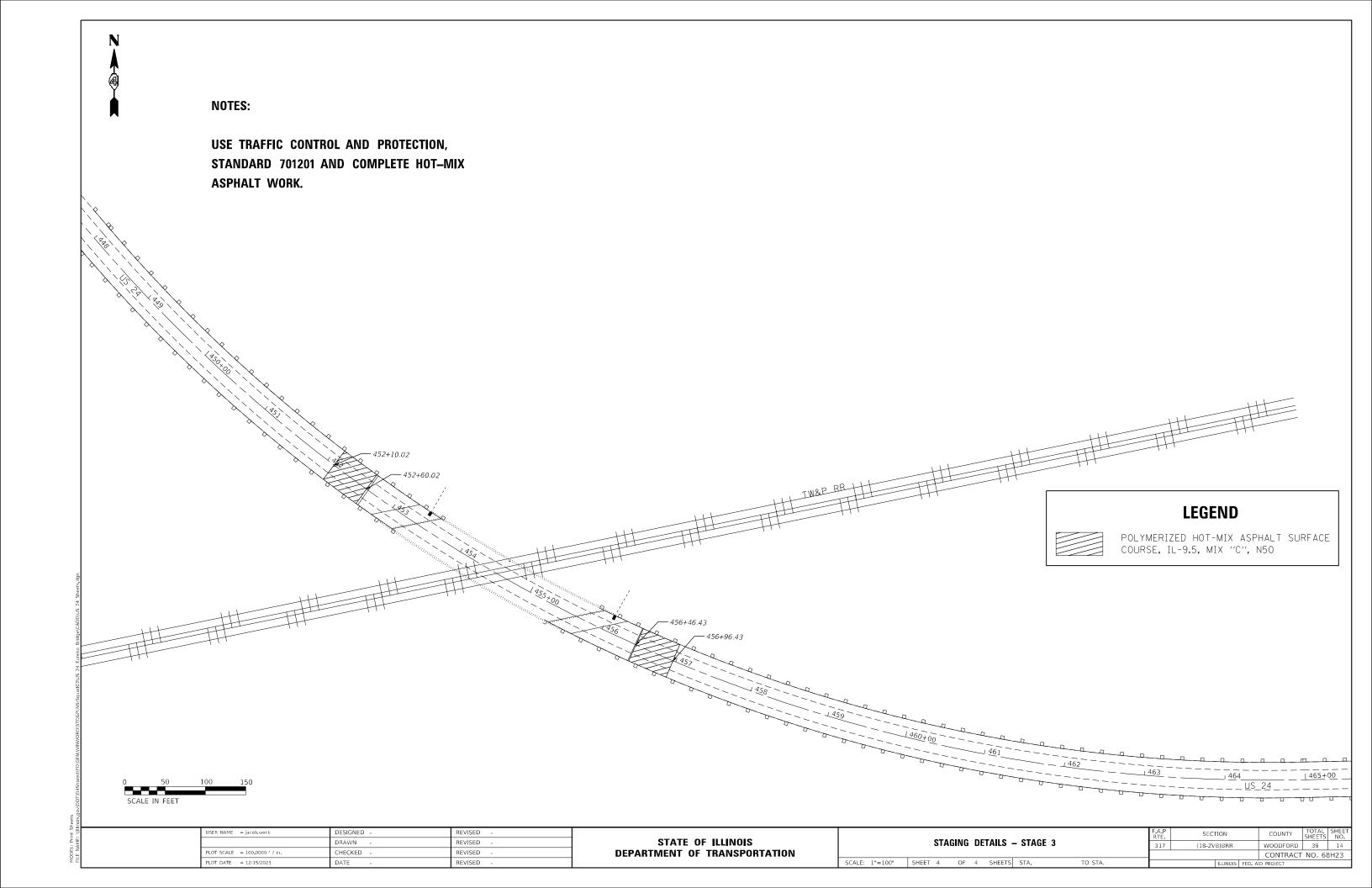












Existing Structure: SN 102-0046 was originally built in 1994 as Section 18-2VB. The existing structure is a 3-span wide flange steel beam bridge with a reinforced concrete deck, all supported on multi-column concrete piers and open abutments. The bridge length is 232'-61/2" from back to back of abutments (measured along local tangent) and the width is 47'-2" out to out of deck (measured radially) and is built on a curve. The substructures are parallel to the 🕻 of the railroad and are skewed 48°19'55" to the local tangent. The abutments and piers are supported by precast concrete piles.

Salvage: None

# DESIGN SPECIFICATIONS

2002 AASHTO Std. Spec. for Highway Bridges, 17th Edition

# LOADING HS20-44

No future wearing surface allowance.

# DESIGN STRESSES

fy = 50,000 psi (AASHTO M-223 Grade 50)

FIELD UNITS

f'c = 4,000 psi (Superstructure) f'c = 3,500 psi (Substructure)

fy = 60,000 psi (Reinforcement)

fy = 60,000 psi (Reinforcement)

fy = 36,000 psi (AASHTO M-183)

f'c = 3,500 psi

EXISTING STRUCTURE (1994 CONSTRUCTION) 1 - General Plan & Elevation

2 - General Data

3 - Temporary Concrete Barrier

INDEX OF SHEETS

4 - Superstructure Concrete Removal

5 - Superstructure

6 - Superstructure Details

7 - Superstructure Typical Section

8 - Superstructure Repair Plan 9 - Superstructure Repair Details

10 - Preformed Joint Strip Seal

11 - Pavement Expansion Joint Replacement Plan and Details

12 - West Abutment Concrete Removal 13 - West Abutment Plan and Elevation

14 - East Abutment Concrete Removal

15 - East Abutment Plan and Elevation

16 - Slope Wall Repair Plan

17 - Bar Splicer Assembly and Mechanical Splicer Details

# CURVE DATA P.I. Sta. = 457+10.09

 $\Delta = 50^{\circ}51'50.29''$  $D = 3^{\circ}00'00''$ 

R = 1,909.86'

T = 908.18'

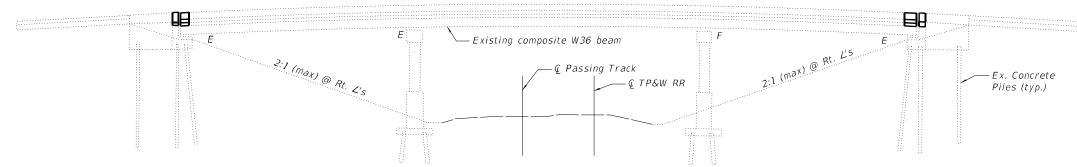
L = 1,695.47E = 204.93'

P.C. Sta. = 448+01.91

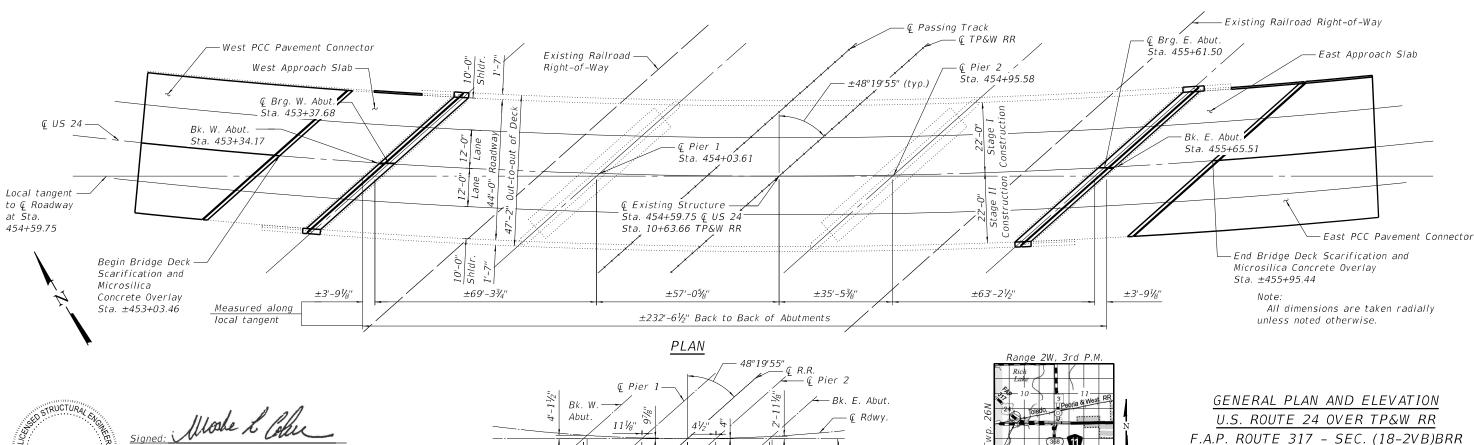
P.T. Sta. = 464+97.38

S.E. = 0.060'/'

S.A. = Sta 446+68.58 to Sta. 448+68.58 Sta. 464+30.71 to Sta. 466+30.71



# **ELEVATION**



MOSHE L. COHEN

Dated: 2024-01-18

Illinois Structural Engineer No. 081-008104 License Expires: 11-30-2024

DESIGNED - MLC REVISED -CHECKED - MMC REVISED -DRAWN REVISED PLOT DATE = CHECKED - MMC REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

35'-5¾''

66'-115%'

102'-5"

92'-6"

LAYOUT PLAN

Local tangent

to @ Roadway

at Sta.

454+59.75

Project

Location

LOCATION SKETCH

SHEET 1 OF 17 SHEETS

4'-75/8"

73'-07/8"

130'-11/5"

SECTION COUNTY 317 (18-2VB)BRR WOODFORD 39 15 CONTRACT NO. 68H23

WOODFORD COUNTY

STATION 454+59.75

STRUCTURE NO. 102-0046

Kaskaskia

3. Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications at ambient temperature

4. All exposed concrete edges shall have a standard  $rac{3}{4}$ " chamfer unless noted otherwise.

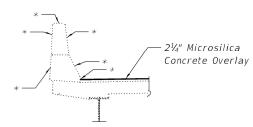
5. Fasteners shall be high strength bolts. Bolts  $\frac{3}{4}$ " diameter, open holes  $\frac{13}{16}$ " diameter, unless otherwise noted.

6. All heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

# SCOPE OF WORK

To be completed under stage construction:

- 1. Remove existing neoprene expansion joints at abutments.
- 2. Remove existing steel frame and grate from inlet structures and fill structures.
- 3. Plug existing deck drain and remove drainage system for drain over railroad tracks.
- 4. Remove existing deicing nozzles and pavement sensor.
- 5. Scarify bridge deck and approach slabs.
- 6. Remove and reconstruct abutment backwalls.
- 7. Reconstruct deck joints at the Abutments with preformed joint strip seal.
- 8. Remove existing PCC Pavement Connectors and Preformed Joint Seal joints at the Approach Slabs. Remove Approach Slab concrete adjacent to the joints as shown on the plans. Construct new PCC Pavement Connectors. Place new concrete at the end of the Approach Slabs at the joint location and install designated size of silicone joint sealer.
- 9. Remove and reconstruct curb on Approach Slabs and PCC Pavement Connectors.
- 10. Install Microsilica Concrete Overlay and perform Bridge Deck Grooving.
- 11. Apply Protective Coat (Special) to the existing parapet concrete and Protective Coat to new concrete (including PCC Pavement Connectors) and Microsilica Concrete Overlay.
- 12. Fill gap between abutments and slope walls. Fill voids under slope walls.



# TYPICAL SECTION THRU PARAPET

For dimensions, see sections on sheets 4, 6, and 12 through 15 of 17.

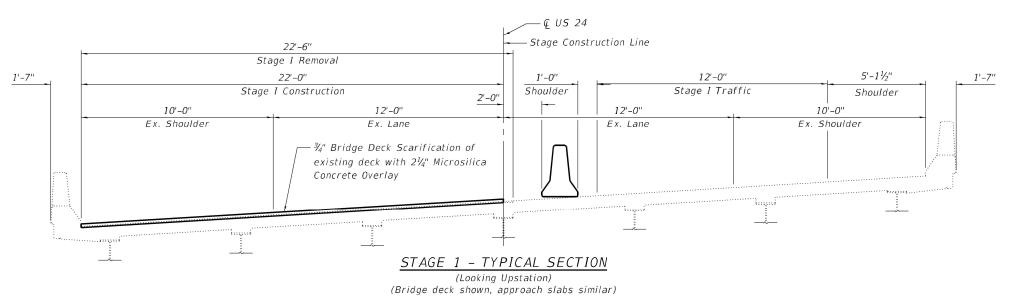
\* Protective Coat (Special) shall be applied to the existing parapets on both the deck and the abutments.

Following application of the Protective Coat (Special), the Contractor shall reapply the stenciled structure number on the parapet in black paint with 2" numbers with the same format xxx-xxxx. This work shall be considered included in the cost of Protective Coat (Special).

# TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Welded Wire Reinforcement	Sq. Yd.	243		243
Pavement Connector (PCC) for Bridge Approach Slab	Sq. Yd.	448		448
Pavement Removal	Sq. Yd.	449		449
Curb Removal	Foot	84		84
Tie Bars 1 1/4"	Each	95		95
Concrete Removal	Cu. Yd.	21.0		21.0
Concrete Superstructure	Cu. Yd.	23.2		23.2
Bridge Deck Grooving	Sq. Yd.	1,386		1,386
* Protective Coat	Sq. Yd.	1,900		1,900
Reinforcement Bars, Epoxy Coated	Pound	3,650		3,650
Bar Splicers	Each	32		32
Preformed Joint Seal 4"	Foot	133		133
Preformed Joint Strip Seal	Foot	137		137
Concrete Shoulder Curb	Foot	21		21
Surface Filler (Special)	Gal.	0.4		0.4
Protective Coat (Special)	Sq. Yd.	342		342
Bridge Deck Scarification 3/4"	Sq. Yd.	1,386		1,386
Bridge Deck Microsilica Concrete Overlay 2 1/4"	Sq. Yd.	1,386		1,386
Plug Existing Deck Drains	Each	1		1
Filling Drainage Structures	Each	2		2
Slope Wall Slurry Pumping	Cu. Yd.		7	7

On new concrete and Microsilica Concrete Overlay only



Q US 24 -22'-0" Stage Construction Line Stage II Construction 5'-11/2" 12'-0" 21'-6" Stage II Traffic Shoulder Stage II Removal 12'-0" 12'-0" 10'-0" 10'-0" Ex. Shoulder Ex. Lane Ex. Lane Ex. Shoulder ¾" Bridge Deck Scarification of existing deck with  $2\frac{1}{4}$ " Microsilica Concrete Overlay

> (Looking Upstation) (Bridge deck shown, approach slabs similar)

STAGE 2 - TYPICAL SECTION

All dimensions are taken radially unless noted otherwise. For PCC Pavement Connector staging, see

sheet 7 of 17.

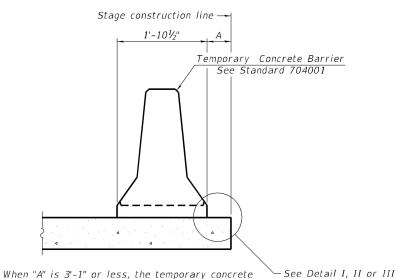
Kaskaskia

DESIGNED - MLC REVISED CHECKED - MMC REVISED -REVISED CHECKED - MMC REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

**GENERAL DATA STRUCTURE NO. 102-0046** SHEET 2 OF 17 SHEETS

SECTION COUNTY 317 (18-2VB)BRR WOODFORD 39 16 CONTRACT NO. 68H23



to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

Drill 3-11/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

Temporary Concrete Barrier

See Standard 704001

6" min.

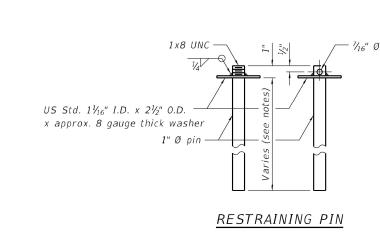
> \* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

← Stage removal line

min.

1'-101/5"

EXISTING DECK BEAM



NEW SLAB OR NEW DECK BEAM

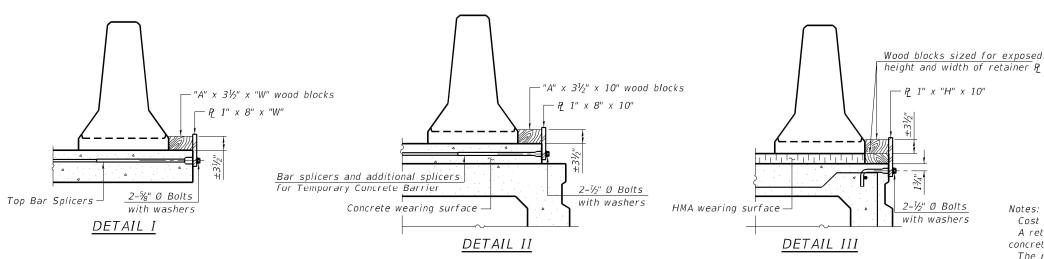
barrier shall be restrained to the new slab according

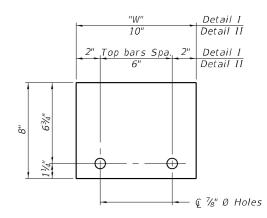
# SECTIONS THRU SLAB OR DECK BEAM

Stage removal line

1'-10½"

EXISTING SLAB



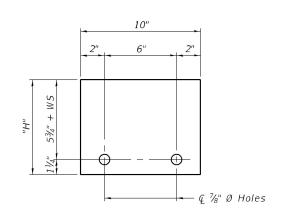


# RAILING CRITERIA

NCHRP 350 Test Level Railing Weight (plf) 440 R-27

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

(Detail I and II)



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

Notes:

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.

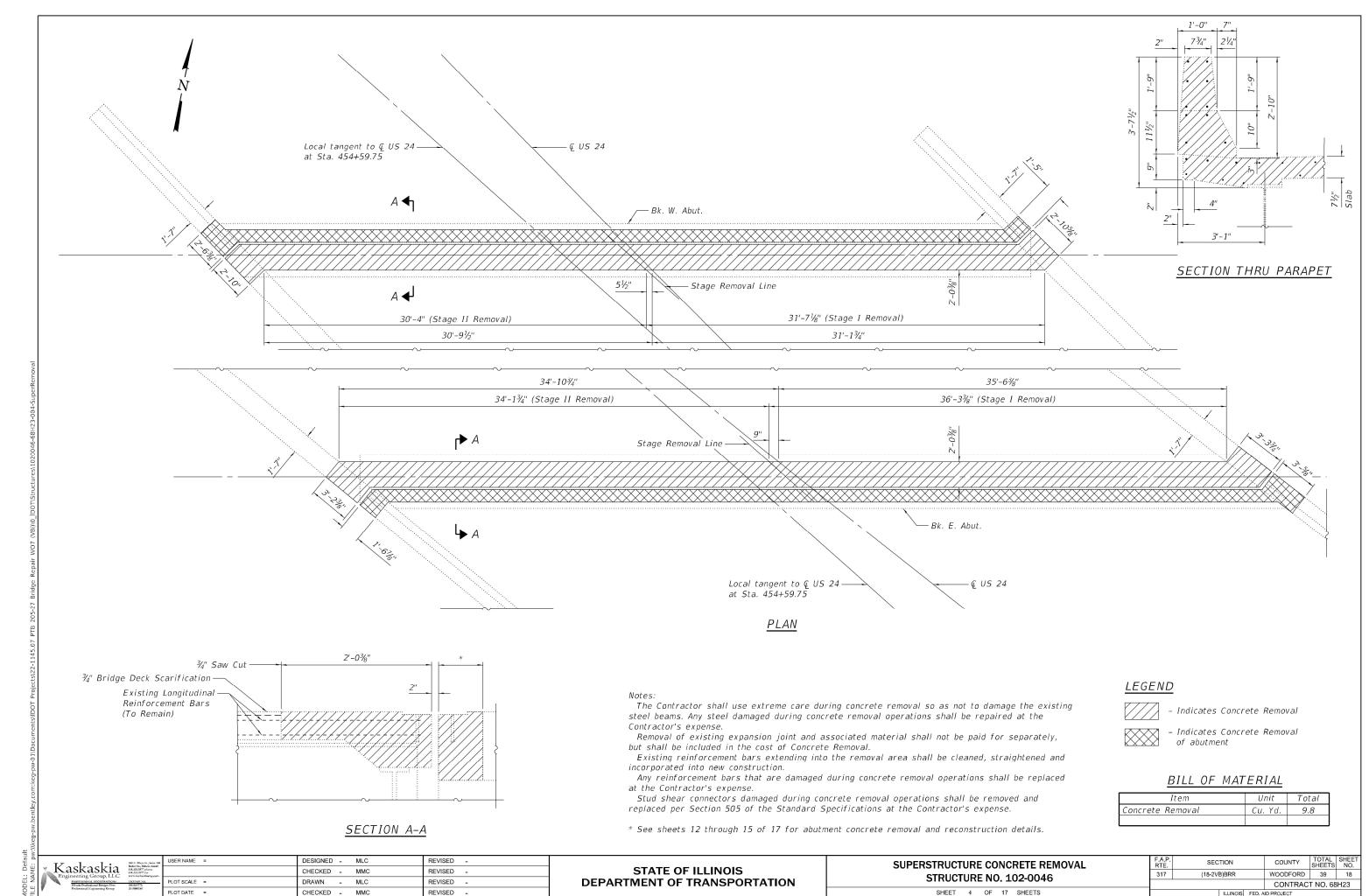
Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate 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.

10-12-2021 DESIGNED - MLC REVISED -Kaskaskia CHECKED - MMC REVISED -REVISED -PLOT DATE = CHECKED - MMC REVISED -

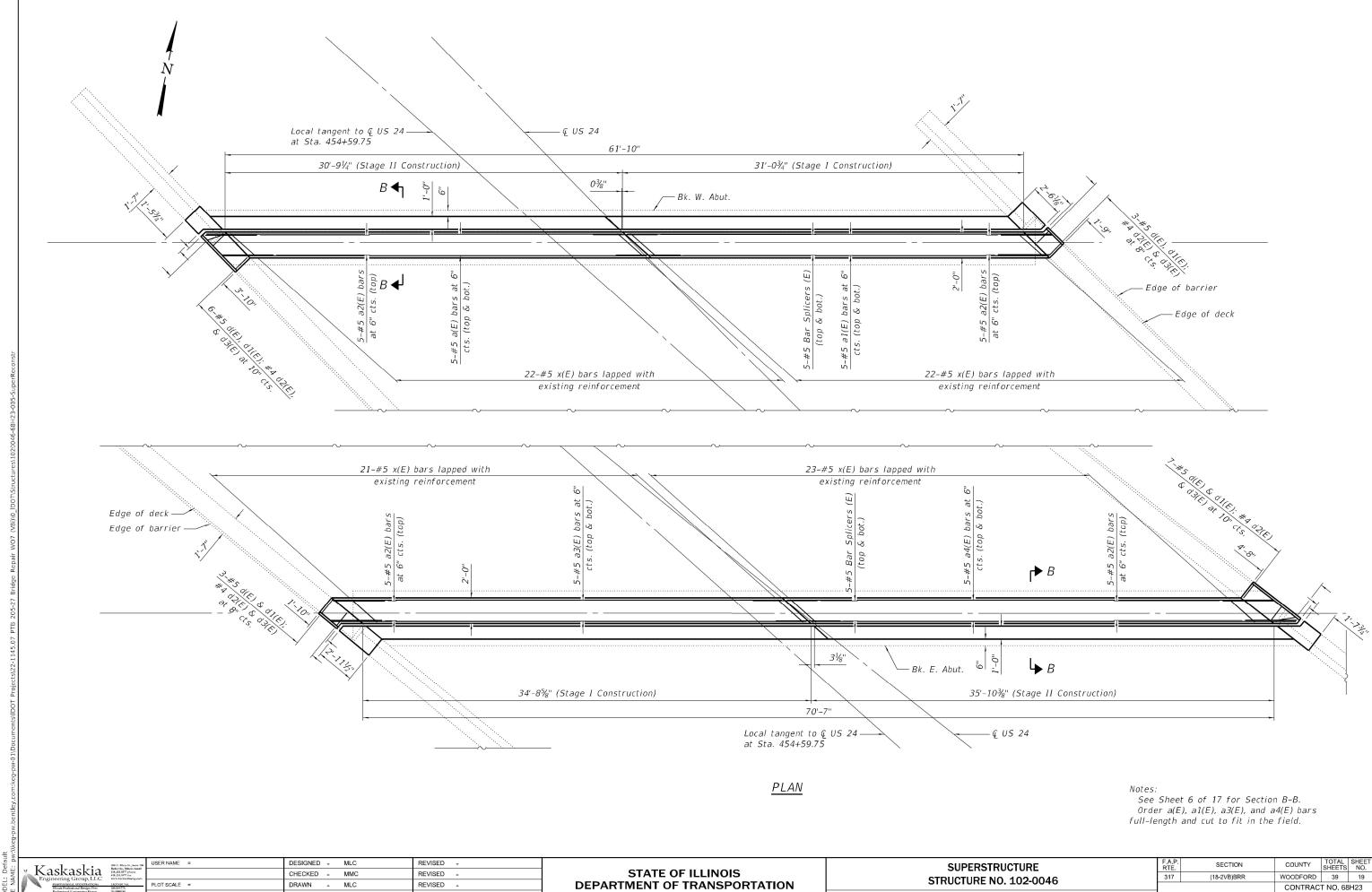
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

SECTION COUNTY TEMPORARY CONCRETE BARRIER WOODFORD 39 17 317 (18-2VB)BRR **STRUCTURE NO. 102-0046** CONTRACT NO. 68H23 SHEET 3 OF 17 SHEETS

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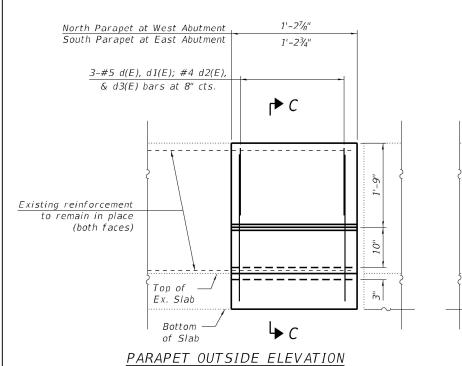


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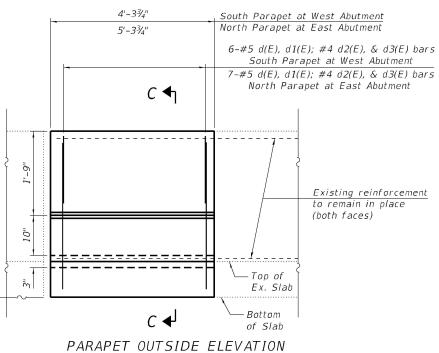
**STRUCTURE NO. 102-0046** SHEET 5 OF 17 SHEETS

CONTRACT NO. 68H23



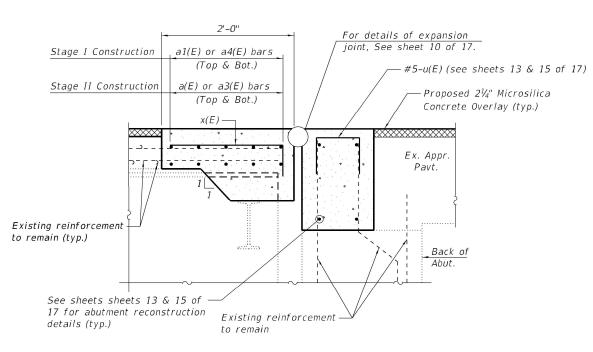
North Parapet at West Abutment and

South Parapet at East Abutment

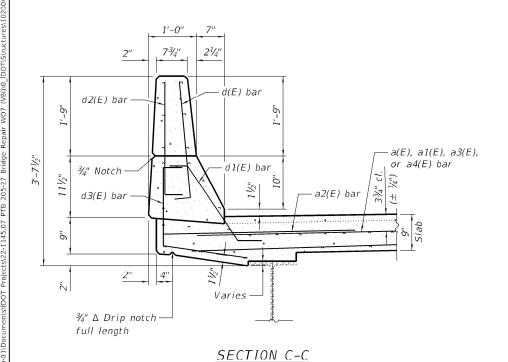


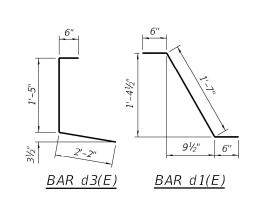
North Parapet at East Abutment and

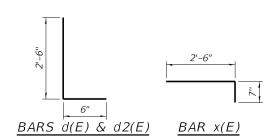
South Parapet at West Abutment



<u>SECTION B-B</u> (at right angle)







Dai	100.	3120	Lengen	Jilape
a(E)	10	#5	32'-8"	
a1(E)	10	#5	32'-11"	
a2(E)	20	#5	4'-0"	
a3(E)	10	#5	36'-10"	
a4(E)	10	#5	38'-1"	
d(E)	19	#5	3'-0"	
d1(E)	19	#5	2'-7"	/
d2(E)	19	#4	3'-0"	l
d3(E)	19	#4	4'-1"	٦
x(E)	88	#5	3'-1"	
Concrete	Superstr	ucture	Cu. Yd.	10.9

SECTION

(18-2VB)BRR

Pound

2,040

COUNTY

WOODFORD 39 20

CONTRACT NO. 68H23

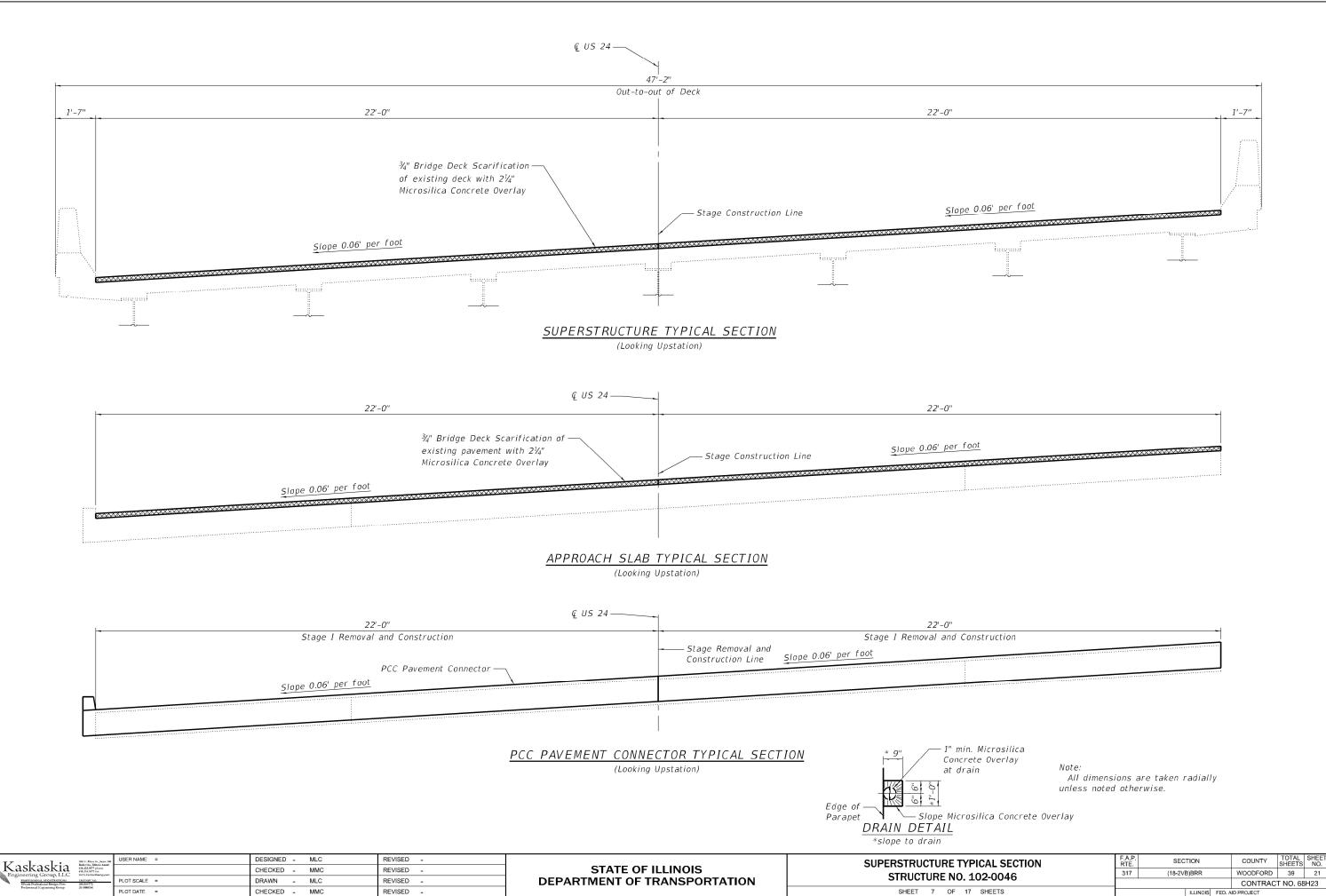
Reinforcement Bars,

317

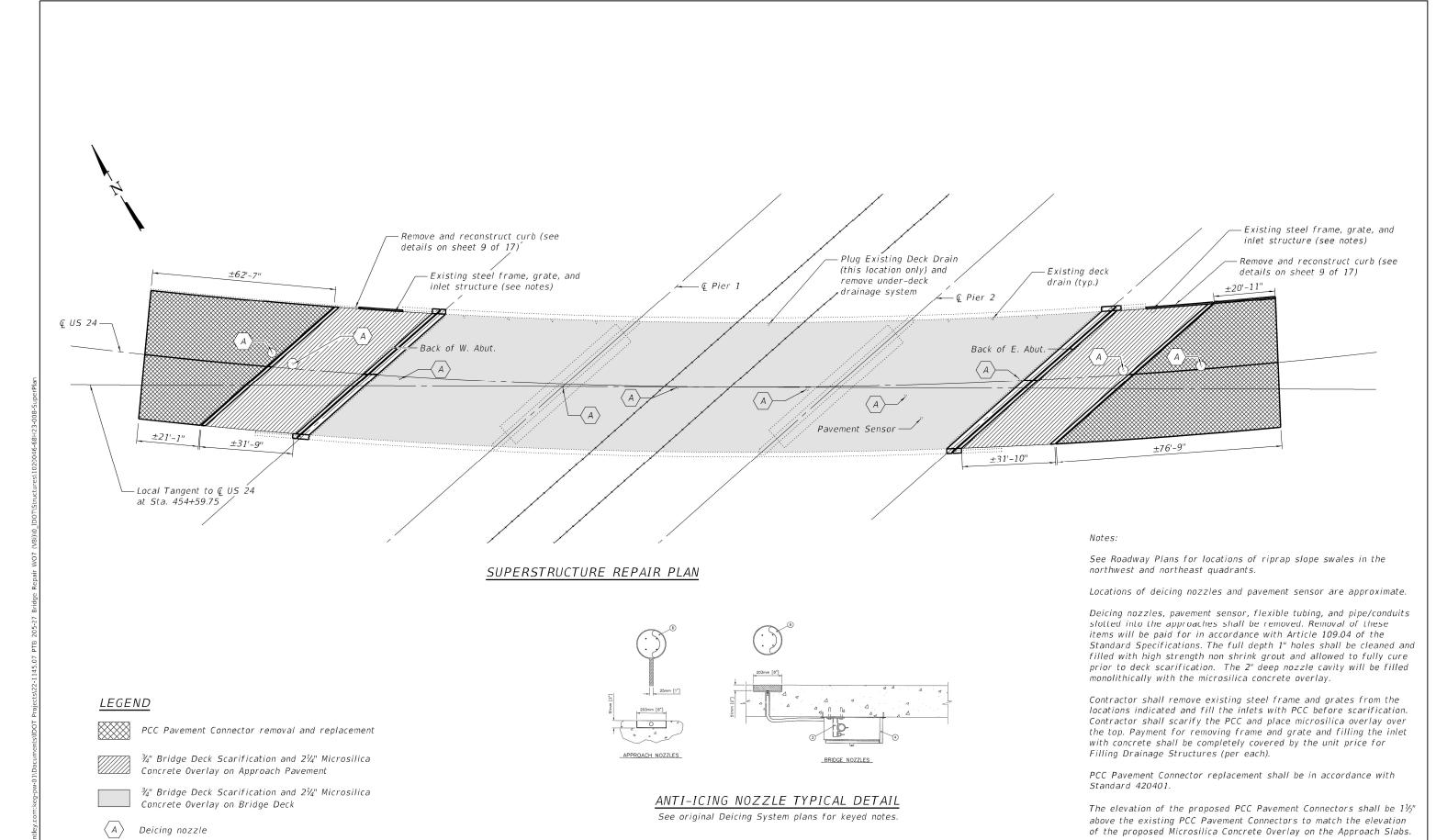
Epoxy Coated

BILL OF MATERIAL

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

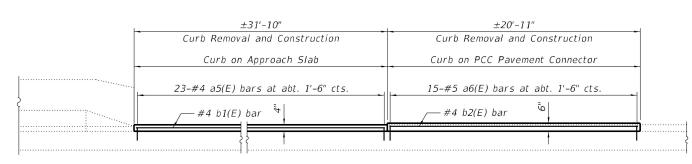
SUPERSTRUCTURE REPAIR PLAN STRUCTURE NO. 102-0046

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

 317
 (18-2VB)BRR
 WOODFORD
 39
 22

 CONTRACT NO. 68H23

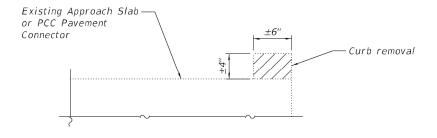
 ILLINOIS
 FED. AID PROJECT
 INSIDE ELEVATION OF CURB AND PARAPET
AT NW CORNER OF BRIDGE



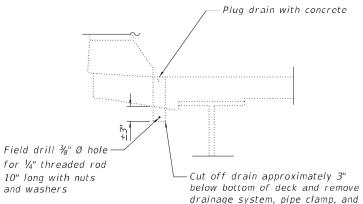
# INSIDE ELEVATION OF CURB AND PARAPET AT NE CORNER OF BRIDGE

Note.

Curb removal on Approach Slab paid as Concrete Removal (per cubic yard) and on PCC Pavement Connector as Curb Removal (per linear foot). Curb construction on Approach Slab paid as Concrete Superstructure (per cubic yard) and on PCC Pavement Connector as Concrete Shoulder Curb (per linear foot).



# PCC Pavement | b2(E) bar | Space #5 a6(E) bars a maximum of 1'-6" along the new curb



# associated appurtenances.

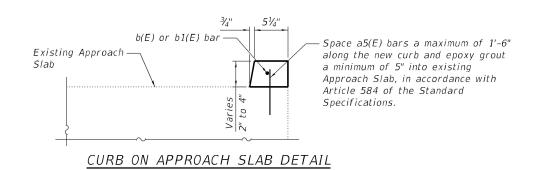
# FLOOR DRAIN PLUGGING DETAIL

### Notes:

Cover hole in beam web from pipe clamp by placing  $\frac{3}{4}$ "Ø high strength bolt with 2 washers and a locknut through the hole.

Cost of cutting off existing drain, removing existing drainage system and appurtenances, patching holes in the existing steel beam web, and plugging the drain with concrete shall be considered totally covered by the unit cost of Plug Existing Deck Drains (per Each).

# CURB REMOVAL DETAIL



# CURB ON PCC PAVEMENT CONNECTOR DETAIL

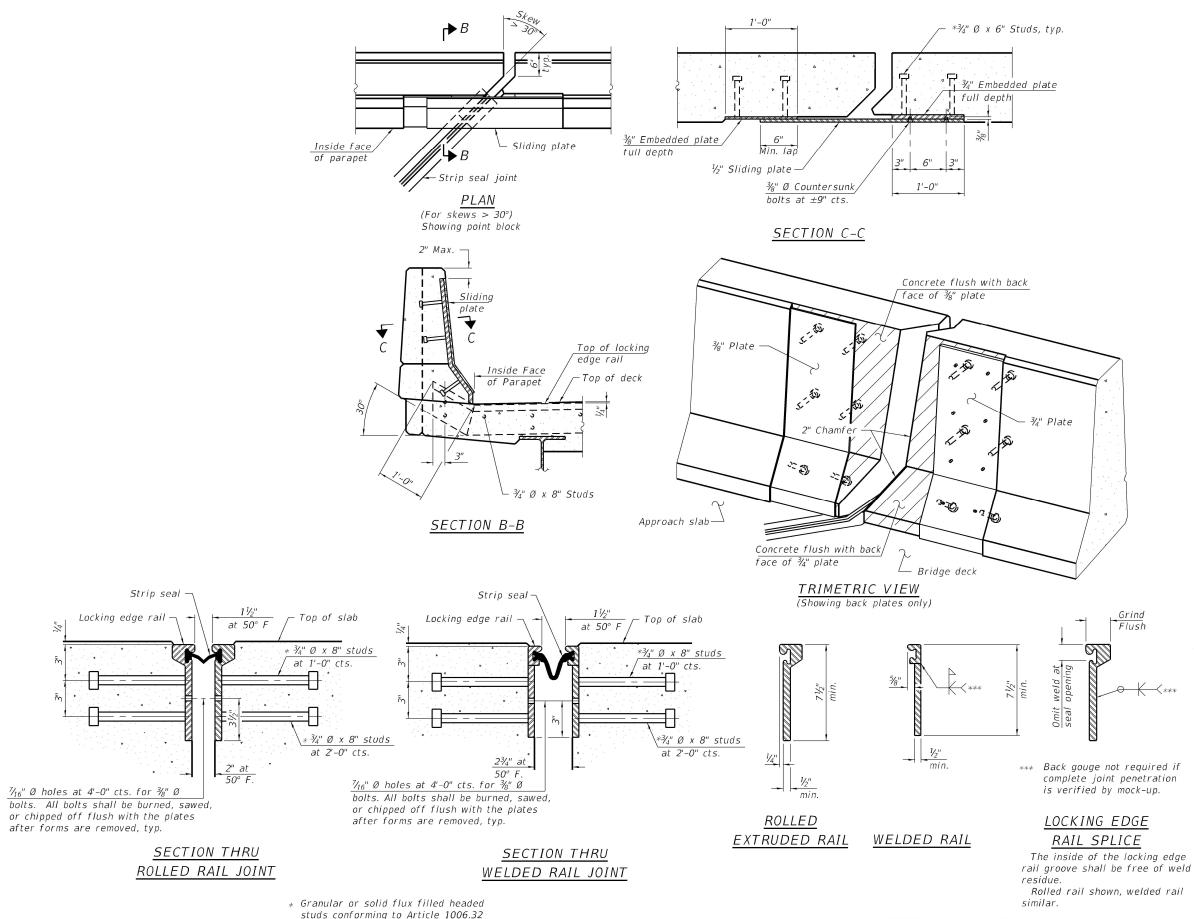
# BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a5(E)	34	#4	0'-7"	
a6(E)	15	#5	1'-3"	
b(E)	1	#4	14'-8"	
b1(E)	1	#4	31'-6"	
b2(E)	1	#4	20'-7"	
Welded Wire Reinforc	ement		Sq. Yd.	243
Pavement Connector (	PCC) for Bridge A	Approach Slab	Sq. Yd.	448
Pavement Removal			Sq. Yd.	449
Curb Removal			Foot	84
Tie Bars 1 1/4"			Each	95
Concrete Removal			Cu. Yd.	0.4
Concrete Superstructi	Cu. Yd.	0.3		
Bridge Deck Grooving			Sq. Yd.	1,386
Reinforcement Bars, i	Epoxy Coated		Pound	80
Concrete Shoulder Cu	Foot	21		
Bridge Deck Scarifica	Sq. Yd.	1,386		
Bridge Deck Microsili	Sq. Yd.	1,386		
Plug Existing Deck D	Each	1		
Filling Drainage Stru	Each	2		

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE REPAIR DETAILS
STRUCTURE NO. 102-0046

SHEET 9 OF 17 SHEETS



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end welded.

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DRAWN

CHECKED - MMC

CHECKED - MMC

MLC

Notes

The strip seal shall be made continuous and shall have a minimum thickness of  $V_4$ ". 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 conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

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

Maximum space between rail segments shall be  $\frac{3}{16}$ ", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

# BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	137

# LOCKING EDGE RAILS

STATE OF ILLINOIS

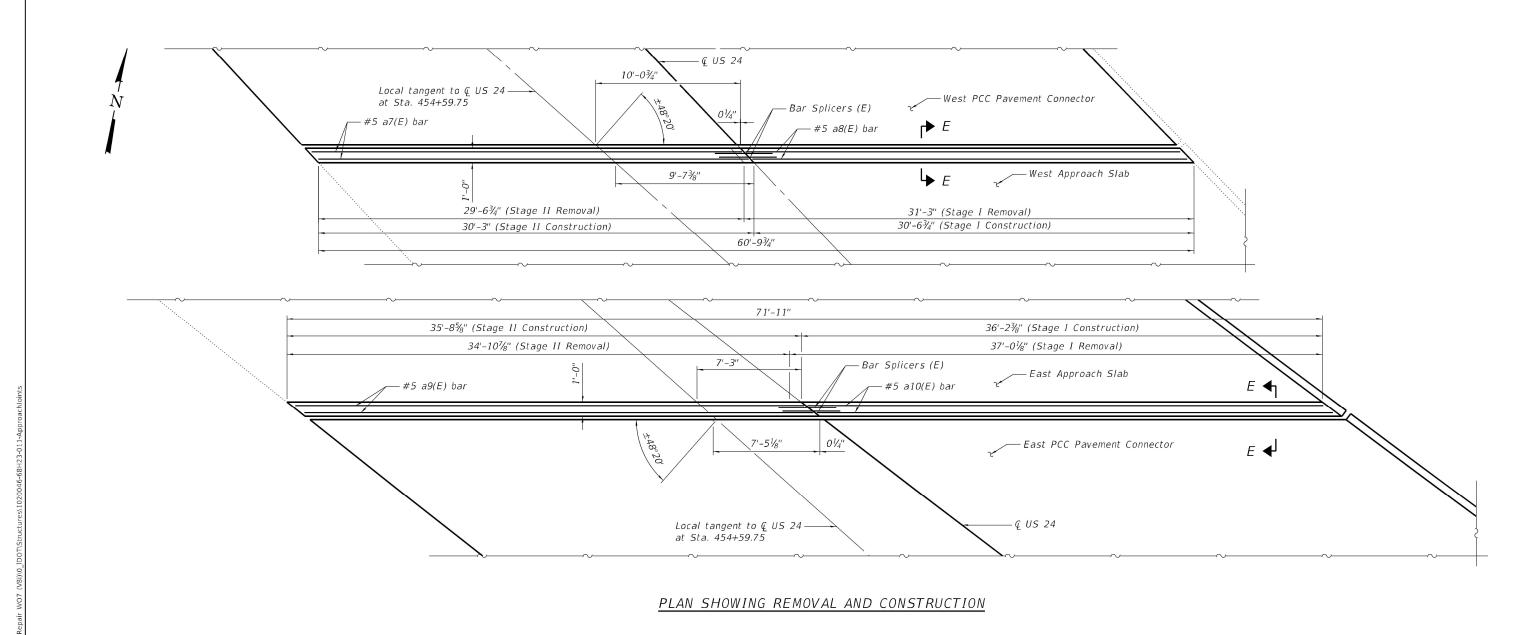
**DEPARTMENT OF TRANSPORTATION** 

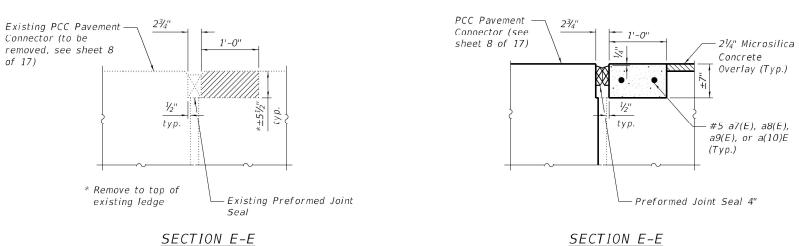
KAILS			

PREFORMED JOINT STRIP SEAL		SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
STRUCTURE NO. 102-0046		(18-2VB)BRR	WOODFORD	39	24
			CONTRAC	T NO. 68	H23
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Kaskaskia

PLOT DATE =





# LEGEND

Concrete Removal

Concrete Superstructure

Microsilica Concrete Overlay

# BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a7(E)	2	#5	29'-10"	
a8(E)	2	#5	30'-2"	
a9(E)	2	#5	35'-4"	
a10(E)	2	#5	35'-9"	
Concrete	Removal	Cu. Yd.	2.3	
Concrete	ncrete Superstructure			2.9
Reinforce Coated	ment Ba	Pound	280	
Preforme	d Joint S	Foot	133	

Showing removal

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Showing construction

PAVEMENT EXPANSION JOINT REPLACEMENT PLAN AND DETAILS
STRUCTURE NO. 102-0046

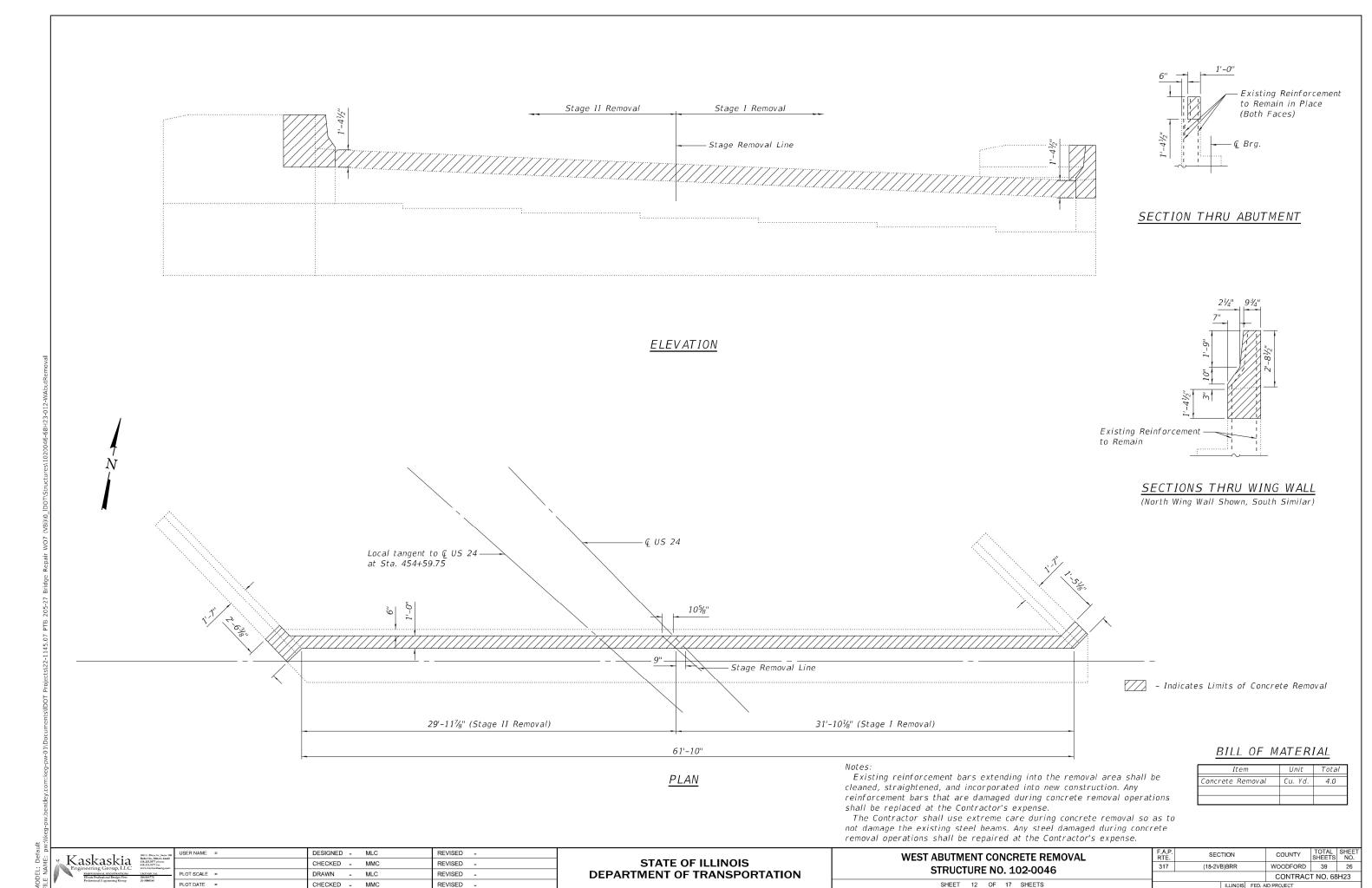
SHEET 11 OF 17 SHEETS

F.A.P. RTE. 317 (18)

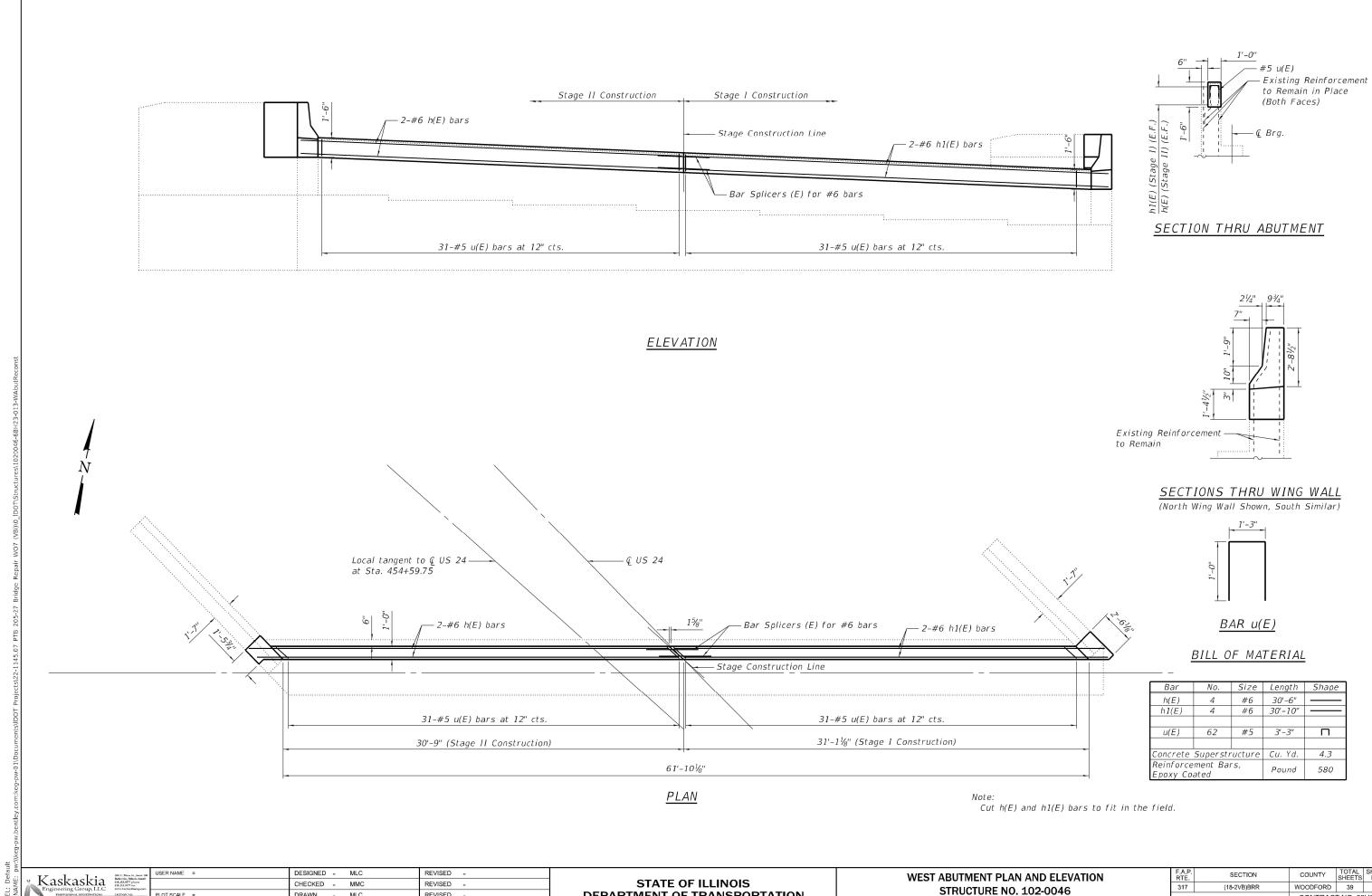
F.A.P. RTE. SECTION COUNTY TOTAL SHEETS NO.

317 (18-2VB)BRR WOODFORD 39 25

CONTRACT NO. 68H23



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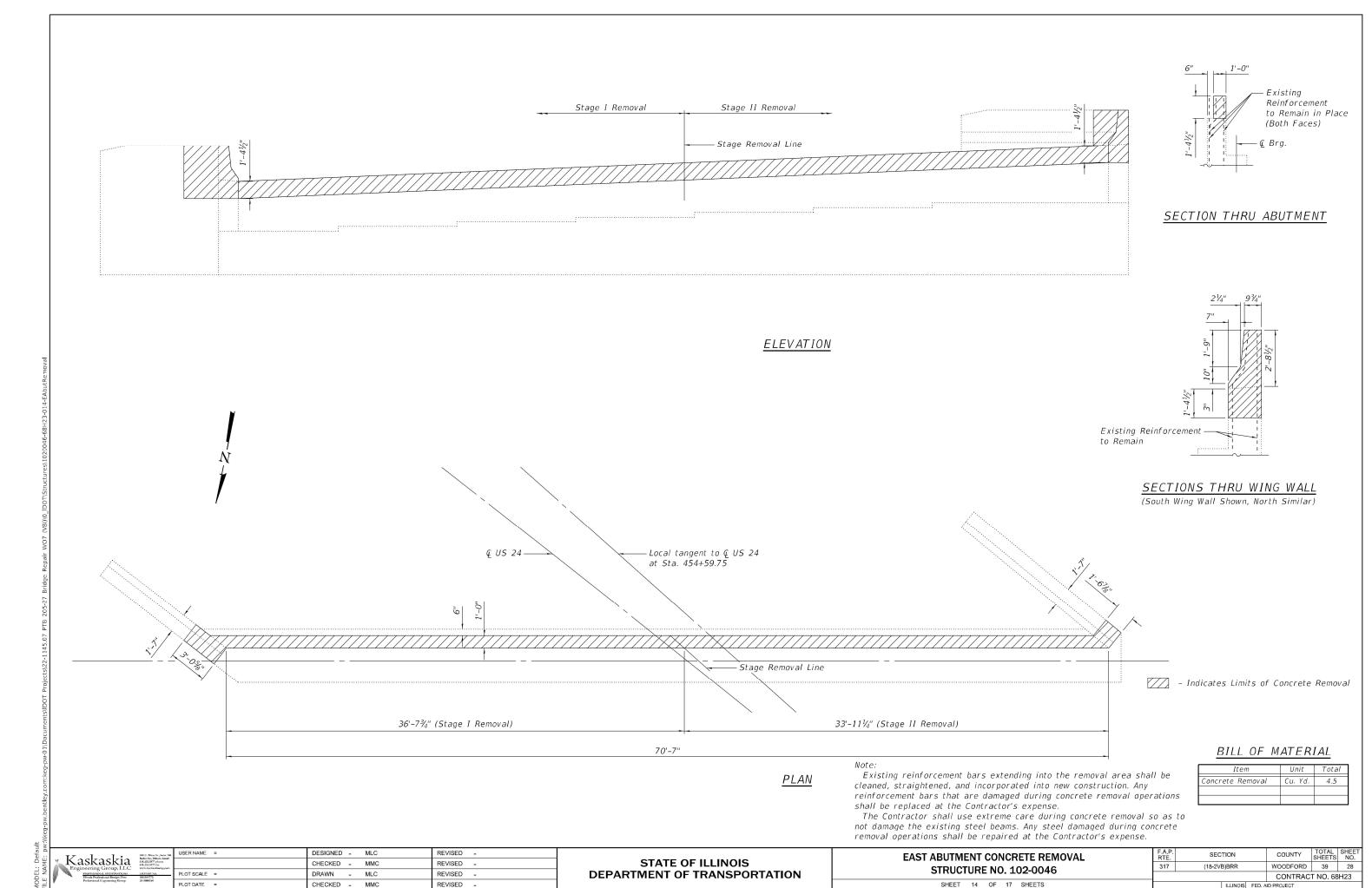
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**DEPARTMENT OF TRANSPORTATION** 

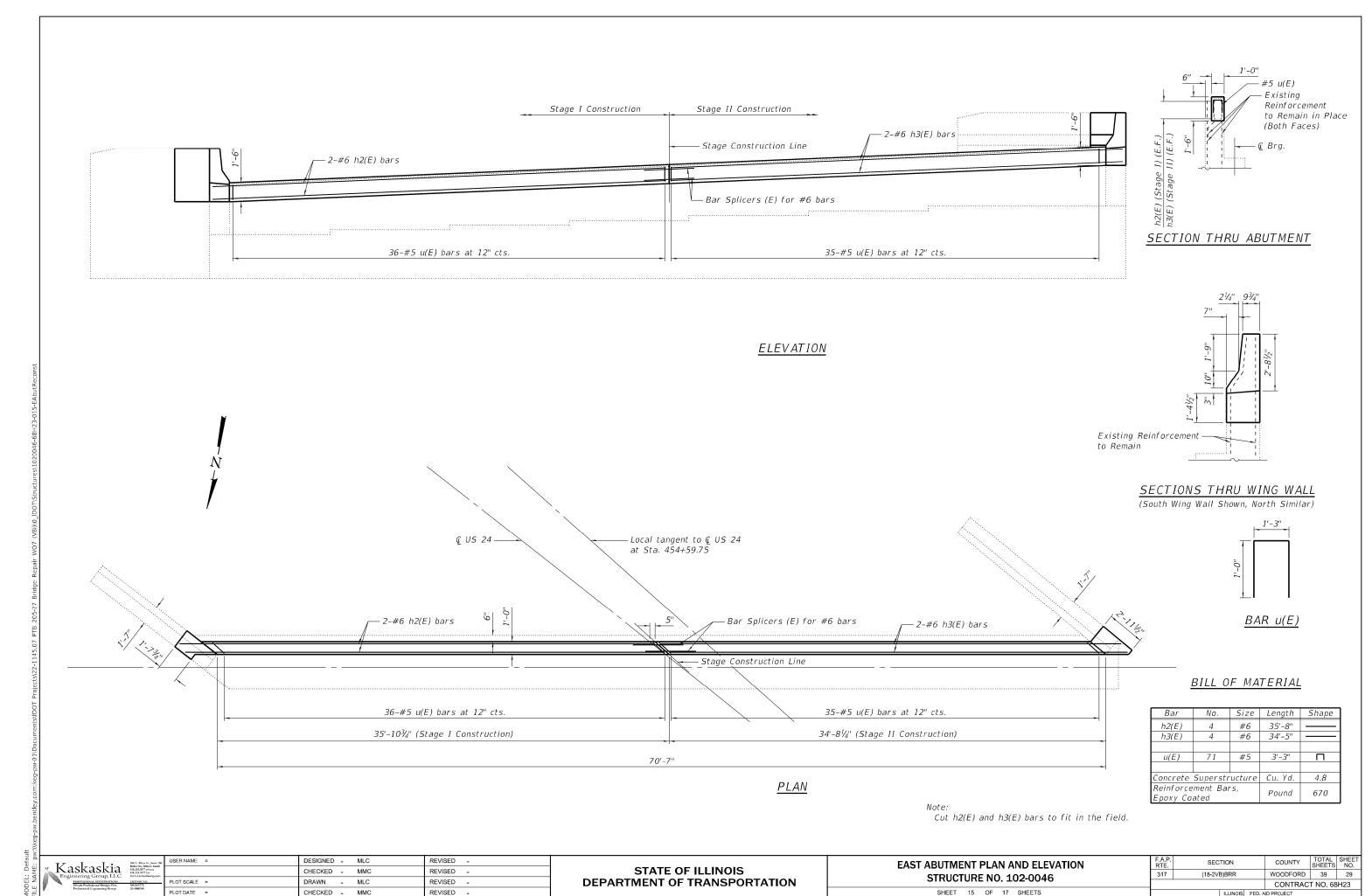
**STRUCTURE NO. 102-0046** SHEET 13 OF 17 SHEETS

COUNTY TOTAL SHEETS NO.
WOODFORD 39 27 CONTRACT NO. 68H23

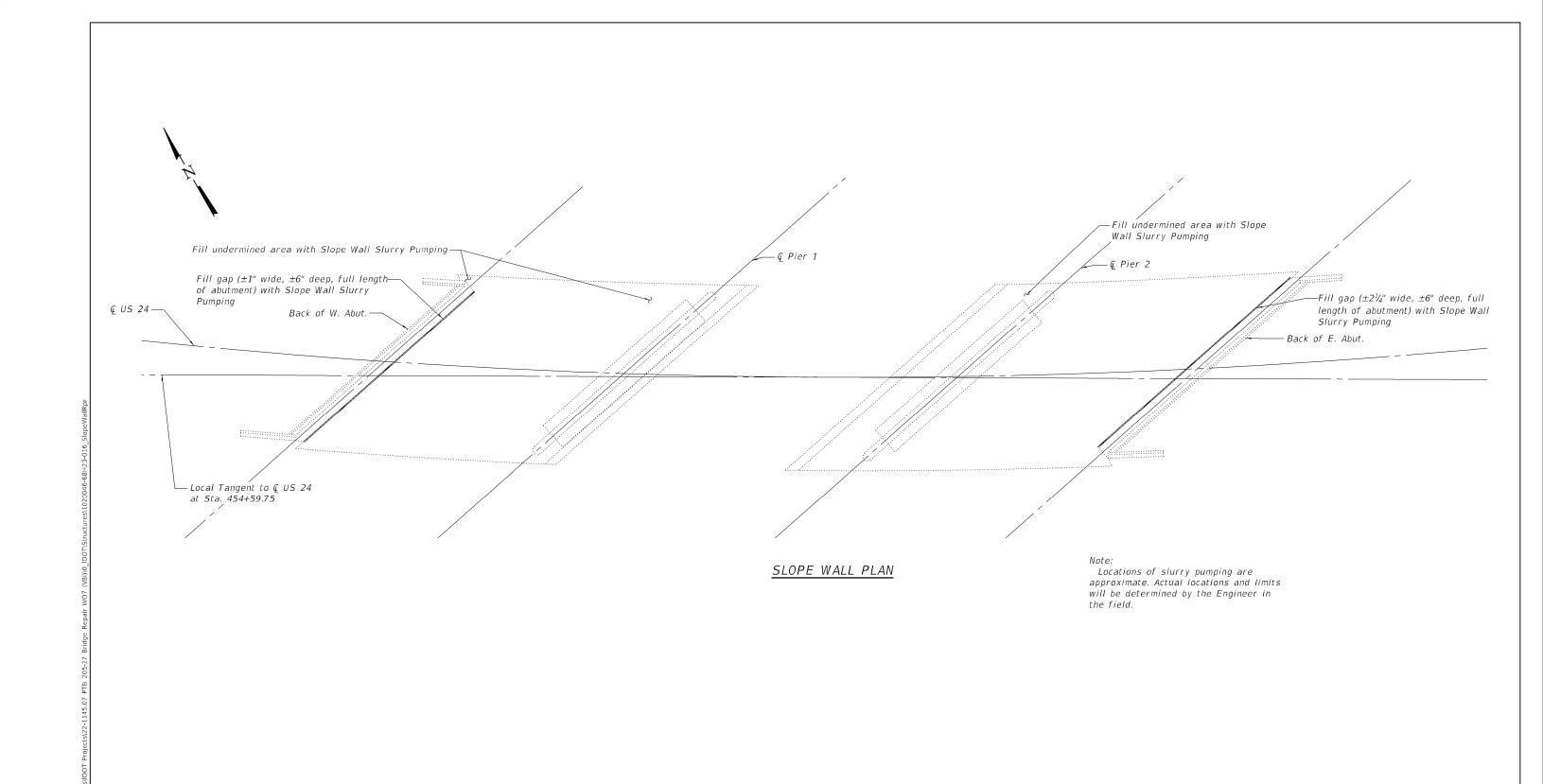
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# BILL OF MATERIAL

Item	Unit	Quantity
Slope Wall Slurry Pumping	Cu. Yd.	7

COUNTY TOTAL SHEETS NO.
WOODFORD 39 30 DESIGNED - MLC REVISED -SECTION SLOPE WALL REPAIR PLAN Kaskaskia Belevile, Ulinois & St. St. Ballovile, Ulinois & St. St. Ballovile, Ulinois & Grand STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REVISED -CHECKED - MMC (18-2VB)BRR **STRUCTURE NO. 102-0046** DRAWN - MLC REVISED -CONTRACT NO. 68H23 SHEET 16 OF 17 SHEETS CHECKED - MMC REVISED -

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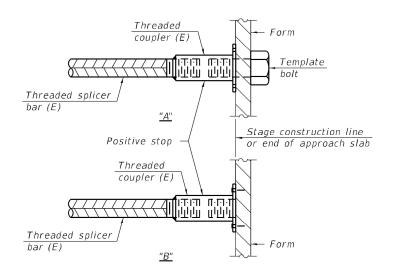
# STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

Threaded splicer bar length = min. lap length + 1½" + thread length

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

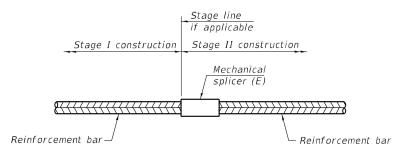
Location	Bar size	No. assemblies required	Minimum lap length
West Abut.	#6	4	4'-0"
East Abut.	#6	4	4'-0"
Deck	#5	20	3'-6"
Pavement Expansion Joints	#5	4	3'-6"



# 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

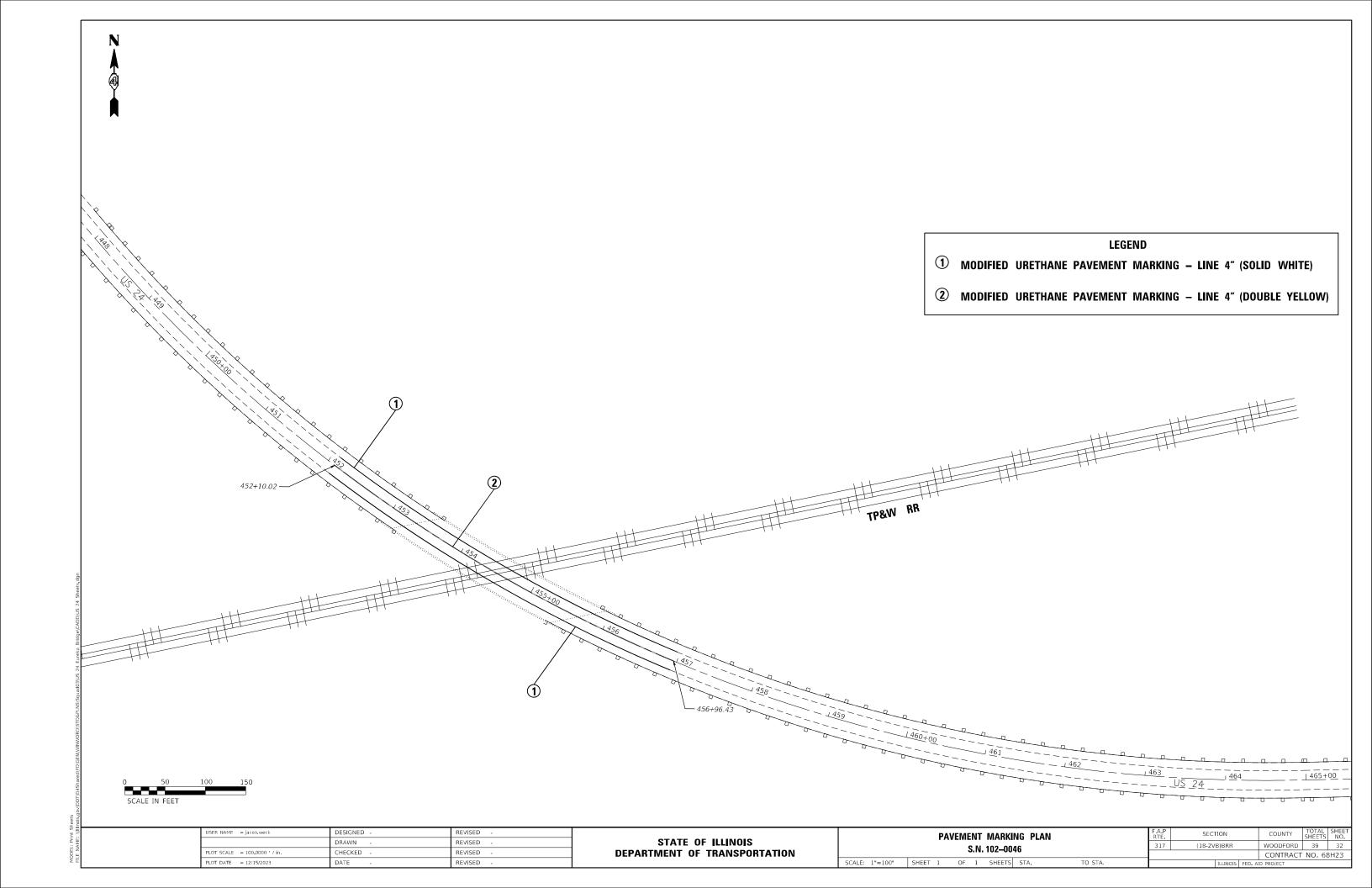
for reinforcement bars. See Section 508 of the Standard Specifications. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

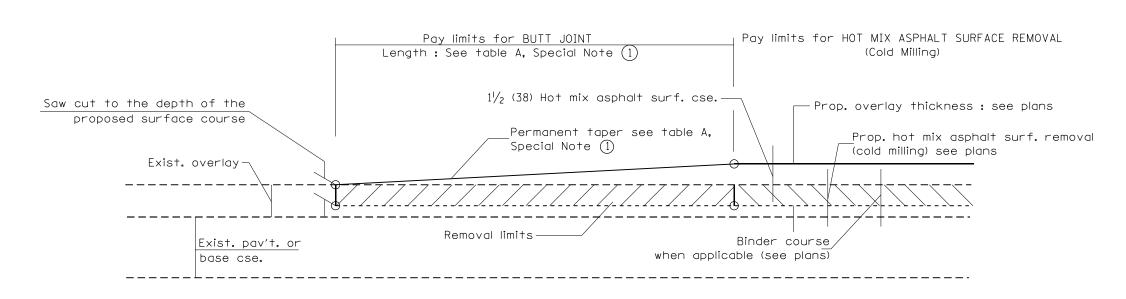
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Σ	Kaskaskia 68,233,8977 phunu		CHECKED - MMC	REVISED -
NA	PROPESSIONAL REGISTRATIONS LICENSE NO.	PLOT SCALE =	DRAWN - MLC	REVISED -
FILE	Professional Engineering Group 20-808036	PLOT DATE =	CHECKED - MMC	REVISED -

1/18/2024 8:07:04 AM





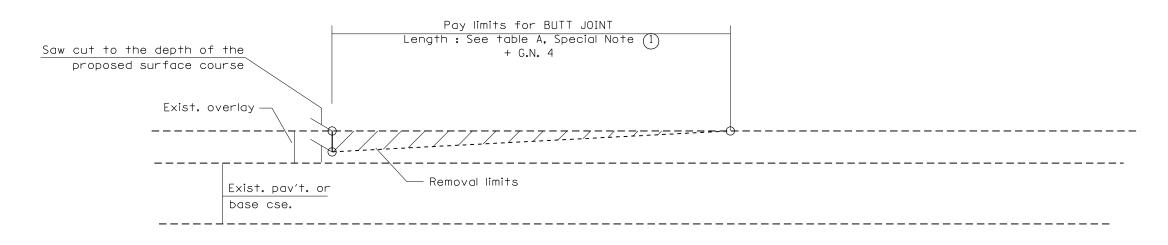
# CASE 1: WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

# TABLE A TAPER RATES

SPECIAL NOTE	ELEMENT	MAINLINE INTERSTATES &	ALL
NUMBER		4-LANE EXPRESSWAYS	OTHERS
(1)	BUTT JOINT	1:480	1:240
	TAPER RATE		
(2)	TEMPORARY RAMP	1:80	1:40
	TAPER RATE		

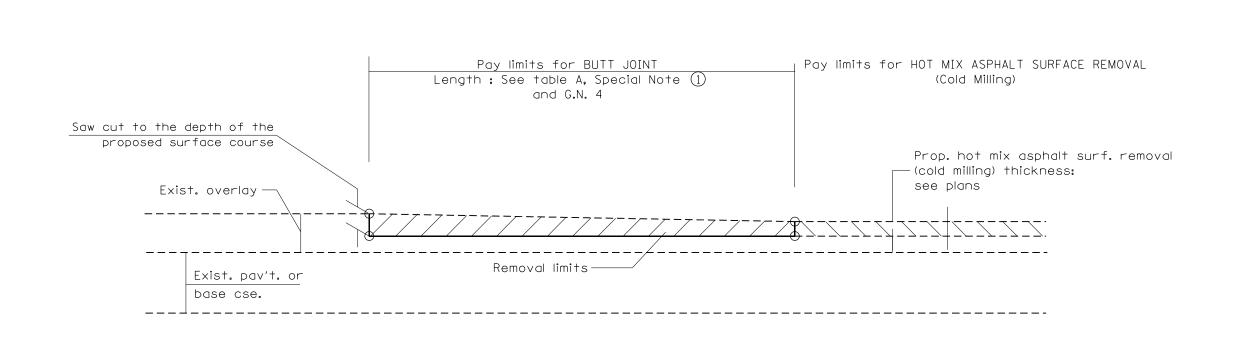
# GENERAL NOTES

- 1. The work shall be done in accordance with Article 406.08 and the Special Provision for Butt Joints.
- 2. The pavement surface to be removed may be either bituminous or P.C. concrete. The work shall be performed in accordance with Article 440.04 and the Special Provisions for Butt Joints.
- 3. The saw cut joints shall be primed just prior to the placing of bituminous material. The work will be in accordance with the applicable portions of Article 406.05.
- 4. The length of butt joint is based on the taper rate times change in cold milling depth within the butt joint pay limits, unless otherwise indicated.
- 5. Temporary ramps are paid for separately and not included in the cost of the butt joints.

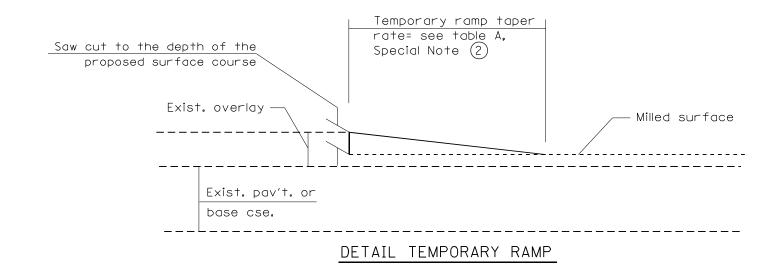


# CASE 2 : NO HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

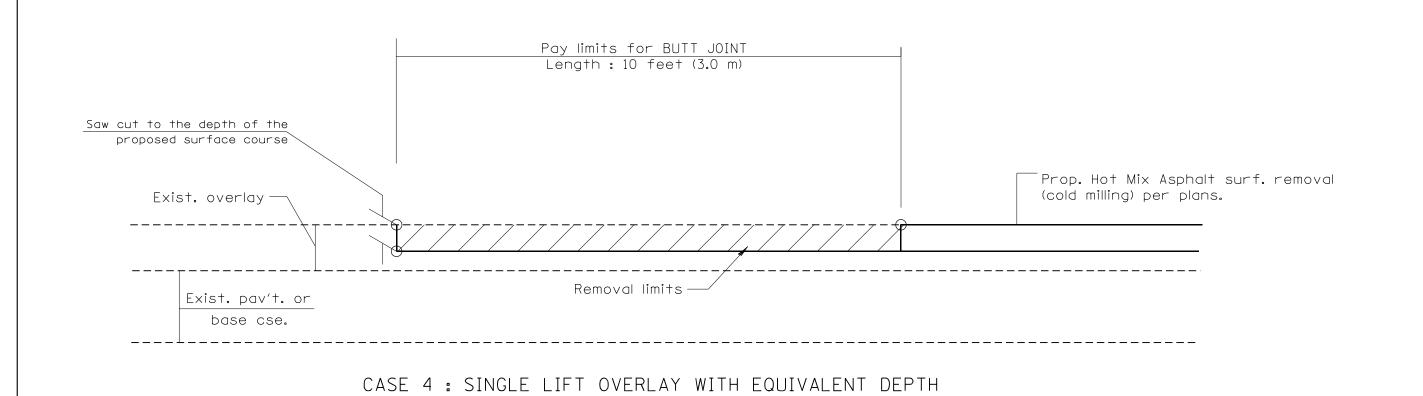
01-01-97 RENUM. C-23.	.01, NEW REVISION BOX T	ЪР.	08-21-13	MAJOR MODIFICATIONS	R.D.				RTE. SE	CTION	COUNTY   TOTAL   SHEET
04-01-97 CORRECTION	TO DEPTH J	I.A.		MINOR CORRECTIONS	R.D.	STATE OF ILLINOIS	BUTT JOINTS		317 (12-	2VB)BRR	WOODFORD 39 33
09-15-05 REVISED DESI	SIGNER NOTE M.	M.A.	02-14-17	ADDED NOTE 5	R.D.	DEPARTMENT OF TRANSPORTATION		SHT. 1 OF 3			CONTRACT NO. 68H23
10-16-06 REVISED TO :	2007 SPEC. M	1.A.	07-16-19	Wording and Spelling corrections	R.D.		NOT TO SCALE	CADD STD. 406101-D4	FED. ROAD DIST. NO.	ILLINOIS FED. A	D PROJECT



# CASE 3: HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING) TIE-IN TO EXISTING BITUMINOUS TAPER



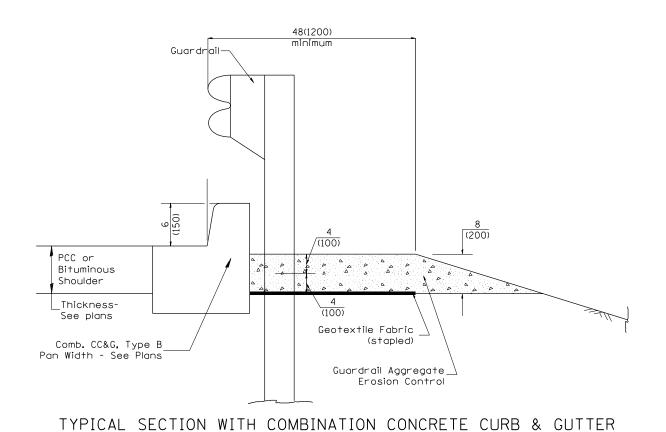
		27.77 27 11.11.22			RTE. SECTION	COUNTY TOTAL SHEET NO.
		STATE OF ILLINOIS	BUTT JOINTS		33177 (12-2VB)BRR	WOODFORD 39 34
		DEPARTMENT OF TRANSPORTATION		SHT. 2 OF 3	•	CONTRACT NO. 68H23
			NOT TO SCALE	CADD STD. 406101-D4	FED. ROAD DIST. NO.   ILLINOIS   FED.	AID PROJECT



HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

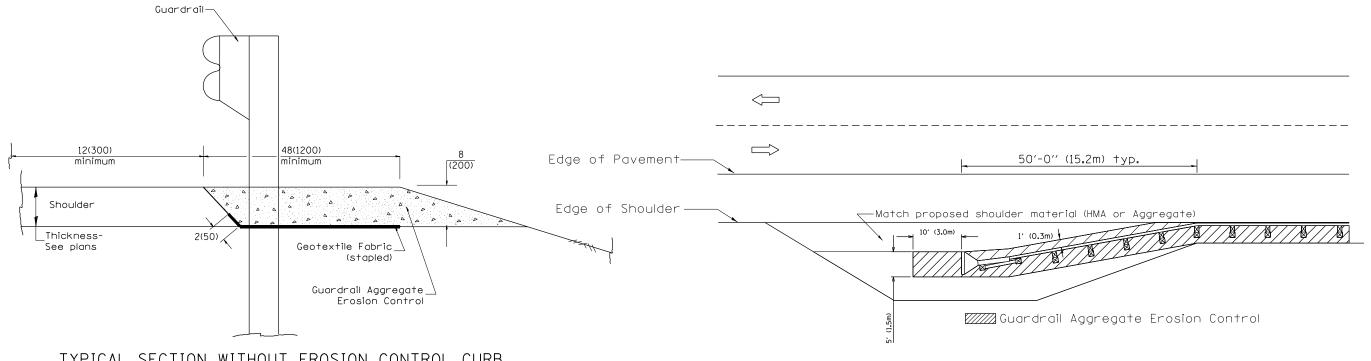
TIE-IN TO EXISTING BITUMINOUS TAPER

	OTATE OF HUNDIO	DUTT 1011170		RTE. SECTION	COUNTY TOTAL SHEET NO.
	STATE OF ILLINOIS	BUTT JOINTS		33177 (12-2VB)BRR	WOODFORD 39 35
	DEPARTMENT OF TRANSPORTATION		SHT. 3 OF 3		CONTRACT NO. 68H23
		NOT TO SCALE	CADD STD. 406101-D4	FED. ROAD DIST. NO.   ILLINOIS FED. /	AID PROJECT



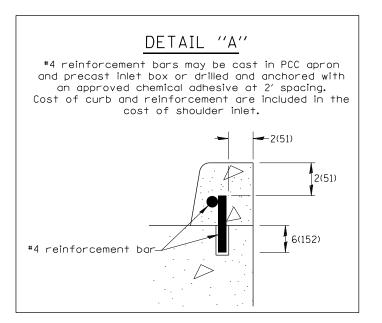
# GENERAL NOTES: GUARDRAIL AGGREGATE EROSION CONTROL

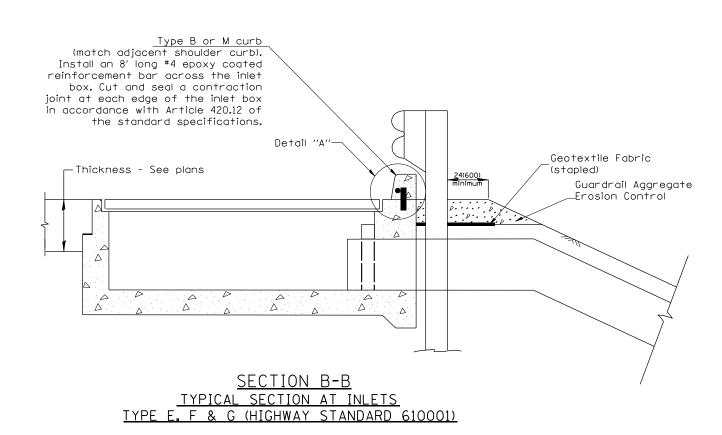
- 1. This work shall consist of grading as needed, furnishing and installing geotextile fabric and staples, and furnishing, placing and shaping crushed aggregate around and behind Steel Plate Beam Guardrail posts in accordance with Plan Details.
- 2. Before placing the aggregate and the Geotextile Fabric, weeds and grass shall be removed from the area to be covered.
- 3. After the area has been prepared, and in a dry condition, the Geotextile fabric shall be placed with a 12(300) minimum overlap. A knife cut for guardrail post installation is necessary.
- 4. The aggregate shall be deposited, compacted and shaped by either mechanical or hand methods, in a manner reasonably true to line and grade.
- 5. The Contractor shall have the option of placing the guardrail before or after the Geotextile Fabric and Aggregate are in place. If the guardrail is placed after the Geotextile Fabric and Aggregate, then any voids must be filled and the aggregate returned to line and grade.
- 6. Materials shall meet the following requirements:
- A. The crushed aggregate shall be CA1 gradation in accordance with Article 1004.01(c) of the Standard Specifications.
- B. The Geotextile Fabric shall be nonwoven fabric in accordance with Article 1080.02 of the Standard Specifications.

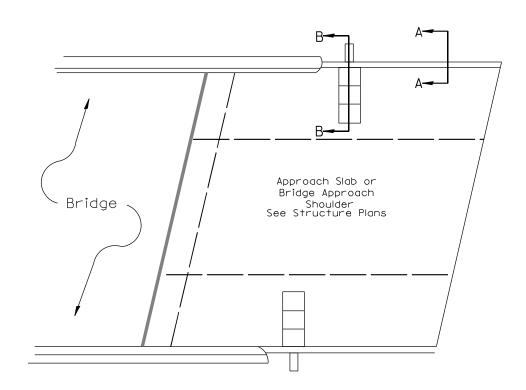


TYPICAL SECTION WITHOUT EROSION CONTROL CURB

03-07-11 ADDED DETAIL SHOWING PLAN VIEW	R.D.	5-30-18 CHANGE B CURB TO CC&G	R.D.			RTE.	SECTION	COUNTY SHEETS	HEE!
08-10-12 REVISED CURB "B" AND AGGREGATE	R.D.	07-16-19 SPELLING CORRECTIONS	R.D.	STATE OF ILLINOIS	GUARDRAIL EROSION CONTROL TREATMENTS	317	(12-2VB)BRR	WOODFORD 39	36
07-15-15 ADDRESSED SHOULDER INLET CURB	R.D.			DEPARTMENT OF TRANSPORTATION	SHT. 1 OF 2			CONTRACT NO. 68H	23
01-26-17 REVISED	R.D.				NOT TO SCALE CADD STD. 630101-D4	FED. ROAD	DIST. NO. ILLINOIS FED. A	ID PROJECT	

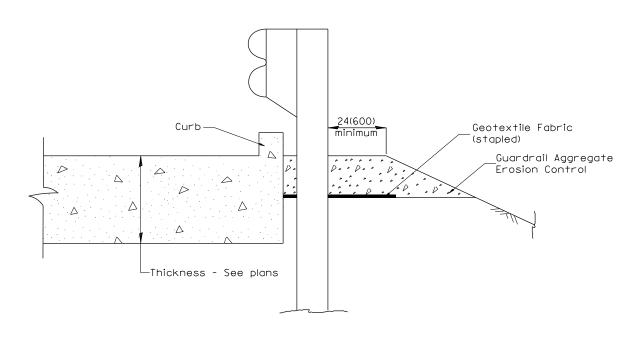






PLAN VIEW

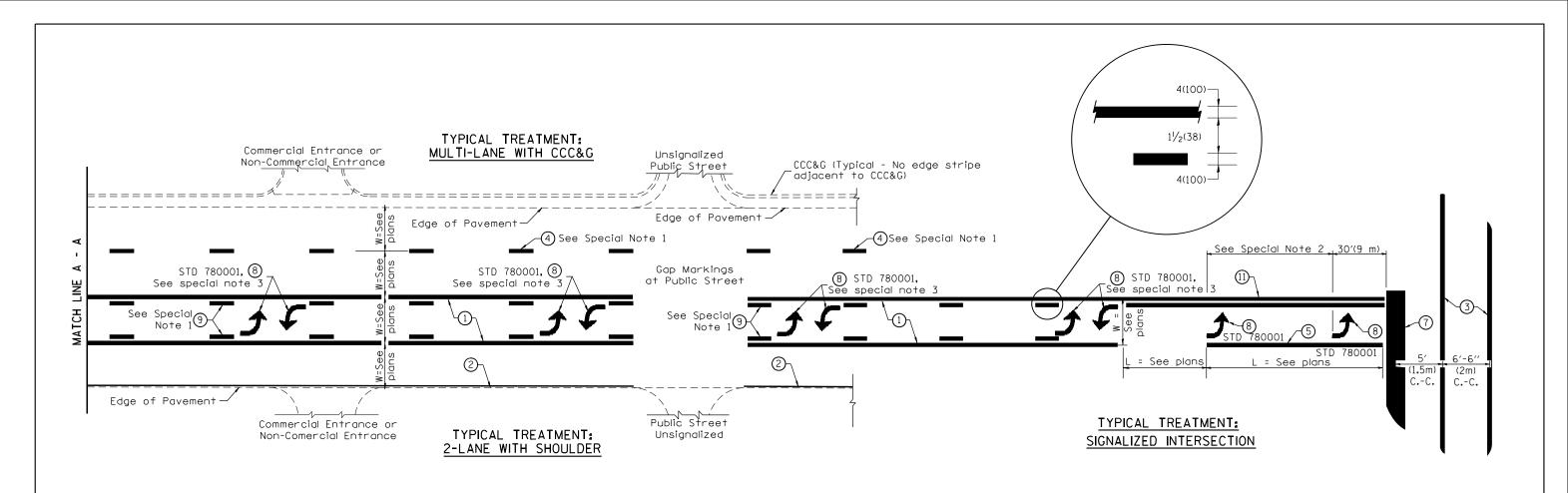
APPROACH SLAB OR SHOULDER PLACEMENT



SECTION A-A

TYPICAL SECTION WITH BRIDGE APPROACH CURB

		OTATE OF HUMOIO	OUADDRAW EDGGION CONTROL TREATMENTS	F.A. RTE.	SECTION	COUNTY	SHEETS	SHEET NO.
		STATE OF ILLINOIS	GUARDRAIL EROSION CONTROL TREATMENTS	317 (1	12-2VB)BRR	WOODFORD	3 39	37
		DEPARTMENT OF TRANSPORTATION	SHT. 2 OF	2		CONTRACT	T NO. 68	3H23
			NOT TO SCALE CADD STD. 630101-D	FED. ROAD DIST.	NO. ILLINOIS FED.	AID PROJECT		



# FLUSH PAVED MEDIAN: TWO-WAY LEFT TURN LANE WITH ONE-WAY LEFT TURN LANE AT SIGNALIZED INTERSECTION

# TYPICAL PAVEMENT MARKING LEGEND

(Note: This is a District Standard Legend. Some elements may not apply to specific project.)

- 1) 4(100) Solid (Yellow)
- (2) 4(100) Solid (White)
- 2-6(150) Crosswalk @ 6'-6" (2m)min C.-C. (White)
  2-8(200) Crosswalk @ 6'-6" (2m)min C.-C. (White) (When traffic signals are present.)
- 4) 6(150) Skip-Dash (White) 10' 30' 10' (See Special Note 1)
- 5) 8(200) Solid (White)
- (6) 12(300) Diagonal (White) (Item (6) is shown on Std. 780001)
- (7) 24(600) Stop Bar (White)
- (See Std. 780001 and Special Notes 2 & 3)
- 9 4(100) Skip-Dash (Yellow) 10' 30' 10' (See Special Note 1)
- 10 12(300) Diagonal (Yellow) (See Table A)

  45°

  11 4(100) Double Solid (Yellow)

  11(280) C.-C. | See Table A

# SPECIAL NOTES

- Skip-Dash markings will be centered between both ends of city blocks and shall be placed in alignment transversely across the pavement.
- 2. The following shall apply to arrows located in one-way left turn lanes:
  - A. A minimum of two (2) arrows is required.
  - B. The maximum spacing between arrows is 80′ (24 m).
  - C. Arrows shall be evenly spaced if three (3) or more are required.
- 3. The following shall apply to arrow pairs located in two-way left turn lanes:
  - A. A minimum of two (2) arrow pairs is required. B. The maximum spacing between arrow pairs
  - is 200' (61 m).

    C. Arrow pairs shall be evenly spaced if three (3) or more are required.

NOT TO SCALE

D. The spacing between Bi Directional Left Turn Arrows is 33' (10 m).

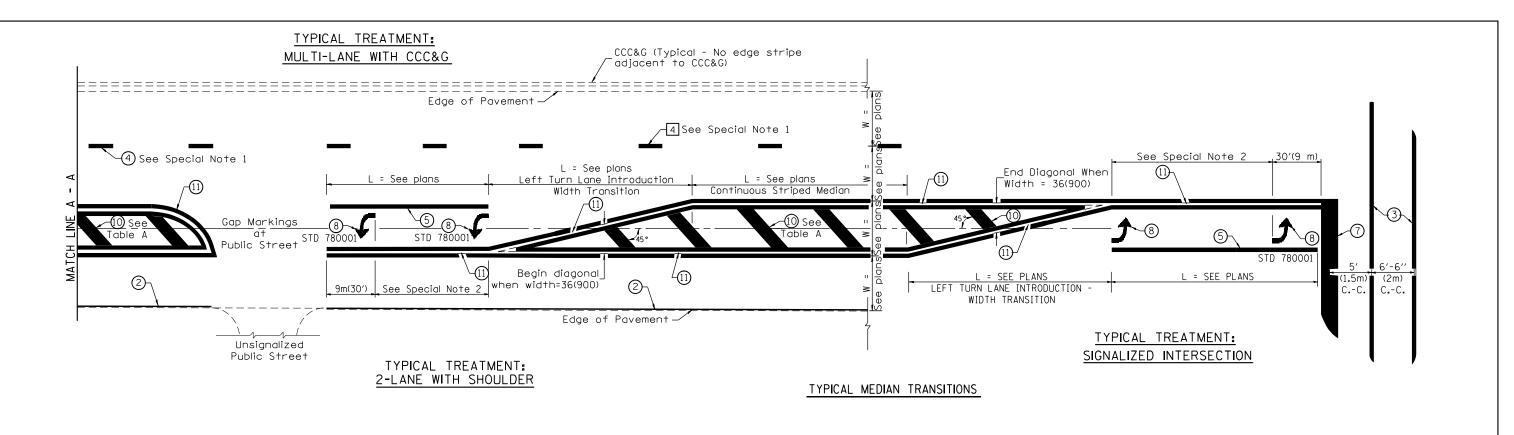
# GENERAL NOTES

- Refer to State Standard 780001 for additional Pavement Markings including letters & arrows.
- See Plans for Pavement Markings adjacent to curbed islands and medians, and through lane reductions.
- 3. Refer to Article 780.13 for letter, number and symbol areas (sq. ft.)
- 4. Areas are grooved 1" beyond each edge for the following symbols: Through Arrow= 14.8 sq. ft.
  Large Left or Right Arrow= 21.9 sq. ft.
  2 Arrow Combination Left (or Right) and Through= 34.9 sq. ft.
  Wrong Way Arrow= 29.5 sq. ft.
  Railroad Crossing Symbol= 69.8 sq. ft.
  (For further information, refer to BDE Special Provision: Grooving for Recessed Pavement Markings)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

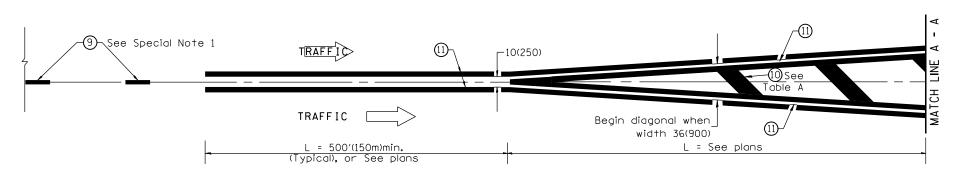
TYPICAL PAVEMENT MARKINGS



FLUSH PAVED MEDIAN: RESTRICTED LEFT TURN LANE

# TABLE A RECOMMENDED SPACING BETWEEN DIAGONAL LINES

SPEED LIMIT RANGE	CONTINUOUS	INTERSECTION CHANNELIZATION (Includes Width Transitions for Median and Left Turn Lane Introductions)
Less Than 30 mph (50 km/h)	50' (15m)	15' (5m)
30 - 45 mph (50 - 70 km/h)	75′ (23m)	20' (6m)
Over 45 mph (70 km/h)	150' (46m)	30′ (9m)



MEDIAN INTRODUCTION - WIDTH TRANSITIONS

	07.75 05 11.15.010			RTE. SECTION	COUNTY TOTAL SHEET NO.
	STATE OF ILLINOIS	TYPICAL PAVEMENT MARKING		317 (12-2VB)BRR	WOODFORD 39 39
	DEPARTMENT OF TRANSPORTATION		SHT. 2 OF 2		CONTRACT NO. 68H23
		NOT TO SCALE	CADD STD. 780001-D4	FED. ROAD DIST. NO. ILLINOIS FED.	AID PROJECT