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# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

#### 

D-94-041-22

## INDEX OF SHEETS

SEE SHEET 2 FOR "INDEX OF SHEETS"

## HIGHWAY STANDARDS

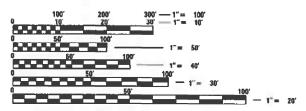
SEE SHEET 2 FOR "HIGHWAY STANDARDS"

## **DESIGN DESIGNATION**

US 136 : AADT 5,600 (1,125) — 2021 OTHER PRINCIPAL ARTERIAL IL 78 / 97 : AADT 3,300 (415) — 2021 MINOR ARTERIAL POSTED SPEED: 55 / DESIGN SPEED: 55



2351 S. DIRKSEN PKWY SPRINGFIELD, ILLINOIS 62703 217-670-0563 (P) www.quiggengineering.com



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 EXCAVATION
1-800-892-0123
OR 811

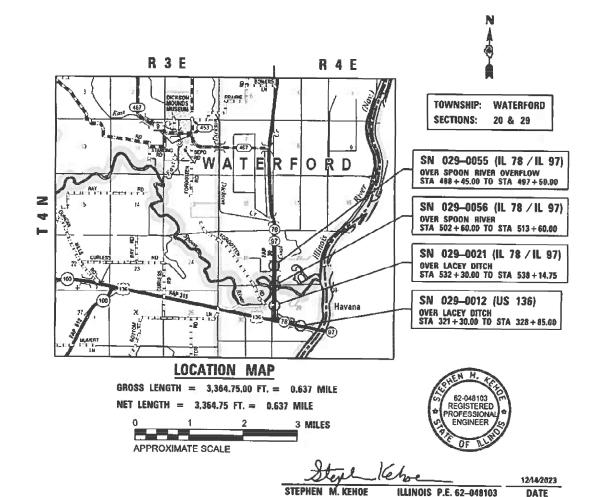
PROJECT ENGINEER: KAREN DVORSKY (309)671-3490 PROJECT MANAGER: ELIAS ELDERZI (309)671-3482

CATALOG NO. 036336-000 CONTRACT NO. 68H20

## PROPOSED HIGHWAY PLANS

FAP ROUTE 315 / 30 (US 136 / IL 78 / IL 97)
SECTION [139,138(BC;BC-1)BR,BR-1]BRR
PROJECT NHPP-STP-G75Y (951)
TYPE of IMPROVEMENT : BRIDGE PRESERVATION
FULTON COUNTY

C-94-059-22



EXPIRES 11/30/2025

SIGNATURE AND SEAL APPLY TO ALL SHEETS EXCEPT AS NOTED BELOW: SHEETS 63 - 119

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED DECEMBER 15 20 23

REGIONAL ENGINEER
February 2, 2024

ENGINEER OF DESIGN AND ENVIRONMENT
February 2, 2024

DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

LOCATION OF SECTION INDICATED THUS: - -

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

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SHEET NO.	DESCRIPTION							
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### TEMPORARY TRAFFIC SIGNAL NOTES

- 1. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH STANDARD 701321 EXCEPT WHEN MODIFIED ON THESE PLAN SHEETS.
- THREE PHASE SIGNAL OPERATION IS REQUIRED FOR STAGES I AND II. FOR S.N. 029-0021, 029-0056. TWO PHASE SIGNAL OPERATION IS REQUIRED FOR STAGES I AND II. FOR S.N. 029-0012, 029-0055.
- 3. THE CONTRACTOR SHALL INSTALL EITHER DETECTOR LOOPS OR MICROWAVE DETECTORS FOR USE WITH THE TEMPORARY TRAFFIC SIGNALS IN ACCORDANCE WITH HIGHWAY STANDARD 701321.
- 4. THE ENGINEER OF TRAFFIC SHALL APPROVE ALL TIMING PARAMETERS.
- THE CONTRACTOR SHALL CONTACT TONY BRIDSON, DISTRICT 4 TRAFFIC SIGNAL TECHNICIAN, AT (309) 671-4464, FOURTY-EIGHT HOURS PRIOR TO SIGNAL TURN ON.
- 6. ALL TRAFFIC SIGNAL SECTIONS SHALL HAVE 12" DIAMETER LED LENSES.
- 7. THE TEMPORARY TRAFFIC SIGNAL HEADS SHALL BE PLACED AT THE LOCATIONS INDICATED ON THE PLAN SHEETS OR DIRECTED BY THE ENGINEER.
- 8. THE TEMPORAY TRAFFIC SIGNALINSTALLATION SHALL CONFORM TO ALL MUTCD STANDARDS.
- . A MINIMUM OF 2 SIGNAL HEADS ARE REQUIRED PER APPROACH.
- ). ALL SIGNAL HEADS SHALL BE EQUIPPED WITH REFLECTORIZED BACKPLATES.
- . ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO COMPLY WITH THESE REQUIREMENTS AND PLAN SHEET DETAILS SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE TEMPORARY BRIDGE SIGNAL INSTALLATION. THERE WILL BE NO ADDITIONAL COMPENSATION.

## 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 TIME.

## **APPLICATION RATES**

AGGREGATE SHOULDERS AND BASES: 0.05833 TON / SQ YD / INCH HOT-MIX ASHPALT: 0.056 TON / SQ YD / INCH GUARDRAIL AGGREGATE EROSION CONTROL: 1,5 TON / CU YD

POLYMERIZED BITUMINOUS (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

#### UTILITIES

NO UTILITY CONFLICTS HAVE BEEN FOUND WITHIN THE PROJECT LIMITS. DIG RESPONSIBLY, CALL JULIE UTILITIES LOCATED WITHIN THE ROW CONSIST OF:

AMEREN ELECTRIC, ADAM HOWARD 217-602-9381, AHOWARD2@AMAREN.COM

ATT TRANSMISSION, WILLIAM CONOVER 309-550-8043, WC2473@ATT.COM

## JOB SPECIFIC NOTES

- 1. THE MAINTENANCE OF TRAFFIC CONTROL (MOT) PLANS SHALL SERVE 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.
- . THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY PROPOSED CHANGE TO THE MOT PLANS.
- ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH THE MOT STRIPING SHALL BE REMOVED.
- 4. ALL TEMPORARY PAVEMENT MARKING WHICH CONFLICTS WITH THE NEXT STAGE OR FINAL STRIPING SHALL BE REMOVED.
- . ALL TRAFFIC CONTROL DEVICES USED FOR MOT, AS DETAILED IN THE PLANS OR HIGHWAY STANDARDS, SHALL BE REFLECTORIZED PRIOR TO INSTALLATION AND CLEANED AS SPECIFIED IN THE MOT SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.
- 6. ALL EXISTING SIGNS WITHIN MOT LIMITS WHICH ARE OBSCURED BY OR CONFLICT WITH CONSTRUCTION OPERATIONS AND MOT, 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 SAW CUT SHALL 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 ITEMS

## **GENERAL NOTES**

- AGGREGATE FOR DRIVEWAY REPLACEMENT. THE MATERIAL USED FOR CONSTRUCTION OF PERMANENT AGGREGATE DRIVEWAYS SHALL BE GRAVEL OR CRUSHED STONE, AS DIRECTED BY THE ENGINEER, TO REPLACE IN KIND THE EXISTING AGGREGATE DRIVEWAYS. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR THIS REQUIREMENT BUT SHALL BE CONSIDERED AS INCLUDED IN THE COST OF THE PAY ITEM FOR THE AGGREGATE AS SPECIFIED ON THE PLANS.
- 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.
- BUTT JOINT CUTTING TIME RESTRICTION. BUTT JOINTS SHALL NOT BE MILLED MORE THAN THREE (3) DAYS PRIOR TO PLACEMENT OF THE HMA SURFACE COURSE.
- 4. SECURING DRAINAGE STRUCTURE GRATES, PRIOR TO ROUTING TRAFFIC ONTO THE SHOULDERS AS SHOWN IN THE STAGING PLANS, THE CONTRACTOR 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
- 5. NO PASSING ZONE VERIFICATION. THE RESIDENT SHALL CONTACT OPERATIONS TO VERIFY THE LOCATION OF NO PASSING ZONES PRIOR TO PLACEMENT OF CENTERLINE STRIPING.
- 6. 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 INTERUPTIONS FOR SIDE ROADS, ENTRANCES, TURN LANES, ETC. WILL BE ALLOWED.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

THE TOLLOWING MIXTOR	THE FOLLOWING WINTONE REGOTAL WILLIAM FLOORING FOR THIS FROM DECT.										
LOCATIONS:	MAINLINE	MAINLINE	SHOULDERS TOP LIFT	SHOULDERS TOP BINDER	SHOULDERS BOTTOM LIFT						
MIXTURE USES:	POLYMER SURFACE 1.5"	POLYMER BINDER 1"	SURFACE 2"	BINDER LIFT 2"	LOWER LIFT 4"						
AC/PC:	SBS OR SBR 70-28	SBS OR SBR 70-28	PG 58-28	PG 58-28	PG 58-28						
DES <b>I</b> GN AIR VOIDS:	4% @ N = 70	4% @ N = 70	4% @ N = 50	4% @ N = 50	4% @ N = 50						
MIX COMPOSITION: (GRADATION MIXTURE)	IL 9.5	IL 9.5	IL 9.5	IL 9.5	<b>I</b> L 19.0						
FRICTION AGGREGATE:	MIXTURE "D"	NA	MIXTURE "C"	NA	NA						
QUALITY MANAGEMENT:	QC/QA	QC/QA	QCQA	QCQA	QCQA						
MTD (YES OR NO):	YES	YES	NO	NO	NO						

PLAN QUANTITIES FOR BITUMINOUS CONCRETE SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LBS/SQ YD / IN (59.8 KG/SQ M/25 MM THICKNESS)

SCALE: NONE

STD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
482011-03	HMA SHOULDER STRIPS/SHOULDERS WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
630001-13	STEEL PLATE BEAM GUARDRAIL
630301 <b>-</b> 09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-18	TRAFFIC BARRIER TERMINAL, TYPE 6
631033-09	TRAFFIC BARRIER TERMINAL, TYPE 6B
635001-02	DELINEATORS
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201 <b>-</b> 05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-04	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
701311 <b>-</b> 03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-18	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45 MPH
701901-09	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

QUIGG ENGINEERING INC

USER NAME = rgoertz	DESIGNED - RG	REVISED -
	DRAWN - TO	REVISED -
PLOT SCALE = 0.16666633 '/in.	CHECKED - SMK	REVISED -
PLOT DATE = 12/15/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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		GENI	ERAL NOT	ΓES,		F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	
п	NIDEX O	E CHEETC	VND HIG	2HW/AV	STANDARDS	315/30	[139,138(BC;BC-1)BR,BR-1]BRR	FULTON	119	2
		1 SHEETS			STANDANDS			CONTRACT	NO. 681	120
	SHEET 1	OF 1	SHEETS	STA	TO STA.		ILLINOIS FED AL	D DDO JECT		

				80% FEDERAL 20% STATE	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
				BRIDGE	BRIDGE	BRIDGE	BRIDGE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0047	0047	0047	0047
				S.N. 029-0012	S.N. 029-0055	S.N. 029-0056	S.N. 029-0021
20200600	EXCAVATING AND GRADING EXISTING SHOULDER	UNIT	36	10	10	9	7
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	1,704	507	476	417	304
40200700	AGGREGATE SURFACE COURSE, TYPE A 8"	SQ YD	85			85	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	751	175	159	244	173
40600295	POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)	POUND	608	90	78	78	362
40600370	LONGITUDINAL JOINT SEALANT	FOOT	467	60	60	60	287
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	954	254	214	214	272
40600990	TEMPORARY RAMP	SQ YD	162				162
40603208	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70	TON	20				20
40604162	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	606	22	17	17	550
44000153	HOT-MIX ASPHALT SURFACE REMOVAL, 1"	SQ YD	343				343
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	2				2
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	1,365	387	352	402	224
50102400	CONCRETE REMOVAL	CU YD	41.1	10.7	10.4	10.5	9.5
		•	1				

QUIGG ENGINEERING INC

USER NAME = rgoertz	DESIGNED - RG	REVISED -
	DRAWN - TO	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED - SMK	REVISED -
PLOT DATE = 12/15/2023	DATE -	REVISED -

	SI	UMMA	RY	OF QU	ANTITIES	}	F.A.P. RTE	SECT	TION	COUNTY	TOTAL SHEETS	SHEET NO.
		US '	136	& II 7	8 /97		315/30	[139,138(BC;BC-	1)BR,BR-1]BRR	FULTON	119	3
		03	130	Q IL /	0 / 3/					CONTRACT	NO. 681	H20
SCALE: NONE	SHEET 1	OF	5	SHEETS	STA.	TO STA.			ILLINOIS FED. AII	D PROJECT		

CONSTRUCTION TYPE CODE

				80% FEDERAL 20% STATE	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
				BRIDGE	BRIDGE	BRIDGE	BRIDGE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0047	0047	0047	0047
				S.N. 029-0012	S.N. 029-0055	S.N. 029-0056	S.N. 029-0021
50300255	CONCRETE SUPERSTRUCTURE	CU YD	45.2	12.0	11.4	11.4	10.4
50300260	BRIDGE DECK GROOVING	SQ YD	5,320	1,107	1,431	2,101	681
50300300	PROTECTIVE COAT	SQ YD	5,688	1,182	1,531	2,246	729
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	6,660	1,800	1,600	1,600	1,660
		, comb	0,000	.,000	.,000	1,000	1,000
50800515	BAR SPLICERS	EACH	104	26	26	26	26
52000110	PREFORMED JOINT STRIP SEAL	FOOT	278	76	68	68	66
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	10				10
03000100	CONTROLLED LOW CITIZENS THE MAIL TO THE CONTROLLED LOW CITIZENS THE CONTROLLED LOW CIT	0015	10				10
60260100	INLETS TO BE ADJUSTED	EACH	12		4	4	4
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	1187.5	262.5	450.0		475.0
63100085	TRAFFIC PARRIED TERMINAL TYPE C	EACH	12		4	4	4
63 100065	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	12		4	4	4
63100089	TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	4	4			
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1		1		
02402426	TRACCIO DADRICO TERMINAL TVOCA (ODCOLAL) EL ADED	54011					
63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	2	2			
63200310	GUARDRAIL REMOVAL	FOOT	2,210	533	728	266	683
			1	I	<u> </u>		

\*= SPECIALTY ITEM



 USER NAME
 = rgoertz
 DESIGNED - DRAWN - TO
 REVISED - REVISED - REVISED - TO
 = REVISED - REVISED - REVISED - REVISED - REVISED - TO

 PLOT DATE - 12/15/2023
 DATE - TWO TO THE TO

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

US 136 & IL 78 /97

SHEET 2 OF 5 SHEETS STA. TO STA.

SCALE: NONE

CONSTRUCTION TYPE CODE

					1	1	
				80% FEDERAL 20% STATE	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
				BRIDGE	BRIDGE	BRIDGE	BRIDGE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0047	0047	0047	0047
			<b>4</b>	S.N. 029-0012	S.N. 029-0055	S.N. 029-0056	S.N. 029-0021
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	16	4	4	4	4
07000400	ENGINEERO FIELD OF TOE, THE A	OAL WO	10	<u> </u>	7	7	7
67100100	MOBILIZATION	L SUM	1.00	0.25	0.25	0.25	0.25
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	4	1	1	1	1
70100403	TRAITIE GONTROLAND FROTEGTION, GTANDARD 701021	LACIT	7	'	<u>'</u>	'	'
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1.00	0.25	0.25	0.25	0.25
70100460	TRACEIC CONTROL AND PROTECTION CTANDARD 704200	L CUM	1.00	0.25	0.25	0.25	0.25
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1.00	0.25	0.25	0.25	0.25
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1.00	0.25	0.25	0.25	0.25
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	70.0	17.5	17.5	17.5	17.5
70103615	TRAFFIC CONTROL SURVEILLANCE	CALDA	70.0	17.5	17.5	17.5	17.5
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	4	1	1	1	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	27	6	6	<i>C</i>	9
70100700	TEMPONANT NOMBLE STRIPS	LACIT	21	0	0	6	J
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	56	14	14	14	14
70300100	SHORT TERM PAVEMENT MARKING	FOOT	1,533				1,533
70000100	CHOINT FEIGHT AVENUENT WANTED	1001	1,000				1,000
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	5,993	1,309	1,406	1,734	1,544
70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	15,146	3,637	3,928	4,914	2,667
. 5557 125		1001	.5,110	5,501	3,323	.,511	2,331
70307210	TEMPORARY PAVEMENT MARKING - LINE 24"- TYPE IV TAPE	FOOT	216	48	48	48	72

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

US 136 & IL 78 / 97

| SHEET 3 OF 5 SHEETS STA. TO STA.

SCALE: NONE

CONSTRUCTION TYPE CODE

					80% FEDERAL 20% STATE	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
					BRIDGE	BRIDGE	BRIDGE	BRIDGE
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0047	0047	0047	0047
					S.N. 029-0012	S.N. 029-0055	S.N. 029-0056	S.N. 029-0021
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	2,850.00	650.00	737.50	925.00	537.50
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	2,850.00	650.00	762.50	950.00	487.50
	70600251	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	12	2	2	6	2
	70600352	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	10	2	2	4	2
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	3	2	1		
*	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	11,824	2,274	2,700	3,893	2,957
*	78009024	MODIFIED URETHANE PAVEMENT MARKING - LINE 24"	FOOT	12				12
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	49	8	10	11	20
*	78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	71	12	20	30	9
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	49	8	10	11	20
	78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	5,237	1,011	1,200	1,873	1,153
*	X6330725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	125.0		25.0	100.0	
	X6350204	LINEAR DELINEATOR PANELS, 4 INCH	EACH	64	16	16	16	16
	Z0001002	GUARDRAIL AGGREGATE EROSION CONTROL	TON	566	107	203	71	185
			1	L	l .			

\*= SPECIALTY ITEM



 USER NAME
 = rgoertz
 DESIGNED
 RG
 REVISED

 DRAWN
 TO
 REVISED

 PLOT SCALE
 = 0.16666633 ¹/in.
 CHECKED
 SMK
 REVISED

 PLOT DATE
 = 12/15/2023
 DATE
 REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

 SUMMARY OF QUANTITIES

 US 136 & IL 78 / 97

 SCALE: NONE
 SHEET 4
 OF 5
 SHEETS
 STA.
 TO STA.

CONSTRUCTION TYPE CODE

F.A.P.	SECTION	COUNTY	TOTAL	SHEET	NO.
315/30		139,138(BC;BC-1)BR,BR-1]BRR	FULTON	119	6
CONTRACT NO. 68H20	ILLINOIS	FED. AID PROJECT			

					55,1611,0611	SIN THE GODE	
				80% FEDERAL 20% STATE	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
				BRIDGE	BRIDGE	BRIDGE	BRIDGE
	ODE ITEM	UNIT	TOTAL QUANTITY	0047	0047	0047	0047
			400000	S.N. 029-0012	S.N. 029-0055	S.N. 029-0056	S.N. 029-0021
Z000	01905 STRUCTURAL STEEL REPAIR	POUND	2,270	860	390	960	60
Z000	04544 HOT-MIX ASPHALT DRIVEWAY PAVEMENT REMOVAL	SQ YD	108			108	
Z001	112130 BRIDGE DECK SCARIFICATION 3/4"	SQ YD	5,578	1,153	1,504	2,219	702
7001	112162 BRIDGE DECK MICROSILICA CONCRETE OVERLAY 2 1/4"	SQ YD	5,578	1,153	1,504	2,219	702
2001	STEED STATE OF THE	04.15	0,010	1,100	1,501	2,210	702
Z001	112754 STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INC	HES) SQ FT	109	13	65	25	6
Z001	13798 CONSTRUCTION LAYOUT	L SUM	1.00	0.25	0.25	0.25	0.25
Z001	DIGOUL DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	5		2	3	
7004	116002 DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	0		4	2	2
2001	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	30,10	8		4	2	2
Z00 <sup>2</sup>	018051 DRAINAGE SCUPPERS TO BE ADJUSTED	EACH	8		4	4	
Z003	34105 MATERIAL TRANSFER DEVICE	TON	626	22	17	17	570
Z007	76600 TRAINEES	HOUR	1,000	1,000			
	65730 SLOPE WALL SLURRY PUMPING	CU YD	10				10
Z007	76604 TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	1,000	1,000			

Ø 0042

QUIGG ENGINEERING INC

USER NAME = rgoertz	DESIGNED - RG	REVISED -
	DRAWN - TO	REVISED -
PLOT SCALE = 0.16666633 '/in.	CHECKED - SMK	REVISED -
PLOT DATE = 12/15/2023	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	S	UMMARY	OF QU	ANTITIES	3	F.A.P. RTE.	SECT	TION		COUNTY	TOTAL SHEETS	SHEET NO.
		110 136	& IL 7	Q / Q7		315/30	[139,138(BC;BC-	-1)BR,BR-	-1]BRR	FULTON	119	7
		03 130	Q IL /	0 / 3/						CONTRACT	NO. 68	H20
SCALE: NONE	SHEET 5	OF 5	SHEETS	STA.	TO STA.			ILLINOIS	FED. AID	PROJECT		

CONSTRUCTION TYPE CODE

									PAVING SCH	IEDULE								
	LOCATION		EXCAVATING AND GRADING EXISTING SHOULDER 20200600	AGGREGATE SUBGRADE IMPROVEMENT 12" 30300112	AGGREGATE SURFACE COURSE, TYPE A 8" 40200700	BITUMINOUS MATERIALS (TACK COAT) 40600290	POLYMERIZED BITUMINOUS MATERIALS (TACK COAT) 40600295	LONGITUDINAL JOINT SEALANT 40600370	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT 40600982	TEMPORARY RAMP 40600990	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70 40603208	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70 40604162	HOT-MIX ASPHALT SURFACE REMOVAL, 1" 44000153	AGGREGATE WEDGE SHOULDER, TYPE B 48102100	HOT-MIX ASPHALT SHOULDERS, 8" 48203029	GUARDRAIL AGGREGATE EROSION CONTROL Z0001002	HOT-MIX ASPHALT DRIVEWAY PAVEMENT Z0004544	MATERIAL TRANSFER DEVICE Z0034105
STA	STA	LT / RT	(UNIT)	(SQ YD)	(SQ YD)	(POUND)	(POUND)	(FOOT)	(SQ YD)	(SQ YD)	(TON)	(TON)	(SQ YD)	(TON)	(SQ YD)	(TON)	(SQ YD)	(TON)
	29-0012 (US 136		(21327)	( /	(,	(	(	(	(	( )	(* 2 * 3)	(* /	( /	(	( )	(,	(= -, -,	(****)
321+30,00	323+58.10	ĹT	2,28	126,98		43,80									97,32	30.78		
321+30.00	323+58.10	RT	2.28	131.79		45.96									102.14	36.59		
326+51.12	328+85.00	LT	2.34	121,10		40,81									90.69	14.68		
326+51.12	328+85.00	RT	2.34	127.07		43.50									96.67	14.66		
323+28.10	323+58.10	LT / RT		127.101		10.00	45.00	30.00	126.67			10.86			33.3.			
326+51,12	326+81.12	LT / RT					45.00	30,00	126,67			11,02						21,88
020.01.12		JBTOTAL	9.24	506.94		174.07	90.00	60.00	253.34			21.88			386.82	96.71		21.88
		USE	10	507		175	90	60	254			22			387	107		22
SN 020	9-0055 (IL 78 / IL		10	307	+	173			254						307	107		
488+45.00	490+85.38	LT	2.4	120.19		40.02									88.94	15.17		-
488+45.00	490+85.38	RT	2.4	120.19		40.02									88.94	56.76		-
495+14.77	497+50.00	LT	2.35	117.62		39.17									87.04	55.48		
		RT	2.35	117.62		39.17									87.04	56.31		
495+14.77	497+50.00		2,35	117.02		39.17	20.00	20.00	400.07			0.44			87.04	30.31		<del>                                     </del>
490+55.38	490+85.38	LT / RT					39.00	30.00	106.67			8.44						10.00
495+14.77	495+44.77	LT / RT	0.50	475.00		450.00	39.00	30.00	106.67			8.44			054.00	400.70		16.88
	St	JBTOTAL	9.50	475.62		158.38	78.00	60.00	213.34			16.88			351.96	183.72		16.88
		USE	10	476		159	78	60	214	ī	T	17		ı	352	203	ı	17
	-0056 (IL 78 / IL																	
502+60.00	504+12.08	LT	1.52	77.08		25.67									57.04	15.64		
504+55.79	504+95.70	LT	0.4	4.00		12,78									14.2			
502+60.00	504+95.70	RT	2.36	19.19		78.49									87.21	16.42		
511+26.92	511+67.41	LT	0.4	117.85		13.04									14.49	16.18		
512+15.81	513+60.00	LT	1.44	19.58		50.17									55.74			
511+26.92	511+67.60	RT	0.41	75.33		13.55									15.05	15.98		
512+12.29	513+60.00	RT	1.48	20.34		49.81									55.35			
504+35.52		LT		4.00	23.94										34.07		32.22	
511+90.24		RT		4.00	34.22										34.07		34.67	
511+90.56		LT		74.79	26.32										34.07		40.22	
504+65.70	504+95.70	LT / RT					39.00	30.00	106.67			8.44						
511+26.92	511+56.92	LT / RT					39,00	30,00	106,67			8.44						16.88
	SI	JBTOTAL	8.01	416.16	84.48	243.51	78.00	60.00	213.34			16.88			401.29	64.22	107.11	16.88
		USE	9	417	85	244	78	60	214			17			402	71	108	17
SN 029	9-0021 (IL 78 / <b>I</b> L	. 97)																
532+30.00	534+79.37	LT	2.49	124.69		83.04									92.27	53.31		
532+30.00	534+79.37	RT	2.49	124.69		83.04									92.27	53.8		
536+87.06	537+50.00	LT	0.63	27.79		3.90									19.63	32.29		
536+87.06	537+40.00	RT	0.53	26.13		2.79									19.27	28.41		
534+49.37	534+79.37	LT / RT					39,00	30,00	106,67			8,44						19,86
536+87.06	538+14.75	LT / RT					322.97	257.00	165.01	162.00	19.86	541.13	342.72	1.99				549.57
	SI	JBTOTAL	6.14	303.3		172.77	361.97	287.00	271.68	162.00	19.86	549.57	342.72	1.99	223.44	167.81		569.43
		USE	7	304		173	362	287	272	162	20	550	343	2	224	185		570
																		-
GI	RAND TOTALS		36	1,704	85	751	608	467	954	162	20	606	343	2	1,365	566	108	626

QUIGG ENGINEERING INC

USER NAME = rgoertz	DESIGNED - RG	REVISED -
	DRAWN - TO	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED - SMK	REVISED -
PLOT DATE = 12/15/2023	DATE -	REVISED -

	ANTITIES					
		US	136	& IL 7	8 /97	
SCALE: NONE	SHEET 1	OF	3	SHEETS	STA.	TO STA.

F.A.P. RTE	SEC <sup>-</sup>	TION	COUNTY	TOTAL SHEETS	SHEET NO.	
315/30	[139,138(BC;BC	1)BR,BR	-1]BRR	FULTON	119	8
			CONTRACT	NO. 681	H20	
		ILLINOIS	FED. AII	D PROJECT		

Jnnamed Plan-1 - Plan 2 [Sheet]

						DRAIL SCHEDUL	<del>-</del>				
ı	LOCATION		STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	TERMINAL TYPE 6	TRAFFIC BARRIER TERMINAL, TYPE 6B	TERMINAL, TYPE 1 (SPECIAL) TANGENT	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	GUARDRAIL REMOVAL	TERMINAL MARKER - DIRECT APPLIED	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	LINEAR DELINEATOR PANELS, 4 INCH
			63000001	63100085	63100089	63100167	63100169	63200310	72501000	X6330725	X6350204
STA	STA	LT / RT	(FOOT)	(EACH)	(EACH)	(EACH)	(EACH)	(FOOT)	(EACH)	(FOOT)	(EACH)
	9-0012 (US 136)	1.7	50.0								4
322+91.76 322+29.49	323+41.76 323+41.99	LT RT	112.5								4
326+67.21	327+17.21	LT	50.0								4
326+66.95	327+17.21	RT	50.0								4
323+41.76	323+78.66	LT	30.0		1						4
323+41.99	323+78.89	RT			1						
326+30.31	326+67.21	LT			1						
326+30.05	326+66.95	RT			1						
322+41.93	322+91.76	LT					1		1		
321+79.65	322+29.49	RT					1		1		
322+44.93	323+85.82	LT						140.89	·		
321+82.01	323+85.73	RT						203.72			
326+23.37	327+17.21	LT						93.84			
326+23.09	327+16.97	RT						93.88			
		BTOTAL	262.5	0	4	0	2	532.33	2	0.0	16
		USE	262.5	0	4	0	2	533	2	0.0	16
SN 029-	0055 (IL 78 / IL 97				-				_		
489+31.21	490+56.15	RT	125.0								4
495+44.50	497+06.91	LT	162,5								4
495+44.00	497+06.96	RT	162.5								4
490+55.91	490+92.81	LT		1							
490+56.15	490+93.05	RT		1							
495+07.60	495+44.50	LT		1							
495+07.10	495+44.00	RT		1							4
488+81.22	489+31.21	LT				1			1		
490+44.15	491+09.94	LT						65.79			
488+80.26	491+09.60	RT						229.34			
494+90.57	497+06.91	LT						216.34			
494+90.82	497+06.96	RT						216.14			
490+38.99	490+55.91	LT								25.0	
	SL	BTOTAL	450.0	4	0	1	0	727.61	1	25.0	16
		USE	450.0	4	0	1	0	728	1	25.0	16
	0056 (IL 78 / IL 97										
504+66.42	505+03.32	LT		1							4
504+66.49	505+03.39	RT		1							4
511+19.38	511+56.28	LT		1							4
511+19.29	511+56.19	RT		1				22.22			4
504+53.08	505+19.14	LT						66.06			
504+52.89	505+19.42	RT						66.53			
511+03.29 511+03.25	511+70.11 511+69.40	LT RT						66.82 66.15			
511+03.25	511+69.40	LT						00.10		25.0	
504+47.44	504+66.49	RT								25.0	
511+56.28	511+69.95	LT								25.0	
511+56.26	511+70.61	RT								25.0	
311130,13		BTOTAL	0.0	4	0	0	0	265.56		100.0	16
	30	USE	0.0	4	0	0	0	266		100.0	16
SN 029-	0021 (IL 78 / IL 97		0.0	7	<u> </u>	•	•	200		100.0	
532+88.58	534+63.55	LT	175.0								4
532+88.62	534+63.60	RT	175.0								4
537+01.98	537+59.65	LT	62.5								4
537+03.26	537+68.10	RT	62.5								4
534+63.55	535+00.45	LT	12.0	1							
534+63.60	535+00.50	RT		1							
536+65.64	537+01.98	LT		1							
536+65.77	537+03.26	RT		1							
532+88.58	535+15.91	LT		·				227.33			
532+88.62	535+16.16	RT						227.54			
536+50.08	537+59.65	LT						109.57			
536+50.01	537+68.10	RT						118.09			
			475.0	4	0	0	0	682.53	0	0.0	16
000.00.01	SL	BIUIAL	7/3.0								
	SL	BTOTAL USE	475.0	4	0	0	0	683	0	0.0	16

DESIGNED - RG REVISED -DRAWN - TO REVISED -CHECKED - SMK REVISED -PLOT SCALE = 0.16666633 '/in. PLOT DATE = 12/15/2023 DATE -REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SCHEDULE OF QUANTITIES									
		US 13	6 & IL 7	78 /97					
SCALE: NONE	SHEET 2	OF 3	SHEETS	STA.	TO STA.				

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

 315/30
 [139,138(BC;BC-1)BR,BR-1]BRR
 FULTON
 119
 9
 

QUIGG ENGINEERING INC

AL SCHEDULE
TEMPORARY BRIDGE TRAFFIC SIGNALS 70106500
(EACH)
,
1
1
1
1
4

					PAVEME	ENT MARKING S	CHEDULE				
	LOCATION			SHORT TERM PAVEMENT MARKING REMOVAL	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	TEMPORARY PAVEMENT MARKING - LINE 24" - TYPE IV TAPE	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	MODIFIED URETHANE PAVEMENT MARKING - LINE 24"	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	PAVEMENT MARKING REMOVAL - WATER BLASTING
			70300100	70300150	70307120	70307210	78009004	78009024	78100100	78300200	78300202
STA	STA	LT / RT	(FOOT)	(SQ FT)	(FOOT)	(FOOT)	(FOOT)	(FOOT)	(EACH)	(EACH)	(SQ FT)
SN 0:	29-0012 (US 136)										
319+95.08	330+05.35	LT / RT		1308.33	3636,83	48.00	2273,11		8	8	1,010.25
	SL	BTOTAL		1308.33	3,636.83	48.00	2,273.11		8	8	1,010.25
	Т	USE		1309	3,637	48	2,274		8	8	1,011
SN 029	 -0055 (IL 78 / IL 97	<u> </u> )									
486+65.00	498+64.77	LT / RT		1405.33	3927.09	48.00	2,699.48		10	10	1,199.76
	SUBTOTAL			1405.33	3,927.09	48.00	2,699.48		10	10	1,199.76
	I	USE		1406	3,928	48	2,700		10	10	1,200
SN 029	 -0056 (IL 78 / IL 97	<u> </u> )									
500+76.00	515+26.67	LT / RT		1734.00	4913,30	48.00	3892.17		11	11	1,872.90
	SL	BTOTAL		1734.00	4,913.30	48.00	3,892.17		11	11	1,872.90
	I	USE		1734	4,914	48	3,893		11	11	1,873
SN 029	  -0021 (IL 78 / IL 97	)									
531+25.19	539+20.01	LT / RT	1532.28	1544.00	2666,27	72.00	2956.37	12.00	20	20	1,152.65
	SL	BTOTAL	1,532.28	1544.00	2,666.27	72.00	2,956.37	12.00	20	20	1,152.65
	T	USE	1,533	1544	2,667	72	2,957	12	20	20	1,153
GF	RAND TOTALS		1,533	5,993	15,146	216	11,824	12	49	49	5,237

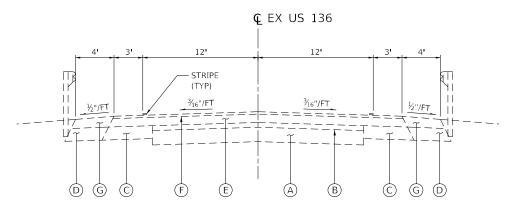
PAR	APET REFLEC	CTOR SC	HEDULE
	BARRIER WALL REFLECTORS, TYPE C		
			78200011
STA	STA	LT / RT	(EACH)
SN 0	29-0012 (US 136)		
323+88.30	326+20.80	LT / RT	12
		UBTOTAL	12
SN 029	-0055 (IL 78 / IL 97	7)	
491+04.75	494+95.25	LT / RT	20
	9	UBTOTAL	20
SN 029	-0056 (IL 78 / IL 97	7)	
505+15.50	511+07.25	LT / RT	30
	9	UBTOTAL	30
SN 029	-0021 (IL 78 / IL 9	7)	
534+98.88	536+67.40	LT / RT	9
	9	UBTOTAL	9
			·
G	RAND TOTALS	•	71

		TEM	PORARY CON	ICRETE BARR	RIER SCHEDULE	
	LOCATION		TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE,NARROW), TEST LEVEL 3
			70400100	70400200	70600251	70600352
STA	STA	LT / RT	(FOOT)	(FOOT)	(EACH)	(EACH)
SN 0	29-0012 (US 136)					
321+89.78	328+34.82	LT / RT	650.00	650.00	2	2
	SUBTOTAL			650.00	2	2
SN 029	0-0055 (IL 78 / IL 97	')				
488+52.32	496+76.11	LT / RT	737.50	762.50	2	2
	SI	JBTOTAL	737.50	762.50	2	2
SN 029	9-0056 (IL 78 / IL 97	')				
502+62.33	513+66.10	LT / RT	925.00	950.00	6	4
	SI	JBTOTAL	925.00	950.00	6	4
SN 029	9-0021 (IL 78 / IL 97	<b>'</b> )				
533+11.04	538+07.06	LT / RT	537.50	487.50	2	2
	SI	JBTOTAL	537.50	487.50	2	2
			<u> </u>	<u> </u>		
GI	RAND TOTALS		2,850.00	2,850.00	12	10

SCALE: NONE

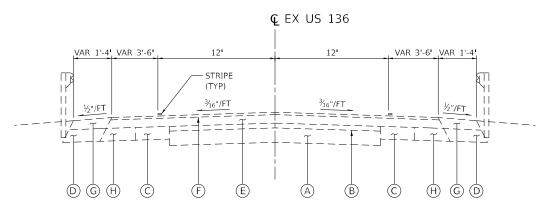
USER NAME = rgoertz	DESIGNED - RG	REVISED -
	DRAWN - TO	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED - SMK	REVISED -
PLOT DATE = 12/15/2023	DATE -	REVISED -

SCHEDULE OF QUANTITIES	F.A.P. RTE	SECTION	COUNTY	COUNTY TOTAL SHEETS		
US 136 & IL 78 /97	315/30	[139,138(BC;BC-1)BR,BR-1]BI	RR FULTON	119	10	
03 130 & IL 76 / 37				CONTRAC	T NO. 681	H20
SHEET 3 OF 3 SHEETS STA.	TO STA.		ILLINOIS FEE	AID PROJECT		



## **EXISTING TYPICAL SECTION**

STA 322+00 TO STA 322+58 STA 327+62 TO STA 328+07 BRIDGE OMISSION: STA 323+58 TO STA 326+62



## **EXISTING TYPICAL SECTION**

STA 322+58 TO STA 323+58 STA 326+62 TO STA 327+62

QUIGG ENGINEERING INC	

USER NAME = rgoertz	DESIGNED - RG	REVISED -
	DRAWN - TO	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED - SMK	REVISED -
PLOT DATE = 12/15/2023	DATE -	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SCALE: NONE

EXISTING TYPICAL SECTIONS US 136				F.A RTI		SECTION		COUNTY	TOTAL SHEETS	SHEET NO.			
				315	/30	[139,138(BC;BC-1)BR,BR-1]BRR		FULTON	119	11			
	03 130									CONTRACT	NO. 681	120	
	SHEET 1	OF :	2	SHEETS	STA.	TO STA.			ILLINOIS F	ED AID	PROJECT		

**LEGEND** 

A EX PCC PAVEMENT

B EX HMA OVERLAY, 3"

© EX HMA SHOULDERS, 8"

D EX AGGREGATE SHOULDERS

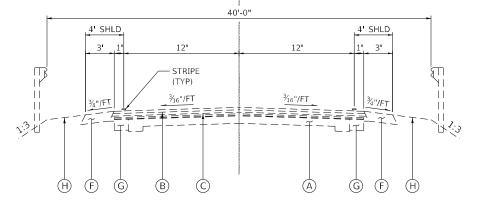
E EX LEVELING BINDER (VAR 0"-5\\")

F EX HMA SURFACE COURSE, 1½"

G EX AGGREGATE SHOULDERS (VAR 0"-6¾")

(H) EX HMA SHOULDER WIDENING, 8"

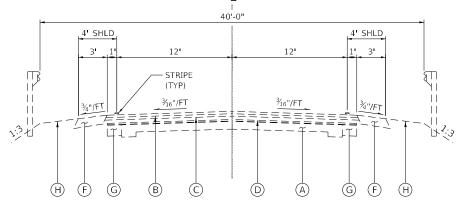
## **Q** EX IL 78 / IL 97



## **EXISTING TYPICAL SECTION**

STA 489+45 ± TO STA 490+15 ±
STA 495+85 ± TO STA 497+00 ±
STA 503+00 ± TO STA 503+60 ±
STA 513+40 ± TO STA 514+00 ±
STA 534+00 ± TO STA 534+79 ±
STA 536+86 ± TO STA 537+66 ±

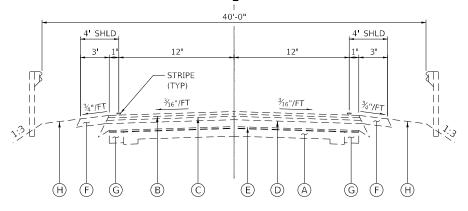
### **Q** EX IL 78 / IL 97



## **EXISTING TYPICAL SECTION**

STA 490+15 ± TO STA 490+84 ± STA 495+15 ± TO STA 495+85 ± STA 503+60 ± TO STA 504+95 ± STA 512+75 ± TO STA 514+00 ±

## **©** EX IL 78 / IL 97



## **EXISTING TYPICAL SECTION**

STA 511+27  $\pm$  TO STA 512+67  $\pm$ 

## QUIGG ENGINEERING INC

USER NAME = rgoertz	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED -	REVISED -
PLOT DATE = 12/14/2023	DATE -	REVISED -

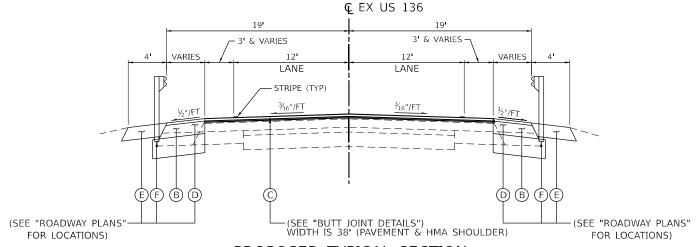
SCALE: NONE

EXISTING TYPICAL SECTIONS IL 78 / IL 97				F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.		
				315/30	[139,138(BC;BC-1)BR,BR-	1]BRR	FULTON	119	12		
									CONTRACT	NO. 681	<del>1</del> 20
	SHEET 2	OF 2	SHEETS	STA.	TO STA.		ILLINOIS	FED. AID	PROJECT		

## **LEGEND**

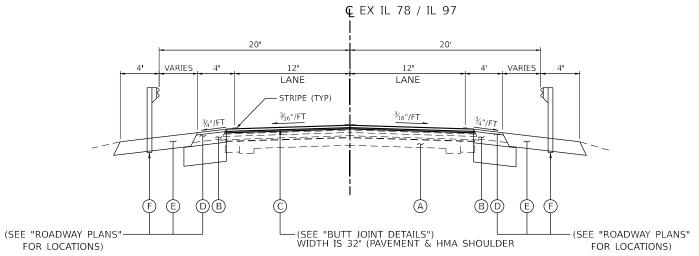
- (A) EX 9" PCC PAVEMENT WITH OVERLAY
- B EX HMA SURFACE COURSE,  $1\frac{1}{2}$ "
- © EX HMA BINDER, 1½"
- D EX HMA BASE, VAR 3"-8"
- (E) EX GRANULAR EMBENKMENT (SP), VAR 6"-24"
- F EX AGGREGATE SHOULDERS
- G EX WIDENING
- (H) EX EMBANKMENT

EX TYPICALS - 2 [Sheet]
ME: 8:13023/33|| 006 BTB 306 30 D4 Hund Booche Marion



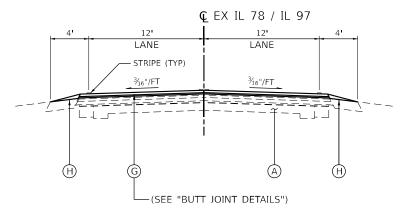
## PROPOSED TYPICAL SECTION

SN 029-0012



## PROPOSED TYPICAL SECTION

SN 029-0055 SN 029-0056 SN 029-0021 (NORTH)



## PROPOSED TYPICAL SECTION

SN 029-0021 (OVERLAY AREA)

## **LEGEND**

- (A) EX PAVEMENT
- B EX AGGREGATE SHOULDERS
- POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70 (1½") HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)
- D EXCAVATING AND GRADING EXISTING SHOULDER HOT-MIX ASPHALT SHOULDERS, 8" AGGREGATE SUBGRADE IMPROVEMENT 12"
- E GUARDRAIL AGGREGATE EROSION CONTROL
- STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
- POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70 (1½") POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N70 (1") HOT-MIX ASPHALT SURFACE REMOVAL, 1" POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)
- (H) AGGREGATE WEDGE SHOULDER, TYPE B

## NOTE:

TO STA.

1. SEE DISTRICT 4 STANDARD DRAWING -"GUARDRAIL EROSION CONTROL TREATMENTS"

DESIGNED - RG REVISED -DRAWN - TO REVISED CHECKED - SMK REVISED PLOT DATE = 12/14/2023 DATE REVISED

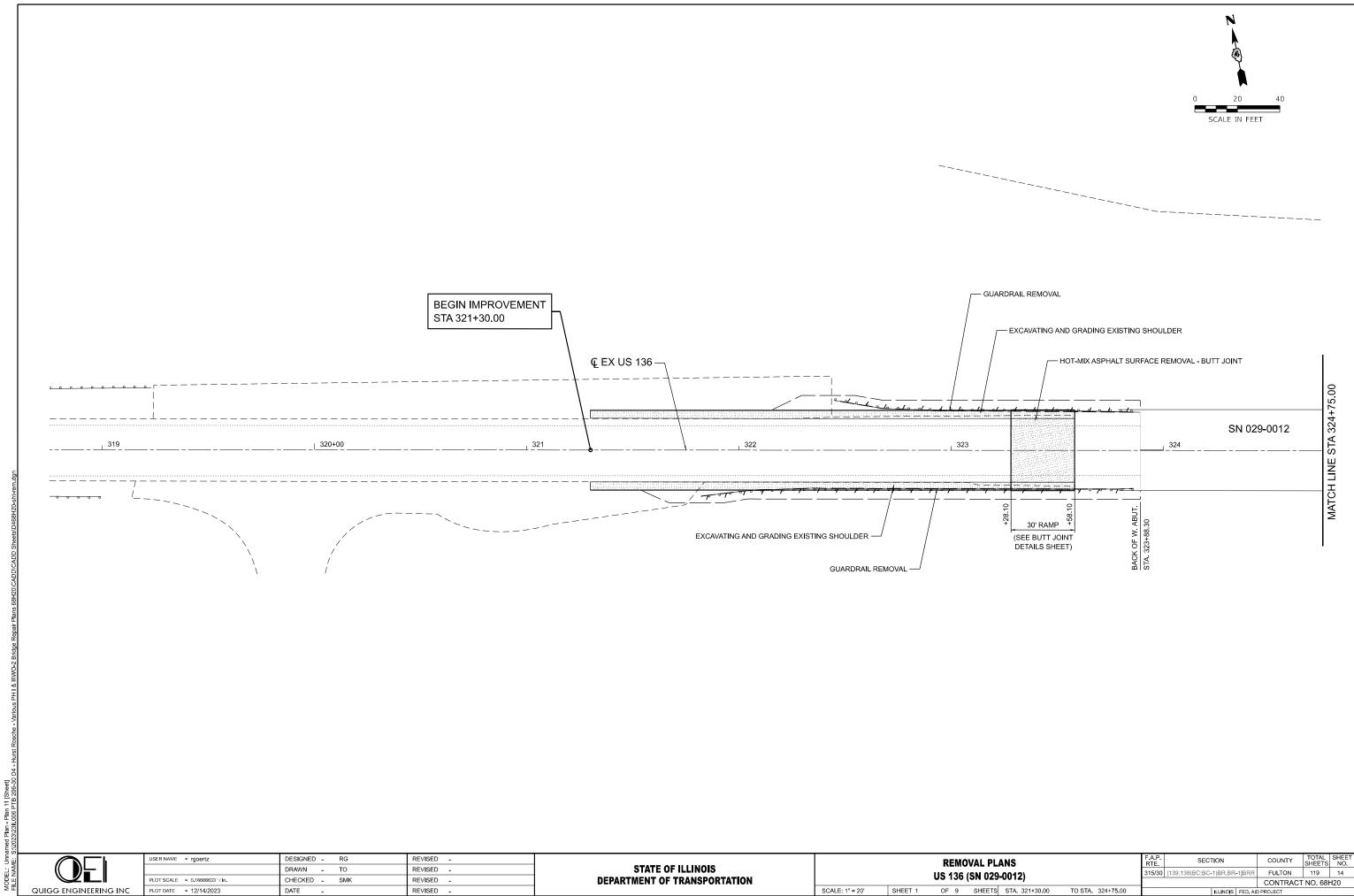
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

PROPOSED TYPICAL SECTIONS US 136 / IL 78 / IL 97 SHEET 1 OF 1 SHEETS STA.

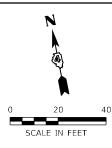
SCALE: NONE

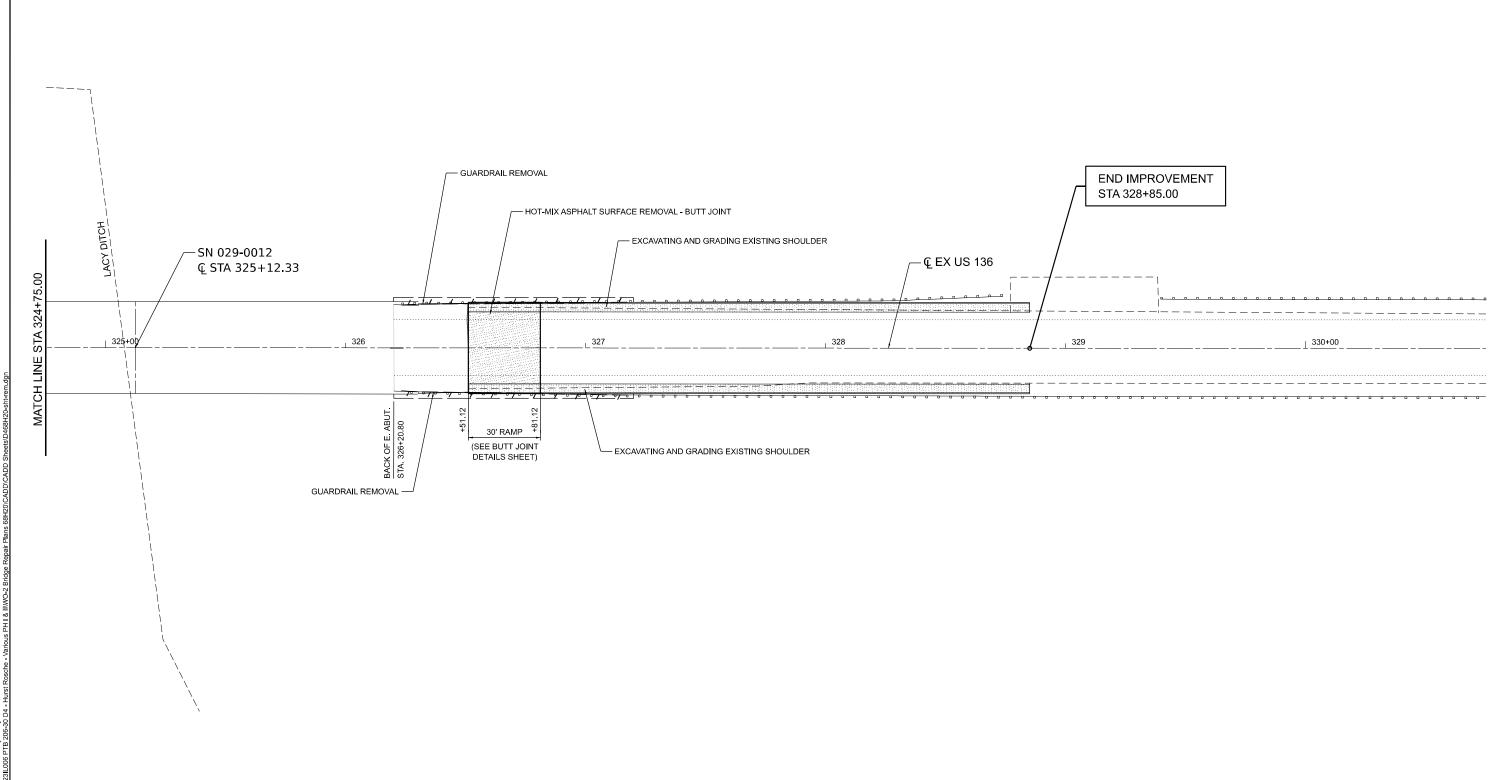
COUNTY 315/30 [139,138(BC;BC-1)BR,BR-1]BRR FULTON 119 13 CONTRACT NO. 68H20

QUIGG ENGINEERING INC



PLOT DATE = 12/14/2023





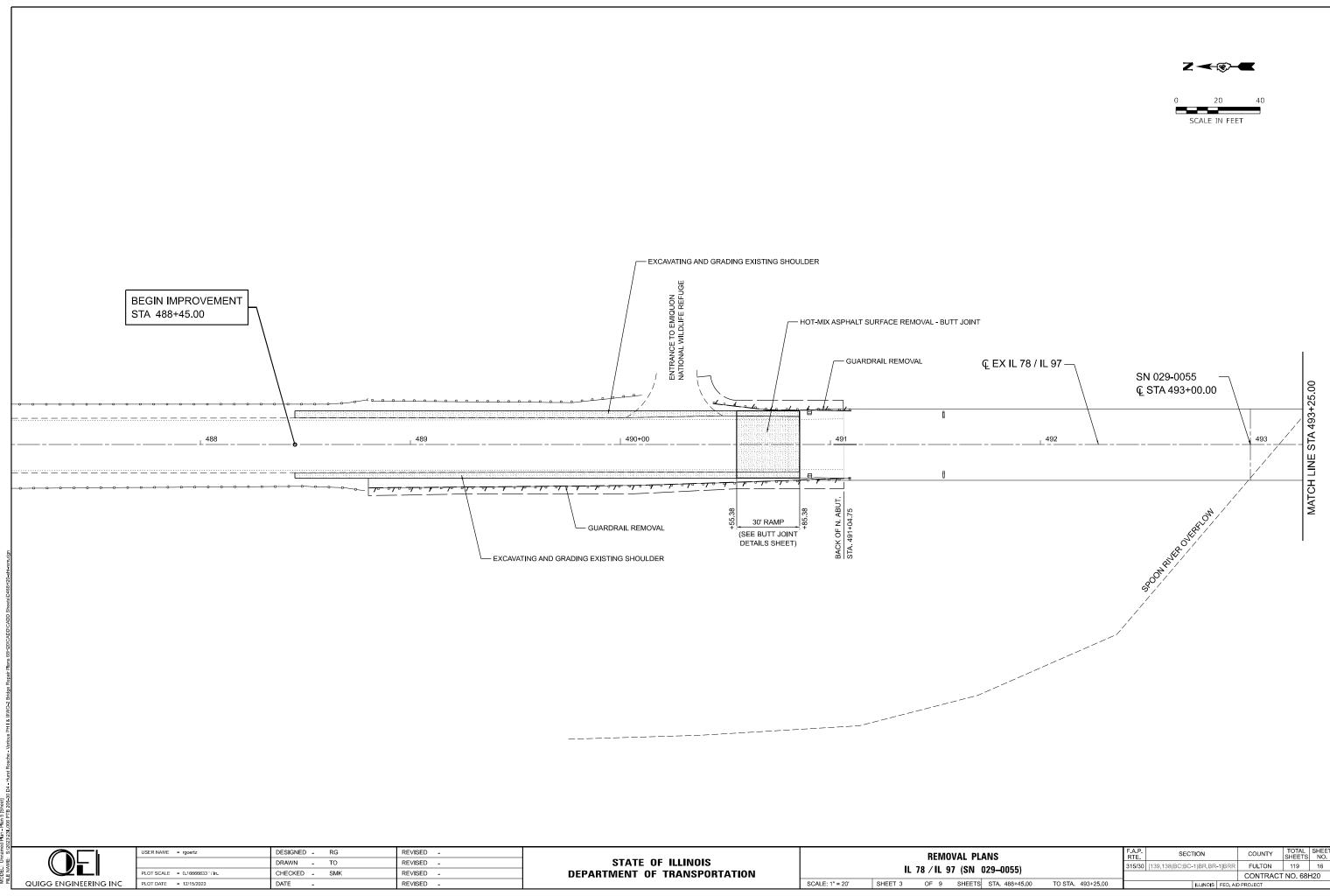
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QUIGG ENGINEERING INC

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVAL PLANS
US 136 (SN (029-0012)

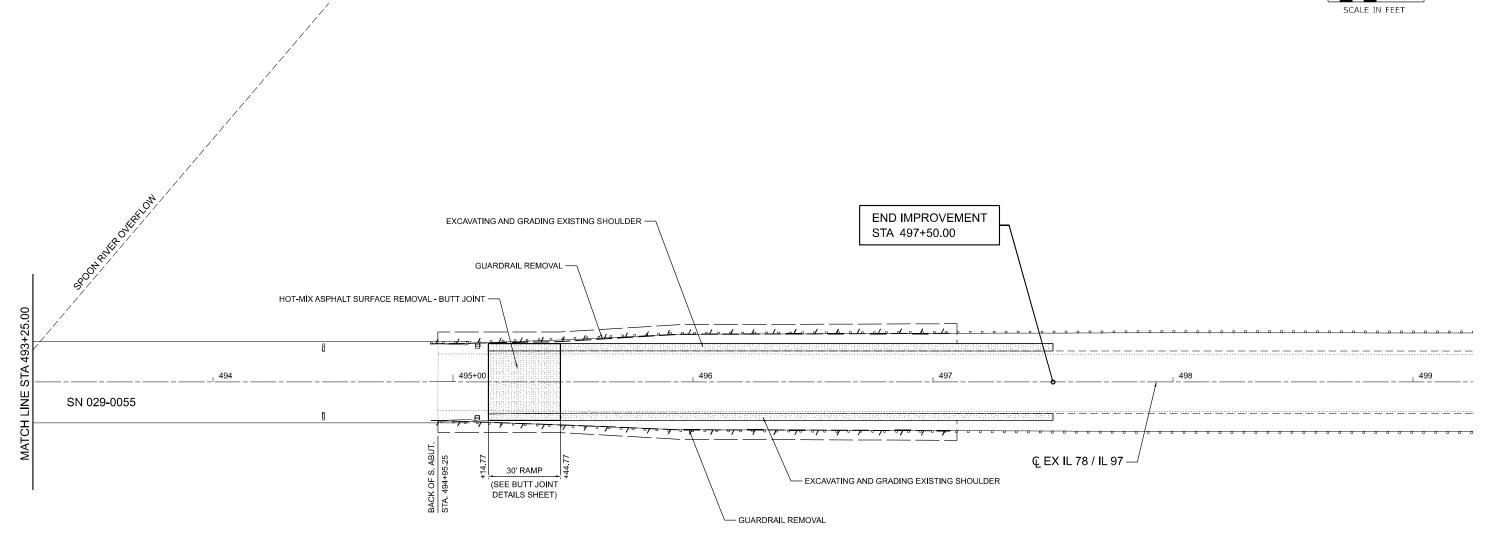
SCALE: 1" = 20' SHEET 2 OF 9 SHEETS STA. 324+75.00 TO STA. 328+85.00



1 Googled Han -Pfor Ski







UIGG ENGINEERING I	NC

	USER NAME = rgoertz	DESIGNED - RG	REVISED -	
		DRAWN - TO	REVISED -	
	PLOT SCALE = 0.16666633 ' / in.	CHECKED - SMK	REVISED -	
;	PLOT DATE = 12/15/2023	DATE -	REVISED -	

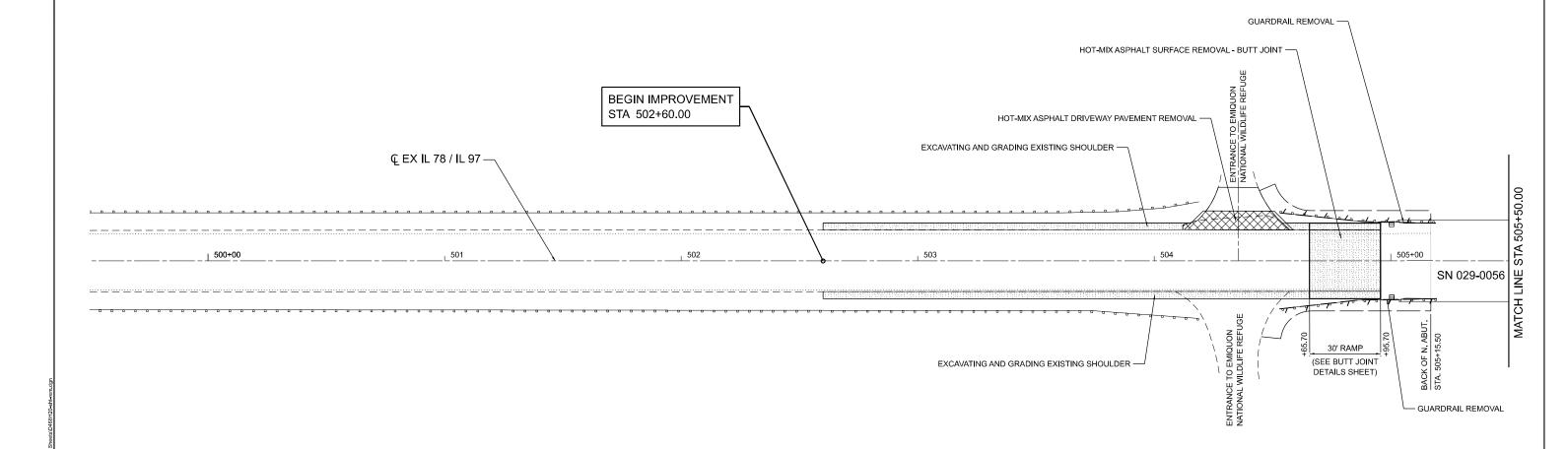
STATI	E OF ILLINOIS	
DEPARTMENT	OF TRANSPORTATION	N

REMOVAL PLANS							F.A.P. RTE.		
		IL	78 / IL 9	7 (SN	029–0055)			315/30	[139,13
	SCALE: 1" = 20'	SHEET 4	OF 9	SHEETS	STA. 493+25.00	TO STA.	497+50.00		

F.A.P. RTE.	SEC <sup>-</sup>	TION		COUNTY	TOTAL SHEETS	SHEET NO.
315/30	[139,138(BC;BC-	1)BR,BR	-1]BRR	FULTON	119	17
				CONTRACT	NO. 681	H20
		ILLINOIS	IOIS FED. AID PROJECT			







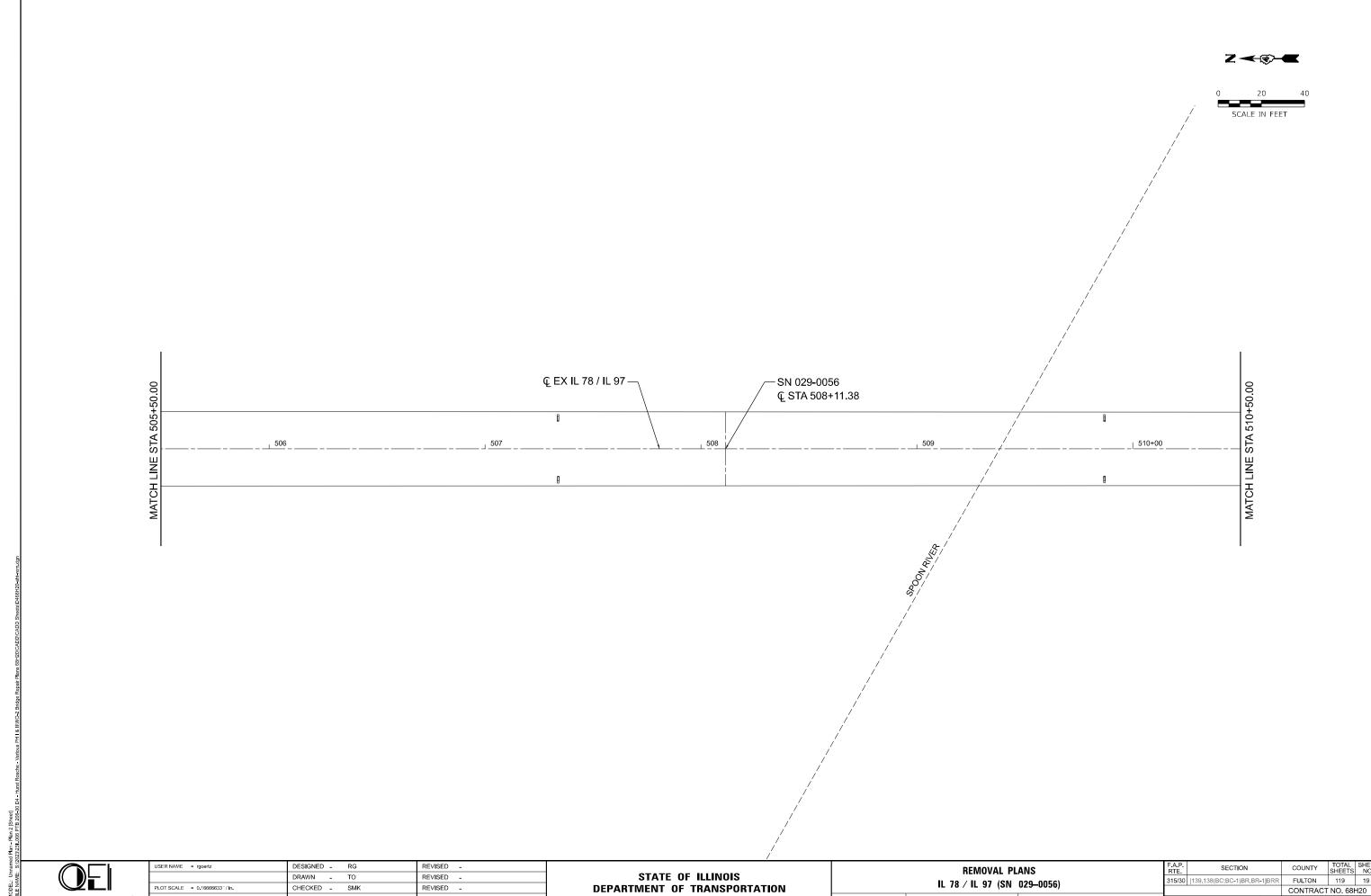
OLUCO ENCINEEDING INC

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2	PLOT DATE = 12/15/2023	DATE -	REVISED -

STATI	E OF ILLINOIS	
DEPARTMENT	OF TRANSPORTATION	N

REMOVAL PLANS							SECTION
IL 78 /97 (SN 029-0056)							[139,138(BC;BC-1)BR,BR-1
		IL 70 / 37	(514 02	23-0030/			
SCALE: 1" = 20'	SHEET 5	OF 9	SHEETS	STA. 502+60.00	TO STA. 505+50.00		ILLINOIS I

NAME: S:2023/23IL006 PTB 206-30 D4 - Hurst Rosche - Various PH I & II/WO-2 Bridge

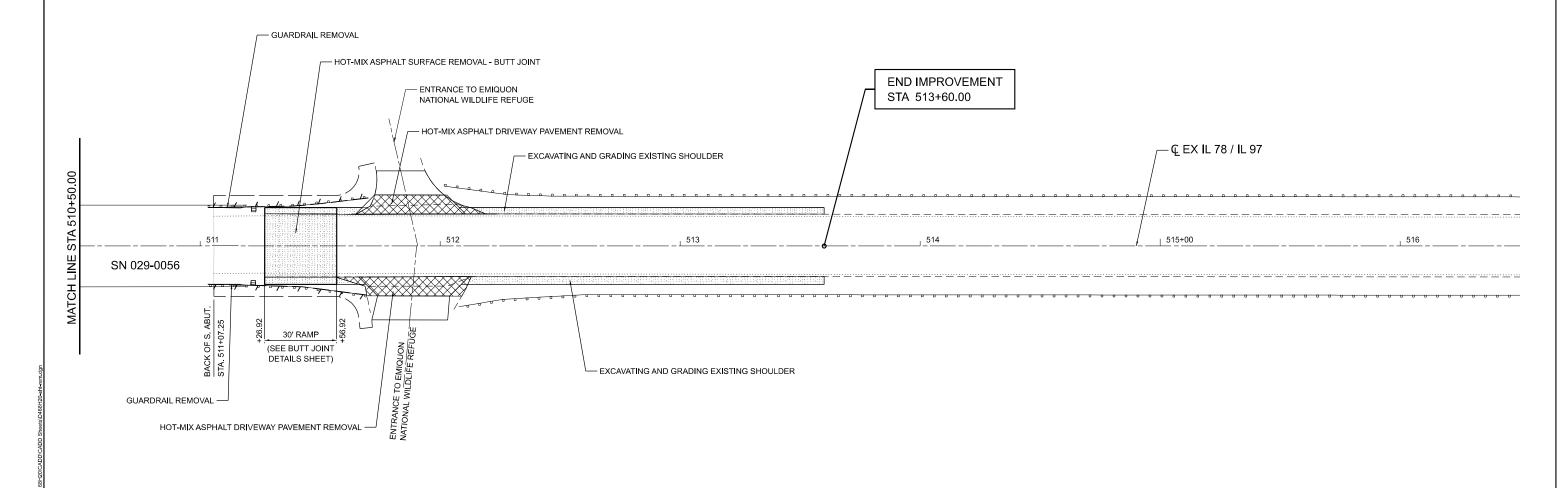


PLOT DATE = 12/15/2023 DATE -REVISED -

SCALE: 1" = 20' SHEET 6 OF 9 SHEETS STA. 505+50.00 TO STA. 510+50.00







LICC ENGINEERING INC

USER NAME = rgoertz	DESIGNED - RG	REVISED -
	DRAWN - TO	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED - SMK	REVISED -
PLOT DATE = 12/15/2023	DATE -	REVISED -

STATI	E OF	: ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

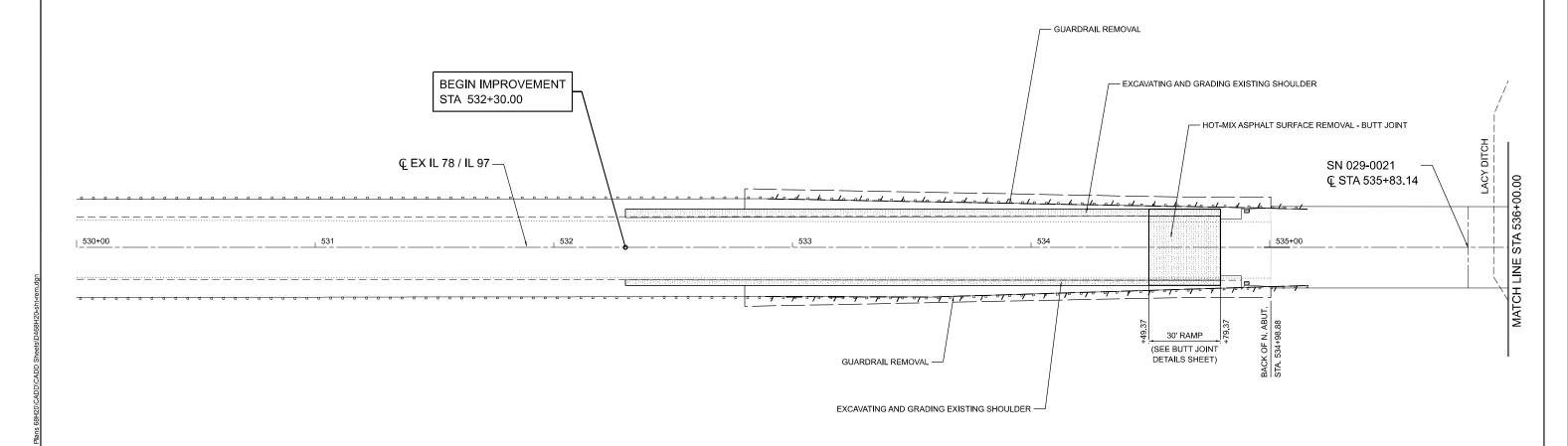
REMOVAL PLANS								
	IL	78 / I	L 9	7 (SN	029–0056)		315/30	[139,138(E
		,,,		•	· · · · · · · · · · · · · · · · · · ·		_	
SCALE: 1" = 20'	SHEET 7	OF	9	SHEETS	STA. 510+50.00	TO STA. 513+60.00		

F.A.P. RTE	SECTION	N		COUNTY	TOTAL SHEETS	SHEE NO.
315/30	[139,138(BC;BC-1)B	R,BR-	-1]BRR	FULTON	119	20
			CONTRACT	NO. 681	120	
	ILLI	NOIS	FED. AII	PROJECT		

23/23IL006 PTB 206-30 D4 - Hurst Rosche - Various PH I & IIWO-2 Bridge Repai







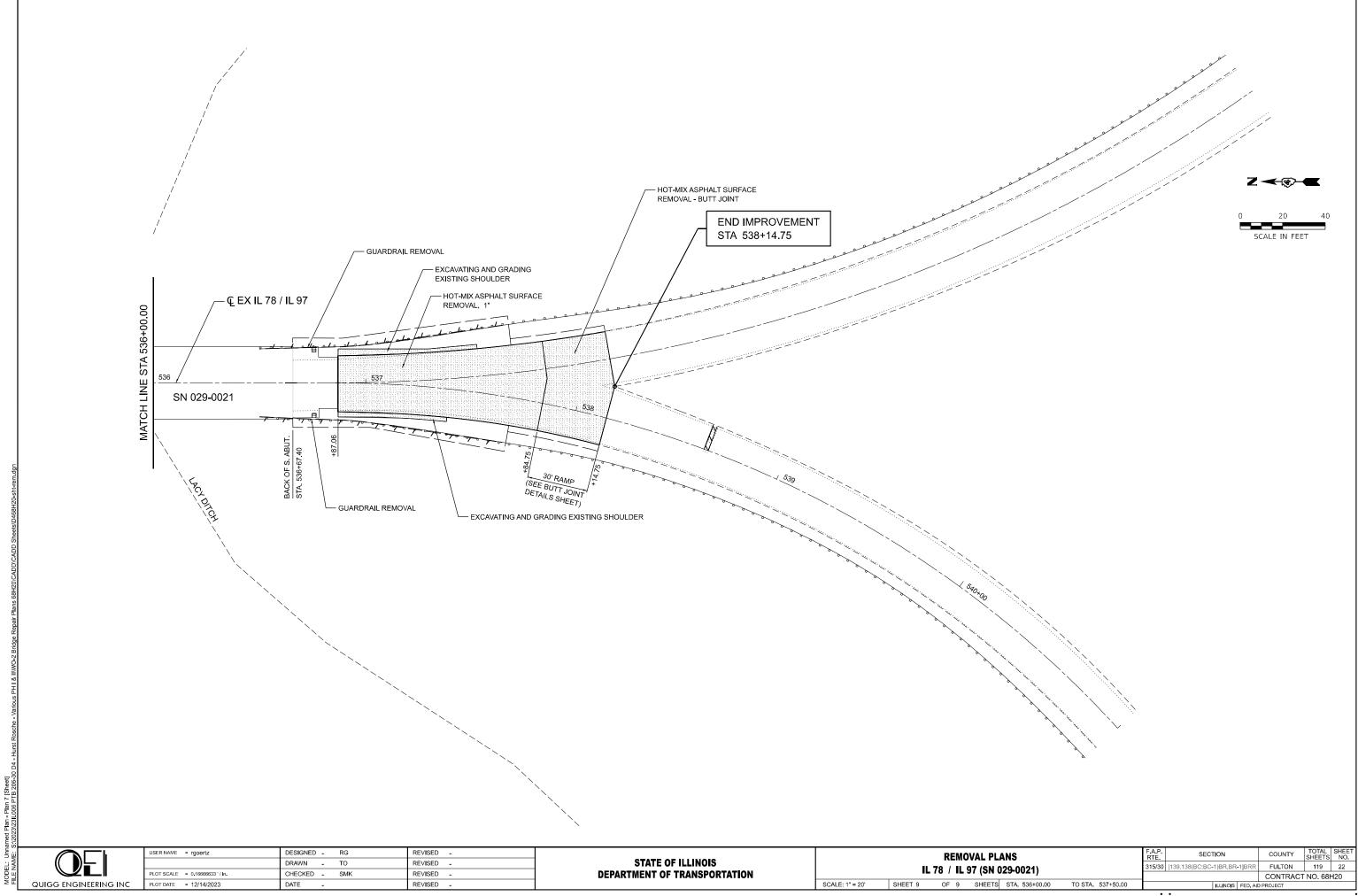
OLUCO ENGINEERING INC

USER NAME = rgoertz	DESIGNED - RG	REVISED -
	DRAWN - TO	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED - SMK	REVISED -
PLOT DATE = 12/14/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

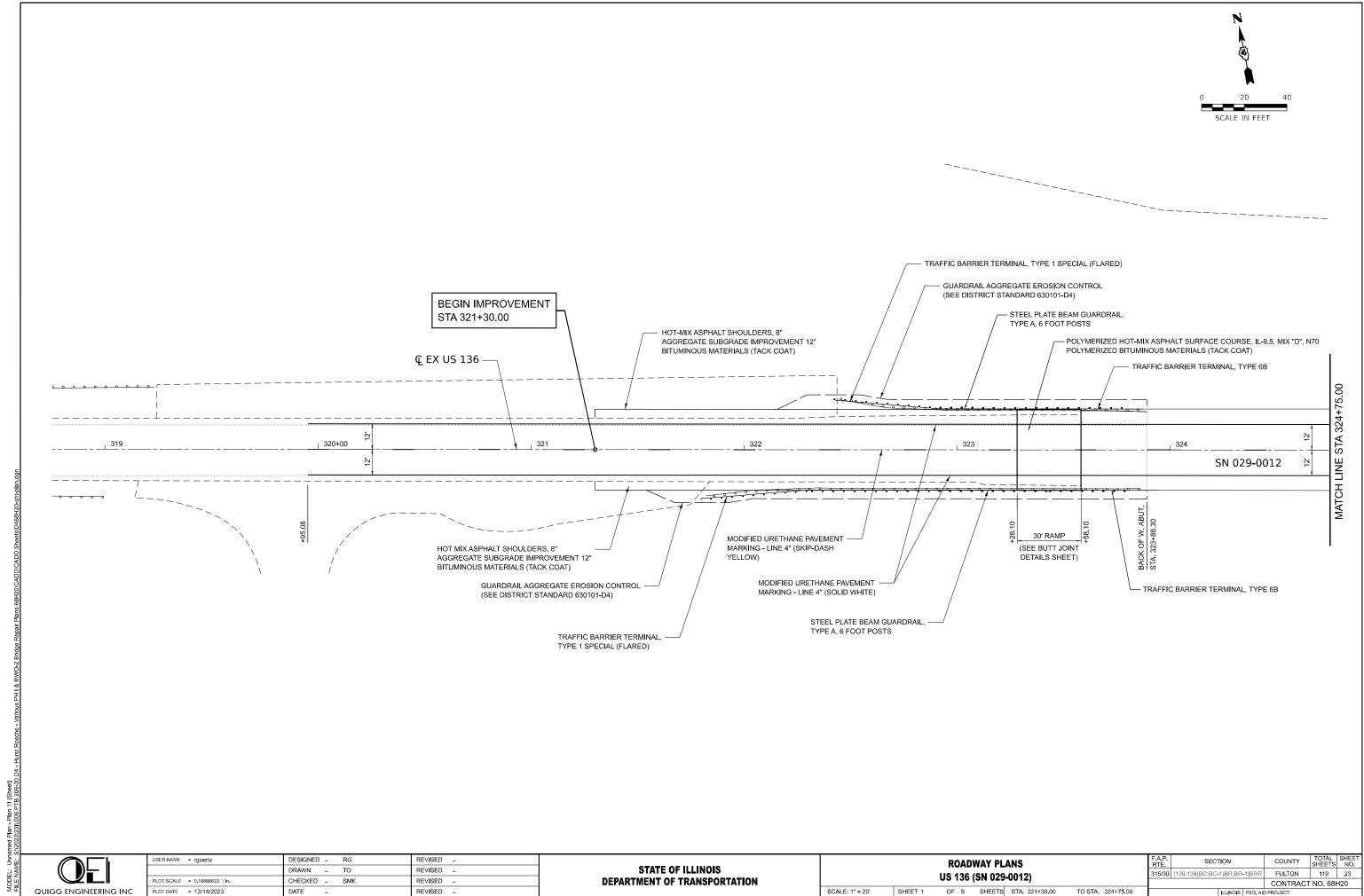
REMOVAL PLANS						F. R	
	IL 78 / IL 97 (SN 029-0021)						31
				01 (0.10	20 002.,		
SCALE: 1" = 20'	SHEET 8	OF	9	SHEETS	STA. 532+30.00	TO STA. 536+00.00	

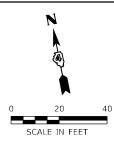
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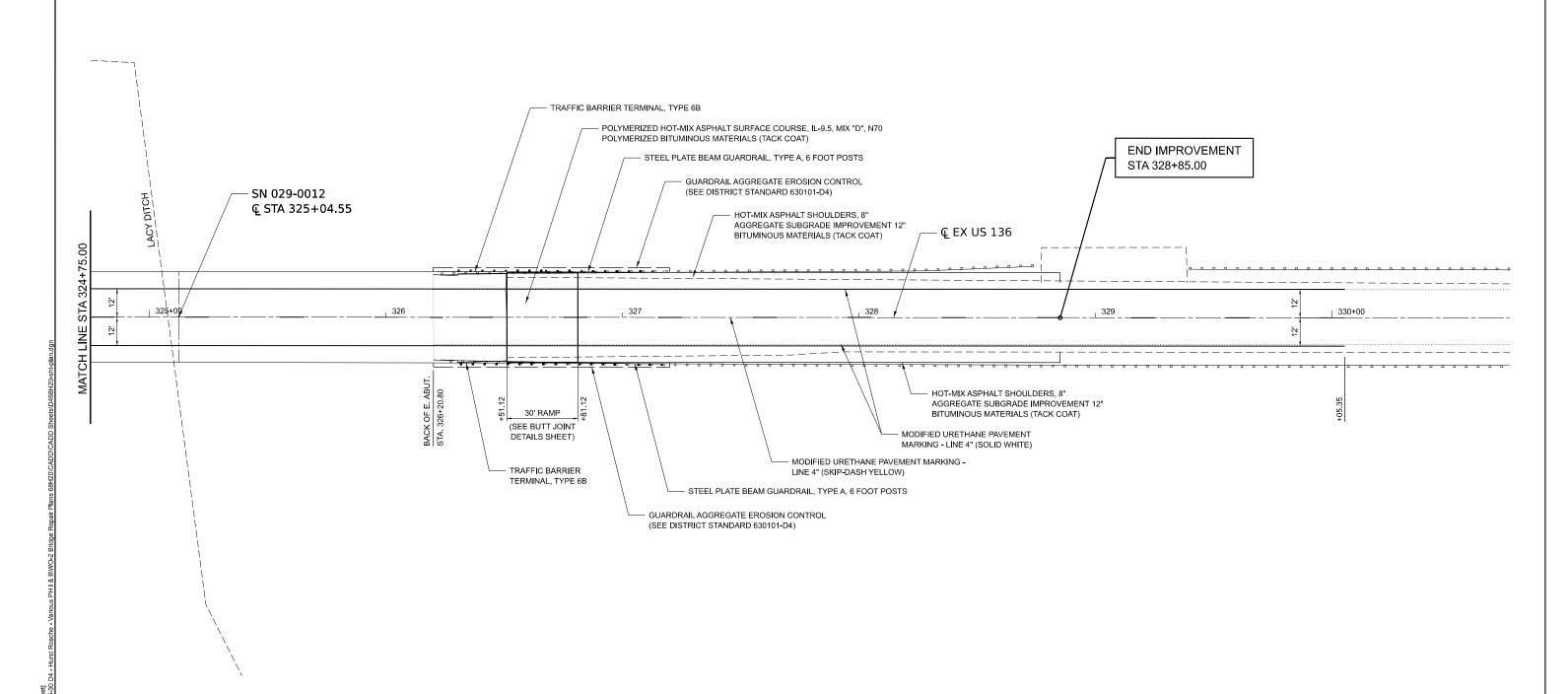


PLOT DATE = 12/14/2023

SCALE: 1" = 20' SHEET 9 OF 9 SHEETS STA. 536+00.00 TO STA. 537+50.00



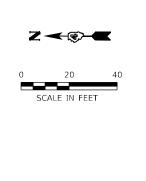


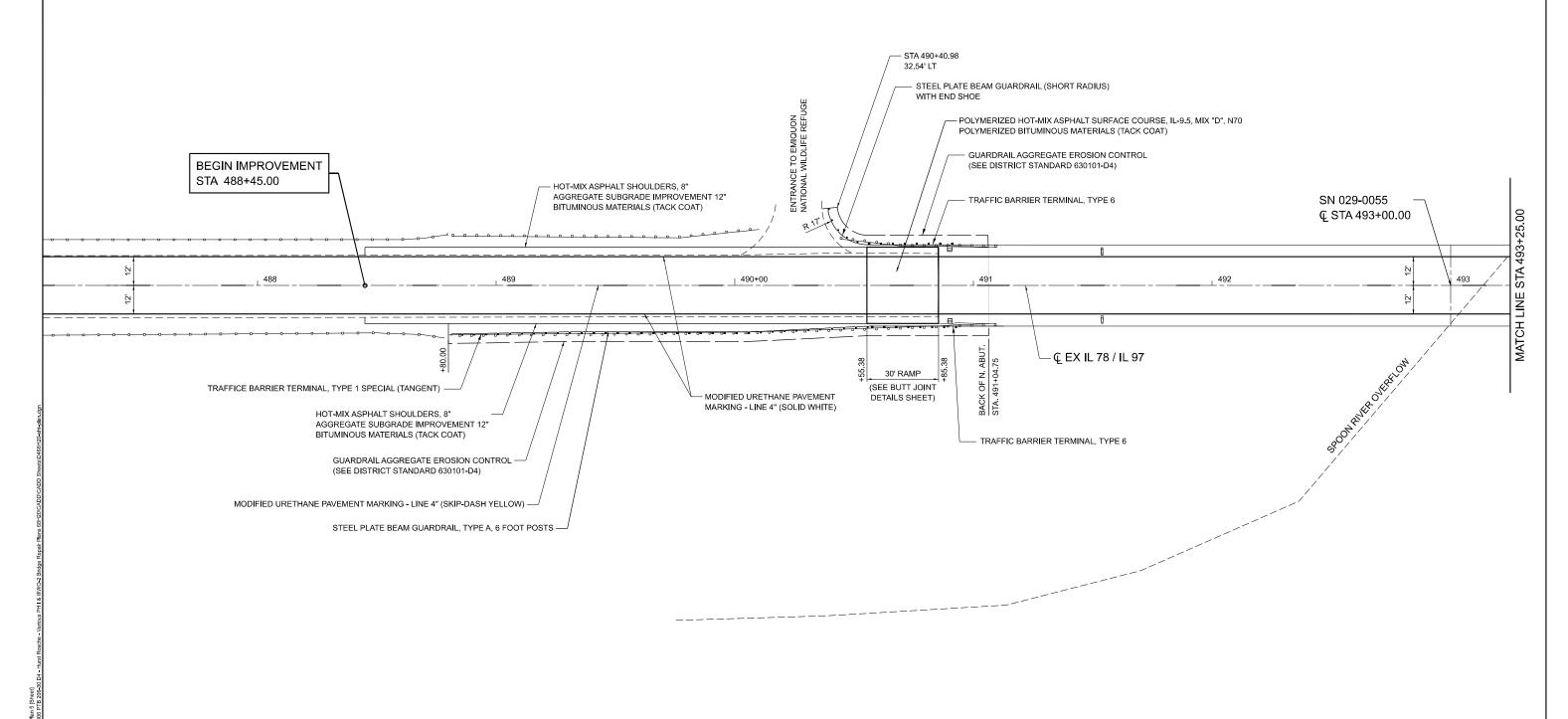


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY PLANS
US 136 (SN 029-0012)

SCALE: 1" = 20' SHEET 2 OF 9 SHEETS STA. 324+75.00 TO STA. 328+85.00



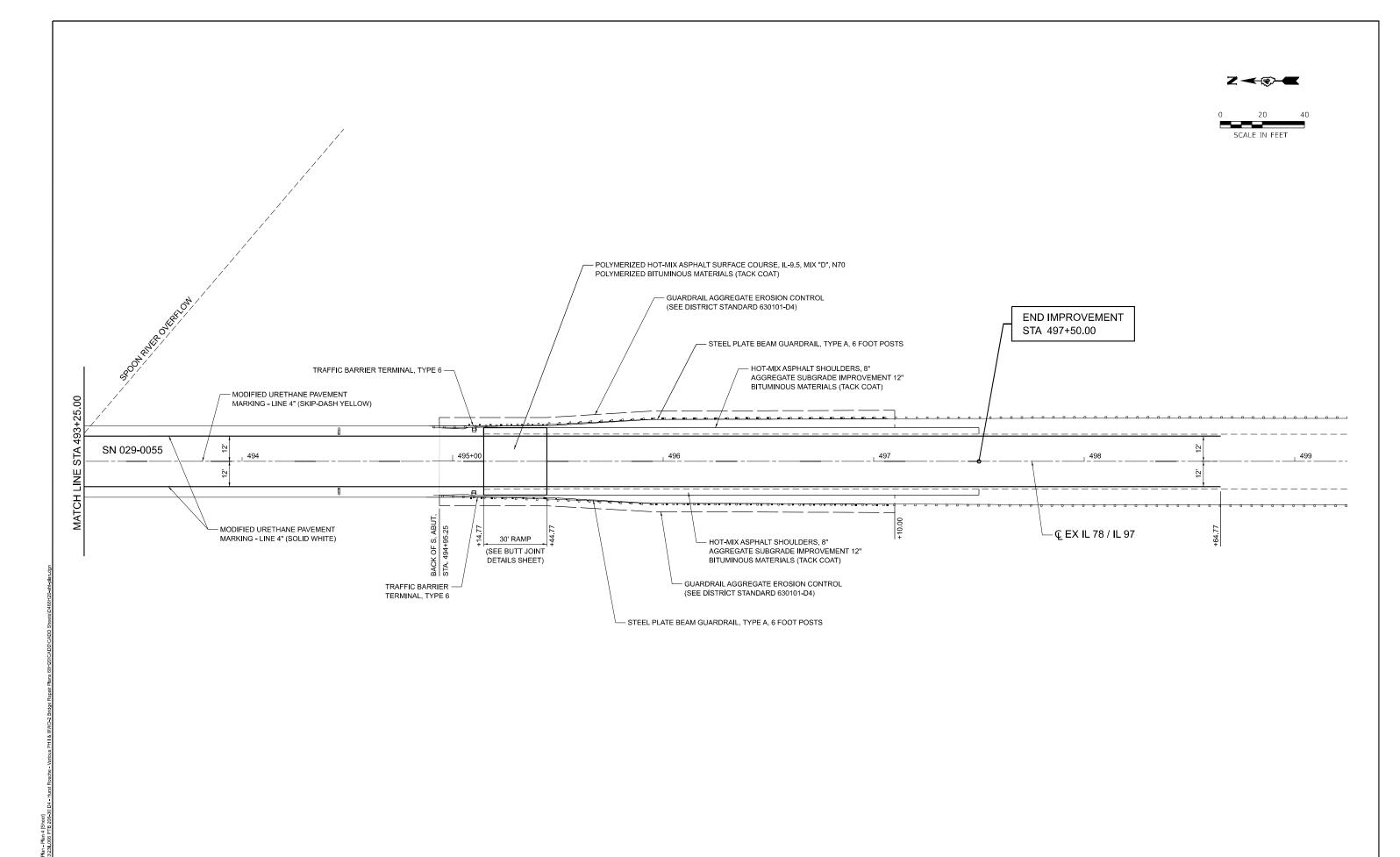


JIGG ENGINEERING	IN

USER NAME = rgoertz	DESIGNED - RG	REVISED -	
	DRAWN - TO	REVISED -	
PLOT SCALE = 0.16666633 ' / in.	CHECKED - SMK	REVISED -	
PLOT DATE = 12/15/2023	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY PLANS					
	IL	78 / IL 9	7 (SN	029–0055)	
SCALE: 1" = 20'	SHEET 3	OF 9	SHEETS	STA. 488+45.00	TO STA. 493+25.00

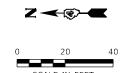


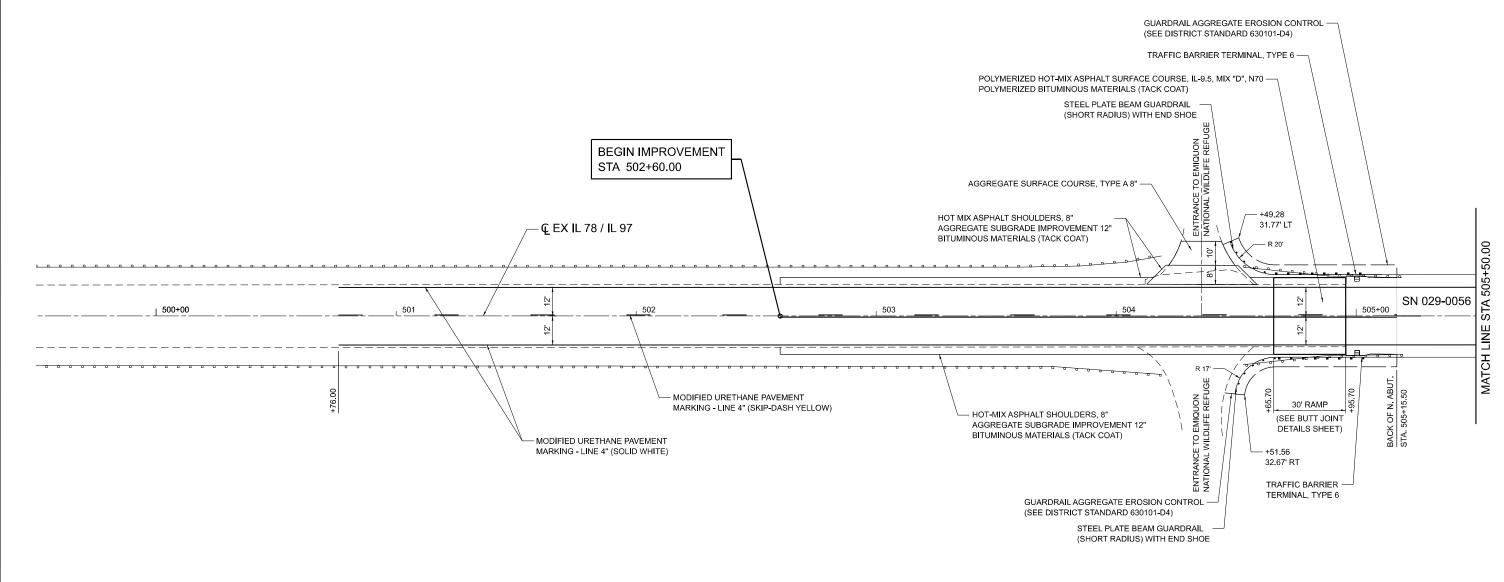
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY PLANS

IL 78 / IL 97 (SN 029-0055)

SCALE: 1" = 20' SHEET 4 OF 9 SHEETS STA. 493+25.00 TO STA. 497+50.00





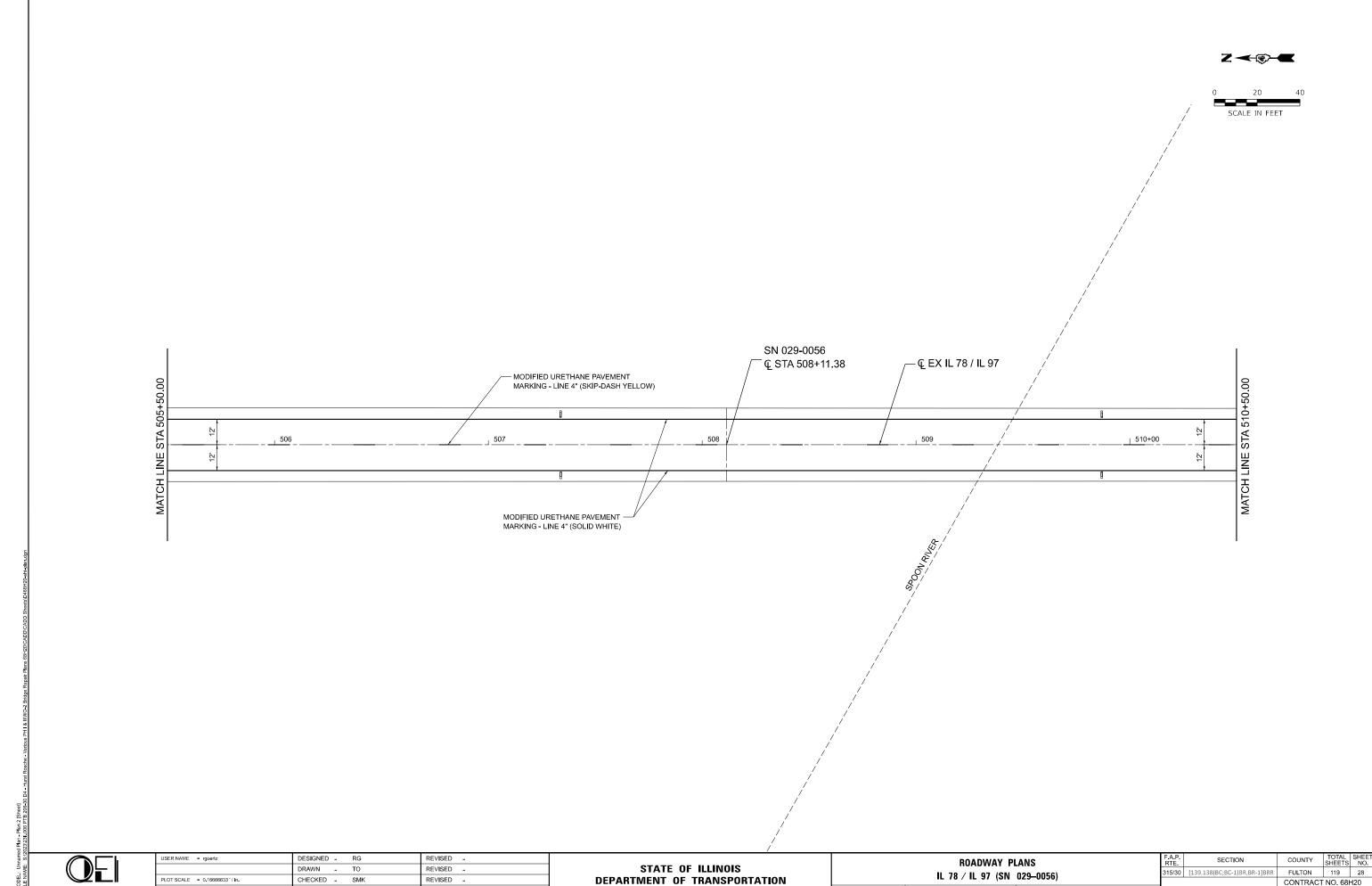
OLUCO ENCINEEDING INC

USER NAME = rgoertz	DESIGNED - RG	REVISED -
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PLOT SCALE = 0.16666633 ' / in.	CHECKED - SMK	REVISED -
PLOT DATE = 12/15/2023	DATE -	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

ROADWAY P				ANS	
	IL	78 / IL 9	7 (SN (	029–0056)	
SCALE: 1" = 20'	SHEET 5	OF 9	SHEETS	STA. 502+60.00	TO STA. 505+50.00

F.A.P. RTE	SECT	COUNTY	TOTAL SHEETS	SHE		
315/30	[139,138(BC;BC-1)BR,BR-1]BRR			FULTON	119	27
				CONTRACT	NO. 681	H20
		ILLINOIS	FED. AII	PROJECT		



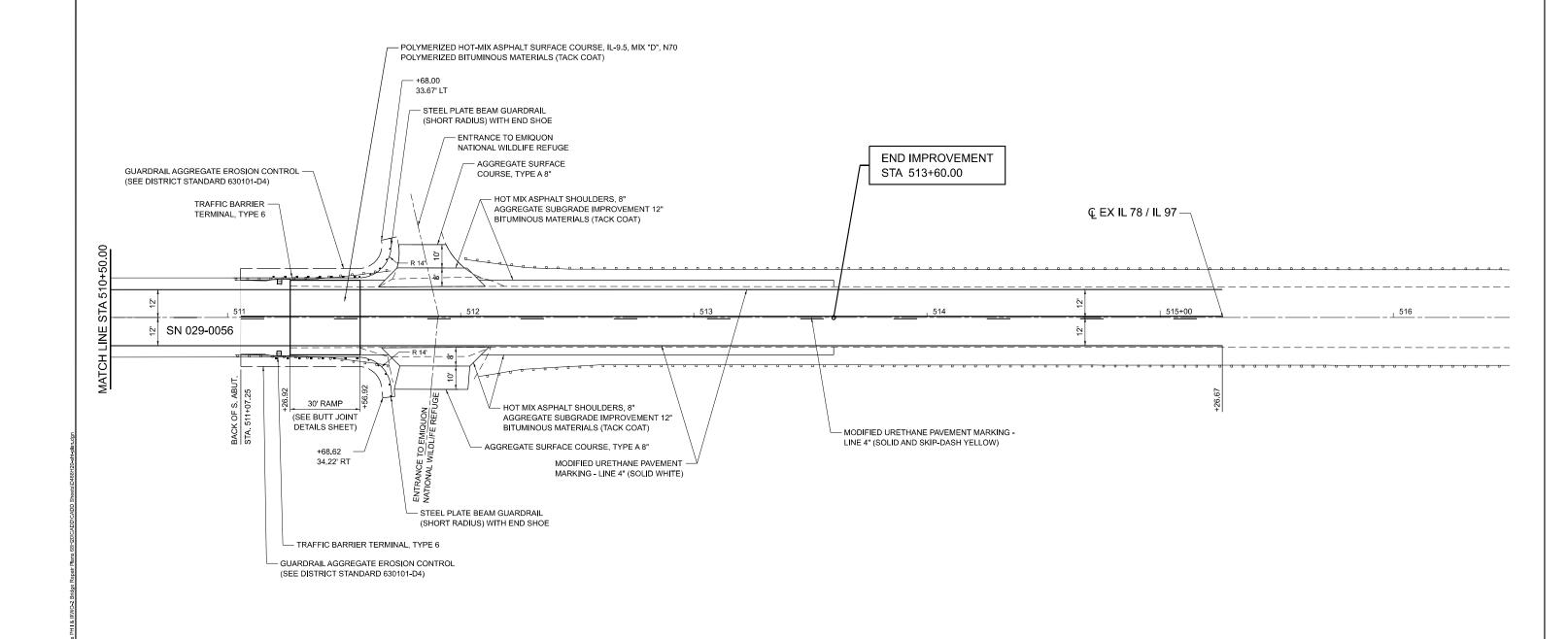
PLOT DATE = 12/15/2023 DATE REVISED -

SCALE: 1" = 20' SHEET 6 OF 9 SHEETS STA. 505+50.00 TO STA. 510+50.00

CONTRACT NO. 68H20







	-
UIGG ENGINEERING IN	(

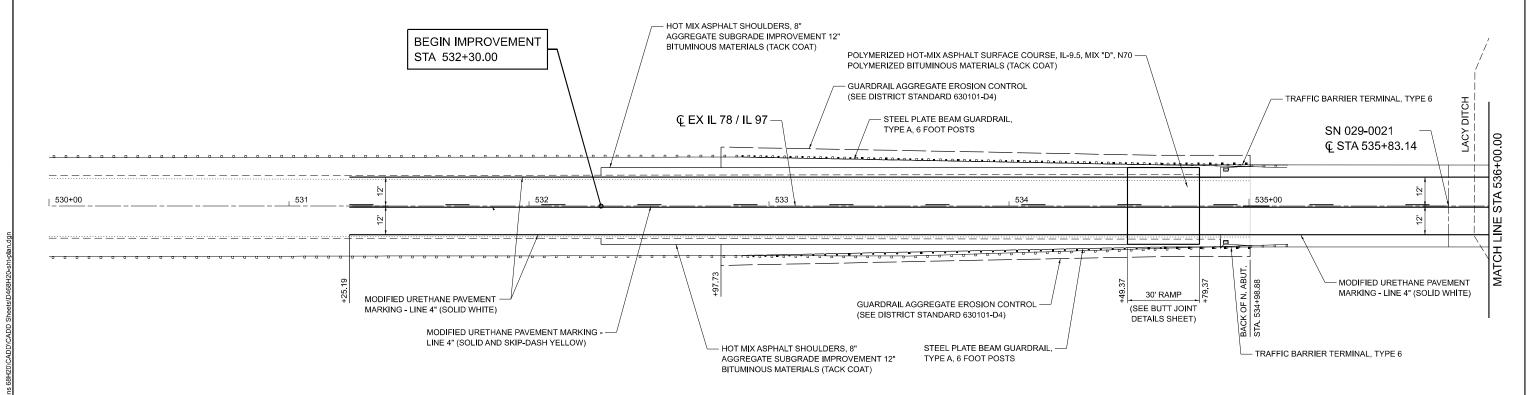
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PLOT SCALE = 0.16666633 ' / in.	CHECKED - SMK	REVISED -
PLOT DATE = 12/15/2023	DATE -	REVISED -

STATI	E OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

ROADWAY PLANS IL 78 / IL 97 (SN 029-0056)						F.A.P. RTE				COUNTY	TOTAL SHEETS	SHEET NO.	
						315/30	0 [139,138(BC;BC-1)BR,BR-1]BRR		FULTON	119	29		
										CONTRACT	NO. 681	H20	
SCALE: 1" = 20'	SHEET 7	OF 9	SHEETS	STA. 510+50.00	TO STA.	513+60.00			ILLINOIS	FED. AID	PROJECT		







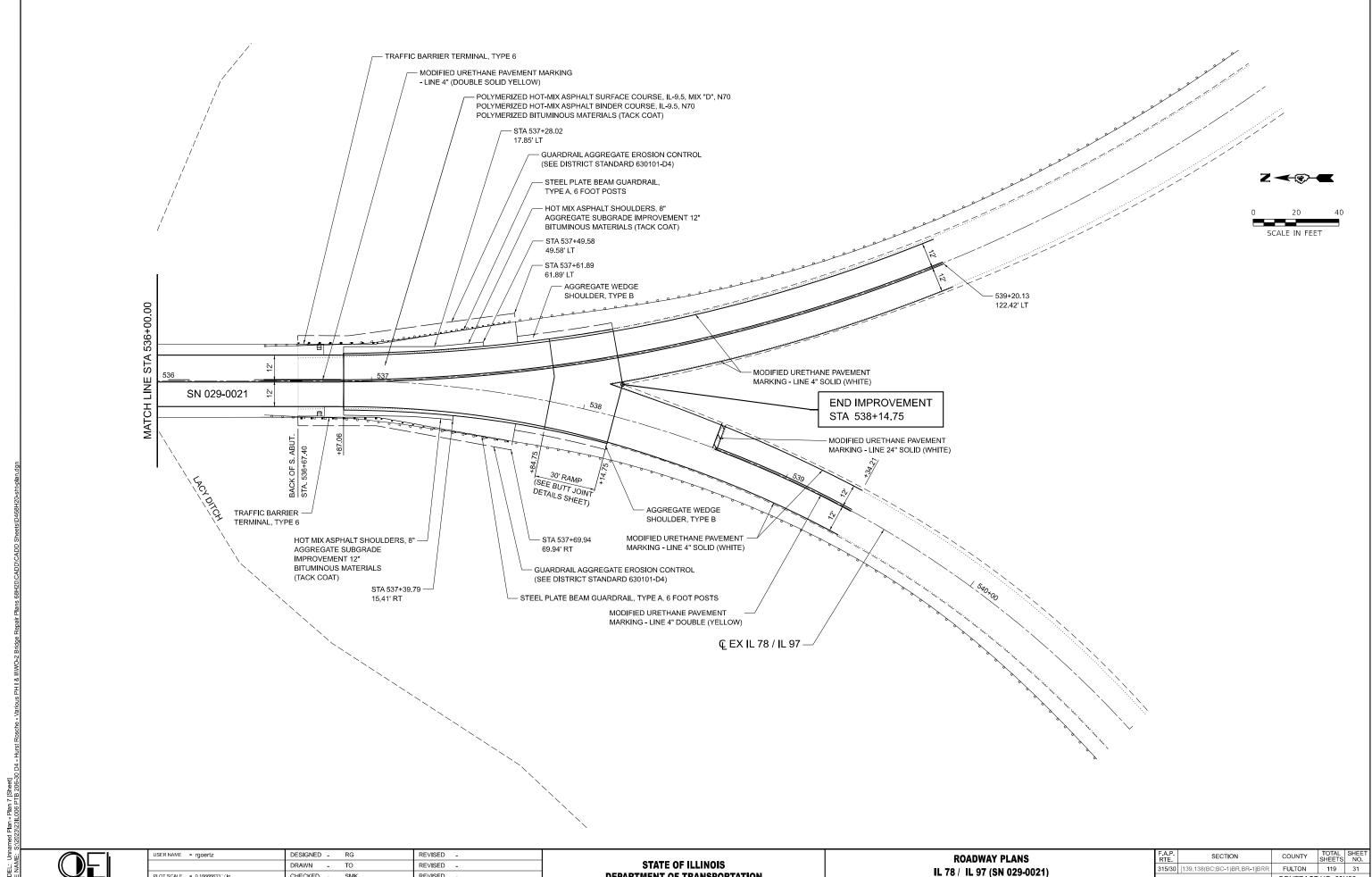
QUIGG ENGINEERING INC

	USER NAME = rgoertz	DESIGNED - RG	REVISED -
		DRAWN - TO	REVISED -
	PLOT SCALE = 0.16666633 ' / in.	CHECKED - SMK	REVISED -
C	PLOT DATE = 12/14/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	F.A.P. RTE.	SEC					
	315/30	[139,138(BC;B0					
SCALE: 1" = 20'	SHEET 8	OF 9	SHEETS	STA. 532+30.00	TO STA. 536+00.00		

S:\2023\23|L006 PTB 206-30 D4 - Hurst Rosche - Various PH I & II\WO-2 Bridge Repair PI

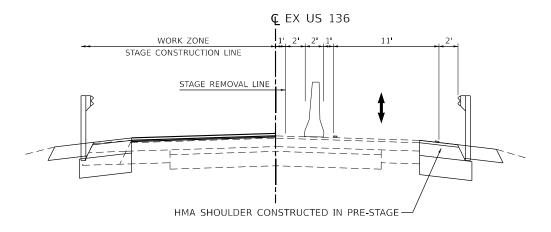


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**DEPARTMENT OF TRANSPORTATION** 

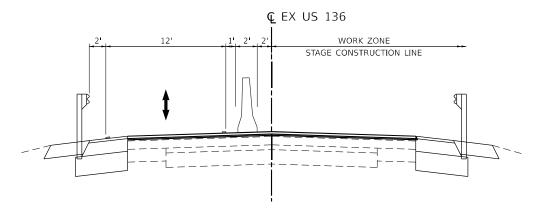
IL 78 / IL 97 (SN 029-0021) SCALE: 1" = 20' SHEET 9 OF 9 SHEETS STA. 536+00.00 TO STA. 537+50.00

CONTRACT NO. 68H20



## STAGE I TYPICAL SECTION

LOOKING EAST



## STAGE II TYPICAL SECTION

SN 029-0012 LOOKING EAST

## **LEGEND**



TEMPORARY CONCRETE BARRIER W/ BARRIER WALL REFLECTORS, TYPE C



◆ DIRECTION OF TRAFFIC

## STAGE CONSTRUCTION NOTES

#### PRE-STAGE TRAFFIC

CLOSE EASTBOUND LANE AS REQUIRED USING HIGHWAY STANDARD 701326.

#### PRE-STAGE CONSTRUCTION

CONSTRUCT EASTBOUND SHOULDER AS DETAILED IN THE MAINTENANCE OF TRAFFIC STAGE I TYPICAL SECTION AND PLANS.

CLOSE WESTBOUND LANE TRANSITIONING EASTBOUND AND WESTBOUND TRAFFIC INTO THE EASTBOUND LANE AND SHOULDER USING HIGHWAY STANDARD 701321 AND AS DETAILED IN THE MAINTENANCE OF TRAFFIC STAGE I TYPICAL SECTION AND PLANS.

#### STAGE I CONSTRUCTION

MILL PAVEMENT, BRIDGE DECK, APPROACH SLAB, AND SHOULDERS AS REQUIRED AND CONSTRUCT WESTBOUND PAVEMENT, SHOULDERS, GUARDRAIL, AND STRUCTURE REPAIRS.

#### STAGE II TRAFFIC

CLOSE EASTBOUND LANE TRANSITIONING EASTBOUND AND WESTBOUND TRAFFIC INTO THE WESTBOUND LANE AND SHOULDER USING HIGHWAY STANDARD 701321 AND AS DETAILED IN THE MAINTENANCE OF TRAFFIC STAGE II TYPICAL SECTION PLANS.

#### STAGE II CONSTRUCTION

MILL PAVEMENT, BRIDGE DECK, APPROACH SLAB, AND SHOULDERS AS REQUIRED AND CONSTRUCT EASTBOUND PAVEMENT, SHOULDERS, GUARDRAIL, AND STRUCTURE REPAIRS.

### POST-STAGE TRAFFIC

USE HIGHWAY STANDARD 701311 FOR TRAFFIC CONTROL.

#### POST-STAGE CONSTRUCTION

CONDUCT WORKSITE CLEANUP AND PLACE FINAL PAVEMENT MARKINGS.

### WIDTH RESTRICTION SIGNAGE

SIX (6) SETS OF WIDTH RESTRICTION SIGNS WILL BE REQUIRED, PRECISE LOCATIONS WILL BE COORDINATED AT THE PRE-CONSTRUCTION MEETING.

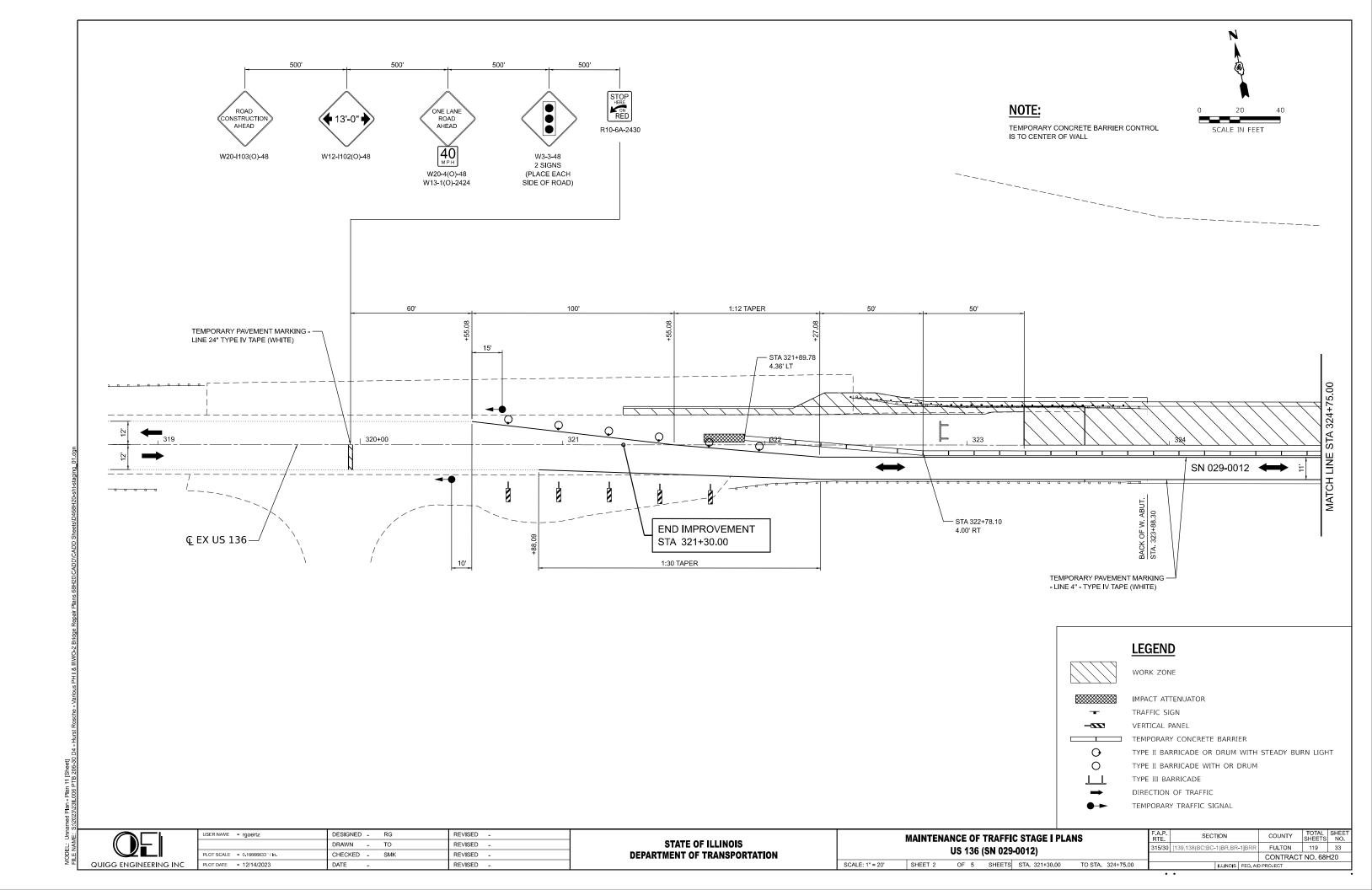
QUIGG ENGINEERING INC

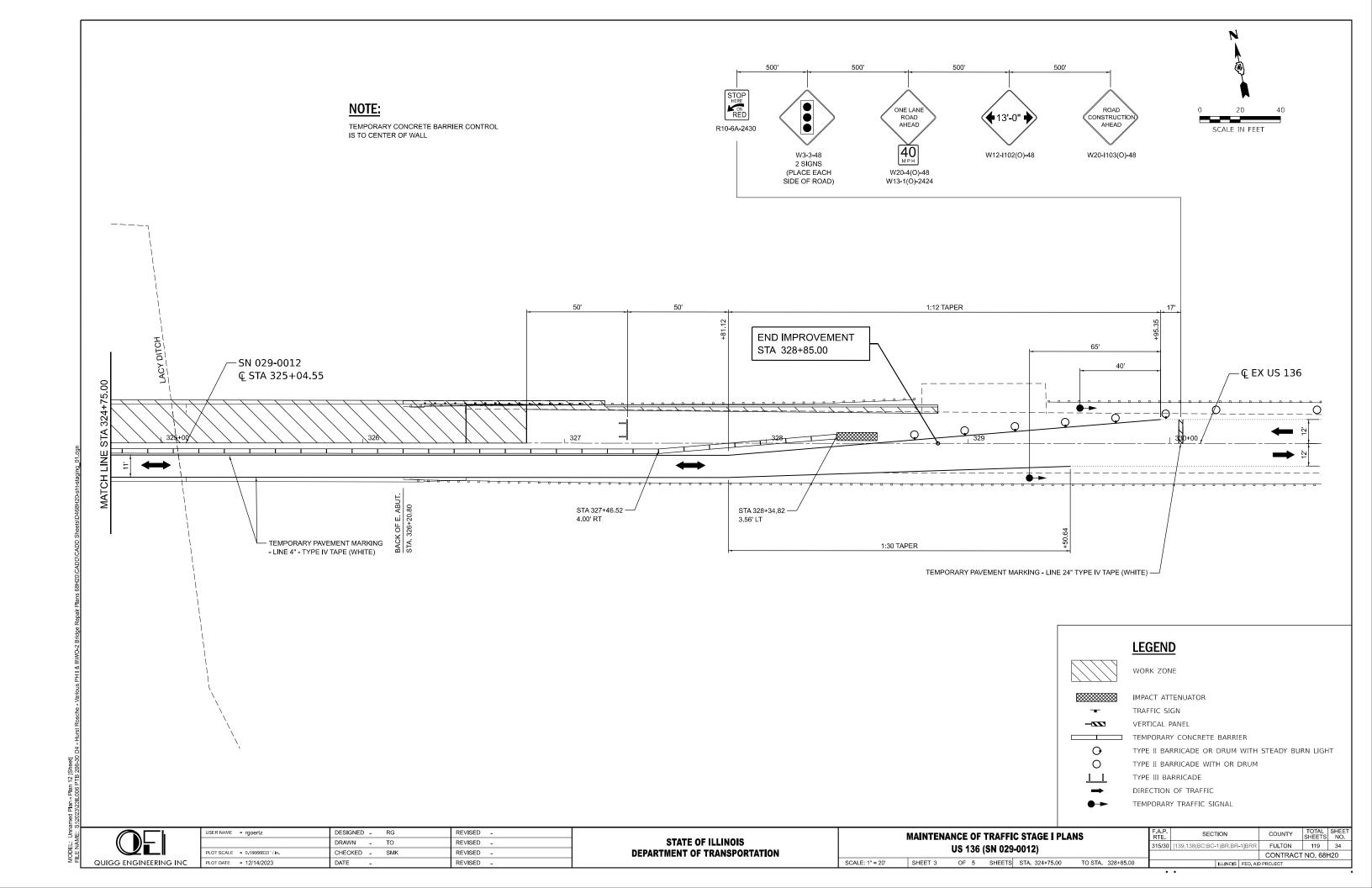
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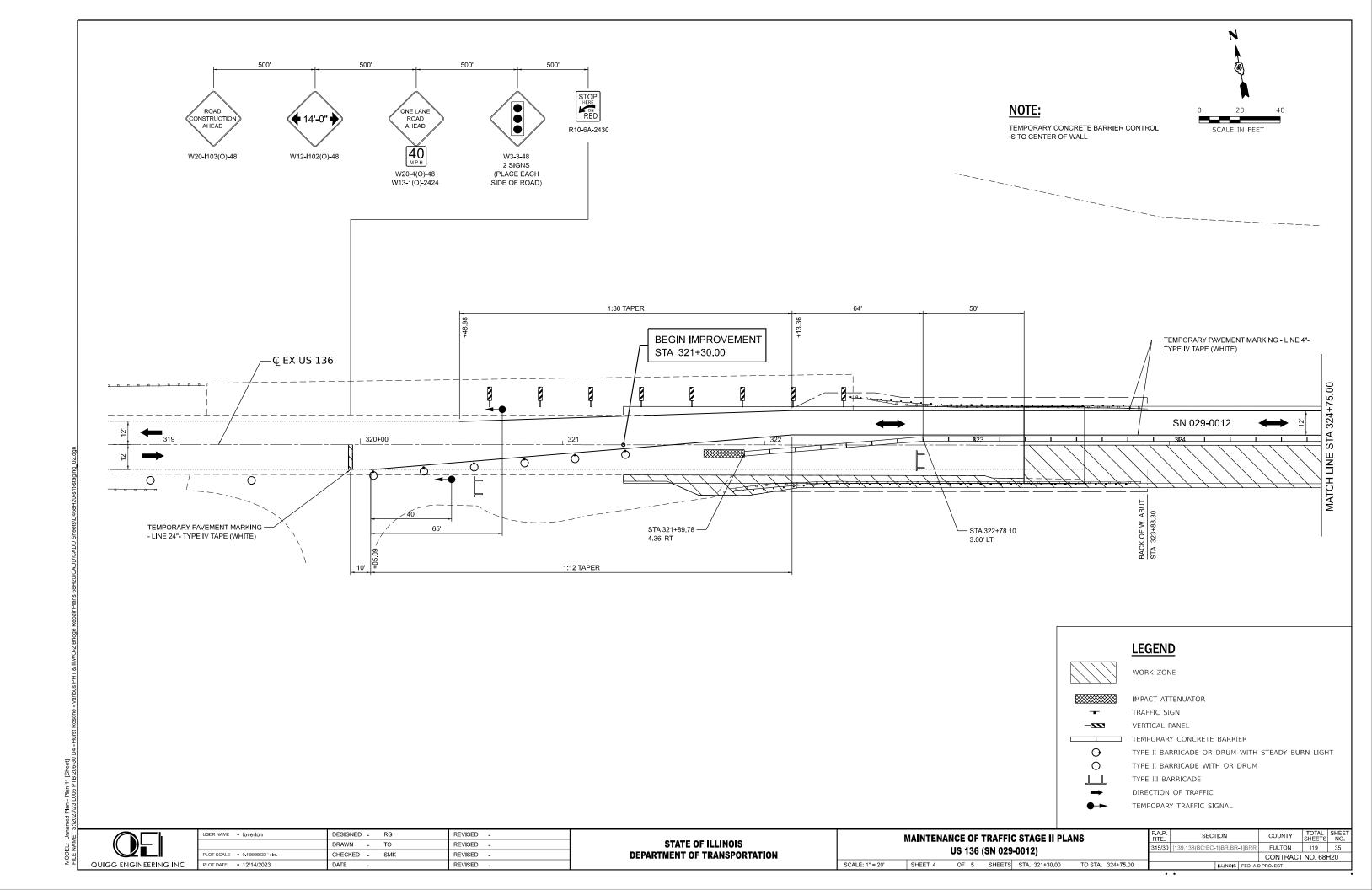
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**  **MAINTENANCE OF TRAFFIC TYPICAL SECTIONS** US 136 (SN029-0012) OF 5 SHEETS STA. SHEET 1

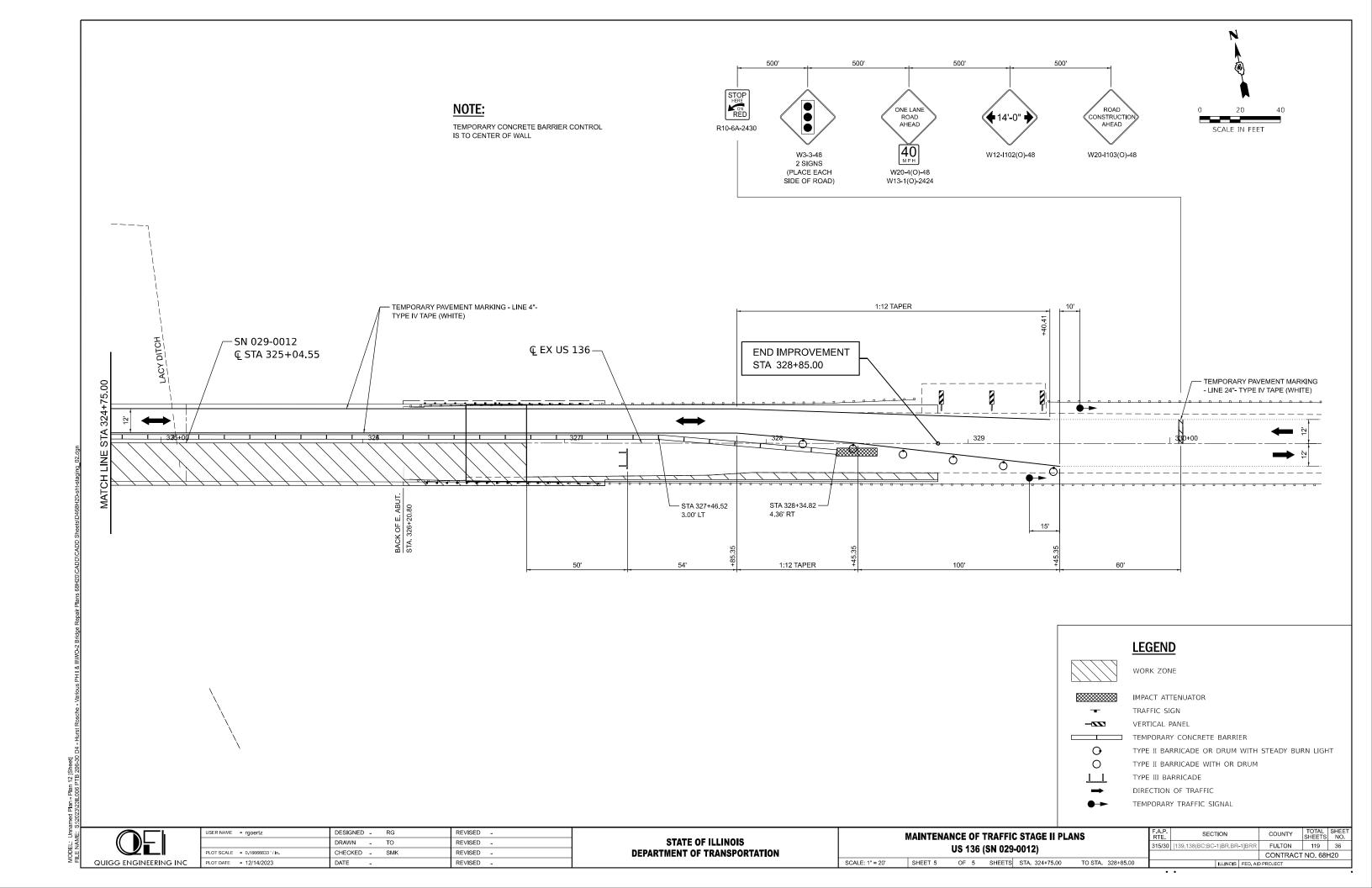
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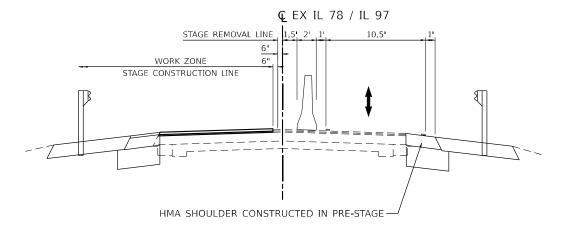
COUNTY 315/30 [139,138(BC;BC-1)BR,BR-1]BRR FULTON 119 32 CONTRACT NO. 68H20





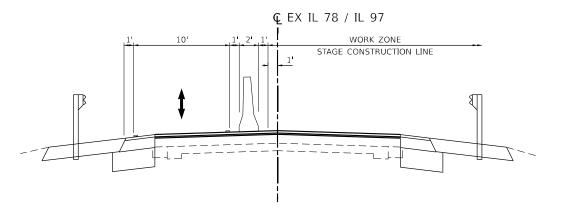






## STAGE I TYPICAL SECTION

LOOKING SOUTH



#### STAGE II TYPICAL SECTION

SN 029-0055 LOOKING SOUTH

### **LEGEND**



TEMPORARY CONCRETE BARRIER W/ BARRIER WALL REFLECTORS, TYPE C



◆ DIRECTION OF TRAFFIC

#### STAGE CONSTRUCTION NOTES

#### PRE-STAGE TRAFFIC

CLOSE SOUTHBOUND LANE AS REQUIRED USING HIGHWAY STANDARD 701326.

#### PRE-STAGE CONSTRUCTION

CONSTRUCT SOUTHBOUND SHOULDER AS DETAILED IN THE MAINTENANCE OF TRAFFIC STAGE I TYPICAL SECTION AND PLANS.

CLOSE NORTHBOUND LANE TRANSITIONING NORTHBOUND AND SOUTHBOUND TRAFFIC INTO THE SOUTHBOUND LANE AND SHOULDER USING HIGHWAY STANDARD 701321 AND AS DETAILED IN THE MAINTENANCE OF TRAFFIC STAGE I TYPICAL SECTION AND PLANS.

#### STAGE I CONSTRUCTION

MILL PAVEMENT, BRIDGE DECK, APPROACH SLAB, AND SHOULDERS AS REQUIRED AND CONSTRUCT NORTHBOUND PAVEMENT, SHOULDERS, GUARDRAIL, AND STRUCTURE REPAIRS.

#### STAGE II TRAFFIC

CLOSE SOUTHBOUND LANE TRANSITIONING NORTHBOUND AND SOUTHBOUND TRAFFIC INTO THE NORTHBOUND LANE AND SHOULDER USING HIGHWAY STANDARD 701321 AND AS DETAILED IN THE MAINTENANCE OF TRAFFIC STAGE II TYPICAL SECTION PLANS.

#### STAGE II CONSTRUCTION

MILL PAVEMENT, BRIDGE DECK, APPROACH SLAB, AND SHOULDERS AS REQUIRED AND CONSTRUCT SOUTHBOUND PAVEMENT, SHOULDERS, GUARDRAIL, AND STRUCTURE REPAIRS.

#### **POST-STAGE TRAFFIC**

USE HIGHWAY STANDARD 701311 FOR TRAFFIC CONTROL.

#### POST-STAGE CONSTRUCTION

CONDUCT WORKSITE CLEANUP AND PLACE FINAL PAVEMENT MARKINGS.

#### WIDTH RESTRICTION SIGNAGE

SIX (6) SETS OF WIDTH RESTRICTION SIGNS WILL BE REQUIRED, PRECISE LOCATIONS WILL BE COORDINATED AT THE PRE-CONSTRUCTION MEETING.

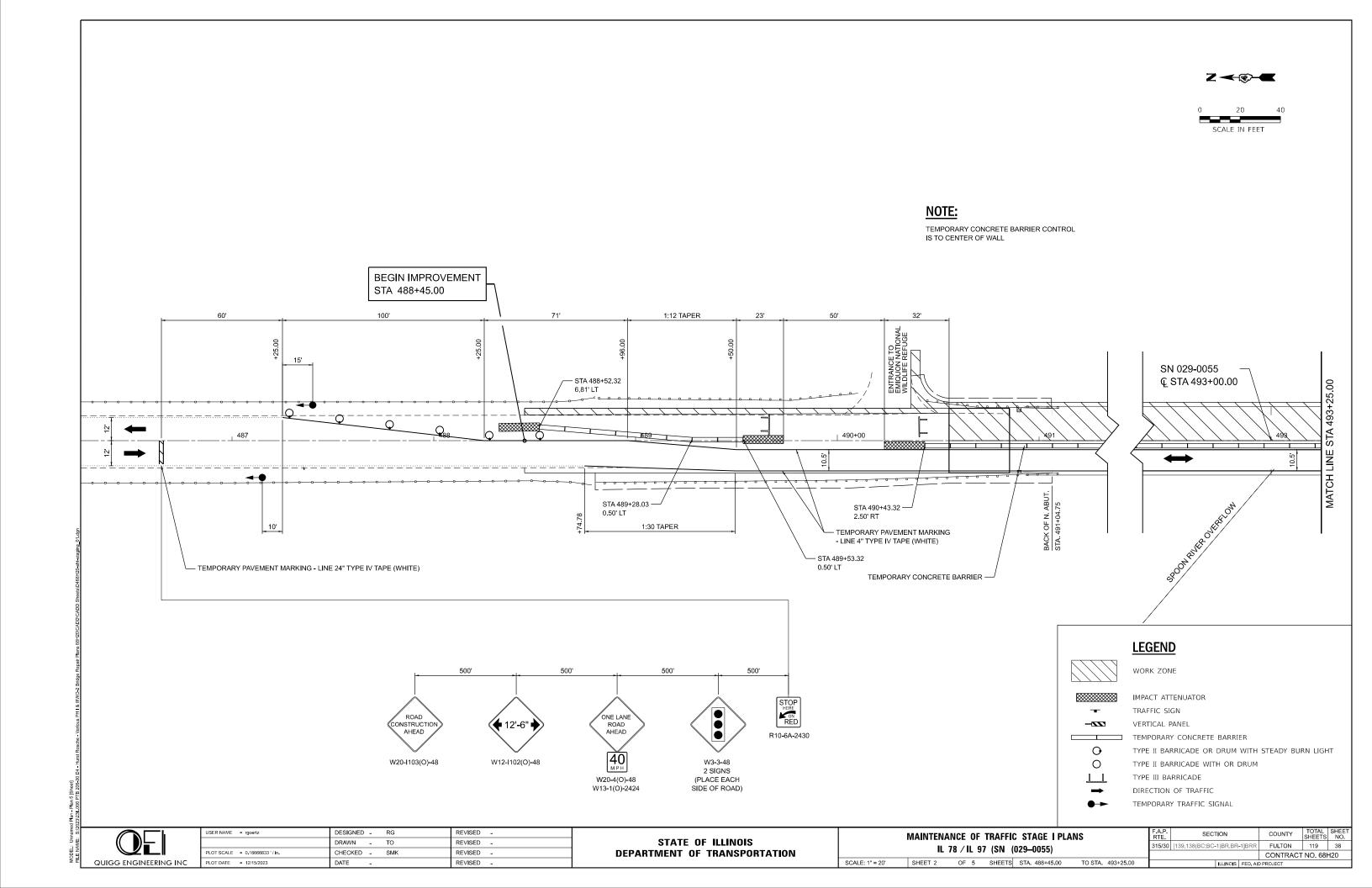
QUIGG ENGINEERING INC

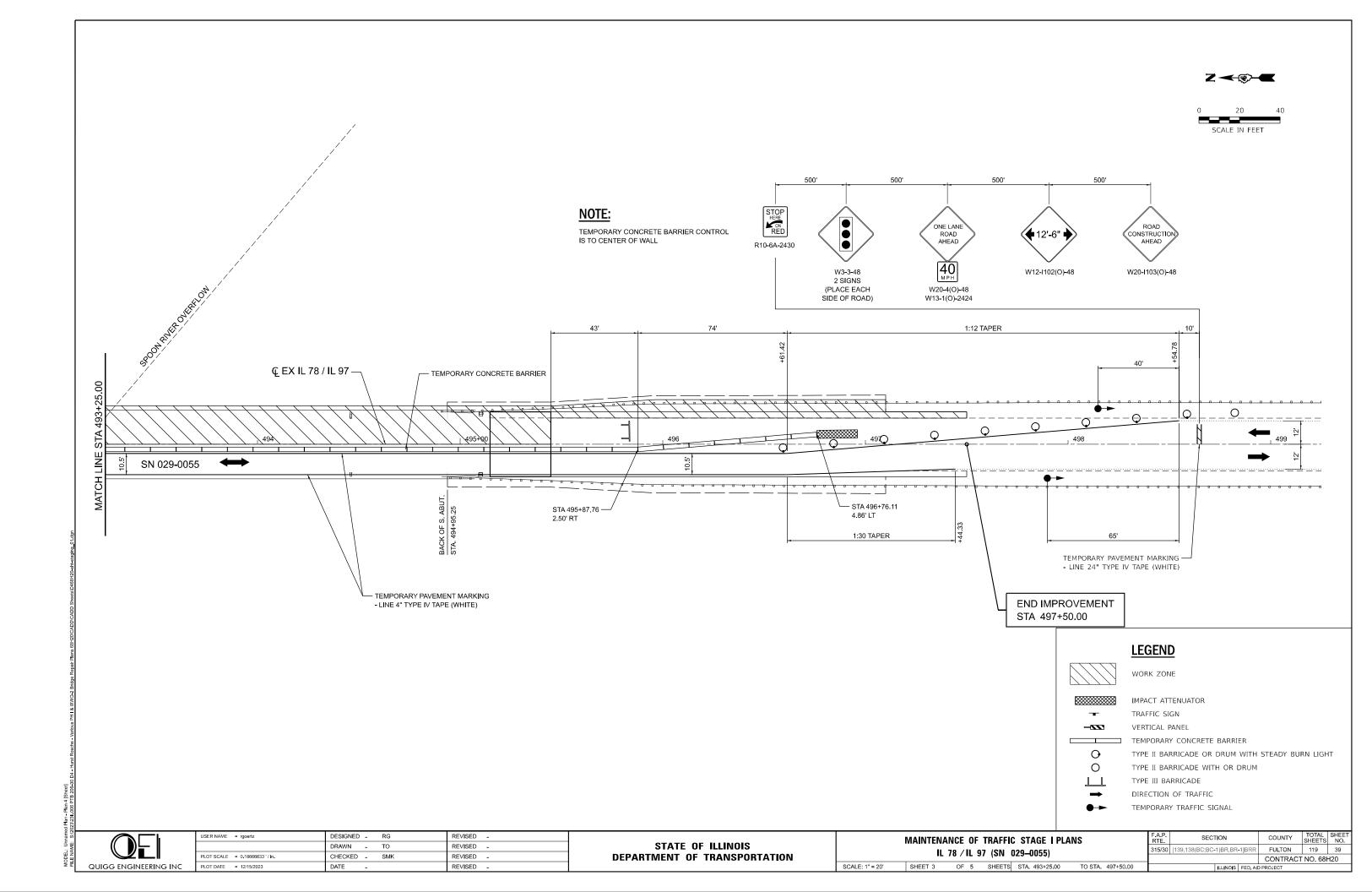
DESIGNED - RG REVISED -DRAWN -TO REVISED CHECKED -REVISED PLOT DATE = 12/14/2023 REVISED DATE

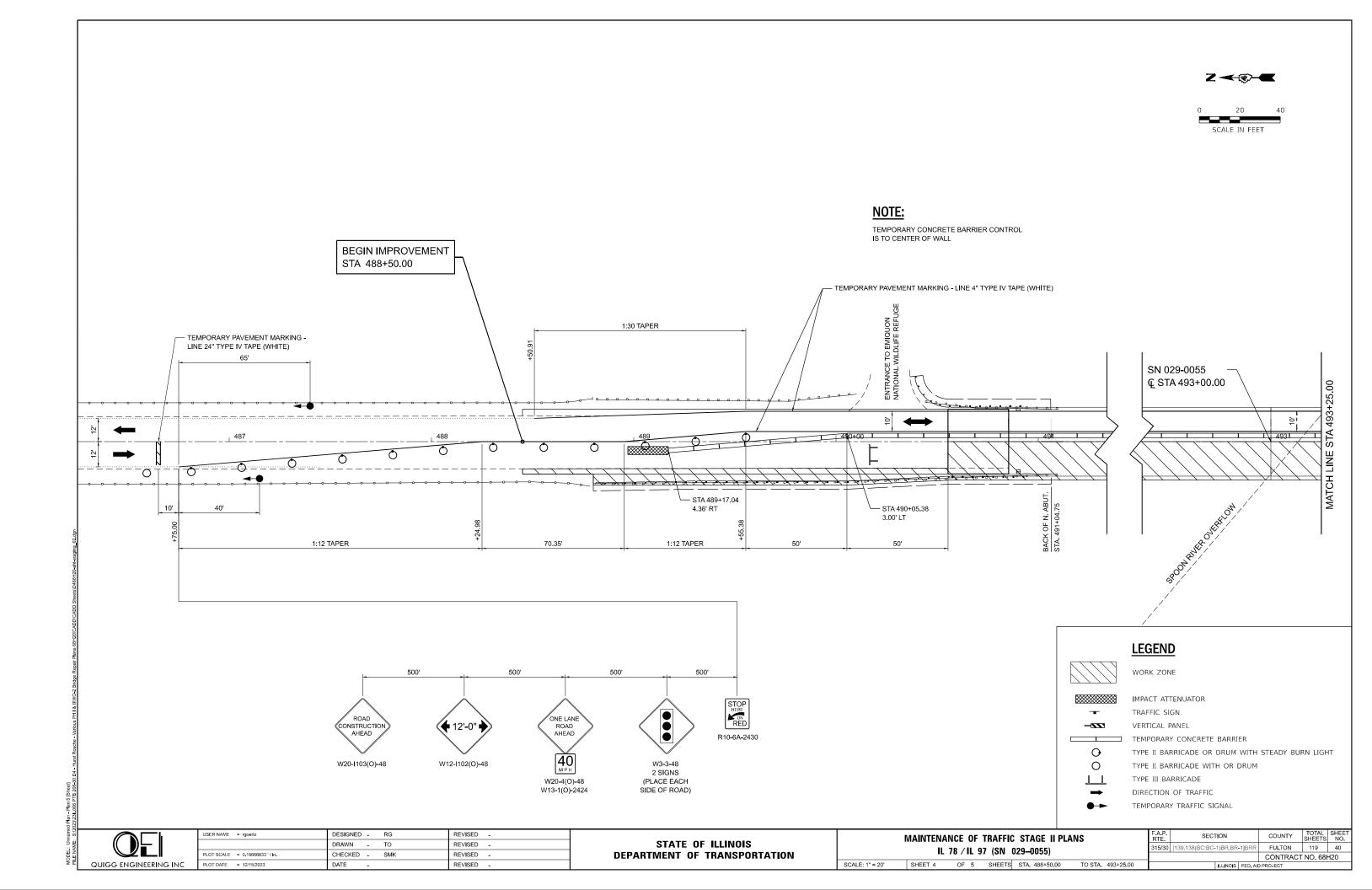
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**  **MAINTENANCE OF TRAFFIC TYPICAL SECTIONS** IL 78 / IL 97 (SN 029-0055) SHEET 1 OF 5 SHEETS STA.

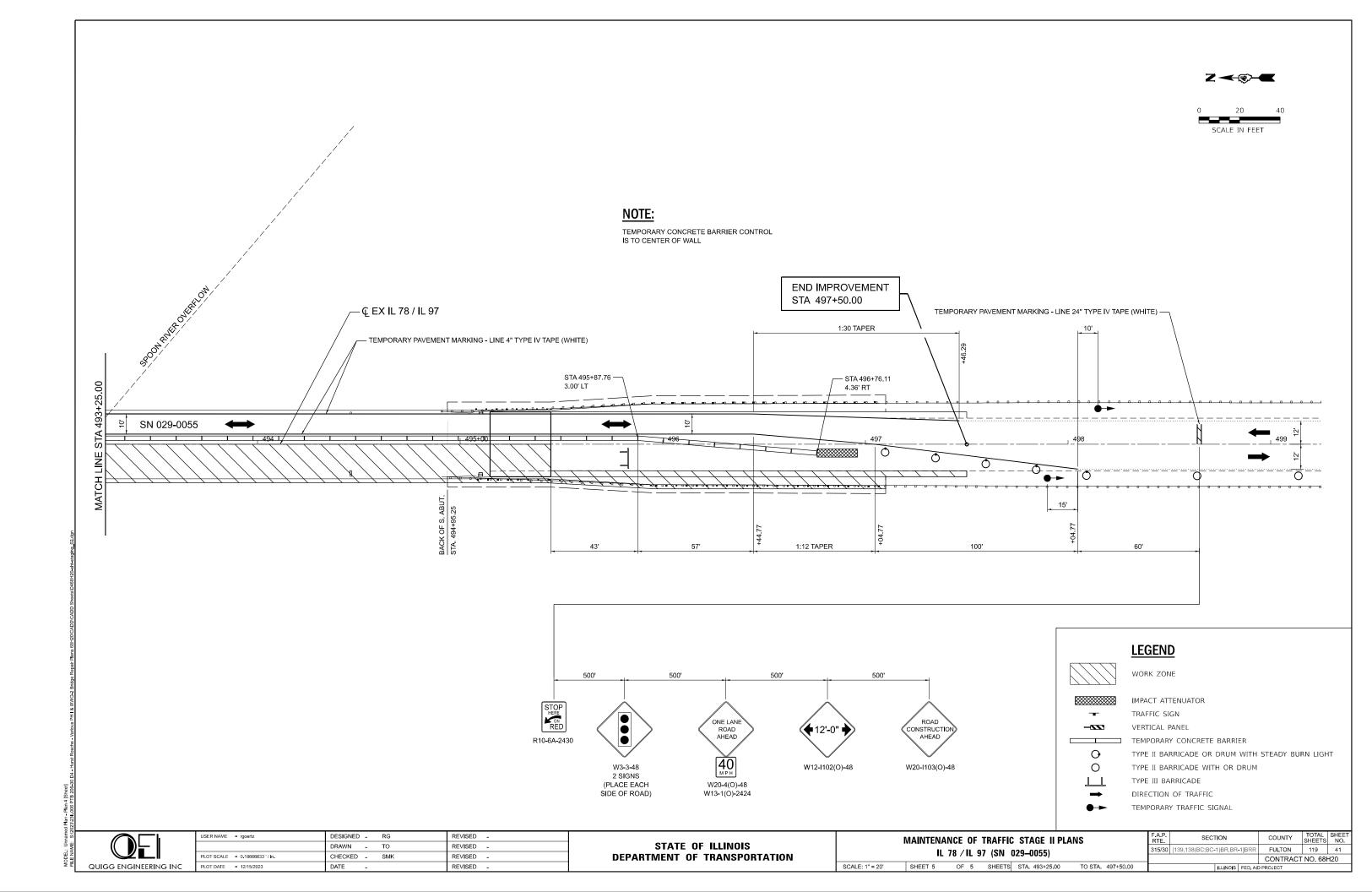
SCALE: NONE

COUNTY 315/30 [139,138(BC;BC-1)BR,BR-1]BRR FULTON 119 37 CONTRACT NO. 68H20



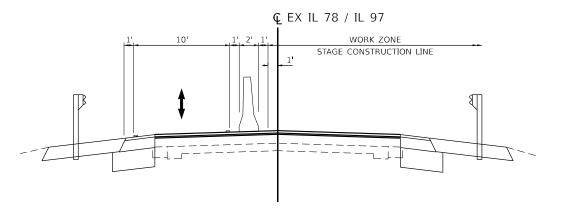






## STAGE I TYPICAL SECTION

LOOKING SOUTH



#### STAGE II TYPICAL SECTION

SN 029-0056 LOOKING SOUTH

### **LEGEND**



TEMPORARY CONCRETE BARRIER W/ BARRIER WALL REFLECTORS, TYPE C



◆ DIRECTION OF TRAFFIC

#### STAGE CONSTRUCTION NOTES

#### PRE-STAGE TRAFFIC

CLOSE SOUTHBOUND LANE AS REQUIRED USING HIGHWAY STANDARD 701326.

#### PRE-STAGE CONSTRUCTION

CONSTRUCT SOUTHBOUND SHOULDER AS DETAILED IN THE MAINTENANCE OF TRAFFIC STAGE I TYPICAL SECTION AND PLANS.

CLOSE NORTHBOUND LANE TRANSITIONING NORTHBOUND AND SOUTHBOUND TRAFFIC INTO THE SOUTHBOUND LANE AND SHOULDER USING HIGHWAY STANDARD 701321 AND AS DETAILED IN THE MAINTENANCE OF TRAFFIC STAGE I TYPICAL SECTION AND PLANS.

#### STAGE I CONSTRUCTION

MILL PAVEMENT, BRIDGE DECK, APPROACH SLAB, AND SHOULDERS AS REQUIRED AND CONSTRUCT NORTHBOUND PAVEMENT, SHOULDERS, GUARDRAIL, AND STRUCTURE REPAIRS.

#### STAGE II TRAFFIC

CLOSE SOUTHBOUND LANE TRANSITIONING NORTHBOUND AND SOUTHBOUND TRAFFIC INTO THE NORTHBOUND LANE AND SHOULDER USING HIGHWAY STANDARD 701321 AND AS DETAILED IN THE MAINTENANCE OF TRAFFIC STAGE II TYPICAL SECTION PLANS.

#### STAGE II CONSTRUCTION

MILL PAVEMENT, BRIDGE DECK, APPROACH SLAB, AND SHOULDERS AS REQUIRED AND CONSTRUCT SOUTHBOUND PAVEMENT, SHOULDERS, GUARDRAIL, AND STRUCTURE REPAIRS.

#### **POST-STAGE TRAFFIC**

USE HIGHWAY STANDARD 701311 FOR TRAFFIC CONTROL.

#### POST-STAGE CONSTRUCTION

CONDUCT WORKSITE CLEANUP AND PLACE FINAL PAVEMENT MARKINGS.

#### WIDTH RESTRICTION SIGNAGE

SIX (6) SETS OF WIDTH RESTRICTION SIGNS WILL BE REQUIRED, PRECISE LOCATIONS WILL BE COORDINATED AT THE PRE-CONSTRUCTION MEETING.

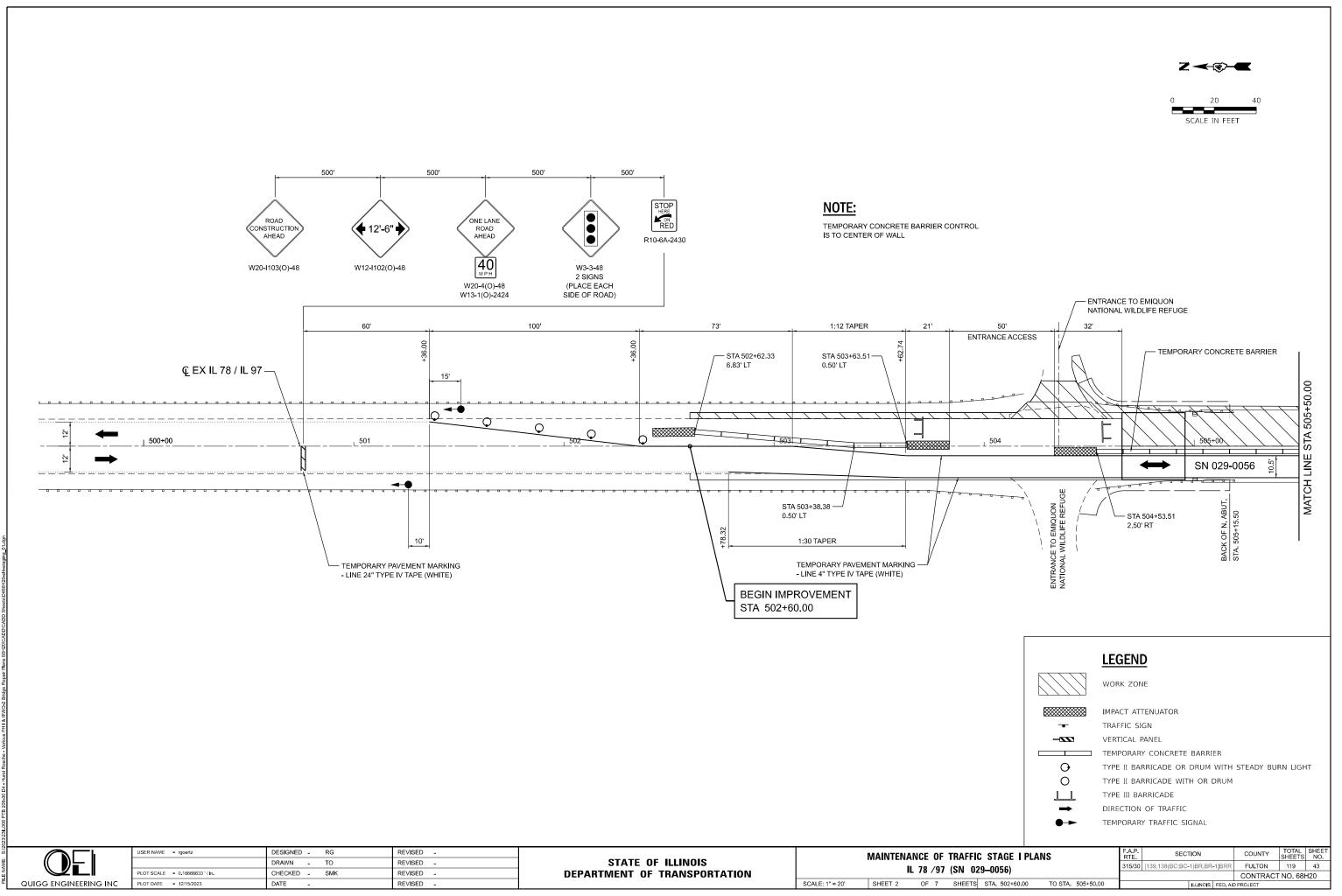
QUIGG ENGINEERING INC

DESIGNED - RG REVISED . DRAWN -TO REVISED CHECKED -REVISED PLOT DATE = 12/14/2023 REVISED DATE

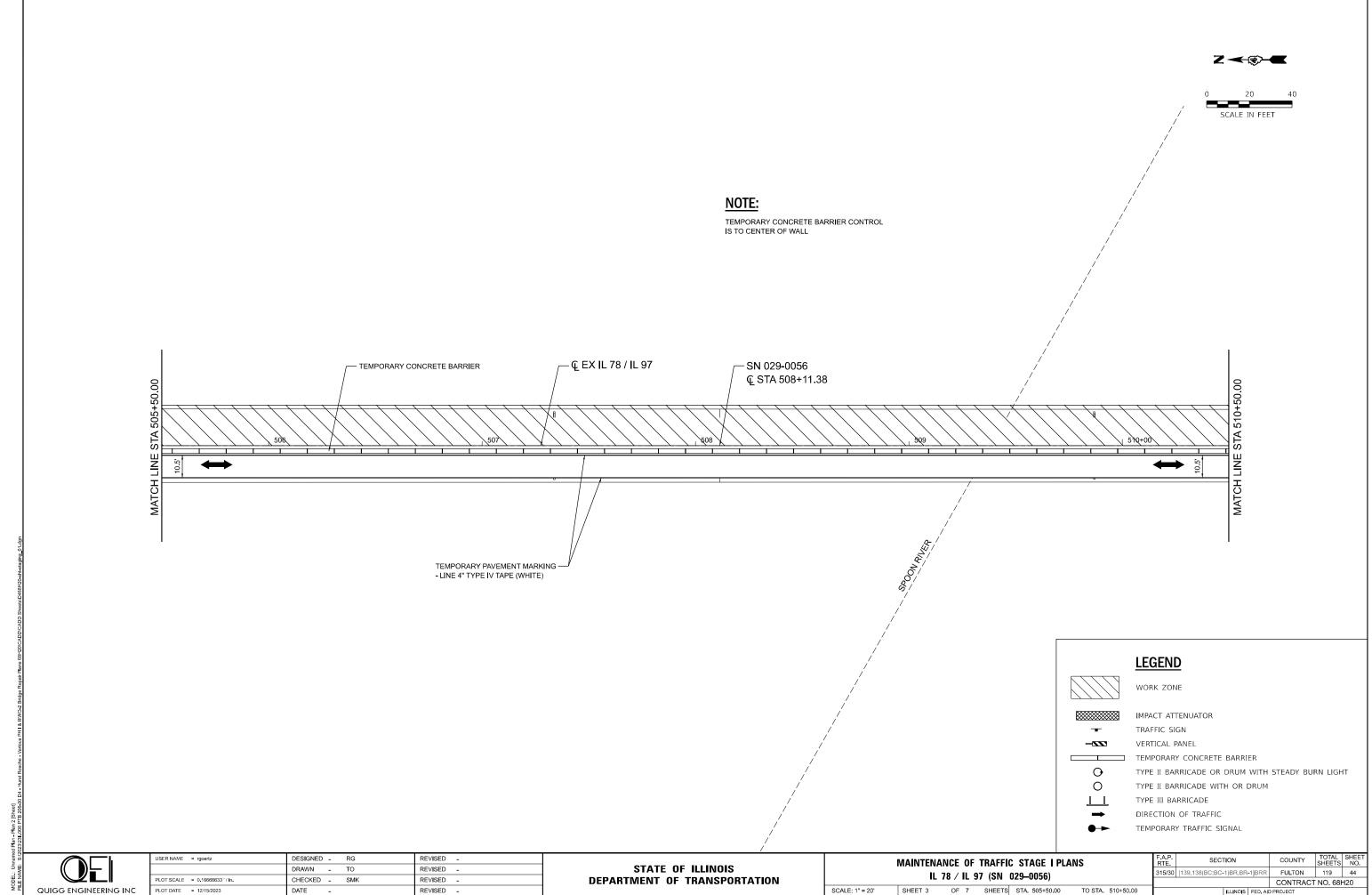
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

**MAINTENANCE OF TRAFFIC TYPICAL SECTIONS** IL 78 / IL 97 (SN 029-0056) SHEET 1 OF 7 SHEETS STA. SCALE: NONE

COUNTY 315/30 [139,138(BC;BC-1)BR,BR-1]BRR FULTON 119 42 CONTRACT NO. 68H20

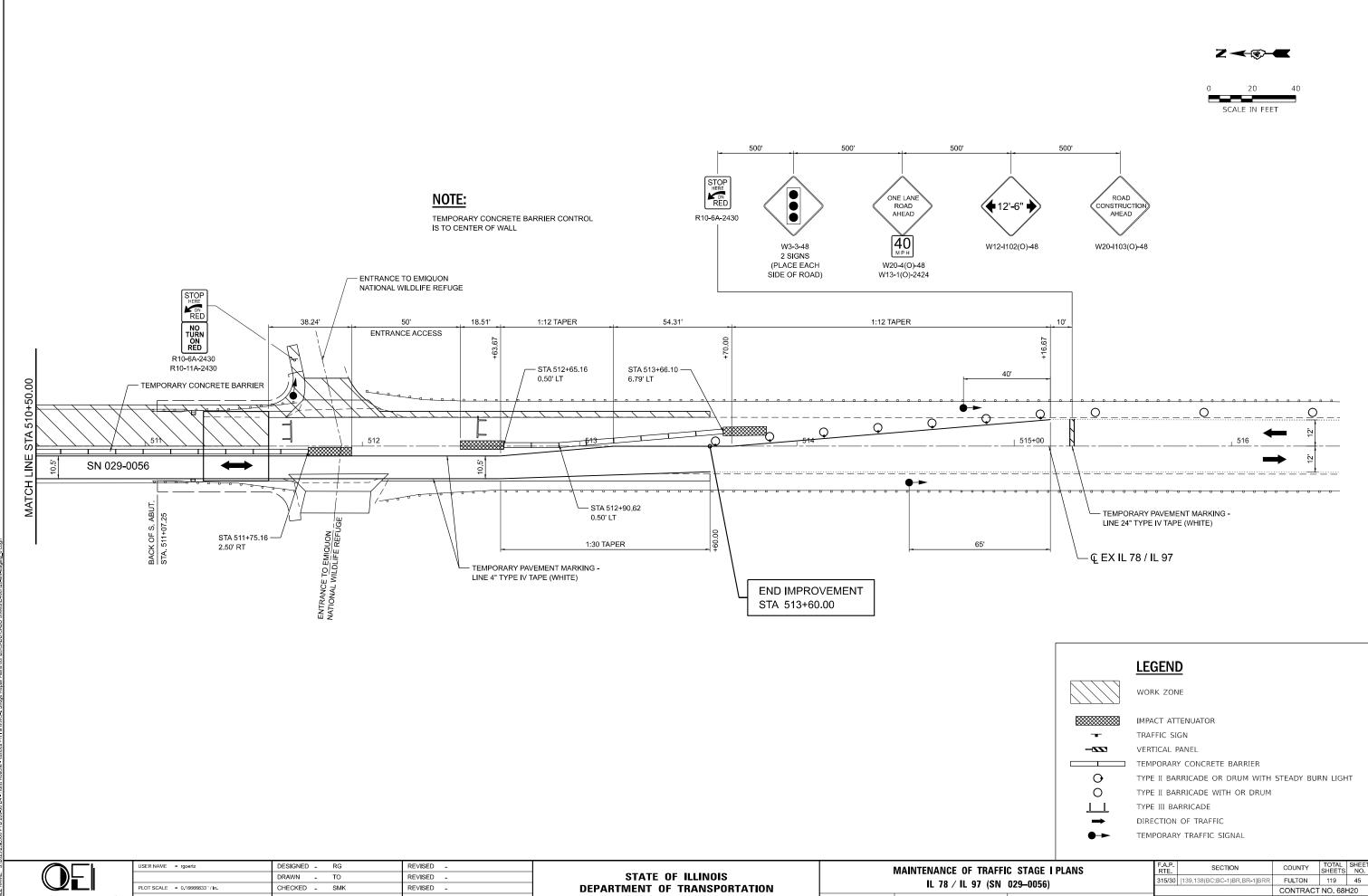


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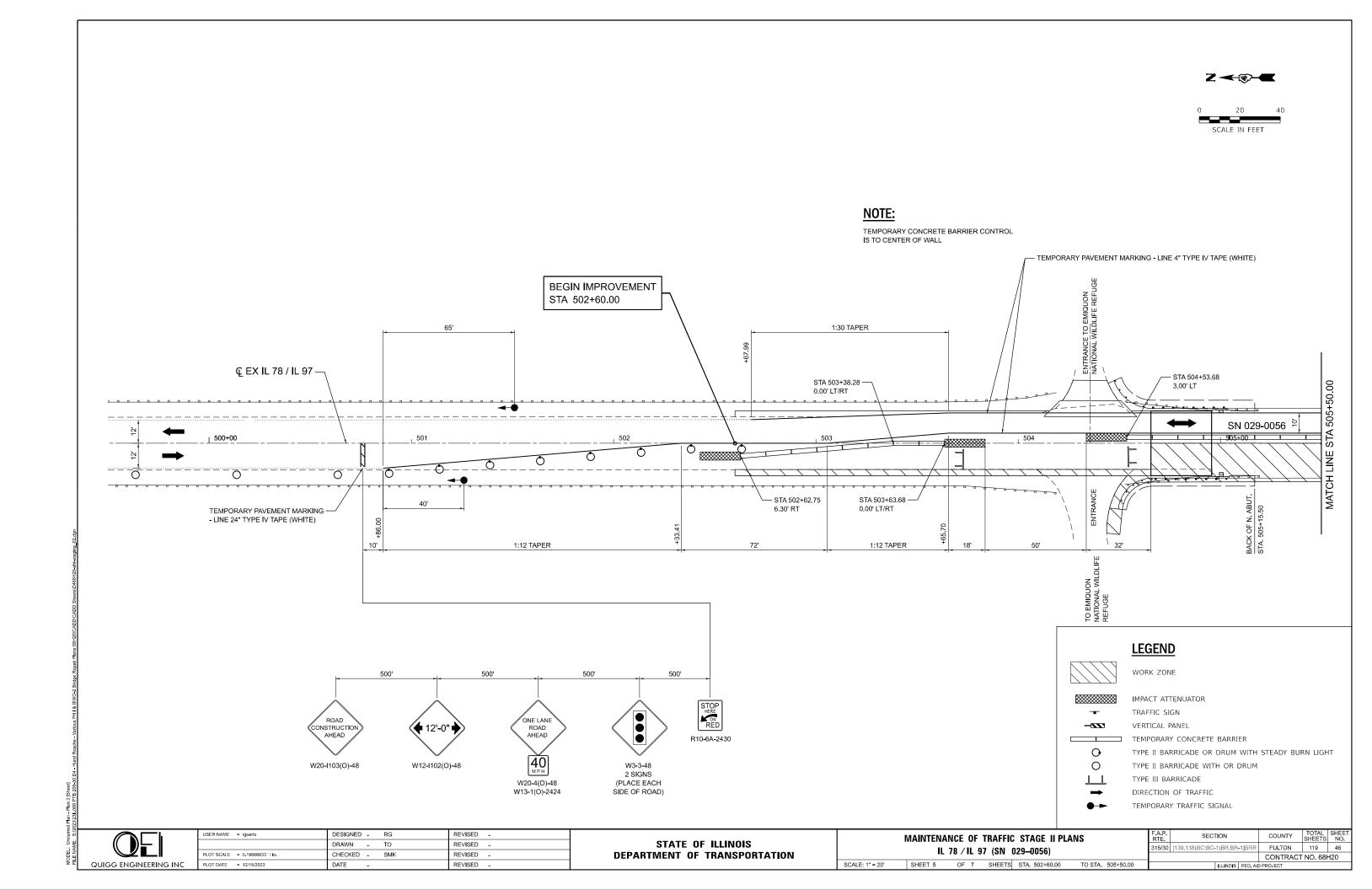
QUIGG ENGINEERING INC

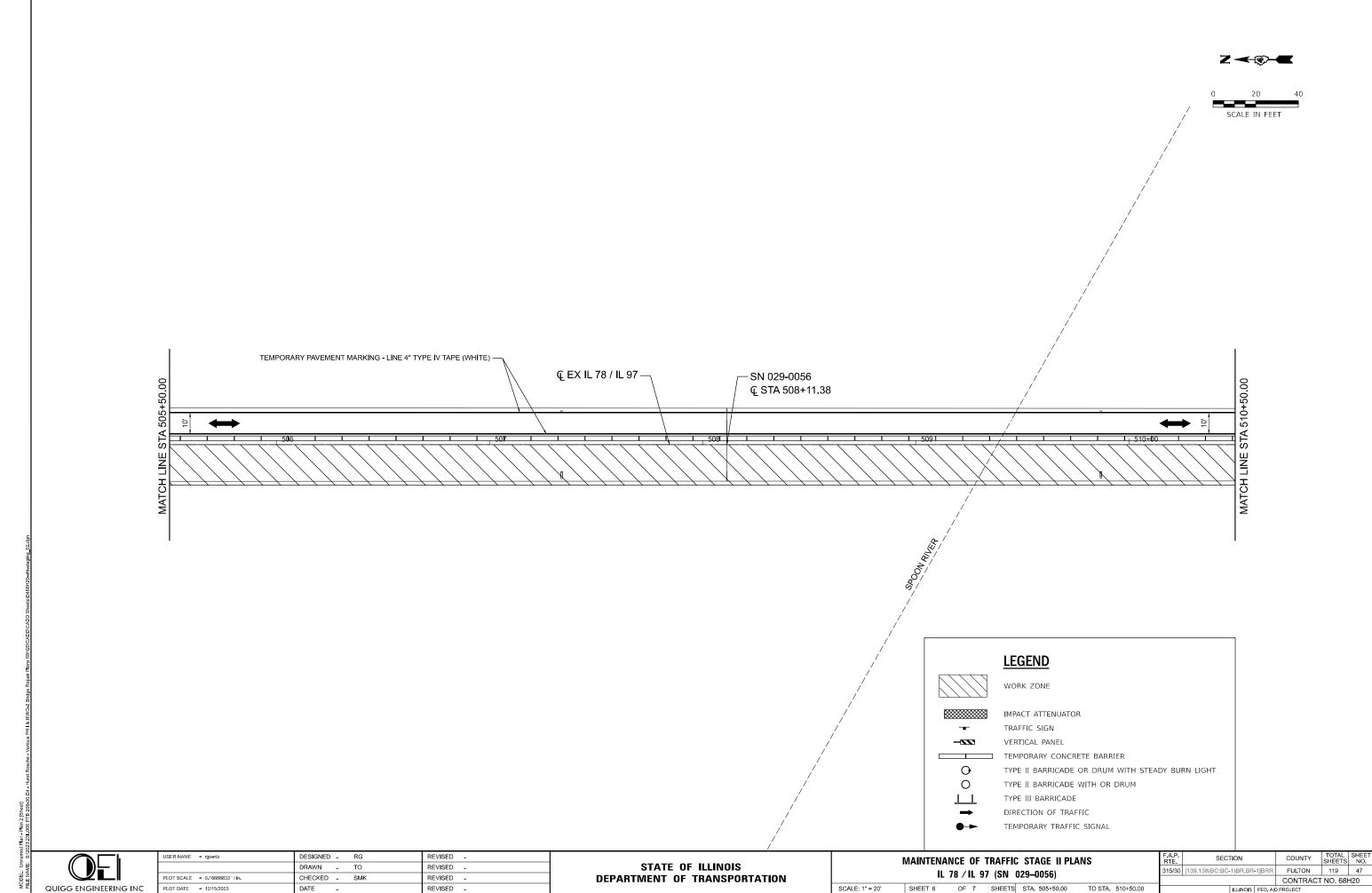
PLOT DATE = 12/15/2023 REVISED -



QUIGG ENGINEERING INC PLOT DATE = 12/15/2023 REVISED .

SCALE: 1" = 20' SHEET 4 OF 7 SHEETS STA. 510+50.00 TO STA. 513+60.00





QUIGG ENGINEERING INC

PLOT DATE = 12/15/2023 REVISED -DATE -



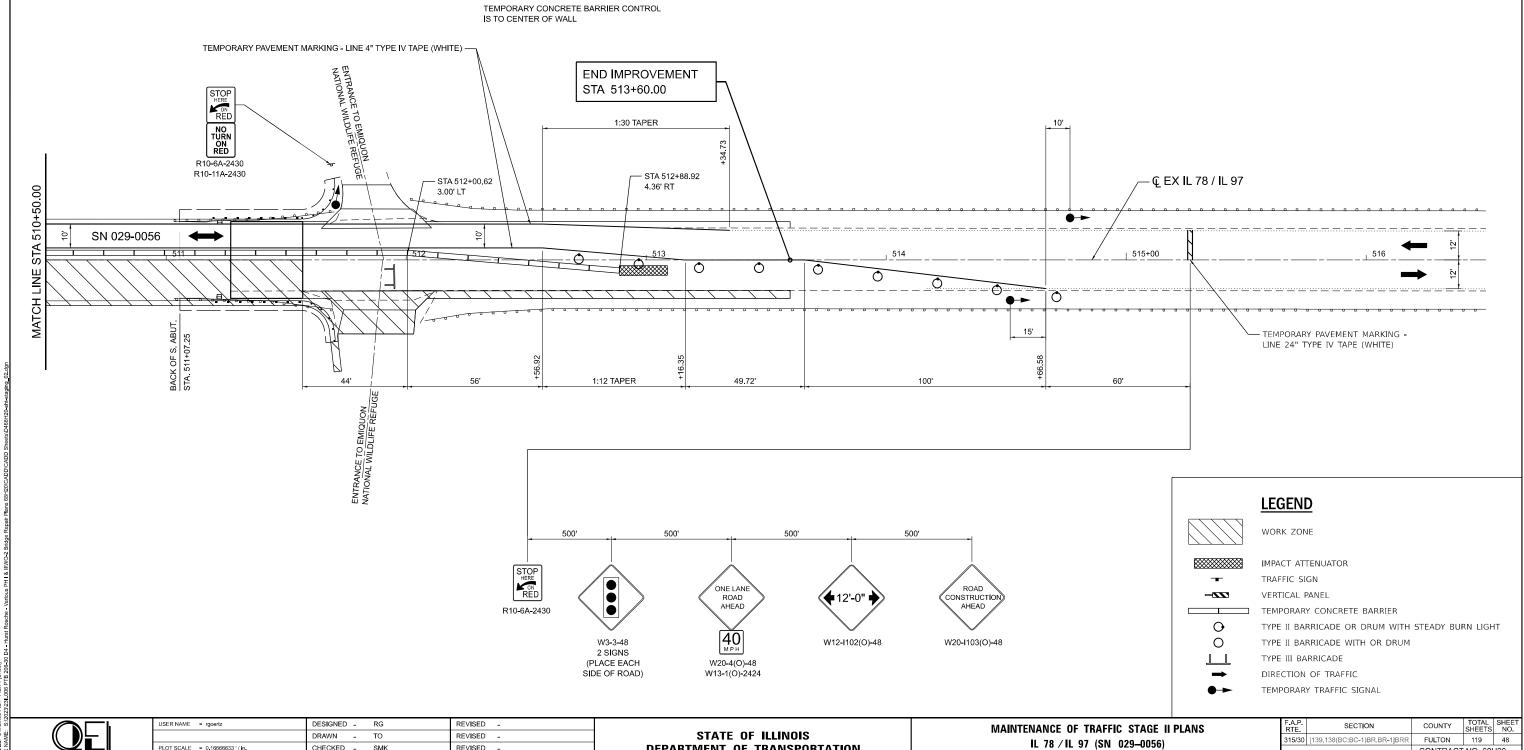
CONTRACT NO. 68H20

# NOTE:

CHECKED - SMK

QUIGG ENGINEERING INC

REVISED

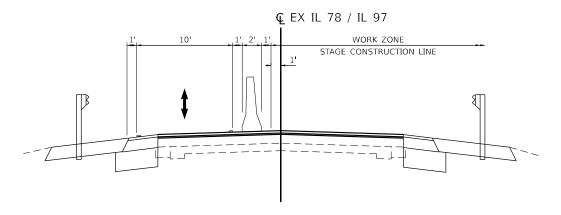


**DEPARTMENT OF TRANSPORTATION** 

SCALE: 1" = 20' SHEET 7 OF 7 SHEETS STA. 510+50.00 TO STA. 513+60.00

# STAGE I TYPICAL SECTION

LOOKING SOUTH



#### STAGE II TYPICAL SECTION

SN 029-0021 LOOKING SOUTH

### **LEGEND**



TEMPORARY CONCRETE BARRIER W/ BARRIER WALL REFLECTORS, TYPE C



◆ DIRECTION OF TRAFFIC

#### STAGE CONSTRUCTION NOTES

#### PRE-STAGE TRAFFIC

CLOSE SOUTHBOUND LANE AS REQUIRED USING HIGHWAY STANDARD 701326.

#### PRE-STAGE CONSTRUCTION

CONSTRUCT SOUTHBOUND SHOULDER AS DETAILED IN THE MAINTENANCE OF TRAFFIC STAGE I TYPICAL SECTION AND PLANS.

CLOSE NORTHBOUND LANE TRANSITIONING NORTHBOUND AND SOUTHBOUND TRAFFIC INTO THE SOUTHBOUND LANE AND SHOULDER USING HIGHWAY STANDARD 701321 AND AS DETAILED IN THE MAINTENANCE OF TRAFFIC STAGE I TYPICAL SECTION AND PLANS.

#### STAGE I CONSTRUCTION

MILL PAVEMENT, BRIDGE DECK, APPROACH SLAB, AND SHOULDERS AS REQUIRED AND CONSTRUCT NORTHBOUND PAVEMENT, SHOULDERS, GUARDRAIL, AND STRUCTURE REPAIRS.

#### STAGE II TRAFFIC

CLOSE SOUTHBOUND LANE TRANSITIONING NORTHBOUND AND SOUTHBOUND TRAFFIC INTO THE NORTHBOUND LANE AND SHOULDER USING HIGHWAY STANDARD 701321 AND AS DETAILED IN THE MAINTENANCE OF TRAFFIC STAGE II TYPICAL SECTION PLANS.

#### STAGE II CONSTRUCTION

MILL PAVEMENT, BRIDGE DECK, APPROACH SLAB, AND SHOULDERS AS REQUIRED AND CONSTRUCT SOUTHBOUND PAVEMENT, SHOULDERS, GUARDRAIL, AND STRUCTURE REPAIRS.

#### **POST-STAGE TRAFFIC**

USE HIGHWAY STANDARDS 701201 AND 701311 FOR TRAFFIC CONTROL. PAY ITEMS AND SCHEDULES WITH QUANTITIES HAVE BEEN PROVIDED FOR TEMPORARY RAMPS, SHORT TERM PAVEMENT MARKINGS AND SHORT TERM PAVEMENT MARKING REMOVAL USED DURING POST-STAGE CONSTRUCTION SOUTH OF SN 029-0021.

#### POST-STAGE CONSTRUCTION

COMPLETE OVERLAY AND AGGREGATE WEDGE SHOULDER FOR PAVEMENT AREA SOUTH OF SN 029-0021. CONDUCT WORKSITE CLEANUP AND PLACE FINAL PAVEMENT MARKINGS.

#### WIDTH RESTRICTION SIGNAGE

SIX (6) SETS OF WIDTH RESTRICTION SIGNS WILL BE REQUIRED. PRECISE LOCATIONS WILL BE COORDINATED AT THE PRE-CONSTRUCTION MEETING.

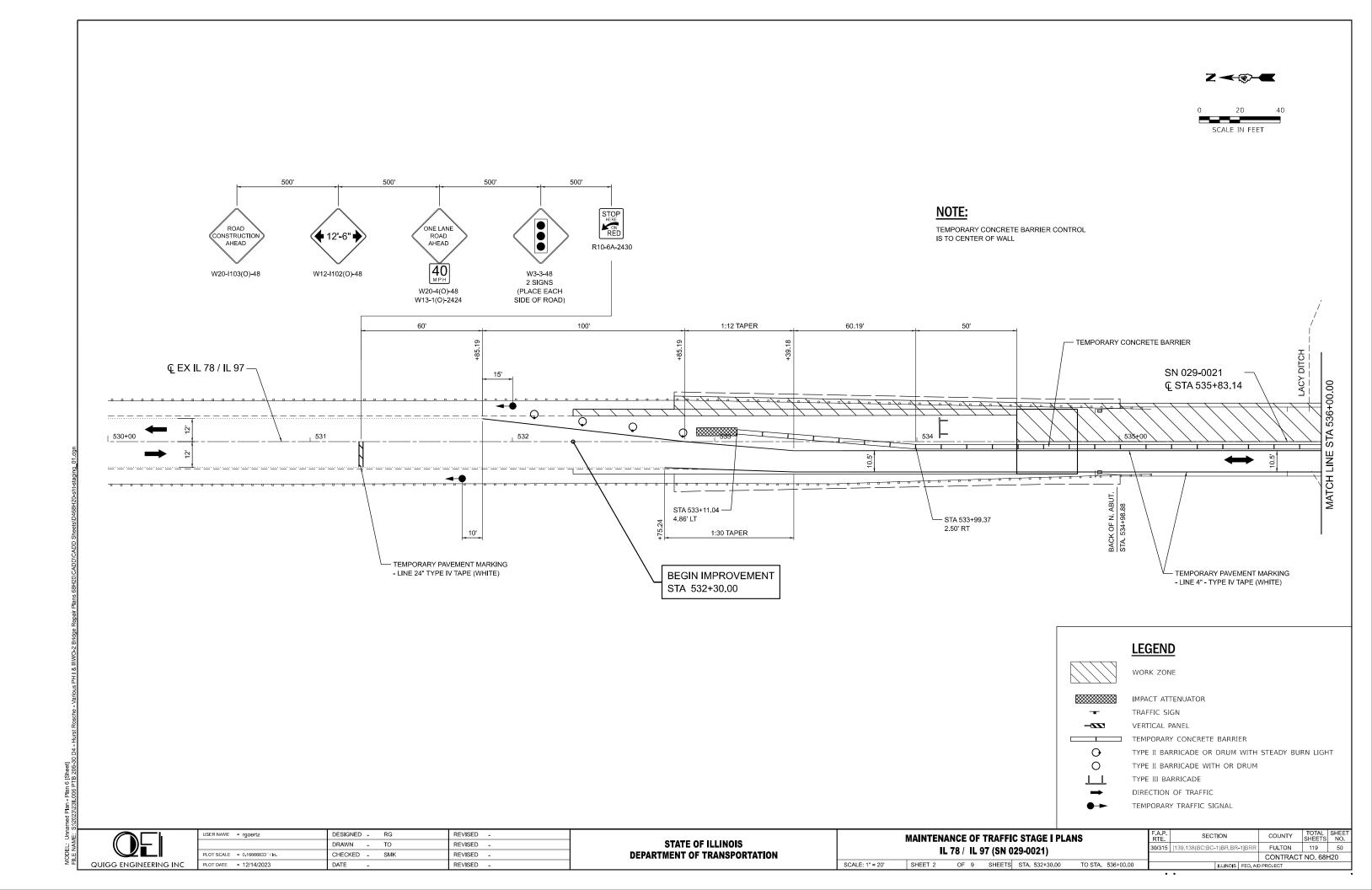
QUIGG ENGINEERING INC

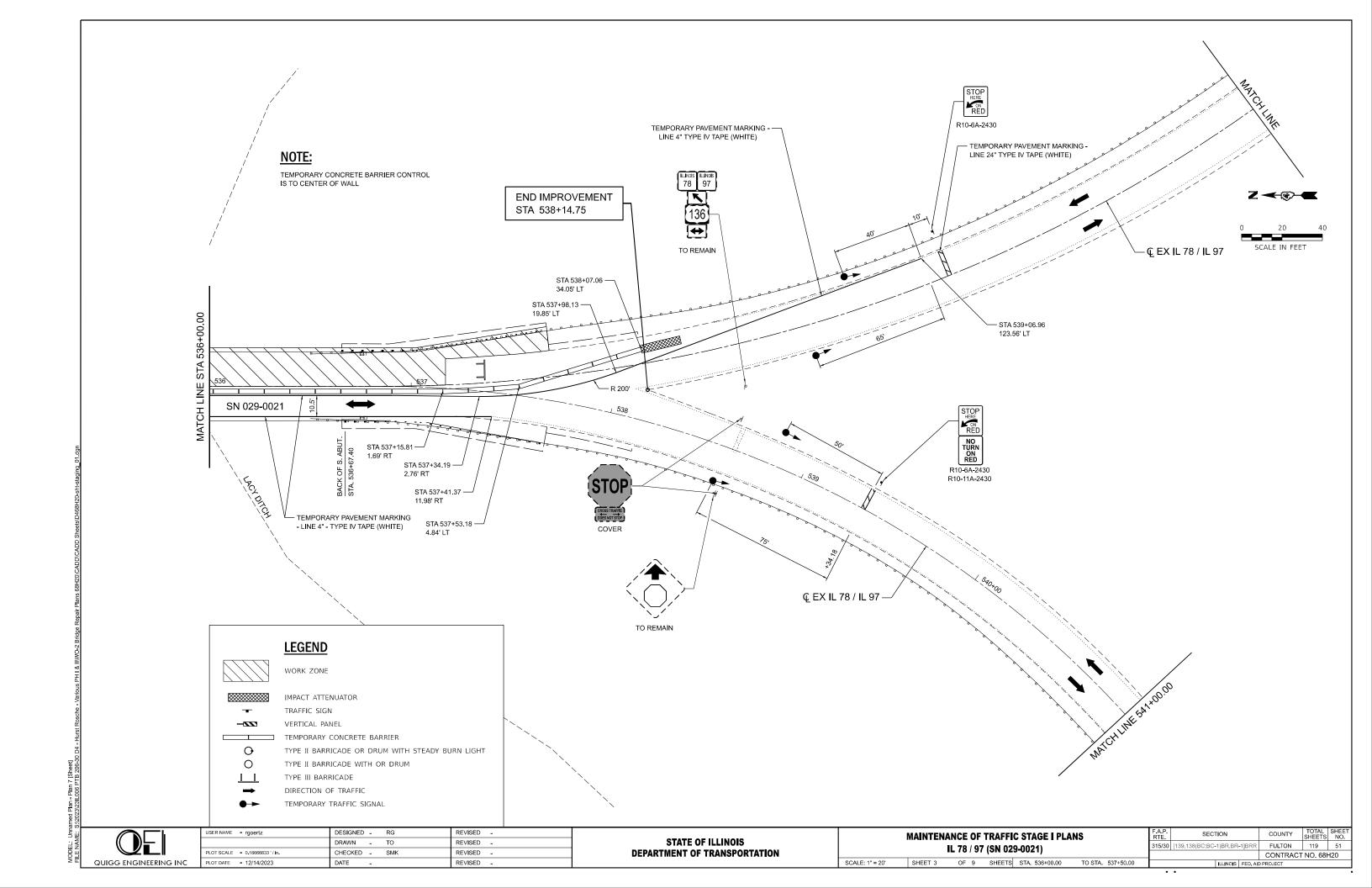
DESIGNED - RG REVISED . DRAWN -TO REVISED CHECKED -REVISED PLOT DATE = 12/14/2023 REVISED DATE

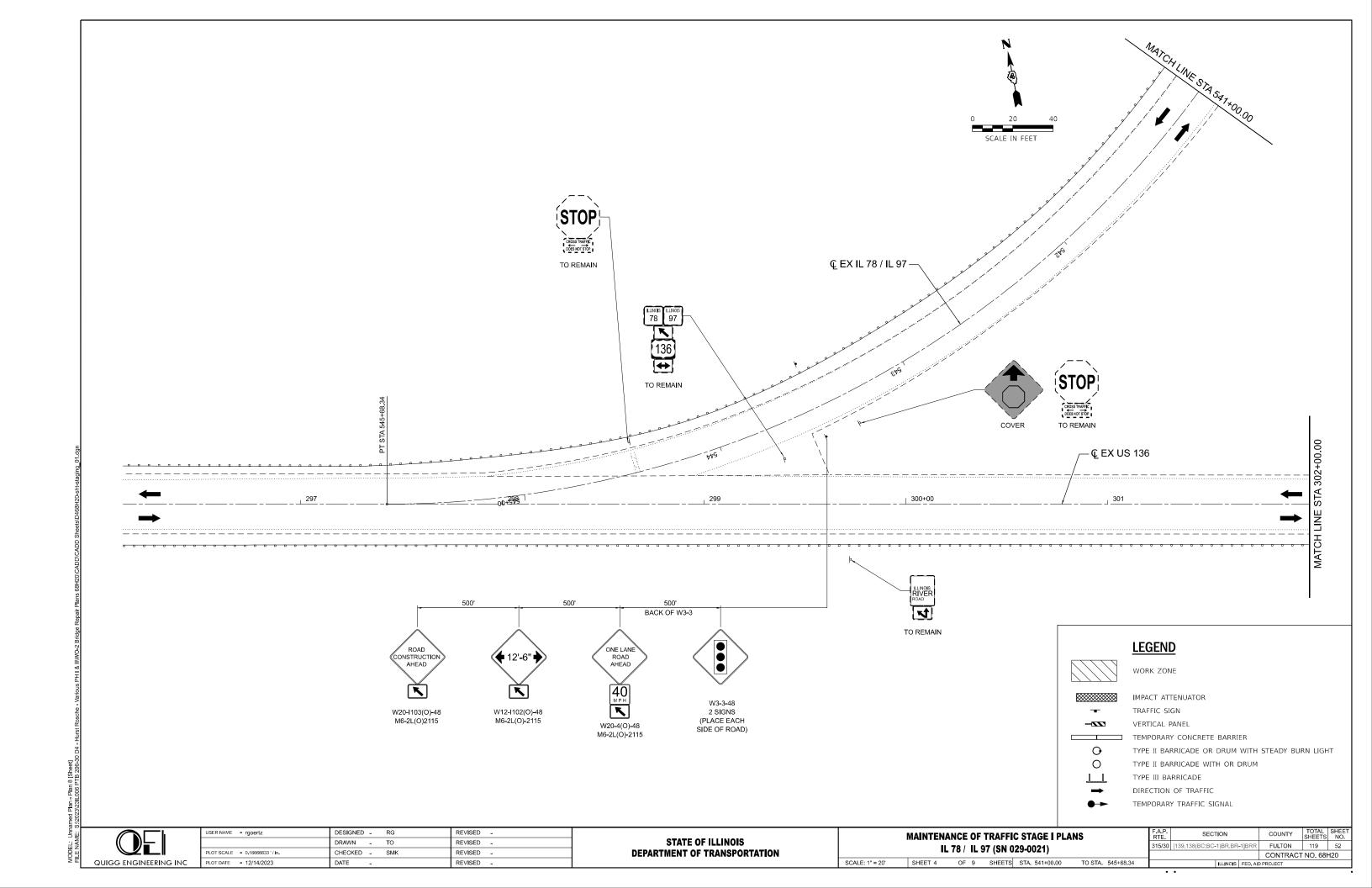
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

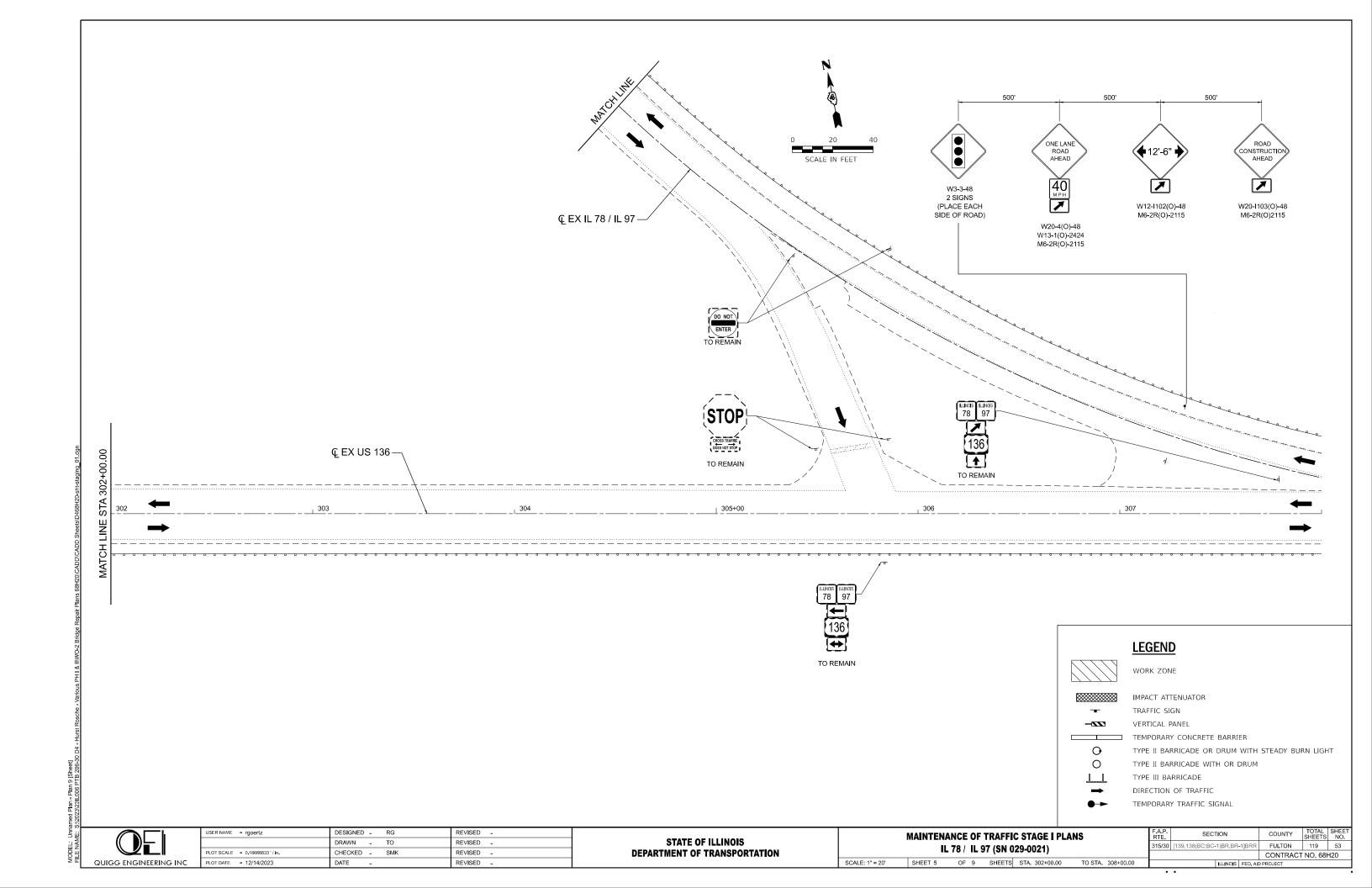
**MAINTENANCE OF TRAFFIC TYPICAL SECTIONS** IL 78 / IL 97 (SN 029-0021) SHEET 1 OF 9 SHEETS STA. SCALE: NONE

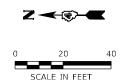
COUNTY 315/30 [139,138(BC;BC-1)BR,BR-1]BRR FULTON 119 49 CONTRACT NO. 68H20





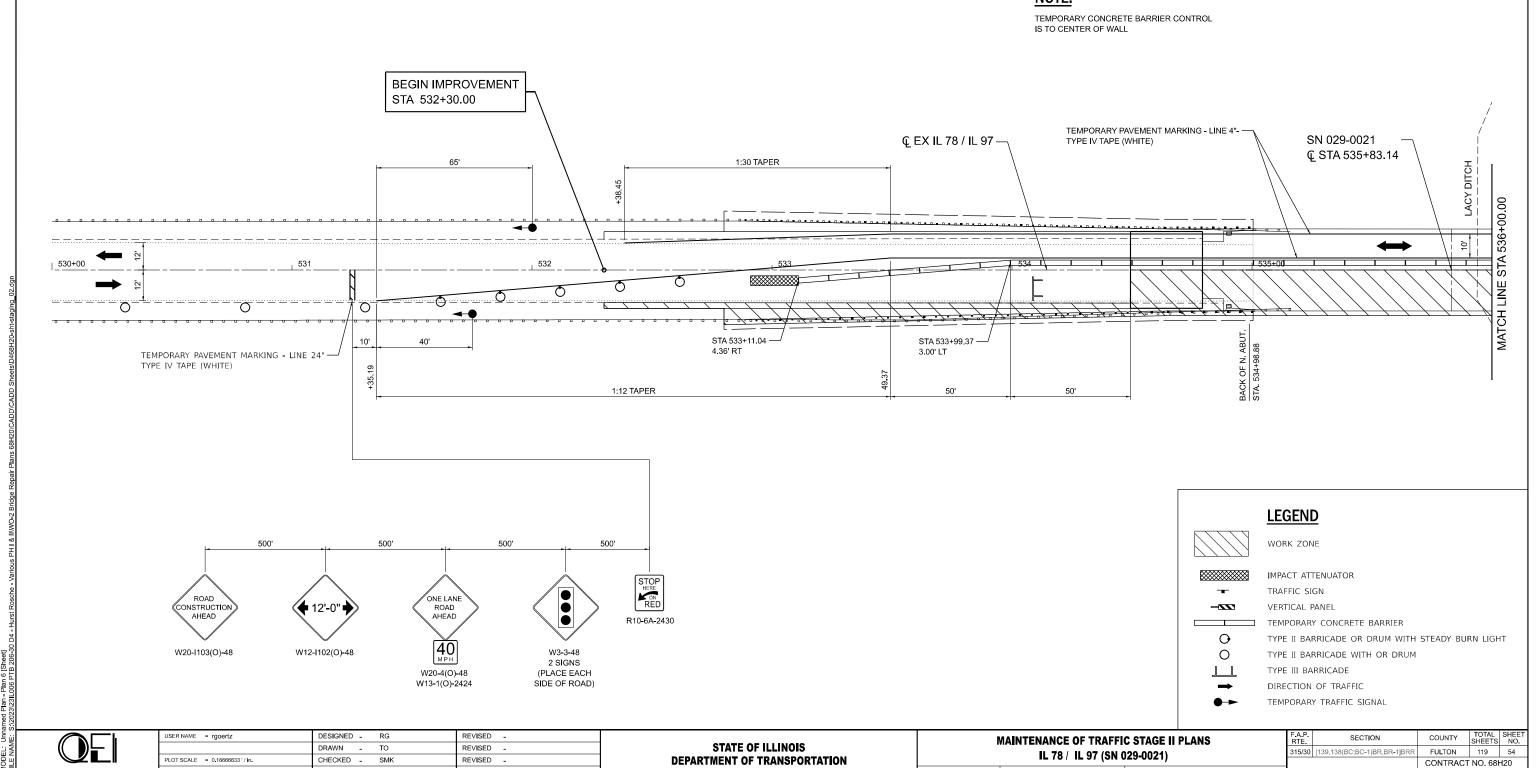






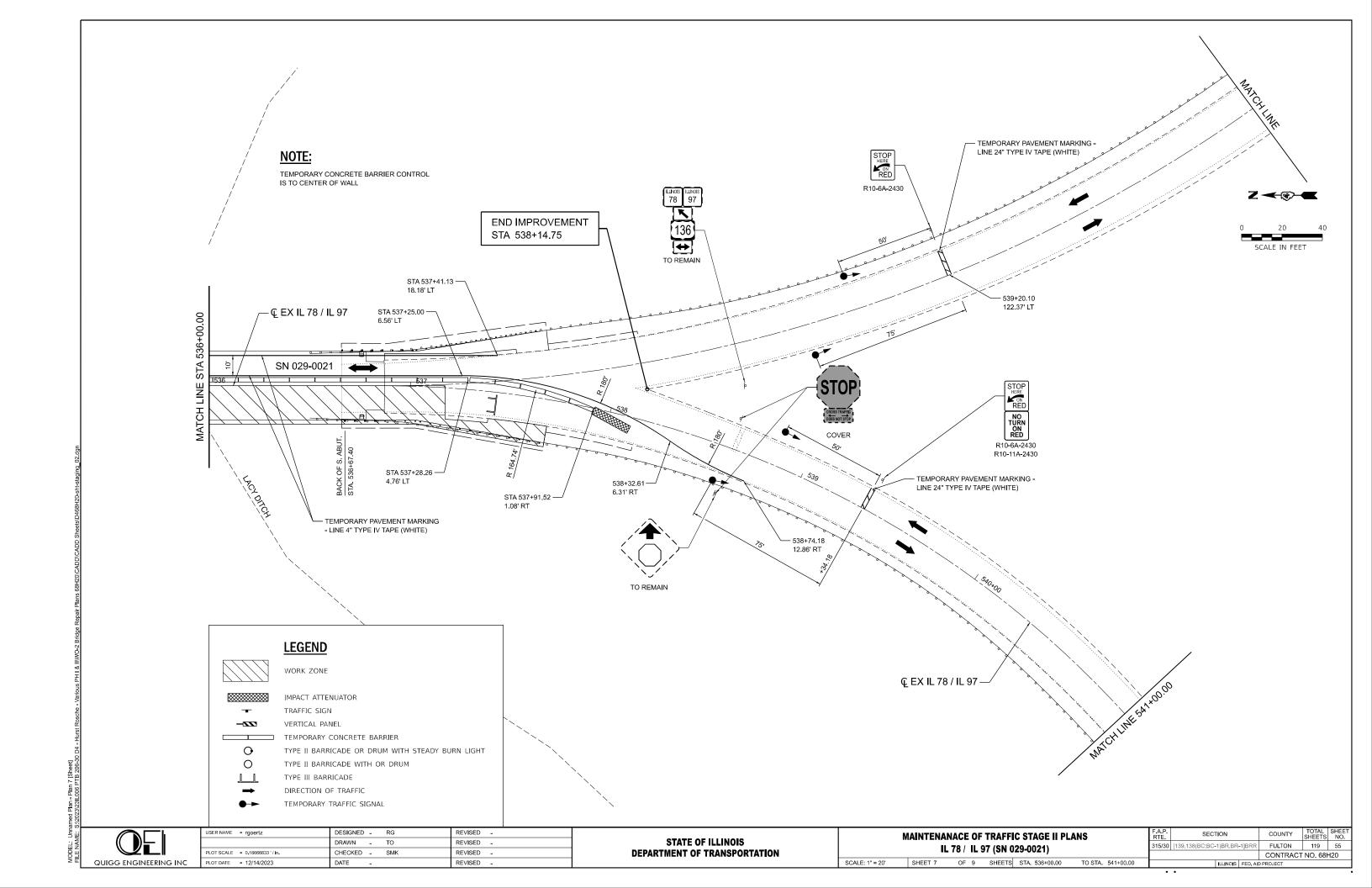
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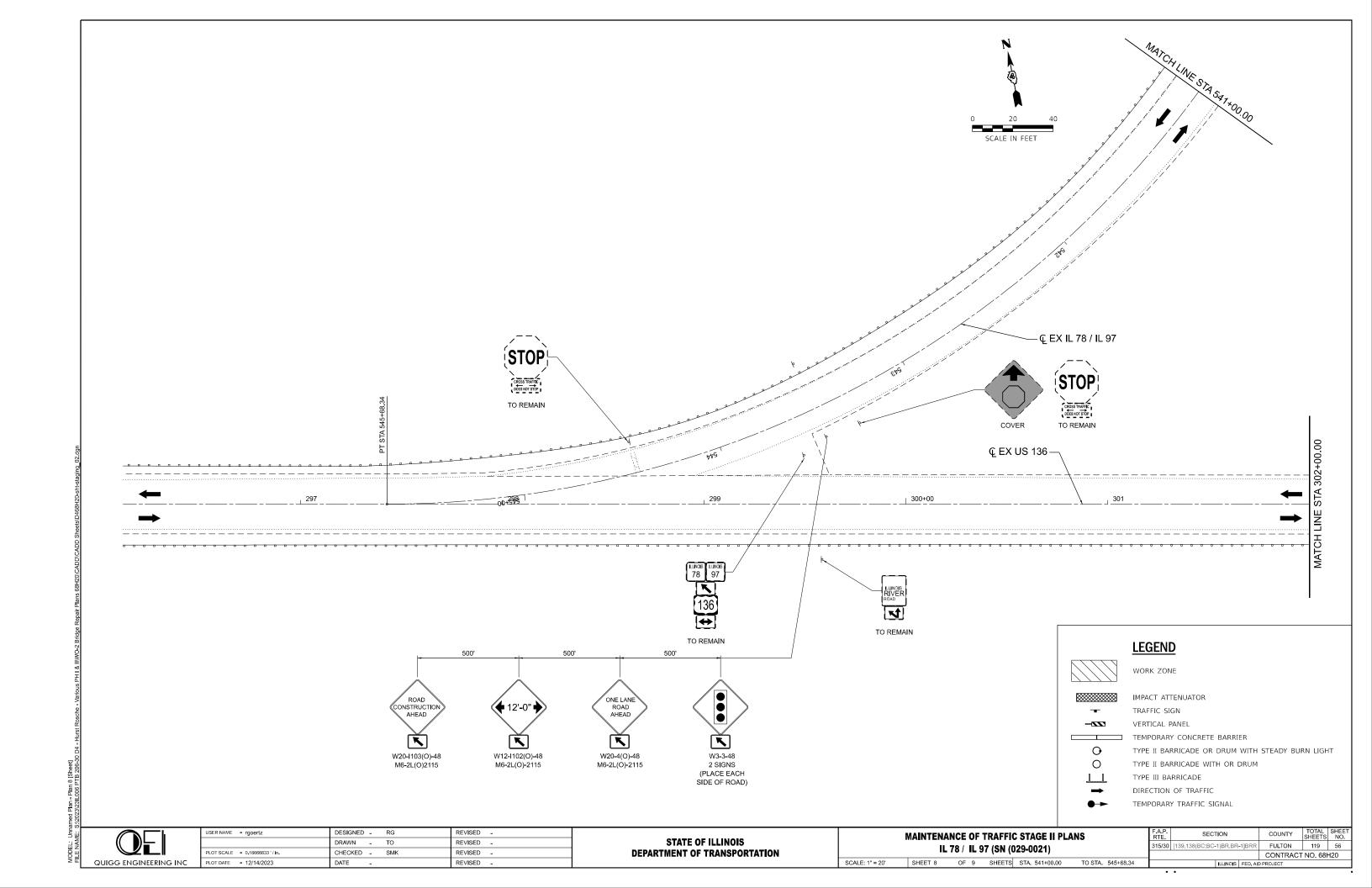
SCALE: 1" = 20' SHEET 6 OF 9 SHEETS STA. 532+30.00 TO STA. 536+00.00

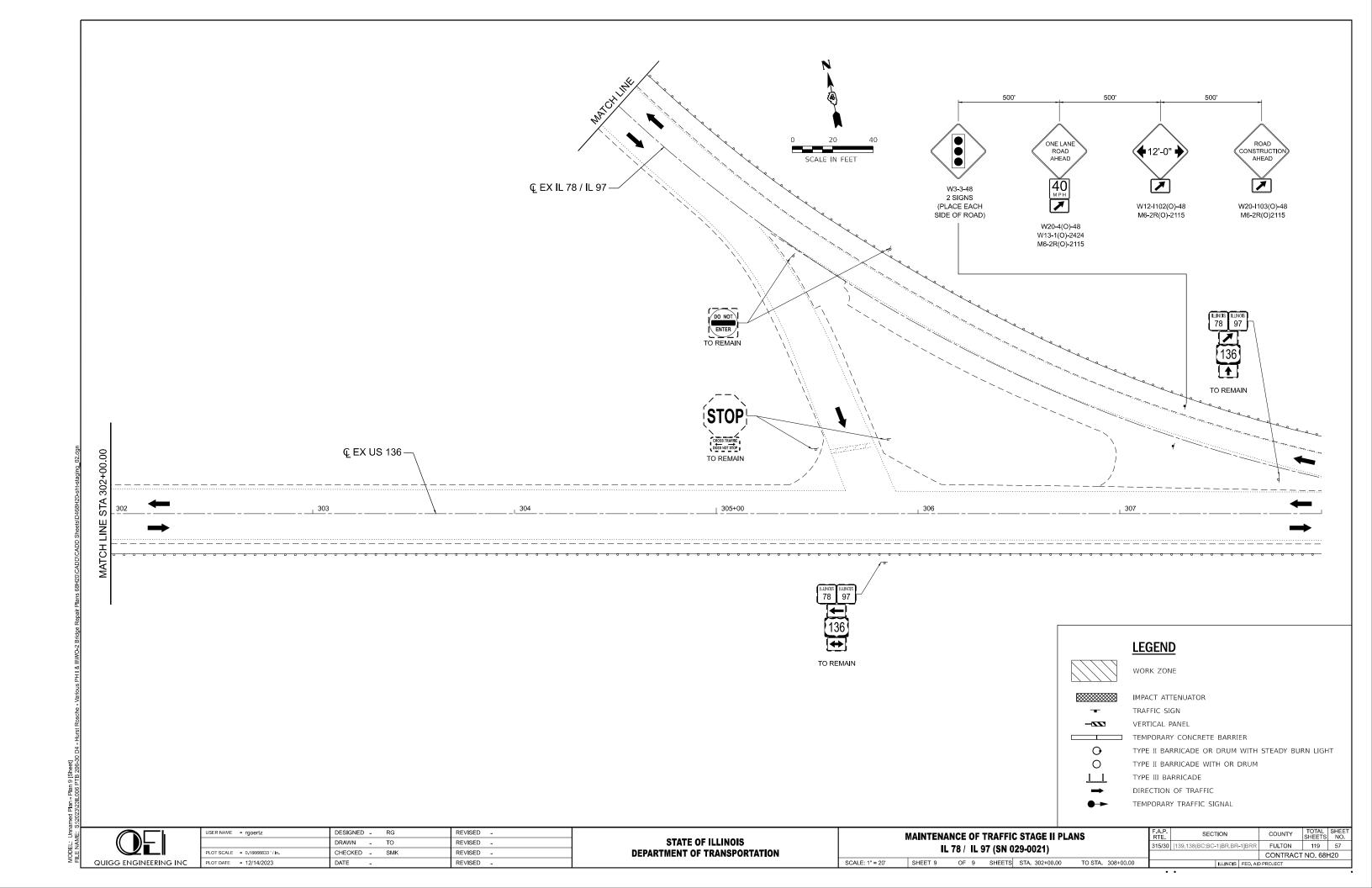


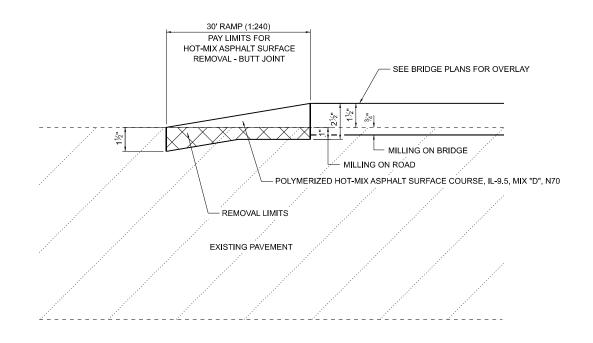
QUIGG ENGINEERING INC

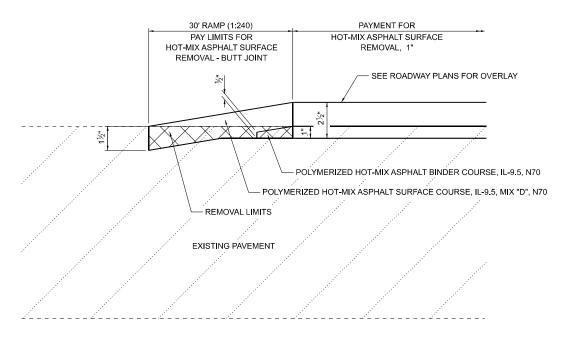
PLOT DATE = 12/14/2023











# **BUTT JOINT DETAIL**

**SN 029-0012 (US 136)** STA 323+28.10 TO STA 323+58.10 STA 326+51.12 TO STA 326+81.12

SN 029-0055 (IL 78 / IL 97) STA 490+55.38 TO STA 490+85.38 STA 495+14.77 TO STA 495+44.77

**SN 029-0056 (IL 78 / IL 97)** STA 504+65.70 TO STA 504+95.70 STA 511+26.92 TO STA 511+56.92

**SN 029-0021 (IL 78 / IL 97)** STA 534+49.37 TO STA 534+79.37

# **BUTT JOINT DETAIL**

**SN 029-0021 (IL 78 / IL 97)** STA 537+84.75 TO STA 538+14.75

QUIGG ENGINEERING INC

USER NAME = rgoertz	DESIGNED - RG	REVISED -
	DRAWN - TO	REVISED -
PLOT SCALE = 0.16666633 ' / in.	CHECKED - SMK	REVISED -
PLOT DATE = 12/15/2023	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 30 / IL 78 / IL 97	315/30	[139,138(BC;BC-1)BR,BR-1]BRR	FULTON	119	58
03 30 / IE 70 / IE 37			CONTRACT	NO. 681	H20
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA		ILLINOIS FED. A	D PROJECT		

MODEL: Office leaf Figure 1 (2) Red)
FILE NAME: St. 2023/231 006 PTB 206-30 D4 - Hurst Rosche - Various PH I & IIIMO-2 Bridge Repair PI

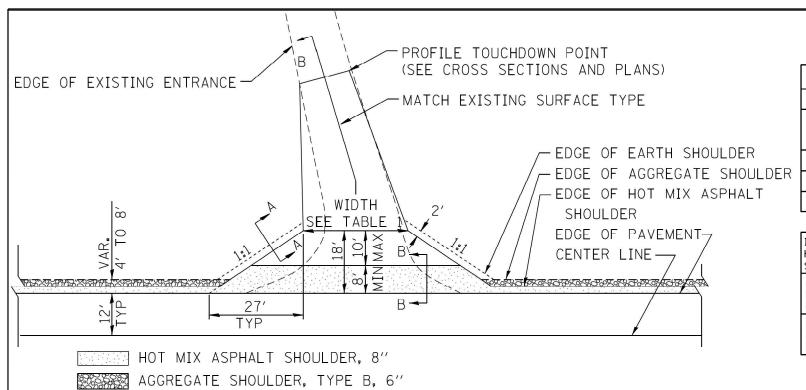
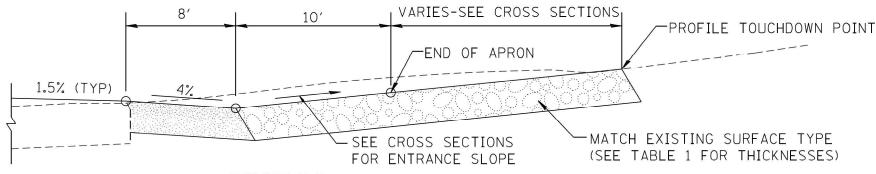


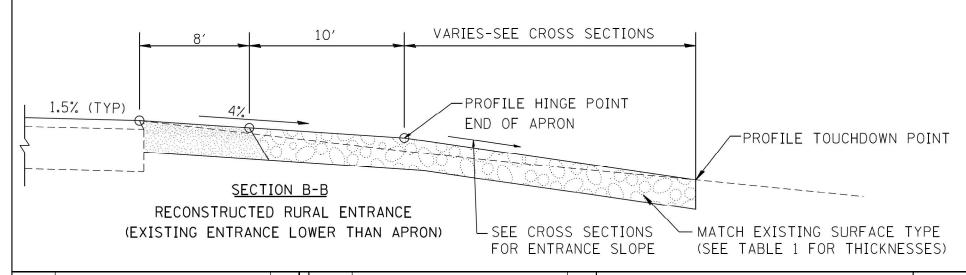
	TABLE 1											
	RURAL ENTRANCE DESIGN											
	NON CO	MMEDCIAL		NON-COMME	NON-COMMERCIAL W/		(	COMME	RCIAL			
ELEMENT	NUN-CU	MMERCIAL		LARGE FARM EQUIPMENT		1-WAY OPERATION			2-W.	AY O	PERATION	
WIDTH (W)	12′(3.6m) Min.	24'(7.2m) M	ax.	20′ (6.1m)Min.	30′(9 <b>.</b> 0m)Max.	14′(4 <b>.</b> 3m)	Min. 24′(7.2m)	Max.	24'(7 <b>.</b> 2m)	Min.	35′(10.7m)	Max.
FLARE		1:1.5										
MAX. GRADE (G)	12%			12%			7.					
SURFACE TYPE												
INCIDENTAL HOT MIX ASPHALT SURFACING	6	6''			<b>-</b> 2			8	3"			
AGGREGATE SURFACE COURSE	6	ô"	8" —						·			
PCC DRIVEWAY PAVEMENT	(	6′′		_	-	7''						

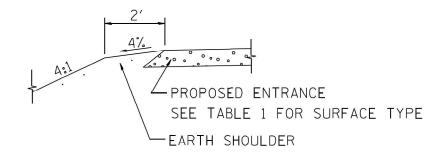
# PLAN COMMERCIAL / FARM-RELATED ENTRANCE



SECTION B-B

RECONSTRUCTED RURAL ENTRANCE
(EXISTING ENTRANCE HIGHER THAN APRON)





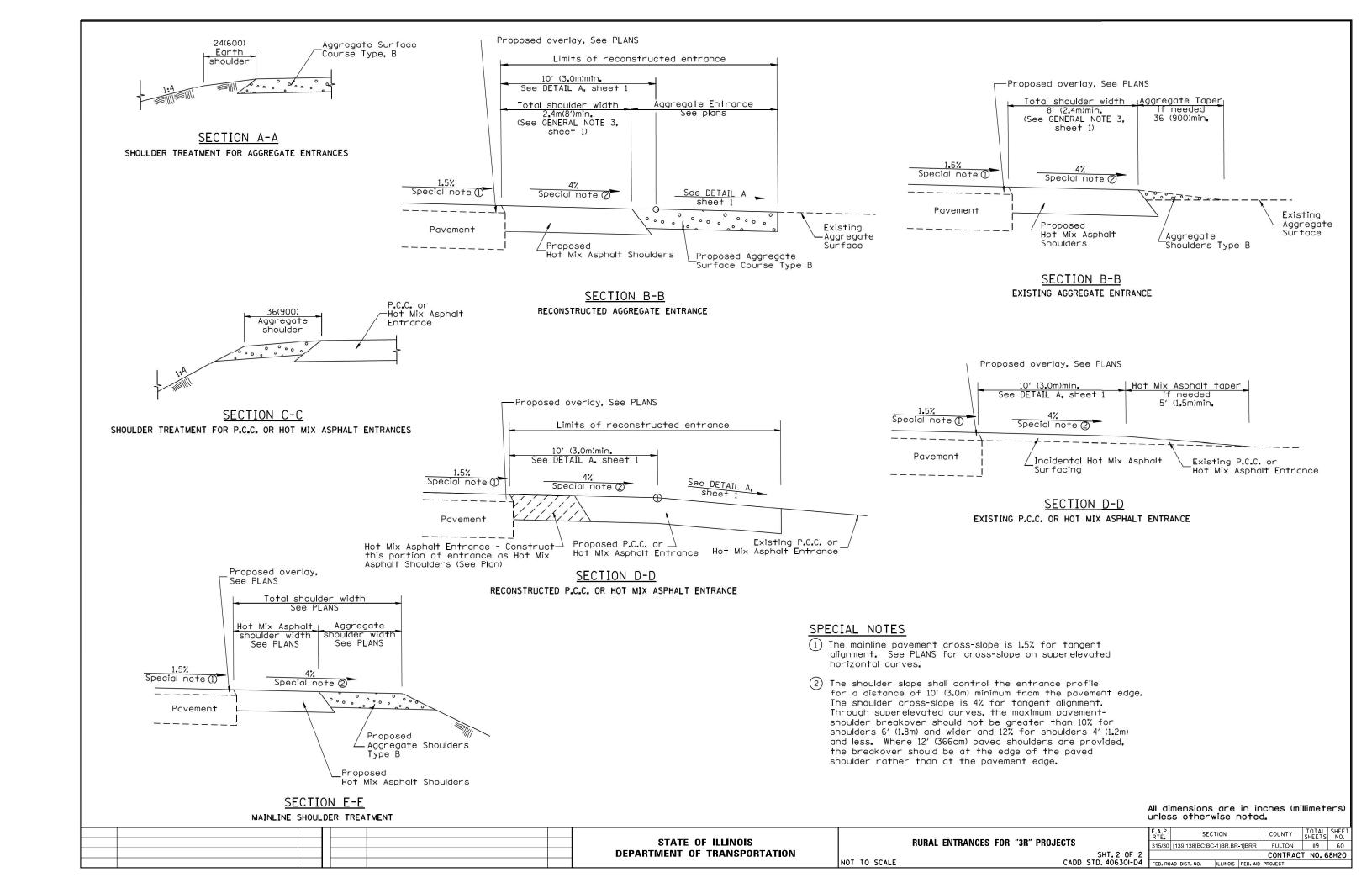
SHOULDER TREATMENT FOR RURAL ENTRANCES

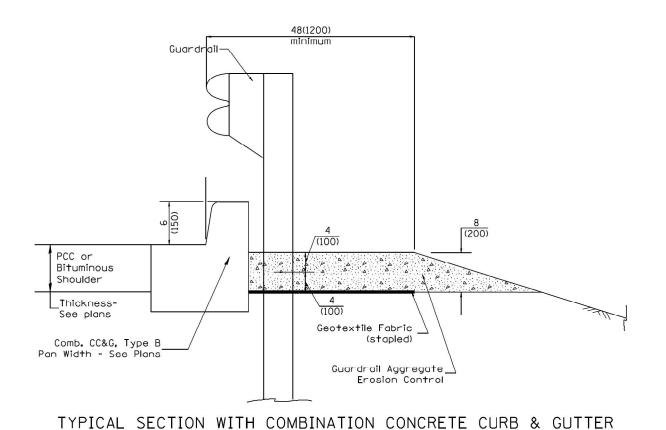
#### GENERAL NOTES

- 1. ENTRANCES SHALL SLOPE AWAY FROM THE PAVEMENT AT A RATE EQUAL TO THE SHOULDER SLOPE FOR A MINIMUM DISTANCE OF 8'.
- 2. A MINIMUM 8' PAVED SHOULDER SHALL BE CONSTRUCTED BETWEEN LOCATIONS WHERE THE RURAL ENTRANCE IS LESS THAN 50' FROM AN ADJACENT SIDEROAD, ENTRANCE OR MAILBOX TURNOUT.
- 3. A TAPER RATE OF 5:1 IS DESIRABLE WHEN TRANSITING FROM THE RURAL ENTRANCE WIDTH SHOWN IN TABLE 1, TO THE EXISTING ENTRANCE WIDTH.

All dimensions are in inches (millimeters) unless otherwise noted.

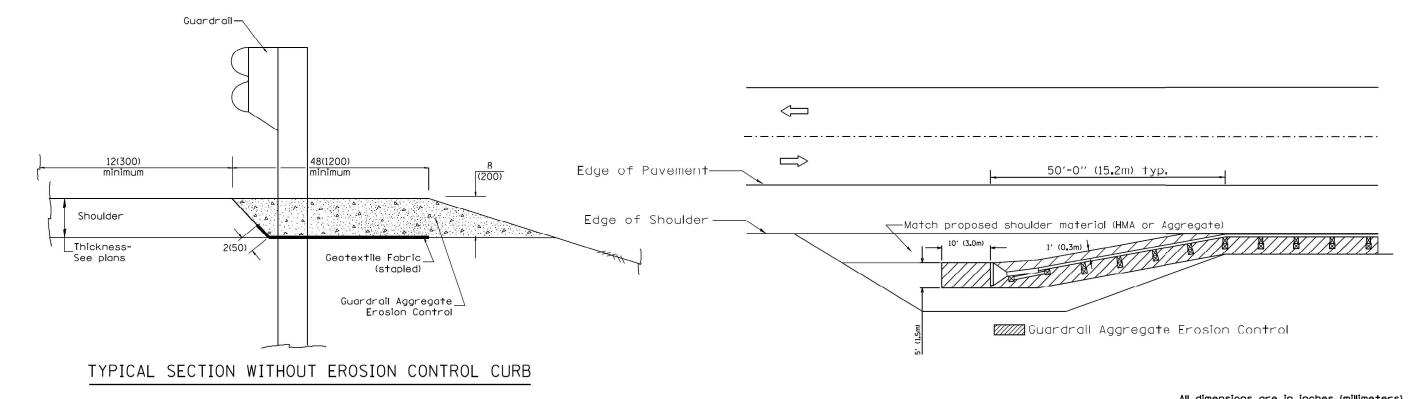
01-	-01-97	RENUM. C-103.06, NEW REVISION BOX T.P.	10-16-06 REVISED TO 2007 SPEC.	M.A.				RTF SE	CTION	COUNTY	SHEETS N	'EE I
07	7-01-97	REVISE DESIGNER NOTES J.A.	9-I5-I5 UPDATED TABLE I	R.D.	STATE OF ILLINOIS	RURAL ENTRANCES FOR "3R" PROJECTS	3	315/30 [139.138(BC:B	C-1)BR.BR-1IBRR	FULTON	119 !	59
01-	-17-03	ADJUST DESIGN, CHANGE ENTRANCE JATR	2-29-16 MINOR CORRECTIONS	R.D.	DEPARTMENT OF TRANSPORTATION		SHT.IOF 2	1	, , ,	CONTRACT	T NO. 68H	20
09	9-15-05	RADIUS FOR FLARE M.M.A.	5-9-17 CHANGED TAPER RATE	R.D.		NOT TO SCALE CA	DD STD. 40630I-D4	FED. ROAD DIST. NO.	ILLINOIS FED. AID PR			





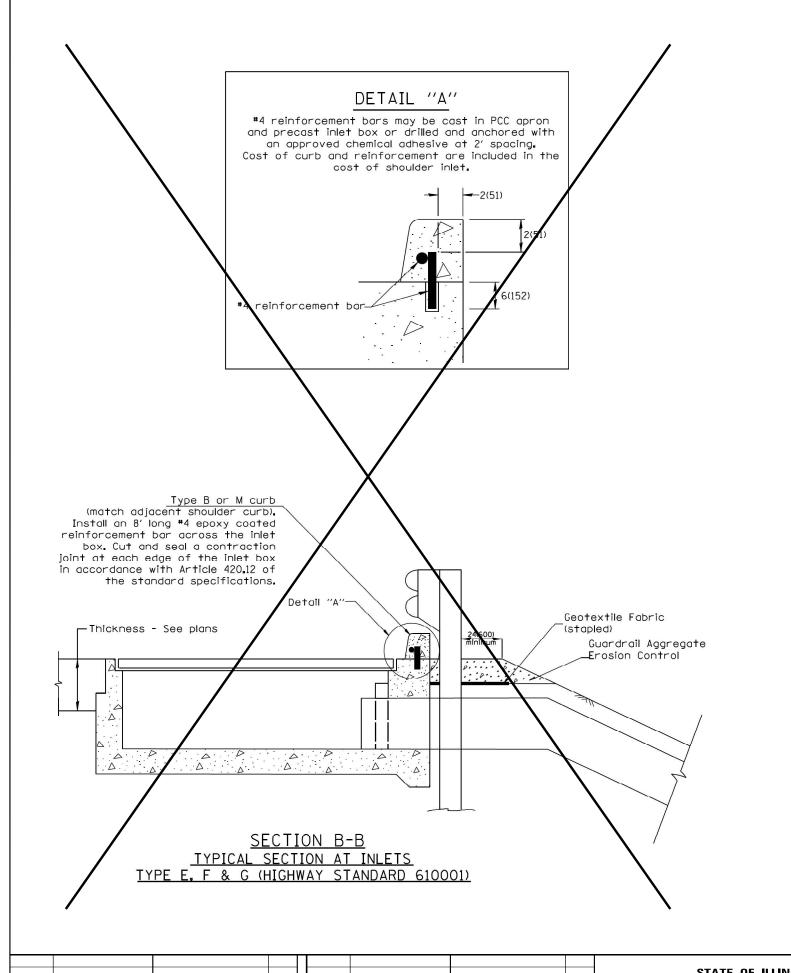
#### GENERAL NOTES: GUARDRAIL AGGREGATE EROSION CONTROL

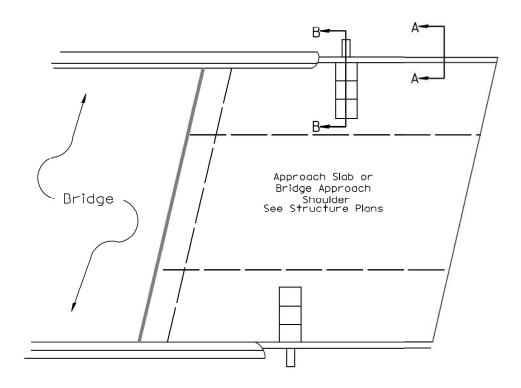
- 1. This work shall consist of grading as needed, furnishing and installing geotextile fabric and staples, and furnishing, placing and shaping crushed aggregate around and behind Steel Plate Beam Guardrail posts in accordance with Plan Details.
- 2. Before placing the aggregate and the Geotextile Fabric, 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 quardrail 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:
- $\Lambda.$  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.



All dimensions are in inches (millimeters) unless otherwise noted.

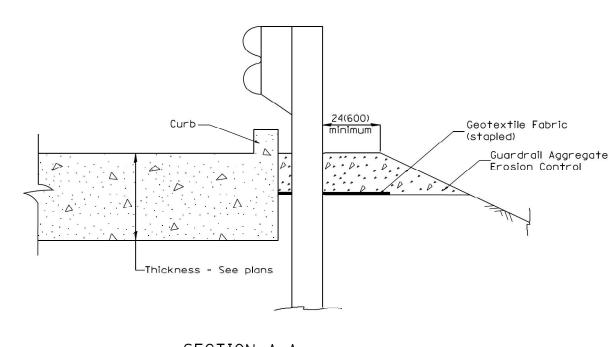
	ADDED DETAIL SHOWING PLAN VIEW R	5-30-	B CHANGE B CURB TO CC&G	R.D.			7	RTE. SECTION	N	COUNTY SHEE	ETS NO.
08-10-12	REVISED CURB "B" AND AGGREGATE R	07-16-	9 SPELLING CORRECTIONS	R.D.	STATE OF ILLINOIS	GUARDRAIL EROSION CONTROL TREATMENTS	3	315/30 [139,138(BC;BC-1)BI	R,BR-1]BRR	FULTON IIS	19 61
07-15-15	ADDRESSED SHOULDER INLET CURB R	D.			DEPARTMENT OF TRANSPORTATION	SH	T.10F 2			CONTRACT NO	0. 68H2O
01-26-17	REVISED	D.				NOT TO SCALE CADD STD.	630I0I-D4	ED. ROAD DIST. NO. ILLIN	INOIS FED. AID P	PROJECT	-





PLAN VIEW

APPROACH SLAB OR SHOULDER PLACEMENT



SECTION A-A
TYPICAL SECTION WITH BRIDGE APPROACH CURB

All dimensions are in inches (millimeters) unless otherwise noted.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GUARDRAIL EROSION CONTROL TREATMENTS

NOT TO SCALE

CADD ST

Existing Structure: S.N. 029-0012, originally built in 1936 as four-span continuous wide flange steel beam superstructure with open abutments and mutli-column piers. In 1993 the superstructure was replaced and widened to a out to out width = 39'-2" and back to back length = 234'-2. The substructure units where modified to accomadate new superstructure width. Structure is to be repaired as detailed in these plans. Traffic is to be maintained using stage construction.

ELEVATION

234'-2" Bk. to Bk. Abut. (Modified 1993)

229'-6<u>" & Brg. to & Brg.</u>

PLAN

- Ç Pier 2

63'-9"

−Ç US 136, Ç Structure & Stage Const. Line

Ex. WF 27" Girder

Ex. Groundline

63'-9"

No Salvage

Bk. W. Abut. ---

2'-4"

Bk. E. Abut.

51'-0"

@ Brg. W. Abut.

30'-0" x 36'-0" Concrete Approach Slab, typ.



Bk. E. Abut. -

— @ Pier 3

51'-0"

∽ @ Pier 3

ℚ Brg. E. Abut.

- Bk. E. Abut.

Robert Whiteside, Illinois S.E. 081-008015 Expires 11/30/2024

Date

-Traffic Barrier Terminal Type 6 (Std. 631031), typ.

See Roadway Plans for pay items and quantities.

#### SCOPE OF WORK

- 1. Replace the transverse expansion joints.
- 2. Scarify the bridge deck and approach
- 3. Complete full depth deck slab repairs.
- 4. Place a microsilica concrete overlay.
- 5. Concrete repair of parapets. 6. Steel beam end repairs.
- 7. Concrete repair of substructure.

#### INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Data
- 3. Stage Construction Details
- 4. Temporary Concrete Barrier
- 5. Deck Overlay Plan
- 6. South Parapet Repairs
- 7-8. Expansion Joint Details
- 9. Preformed Joint Strip Seal
- 10. Beam End Repairs
- 11. Abutment Repairs
- 12. Pier 1 Repairs
- 13. Bar Splicer Assembly and Mechanical Spicer Details
- 14. Existing Plans Reference Sheet

#### DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges - LFD

#### DESIGN STRESSES FIELD UNITS (EXIST. CONST.)

#### f'c = 3,500 psi

fy = 60,000 psi (Reinforcement) fy = 50,000 psi (Structural Steel

M270 Grade 50) fy = 36,000 psi (Structural Steel

M270 Grade 36)

# FIELD UNITS (NEW CONST.)

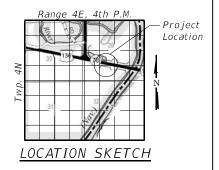
 $f'c = 4,000 \ psi$ 

fy = 60,000 psi (Reinforcement)

fy = 50,000 psi (M270 Grade 50)

#### LOADING HS-20

Existing and Proposed



GENERAL PLAN & ELEVATION US 136 OVER LACY DITCH

FAP ROUTE 315

SECTION [139,138(BC;BC-1)BR,BR-1]BRR

FULTON COUNTY

STRUCTURE NO. 029-0012



USER NAME = \$USER\$	DESIGNED - CFS	REVISED -
\$FILES\$	CHECKED - RPW	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - CFS	REVISED -
PLOT DATE =	CHECKED - MDC	REVISED -

90°0'0"

- @ Pier 1



#### GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts ¾" Ø, holes  $^{15}\!\!/_{16}$ " Ø, unless otherwise noted.

Calculated weight of Structural Steel = 860 lbs (M270 Grade 50).

All structural steel shall be AASHTO M270 Grade 50, unless otherwise noted.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

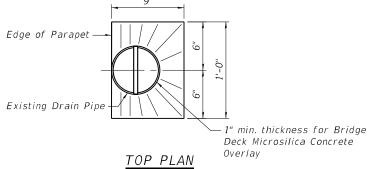
Existing reinforcement bars extending into the removal area shall be cleaned and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially deterimental 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.

The protective coat shall be applied to the new microsilica concrete overlay, new bridge deck concrete, and top and inside faces of the new portions of the parapets and wingwalls.

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.

All repair materials including structural steel angles, bolts, nuts and washers shall be galvanized per the special provision "Hot Dip Galvanizing for Structural Steel". Cost included in Structural Steel Repair.



Overlay Transition at 6" Ø Drain Pipes

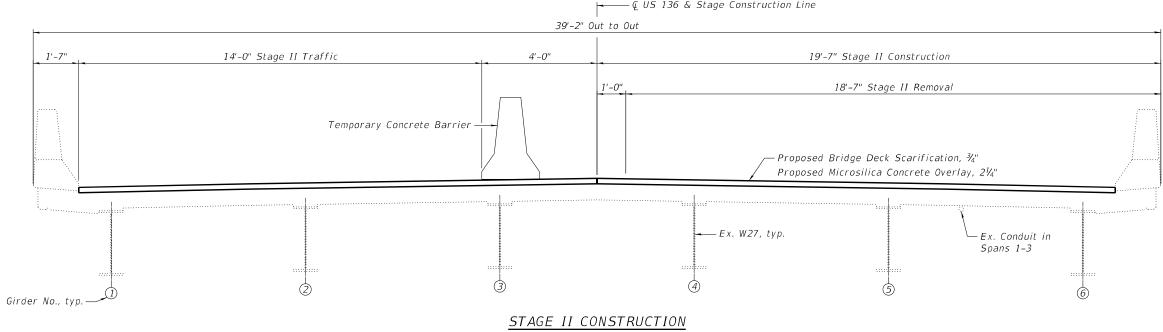
# TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Concrete Removal	Cu. Yd.	10.7	-	10.7
Concrete Superstructure	Cu. Yd.	12.0	-	12.0
Bridge Deck Grooving	Sq. Yd.	1,107	-	1,107
Protective Coat	Sq. Yd.	1,182	-	1,182
Reinforcement Bars, Epoxy Coated	Pound	1,800	-	1,800
Bar Splicers	Each	26	-	26
Preformed Joint Strip Seal	Foot	76	-	76
Structural Steel Repair	Pound	860	-	860
Bridge Deck Scarification ¾"	Sq. Yd.	1,153	-	1,153
Bridge Deck Microsilica Concrete Overlay 2½"	Sq. Yd.	1,153	-	1,153
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	7	6	13

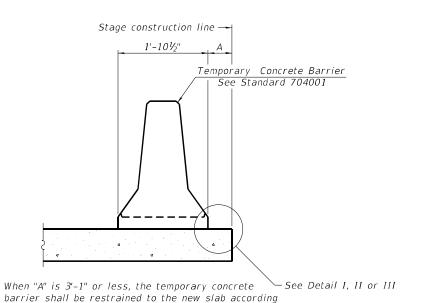
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	PLOT SCALE = \$SCALE\$	DRAWN - CFS	REVISED -	
	PLOT DATE =	CHECKED - MDC	REVISED -	

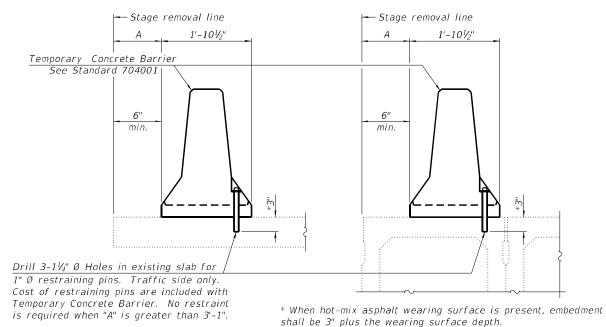
GENERAL DATA STRUCTURE NO. 029-0012		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		[139,138(BC;BC-1)BR,BR-1]BRF	FULTON	119	64
3111001011L 110: 023-0012			CONTRAC	T NO. 68	3H20
SHEET 2 OF 14 SHEETS		ILLINOIS FED	AID PROJECT		

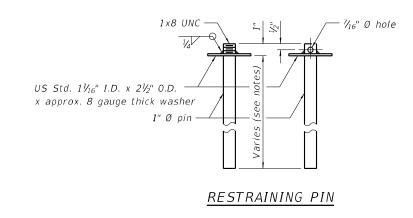
← Q US 136 & Stage Construction Line 39'-2" Out to Out 19'-7" Stage I Construction 5'-0" 13'-0" Stage I Traffic 1'-7" 20'-7" Stage I Removal 1'-0" -Temporary Concrete Barrier Proposed Bridge Deck Scarification, ¾" Proposed Microsilica Concrete Overlay, 21/4" — Ех. W27, typ. – Ex. Conduit in Spans 1-3 Girder No., typ.— STAGE I CONSTRUCTION (Looking East) 39'-2" Out to Out 1'-7" 14'-0" Stage II Traffic 4'-0" 19'-7" Stage II Construction



(Looking East)







NEW SLAB OR NEW DECK BEAM

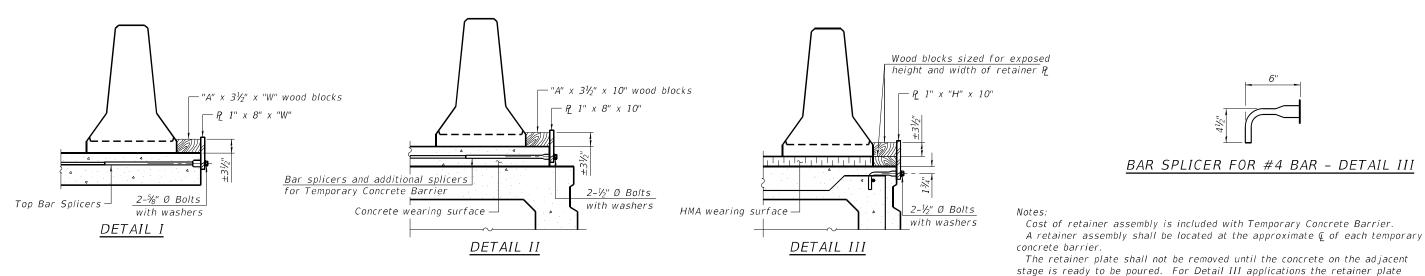
to Detail I, II or III. No restraint is required

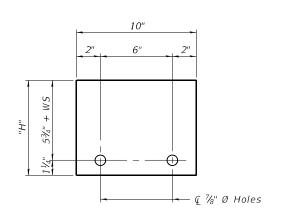
when "A" is greater than 3'-1".

EXISTING SLAB

EXISTING DECK BEAM

#### SECTIONS THRU SLAB OR DECK BEAM





STEEL RETAINER P 1" x "H" x 10"

(Detail III)

#### 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.

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

shall not be removed until just prior to placing the adjacent beam.

Detail I - Installation for a new bridge deck or bridge slab.

the shear key clamping device.

wearing surface.

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

Detail II - Installation for a new deck beam with an initial concrete wearing

BAR SPLICER FOR #4 BAR - DETAIL III

Detail I Detail II Detail I 2" Top bars Spa. 2" Detail II — Ç ¾" Ø Holes

# RAILING CRITERIA

NCHRP 350 Test Level Railing Weight (plf)

R-2710-12-2021

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

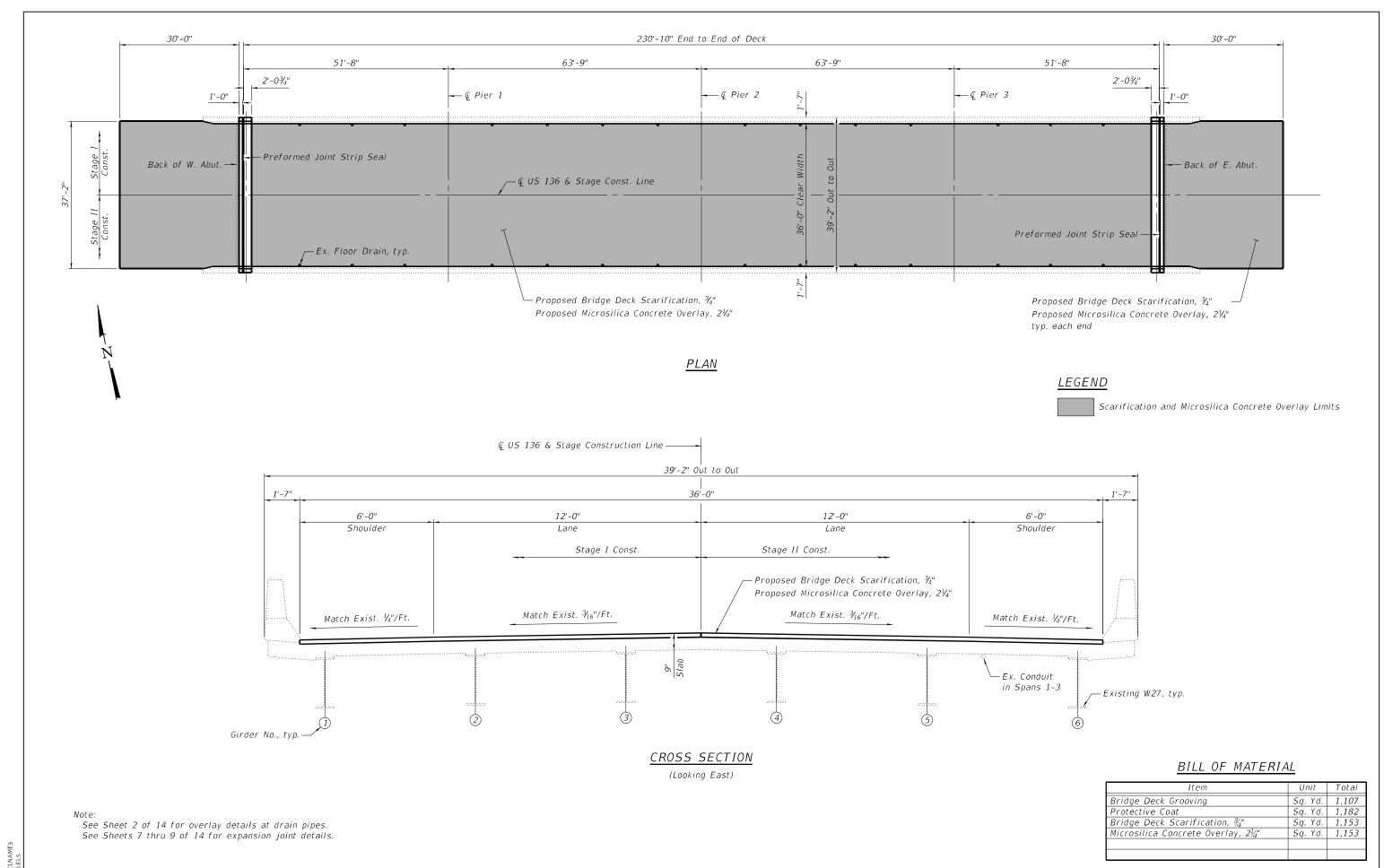
(Detail I and II)

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

TEMPORARY CONCRETE BARRIER	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STRUCTURE NO. 029-0012	315	[139,138(BC;BC-1)BR,BR-1]BRR	FULTON	119	66
311(00101/L 110: 023-0012			CONTRAC	T NO. 68	3H20
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

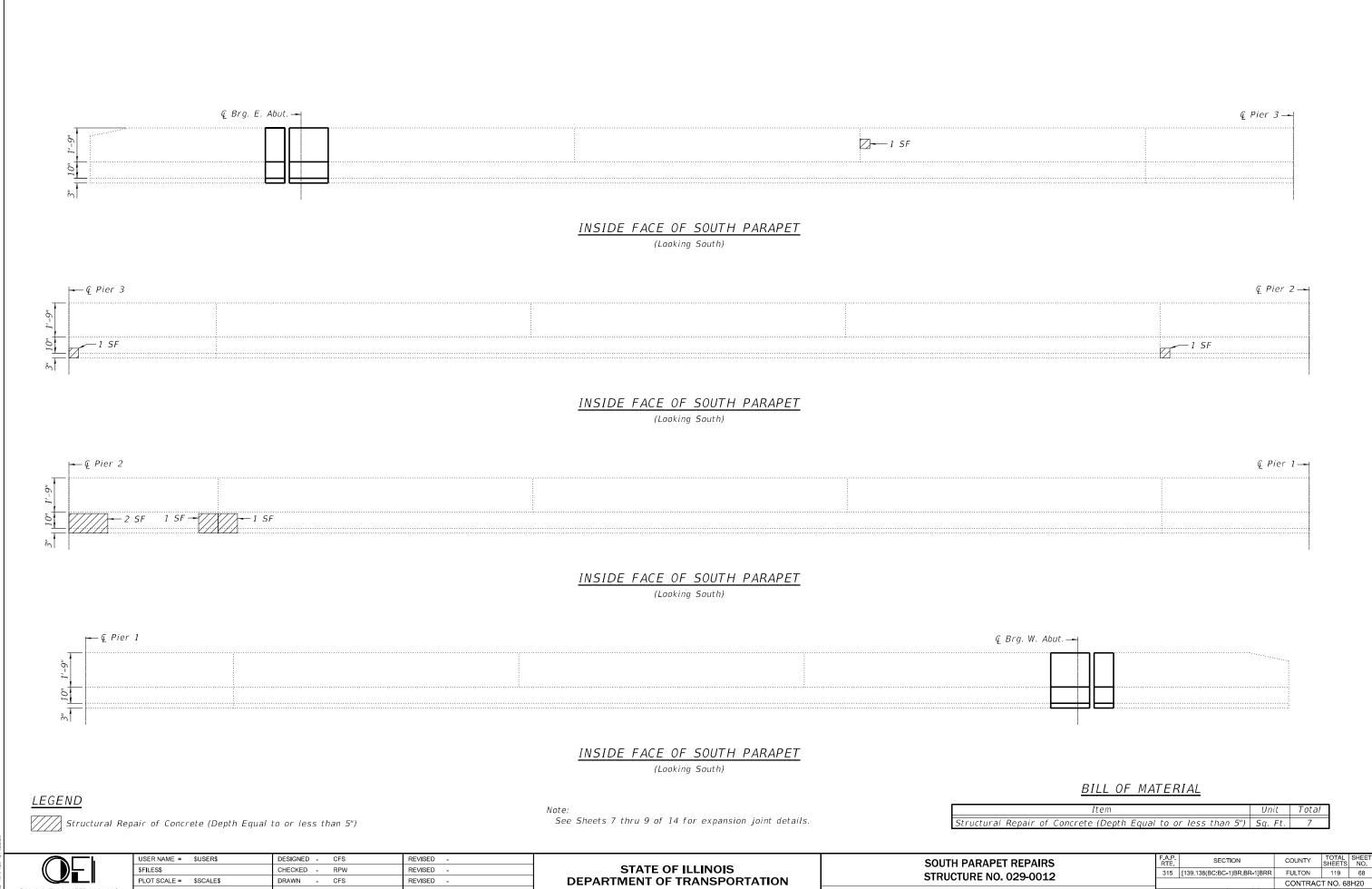
DECK OVERLAY PLAN
STRUCTURE NO. 029-0012

SHEET 5 OF 14 SHEETS

 
 FA.P. RTE.
 SECTION
 COUNTY
 TOTAL SHEETS
 SHEET NO.

 315
 [139,138(BC;BC-1)BR,BR-1]BRR
 FULTON
 119
 67

 CONTRACT NO.
 68H20



STRUCTURE NO. 029-0012

SHEET 6 OF 14 SHEETS

CONTRACT NO. 68H20

QUIGG ENGINEERING INC

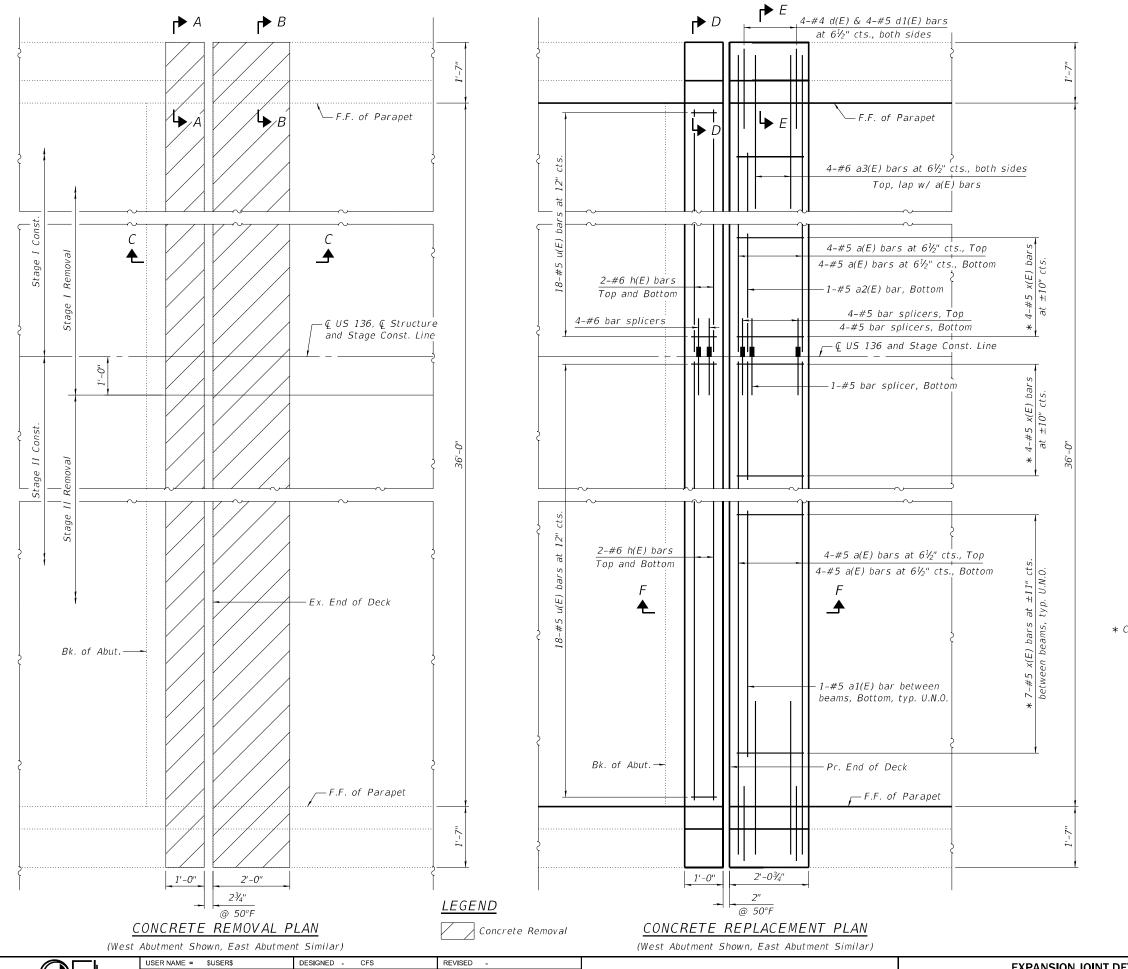
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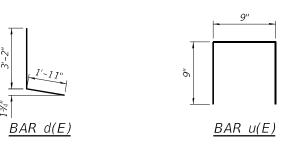
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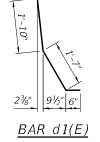
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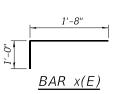
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#### Notes

Any reinforcement bars that are to remain that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Existing longitudinal and vertical reinforcement bars remaining and extending into the removal areas shall be cleaned, straightened and incorporated into the new construction. Cost included with Concrete Removal.

See Sheet 8 of 14 for sections.

See Sheet 5 of 14 for overlay details.

See Sheet 9 of 14 for joint seal details.

\* Cut to fit

## BILL OF MATERIAL

Bar	No.	Size	Leng	th		Shape	
a(E)	32	#5	18'-7"				
a1(E)	8	#5	6'-5	"	<b> </b>		
a2(E)	2	#5	3'-1	п	-		
a3(E)	16	#6	7'-4	!"	-		
d(E)	16	#4	5'-1	и		L	
d1(E)	16	#5	3'-1	1"		\	
h(E)	16	#6	17'-8	9"			
u(E)	72	#5	2'-3	,,,			
x(E)	72	#5	2'-8	<i>μ</i>			
	Iten	7		Unit	<u> </u>	Total	
Concrete	Removal		Cu. Y	d.	10.7		
Concrete .	Cu. Y	d.	12.0				
Reinforce	ment Bar	s, Epoxy	Coated	Pour	nd	1,800	

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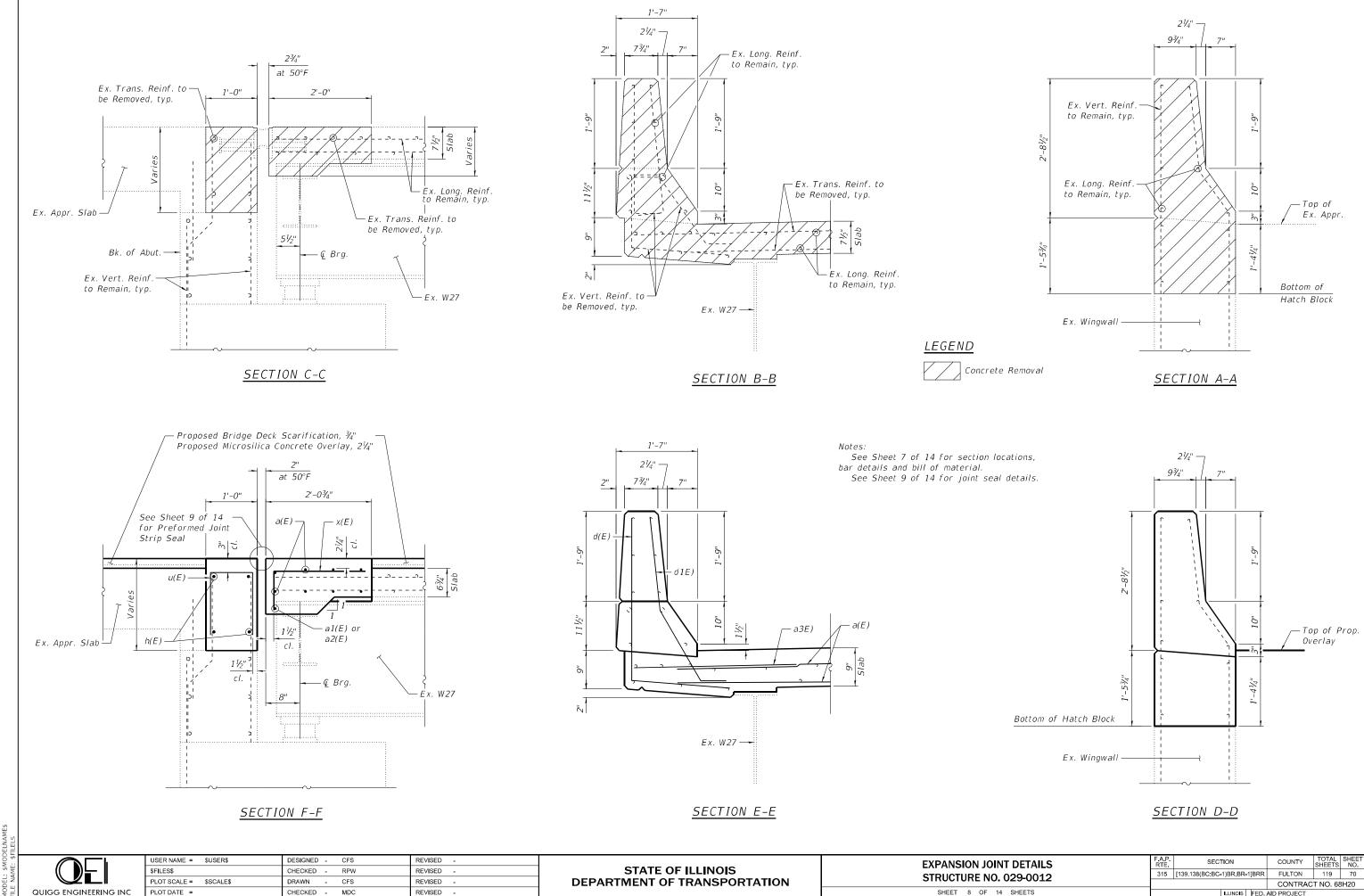
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT DETAILS
STRUCTURE NO. 029-0012

SHEET 7 OF 14 SHEETS

F.A.P.	SECTION	COUNTY	TOTAL SHEETS	NO.
315	[139,138(BC:BC-1)BR,BR-1]BRR	FULTON	119	69
CONTRACT NO. 68H20				
LLINOIS	FED. AID PROJECT			



QUIGG ENGINEERING INC

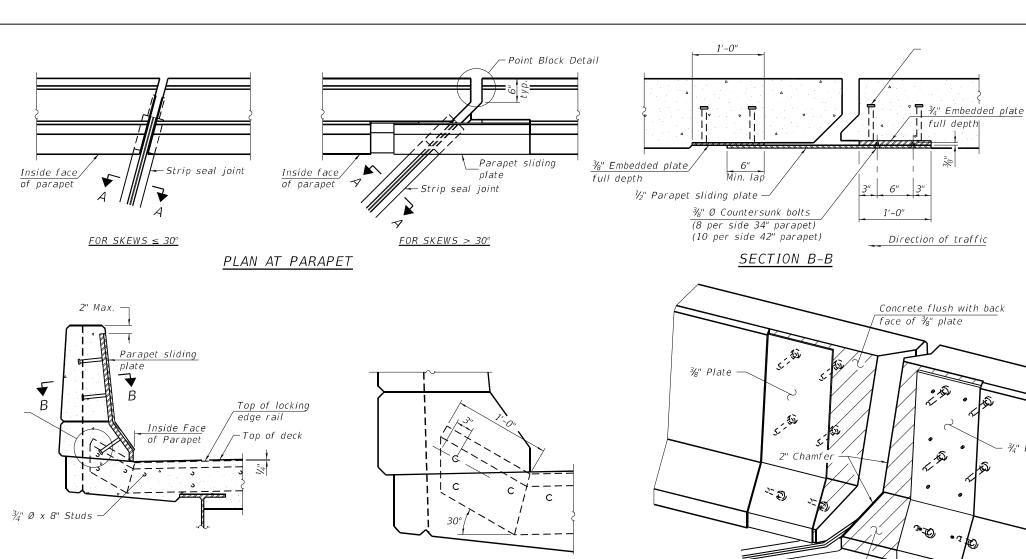
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**DEPARTMENT OF TRANSPORTATION** 

SHEET 8 OF 14 SHEETS

CONTRACT NO. 68H20



Concrete flush with back, face of ¾" plate

TRIMETRIC VIEW

(Showing embedded plates only)

#### Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ½". 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.

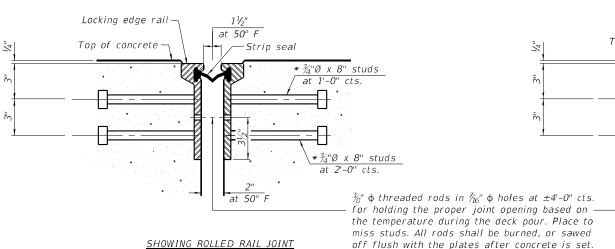
The manufacturer's recommended installation methods shall be followed.

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  $\frac{3}{6}$ " 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.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal. 34" F-shape barrier shown, 42" F-shape similar as noted.

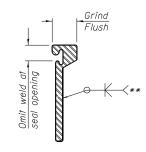
The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to 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.



Locking edge rail-11/5" at 50° F Top of concrete —Strip seal \*¾"0 x 8" studs at 1'-0" cts. \*<sup>3</sup>⁄4"Ø x 8" studs at 2'-0" cts. <u>ROLLED</u> WELDED RAIL (EXTRUDED) RAIL 23/4" at 50° F

# 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	76

#### SECTION A-A

DETAIL A

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

·
OLUGG ENGINEERING INC

EJ-SS (TALL WITH GUTTER)

ELEVATION AT PARAPET (Skews > 30° shown. Skews ≤ 30° similar

except as shown in plan view.)

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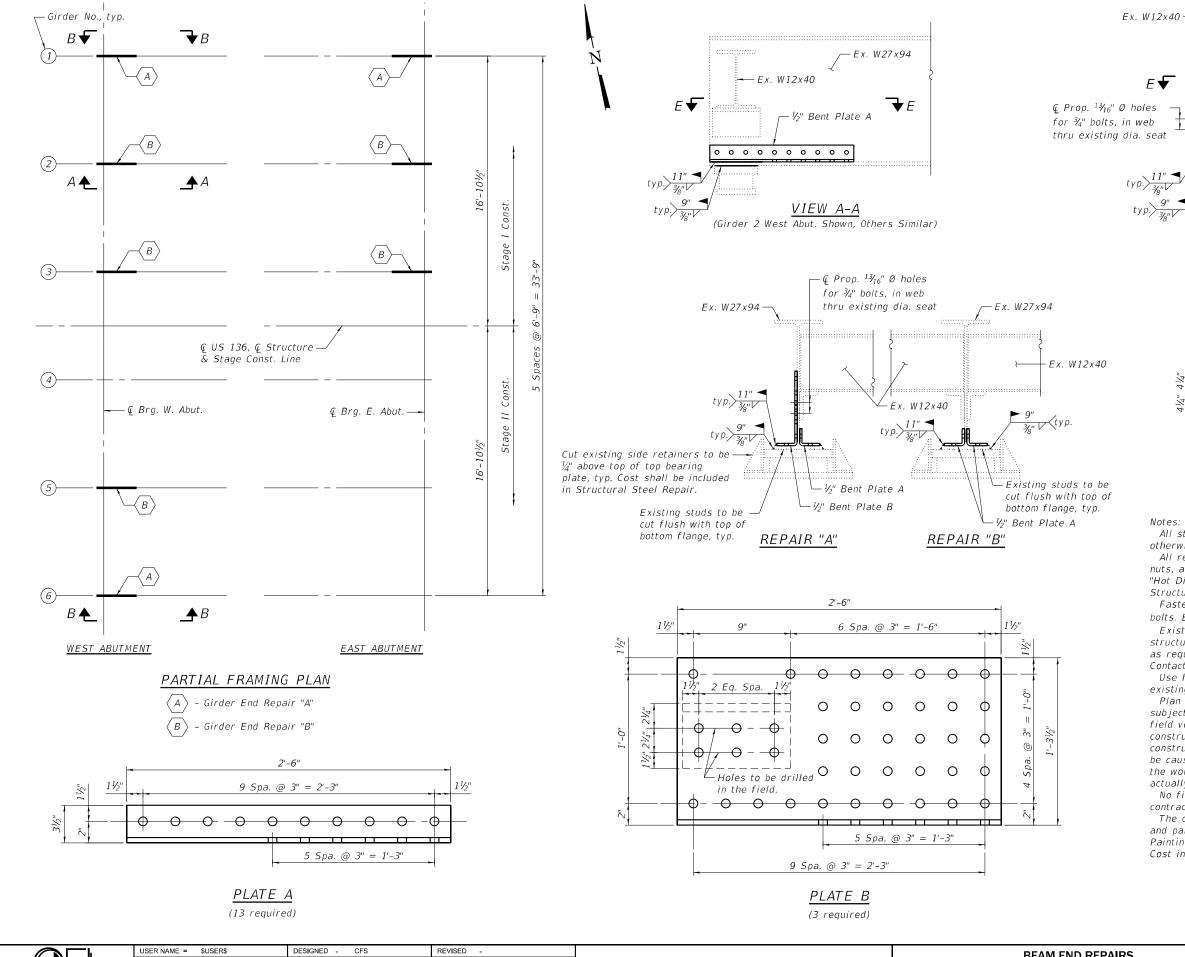
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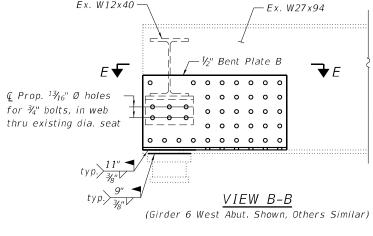
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

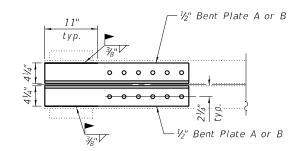
SHOWING WELDED RAIL JOINT

PREFORMED JOINT STRIP SEAL STRUCTURE NO. 029-0012									
	SHEET	9	OF	14	SHEETS				

A.P. TE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.		
15	[139,138(BC;BC	1)BR,BR-1]BRR	FULTON	119	71		
			CONTRAC	T NO. 68	3H20		
	ILLINOIS FED. AID PROJECT						







SECTION E-E

Notes:

All structural steel shall be AASHTO M270 Grade 50, unless

All repair materials including structural steel plates, bolts, nuts, and washers shall be galvanized per the special provision "Hot Dip Galvanizing for Structural Steel". Cost included in Structural Steel Repair.

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts  $\frac{3}{4}$ "  $\emptyset$ , holes  $\frac{13}{16}$ "  $\emptyset$ , unless otherwise noted.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Use holes in new steel as template to field drill holes in existing steel.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be caused for additional compensation for 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.

No field welding is permitted except as specified in the contract documents.

The cut area of the existing side retainers shall be cleaned and painted as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures." Cost included with Structural Steel Repair.

### BILL OF MATERIAL

Item	Unit	Total
Structural Steel Repair	Pound	860

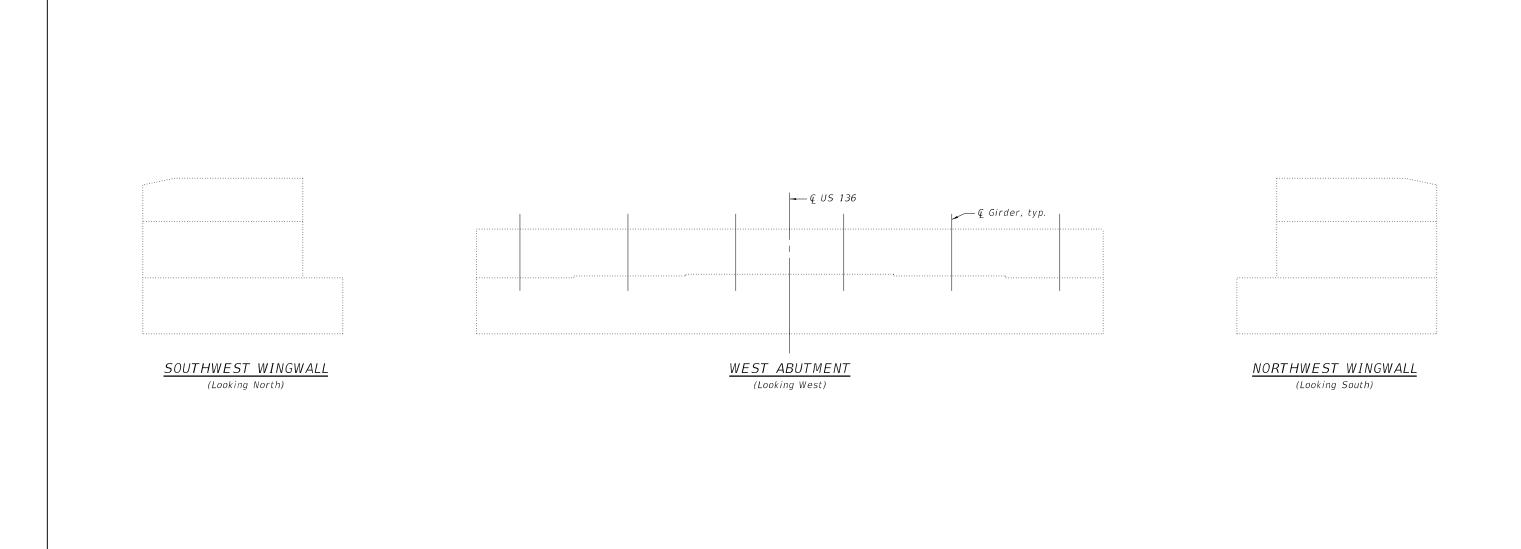


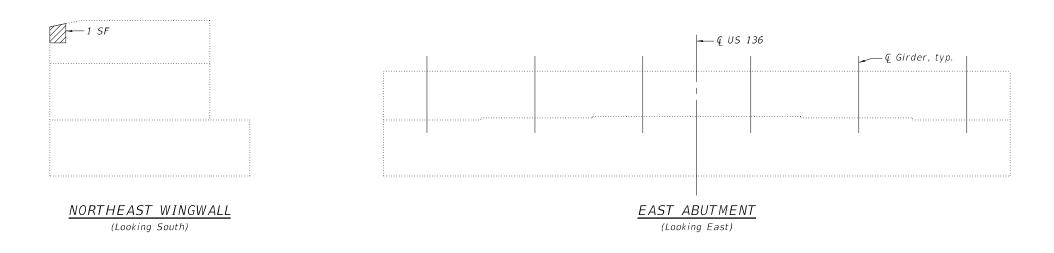
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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

**BEAM END REPAIRS STRUCTURE NO. 029-0012** SHEET 10 OF 14 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.	
315	[139,138(BC;BC-1)BR,BR-	FULTON	119	72	
		CONTRAC	T NO. 68	3H20	
	ILLINOIS.	EED	AID DRO IECT		





SOUTHEAST WINGWALL (Looking North)

# BILL OF MATERIAL

Item Unit Total
Structural Repair of Concrete (Depth Equal to or less than 5") Sq. Ft. 1

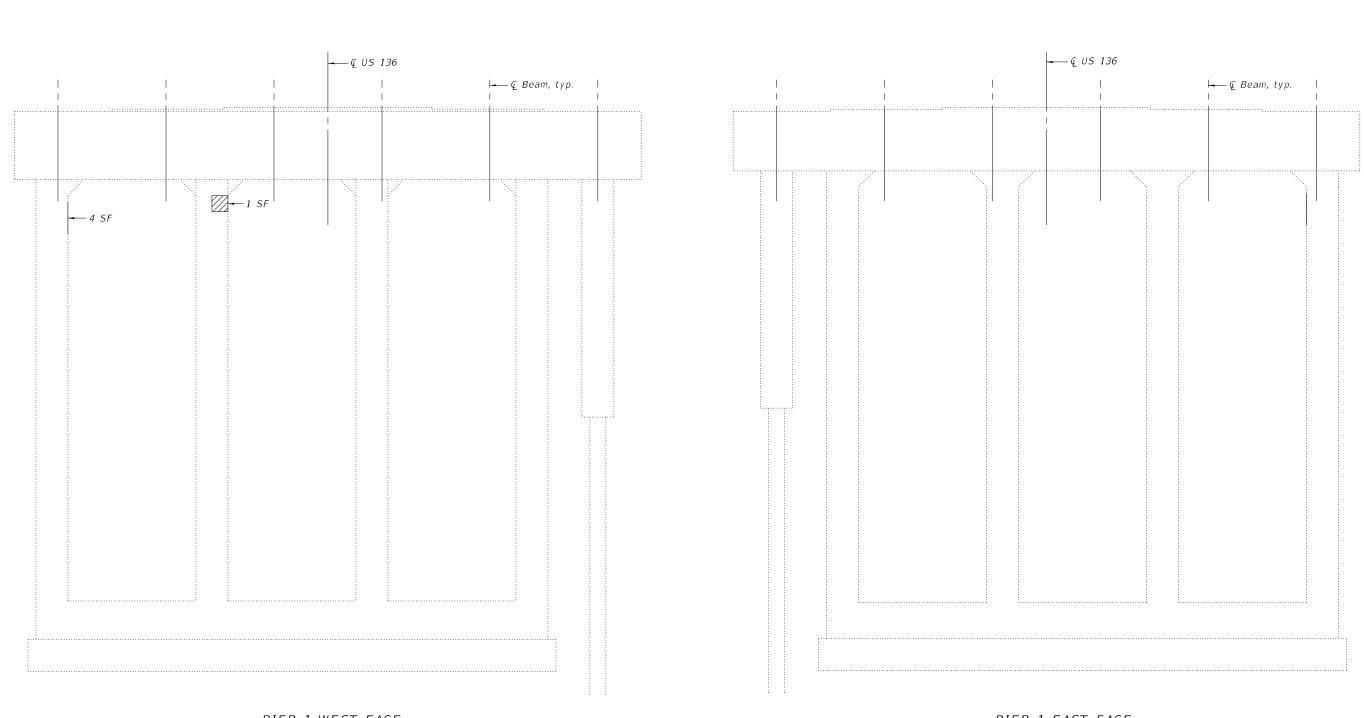
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Structural Repair of Concrete (Depth Equal to or less than 5")

ABUTMENT REPAIRS STRUCTURE NO. 029-0012		F.A.P. SECTION COUNTY		TOTAL SHEETS	SHEET NO.
		315 [139,138(BC;BC-1)BR,BR-1]BRR FULTON		119	73
			CONTRAC	T NO. 68	3H20
SHEET 11 OF 14 SHEETS		ILLINOIS FFD.	AID PROJECT		

*LEGEND* 



PIER 1 WEST FACE (Looking East)

PIER 1 EAST FACE (Looking West)

# <u>LEGEND</u>

Structural Repair of Concrete (Depth Equal to or less than 5")

# BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or less than 5")	Sq. Ft.	5

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(( <b>D)</b> <u> </u>	97
	F
NUICO ENCINEEDINO INC	-

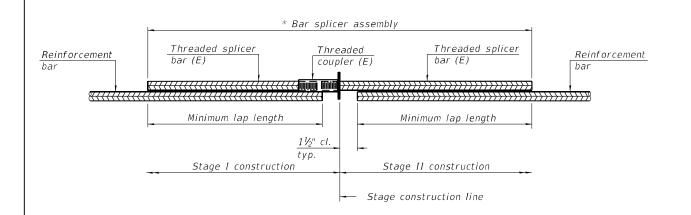
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 REPAIRS				F.A.P. RTE	SECTIO	
STRUCTURE NO. 029-0012			315	[139,138(BC;BC-1)		
3111001	UIN	_ 14	<u> </u>	72J-0012		
SHEET	12	OF	14	SHEETS		

CTION COUNTY TOTAL SHEETS NO.

1-1)BR,BR-1]BRR FULTON 119 74 CONTRACT NO. 68H20



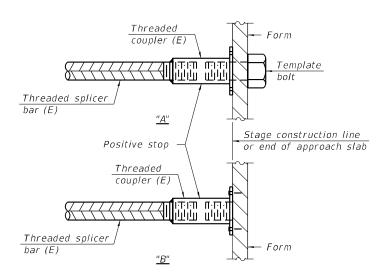
### STANDARD BAR SPLICER ASSEMBLY PLAN

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

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

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

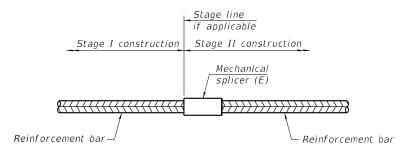
Location	Bar size	No. assemblies required	Minimum lap length
Bridge Deck Side of Exp. Joint	#5	18	3'-4"
Appr. Side of Exp. Joint	#6	8	4'-0"



# 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.

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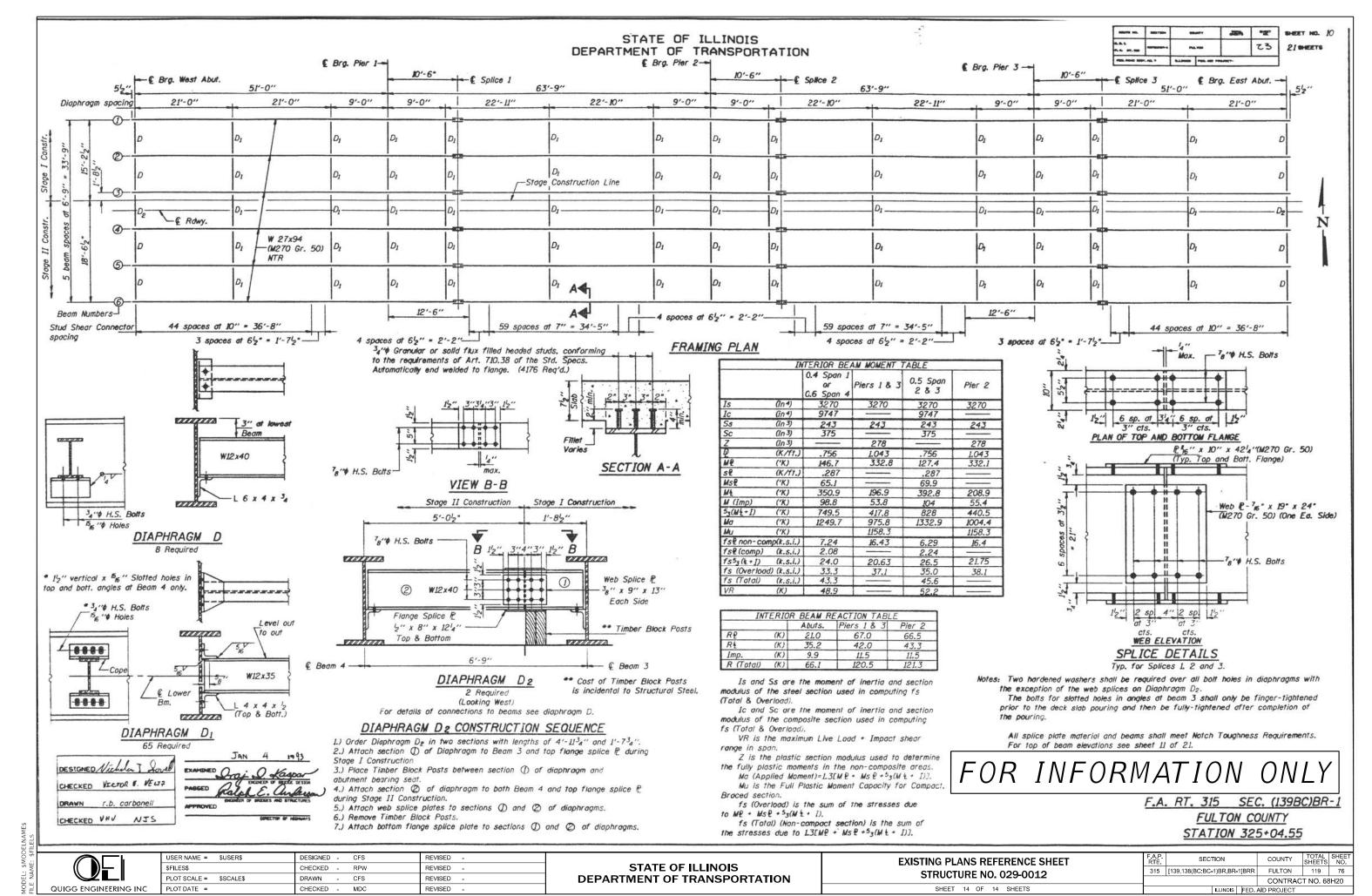
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 029-0012

SHEET 13 OF 14 SHEETS



\$DATE\$ \$TIME\$

Existing Structure: SN 029-0055, originally built in 1989 as a four-span plate girder superstructure with stub abutments and solid wall piers. The back to back length = 390'-6" and the out to out width = 35'-2". Structure is to be repaired as detailed in these plans. Traffic is to be maintained using stage construction.

No salvage

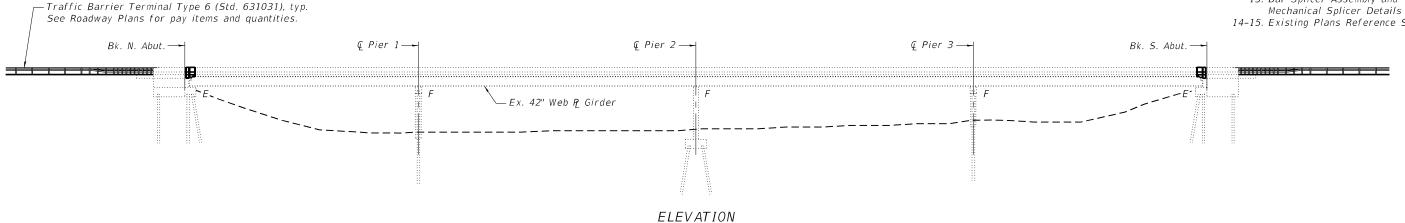


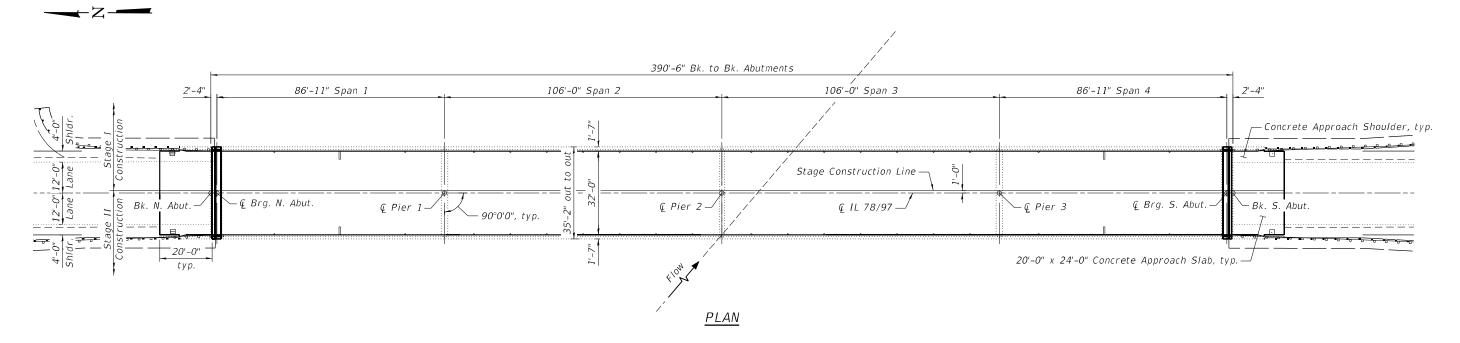
12/14/2023

Expires 11/30/2024

# INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Data
- 3. Stage Construction Details 4. Temporary Concrete Barrier
- 5. Deck Overlay Plan 6. Drain Adjusting Details 7. Parapet Repairs
- 8-9. Expansion Joint Details
- 10. Preformed Joint Strip Seal
- 11. Beam End Repairs
- 12. Abutment Repairs
- 13. Bar Splicer Assembly and
- 14-15. Existing Plans Reference Sheets





# DESIGN STRESSES

FIELD UNITS (EXIST. CONST.)

 $f'c = 3,500 \ psi$ 

 $f_V = 60,000$  psi (Reinforcement)

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

fy = 36,000 psi (M-183, Structural Steel)

FIELD UNITS (NEW CONST.)

f'c = 4,000 psi

fy = 60,000 psi (Reinforcement)

fy = 36,000 psi (M270 Grade 36) fy = 50,000 psi (M270 Grade 50) LOADING HS20-44 Existing and Proposed

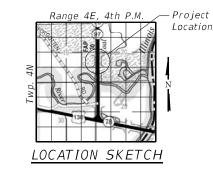
#### DESIGN SPECIFICATIONS 2002 AASHTO Standard Specifications

for Highway Bridges - LFD

# SCOPE OF WORK

- 1. Replace the transverse expansion joints.
- 2. Scarify the bridge deck and approach pavements.
- 3. Complete full depth deck repairs.
- 4. Place a microsilica concrete overlay.
- 5. Concrete repair of parapets.
- 6. Steel beam end repairs.

7. Concrete repair of abutments.



GENERAL PLAN AND ELEVATION IL 78/97 OVER SPOON RIVER OVERFLOW FAP ROUTE 30 <u>SECTION [139,138(BC;BC-1)BR,BR-1]BRR</u> FULTON COUNTY STRUCTURE NO. 029-0055

QUIGG ENGINEERING INC

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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

GENERAL PLAN AND ELEVATION		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STRUCTURE NO. 029-0055		30 [139,138(BC;BC-1)BR,BR-1]BRR FULT		119	77
31K0010KE NO. 023-0033			CONTRAC	T NO. 68	3H20
SHEET 1 OF 15 SHEETS		ILLINOIS FED.	AID PROJECT		

### GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts  $\frac{3}{4}$ " Ø, holes  $\frac{1}{2}$ 16" Ø, unless otherwise noted.

Calculated weight of Structural Steel = 390 lbs (M270 Grade 50)

All structural steel shall be AASHTO M270 Grade 50, unless otherwise noted.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Any reinforcement bars that are to remain that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Existing longitudinal and vertical reinforcement bars remaining and extending into the removal areas shall be cleaned, straightened and incorporated into the new construction. Cost included with Concrete Removal.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially deterimental 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.

The protective coat shall be applied to the new microsilica concrete overlay, new bridge deck concrete, and top and inside faces of the new portions of the parapets and wingwalls.

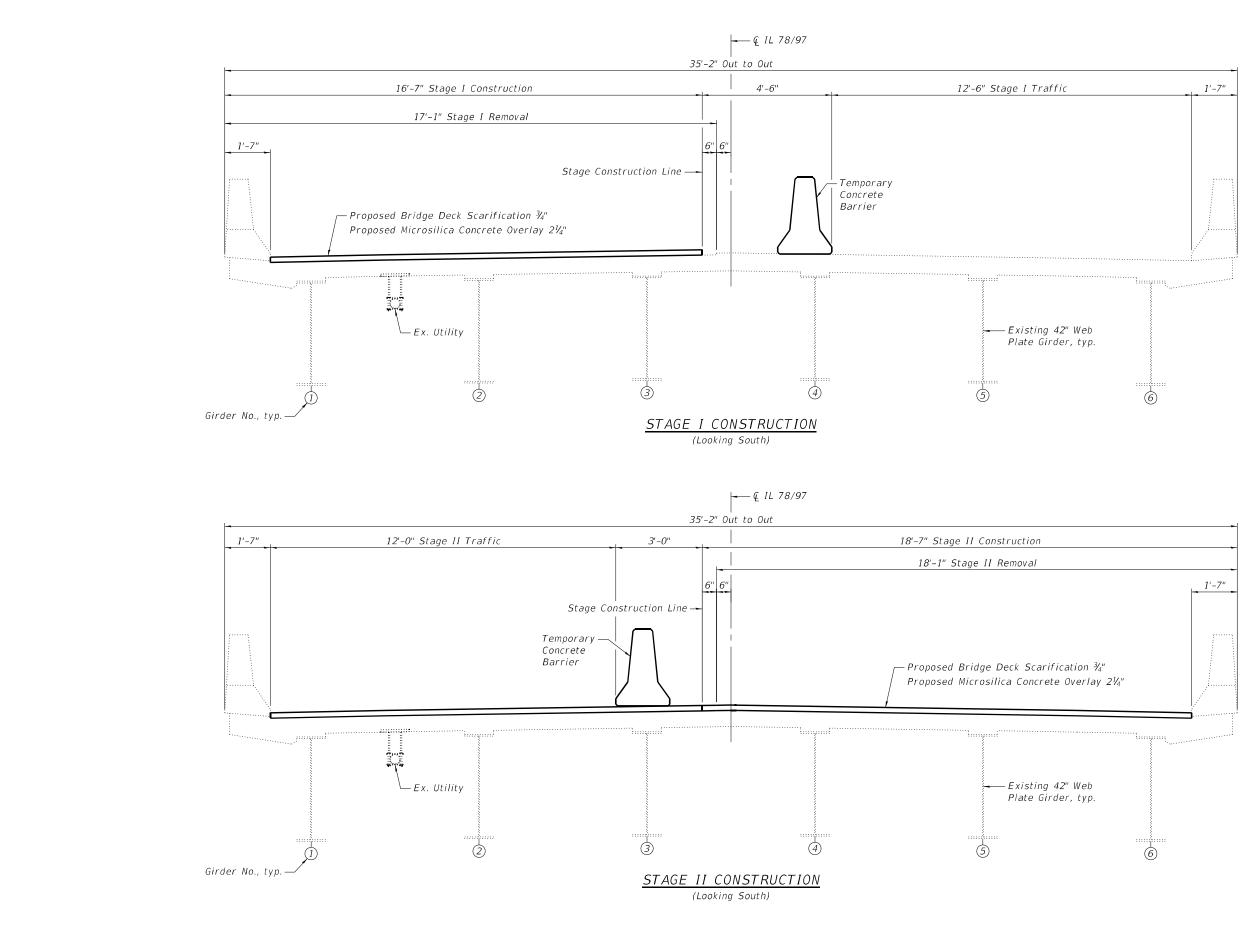
Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50°F.

All repair materials including structural steel plates, bolts, nuts and washers shall be galvanized per the special provision "Hot Dip Galvanizing for Structural Steel". Cost included in Structural Steel Repair.

#### TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Concrete Removal	Cu. Yd.	10.4	-	10.4
Concrete Superstructure	Cu. Yd.	11.4	-	11.4
Bridge Deck Grooving	Sq. Yd.	1,431	-	1,431
Protective Coat	Sq. Yd.	1,531	-	1,531
Reinforcement Bars, Epoxy Coated	Pound	1,600	-	1,600
Bar Splicers	Each	26	-	26
Preformed Joint Strip Seal	Foot	68	-	68
Inlets to be Adjusted	Each	4	-	4
Structural Steel Repair	Pound	390	-	390
Bridge Deck Scarification ¾"	Sq. Yd.	1,504	í	1,504
Bridge Deck Microsilica Concrete Overlay 2¼"	Sq. Yd.	1,504	1	1,504
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	10	55	65
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	2	-	2
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	4	Í	4
Drainage Scuppers to be Adjusted	Each	4	-	4

USER NAME = \$USER\$	DESIGNED - ZLD	REVISED -	
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PLOT DATE =	CHECKED - MDC	REVISED -	



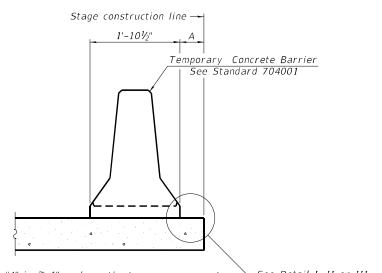
QUIGG ENGINEERING INC

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS STRUCTURE NO. 029-0055 SHEET 3 OF 15 SHEETS

SECTION COUNTY 30 [139,138(BC;BC-1)BR,BR-1]BRR FULTON 119 79 CONTRACT NO. 68H20



∽ See Detail I, II or III When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

# - Stage removal line ← Stage removal line 1'-101/2" 1'-101/2" Temporary Concrete Barrier See Standard 704001 6" min. min. 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 \* When hot-mix asphalt wearing surface is present, embedment is required when "A" is greater than 3'-1".

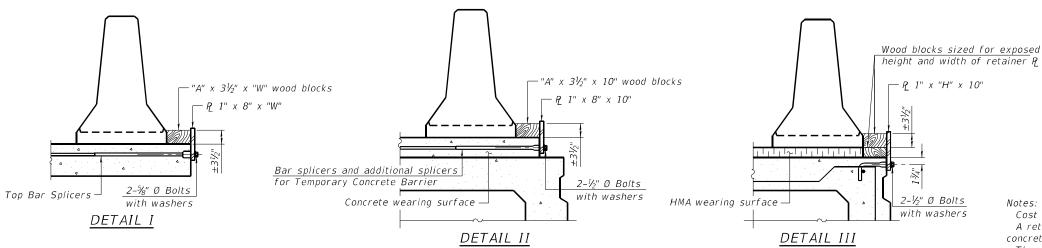
shall be 3" plus the wearing surface depth.

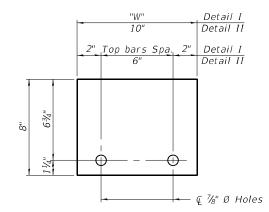
EXISTING DECK BEAM

# NEW SLAB OR NEW DECK BEAM

# SECTIONS THRU SLAB OR DECK BEAM

EXISTING SLAB



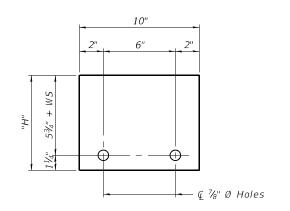


STEEL RETAINER P 1" x 8" x "W"

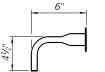
(Detail I and II)

# RAILING CRITERIA NCHRP 350 Test Level

Railing Weight (plf) R-2710-12-2021



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



RESTRAINING PIN

# BAR SPLICER FOR #4 BAR - DETAIL III

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

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.

1x8 UNC

1" Ø pin

US Std. 11/16" I.D. x 21/2" O.D. x approx. 8 gauge thick washer

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.

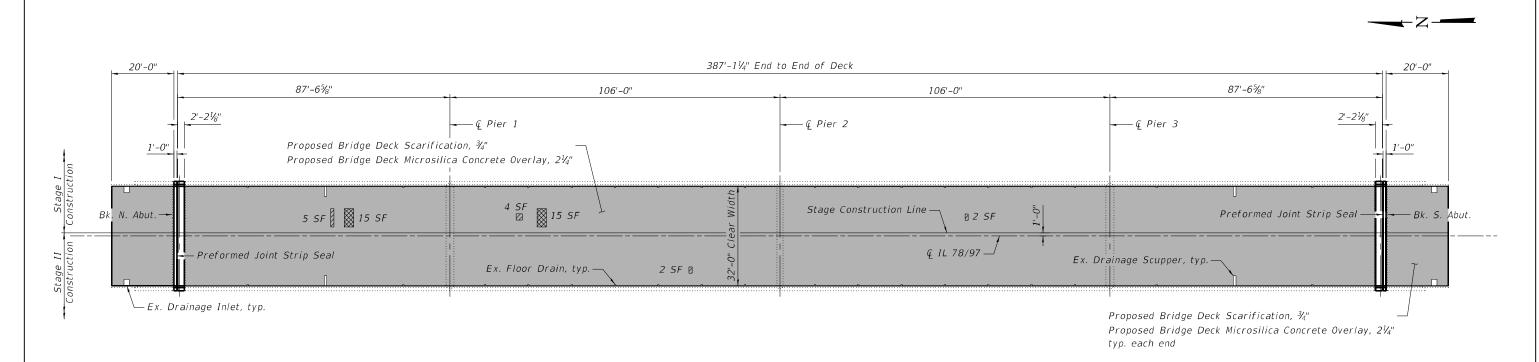
- Detail I Installation for a new bridge deck or bridge slab.
- Detail II Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate 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.

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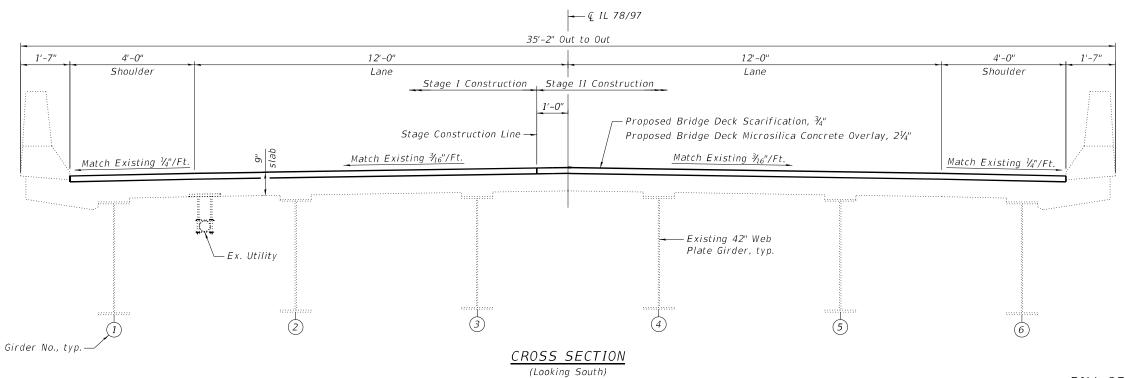
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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

SECTION **TEMPORARY CONCRETE BARRIER** 30 [139,138(BC;BC-1)BR,BR-1]BRR FUI TON 119 80 **STRUCTURE NO. 029-0055** CONTRACT NO. 68H20 SHEET 4 OF 15 SHEETS



# <u>PLAN</u>



# <u>LEGEND</u>

Deck Slab Repair (Full Depth, Type I)

Deck Slab Repair (Full Depth, Type II)

Scarification and Microsilica Concrete Overlay Limits

#### Notes.

See sheet 6 of 15 for overlay details at drainage scupper and drain pipes.

See sheets 8 thru 10 of 15 for expansion joint replacement details.

Deck Slab Repair (Full Depth, Type I) and Deck Slab Repair (Full Depth, Type II) areas are estimated and will be field verified by the Engineer prior to patching. The Engineer shall show actual locations of deck repairs on as-built plans.

# BILL OF MATERIAL

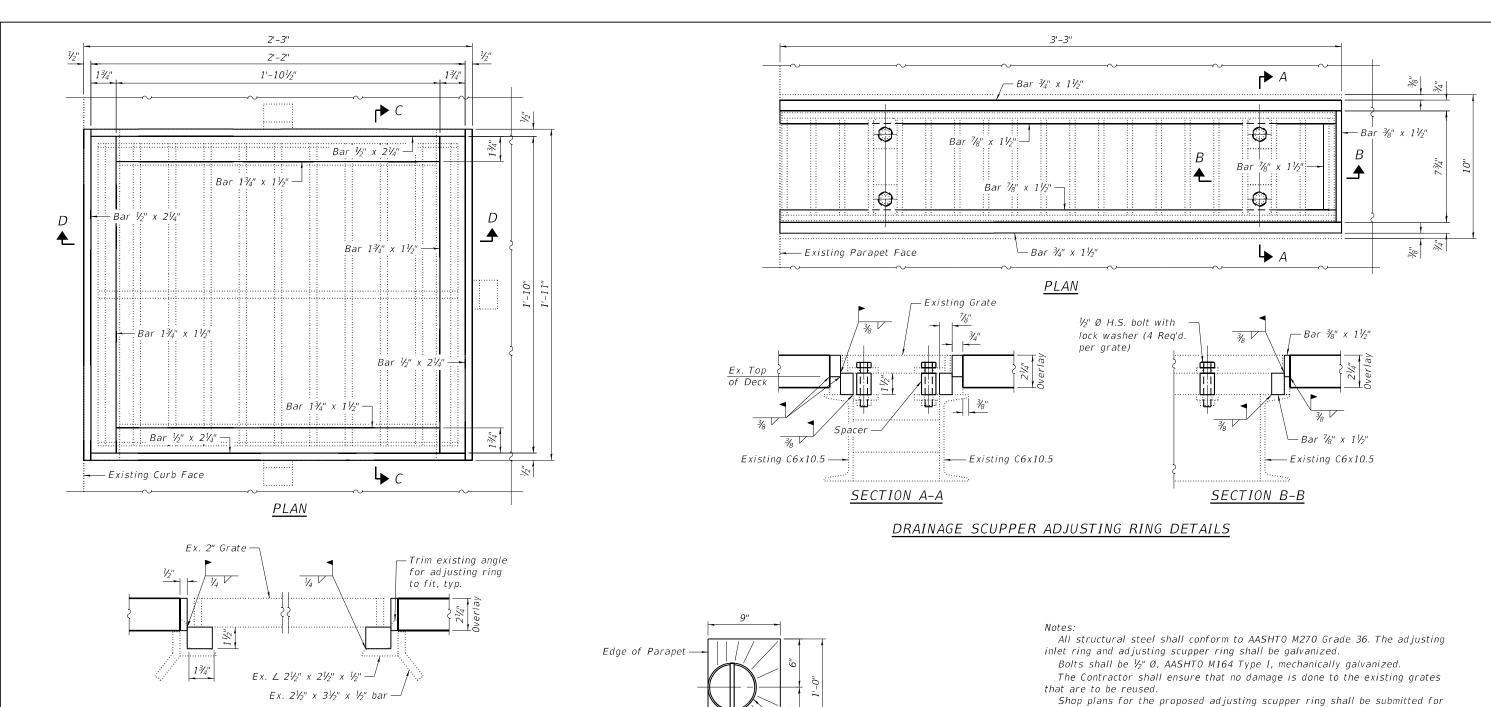
Item	Unit	Total
Bridge Deck Grooving	Sq. Yd.	1,431
Protective Coat	Sq. Yd.	1,531
Bridge Deck Scarification ¾"	Sq. Yd.	1,504
Bridge Deck Microsilica Concrete Overlay 21/4"	Sq. Yd.	1,504
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	2
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	4

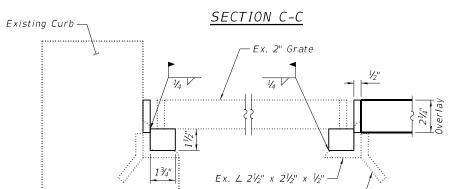
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PLOT DATE =	CHECKED - MDC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK OVERLAY PLAN		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STRUCTURE NO. 029-0055		30 [139,138(BC;BC-1)BR,BR-1]BRR FULTC		119	81
511(00101) 140: 025-0055			CONTRAC	T NO. 68	3H20
SHEET 5 OF 15 SHEETS		ILLINOIS FFD.	AID PROJECT		





# SHOULDER INLET ADJUSTING RING DETAILS

SECTION D-D

Ex.  $2\frac{1}{2}$ " x  $3\frac{1}{2}$ " x  $\frac{1}{2}$ " bar

Shop plans for the proposed adjusting scupper ring shall be submitted for approval prior to fabrication.

Cost of all labor and materials necessary to remove existing grates, clean existing scuppers, install adjusting scupper rings and reinstall grates is included in the cost per unit each for Drainage Scuppers to be Adjusted.

Shop plans for proposed adjusting inlet ring shall be submitted for approval prior to fabrication.

Cost of all labor and materials necessary to remove existing grates, clean existing inlets, install adjusting inlet rings and reinstall grates is included in the cost per unit each for Inlets to be Adjusted.

### BILL OF MATERIAL

Item	Unit	Total
Inlets to be Adjusted	Each	4
Drainage Scuppers to be Adjusted	Each	4



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PLOT DATE =	CHECKED -	MDC	REVISED -

TOP PLAN

Overlay Transition at 6" Ø Drain Pipes

1" min. thickness for Bridge

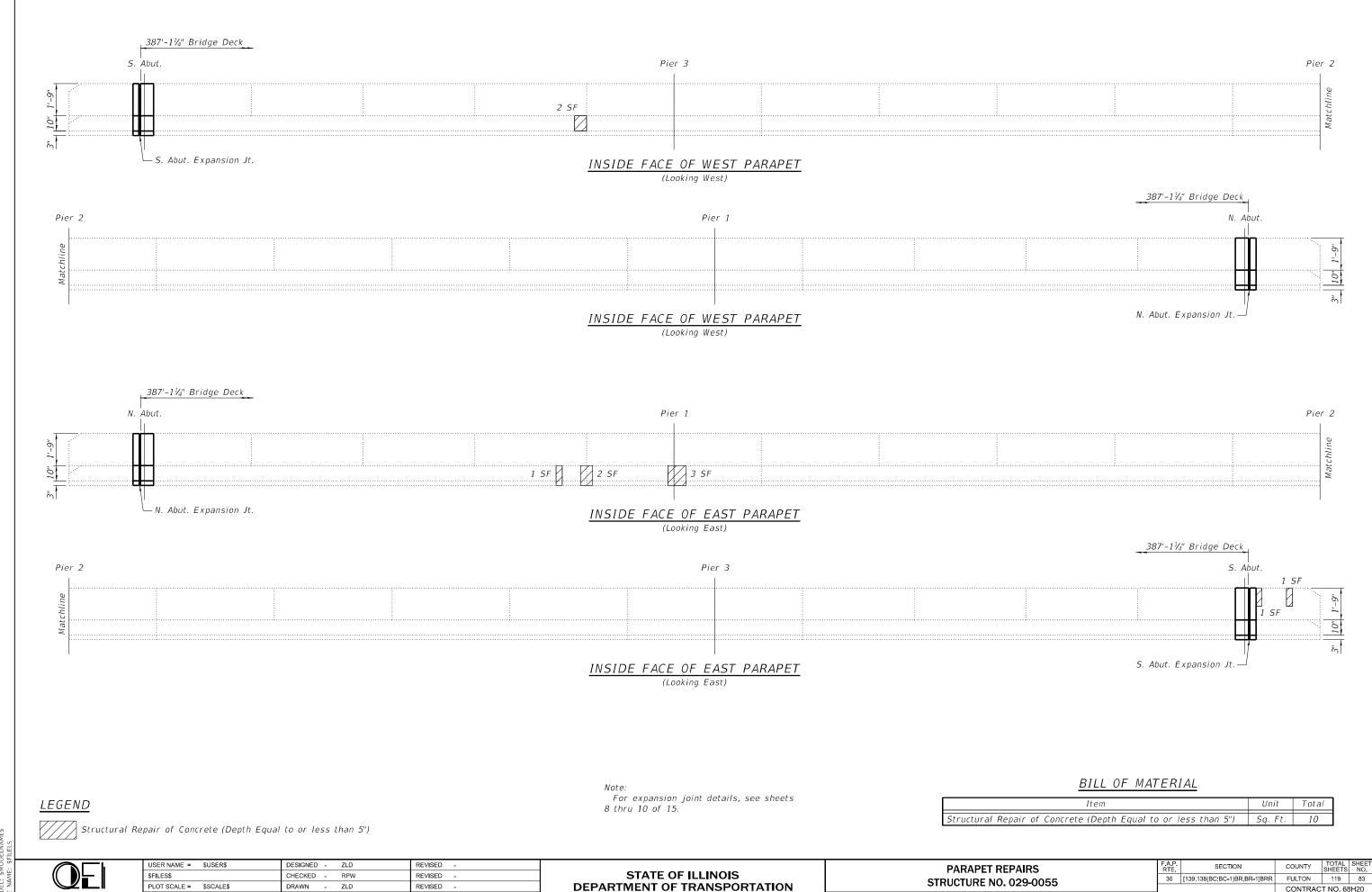
Deck Microsilica Concrete

Overlay

Existing Drain Pipe

DRAIN A	۹D.	IUST	ING	DETAILS	
STRUCT	ΓUR	RE N	0. 0	29-0055	
OHEET		0-	4.5	CHEETO	

P. E.	SECT	ΓΙΟΝ		COUNTY	TOTAL SHEETS	SHEET NO.
0	[139,138(BC;BC-	-1)BR,BR-1]BRR		FULTON	119	82
				CONTRAC	T NO. 68	3H20
		ILLINOIS	FED.	AID PROJECT		



CONTRACT NO. 68H20

SHEET 7 OF 15 SHEETS

QUIGG ENGINEERING INC

PLOT SCALE = \$SCALE\$

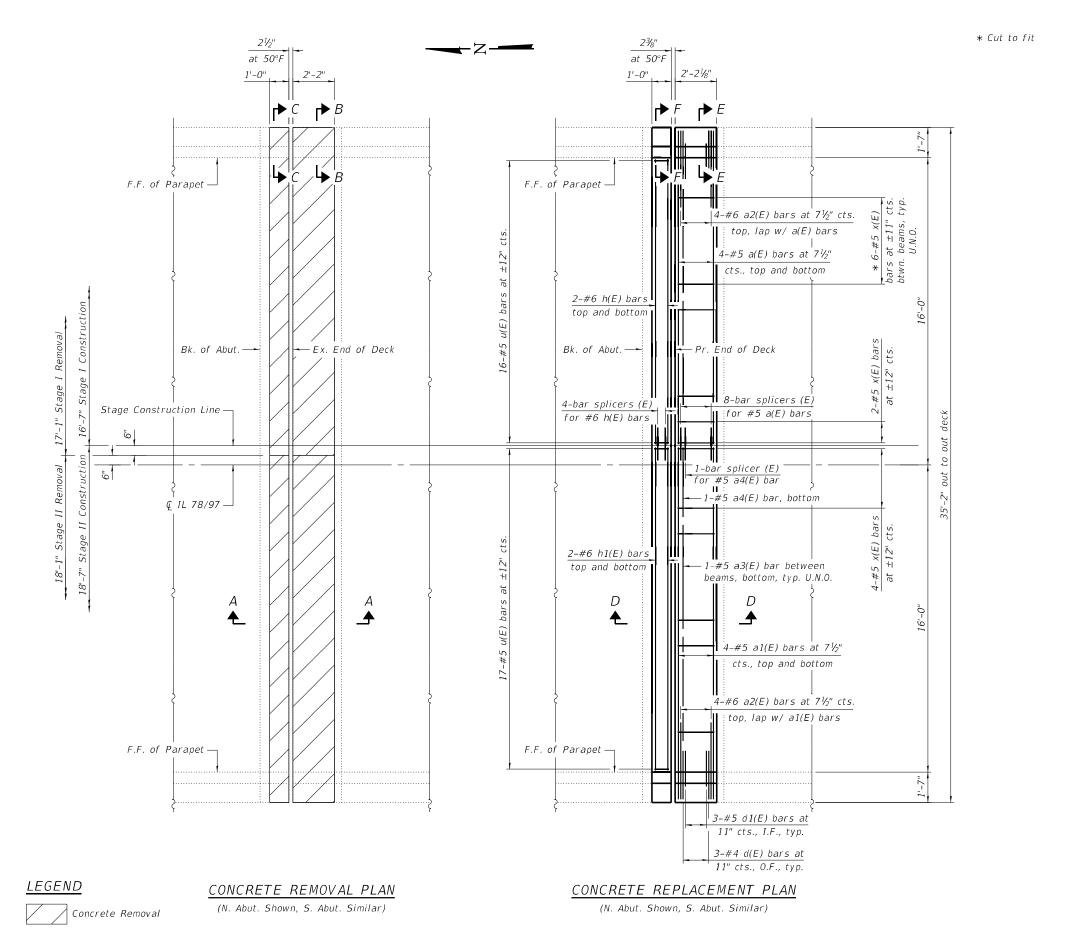
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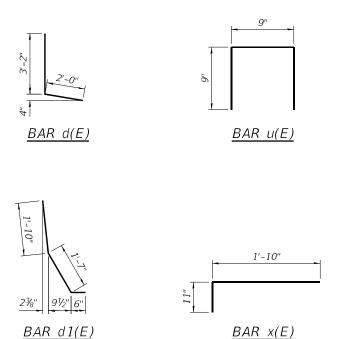
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REVISED -

REVISED -





#### Notes:

Any reinforcement bars that are to remain that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Existing longitudinal and vertical reinforcement bars remaining and extending into the removal areas shall be cleaned, straightened and incorporated into the new construction. Cost included with Concrete Removal.

See sheet 9 of 15 for sections.

See sheet 5 of 15 for overlay details.

See sheet 10 of 15 for joint seal details.

# BILL OF MATERIAL

Bar	No.	Size	Leng	th	Shape
a(E)	16	#5	16'-0"		
a1(E)	16	#5	18'-0"		
a2(E)	16	#6	7'-4	l"	
a3(E)	8	#5	5'-5	5"	
a4(E)	2	#5	3'-7	***	
d(E)	12	#4	5'-2	2"	L
d1(E)	12	#5	3'-11"		\
h(E)	8	#6	14'-8	8"	
h1(E)	8	#6	16'-8	8"	
u(E)	66	#5	2'-3	3"	
x(E)	60	#5	2'-9	?"	
Item				Unit	Total
Concrete	Cu. Yo	1. 10.4			
Concrete	Cu. Yo	1. 11.4			
Reinforce	ment Bar	s, Epoxy	Coated	Pound	1,600

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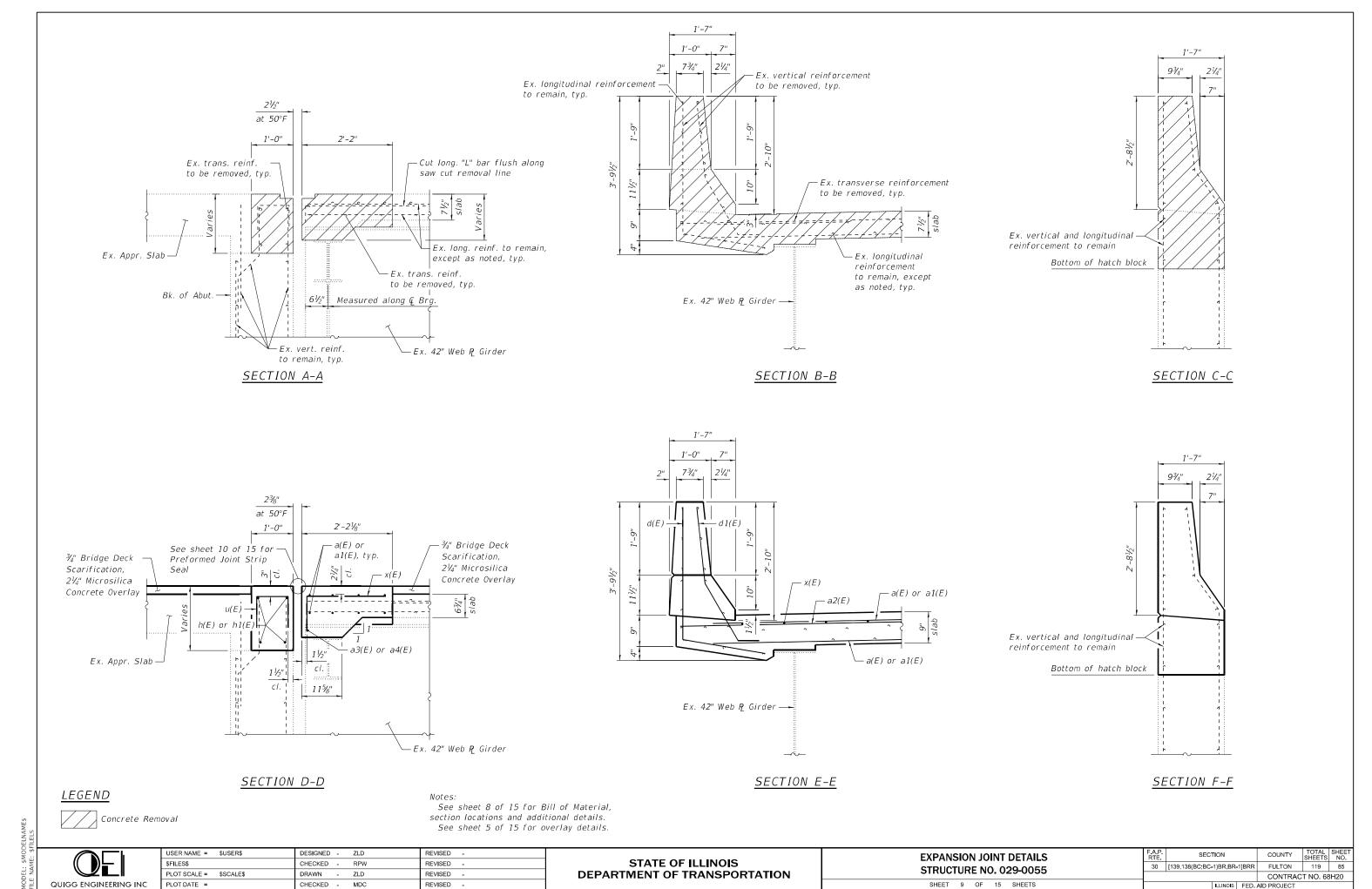
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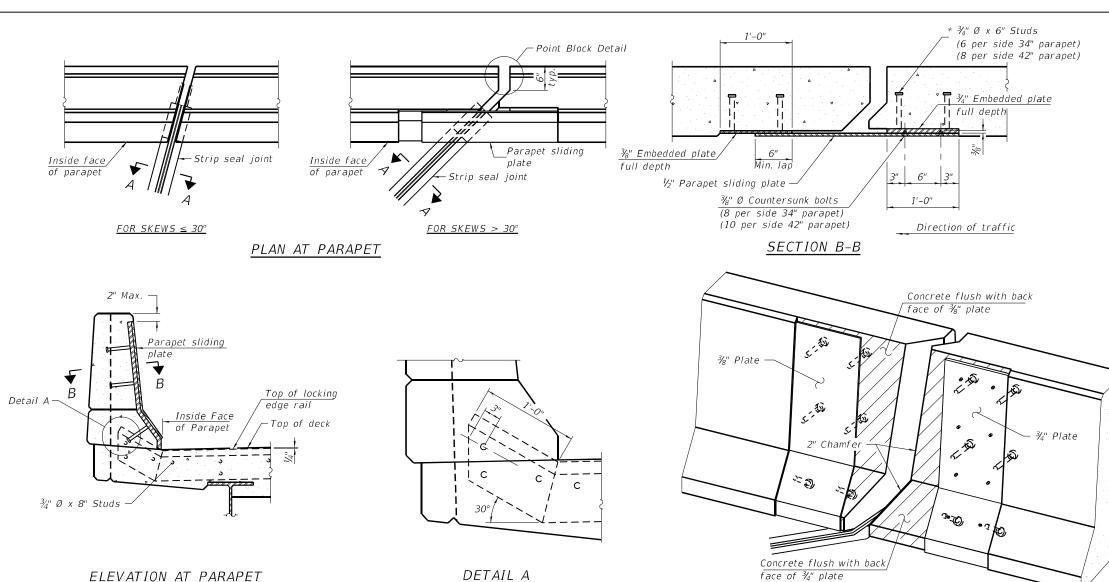
 PLOT DATE = CHECKED - MDC
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT DETAILS STRUCTURE NO. 029-0055



\$DATE\$



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.

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.

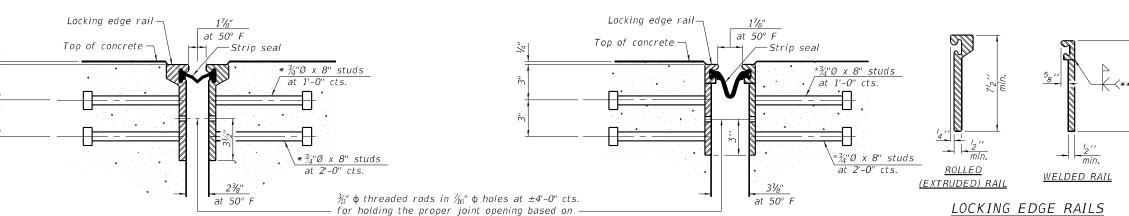
The Maximum space between locking edge rail segments shall be  $\frac{3}{16}$ " and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal. 34" F-shape barrier shown, 42" F-shape 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.

(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)

TRIMETRIC VIEW (Showing embedded plates only)



the temperature during the deck pour. Place to

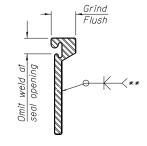
miss studs. All rods shall be burned, or sawed

off flush with the plates after concrete is set.

SECTION A-A \* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std.

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	68

SHOWING ROLLED RAIL JOINT

EJ-SS (TALL WITH GUTTER) 10-1-19

ΙT	H GUTTE	R)	10-1-19				Specs.	, automa	tically	end w	elded.
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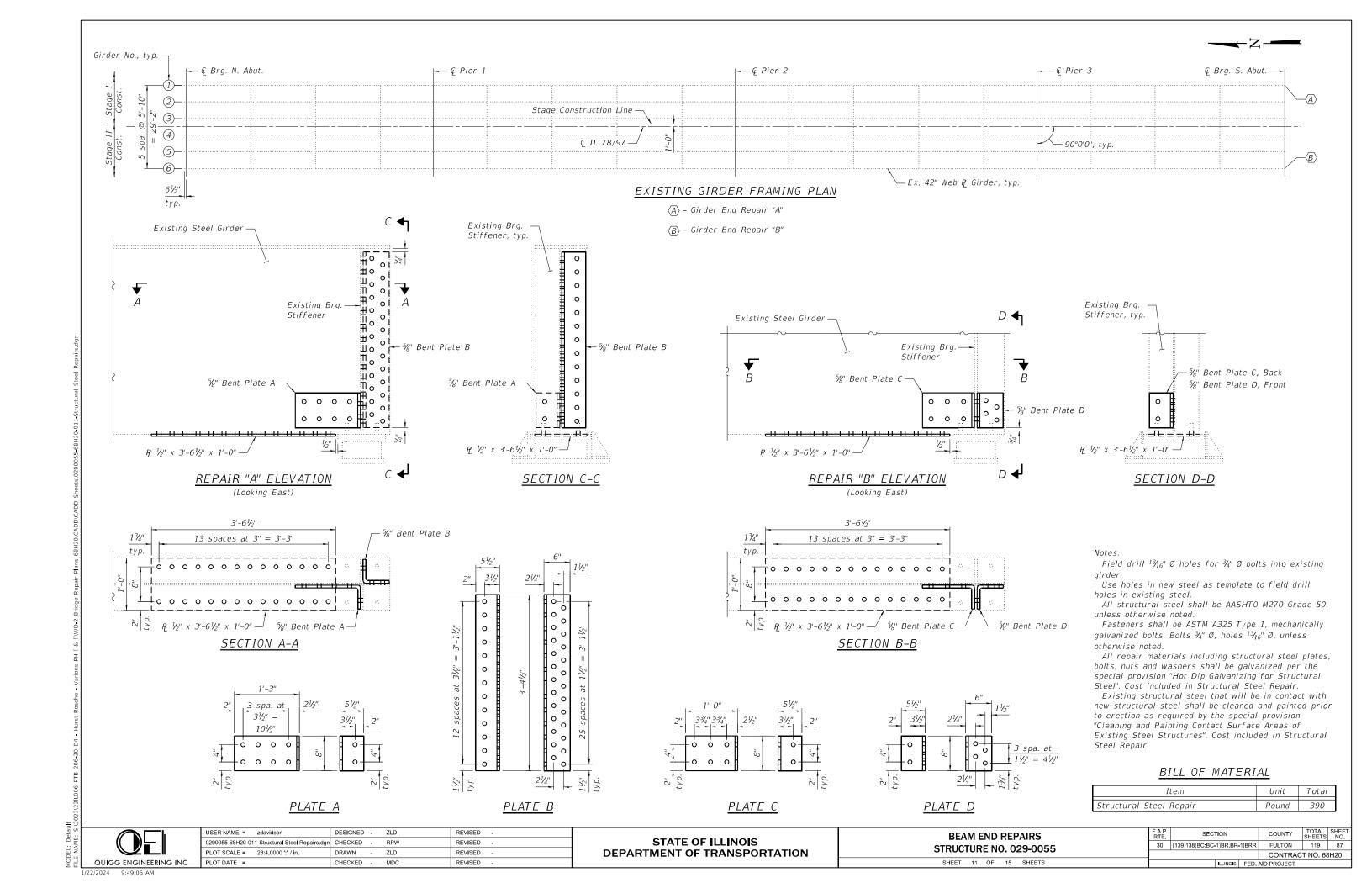
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

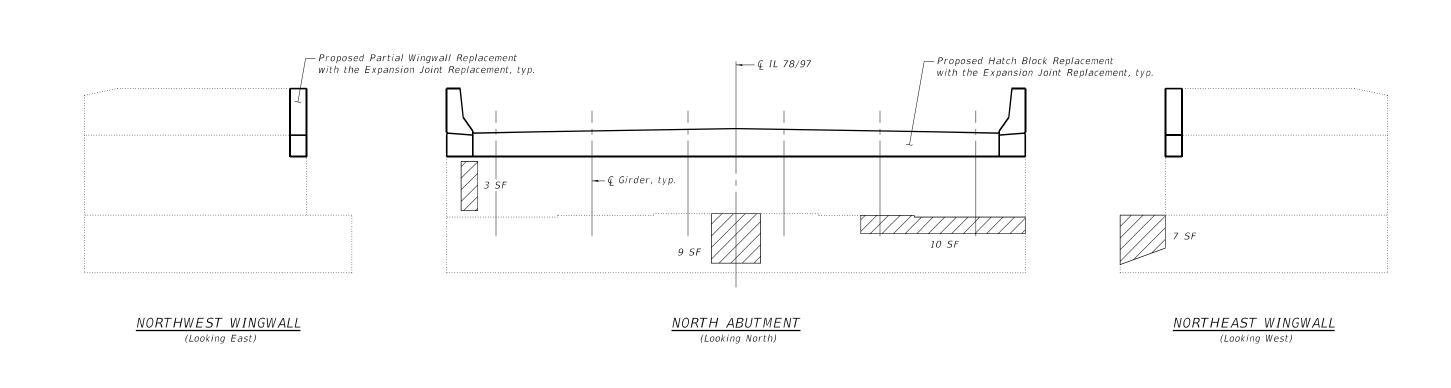
SHOWING WELDED RAIL JOINT

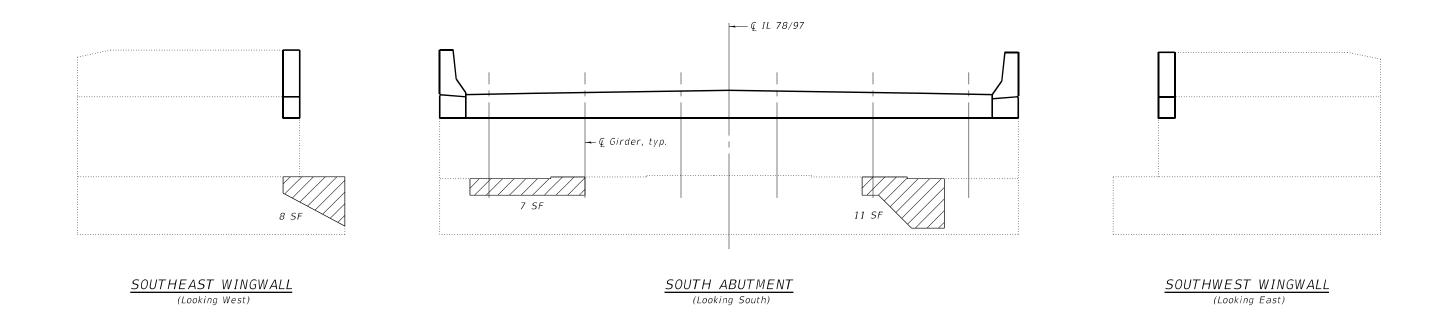
 				STRIP SEAL 29-0055
SHEET	10	OF	15	SHEETS

A P. RTE	SEC <sup>-</sup>	TION		COUNTY	TOTAL SHEETS	SHE
30	[139,138(BC;BC-1)BR,BR-1]BRR			FULTON	119	86
				CONTRAC	T NO. 68	3H20
		ILLINOIS	FED.	AID PROJECT		

QUIGG ENGINEERING INC







Not∈

For wingwall and hatch block details with the expansion joint replacement, see sheets 8 and 9 of 15.

# BILL OF MATERIAL

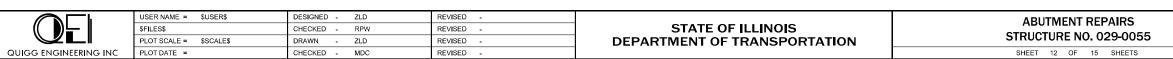
Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	55

SECTION

COUNTY

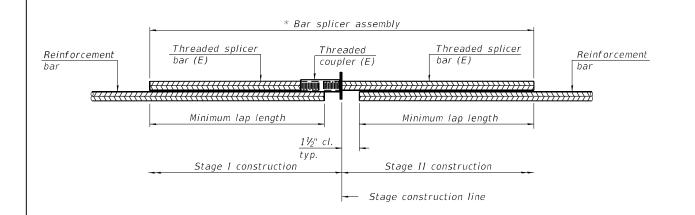
CONTRACT NO. 68H20

30 [139,138(BC;BC-1)BR,BR-1]BRR FULTON 119 88



LEGEND

Structural Repair of Concrete (Depth Equal to or Less Than 5")



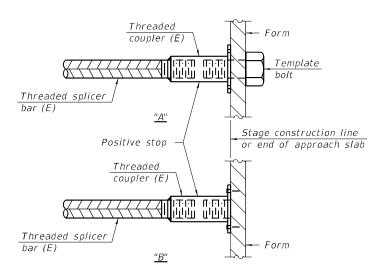
# STANDARD BAR SPLICER ASSEMBLY PLAN

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

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

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

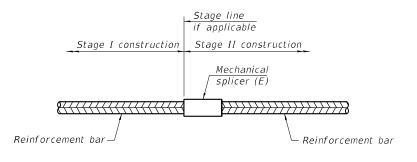
Location	Bar size	No. assemblies required	Minimum Iap length
Bridge Deck Side of Exp. Jt.	#5	18	3'-4"
Appr. Side of Exp. Jt.	#6	8	4'-0"



# 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

QUIGG ENGINEERING INC

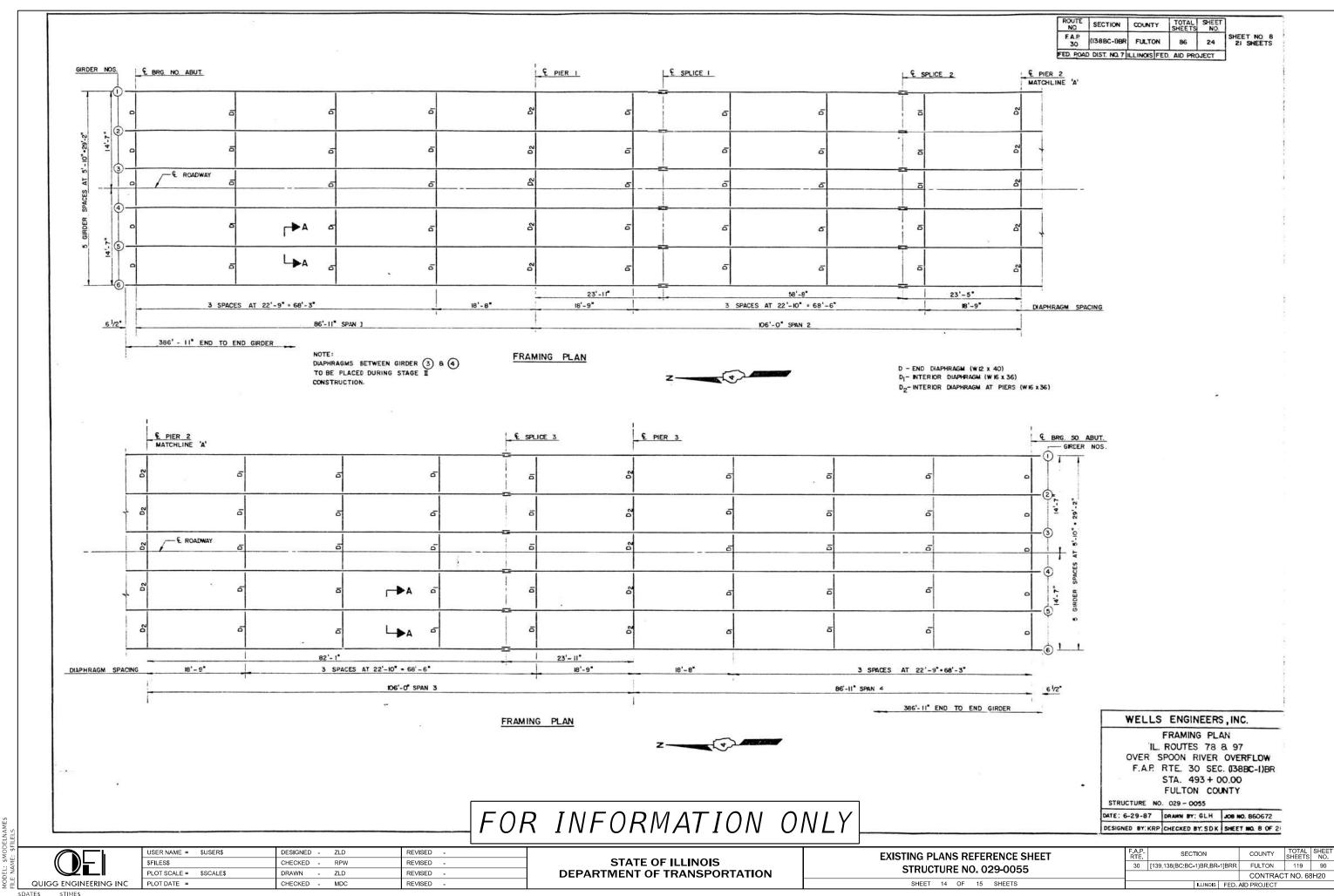
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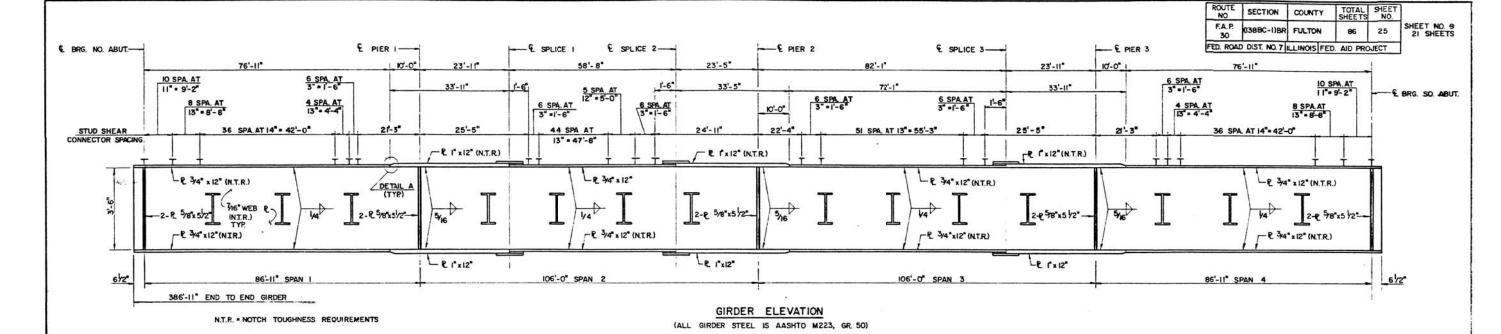
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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

SECTION BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS **STRUCTURE NO. 029-0055** SHEET 13 OF 15 SHEETS

COUNTY 30 [139,138(BC;BC-1)BR,BR-1]BRR FULTON 119 89 CONTRACT NO. 68H20





ITEM		0.4 SPAN   OR 4	PIERS 1 OR 3	0.5 SPAN 20R3	PIER 2
ls .	(in4)	10926	13797	10926	13797
lc n=9	(in 4)	26637		26637	
S.	(in 3)	502	627	502	627
Sc n#9	(in 3)	702		702	
5	(k/i)	0.72	1.02	0.72	1.02
MP	('k)	368	937	311	929
SQ	(K/i)	0.28		0.28	
MS D	('k)	166		168	
ML	('k)	579	439	620	474
M Imp	('k)	137	ЮО	135	103
5/3(ML+1)	('k)	1194	899	1259	962
Ма	( 'k)	2247	2387	2260	2459
Mu	( 'k)				
fs o non-comp	(ksi)	8.8	19.0	7.5	17.8
fs Q (comp) n=9	(k.s.i)	2.9		2.9	
fs 53(4+1) n=9		20.5	17.2	21.6	18.5
fs (Overload)	(ks.i)	32.2	35.2	32.0	36.3
fs (Total)	(ks.i)	41.9	45.8	41.6	47.2
VR	(K)	45.5		39.0	

	INTE	RIOR	GIRDER F	REACTION TA	BLE
	ITEM	-	ABUTMENT	PIER I OR 3	PIER 2
R	2	(k)	33.0	108.0	107.0
R	L.	(k)	33.5	52.0	54.0
lmp		(k)	8.0	8.5	8.0
RT	OTAL	(k)	74.5	168.5	169.0

MG (APPLIED MOMENT)= L3 [MQ+ MsQ+53(M½+1)]

Is and ss are the moment of inertia and section modulus of the steel section used in computing is (overload).

Ic and sc are the moment of inertia and section modulus of the composite section used in computing is (overload)

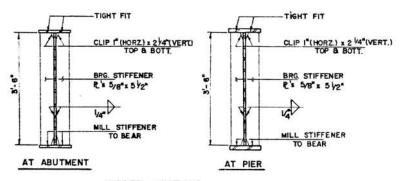
VR is the maximum ½+ impact shear range in span.

The fully plastic moment capacity (Mu) is computed according to aashto 10.48.1 and 10.50.1

Is (total) is the sum of the stresses due to 1.3 [mQ+msQ+53 (m½+1)] computed according to aashto 10.48.1 and 10.50.1

Is (overload) is the sum of the stresses due to MQ+msQ+53 (m½+1).

\* These values are service load.



GIRDER SECTIONS

	BEVEL BEFORE WELDING
	* 2/2
T	
2 4 4 Z SOLID FLUX FILED HEADED STUDS AUTO- MATICALLY END WELDED	
1 N.3           1 TO FLANGE (NO. REG D. 768) -	1 1
PER GIRDER	
FILLET VARIES Y	DETAIL "A"
7/16" WEB E	
SECTION A-A	

**	FOR	FABRICATION	ONLY

	TOP OF WEB ELEVATIONS **								
GIRDER NOS.	E BRG.	E PIER I	§ SPLICE I	E SPLICE 2	€ PIER 2	E SPLICE 3	E PIER 3	E BRG.	
1	453.02	- 453.58	453.78	453.94	453.86	453.78	453.59	453.04	
2	453.13	453.69	453.89	454.05	453.97	453.89	453.70	453.15	
3	453.22	453.78	453.96	454.14	454.06	453.98	453.79	453.24	
4	453.22	453.78	453.98	454.14	454.06	453.98	453.79	453.24	
5	453.13	453.69	453.89	454.05	453.97	453.98	453.70	453.15	
6	453.02	453.58	453.78	453.94	453.86	453.78	453.59	453.04	

WELLS ENGINEERS, INC.

FRAMING DETAILS
IL ROUTES 78 8 97
OVER SPOON RIVER OVERFLOW
F.A.P. RTE. 30 SEC. (138BC-1)BR
STA. 493 + 00.00
FULTON COUNTY

STRUCTURE NO. 029 - 0055

DATE: 6-29-87 DRAWN BY: GLH JOB NO. 860672
DESIGNED BY:KRP CHECKED BY:SDK SHEET NO. 9 OF 21

# FOR INFORMATION ONLY

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS REFERENCE SHEET STRUCTURE NO. 029-0055					
SHEET	15	OF	15	SHEETS	

A.P.	SEC <sup>-</sup>	TION		COUNTY	TOTAL SHEETS	SHE
30 [139,138(BC;BC-1)BR,BR-1]BRR		FULTON	119	91		
				CONTRAC	T NO. 68	3H20
		ILLINOIS	FED.	AID PROJECT		

Existing Structure: SN 029-0056, originally built in 1989 as a four-span plate girder superstructure with stub abutments and solid wall piers. The back to back length = 591'-9" and the out to out width = 35'-2". Structure is to be repaired as detailed in these plans. Traffic is to be maintained using stage construction.

No salvage.



Robert Whiteside, Illinois S.E. 081-008015

Expires 11/30/2024

5. Deck Overlay Plan 6. Drain Adjusting Details

2. General Data

7. Parapet Repairs

8-9. Expansion Joint Details

INDEX OF SHEETS

1. General Plan and Elevation

3. Stage Construction Details

4. Temporary Concrete Barrier

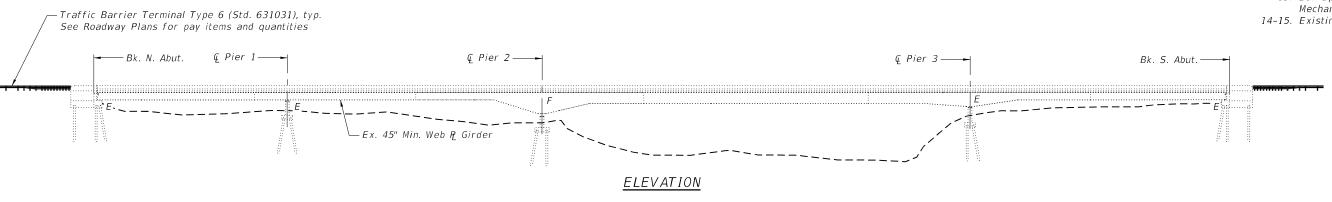
10. Preformed Joint Strip Seal

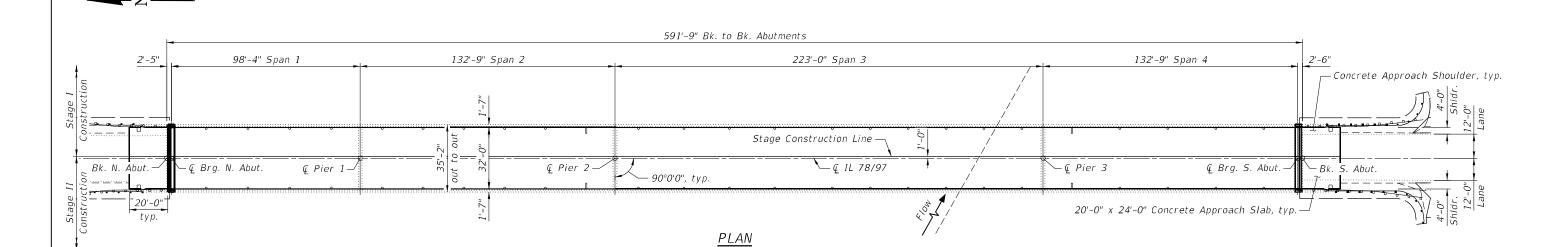
11. Structural Steel Repairs

12. Abutment Repairs

13. Bar Splicer Assembly and Mechanical Splicer Details

14-15. Existing Plans Reference Sheets





### DESIGN STRESSES

FIELD UNITS (EXIST. CONST.)

f'c = 3,500 psi

fy = 60,000 psi (Reinforcement)

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

fy = 36,000 psi (M-183, Structural Steel)

FIELD UNITS (NEW CONST.)

 $f'c = 4,000 \ psi$ 

fy = 60,000 psi (Reinforcement)

fy = 36,000 psi (M270 Grade 36)

fy = 50,000 psi (M270 Grade 50)

# LOADING HS20-44

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

for Highway Bridges - LFD

Existing and Proposed

1. Replace the transverse expansion joints.

Scarify the bridge deck and approach pavements.

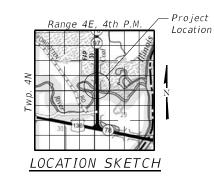
SCOPE OF WORK

3. Complete full depth deck repairs. 4. Place a microsilica concrete overlay.

5. Concrete repair of parapets.

6. Structural steel repairs.

7. Concrete repair of abutments.



GENERAL PLAN AND ELEVATION IL 78/97 OVER SPOON RIVER

FAP ROUTE 30

SECTION [139,138(BC;BC-1)BR,BR-1]BRR FULTON COUNTY STRUCTURE NO. 029-0056

DUIGG ENGINEERING INC

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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

GENERAL PLAN AND ELEVATION	F.A.P. RTE	
STRUCTURE NO. 029-0056	30	[139,138
511(00101)L 1(0: 025-0050		
SHEET 1 OF 15 SHEETS		

SECTION COUNTY 38(BC:BC-1)BR,BR-1]BRR FULTON 119 92 CONTRACT NO. 68H20

### GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts  $\sqrt[3]{4}$ " Ø, holes  $\sqrt[13]{6}$ " Ø, unless otherwise noted.

Calculated weight of Structural Steel = 960 lbs (M270 Grade 50)

All structural steel shall be AASHTO M270 Grade 50, unless otherwise noted.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Any reinforcement bars that are to remain that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Existing longitudinal and vertical reinforcement bars remaining and extending into the removal areas shall be cleaned, straightened and incorporated into the new construction. Cost included with Concrete Removal.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially deterimental 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.

The protective coat shall be applied to the new microsilica concrete overlay, new bridge deck conrete, and top and inside faces of the new portions of the parapets and wingwalls.

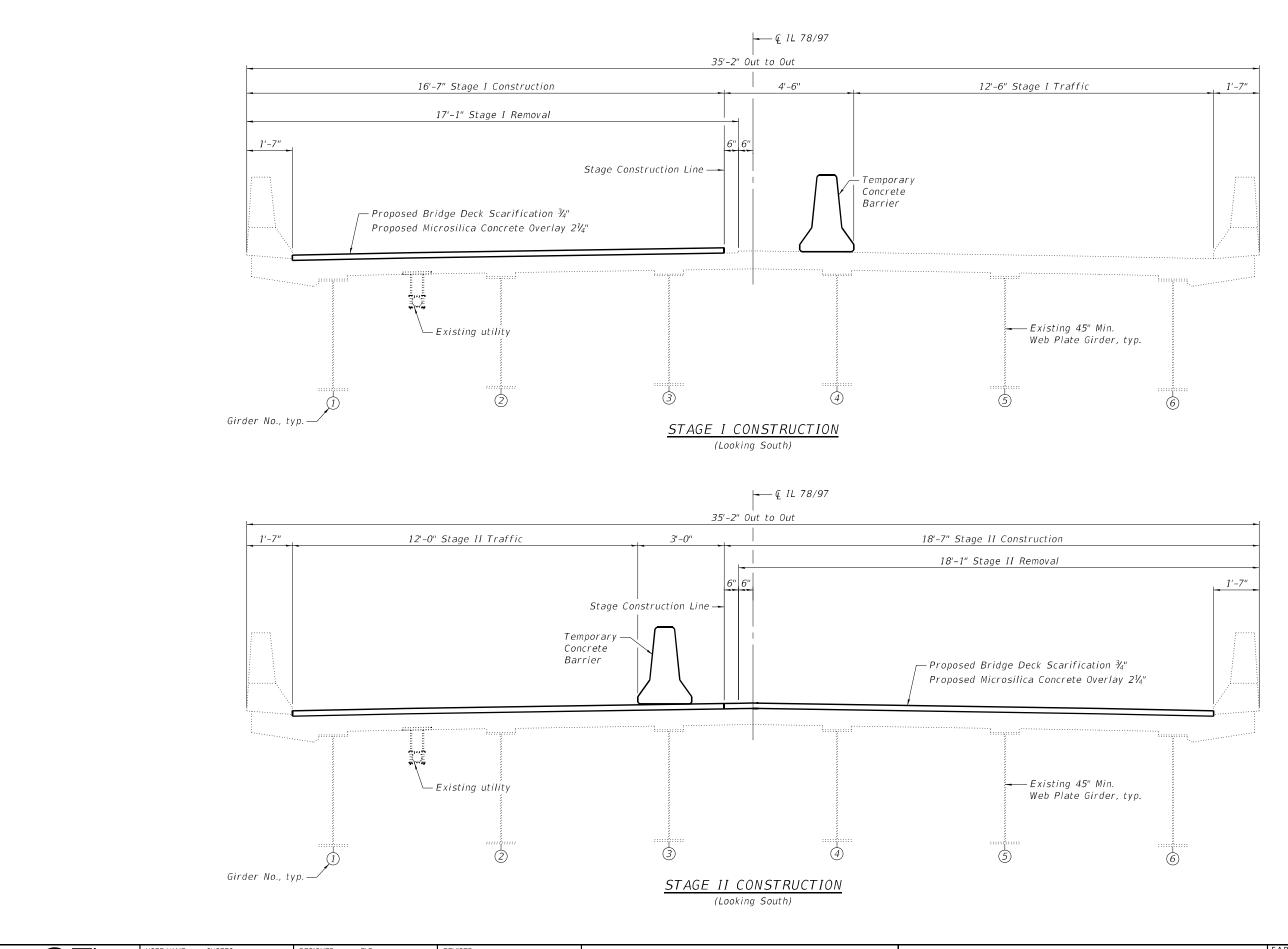
Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50°F.

All repair materials including structural steel angles, bolts, nuts and washers shall be galvanized per the special provision "Hot Dip Galvanizing for Structural Steel". Cost included in Structural Steel Repair.

# TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
			0 0.15	
Concrete Removal	Cu. Yd.	10.5	_	10.5
Concrete Superstructure	Cu. Yd.	11.4	_	11.4
Bridge Deck Grooving	Sq. Yd.	2,101	-	2,101
Protective Coat	Sq. Yd.	2,246	-	2,246
Reinforcement Bars, Epoxy Coated	Pound	1,600	-	1,600
Bar Splicers	Each	26	-	26
Preformed Joint Strip Seal	Foot	68	-	68
Inlets to be Adjusted	Each	4	-	4
Structural Steel Repair	Pound	960	-	960
Bridge Deck Scarification ¾"	Sq. Yd.	2,219	-	2,219
Bridge Deck Microsilica Concrete	Sg. Yd.	2,219	_	2,219
Overlay 21/4"	39. 14.	2,213		2,213
Structural Repair of Concrete (Depth	C~ F+	20	.5	25
Equal to or Less than 5 inches)	Sq. Ft.	20	)	25
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	3	-	3
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	2	-	2
Drainage Scuppers to be Adjusted	Each	4	-	4

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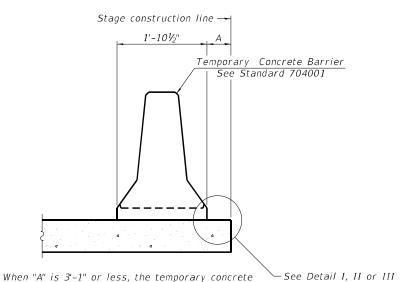
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 029-0056

SHEET 3 OF 15 SHEETS



barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

# -- Stage removal line ← Stage removal line 1'-101/2" 1'-101/2" Temporary Concrete Barrier See Standard 704001 6" min. min. 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".

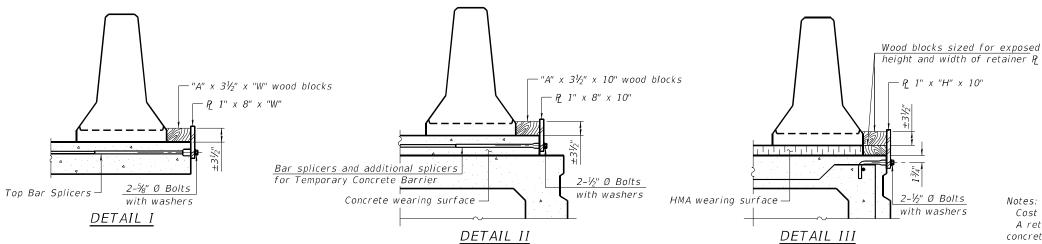
\* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

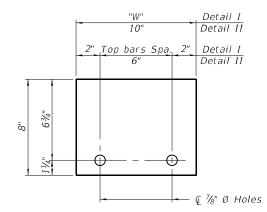
EXISTING DECK BEAM

# NEW SLAB OR NEW DECK BEAM

# SECTIONS THRU SLAB OR DECK BEAM

EXISTING SLAB





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

(Detail I and II)

# RAILING CRITERIA NCHRP 350 Test Level

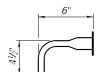
Railing Weight (plf) R-2710-12-2021



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

← Ç ¾" Ø Holes

10"



RESTRAINING PIN

# BAR SPLICER FOR #4 BAR - DETAIL III

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

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.

1x8 UNC

1" Ø pin

US Std. 11/16" I.D. x 21/2" O.D. x approx. 8 gauge thick washer

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.

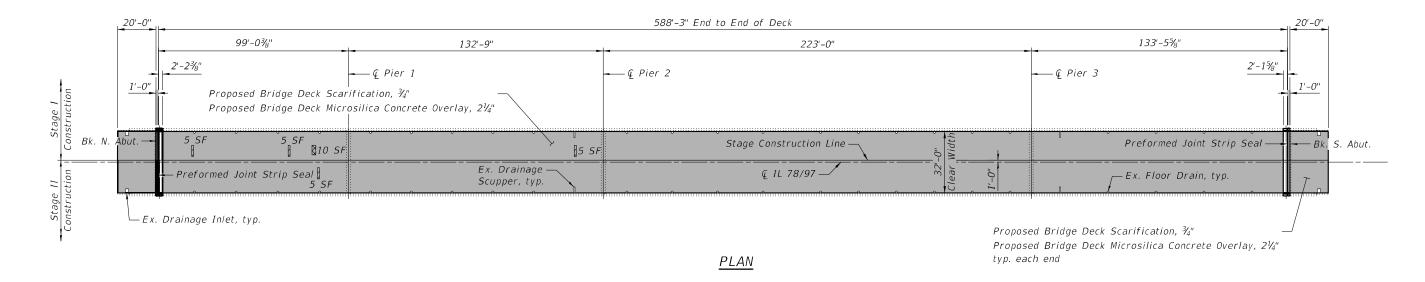


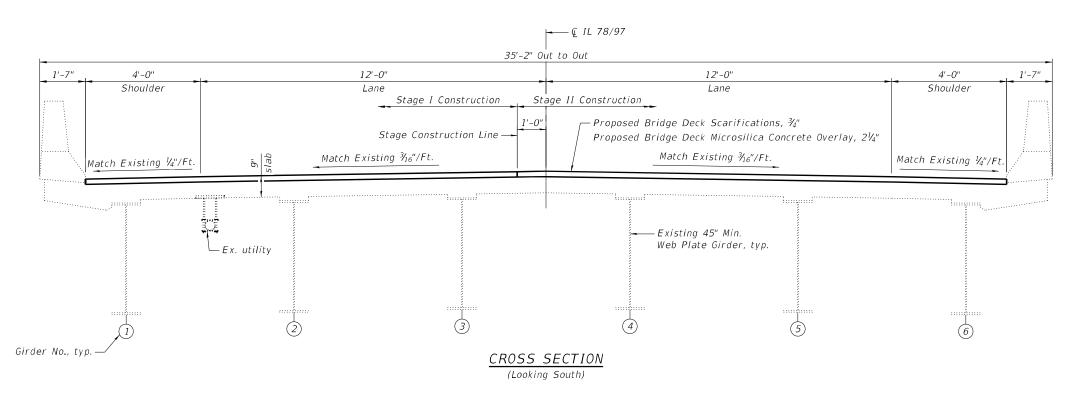
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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

TEMPORARY CONCRETE BARRIER	F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STRUCTURE NO. 029-0056		[139,138(BC;BC-1)BR,BR-1]BRR	FULTON	119	95
311(00101)L 1(0: 023-0030			CONTRAC	T NO. 68	3H20
SHEET 4 OF 15 SHEETS		ILLINOIS FED.	AID PROJECT		







### LEGEND

Deck Slab Repair (Full Depth, Type I)

Deck Slab Repair (Full Depth, Type II

Scarification and Microsilica Concrete Overlay Limits

#### Notos:

See sheet 6 of 15 for overlay details at drainage scupper and drain pipes.

See sheets 8 thru 10 of 15 for expansion joint replacement details.

Deck Slab Repair (Full Depth, Type I) and Deck Slab Repair (Full Depth, Type II) areas are estimated and will be field verified by the Engineer prior to patching. The Engineer shall show actual locations of deck repairs on as-built plans.

# TOTAL BILL OF MATERIAL

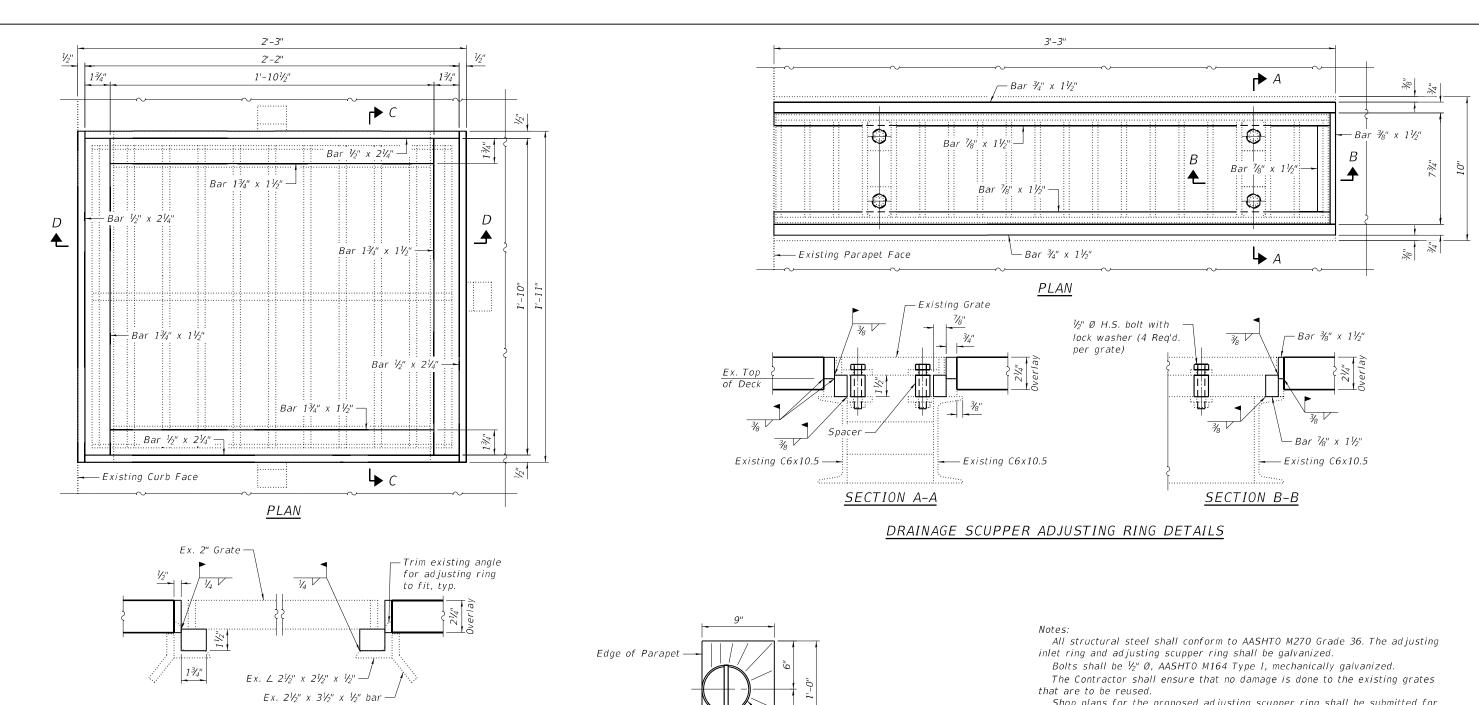
ITEM	UNIT	TOTAL
Bridge Deck Grooving	Sq. Yd.	2,101
Protective Coat	Sq. Yd.	2,246
Bridge Deck Scarification ¾"	Sq. Yd.	2,219
Bridge Deck Microsilica Concrete Overlay 21/4"	Sq. Yd.	2,219
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	3
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	2

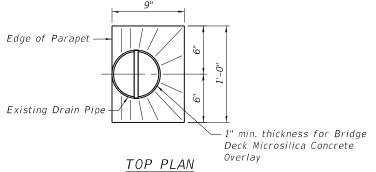
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK OVERLAY PLAN	F.A.P. RTE	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
STRUCTURE NO. 029-0056		[139,138(BC;BC-1)BR,BR-1]BRR		FULTON	119	96
511(00101) No. 025-0050				CONTRAC	T NO. 68	3H20
SHEET 5 OF 15 SHEETS		ILLING	IS FFD.	AID PROJECT		





Overlay Transition at 6" Ø Drain Pipes

Shop plans for the proposed adjusting scupper ring shall be submitted for approval prior to fabrication.

Cost of all labor and materials necessary to remove existing grates, clean existing scuppers, install adjusting scupper rings and reinstall grates is included in the cost per unit each for Drainage Scuppers to be Adjusted.

Shop plans for proposed adjusting inlet ring shall be submitted for approval prior to fabrication.

Cost of all labor and materials necessary to remove existing grates, clean existing inlets, install adjusting inlet rings and reinstall grates is included in the cost per unit each for Inlets to be Adjusted.

# BILL OF MATERIAL

Item	Unit	Total
Inlets to be Adjusted	Each	4
Drainage Scuppers to be Adjusted	Each	4



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SECTION C-C

Ex. 2" Grate

1/4 V

 $Ex. \ \angle \ 2^{1}/2'' \ x \ 2^{1}/2'' \ x \ ^{1}/2''$ 

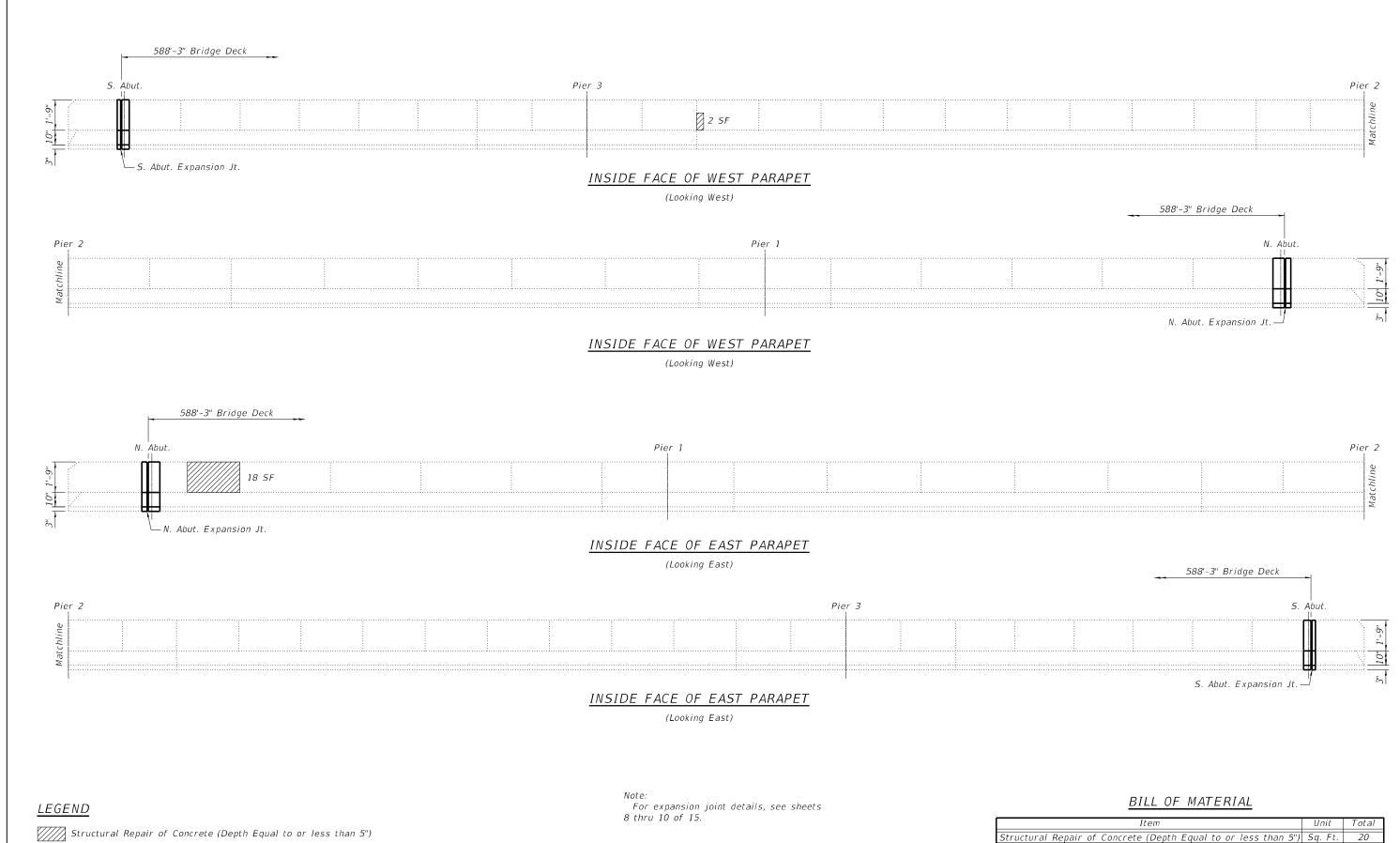
SECTION D-D

SHOULDER INLET ADJUSTING RING DETAILS

Ex.  $2\frac{1}{2}$ " x  $3\frac{1}{2}$ " x  $\frac{1}{2}$ " bar

DRAIN ADJUSTING DETAILS	F.A.P. RTE	8
STRUCTURE NO. 029-0056	30	[139,138(BC
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CUEET 6 OF 15 CUEETO		

A.P. TE.	SEC <sup>-</sup>	TION		COUNTY	TOTAL SHEETS	SHEET NO.
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				CONTRAC	T NO. 68	3H20
		ILLINOIS FED.				

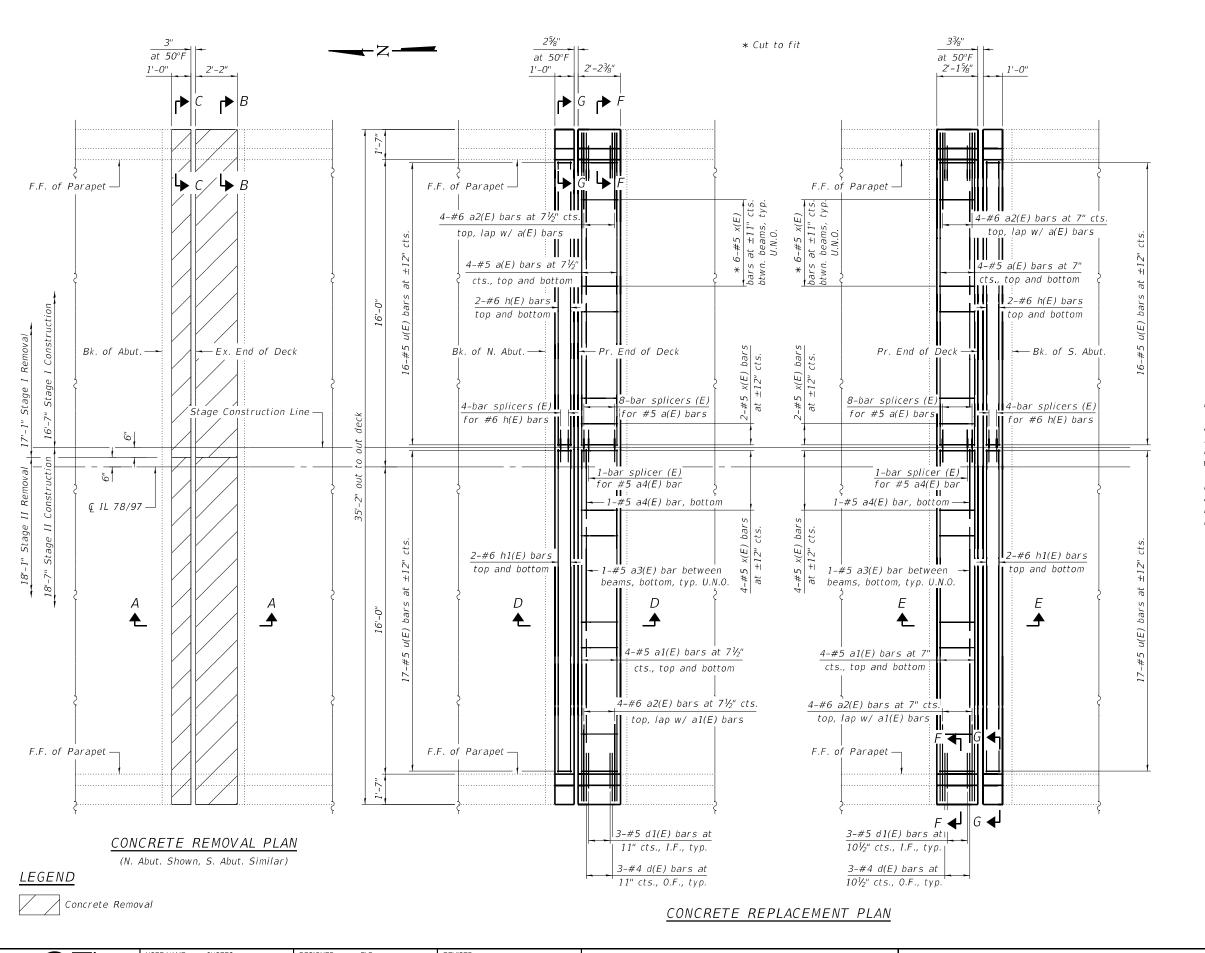


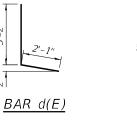
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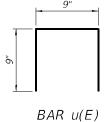
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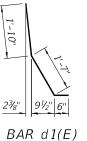
STATE OF ILLINOIS
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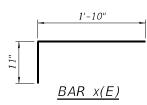
PARAPET REPAIRS
STRUCTURE NO. 029-0056
SHEET 7 OF 15 SHEETS











#### Notes

Any reinforcement bars that are to remain that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Existing longitudinal and vertical reinforcement bars remaining and extending into the removal areas shall be cleaned, straightened and incorporated into the new construction. Cost included with Concrete Removal.

See sheet 9 of 15 for sections. See sheet 5 of 15 for overlay details. See sheet 10 of 15 for joint seal details.

# BILL OF MATERIAL

Bar	No.	Size	Leng	th		Shape			
a(E)	16	#5	16'-0	O''	-				
a1(E)	16	#5	18'-0	2"	-				
a2(E)	16	#6	7'-4		-				
a3(E)	8	#5	5'-5	711	-				
a4(E)	2	#5	3'-7	711	-				
d(E)	12	#4	5'-3	) II		_			
d1(E)	12	#5	3'-1	!"		\			
h(E)	8	#6	14'-8	B''	-				
h1(E)	8	#6	16'-8	3"	-				
u(E)	66	#5	2'-3	211					
x(E)	60	#5	2'-9	"					
	Iten	1		Uni	t	Total			
Concrete	Item			Cu. Y	'd.	10.5			
Concrete .	Superstr	ucture		Cu. Y	'd.	11.4			
Reinforce	ment Bar	s, Epoxy	Coated	Pour	ηd	1,600			
•		•							

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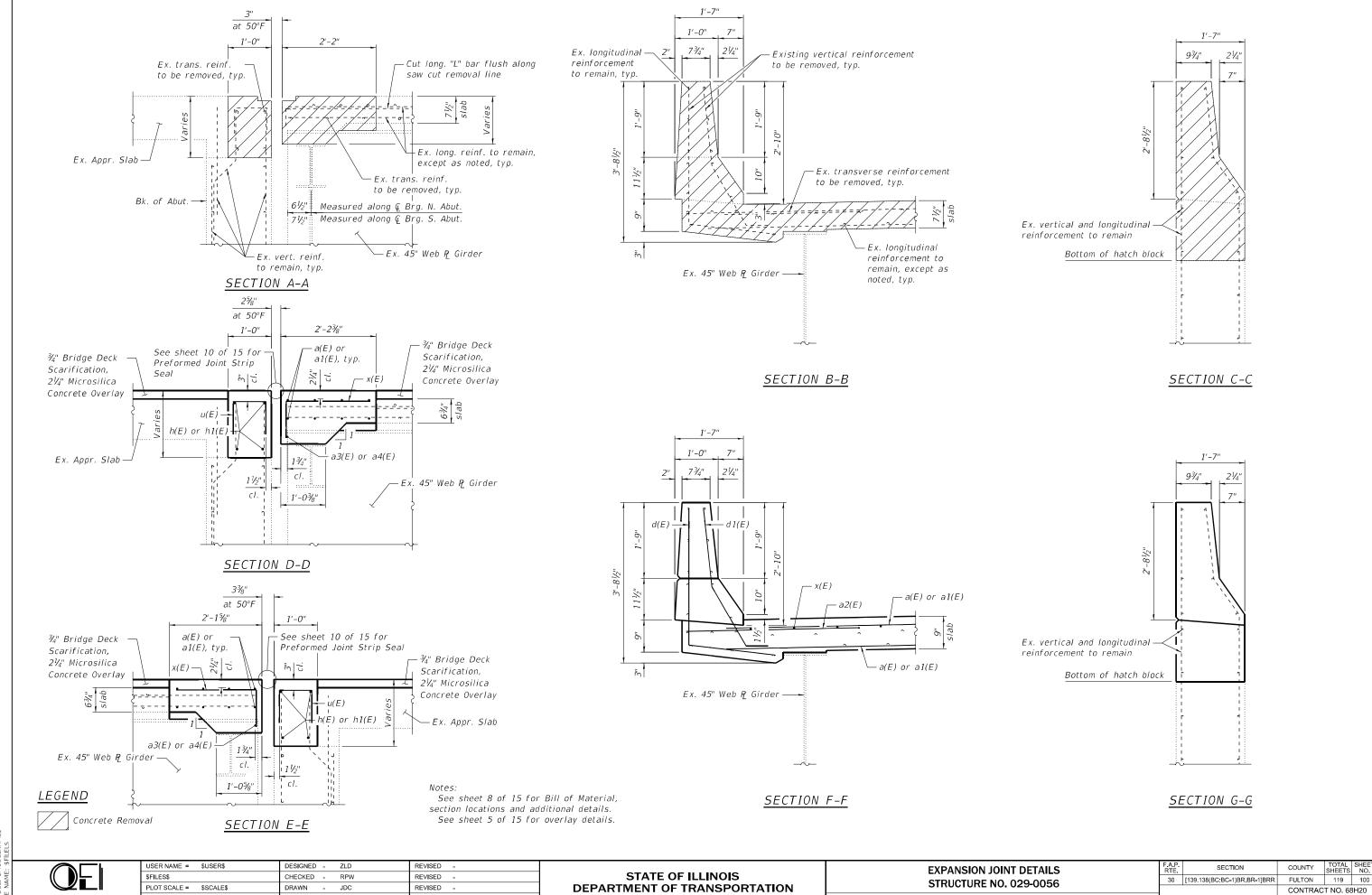
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT DETAILS
STRUCTURE NO. 029-0056

SHEET 8 OF 15 SHEETS

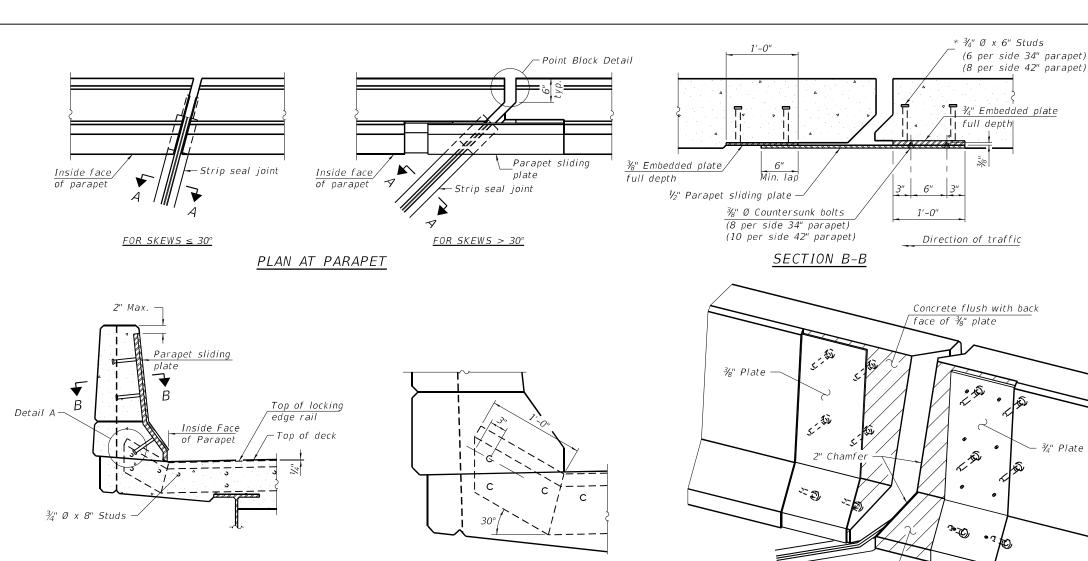
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QUIGG ENGINEERING INC

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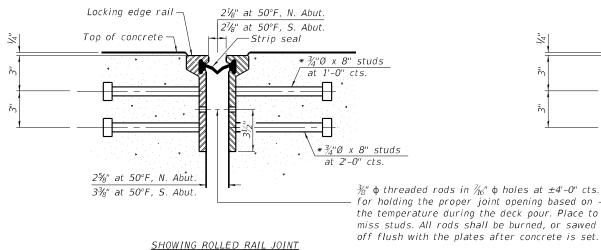


TRIMETRIC VIEW

Concrete flush with back

face of 3/4" plate

# (Showing embedded plates only)



ELEVATION AT PARAPET (Skews > 30° shown. Skews ≤ 30° similar

except as shown in plan view.)

Locking edge rail-21/8" at 50°F, N. Abut. 21/8" at 50°F, S. Abut. Top of concrete \*¾"Ø x 8" studs at 1'-0" cts. *\*³¼*"Ø x 8" studs at 2'-0" cts. <u>ROLLED</u> WELDED RAIL (EXTRUDED) RAIL 33/8" at 50°F, N. Abut 41/8" at 50°F, S. Abut.

# LOCKING EDGE RAILS

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

# 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.

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  $\frac{3}{6}$  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.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal. 34" F-shape barrier shown, 42" F-shape 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.

# LOCKING EDGE RAIL SPLICE

Omit weld at seal opening

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	68

# SECTION A-A

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

DETAIL A

						-		,	
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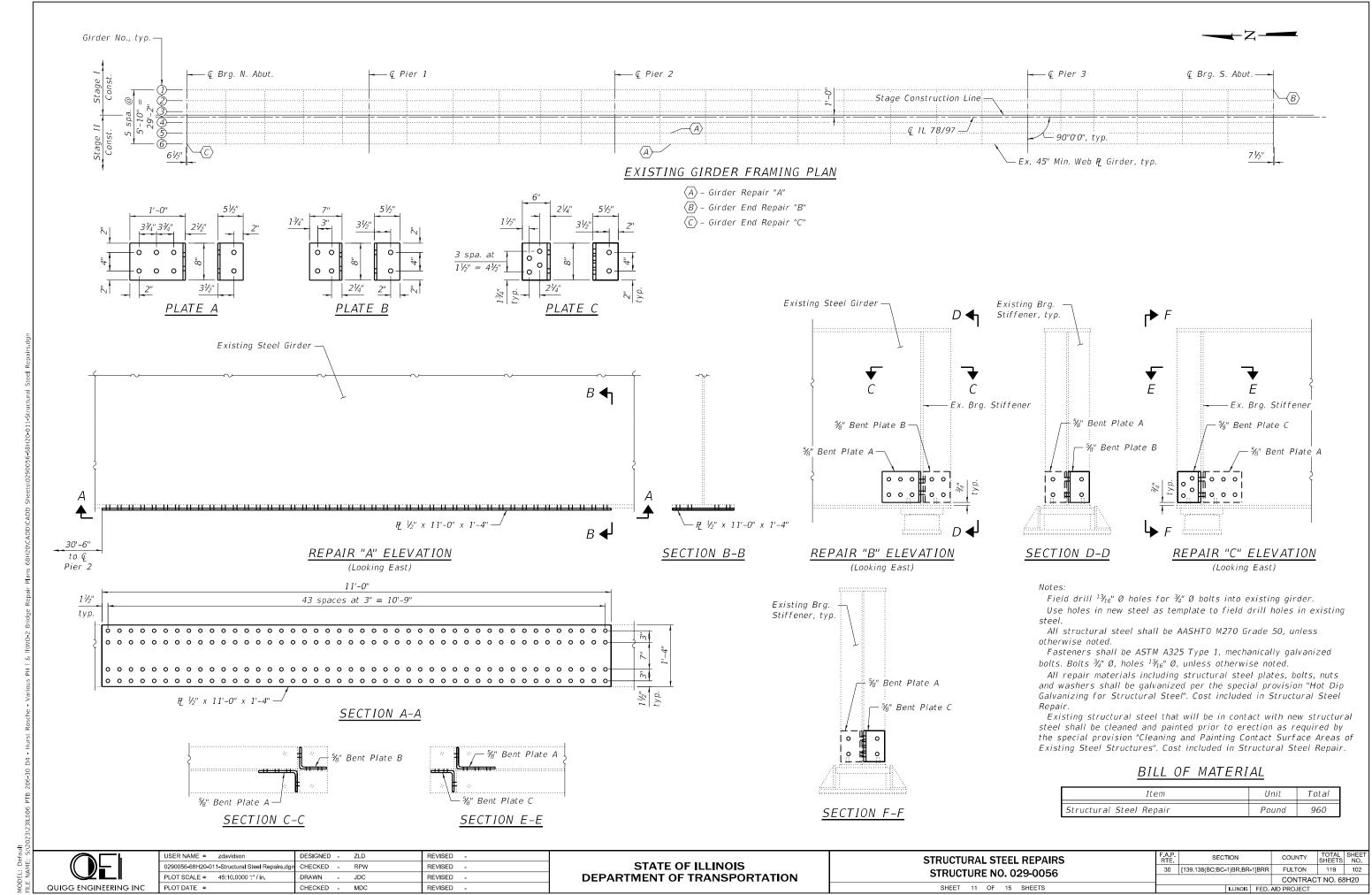
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SHOWING WELDED RAIL JOINT

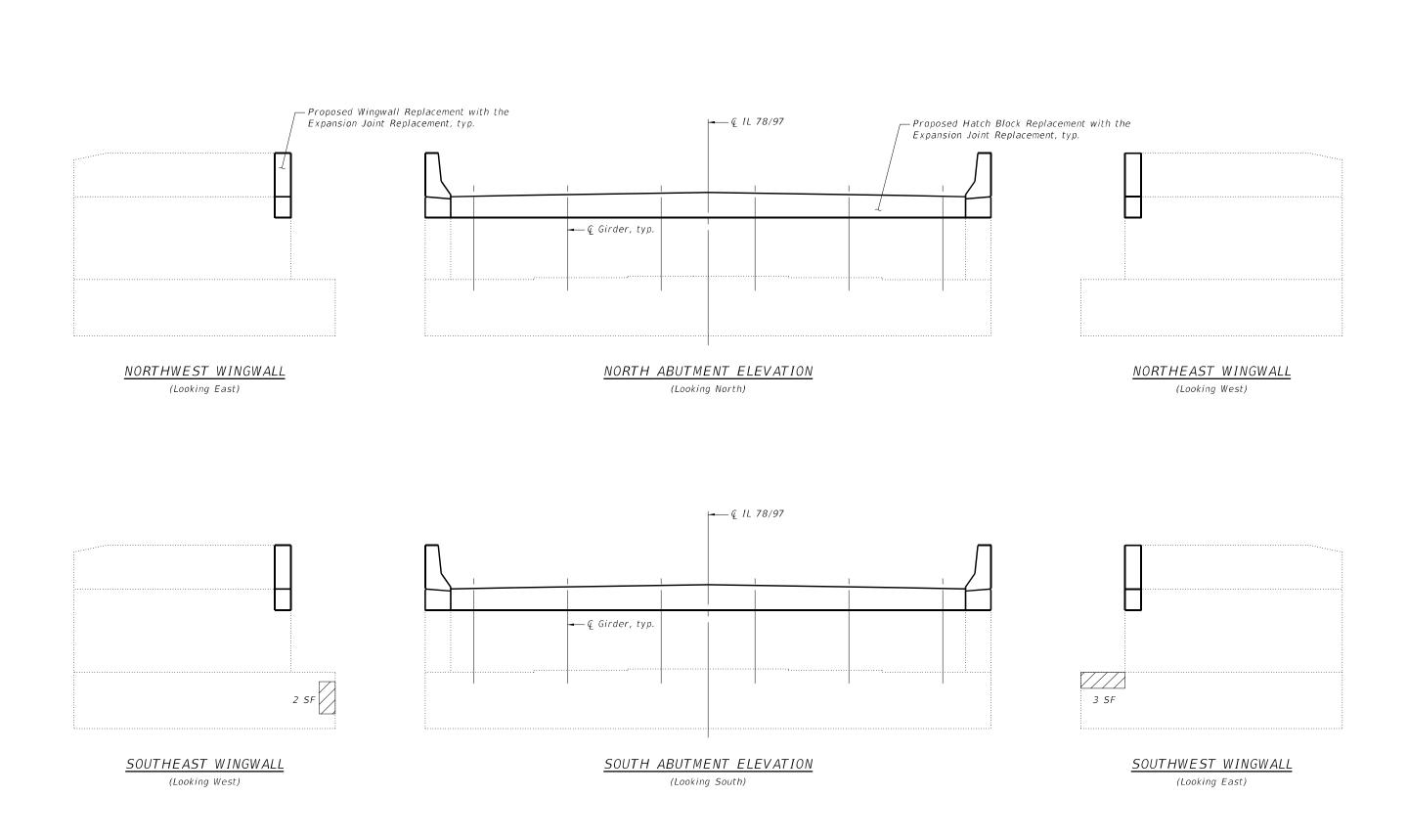
PREFORMED JOINT STRIP SEAL **STRUCTURE NO. 029-0056** SHEET 10 OF 15 SHEETS

SECTION COUNTY 30 [139,138(BC;BC-1)BR,BR-1]BRR FULTON 119 101 CONTRACT NO. 68H20

EJ-SS (TALL WITH GUTTER)



1/22/2024 9:51:36 AM



LEGEND

Structural Repair of Concrete (Depth Equal to or Less Than 5")

#### Note:

For wingwall and hatch block details with the expansion joint replacement, see sheets 8 and 9 of 15.

# BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	5



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

ABUTMENT REPAIRS

STRUCTURE NO. 029-0056

SHEET 12 OF 15 SHEETS

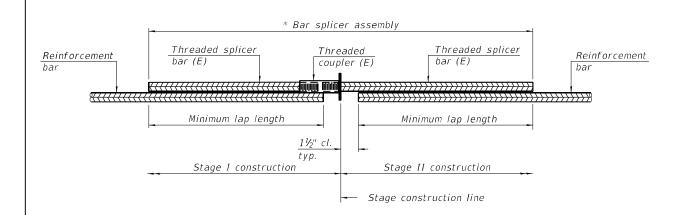
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30 [139.13]

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

30 [139,138(BC;BC-1)BR,BR-1]BRR FULTON 119 103

CONTRACT NO. 68H20

| ILLINOIS | FED. AID PROJECT



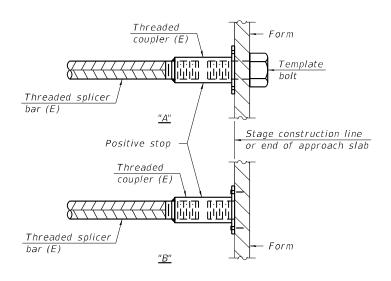
# STANDARD BAR SPLICER ASSEMBLY PLAN

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

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

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

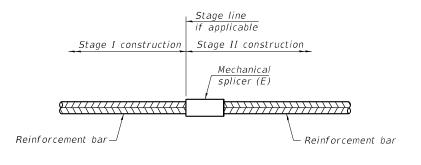
Location	Bar size	No. assemblies required	Minimum lap length
Bridge Deck Side of Exp. Jt.	#5	18	3'-4"
Appr. Side of Exp. Jt.	#6	8	4'-0"



# 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

QUIGG ENGINEERING INC

2-1-2023

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 029-0056

SHEET 13 OF 15 SHEETS

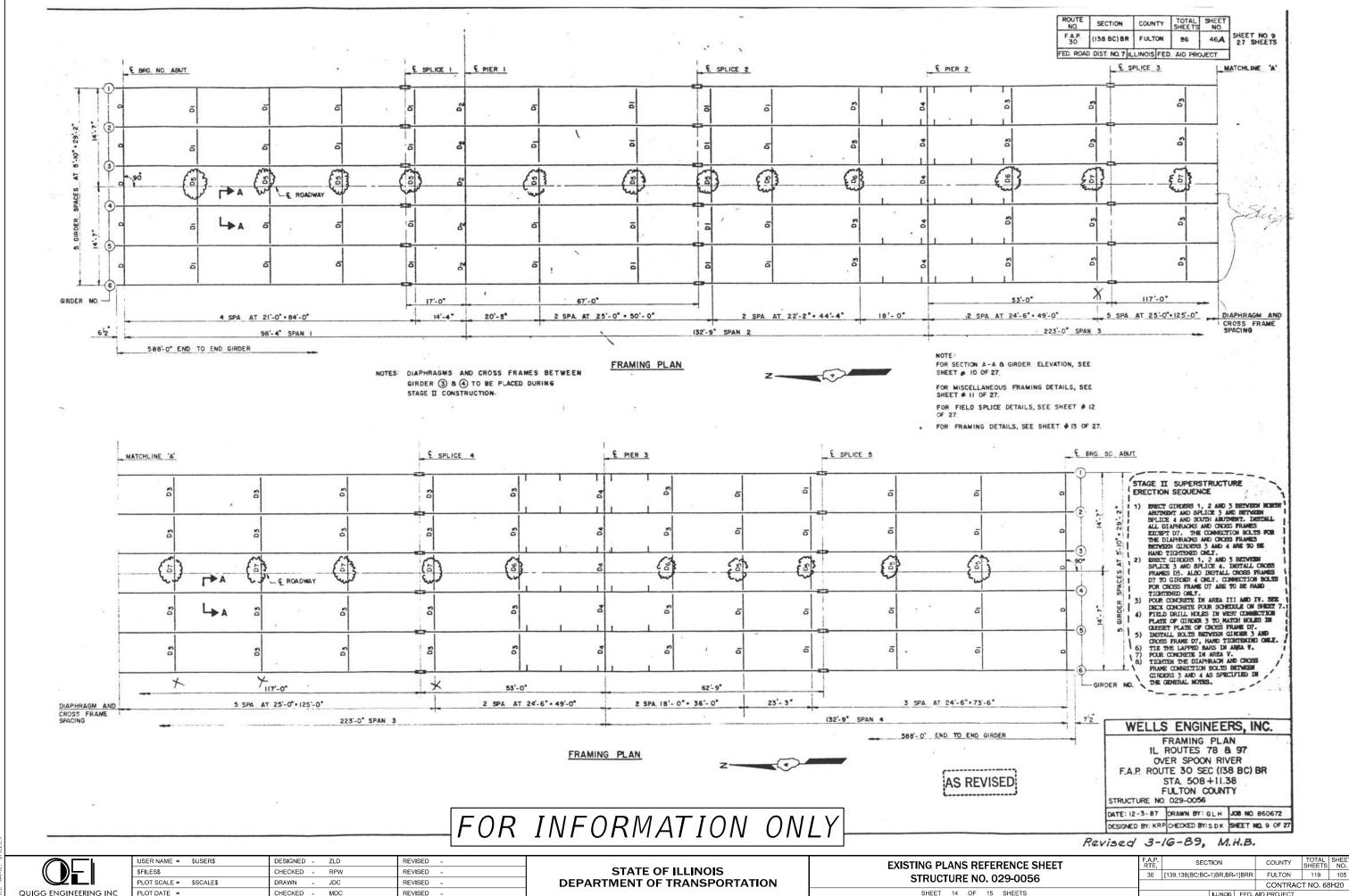
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 CONTRACT NO. 68H20

 ILLINOIS
 FED. AID PROJECT

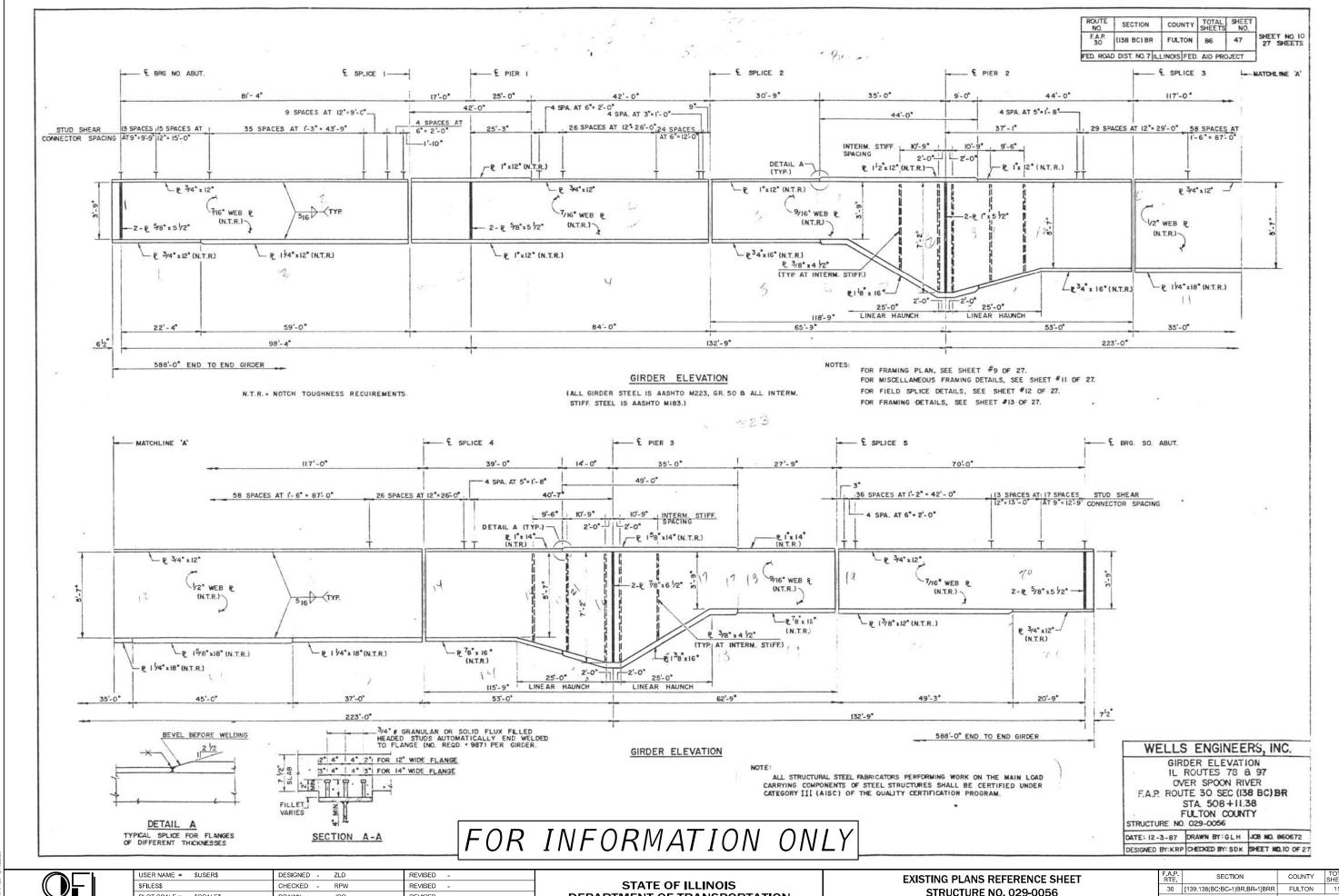


QUIGG ENGINEERING INC

PLOT DATE =

CHECKED - MDC

REVISED -



PLOT SCALE = \$SCALE\$ DRAWN REVISED PLOT DATE = CHECKED - MDC REVISED -

**DEPARTMENT OF TRANSPORTATION** 

**STRUCTURE NO. 029-0056** SHEET 15 OF 15 SHEETS

119 106 CONTRACT NO. 68H20

QUIGG ENGINEERING INC

Existing Structure: SN 029-0021, originally built in 1936 as a Three-Span continuous wide flange steel beam superstructure with open abutments and multi-column piers. In 1989, the structure was reconstructed by modifying the substructure units & replacing the superstructure. The back to back length =  $168'-6\frac{3}{8}''$  and the out to out = 35'-2". Structure is to be repaired as detailed in these plans. Traffic is to be maintained using stage construction.

No Salvage.

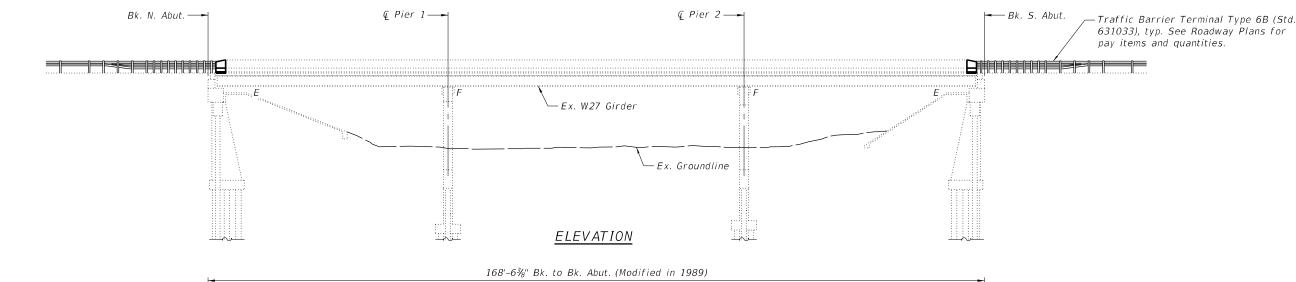


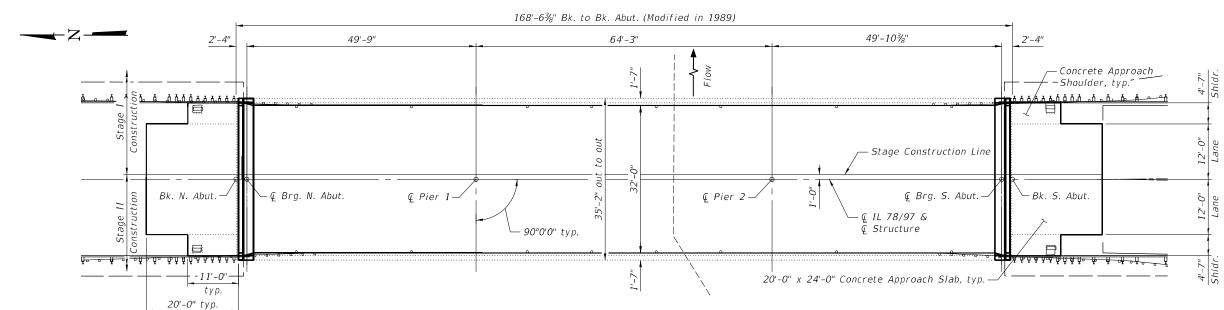
12/14/2023

Robert Whiteside, Illinois S.E. 081-008015 Expires 11/30/2024

# INDEX OF SHEETS

- 1. General Plan and Elevation
- 2. General Data
- 3. Stage Construction Details
- 4. Temporary Concrete Barrier
- 5. Deck Overlay Plan 6. Parapet Repairs
- 7-8. Expansion Joint Details
- 9. Preformed Joint Strip Seal
- 10. Beam End Repairs
- 11. Abutment Repairs
- 12. Bar Splicer Assembly and
- Mechanical Splicer Details 13. Existing Plans Reference Sheet





# DESIGN STRESSES

# FIELD UNITS (EXIST. CONST.)

f'c = 3,500 psi

fy = 60,000 psi (Reinforcement)

fy = 50,000 psi (Structural Steel M223 Grade 50) fy = 36,000 psi (Structural Steel M183 Grade 36)

FIELD UNITS (NEW CONST.)

f'c = 4,000 psi

fy = 60,000 psi (Reinforcement)

fy = 36,000 psi (M270 Grade 36) fy = 50,000 psi (M270 Grade 50)

# LOADING HS-20

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

for Highway Bridges - LFD

Existing and Proposed

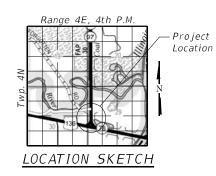
Replace the transverse expansion joints. Scarify the bridge deck and approach pavements.

SCOPE OF WORK

Complete full depth slab repairs.

PLAN

- Place a microsilica concrete overlay.
- Concrete repair of parapets.
- Steel beam end repairs.
- Concrete repair of abutments.
- 8. Fill void beneath North and South Slopewall with CLSM.



GENERAL PLAN AND ELEVATION IL 78/97 OVER LACY DITCH FAP ROUTE 30 SECTION [139,138(BC;BC-1)BR,BR-1]BRR FULTON COUNTY STRUCTURE NO. 029-0021

QUIGG ENGINEERING INC

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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

GENERAL PLAN AND ELEVATION	F.A.P. RTE	SECTIO
STRUCTURE NO. 029-0021	30	[139,138(BC;BC-1)
311(00101)L 1(0: 023-0021		
SHEET 1 OF 13 SHEETS		

	F.A.P. SECTION				COUNTY	TOTAL SHEETS	SHEET NO.
	30	[139,138(BC;BC	1)BR,BR	-1]BRR	FULTON	119	107
					CONTRAC	T NO. 68	3H20
ILLINOIS FED. AID PRO-							
_							

### GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts  $\sqrt[3]{4}$ " Ø, holes  $\sqrt[15]{16}$ " Ø, unless otherwise noted.

Calculated weight of Structural Steel = 60 lbs (M270 Grade 50).

All structural steel shall be AASHTO M270 Grade 50, unless othewise noted.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Any reinforcement bars that are to remain that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Existing longitudinal and vertical reinforcement bars remaining and extending into the removal areas shall be cleaned, straightened and incorporated into the new construction. Cost included with Concrete Removal.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially deterimental 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.

The protective coat shall be applied to the new microsilica concrete overlay, new bridge deck concrete, and top and inside faces of the new portions of the parapets and wingwalls.

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.

All repairs including structural steel angles, bolts, nuts and washers shall be galvanized per the special provision "Hot Dip Galvanizing for Structural Steel". Cost included in Structural Steel Repair.

The voids beneath the South Slopewall shall be filled with Controlled Low-Strength Material (CLSM) per the direction of the Engineer.

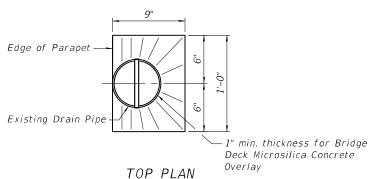
#### Notes:

All structural steel shall conform to AASHTO M270 Grade 36. The adjusting scupper ring shall be galvanized.

The contractor shall ensure that no damage is done to the existing grates that are to be reused.

Shop plans for the proposed adjusting inlet ring shall be submitted for approval prior to fabrication.

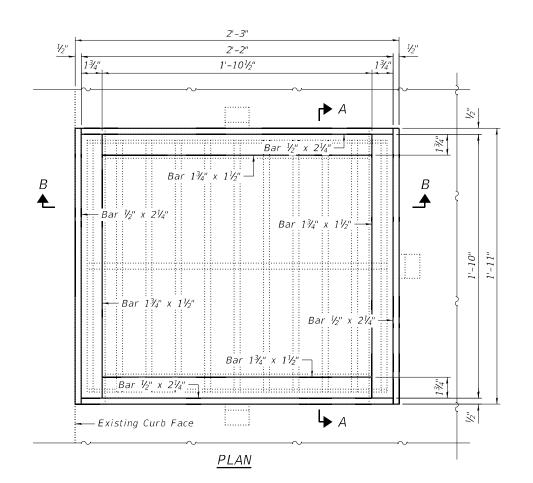
Cost of all labor and materials necessary to remove existing grates, clean existing inlets, install adjusting inlet rings and reinstall grates is included in the cost per unit each for Inlets to be Adjusted.

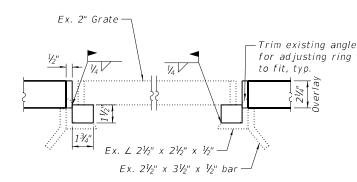


Overlay Transition at 6" Ø Drain Pipes

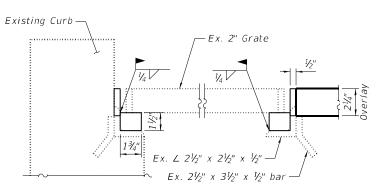
# TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Concrete Removal	Cu. Yd.	9.5	-	9.5
Concrete Superstructure	Cu. Yd.	10.4	-	10.4
Bridge Deck Grooving	Sq. Yd.	681	-	681
Protective Coat	Sq. Yd.	729	-	729
Reinforcement Bars, Epoxy Coated	Pound	1,660	-	1,660
Bar Splicers	Each	26	-	26
Preformed Joint Strip Seal	Foot	66	-	66
Controlled Low-Strength Material	Cu. Yd.	-	10	10
Inlets to be Adjusted	Each	4	-	4
Structural Steel Repair	Pound	60	-	60
Bridge Deck Scarification ¾"	Sq. Yd.	702	-	702
Bridge Deck Microsilica Concrete Overlay 21⁄4"	Sq. Yd.	702	-	702
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	2	4	6
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	2	-	2
Slope Wall Slurry Pumping	Cu. Yd.	-	10	10





#### SECTION A-A



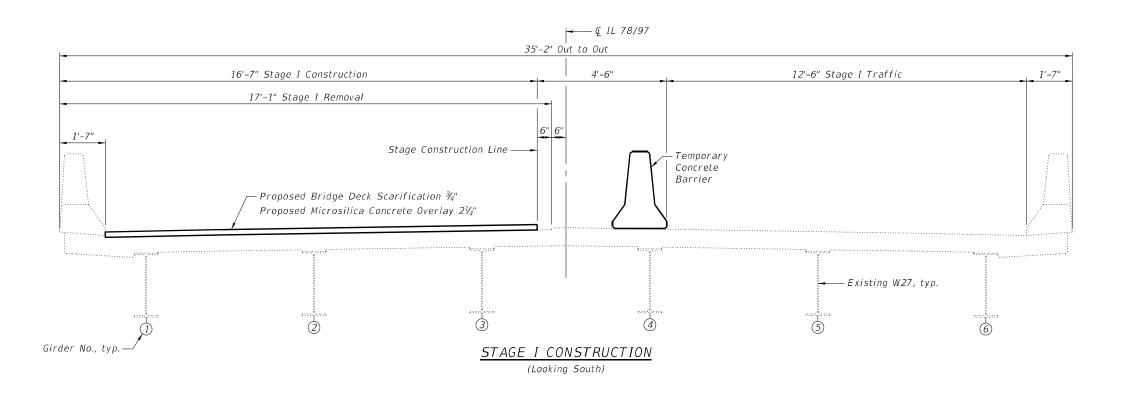
SECTION B-B

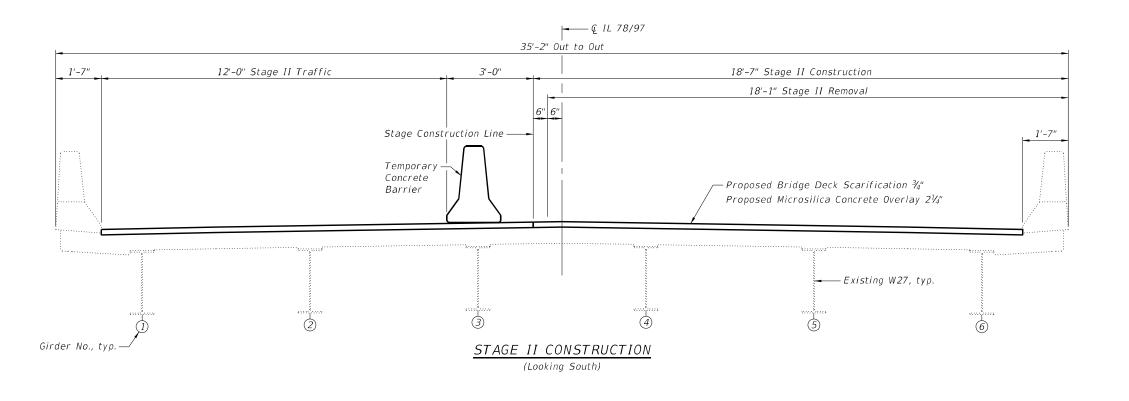
# SHOULDER INLET ADJUSTING RING DETAILS



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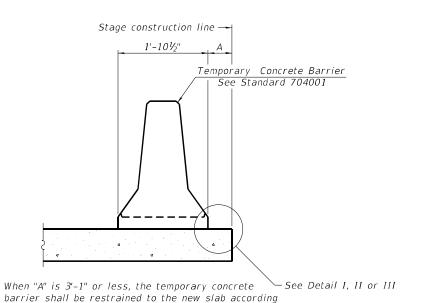
GENERAL DATA STRUCTURE NO. 029-0021		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		[139,138(BC;BC-1)BR,BR-1]BRR	FULTON	119	108
			CONTRAC	T NO. 68	3H20
SHEET 2 OF 13 SHEETS		ILLINOIS FED.	AID PROJECT		

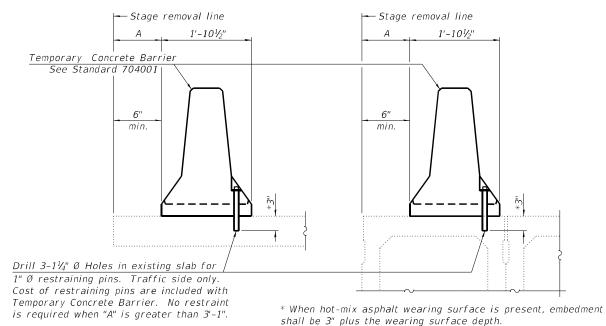


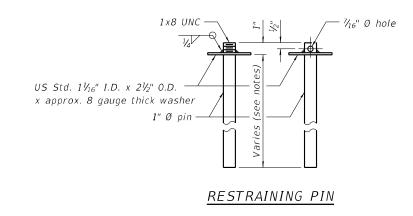


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PLOT SCALE = \$SCALE\$	D	DRAWN	-	JDC	REVISED	-
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STAGE CONSTRUCTION DETAILS STRUCTURE NO. 029-0021		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		[139,138(BC;BC-1)BR,BR-1]BRR	FULTON	119	109
			CONTRAC	T NO. 68	3H20
SHEET 3 OF 13 SHEETS		ILLINOIS FED.	AID PROJECT		







BAR SPLICER FOR #4 BAR - DETAIL III

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

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.

of the bar splicers is included with the deck beam.

NEW SLAB OR NEW DECK BEAM

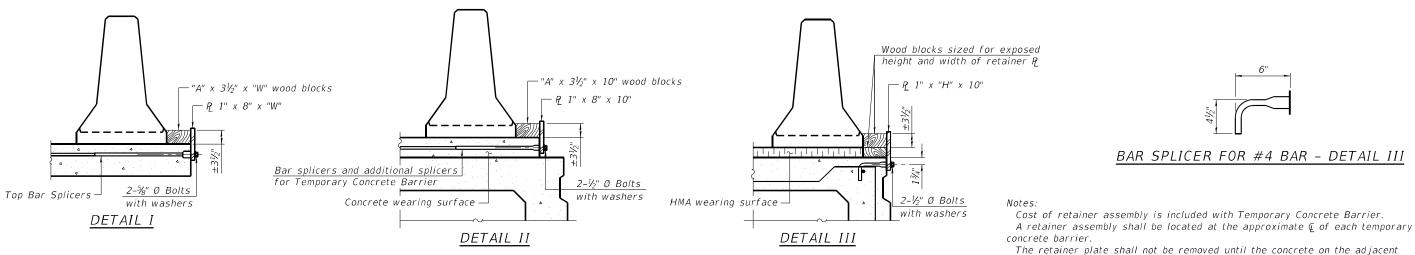
to Detail I, II or III. No restraint is required

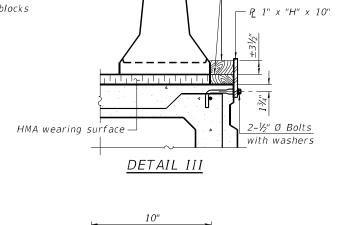
when "A" is greater than 3'-1".

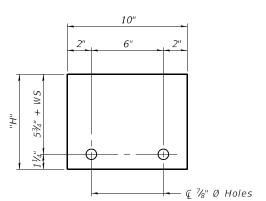
EXISTING SLAB

EXISTING DECK BEAM

# SECTIONS THRU SLAB OR DECK 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

# STEEL RETAINER R 1" x "H" x 10" (Detail III)

Detail I Detail II Detail I 2" Top bars Spa. 2" Detail II — Ç ¾" Ø Holes

# RAILING CRITERIA

NCHRP 350 Test Level

R-2710-12-2021

# STEEL RETAINER P 1" x 8" x "W" (Detail I and II)

# **TEMPORARY CONCRETE BARRIER STRUCTURE NO. 029-0021** SHEET 4 OF 13 SHEETS

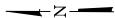
### SECTION 30 [139,138(BC;BC-1)BR,BR-1]BRR FULTON 119 110 CONTRACT NO. 68H20

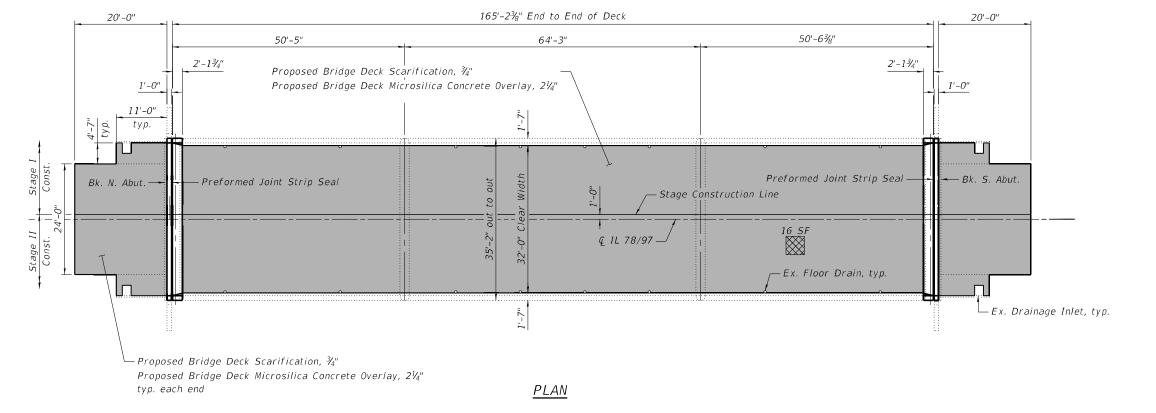
Railing Weight (plf)

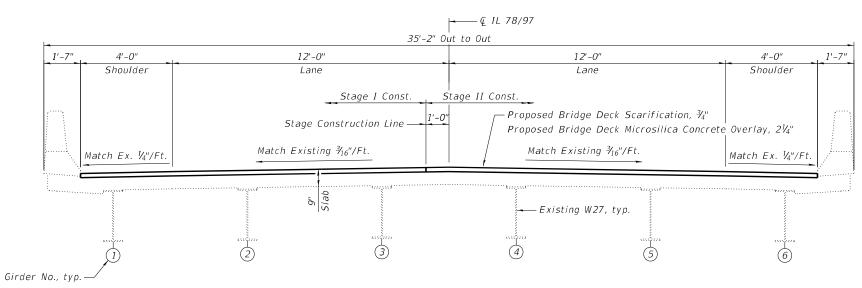
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QUIGG ENGINEERING INC







# CROSS SECTION (Looking South)

# LEGEND

Deck Slab Repair (Full Depth, Type II)

Scarification and Microsilica Concrete Overlay Limits

See sheet 2 of 13 for overlay details at drainage scupper and drain pipes.

See sheets 7 thru 9 of 13 for expansion joint replacement details.

Deck Slab Repair (Full Depth, Type II) areas are estimated and will be field verified by the Engineer prior to patching. The Engineer shall show actual locations of deck repairs on as-built plans.

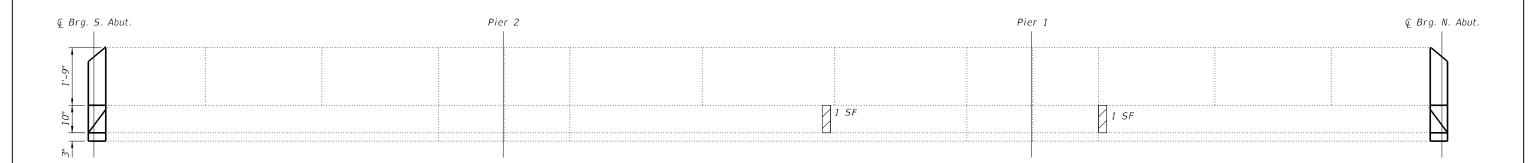
# TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Bridge Deck Grooving	Sq. Yd.	681
Protective Coat	Sq. Yd.	729
Bridge Deck Scarification ¾"	Sq. Yd.	702
Bridge Deck Microsilica Concrete Overlay 21/4"	Sq. Yd.	702
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	2

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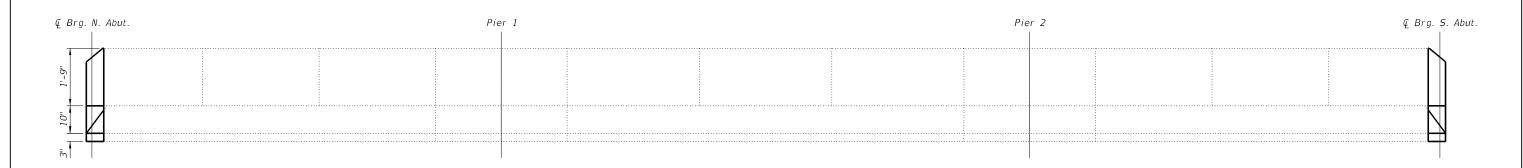
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK OVERLAY PLAN STRUCTURE NO. 029-0021		SEC	ΓΙΟΝ		COUNTY	TOTAL SHEETS	SHEET NO.
		[139,138(BC;BC	1)BR,BR	-1]BRR	FULTON	119	111
					CONTRAC	T NO. 68	3H20
SHEET 5 OF 13 SHEETS			ILLINOIS	FFD /	AID PROJECT		



# INSIDE FACE OF WEST PARAPET

(Looking West)



# INSIDE FACE OF EAST PARAPET

(Looking East)

<u>LEGEND</u>

Structural Repair of Concrete (Depth Equal to or less than 5")

Note: For expansion joint details, see sheets 7 thru 9 of 13.

# BILL OF MATERIAL

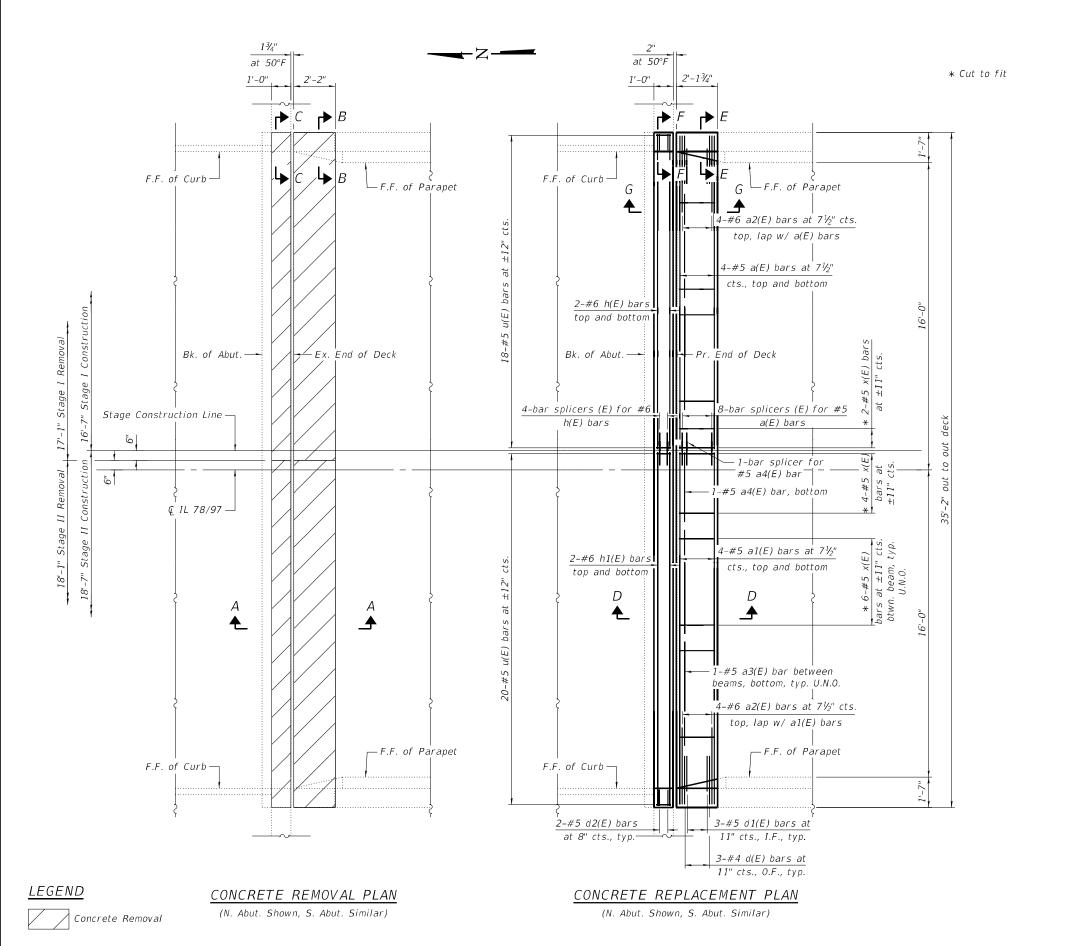
Item		Total
Structural Repair of Concrete (Depth Equal to or less than 5")	Sq. Ft.	2

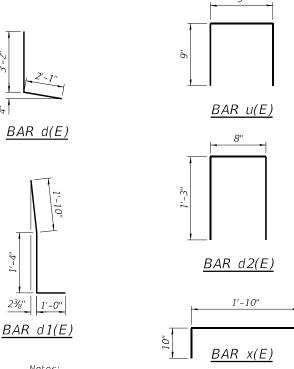
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PARAPET REPAIRS	F. R
STRUCTURE NO. 029-0021	
3110C1011L 140. 029-0021	





Any reinforcement bars that are to remain that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Existing longitudinal and vertical reinforcement bars remaining and extending into the removal areas shall be cleaned, straightened and incorporated into the new construction. Cost included with Concrete Removal.

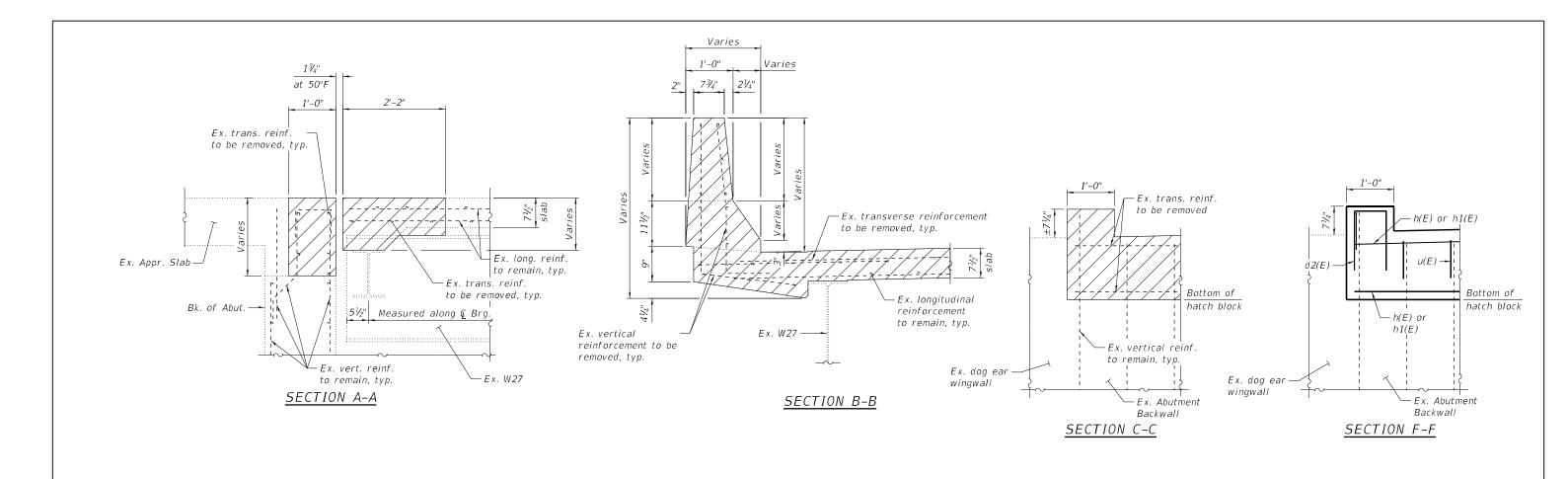
See sheet 5 of 13 for overlay details. See sheet 8 of 13 for Sections. See sheet 9 of 13 for Joint Strip Seal.

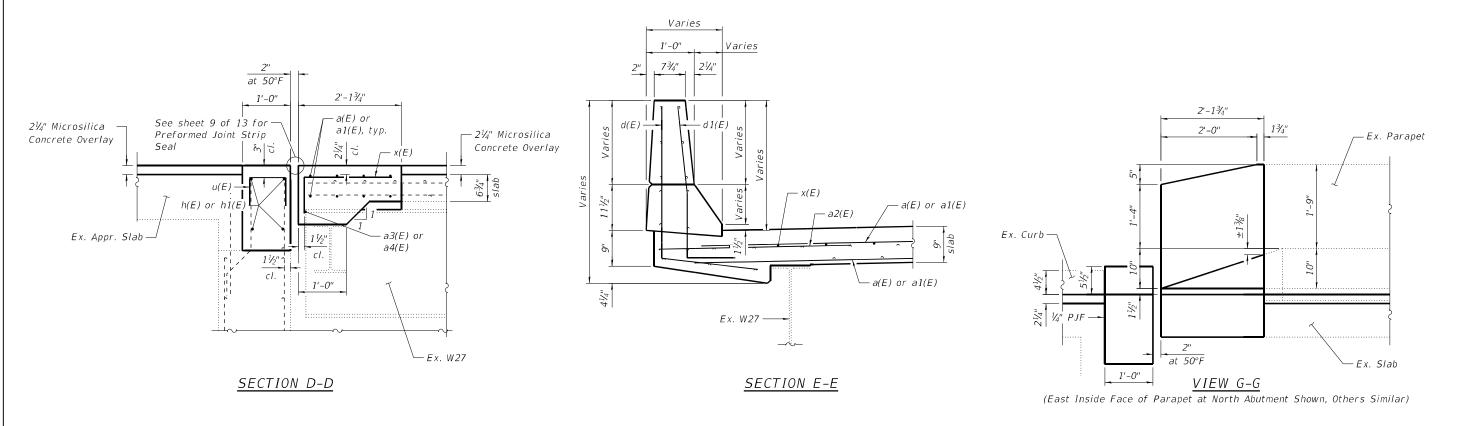
# BILL OF MATERIAL

Bar	No.	Size	Leng	th		Shape
a(E)	16	#5	16'-0"			
a1(E)	16	#5	18'-0	18'-0"		
a2(E)	16	#6	7'-4	!"	-	
a3(E)	8	#5	5'-6	7"	_	
a4(E)	2	#5	3'-7	"11	-	
d(E)	12	#4	5'-3	Pri		L
d1(E)	12	#5	4'-2	)//		L
d2(E)	8	#5	3'-2"			
h(E)	8	#6	16'	3"	-	
h1(E)	8	#6	18'-3"		_	
u(E)	76	#5	2'-3	Pri		$\supset$
x(E)	60	#5	2'-8"			
	Iten	1		Unit		Total
Concrete Removal			Cu. Y	d.	9.5	
Concrete Superstructure			Cu. Yd.		10.4	
Reinforcement Bars, Epoxy Coated			Poun	nd	1,660	



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<u>LEGEND</u>

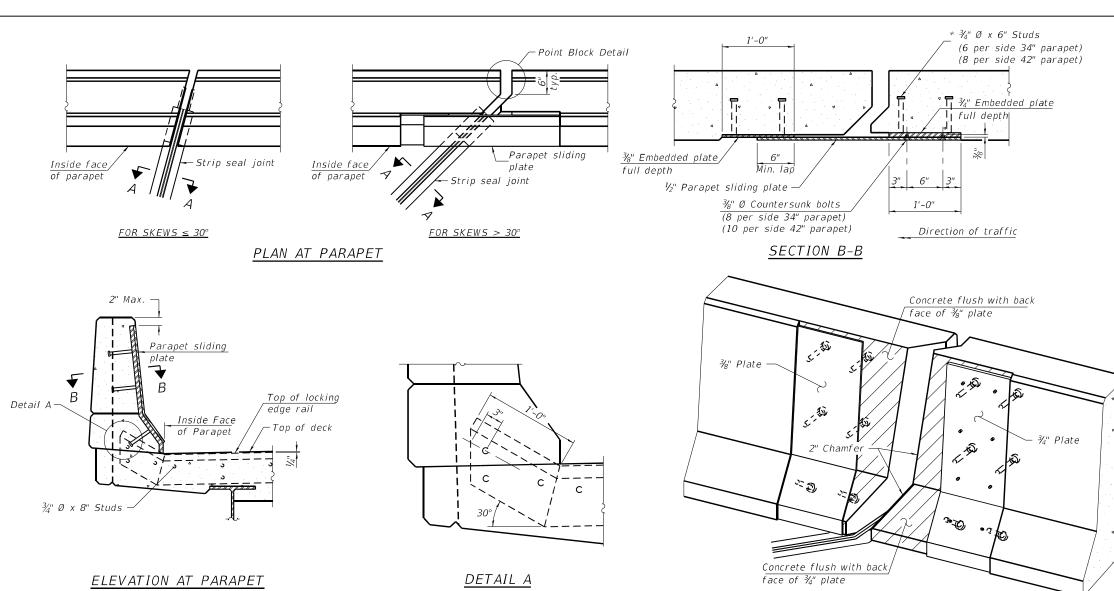
Concrete Removal

Notes:
See sheet 7 of 13 for Bill of Material, section locations and additional details.
See sheet 5 of 13 for overlay details.

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UIGG ENGINEERING INC	PLOT DATE =	CHECKED - MDC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT DETAILS STRUCTURE NO. 029-0021		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		[139,138(BC;BC-1)BR,BR-1]BRR	FULTON	119	114
			CONTRAC	T NO. 68	3H20
SHEET 8 OF 13 SHEETS		ILLINOIS FED.	AID PROJECT		



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.

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.

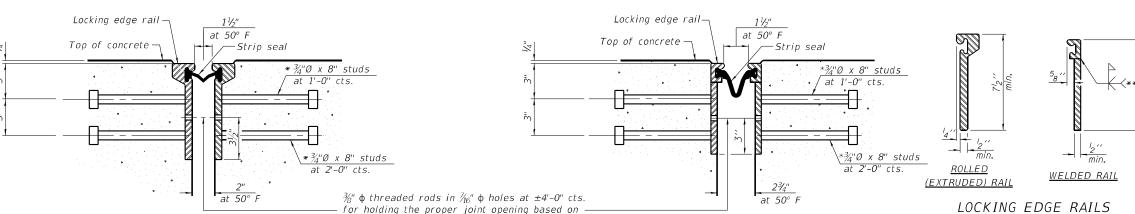
The Maximum space between locking edge rail segments shall be  $\frac{3}{16}$ " and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal. 34" F-shape barrier shown, 42" F-shape 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.

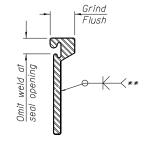
(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)

TRIMETRIC VIEW (Showing embedded plates only)



# 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	66

SHOWING ROLLED RAIL JOINT

10-1-19

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

SECTION A-A

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.

QUIGG ENGINEERING INC

EJ-SS (TALL WITH GUTTER)

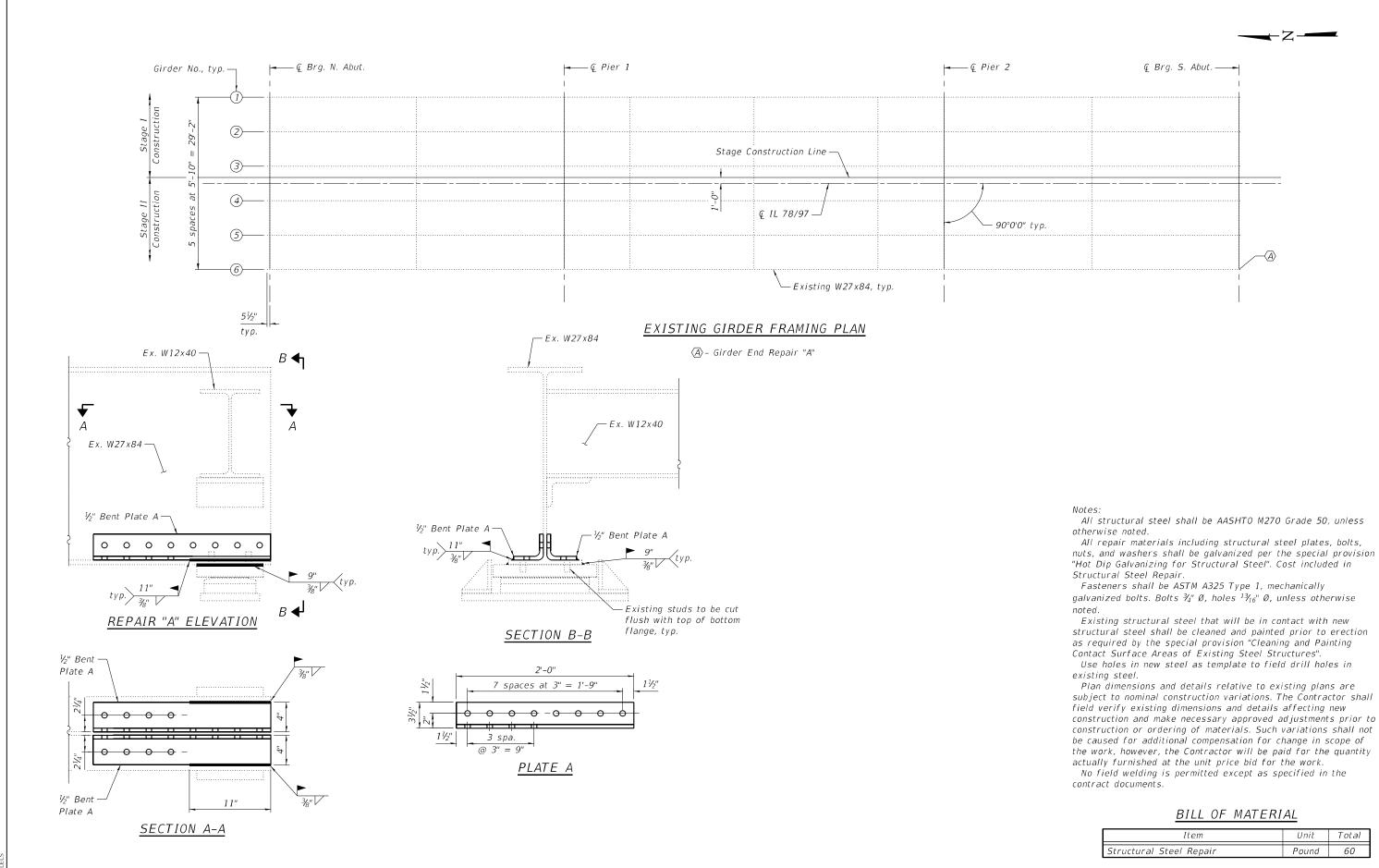
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PLOT DATE =	CHECKED -	MDC	REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

SHOWING WELDED RAIL JOINT

 				STRIP SEAL 29-0021
SHEET	9	OF	13	SHEETS

A.P.				COUNTY	TOTAL SHEETS	SHE
30	0 [139,138(BC;BC-1)BR,BR-1]BRR			FULTON	119	11
				CONTRAC	T NO. 68	3H20
		ILLINOIS	FFD.	AID PROJECT		



QUIGG ENGINEERING INC

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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION** 

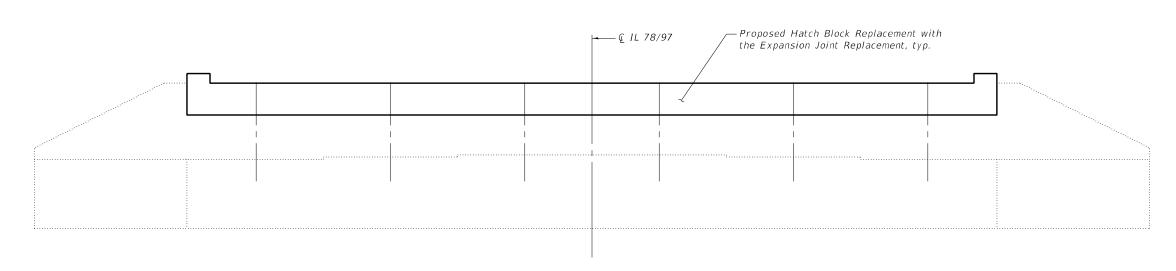
**BEAM END REPAIRS STRUCTURE NO. 029-0021** SHEET 10 OF 13 SHEETS

SECTION COUNTY 30 [139,138(BC;BC-1)BR,BR-1]BRR FULTON 119 116 CONTRACT NO. 68H20

Unit Total

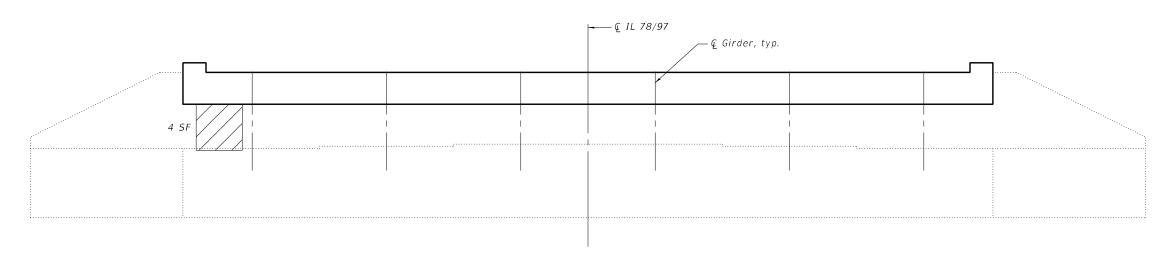
60

Pound



# NORTH ABUTMENT ELEVATION

(Looking North)



# SOUTH ABUTMENT ELEVATION

(Looking South)

# LEGEND

Structural Repair of Concrete (Depth Equal to or less than 5")

Note.

For wingwall and hatch block details with the expansion joint replacement, see sheets 7 and 8 of 13.

# BILL OF MATERIAL

	Ite	n									Unit	Total
Si	tructural Repa	r of	Concrete	(Depth	Equal	to	or	Less	Than	5")	Sq. Ft.	4

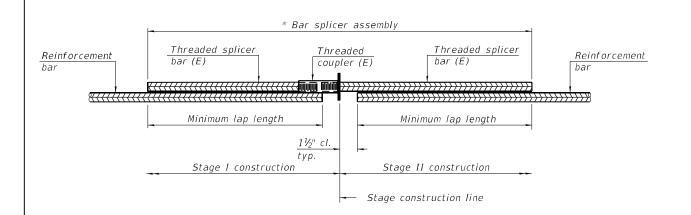


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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

ABUTMENT REPAIRS

\$\frac{\text{F,A,P.}}{\text{RTE.}} \text{SECTION} \text{COUNTY} \text{TOTAL SHEETS NO.} \\
\$30 \text{[139,138(BC;BC-1)BR,BR-1]BRR} \text{Fulton} \text{11} \text{17} \\
\$\text{CONTRACT NO. 68H20} \text{SHEETS} \text{SHEETS} \text{SIGNON} \text{CONTRACT NO. 68H20} \text{SHEETS} \text{SIGNONN NO. 68H20} \text{SHEETS} \text{SIGNONN NO. 68H20} \text{SIGNON



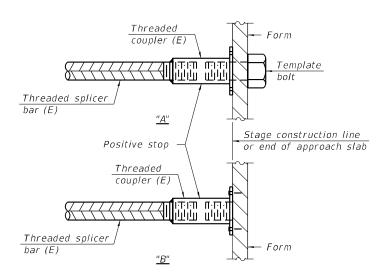
# STANDARD BAR SPLICER ASSEMBLY PLAN

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

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

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

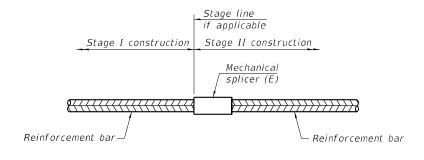
Location	Bar size	No. assemblies required	Minimum Iap length
Bridge Deck Side of Exp. Jt.	#5	18	3'-4"
Appr. Side of Exp. Jt.	#6	8	4'-0"



# INSTALLATION AND SETTING METHODS

(E): Indicates epoxy coating.

"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.



# 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

2-1-2023

 USER NAME = \$USER\$
 DESIGNED - CFS
 REVISED 

 \$FILES\$
 CHECKED - RPW
 REVISED 

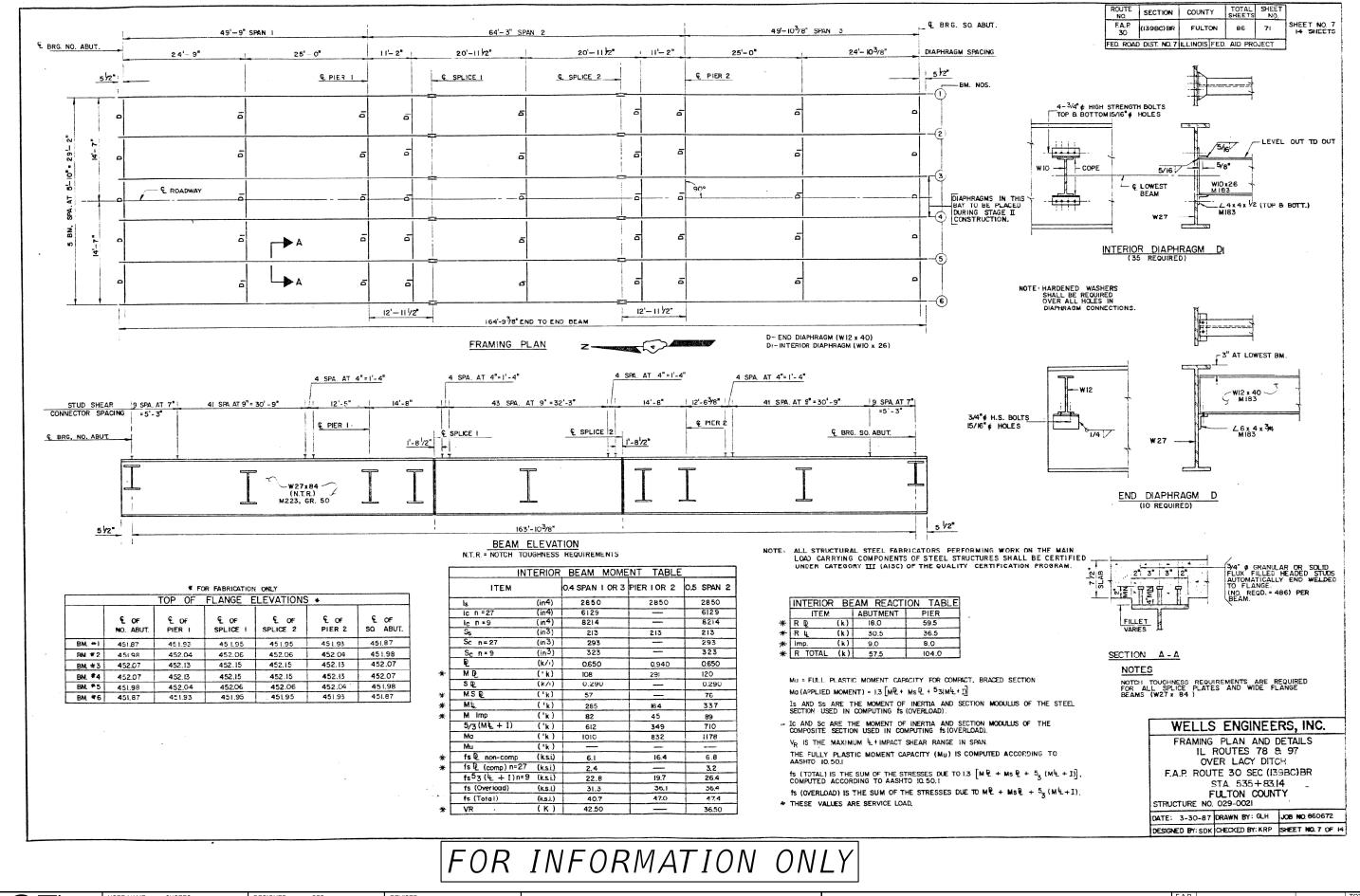
 PLOT SCALE = \$SCALE\$
 DRAWN - JDC
 REVISED 

 PLOT DATE = CHECKED - MDC
 REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DEAILS STRUCTURE NO. 029-0021

SHEET 12 OF 13 SHEETS



MODEL: \$MODELNAME\$

QUIGG ENGINEERING INC

 USER NAME = \$USER\$
 DESIGNED - CFS
 REVISED 

 \$FILES\$
 CHECKED - RPW
 REVISED 

 PLOT SCALE = \$SCALE\$
 DRAWN - JDC
 REVISED 

 PLOT DATE = CHECKED - MDC
 REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS REFERENCE SHEET STRUCTURE NO. 029-0021

SHEET 13 OF 13 SHEETS